



# General Catalogue 2025

Explosion protection by WAROM



WAROM TECHNOLOGY INCORPORATED COMPANY



# WAROM EXPLOSIONPROOF



## ***Create A World Famous Ex Brand***

Providing quality explosion-proof products to customers, and spreading national spirit to the world. Leading to revitalize national explosion-proof industry, Warom Technology is marching forward to the great goal of creating a world brand.

We sincerely hope that friends from all walks of life support and pay close attention to Warom, move forward hand in hand, and create a brilliant and splendid future together.

**1****General Information**

Introduction of Warom Technology Incorporated Company / Basics of Explosion Protection / Basics of Dustproof & Waterproof/ Schematic Diagram of Field Installation / Technical Data of Lamp

**2****Lighting Technology**

Light Fittings for Fluorescent Lamp / LED Light Fittings / Pendant Light Fittings / Floodlights / Street Lamps / Hand Lamps / Local, Caution Spotlight Fittings

**3****Installation Equipments**

Installation Switches/ Junction Boxes/ Terminal Boxes/ Plug and Sockets

**4****Control Equipments**

Position Switches / Control Stations and Components / Control Units / Control Buttons / Indicators / Control Switches / Ammeters and Voltmeters

**5****Loads and Motor Switchgears**

Motor Switches / Standard Motor Starters

**6****Distribution Boxes and Empty Enclosures**

Distribution Boxes / Components for Distribution Boxes / Explosion-proof Enclosures / Increased Safety Enclosures

**7****Cable Glands and Bushings**

Bushings / Connectors / Seal Bushings / Cable Glands / Flexible Conduits / Accessories

**8****Air Conditioners and Pressurized Products**

Exhaust Fans / Air Conditioners / Distribution Cabinets / Engineering Cabins / Camera / Online Monitoring Analysis System / Helicopter Platform / Explosion-proof Computer System



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## Company Brief



★ **WAROM TECHNOLOGY INCORPORATED COMPANY** is a non-regional joint-stock company in China, listed on the main board (stock code: 603855). It is located in Jiading district, Shanghai, with a registered capital of 337 million RMB. It manufactures explosion-proof electrical apparatus, which are used in factories, mines, marine environments, offshore platforms, military applications, nuclear power, etc. As the standing unit of China Electrical Equipment Industry Association, the vice-director unit of China Explosion-proof Electric Association, the member unit of China Shipping Industry Association, the member unit of China Quality Association, Shanghai Foreign Trade Association and the member unit of China Association of Lighting Industry, Warom has maintained its advantage as a company in China's explosion-proof industry for 20 consecutive years.

★ In order to be a world famous brand, Warom establishes a powerful technical team of about 500 junior and senior technicians. The products represent the first level of similar products in China. It has intellectual property rights of all our products and obtains International and Chinese patent certificates. It also registered the "WAROM" trademark in more than 30 countries in the world.

★ Warom Shanghai Industrial Park is currently the largest base for explosion-proof electrical equipment manufacturing in the industry that fully equipped with the most advanced facilities and has achieved full automation or semi-automation on production processes and equipment. The park covers an area of over 190,000 square meters with modern workshop of 160,000 square meters and more than 2,000 workers. Warom has established a CNAS certified laboratory in the explosion-proof industry with a large number of advanced testing and control equipment from materials to performance, electricity to optics, and electrical safety to electromagnetic safety, etc.

*“Let Warom’s Product Speak for itself!”*

## Brief Introduction



- ★ The company has a well-established quality assurance system and an internationally-oriented management structure. It has obtained certifications for quality management system ISO9001, environmental management system ISO14001, occupational health and safety management system ISO45001, information security management system ISO/IEC27001, information technology service management system ISO/IEC20000-1, international IECEEx, EU ATEX, and Customs Union EAC systems. It has achieved certification for the measurement management system ISO10012. The products have received certifications from various international organizations such as Germany's PTB, France's LCIE, Norway's DNV, and others.
- ★ The products are widely used in the oil field, chemical industry, spaceflight, coal, electric power, railway, metallurgy, marine, public security, fire protection, irrigation works, city planning, telecom, diving rescue etc. and are favored by the users in 34 provinces and cities in China and more than 60 countries around the world. Therefore, Warom becomes reliable supplier and partner of famous company home and abroad and is honored with "China Inspection Exempted Product", "Famous Brand Product", "AAA Credit and Trustworthy Enterprise", etc.
- ★ Warom is advancing toward a world-renowned brand.



*“Let Product Ensure User's Safety!”*



## Our Technology

Technology is the key of Warom's core competence, and it is also the driving force behind Warom's rapid development. After over thirty years of effort, Warom has gained a great technological strength and led the industrial trend of Chinese explosion-proof electrical apparatus and currently the group is actively approaching international advanced technology. At the present, the technological center of Warom Technology has more than 500 professional talents with specialty across different application science including Electric, Machinery, Automation, Chemical Corrosion, Information Technology, Communication, Mechanical Technics, Foundry, Measurement, and Illumination. Over the years, this team has demonstrated dynamic succession of technology and strong innovative capability.

The development of technology roots from specialization. Therefore, Warom sets up 9 professional products R & D departments, including light fittings R&D department, electric apparatus R&D department, military products R&D department, maritime electrical apparatus R&D department, communication products R&D department, monitoring products R&D department, pipe fittings R&D department, fan R&D department and software R&D department. The Exporting Product Technical Department is operated directly by the International Division; and it develops industrial explosion-proof products that are compliant to IEC, EN, C-TR, NEC505, NEC500 standards in accordance to the international market requirements. It adopts various softwares, including CAD Design Software, 3D Simulation Software and Illuminance Calculation Software to consummate the whole designing process and strive for the full satisfaction of customer requirements in product design. Every year, the Exporting Product Technical Department develops 20 new products and launches explosion-proof products that are meeting the needs of the international market; until now Warom Technology has completed the development and the certification works of over 100 series products for export and has issued International Explosion-Proof Product Catalogue of 2023 edition for the international market.



The technical department ensures the satisfaction of customer requirements of the design output through adopting CAD, Electric CAD and 3D Design Software, conducting Simulation of Electric Performance, and Controlling of Designing Process. The 3D Design Software simulates the field condition, and the 3D Illuminance Calculation Software calculates the light illuminance in any point of a 3D space for the actual application effect, so as to ensure the on-site lighting requirement of user.

## Introduction of Explosion-proof Production

### Introduction of Production

After over thirty years' development, the company founded the explosion-proof manufacturing base on Jiading of Shanghai, China, with land coverage of 150,000 square meters and a building coverage of 220,000 square meters. It has over 2,000 staffs with an annual production capacity of 500 million USD. The explosion-proof equipment automatic factory began to establish on December of 2014, which can achieve the automation of processing, assembly, testing, packaged and delivery of products and increase our annual production capacity of 500 Million USD.

There are seven units within the production department, including Export Production Unit, Die-Cast Unit, Fabricating Unit, Electric Appliance Unit, Piping Unit, Fan Unit, and Plastic Unit, forming an all-in-one explosion-proof apparatus manufacturing system.

The Exporting Production Unit is focusing on producing explosion-proof products for exporting that are complied with IEC, EN, C-TR, NEC505 and NEC500 standards. The unit is directly under the management of the Foreign Trade Division of the company and is operating within the Quality Management System of ISO9001 and ISO/IEC 80079-34.

We firmly believe that the quality is controlled in the process, and we apply a variety of inspection equipments, inspection measures, and management modes to ensure the quality of our product through delicate elaboration.



◎ Dust Free Assembly Workshop



◎ Die-Cast Workshop



◎ Computer Numerical Control Processing Workshop



◎ Computer Numerical Control Processing Workshop



◎ Five-axis Automatic Machining Center



◎ Automatic Laser Cutting Machines



◎ Automatic Machining Center



◎ Micro-computerised Automatic Plane Milling Machine Unit



## Introduction of Quality Control



Quality is the life of an enterprise; we follow strictly the stipulation of ISO9001, ISO/IEC 80079-34 Quality Management System: requirement for manufacturing, standard for inspection, record for processing, traceability for responsibility, correction for misplay, prevention to latent fault, continuing improvement.

The quality management is a direct responsibility of the General Manager; we have set up the quality inspection department, the inspection and testing center, the measurement center, and the quality management department internally, and we follow one authority principle, consistent responsibility and power principle, and non-vacancy & non-overlapping principle to ensure the authority and the uniqueness of quality control. and we have the only one CNAS certified laboratory in the explosion-proof industry.

We are an organizational member of "China Product Quality Association", our product has been awarded "National Product of Stable and Certified Quality" and our quality management organization has been awarded the title of "Advanced Quality Management Enterprise" and our Inspection and Testing Laboratory has been the first in the industry that evaluated by "China Petroleum and Chemical Industry Association" as an "A Grade Quality Inspection Organization of Petroleum and Chemical Enterprise".

We are not only paying attention to the quality control during the manufacturing process, but also pay more attention to the outgoing inspection before our products leave the factory. We make sure that each product must go through various inspection and testing items before it leaves the factory, and only those qualified after inspection and test are allowed to leave the factory.



## Introduction of Quality Control



### ◎ Mechanical Testing Center

The mechanical testing center is equipped with Computerized Universal Hydraulic Testing Machine, Micro-processed Spring Dynamometer, and Impact Testing Equipment. Various tests and measurements can be performed in the center, such as Material Strength Measurement (yield strength, and tensile strength, etc.), Pulling Force Test, Tempered Glass Impact Test, Spring Force Measurement, Rubber Hardness Measurement, and Material Hardness Measurement.



### ◎ Environmental Testing Center

Various Inspections and tests can be performed in the Environmental Test Center, such as Rubber Aging Test, Dust Protection Test, High & Low Temperature Test, Damp Heat Test, Low Temperature Environmental Simulation Test, High Temperature Environment Simulation Test, Anti-Corrosion Test, and Adhesive Force Test of Plastic Coating, etc..



### ◎ Temperature and Humidity Test Chamber



### ◎ Salt Fog Test Chamber

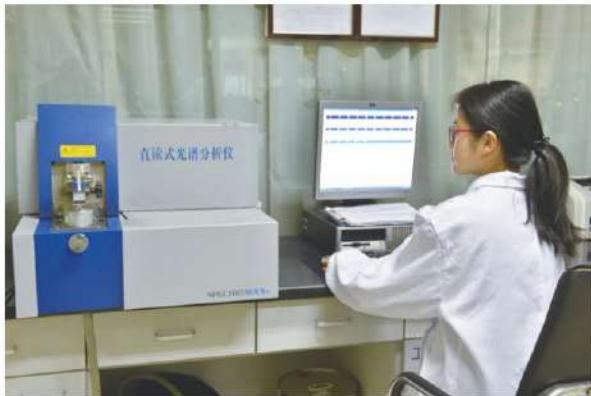


### ◎ Material Strength Measurement



### ◎ Lamp Photochromic Electric Test

## Introduction of Quality Control



### ◎ Material Analysis Using Spectrometric Analyzer

Imported directly from Germany, the Full-Spectrum Spark Direct Reading Spectrometric Analyzer enables us to perform micro constituent analysis for the three basic materials of copper, aluminum, and steel, and the analysis of various constituent can be completed in mere 10 seconds.



### ◎ Electrical Laboratory

The electrical laboratory can perform various tests, including: Glow-Wire Test, Tracking Test, Needle Flame Test, Insulation Resistance Measurement, Voltage Withstand Test, Low Resistance Measurement, Contact Resistance Measurement, Earth Resistance Measurement, Lithium Battery Inner Resistance Measurement, and LED Luminous Flux Test and Measurement.



### ◎ Measurement of Luminous Intensity Distribution Curve

The Distribution Photometer is used for measuring the luminous intensity distribution curve of various lighting fixtures, it can satisfy the latest requirements of domestic and international standards; it can perform functional measurement for various luminous intensities, and it is suitable for luminous intensity test of different types of light source. This Distribution Photometer is controlled by computer with automatic focus adjustment, so the distribution curve can be finished in one run.



### ◎ Ingress Protection Test



### ◎ Ultrasonic Thickness Measurement (measuring glass thickness, etc.)

## Introduction of Sales

We are devoted to the market development. We have established a massive sales network in China, with over 200 local sales branch offices. Warom has gained strong brand recognition in China; from Aerospace Industry to Military Industry, Oil Exploitation in land and offshore, from Oil Refinery to Fine Chemical, from Heavy Industrial Smelt to shipbuilding, from Vintage and Winery to Pharmaceutical Manufacturing, Warom's products have been widely used in different industries. For the past 16 years till now, Warom has been the No.1 in terms of sales and production in the explosion-proof industry of China.

In 2002, Warom started its international endeavor by activating international market research, technological development, and quality positioning. Since then Warom has actively participated in various international professional exhibitions, such as Germany Hannover Messe, ADIPEC in United Arab Emirates, Indonesia Oil & Petrochemical Exhibition, ASEAN Oil & Chemical Exhibition, and Brazil International Oil & Gas Exhibition. In 2005, we have completed the design, production and quality control system for the exporting products; and our products have been exported to various countries and regions, including Germany, Italy, France, Poland, Russia, Kazakhstan, Iran, Oman, Saudi Arabia, Syria, Israel, Sudan, Egypt, South Africa, Pakistan, Vietnam, Thailand, Indonesia, Malaysia, Singapore, Brazil, Chile, and Columbia, etc..

We are currently increasing our effort in developing the international market, and have appointed distributors and agents in over 80 countries and regions, including Russia, Spain, Turkey, South Africa, Iran, Dubai, Vietnam, Thailand and Brazil, etc. Our next step in marketing is to establish more offices in the Middle East, Southeast Asia, EU, Africa and America, and we sincerely invite all interested parties to join us to create a new world brand.



◎ Warom in OGA



◎ Warom in ADIPEC



◎ LED lighting, LCS, DB, JB, FLT, IRPC UHV project – Thailand – SK & GS



◎ Complex Lighting Improvement Project (CLIP) at Petrona Gas Processing Santong

# Basics of Explosion Protection

## Explosion Protection

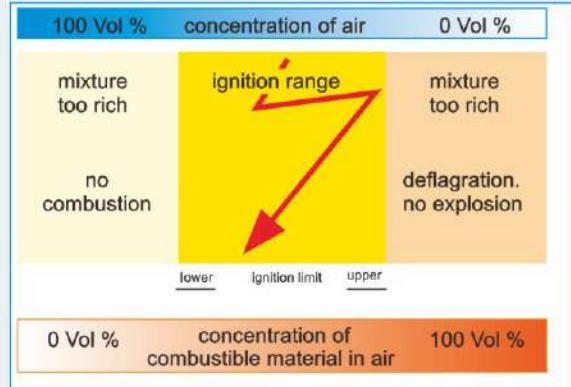
### Classification of Zones

Flammable gases, mists and dusts, together with oxygen, form explosive atmospheres. Ignition of such atmospheres may cause serious damage to personnel and equipments.

Explosion takes place in the condition of the following factors:

- flammable substances (gas, vapour, mist or dust) in a suitable distribution and concentration
- oxygen (from the air)
- ignition source

An explosive atmosphere occurs if the substance-air mixture lies within a certain concentration range, which is defined as Explosion Limits. Explosion limits depend on the ambient pressure and oxygen concentration of the air.



### Explosion Protection

In order to avoid explosions and consequential dangers, the operator must incorporate effective explosion protection precautions into plant.

The principle of full explosion requires that explosion protection measures be taken in the following order.

- Measure to prevent formation of dangerous explosive atmospheres.
- Measure to prevent ignition of dangerous explosive atmospheres.
- Measure to restrict the effects of explosion to a safe level.

Distinguished as:

- Primary explosion protection:  
All measures to prevent the formation of explosive atmosphere
- Secondary explosion protection:  
All measures to restrict the effects of explosion to an insignificant level
- Explosion protection  
minimize explosion effects



### Classification of Zones

Hazardous areas are classified into Zones, depending on the composition and presence of an explosive atmosphere. This enables both selection of suitable equipment and appropriate electrical installation.

Electrical apparatus for use in hazardous areas are assigned to various categories. The additional character G (gas) or D (dust) specifies whether the electrical apparatus may be installed in gas or dust hazardous areas.

Classification of Zones and use of equipment

Zone 0 Equipment with type test certificate

Zone 1 Equipment with type test certificate

Zone 2 Equipment complying with the basic requirements of Directive 2014/34/EU (Equipment certified for Zone 0 and 1 can also be used)

Zone in accordance with EC directive 1999/92/EC	Presence of potential explosive atmospheres	Safety level of equipment	Equipment category in accordance with EC directive 2014/34/EU
Zone 0 Zone 20	continuous or long-term or frequent	Very high level of protection	Category 1G Category 1D
Zone 1 Zone 21	occasional	high level of protection	Category 2G Category 2D
Zone 2 Zone 22	infrequent and short-term	normal level of protection General	Category 3G Category 3D

# Basics of Explosion Protection

## Temperature Classes

### Explosion Groups

#### Temperature Classes

Ignition temperature is the lowest temperature of a surface at which an explosive atmosphere ignites on it. Flammable vapours and gases can be classified into temperature classes according to their ignition temperature.

The maximum surface temperature of a piece of equipment must always be lower than the ignition temperature of the gas-air mixture or vapour-air mixture in which it is placed.

#### Temperature Classes to IEC

Temperature class IEC/EN NEC 505-10	Maximum permissible surface temperature of the equipment (°C)	Ignition temperature of flammable substances (°C)	Temperature class NEC 500-3 CEC 18-052
T1	450	>450	T1
T2	300 280 260 230 215	300< t ≤ 450 280< t ≤ 300 260< t ≤ 280 230< t ≤ 260 215< t ≤ 230	T2 T2A T2B T2C T2D
T3	200 180 165 160	200< t ≤ 215 180< t ≤ 200 165< t ≤ 180 160< t ≤ 165	T3 T3A T3B T3C
T4	135 120	135< t ≤ 160 120< t ≤ 135	T4 T4A
T5	100	100< t ≤ 120	T5
T6	85	85< t ≤ 100	T6

#### Explosion Groups

Explosion protected electrical equipment is divided into 2 groups:

Group I Electrical equipment for mining

Group II Electrical equipment for all other hazardous areas

Electrical equipment of group II is further subdivided in groups IIA, IIB and IIC, depending on the danger level of the gas or vapour atmosphere in which they are operated. Equipment of group IIC is suitable for use in the most dangerous atmospheres.

#### Examples of the Classification of Gases and Vapours into Explosion Groups and Temperature Classes

	T1	T2	T3	T4	T5	T6
I	Methane					
IIA	Acetone Ethane Ethyl acetate Ammonia Benzene(pure) Acetic acid Carbon monoxide Methane Methanol Propane Toluene	Methyl alcohol i-amyl acetate n-butane n-butyl alcohol	Gasoline Diesel fuel aviation fuel Heating oils n-hexane	Acetaldehyde Ethyl ether		
IIB	Town gas (coal gas)	Ethylene				
IIC	Hydrogen	Acetylene			Carbon disulphide	

There is no classification of dust material into temperature classes or explosion groups. This means that the respective values are to be taken into account. The minimum ignition energy  $E_{\min}$  (of a gas-air mixture) is the energy of an electrical spark that is capable of igniting the most critical (highest ignition performance) mixture under defined test conditions. Ignition temperature  $T_{\text{ign}}$  (of a gas-air mixture) is the lowest temperature of a hot wall surface at which the mixture is ignited after short-term contact. The glow temperature  $T_{\text{glow}}$  (of a dust layer) is the lowest temperature of a hot surface on which ignition occurs in a 5mm thick layer of dust.

The maximum surface temperature of the equipment must be compared with the ignition temperature, and the glow temperature should also be taken into account as safety factor:

• temperature limit regarding dust clouds:

$$T_{\max} = 2/3 T_{\text{ign}}$$

• temperature limit regarding dust layers:

$$T_{\max} = T_{\text{glow}} - 75\text{K} \text{ (5mm dust layer)}$$

The lower of the two values above represents the maximum permissible surface temperature of the equipment



## Basics of Explosion Protection

### Types of Protection

#### Protection Methods for Potentially Explosive Gas/Vapor Atmospheres

Type of protection	Code	Market	Application	Standard	Protection principle
General Requirements for Hazardous Locations	Ex	IEC	EPL Ga, Gb,&Gc	IEC 60079-0	
	Ex	China	EPL Ga, Gb,&Gc	GB 3836.1	
		US	Class I, Division I &2	FM 3600	
	AEx	US	Class I, Zone I &2	ISA 60079-0	
	Ex	CA	Class I, Zone I &2	CSA C22.2 No.60079-0	
Increased Safety	Ex e (or Ex eb)	IEC	EPL Gb	IEC 60079-7	
	Ex e (or Ex eb)	China	EPL Gb	GB 3836.3	
	AEx e (or AEx eb)	US	Class I, Zone 1	ISA 60079-7	
	Ex e	CA	Class I, Zone 1	CSA C22.2 No.60079-7	
	Ex e (or Ex eb)	EU	Category 2G	EN60079-7	
Non-Incendive	(NI)	US	Class I, Division 2	ISA 12.12.01/FM 3611	No arcs sparks or hot surfaces
	(NI)	CA	Class I, Division 2	CSA C22.2 No.213	
Non-Sparking	Ex nA (or Ex nAc)	IEC	EPL Gc	IEC 60079-15	
	Ex nA (or Ex nAc)	China	EPL Gc	GB 3836.8	
	AEx nA (or AEx nAc)	US	Class I, Zone 2	ISA 60079-15	
	Ex nA	CA	Class I, Zone 2	CSA C22.2 No.60079-15	
	Ex nA (or Ex nAc)	EU	Category 3G	EN 60079-15	
Explosion-proof	(XP)	US	Class I, Division 1	UL 1203/FM 3615	
	(XP)	CA	Class I, Division 1	CSA C22.2 No.30	
Flame-proof	Ex d (or Ex db)	IEC	EPL Gb	IEC 60079-1	Control the explosion and extinguish the flame
	Ex d (or Ex db)	China	EPL Gb	GB 3836.2	
	AEx d (or AEx db)	US	Class I, Zone 1	ISA 60079-1	
	Ex d	CA	Class I, Zone 1	CSA C22.2 No.60079-1	
	Ex d (or Ex db)	EU	Category 2G	EN 60079-1	
Enclosed Break	Ex nC (or Ex nCc)	IEC	EPL Gc	IEC 60079-15	
	Ex nC (or Ex nCc)	China	EPL Gc	GB 3836.8	
	AEx nC (or AEx nCc)	US	Class I, Zone 2	ISA 60079-15	
	Ex nC	CA	Class I, Zone 2	CSA C22.2 No.60079-15	
	Ex nC (or Ex nCc)	EU	Category 3G	EN 60079-15	
Intrinsic Safety	Ex ia, ib, ic	IEC	EPL Ga, Gb, Gc	IEC 60079-11	Limit energy of sparks and surface temperature
	Ex ia, ib, ic	China	EPL Ga, Gb, Gc	GB 3836.4	
	(IS)	US	Class I, Division 1	UL 913/FM 3610	
	(IS)	CA	Class I, Division 1	CSA C22.2 No.157	
	AEx ia	US	Class I, Zone 0	ISA 60079-11/FM 3610	
	AEx ib	US	Class I, Zone 1	ISA 60079-11/FM 3610	
	Ex ia	CA	Class I, Zone 0	CSA C22.2 No.60079-11	
	Ex ib	CA	Class I, Zone 1	CSA C22.2 No.60079-11	
	Ex ia,ib,ic	EU	Category 1G, 2G, 2G	EN 60079-11	
	AEx ic	US	Class I, Zone 2	ISA 60079-11/FM 3610	
	Ex ic	CA	Class I, Zone 2	CSA C22.2 No 60079-11	

# Basics of Explosion Protection

## Types of Protection

Protection Methods for Potentially Explosive Gas/Vapor Atmospheres					
Type of protection	Code	Market	Application	Standard	Protection principle
Pressurization	Type X,Y	US	Class I, Division 1	FM 3620 (NFPA 496)	Keep flammable gas out
	Type X,Y	CA	Class I, Division 1	NFPA 496	
	Type Z	US	Class I, Division 2	FM 3620 (NFPA 496)	
	Type Z	CA	Class I, Division 2	NFPA 496	
	Ex px(or Ex pxb)	IEC	EPL Gb	IEC 60079-2	
	Ex px(or Ex pxb)	China	EPL Gb	GB 3836.5	
	AEx px(or AEx pxb)	US	Class I, Zone 1	ISA 60079-2	
	Ex px	CA	Class I, Zone 1	CSA C22.2 No.60079-2	
	Ex px (or Ex pxb)	EU	Category 2G	EN 60079-2	
	Ex py (or Ex pxb)	IEC	EPL Gb	IEC 60079-2	
	Ex py (or Ex pxb)	China	EPL Gb	GB 3836.5	
	AEx py(or AEx pxb)	US	Class I, Zone 1	ISA 60079-2	
	Ex py	CA	Class I, Zone 1	CSA C22.2 No.60079-2	
	Ex py (or Ex pyb)	EU	Category 2G	EN 60079-2	
	Ex pz (or Ex pzb)	IEC	EPL Gc	IEC 60079-2	
	Ex pz (or Ex pzb)	China	EPL Gc	GB 3836.5	
	AEx pz (or AEx pzb)	US	Class I, Zone 2	ISA 60079-2	
	Ex pz (or Ex pzb)	CA	Class I, Zone 2	CAS C22.2 No.60079-2	
	Ex pz (or Ex pzb)	EU	Category 3G	EN 60079-2	
Restrictes Breathing	Ex nR (or Ex nRc)	IEC	EPL Gc	IEC 60079-15	Keep flammable gas out
	Ex nR (or Ex nRc)	China	EPL Gc	GB 3836.8	
	AEx nR(or AEx nRc)	US	Class I, Zone 2	ISA 60079-15	
	Ex nR	CA	Class I, Zone 2	CSA C22.2 No.60079-15	
	Ex nR (or Ex nRc)	EU	Category 3G	EN60079-15	
Encapsulation	Ex ma, mb, mc	IEC	EPL Ga, Gb, Gc	IEC 60079-18	Keep flammable gas out
	Ex ma, mb, mc	China	EPL Ga, Gb, Gc	GB 3836.9	
	Ex ma, mb, mc	EU	Category 1G, 2G, 3G	EN 60079-18	
	AEx ma	US	Class I, Zone 0	ISA 60079-18	
	Ex ma	CA	Class I, Zone 0	CSA C22.2 No.60079-18	
	Aex mb	US	Class I, Zone 1	ISA 60079-18	
	Ex mb	CA	Class I, Zone 1	CSA C22.2 No.60079-18	
	AEx mc	US	Class I, Zone 2	ISA 60079-18	
	Ex mc	CA	Class I, Zone 2	CSA C22.2 No.60079-18	
	Ex o (or Ex ob)	IEC	EPL Gb	IEC 60079-6	
Oil Immersion	Ex o (or Ex ob)	China	EPL Gb	GB 3836.6	Keep flammable gas out
	AEx o (or AEx b)	US	Class I, Zone 1	ISA 60079-6	
	Ex o	CA	Class I, Zone 1	CSA C22.2 No.60079-6	
	Ex o (or Ex ob)	EU	Category 2G	EN60079-6	
	Ex q (or Ex qb)	IEC	EPL Gb	IEC 60079-5	
Powder-Filling	Ex q (or Ex qb)	China	EPL Gb	GB 3836.7	Keep flammable gas out
	AEx q (or AEx qb)	US	Class I, Zone 1	ISA 60079-5	
	Ex q	CA	Class I, Zone 1	CSA C22.2 No.60079-5	
	Ex q (or Ex qb)	EU	Category 2G	EN 60079-5	



## Basics of Explosion Protection

### Types of Protection

#### Protection methods for combustible/ignitable dust atmospheres(including fiber and flyings)

Type of protection	Code	Market	Application	Standard	Protection principle
General Requirements	Ex	IEC	EPL Da, Db, &DC	IEC 60079-0	Keep combustible dust out
	Ex	China	EPL Da, Db, &DC	GB 12476.1	
		US	Class II, Division 1&2	FM 3600	
		US	Class III, Division 1&2	FM 3600	
	AEx	US	Zone 20, 21, &22	ISA 61241-0	
	Ex	EU	Category 1D, 2D&3D	EN 60079-0	
	Ex	CA	Class II/ III	CSA C22.2 No.60079-0	
Dust-Ignitionproof	(DIP)	US CA	Class II, Division 1 Class II, Division 1	UL 1203/FM 3616 CSA C22.2 No.25	
Dust-Protected	(NI)	US CA	Class II, Division 2 Class II, Division 2	ISA 12.12.01/FM 3611 CSA C22.2 No.25	
Protection by Enclosure	Ex ta, tb, tc	IEC	EPL Da, Db, Dc	IEC 60079-31	
	Ex tD	China	EPL tD	GB 12476.5	
	Ex ta, tb, tc	EU	Category 1D, 2D, 3D	EN 60079-31	
	AEx ta	US	Zone 20	ISA 60079-31	
	AEx tb	US	Zone 21	ISA 60079-31	
	Ex ta, tb, tc	CA	Zone 22 Class II/III, Division 1	ISA 60079-31 CSA C22.2 No.60079-31	
Fiber & Fiying Protection	(DIP)	US CA	Class III, Division 1&2 Class III, Division 1&2	ISA 12.12.01/FM 3611 CSA C22.1	
Encapsulation	Ex maD, mbD, mcD	IEC	EPL Da, Db, Dc	IEC 61241-18	
	Ex maD, mbD, mcD	China	EPL Da, Db, Dc	GB 12476.6	
	AEx ma	US	Zone 20	ISA 60079-18	
	Ex ma	CA	Class II/III, Division 1	CSA C22.2 No.60079-18	
	Ex ma, mb, mc	EU	Category 1D, 2D, 3D	EN 60079-18	
	AEx mb	US	Zone 21	ISA 60079-18	
	Ex mb	CA	Class II/III, Division 1	CSA C22.2 No.60079-18	
	AEx mc	US	Zone 22	ISA 60079-18	
	Ex mc	CA	Class II/III, Division 2	CSA C22.2 No.60079-18	
Pressurization	Ex pD	IEC	EPL Db	IEC 61241-4	
	Ex pD	China	EPL Db	GB 12476.7	
	AEx pD	US	Zone 21	ISA 61241-2	
	Ex pD	EU	Category 2D	EN 61241-4	
	(px)	US	Class II, Division 1	FM 3620 (NFPA 496)	
	(px)	CA	Class II, Division 1	NFPA 496	
	(px)	US	Class II, Division 1	FM 3620 (NFPA 496)	
	(px)	CA	Class II, Division 1	NFPA 496	
	(px)	US	Class II, Division 2	FM 3620 (NFPA 496)	
	(px)	CA	Class II, Division 2	NFPA 496	
Intrinsic Safety	Ex iaD, ibD, icD	IEC	EPL Da, Db, Dc	IEC 61241-11	
	Ex iaD, ibD, icD	China	EPL Da, Db, Dc	GB 12476.4	
	AEx ia	US	Zone 20	ISA60079-11	
	Ex ia	CA	Class II/III, Division 1	CSA C22.2 No.60079-11	
	Ex ia, ib, ic	EU	Category 1D, 2D, 3D	EN 60079-11	
	AEx ib	US	Zone 21	ISA 60079-11	
	Ex ib	CA	Class II/III, Division 2	CSA C22.22 No.60079-11	
	AEx ic	US	Zone 2	ISA 60079-11	
	Ex ic	CA	Class II/III, Division 2	CSA C22.2 No.60079-11	
	(IS)	US	Class II, Division 1	UL 913/FM 3610	
	(IS)	CA	Class II, Division 1	CSA C22.2 No.157	
	(IS)	US	Class II, Division 1	FM3610	
	(IS)	CA	Class II, Division 1	CSA C22.2 No.157	

# Basics of Explosion Protection

## Introduction of NEC Standards

Introduction of NEC Standards	
NEC505	NEC500
Class I Zone 1 A Ex db II C T5 Gb	Class I Division 1 Groups A B C D T5
Permitted Class	Permitted Class
Permitted Zone	Permitted Division
American Standard	Gas Group
American National Standards Institute (ANSI)	Temperature Class
Explosion Protection	
Method of Protection	
Gas Group	
Temperature Class	
EPL	

Area Classification			
	Flammable Material Present Continuously	Flammable Material Present Intermittently	Flammable Material Present Abnormally
IEC/EU	Zone 0	Zone 1	Zone 2
US NEC 505	Zone 0	Zone 1	Zone 2
US NEC 500	Division 1		Division 2

Gas Groupings			
Gas, dust or Fiber	IEC / Europe Canada (CEC)	USA NEC (505)	Canada (CEC) USA NEC (500)
Acetylene	Group IIC	Class I, Group IIC	Class I, Group A
Hydrogen			Class I, Group B
Ethylene	Group IIB	Class I, Group IIB	Class I, Group C
Propane	Group IIA	Class I, Group IIA	Class I, Group D
Methane	Group I	Class I, Group IIA	Class I, Group D
Metal Dust	Group IIIC		Class II, Group E (Div 1 only)
Coal Dust	Group IIIB		Class II, Group F
Grain	Group IIIB		Class II, Group G
Fibres	Group IIIA		Class II, Group H



Hazardous (classified) Locations	Hazardous (classified) Locations
Class I locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.	Class I locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.
Zone 0	Class I, Division 1
These are locations in which ignitable concentrations of flammable gases or vapors are present continuously or for long periods of time.	Class I, Division 1 locations are those where the explosion hazard exists under normal operating conditions. The area may be hazardous all or most of the time or it may only be hazardous some of the time.
Zone 0 represents the most dangerous part of the Division 1 classification.	Class I, Division 2
Zone 1	Class I, Division 2 locations are those where ignitable concentrations of flammable gases or vapors are not normally present, but could be present in the event of a fault, such as a leak at a valve in a pipeline carrying flammable liquids.
These locations are almost the same as Class I, Division 1 locations in the class, division system except they do not include those locations defined as Class I, Zone 0, where ignitable concentrations are present all or most of the time.	
Zone 2	
These locations are the same as Class I, Division 2 locations in the class, division system.	
Gas group IIA IIB IIC	Gas group Groups A B C D

## Basics of Explosion Protection Certification and Marking

### Certification and Marking

Only appropriately certified and marked units may be used in hazardous areas.

EU-Directive	2014/34/EU
Validity	From 01.03.1996
Range of validity for equipment in hazardous areas	<ul style="list-style-type: none"> <li>all equipment and protection systems</li> <li>gases, vapours and dusts</li> <li>including mining</li> </ul>
QM system of manufacturer	QM certificate of a notified body
Certificate of conformity	Manufacturers's declaration of conformity on the basis of the type examination

Marking laid down by the directives and the standards

Name or marking of the manufacturer	
Type marking (e.g.)	BXM(D)53
Address	No.555 Baoqian Road, Jiading, Shanghai, China
Marking of explosion protection	<p>Ex db eb IIC T6 Gb            Ex tb IIIC T80°C Db IP66            Ex d, e, ib, [ib], tb...<sup>1</sup>)            IIC            IIIC            T6, T80°C            Gb, Db</p> <p>CENELEC marking            Protection types            Explosion groups (for gases)            Explosion groups( for dusts)            Temperature class            Protection degree</p>
Distinguishing symbol of the EC with indication of the category	 II 2 G D  Mark according to EC Directive II Group of equipment 2 Category of equipment G, D G: gases, vapours or mists; D: dusts
Test station, No. of certificate	IECEx CQM 11.0042X
CE-Mark, No. of testing authority	0102
Electrical data	V, A, W, Hz
Ambient temperature	-40°C ~ +60°C
Degree of protection	IP66

1) ib for intrinsically safe apparatus, [ib] for associated apparatus

2) with...X if special conditions are indicated for use, etc.

with...U for Ex-components



## Basics of Dust-proof & Water-proof

### Ingress Protection(IP)Codes

The first figure-Protection against solid bodies		The second figure-Protection against water	
0	Non-protection	0	Brief statement
1 Φ50mm 	Prevent the solid strange particles, of which size is more than 50mm.	1 	Non-protection Drop-proof
2 Φ12.5mm 	Prevent the solid strange particles, of which size is more than 12mm.	2 	15°Drop-proof
3 Φ2.5mm 	Prevent the solid strange particles, of which size is more than 2.5mm.	3 	Showering waterproof
4 Φ1mm 	Prevent the solid strange particles, of which size is more than 1mm.	4 	Splashing waterproof
5 	Dustproof	5 	Spraying waterproof
6 	Dust-sealed	6 	Wave-proof
		7 	Effect of soaking in water proof
		8 	Effect of diving-proof

\* The waterproof dustproof in accordance with the above schematic diagram.

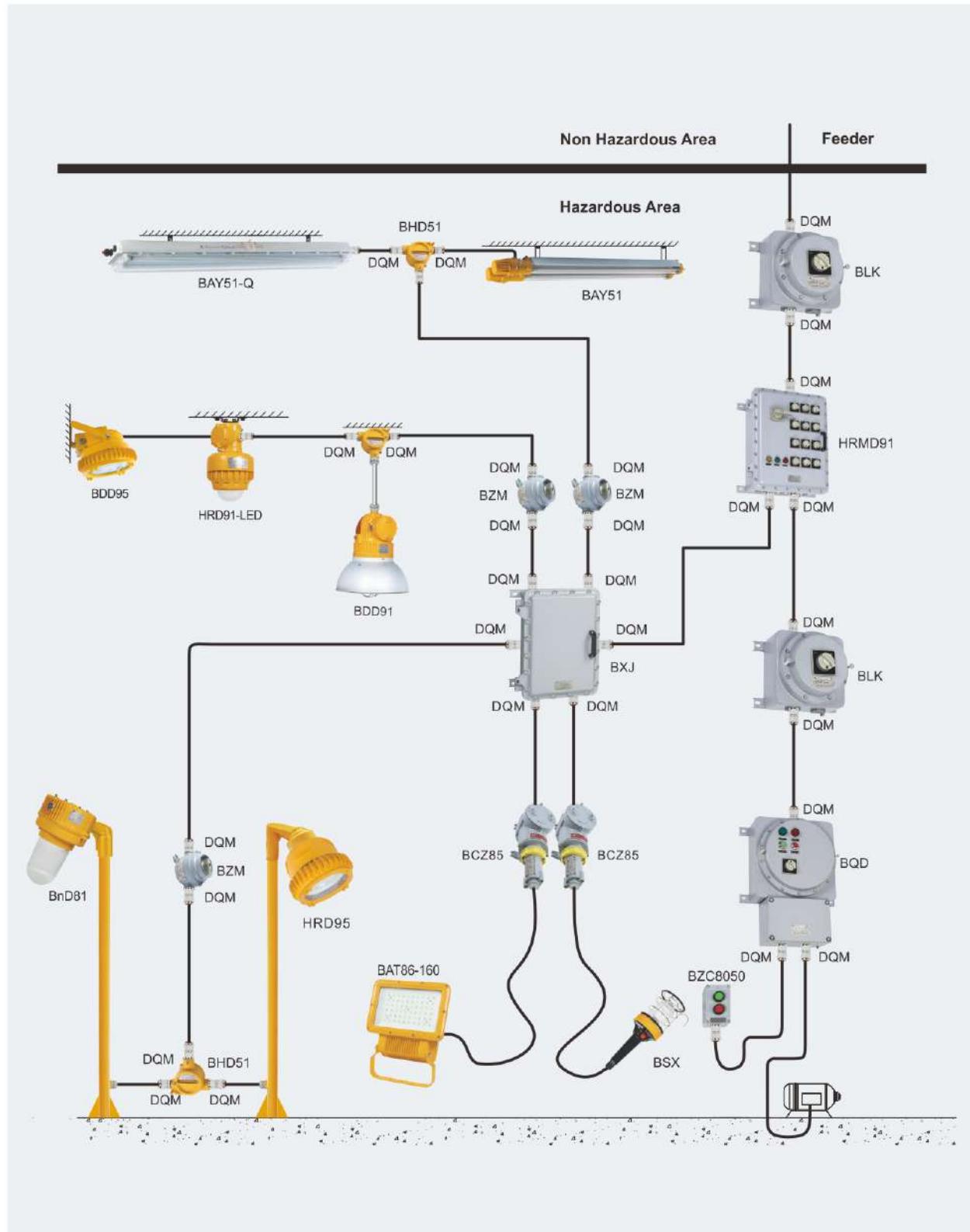


### NEMA/CSA/UL Enclosure Types

Type	Application	Abbreviated Definition
1	Indoor	General Purpose
2	Indoor	Protection against angled dripping water
3, 3R, 3S	Indoor/Outdoor	Protection against rain,snow
4,4X	Indoor/Outdoor	Protection against rain, snow, hose directed water
5	Indoor	Protection against angled dripping water, dust, fibers, flyings
6	Indoor/Outdoor	Protection against temporary submersion
6P	Indoor/Outdoor	Protection against prolonged submersion
12, 12K	Indoor	Protection against circulating dust, fibers, flyings
13	Indoor/Outdoor	Protection against circulating dust, fibers, flyings, see page

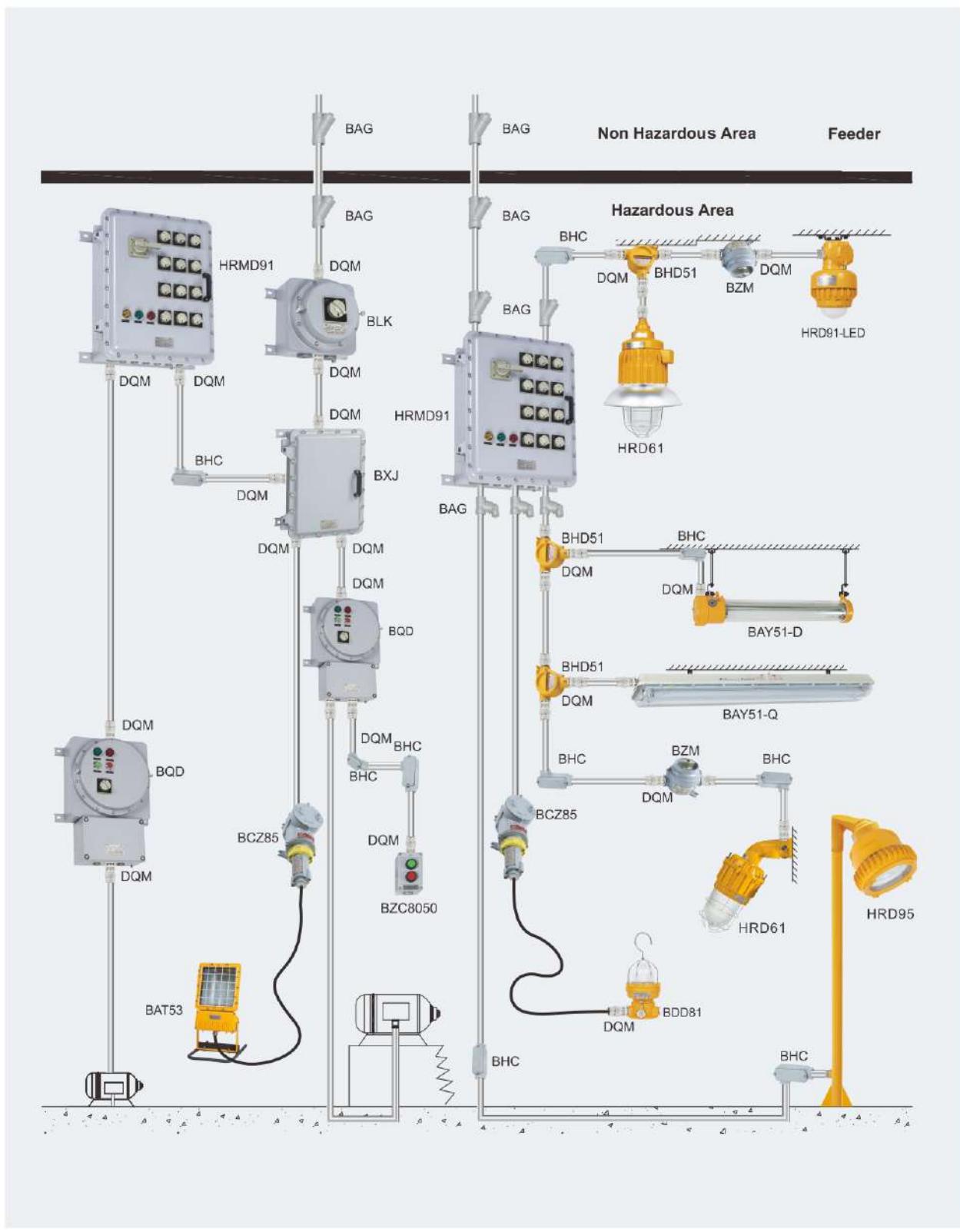
## Schematic Diagram of Field Installation

The drawing simulates installed explosion-proof equipment with cable wiring on site, meeting IEC 60079 and NEC505 standards. It is designed as reference for user to select and install explosion-proof equipment.



## Schematic Diagram of Field Installation

The drawing simulates installed explosion-proof equipment with steel pipe wiring on site, meeting IEC 60079 and NEC505 standards. It is designed as reference for user to select and install explosion-proof equipment.



## Technical Data of Lamp

### Technical Data of Lamp

#### Notice:

1. Except incandescent lamp and self ballast high pressure mercury lamp, other lamps such as high pressure mercury lamp, high pressure sodium lamp and metal halide lamp shall work with ballasts.
2. The lamps with matching ballasts shall work effectively to reach the longest service life.
  - ◆ Metal halide lamp is classified into HPI metal halide lamp (European standard) and MH metal halide lamp (American standard). They shall work with different ballasts respectively and it is also not allowed to interchange the ballasts.
3. Lamp codes in this catalogue as below:
 

◆ Incandescent lamp: A	◆ Self ballast high pressure mercury lamp: SME
◆ High pressure mercury lamp: HME	◆ Metal halide lamp: HIE
	◆ High pressure sodium lamp: HSE

#### T8 Standard straight-tube fluorescent lamp (Bi-Pin)

Picture	Lamp power (W)	Colour	Colour temperature (K)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	18	Cool white	6200	1050	G13	13000	26	604	Philips
	36	Cool white	6200	2500	G13	13000	26	1214	Philips
	58	Cool white	6200	4000	G13	13000	26	1514	Philips

#### T8 Tri-phosphor straight-tube fluorescent lamp (Bi-Pin)

Picture	Lamp power (W)	Colour	Colour temperature (K)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	18	Cool white	6500	1300	G13	15000	26	604	Philips
	36	Cool white	6500	3250	G13	15000	26	1214	Philips
	58	Cool white	6500	5000	G13	15000	26	1514	Philips

#### Self ballast high pressure mercury lamp

Picture	Lamp power (W)	Power supply (V AC)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	125	220	0.60	1650	E27	10000	75	168	OSRAM
	150	220	0.80	3100	E27	13000	76	177	OSRAM
	250	220	1.20	5600	E40	10000	91	232	OSRAM
	500	220	2.40	14000	E40	10000	122	287	OSRAM

#### High pressure mercury lamp

Picture	Lamp power (W)	Power supply (V AC)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	80	220	110	0.80	3800	E27	16000	71	155	OSRAM
	125	220	115	1.15	6300	E27	16000	76	177	OSRAM
	250	220	130	2.13	13000	E40	16000	91	228	OSRAM
	400	220	135	3.25	22000	E40	16000	122	290	OSRAM

## Technical Data of Lamp

### High pressure sodium lamp

Picture	Lamp power (W)	Power supply (V)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	70	220	90	1.00	6600	E27	28000	71	156	OSRAM
	100	220	100	1.20	10200	E27/E40	32000	76	186	OSRAM
	150	220	100	1.80	17000	E40	32000	91	227	OSRAM
	250	220	105	2.85	31100	E40	32000	91	227	OSRAM
	400	220	105	4.50	55500	E40	32000	122	290	OSRAM
	70	220	93	0.98	6600	E27	28000	39	156	Philips
	100	220	100	1.20	10700	E27/E40	32000	47	210	OSRAM
	150	220	100	1.80	18000	E40	32000	47	211	Philips
	250	220	100	3.00	33200	E40	32000	47	257	Philips
	400	220	100	4.50	56500	E40	32000	47	283	Philips
	1000	220	105	10.60	130000	E40	16000	66	390	Philips

### Metal halide lamp (European standard)

Picture	Lamp power (W)	Power supply (V)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	70	220	90	0.90	5800	E27	20000	56	141	Philips
	100	220	90	1.10	8700	E27	20000	56	141	Philips
	150	220	100	1.80	13500	E27	20000	56	141	Philips
	250	220	100	2.15	23200	E40	20000	91	228	Philips
	400	220	100	3.25	42000	E40	20000	122	280	Philips
	250	220	128	2.20	25000	E40	20000	47	257	Philips
	400	220	125	3.40	42500	E40	20000	47	286	Philips
	1000	220	130	8.25	85000	E40	12000	66	382	Philips



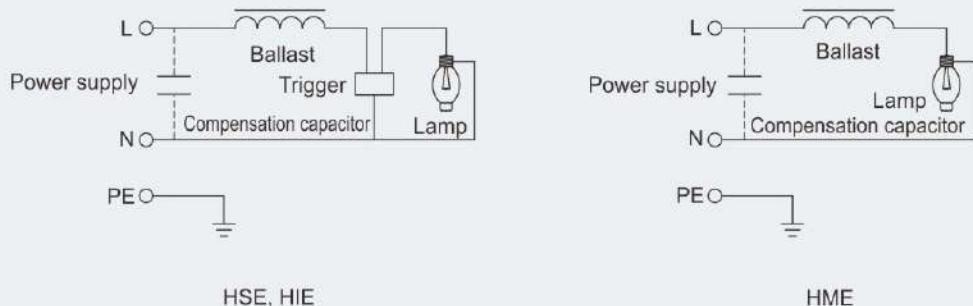
### Metal halide lamp (American standard)

Picture	Lamp power (W)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)	Data based on
	70	85	0.98	5600	E27	10000	56	141	Philips
	100	100	1.1	9000	E27	10000	56	141	Philips
	150	95	1.8	13500	E27	10000	56	141	Philips

**Note:** Please specify the specification of lamp holder when ordering.

## Technical Data of Lamp

### Wiring diagram of European standard HID lamp and ballast



### Selection table of European standard HID lamp and corresponding electrical components

Lamp type	Lamp power(W)	Lamp holder	Ballast	Trigger	Capacitor
HSE	70	E27	HSE70	CD-7h	12μF
HSE	100	E27	HSE100	CD-7h	15μF
HSE	150	E40	HSE150	CD-7h	20μF
HSE	250	E40	HSE250	CD-7h	32μF
HSE	400	E40	HSE400	CD-7h	50μF
HSE	1000	E40	HSE1000	SN56	2 x 50μF
HIE	70	E27	HIE70	CD-7h	12μF
HIE	100	E27	HIE100	CD-7h	15μF
HIE	150	E27	HIE150	CD-7h	20μF
HIE	175	E40	HIE175	CD-7h	20μF
HIE	250	E40	HIE250	CD-7h	20μF
HIE	400	E40	HIE400	CD-7h	32μF
HIE	1000	E40	HIE1000	SI51Plus	2 x 32μF
HME	80	E27	HME80	—	8μF
HME	125	E27	HME125	—	12μF
HME	175	E40	HME175	—	15μF
HME	250	E40	HME250	—	20μF
HME	400	E40	HME400	—	32μF



Ballast



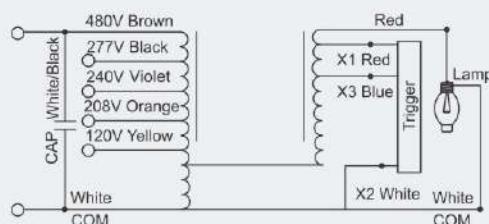
Trigger



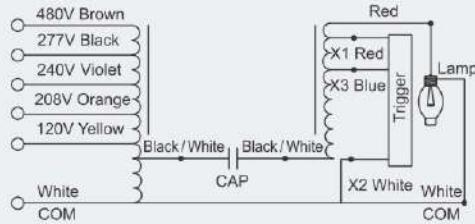
Capacitor

## Technical Data of Lamp

### Wiring diagram of American standard HID lamp and ballast

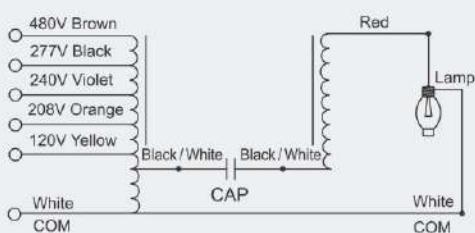


HX circuit for HSE: 50W, 70W, 100W, 150W



CWA-1 circuit for HIE: 70W, 100W, 150W

HSE: 250W, 400W, 600W, 1000W



CWA-2 circuit for HIE: 175W, 250W, 400W, 1000W

### Selection table of American standard HID lamp and corresponding electrical components

Lamp type	Power (W)	Lamp	Ballast	Voltage	Circuit	Trigger	Capacitor
HSE	50	S68	120560HPS50LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-2/540V
HSE	70	S62	120560HPS70LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-3/540V
HSE	100	S54	120560HPS100LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-4/540V
HSE	150	S55	120560HPS150LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-5/540V
HSE	250	S50	120560HPS250LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCM	CC-33/250V
HSE	400	S51	120560HPS400LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCM	CC-55/250V
HSE	600	S106	120560HPS600LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCM	CC-55/250V
HSE	1000	S52	120560HPS1000LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCH	CS-26/540V
HIE	70	M98	120560MH70LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-10/300V
HIE	100	M90	120560MH100LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-12/300V
HIE	150	M102	120560MH150LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-18/300V
HIE	175	M57	120560MH175LTC	120/208/240/277/480V 60Hz	CWA-2	—	CS-12/540V
HIE	250	M58	120560MH250LTC	120/208/240/277/480V 60Hz	CWA-2	—	CS-15/540V
HIE	400	M59	120560MH400LTC	120/208/240/277/480V 60Hz	CWA-2	—	CS-24/540V
HIE	1000	M47	120560MH1000LTC	120/208/240/277/480V 60Hz	CWA-2	—	CS-24/540V



Note: Above table shows the capacitance of ballasts of 60Hz, and the capacitance of ballasts of 50Hz is different with this table, please specify when ordering



Ballast



Trigger



Capacitor



## Lighting Technology



### Light Fittings for Fluorescent Lamp

BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex db eb q IIC, Ex d e q IIC)	2/2
BAY51-Q LED Series Explosion-proof Light Fittings (Ex db eb IIC, Ex db eb q IIC, Ex db eb mb IIC)	2/8
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex d IIC)	2/16
BAY51-D Series Explosion-proof Light Fittings (Ex db IIB+H <sub>2</sub> , Ex db IIB)	2/26
HRY92-LED Series Explosion-proof Light Fittings (Ex db IIB+H <sub>2</sub> , Ex db IIB)	2/32
HRY97 Series Explosion-proof LED Light Fittings (Ex db eb mb IIC)	2/36
BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex nA IIC)	2/40
BnY81-LED Series Explosion-proof Light Fittings (ec type) (Ex ec mb IIC, Ex db ec mb IIC)	2/46
HRY51-G/C LED Series Explosion-proof Light Fittings (Ex db eb IIC, Ex db eb q IIC, Ex db eb mb IIC)	2/50

### LED Light Fittings

HRD91-LED Series Explosion-proof LED Lightings (Ex db IIC)	2/56
HRD95 Series Explosion-proof LED Lightings (Ex db op is IIC)	2/60
HRD97 Series Explosion-proof LED Lightings (Ex db IIC)	2/66
HRD99 Series Explosion-proof LED Lightings (Ex db IIB, Ex db IIC)	2/70
HRJ Series Explosion-proof Emergency LED Light Fittings (Ex db op is IIC)	2/74
BDD95 Series Explosion-proof LED Lightings (Ex db eb op is IIC)	2/78
BAT86 Series Explosion-proof LED Floodlights (Ex db IIB+H <sub>2</sub> , Ex db IIB)	2/84

# Contents

HRND95 Series Explosion-proof LED Lightings (Ex ec mc IIC, Ex nR IIC)	2/90
HRNT95 Series Explosion-proof LED Floodlights (Ex ec mc IIC, Ex nR IIC)	2/94
HRT97 Series Explosion-proof LED Floodlights (Ex ec mc IIC)	2/98
HRT99 Series Explosion-proof LED Floodlights (Ex db eb IIC)	2/102

## Pendant Light Fittings

HRD61 Series Explosion-proof Light Fittings (Ex db IIC, Ex d IIC)	2/106
BDD81 Series Explosion-proof Lightings (Ex d IIC)	2/114
BDD91 Series Explosion-proof Light Fittings (Ex d IIC)	2/116
BnD81 Series Explosion-proof Light Fittings (Ex nR IIC)	2/124

## Floodlights

BAT53 Series Explosion-proof Floodlights (Ex d e IIB, Ex d IIB)	2/132
BAT85 Series Explosion-proof Floodlights (Ex db IIC)	2/138
BnT81 Series Explosion-proof Floodlights (Ex nR IIC)	2/142

## Street Lamps / Hand Lamps

Explosion-proof Street Lamps (Ex d e IIB, Ex d e IIC, Ex nR IIC, Ex d IIC)	2/146
BAM52 Series Explosion-proof LED Street lamps (Ex nR IIC)	2/148
BAM52 Series Explosion-proof Street lamps (Ex nR IIC)	2/150
HRD305 Portable Searchlight (Ex d ia IIC)	2/154
HRD309E Searchlight (Ex nA nR IIC)	2/155
HRD503 Series Explosion-proof Maintenance Lamps (Ex db eb IIC)	2/156
BSX-60 Series Explosion-proof Incandescent Hand Lamps (Ex d e IIC)	2/157



## Local, Caution Spotlight Fittings

BAJ52-20 Series Explosion-proof Emergency Light Fittings (Ex d IIB)	2/158
BAJ52-6 Series Explosion-proof Emergency Light Fittings (Ex db IIC)	2/160
BAYD85 Series Explosion-proof Emergency Exit Light Fittings (Ex db IIB, Ex db IIC)	2/162
BAYD86 Series Explosion-proof Emergency Exit Light Fittings (Ex mb eb ib IIC)	2/164
BAK51 Series Explosion-proof Tank Inspection Vessel Light Fittings (Ex db IIB)	2/166
BAK85 Series Explosion-proof LED Tank Inspection Vessel Light Fittings (Ex db op is IIC)	2/168
BSZD81-E Series Explosion-proof Caution Spotlight Fittings (Ex d e IIC)	2/170
BSZD81-C Series Explosion-proof Caution Spotlight Fittings (Ex d e IIC)	2/172
BSZD85-E Series Explosion-proof Low Intensity Aircraft Warning Light (Ex db IIC)	2/174
BSZD85-C Series Explosion-proof Medium Intensity Aircraft Warning Light (Ex db eb ib IIC)	2/176
BBJ81 Series Explosion-proof Audio and Visual Caution Spotlight Fittings (Ex db ib IIC)	2/178
BJD81 Series Explosion-proof Caution Spotlight Fittings (Ex db IIC)	2/180
BBJ86 Series Explosion-proof Audio and Visual Caution Spotlight Fittings (Ex db IIC)	2/182

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

## Light Fittings for Fluorescent Lamp

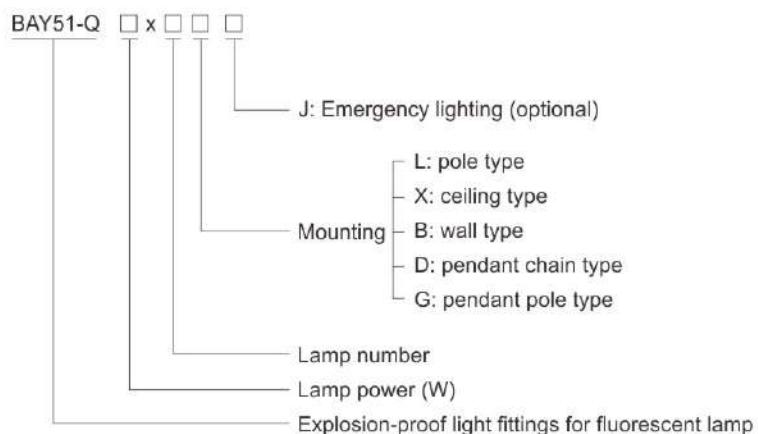
### BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp



- ◆ Explosion Protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure size: Type I and Type II
- ◆ Available lamp and power
  - T8 Fluorescent Lamps: 18W x 1, 36W x 1, 18W x 2, 36W x 2
- ◆ Enclosure: GRP (glass fiber reinforced polyester).
- ◆ Diffuser: PC (polycarbonate).
- ◆ Ex e enclosure with explosion-proof components inside.
- ◆ Interlock function between enclosure and diffuser, switches off on opening.
- ◆ Built-in electronic ballast, power factor  $\geq 0.95$ .
- ◆ Emergency unit with protections against overcharge and over-discharge.
- ◆ End of lamp life (EOL) rectification effect protection.



#### Catalogue number logic



**Zones 1&2; 21&22**

# Light Fittings for Fluorescent Lamp

## BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

### Technical data

#### Explosion-proof light fittings for fluorescent lamp BAY51-Q□ x □□

##### Explosion protection

Global (IECEx) IECEx CQM 07.0007X

Gas and dust Ex db eb q IIC T4 Gb

Europe (ATEX) Ex tb IIIC T85°C Db

LCIE 12 ATEX 3045X

Gas and dust Ex II 2 G Ex db eb q IIC T4 Gb

Ex II 2 D Ex tb IIIC T85°C Db

IECEx; ATEX; CU-TR

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31

##### Material

Enclosure GRP, stands 7J impact, corrosion-proof

Diffuser Polycarbonate, high light transmission, stands 7J impact

Ballast Electronic ballast, power factor ≥0.95, with protection against short circuit, overload,

lamp aging, lamp damage and dissymmetry power of lamp tube. Certificate No.:

LCIE 06 ATEX 0003U; IECEx CQM 07.0005U

Exposed fastener Stainless steel

##### Interlock

BZX-6 explosion-proof distance switch, switching off on opening

Certificate No.: LCIE 06 ATEX 0002U, IECEx CQM 07.0006U

##### Lamp

Lamp specification T8 tube (supplied with the light fittings)

36W x 2 18W x 2

36W x 1 18W x 1

##### Rated voltage

96~277V AC 50/60Hz, 100~250V DC

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+60°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Cable entries

2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic).

##### Available cable outer diameter

Φ9~Φ16 (mm)



### Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-Q18 x 1L	18 x 1	6.80	BAY51-Q18 x 2L	18 x 2	7.00
BAY51-Q18 x 1X	18 x 1	6.70	BAY51-Q18 x 2X	18 x 2	6.90
BAY51-Q18 x 1B	18 x 1	7.80	BAY51-Q18 x 2B	18 x 2	7.90
BAY51-Q18 x 1D	18 x 1	8.10	BAY51-Q18 x 2D	18 x 2	8.20
BAY51-Q18 x 1G	18 x 1	7.70	BAY51-Q18 x 2G	18 x 2	7.85
BAY51-Q36 x 1L	36 x 1	11.40	BAY51-Q36 x 2L	36 x 2	11.60
BAY51-Q36 x 1X	36 x 1	11.30	BAY51-Q36 x 2X	36 x 2	11.40
BAY51-Q36 x 1B	36 x 1	12.30	BAY51-Q36 x 2B	36 x 2	12.50
BAY51-Q36 x 1D	36 x 1	12.60	BAY51-Q36 x 2D	36 x 2	12.75
BAY51-Q36 x 1G	36 x 1	12.20	BAY51-Q36 x 2G	36 x 2	12.40

**Note:** Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/6~7).

## Light Fittings for Fluorescent Lamp

### BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

#### Technical data

#### Explosion-proof emergency light fittings for fluorescent lamp BAY51-Q□ x □□J

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0002X
Gas and dust	Ex d e q IIC T4 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db IP66
Gas and dust	Ex II 2 G Ex db e q IIC T4 Gb
	Ex II 2 D Ex tb IIIC T80°C Db IP66

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31

##### Material

Enclosure	GRP, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, high light transmission, stands 7J impact
Ballast	Electronic ballast, with protection against short circuit, overload, lamp aging, lamp damage and dissymmetry power of lamp tube.
Emergency controller	BY-2 emergency controller, with protection against overcharge and overdischarge
	Certificate No.: LCIE 10 ATEX 3010U, IECEx CQM 11.0041U
Exposed fastener	Stainless steel

##### Lamp

Lamp specification T8 tube (supplied with the light fittings)

Lamp power (W) 36W x 2 18W x 2  
36W x 1 18W x 1

##### Emergency power (W)

36W x 30%, 18W x 30%

##### Emergency starting time

0.3s

##### Charging time

24h

##### Emergency lighting time

120min (180min is optional)

##### Rated voltage

96~254V AC 50/60Hz

##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

##### Terminal

5 x 1.5~4mm<sup>2</sup> (L1+N1+L1'+N1'+PE)

##### Cable entries

2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic).

##### Available cable outer diameter

Φ9~Φ16 (mm)



#### Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-Q18 x 1LJ	18 x 1	8.65	BAY51-Q18 x 2LJ	18 x 2	8.80
BAY51-Q18 x 1XJ	18 x 1	8.50	BAY51-Q18 x 2XJ	18 x 2	8.70
BAY51-Q18 x 1BJ	18 x 1	9.60	BAY51-Q18 x 2BJ	18 x 2	9.75
BAY51-Q18 x 1DJ	18 x 1	9.90	BAY51-Q18 x 2DJ	18 x 2	10.00
BAY51-Q18 x 1GJ	18 x 1	9.50	BAY51-Q18 x 2GJ	18 x 2	9.65
BAY51-Q36 x 1LJ	36 x 1	13.00	BAY51-Q36 x 2LJ	36 x 2	13.05
BAY51-Q36 x 1XJ	36 x 1	12.95	BAY51-Q36 x 2XJ	36 x 2	13.10
BAY51-Q36 x 1BJ	36 x 1	14.00	BAY51-Q36 x 2BJ	36 x 2	14.10
BAY51-Q36 x 1DJ	36 x 1	14.30	BAY51-Q36 x 2DJ	36 x 2	14.45
BAY51-Q36 x 1GJ	36 x 1	13.90	BAY51-Q36 x 2GJ	36 x 2	14.05

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/6~7).

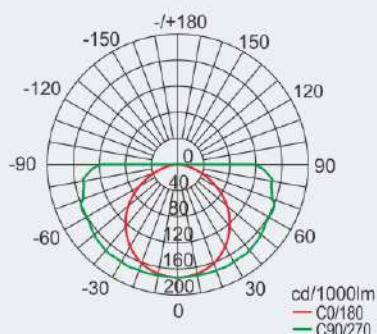
# Light Fittings for Fluorescent Lamp

## BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

### Photometric data

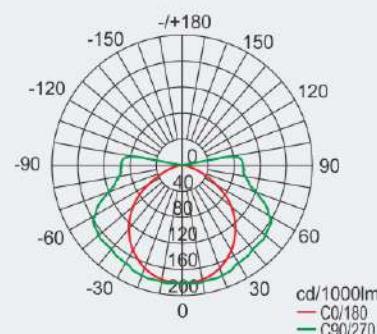
#### BAY51-Q18x1□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
18 x 1	1300lm	72%



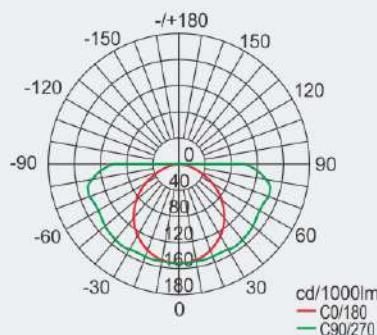
#### BAY51-Q18x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
18 x 2	2600lm	69%



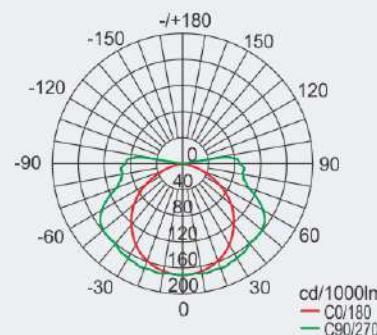
#### BAY51-Q36x1□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
36 x 1	3250lm	65%



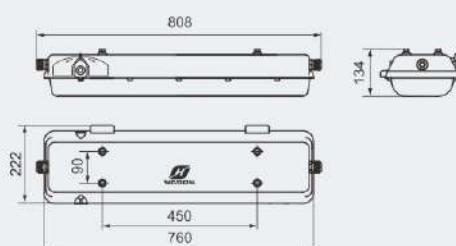
#### BAY51-Q36x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
36 x 2	6500lm	67%

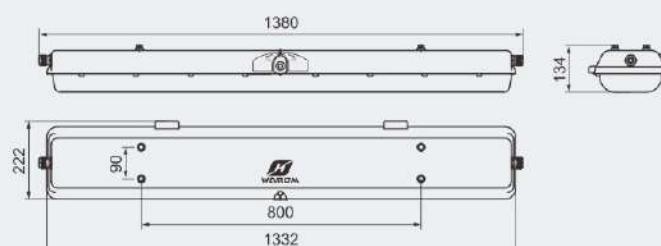


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

### Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-Q18 x □ □ □



BAY51-Q36 x □ □ □



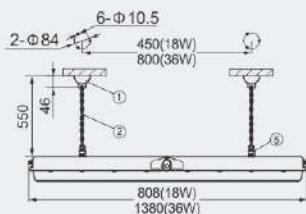
## Light Fittings for Fluorescent Lamp

### BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

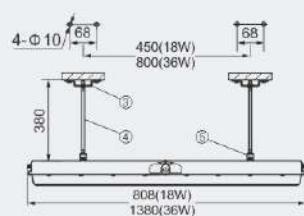
#### Mounting type (all dimensions in mm) – subject to alteration

Installation reference

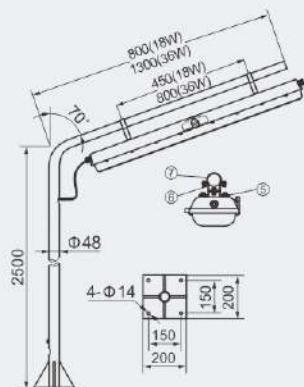
D: pendant chain type



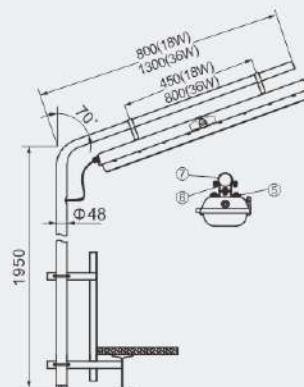
G: pendant pole type



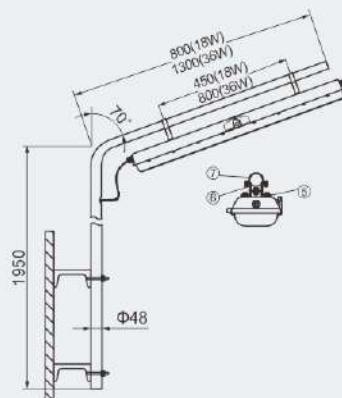
L: pole type (the pole is provided by user)



Suitable for ground pole type

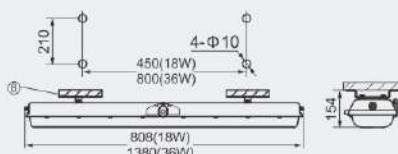


Suitable for fence pole type

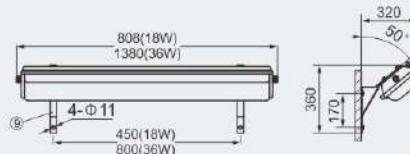


Suitable for wall pole type

X: ceiling type



B: wall type



#### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories				Ordering code	Weight (kg)
	Name	Qty	Illustration			
D: pendant chain type	①.Sucker	2			5136017	0.15
	②.Chain	2	Length: 450mm		5136016	0.08
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type		5136030	0.07
G: pendant pole type	③.Mounting bracket	2			51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm		51S01G2	0.12
	⑤.Mounting bracket	2			5136030	0.07

Note: Accessories not in the table shall be supplied by user.

# Light Fittings for Fluorescent Lamp

## BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

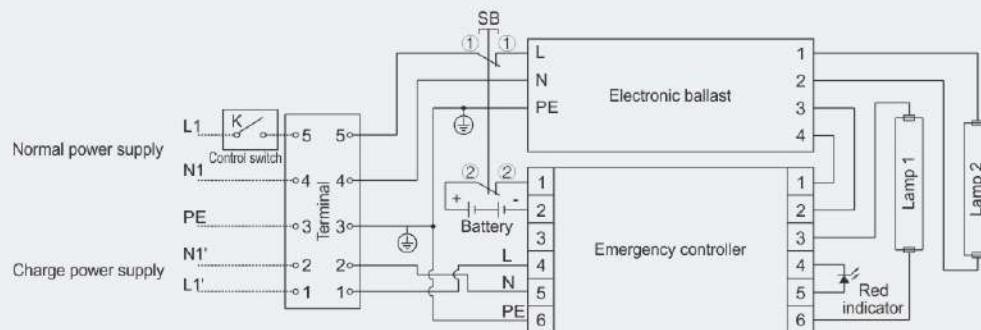
### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
L: pole type	⑥.Mounting bracket	2		5136012	0.04
	⑦.G1 1/2" Pipe clamp	2		5136014	0.04
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
X: ceiling type	⑧.Mounting bracket	2		5136015	0.20
B: wall type	⑨.Wall bracket	2	Stainless steel, welded sheet steel	5136B02	0.62

**Note:** Accessories not in the table shall be supplied by user.

### Schematic diagram (BAY51-Q□x□□J, T8 fluorescent lamp)



**Note:** Tube for lamp 2 shall be default for single tube fittings.

### Accessories

Picture	Name	Ordering code	Weight (kg)
	Explosion-proof distance switch	5136003	0.04
	Spanner	5136004	0.02
	Lamp holder (with wires)	5136005	0.02
	YK36DF-2CS electronic ballast (T8/36W)	5136011	1.30
	YK18DF-2CS electronic ballast (T8/18W)	5118004	1.30
	BY-2 emergency controller (with battery) (T8/36W)	5136019	1.70
	BY-2 emergency controller (with battery) (T8/18W)	5118005	1.70

## Light Fittings for Fluorescent Lamp BAY51-Q LED Series Explosion-proof Light Fittings



LED lamp tubes

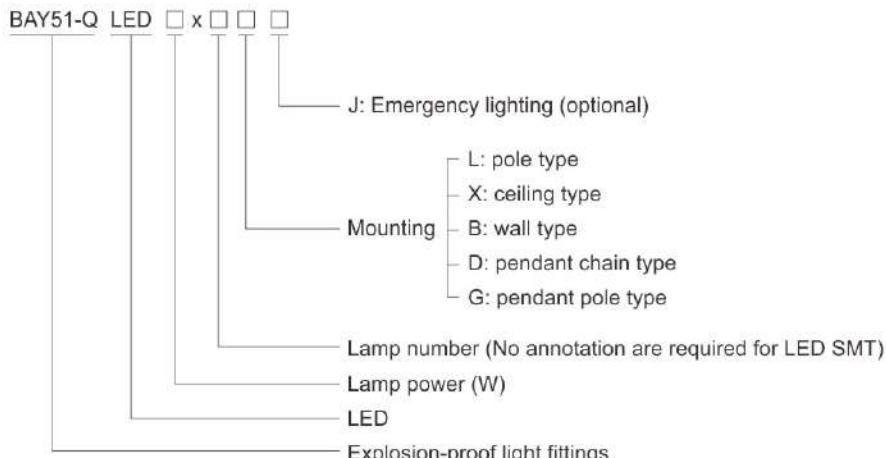


LED SMT

- ◆ Explosion Protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure size: Type I and Type II
- ◆ Available lamp and power
  - LED tubes:
    - Built-in power supply, LED lamp and driving power are integrated type: 9W×1, 18W×1, 9W×2, 18W×2;
    - External power supply, LED lamp and driving power are split type: 14W x 1, 14W x 2, 28W x 1, 28W x 2.
  - LED SMT: 20W, 40W, 60W, 80W
- ◆ Enclosure: GRP (glass fiber reinforced polyester).  
Diffuser: PC (polycarbonate).
- ◆ Ex e enclosure with explosion-proof components inside.
- ◆ Interlock function between enclosure and diffuser, switches off on opening.
- ◆ Built-in LED driver, wide voltage input, CC-CV (constant current-constant voltage) output, power factor  $\geq 0.95$ .
- ◆ Emergency unit with protections against overcharge and over-discharge.



### Catalogue number logic



**Zones 1&2; 21&22**

# Light Fittings for Fluorescent Lamp

## BAY51-Q LED Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings with LED lamp tube BAY51-Q LED □ × □ □ □

<b>Explosion protection</b>	IECEx CQM 19.0013X Ex db eb IIC T6 Gb <sup>1)</sup> Ex db eb q IIC T5 or T6 Gb <sup>1)</sup> Ex tb IIIC T80°C Db <sup>1)</sup> CML19 ATEX 1288X Ex II 2 G Ex db eb IIC T6 Gb <sup>1)</sup> Ex II 2 G Ex db eb q IIC T5 or T6 Gb <sup>1)</sup> Ex II 2 D Ex tb IIIC T80°C Db <sup>1)</sup>
<b>Certificates</b>	<sup>1)</sup> See Selection Table
<b>Conformity to standards</b>	IECEx; ATEX; CU-TR; INMETRO EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31
<b>Material</b>	GRP, stands 7J impact, corrosion-proof Polycarbonate, high light transmission, stands 7J impact Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit. Certificate No.: CML 19 ATEX 5115U, CML 19 ATEX 5201U, IECEx CQM 19.0002U
Exposed fastener	Stainless steel
<b>Lamp</b>	LED lamp tube (supplied with the light fittings) 9W×1, 18W×1, 9W×2, 18W×2 (LED lamp and driving power are integrated type) 14W x 1, 28W x 1, 14W x 2, 28W x 2 (LED lamp and driving power are split type) Certificate No.: CML 19 ATEX 1288X, IECEx CQM 19.0012U ≥80 5000K Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.
Colour rendering index (Ra)	
Colour temperature (CCT)	
<b>Rated voltage</b>	Built-in power supply, LED lamp and driving power are integrated type: 170~264V AC 50/60Hz External power supply, LED lamp and driving power are split type: 100~277V AC 50/60Hz; 200~250V DC
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	Ex db eb IIC T6 Gb for Tamb: -40°C~+55°C Ex db eb q IIC T6 Gb for Tamb: -40°C~+45°C Ex db eb q IIC T5 Gb for Tamb: -40°C~+55°C Ex tb IIIC T80°C Db for Tamb: -40°C~+55°C Ex II 2 G Ex db eb IIC T6 Gb for Tamb: -40°C~+55°C Ex II 2 G Ex db eb q IIC T6 Gb for Tamb: -40°C~+45°C Ex II 2 G Ex db eb q IIC T5 Gb for Tamb: -40°C~+55°C Ex II 2 D Ex tb IIIC T80°C Db for Tamb: -40°C~+55°C 3 x 1.5~4mm <sup>2</sup> (L+N+PE) 2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic). Φ9~Φ16 (mm)
<b>Terminal</b>	
<b>Cable entries</b>	
<b>Available cable outer diameter</b>	
<b>Emergency data</b>	Special emergency controller and battery pack, with protection against overcharge and overdischarge.
Emergency controller	
Emergency power (W)	14W x 30%, 28W x 30%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)
Terminal	5 x 1.5~4mm <sup>2</sup> (L1+N1+L1'+N1'+PE)

### Selection table

Lamp tube type	LED lamp and driving power are integrated type	LED lamp and driving power are split type
Explosion protection	Ex II 2 G Ex db eb IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db	Ex II 2 G Ex db eb q IIC T5 or T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
Lamp power (W)	9W×1, 18W×1, 9W×2, 18W×2	14W x 1, 28W x 1, 14W x 2, 28W x 2



## Light Fittings for Fluorescent Lamp

### BAY51-Q LED Series Explosion-proof Light Fittings

#### Technical data

#### Explosion-proof light fittings with LED SMT BAY51-Q LED □□□

<b>Explosion protection</b>	IECEx CQM 19.0013X Ex db eb mb IIC T6/T5 Gb <sup>1)</sup> Ex tb IIIC T80°C Db <sup>1)</sup> CML19 ATEX 1288X Ex II 2 G Ex db eb mb IIC T6/T5 Gb <sup>1)</sup> Ex II 2 D Ex tb IIIC T80°C Db <sup>1)</sup>
<b>Certificates</b>	<sup>1)</sup> See Selection Table IECEx; ATEX; CU-TR; INMETRO
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31, IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31
<b>Material</b>	GRP, stands 7J impact, corrosion-proof Polycarbonate, high light transmission, stands 7J impact Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
<b>Lamp</b>	LED SMT (supplied with the light fittings) 20W, 40W, 60W, 80W
Lamp specification	≥80
Lamp power (W)	5000K
Colour rendering index (Ra)	Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.
Colour temperature (CCT)	100-277V AC 50/60Hz 130~250V DC
<b>Rated voltage</b>	IP66
<b>Degree of protection</b>	-40°C~+60°C(+55°C)(+45°C) <sup>1)</sup>
<b>Ambient temperature</b>	<sup>1)</sup> See Selection Table 3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Terminal</b>	2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic). Φ9~Φ16 (mm)
<b>Cable entries</b>	Φ9~Φ16 (mm)
<b>Available cable outer diameter</b>	Special emergency controller and battery pack, with protection against overcharge and overdischarge.
<b>Emergency data</b>	20W x 70%, 40W x 35%, 60W x 23%, 80W x 18%
Emergency controller	0.3s
Emergency power (W)	24h
Emergency starting time	90min (180min is optional)
Charging time	5 x 1.5~4mm <sup>2</sup> (L1+N1+L1'+N1'+PE)
Emergency lighting time	
Terminal	

#### Selection table

Type / Ordering code	Temperature classification					
	-40°C≤Ta≤+45°C		-40°C≤Ta≤+55°C		-40°C≤Ta≤+60°C	
	Gas	Dust	Gas	Dust	Gas	Dust
BAY51-Q LED 20□, BAY51-Q LED 20□J	/	/	T6	T80°C	T5	T80°C
BAY51-Q LED 40□, BAY51-Q LED 40□J						
BAY51-Q LED 60□, BAY51-Q LED 60□J	T6	T80°C	T5	T80°C	/	/
BAY51-Q LED 80□, BAY51-Q LED 80□J	T5	T80°C	/	/	/	/

## Light Fittings for Fluorescent Lamp

### BAY51-Q LED Series Explosion-proof Light Fittings

#### Selection table for explosion-proof light fittings with LED tubes, split type

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-Q LED14 x 1L	14 x 1	8.00	BAY51-Q LED14 x 1LJ	14 x 1	8.30	BAY51-Q LED14 x 2L	14 x 2	8.45	BAY51-Q LED14 x 2LJ	14 x 2	8.80
BAY51-Q LED14 x 1X	14 x 1	7.90	BAY51-Q LED14 x 1XJ	14 x 1	8.20	BAY51-Q LED14 x 2X	14 x 2	8.35	BAY51-Q LED14 x 2XJ	14 x 2	8.70
BAY51-Q LED14 x 1B	14 x 1	8.90	BAY51-Q LED14 x 1BJ	14 x 1	9.20	BAY51-Q LED14 x 2B	14 x 2	9.35	BAY51-Q LED14 x 2BJ	14 x 2	9.70
BAY51-Q LED14 x 1D	14 x 1	9.20	BAY51-Q LED14 x 1DJ	14 x 1	9.50	BAY51-Q LED14 x 2D	14 x 2	9.65	BAY51-Q LED14 x 2DJ	14 x 2	10.00
BAY51-Q LED14 x 1G	14 x 1	8.85	BAY51-Q LED14 x 1GJ	14 x 1	9.15	BAY51-Q LED14 x 2G	14 x 2	9.30	BAY51-Q LED14 x 2GJ	14 x 2	9.65
BAY51-Q LED28 x 1L	28 x 1	12.50	BAY51-Q LED28 x 1LJ	28 x 1	13.65	BAY51-Q LED28 x 2L	28 x 2	12.90	BAY51-Q LED28 x 2LJ	28 x 2	14.15
BAY51-Q LED28 x 1X	28 x 1	13.20	BAY51-Q LED28 x 1XJ	28 x 1	14.45	BAY51-Q LED28 x 2X	28 x 2	13.70	BAY51-Q LED28 x 2XJ	28 x 2	14.95
BAY51-Q LED28 x 1B	28 x 1	13.30	BAY51-Q LED28 x 1BJ	28 x 1	14.55	BAY51-Q LED28 x 2B	28 x 2	13.80	BAY51-Q LED28 x 2BJ	28 x 2	15.05
BAY51-Q LED28 x 1D	28 x 1	13.55	BAY51-Q LED28 x 1DJ	28 x 1	14.80	BAY51-Q LED28 x 2D	28 x 2	14.00	BAY51-Q LED28 x 2DJ	28 x 2	15.30
BAY51-Q LED28 x 1G	28 x 1	13.20	BAY51-Q LED28 x 1GJ	28 x 1	14.45	BAY51-Q LED28 x 2G	28 x 2	13.70	BAY51-Q LED28 x 2GJ	28 x 2	14.95

**Note:** Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/14~15).

#### Selection table for explosion-proof light fittings with LED tubes, integrated type

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-Q LED9 x 1L	9 x 1	7.50	BAY51-Q LED9 x 2L	9 x 2	8.50
BAY51-Q LED9 x 1X	9 x 1	7.40	BAY51-Q LED9 x 2X	9 x 2	8.00
BAY51-Q LED9 x 1B	9 x 1	8.40	BAY51-Q LED9 x 2B	9 x 2	9.00
BAY51-Q LED9 x 1D	9 x 1	8.60	BAY51-Q LED9 x 2D	9 x 2	9.00
BAY51-Q LED9 x 1G	9 x 1	8.40	BAY51-Q LED9 x 2G	9 x 2	9.00
BAY51-Q LED18 x 1L	18 x 1	12.00	BAY51-Q LED18 x 2L	18 x 2	12.40
BAY51-Q LED18 x 1X	18 x 1	12.70	BAY51-Q LED18 x 2X	18 x 2	13.30
BAY51-Q LED18 x 1B	18 x 1	12.80	BAY51-Q LED18 x 2B	18 x 2	13.30
BAY51-Q LED18 x 1D	18 x 1	13.00	BAY51-Q LED18 x 2D	18 x 2	13.60
BAY51-Q LED18 x 1G	18 x 1	12.70	BAY51-Q LED18 x 2G	18 x 2	13.20

**Note:** Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/14~15).



#### Selection table for explosion-proof light fittings with SMD LED

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-Q LED20L	20	6.20	BAY51-Q LED40L	40	6.40	BAY51-Q LED60L	60	10.40	BAY51-Q LED80L	80	10.80
BAY51-Q LED20X	20	6.10	BAY51-Q LED40X	40	6.30	BAY51-Q LED60X	60	10.30	BAY51-Q LED80X	80	10.70
BAY51-Q LED20B	20	7.10	BAY51-Q LED40B	40	7.30	BAY51-Q LED60B	60	11.30	BAY51-Q LED80B	80	11.70
BAY51-Q LED20D	20	7.30	BAY51-Q LED40D	40	7.50	BAY51-Q LED60D	60	11.50	BAY51-Q LED80D	80	11.90
BAY51-Q LED20G	20	7.10	BAY51-Q LED40G	40	7.30	BAY51-Q LED60G	60	11.30	BAY51-Q LED80G	80	11.70
BAY51-Q LED20LJ	20	7.70	BAY51-Q LED40LJ	40	12.00	BAY51-Q LED60LJ	60	12.00	BAY51-Q LED80LJ	80	12.40
BAY51-Q LED20XJ	20	7.60	BAY51-Q LED40XJ	40	11.90	BAY51-Q LED60XJ	60	11.90	BAY51-Q LED80XJ	80	12.30
BAY51-Q LED20BJ	20	8.60	BAY51-Q LED40BJ	40	12.90	BAY51-Q LED60BJ	60	12.90	BAY51-Q LED80BJ	80	13.30
BAY51-Q LED20DJ	20	8.80	BAY51-Q LED40DJ	40	13.10	BAY51-Q LED60DJ	60	13.10	BAY51-Q LED80DJ	80	13.50
BAY51-Q LED20GJ	20	8.60	BAY51-Q LED40GJ	40	12.90	BAY51-Q LED60GJ	60	12.90	BAY51-Q LED80GJ	80	13.30

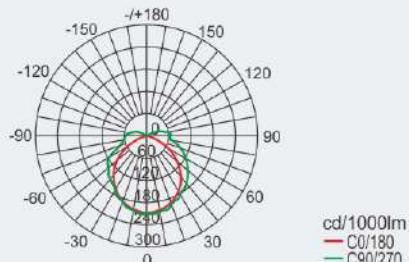
**Note:** Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/14~15).

## Light Fittings for Fluorescent Lamp BAY51-Q LED Series Explosion-proof Light Fittings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

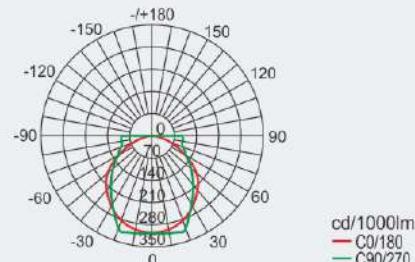
### BAY51-Q LED 14x1 □□

Lamp power (W)	Luminous flux	Wattage
14 x 1	1515lm	15W



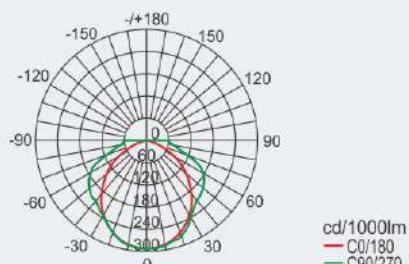
### BAY51-Q LED 28x1 □□

Lamp power (W)	Luminous flux	Wattage
28 x 1	2855lm	28W



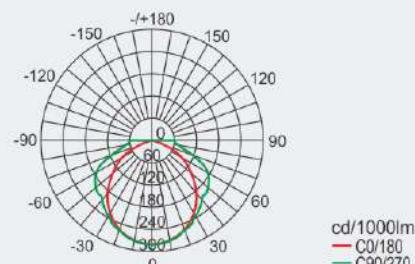
### BAY51-Q LED 14x2 □□

Lamp power (W)	Luminous flux	Wattage
14 x 2	2905lm	29W



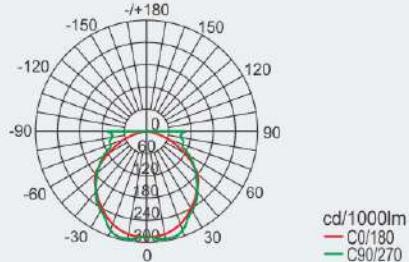
### BAY51-Q LED 28x2 □□

Lamp power (W)	Luminous flux	Wattage
28 x 2	5770lm	56W



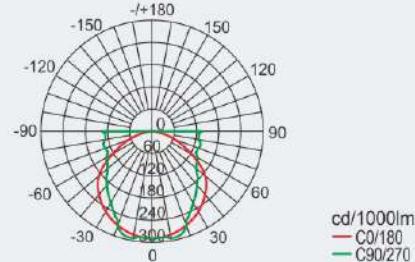
### BAY51-Q LED 9x1 □

Lamp power (W)	Luminous flux	Wattage
9 x 1	910lm	9W



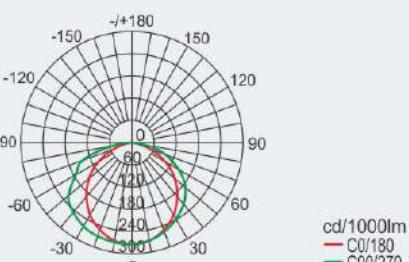
### BAY51-Q LED 18x1 □

Lamp power (W)	Luminous flux	Wattage
18 x 1	1950lm	18.5W



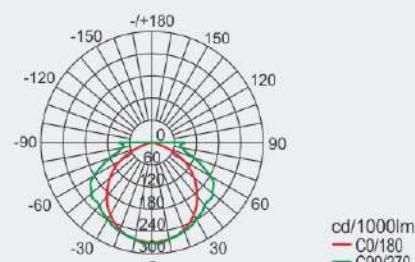
### BAY51-Q LED 9x2 □

Lamp power (W)	Luminous flux	Wattage
9 x 2	1870lm	18.5W



### BAY51-Q LED 18x2 □

Lamp power (W)	Luminous flux	Wattage
18 x 2	3900lm	37W



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

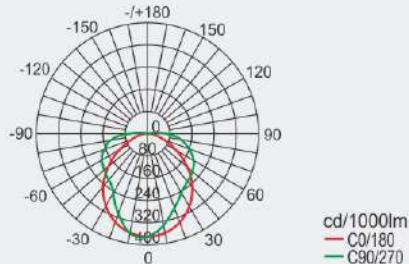
# Light Fittings for Fluorescent Lamp

## BAY51-Q LED Series Explosion-proof Light Fittings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

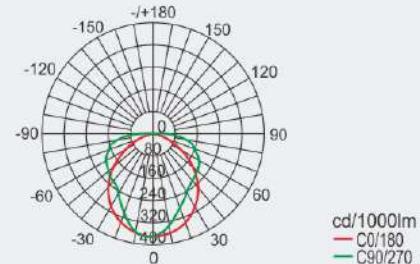
### BAY51-Q LED 20 □□

Lamp power (W)	Luminous flux	Wattage
20	2300lm	21W



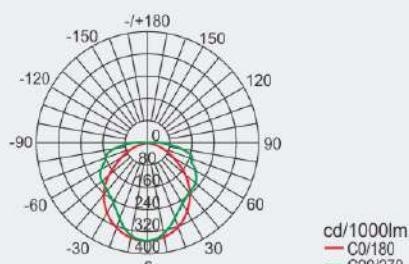
### BAY51-Q LED 40 □□

Lamp power (W)	Luminous flux	Wattage
40	5100lm	44W



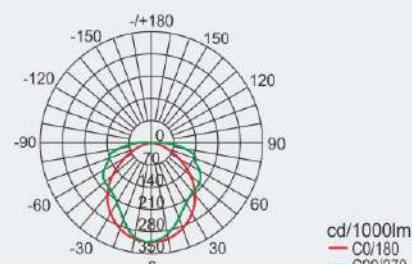
### BAY51-Q LED 60 □□

Lamp power (W)	Luminous flux	Wattage
60	6900lm	57.3W

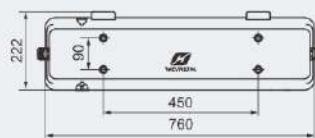
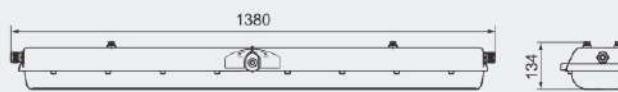
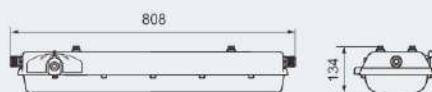


### BAY51-Q LED 80 □□

Lamp power (W)	Luminous flux	Wattage
80	10300lm	87W



### Dimension drawings (all dimensions in mm) - subject to alteration



Type I

Type II

BAY51-Q LED 14 x □□, BAY51-Q LED 14 x □□J  
BAY51-Q LED 9 x □□  
BAY51-Q LED 20 □, BAY51-Q LED 20 □J  
BAY51-Q LED 40 □

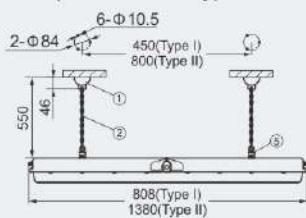
BAY51-Q LED 28 x □□, BAY51-Q LED 28 x □□J  
BAY51-Q LED 18 x □□, BAY51-Q LED 40 □J  
BAY51-Q LED 60 □, BAY51-Q LED 60 □J  
BAY51-Q LED 80 □, BAY51-Q LED 80 □J

## Light Fittings for Fluorescent Lamp BAY51-Q LED Series Explosion-proof Light Fittings

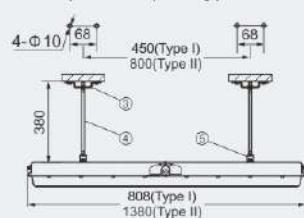
### Mounting type (all dimensions in mm) – subject to alteration

Installation reference

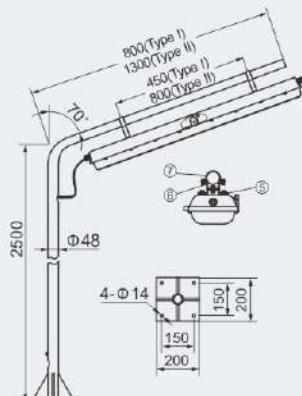
D: pendant chain type



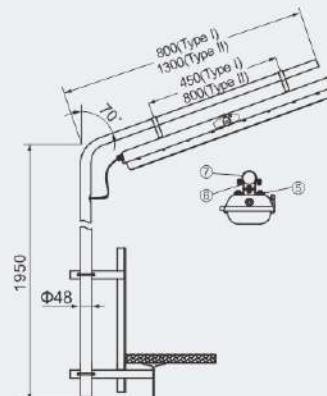
G: pendant pole type



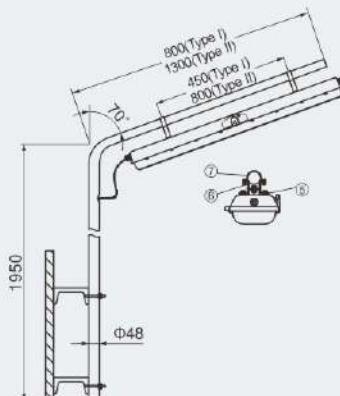
L: pole type (the pole is provided by user)



Suitable for ground pole type

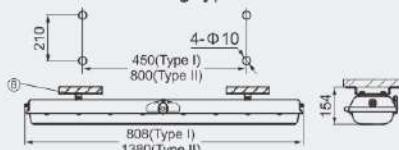


Suitable for fence pole type

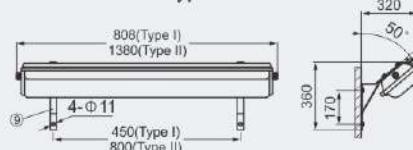


Suitable for wall pole type

X: ceiling type



B: wall type



### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2		5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
G: pendant pole type	③.Mounting bracket	2		51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
	⑤.Mounting bracket	2		5136030	0.07

Note: Accessories not in the table shall be supplied by user.

# Light Fittings for Fluorescent Lamp

## BAY51-Q LED Series Explosion-proof Light Fittings

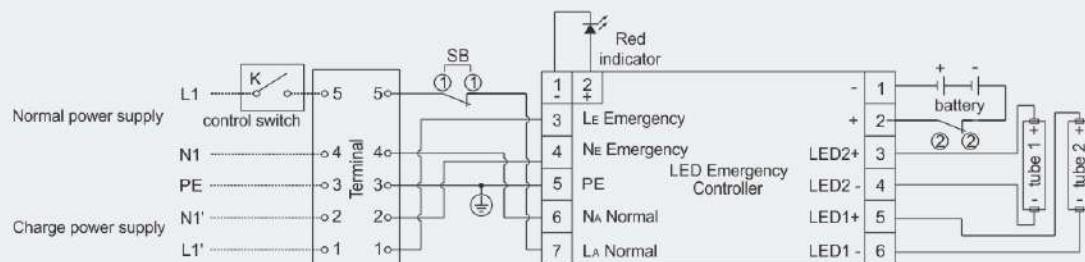
### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
L: pole type	⑥.Mounting bracket	2		5136012	0.04
	⑦.G1 1/2" Pipe clamp	2		5136014	0.04
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
X: ceiling type	⑧.Mounting bracket	2		5136015	0.20
B: wall type	⑨.Wall bracket	2	Stainless steel, welded sheet steel	5136B02	0.62

**Note:** Accessories not in the table shall be supplied by user.

### Schematic diagram (BAY51-Q LED□x□□J, LED tube)



**Note:** Tube for lamp 2 shall be default for single tube fittings.

### Accessories

Picture	Name	Ordering code	Weight (kg)
	Explosion-proof distance switch	5136008	0.04
	HRB14-2C Explosion-proof LED driver (LED/14W)	5114001	1.30
	HRB28-2C Explosion-proof LED driver (LED/28W)	5128001	1.30
	HRE14-2C Explosion-proof LED emergency controller (LED/14W)	5114002	1.75
	HRE28-2C Explosion-proof LED emergency controller (LED/28W)	5128002	2.30
	BT8-9 Explosion-proof LED lamp tube (LED/9W)	51E0901	0.25
	BT8-18 Explosion-proof LED lamp tube (LED/18W)	51E1801	0.52
	BT8-14 Explosion-proof LED lamp tube (LED/14W)	5114003	0.18
	BT8-28 Explosion-proof LED lamp tube (LED/28W)	5128003	0.34

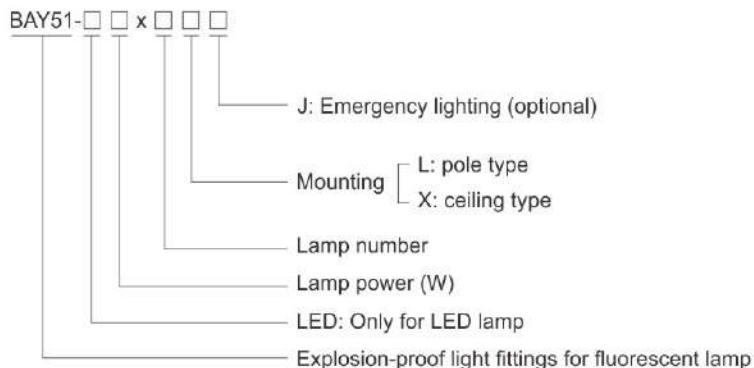
## Light Fittings for Fluorescent Lamp

### BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Single or dual lamp versions
- ◆ Available lamp and power
  - Fluorescent lamps: 18W x 1, 36W x 1, 58W x 1, 18W x 2, 36W x 2, 58W x 2.
  - LED lamps: 9W x 1, 9W x 2, 18W x 1, 18W x 2, 28W x 1, 28W x 2.
- ◆ The glass tube stands 4J impact.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor  $\geq 0.95$ .
- ◆ Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
- ◆ End of lamp life (EOL) rectification effect protection.

#### Catalogue number logic



**Zones 1&2; 21&22**

# Light Fittings for Fluorescent Lamp

## BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

### Technical data

#### Explosion-proof light fittings for fluorescent lamp BAY51-□ x □ □

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0042X
Gas and dust	Ex d IIC T6 Gb
Europe (ATEX)	Ex t IIIC T80°C Db IP66
Gas	IECEx 09 ATEX 3046 Ex II 2 G Ex d IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db IP66

##### Certificates

##### Conformity to standards

IECEx; ATEX; CU-TR
EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector	Powder coated pure aluminium
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	T8 tube (supplied with the light fittings)
Lamp power (W)	18W x 1    18W x 2 36W x 1    36W x 2 58W x 1    58W x 2
	100~300V AC 50/60Hz
	M5 (internal & external earth bolts)

##### Rated voltage

100~300V AC 50/60Hz

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Cable entries

Single lamp	2 x M25 x 1.5 plugs
Dual lamp	2 x M25 x 1.5 plugs

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

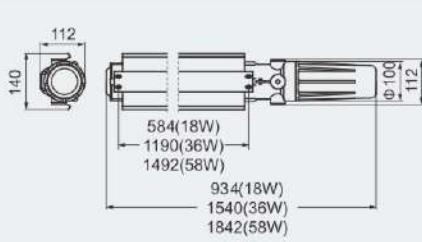


### Selection table

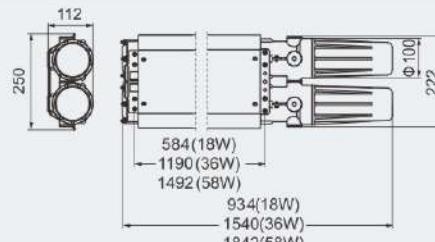
Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-18 x 1X	18 x 1	5.60	BAY51-18 x 2X	18 x 2	10.60
BAY51-18 x 1L	18 x 1	6.50	BAY51-18 x 2L	18 x 2	11.55
BAY51-36 x 1X	36 x 1	8.80	BAY51-36 x 2X	36 x 2	16.30
BAY51-36 x 1L	36 x 1	9.30	BAY51-36 x 2L	36 x 2	16.85
BAY51-58 x 1X	58 x 1	10.40	BAY51-58 x 2X	58 x 2	18.30
BAY51-58 x 1L	58 x 1	10.85	BAY51-58 x 2L	58 x 2	19.20

**Note:** Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/23~24).

### Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-□ x 1 □



BAY51-□ x 2 □

## Light Fittings for Fluorescent Lamp

### BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

#### Technical data

#### Explosion-proof emergency light fittings for fluorescent lamp BAY51-□ x □□J

##### Explosion protection

Global (IECEx) IECEx CQM 13.0004X

Gas and dust Ex d IIC T6 Gb

Europe (ATEX) Ex tb IIIC T80°C Db IP66

LCIE 13 ATEX 3003X

Gas and dust Ex II 2 G Ex d IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP66

##### Certificates

##### Conformity to standards

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Glass tube Toughened glass, stands 4J impact

Emergency unit Special emergency controller and battery pack, with protection against overcharge and overdischarge

Ballast Electronic ballast

Wire guard (optional) Powder coated carbon steel (white) or stainless steel

External reflector Powder coated pure aluminium

Exposed fastener Stainless steel

##### Lamp

Lamp specification T8 tube (supplied with the light fittings)

Lamp power (W) 18W x 2, 36W x 2, 58W x 2

Emergency power (W) 18W x 30%, 36W x 30%, 58W x 30%

##### Emergency starting time

0.3s

##### Charging time

24h

##### Emergency lighting time

120min (180min is optional)

##### Rated voltage

100~300V AC 50/60Hz

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Cable entries

4 x M25 x 1.5 plugs

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

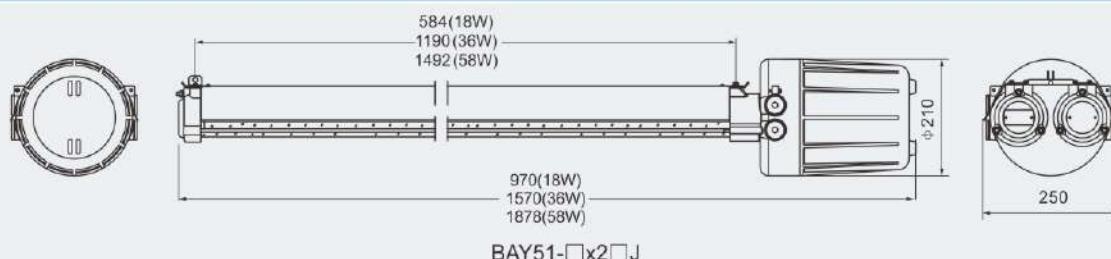


#### Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-18 x 2XJ	18 x 2	14.50	BAY51-36 x 2LJ	36 x 2	20.30
BAY51-18 x 2LJ	18 x 2	14.60	BAY51-58 x 2XJ	58 x 2	22.20
BAY51-36 x 2XJ	36 x 2	20.20	BAY51-58 x 2LJ	58 x 2	22.30

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/25).

#### Dimension drawings (all dimensions in mm) - subject to alteration



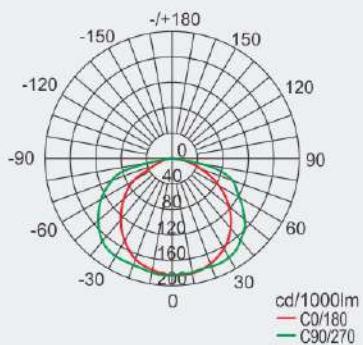
## Light Fittings for Fluorescent Lamp

### BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

#### Photometric data

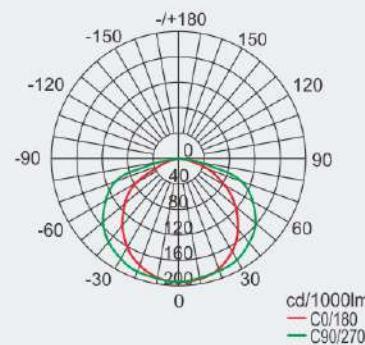
##### BAY51-18x1□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
18 x 1	1300lm	70%



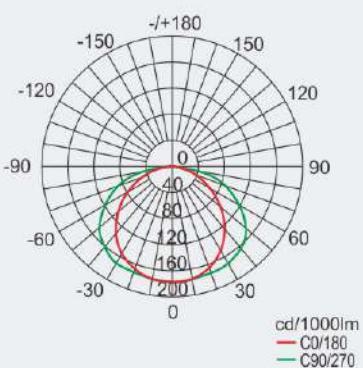
##### BAY51-18x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
18 x 2	2600lm	67%



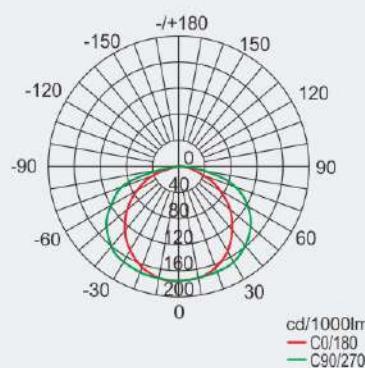
##### BAY51-36x1□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
36 x 1	3250lm	67%



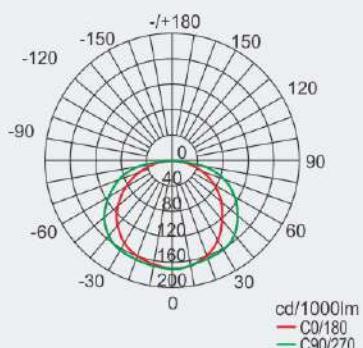
##### BAY51-36x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
36 x 2	6500lm	66%



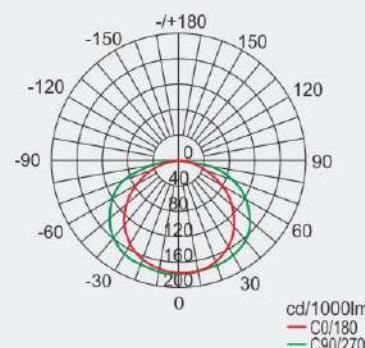
##### BAY51-58x1□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
58 x 1	5000lm	66%



##### BAY51-58x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
58 x 2	10000lm	65%



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

## Light Fittings for Fluorescent Lamp

### BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

#### Technical data

##### Explosion-proof light fittings with LED tubes BAY51-LED□ x □□

###### Explosion protection

Global (IECEx)

Gas and dust

Europe (ATEX)

Gas and dust

IECEx CQM 12.0005X

Ex d IIC T6 Gb

Ex tb IIIC T80°C Db IP66

EPT 15 ATEX 2287X

Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP66

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-31

LCIE 11 ATEX 3112X

Ex II 2 G Ex d IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP66

###### Certificates

###### Conformity to standards

###### Material

Enclosure

Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Glass tube

Toughened glass, stands 4J impact

LED driver

Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.

Wire guard (optional)

Powder coated carbon steel (white) or stainless steel

External reflector

Powder coated pure aluminium

Exposed fastener

Stainless steel

###### Lamp

Lamp specification

LED module (supplied with the light fittings)

Lamp power (W)

9W x 1, 9W x 2, 18W x 1, 18W x 2, 28W x 1, 28W x 2

≥80

5000K

Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

110~265V AC 50/60Hz

M5 (internal & external earth bolts)

IP66

Certificates	Lamp power (W)	Ambient temperature
EPT 15 ATEX 2287X	9W x 1, 9W x 2, 18W x 1 18W x 2, 28W x 1, 28W x 2	-20°C~+55°C
LCIE 11 ATEX 3112X	9W x 1, 9W x 2 18W x 1, 18W x 2	-40°C~+55°C
IECEx CQM 12.0005X	9W x 1, 9W x 2, 18W x 1, 18W x 2 28W x 1, 28W x 2	-40°C~+55°C -20°C~+55°C

###### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

###### Mounting

Ceiling type, pole type

###### Cable entries

2 x M25 x 1.5 plugs

Single lamp

2 x M25 x 1.5 plugs

Dual lamp

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

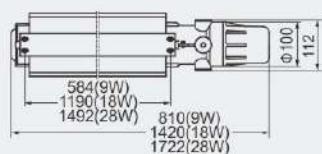
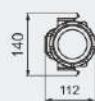
###### Cable gland

#### Selection table

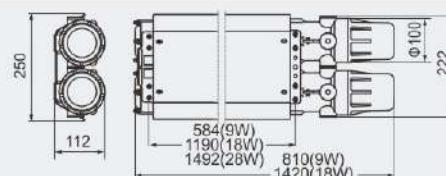
Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-LED 9 x 1X	9 x 1	5.50	BAY51-LED 9 x 2X	9 x 2	9.80
BAY51-LED 9 x 1L	9 x 1	5.90	BAY51-LED 9 x 2L	9 x 2	10.50
BAY51-LED 18 x 1X	18 x 1	8.30	BAY51-LED 18 x 2X	18 x 2	15.70
BAY51-LED 18 x 1L	18 x 1	8.35	BAY51-LED 18 x 2L	18 x 2	16.40
BAY51-LED 28 x 1X	28 x 1	10.00	BAY51-LED 28 x 2X	28 x 2	17.30
BAY51-LED 28 x 1L	28 x 1	10.30	BAY51-LED 28 x 2L	28 x 2	18.30

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/23~24).

#### Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-LED□x1□



BAY51-LED□x2□

# Light Fittings for Fluorescent Lamp

## BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

### Technical data

#### Explosion-proof light fittings with LED tubes BAY51-LED□ x □□J

##### Explosion protection

Global (IECEx) IECEx CQM 14.0051X

Gas and dust Ex d IIC T6 Gb

Europe (ATEX) Ex tb IIIC T80°C Db IP66

EUT 14 ATEX 1885

Ex II 2 G Ex d IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP66

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Glass tube Toughened glass, stands 4J impact

LED driver Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.

Emergency unit Special emergency controller and battery pack, with protection against over-charge and overdischarge

Wire guard (optional) Powder coated carbon steel (white) or stainless steel

External reflector Powder coated pure aluminium

Exposed fastener Stainless steel

##### Lamp

Lamp specification LED module (supplied with the light fittings)

Lamp power (W) 9W x 2, 18W x 2, 28W x 2

≥80

5000K

Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

9W x 30%, 18W x 30%, 28W x 30%

Emergency power (W)

Emergency starting time 0.3s

Charging time 24h

Emergency lighting time 120min (180min is optional)

Rated voltage 110~265V AC 50/60Hz

Earthing protection M5 (internal & external earth bolts)

Degree of protection IP66

Ambient temperature -20°C~+55°C

Terminal 3 x 1.5~4mm<sup>2</sup> (L+N+PE)

Cable entries 4 x M25 x 1.5 plugs

Cable gland(optional) DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

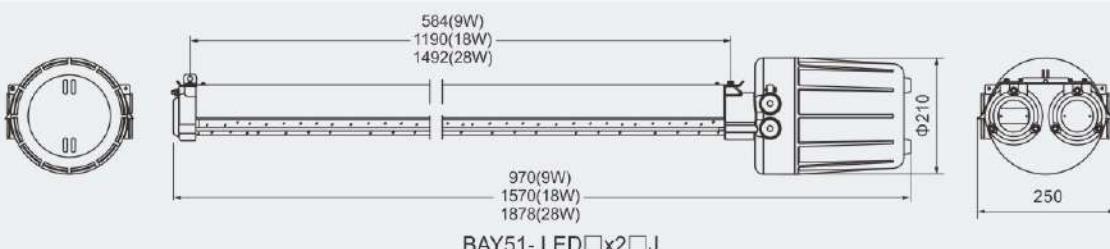


### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-LED 9 x 2XJ	9 x 2	13.70	BAY51-LED 18 x 2XJ	18 x 2	19.40	BAY51-LED 28 x 2XJ	28 x 2	21.40
BAY51-LED 9 x 2LJ	9 x 2	13.80	BAY51-LED 18 x 2LJ	18 x 2	19.50	BAY51-LED 28 x 2LJ	28 x 2	21.50

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/25).

### Dimension drawings (all dimensions in mm) - subject to alteration



## Light Fittings for Fluorescent Lamp

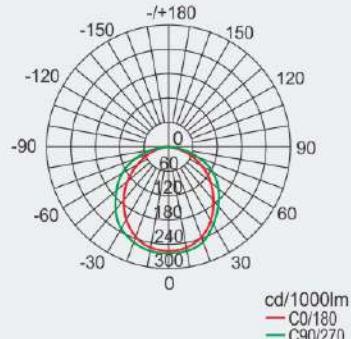
### BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

#### BAY51-LED 9x1□

Lamp power (W)	Luminous flux	Wattage
9 x 1	1000lm	9.5W

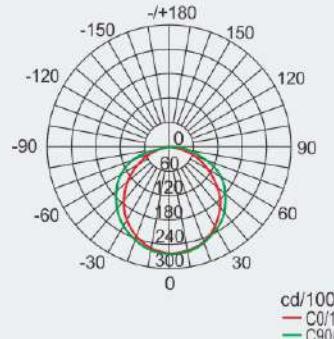
Rated luminous flux (Lamp tube) 9Wx1: 1080lm



#### BAY51-LED 9x2□□

Lamp power (W)	Luminous flux	Wattage
9 x 2	1980lm	19W

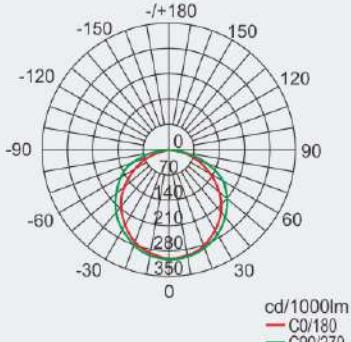
Rated luminous flux (Lamp tube) 9Wx2: 2160lm



#### BAY51-LED 18x1□

Lamp power (W)	Luminous flux	Wattage
18 x 1	1960lm	18.5W

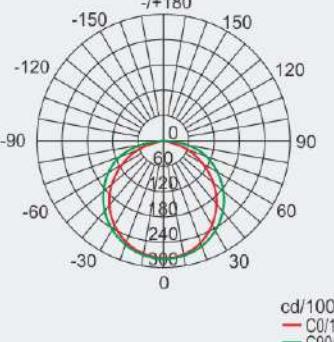
Rated luminous flux (Lamp tube) 18Wx1: 2160lm



#### BAY51-LED 18x2□□

Lamp power (W)	Luminous flux	Wattage
18 x 2	3920lm	37W

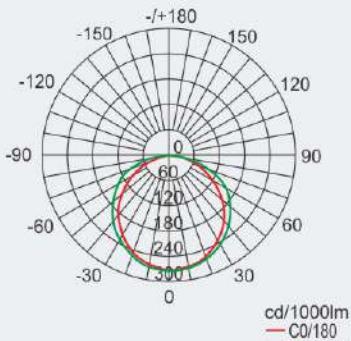
Rated luminous flux (Lamp tube) 18Wx2: 4320lm



#### BAY51-LED 28x1□

Lamp power (W)	Luminous flux	Wattage
28 x 1	2985lm	29W

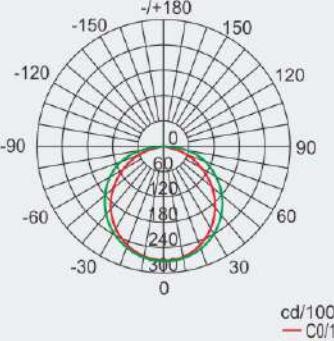
Rated luminous flux (Lamp tube) 28Wx1: 3360lm



#### BAY51-LED 28x2□□

Lamp power (W)	Luminous flux	Wattage
28 x 2	5606lm	56W

Rated luminous flux (Lamp tube) 28Wx2: 6720lm



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

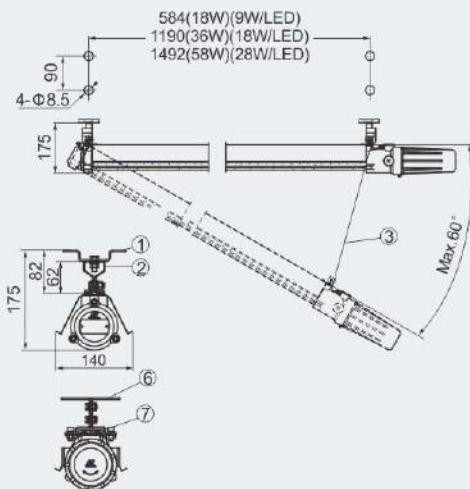
# Light Fittings for Fluorescent Lamp

## BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

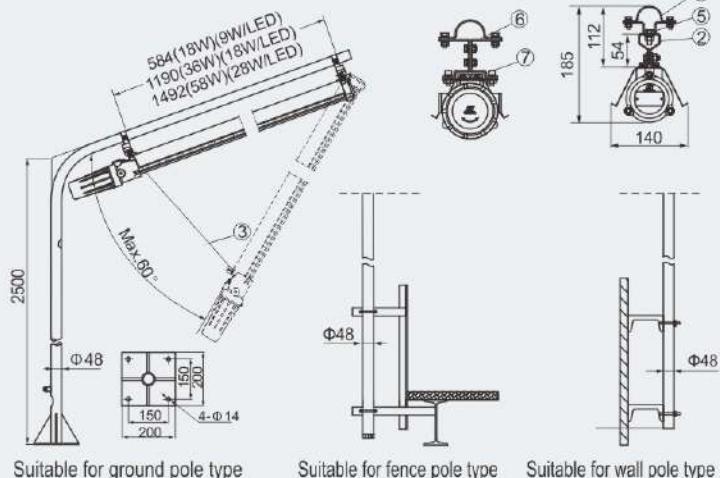
### Mounting type for light fittings with single lamp tube (all dimensions in mm) - subject to alteration

#### Installation reference

X: ceiling type



L: pole type (the pole is provided by user)



### Mounting Accessories & Spare Parts Table (light fittings with single lamp tube)

Supplied according to the mounting type

Mounting type	Name	Qty	Illustration	Ordering code	Weight (kg)
X: ceiling type	①. Mounting bracket	1		5136030	0.07
	②. Connector	1		51S01X1	0.04
	③. Steel wire rope (with hook)	1	Stainless steel, length: 0.7m (18W, 9WLED), 1.3m (36W, 18WLED), 1.6m (58W, 28WLED)	51S01X2	0.30~0.50
	⑥. Mounting bracket	2		5136041	0.08
	⑦. Mounting bracket	1		5136042	0.08
L: pole type	④. G1 1/2" Pipe clamp	2		5136014	0.04
	⑤. Mounting bracket	2		5136012	0.04
	②. Connector	2	Stainless steel, same as ceiling type	51S01X1	0.04
	③. Steel wire rope (with hook)	1	Stainless steel, same as ceiling type	51S01X2	0.30~0.50
	⑥. Mounting bracket	2	Stainless steel, same as ceiling type	5136041	0.08
	⑦. Mounting bracket	1	Stainless steel, same as ceiling type	5136042	0.08

**Note:** Accessories not in the table shall be supplied by user.



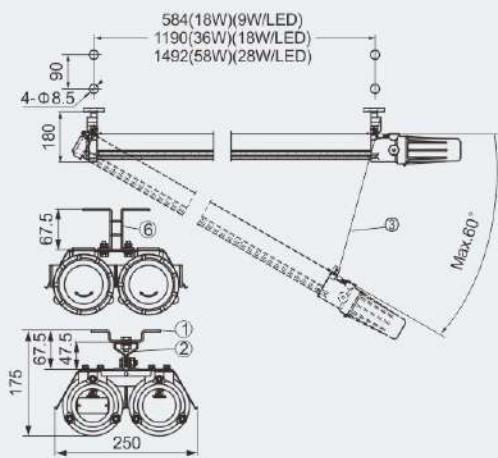
## Light Fittings for Fluorescent Lamp

### BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

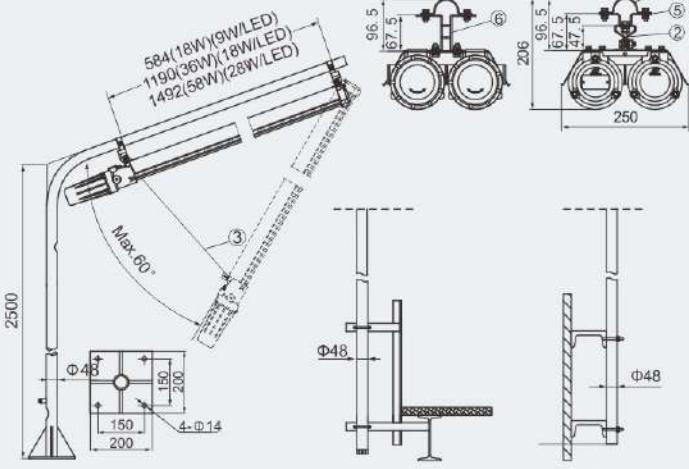
#### Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

##### Installation reference

X: ceiling type



L: pole type (the pole is provided by user)



Suitable for ground pole type

Suitable for fence pole type

Suitable for wall pole type

#### Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

##### Supplied according to the mounting type

Mounting type	Name	Qty	Accessories	Ordering code	Weight (kg)
X: ceiling type	①.Mounting bracket	1		5136030	0.07
	②.Connector	1		51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, length: 0.7m (18W, 9WLED), 1.3m (36W, 18WLED), 1.6m (58W, 28WLED)	51S01X2	0.30~0.50
	⑥.Mounting bracket	1		51D01X3	0.13
L: pole type	④.G1 1/2" Pipe clamp	2		5136014	0.04
	⑤.Mounting bracket	1		5136012	0.04
	②.Connector	2	Stainless steel, same as ceiling type	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, same as ceiling type	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	Stainless steel, same as ceiling type	51D01X3	0.13

Note: Accessories not in the table shall be supplied by user.

# Light Fittings for Fluorescent Lamp

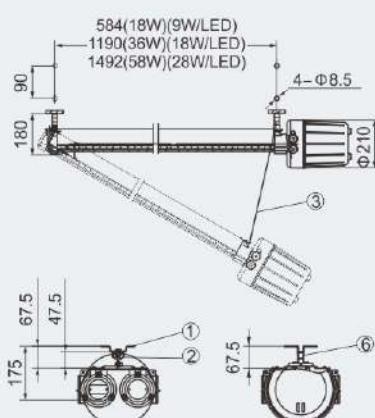
## BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

### Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

#### Installation reference

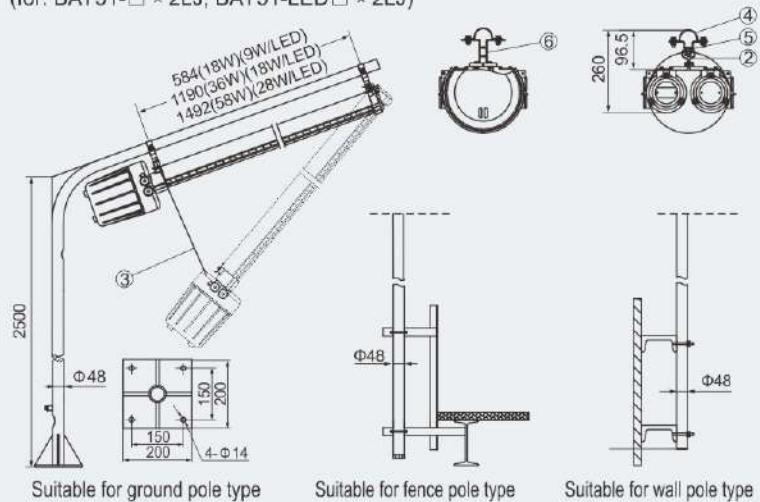
X: ceiling type

(for: BAY51-□ × 2XJ; BAY51-LED□ × 2XJ)



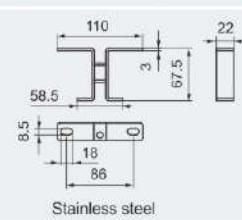
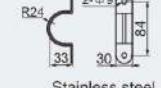
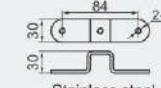
L: pole type (the pole is provided by user)

(for: BAY51-□ × 2LJ; BAY51-LED□ × 2LJ)



### Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	1	 Stainless steel	5136030	0.07
	②.Connector	1	 Stainless steel	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, length: 0.7m (18W, 9WLED), 1.3m (36W, 18WLED), 1.6m (58W, 28WLED)	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	 Stainless steel	51D01X3	0.13
L: pole type	④.G1 1/2" Pipe clamp	2	 Stainless steel	5136014	0.04
	⑤.Mounting bracket	1	 Stainless steel	5136012	0.04
	②.Connector	2	Stainless steel, same as ceiling type	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, same as ceiling type	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	Stainless steel, same as ceiling type	51D01X3	0.13

**Note:** Accessories not in the table shall be supplied by user.

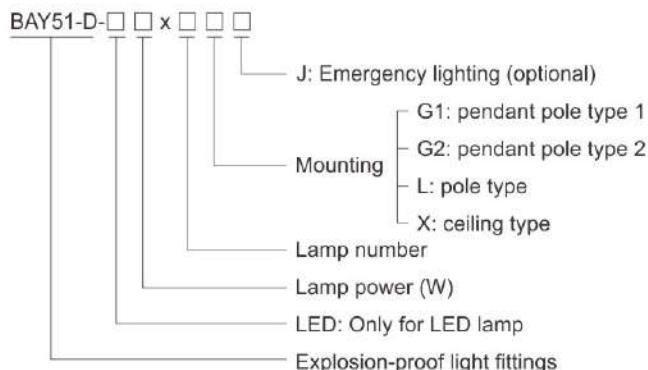


## Light Fittings for Fluorescent Lamp BAY51-D Series Explosion-proof Light Fittings

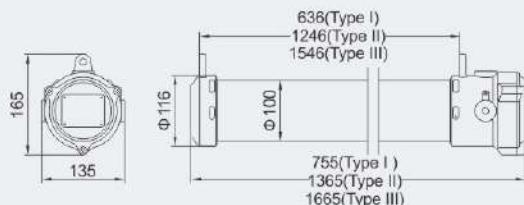


- ◆ Explosion Protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Three enclosure types: Type I, Type II and Type III
  - Available lamp and power
  - Type I: T8 18W x 2, LED 9W x 2
  - Type II: T8 36W x 2, LED 18W x 2
  - Type III: T8 58W x 2, LED 28W x 2
- ◆ The glass tube stands 4J impact.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor  $\geq 0.95$ .
- ◆ Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
- ◆ End of lamp life (EOL) rectification effect protection.
- ◆ Emergency functions are available on request.

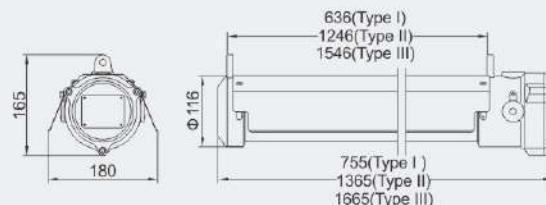
### Catalogue number logic



### Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-D-□□x2□  
Without external reflector



BAY51-D-□□x2□  
With external reflector

**Zones 1&2; 21&22**

# Light Fittings for Fluorescent Lamp

## BAY51-D Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings BAY51-D-□ x □□□

##### Explosion protection

Global (IECEx)	IECEx CQM 16.0023X
Gas and dust	Ex db IIB T6 Gb Ex db IIB+H <sub>2</sub> T6 Gb Ex tb IIIC T80°C Db IP66
Europe (ATEX)	TÜV CY 21 ATEX 0206465X
Gas and dust	Ex II 2 G Ex db IIB T6 Gb Ex II 2 G Ex db IIB+H <sub>2</sub> T6 Gb Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
Emergency unit	Special emergency controller and battery pack, with protection against overcharge and overdischarge
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector (optional)	Powder coated pure aluminium
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	T8 fluorescent lamp (supplied with the light fittings)
Lamp power (W)	18Wx2, 36Wx2, 58Wx2

##### Rated voltage

100-305V AC 50/60Hz
---------------------

##### Earthing protection

M5 (internal & external earth bolts)
--------------------------------------

##### Degree of protection

IP66
------

##### Ambient temperature

Ex db IIB+H <sub>2</sub> T6 Gb for Tamb: -20°C~+55°C
Ex db IIB T6 Gb for Tamb: -60°C~+55°C
Ex tb IIIC T80°C Db IP66 for Tamb: -60°C~+55°C
Ex II 2 G Ex db IIB+H <sub>2</sub> T6 Gb for Tamb: -20°C~+55°C
Ex II 2 G Ex db IIB T6 Gb for Tamb: -60°C~+55°C

Ex II 2 D Ex tb IIIC T80°C Db for Tamb: -60°C~+55°C
---

3 x 1.5~4mm <sup>2</sup> (L+N+PE)
-----------------------------------

2 x M25 x 1.5 plugs (M20 x 1.5 plugs is optional)
---

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22-31
---

##### Terminal

##### Cable entries

##### Cable gland(optional)

##### Emergency data

Emergency unit
----------------

Emergency power (W)	Special emergency controller and battery pile, with protection against overcharge and overdischarge
Emergency starting time	36W x 30%, 58W x 30%
Charging time	0.3s
Emergency lighting time	24h

Emergency lighting time	120min (180min is optional)
-------------------------	-----------------------------



### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-D-18 x 2G1	18x2	5.85	BAY51-D-36 x 2G1	36x2	8.45	BAY51-D-58 x 2G1	58x2	9.72
BAY51-D-18 x 2G2	18x2	7.00	BAY51-D-36 x 2G2	36x2	9.63	BAY51-D-58 x 2G2	58x2	10.90
BAY51-D-18 x 2X	18x2	5.52	BAY51-D-36 x 2X	36x2	8.13	BAY51-D-58 x 2X	58x2	9.40
BAY51-D-18 x 2L	18x2	5.64	BAY51-D-36 x 2L	36x2	8.25	BAY51-D-58 x 2L	58x2	9.52
			BAY51-D-36 x 2G1J	36x2	12.35	BAY51-D-58 x 2G1J	58x2	13.60
			BAY51-D-36 x 2G2J	36x2	13.35	BAY51-D-58 x 2G2J	58x2	14.85
			BAY51-D-36 x 2XJ	36x2	12.05	BAY51-D-58 x 2XJ	58x2	13.30
			BAY51-D-36 x 2LJ	36x2	12.15	BAY51-D-58 x 2LJ	58x2	13.40

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/31).

2. The light fittings are supplied without wire guard and external reflector. Please specify when ordering.

## Light Fittings for Fluorescent Lamp

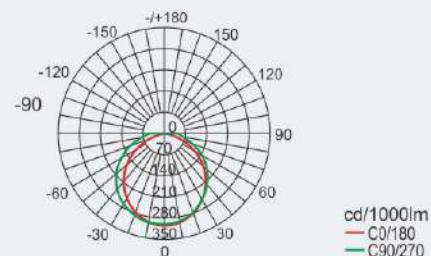
### BAY51-D Series Explosion-proof Light Fittings

#### Photometric data

##### BAY51-D-18x2□、BAY51-D-14x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 18 x 2	2600lm	65%

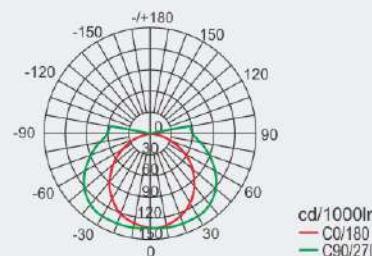
(with external reflector)



##### BAY51-D-18x2□、BAY51-D-14x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 18 x 2	2600lm	65%

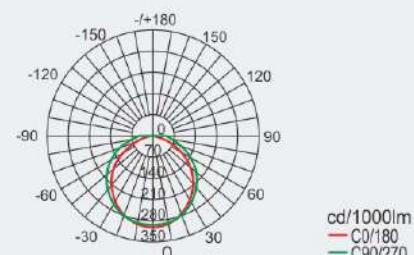
(without external reflector)



##### BAY51-D-36x2□□、BAY51-D-28x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 36 x 2	6500lm	65%

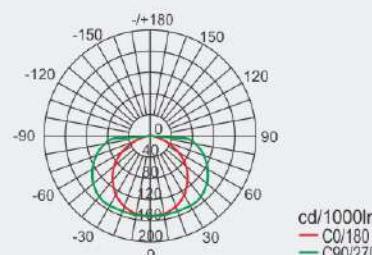
(with external reflector)



##### BAY51-D-36x2□□、BAY51-D-28x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 36 x 2	6500lm	65%

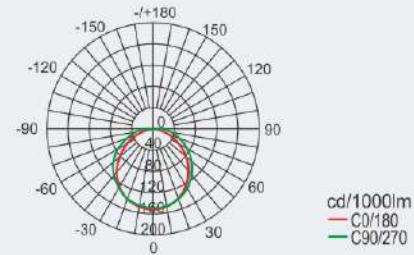
(without external reflector)



##### BAY51-D-58x2□□、BAY51-D-35x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 58 x 2	10000lm	65%

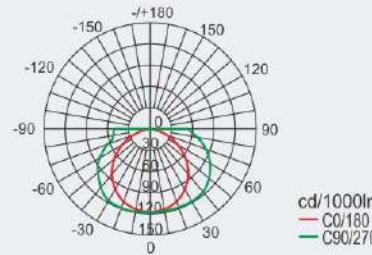
(with external reflector)



##### BAY51-D-58x2□□、BAY51-D-35x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 58 x 2	10000lm	65%

(without external reflector)



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Light Fittings for Fluorescent Lamp

## BAY51-D Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings BAY51-D-□□ x □□□

##### Explosion protection

Global (IECEx)	IECEx CQM 16.0023X
Gas and dust	Ex db IIB T6 Gb Ex db IIB+H <sub>2</sub> T6 Gb Ex tb IIIC T80°C Db IP66
Europe (ATEX)	TÜV CY 21 ATEX 0206465X
Gas and dust	Ex II 2 G Ex db IIB T6 Gb Ex II 2 G Ex db IIB+H <sub>2</sub> T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
	IECEx; ATEX; CU-TR

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector (optional)	Powder coated pure aluminium
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	LED: 9Wx2, 18Wx2, 28Wx2
Colour rendering index (Ra)	LED: ≥80
LED Colour temperature (CCT)	5000K
	Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

##### Cable entries

##### Cable gland(optional)

##### Emergency data

##### Emergency unit

##### Emergency power (W)

##### Emergency starting time

##### Charging time

##### Emergency lighting time



### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-D-LED 9 x 2G1	9x2	5.75	BAY51-D-LED 18 x 2G1	18x2	8.35	BAY51-D-LED 28 x 2G1	28x2	9.62
BAY51-D-LED 9 x 2G2	9x2	6.90	BAY51-D-LED 18 x 2G2	18x2	9.53	BAY51-D-LED 28 x 2G2	28x2	10.80
BAY51-D-LED 9 x 2X	9x2	5.42	BAY51-D-LED 18 x 2X	18x2	8.03	BAY51-D-LED 28 x 2X	28x2	9.30
BAY51-D-LED 9 x 2L	9x2	5.54	BAY51-D-LED 18 x 2L	18x2	8.15	BAY51-D-LED 28 x 2L	28x2	9.42
			BAY51-D-LED 18 x 2G1J	18x2	12.50	BAY51-D-LED 28 x 2G1J	28x2	13.72
			BAY51-D-LED 18 x 2G2J	18x2	13.23	BAY51-D-LED 28 x 2G2J	28x2	14.50
			BAY51-D-LED 18 x 2XJ	18x2	11.73	BAY51-D-LED 28 x 2XJ	28x2	13.40
			BAY51-D-LED 18 x 2LJ	18x2	11.85	BAY51-D-LED 28 x 2LJ	28x2	13.52

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/31).

2. The light fittings are supplied without wire guard and external reflector. Please specify when ordering.

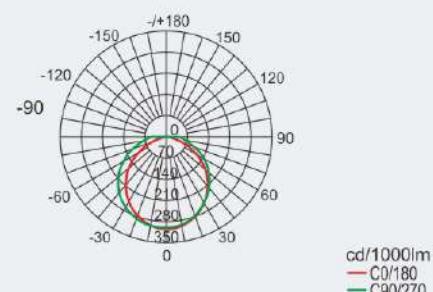
## Light Fittings for Fluorescent Lamp BAY51-D Series Explosion-proof Light Fittings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

### BAY51-D-LED 9x2□

Lamp power (W)	Luminous flux	Wattage
LED 9 x 2	1999lm	19W

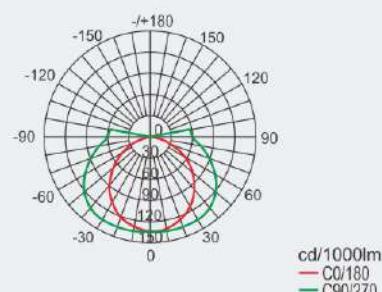
(with external reflector)



### BAY51-D-LED 9x2□

Lamp power (W)	Luminous flux	Wattage
LED 9 x 2	1999lm	19W

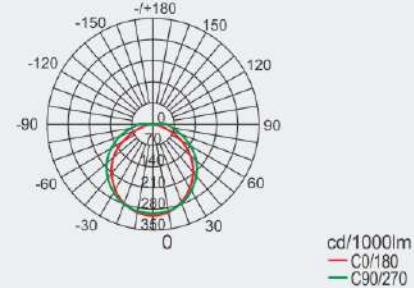
(without external reflector)



### BAY51-D-LED 18x2□□

Lamp power (W)	Luminous flux	Wattage
LED 18 x 2	3920lm	36W

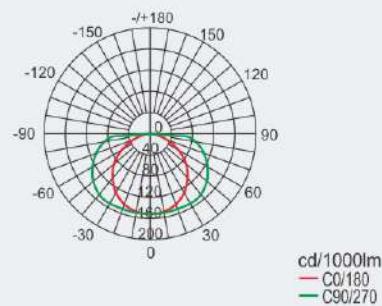
(with external reflector)



### BAY51-D-LED 18x2□□

Lamp power (W)	Luminous flux	Wattage
LED 18 x 2	3920lm	36W

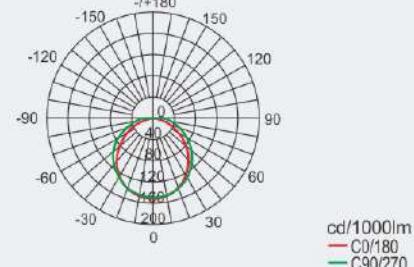
(without external reflector)



### BAY51-D-LED 28x2□□

Lamp power (W)	Luminous flux	Wattage
LED 28 x 2	5900lm	56W

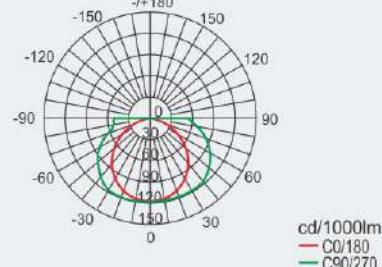
(with external reflector)



### BAY51-D-LED 28x2□□

Lamp power (W)	Luminous flux	Wattage
LED 28 x 2	5900lm	56W

(without external reflector)



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

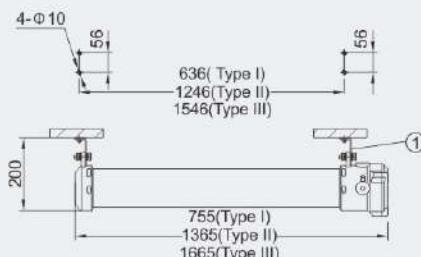
# Light Fittings for Fluorescent Lamp

## BAY51-D Series Explosion-proof Light Fittings

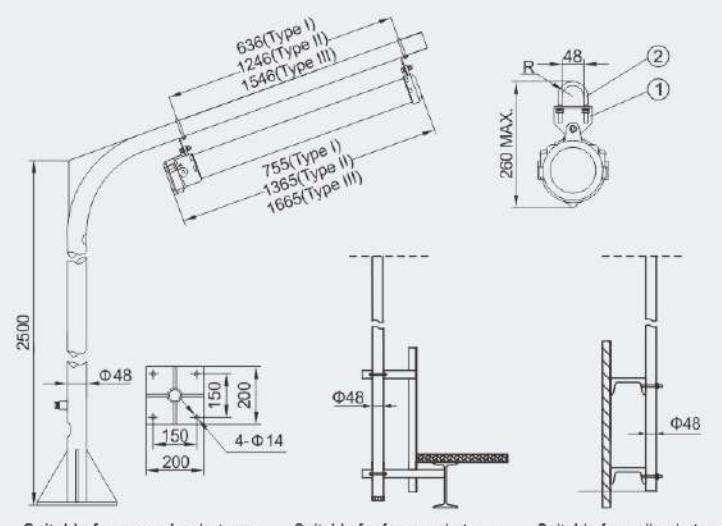
### Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

#### Installation reference

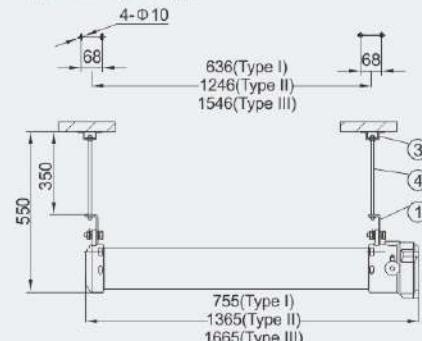
X: ceiling type



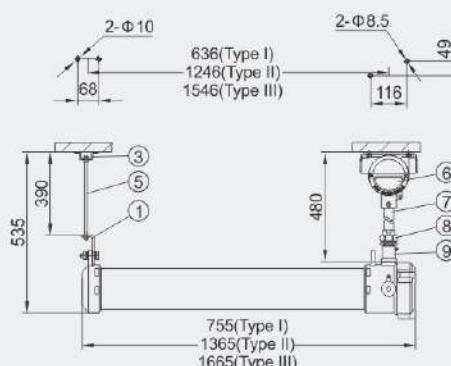
L: pole type (the pole is provided by user)



G1: pendant pole type 1



G2: pendant pole type 2



### Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight(kg)
	Name	Qty	Illustration		
X: ceiling type	① Mounting plate	2	Stainless steel	51DX01	0.25
L: pole type	① Mounting plate	2	Stainless steel	51DX01	0.25
	② U type pipe clamp	2	Stainless steel	51L01	0.15
G1: pendant pole type 1	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	2	Stainless steel	51S01G1	0.04
	④ M8 screw	2	Stainless steel, length: 350mm	51S01G2	0.12
G2: pendant pole type 2	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	1	Stainless steel	51S01G1	0.04
	⑤ M8 screw	1	Stainless steel, length: 390mm	51S01G3	0.15
	⑥ BHD51 Explosion-proof junction box	1	Copper-free Aluminium Alloy (Ex d IIC)	BHD51-F	0.80
	⑦ Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑧ BGJ-III Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	81D03	0.26
	⑨ Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	51G201	0.22

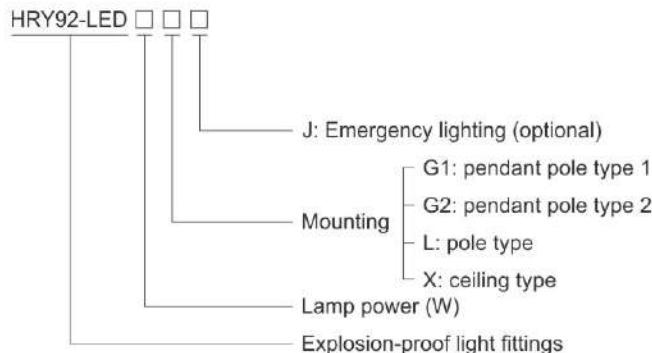
Note: Accessories not in the table shall be supplied by user.

## Light Fittings for Fluorescent Lamp HRY92-LED Series Explosion-proof Light Fittings



- ◆ Explosion Protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Two enclosure types: Type I and Type II
  - Available lamp and power
  - Type I: 20W, 40W
  - Type II: 60W, 40W with emergency, 60W with emergency
- ◆ The glass tube stands 4J impact.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
- ◆ Emergency functions are available on request.

### ■ Catalogue number logic



**Zones 1&2; 21&22**

# Light Fittings for Fluorescent Lamp

## HRY92-LED Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings HRY92-LED □□□

<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 24.0040X
Gas and dust	Ex db IIB T6 Gb Ex db IIB+H <sub>2</sub> T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db IIB T6 Gb Ex II 2 G Ex db IIB+H <sub>2</sub> T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31, IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector (optional)	Powder coated pure aluminium
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp specification	LED SMT (supplied with the light fittings)
Lamp power (W)	20W, 40W, 60W
Colour rendering index (Ra)	≥80
LED Colour temperature (CCT)	5000K Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.
100-277V AC 50/60Hz	
Earthing protection	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
Ambient temperature	IIB/IIIC for Tamb: -60°C~+55°C IIB+H <sub>2</sub> for Tamb: -20°C~+55°C
<b>Terminal</b>	
Cable entries	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
Cable gland(optional)	2 x M25 x 1.5 plugs
<b>Emergency data</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
Emergency unit	Special emergency controller and battery pile, with protection against overcharge and overdischarge
Emergency power (W)	40W x 30%, 60W x 30%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRY92-LED 20G1	20	5.75	HRY92-LED 40G1	40	5.80	HRY92-LED 60G1	60	8.35
HRY92-LED 20G2	20	6.90	HRY92-LED 40G2	40	6.95	HRY92-LED 60G2	60	9.53
HRY92-LED 20GX	20	5.42	HRY92-LED 40GX	40	5.47	HRY92-LED 60GX	60	8.03
HRY92-LED 20GL	20	5.54	HRY92-LED 40GL	40	5.59	HRY92-LED 60GL	60	8.15
			HRY92-LED 40G1J	40	6.60	HRY92-LED 60G1J	60	9.15
			HRY92-LED 40G2J	40	7.75	HRY92-LED 60G2J	60	10.33
			HRY92-LED 40GXJ	40	6.27	HRY92-LED 60GXJ	60	8.83
			HRY92-LED 40GLJ	40	6.39	HRY92-LED 60GLJ	60	8.95

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/35).

2. The light fittings are supplied without wire guard and external reflector. Please specify when ordering.

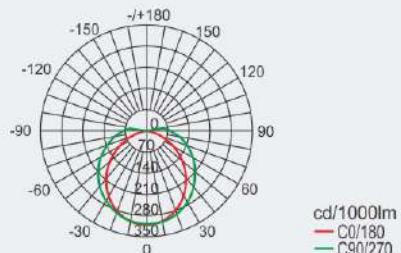


## Light Fittings for Fluorescent Lamp HRY92-LED Series Explosion-proof Light Fittings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

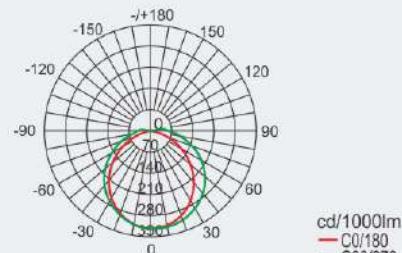
### HRY92-LED 20□□ (without external reflector)

Lamp power (W)	Luminous flux	Wattage
LED 20	2600lm	21W



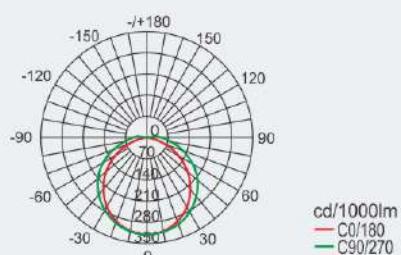
### HRY92-LED 40□□ (without external reflector)

Lamp power (W)	Luminous flux	Wattage
LED 40	5300lm	41W



### HRY92-LED 60□□ (without external reflector)

Lamp power (W)	Luminous flux	Wattage
LED 60	7500lm	58W

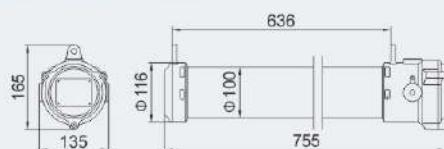


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.



### Dimension drawings (all dimensions in mm) - subject to alteration

#### Without external reflector

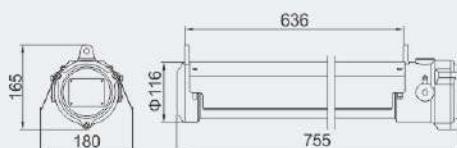


HRY92-LED20□  
HRY92-LED40□



HRY92-LED40□J  
HRY92-LED60□  
HRY92-LED60□J

#### With external reflector



HRY92-LED20□  
HRY92-LED40□



HRY92-LED40□J  
HRY92-LED60□  
HRY92-LED60□J

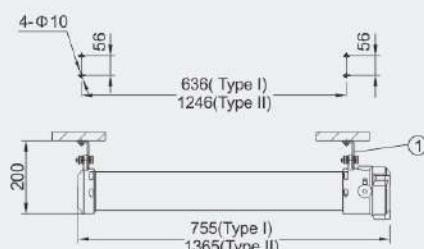
# Light Fittings for Fluorescent Lamp

## HRY92-LED Series Explosion-proof Light Fittings

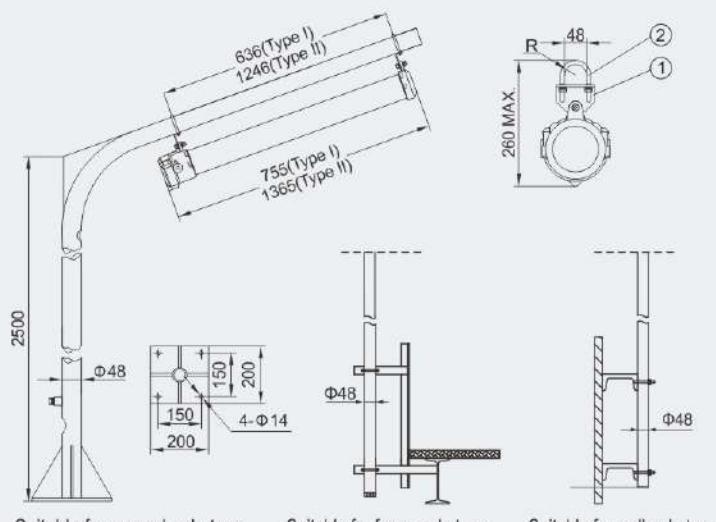
### Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

Installation reference

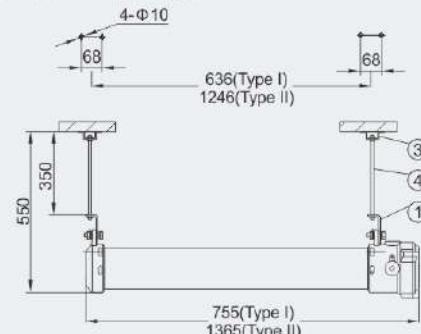
X: ceiling type



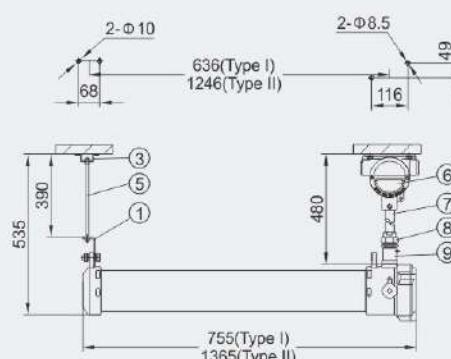
L: pole type (the pole is provided by user)



G1: pendant pole type 1



G2: pendant pole type 2



### Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight(kg)
	Name	Qty	Illustration		
X: ceiling type	① Mounting plate	2	Stainless steel	51DX01	0.25
L: pole type	① Mounting plate	2	Stainless steel	51DX01	0.25
	② U type pipe clamp	2	Stainless steel	51L01	0.15
G1: pendant pole type 1	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	2	Stainless steel	51S01G1	0.04
	④ M8 screw	2	Stainless steel, length: 350mm	51S01G2	0.12
G2: pendant pole type 2	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	1	Stainless steel	51S01G1	0.04
	⑤ M8 screw	1	Stainless steel, length: 390mm	51S01G3	0.15
	⑥ BHD51 Explosion-proof junction box	1	Copper-free Aluminium Alloy (Ex d IIC)	BHD51-F	0.80
	⑦ Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑧ BGJ-III Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	81D03	0.26
	⑨ Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	51G201	0.22

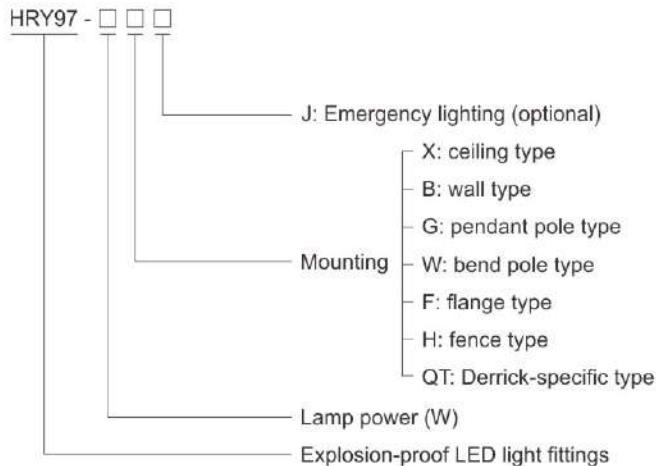
Note: Accessories not in the table shall be supplied by user.

## Light Fittings for Fluorescent Lamp HY97 Series Explosion-proof LED Light Fittings



- ◆ Explosion Protection to
    - CENELEC
    - IEC
    - NEC
  - ◆ Can be used in
    - Zone 1 and Zone 2
    - Zone 21 and Zone 22
    - Class I, Zone 1 and Zone 2
    - Class I, Division 1, Groups B, C, D
  - ◆ Three enclosure types: Type I, Type II and Type III
    - Available lamp and power
      - Type I: 20W
      - Type II: 40W, 20W with emergency, 40W with emergency
      - Type III: 60W, 60W with emergency
    - Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
    - Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
    - The lamps can be equipped with emergency device. There are two options for emergency duration: 90min and 180min. Standard configuration is 90min.

## ■ Catalogue number logic



**Dimension drawings** (all dimensions in mm) - subject to alteration



## Zones 1&2; 21&22

# Light Fittings for Fluorescent Lamp

## HRY97 Series Explosion-proof LED Light Fittings

### Technical data

#### Explosion-proof LED light fittings HRY97-□□□

##### Explosion protection

Global (IECEx)	IECEx CQM 24.0001X
Gas and dust	Ex db eb mb IIC T5/T4 Gb <sup>1)</sup> Ex tb IIIC T70°C/T90°C Db <sup>1)</sup>
Europe (ATEX)	TÜV CY 25 ATEX 0207222 X
Gas and dust	Ex II 2 G Ex db eb mb IIC T5/T4 Gb <sup>1)</sup> Ex II 2 D Ex tb IIIC T70°C/T90°C Db <sup>1)</sup>

<sup>1)</sup> See Selection Table

IECEx; ATEX

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31,  
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Diffuser	Polycarbonate, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	20W, 40W, 60W
Colour rendering index (Ra)	≥80
LED Colour temperature (CCT)	5000K
	Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

100-277V AC 50/60Hz 130~250V DC

M4 (internal & external earth bolts)

IP66

-40°C~+60°C(+58°C)(+40°C)<sup>1)</sup>

<sup>1)</sup> See Selection Table

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

2 x M25 x 1.5 plugs

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

##### Cable entries

##### Emergency data

Emergency unit

Special emergency controller and battery pack, with protection against  
overcharge and overdischarge

20W x 70%, 40W x 35%, 60W x 23%

0.3s

24h

Emergency lighting time

90min (180min is optional)

Battery

Ni-CD (Ni-MH is optional)



### Configuration table for lighting fixtures with emergency features

Model	Lamp power	Emergency lighting time	Battery type	Enclosure type
HRY97-20□J	20W	90min	Ni-CD	Type II
HRY97-40□J	40W	90min	Ni-CD	Type II
HRY97-60□J	60W	90min	Ni-CD	Type III
HRY97-20□J	20W	180min	Ni-CD	Type III
HRY97-40□J	40W	180min	Ni-CD	Type III
HRY97-60□J	60W	180min	Ni-CD	Type III
HRY97-20□J	20W	90min	Ni-MH	Type II
HRY97-40□J	40W	90min	Ni-MH	Type II
HRY97-60□J	60W	90min	Ni-MH	Type III
HRY97-20□J	20W	180min	Ni-MH	Type II
HRY97-40□J	40W	180min	Ni-MH	Type II
HRY97-60□J	60W	180min	Ni-MH	Type III

## Light Fittings for Fluorescent Lamp

### HRY97 Series Explosion-proof LED Light Fittings

#### Selection table

Rated power(W)	Temperature classification					
	For non-emergency type				For emergency type	
	-40°C ≤ Ta ≤ +40°C	-40°C ≤ Ta ≤ +60°C	-40°C ≤ Ta ≤ +58°C	Dust	Gas	Dust
20, 40, 60	T5	T70°C	T4	T70°C	T4	T90°C

#### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRY97-20X	20	2.90	HRY97-40X	40	4.70	HRY97-60X	60	5.50
HRY97-20G	20	3.90	HRY97-40G	40	5.70	HRY97-60G	60	6.50
HRY97-20B	20	3.30	HRY97-40B	40	5.10	HRY97-60B	60	5.90
HRY97-20W	20	3.00	HRY97-40W	40	4.80	HRY97-60W	60	5.60
HRY97-20H	20	3.00	HRY97-40H	40	4.80	HRY97-60H	60	5.60
HRY97-20F	20	3.00	HRY97-40F	40	4.80	HRY97-60F	60	5.60
HRY97-20QT	20	3.40	HRY97-40QT	40	5.20	HRY97-60QT	60	6.00
HRY97-20XJ	20	5.70	HRY97-40XJ	40	5.90	HRY97-60XJ	60	6.70
HRY97-20GJ	20	6.70	HRY97-40GJ	40	6.90	HRY97-60GJ	60	7.70
HRY97-20BJ	20	6.10	HRY97-40BJ	40	6.30	HRY97-60BJ	60	7.10
HRY97-20WJ	20	5.80	HRY97-40WJ	40	6.10	HRY97-60WJ	60	6.80
HRY97-20HJ	20	5.80	HRY97-40HJ	40	6.10	HRY97-60HJ	60	6.80
HRY97-20FJ	20	5.80	HRY97-40FJ	40	6.10	HRY97-60FJ	60	6.80
HRY97-20QTJ	20	4.60	HRY97-40QTJ	40	6.40	HRY97-60QTJ	60	7.20

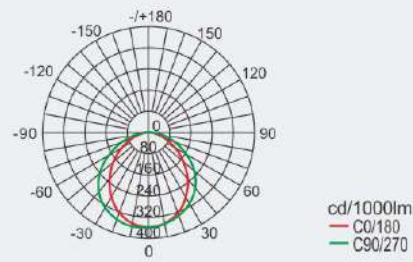
Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/39).

#### Photometric data

Note: LED luminous flux is from the standard product of which colour temperature is 5000K

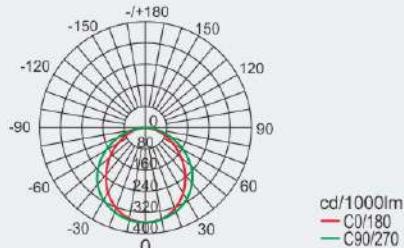
##### HRY97-20□□

Lamp power (W)	Luminous flux	Wattage
LED 20	2500lm	21W



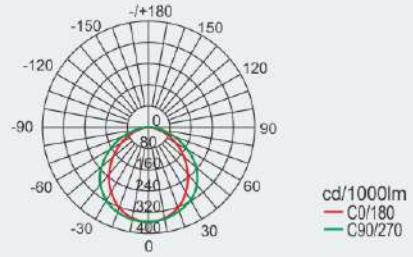
##### HRY97-40□□

Lamp power (W)	Luminous flux	Wattage
LED 40	5300lm	43W



##### HRY97-60□□

Lamp power (W)	Luminous flux	Wattage
LED 60	7000lm	58.6W



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

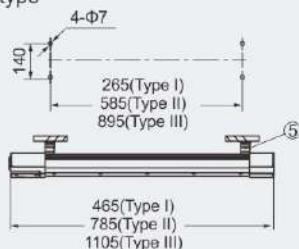
# Light Fittings for Fluorescent Lamp

## HRY97 Series Explosion-proof LED Light Fittings

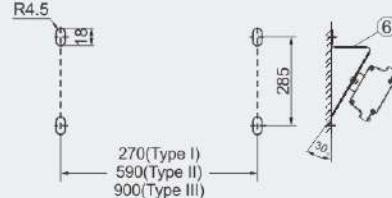
### Mounting type (all dimensions in mm) - subject to alteration

Installation reference

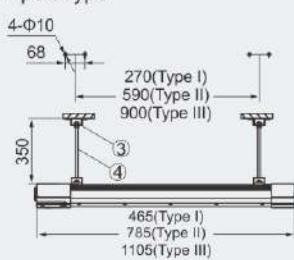
X: ceiling type



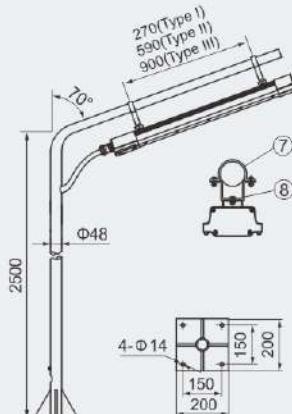
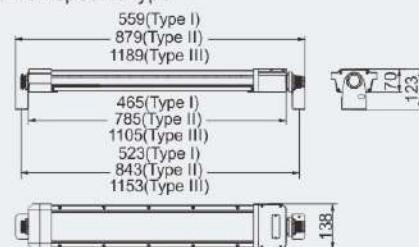
B: wall type



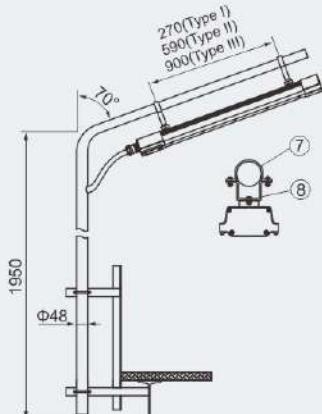
G: pendant pole type



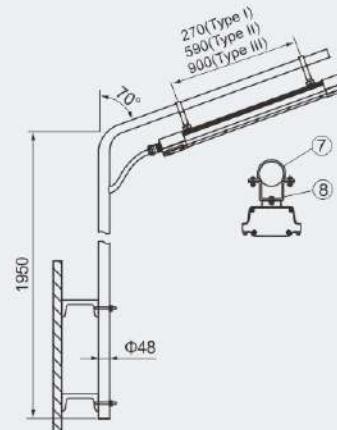
QT: derrick-specific type



F: flange type



H: fence type



W: bend pole type



### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
G: pendant pole type	③.Mounting bracket	2	Stainless steel, see P2/6	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
X: ceiling type	⑤.Mounting bracket	2	Stainless steel	5136015	0.14
B: wall type	⑥.Wall bracket	2	Stainless steel, welded sheet steel	5236B02	0.10
F: flange type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04
H: fence type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04
W: bend pole type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04

**Note:** Accessories not in the table shall be supplied by user.

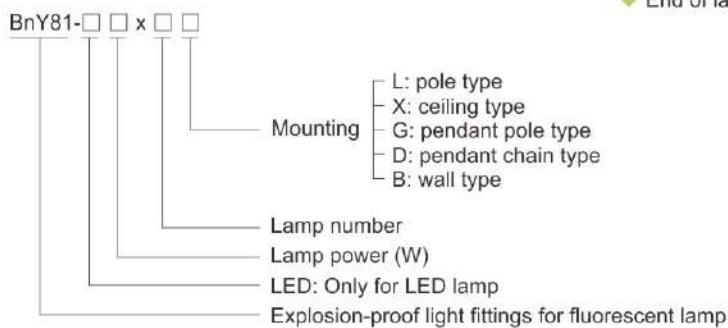
## Light Fittings for Fluorescent Lamp

### BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

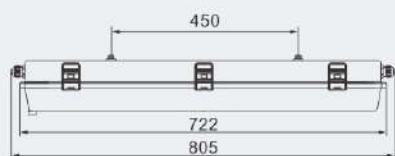


- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Two enclosure types: Type I and Type II
- ◆ Applicable lamp power:
  - Fluorescent lamps: 18W x 1, 36W x 1  
18W x 2, 36W x 2
  - LED lamps: 9W (10W) x 1, 18W(19W) x 1, 28W(25W) x 1  
9W(10W) x 2, 18W(19W) x 2, 28W(25W) x 2
- ◆ Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor  $\geq 0.95$ .
- ◆ LED light fittings: Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
- ◆ End of lamp life (EOL) rectification effect protection.

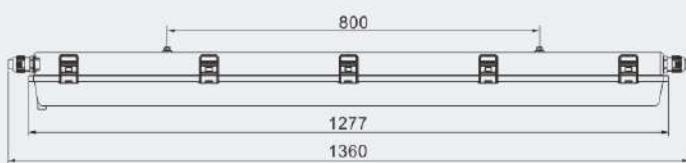
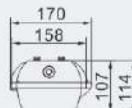
#### Catalogue number logic



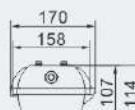
#### Dimension drawings (all dimensions in mm) - subject to alteration



BnY81-18 x 1□; BnY81-18 x 2□;  
BnY81-LED 9 x 1□; BnY81-LED 9 x 2□



BnY81-36 x 1□; BnY81-36 x 2□  
BnY81-LED 18 x 1□; BnY81-LED 18 x 2□; BnY81-LED 28 x 1□; BnY81-LED 28 x 2□



## Zones 2; 21&22

# Light Fittings for Fluorescent Lamp

## BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

### Technical data

#### Explosion-proof light fittings for fluorescent lamp BnY81-□ x □ □

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0046X
Gas and dust	Ex nA IIC T4 Gc
	Ex t IIIC T80°C Db IP66
Europe (ATEX)	LCIE 12 ATEX 1009X (gas); LCIE 12 ATEX 3019X (dust)
Gas and dust	Ex II 3 G Ex nA IIC T4 Gc
	Ex II 2 D Ex t IIIC T80°C Db IP66

##### Certificates

##### Conformity to standards

IECEx; ATEX

EN 60079-0, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-15, IEC 60079-31

##### Material

Enclosure	Polycarbonate, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, high light transmission, stands 7J impact, corrosion-proof
Ballast	Electronic ballast
Exposed fastener	Stainless steel

##### Lamp

Lamp specification T8 tube (supplied with the light fittings)

18W×1	18W×2
36W×1	36W×2

##### Rated voltage

100~300V AC 50/60Hz

##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

Ceiling type, pendant pole type, pendant chain type, wall type, pole type

##### Cable entries

2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic).

##### Available cable outer diameter

Φ9~Φ16(mm);



### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BnY81-18 x 1X	18 x 1	2.25	BnY81-36 x 1X	36 x 1	3.55
BnY81-18 x 1G	18 x 1	2.45	BnY81-36 x 1G	36 x 1	3.75
BnY81-18 x 1D	18 x 1	2.60	BnY81-36 x 1D	36 x 1	3.90
BnY81-18 x 1B	18 x 1	2.60	BnY81-36 x 1B	36 x 1	3.90
BnY81-18 x 1L	18 x 1	2.30	BnY81-36 x 1L	36 x 1	3.60
BnY81-18 x 2X	18 x 2	2.50	BnY81-36 x 2X	36 x 2	3.70
BnY81-18 x 2G	18 x 2	2.70	BnY81-36 x 2G	36 x 2	4.10
BnY81-18 x 2D	18 x 2	2.85	BnY81-36 x 2D	36 x 2	4.25
BnY81-18 x 2B	18 x 2	2.85	BnY81-36 x 2B	36 x 2	4.25
BnY81-18 x 2L	18 x 2	2.55	BnY81-36 x 2L	36 x 2	3.95

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/45).

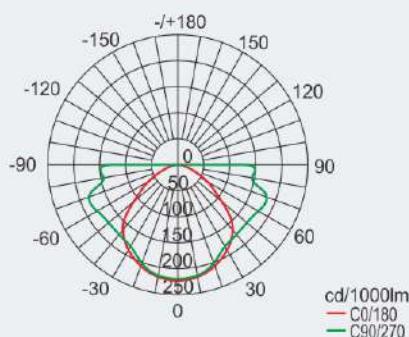
## Light Fittings for Fluorescent Lamp

### BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

#### Photometric data

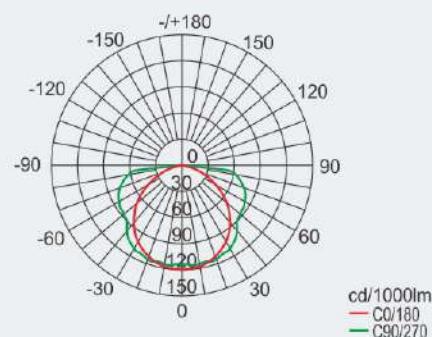
BnY81-18x1□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
18 x 1	1300lm	70%



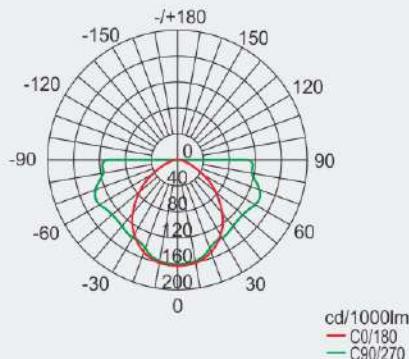
BnY81-18x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
18 x 2	2600lm	65%



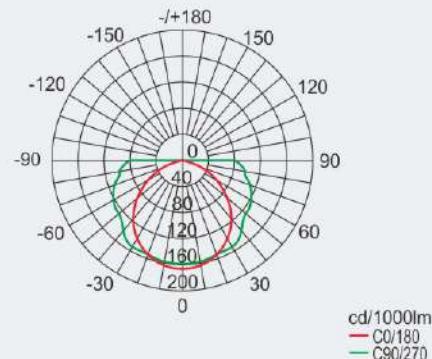
BnY81-36x1□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
36 x 1	3250lm	65%



BnY81-36x2□□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
36 x 2	6500lm	65%



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Light Fittings for Fluorescent Lamp

## BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

### Technical data

#### Explosion-proof light fittings for fluorescent lamp BnY81-LED□×□□

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0046X
Gas and dust	Ex nA IIC T4 Gc Ex t IIIC T80°C Db IP66
Europe (ATEX)	LCIE 12 ATEX 1009X (gas); LCIE 12 ATEX 3019X (dust)
Gas and dust	Ex II 3 G Ex nA IIC T4 Gc Ex II 2 D Ex t IIIC T80°C Db IP66

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Polycarbonate, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, high light transmission, stands 7J impact, corrosion-proof
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.

##### Lamp

Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	9W×1, 9W×2, 18W×1, 18W×2, 28W×1, 28W×2
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5000K Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

##### Rated voltage

110~264V AC 50/60Hz

##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

Ceiling type, pendant pole type, pendant chain type, wall type, pole type

##### Cable entries

2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic).

##### Available cable outer diameter

Φ9~Φ16(mm)



### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BnY81-LED 9 x 1X	9 x 1	2.15	BnY81-LED 18 x 1X	18 x 1	3.60	BnY81-LED 28 x 1X	28 x 1	3.80
BnY81-LED 9 x 1G	9 x 1	2.25	BnY81-LED 18 x 1G	18 x 1	3.80	BnY81-LED 28 x 1G	28 x 1	4.00
BnY81-LED 9 x 1D	9 x 1	2.40	BnY81-LED 18 x 1D	18 x 1	3.95	BnY81-LED 28 x 1D	28 x 1	4.20
BnY81-LED 9 x 1B	9 x 1	2.40	BnY81-LED 18 x 1B	18 x 1	3.95	BnY81-LED 28 x 1B	28 x 1	4.20
BnY81-LED 9 x 1L	9 x 1	2.20	BnY81-LED 18 x 1L	18 x 1	3.65	BnY81-LED 28 x 1L	28 x 1	3.90
BnY81-LED 9 x 2X	9 x 2	2.35	BnY81-LED 18 x 2X	18 x 2	3.95	BnY81-LED 28 x 2X	28 x 2	4.95
BnY81-LED 9 x 2G	9 x 2	2.55	BnY81-LED 18 x 2G	18 x 2	4.15	BnY81-LED 28 x 2G	28 x 2	5.15
BnY81-LED 9 x 2D	9 x 2	2.70	BnY81-LED 18 x 2D	18 x 2	4.30	BnY81-LED 28 x 2D	28 x 2	5.25
BnY81-LED 9 x 2B	9 x 2	2.70	BnY81-LED 18 x 2B	18 x 2	4.30	BnY81-LED 28 x 2B	28 x 2	5.30
BnY81-LED 9 x 2L	9 x 2	2.40	BnY81-LED 18 x 2L	18 x 2	4.00	BnY81-LED 28 x 2L	28 x 2	5.00

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/45).

## Light Fittings for Fluorescent Lamp

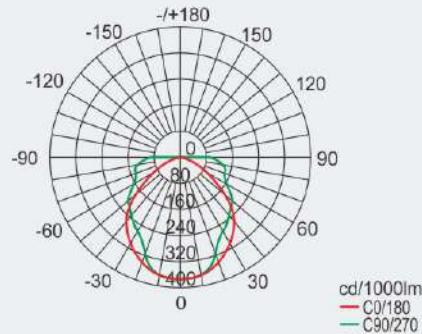
### BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

#### BnY81-LED 9x1□

Lamp power (W)	Luminous flux	Wattage
9 x 1	920lm	9W

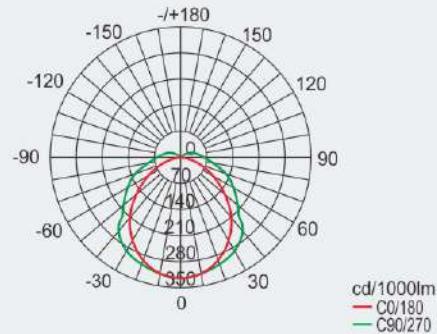
Rated luminous flux (Lamp tube) 9Wx1: 1080lm



#### BnY81-LED 9x2□

Lamp power (W)	Luminous flux	Wattage
9 x 2	1900lm	18.5W

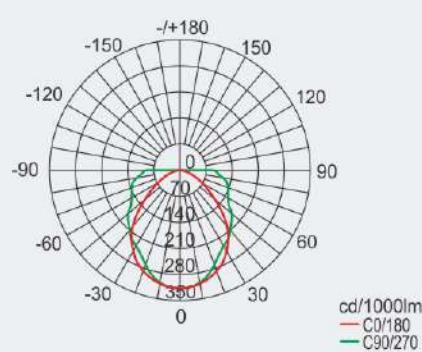
Rated luminous flux (Lamp tube) 9Wx2: 2160lm



#### BnY81-LED 18x1□

Lamp power (W)	Luminous flux	Wattage
18 x 1	1890lm	18W

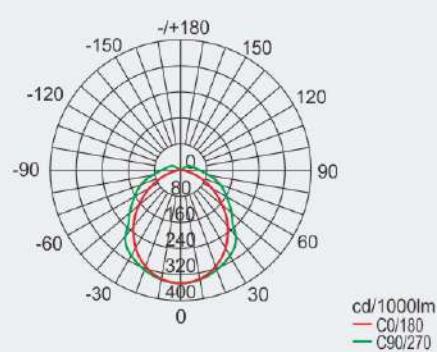
Rated luminous flux (Lamp tube) 18Wx1: 2160lm



#### BnY81-LED 18x2□

Lamp power (W)	Luminous flux	Wattage
18 x 2	3835lm	36.5W

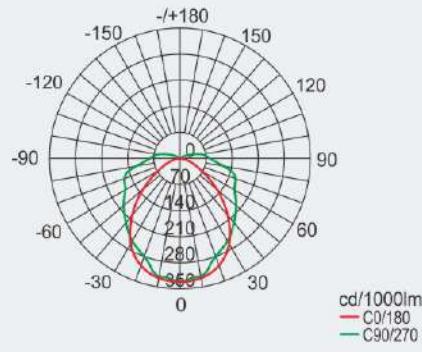
Rated luminous flux (Lamp tube) 18Wx2: 4320lm



#### BnY81-LED 28x1□

Lamp power (W)	Luminous flux	Wattage
28 x 1	2885lm	28W

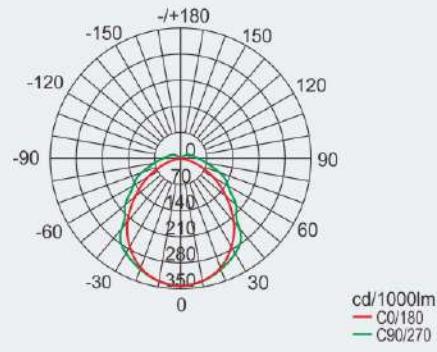
Rated luminous flux (Lamp tube) 28Wx1: 3360lm



#### BnY81-LED 28x2□

Lamp power (W)	Luminous flux	Wattage
28 x 2	5825lm	56W

Rated luminous flux (Lamp tube) 28Wx2: 6720lm



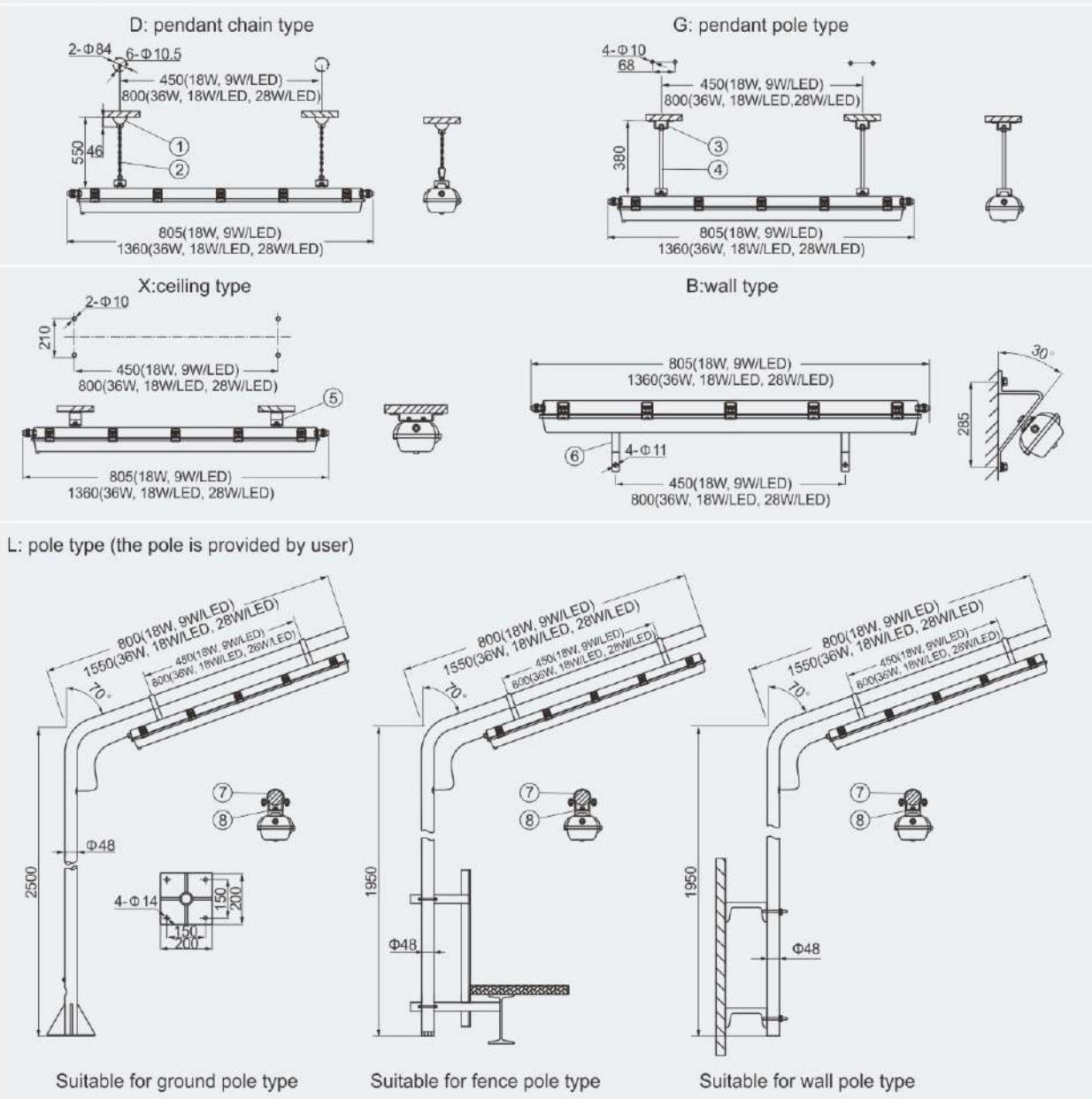
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Light Fittings for Fluorescent Lamp

## BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

### Mounting type (all dimensions in mm) - subject to alteration

#### Installation reference



### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2	See P2/6	5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
G: pendant pole type	③.Mounting bracket	2	Stainless steel, see P2/6	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
X: ceiling type	⑤.Mounting bracket	2	Stainless steel, see P2/7	5136015	0.20
B: wall type	⑥.Wall bracket	2	Stainless steel, welded sheet steel	5236B02	0.25
	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
L: pole type	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04

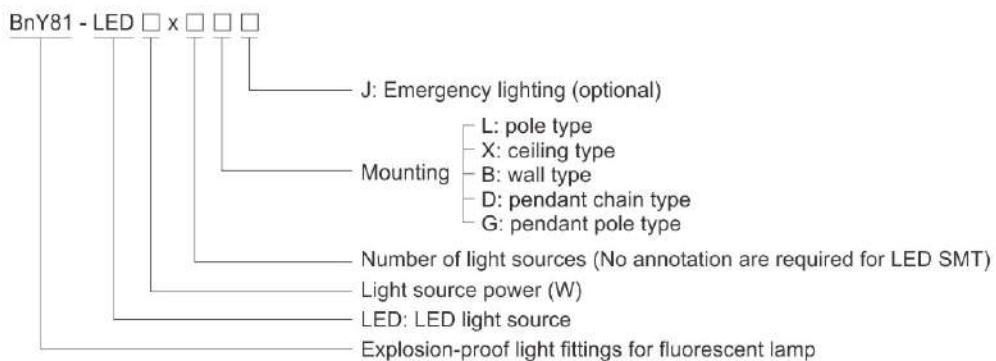
Note: Accessories not in the table shall be supplied by user.

## Light Fittings for Fluorescent Lamp BnY81-LED Series Explosion-proof Light Fittings (ec type)

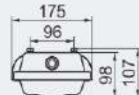
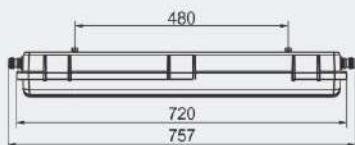


- ◆ Explosion protection to
    - CENELEC
    - IEC
    - NEC
  - ◆ Can be used in
    - Zone 2
    - Zone 21 and Zone 22
    - Class I, Zone 2
    - Class I, Division 2, Groups A, B, C, D
  - ◆ Two enclosure types: Type I and Type II
  - ◆ Applicable lamp power:
    - LED lamp tube: 9W x 2, 14W x 2, 28W x 2
    - LED SMT: 20W, 40W, 60W
  - ◆ LED light fittings: Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
  - ◆ Emergency functions are available on request.

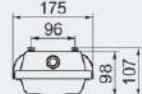
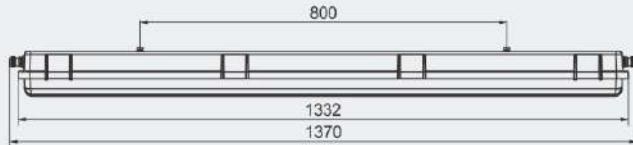
## ■ Catalogue number logic



**Dimension drawings** (all dimensions in mm) - subject to alteration



**Type I:** BnY81-LED 9 x 2□; BnY81-LED 9 x 2□J; BnY81-LED 14 x 2□; BnY81-LED 14 x 2□J;  
BnY81-LED 20□; BnY81-LED 20□J; BnY81-LED 40□



Type II: BnY81-LED 28 x 2□, BnY81-LED 28 x 2□J  
BnY81-LED 40□J, BnY81-LED 60□, BnY81-LED 60□J

Zones 2; 21&22

# Light Fittings for Fluorescent Lamp

## BnY81-LED Series Explosion-proof Light Fittings (ec type)

Technical data	
Explosion-proof light fittings BnY81-LED □ x □□□	
<b>Explosion protection</b>	
Global (IECEx)	IECEx CNE 24.0009X
Gas and dust	Ex ec mb IIC T5/T4 Gc <sup>1)</sup> Ex db ec mb IIC T5/T4 Gc <sup>1)</sup> Ex tb IIIC T80°C Db <sup>1)</sup>
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 3 G Ex ec mb IIC T5/T4 Gc <sup>1)</sup> Ex II 3 G Ex db ec mb IIC T5/T4 Gc <sup>1)</sup> Ex II 2 D Ex tb IIIC T80°C Db <sup>1)</sup>
	<sup>1)</sup> See Selection Table
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31
<b>Material</b>	
Enclosure	GRP, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, high light transmission, stands 7J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp specification	LED lamp tube, LED SMT
Lamp power (W)	LED lamp tube: 9W x 2, 14W x 2, 28W x 2 LED SMT: 20W, 40W, 60W
<b>Rated voltage</b>	100~277V AC 50/60Hz; 130~250V DC
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-40°C~+60°C(+58°C)(+40°C)
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Mounting</b>	Ceiling type, pendant pole type, pendant chain type, wall type, pole type
<b>Cable entries</b>	3 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic)+1 x M25 x 1.5 plug.
<b>Available cable outer diameter</b>	Φ9~Φ16(mm);
<b>Emergency data</b>	
Emergency unit	Special emergency controller and battery pack, with protection against overcharge and overdischarge
Emergency power (W)	9W x 2 x 77%, 14W x 2 x 50%, 28W x 2 x 25% 20W x 70%, 40W x 35%, 60W x 23%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)



Selection table		Temperature classification							
		For non-emergency type				For emergency type			
Rated power(W)		-40°C≤Ta≤+40°C		-40°C≤Ta≤+60°C		-40°C≤Ta≤+40°C		-40°C≤Ta≤+58°C	
		Gas	Dust	Gas	Dust	Gas	Dust	Gas	Dust
9 x 2, 14 x 2, 28 x 2,	T5	T80°C	T4	T80°C	T5	T80°C	T4	T80°C	
20, 40, 60	T5	T80°C	T4	T80°C	T5	T80°C	T4	T80°C	

## Light Fittings for Fluorescent Lamp

### BnY81-LED Series Explosion-proof Light Fittings (ec type)

Selection table

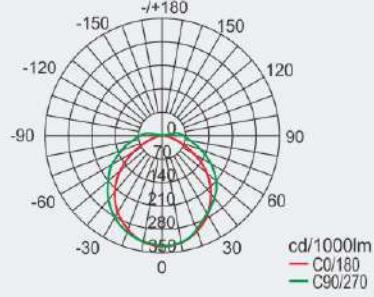
Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BnY81-LED 9 x 2X	9 x 2	3.60	BnY81-LED 14 x 2X	14 x 2	3.60	BnY81-LED 28 x 2X	28 x 2	6.00
BnY81-LED 9 x 2G	9 x 2	4.00	BnY81-LED 14 x 2G	14 x 2	4.00	BnY81-LED 28 x 2G	28 x 2	6.40
BnY81-LED 9 x 2D	9 x 2	3.50	BnY81-LED 14 x 2D	14 x 2	3.40	BnY81-LED 28 x 2D	28 x 2	5.90
BnY81-LED 9 x 2B	9 x 2	4.00	BnY81-LED 14 x 2B	14 x 2	4.00	BnY81-LED 28 x 2B	28 x 2	6.50
BnY81-LED 9 x 2L	9 x 2	3.80	BnY81-LED 14 x 2L	14 x 2	3.80	BnY81-LED 28 x 2L	28 x 2	6.30
BnY81-LED 9 x 2XJ	9 x 2	5.50	BnY81-LED 14 x 2XJ	14 x 2	5.50	BnY81-LED 28 x 2XJ	28 x 2	7.60
BnY81-LED 9 x 2GJ	9 x 2	5.50	BnY81-LED 14 x 2GJ	14 x 2	5.80	BnY81-LED 28 x 2GJ	28 x 2	8.00
BnY81-LED 9 x 2DJ	9 x 2	5.30	BnY81-LED 14 x 2DJ	14 x 2	5.30	BnY81-LED 28 x 2DJ	28 x 2	7.40
BnY81-LED 9 x 2BJ	9 x 2	5.90	BnY81-LED 14 x 2BJ	14 x 2	5.90	BnY81-LED 28 x 2BJ	28 x 2	8.00
BnY81-LED 9 x 2LJ	9 x 2	5.60	BnY81-LED 14 x 2LJ	14 x 2	5.60	BnY81-LED 28 x 2LJ	28 x 2	7.80
BnY81-LED 20X	20	3.50	BnY81-LED 40X	40	4.10	BnY81-LED 60X	60	6.20
BnY81-LED 20G	20	3.90	BnY81-LED 40G	40	4.50	BnY81-LED 60G	60	6.50
BnY81-LED 20D	20	3.30	BnY81-LED 40D	40	3.90	BnY81-LED 60D	60	6.00
BnY81-LED 20B	20	4.00	BnY81-LED 40B	40	4.50	BnY81-LED 60B	60	6.60
BnY81-LED 20L	20	3.70	BnY81-LED 40L	40	4.30	BnY81-LED 60L	60	6.30
BnY81-LED 20XJ	20	5.30	BnY81-LED 40XJ	40	7.80	BnY81-LED 60XJ	60	7.80
BnY81-LED 20GJ	20	5.70	BnY81-LED 40GJ	40	8.10	BnY81-LED 60GJ	60	8.10
BnY81-LED 20DJ	20	5.20	BnY81-LED 40DJ	40	7.60	BnY81-LED 60DJ	60	7.60
BnY81-LED 20BJ	20	5.80	BnY81-LED 40BJ	40	8.20	BnY81-LED 60BJ	60	8.20
BnY81-LED 20LJ	20	5.50	BnY81-LED 40LJ	40	7.90	BnY81-LED 60LJ	60	7.90

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/49).

Photometric data

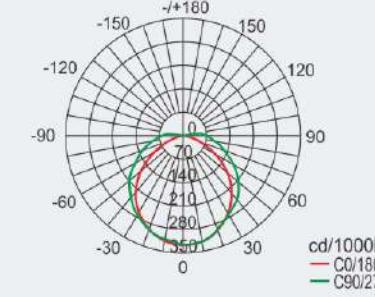
#### BnY81-LED 9x2□

Lamp power (W)	9 x 2
Rated luminous flux	2300lm
Wattage	17.5W



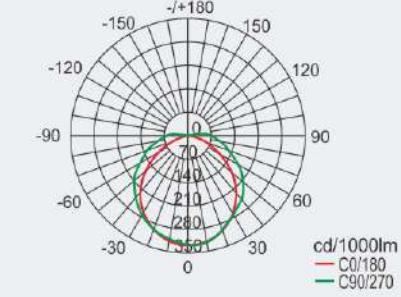
#### BnY81-LED 14x2□

Lamp power (W)	14 x 2
Rated luminous flux	3100lm
Wattage	28.5W



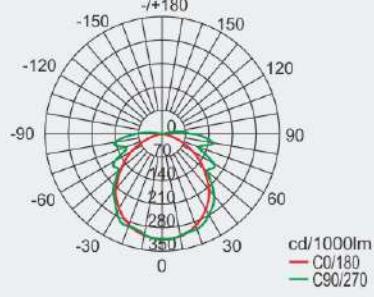
#### BnY81-LED 28x2□

Lamp power (W)	28 x 2
Rated luminous flux	6600lm
Wattage	58W



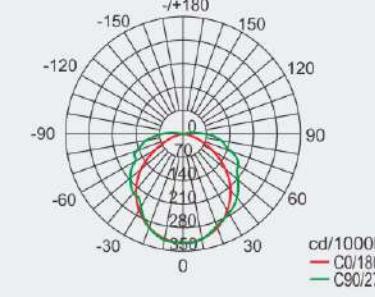
#### BnY81-LED 20□

Lamp power (W)	20
Rated luminous flux	2900lm
Wattage	22W



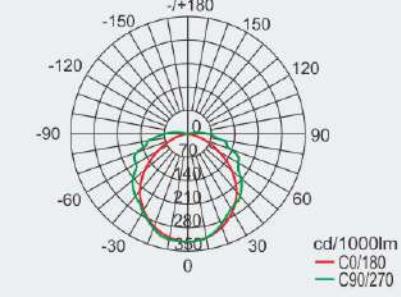
#### BnY81-LED 40□

Lamp power (W)	40
Rated luminous flux	5200lm
Wattage	43W



#### BnY81-LED 60□

Lamp power (W)	60
Rated luminous flux	7000lm
Wattage	61W



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

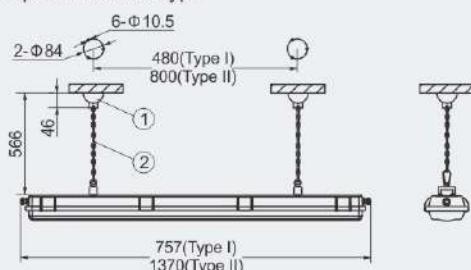
# Light Fittings for Fluorescent Lamp

## BnY81-LED Series Explosion-proof Light Fittings (ec type)

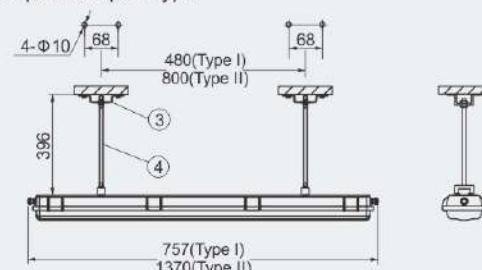
### Mounting type (all dimensions in mm) - subject to alteration

#### Installation reference

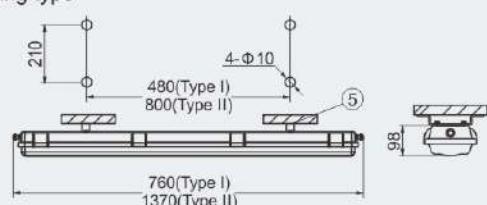
##### D: pendant chain type



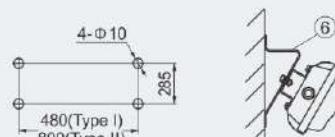
##### G: pendant pole type



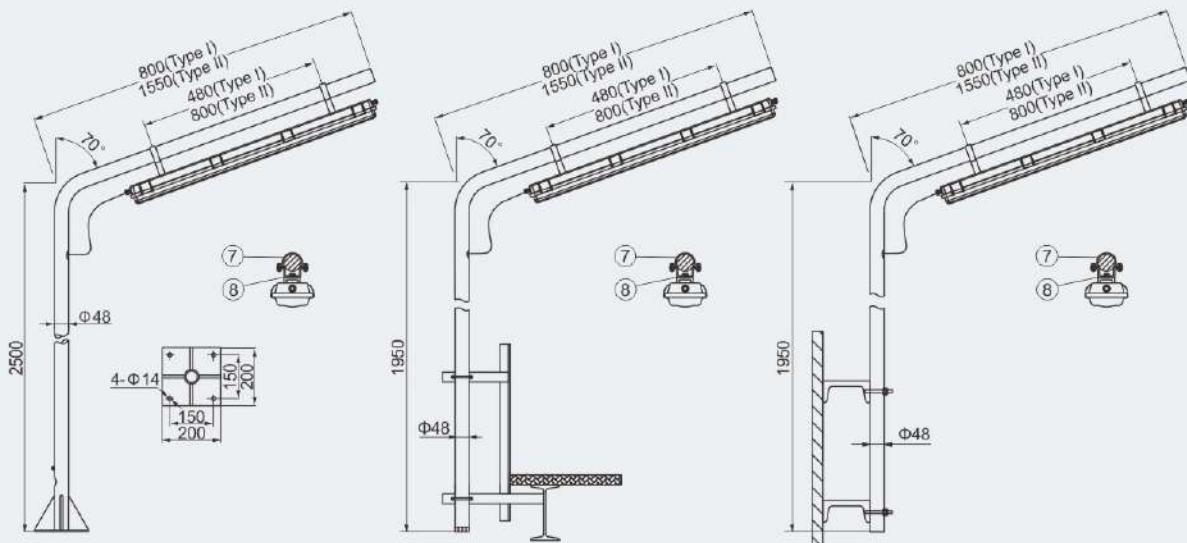
##### X: ceiling type



##### B: wall type



##### L: pole type (the pole is provided by user)



### Mounting Accessories & Spare Parts Table

#### Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2	See P2/6	5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
G: pendant pole type	③.Mounting bracket	2	Stainless steel, see P2/6	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
X: ceiling type	⑤.Mounting bracket	2	Stainless steel, see P2/7	5136015	0.20
B: wall type	⑥.Wall bracket	2	Stainless steel, welded sheet steel	5236B02	0.25
L: pole type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04

**Note:** Accessories not in the table shall be supplied by user.

## Light Fittings for Fluorescent Lamp

### HRY51-G/C LED Series Explosion-proof Light Fittings



With LED tubes

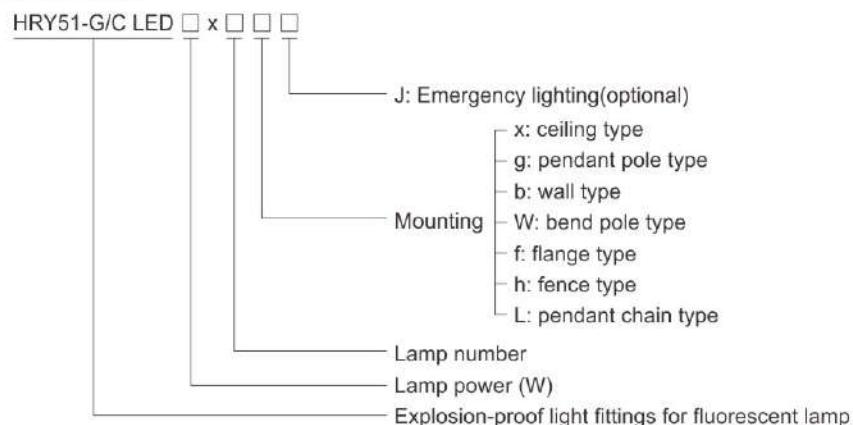


With LED SMT

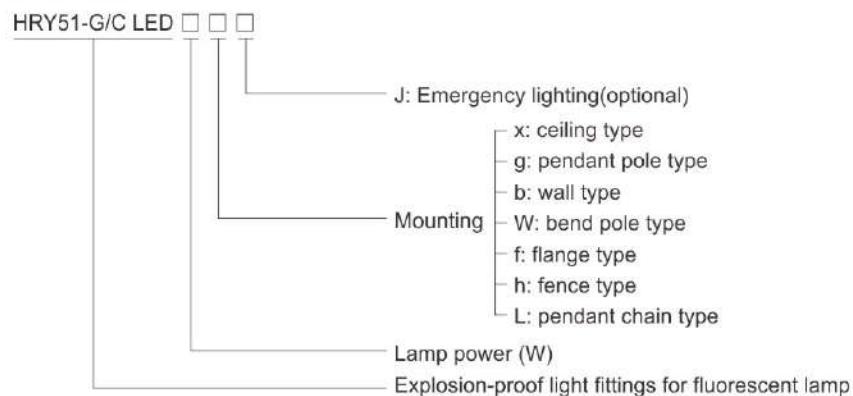
- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Clear polycarbonate transparent cover, high light transmittance, resistance to high energy impact and thermal fusion.
- ◆ Enclosure is formed of stainless steel.
- ◆ Built-in electronic ballast, power factor  $\geq 0.95$ .
- ◆ LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
- ◆ Emergency functions are available on request.

#### Catalogue number logic

With LED tubes:



With LED SMT :



**Zones 1&2; 21&22**



# Light Fittings for Fluorescent Lamp

## HRY51-G/C LED Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings with LED tubes HRY51-G/C LED □ x □ □ □

##### Explosion protection

Global (IECEx)	IECEx CML 20. 0167X
Gas and dust	Ex db eb IIC T□ Gb <sup>1)</sup> Ex db eb q IIC T□ Gb <sup>1)</sup>
Europe (ATEX)	Ex tb IIIC T80°C Db IP66/IP67 CML 20 ATEX 1296X
Gas and dust	Ex II 2 G Ex db eb IIC T□ Gb <sup>1)</sup> Ex II 2 G Ex db eb q IIC T□ Gb <sup>1)</sup> Ex II 2 D Ex tb IIIC T80°C Db IP66/IP67

<sup>1)</sup> See ambient temperature

IECEx; ATEX; CU-TR; INMETRO

EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Stainless steel
Diffuser	Polycarbonate, stands 4J impact
Ballast	Electronic ballast, power factor ≥0.95
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	LED tubes (supplied with the light fittings)
Lamp power (W)	9Wx2, 18Wx2, 14Wx2, 28Wx2
Colour rendering index (Ra)	≥80
LED Colour temperature (CCT)	5000K
	Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

##### Rated voltage

9Wx2, 18Wx2: 170~264V AC 50/60Hz  
14Wx2, 28Wx2: 100~277V AC 50/60Hz, 200~250V DC

##### Degree of protection

IP66/IP67

##### Ambient temperature

Rated Power (W)	Ex-mark	Ambient temperature
9×2□	Ex II 2 G Ex db eb IIC T6 Gb	-40°C~+57°C
	Ex II 2 D Ex tb IIIC T80°C Db	
18×2□	Ex II 2 G Ex db eb IIC T5 Gb	-40°C~+58°C
	Ex II 2 D Ex tb IIIC T80°C Db	
14×2□	Ex II 2 G Ex db eb q IIC T6 Gb	-40°C~+53°C
	Ex II 2 D Ex tb IIIC T80°C Db	
28×2□	Ex II 2 G Ex db eb q IIC T5 Gb	-40°C~+58°C
	Ex II 2 D Ex tb IIIC T80°C Db	
14×2□J	Ex II 2 G Ex db eb q IIC T6 Gb	-40°C~+48°C
	Ex II 2 D Ex tb IIIC T80°C Db	
28×2□J	Ex II 2 G Ex db eb q IIC T5 Gb	-40°C~+53°C
	Ex II 2 D Ex tb IIIC T80°C Db	

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Cable entries

4 x Φ21: 4 x M20 x 1.5 cable glands (DQM-I Ex e, plastic)

##### Available cable outer diameter

Φ9~Φ16 (mm)

##### Emergency data

Emergency unit	Special emergency controller and battery pile, with protection against overcharge and overdischarge
Emergency power (W)	14W x 30%, 28W x 30%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)



## Light Fittings for Fluorescent Lamp

### HRY51-G/C LED Series Explosion-proof Light Fittings

#### Technical data

#### Explosion-proof light fittings with LED SMT HRY51-G/C LED □□□

<b>Explosion protection</b>	IECEx (applied for)
Global (IECEx)	
Gas and dust	Ex db eb mb IIC T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T130°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db eb mb IIC T6/T5/T4 Gb Ex II 2 G Ex tb IIIC T80°C/T95°C/T130°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31
<b>Material</b>	
Enclosure	Stainless steel
Diffuser	Polycarbonate, stands 4J impact
Ballast	Electronic ballast, power factor ≥0.95
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp specification	LED SMT (supplied with the light fittings)
Lamp power (W)	20W, 40W, 60W, 80W
Colour rendering index (Ra)	≥80
LED Colour temperature (CCT)	5000K Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.
<b>Rated voltage</b>	100-277V AC 50/60Hz 130~250V DC
<b>Degree of protection</b>	IP66/IP67
<b>Ambient temperature</b>	-40°C~+60°C(+40°C)
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	4 x Φ21: 4 x M20 x 1.5 cable glands (DQM-I Ex e, plastic)
<b>Available cable outer diameter</b>	Φ9~Φ16 (mm)
<b>Emergency data</b>	
Emergency unit	Special emergency controller and battery pile, with protection against overcharge and overdischarge
Emergency power (W)	20W x 70%, 40W x 35%, 60W x 23%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	90min (180min is optional)

#### Selection table

Rated power(W)	Temperature classification			
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+60°C	
	Gas	Dust	Gas	Dust
20	T6	T80°C	T5	T95°C
40	T5	T95°C	T4	T130°C
60, 80	/	/	T4	T130°C

## Light Fittings for Fluorescent Lamp

### HRY51-G/C LED Series Explosion-proof Light Fittings

#### Selection table for explosion-proof light fittings with LED tubes

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRY51-G/C LED 9 x 2x	9×2	7.20	HRY51-G/C LED 14 x 2x	14×2	8.50	HRY51-G/C LED 14 x 2xJ	14×2	8.80
HRY51-G/C LED 9 x 2g	9×2	7.35	HRY51-G/C LED 14 x 2g	14×2	8.65	HRY51-G/C LED 14 x 2gJ	14×2	8.95
HRY51-G/C LED 9 x 2b	9×2	7.55	HRY51-G/C LED 14 x 2b	14×2	8.85	HRY51-G/C LED 14 x 2bJ	14×2	9.15
HRY51-G/C LED 9 x 2W	9×2	7.20	HRY51-G/C LED 14 x 2W	14×2	8.50	HRY51-G/C LED 14 x 2WJ	14×2	8.80
HRY51-G/C LED 9 x 2h	9×2	7.20	HRY51-G/C LED 14 x 2h	14×2	8.50	HRY51-G/C LED 14 x 2hJ	14×2	8.80
HRY51-G/C LED 9 x 2f	9×2	7.20	HRY51-G/C LED 14 x 2f	14×2	8.50	HRY51-G/C LED 14 x 2fJ	14×2	8.80
HRY51-G/C LED 9 x 2L	9×2	7.50	HRY51-G/C LED 14 x 2L	14×2	8.80	HRY51-G/C LED 14 x 2LJ	14×2	9.10
HRY51-G/C LED 18 x 2x	18×2	11.20	HRY51-G/C LED 28 x 2x	28×2	12.50	HRY51-G/C LED 28 x 2xJ	28×2	12.80
HRY51-G/C LED 18 x 2g	18×2	11.35	HRY51-G/C LED 28 x 2g	28×2	12.65	HRY51-G/C LED 28 x 2gJ	28×2	12.95
HRY51-G/C LED 18x 2b	18×2	11.55	HRY51-G/C LED 28x 2b	28×2	12.85	HRY51-G/C LED 28x 2bJ	28×2	13.15
HRY51-G/C LED 18 x 2W	18×2	11.20	HRY51-G/C LED 28 x 2W	28×2	12.50	HRY51-G/C LED 28 x 2WJ	28×2	12.80
HRY51-G/C LED 18 x 2h	18×2	11.20	HRY51-G/C LED 28 x 2h	28×2	12.50	HRY51-G/C LED 28 x 2hJ	28×2	12.80
HRY51-G/C LED 18 x 2f	18×2	11.20	HRY51-G/C LED 28 x 2f	28×2	12.50	HRY51-G/C LED 28 x 2fJ	28×2	12.80
HRY51-G/C LED 18 x 2L	18×2	11.50	HRY51-G/C LED 28 x 2L	28×2	12.80	HRY51-G/C LED 28 x 2LJ	28×2	13.10

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/55).

#### Selection table for explosion-proof light fittings with SMD LED

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRY51-G/C LED 20x	20	4.55	HRY51-G/C LED 40x	40	7.10	HRY51-G/C LED 60x	60	7.40
HRY51-G/C LED 20g	20	4.70	HRY51-G/C LED 40g	40	7.30	HRY51-G/C LED 60g	60	7.60
HRY51-G/C LED 20b	20	4.90	HRY51-G/C LED 40b	40	7.50	HRY51-G/C LED 60b	60	7.80
HRY51-G/C LED 20W	20	4.55	HRY51-G/C LED 40W	40	7.10	HRY51-G/C LED 60W	60	7.40
HRY51-G/C LED 20h	20	4.55	HRY51-G/C LED 40h	40	7.10	HRY51-G/C LED 60h	60	7.40
HRY51-G/C LED 20f	20	4.55	HRY51-G/C LED 40f	40	7.10	HRY51-G/C LED 60f	60	7.40
HRY51-G/C LED 20L	20	4.85	HRY51-G/C LED 40L	40	7.50	HRY51-G/C LED 60LJ	60	7.70
HRY51-G/C LED 20xJ	20	5.90	HRY51-G/C LED 40xJ	40	8.40	HRY51-G/C LED 60xJ	60	8.40
HRY51-G/C LED 20gJ	20	6.00	HRY51-G/C LED 40gJ	40	8.60	HRY51-G/C LED 60gJ	60	8.50
HRY51-G/C LED 20bJ	20	6.20	HRY51-G/C LED 40bJ	40	8.80	HRY51-G/C LED 60bJ	60	8.70
HRY51-G/C LED 20WJ	20	5.90	HRY51-G/C LED 40WJ	40	8.50	HRY51-G/C LED 60WJ	60	8.40
HRY51-G/C LED 20hJ	20	5.90	HRY51-G/C LED 40hJ	40	8.50	HRY51-G/C LED 60hJ	60	8.40
HRY51-G/C LED 20fJ	20	5.90	HRY51-G/C LED 40fJ	40	8.50	HRY51-G/C LED 60fJ	60	8.40
HRY51-G/C LED 20LJ	20	6.20	HRY51-G/C LED 40LJ	40	8.50	HRY51-G/C LED 60LJ	60	8.70
HRY51-G/C LED 80x	80	8.10						
HRY51-G/C LED 80g	80	8.20						
HRY51-G/C LED 80b	80	8.40						
HRY51-G/C LED 80W	80	8.10						
HRY51-G/C LED 80h	80	8.10						
HRY51-G/C LED 80f	80	8.10						
HRY51-G/C LED 80L	80	8.40						

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/55).



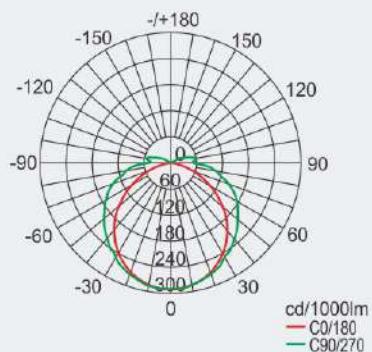
## Light Fittings for Fluorescent Lamp

### HRY51-G/C LED Series Explosion-proof Light Fittings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000K

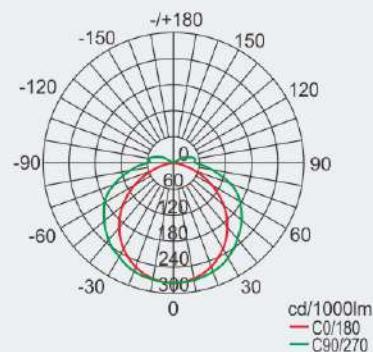
#### HRY51-G/C LED □ x □□□

Lamp power (W)	Luminous flux	Wattage
9 x 2	1850lm	18.5W
14 x 2	2805lm	28W



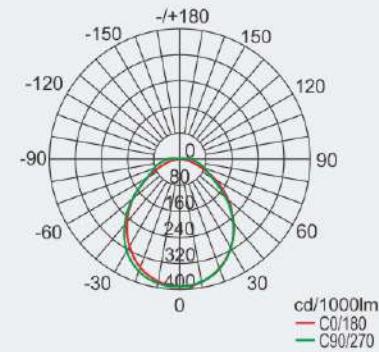
#### HRY51-G/C LED □ x □□□

Lamp power (W)	Luminous flux	Wattage
18 x 2	3835lm	36.5W
28 x 2	5770lm	56W



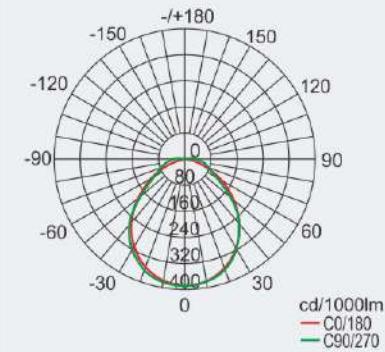
#### HRY51-G/C LED 20□□

Lamp power	20W
Luminous flux	2500lm
Wattage	22W



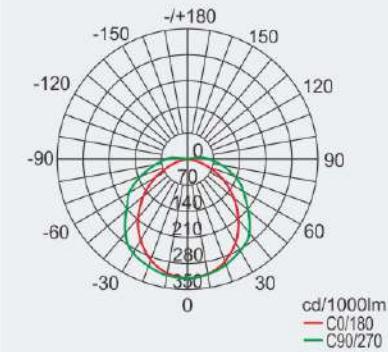
#### HRY51-G/C LED 40□□

Lamp power	40W
Luminous flux	5100lm
Wattage	43W



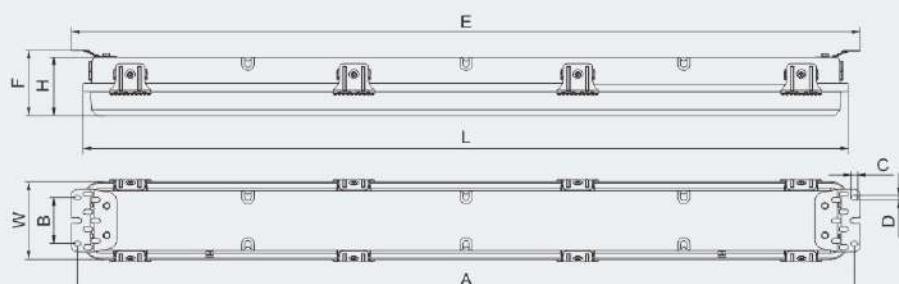
#### HRY51-G/C LED □□□

Lamp power	60W	80W
Luminous flux	7000lm	9900lm
Wattage	58W	86W



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

#### Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure type	Rated power (W)	L	W	H	A	B	C	D	E	F
Type I	9x2, 14x2, 20	692	150	100	705	78	12	8.5	732	113
Type II	18x2, 28x2, 40, 60, 80	1300	132	100	1320	78	12	8.5	1340	113

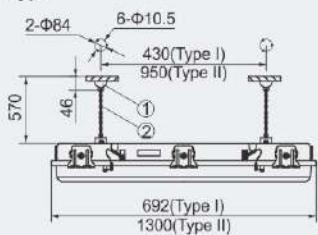
# Light Fittings for Fluorescent Lamp

## HRY51-G/C LED Series Explosion-proof Light Fittings

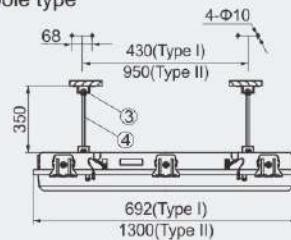
### Mounting type (all dimensions in mm) - subject to alteration

Installation reference

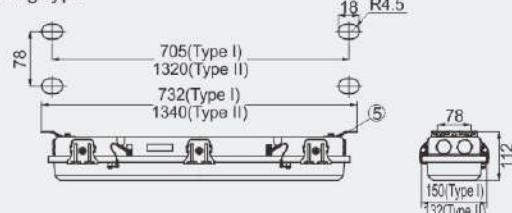
L: pendant chain type



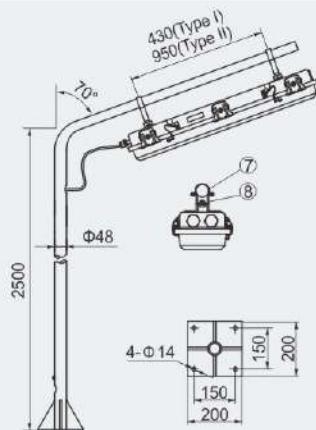
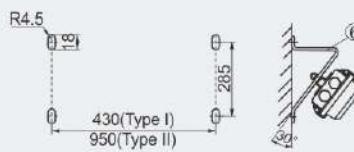
g: pendant pole type



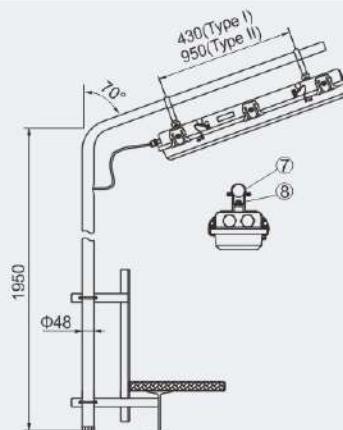
x: ceiling type



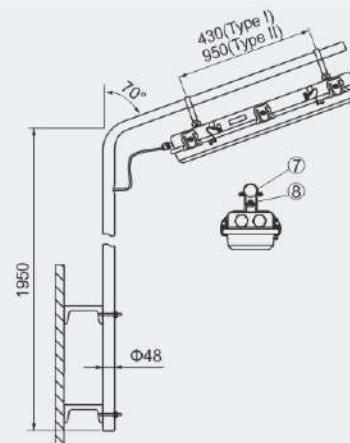
b: wall type



f: flange type



h: fence type



W: bend pole type



### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Name	Qty	Illustration	Ordering code	Weight (kg)
L: pendant chain type	①.Sucker	2	See P2/6	5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
g: pendant pole type	③.Mounting bracket	2	Stainless steel, see P2/6	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
x: ceiling type	⑤.Mounting bracket	2	Stainless steel	5136015	0.20
b: wall type	⑥.Wall bracket	2	Stainless steel, welded sheet steel	5236B02	0.25
f: flange type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04
h: fence type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04
W: bend pole type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04

Note: Accessories not in the table shall be supplied by user.

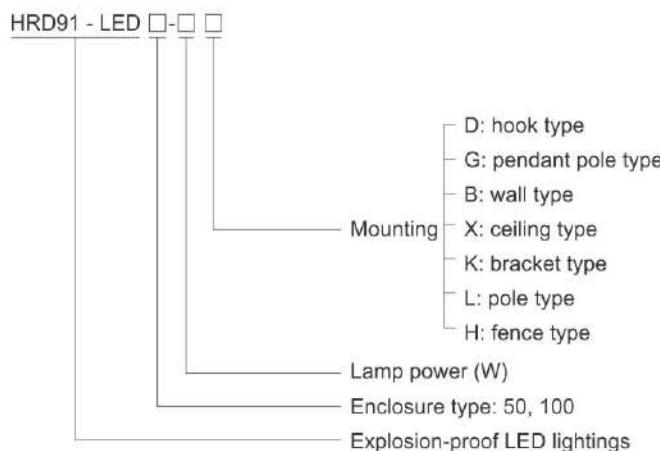
## LED Light Fittings

### HRD91-LED Series Explosion-proof LED Lightings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Two enclosure types: 50, 100
- ◆ Applicable lamp and power (max.100W)
  - LED : 30W, 50W, 70W, 100W
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### Catalogue number logic



#### Selection table

Type / Ordering code	Lamp power(W)
HRD91-LED50-□ □	30, 50
HRD91-LED100-□ □	70, 100

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/61).  
2. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

**Zones 1&2; 21&22**

# LED Light Fittings

## HRD91-LED Series Explosion-proof LED Lightings

### Technical data

#### Explosion-proof LED lightings HRD91-LED□-□□

##### Explosion protection

Global (IECEx)	IECEx NEP 18.0022X
Gas and dust	Ex db IIC T6/T5/T4 Gb
Europe (ATEX)	Ex tb IIIC T80°C/T85°C/T95°C/T100°C Db
Gas and dust	Ex II 2 G Ex db IIC T6/T5/T4 Gb
	Ex II 2 D Ex tb IIIC T80°C/T85°C/T95°C/T100°C Db

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Copper-free aluminium alloy, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

##### Lamp

Lamp specification	LED
Lamp power (W)	30W, 50W, 70W, 100W
Colour rendering index (Ra)	$\geq 80$
Colour temperature (CCT)	5700K Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

100~277V AC 50/60Hz, 220~240V AC 50/60Hz

100~250V DC

M5 (internal & external earth bolts)

IP66

30W, 50W: T6/T80°C for Tamb: -20°C~+43°C; T5/T95°C for Tamb: -20°C~+58°C

70W, 100W: T5/T85°C for Tamb: -20°C~+43°C; T4/T100°C for Tamb: -20°C~+58°C

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

Ceiling type, pole type, pendant pole type, wall type, bracket type, hook type, fence type

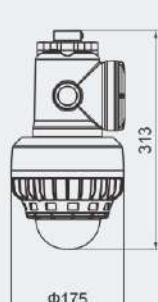
M25 x 1.5

See Mounting Accessories & Spare Parts Table

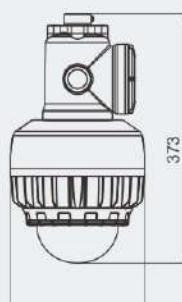
Φ10~Φ14(mm)



### Dimension drawings (all dimensions in mm) - subject to alteration



HRD91-LED50



HRD91-LED100

## LED Light Fittings

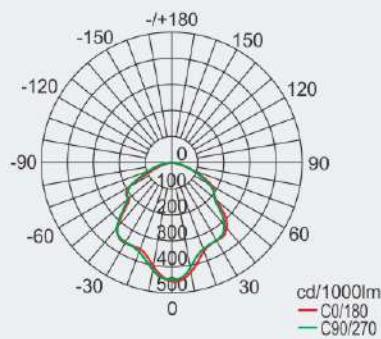
### HRD91-LED Series Explosion-proof LED Lightings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K



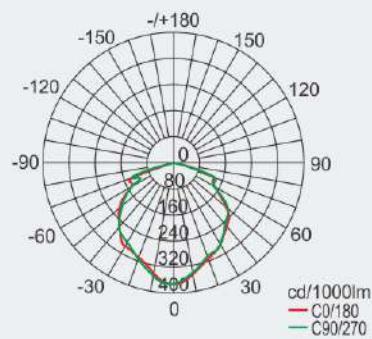
**HRD91-LED50-30-□**

Lamp power (W)	Luminous flux	Wattage
30	3600lm	30W



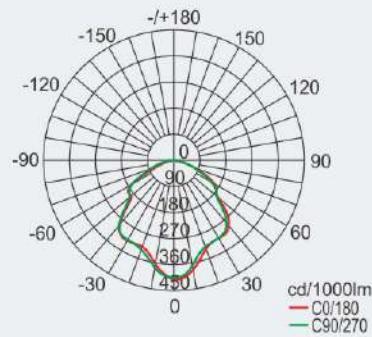
**HRD91-LED100-70-□**

Lamp power (W)	Luminous flux	Wattage
70	8400lm	70W



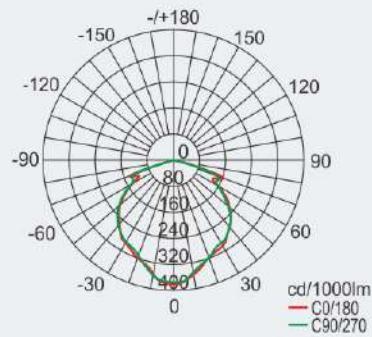
**HRD91-LED50-50-□**

Lamp power (W)	Luminous flux	Wattage
50	6100lm	50W



**HRD91-LED100-100-□**

Lamp power (W)	Luminous flux	Wattage
100	11200lm	100W



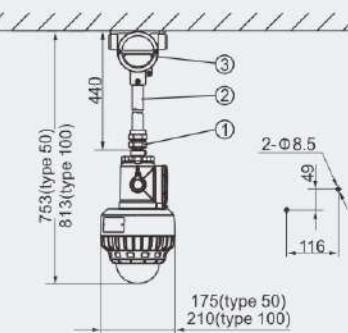
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

## HRD91-LED Series Explosion-proof LED Lightings

### Mounting type (all dimensions in mm) - subject to alteration

G: pendant pole type

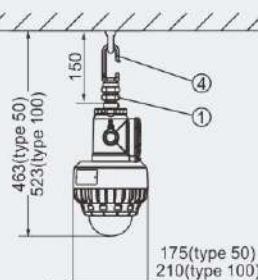


Weight: 3.75kg (type 50)  
5.80kg (type 100)

Accessories supplied with the light fittings:

- ①.BGJ-III Explosion-proof connector G3/4"(M)  
M25x1.5(F), Stainless steel.
- ②.Straight pipe (M25 x 1.5), length: 300mm.
- ③.BHD51-F(Ex d IIC, copper-free aluminium alloy),  
see P3/4.

D: hook type

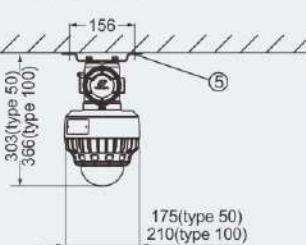


Weight: 2.75kg (type 50)  
4.80kg (type 100)

Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector G3/4"  
(M)M25 x 1.5(F), Stainless steel.
- ④.Hook (Stainless steel).

X: ceiling type



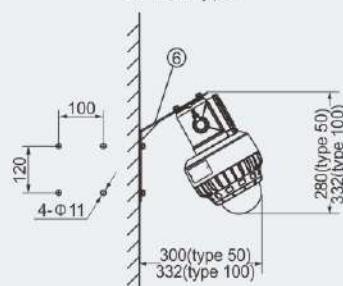
Weight: 3.30kg (type 50)

5.40kg (type 100)

Accessories supplied with the light fittings:

- ⑤.Mounting feet

B: wall type

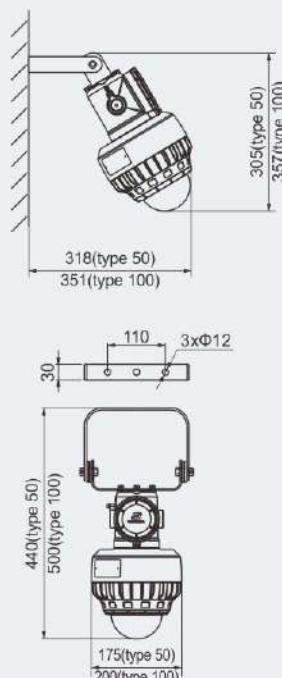


Weight: 3.30kg (type 50)  
5.40kg (type 100)

Accessories supplied with the light fittings:

- ⑥.Wall bracket

K: bracket type

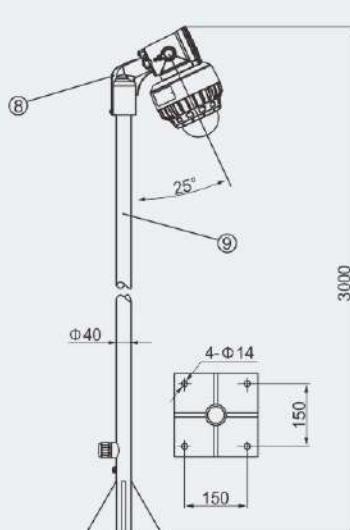


Weight: 4.00kg (type 50)  
6.20kg (type 100)

Accessories supplied with the light fittings:

- ⑦.Mounting bracket, sheet steel, powder coated.

L: pole type

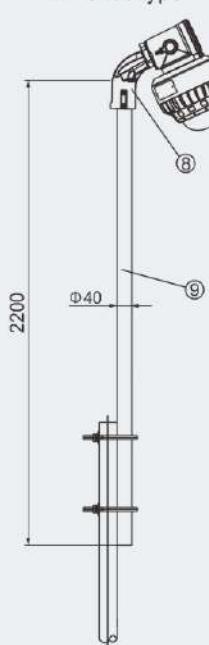


Weight: 2.75kg (type 50)  
4.80kg (type 100)

Accessories supplied with the light fittings:

- ⑧.Pole type connector
- ⑨.Pole (shall be provided by user)

H: fence type



Weight: 2.75kg (type 50)  
4.80kg (type 100)

Accessories supplied with the light fittings:

- ⑧.Pole type connector
- ⑨.Pole (shall be provided by user)



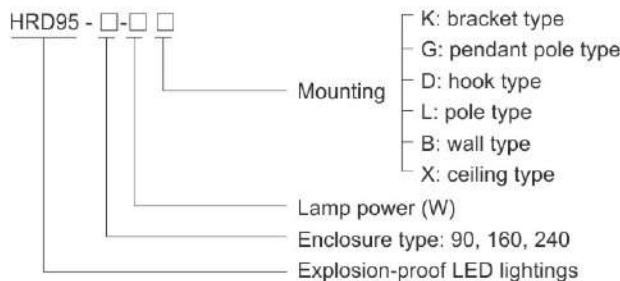
## LED Light Fittings

### HRD95 Series Explosion-proof LED Lightings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Three enclosure types: 90, 160, 240
- ◆ Applicable lamp and power (max.240W)
  - LED: 60W, 90W, 120W, 160W, 200W, 240W
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- ◆ International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- ◆ Two types of light distribution: spotlight and floodlight, which can be selected on request.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### Catalogue number logic



#### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRD95-90-60K	60	9.80	HRD95-90-60D	60	9.50	HRD95-160-120B	120	13.50
HRD95-90-90K	90	9.80	HRD95-90-90D	90	9.50	HRD95-160-160B	160	13.50
HRD95-160-120K	120	12.70	HRD95-160-120D	120	11.75	HRD95-240-200B	200	26.60
HRD95-160-160K	160	12.70	HRD95-160-160D	160	11.75	HRD95-240-240B	240	26.60
HRD95-240-200K	200	27.50	HRD95-90-60L	60	9.30	HRD95-90-60X	60	9.20
HRD95-240-240K	240	27.50	HRD95-90-90L	90	9.30	HRD95-90-90X	90	9.20
HRD95-90-60G	60	10.75	HRD95-160-120L	120	12.00	HRD95-160-120X	120	11.75
HRD95-90-90G	90	10.75	HRD95-160-160L	160	12.00	HRD95-160-160X	160	11.75
HRD95-160-120G	120	13.05	HRD95-90-60B	60	11.00	HRD95-240-200X	200	24.80
HRD95-160-160G	160	13.05	HRD95-90-90B	90	11.00	HRD95-240-240X	240	24.80

**Note:** 1. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.  
 2. Two types of light distribution: spotlight and floodlight. The light fittings are supplied without lens. Lighting distribution is of floodlight. If required, please specify when ordering.

**Zones 1&2; 21&22**

# LED Light Fittings

## HRD95 Series Explosion-proof LED Lightings

### Technical data

#### Explosion-proof LED lightings HRD95-90-□□

##### Explosion protection

Global (IECEx)

Gas and dust

Europe (ATEX)

Gas and dust

IECEx CNEX 18.0024 X

Ex db op is IIC T<sup>1</sup> Gb

Ex tb op is IIIC T<sup>1</sup> Db IP66

CNEX 18 ATEX 0020X

Ex II 2 G Ex db op is IIC T<sup>1</sup> Gb

Ex II 2 D Ex tb op is IIIC T<sup>1</sup> Db IP66

<sup>1</sup> See Selection Table

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

Enclosure

Glass cover

Exposed fastener

LED driver

Copper-free aluminium alloy, powder coated surface, yellow (RAL1021)

Toughened glass, stands 4J impact

Stainless steel

Wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

##### Lamp

Lamp specification

LED module, Multiple LED

Lamp power (W)

60W, 90W

Colour rendering index (Ra)

$\geq 80$

Colour temperature (CCT)

5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

100~277V AC 50/60Hz, 130~250V DC

M5 (internal & external earth bolts)

IP66

-40°C~+55°C(+40°C)

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

bracket type, hook type, pole type, pendant pole type, wall type, ceiling type

1 x M25 x 1.5 (hook type, pole type, pendant pole type)

2 x M25 x 1.5 (bracket type)

4 x M25 x 1.5 (wall type, ceiling type)

##### Cable entries

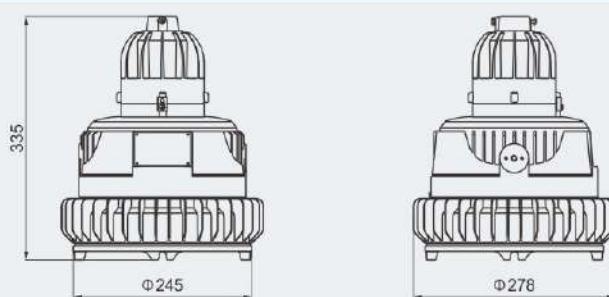
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31



### Selection table

Rated power(W)	Temperature classification			
	-40°C ≤ Ta ≤ +40°C		-40°C ≤ Ta ≤ +55°C	
	Gas	Dust	Gas	Dust
60	71°C (T6)	71°C	86°C (T5)	86°C
90	82°C (T5)	82°C	97°C (T4)	97°C

### Dimension drawings (all dimensions in mm) - subject to alteration



## LED Light Fittings

### HRD95 Series Explosion-proof LED Lightings

#### Technical data

##### Explosion-proof LED lightings HRD95-160-□□

###### Explosion protection

Global (IECEx)

IECEx CNEX 18.0024 X

Gas and dust

Ex db op is IIC T<sup>1)</sup> Gb

Europe (ATEX)

Ex tb op is IIIC T<sup>1)</sup> Db IP66

Gas and dust

CNEX 18 ATEX 0020X

Ex II 2 G Ex db op is IIC T<sup>1)</sup> Gb

Ex II 2 D Ex tb op is IIIC T<sup>1)</sup> Db IP66

Ex II 2 D Ex tb op is IIIC T<sup>1)</sup> Db IP66

<sup>1)</sup> See Selection Table

###### Certificates

###### Conformity to standards

###### Material

Enclosure

Copper-free aluminium alloy, powder coated surface, yellow (RAL1021)

Glass cover

Toughened glass, stands 4J impact

Exposed fastener

Stainless steel

LED driver

Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

###### Lamp

Lamp specification

LED module, Multiple LED

Lamp power (W)

120W, 160W

Colour rendering index (Ra)

≥80

Colour temperature (CCT)

5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

100~277V AC 50/60Hz, 130~250V DC

###### Rated voltage

M5 (internal & external earth bolts)

###### Earthing protection

IP66

###### Degree of protection

-40°C~+55°C(+40°C)

###### Ambient temperature

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

###### Terminal

bracket type, hook type, pole type, pendant pole type, wall type, ceiling type

###### Mounting

1 x M25 x 1.5 (hook type, pole type, pendant pole type)

###### Cable entries

2 x M25 x 1.5 (bracket type)

###### Cable gland

4 x M25 x 1.5 (wall type, ceiling type)

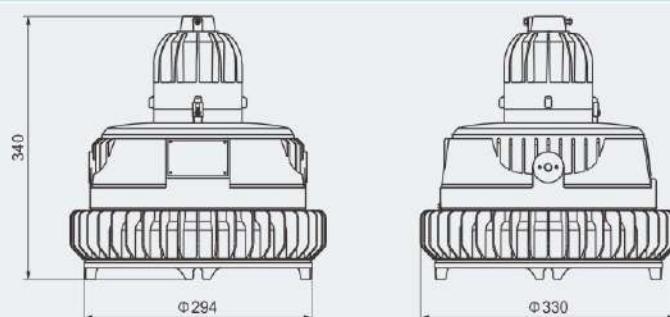
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31



#### Selection table

Rated power(W)	Temperature classification			
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+55°C	
	Gas	Dust	Gas	Dust
120	76°C (T6)	76°C	91°C (T5)	91°C
160	93°C (T4)	93°C	108°C (T4)	108°C

#### Dimension drawings (all dimensions in mm) - subject to alteration



# LED Light Fittings

## HRD95 Series Explosion-proof LED Lightings

### Technical data

#### Explosion-proof LED lightings HRD95-240-□□

##### Explosion protection

Global (IECEx)	IECEx CNEX 18.0024 X
Gas and dust	Ex db op is IIC T <sup>1)</sup> Gb
Europe (ATEX)	Ex tb op is IIIC T <sup>1)</sup> Db IP66
Gas and dust	CNEX 18 ATEX 0020X
	$\text{Ex II 2 G}$ Ex db op is IIC T <sup>1)</sup> Gb
	$\text{Ex II 2 D}$ Ex tb op is IIIC T <sup>1)</sup> Db IP66

<sup>1)</sup> See Selection Table

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Copper-free aluminium alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

##### Lamp

Lamp specification	LED module, Multiple LED
Lamp power (W)	200W, 240W
Colour rendering index (Ra)	$\geq 80$
Colour temperature (CCT)	5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

100~277V AC 50/60Hz, 130~250V DC

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+55°C(+40°C)

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

bracket type, wall type, ceiling type

##### Cable entries

2 x M25 x 1.5 (bracket type)

##### Cable gland

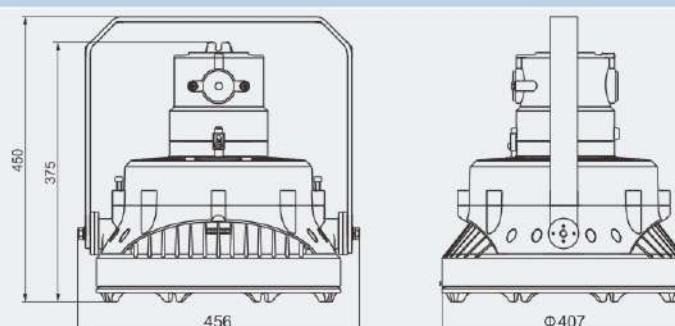
4 x M25 x 1.5 (wall type, ceiling type)



### Selection table

Rated power(W)	Temperature classification			
	-40°C ≤ Ta ≤ +40°C		-40°C ≤ Ta ≤ +55°C	
	Gas	Dust	Gas	Dust
200	81°C (T5)	81°C	96°C (T4)	96°C
240	99°C (T4)	99°C	114°C (T4)	114°C

### Dimension drawings (all dimensions in mm) - subject to alteration



## LED Light Fittings

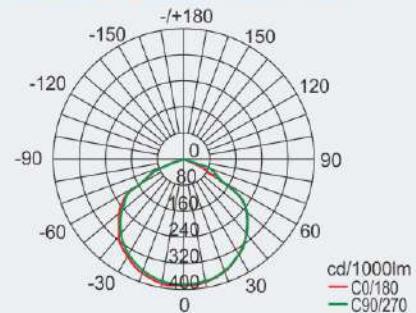
### HRD95 Series Explosion-proof LED Lightings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K (cool white).

#### HRD95-90-□□

Lamp power (W)	Luminous flux	Wattage
60	7200lm	61W
90	10450lm	90W

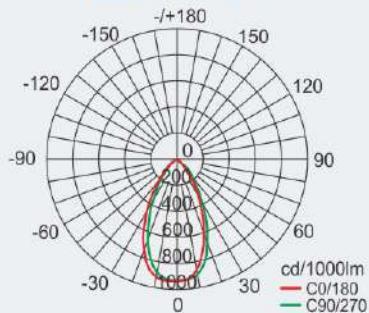
(Standard products without lens)



#### HRD95-90-□□

Lamp power (W)	Luminous flux	Wattage
60	7200lm	61W
90	10450lm	90W

(With 60° lens)

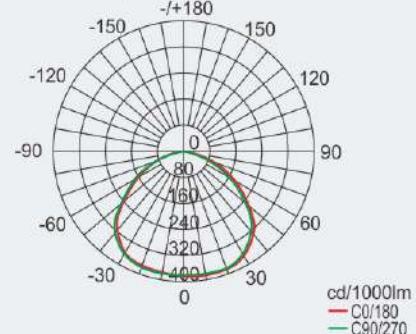


Note: Lens of 40° and 25° can be provided on request.

#### HRD95-160-□□

Lamp power (W)	Luminous flux	Wattage
120	13200lm	120W
160	19250lm	160W

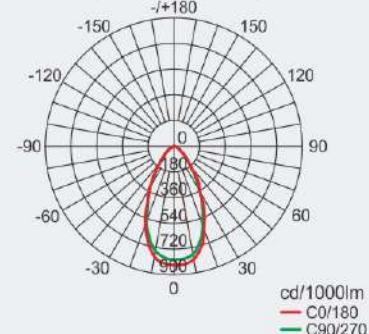
(Standard products without lens)



#### HRD95-160-□□

Lamp power (W)	Luminous flux	Wattage
120	13200lm	120W
160	19250lm	160W

(With 60° lens)

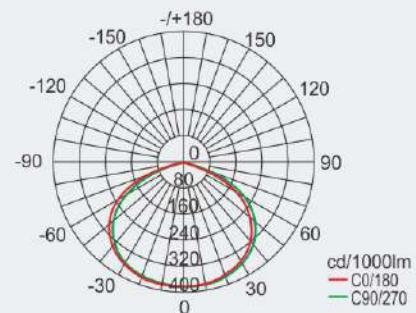


Note: Lens of 40° and 25° can be provided on request.

#### HRD95-240-□□

Lamp power (W)	Luminous flux	Wattage
200	25000lm	205W
240	28200lm	245W

(Standard products without lens)



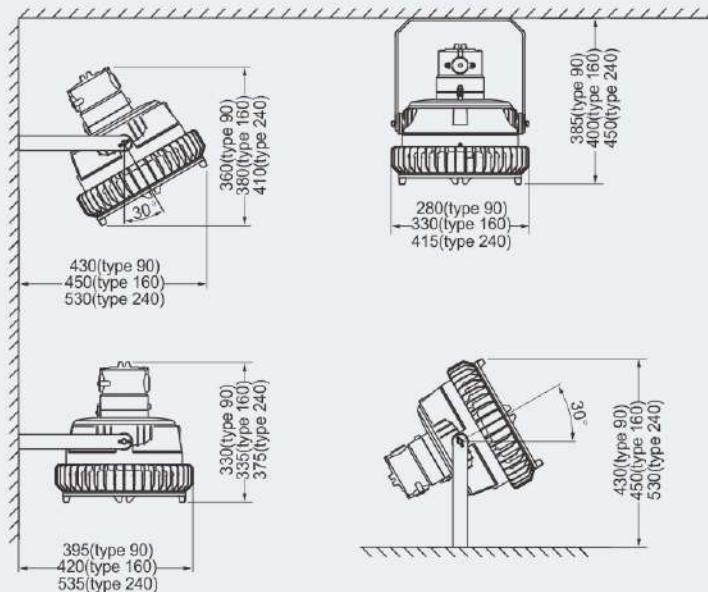
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

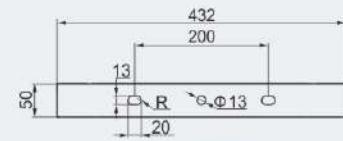
## HRD95 Series Explosion-proof LED Lightings

### Mounting type (all dimensions in mm) - subject to alteration

K: bracket type



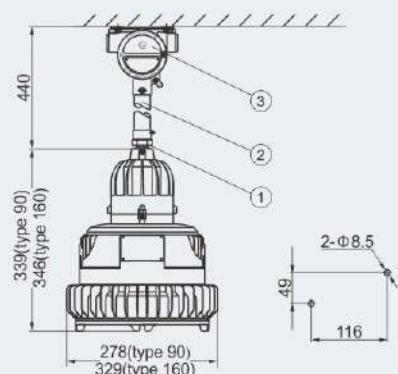
Bracket mounting dimension of type 90, type 160



Bracket mounting dimension of type 240

G: pendant pole type

Note: pendant pole type is unavailable to type 240.

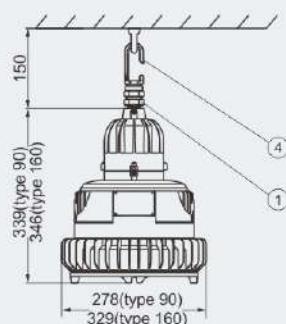


Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector M25×1.5(M)/M25×1.5(F). Stainless steel.
- ②.Straight pipe (M25 x 1.5), length: 300mm.
- ③.BHD51-F(for type 90 and type 160: Copper-free Aluminium Alloy), see P3/4.

D: hook type

Note: hook type is unavailable to type 240.

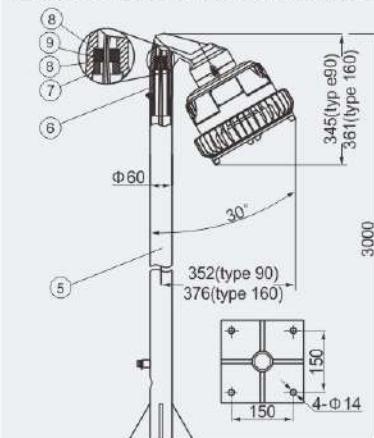


Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector M25×1.5 (M)/M25×1.5(F). Stainless steel.
- ④.Hook (Stainless steel).

L: pole type

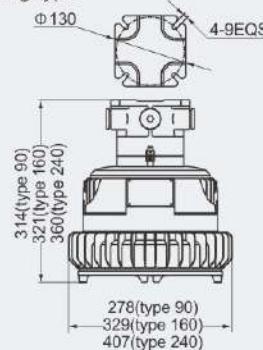
Note: pole type is unavailable to type 240.



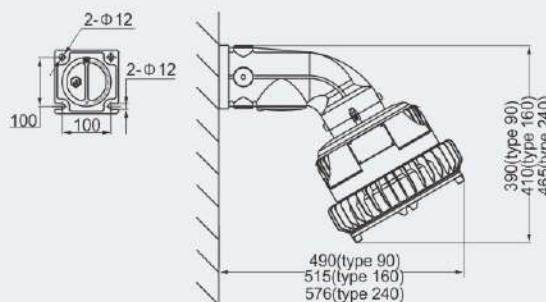
Accessories supplied with the light fittings:

- ⑤. Pole (shall be provided by user).
- ⑥. Outlet sleeve.
- ⑦. Locking bolt.
- ⑧. Washer.
- ⑨. Sealing ring.

X: ceiling type



B: wall type



## LED Light Fittings

### HRD97 Series Explosion-proof LED Lightings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Applicable lamp and power (max.20W)
  - LED : 10W, 20W
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### Catalogue number logic



#### Selection table

Type / Ordering code	Lamp power(W)
HRD97-10 □	10
HRD97-20 □	20

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/69).  
2. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

**Zones 1&2; 21&22**

# LED Light Fittings

## HRD97 Series Explosion-proof LED Lightings

### Technical data

#### Explosion-proof LED lightings HRD97-□□

##### Explosion protection

Global (IECEx) IECEx CQM 22.0036X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) UL 23 ATEX 3016X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

IECEx; ATEX

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure Copper-free aluminium alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

LED driver Wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

##### Lamp

Lamp specification Integrated LED, Multiple LED

Lamp power (W) 10W, 20W

Colour rendering index (Ra)  $\geq 80$

Colour temperature (CCT) 5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

24V AC 50/60Hz, 36V AC 50/60Hz, 100~277V AC 50/60Hz, 24V DC, 36V DC

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+60°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

Bracket type, Ceiling type

##### Cable entries

M25 x 1.5

##### Cable gland

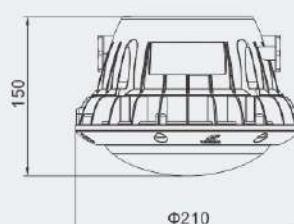
See Mounting Accessories & Spare Parts Table

##### Available cable outer diameter

$\Phi 10\sim\Phi 14$ (mm)



### Dimension drawings (all dimensions in mm) - subject to alteration



## LED Light Fittings

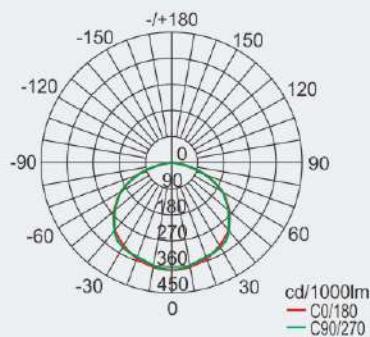
### HRD97 Series Explosion-proof LED Lightings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K



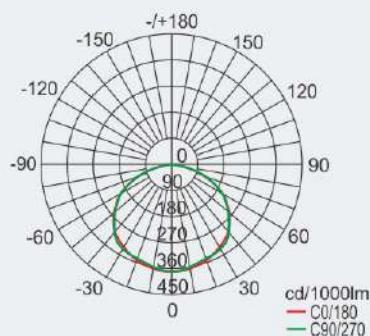
#### HRD97-10□

Lamp power (W)	Luminous flux	Wattage
10	1200lm	10W



#### HRD97-20□

Lamp power (W)	Luminous flux	Wattage
20	2500lm	20W



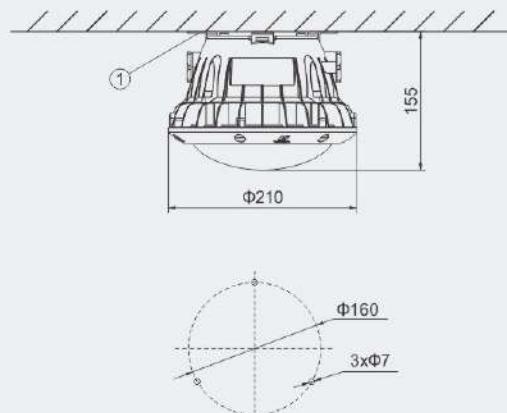
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

## HRD97 Series Explosion-proof LED Lightings

### Mounting type (all dimensions in mm) - subject to alteration

X: ceiling type

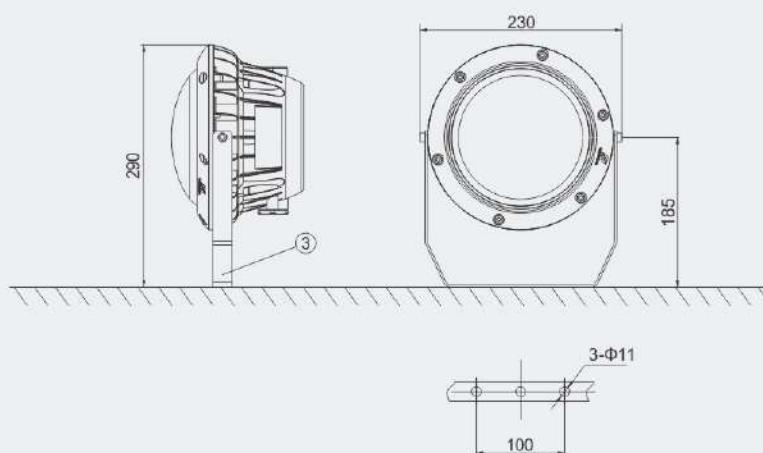


Weight: 3.30kg

Accessories supplied with the light fittings:

①. Mounting feet

K: bracket type



Weight: 3.80kg

Accessories supplied with the light fittings:

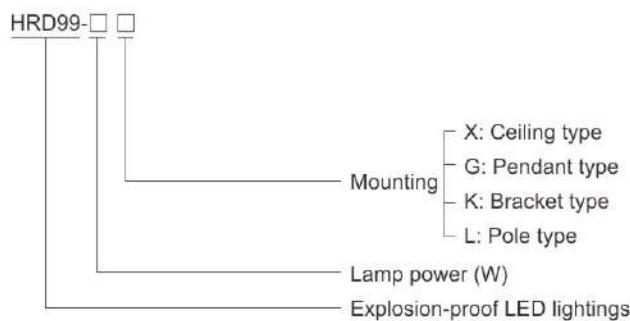
③. Wall bracket





- ◆ Explosion protection to
    - CENELEC
    - IEC
    - NEC
  - ◆ Can be used in
    - Zone 1 and Zone 2
    - Zone 21 and Zone 22
    - Class I, Zone 1 and Zone 2
    - Class I, Division 1, Groups A, B, C, D
  - ◆ Applicable lamp and power (max.100W)
    - LED : 20W, 30W, 50W, 70W, 80W, 100W,
  - ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
  - ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

### ■ Catalogue number logic



## ■ Selection table

Type / Ordering code	Lamp power(W)
HRD99-20 □	20
HRD99-30 □	30
HRD99-50 □	50
HRD99-70 □	70
HRD99-80 □	80
HRD99-100 □	100

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/73).  
2. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

## Zones 1&2; 21&22

# LED Light Fittings

## HRD99 Series Explosion-proof LED Lightings

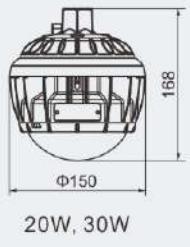
Technical data	
Explosion-proof LED lightings HRD99-□□	
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db IIB T6/T5 Gb Ex db IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db IIB T6/T5 Gb Ex II 2 G Ex db IIC T6/T5 Gb Ex II 2 D Ex tb IIIC T80°C/T95°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free aluminium alloy, powder coated surface, yellow (RAL1021)
Transparent cover	Polycarbonate, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
<b>Lamp</b>	
Lamp specification	Integrated LED, Multiple LED
Lamp power (W)	20W, 30W, 50W, 70W, 80W, 100W
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5700K Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.
<b>Rated voltage</b>	220~240V AC 50/60Hz, 24~48V DC
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	IIB T6 / IIIC T80°C for Tamb: -40°C~+40°C IIB T5 / IIIC T95°C for Tamb: -40°C~+58°C IIC T6 for Tamb: -20°C~+40°C IIC T5 for Tamb: -20°C~+58°C
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Mounting</b>	Bracket type, Ceiling type, Pendant type, Pole type
<b>Cable entries</b>	M25 x 1.5
<b>Cable gland</b>	See Mounting Accessories & Spare Parts Table
<b>Available cable outer diameter</b>	Φ10~Φ14(mm)



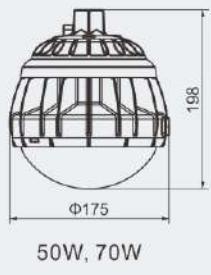
## LED Light Fittings

### HRD99 Series Explosion-proof LED Lightings

**Dimension drawings** (all dimensions in mm) - subject to alteration



20W, 30W



50W, 70W

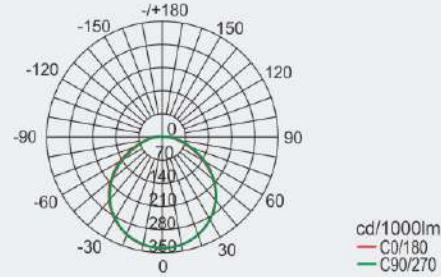


80W, 100W

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K (cool white).

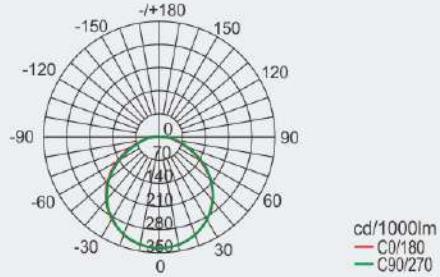
#### HRD99-20□

Lamp power (W)	Luminous flux	Wattage
20	2500lm	23W



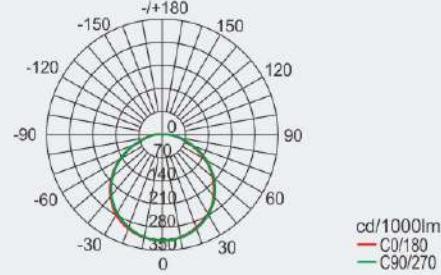
#### HRD99-30□

Lamp power (W)	Luminous flux	Wattage
30	3300lm	31W



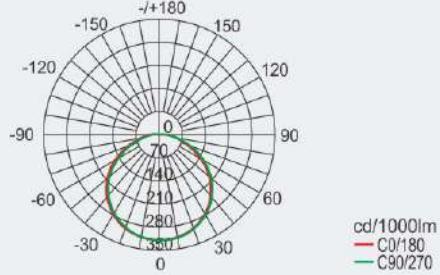
#### HRD99-50□

Lamp power (W)	Luminous flux	Wattage
50	6500lm	55W



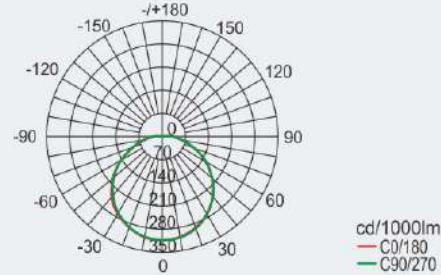
#### HRD99-70□

Lamp power (W)	Luminous flux	Wattage
70	8300lm	74W



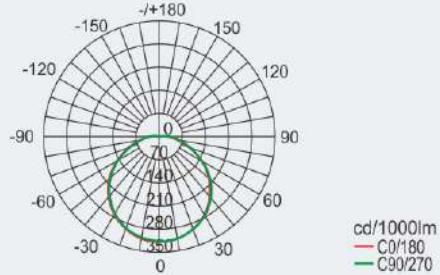
#### HRD99-80□

Lamp power (W)	Luminous flux	Wattage
80	9400lm	78W



#### HRD99-100□

Lamp power (W)	Luminous flux	Wattage
100	11700lm	104W



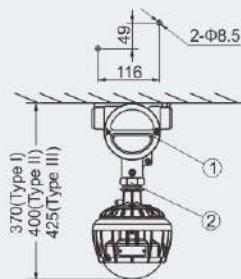
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

## HRD99 Series Explosion-proof LED Lightings

### Mounting type (all dimensions in mm) - subject to alteration

X: Ceiling type

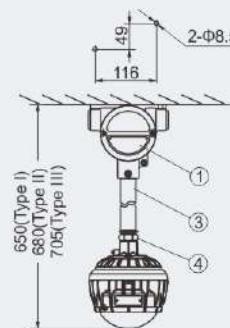


Weight: 2.40kg (20W)(30W)  
3.00kg (50W)(70W)  
3.80kg (80W)(100W)

Accessories supplied with the light fittings:

- ①. BHD51-F(Ex d IIC, copper-free aluminium alloy)
- ②. BGJ-III Explosion-proof connector  
M25×1.5(M)/M25×1.5 (M), Stainless steel.

G: Pendant type

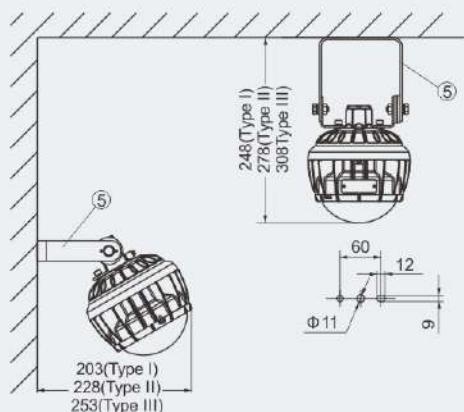


Weight: 2.80kg (20W)(30W)  
3.40kg (50W)(70W)  
4.20kg (80W)(100W)

Accessories supplied with the light fittings:

- ①. BHD51-F(Ex d IIC, copper-free aluminium alloy)
- ③. Straight pipe(M25×1.5), length: 300mm.
- ④. BGJ-III Explosion-proof connector  
M25×1.5(M)/M25×1.5(F), Stainless steel.

K: Bracket type

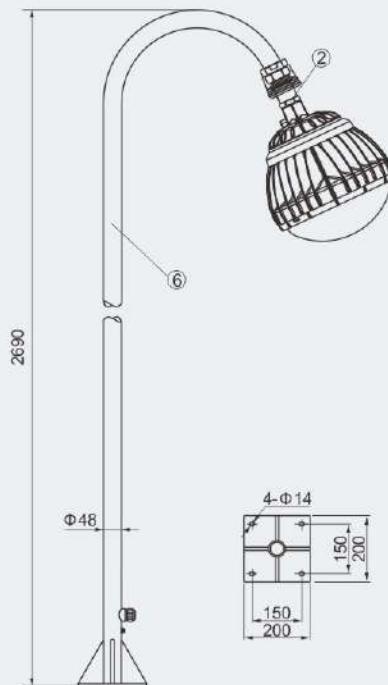


Weight: 1.70kg (20W)(30W)  
2.30kg (50W)(70W)  
3.00kg (80W)(100W)

Accessories supplied with the light fittings:

- ⑤. Mounting bracket, sheet steel, powder coated.

L: Pole type



Weight: 1.60kg (20W)(30W)  
2.20kg (50W)(70W)  
2.90kg (80W)(100W)

Accessories supplied with the light fittings:

- ②. BGJ-III Explosion-proof connector  
M25×1.5(M)/M25×1.5 (M), Stainless steel.
- ⑥. Pole (shall be provided by user)

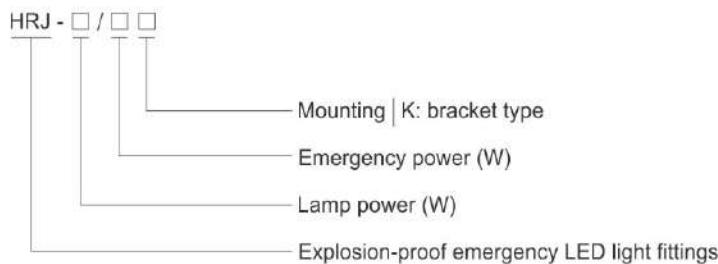
## LED Light Fittings

### HRJ Series Explosion-proof Emergency LED Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- ◆ International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- ◆ Emergency device with battery pack, charging automatically; when power supply is cut off, the emergency device starts to work; with overcharge and overdischarge protection.
- ◆ Toughened glass cover resistant to temperature changes.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### ■ Catalogue number logic



**Zones 1&2; 21&22**

# LED Light Fittings

## HRJ Series Explosion-proof Emergency LED Light Fittings

### Technical data

#### Explosion-proof emergency LED light fittings HRJ-30/20□

##### Explosion protection

Global (IECEx)	IECEx CNEX 20.0005X
Gas and dust	Ex db op is IIC T6 Gb
Europe (ATEX)	Ex tb op is IIIC T80°C Db
Gas and dust	CNEX 20 ATEX 0004X

##### Certificates

##### Conformity to standards

IECEx; ATEX; CU-TR; INMETRO
EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Emergency controller	Special emergency controller and battery pack, with protection against overcharge and overdischarge

##### Lamp

Lamp specification	LED module, Multiple LED
Lamp power (W)	30W
Emergency power (W)	20W
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.



##### Rated voltage

100~277V AC 50/60Hz

##### Charging time

24h

##### Emergency duration

90min(120min is optional)

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+60°C

##### Terminal

5 x 1.5~4mm<sup>2</sup>

##### Mounting

bracket type

##### Cable entries

2 x M25 x 1.5

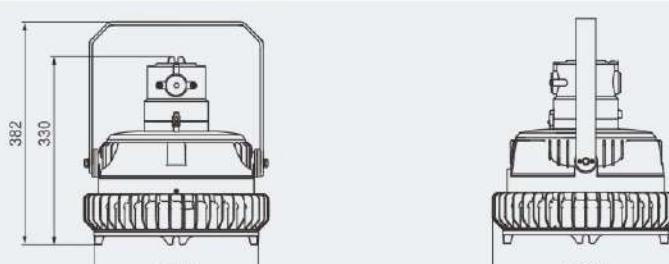
##### Cable gland

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

##### Weight

9.95kg

### Dimension drawings (all dimensions in mm) - subject to alteration



HRJ-30/20□

## LED Light Fittings

### HRJ Series Explosion-proof Emergency LED Light Fittings

#### Technical data

##### Explosion-proof emergency LED light fittings HRJ-60/40□

###### Explosion protection

Global (IECEx)

IECEx CNEX 20.0005X

Gas and dust

Ex db op is IIC T6 Gb

Europe (ATEX)

Ex tb op is IIIC T80°C Db

Gas and dust

CNEX 20 ATEX 0004X

###### Certificates

###### Conformity to standards

IECEx; ATEX; CU-TR; INMETRO

EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31

###### Material

Enclosure

Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Glass cover

Toughened glass, stands 4J impact

Exposed fastener

Stainless steel

LED driver

Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

Emergency controller

Special emergency controller and battery pack, with protection against overcharge and overdischarge

###### Lamp

Lamp specification

LED module, Multiple LED

Lamp power (W)

60W

Emergency power (W)

40W

Colour rendering index (Ra)

≥80

Colour temperature (CCT)

5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

100~277V AC 50/60Hz

24h

###### Rated voltage

###### Charging time

###### Emergency duration

90min(120min is optional)

###### Earthing protection

M5 (internal & external earth bolts)

###### Degree of protection

IP66

###### Ambient temperature

-40°C~+60°C

###### Terminal

5 x 1.5~4mm<sup>2</sup>

###### Mounting

bracket type

###### Cable entries

2 x M25 x 1.5

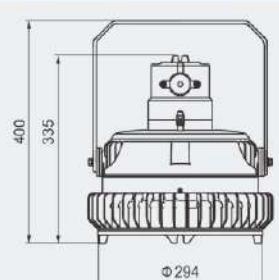
###### Cable gland

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

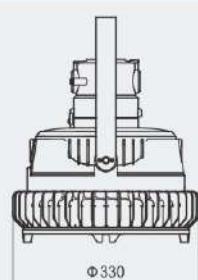
###### Weight

12.85kg

#### Dimension drawings (all dimensions in mm) - subject to alteration



HRJ-60/40□



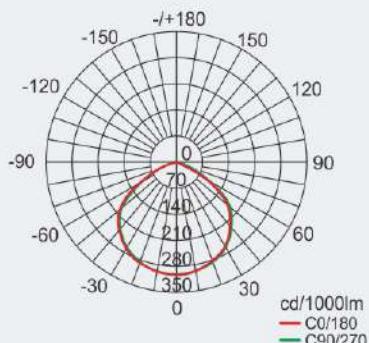
# LED Light Fittings

## HRJ Series Explosion-proof Emergency LED Light Fittings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K (cool white).

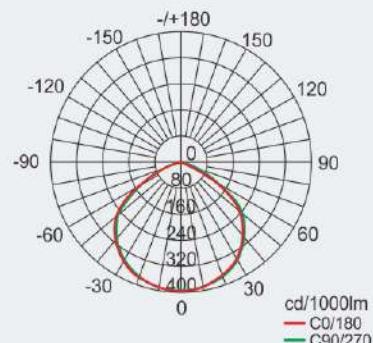
### HRJ-30/20□

Lamp power (W)	Luminous flux	Wattage
30	3300lm	31.5W



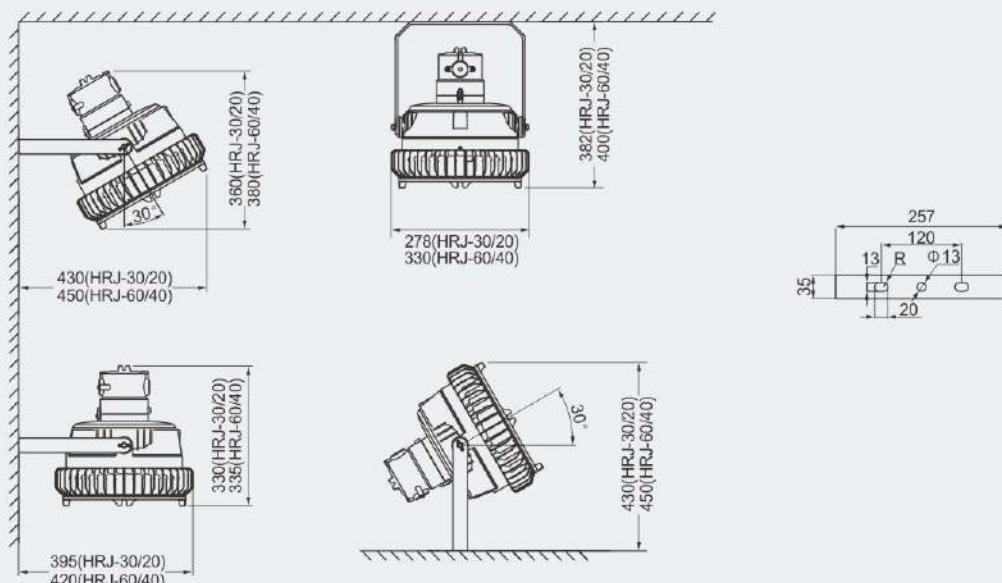
### HRJ-60/40□

Lamp power (W)	Luminous flux	Wattage
60	6350lm	60W



### Mounting type (all dimensions in mm) - subject to alteration

K: bracket type



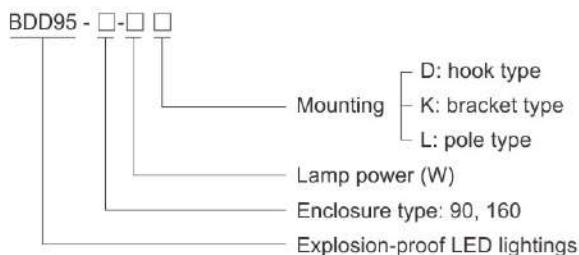
## LED Light Fittings

### BDD95 Series Explosion-proof LED Lightings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Two enclosure types: 90, 160
- ◆ Applicable lamp and power (max. 160W)
  - LED: 60W, 90W, 120W, 160W
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- ◆ New COB technology, large power and white light LED array, power of single LED can reach 20W~40W, high lighting efficiency, long service life.
- ◆ Two types of light distribution: spotlight and floodlight, which can be selected on request.
- ◆ 160 type lightings adopt light fitting integrated two lamps, the power of whole machine is of 2x120W, 2x160W.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### Catalogue number logic



#### Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BDD95-90-60K	60	8.50	BDD95-90-60D	60	8.10	BDD95-90-60L	60	8.10
BDD95-90-90K	90	8.50	BDD95-90-90D	90	8.10	BDD95-90-90L	90	8.10
BDD95-160-120K	120	12.20	BDD95-160-120D	120	11.60	BDD95-160-120L	120	11.70
BDD95-160-160K	160	12.20	BDD95-160-160D	160	11.60	BDD95-160-160L	160	11.70

**Note:** 1. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

2. Two types of light distribution: spotlight and floodlight. The light fittings are supplied without lens. Lighting distribution is floodlight. If required, please specify when ordering.

**Zones 1&2; 21&22**

# LED Light Fittings

## BDD95 Series Explosion-proof LED Lightings

### Technical data

#### Explosion-proof LED lightings BDD95-90-□□

##### Explosion protection

Global (IECEx)	IECEx CQM 15.0047X;
Gas and dust	Ex db eb op is IIC T <sup>1)</sup> Gb
Europe (ATEX)	Ex tb op is IIIC T <sup>1)</sup> Db
Gas and dust	EPT 15 ATEX 2315X
	Ex II 2 G Ex db eb op is IIC T <sup>1)</sup> Gb
	Ex II 2 D Ex op is tb IIIC T <sup>1)</sup> Db

<sup>1)</sup> See Selection Table

##### Certificates

##### Conformity to standards

IECEx; ATEX; CU-TR; UL
EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-28, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-28, IEC 60079-31
CSA C22.2 NO.137-M1981; UL 844; UL 8750; UL 1598

CSA C22.2 NO.250.0-08; CSA C22.2 NO.250.13-14

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

##### Lamp

Lamp specification	Integrated LED, Multiple LED
Lamp power (W)	60W, 90W
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5700K Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

100~300V AC 50/60Hz, 100~250V DC

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+55°C(+40°C)

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

bracket type, hook type, pole type

##### Cable entries

2 x M25 x 1.5 plugs

##### Cable gland

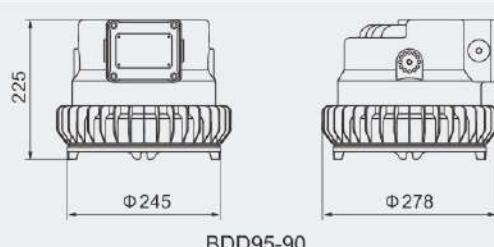
DQM-I (Ex e) is recommended. Please see P7/19~21.



### Selection table

Rated power(W)	Temperature classification				
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+55°C		
	Gas	Dust	Gas	Dust	
60	67°C (T6)	62°C	82°C (T6)	77°C	
90	87°C (T5)	82°C	102°C (T4)	97°C	

### Dimension drawings (all dimensions in mm) - subject to alteration



## LED Light Fittings

### BDD95 Series Explosion-proof LED Lightings

#### Technical data

##### Explosion-proof LED lightings BDD95-160-□□

###### Explosion protection

Global (IECEx)

IECEx CQM 15.0047X

Gas and dust

Ex db eb op is IIC T<sup>1)</sup> Gb

Europe (ATEX)

Ex tb op is IIIC T<sup>1)</sup> Db

Gas and dust

EPT 15 ATEX 2315X

II 2 G Ex db eb op is IIC T<sup>1)</sup> Gb

II 2 D Ex op is tb IIIC T<sup>1)</sup> Db

<sup>1)</sup> See Selection Table

###### Certificates

###### Conformity to standards

IECEx; ATEX; CU-TR; UL

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-28, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-28, IEC 60079-31

CSA C22.2 NO.137-M1981; UL 844; UL 8750; UL 1598

CSA C22.2 NO.250.0-08; CSA C22.2 NO.250.13-14

###### Material

Enclosure

Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Glass cover

Toughened glass, stands 4J impact

Exposed fastener

Stainless steel

LED driver

Wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

###### Lamp

Lamp specification

Integrated LED, Multiple LED

Lamp power (W)

120W, 160W

Colour rendering index (Ra)

$\geq 80$

Colour temperature (CCT)

5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

100~300V AC 50/60Hz, 135~250V DC

M5 (internal & external earth bolts)

IP66

-40°C~+55°C(+40°C)

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

###### Rated voltage

bracket type, hook type, pole type

###### Earthing protection

2 x M25 x 1.5 plugs

###### Degree of protection

DQM-I (Ex e) is recommended. Please see P7/19~21.

###### Ambient temperature

###### Terminal

###### Mounting

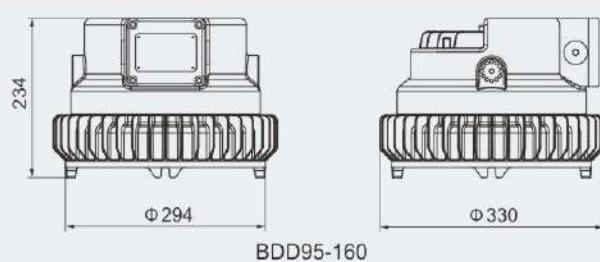
###### Cable entries

###### Cable gland

#### Selection table

Rated power(W)	Temperature classification			
	-40°C ≤ Ta ≤ +40°C		-40°C ≤ Ta ≤ +55°C	
	Gas	Dust	Gas	Dust
120	72°C (T6)	67°C	87°C (T5)	82°C
160	92°C (T5)	87°C	107°C (T4)	102°C

#### Dimension drawings (all dimensions in mm) - subject to alteration



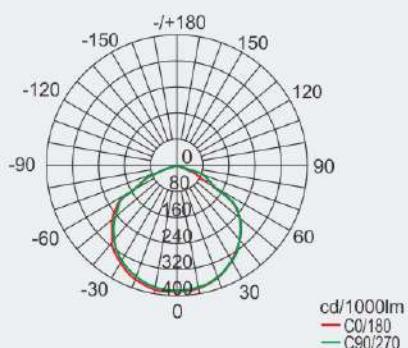
# LED Light Fittings

## BDD95 Series Explosion-proof LED Lightings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K (cool white).

### BDD95-90-□□

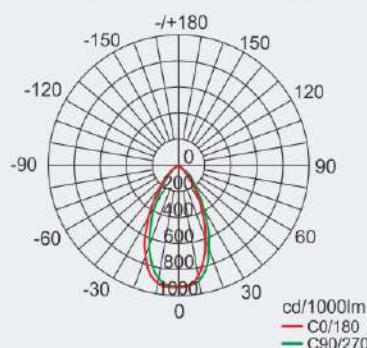
Lamp power (W)	Luminous flux	Wattage
60	7200lm	61W
90	10450lm	90W



### BDD95-90-□□

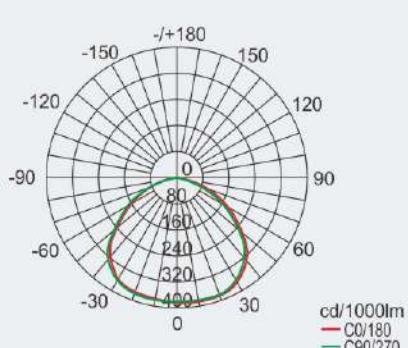
Lamp power (W)	Luminous flux	Wattage
60	7200lm	61W
90	10450lm	90W

Note: Lens of 45° and 30° can be provided on request.



### BDD95-160-□□

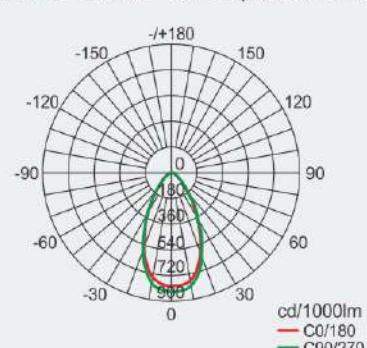
Lamp power (W)	Luminous flux	Wattage
120	13200lm	120W
160	19250lm	160W



### BDD95-160-□□

Lamp power (W)	Luminous flux	Wattage
120	13200lm	120W
160	19250lm	160W

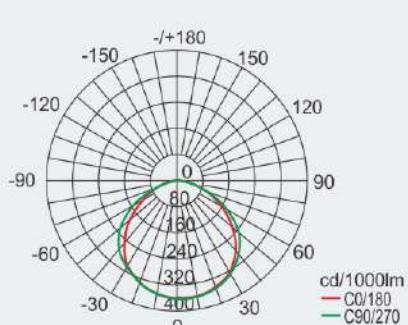
Note: Lens of 45° and 30° can be provided on request.



### BDD95-160-□□

Note: Measuring parameters of light fitting integrating two lamps

Lamp power (W)	Luminous flux	Wattage
2 x 120	26400lm	240W
2 x 160	38500lm	320W

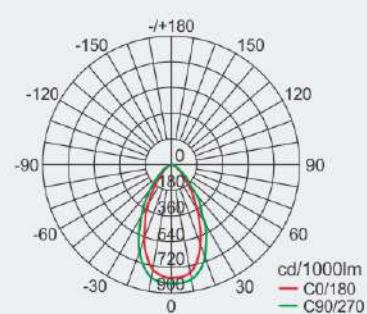


### BDD95-160-□□

Note: Measuring parameters of light fitting integrating two lamps

Lamp power (W)	Luminous flux	Wattage
2 x 120	26400lm	240W
2 x 160	38500lm	320W

Note: Lens of 45° and 30° can be provided on request.



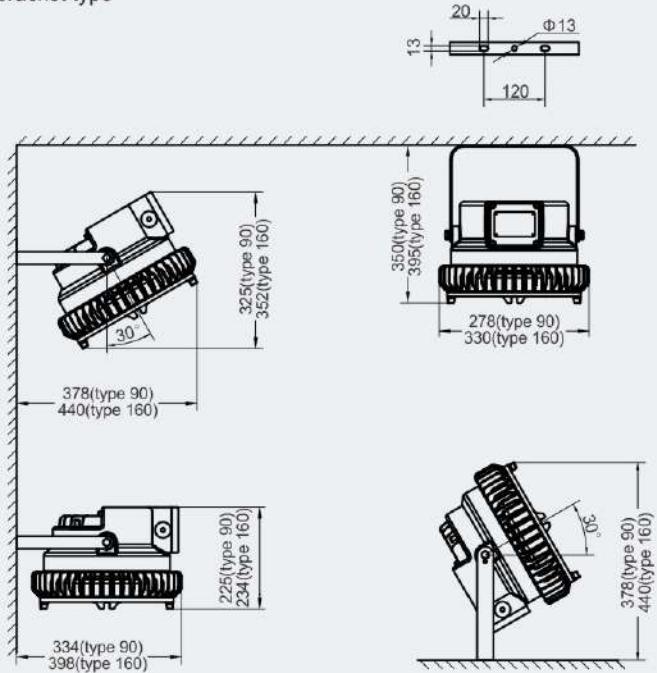
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

## LED Light Fittings

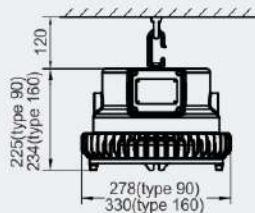
### BDD95 Series Explosion-proof LED Lightings

#### Mounting type (all dimensions in mm) - subject to alteration

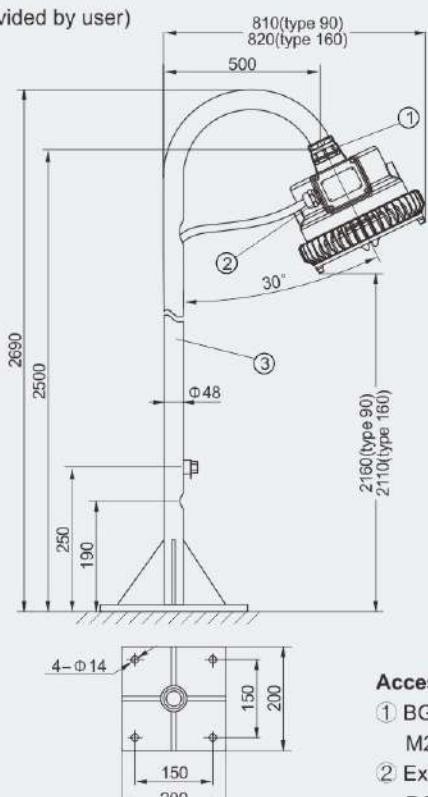
K: bracket type



D: hook type



L: pole type (the pole is provided by user)



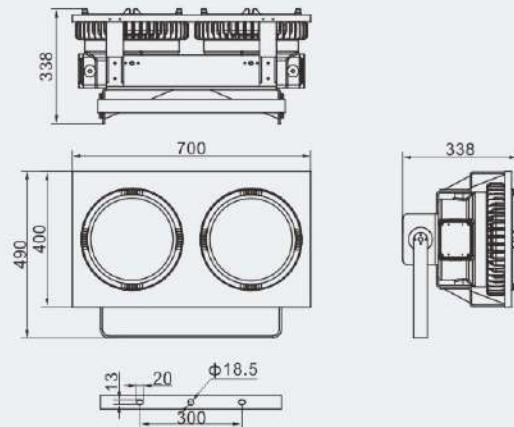
#### Accessories supplied with the light fittings:

- ① BGJ-III explosion-proof connector M25x1.5(M) / M25x1.5(M), Stainless steel.
- ② Explosion-proof cable glands are provided by user. DQM-I (Ex e) is recommended, please see P7/19~21.
- ③ Pole shall be provided by user.

# LED Light Fittings

## BDD95 Series Explosion-proof LED Lightings

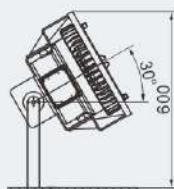
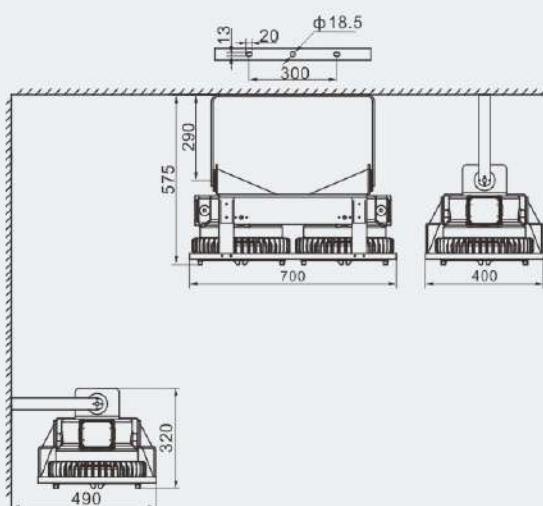
### The description of light fitting integrated two lamps (2x120W, 2x160W)



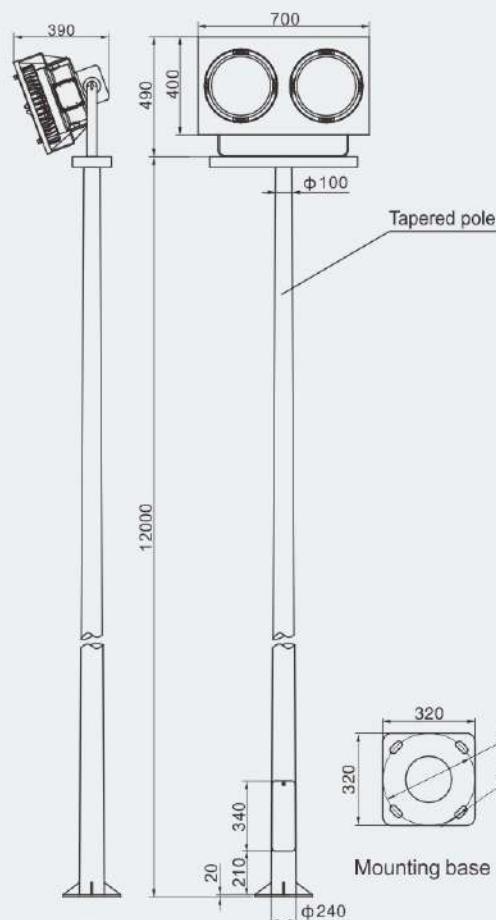
Weight: 30.00kg

### Mounting types

#### Bracket type



#### Street lamp type



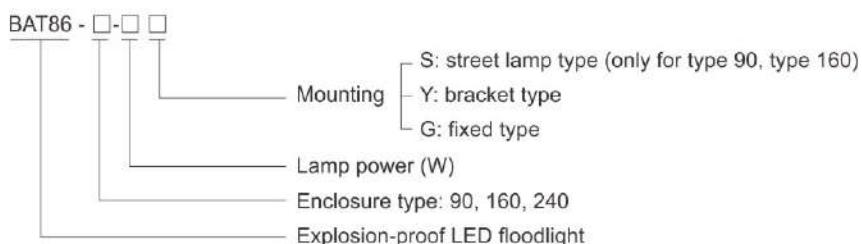
## LED Light Fittings

### BAT86 Series Explosion-proof LED Floodlights



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Three enclosure types: 90, 160, 240
- ◆ Applicable lamp and power (max. 240W)
  - LED: 60W, 90W, 120W, 160W, 200W, 240W
- ◆ Isolated LED lamp compartment, CC-CV (constant current-constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- ◆ Standard product is of floodlight effect, lens of 60° and 90° can be provided on request to realize spotlight effect.
- ◆ 240 type lightings adopt light fitting integrated two lamps, the power of whole machine is of 2x200W, 2x240W
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### ■ Catalogue number logic



#### ■ Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAT86-90-60G	60	6.70	BAT86-90-60Y	60	8.50	BAT86-90-60S	60	7.55
BAT86-90-90G	90	6.70	BAT86-90-90Y	90	8.50	BAT86-90-90S	90	7.55
BAT86-160-120G	120	13.00	BAT86-160-120Y	120	14.80	BAT86-160-120S	120	13.85
BAT86-160-160G	160	13.00	BAT86-160-160Y	160	14.80	BAT86-160-160S	160	13.85
BAT86-240-200G	200	28.00	BAT86-240-200Y	200	29.50	BAT86-240-2x200	2x200	78.60
BAT86-240-240G	240	28.00	BAT86-240-240Y	240	29.50	BAT86-240-2x240	2x400	78.60

**Note:** 1. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.  
 2. The light fittings are supplied without lens. Lighting distribution is of floodlight. Lens of 60° and 90° can be provided on request. Please specify when ordering.

**Zones 1&2; 21&22**

# LED Light Fittings

## BAT86 Series Explosion-proof LED Floodlights

### Technical data

#### Explosion-proof LED floodlights BAT86-90-□□

##### Explosion protection

Global (IECEx)	IECEx CQM 21.0015X
Gas and dust	Ex db IIB+H <sub>2</sub> T <sub>□<sup>1</sup></sub> Gb
	Ex tb IIIC T <sub>□<sup>1</sup></sub> Db
Europe (ATEX)	TÜV CY 21 ATEX 0206545X
Gas and dust	Ex II 2 G Ex db IIB+H <sub>2</sub> T <sub>□<sup>1</sup></sub> Gb
	Ex II 2 D Ex tb IIIC T <sub>□<sup>1</sup></sub> Db
	<sup>1)</sup> See Ambient temperature

##### Certificates

##### Conformity to standards

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	LED module, Multiple LED
Lamp power (W)	60W, 90W (50W and 70W are optional)
Colour rendering index (Ra)	≥70
Colour temperature (CCT)	5700K



##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

##### Mounting

##### Cable entries

##### Cable gland

100~277V AC 50/60Hz, 130~250V DC

M5 (internal & external earth bolts)

IP66

T6/T80°C for Tamb: -60°C~+40°C

T4/T130°C for Tamb: -60°C~+60°C

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

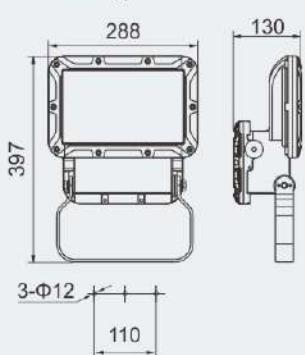
Bracket type, fixed type, street lamp type

2 x M25 x 1.5 plugs

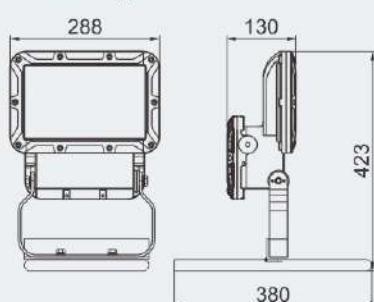
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

### Dimension drawings (all dimensions in mm) - subject to alteration

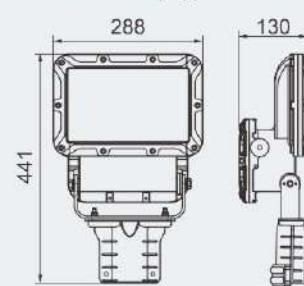
#### G: fixed type



#### Y: bracket type



#### S: street lamp type



## LED Light Fittings

### BAT86 Series Explosion-proof LED Floodlights

#### Technical data

#### Explosion-proof LED floodlights BAT86-160-□□

##### Explosion protection

Global (IECEx) IECEx CQM 21.0015X

Gas and dust Ex d IIB T<sup>□</sup> Gb

Europe (ATEX) TÜV CY 21 ATEX 0206545X

Gas and dust Ex II 2 G Ex d IIB T<sup>□</sup> Gb

Ex II 2 D Ex tb IIIC T<sup>□</sup> Db

<sup>1)</sup> See Ambient temperature

##### Certificates

IECEx; ATEX; CU-TR; INMETRO

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Glass cover Toughened glass, stands 4J impact

LED driver Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit

Exposed fastener Stainless steel

##### Lamp

Lamp specification LED module, Multiple LED

Lamp power (W) 120W, 160W (100W is optional)

Colour rendering index (Ra) ≥70

Colour temperature (CCT) 5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

100~277V AC 50/60Hz, 130~250V DC

Earthing protection M5 (internal & external earth bolts)

Degree of protection IP66

Ambient temperature 120W/160W T6/T80°C for Tamb: -60°C~+40°C

120W/160W T5/T95°C for Tamb: -60°C~+60°C

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

Terminal Bracket type, fixed type, street lamp type

##### Mounting

##### Cable entries

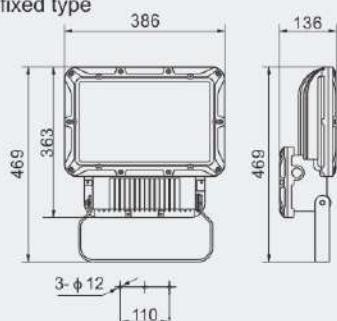
2 x M25 x 1.5 plugs

Cable gland DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

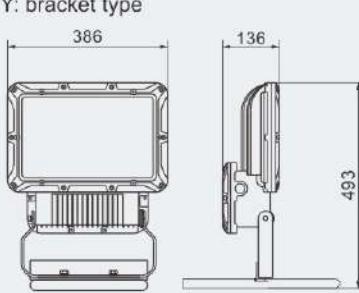


#### Dimension drawings (all dimensions in mm) - subject to alteration

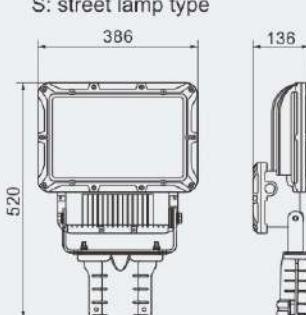
##### G: fixed type



##### Y: bracket type



##### S: street lamp type



# LED Light Fittings

## BAT86 Series Explosion-proof LED Floodlights

### Technical data

#### Explosion-proof LED floodlights BAT86-240-□□

##### Explosion protection

Global (IECEx)	IECEx CQM 21.0015X
Gas and dust	Ex db IIB+H <sub>2</sub> T <sup>1)</sup> Gb
	Ex tb IIIC T <sup>1)</sup> Db
Europe (ATEX)	TÜV CY 21 ATEX 0206545X
Gas and dust	Ex II 2 G Ex db IIB+H <sub>2</sub> T <sup>1)</sup> Gb
	Ex II 2 D Ex tb IIIC T <sup>1)</sup> Db

<sup>1)</sup> See Ambient temperature

##### Certificates

##### Conformity to standards

IECEx; ATEX; CU-TR; INMETRO

EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	LED module, Multiple LED
Lamp power (W)	200W, 240W
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5700K
	Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

100~277V AC 50/60Hz, 130~250V DC

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

200W/240W T6/T80°C for Tamb: -60°C~+40°C

200W/240W T4/T130°C for Tamb: -60°C~+60°C

##### Terminal

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

Bracket type, fixed type

##### Cable entries

2 x M25 x 1.5 plugs

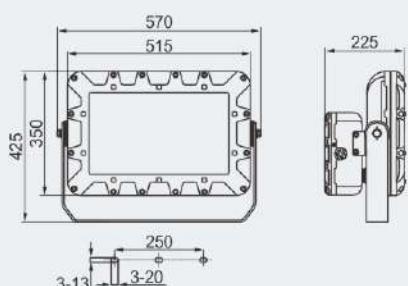
##### Cable gland

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

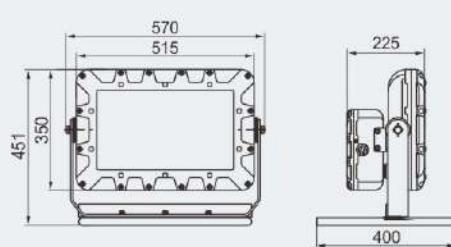


### Dimension drawings (all dimensions in mm) - subject to alteration

G: fixed type



Y: bracket type



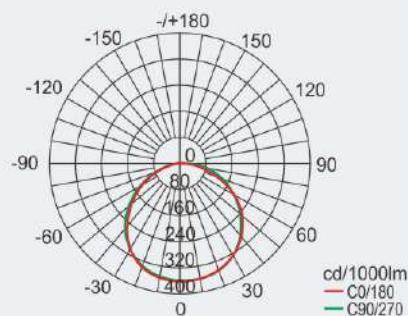
## LED Light Fittings

### BAT86 Series Explosion-proof LED Floodlights

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5700K (cool white).

#### BAT86-90-□□

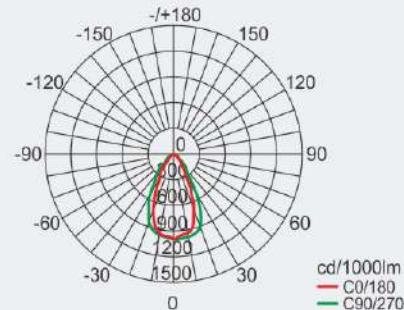
Lamp power (W)	Luminous flux	Wattage
60	6500lm	60W
90	9550lm	91W



#### BAT86-90-□□

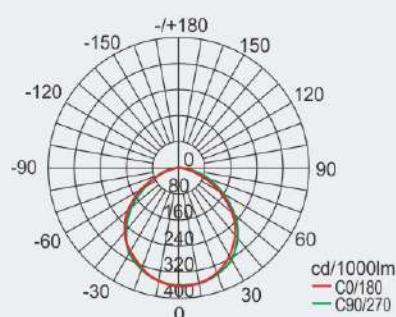
Lamp power (W)	Luminous flux	Wattage
60	6500lm	60W
90	9550lm	91W

Note: Lens of 40° and 25° can be provided on request.



#### BAT86-160-□□

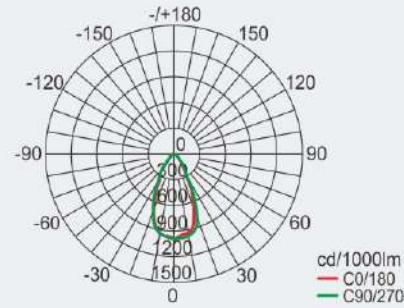
Lamp power (W)	Luminous flux	Wattage
120	14400lm	120W
160	19800lm	160W



#### BAT86-160-□□

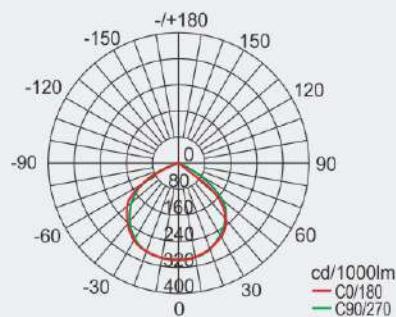
Lamp power (W)	Luminous flux	Wattage
120	14400lm	120W
160	19800lm	160W

Note: Lens of 40° and 25° can be provided on request.



#### BAT86-240-□□

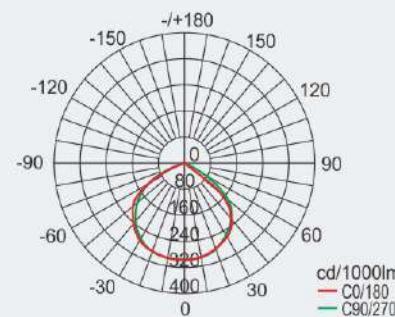
Lamp power (W)	Luminous flux	Wattage
200	23600lm	205W
240	28400lm	245W



#### BAT86-240-□□

Note: Measuring parameters of light fitting integrating two lamps

Lamp power (W)	Luminous flux	Wattage
2×200	47200lm	410W
2×240	56800lm	490W



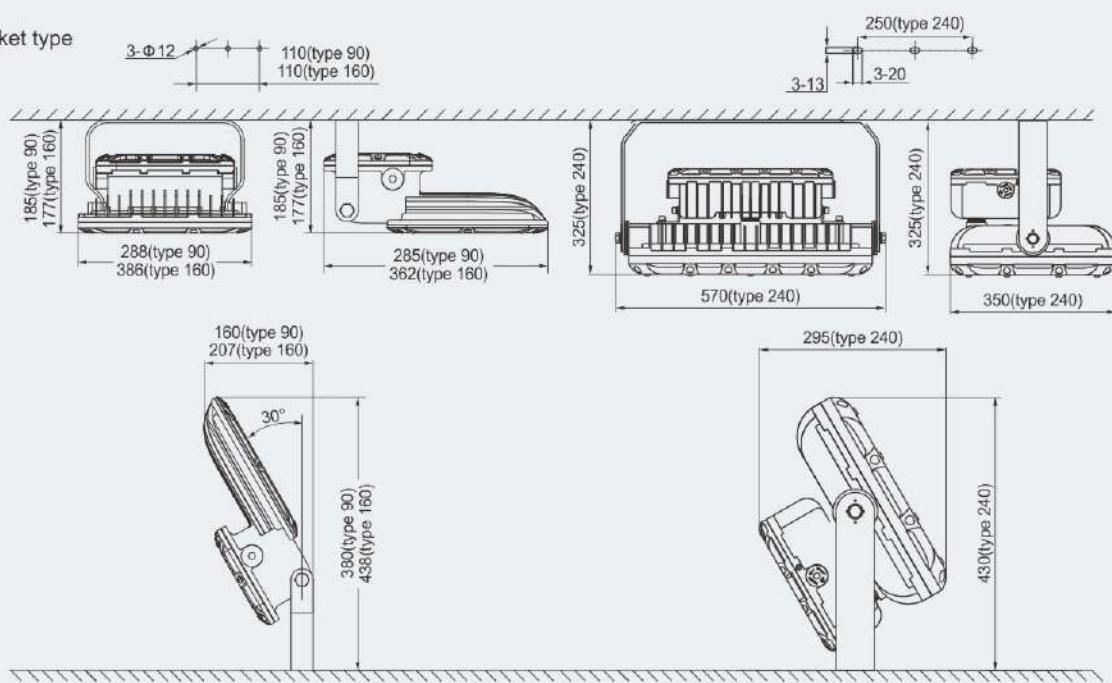
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

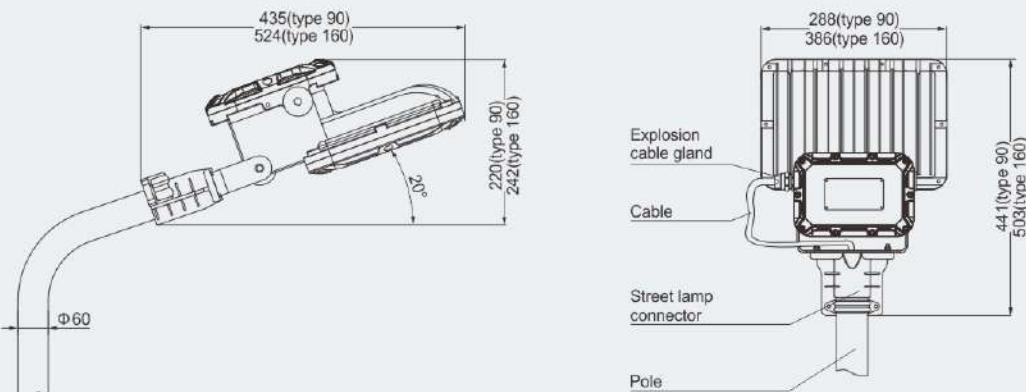
## BAT86 Series Explosion-proof LED Floodlights

### Mounting type (all dimensions in mm) - subject to alteration

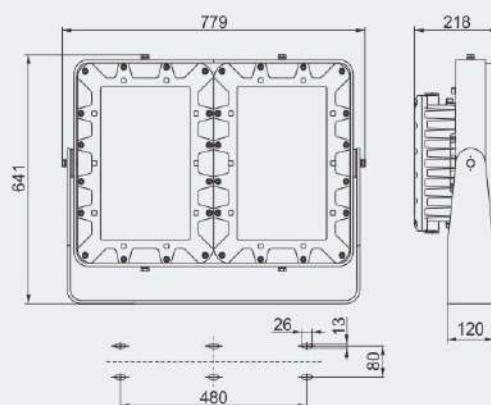
bracket type



street lamp type



### The description of light fitting integrated two lamps (2x200W, 2x240W)



## LED Light Fittings

### HRND95 Series Explosion-proof LED Lightings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Applicable lamp and power (max.300W)
  - LED: 40W, 60W, 80W, 120W, 160W, 200W, 240W, 300W
- ◆ International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- ◆ Two types of light distribution: spotlight and floodlight, which can be selected on request.
- ◆ Standard luminaries equip with 60° lens, without lens and 30° lens which are optional, please indicate when placing an order.
- ◆ Standard luminaries do not equip with external reflector, if need, please specify.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### ■ Catalogue number logic



#### ■ Selection table for "ec" type

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRND95-40 (ec)	40	3.50	HRND95-160 (ec)	160	9.50
HRND95-60 (ec)	60	4.00	HRND95-200 (ec)	200	10.00
HRND95-80 (ec)	80	6.00	HRND95-240 (ec)	240	16.50
HRND95-120 (ec)	120	6.50	HRND95-300 (ec)	300	17.00

**Note:** 1. Standard products with 60° lens, without lens and 30° lens which are optional, please indicate when placing an order.  
2. Standard luminaries do not equip with external lampshade if need, please specify.

#### ■ Selection table for "nR" type

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRND95-40 (nR)	40	3.50	HRND95-160 (nR)	160	9.50
HRND95-60 (nR)	60	4.00	HRND95-200 (nR)	200	10.00
HRND95-80 (nR)	80	6.00	HRND95-240 (nR)	240	16.50
HRND95-120 (nR)	120	6.50	HRND95-300 (nR)	300	17.00

**Note:** 1. Standard products with 60° lens, without lens and 30° lens which are optional, please indicate when placing an order.  
2. Standard luminaries do not equip with external lampshade if need, please specify.

## Zones 2; 21&22

# LED Light Fittings

## HRND95 Series Explosion-proof LED Lightings

### Technical data

#### Explosion-proof LED Lightings HRND95-□□

Explosion protection	"ec" type	"nR" type
Global (IECEx)	IECEx NEP 24.0037X	IECEx EUT 18.0002X
Gas and dust	Ex ec mc IIC T <sup>1)</sup> Gc Ex tb IIIC T <sup>1)</sup> Db	Ex nR IIC T <sup>2)</sup> Gc Ex tc IIIC T <sup>2)</sup> Dc
Europe (ATEX)	ATEX (applied for)	EPTI 18 ATEX 0346 X
Gas and dust	Ex II 3 G Ex ec mc IIC T <sup>1)</sup> Gc Ex II 2 D Ex tb IIIC T <sup>1)</sup> Db	Ex II 3 G Ex nR IIC T <sup>2)</sup> Gc Ex II 3 D Ex tc IIIC T <sup>2)</sup> Dc
	<sup>1)</sup> See Selection Table 1	<sup>2)</sup> See Selection Table 2
Certificates	IECEx; ATEX	IECEx; ATEX
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-18, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-18, IEC 60079-31	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
<b>Material</b>		
Enclosure	Copper-free Aluminium Alloy, powder coated surface,	
Glass cover	Toughened glass, stands 4J impact	
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.	
Exposed fastener	Stainless steel	
<b>Lamp</b>		
Lamp specification	LED module, Multiple LED	
Lamp power (W)	40W, 60W, 80W, 120W, 160W, 200W, 240W, 300W	
Colour rendering index (Ra)	≥80	
Colour temperature (CCT)	5000K Note: nature white is available in general. Warm white is optional, please specify when ordering.	
<b>Rated voltage</b>	110~277V AC 50/60Hz, 130~250V DC	100~277V AC 50/60Hz, 130~250V DC
<b>Degree of protection</b>	IP66	
<b>Ambient temperature</b>	-40°C~+58°C(+40°C)	-40°C~+55°C(+40°C)
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)	
<b>Cable entries</b>	1x M20 x 1.5 cable gland (DQM-I Ex e)	



### Selection table 1

Rated power(W)	Temperature classification			
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+58°C	
	Gas	Dust	Gas	Dust
40, 60, 80, 120, 160, 200, 240, 300	T5	T82°C	T4	T100°C

### Selection table 2

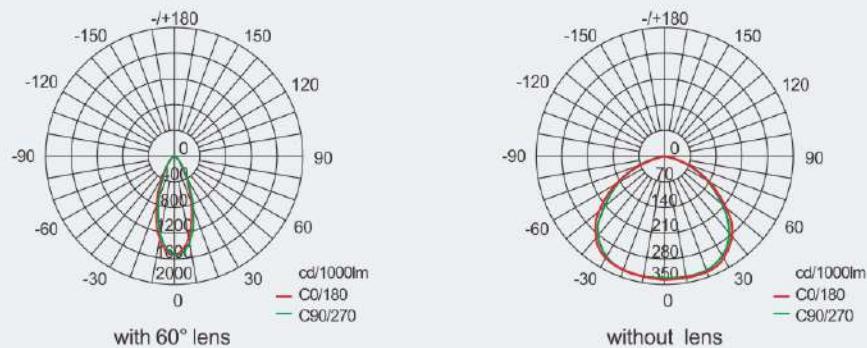
Rated power(W)	Temperature classification			
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+55°C	
	Gas	Dust	Gas	Dust
40, 80			T6	T80°C
60, 120, 160, 200, 240, 300	T6	T80°C	T5	T95°C

## LED Light Fittings

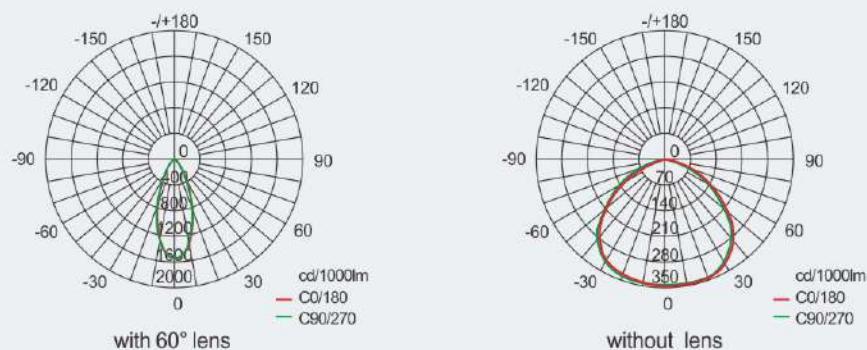
### HRND95 Series Explosion-proof LED Lightings

**Photometric data** Note: Standard products without lens, 30° lens and 60° lens which are optional, please indicate when placing an order.

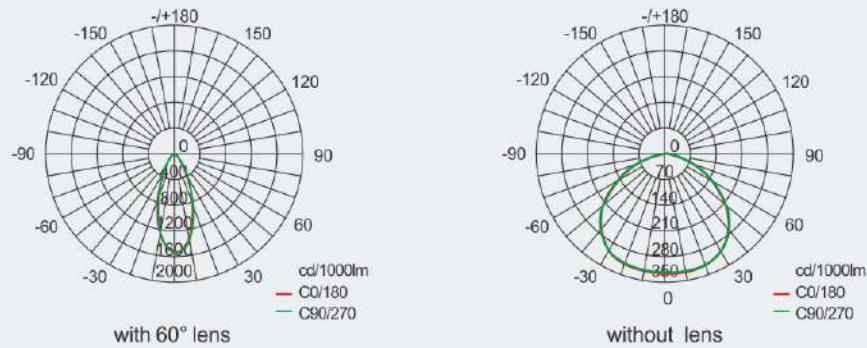
Lamp power (W)	Luminous flux	Wattage
40W	6400lm	40W
60W	8600lm	60W



Lamp power (W)	Luminous flux	Wattage
80W	12000lm	81W
120W	15000lm	122W



Lamp power (W)	Luminous flux	Wattage
160W	24000lm	160W
200W	30000lm	198W



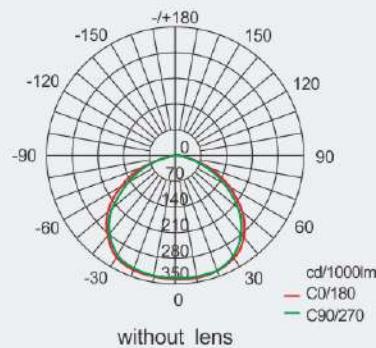
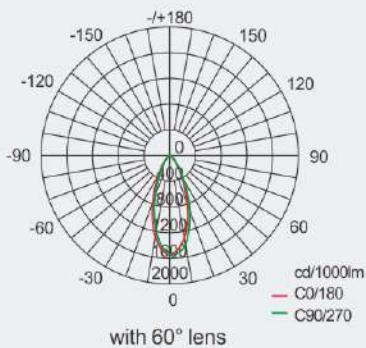
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

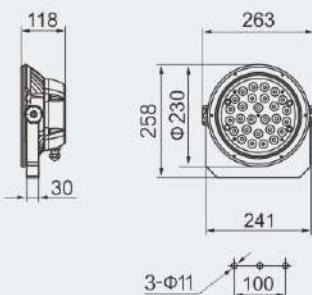
## HRND95 Series Explosion-proof LED Lightings

**Photometric data** Note: Standard products without lens, 30° lens and 60° lens which are optional, please indicate when placing an order.

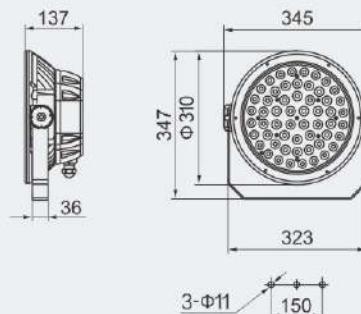
Lamp power (W)	Luminous flux	Wattage
240W	37000lm	241W
300W	46000lm	300W



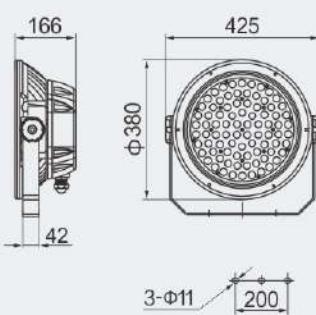
**Dimension drawings** (all dimensions in mm) - subject to alteration



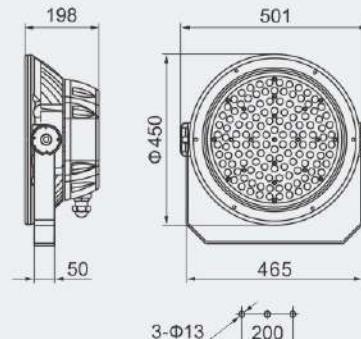
HRND95-40 / HRND95-60



HRND95-80 / HRND95-120



HRND95-160 / HRND95-200



HRND95-240 / HRND95-300



### Accessories

Picture	Name	Ordering code	Weight (kg)
	40W/60W Reflector	95001	0.23
	80W/120W Reflector	95002	0.39
	160W/200W Reflector	95003	0.45
	240W/300W Reflector	95004	0.69

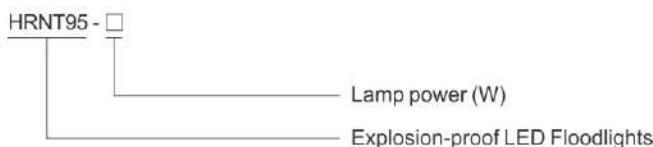
## LED Light Fittings

### HRNT95 Series Explosion-proof LED Floodlights



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Applicable lamp and power (max.300W)
  - LED: 80W, 120W, 150W, 200W, 240W, 300W
- ◆ International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- ◆ Two types of light distribution: spotlight and floodlight, which can be selected on request.
- ◆ Standard luminaries equip with 60° lens, 30° lens which is optional, please indicate when placing an order.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### Catalogue number logic



#### Selection table for "ec" type

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRNT95-80 (ec)	80	5.40	HRNT95-200 (ec)	200	8.00
HRNT95-120 (ec)	120	5.80	HRNT95-240 (ec)	240	8.20
HRNT95-150 (ec)	150	7.50	HRNT95-300 (ec)	300	13.40

**Note:** 1. Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.  
 2. Standard luminaries do not equip with wire guard, if need, please specify.

#### Selection table for "nR" type

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRNT95-80 (nR)	80	5.40	HRNT95-240 (nR)	240	8.20
HRNT95-120 (nR)	120	5.80	HRNT95-300 (nR)	300	13.40

**Note:** 1. Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.  
 2. Standard luminaries do not equip with wire guard, if need, please specify.

## Zones 2; 21&22

# LED Light Fittings

## HRNT95 Series Explosion-proof LED Floodlights

### Technical data

#### Explosion-proof LED floodlights HRNT95-□□

Explosion protection	"ec" type	"nR" type
Global (IECEx)	IECEx NEP 24.0038X	IECEx EUT 18.0003X
Gas and dust	Ex ec mc IIC T <sup>1)</sup> Gc Ex tb IIIC T <sup>1)</sup> Db	Ex nR IIC T <sup>2)</sup> Gc Ex tc IIIC T <sup>2)</sup> Dc
Europe (ATEX)	ATEX (applied for)	EPTI 18 ATEX 0344X
Gas and dust	Ex II 3 G Ex ec mc IIC T <sup>1)</sup> Gc Ex II 2 D Ex tb IIIC T <sup>1)</sup> Db	Ex II 3 G Ex nR IIC T <sup>2)</sup> Gc Ex II 3 D Ex tc IIIC T <sup>2)</sup> Dc
Certificates	<sup>1)</sup> See Selection Table 1	
Conformity to standards	IECEx; ATEX EN 60079-0, EN 60079-7, EN 60079-18, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-18, IEC 60079-31	IECEx; ATEX EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
<b>Material</b>		
Enclosure	Copper-free Aluminium Alloy, powder coated surface,	
Glass cover	Toughened glass, stands 4J impact	
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.	
Exposed fastener	Stainless steel	
<b>Lamp</b>		
Lamp specification	LED module, Multiple LED	
Lamp power (W)	80W, 120W, 150W, 200W, 240W, 300W	80W, 120W, 240W, 300W
Colour rendering index (Ra)	≥80	
Colour temperature (CCT)	5000K Note: nature white is available in general. Warm white is optional, please specify when ordering.	
<b>Rated voltage</b>	110~277V AC 50/60Hz, 130~250V DC 415V AC 50/60Hz is optional (only for 200W, 300W)	100~277V AC 50/60Hz, 130~250V DC
<b>Degree of protection</b>	IP66	
<b>Ambient temperature</b>	-40°C~+58°C(+40°C)	-40°C~+55°C(+40°C)
Terminal	3 x 1.5~4mm <sup>2</sup> (L+N+PE)	
Cable entries	1x M20 x 1.5 cable gland (DQM-I Ex e)	



### Selection table 1

Rated power(W)	Temperature classification			
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+58°C	
	Gas	Dust	Gas	Dust
80, 120, 150, 200, 240, 300	T5	T82°C	T4	T100°C
200 (415V AC, 50/60Hz)	T5	T88°C	T4	T106°C

### Selection table 2

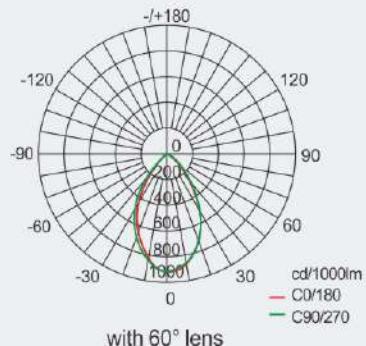
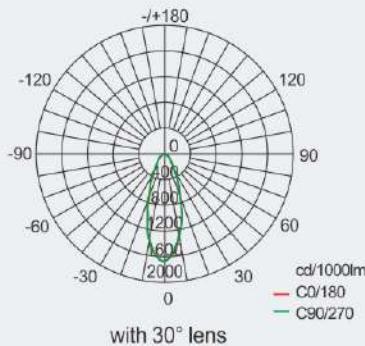
Rated power(W)	Temperature classification			
	-40°C≤Ta≤+40°C		-40°C≤Ta≤+55°C	
	Gas	Dust	Gas	Dust
80	T6	T80°C	T6	T80°C
120, 240, 300			T5	T95°C

## LED Light Fittings

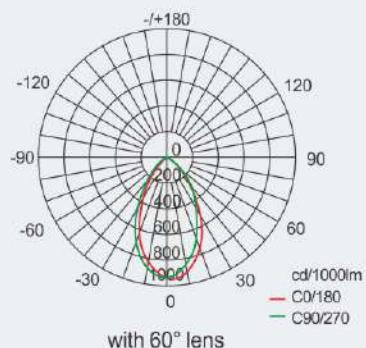
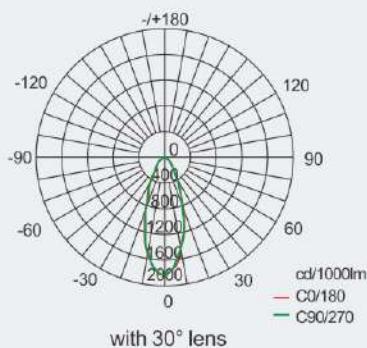
### HRNT95 Series Explosion-proof LED Floodlights

**Photometric data** Note: Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.

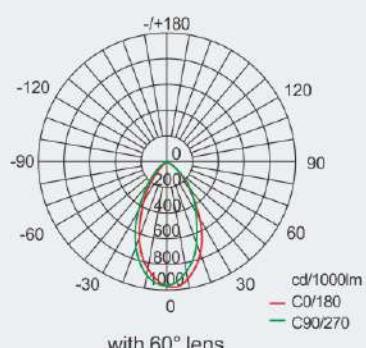
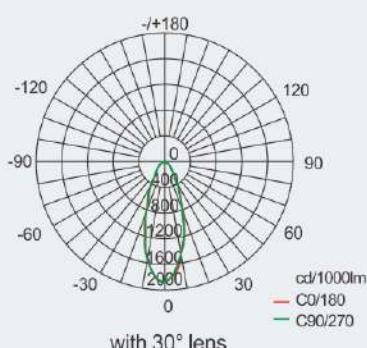
Lamp power (W)	Luminous flux	Wattage
80W	11400lm	80W
120W	17400lm	121W



Lamp power (W)	Luminous flux	Wattage
150W	21000lm	150W
200W	27000lm	200W
240W	33600lm	237W



Lamp power (W)	Luminous flux	Wattage
300W	43000lm	301W

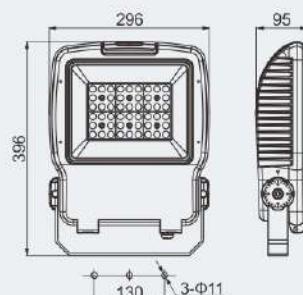


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

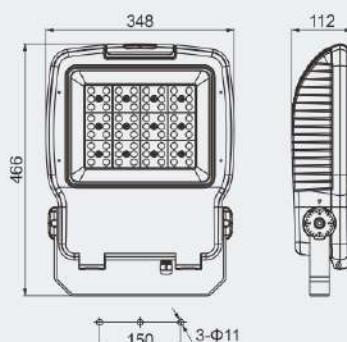
## LED Light Fittings

### HRNT95 Series Explosion-proof LED Floodlights

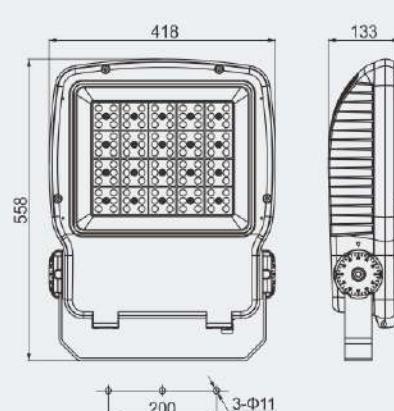
**Dimension drawings** (all dimensions in mm) - subject to alteration



HRNT95-80 / HRNT95-120



HRNT95-150 / HRNT95-200 / HRNT95-240



HRNT95-300

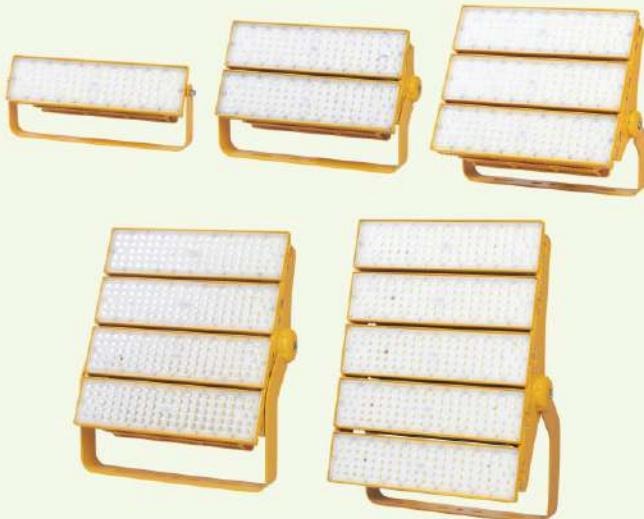


#### Accessories

Picture	Name	Ordering code	Weight (kg)
	80W/120W Wire guard	95008	0.30
	150W/200W/240W Wire guard	95009	0.40
	300W Wire guard	95010	0.55

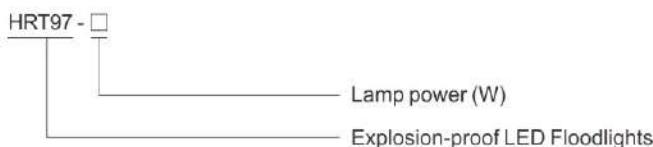
## LED Light Fittings

### HRT97 Series Explosion-proof LED Floodlights



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Applicable lamp and power (max.1000W)
  - LED: 200W, 400W, 600W, 800W, 1000W
- ◆ International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- ◆ Two types of light distribution: spotlight and floodlight, which can be selected on request.
- ◆ Standard luminaries equip with 60° lens, 30° lens which is optional, please indicate when placing an order.
- ◆ Low-maintenance due to long service life is up to 100,000 operating hours.
- Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### ■ Catalogue number logic



#### ■ Selection table

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRT97-200	200	4.50	HRT97-800	800	19.00
HRT97-400	400	9.60	HRT97-1000	1000	23.40
HRT97-600	600	13.60			

**Note:** 1. Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.  
 2. Standard luminaries do not equip with wire guard, if need, please specify.

## Zones 2; 21&22

# LED Light Fittings

## HRT97 Series Explosion-proof LED Floodlights

### Technical data

#### Explosion-proof LED floodlights HRT97-□

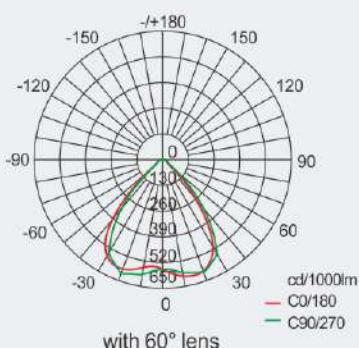
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex ec mc IIC T4/T3 Gc Ex tb IIIC T130°C/T195°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 3 G Ex ec mc IIC T4/T3 Gc Ex II 2 D Ex tb IIIC T130°C/T195°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-7, EN 60079-18, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-18, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface,
Glass cover	Polycarbonate, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp specification	LED module, Multiple LED
Lamp power (W)	200W, 400W, 600W, 800W, 1000W
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5000K
	Note: nature white is available in general. Warm white is optional, please specify when ordering.
<b>Rated voltage</b>	100~277V AC 50/60Hz, 150~250V DC
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	T4/T130°C for tamb: -60°C~+40°C T3/T195°C for tamb: -60°C~+60°C
<b>Terminal</b>	3 x 1.5~6mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	1x M20 x 1.5 cable gland (DQM-I Ex e)(M25 x 1.5 is optional)



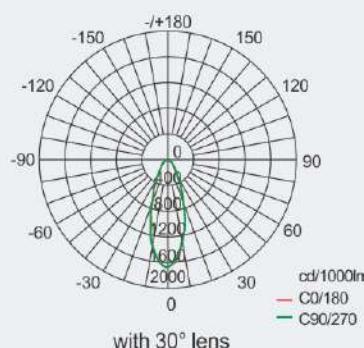
### Photometric data

Note: Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.

Lamp power (W)	Luminous flux	Wattage
200W	29000lm	193W



with 60° lens



with 30° lens

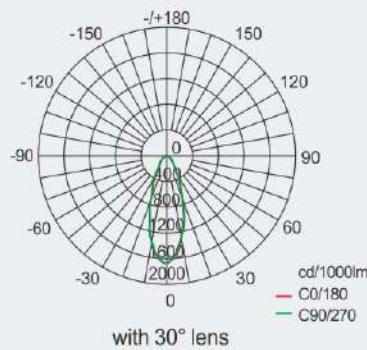
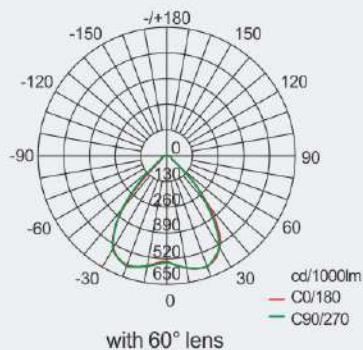
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

## LED Light Fittings

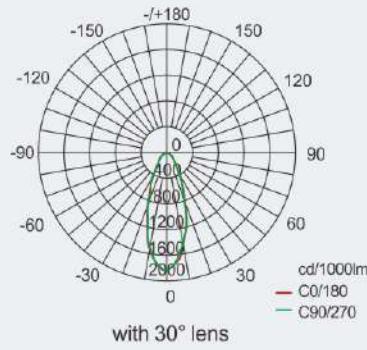
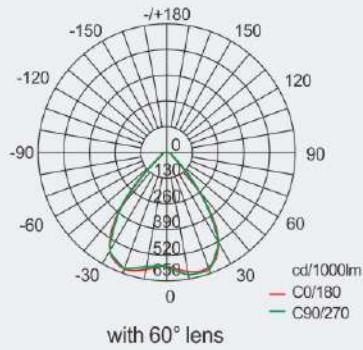
### HRT97 Series Explosion-proof LED Floodlights

**Photometric data** Note: Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.

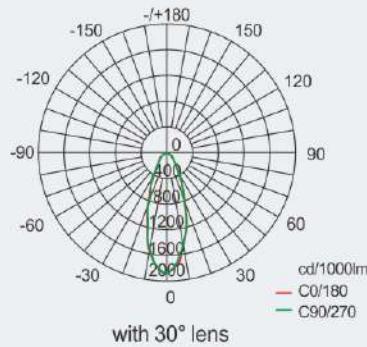
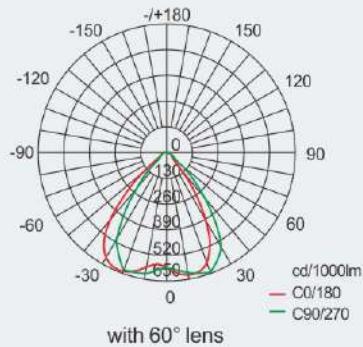
Lamp power (W)	Luminous flux	Wattage
400W	58000lm	383W



Lamp power (W)	Luminous flux	Wattage
600W	88000lm	590W



Lamp power (W)	Luminous flux	Wattage
800W	112000lm	779W



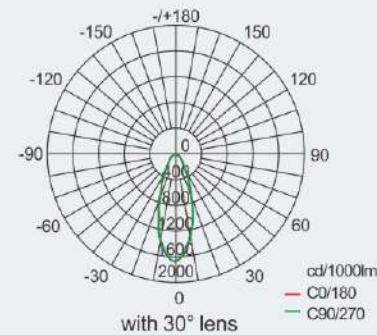
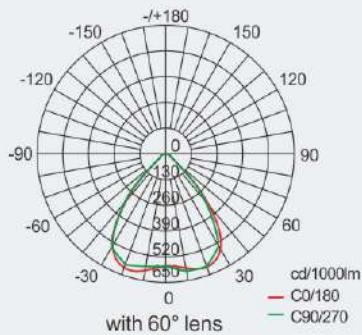
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

## HRT97 Series Explosion-proof LED Floodlights

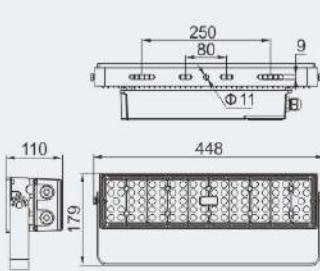
**Photometric data** Note: Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.

Lamp power (W)	Luminous flux	Wattage
1000W	145000lm	979W

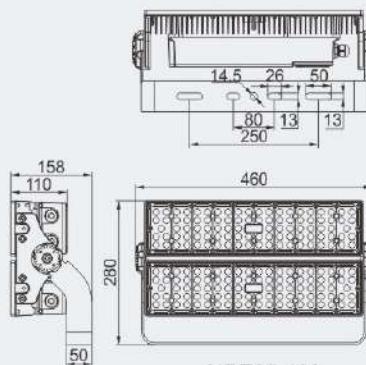


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

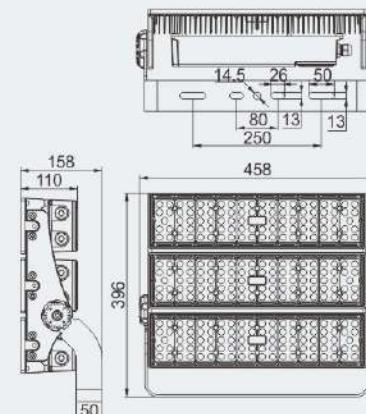
**Dimension drawings** (all dimensions in mm) - subject to alteration



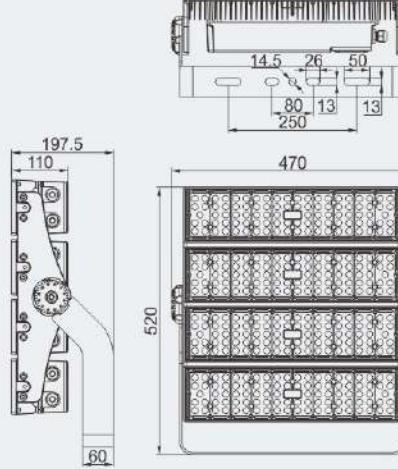
HRT97-200



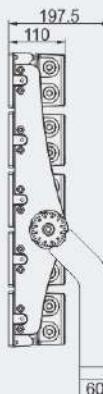
HRT97-400



HRT97-600



HRT97-800



HRT97-1000

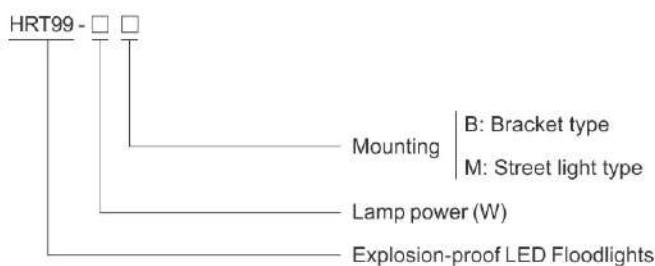
## LED Light Fittings

### HRT99 Series Explosion-proof LED Floodlights



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Applicable lamp and power (max.240W)
  - LED: 80W, 100W, 120W, 160W, 200W, 240W
- ◆ International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- ◆ Low-maintenance costs due to long service life, which is up to 100,000 operating hours.

#### ■ Catalogue number logic



#### ■ Selection table

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRT99-80	80	3.90	HRT97-160	160	7.60
HRT99-100	100	3.90	HRT97-200	200	7.60
HRT99-120	120	3.90	HRT97-240	240	7.60

Zones 1&2; 21&22

# LED Light Fittings

## HRT99 Series Explosion-proof LED Floodlights

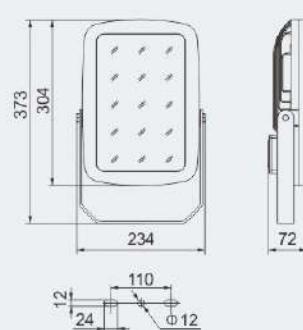
### Technical data

#### Explosion-proof LED floodlights HRT99-□

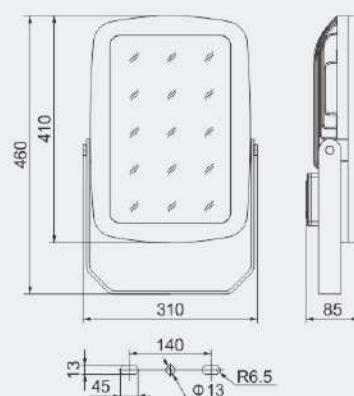
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db eb IIC T6/T5 Gb
Europe (ATEX)	Ex tb IIIC T80°C/T95°C Db
Gas and dust	ATEX (applied for)
Gas and dust	II 2 G Ex db eb IIC T6/T5 Gb
Gas and dust	II 2 D Ex tb IIIC T80°C/T95°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface,
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp specification	LED module, Multiple LED
Lamp power (W)	80W, 100W, 120W, 160W, 200W, 240W
Colour rendering index (Ra)	≥80
Colour temperature (CCT)	5700K Note: nature white is available in general. Warm white is optional, please specify when ordering.
<b>Rated voltage</b>	220~240V AC 50/60Hz 24~48V DC (80W, 100W, 120W)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	T6/T80°C for tamb: -40°C~+40°C T5/T95°C for tamb: -40°C~+60°C
<b>Terminal</b>	3 x 1.5~6mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	1x M20 x 1.5 cable gland (DQM-I Ex e)(M25 x 1.5 is optional)



### Dimension drawings (all dimensions in mm) - subject to alteration



80W, 100W, 120W



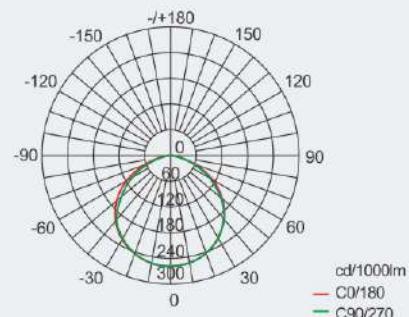
160W, 200W, 240W

## LED Light Fittings

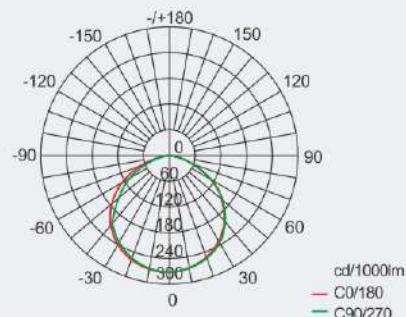
### HRT99 Series Explosion-proof LED Floodlights

**Photometric data** Note: Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.

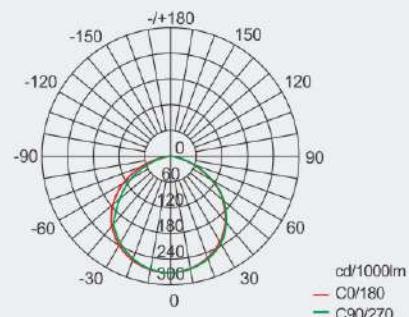
Lamp power (W)	Luminous flux	Wattage
80W	9100lm	76W



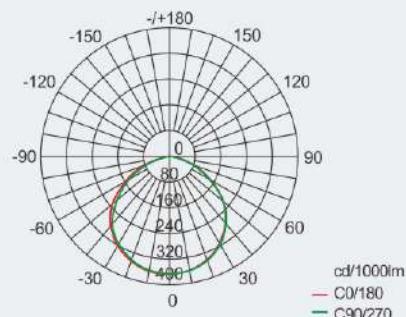
Lamp power (W)	Luminous flux	Wattage
100W	12000lm	105W



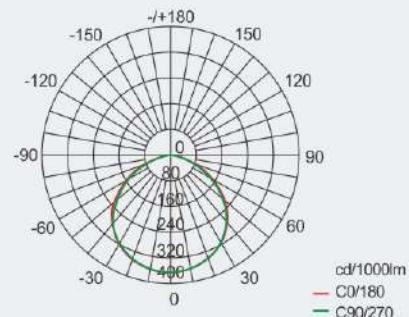
Lamp power (W)	Luminous flux	Wattage
120W	13300lm	115W



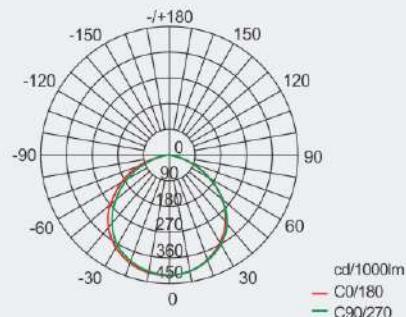
Lamp power (W)	Luminous flux	Wattage
160W	18000lm	155W



Lamp power (W)	Luminous flux	Wattage
200W	23000lm	200W



Lamp power (W)	Luminous flux	Wattage
240W	26500lm	238W



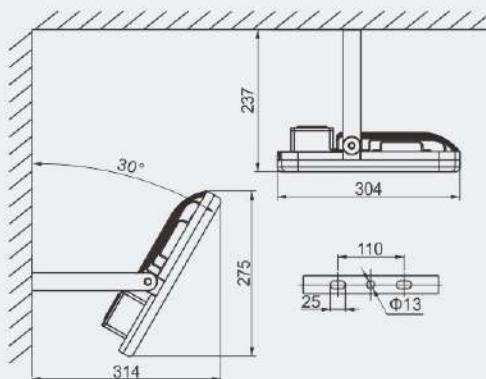
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# LED Light Fittings

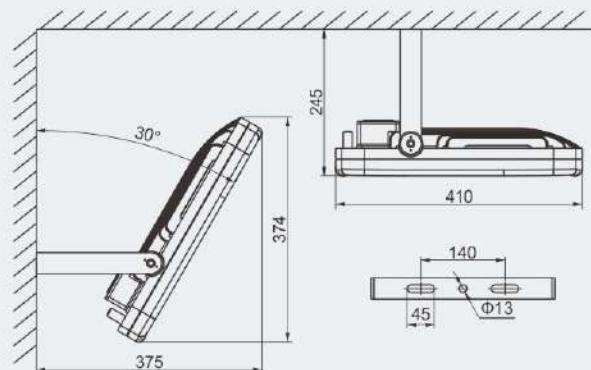
## HRT99 Series Explosion-proof LED Floodlights

### Mounting type (all dimensions in mm) – subject to alteration

B: Bracket type

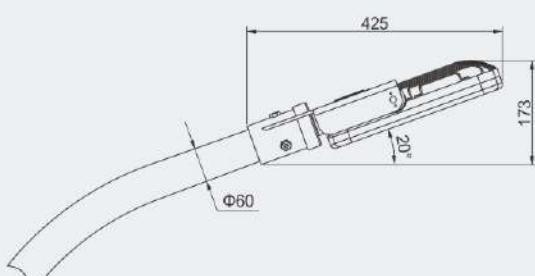


Type I (80W,100W,120W)

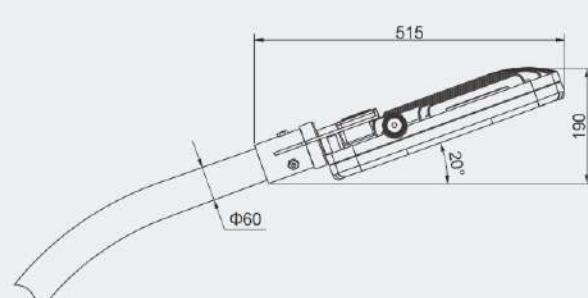


Type II (160W,200W,240W)

M: Street light type



Type I (80W,100W,120W)



Type II (160W,200W,240W)



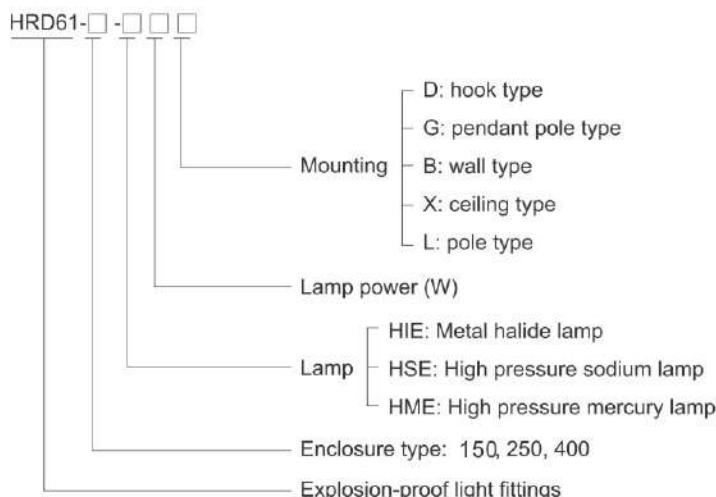
## Pendant Light Fittings

### HRD61 Series Explosion-proof Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Available lamp (max. 400W)
  - Metal halide lamp (HIE)
  - High pressure mercury lamp (HME)
  - High pressure sodium lamp (HSE)
- ◆ Three enclosure types: 150, 250, 400.
- ◆ Integral control gear, easy installation and maintenance.
- ◆ Explosion-proof trigger, rapid starting, stable performance and long service life.
- ◆ Wireless connection between body and top cover, easy installation and maintenance.
- ◆ Powder coated wire guard, white.
- ◆ Toughened glass cover resistant to temperature changes.

#### Catalogue number logic



#### Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder
	HIE	HSE	HME	
HRD61-150	70, 100, 150	70, 100	80, 125	E27
HRD61-250	250	150, 250	250	E40
HRD61-400	400	400	400	E40

#### Note

1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.
3. The light fittings are supplied without external reflector. Please specify when ordering.

**Zones 1&2; 21&22**

# Pendant Light Fittings

## HRD61 Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings HRD61-150-□□□

##### Explosion protection

Global (IECEx)  
Gas and dust

Europe (ATEX)  
Gas and dust

##### Certificates

##### Conformity to standards

##### Material

Enclosure  
Wire guard  
Transparent cover  
Ballast  
Trigger  
Power factor  
Internal reflector  
External reflector(optional)  
Exposed fastener

##### Lamp

Lamp holder  
Available lamp and lamp power (W)

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

##### Cable entries

##### Cable gland

##### Available cable outer diameter

IECEx CQM 11.0010X  
Ex db IIC T4 or T3 Gb  
Ex tb IIIC T130°C or T190°C Db IP66  
TÜV CY 20 ATEX 0206281 X  
Ex II 2 G Ex db IIC T4 or T3 Gb  
Ex II 2 D Ex tb IIIC T130°C or T190°C Db  
IECEx; ATEX  
EN 60079-0, EN 60079-1, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-31

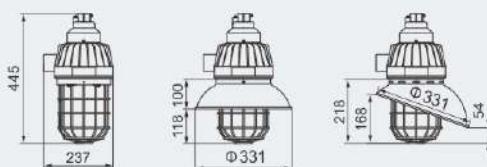
Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)  
Stainless steel  
Toughened glass, stands 4J impact  
Electromagnetic ballast, rapid starting, stable performance  
Explosion-proof trigger  
 $\text{COS}\phi \geq 0.90$  (compensated)  
High-purity aluminium  
Pure aluminium, anodic-oxidation treatment for surface  
Stainless steel

E27  
Metal halide lamp (HIE): 70W, 100W, 150W  
High pressure mercury lamp (HME): 80W, 125W  
High pressure sodium lamp (HSE): 70W, 100W  
Note: HPI European standard ballast is available in general  
220~240V AC 50Hz (60Hz is optional)  
M5 (internal & external earth bolts)  
IP66  
T4 or T130°C for Tamb: -60°C~+40°C (HIE, HME)  
T3 or T190°C for Tamb: -60°C~+55°C (HIE, HME)  
T4 or T130°C for Tamb: -60°C~+55°C (HSE)

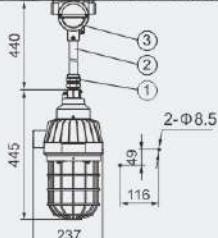
3 x 1.5~4mm<sup>2</sup> (L+N+PE)  
1 x G3/4" (pendant pole type and hook type);  
4 x M25x1.5 (wall type and ceiling type); 1 x G1"(pole type)  
See Mounting type  
Φ 10~Φ 14 (mm)



### Mounting type (all dimensions in mm) – subject to alteration



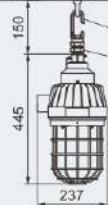
#### G: pendant pole type



Weight: 10.35kg  
Accessories supplied with the light fittings:

- ① BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), Stainless steel.
- ② Straight pipe (M25 x 1.5), length: 300mm.
- ③ BHD51-F (Ex d IIC, copper-free aluminium), see P3/4.

#### D: hook type



Weight: 9.30kg  
Accessories supplied with the light fittings:

- ① BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), Stainless steel.
- ④ Hook (Stainless steel)

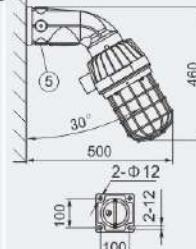
#### X: ceiling type



Weight: 9.45kg  
Accessories supplied with the light fittings:

- ⑤ 4 x M25 x 1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.  
Please see P7/22~31.

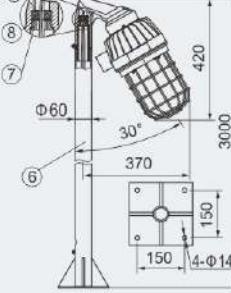
#### B: wall type



Weight: 11.20kg  
Accessories supplied with the light fittings:

- ⑤ 4 x M25 x 1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.  
Please see P7/22~31.

#### L: pole type



Weight: 9.70kg  
Accessories supplied with the light fittings:

- ⑥ Pole shall be provided by user.
- ⑦ Locking bolt, 1No.
- ⑧ Washer, 2 Nos.
- ⑨ Seal ring, 1No.

## Pendant Light Fittings

### HRD61 Series Explosion-proof Light Fittings

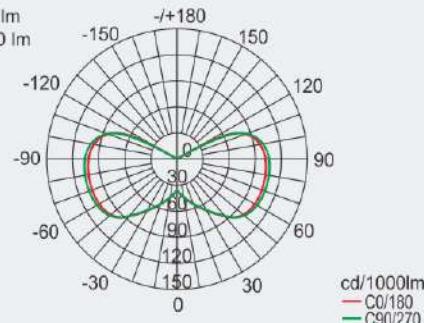
#### Photometric data



#### HRD61-150-□□□(Without external reflector)

Rated luminous flux

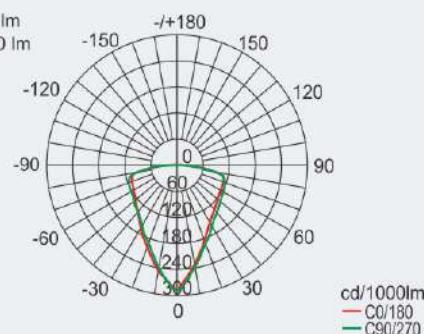
70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 The data from Philips lamp



#### HRD61-150-□□□(With wide reflector)

Rated luminous flux

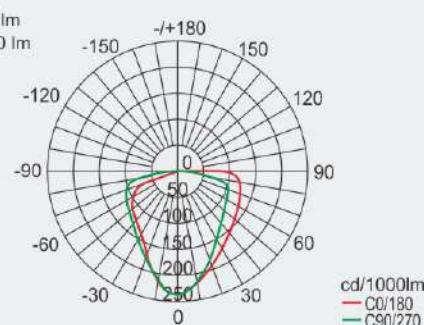
70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 The data from Philips lamp



#### HRD61-150-□□□(With angle reflector)

Rated luminous flux

70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Pendant Light Fittings

## HRD61 Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings HRD61-250-□□□

##### Explosion protection

Global (IECEx)  
Gas and dust

Europe (ATEX)  
Gas and dust

##### Certificates

##### Conformity to standards

##### Material

Enclosure  
Wire guard  
Transparent cover  
Ballast  
Trigger  
Power factor  
Internal reflector  
External reflector(optional)  
Exposed fastener

IECEx CQM 07.0003X  
Ex d IIC T3 Gb  
Ex tb IIIC T190°C Db IP66  
TÜV CY 18 ATEX 0206012 X  
Ex II 2 G Ex db IIC T3 Gb  
Ex II 2 D Ex tb IIIC T190°C Db IP66  
IECEx; ATEX  
EN 60079-0, EN 60079-1, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Lamp

Lamp holder  
Available lamp and lamp power (W)

Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)  
Stainless steel  
Toughened glass, stands 4J impact  
Electromagnetic ballast, rapid starting, stable performance  
Explosion-proof trigger  
 $\text{COS } \phi \geq 0.90$  (compensated)  
High-purity aluminium  
Pure aluminium, anodic-oxidation treatment for surface  
Stainless steel

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

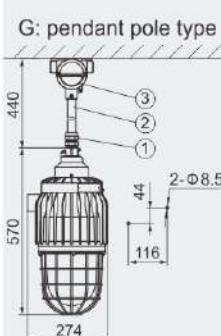
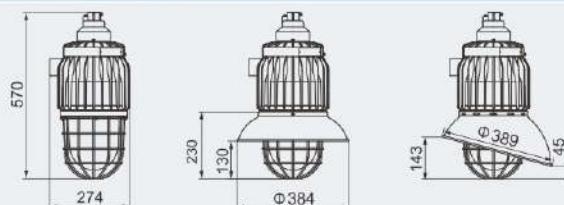
##### Cable entries

##### Cable gland

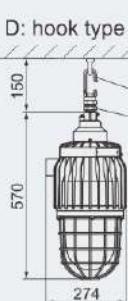
##### Available cable outer diameter

IP66  
-20°C~+55°C  
3 x 1.5~4mm<sup>2</sup> (L+N+PE)  
1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)  
Φ 10~Φ 14 (mm)

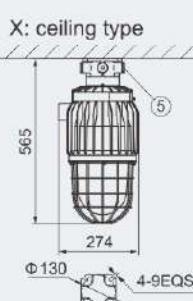
### Mounting type (all dimensions in mm) – subject to alteration



Weight: 17.20kg  
Accessories supplied with the light fittings:  
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), Stainless steel.  
②.Straight pipe (M25 x 1.5), length: 300mm.  
③.BHD51-F (Ex d IIC, cast iron), see P3/4.



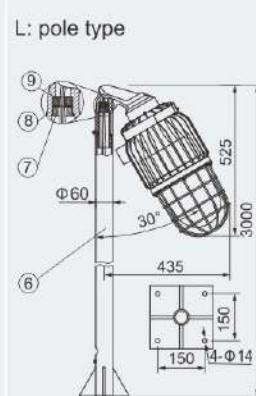
Weight: 14.55kg  
Accessories supplied with the light fittings:  
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), Stainless steel.  
④.Hook (Stainless steel)



Weight: 15.20kg  
Accessories supplied with the light fittings:  
5.4 x M25 x 1.5 Plugs: Ex d, cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.  
Please see P7/22-31.



Weight: 16.95kg  
Accessories supplied with the light fittings:  
5.4 x M25 x 1.5 Plugs: Ex d, cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.  
Please see P7/22-31.



Weight: 15.50kg  
Accessories supplied with the light fittings:  
⑥.Pole shall be provided by user.  
⑦.Locking bolt, 1 No.  
⑧.Washer, 2 Nos.  
⑨.Seal ring, 1 No.

## Pendant Light Fittings

### HRD61 Series Explosion-proof Light Fittings

#### Photometric data

##### HRD61-250-□□□(Without external reflector)



###### Rated luminous flux

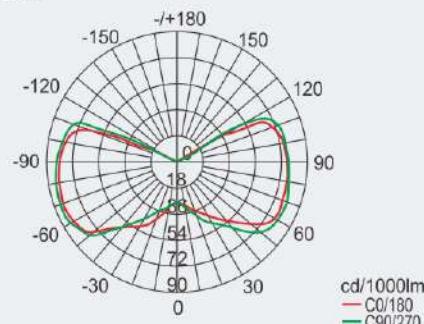
150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

250W Metal halide lamp: 23200 lm

250W High pressure mercury lamp: 13000 lm

The data from Philips lamp



##### HRD61-250-□□□(With wide reflector)



###### Rated luminous flux

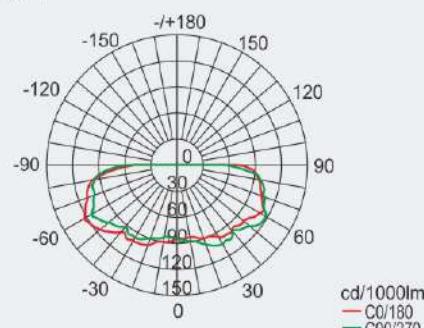
150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

250W Metal halide lamp: 23200 lm

250W High pressure mercury lamp: 13000 lm

The data from Philips lamp



##### HRD61-250-□□□(With angle reflector)



###### Rated luminous flux

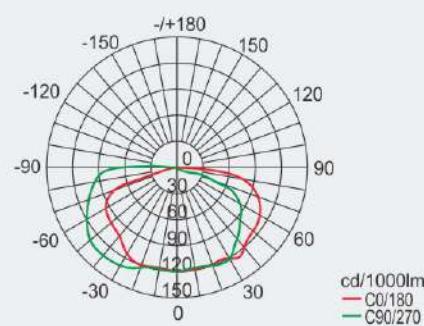
150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

250W Metal halide lamp: 23200 lm

250W High pressure mercury lamp: 13000 lm

The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Pendant Light Fittings

## HRD61 Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings

HRD61-400-□□□

##### Explosion protection

Global (IECEx)  
Gas and dust  
Europe (ATEX)  
Gas and dust

IECEx CQM 08.0004; CU-TR  
Ex d IIC T3 Gb  
Ex tb IIIC T194°C Db IP66  
TÜV CY 18 ATEX 0206013 X  
Ex II 2 G Ex db IIC T3 Gb  
Ex II 2 D Ex tb IIIC T194°C Db IP66  
IECEx; ATEX

##### Certificates

##### Conformity to standards

##### Material

Enclosure  
Wire guard  
Transparent cover  
Ballast  
Trigger  
Power factor  
Internal reflector  
External reflector(optional)  
Exposed fastener

Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)  
Stainless steel  
Toughened glass, stands 4J impact  
Electromagnetic ballast, rapid starting, stable performance  
General trigger  
 $\text{COS}\phi \geq 0.90$  (compensated)  
High-purity aluminium  
Pure aluminium, anodic-oxidation treatment for surface  
Stainless steel

##### Lamp

Lamp holder  
Available lamp and lamp power (W)

E40  
Metal halide lamp (HIE): 400W  
High pressure mercury lamp (HME): 400W  
High pressure sodium lamp (HSE): 400W

Note: HPI European standard ballast is available in general  
220~240V AC 50Hz (60Hz is optional)

208V, 250V, 277V AC 50Hz (60Hz is optional)  
M5 (internal & external earth bolts)

IP66

-20°C~+55°C

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)  
See Mounting type  
Φ 10~Φ 14 (mm)

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

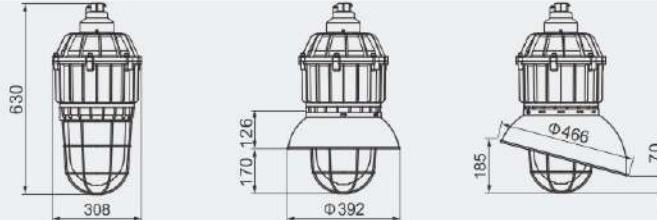
##### Terminal

##### Cable entries

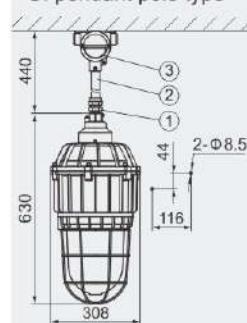
##### Cable gland

##### Available cable outer diameter

### Mounting type (all dimensions in mm) – subject to alteration



G: pendant pole type

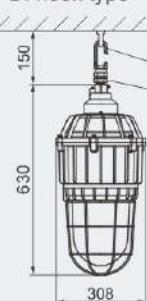


Weight: 23.65kg

Accessories supplied with the light fittings:

1. BGJ-III explosion-proof connector G3/4" (M) / M25 x 1.5 (F), Stainless steel.
2. Straight pipe (M25 x 1.5), length: 300mm.
3. BHD51-F (Ex d IIC, cast iron), see P3/4.

D: hook type

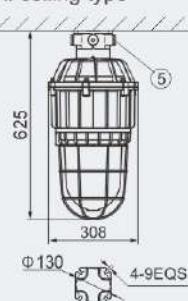


Weight: 20.85kg

Accessories supplied with the light fittings:

1. BGJ-III explosion-proof connector G3/4" (M) / M25 x 1.5 (F), Stainless steel.
4. Hook (Stainless steel)

X: ceiling type

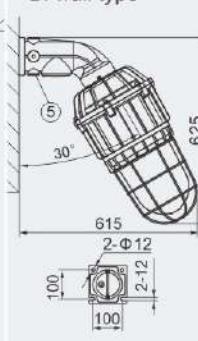


Weight: 21.50kg

Accessories supplied with the light fittings:

5. 4 x M25 x 1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

B: wall type

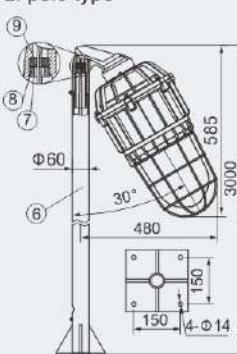


Weight: 23.25kg

Accessories supplied with the light fittings:

5. 4 x M25 x 1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

L: pole type



Weight: 21.80kg

Accessories supplied with the light fittings:

6. Pole shall be provided by user.
7. Locking bolt, 1 No.
8. Washer, 2 Nos.
9. Seal ring, 1 No.

## Pendant Light Fittings

### HRD61 Series Explosion-proof Light Fittings

#### Photometric data

##### HRD61-400-□□□(Without external reflector)



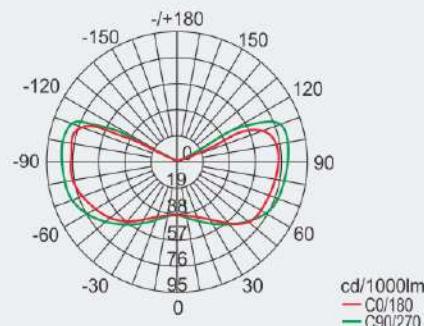
###### Rated luminous flux

400W Metal halide lamp: 42000 lm

400W High pressure sodium lamp: 56500 lm

400W High pressure mercury lamp: 22000 lm

The data from Philips lamp



##### HRD61-400-□□□(With wide reflector)



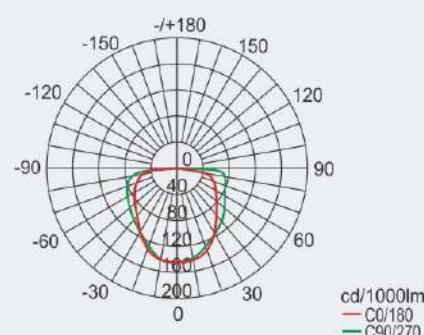
###### Rated luminous flux

400W Metal halide lamp: 42000 lm

400W High pressure sodium lamp: 56500 lm

400W High pressure mercury lamp: 22000 lm

The data from Philips lamp



##### HRD61-400-□□□(With angle reflector)



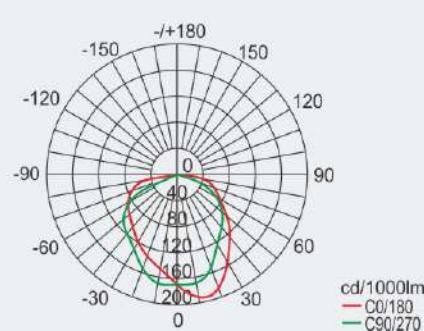
###### Rated luminous flux

400W Metal halide lamp: 42000 lm

400W High pressure sodium lamp: 56500 lm

400W High pressure mercury lamp: 22000 lm

The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

## Pendant Light Fittings

### HRD61 Series Explosion-proof Light Fittings

#### Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	61001	0.15
	250 Wide reflector	61002	0.27
	400 Wide reflector	91003	0.45
	150Angle reflector	61004	0.15
	250 Angle reflector	61005	0.36
	400 Angle reflector	71004	0.57
	Hook	61020	0.20
	Explosion-proof electronic trigger (For HRD61-150 type, HRD61-250 type)	61034	0.34

**Note:** Ballast, capacitor, 400 type trigger see P1/21

#### Power connection lamp replacement



- Unscrew lock bolt at top cover, remove top cover and circlip, and take terminal block out.
- Connect the cable to terminal block, put terminal block and circlip back to ensure proper connection.



- Screw top cover at light fitting, keep two arrows on two parts in line to ensure proper connection between two spring contact plates.



- Unscrew bolts at transparent cover, open the transparent cover and screw lamp into lamp holder. Close cover and screw bolts.



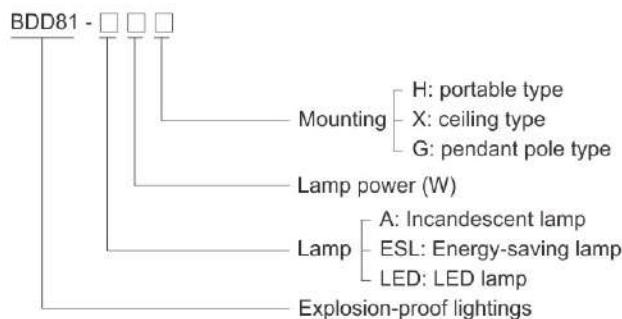
## Pendant Light Fittings

### BDD81 Series Explosion-proof Lightings



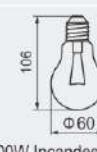
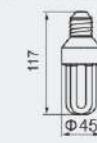
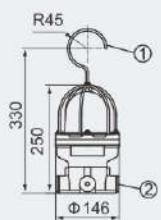
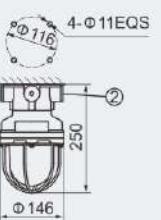
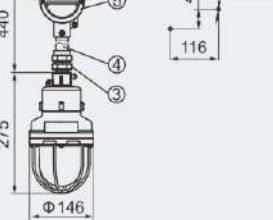
- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Available lamp and power:
  - Incandescent lamp: 25W, 40W, 60W, 100W
  - Energy-saving lamp: 9W, 11W
  - LED lamp: 3W, 5W, 8W
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ The light fittings are supplied without lamp source. PHILIPS lamps are recommended.

#### Catalogue number logic



#### Mounting type (all dimensions in mm) – subject to alteration

##### Installation reference

	H: portable type	X: ceiling type	G: pendant pole type
  	<p><b>H: portable type</b></p>  <p>Weight: 2.70kg  <b>Accessories supplied with the light fittings:</b>        ① Hook        ② 4 x M25 x 1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.</p>	 <p>Weight: 2.50kg  <b>Accessories supplied with the light fittings:</b>        ② 4 x M25 x 1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.</p>	 <p>Weight: 4.50kg  <b>Accessories supplied with the light fittings:</b>        ③ BGJ-III explosion-proof connector M25 x 1.5(M)/M25 x 1.5(F), Stainless steel.        ④ Straight pipe(M25 x 1.5), length: 300mm.        ⑤ BHD51-F (Ex d IIC, Copper-free Aluminium Alloy), see P3/4.</p>

## Zones 1&2; 21&22

# Pendant Light Fittings

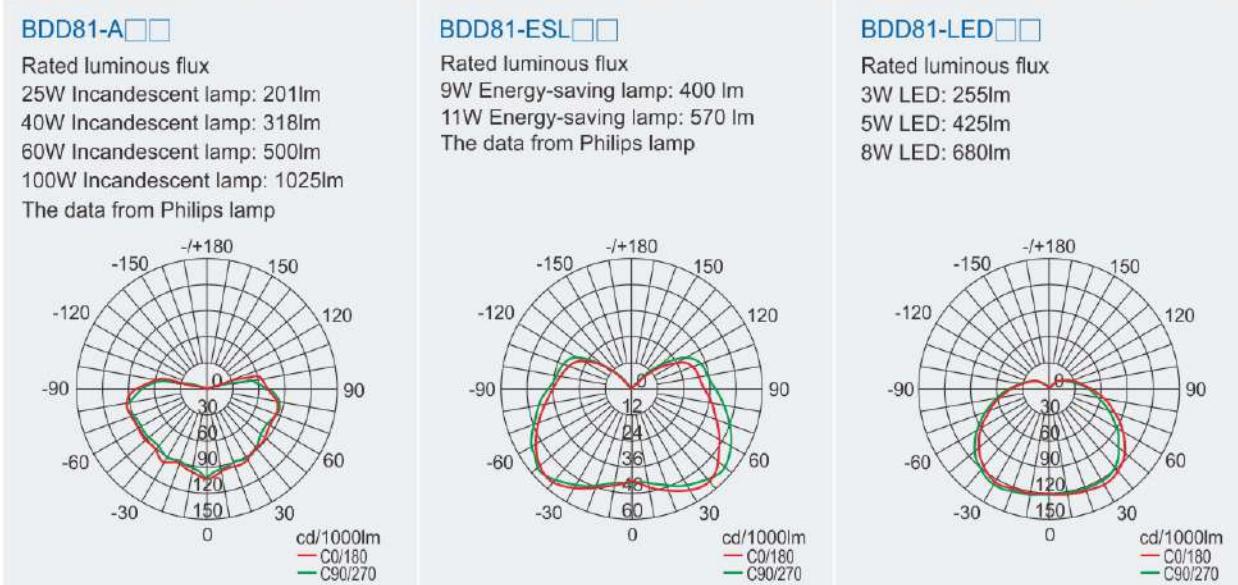
## BDD81 Series Explosion-proof Lightings

Technical data	
<b>Explosion-proof lightings</b>	<b>BDD81-□□□</b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 12.0036X
Gas and dust	Ex d IIC T4 Gb
Europe (ATEX)	Ex t IIIC T130°C Db IP66
Gas and dust	Ex II 2 G Ex d IIC T4 Gb
	Ex II 2 D Ex t IIIC T130°C Db IP66
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Wire guard	Stainless steel
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp holder	E27
Available lamp and lamp power (W)	Incandescent lamp: 25W, 40W, 60W, 100W Energy-saving lamp: 9W, 11W (for sealed atmosphere) LED: 3W, 5W, 8W
<b>Rated voltage</b>	220~240V AC 50/60Hz
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-40°C~+55°C
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Mounting</b>	Portable type, ceiling type, pendant pole type
<b>Cable entries</b>	4 x M25 x 1.5 for ceiling type and portable type, 1 x M25 x 1.5 for pendant pole type
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Applicable cable outer diameter</b>	Φ 10~Φ 14 (mm)



### Photometric data

Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).



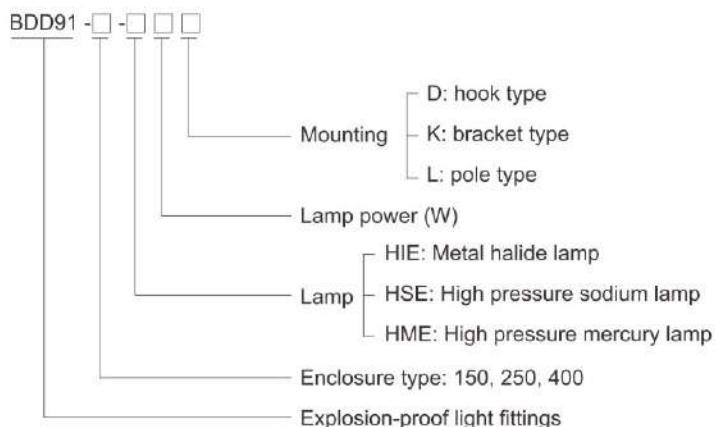
## Pendant Light Fittings

### BDD91 Series Explosion-proof Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Applicable lamp (max.400W):
  - Metal halide lamp (HIE)
  - High pressure sodium lamp (HSE)
  - High pressure mercury lamp (HME)
- ◆ Three enclosure types: 150, 250, 400
- ◆ Integral control gear, easy installation and maintenance.

#### ■ Catalogue number logic



#### ■ Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)
	HIE	HSE	HME		
BDD91-150	70, 100, 150	70, 100	80, 125	E27	11.20
BDD91-250	250	150, 250	250	E40	14.80
BDD91-400	250, 400	150, 250, 400	400	E40	16.70

**Note:** 1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.

2. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.

3. The light fittings are supplied without external reflector. Please specify when ordering.

## Zones 1&2; 21&22

# Pendant Light Fittings

## BDD91 Series Explosion-proof Light Fittings

Technical data													
<b>Explosion-proof light fittings</b>	<b>BDD91-150-□□□</b>												
<b>Explosion protection</b>													
Global (IECEx)	IECEx CQM 12.0016X												
Gas and dust	Ex d IIC T <sup>1</sup> Gb Ex t IIIC T <sup>1</sup> Db IP66												
Europe (ATEX)	DNV 11 ATEX 05977X												
Gas and dust	Ex II 2 G Ex d IIC T <sup>1</sup> Gb Ex II 2 D Ex tb IIIC T <sup>1</sup> Db IP66												
	<sup>1</sup> See Selection table												
<b>Certificates</b>	IECEx; ATEX; CU-TR												
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31												
<b>Material</b>													
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)												
Transparent cover	Toughened glass, stands 4J impact												
Internal reflector	High-purity aluminium												
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface												
Wire guard	Stainless steel												
Ballast	Electromagnetic ballast, rapid starting, stable performance												
Trigger	General trigger												
Power factor	COS $\phi$ ≥ 0.90 (compensated)												
Exposed fastener	Stainless steel												
<b>Lamp</b>													
Available lamp and lamp power (W)	<table border="1"> <thead> <tr> <th colspan="3">Available lamp</th> <th>Lamp holder</th> </tr> <tr> <th>HIE</th> <th>HSE</th> <th>HME</th> <th></th> </tr> </thead> <tbody> <tr> <td>70W, 100W, 150W</td> <td>70W, 100W</td> <td>80W, 125W</td> <td>E27</td> </tr> </tbody> </table>	Available lamp			Lamp holder	HIE	HSE	HME		70W, 100W, 150W	70W, 100W	80W, 125W	E27
Available lamp			Lamp holder										
HIE	HSE	HME											
70W, 100W, 150W	70W, 100W	80W, 125W	E27										
	Note: HPI European standard ballast is available in general.												
<b>Rated voltage</b>	220~240V AC 50Hz (60Hz is optional)												
<b>Earthing protection</b>	M5 (internal & external earth bolts)												
<b>Degree of protection</b>	IP66												
<b>Ambient temperature</b>	-60°C~+55°C												
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)												
<b>Mounting</b>	Bracket type, pole type, hook type												
<b>Cable entries</b>	2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.												
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.												



Selection table (BDD91-150)		Temperature classes	
Lamp	Lamp power (W)	Gas	Dust
HIE	70, 100		
HME	80	T4	T130°C
HSE	70, 100		
HIE	150	T142°C	T142°C
HME	125	T147°C	T147°C

## Pendant Light Fittings

### BDD91 Series Explosion-proof Light Fittings

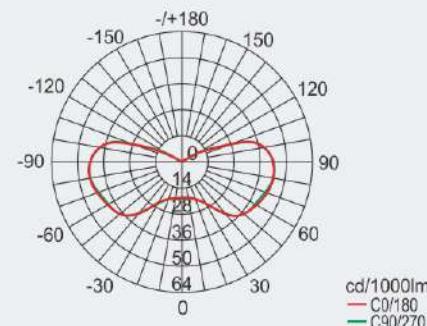
#### Photometric data

##### BDD91-150-□□□(Without external reflector)



###### Rated luminous flux

70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 The data from Philips lamp

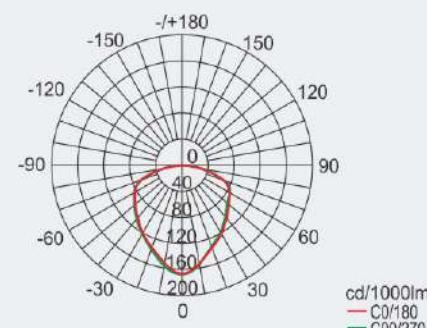


##### BDD91-150-□□□(With wide reflector )



###### Rated luminous flux

70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 The data from Philips lamp

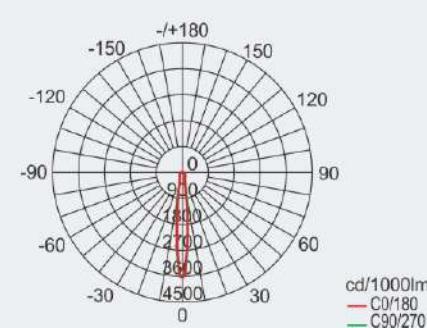


##### BDD91-150-□□□(With deep reflector)



###### Rated luminous flux

70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Pendant Light Fittings

## BDD91 Series Explosion-proof Light Fittings

Technical data																
<b>Explosion-proof light fittings</b>	<b>BDD91-250-□□□</b>															
<b>Explosion protection</b>																
Global (IECEx)	IECEx CQM 12.0016X															
Gas and dust	Ex d IIC T3 Gb															
	Ex t IIIC T190°C Db IP66															
Europe (ATEX)	DNV 11 ATEX 06159X															
Gas and dust	Ex II 2 G Ex d IIC T3 Gb															
	Ex II 2 D Ex tb IIIC T190°C Db IP66															
<b>Certificates</b>	IECEx; ATEX; CU-TR															
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31															
<b>Material</b>																
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)															
Transparent cover	Toughened glass, stands 4J impact															
Internal reflector	High-purity aluminium															
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface															
Wire guard	Stainless steel															
Ballast	Electromagnetic ballast, rapid starting, stable performance															
Trigger	General trigger															
Power factor	$\text{COS}\phi \geq 0.90$ (compensated)															
Exposed fastener	Stainless steel															
<b>Lamp</b>																
Available lamp and lamp power (W)	<table border="1"> <thead> <tr> <th></th> <th colspan="3">Available lamp</th> <th>Lamp holder</th> </tr> <tr> <th></th> <th>HIE</th> <th>HSE</th> <th>HME</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>250W</td> <td>150W, 250W</td> <td>250W</td> <td>E40</td> </tr> </tbody> </table>		Available lamp			Lamp holder		HIE	HSE	HME			250W	150W, 250W	250W	E40
	Available lamp			Lamp holder												
	HIE	HSE	HME													
	250W	150W, 250W	250W	E40												
	Note: HPI European standard ballast is available in general															
<b>Rated voltage</b>	220~240V AC 50Hz (60Hz is optional)															
<b>Earthing protection</b>	M5 (internal & external earth bolts)															
<b>Degree of protection</b>	IP66															
<b>Ambient temperature</b>	-60°C~+55°C															
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)															
<b>Mounting</b>	Bracket type, pole type, hook type															
<b>Cable entries</b>	2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.															
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.															



## Pendant Light Fittings

### BDD91 Series Explosion-proof Light Fittings

#### Photometric data

##### BDD91-250-□□□(Without external reflector)



Rated luminous flux

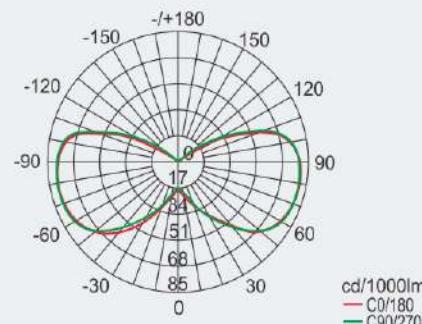
250W Metal halide lamp: 23200 lm

150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

250W High pressure mercury lamp: 13000 lm

The data from Philips lamp



##### BDD91-250-□□□(With wide reflector)



Rated luminous flux

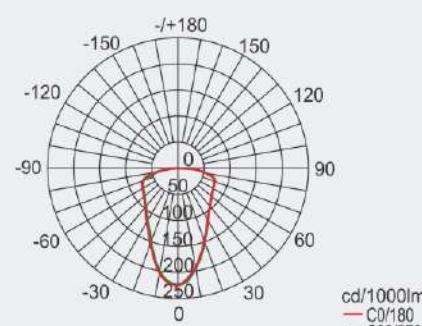
250W Metal halide lamp: 23200 lm

150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

250W High pressure mercury lamp: 13000 lm

The data from Philips lamp



##### BDD91-250-□□□(With deep reflector)



Rated luminous flux

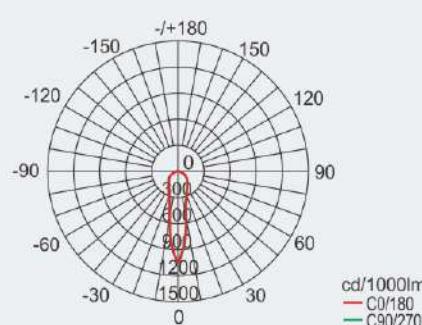
250W Metal halide lamp: 23200 lm

150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

250W High pressure mercury lamp: 13000 lm

The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Pendant Light Fittings

## BDD91 Series Explosion-proof Light Fittings

### Technical data

#### Explosion-proof light fittings BDD91-400-□□□

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0016X
Gas and dust	Ex d IIC T <sup>1</sup> Gb
Europe (ATEX)	Ex tb IIIC T <sup>1</sup> Db IP66
Gas and dust	Ex II 2 G Ex d IIC T <sup>1</sup> Gb
	Ex II 2 D Ex tb IIIC T <sup>1</sup> Db IP66

<sup>1</sup> See Selection Table

##### Certificates

IECEx; ATEX; CU-TR

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard	Stainless steel
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COS φ ≥ 0.90 (compensated)
Exposed fastener	Stainless steel

##### Lamp

###### Available lamp and lamp power (W)

	Available lamp			Lamp holder
	HIE	HSE	HME	
	250W, 400W	150W, 250W, 400W	400W	E40

Note: HPI European standard ballast is available in general.

220V, 230V, 240V AC 50Hz, 220~240V AC 50Hz (60Hz is optional)

M5 (internal & external earth bolts)

IP66

-60°C~+55°C(+40°C)

##### Rated voltage

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

##### Earthing protection

Bracket type, pole type, hook type

##### Degree of protection

2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.

##### Ambient temperature

Cable entries DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

##### Cable gland (optional)



### Selection table

Rated voltage (V)	Rated power (W)	Temperature classes			
		-60°C ≤ Ta ≤ + 55°C		-60°C ≤ Ta ≤ + 40°C	
		Gas	Dust	Gas	Dust
220V~240V AC 50/60Hz	HIE250W HSE150W	T4	T130°C	-	-
	HIE400W, HSE400W HME400W	T3	T190°C	-	-
220V AC 50/60Hz	HSE250W	T4	T130°C	-	-
230V/240V AC 50/60Hz	HSE250W	-	-	T4	T130°C

## Pendant Light Fittings

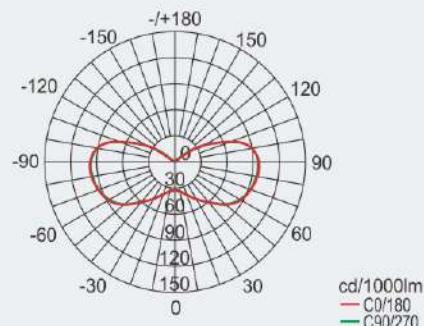
### BDD91 Series Explosion-proof Light Fittings

#### Photometric data

##### BDD91-400-□□□(Without external reflector)



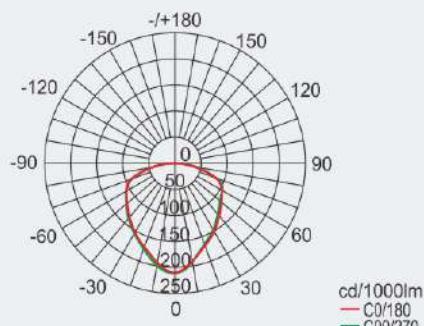
Rated luminous flux  
400W High pressure sodium lamp: 56500 lm  
400W High pressure mercury lamp: 22000 lm  
400W Metal halide lamp: 42000 lm  
The data from Philips lamp



##### BDD91-400-□□□(With wide reflector)



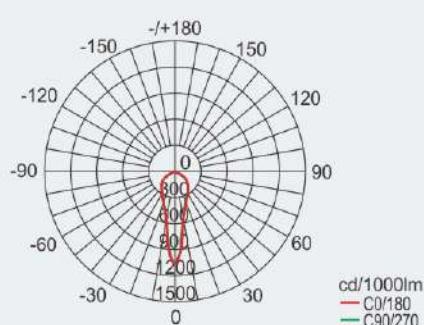
Rated luminous flux  
400W High pressure sodium lamp: 56500 lm  
400W High pressure mercury lamp: 22000 lm  
400W Metal halide lamp: 42000 lm  
The data from Philips lamp



##### BDD91-400-□□□(With deep reflector)



Rated luminous flux  
400W High pressure sodium lamp: 56500 lm  
400W High pressure mercury lamp: 22000 lm  
400W Metal halide lamp: 42000 lm  
The data from Philips lamp

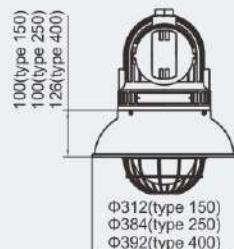
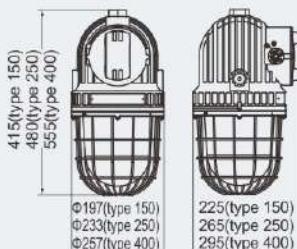


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

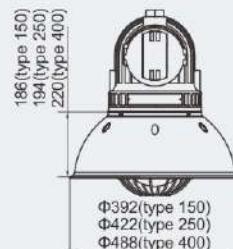
# Pendant Light Fittings

## BDD91 Series Explosion-proof Light Fittings

### Dimension drawings (all dimensions in mm) - subject to alteration



With wide reflector

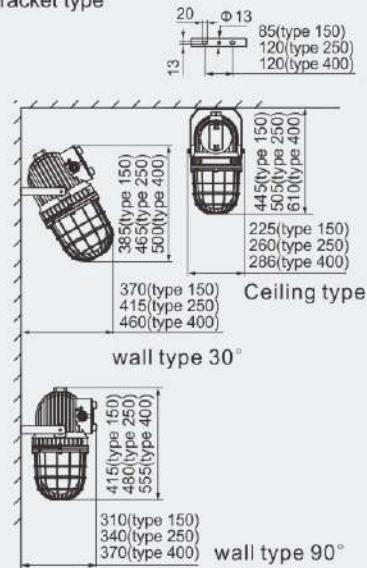


With deep reflector

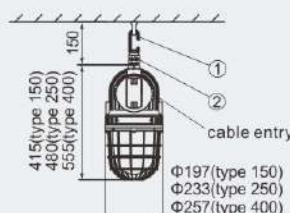
### Mounting type (all dimensions in mm) – subject to alteration

#### Installation reference

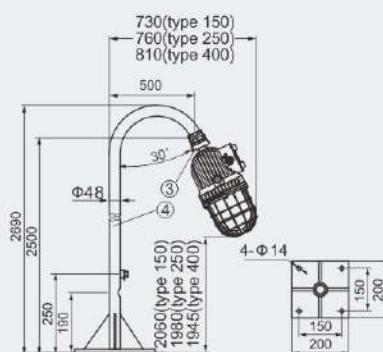
K: bracket type



D: hook type



L: pole type (the pole is provided by user)



### Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	91001	0.20
	250 Wide reflector	61002	0.27
	400 Wide reflector	91003	0.45
	150 Deep reflector	91004	0.44
	250 Deep reflector	91005	0.55
	400 Deep reflector	91006	0.65

Note: Ballast, trigger and capacitor see P1/21.

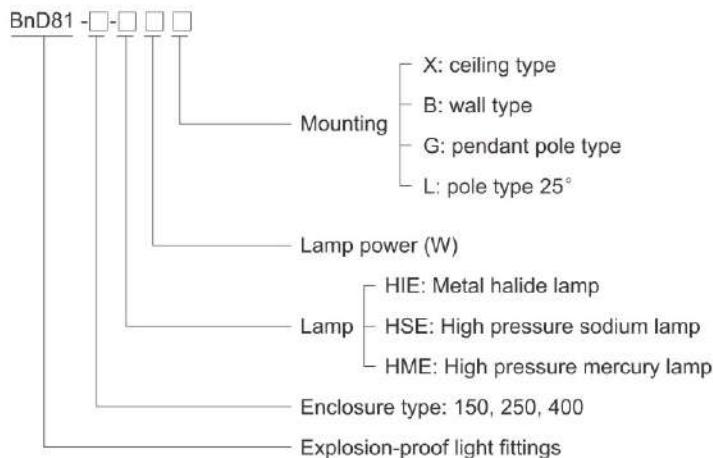
## Pendant Light Fittings

### BnD81 Series Explosion-proof Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Available lamp (max.400W):
  - Metal halide lamp (HIE)
  - High pressure sodium lamp (HSE)
  - High pressure mercury lamp (HME)
- ◆ Three enclosure types: 150, 250, 400
- ◆ Integral control gear, easy installation and maintenance.
- ◆ Both American standard and European standard are available.

#### Catalogue number logic



#### Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)	
	HIE	HSE	HME		American standard	European standard
BnD81-150	70, 100, 150	70, 100	80, 125	E27 (E26)	8.05	6.15
BnD81-250	175, 250	150, 250	250	E40 (E39)	13.00	10.20
BnD81-400	400	400	400	E40 (E39)	18.45	13.60

**Note:** 1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.

2. The light fittings are supplied without external reflector. Please specify when ordering.

3. High pressure mercury lamp is not available in American standard products.

## Zones 2; 21&22

# Pendant Light Fittings

## BnD81 Series Explosion-proof Light Fittings

Technical data																
<b>Explosion-proof light fittings</b>	<b>BnD81-150-□□□</b>															
<b>Explosion protection</b>																
Global (IECEx)	IECEx CQM 12.0045X															
Gas and dust	Ex nR IIC T4 or T3 Gc <sup>1)</sup> Ex tb IIIC T130°C or T190°C Db <sup>1)</sup>															
Europe (ATEX)	LCIE 12 ATEX 1018X(gas) LCIE 12 ATEX 3093X(dust) Ex II 3 G Ex nR IIC T4 or T3 Gc <sup>1)</sup> Ex II 2 D Ex tb IIIC T130°C or T190°C Db IP65 <sup>1)</sup>															
Gas and dust	<sup>1)</sup> See Selection table															
<b>Certificates</b>	IECEx; ATEX; UL															
<b>Conformity to standards</b>	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15															
<b>Material</b>																
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)															
Transparent cover	Toughened glass, stands 4J impact															
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface															
Wire guard (optional)	Stainless steel															
Ballast	Electromagnetic ballast, rapid starting, stable performance															
Trigger	General trigger															
Power factor	COSφ ≥0.90 (compensated)															
Exposed fastener	Stainless steel															
<b>Lamp</b>																
Lamp holder	American Standard: E26; European Standard: E27															
Available lamp and lamp power (W)	<table border="1"> <thead> <tr> <th>Available lamp</th><th>American Standard</th><th>European Standard</th></tr> </thead> <tbody> <tr> <td>HIE</td><td>120V/208V/240V/277V/480V AC</td><td>220~240V, 250V AC</td></tr> <tr> <td>HSE</td><td>70W, 100W, 150W</td><td>70W, 100W, 150W</td></tr> <tr> <td>HME</td><td>70W, 100W</td><td>70W, 100W</td></tr> <tr> <td></td><td>-</td><td>80W, 125W</td></tr> </tbody> </table>	Available lamp	American Standard	European Standard	HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC	HSE	70W, 100W, 150W	70W, 100W, 150W	HME	70W, 100W	70W, 100W		-	80W, 125W
Available lamp	American Standard	European Standard														
HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC														
HSE	70W, 100W, 150W	70W, 100W, 150W														
HME	70W, 100W	70W, 100W														
	-	80W, 125W														
Rated voltage	<p>Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)</p> <p>American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional)</p> <p>European standard: 220~240V AC 50Hz (60Hz is optional)</p> <p>250V AC 50Hz (60Hz is optional)</p>															
<b>Earthing protection</b>	M5 (internal & external earth bolts)															
<b>Degree of protection</b>	IP65															
<b>Ambient temperature</b>	ATEX / IECEx: -60°C~+55°C(+40°C); UL: -60°C~+45°C															
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)															
<b>Mounting</b>	Ceiling type, wall type, pendant pole type, pole type 25°															
<b>Cable entries</b>	1 x M25 x 1.5															
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/18~21.															



		Temperature classes			
		-60°C≤Ta≤+40°C		-60°C≤Ta≤+55°C	
		Gas	Dust	Gas	Dust
European Standard	HIE 70W, 100W			T4	T130°C
	HIE 150W			T3	T190°C
	HME 80W	T4	T130°C	T4	T130°C
	HME 125W			T3	T190°C
	HSE 70W, 100W			T4	T130°C
American Standard	HIE 70W, 100W, 150W	T4	T130°C	T4	T130°C
	HSE 70W, 100W				

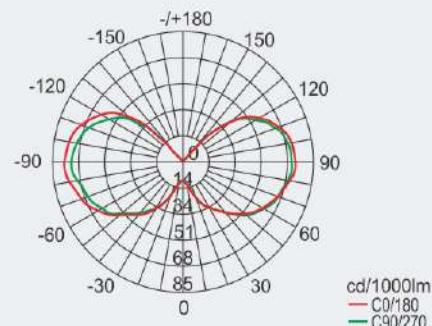
## Pendant Light Fittings

### BnD81 Series Explosion-proof Light Fittings

#### Photometric data

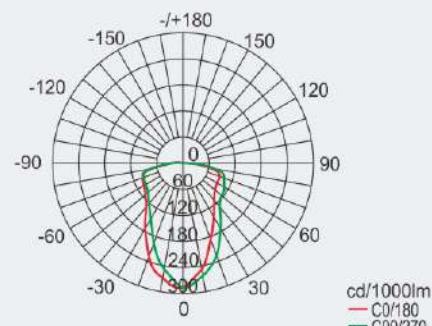
##### BnD81-150-□□□(Without external reflector)

Rated luminous flux  
 70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 The data from Philips lamp



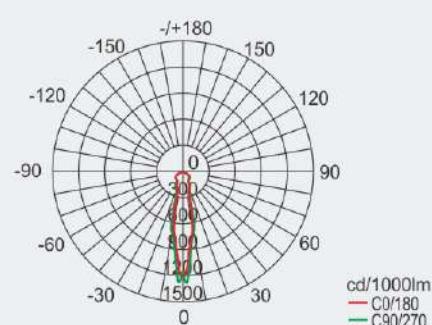
##### BnD81-150-□□□(With wide reflector)

Rated luminous flux  
 70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 The data from Philips lamp



##### BnD81-150-□□□(With deep reflector)

Rated luminous flux  
 70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10200 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Pendant Light Fittings

## BnD81 Series Explosion-proof Light Fittings

Technical data																	
<b>Explosion-proof light fittings</b>	<b>BnD81-250-□□□</b>																
<b>Explosion protection</b>																	
Global (IECEx)	IECEx CQM 12.0010X																
Gas and dust	Ex nR IIC T3 Gc Ex tb IIIC T190°C Db																
Europe (ATEX)	LCIE 12 ATEX 1011X(gas); LCIE 12 ATEX 3044X(dust)																
Gas and dust	Ex II 3 G Ex nR IIC T3 Gc Ex II 2 D Ex t IIIC T190°C Db IP65																
<b>Certificates</b>	IECEx; ATEX; UL																
<b>Conformity to standards</b>	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15																
<b>Material</b>																	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)																
Transparent cover	Toughened glass, stands 4J impact																
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface																
Wire guard (optional)	Stainless steel																
Ballast	Electromagnetic ballast, rapid starting, stable performance																
Trigger	General trigger																
Power factor	COSφ ≥0.90 (compensated)																
Exposed fastener	Stainless steel																
<b>Lamp</b>																	
Lamp holder	American Standard: E39; European Standard: E40																
Available lamp and lamp power (W)	<table border="1"> <thead> <tr> <th>Available lamp</th><th>American Standard</th><th>European Standard</th></tr> </thead> <tbody> <tr> <td>HIE</td><td>120V/208V/240V/277V/480V AC</td><td>220~240V, 250V AC</td></tr> <tr> <td>HSE</td><td>175W, 250W</td><td>250W</td></tr> <tr> <td>HME</td><td>150W, 250W</td><td>150W, 250W</td></tr> <tr> <td></td><td>-</td><td>250W</td></tr> </tbody> </table>		Available lamp	American Standard	European Standard	HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC	HSE	175W, 250W	250W	HME	150W, 250W	150W, 250W		-	250W
Available lamp	American Standard	European Standard															
HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC															
HSE	175W, 250W	250W															
HME	150W, 250W	150W, 250W															
	-	250W															
	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)																
<b>Rated voltage</b>	American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional) 250V AC 50Hz (60Hz is optional)																
<b>Earthing protection</b>	M5 (internal & external earth bolts)																
<b>Degree of protection</b>	IP65																
<b>Ambient temperature</b>	ATEX / IECEx: -60°C~+55°C; UL: -60°C~+45°C																
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)																
<b>Mounting</b>	Ceiling type, wall type, pendant pole type, pole type 25°																
<b>Cable entries</b>	1 x M25 x 1.5																
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/18~21.																



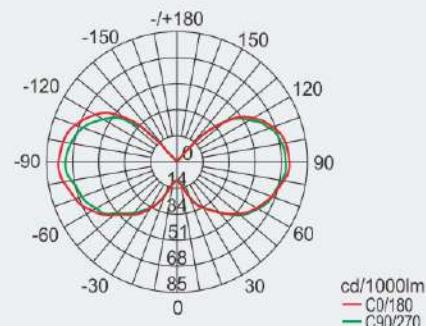
## Pendant Light Fittings

### BnD81 Series Explosion-proof Light Fittings

#### Photometric data

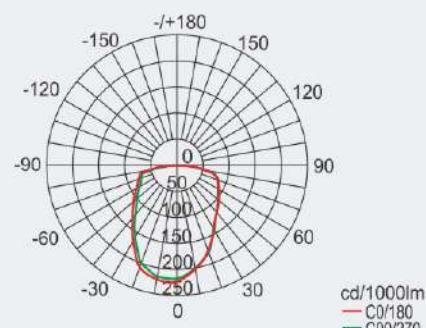
##### BnD81-250-□□□(Without external reflector)

Rated luminous flux  
 250W Metal halide lamp: 23200 lm  
 250W High pressure sodium lamp: 33200 lm  
 250W High pressure mercury lamp: 13000 lm  
 The data from Philips lamp



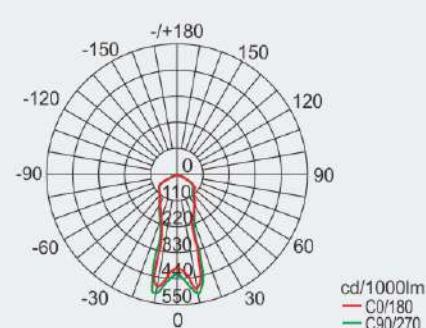
##### BnD81-250-□□□(With wide reflector)

Rated luminous flux  
 250W Metal halide lamp: 23200 lm  
 250W High pressure sodium lamp: 33200 lm  
 250W High pressure mercury lamp: 13000 lm  
 The data from Philips lamp



##### BnD81-250-□□□(With deep reflector)

Rated luminous flux  
 250W Metal halide lamp: 23200 lm  
 250W High pressure sodium lamp: 33200 lm  
 250W High pressure mercury lamp: 13000 lm  
 The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

# Pendant Light Fittings

## BnD81 Series Explosion-proof Light Fittings

Technical data																
<b>Explosion-proof light fittings</b>	<b>BnD81-400-□□□</b>															
<b>Explosion protection</b>																
Global (IECEx)	IECEx CQM 12.0039X															
Gas and dust	Ex nR IIC T <sup>1</sup> Gc															
Europe (ATEX)	Ex tb IIIC T <sup>1</sup> Db LCIE 12 ATEX 1019X(gas); LCIE 12 ATEX 3094X(dust)															
Gas and dust	Ex II 3 G Ex nR IIC T <sup>1</sup> Gc Ex II 2 D Ex tb IIIC T <sup>1</sup> Db IP65															
<b>Certificates</b>	<sup>1</sup> See Selection Table															
<b>Conformity to standards</b>	IECEx; ATEX; UL EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15															
<b>Material</b>																
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)															
Transparent cover	Toughened glass, stands 4J impact															
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface															
Wire guard (optional)	Stainless steel															
Ballast	Electromagnetic ballast, rapid starting, stable performance															
Trigger	General trigger															
Power factor	COSφ ≥0.90 (compensated)															
Exposed fastener	Stainless steel															
<b>Lamp</b>																
Lamp holder	American Standard: E39; European Standard: E40															
Available lamp and lamp power (W)	<table border="1"> <thead> <tr> <th>Available lamp</th><th>American Standard</th><th>European Standard</th></tr> </thead> <tbody> <tr> <td>HIE</td><td>120V/208V/240V/277V/480V AC</td><td>220~240V, 250V AC</td></tr> <tr> <td>HSE</td><td>400W</td><td>400W</td></tr> <tr> <td>HME</td><td>400W</td><td>400W</td></tr> <tr> <td></td><td>-</td><td>400W</td></tr> </tbody> </table>	Available lamp	American Standard	European Standard	HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC	HSE	400W	400W	HME	400W	400W		-	400W
Available lamp	American Standard	European Standard														
HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC														
HSE	400W	400W														
HME	400W	400W														
	-	400W														
	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)															
<b>Rated voltage</b>	<p>American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional)</p> <p>European standard: 220~240V AC 50Hz (60Hz is optional)</p> <p>250V AC 50Hz (60Hz is optional)</p>															
<b>Earthing protection</b>	M5 (internal & external earth bolts)															
<b>Degree of protection</b>	IP65															
<b>Ambient temperature</b>	ATEX / IECEx: -60°C~+55°C(+40°C); UL: -60°C~+45°C															
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)															
<b>Mounting</b>	Ceiling type, wall type, pendant pole type, pole type 25°															
<b>Cable entries</b>	1 x M25 x 1.5															
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/18~21.															

Rated power (W)		Temperature classes			
		-60°C≤Ta≤+40°C		-60°C≤Ta≤+55°C	
		Gas	Dust	Gas	Dust
European Standard	HIE 400W	T3	T190°C	T3	T190°C
	HSE 400W			T212°C	T212°C
	HME 400W				
American Standard	HIE 400W	T3	T190°C	T3	T190°C
	HSE 400W	T4	T130°C		



## Pendant Light Fittings

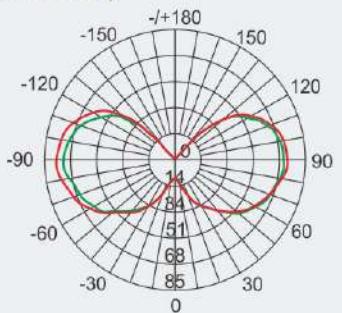
### BnD81 Series Explosion-proof Light Fittings

#### Photometric data



**BnD81-400-□□□(Without external reflector)**

Rated luminous flux  
400W Metal halide lamp: 42000 lm  
400W High pressure sodium lamp: 56500 lm  
400W High pressure mercury lamp: 22000 lm  
The data from Philips lamp.

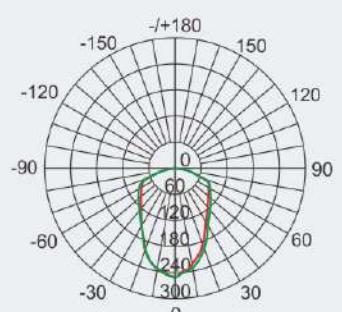


cd/1000lm  
— C0/180  
— C90/270



**BnD81-400-□□□(With wide reflector)**

Rated luminous flux  
400W Metal halide lamp: 42000 lm  
400W High pressure sodium lamp: 56500 lm  
400W High pressure mercury lamp: 22000 lm  
The data from Philips lamp.

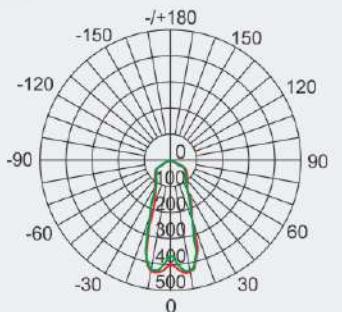


cd/1000lm  
— C0/180  
— C90/270



**BnD81-400-□□□(With deep reflector)**

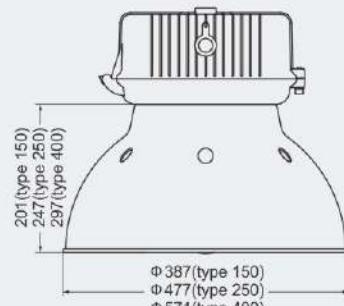
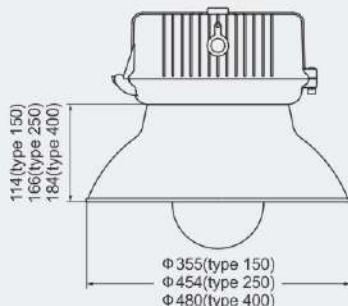
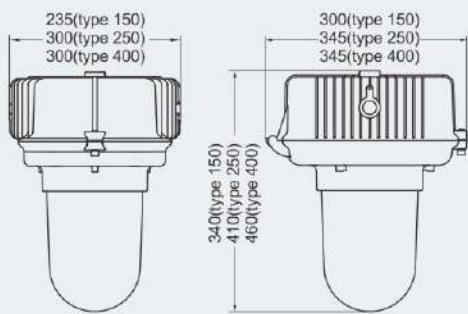
Rated luminous flux  
400W Metal halide lamp: 42000 lm  
400W High pressure sodium lamp: 56500 lm  
400W High pressure mercury lamp: 22000 lm  
The data from Philips lamp.



cd/1000lm  
— C0/180  
— C90/270

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

#### Dimension drawings (all dimensions in mm) - subject to alteration



With wide reflector

With deep reflector

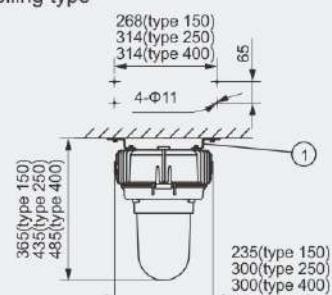
# Pendant Light Fittings

## BnD81 Series Explosion-proof Light Fittings

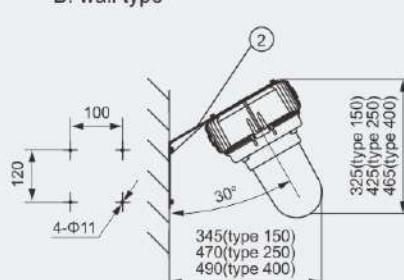
### Mounting type (all dimensions in mm) – subject to alteration

Installation reference

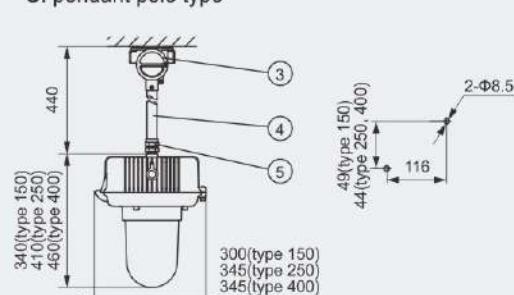
X: ceiling type



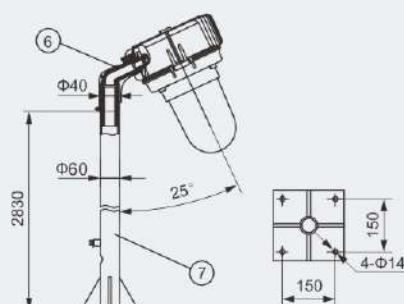
B: wall type



G: pendant pole type



L: pole type 25°



### Mounting Accessories & Spare Parts Table

Supplied according to the mounting type



Mounting type	Accessories			Ordering	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①. Mounting bracket	2	Powder coated carbon steel	81X02	0.20
B: wall type	②. Wall bracket (powder coated carbon steel)	1	150 type	81B01	1.20
			250 type	81B02	1.50
			400 type	81B02	1.50
G: pendant pole type	③. BHD51-F Explosion-proof junction box	1	150 type: copper-free aluminium 250,400 type: cast iron	BHD51-F	0.80
			Length: 300mm		2.10
			M25 x 1.5(M) / M25 x 1.5(F) Stainless steel		0.41
L: pole type 25°	④. Straight pipe (M25 x 1.5)	1		81G01	0.26
	⑤. BGJ-III Explosion-proof connector	1		81D02	0.26
L: pole type 25°	⑥. Pole type 25° connector	1	Copper-free aluminium	81L02	0.80
	⑦. Pole	1	Φ60mm	81L03	-

**Note:** 1. Accessories not in the table shall be supplied by user.

2. Pole ⑦ shall not be supplied with light fittings; if required, please specify when ordering.

### Accessories

Picture	Name	Ordering code	Weight (kg)	Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	81001	0.25		150 Deep reflector	81004	0.43
	250 Wide reflector	81002	0.35		250 Deep reflector	81005	0.63
	400 Wide reflector	81003	0.50		400 Deep reflector	81006	0.91

## Floodlights

### BAT53 Series Explosion-proof Floodlights



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups C, D
  - Class I, Division 1, Groups C, D
- ◆ Four enclosure types: 125, 250, 400, 1000.
- ◆ Integral control gear, easy installation and maintenance.
- ◆ Rapid starting trigger, stable performance and long service life.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Toughened glass cover resistant to temperature changes.

#### Catalogue number logic



#### Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)
	HIE	HSE	HME		
BAT53-125	70, 100, 150	70, 100	80, 125	E27	8.45
BAT53-250	250	150, 250	250	E40	14.75
BAT53-400	400	400	-	E40	30.75
BAT53-1000	1000	1000	-	E40	115.00

#### Note

1. Please specify any spare parts when ordering. See Accessories table.
2. 125, 250 and 400 type light fittings are supplied without lamp. PHILIPS lamps are recommended.
3. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.
4. 1000 type light fittings are supplied with lamp and ballast.

Zones 1&2; 21&22

# Floodlights

## BAT53 Series Explosion-proof Floodlights

### Technical data

Explosion-proof floodlights	BAT53-125-□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 13.0037X
Gas and dust	Ex d e IIB T <sup>1)</sup> Gb
Europe (ATEX)	Ex tb IIIC T <sup>1)</sup> Db IP66
Gas and dust	EPT 18 ATEX 2930X Ex II 2 G Ex db e IIB T <sup>1)</sup> Gb Ex II 2 D Ex tb IIIC T <sup>1)</sup> Db
<b>Certificates</b>	<sup>1)</sup> See Selection table
<b>Conformity to standards</b>	IECEx; ATEX; CU-TR EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Wire guard	Powder coated carbon steel, white
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	$\text{COS}\phi \geq 0.90$ (compensated)
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp holder	E27
Available lamp and lamp power (W)	High pressure sodium lamp (HSE): 70W, 100W High pressure mercury lamp (HME): 80W, 125W Metal halide lamp (HIE): 70W, 100W, 150W Note: HPI European standard ballast is available in general 220~240V AC 50Hz (60Hz is optional)
<b>Rated voltage</b>	
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+55°C
<b>Terminal</b>	3 x 1.5~2.5mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	2 x $\Phi 21$ ; 1 x M20 x 1.5 cable gland (DQM-I Ex e), 1 x M20 x 1.5 plug
Available cable outer diameter	$\Phi 5$ ~ $\Phi 10$ (mm)



Selection table			Dimension drawings (all dimensions in mm) - subject to alteration		
Lamp	Lamp power (W)	Temperature classes			
		Gas	Dust		
HIE	70	T156°C	T156°C		
HSE	70	T156°C	T156°C		
HSE	100	T185°C	T185°C		
HIE	100	T181°C	T181°C		
HIE	150	T190°C	T190°C		
HME	80	T163°C	T163°C		
HME	125	T209°C	T209°C		

G: fixed type

Y: movable type

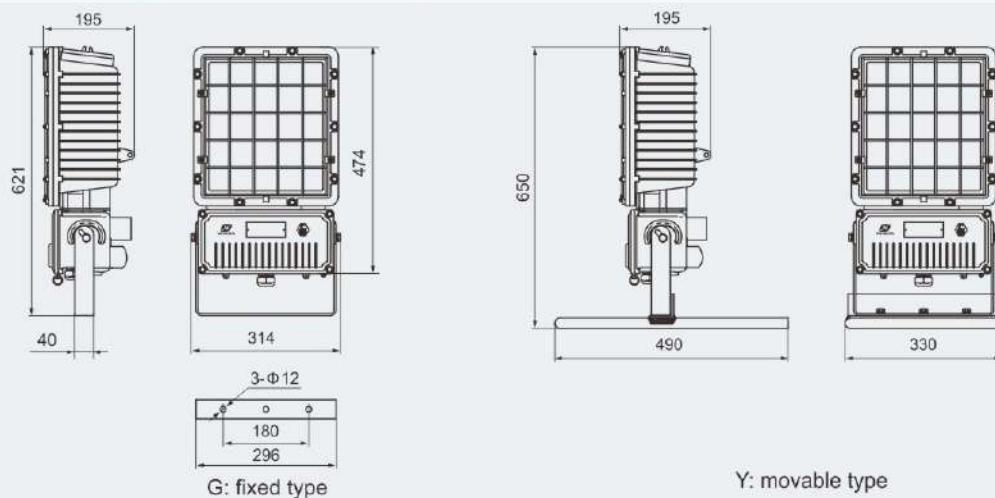
## Floodlights

### BAT53 Series Explosion-proof Floodlights

#### Technical data

Explosion-proof floodlights	BAT53-250-□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 07.0004
Gas and dust	Ex d e IIB T3 Gb
Europe (ATEX)	LCIE 05 ATEX 6143
Gas and dust	Ex II 2 G Ex d e IIB T3
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Wire guard	Powder coated carbon steel, white
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	$\text{COS}\phi \geq 0.90$ (compensated)
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp holder	E40
Available lamp and lamp power (W)	High pressure sodium lamp (HSE): 150W, 250W High pressure mercury lamp (HME): 250W Metal halide lamp (HIE): 250W Note: HPI European standard ballast is available in general
<b>Rated voltage</b>	220~240V AC 50Hz (60Hz is optional)
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-20°C~+55°C
<b>Terminal</b>	3 x 1.5~2.5mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	2 x $\Phi 26$ : 1 x M25 x 1.5 cable gland (DQM-I Ex e), 1 x M25 x 1.5 plug
<b>Available cable outer diameter</b>	$\Phi 10$ ~ $\Phi 14$ (mm)

#### Dimension drawings (all dimensions in mm) - subject to alteration



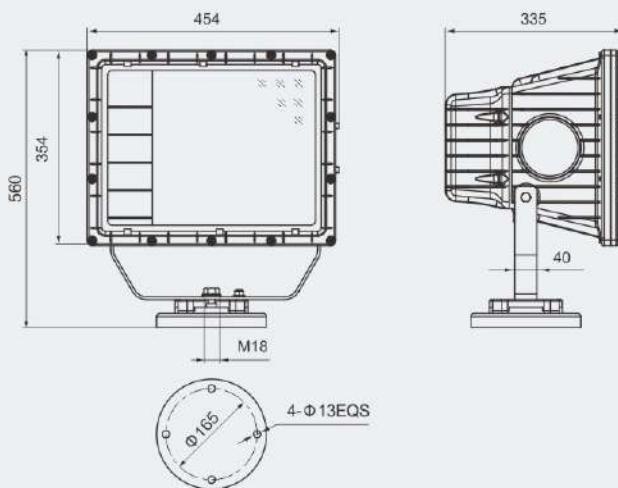
# Floodlights

## BAT53 Series Explosion-proof Floodlights

Technical data	
<b>Explosion-proof floodlights</b>	<b>BAT53-400-□□□</b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 08.0014
Gas and dust	Ex d e IIB T3 Gb
Europe (ATEX)	LCIE 07 ATEX 6106
Gas and dust	Ex II 2 G Ex d e IIB T3
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	$\text{COS } \phi \geq 0.90$ (compensated)
Exposed fastener	Stainless steel
Wire guard (optional)	Powder coated carbon steel, white
<b>Lamp</b>	
Lamp holder	E40
Available lamp and lamp power (W)	High pressure sodium lamp (HSE): 400W (tubular) Metal halide lamp (HIE): 400W (tubular) Note: HPI European standard ballast is available in general
<b>Rated voltage</b>	220~240V AC 50Hz (60Hz is optional)
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP65
<b>Ambient temperature</b>	-20°C~+55°C
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	2 x M25 x 1.5: 1 x M25 x 1.5 cable gland (DQM-I Ex e), 1 x M25 x 1.5 plug
<b>Available cable outer diameter</b>	Φ 10~Φ 14 (mm)



### Dimension drawings (all dimensions in mm) - subject to alteration

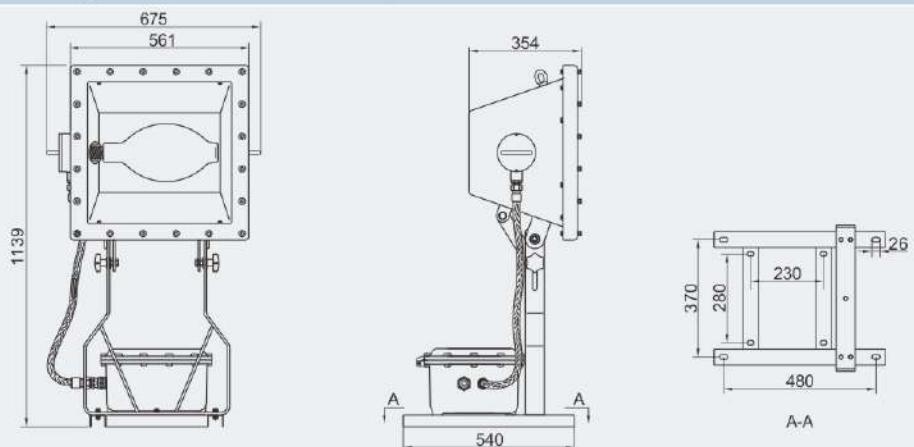


## Floodlights

### BAT53 Series Explosion-proof Floodlights

Technical data	
<b>Explosion-proof floodlights</b>	<b>BAT53-1000-□□□</b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 14.0066X
Gas and dust	Ex d IIB T3 Gb
Europe (ATEX)	Ex tb IIIC T193°C Db IP66
Gas and dust	EPT 15 ATEX 1977X Ex II 2 G Ex d IIB T3 Gb Ex II 2 D Ex tb IIIC T193°C Db IP66
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Material</b>	
Enclosure	Welded carbon steel, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	$\text{COS}\phi \geq 0.90$ (compensated)
Internal reflector	High-purity aluminium
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp holder	E40
Available lamp and lamp power (W)	High pressure sodium lamp (HSE):1000W Metal halide lamp (HIE):1000W Note: HPI European standard ballast is available in general 230V AC 50Hz (60Hz is optional)
<b>Rated voltage</b>	
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-20°C~+55°C
Terminal	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
Cable entries	1 x M25 x 1.5
Cable gland	The cable between floodlight and ballast through BNG-M25 x 1.5(M)/M25 x 1.5(M) explosion-proof flexible conduit (length: 1000 mm); One explosion-proof cable gland (DQM-II-M25 x 1.5, Ex d, brass, armored, cable wiring)
<b>Available cable outer diameter</b>	Φ 10~Φ 14 (mm)

#### Dimension drawings (all dimensions in mm) - subject to alteration



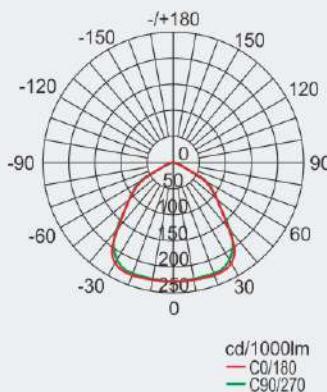
## Floodlights

### BAT53 Series Explosion-proof Floodlights

#### Photometric data

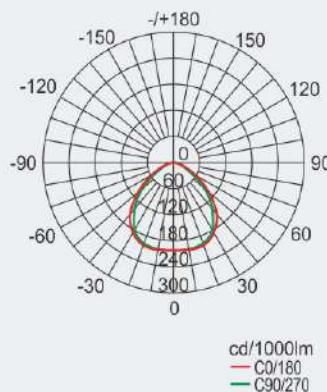
##### BAT53-125-□□□

Rated luminous flux  
 70W Metal halide lamp: 5800 lm  
 100W Metal halide lamp: 8700 lm  
 150W Metal halide lamp: 13500 lm  
 70W High pressure sodium lamp: 6600 lm  
 100W High pressure sodium lamp: 10700 lm  
 80W High pressure mercury lamp: 3800 lm  
 125W High pressure mercury lamp: 6300 lm  
 The data from Philips lamp



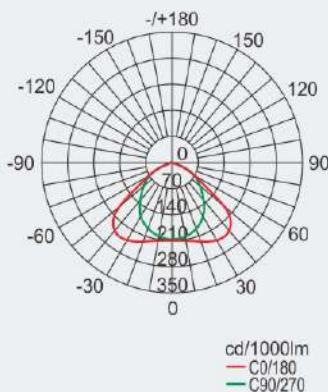
##### BAT53-250-□□□

Rated luminous flux  
 250W Metal halide lamp: 23200 lm  
 150W High pressure sodium lamp: 18000 lm  
 250W High pressure sodium lamp: 33200 lm  
 250W High pressure mercury lamp: 13000 lm  
 The data from Philips lamp



##### BAT53-400-□□□

Rated luminous flux  
 400W Metal halide lamp: 42500 lm  
 400W High pressure sodium lamp: 56500 lm  
 The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.



#### Accessories

Picture	Name	Ordering code	Weight (kg)
	Explosion-proof electronic trigger (125, 250, 400 type)	61034	0.30
	125 Explosion-proof capacitor	53012	0.45
	250 Explosion-proof capacitor	53013	0.45
	400 Explosion-proof capacitor	53014	0.55
	125 Movable support	53015	1.80
	250 Movable support	53016	2.35

**Note:** Ballast see P1/21

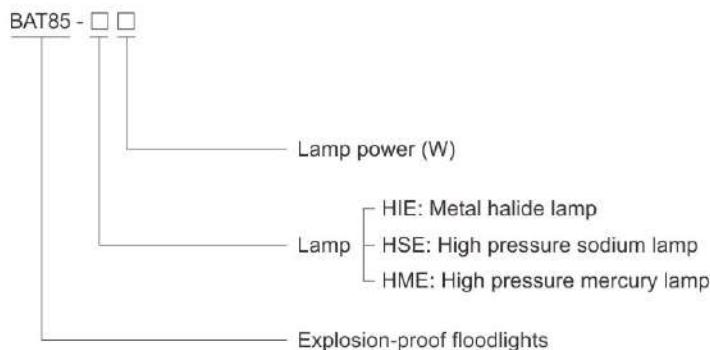
## Floodlights

### BAT85 Series Explosion-proof Floodlights



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Integral control gear, easy installation and maintenance.
- ◆ Toughened glass cover resistant to temperature changes.
- ◆ The light fittings are supplied without lamp source. PHILIPS lamps are recommended.
- ◆ Both American standard and European standard are available.

#### ■ Catalogue number logic



**Zones 1&2; 21&22**

# Floodlights

## BAT85 Series Explosion-proof Floodlights

Technical data	
<b>Explosion-proof floodlights</b>	<b>BAT85-□□</b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 11.0013X
Gas and dust	Ex db IIC T3 or $xxx^{\circ}\text{C}^{(1)}$ Gb Ex tb IIIC $Txxx^{\circ}\text{C}^{(1)}$ Db IP66
Europe (ATEX)	TÜV CY 18 ATEX 0206017X
Gas and dust	$\text{Ex II 2 G}$ Ex db IIC T3 or $xxx^{\circ}\text{C}^{(1)}$ Gb $\text{Ex II 2 D}$ Ex tb IIIC $Txxx^{\circ}\text{C}^{(1)}$ Db IP66
	<sup>(1)</sup> See Selection table
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31, IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	$\text{COS}\phi \geq 0.90$ (compensated)
Internal reflector	High-purity aluminium
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp holder	European standard: E27, American standard: E26
Available lamp	Metal halide lamp (HIE): 70W, 100W, 150W High pressure sodium lamp (HSE): 70W, 100W High pressure mercury lamp (HME): 80W, 125W
Lamp holder	European standard: E40, American standard: E39
Available lamp	Metal halide lamp (HIE): 250W, 400W High pressure sodium lamp (HSE): 150W, 250W, 400W High pressure mercury lamp (HME): 250W, 400W
<b>Rated voltage</b>	European standard: 120V, 208V, 220~240V, 250V, 277V AC 50Hz (60Hz is optional) American standard: 120V, 208V, 220~240V, 250V, 277V AC 60Hz (50Hz is optional)
<b>Earthing protection</b>	M5 (internal & external earth bolts)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-40°C~+60°C(+40°C)
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	2 x M25 x 1.5 plugs
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Weight</b>	European standard: 28.50kg      American standard: 31.40kg



## Floodlights

### BAT85 Series Explosion-proof Floodlights

Selection table

Rated voltage	Lamp	Lamp power (W)	Temperature classes			
			-40°C ≤ Ta ≤ +40°C		-40°C ≤ Ta ≤ +55°C	
			Gas	Dust	Gas	Dust
120V AC 50/60Hz	HIE	70, 100, 150	T4	T130°C	T4	T130°C
		175, 250, 400	T3	T195°C	T3	T195°C
	HSE	70, 100	T6	T80°C	T5	T95°C
		150, 250, 400	T3	T195°C	T3	T195°C
208V AC 50/60Hz	HIE	70, 100, 150	T5	T95°C	T4	T130°C
		175, 250, 400	T3	T195°C	T3	T195°C
	HME	80, 125	T5	T95°C	T4	T130°C
		250, 400	T3	T195°C	T3	T195°C
	HSE	70, 100	T6	T80°C	T5	T90°C
		150, 250, 400	T3	T195°C	T3	T195°C
220V AC 50/60Hz	HIE	175, 250, 400	T3	T195°C	T3	T195°C
	HME	250, 400	T3	T195°C	T3	T195°C
	HSE	150, 250, 400	T3	T195°C	T3	T195°C
230V AC 50/60Hz	HIE	70, 100, 150	T4	T130°C	T3	T195°C
		175, 250, 400	T3	T195°C	T3	T195°C
	HME	80, 125	T4	T130°C	T4	T130°C
		250	T4	T130°C	T3	T195°C
	HSE	400	T3	T195°C	213°C	T213°C
		70, 100, 150, 250	T4	T130°C	T4	T130°C
		400	T3	T195°C	211°C	T211°C
		70, 100, 150	T4	T130°C	T4	T130°C
240V AC 50/60Hz	HIE	175, 250, 400	T3	T195°C	T3	T195°C
		80, 125, 250	T4	T130°C	T3	T195°C
	HME	400	T3	T195°C	216°C	T216°C
		70, 100	T4	T130°C	T4	T130°C
	HSE	150, 250	T3	T195°C	T3	T195°C
		400			217°C	T217°C
250V AC 50/60Hz	HIE	70, 100, 150	T4	T130°C	T4	T130°C
		175, 250, 400	T3	T195°C	T3	T195°C
	HME	80, 125	T5	T95°C	T4	T130°C
		250	T4	T130°C	T3	T195°C
	HSE	400	T3	T195°C	221°C	T221°C
		70, 100	T5	T95°C	T4	T130°C
	HSE	150, 250	T3	T195°C	T3	T195°C
		400	211°C	T211°C	231°C	T231°C
277V AC 50/60Hz	HIE	70, 100, 150	T5	T95°C	T4	T130°C
		175, 250	T4	T130°C	T3	T195°C
	HME	400	T3	T195°C	213°C	T213°C
		80, 125	T5	T95°C	T4	T130°C
	HSE	250	T3	T195°C	T3	T195°C
		70, 100	T4	T130°C	T4	T130°C
	HSE	150, 250	T3	T195°C	T3	T195°C
		400	210°C	T210°C	230°C	T230°C

# Floodlights

## BAT85 Series Explosion-proof Floodlights

### Photometric data

#### BAT85-□□

Rated luminous flux

70W Metal halide lamp: 10500 lm

100W Metal halide lamp: 10500 lm

150W Metal halide lamp: 10500 lm

250W Metal halide lamp: 25000 lm

70W High pressure sodium lamp: 18000 lm

100W High pressure sodium lamp: 18000 lm

150W High pressure sodium lamp: 18000 lm

250W High pressure sodium lamp: 33200 lm

80W High pressure mercury lamp: 13000 lm

125W High pressure mercury lamp: 13000 lm

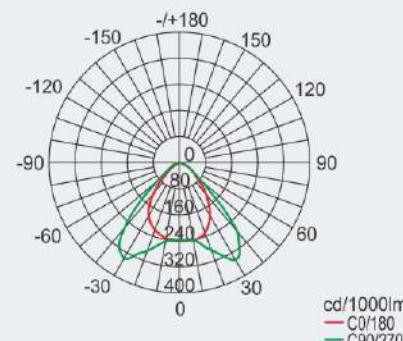
250W High pressure mercury lamp: 13000 lm

400W Metal halide lamp: 42500 lm

400W High pressure sodium lamp: 56500 lm

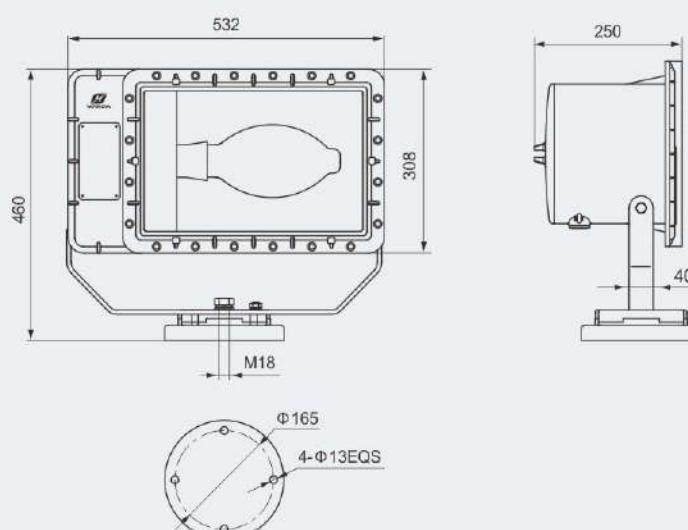
400W High pressure mercury lamp: 22000 lm

The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request

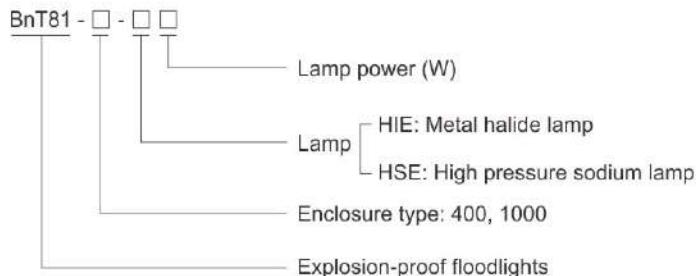
### Dimension drawings (all dimensions in mm) - subject to alteration





- ◆ Explosion protection to
    - CENELEC
    - IEC
    - NEC
  - ◆ Can be used in
    - Zone 2
    - Zone 21 and Zone 22
    - Class I, Zone 2
    - Class I, Division 2, Groups A, B, C, D
  - ◆ Available lamp (max.1000W):
    - Metal halide lamp (HIE)
    - High pressure sodium lamp (HSE)
  - ◆ Two enclosure types: 400, 1000.
  - ◆ Type 400: lamp and ballast are of integral type.  
Type 1000: lamp and ballast are split type.
  - ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL 1021)
  - ◆ Both American standard and European standard are available.
  - ◆ Type 400 are supplied without lamp. PHILIPS lamps are recommended.
  - ◆ Type 1000 are supplied with lamp.

## ■ Catalogue number logic



# Floodlights

## BnT81 Series Explosion-proof Floodlights

### Technical data

#### Explosion-proof floodlights BnT81-400-□□

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0011X
Gas and dust	Ex nR IIC <sup>1)</sup> Gc
Europe (ATEX)	Ex tb IIIC T <sub>xxx</sub> °C <sup>1)</sup> Db IP65
Gas and dust	LCIE 12 ATEX 1012X (gas); LCIE 12 ATEX 3052X (dust); Ex II 3 G Ex nR IIC <sup>1)</sup> Gc
	Ex II 2 D Ex t IIIC T <sub>xxx</sub> °C <sup>1)</sup> Db IP65

<sup>1)</sup> See Selection table

IECEx; ATEX; UL

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-15, IEC 60079-31

UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15

CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL 1021)
Glass cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COS φ ≥ 0.90 (compensated)
Exposed fastener	Stainless steel

##### Lamp

Lamp holder American Standard: E39; European Standard: E40

Available lamp and lamp power (W)	American standard	HIE	175W, 250W, 400W
	120V/208V/240V/277V/480V AC	HSE	150W, 250W, 400W
European standard	HIE	250W, 400W	
	220~240V, 250V AC	HSE	150W, 250W, 400W

Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)

American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional)

European standard: 220~240V, 250V AC 50Hz (60Hz is optional)

M5 (internal & external earth bolts)

IP65

ATEX / IECEx: -60°C~+55°C; UL: -60°C~+45°C

3 x 1.5~4mm<sup>2</sup>(L+N+PE)

2 x Φ21: 1 x M20 x 1.5 plug, 1 x M20 x 1.5 cable gland (DQM-I Ex e)

Φ5~Φ10 (mm)

American standard: 16.10kg European standard: 12.85kg

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

##### Cable entries

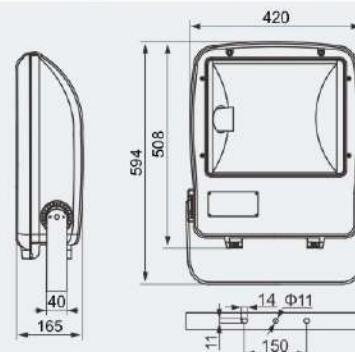
##### Applicable cable outer diameter

##### Weight

### Selection table

### Dimension drawings (all dimensions in mm) - subject to alteration

Rated voltage	Lamp	Lamp power (W)	Temperature classes	
			Gas	Dust
220~240V 250V AC 50/60Hz	HIE	250	T3	T190°C
	HSE	150,250	T3	T190°C
	HIE	400	T252°C	T252°C
	HSE	400	T252°C	T252°C
120V/208V 240V/277V 480V AC 50/60Hz	HIE	175,250,400	T3	T190°C
	HSE	150,250,400	T3	T190°C



## Floodlights

### BnT81 Series Explosion-proof Floodlights

#### Technical data

#### Explosion-proof floodlights BnT81-1000-□□

##### Explosion protection

Global (IECEx)	IECEx CQM 13.0006X
Gas and dust	Ex nR IIC T2 Gc
Europe (ATEX)	Ex tb IIIC T290°C Db IP65 LCIE 13 ATEX 1002X (gas); LCIE 13 ATEX 3008X (dust)
Gas and dust	Ex II 3 G Ex nR IIC T2 Gc Ex II 2 D Ex tb IIIC T290°C Db IP65

##### Certificates

##### Conformity to standards

IECEx; ATEX  
EN 60079-0, EN 60079-15, EN 60079-31  
IEC 60079-0, IEC 60079-15, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface
Glass cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	$\text{COS}\phi \geq 0.85$ (compensated)
Exposed fastener	Stainless steel

##### Lamp

##### Lamp holder

##### Available lamp and lamp power (W)

E40

American standard 120V/208V/240V/277V AC	HIE	1000W
European standard 230V AC	HSE	1000W

Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)

American standard: 120V/208V/240V/277V AC 60Hz (50Hz is optional)

European standard: 230V AC 50Hz (60Hz is optional)

M5 (internal & external earth bolts)

IP65

-60°C~+55°C

3 x 1.5~4mm<sup>2</sup>(L+N+PE)

Lamp: 1 x M20 x1.5 cable gland (DQM-I Ex e, plastic, cable wiring)

Ballast: 2 x M20 x1.5 cable glands (DQM-I Ex e, plastic, cable wiring)

Φ6~Φ12 (mm)

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

##### Terminal

##### Cable entries

##### Applicable cable outer diameter

##### Weight

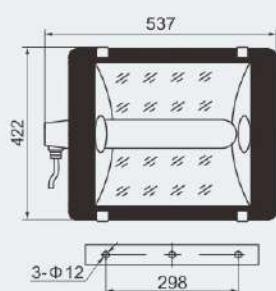
Lamp

10.00kg

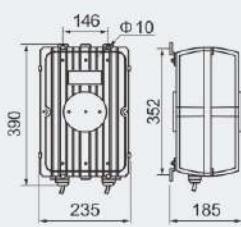
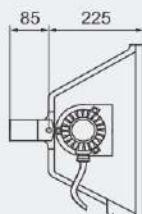
Ballast

American standard: 21.8kg European standard: 18.6kg

#### Dimension drawings (all dimensions in mm) - subject to alteration



BnT81-1000



BnT81-1000 Ballast

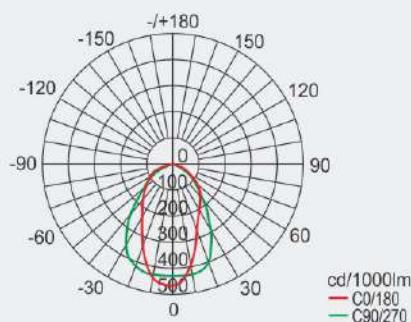
## Floodlights

### BnT81 Series Explosion-proof Floodlights

#### Photometric data

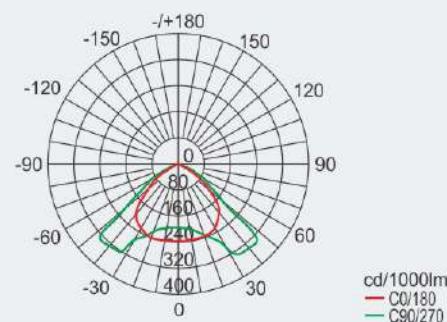
##### BnT81-400-□□

Rated luminous flux  
 250W Metal halide lamp: 25000 lm  
 150W High pressure sodium lamp: 18000 lm  
 250W High pressure sodium lamp: 33200 lm  
 400W Metal halide lamp: 42500 lm  
 400W High pressure sodium lamp: 56500 lm  
 The data from Philips lamp



##### BnT81-1000-□□

Rated luminous flux  
 1000W Metal halide lamp: 85000 lm  
 1000W High pressure sodium lamp: 130000 lm  
 The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request



## Street Lamps

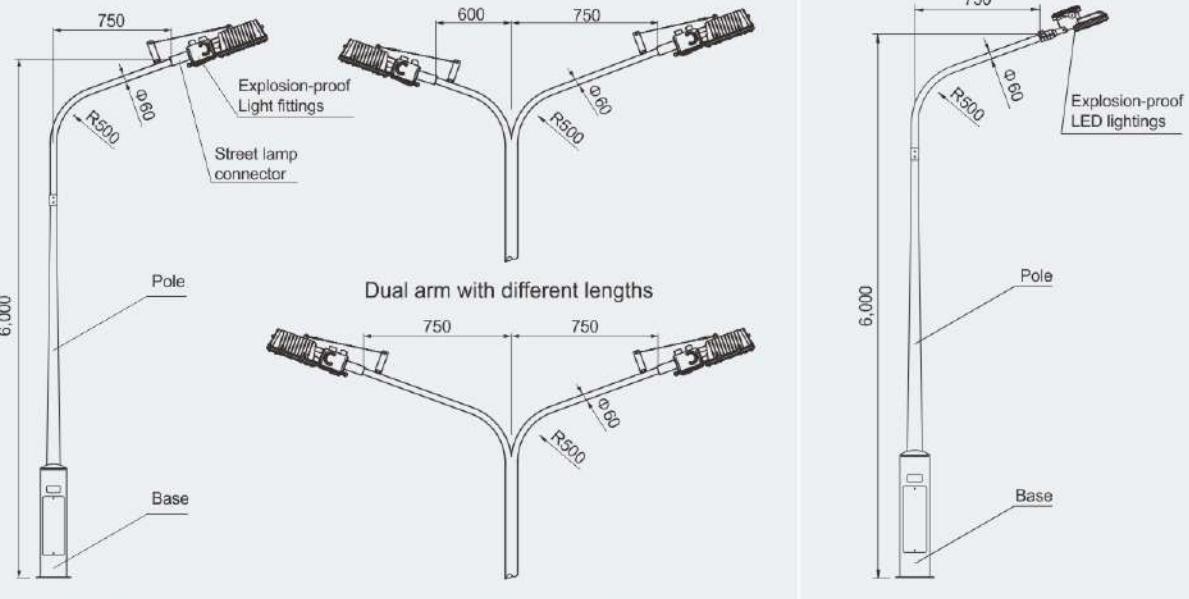
### Explosion-proof Street Lamps



#### BAT53-250, BAT53-400, BAT85-400 Series BDD91-150, BDD91-250, BDD91-400 Series BAT86 Series, BnT81 Series, HRT81 Series Explosion-proof Street Lamps

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Please refer to mounting schematic diagram to select right lamp and mounting types on request of job site.
- ◆ Please refer to this catalogue for detailed technical data and ordering information of each light fitting.
- Note: If BAT53-250 type street lamp is required, please specify when ordering.
- ◆ The street lamp is supplied without pole; please specify when ordering.

#### Mounting schematic diagram of bent arm type street lamp

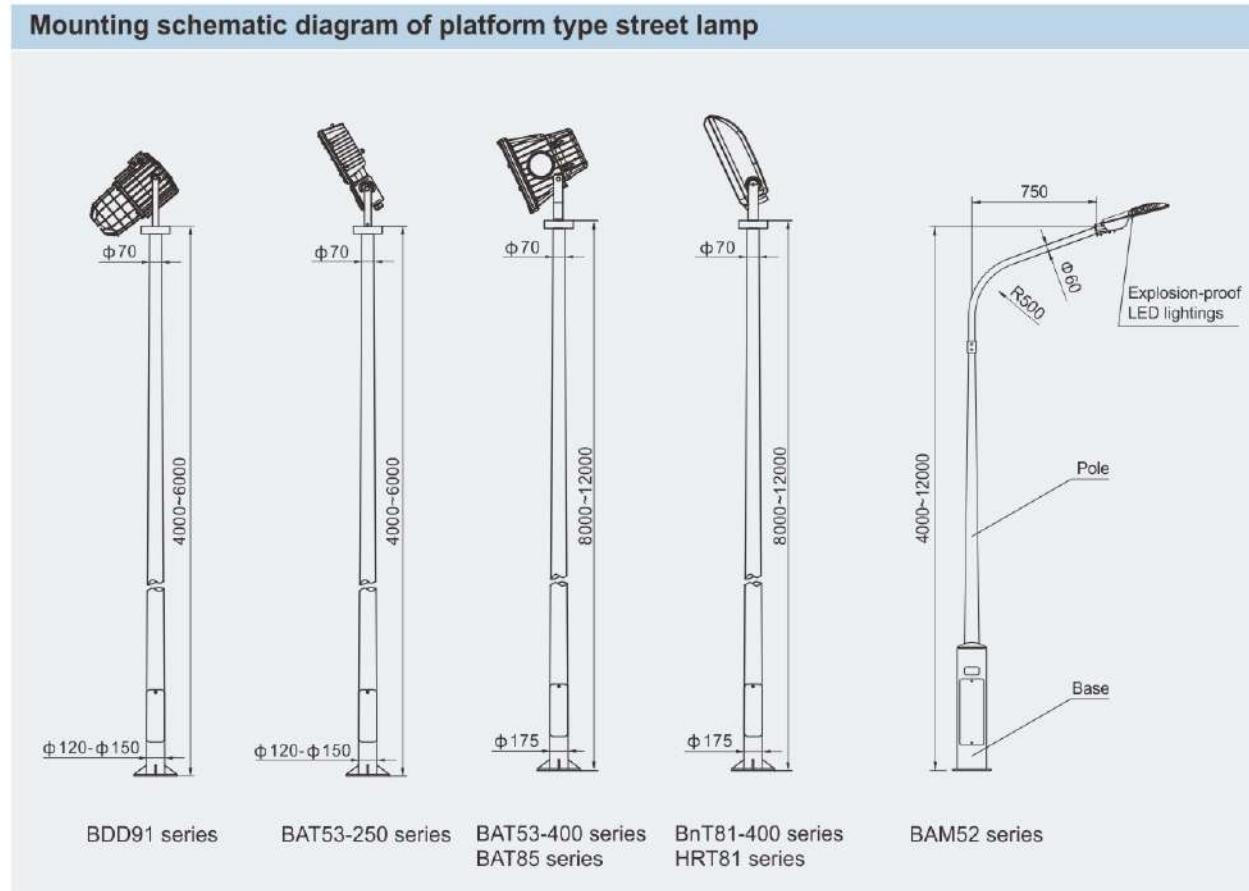


**Zones 1&2; 21&22**

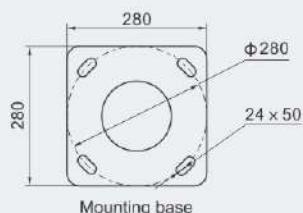
## Street Lamps

### Explosion-proof Street Lamps

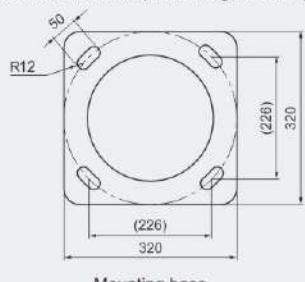
#### Mounting schematic diagram of platform type street lamp



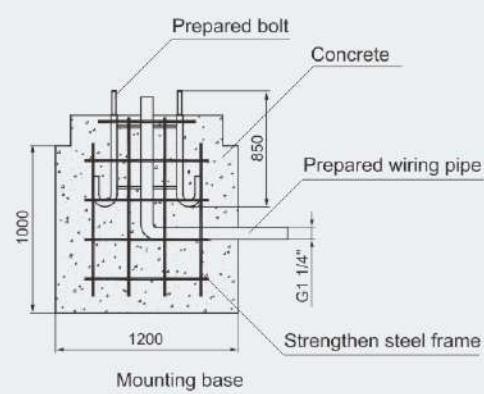
#### Reference diagram of street lamp mounting base



Used for: platform street lamp, the height of the pole: 6m to 9m



Used for:  
 1. Bent arm type street lamp.  
 2. Platform type street lamp, the height of the pole: 10m to 12m.



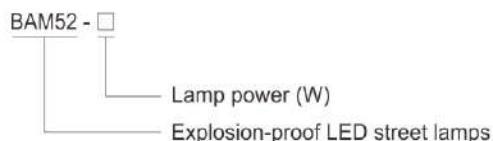
## Street Lamps

### BAM52 Series Explosion-proof LED Street Lamps

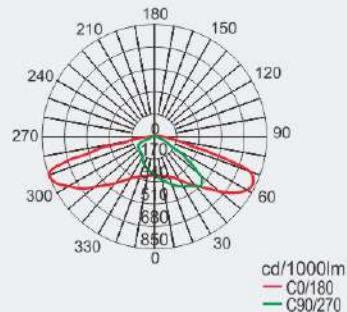
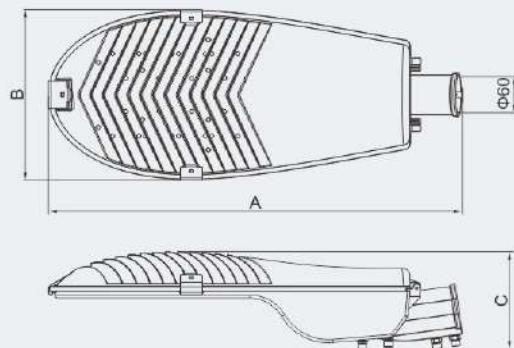


- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
- ◆ Please refer to mounting schematic diagram to select right lamp and mounting types on request of job site.
- ◆ Please refer to this catalogue for detailed technical data and ordering information of each light fitting.
- ◆ The street lamp is supplied without pole; please specify when ordering.

#### Catalogue number logic



#### Dimension drawings (all dimensions in mm) - subject to alteration



Type/Ordering code	Size(mm)			Weight (kg)	Rated luminous flux
	A	B	C		
BAM52-60	655	268	150	4.7	7200lm
BAM52-80					9600lm
BAM52-100	752	310	178	7.4	12000lm
BAM52-120				7.5	14400lm
BAM52-150					18000lm
BAM52-160	863	359	199	10.7	19200lm
BAM52-180					21600lm
BAM52-200				10.9	24000lm

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request

## Zones 2; 21&22

# Street Lamps

## BAM52 Series Explosion-proof LED Street Lamps

### Technical data

#### Explosion-proof LED street lamps BAM52-□

##### Explosion protection

Global (IECEx)	IECEx CNEX 23.0002X
Gas and dust	Ex nR IIC T6...T5 Gc
Europe (ATEX)	Ex tb IIIC T80°C...T95°C Db
Gas and dust	CNEX 23 ATEX 0004 X (gas); CNEX 23 ATEX 0005 X(dust)
	Ex II 3 G Ex nR IIC T6...T5 Gc
	Ex II 2 D Ex tb IIIC T80°C...T95°C Db

##### Certificates

##### Conformity to standards

IECEx; ATEX

EN 60079-0, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-15, IEC 60079-31

##### Material

Enclosure	Aluminium Alloy, powder coated surface
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	LED module, Multiple LED
Lamp power (W)	60W, 80W, 100W, 120W, 150W, 160W, 180W, 200W
Colour Temperature (CCT)	Cool white: 5700K

Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

100~277V AC 50/60Hz, 130~250V DC

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+55°C(+45°C)

##### Terminal

3×1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

street lamp type

##### Cable entries

1×M20×1.5 cable gland (DQM-I Ex e, metal unarmored)



### Selection table for BAM52-□

Type of production	Rated power	Ambient temperature / temperature classification			
		Ta ≤ +45°C	Ta ≤ +55°C	T6	T80°C
BAM52-60	60W	--	--	T6	T80°C
BAM52-80	80W	--	--	T6	T80°C
BAM52-100	100W	--	--	T6	T80°C
BAM52-120	120W	--	--	T6	T80°C
BAM52-150	150W	--	--	T6	T80°C
BAM52-160	160W	--	--	T5	T95°C
BAM52-180	180W	T6	T80°C	T5	T95°C
BAM52-200	200W	T6	T80°C	T5	T95°C

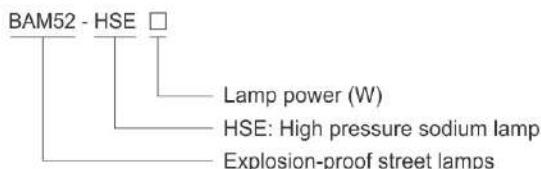
## Street Lamps

### BAM52 Series Explosion-proof Street Lamps



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
- ◆ Please refer to mounting schematic diagram to select right lamp and mounting types on request of job site.
- ◆ Please refer to this catalogue for detailed technical data and ordering information of each light fitting.
- ◆ The street lamp is supplied without pole; please specify when ordering.

#### ■ Catalogue number logic



#### ■ Selection table

Type / Ordering code	Rated voltage	Lamp power(W)	Weight (kg)
BAM52-HSE250	415V AC 50Hz	250	13.40
BAM52-HSE400		400	14.20
BAM52-HSE150	220~240V AC 50Hz	150	9.00
BAM52-HSE250		250	9.50
BAM52-HSE400	220~240V AC 60Hz	400	11.30
BAM52-HSE150		150	9.00
BAM52-HSE250		250	9.50
BAM52-HSE400		400	11.30

**Note:** The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

## Zones 2; 21&22

# Street Lamps

## BAM52 Series Explosion-proof LED Street Lamps

### Technical data

#### Explosion-proof LED street lamps BAM52-HSE

##### Explosion protection

Global (IECEx)	IECEx CQM 22.0024X
Gas and dust	Ex nR IIC T <sup>1</sup> ) Gc
	Ex tb IIIC T <sup>1</sup> ) Db
Europe (ATEX)	TÜV CY 23 ATEX 0206765X
Gas and dust	Ex II 3 G Ex nR IIC T <sup>1</sup> ) Gc
	Ex II 2 D Ex tb IIIC T <sup>1</sup> ) Db

##### Certificates

##### Conformity to standards

IECEx; ATEX
EN 60079-0, EN 60079-15, EN 60079-31
IEC 60079-0, IEC 60079-15, IEC 60079-31

##### Material

Enclosure	Aluminium Alloy, powder coated surface
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	COSφ ≥0.90 (compensated)
Exposed fastener	Stainless steel

##### Lamp

Lamp holder	E40
Lamp specification	High pressure sodium lamp (HSE)
Lamp power (W)	150W, 250W, 400W

##### Rated voltage

220~240V AC 50Hz, 220~240V AC 60Hz, 415V AC 50Hz

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+55°C(+40°C)

##### Terminal

3×1.5~4mm<sup>2</sup> (L+N+PE)

##### Mounting

street lamp type

##### Cable entries

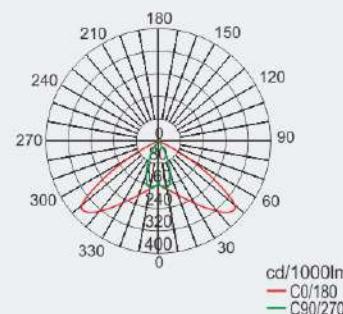
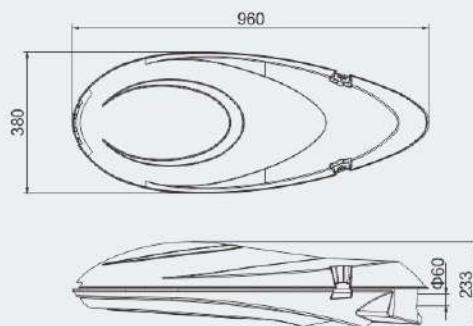
1×M20×1.5 cable gland (DQM-I Ex e, metal unarmored)



### Selection table

Rated voltage	Rated power(W)	Temperature classification			
		-40°C≤Ta≤+40°C	-40°C≤Ta≤+55°C	-40°C≤Ta≤+40°C	-40°C≤Ta≤+55°C
415V AC 50Hz	250, 400	T3	T190°C	T3	T190°C
220~240V AC 50Hz	150, 400	T4	T130°C	T3	T190°C
	250	T3	T133°C	T3	T190°C
220~240V AC 60Hz	150, 250, 400	T4	T130°C	T4	T130°C

### Dimension drawings (all dimensions in mm) - subject to alteration



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request

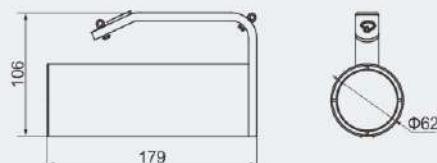


- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
  - Class I, Division 2, Groups A, B, C, D

#### Dimension drawings (all dimensions in mm) - subject to alteration

HRD305 Portable Searchlight

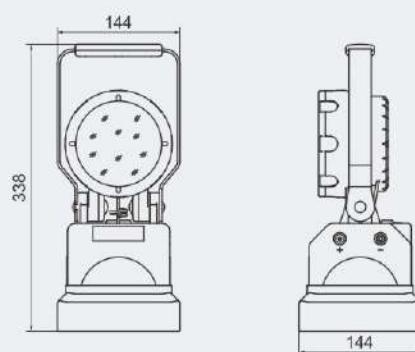
LED: 9W/3W



#### Dimension drawings (all dimensions in mm) - subject to alteration

HRD309E Searchlight

LED: 9W/3W

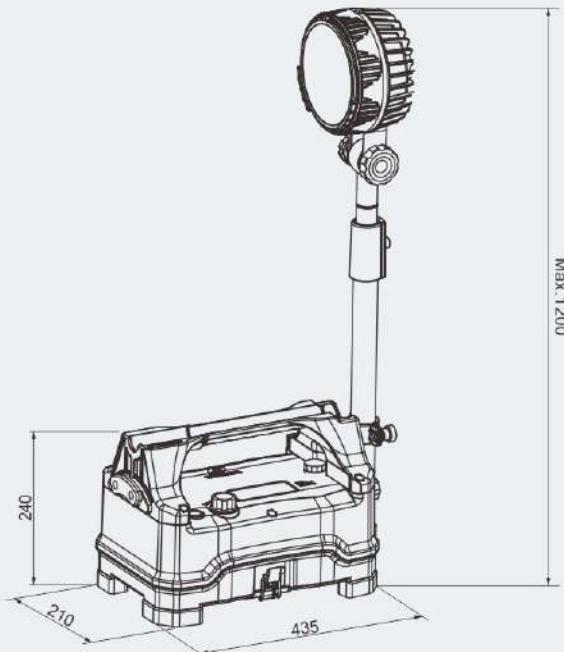


## Zones 1&2; 21&22

## Hand Lamps

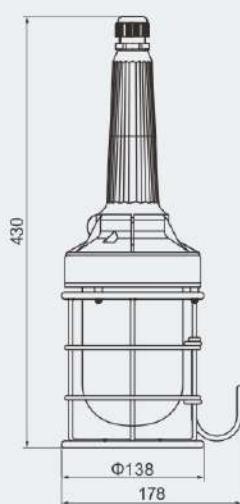
### Dimension drawings (all dimensions in mm) - subject to alteration

HRD503 Explosion-proof Maintenance Lamp  
LED: 50W/25W



### Dimension drawings (all dimensions in mm) - subject to alteration

BSX-60 Series Explosion-proof Incandescent Hand Lamps  
LED: 3W/5W/8W  
Incandescent lamp: 25W/40W/60W



## Hand Lamps

### HRD305 Portable Searchlight



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Safe and reliable: the product with reliable explosion-proof performance, can safely and reliably work in various combustible areas, the battery is equipped with PTC thermistor and temperature fuse; double-protected circuit, safety performance enhanced.
- ◆ Efficient and energy-saving: memory-free battery, with long service life, low auto-discharge rate, economic and environmental friendly, solid efficient LED lamp, low energy consumption and long service life.
- ◆ Waterproof and damage-proof: the enclosure is made of imported alloy with high strength, excellent strong impact resistant performance, unique sealing type, with very good water-proof performance.

- ◆ Anti-strong interference: scientific module driving circuit, strong performance of anti-shock and anti-electromagnetic interference.
- ◆ Heat resistant: LED radiator and battery are effectively isolated, which improves the stability of the light.
- ◆ Intelligent control: pulse dimming technology, strong light and working light can be changed freely, with battery detection indicator, which can detect the working condition at any time, intelligent charger is with protection circuit.
- ◆ Portable and flexible: small volume, light weight, several types of handling like portable and on shoulder, meeting different working requirement.

#### Technical data



#### Portable Searchlight HRD305

<b>Explosion protection</b>	IECEx CQM 13.0026X
Global (IECEx)	Ex d ia IIC T6 Gb
Gas and dust	Ex tb IIIC T80°C Db IP68
Europe (ATEX)	LCIE 13 ATEX 3089X
Gas and dust	Ex II 2 G Ex d ia IIC T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db IP68
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31
<b>Rated voltage</b>	IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Rated capacity</b>	14.8V
<b>Lamp(LED)</b>	2Ah
Rated power	9W / 3W
Current of strong light	900mA
<b>Continuous working time</b>	
Strong light	≥8h
Working light	≥16h
<b>Charging time</b>	≥8h
<b>Charging voltage</b>	100~240V AC, 50/60Hz
<b>Service life of battery</b>	about 1000 times cycling
<b>Degree of protection</b>	IP68
<b>Weight</b>	790g

**Zones 1&2; 21&22**

## Hand Lamps

### HRD309E Searchlight

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Safe and reliable: with good explosion-proof performance and antistatic effect, the product can safely and reliably work in various combustible areas.
- ◆ Efficient and energy-saving: LED lamp, low energy consumption, high luminous efficacy, long service life, maintenance free and no subsequent usage cost, recyclable memory-free battery, pollution-free.
- ◆ Waterproof and damage-proof: the light adopts whole-sealing craft, applicable in damp and severe atmosphere, special alloy enclosure makes sure the light can resist strong shock and impact.
- ◆ Intelligent control: the light is with two kinds of working modes: strong light and working light, switch is controlled by intelligent chip, the strong light and weak light can be changed at random, single-chip control; with battery display and special protection circuit, with protection function of anti-over charging, over discharging and short circuit, reliably protect the battery and prolong the service life.
- ◆ Convenient and durable: unique lamp cap; lighting angle can be adjusted within the scope of -45°~ 55°, no lighting dead angle (lighting range of strong light: 800m, effective distance: 300m, suitable for long-distance searching and lighting in large area of close range), light weight, portable type, horizontal type, hang type, magnetic absorption, etc, convenient to use; the switch is with anti-incorrect operation function.



#### Technical data

##### Searchlight HRD309E

<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 16.0008X
Gas and dust	Ex nA nR IIC T4 Gc
Europe (ATEX)	Ex tb IIIC T80°C Db IP66
Gas and dust	EPT 16 ATEX 2503X
	Ex II 3 G Ex nA nR IIC T4 Gc
	Ex II 2 D Ex tb IIIC T80°C Db IP66
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-15, EN 60079-31
<b>Rated voltage</b>	14.8V DC
<b>Rated capacity</b>	4Ah
<b>Lamp(LED)</b>	
Rated power	9W / 3W
Average service life	100000h
<b>Continuous working time</b>	
Strong light	≥8h
Working light	≥18h
<b>Charging time</b>	≥8h
<b>Charging voltage</b>	100~240V AC, 50/60Hz
<b>Service life of battery</b>	about 1000 times cycling
<b>Degree of protection</b>	IP66
<b>Weight</b>	1.9kg



**Zones 2; 21&22**

## Hand Lamps

### HRD503 Series Explosion-proof Maintenance Lamps



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Safety First: Engineered with superior explosion-proof capabilities, it thrives in hazardous environments where flammable and explosive materials are present.
- ◆ Energy Efficient: Powered by LED technology, it consumes less energy, delivers high luminous efficacy, boasts a long service life, and requires no maintenance, eliminating future upkeep costs. The high-capacity non-memory battery is rechargeable, ensuring sustainability.
- ◆ Waterproof and Resilient: Constructed with alloy enclosure, it withstands impacts and collisions, maintaining its integrity.

- ◆ Versatile and Enduring: Featuring a three-section telescopic pole for height adjustment, the lamp head is thoughtfully designed for versatile angle adjustments, providing multi-directional, all-around illumination.
- ◆ Smart Control: Equipped with intense and working light modes, it utilizes a smart chip for seamless switching between intensities. The intelligent chip also safeguards against overcharging, over-discharging, and short circuits, protecting the battery and extending its life.
- ◆ Portable and Flexible: Its ergonomic design allows the telescopic pole to fold flat, making the lamp compact and easy to carry. The handle includes a designated spot for the pole, ensuring hassle-free movement and enhancing portability.

#### Technical data



#### Explosion-proof maintenance lamps HRD503

<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas	Ex de IIC T6 Gb
Europe (ATEX)	ATEX (applied for)
Gas	Ex II 2 G Ex de IIC T6 Gb
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1 IEC 60079-0, IEC 60079-1
<b>Rated voltage</b>	16V
<b>Rated capacity</b>	12.8Ah
<b>Lamp(LED)</b>	
Rated power	50W / 25W
Average service life	100000h
<b>Continuous working time</b>	
Strong light	≥8h
Working light	≥16h
<b>Charging time</b>	≥8h
<b>Charging voltage</b>	100~240V AC, 50/60Hz
<b>Service life of battery</b>	about 1000 times cycling
<b>Degree of protection</b>	IP66
<b>Weight</b>	8.6kg

## Zones 1&2

## Hand Lamps

### BSX-60 Series Explosion-proof Incandescent Hand Lamps

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Incandescent lamps: Max. 60W; LED: Max. 8W
- ◆ Cable on request
- ◆ Handle in plastic, with control pushbutton
- ◆ Powder coated wire guard, white
- ◆ Toughened glass cover resistant to temperature changes



#### Technical data

##### Explosion-proof incandescent hand lamps BSX-60

<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 08.0015
Gas and dust	Ex d e IIC T4
Europe (ATEX)	LCIE 07 ATEX 6028
Gas and dust	Ex II 2 G Ex d e IIC T4
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
<b>Material</b>	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Handle	Plastic, black
Wire guard	Stainless steel
Exposed fastener	Stainless steel
<b>Lamp</b>	
Lamp holder	E27
Available lamp	Incandescent lamp: 25W, 40W, 60W; LED: 3W, 5W, 8W
<b>Rated voltage</b>	Max. 230V
<b>Protection class</b>	II (Protection against electric shock)
<b>Degree of protection</b>	IP65
<b>Ambient temperature</b>	-20°C~+55°C
<b>Terminal</b>	3 x 1.5~2.5mm <sup>2</sup> (L+N+PE)
<b>Cable entries</b>	1 x M25 x 1.5 cable gland (DQM-I Ex e, plastic)
<b>Available cable outer diameter</b>	Φ 9~Φ 16 (mm)
<b>Weight</b>	2.35kg

## Zones 1&2

## Local, Caution Spotlight Fittings BAJ52-20 Series Explosion-proof Emergency Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Lighting angle can be adjusted.
- ◆ Low-power halogen tungsten lamps, with reflector to increase lighting intensity.
- ◆ Emergency device with Ni-MH batteries, charging automatically; when power supply is cut off, the emergency device starts to work; with overcharge and overdischarge protection.
- ◆ Toughened glass cover resistant to temperature changes.



### Zones 1&2

# Local, Caution Spotlight Fittings

## BAJ52-20 Series Explosion-proof Emergency Light Fittings

### Technical data

#### Explosion-proof emergency light fittings BAJ52-20

##### Explosion protection

Global (IECEx) IECEx CQM 08. 0001

Gas Ex d IIB T4

Europe (ATEX) LCIE 07 ATEX 6086

Gas  $\text{Ex II 2 G Ex d IIB T4}$

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1

IEC 60079-0, IEC 60079-1

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Exposed fastener Stainless steel

##### Rated voltage

220~240V AC 50/60Hz

##### Lamp

Available lamp Halogen tungsten lamp (LED on request)

Lamp power (W) 2 x 10W (LED lamp power: 2 x 1W)

Emergency time 90min

Rated luminous flux Halogen tungsten lamp: 2 x 100lm (LED lamp: 2 x 90lm)

##### Battery

Description Ni-MH battery

Rated capacity 6Ah

Rated voltage 6V

Charging current 300mA

Discharging current 1000mA

Charging time 24h

##### Degree of protection

IP65

##### Ambient temperature

-20°C~+55°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

2 x M25 x 1.5 plugs

##### Cable gland (optional)

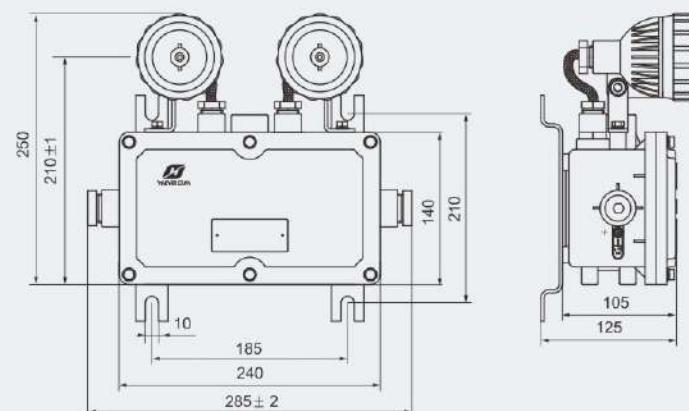
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

##### Weight

5.05kg



### Dimension drawings (all dimensions in mm) - subject to alteration



## Local, Caution Spotlight Fittings BAJ52-6 Series Explosion-proof Emergency Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Lighting angle can be adjusted.
- ◆ Ultra-bright LED lamp, low power consumption and long service life up to 50,000 hours; energy saving and environmental protection.
- ◆ Emergency device with Ni-CD batteries, charging automatically; when power supply is cut off, the emergency device starts to work; with overcharge and overdischarge protection.
- ◆ Toughened glass cover resistant to temperature changes.



**Zones 1&2; 21&22**

# Local, Caution Spotlight Fittings

## BAJ52-6 Series Explosion-proof Emergency Light Fittings

### Technical data

#### Explosion-proof emergency light fittings BAJ52-6

##### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Gb
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

IECEx; ATEX
EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Exposed fastener	Stainless steel

##### Rated voltage

100~277V AC 50/60Hz

##### Lamp

Lamp specification	LED
Lamp power (W)	2 x 3W
Emergency time	180min
Rated luminous flux	2 x 300lm

##### Battery

Description	Ni-CD battery
Rated capacity	4Ah
Rated voltage	3.6V
Charging time	24h

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+60°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

2 x M25 x 1.5 plugs

##### Cable gland (optional)

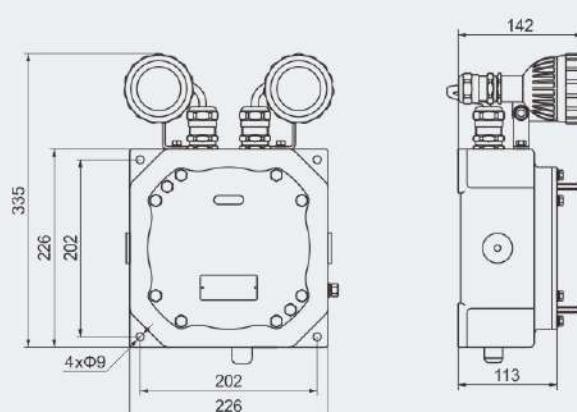
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

##### Weight

8.0kg

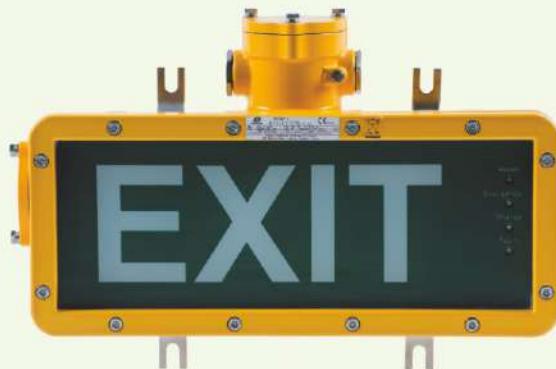


### Dimension drawings (all dimensions in mm) - subject to alteration



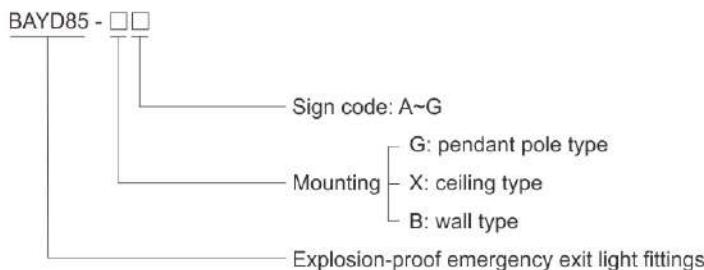
## Local, Caution Spotlight Fittings

### BAYD85 Series Explosion-proof Emergency Exit Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- ◆ Lighting both in normal condition and emergency condition; When power supply is cut off, the emergency device starts to work; with overcharge, overdischarge protection and short circuit protection.
- ◆ Designed with test button and sleep button. The test button is for testing. Press the button, lamp shall automatically enter into emergency status. The sleep button is to stop the lamp source output, press this button, the lamp turned off, re-press the button, lamp on and return to work.
- ◆ Ultra-bright LED lamp, low power consumption and long service life up to 50,000 hours; energy saving and environmental protection.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL 1021).
- ◆ Toughened glass sheet resistant to temperature changes.

#### ■ Catalogue number logic



#### ■ Sign code type A-G



Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BAYD85 Series Explosion-proof Emergency Exit Light Fittings

### Technical data

#### Explosion-proof emergency exit light fittings BAYD85-□□

##### Explosion protection

Global (IECEx)

Gas and dust

IECEx CQM 16.0032X

Ex db IIB T6 Gb (-60°C~+58°C/+60°C)

Ex db IIC T6 Gb (-40°C~+58°C/+60°C)

Ex tb IIIC T80°C Db (-60°C~+58°C/+60°C)

Europe (ATEX)

Gas and dust

TÜV CY 22 ATEX 0206697 X

Ex II 2 G Ex db IIB T6 Gb (-60°C~+58°C/+60°C)

Ex II 2 G Ex db IIC T6 Gb (-40°C~+58°C/+60°C)

Ex II 2 D Ex tb IIIC T80°C Db (-60°C~+58°C/+60°C)

##### Certificates

##### Conformity to standards

##### Material

Enclosure

Exposed fastener

Copper-free Aluminium Alloy, powder coated surface, yellow(RAL1021)

Stainless steel

##### Rated voltage

100~300V AC 50/60Hz, 100~250V DC, 12~48V AC/DC

##### Lamp

LED lamp (working voltage DC 3.6V)

##### Power consumption

4W / 8W

##### Emergency time

180min

##### Battery

Rated capacity

800mAh

Charging time

16h

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

4W: IIB/IIIC for tamb: -60°C~+60°C

IIC for tamb: -40°C~+60°C

8W: IIB/IIIC for tamb: -60°C~+58°C(others voltage)

IIB/IIIC for tamb: -60°C~+60°C(12~48V AC/DC)

IIC for tamb: -40°C~+58°C(others voltage)

IIC for tamb: -40°C~+60°C(12~48V AC/DC)

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

2 x M25 x 1.5 plugs

##### Cable gland

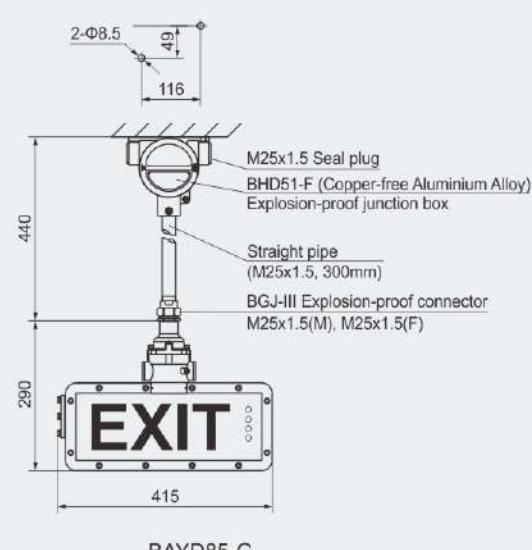
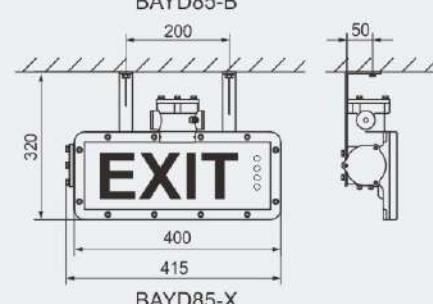
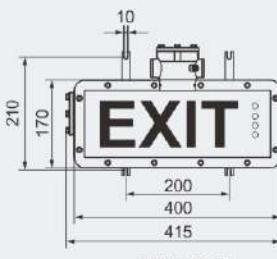
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

##### Weight

5.15kg



### Dimension drawings (all dimensions in mm) - subject to alteration



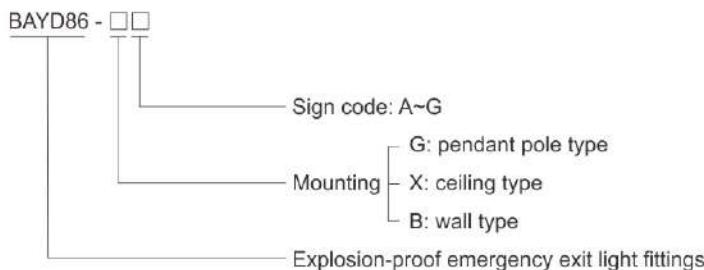
## Local, Caution Spotlight Fittings

### BAYD86 Series Explosion-proof Emergency Exit Light Fittings

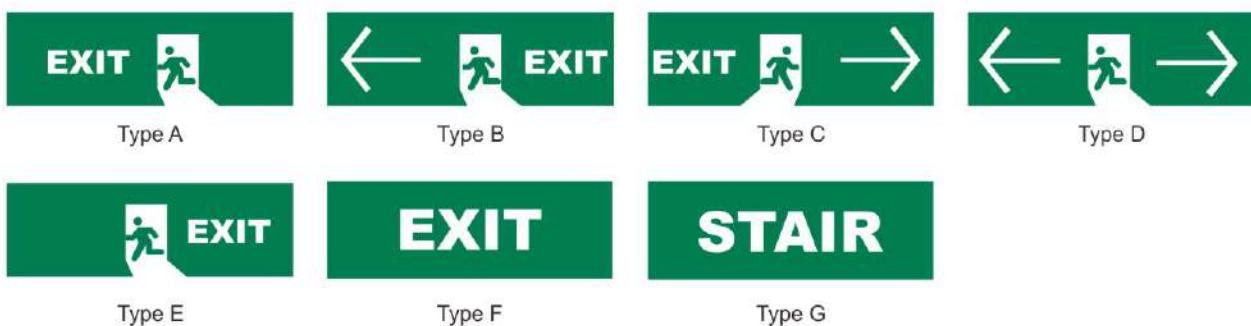


- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Lighting both in normal condition and emergency condition; When power supply is cut off, the emergency device starts to work; with overcharge, overdischarge protection and short circuit protection.
- ◆ Designed with test button. Press the button, lamp shall automatically enter into emergency status.
- ◆ Ultra-bright LED lamp, low power consumption and long service life up to 50,000 hours; energy saving and environmental protection.
- ◆ Enclosure: GRP (glass fiber reinforced polyester).
- ◆ Toughened glass sheet resistant to temperature changes.

#### ■ Catalogue number logic



#### ■ Sign code type A-G



Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BAYD86 Series Explosion-proof Emergency Exit Light Fittings

### Technical data

#### Explosion-proof emergency exit light fittings BAYD86-□□

##### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex mb eb ib IIC T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for)
	Ex II 2 G Ex mb eb ib IIC T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-18, EN 60079-31  
IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-18, IEC 60079-31

##### Material

Enclosure GRP (glass fiber reinforced polyester)

Exposed fastener Stainless steel

##### Rated voltage

100~277V AC 50/60Hz, 100~250V DC, 12~48V AC/DC

##### Lamp

LED lamp

##### Power consumption

8W

##### Emergency time

180min

##### Battery

Rated capacity 800mAh

Charging time 16h

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-60°C~+60°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

2 x M25 x 1.5 plugs

##### Cable gland

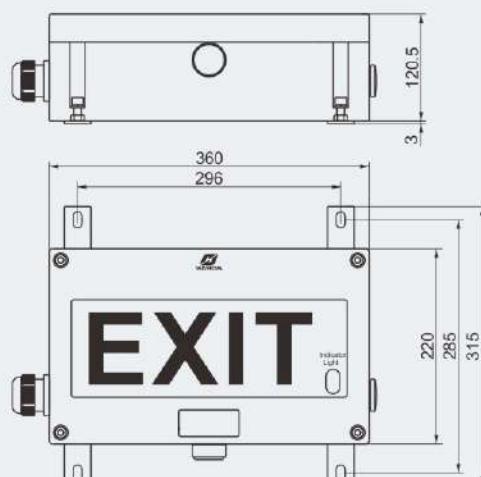
DQM-I is recommended. Please see P7/18~21.

##### Weight

8.0kg



### Dimension drawings (all dimensions in mm) - subject to alteration



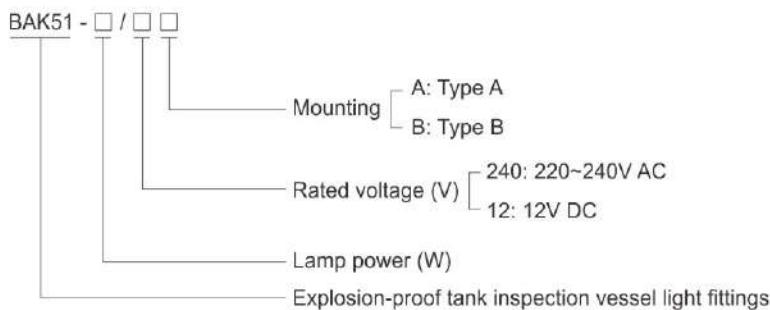
## Local, Caution Spotlight Fittings

### BAK51 Series Explosion-proof Tank Inspection Vessel Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Available for 35W or 50W halogen tungsten lamp, with high light efficiency and long service life.
- ◆ A or B mounting type is optional.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### Catalogue number logic



#### Selection table

Type/Ordering code	Available lamp power (W)	Weight(kg)	Type/Ordering code	Available lamp power (W)	Weight(kg)
BAK51-35/240A	35W Halogen tungsten lamp	2.15	BAK51-50/240A	50W Halogen tungsten lamp	2.15
BAK51-35/240B		2.15	BAK51-50/240B		2.15
BAK51-35/12A		2.00	BAK51-50/12A		2.00
BAK51-35/12B		2.00	BAK51-50/12B		2.00

Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BAK51 Series Explosion-proof Tank Inspection Vessel Light Fittings

### Technical data

#### Explosion-proof tank inspection vessel light fittings BAK51-□/□□

##### Explosion protection

Global (IECEx) IECEx CNEX 18.0033X  
Gas and dust Ex db IIB T3 Gb

Europe (ATEX) CNEX 18 ATEX 0026 X  
Gas and dust Ex II 2 G Ex db IIB T3 Gb

Ex II 2 D Ex tb IIIC T190°C Db

##### Certificates

IECEx; ATEX  
Conformity to standards EN 60079-0, EN 60079-1, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)  
Glass cover Toughened glass, impact resistance and high light transmission  
Exposed fastener Stainless steel

##### Lamp

Available lamp Halogen tungsten lamp  
Lamp holder GY6.35  
Lamp power (W) 35W, 50W  
Adaptable voltage DC 12V

##### Rated voltage

220~240V AC 50Hz  
12V DC; 24V AC/DC

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-60°C~+60°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

1 x G3/4"

##### Cable gland

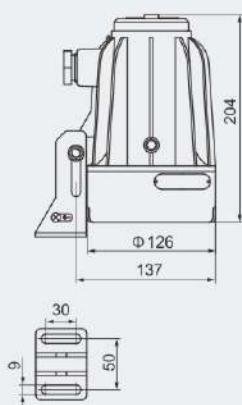
Supplied with seal gasket and gland nut, cable gland on request.

##### Applicable cable outer diameter

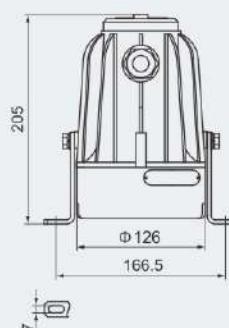
Φ 10~Φ 14 (mm)



### Dimension drawings (all dimensions in mm) - subject to alteration



A



B

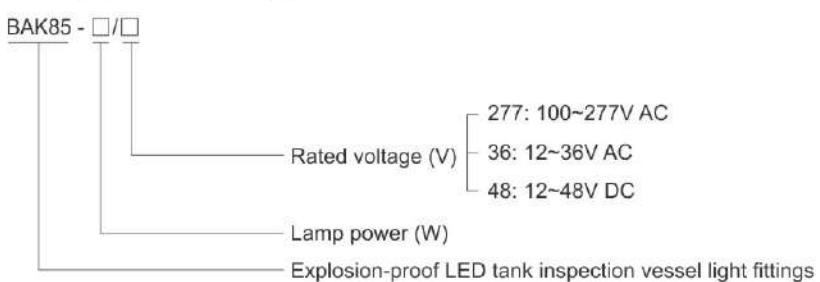
## Local, Caution Spotlight Fittings

### BAK85 Series Explosion-proof LED Tank Inspection Vessel Light Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Applicable lamp and power:
  - LED lamps, energy-saving and long service life.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### ■ Catalogue number logic



#### ■ Selection table

Type/Ordering code	Lamp power (W)	Rating voltage (V)	Weight (kg)
BAK85-9/277	9	100~277V AC 50/60Hz	2.20
BAK85-9/36		12~36V AC	
BAK85-9/48		12~48V DC	

Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BAK85 Series Explosion-proof LED Tank Inspection Vessel Light Fittings

### Technical data

#### Explosion-proof LED tank inspection vessel light fittings BAK85-□/□

##### Explosion protection

Global (IECEx)	IECEx TPS 18.0011X
Gas and dust	Ex db op is IIC T6 Gb
	Ex tb op is IIIC T80°C Db
Europe (ATEX)	TPS 18 ATEX 089761 0007X
Gas and dust	Ex II 2 G Ex db op is IIC T6 Gb
	Ex II 2 D Ex tb op is IIIC T80°C Db

##### Certificates

##### Conformity to standards

IECEx; ATEX
EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor $\geq 0.95$ , with protection against circuit and anti-electromagnetic interference, etc.
Exposed fastener	Stainless steel

##### Lamp

Lamp specification	International brand of LED module
Lamp power (W)	9W
Colour Temperature (CCT)	5700K Note: cool white is available in general. Warm white or nature white is optional, please specify when ordering.

##### Rated voltage

100~277V AC 50/60Hz
100~250V DC
12~36V AC 50/60Hz
12~48V DC



##### Earthing protection

M5 (internal & external earth bolts)
IP66/IP67

##### Degree of protection

IP66/IP67
-40°C~+55°C

##### Ambient temperature

-40°C~+55°C
3 x 1.5~2.5mm <sup>2</sup> (L+N+PE)

##### Terminal

3 x 1.5~2.5mm <sup>2</sup> (L+N+PE)
M20 x 1.5

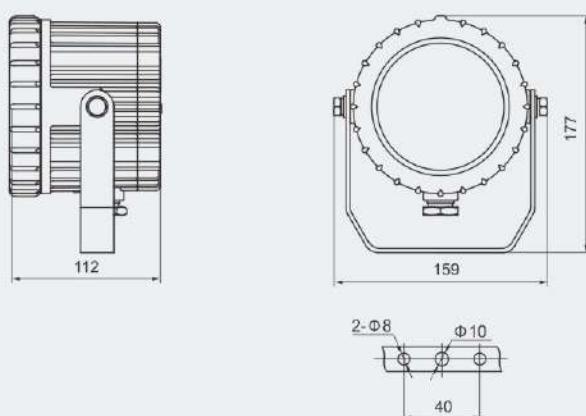
##### Cable entries

Supplied with seal gasket and gland nut
Φ6~Φ12 (mm)

##### Cable gland

##### Applicable cable outer diameter

### Dimension drawings (all dimensions in mm) - subject to alteration



## Local, Caution Spotlight Fittings

### BSZD81-E Series Explosion-proof Caution Spotlight Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low consumption and long service life up to 50,000 hours, integrated chip control with various circuit protection.
- ◆ Synchronous flashing of light fittings through signal lines.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

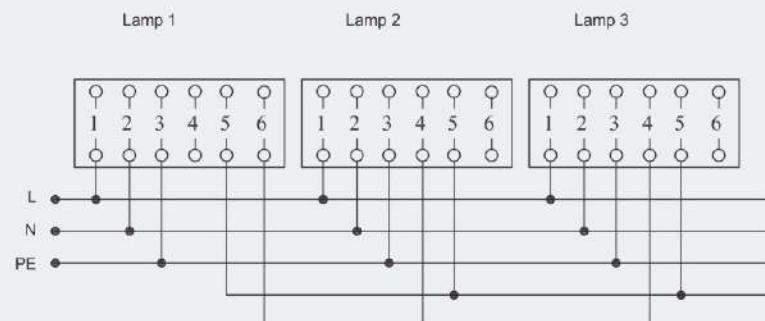
#### Catalogue number logic

BSZD81 - E □

- T: Wireless synchronous (optional)
- Lamp: LED (low luminous intensity)
- Explosion-proof caution spotlight fittings



#### Wired sync connection diagram



**Zones 1&2; 21&22**

# Local, Caution Spotlight Fittings

## BSZD81-E Series Explosion-proof Caution Spotlight Fittings

### Technical data

#### Explosion-proof caution spotlight fittings BSZD81-E □

##### Explosion protection

Global (IECEx) IECEx CQM 11.0026X

Gas and dust Ex d e IIC T6 Gb

Ex tb IIIC T80°C Db IP65

Europe (ATEX) EUT 14 ATEX 1155

Gas and dust Ex II 2 G Ex d e IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP65

##### Certificates

##### Conformity to standards

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

##### Rated voltage

100V, 110V, 120V, 127V, 220V, 230V, 240V AC 50/60Hz

##### Lamp

Lamp specification LED

Lamp power (W) ≤ 10W (continuous work)

##### Lamp colour

Red

##### Max. luminous intensity value

> 200cd

##### Flash frequency

16, 20, 30, 40, 60, 80, 120, 240 (times/min)

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP65

##### Ambient temperature

-20°C~+55°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

4 x M25 x 1.5 plugs

##### Cable gland (optional)

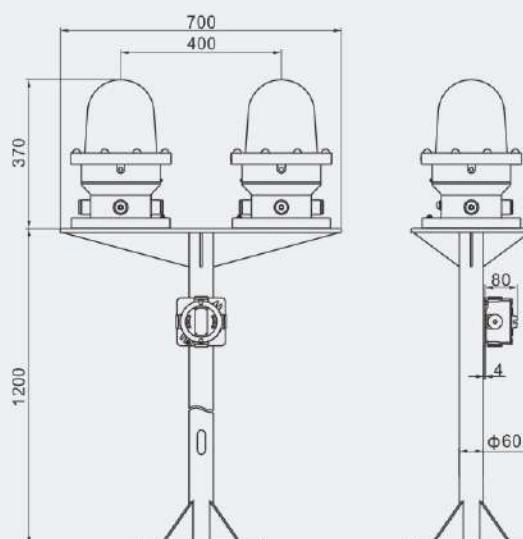
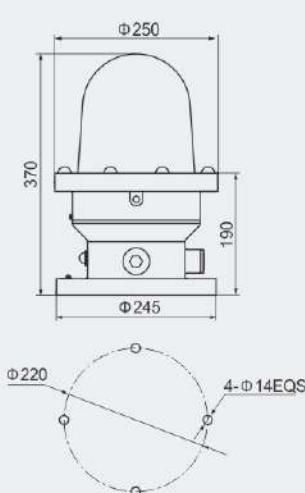
DQM-I (Ex e) is recommended. Please see P7/19~21.

##### Weight

10kg



### Dimension drawings (all dimensions in mm) - subject to alteration



Drawings of main (spare) caution spotlight fittings

Note: The light fitting consists of two completely independent photoelectric control systems which can control the main and spare lamps respectively. Generally, the main lamp is used for night lighting, and it will be shut down automatically during the day. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.

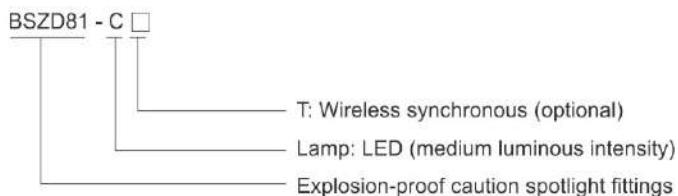
## Local, Caution Spotlight Fittings

### BSZD81-C Series Explosion-proof Caution Spotlight Fittings

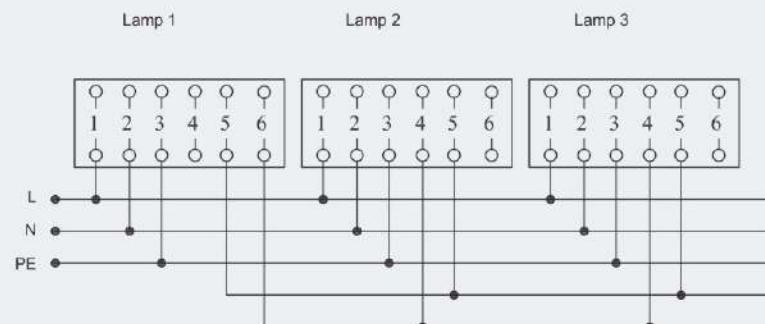


- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low consumption and long service life up to 30,000 hours, integrated chip control with various circuit protection.
- ◆ Synchronous flashing of light fittings through signal lines.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### Catalogue number logic



#### Wired sync connection diagram



**Zones 1&2; 21&22**

# Local, Caution Spotlight Fittings

## BSZD81-C Series Explosion-proof Caution Spotlight Fittings

### Technical data

#### Explosion-proof caution spotlight fittings BSZD81-C □

##### Explosion protection

Global (IECEx) IECEx CQM 11.0026X

Gas and dust Ex d e IIC T6 Gb

Ex tb IIIC T80°C Db IP65

EUT 14 ATEX 1155

Ex II 2 G Ex d e IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP65

IECEx; ATEX

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

##### Rated voltage

100V, 110V, 120V, 127V, 220V, 230V, 240V AC 50/60Hz

##### Lamp

Lamp specification LED

Lamp power (W) 40W (continuous work)

##### Lamp colour

Red

> 2000cd

##### Max. luminous intensity value

16, 20, 30, 40, 60, 80, 120, 240 (times/min)

##### Flash frequency

M5 (internal & external earth bolts)

##### Earthing protection

IP65

##### Degree of protection

-40°C~+55°C

##### Ambient temperature

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Terminal

4 x M25 x 1.5 plugs

##### Cable entries

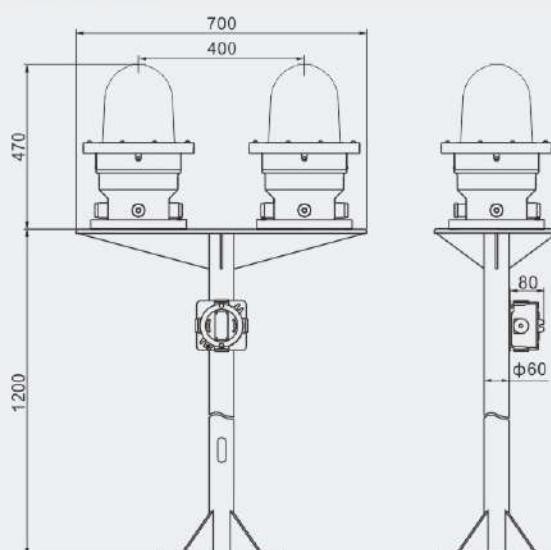
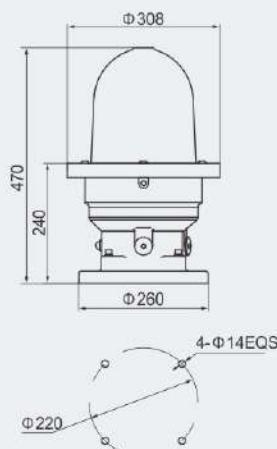
DQM-I (Ex e) is recommended. Please see P7/19~21.

##### Weight

13.8kg



### Dimension drawings (all dimensions in mm) - subject to alteration



Drawings of main (spare) caution spotlight fittings

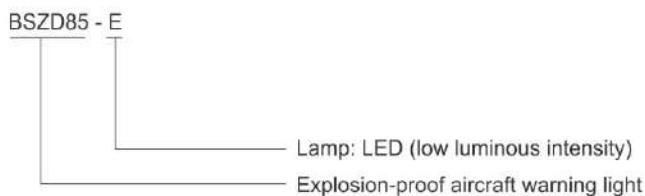
**Note:** The light fitting consists of two completely independent photoelectric control systems which can control the main and spare lamps respectively. Generally, the main lamp is used for night lighting, and it will be shut down automatically during the day. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.

## Local, Caution Spotlight Fittings BSZD85-E Series Explosion-proof Low Intensity Aircraft Warning Light



- ◆ Explosion protection to  
-CENELEC  
-IEC  
-NEC
- ◆ Can be used in  
Zone 1 and Zone 2  
Zone 21 and Zone 22  
Class I, Zone 1 and Zone 2  
Class I, Division 2, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low consumption and long service life  
up to 50,000 hours, integrated chip control with various circuit protection.
- ◆ Synchronous flashing of light fittings through signal lines.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

### ■ Catalogue number logic



**Zones 1&2; 21&22**

# Local, Caution Spotlight Fittings

## BSZD85-E Series Explosion-proof Low Intensity Aircraft Warning Light

### Technical data

#### Explosion-proof low intensity aircraft warning light BSZD85-E

##### Explosion protection

Global (IECEx) IECEx NEP 22.0008X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) ExVeritas 22 ATEX1 399X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

International Civil Aviation Organization Certification: ICAO

International Civil Aviation Organization (ICAO)

104406281CRT-001TVOC

horizontal beam spread 360°, normal beam spread ≥10°;

when the angle of elevation is between 2~10°,

the lowest light intensity ≥32cd, other angles ≥16cd.

##### Certificates

##### Conformity to standards

##### Certificates

##### Conformity to standard

##### Verification number

##### Optical requirements

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

##### Rated voltage

100~277V AC/DC, 12~48V AC/DC

##### Lamp

LED

≤8W (continuous work)

Lamp power (W)

Red

> 32cd

Max. luminous intensity value

Normally on

Flash frequency

M5 (internal & external earth bolts)

Earthing protection

IP66

Degree of protection

-60°C~+60°C

Ambient temperature

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

Terminal

2 x M25 x 1.5 plugs

Cable entries

BPT

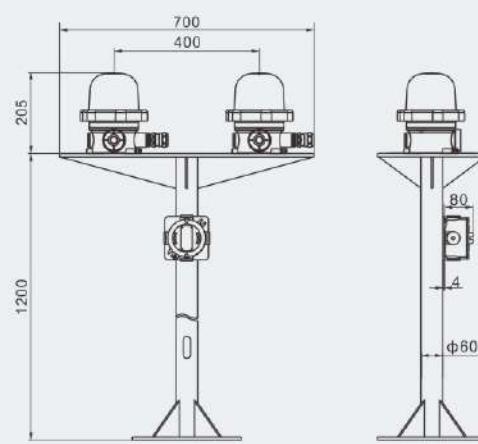
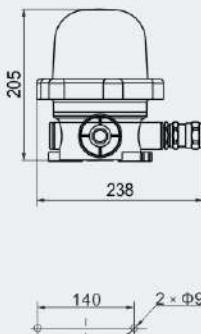
Cable gland (optional)

2.7kg

Weight



### Dimension drawings (all dimensions in mm) - subject to alteration



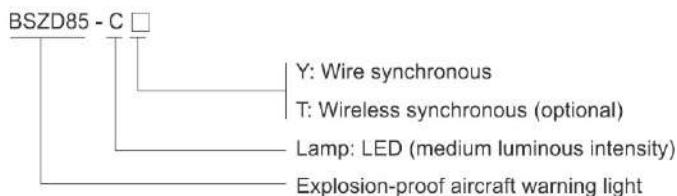
Drawings of main (spare) caution spotlight fittings

Note: The light fitting consists of two completely independent photoelectric control systems which can control the main and spare lamps respectively. Generally, the main lamp is used for night lighting, and it will be shut down automatically during the day. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.



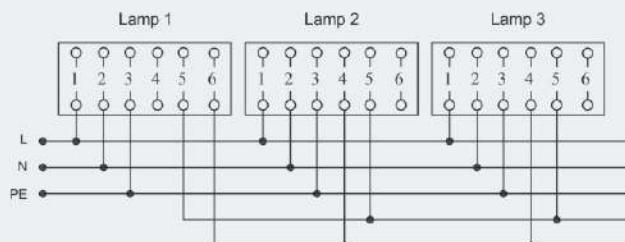
- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low consumption and long service life up to 30,000 hours, integrated chip control with various circuit protection.
- ◆ Synchronous flashing of light fittings through signal lines.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### Catalogue number logic

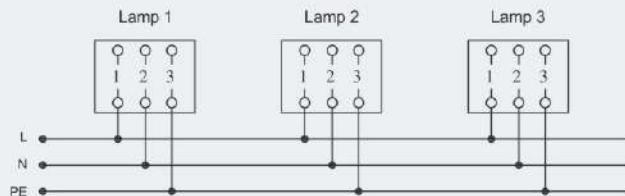


#### Wired sync connection diagram

Y: Wire synchronous



T: Wireless synchronous (optional)



## Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BSZD85-C Series Explosion-proof Medium Intensity Aircraft Warning Light

### Technical data

#### Explosion-proof medium intensity aircraft warning light BSZD85-C □

##### Explosion protection

Global (IECEx)	IECEx NEP 23.0026X
Gas and dust	Ex db eb ib IIC T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for) Ex II 2 G Ex db eb ib IIC T6 Gb

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-11, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-11, IEC 60079-31

International Civil Aviation Organization Certification: ICAO

International Civil Aviation Organization (ICAO)

104416588CRT-001TVOC

horizontal beam spread 360°, normal beam spread ≥3°;  
when the angle of elevation is between -1~2° or 0°,  
the light intensity 2500cd ≥ I ≥ 1500cd, other angles 2500cd ≥ I ≥ 750cd.

##### Material

Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel

##### Rated voltage

100~277V AC/DC 50/60Hz, 12~48V AC 50/60Hz; 100~277V DC, 12~48V DC

##### Lamp

Lamp specification	LED
Lamp power (W)	≤ 40W (continuous work)

##### Lamp colour

Red
> 2000cd
20~60 (times/min)

##### Max. luminous intensity value

##### Flash frequency

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+53°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

4 x M25 x 1.5 plugs

##### Cable gland (optional)

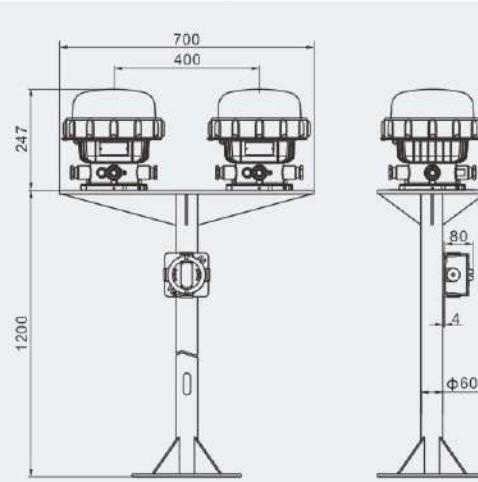
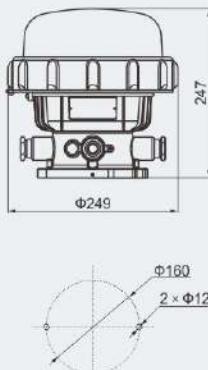
BPT

##### Weight

6.0kg



### Dimension drawings (all dimensions in mm) - subject to alteration



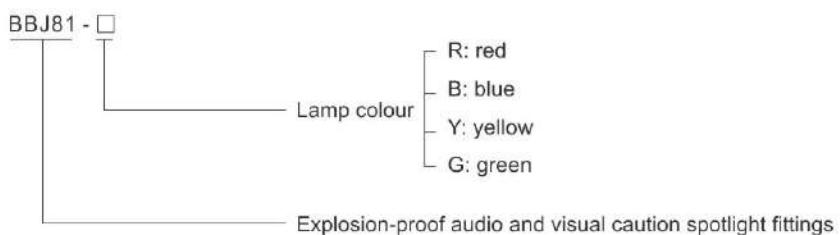
Drawings of main (spare) caution spotlight fittings

Note: The light fitting consists of two completely independent photoelectric control systems which can control the main and spare lamps respectively. Generally, the main lamp is used for night lighting, and it will be shut down automatically during the day. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low power consumption and long service life.
- ◆ Lamp colours: red, blue, yellow, green.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### ■ Catalogue number logic



#### ■ Selection table

Type/Ordering code	Weight(kg)
BBJ81-R	2.60
BBJ81-B	2.60
BBJ81-Y	2.60
BBJ81-G	2.60

**Zones 1&2; 21&22**

# Local, Caution Spotlight Fittings

## BBJ81 Series Explosion-proof Audio and Visual Caution Spotlight Fittings

### Technical data

#### Explosion-proof audio and visual caution spotlight fittings BBJ81-□

##### Explosion protection

Global (IECEx)	IECEx CQM 12.0035X
Gas and dust	Ex db ib IIC T6 Gb
	Ex tb IIIC T80°C Db
Europe (ATEX)	LCIE 11 ATEX 3111X
Gas and dust	Ex II 2 G Ex d ib IIC T6 Gb
	Ex II 2 D Ex t IIIC T80°C Db IP66

##### Certificates

##### Conformity to standards

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

##### Rated voltage

IECEx: 220~240V AC 50/60Hz; 100~120V AC 50/60Hz; 24V DC/AC

ATEX: 220~240V AC 50/60Hz; 24V DC/AC

##### Lamp

Lamp specification LED

Lamp power (W) 5W

##### Lamp colour

Red, blue, yellow, green

##### Flash frequency

70 (times/min)

##### Sound intensity

85~105dB (R=1m)

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+55°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

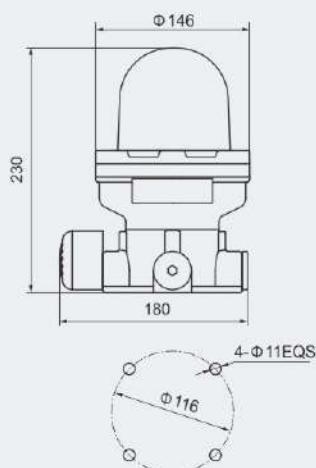
3 x M25 x 1.5 plugs

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.



### Dimension drawings (all dimensions in mm) - subject to alteration



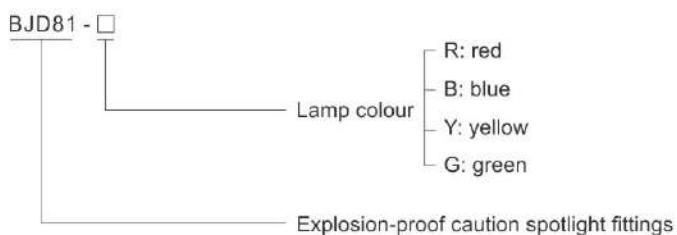
## Local, Caution Spotlight Fittings

### BJD81 Series Explosion-proof Caution Spotlight Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low power consumption and long service life.
- ◆ Lamp colour: red, blue, yellow, green.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### ■ Catalogue number logic



#### ■ Selection table

Type/Ordering code	Weight(kg)
BJD81-R	2.50
BJD81-B	2.50
BJD81-Y	2.50
BJD81-G	2.50

Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BJD81 Series Explosion-proof Caution Spotlight Fittings

### Technical data

#### Explosion-proof caution spotlight fittings BJD81-□

##### Explosion protection

Global (IECEx) IECEx CQM 12.0038X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) LCIE 11 ATEX 3109X

Gas and dust Ex II 2 G Ex d IIC T6 Gb

Ex II 2 D Ex t IIIC T80°C Db IP66

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

##### Rated voltage

IECEx: 220~240V AC 50/60Hz; 100~120V AC 50/60Hz; 24V DC/AC

ATEX: 220~240V AC 50/60Hz; 24V DC/AC

##### Lamp

Lamp specification LED

Lamp power (W) 3W

Lamp colour Red, blue, yellow, green

##### Flash frequency

70 (times/min)

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-40°C~+55°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

##### Cable entries

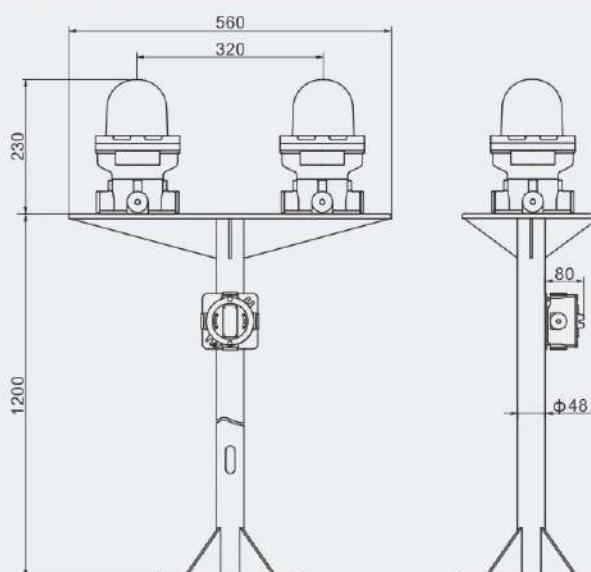
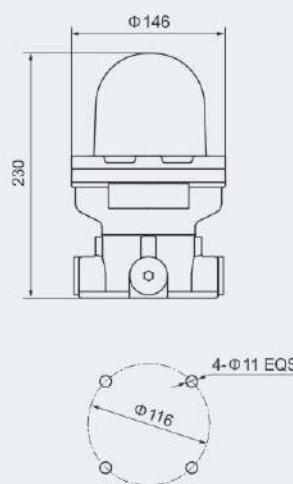
4 x M25 x 1.5 plugs

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.



### Dimension drawings (all dimensions in mm) - subject to alteration



Drawings of main (spare) caution spotlight fittings

The light fitting consists of two completely independent lamp circuit boards which can control the main and spare lamps respectively. Generally, the main lamp is working. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.

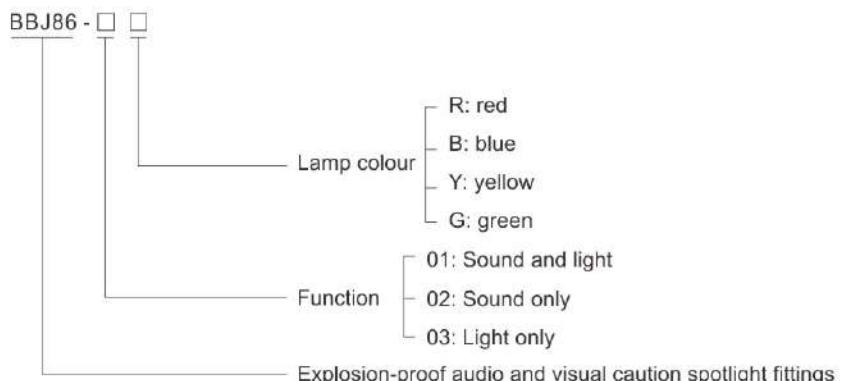
## Local, Caution Spotlight Fittings

### BBJ86 Series Explosion-proof Audio and Visual Caution Spotlight Fittings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ultra-bright LED lamp, low power consumption and long service life.
- ◆ Lamp colours: red, blue, yellow, green.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).

#### ■ Catalogue number logic



#### ■ Selection table

Type/ Ordering code	Rated power (W)	Weight (kg)	Type/ Ordering code	Rated power (W)	Weight (kg)	Type/ Ordering code	Rated power (W)	Weight (kg)
BBJ86-01R	45W	4.70	BBJ86-02	35W	3.20	BBJ86-03R	10W	3.45
BBJ86-01B	45W	4.70				BBJ86-03B	10W	3.45
BBJ86-01Y	45W	4.70				BBJ86-03Y	10W	3.45
BBJ86-01G	45W	4.70				BBJ86-03G	10W	3.45

Zones 1&2; 21&22

# Local, Caution Spotlight Fittings

## BBJ86 Series Explosion-proof Audio and Visual Caution Spotlight Fittings

### Technical data

#### Explosion-proof audio and visual caution spotlight fittings BBJ86-□□

##### Explosion protection

Global (IECEx) IECEx PCET 24.0028X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) ATEX (applied for)

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

##### Material

Enclosure Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)

Transparent cover Toughened glass, stands 4J impact

Exposed fastener Stainless steel

##### Rated voltage

100~277V AC 50/60Hz; 130~250V DC; 12~48V AC/DC

##### Lamp

Lamp specification LED

Lamp power (W) 45W, 35W, 10W

##### Lamp colour

Red, blue, yellow, green

##### Flash frequency

150~160 (times/min)

##### Sound intensity

110~120dB (R=1m)

##### Earthing protection

M5 (internal & external earth bolts)

##### Degree of protection

IP66

##### Ambient temperature

-60°C~+60°C

##### Terminal

3 x 1.5~2.5mm<sup>2</sup> (L+N+PE)

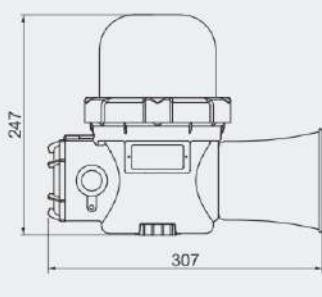
##### Cable entries

3 x M25 x 1.5 plugs

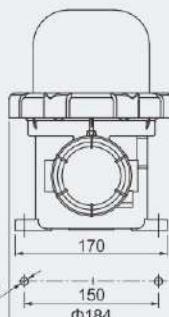
##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

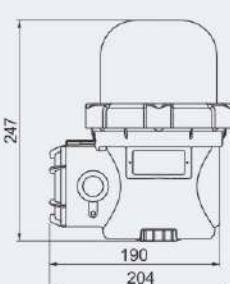
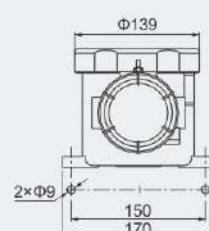
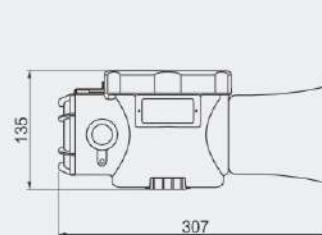
### Dimension drawings (all dimensions in mm) - subject to alteration



BBJ86-01□ Sound and Light



BBJ86-02□ Sound only



BBJ86-03□ Light only



## Installation Equipments

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More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

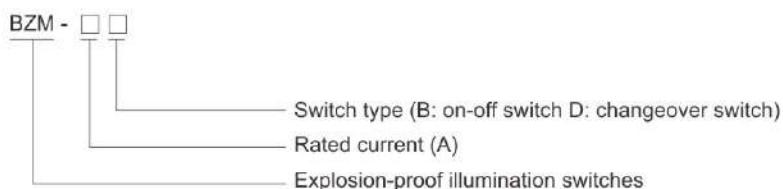
## Installation Switches

### BZM Series Explosion-proof Illumination Switches



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Two options:
  - On-off switch
  - Changeover switch

#### Catalogue number logic



Selection table

Type/Ordering code	Chart of contact	Corresponding switch	Weight (kg)																								
BZM-16B	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>○</td><td>I</td><td>○</td><td>I</td></tr> <tr> <td>0°</td><td>90°</td><td>180°</td><td>270°</td></tr> <tr> <td>1○</td><td></td><td>×</td><td>×</td></tr> <tr> <td>3○</td><td></td><td>×</td><td>×</td></tr> <tr> <td>5○</td><td></td><td>×</td><td>×</td></tr> <tr> <td>7○</td><td></td><td>×</td><td>×</td></tr> </table>	○	I	○	I	0°	90°	180°	270°	1○		×	×	3○		×	×	5○		×	×	7○		×	×		0.85
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3○		×	×																								
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7○		×	×																								
BZM-25B	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>○</td><td>I</td></tr> <tr> <td>0°</td><td>90°</td></tr> <tr> <td>1○</td><td></td></tr> <tr> <td>3○</td><td></td></tr> <tr> <td>5○</td><td></td></tr> <tr> <td>7○</td><td></td></tr> </table>	○	I	0°	90°	1○		3○		5○		7○			0.95												
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BZM-16D	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>○</td><td>I</td></tr> <tr> <td>0°</td><td>90°</td></tr> <tr> <td>1/3○</td><td></td></tr> <tr> <td>5/7○</td><td></td></tr> </table>	○	I	0°	90°	1/3○		5/7○			0.85																
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BZM-25D	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>○</td><td>I</td></tr> <tr> <td>0°</td><td>90°</td></tr> <tr> <td>1/3○</td><td></td></tr> <tr> <td>5/7○</td><td></td></tr> </table>	○	I	0°	90°	1/3○		5/7○			0.95																
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0°	90°																										
1/3○																											
5/7○																											

Zones 1&2; 21&22

# Installation Switches

## BZM Series Explosion-proof Illumination Switches

### Technical data

#### Explosion-proof illumination switches BZM-□ □

##### Explosion protection

Global (IECEx) IECEx LCI 08. 0008X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) LCIE 06 ATEX 6068X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Switch function

On-off switch or changeover switch

##### Exposed fastener

Stainless steel

##### Rated voltage

Max. 250V AC

##### Rated current

16A, 25A

##### Degree of protection

IP66

##### Ambient temperature

-60°C~+60°C

##### Internal&external earthing

M4/M5

##### Cable connection

3 x (2.5~4)mm<sup>2</sup>

##### Cable entries

Standard 2 x M25 x 1.5 plugs

##### Cable gland(optional)

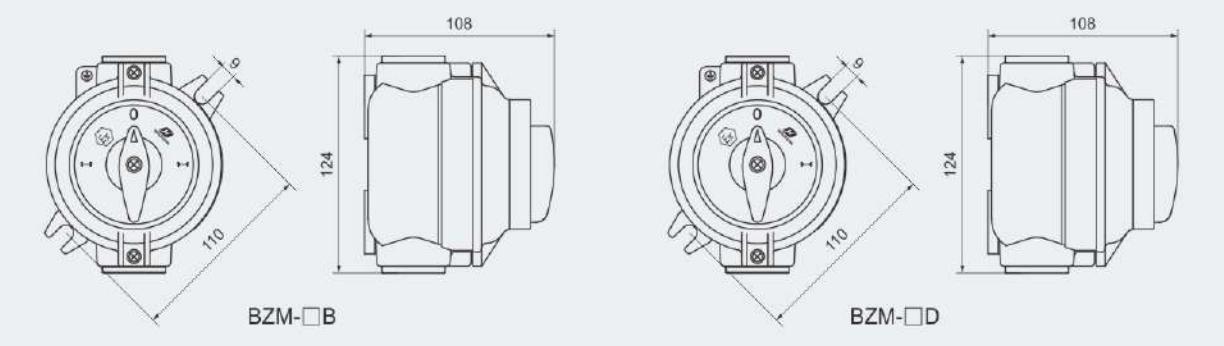
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.



### Spare parts

Built-in switch	Rated voltage/current	Ordering code	Weight (kg)
	250V/16A	30001	0.10
	250V/25A	30002	0.20
	250V/16A	30003	0.10
	250V/25A	30004	0.20

### Dimension drawings (all dimensions in mm) - subject to alteration



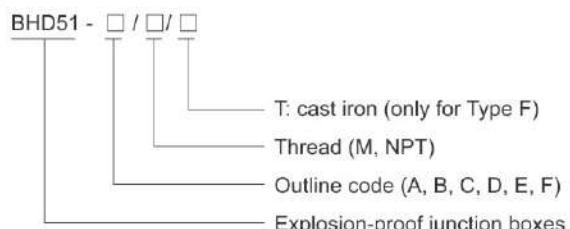
## Junction Boxes

## BHD51 Series Explosion-proof Junction Boxes



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Six types: A, B, C, D, E, F.
- ◆ Type A, B, C, D, E in Copper-free Aluminium Alloy only; Type F in Copper-free Aluminium Alloy or Cast Iron.

## ■ Catalogue number logic



Selection table



Type/Ordering code	Schematic diagram	Weight (kg)	
BHD51-A/M20 x 1.5	Type A		0.70
BHD51-A/M25 x 1.5			
BHD51-B/M20 x 1.5	Type B		0.70
BHD51-B/M25 x 1.5			
BHD51-C/M20 x 1.5	Type C		0.70
BHD51-C/M25 x 1.5			
BHD51-D/M20 x 1.5	Type D		0.70
BHD51-D/M25 x 1.5			
BHD51-E/M20 x 1.5	Type E		0.70
BHD51-E/M25 x 1.5			
BHD51-F/M25 x 1.5	Type F	Copper-free Aluminium Alloy Cast Iron	0.80 2.10

Zones 1&amp;2; 21&amp;22

# Junction Boxes

## BHD51 Series Explosion-proof Junction Boxes

### Technical data

#### Explosion-proof junction boxes BHD51-□/□/□

##### Explosion protection

Global (IECEx) IECEx CQM 11.0022X

Gas and dust Ex db IIC T6 Gb

Europe (ATEX) Ex tb IIIC T80°C Db

CNEX 21 ATEX 0001X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

IECEx; ATEX

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Copper-free Aluminium Alloy or cast iron, powder coated surface

Yellow (RAL1021)

Stainless steel

20A

Max. 690V AC 50/60Hz, Max. 500V DC

##### Certificates

##### Conformity to standards

##### Enclosure material

##### Enclosure colour

##### Exposed fastener

##### Rated current

##### Rated voltage

##### Terminal data

Number

6 terminals (Type A-E), 4 terminals (Type F)

Cross section of cable

0.2~2.5mm<sup>2</sup>

Degree of protection

IP66

Ambient temperature

-60°C~+60°C

Internal&external earthing

M5

Cable entries

Standard M□ x 1.5 plug

NPT□ plug on request

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

Type A-E are used for wiring or branching;

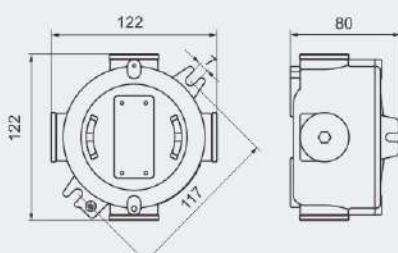
Type F is used as accessory for pendant pole type or ceiling type light fittings.

### Terminals

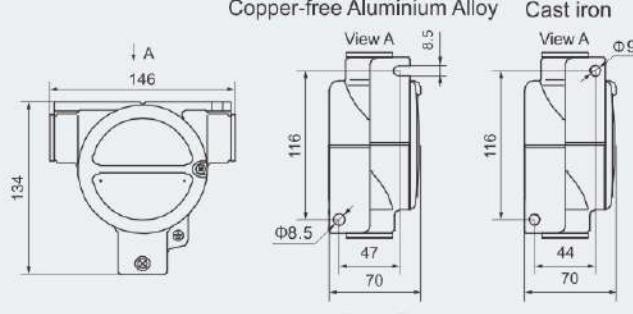
Description	Illustration	Number	Ordering code	Weight (kg)	Note
Terminal		6	30008	0.10	For Type A, B, C, D, E
Terminal block		4	30009	0.05	For Type F



### Dimension drawings (all dimensions in mm) - subject to alteration



Type A, B, C, D, E



Type F

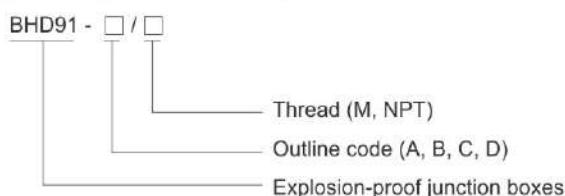
### Application instruction:

1. Type F (Copper-free Aluminium Alloy) is used as mounting accessory for light fittings HRD61-150, BDD81, HRD95 etc.
2. Type F (cast iron) is used as mounting accessory for light fittings HRD61-250, HRD61-400, etc.



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Four types: A, B, C, D
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

#### ■ Catalogue number logic



Selection table

Type / Ordering code	Schematic diagram	Top	Bottom	Left	Right	Weight (kg)
BHD91-A/M20×1.5	Type A	-	-	2-M□×1.5	2-M□×1.5	1.20
BHD91-A/M25×1.5						
BHD91-A/M32×1.5						
BHD91-B/M20×1.5	Type B	-	2-M□×1.5	2-M□×1.5	-	1.20
BHD91-B/M25×1.5						
BHD91-B/M32×1.5						
BHD91-C/M20×1.5	Type C	-	2-M□×1.5	2-M□×1.5	2-M□×1.5	1.20
BHD91-C/M25×1.5						
BHD91-C/M32×1.5						
BHD91-D/M20×1.5	Type D	2-M□×1.5	2-M□×1.5	2-M□×1.5	2-M□×1.5	1.20
BHD91-D/M25×1.5						
BHD91-D/M32×1.5						

Zones 1&2; 21&22

# Junction Boxes

## BHD91 Series Explosion-proof Junction Boxes

### Technical data

#### Explosion-proof junction boxes BHD91-□/□

##### Explosion protection

Global (IECEx)	IECEx CQM 15.0061X
Gas and dust	Ex db IIC T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db IP66
Gas and dust	CNEX 16 ATEX 0006
	Ex II 2 G Ex db IIC T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31
UL 1203, UL 508, UL 50, UL 50E, UL 508A
CSA C22.2 No.30, CSA C22.2 No.25, CSA C22.2 No.14
CSA C22.2 No.94.1, CSA C22.2 No.94.2

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Rated voltage

Max. 500V AC

##### Rated current and Terminal data

Cross section	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>
Rated current	24A	32A	41A
Terminal number	12	10	8

##### Degree of protection

IP66

##### Ambient temperature

-60°C~+60°C

##### Internal&external earthing

M5/M5

##### Cable entries

Standard M□ x 1.5 plug

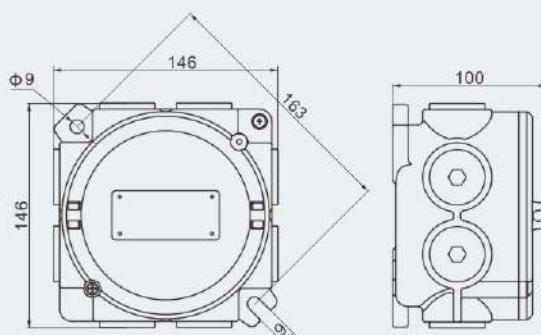
NPT□ plug on request

##### Cable gland(optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.



### Dimension drawings (all dimensions in mm) - subject to alteration



## Terminal Boxes

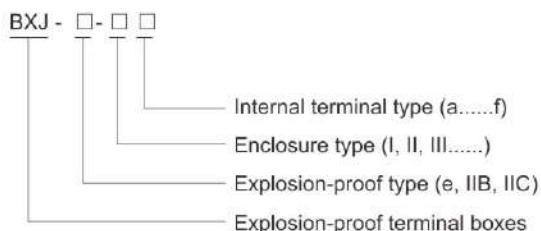
### BXJ Series Explosion-proof Terminal Boxes



Ex d IIB

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
  - Class I, Division 2, Groups A, B, C, D
- ◆ Three explosion-proof types (Ex e IIC, Ex d IIB and Ex d IIC).
- ◆ Enclosure: Copper-free Aluminium Alloy, powder coated surface.
- ◆ Size and direction of cable entries can be customized on request.

#### Catalogue number logic



Ex d IIC



Ex e IIC

**Zones 1&2; 21&22**

# Terminal Boxes

## BXJ-IIB Series Explosion-proof Terminal Boxes

### Technical data

#### Explosion-proof terminal boxes(Ex db IIB+H2) BXJ-IIB-□□

##### Explosion protection

Global (IECEx)	IECEx CQM 14. 0061X
Gas and dust	Ex db IIB+H <sub>2</sub> T6 or T5 Gb
Europe (ATEX)	Ex tb IIIC T80°C or T95°C Db IP66
Gas and dust	TÜV CY 17 ATEX 0205970X

##### Certificates

Conformity to standards	IECEx; ATEX; CU-TR
	EN 60079-0, EN 60079-1, EN 60079-31

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Terminal

International brand of terminal blocks

##### Exposed fastener

Stainless steel

##### Ambient temperature

T5/T95°C for Tamb: -60°C ≤ Ta ≤ +55°C

T6/T80°C for Tamb: -60°C ≤ Ta ≤ +40°C

##### Rated voltage

Max. 800V AC

##### Rated current

Cross section	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	70mm <sup>2</sup>	240mm <sup>2</sup>
Rated current	24A	32A	41A	57A	76A	125A	192A	400A

##### Internal&external earthing

I, II, IIb: M6/M6; III, IIIb, IV, IVb, V, Vb, VI, VIb: M6/M8; VII, VIIb: M8/M8

##### Degree of protection

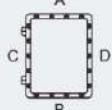
IP66

##### Note

Rated current > 400A on request

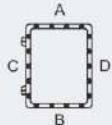
### Cable entry table

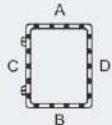
Table of max. number of possible enclosure entries with cable glands DQM-II

	I	II	II b	III	III b	IV	IV b
							



Size	A/B	C/D												
M20 x 1.5	5	8	5	10	5	12	10	12	16	20	12	16	22	30
M25 x 1.5	5	7	5	9	5	10	9	11	12	15	11	14	15	20
M32 x 1.5	2	3	2	4	2	6	7	9	9	12	9	12	12	16
M40 x 1.5	2	2	2	3	2	4	3	4	5	6	4	5	6	9
M50 x 1.5	1	2	1	3	1	3	3	3	4	5	3	4	5	7
M63 x 1.5	1	2	1	2	1	3	2	3	2	3	3	3	3	5



	V	V b	VI	VI b	VII	VII b
						



**Note:** For cable entries:

- 1) Please specify the direction and size of each cable entry.
- 2) Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

## Terminal Boxes

### BXJ-IIB Series Explosion-proof Terminal Boxes

#### Selection table of BXJ-IIB series explosion-proof terminal boxes

Max. cross section of cable connected to terminals is 35mm<sup>2</sup>

See table for max. number of fitted terminals

Enclosure code/Ordering code	Outline	Cross section of cable (mm <sup>2</sup> )						Max. dissipated power (W)	Weight (kg)
		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)		
I		16	15	12	10	8	—	9.8	7.50
II		22	18	14	12	10	—	14.4	9.00
II b		28	25	20	15	12	—	14.4	10.00
III, IIIb		32	30	24	20	16	8	22.2	16.00 (III)
		2x25	2x23	2x20	—	—	—	22.2	19.80 (III b)
IV, IVb		45	40	34	28	24	16	25.2	16.50 (III)
		2x40	2x35	2x30	2x20	—	—	25.2	20.50 (III b)
		—	—	—	—	—	—	26.30 (IV)	25.50 (IV)
		—	—	—	—	—	—	25.2	30.00 (IV b)
		—	—	—	—	—	—	26.30 (IV)	31.00 (IV b)
		—	—	—	—	—	—	25.2	31.00 (IV b)

## Terminal Boxes

### BXJ-IIB Series Explosion-proof Terminal Boxes

#### Selection table of BXJ-IIB series explosion-proof terminal boxes

Max. cross section of cable connected to terminals is 240mm<sup>2</sup>

See table for max. number of fitted terminals

Cross section of cable (mm <sup>2</sup> )		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	240 (h)	Max. dissipated power (W)	Weight (kg)
Enclosure code/ Ordering code	Outline										
V, Vb		60	56	48	36	30	20	—	—	55.3	38.00 (V) 43.00 (Vb)
		2×55	2×50	2×45	2×35	2×33	—	—	—	55.3	39.00 (V) 44.00 (Vb)
VI, VIb		80	70	60	50	35	20	10	6	64.5	50.00 (VI) 56.50 (VIb)
		2×80	2×70	2×60	2×50	2×35	—	—	—	64.5	51.50 (VI) 58.00 (VIb)
VII, VIIb		90	80	70	60	40	25	15	9	93.1	80.00 (VII) 88.50 (VIIb)
		2×90	2×80	2×70	2×60	2×40	—	—	—	93.1	82.00 (VII) 91.50 (VIIb)



## Terminal Boxes

### BXJ-IIC Series Explosion-proof Terminal Boxes

#### Technical data

#### Explosion-proof terminal boxes (Ex d IIC) BXJ- IIC-□□

<b>Explosion protection</b>							
Global (IECEx)	IECEx CQM 11.0027						
Gas and dust	Ex d IIC T6 Gb						
Europe (ATEX)	Ex tb IIIC T80°C Db IP65						
Gas and dust	Nemko 09 ATEX 1012 Ex II 2 G Ex d IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db IP65						
<b>Certificates</b>	IECEx; ATEX; CU-TR						
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31						
<b>Enclosure material</b>	Copper-free Aluminium Alloy , powder coated surface						
<b>Enclosure colour</b>	Window grey (RAL7040)						
<b>Terminal</b>	International brand of terminal blocks						
<b>Exposed fastener</b>	Stainless steel						
<b>Rated voltage</b>	Max. 690V AC						
<b>Rated current</b>	Cross section	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>
	Rated current	24A	32A	41A	57A	76A	100A
<b>Internal&amp;external earthing</b>	M5/M8						
<b>Degree of protection</b>	IP65						
<b>Ambient temperature</b>	-20°C~+55°C						
<b>Note</b>	Rated current > 250A on request						



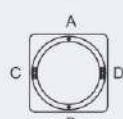
#### Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-II

	I	II	III	IV	V	VI						
Size	A/B	C/D										
M20 x 1.5	3	3	4	4	10	10	11	11	15	15	17	17
M25 x 1.5	3	3	4	4	9	9	10	10	13	13	15	15
M32 x 1.5	2	2	3	3	7	7	8	8	11	11	12	12
M40 x 1.5	2	2	3	3	3	3	4	4	5	5	5	5
M50 x 1.5	/	/	/	/	3	3	3	3	4	4	5	5
M63 x 1.5	/	/	/	/	2	2	2	2	3	3	4	4

**Note:** For cable entries:

- 1) Please specify the direction and size of each cable entry.
- 2) Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.



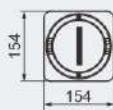
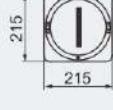
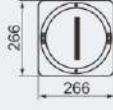
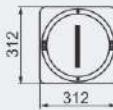
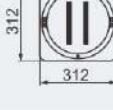
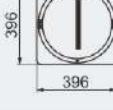
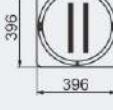
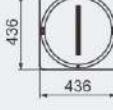
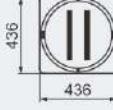
## Terminal Boxes

### BXJ-IIC Series Explosion-proof Terminal Boxes

#### Selection table of BXJ-IIC series explosion-proof terminal boxes

Max. cross section of cable connected to terminals is 95mm<sup>2</sup>

See table for max. number of fitted terminals

Enclosure code/Ordering code	Cross section of cable (mm <sup>2</sup> ) Outline	2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	Weight (kg)
I		10	8	6	—	—	—	3.50
II		20	18	15	12	10	—	6.50
III		25	24	20	15	12	6	12.00
IV		32	30	25	18	14	10	15.00
V		44	40	32	22	—	—	15.50
V		48	44	38	30	20	12	21.00
VI		72	60	50	40	—	—	21.50
VI		60	54	44	34	26	15	24.00
VI		90	80	60	50	40	—	24.50



## Terminal Boxes

### BXJ-e Series Terminal Boxes

#### Technical data

##### Terminal boxes (Ex e IIC Ex ib IIC) BXJ-e-□□

###### Explosion protection

Global (IECEx) IECEx CQM 13.0032X

Gas and dust Ex e IIC T6 or T5 Gb

Ex ib IIC T6 Gb

Ex tb IIIC T80°C Db IP66

Europe (ATEX) LCIE 13 ATEX 3027X

Gas and dust Ex II 2 G Ex e IIC T6 or T5 Gb

Ex II 2 G Ex ib IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db IP66

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31

IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure material

Window grey (RAL7040)

###### Enclosure colour

International brand of explosion-proof terminal blocks

###### Terminal

Stainless steel

###### Exposed fastener

Max. 690V AC

###### Rated voltage

	Cross section	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>
Ex e Rated current	24A	32A	41A	57A	76A	100A	
Ex ib Rated current	5A	5A	5A	-	-	-	

###### Rated current

###### Internal&external earthing

M6/M6

###### Degree of protection

IP66

###### Ambient temperature

Ex e: T6 for Tamb: -50°C ~ +40°C; T5 for Tamb: -50°C ~ +55°C

Ex ib: T6 for Tamb: -50°C ~ +55°C

###### Note

Ex e Rated current > 125A on request.



#### Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-I

	I	II	III	IV	V	VI	VII	VIII								
	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	2	3	4	4	4	6	6	6	6	10	10	10	8	12	12	18
M25 x 1.5	2	3	3	3	3	4	4	4	5	9	9	9	7	10	10	16
M32 x 1.5	1	2	2	2	2	3	3	3	3	4	4	4	4	6	6	10
M40 x 1.5	1	2	2	2	2	3	3	3	2	3	3	3	2	3	3	5
M50 x 1.5	/	/	/	/	/	/	/	/	3	3	3	2	3	3	3	5
M63 x 1.5	/	/	/	/	/	/	/	/	2	2	2	2	3	3	3	4

**Note:** 1. Ex e: Standard inlet hole is thread hole. If through hole is needed, please indicate when ordering.

2. For cable entries:

1) Please specify the direction and size of each cable entry.

2) Cable gland is optional, DQM-I (Ex e) is recommended. Please see P7/19~21.

## Terminal Boxes

### BXJ-e Series Terminal Boxes

#### Selection table of BXJ-e series terminal boxes

Max. cross section of cable connected to terminals is 35mm<sup>2</sup>

See table for max. number of fitted terminals

Enclosure code/Ordering code	Outline	Cross section of cable (mm <sup>2</sup> )						Max. dissipated power (W)	Weight (kg)
		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)		
I		16	15	12	10	—	—	7.83	2.40
II		16	15	12	10	8	—	11.81	2.80
III		25	22	20	15	12	—	8.60	3.80
IV		25	22	20	15	12	8	10.63	5.10
V		35	30	25	20	15	—	11.34	5.80
VI		35	30	25	20	15	10	—	7.10
		60	50	40	—	—	—	—	24.68
VII		40	35	30	24	18	12	—	7.00
		40	40	30	—	—	—	—	20.44
VIII		60	55	40	30	20	15	—	9.50
		100	90	66	60	40	—	—	23.75
									9.70

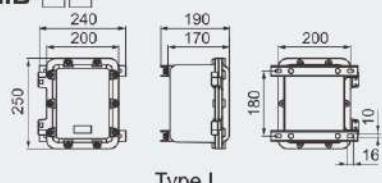


## Terminal Boxes

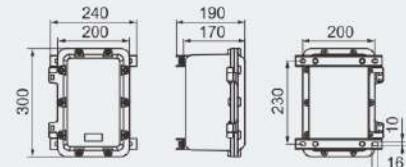
### BXJ Series Explosion-proof Terminal Boxes

Dimension drawings (all dimensions in mm) - subject to alteration

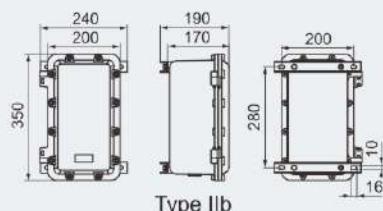
BXJ-IIB-□□



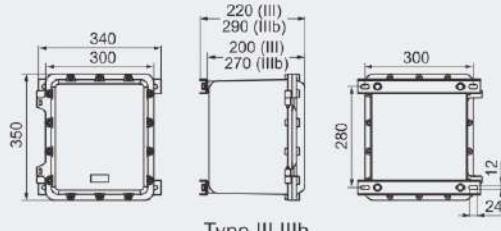
Type I



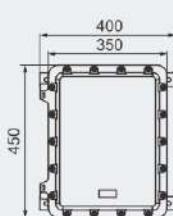
Type II



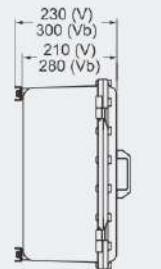
Type IIb



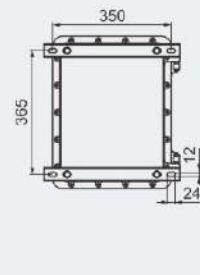
Type III, IIIb



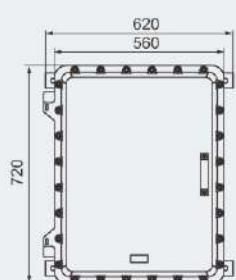
Type IV, IVb



Type V, Vb



Type VI, VIb



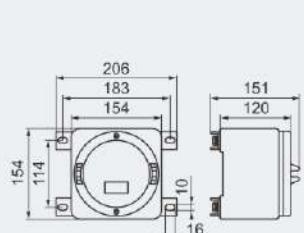
Type VII, VIIb

## Terminal Boxes

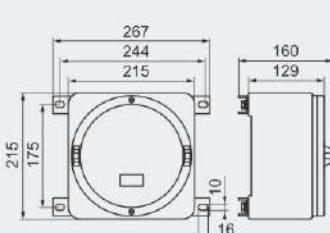
### BXJ Series Explosion-proof Terminal Boxes

**Dimension drawings** (all dimensions in mm) - subject to alteration

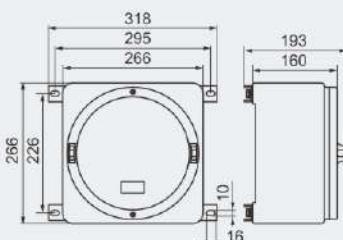
**BXJ- IIC-□□**



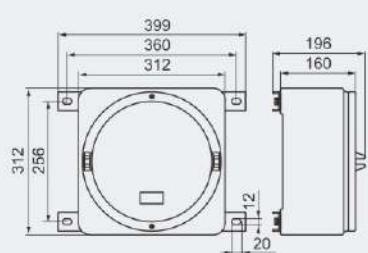
Type I



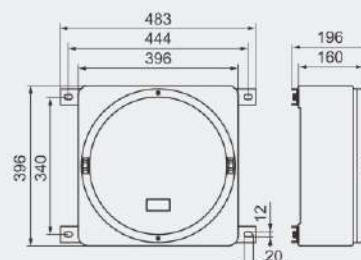
Type II



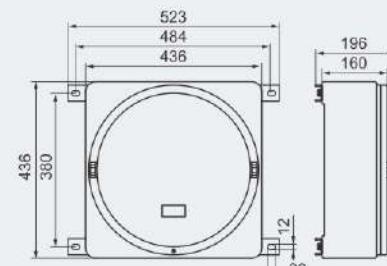
Type III



Type IV



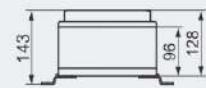
Type V



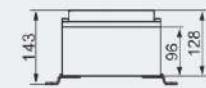
Type VI

**Dimension drawings** (all dimensions in mm) - subject to alteration

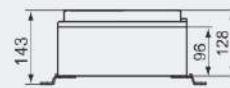
**BXJ- e-□□**



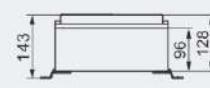
Type I



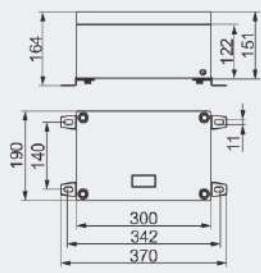
Type II



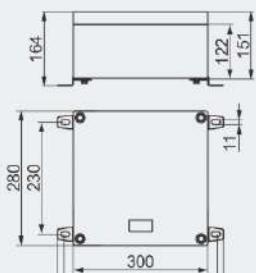
Type III



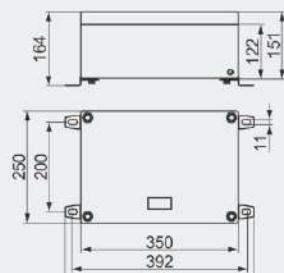
Type IV



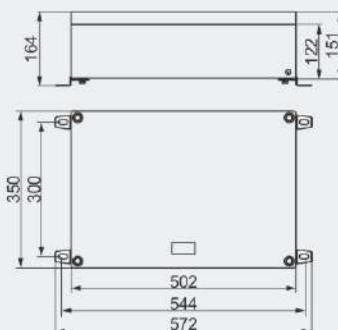
Type V



Type VI



Type VII

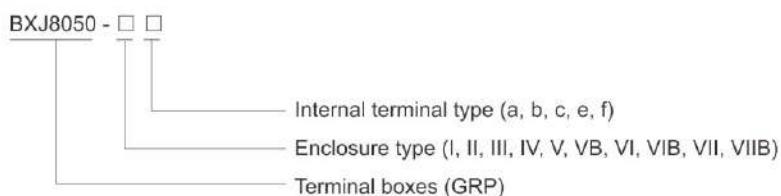


Type VIII



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 0, Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ GRP (glass fibre-reinforced polyester resin) enclosure.
- ◆ Size and direction of cable entries can be customized on request.

#### ■ Catalogue number logic



**Zones 0&1&2; 21&22**

# Terminal Boxes

## BXJ8050 Series Terminal Boxes

### Technical data

#### Terminal boxes (Ex e IIC Ex ia IIC) BXJ8050-□□

<b>Explosion protection</b>								
Global (IECEx)		IECEx CQM 13.0031X						
Gas and dust		Ex e IIC T6 or T5 Gb						
Europe (ATEX)		Ex ia IIC T6 Ga						
Gas and dust		Ex tb IIIC T80°C Db IP66						
		LCIE 13 ATEX 3036X						
		Ex II 2 G Ex e IIC T6 or T5 Gb						
		Ex II 1 G Ex ia IIC T6 Ga						
		Ex II 2 D Ex tb IIIC T80°C Db IP66						
<b>Certificates</b>		IECEx; ATEX; CU-TR						
<b>Conformity to standards</b>		EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31						
<b>IECEx</b>		IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31						
<b>Enclosure material</b>		GRP (glass fibre-reinforced polyester resin)						
<b>Terminal</b>		International brand of explosion-proof terminal blocks						
<b>Exposed fastener</b>		Stainless steel						
<b>Rated voltage</b>		Max. 690V AC						
<b>Rated current</b>		Cross section	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>
		Ex e Rated current	20A	28A	35A	45A	60A	100A
		Ex ia Rated current	5A	5A	5A	-	-	-
<b>Degree of protection</b>		IP66						
<b>Ambient temperature</b>		Ex e: T6 for Tamb: -40°C ~ +40°C; T5 for Tamb: -40°C ~ +55°C						
		Ex ia: T6 for Tamb: -40°C ~ +55°C						
<b>Note</b>		Ex e Rated current > 125A on request.						

### Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-I

		Size								
		M20 × 1.5	M25 × 1.5	M32 × 1.5	M40 × 1.5	M50 × 1.5	M63 × 1.5	M75 × 1.5	M90 × 1.5	M115 × 1.5
I	A/B	2	2	1	/	/	/	/	/	/
	C/D	2	2	1	/	/	/	/	/	/
II	A/B	2	2	1	/	/	/	/	/	/
	C/D	5	3	3	2	/	/	/	/	/
III	A/B	3	3	2	2	1	/	/	/	/
	C/D	6	6	2	2	2	/	/	/	/
IV	A/B	8	6	5	3	2	1	/	/	/
	C/D	12	10	8	4	3	2	/	/	/
IVB	A/B	8	6	5	4	3	1	/	/	/
	C/D	12	10	8	5	4	3	/	/	/
V	A/B	14	12	10	5	4	3	/	/	/
	C/D	12	10	8	4	3	2	/	/	/
VB	A/B	14	12	10	5	4	3	/	/	/
	C/D	12	10	8	5	4	3	/	/	/
VI	A/B	8	5	5	3	2	1	/	/	/
	C/D	6	5	3	2	2	1	/	/	/
VII / VIIIB	A/B	14	12	10	5	4	3	/	/	/
	C/D	25	21	17	10	6	6	/	/	/

**Note:** For cable entries:

- 1) Please specify the direction and size of each cable entry.
- 2) Cable gland is optional, DQM-I (Ex e) is recommended. Please see P7/19~21.



## Terminal Boxes

### BXJ8050 Series Terminal Boxes

#### Selection table of BXJ8050 series terminal boxes

Max. cross section of cable connected to terminals is 35mm<sup>2</sup>

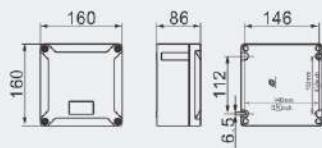
See table for max. number of fitted terminals

Enclosure code/Ordering code	Cross section of cable (mm <sup>2</sup> ) Outline	2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	Max. dissipated power (W)	Weight (kg)
I		12	10	8	—	—	—	2.30	0.80
II		25	22	18	—	—	—	6.81	1.30
III		30	28	22	18	15	—	6.50	2.10
IV		44	40	32	25	20	—	14.32	3.25
IVB									4.00
V		88	80	60	50	40	14	28.08	4.15
VB									5.20
VI		25	22	18	14	—	—	7.92	2.00
VII		180	160	130	100	80	30	25.00	14.55
VIIIB									16.75

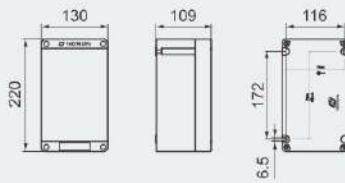
## Terminal Boxes

### BXJ8050 Series Terminal Boxes

Dimension drawings (all dimensions in mm) - subject to alteration



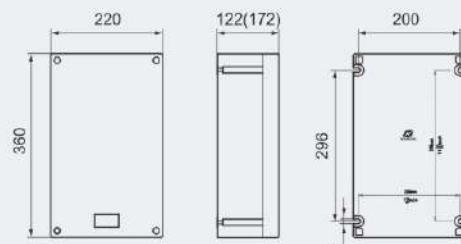
Type I



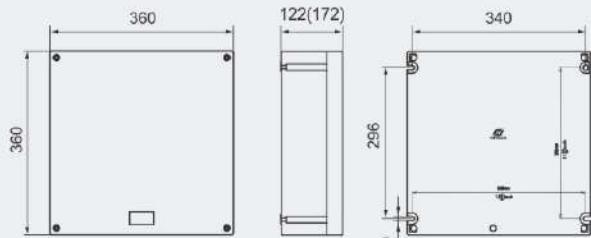
Type II



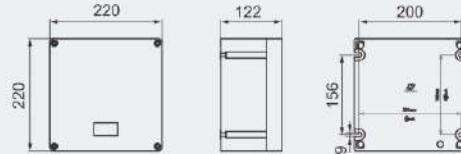
Type III



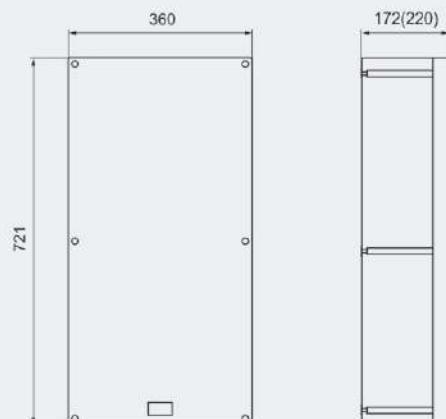
Type IV(VB)



Type V(VB)



Type VI



Type VII(VIIB)



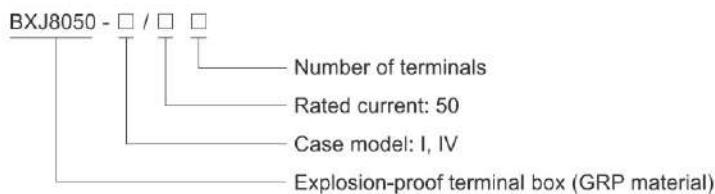
## Terminal Boxes

### BXJ8050 Series Terminal Boxes



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ GRP (glass fibre-reinforced polyester resin) enclosure.
- ◆ Size and direction of cable entries can be customized on request.

#### ■ Catalogue number logic



#### Technical data

##### Explosion-proof terminal boxes

**BXJ8050-□/□□**

###### Explosion protection

Global (IECEx)

Gas and dust

IECEx CQM 23.0001X

Ex eb IIC T6/T5 Gb (Without fuse module)

Ex eb mb IIC T6/T5 Gb (With fuse module)

Ex tb IIIC T80°C Db

IECEx

IEC 60079-0, IEC 60079-7, IEC 60079-18, IEC 60079-31

GRP (glass fibre-reinforced polyester resin)

###### Certificates

###### Conformity to standards

###### Enclosure material

###### Terminal

###### Cross section of cable

###### Exposed fastener

###### Rated voltage

###### Rated current

###### Degree of protection

###### Ambient temperature

Stud terminals

1~10mm<sup>2</sup>

Stainless steel

Max. 1000V without fuse module, Max. 500V with fuse module

Max. 50A. for terminals, Max. 10A for fuse module

IP66

T6: -60°C~+40°C

T5: -60°C~+60°C (Without fuse)

-60°C~+50°C (With fuse)

Standard, see Cable entry table

###### Cable entries

**Zones 1&2; 21&22**

## Terminal Boxes

### BXJ8050 Series Terminal Boxes

#### Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-I

		Size					
		M20 × 1.5	M25 × 1.5	M32 × 1.5	M40 × 1.5	M50 × 1.5	M63 × 1.5
I	A/B	2	2	1	/	/	/
	C/D	2	2	1	/	/	/
VI	A/B	8	5	5	3	2	2
	C/D	6	5	3	2	2	1

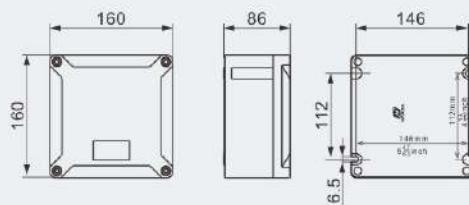
**Note:** For cable entries:

- 1) Please specify the direction and size of each cable entry.
- 2) Cable gland is optional, DQM-I (Ex e) is recommended. Please see P7/17~19.

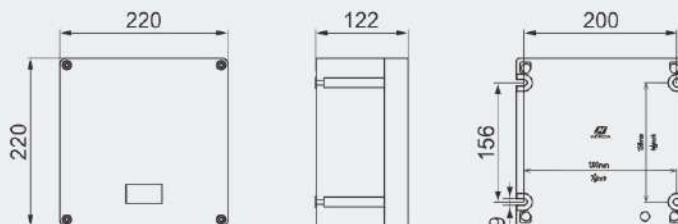
Terminals				
Description	Illustration	Max. Current	Ordering code	Weight (kg)
Stud terminal		50A	30010B	0.1



#### Dimension drawings (all dimensions in mm) - subject to alteration



Type I



Type IV

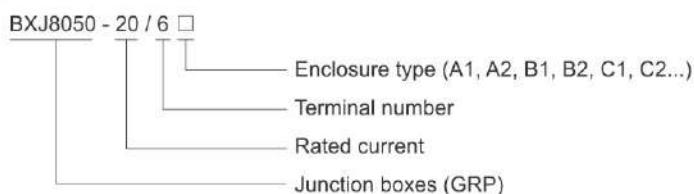
## Terminal Boxes

### BXJ8050-20/6 Series Junction Boxes



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ GRP (glass fibre-reinforced polyester resin) enclosure.

#### ■ Catalogue number logic



#### Technical data

##### Junction boxes      BXJ8050-20/6□

###### Explosion protection

Global (IECEx)      IECEx CQM 07.0013

Gas      Ex e II T6

Europe (ATEX)      PTB 15 ATEX 1016X

Gas      Ex II 2 G Ex e IIC T6 Gb

Certificates      IECEx; ATEX; CU-TR

Conformity to standards      EN 60079-0, EN 60079-7

IEC 60079-0, IEC 60079-7

Enclosure material      GRP (glass fibre-reinforced polyester resin)

Terminal      6 stud terminals

Cross section of cable      0.2~4mm<sup>2</sup>

Exposed fastener      Stainless steel

Rated voltage      Max. 500V AC

Rated current      20A

Degree of protection      IP65

Ambient temperature      -20°C~+55°C

Cable entries      Standard, see Selection table

## Zones 1&2

## Terminal Boxes

### BXJ8050-20/6 Series Junction Boxes

#### Selection table

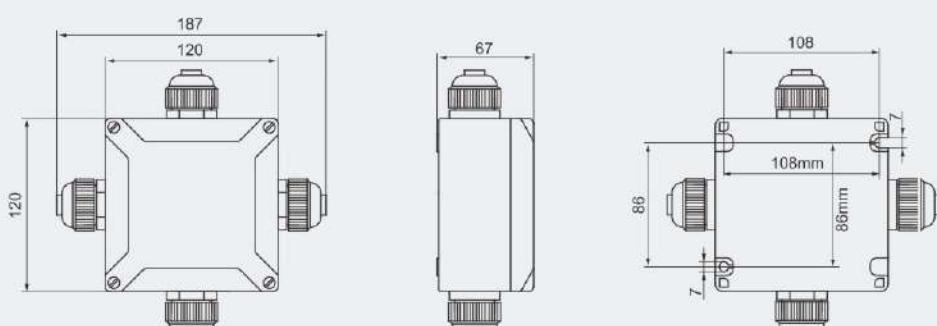
Type/Ordering code	Schematic diagram	Cable gland	Weight (kg)
BXJ8050-20/6A1	A1	1 x M20 x 1.5 DQM-I (plastic)	0.65
BXJ8050-20/6A2	A2	1 x M25 x 1.5 DQM-I (plastic)	
BXJ8050-20/6B1	B1	2 x M20 x 1.5 DQM-I (plastic) 1 stopping rod	0.70
BXJ8050-20/6B2	B2	2 x M25 x 1.5 DQM-I (plastic) 1 stopping rod	
BXJ8050-20/6C1	C1	3 x M20 x 1.5 DQM-I (plastic) 2 stopping rods	0.70
BXJ8050-20/6C2	C2	3 x M25 x 1.5 DQM-I (plastic) 2 stopping rods	
BXJ8050-20/6D1	D1	4 x M20 x 1.5 DQM-I (plastic) 3 stopping rods	0.75
BXJ8050-20/6D2	D2	4 x M25 x 1.5 DQM-I (plastic) 3 stopping rods	
BXJ8050-20/6E1	E1	2 x M20 x 1.5 DQM-I (plastic) 1 stopping rod	0.70
BXJ8050-20/6E2	E2	2 x M25 x 1.5 DQM-I (plastic) 1 stopping rod	
BXJ8050-20/6F1	F1	4 x M20 x 1.5 DQM-I (plastic) 3 stopping rods	0.75
BXJ8050-20/6F2	F2	4 x M25 x 1.5 DQM-I (plastic) 3 stopping rods	
BXJ8050-20/6G1	G1	5 x M20 x 1.5 DQM-I (plastic) 4 stopping rods	0.75
BXJ8050-20/6G2	G2	5 x M25 x 1.5 DQM-I (plastic) 4 stopping rods	
BXJ8050-20/6H1	H1	6 x M20 x 1.5 DQM-I (plastic) 5 stopping rods	0.75
BXJ8050-20/6H2	H2	6 x M25 x 1.5 DQM-I (plastic) 5 stopping rods	
BXJ8050-20/6I1	I1	7 x M20 x 1.5 DQM-I (plastic) 6 stopping rods	0.80
BXJ8050-20/6I2	I2	7 x M25 x 1.5 DQM-I (plastic) 6 stopping rods	



#### Terminals

Description	Illustration	Max. Current	Ordering code	Weight (kg)
Stud terminal		20A	30010	0.15

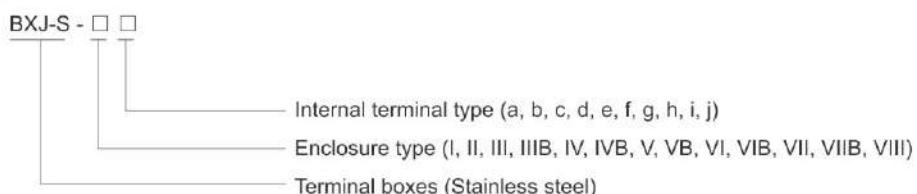
#### Dimension drawings (all dimensions in mm) - subject to alteration





- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 0, Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Stainless steel enclosure.
- ◆ International brand of explosion-proof terminal blocks.

#### ■ Catalogue number logic



#### Technical data

Terminal boxes (Ex eb IIC Ex ia IIC)      BXJ-S-□□

Explosion protection	IECEx CQM 21.0022X
Global (IECEx)	Ex eb IIC T6...T3 Gb
Gas and dust	Ex ia IIC T6 Ga
Europe (ATEX)	Ex tb IIIC T80°C...T130°C Db
Gas and dust	TPS 21 ATEX 089761 0020X
	Ex II 2 G Ex eb IIC T6...T3 Gb
	Ex II 1 G Ex ia IIC T6 Ga
	Ex II 2 D Ex tb IIIC T80°C...T130°C Db
Certificates	IECEx; ATEX; CU-TR; INMETRO; UL
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31
	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31
	UL 1203, UL 508, UL 50, UL 50E, UL 508A
	CSA C22.2 No.213, CSA C22.2 No.14, CSA C22.2 No. 94.1, CSA C22.2 No. 94.2
Enclosure material	Stainless steel
Terminal	International brand of explosion-proof terminal blocks
Exposed fastener	Stainless steel
Rated voltage	Max. 1000V AC
	Max. 1500V DC

Zones 0&1&2; 21&22

## Terminal Boxes

### BXJ-S Series Terminal Boxes

#### Terminal boxes (Ex eb IIC Ex ia IIC) BXJ-S-□□

Rated current	Max. 1000A					
	Cross section	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>
	Ex e Rated current	24A	32A	41A	57A	76A
	Ex ia Rated current	5A	5A	-	-	-
	Cross section	35mm <sup>2</sup>	70mm <sup>2</sup>	120mm <sup>2</sup>	185mm <sup>2</sup>	300mm <sup>2</sup>
	Ex e Rated current	125A	192A	269A	353A	520A
	Ex ia Rated current	-	-	-	-	-
	Cross section	2 x 185mm <sup>2</sup>	2 x 300mm <sup>2</sup>	3 x 300mm <sup>2</sup>	-	-
	Ex e Rated current	550A	700A	1000A	-	-
	Ex ia Rated current	-	-	-	-	-
Internal&external earthing	M6/M6					
Degree of protection	IP66					
Ambient temperature	Ex eb: -40°C/-60°C ~ +30°C/+40°C/+45°C/+55°C/+60°C/+70°C Ex ia: -40°C/-60°C ~ +70°C					

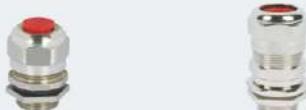
#### Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-I

		A		B		C		D		Size									
										M20 x 1.5	M25 x 1.5	M32 x 1.5	M40 x 1.5	M50 x 1.5	M63 x 1.5	M75 x 1.5	M90 x 1.5	M115 x 1.5	
I	A/B	2	2	1	1	1	1	1	1	/	/	/	/	/	/	/	/	/	/
	C/D	2	2	1	1	1	1	1	1	/	/	/	/	/	/	/	/	/	/
II	A/B	8	8	3	3	2	1	1	1	/	/	/	/	/	/	/	/	/	/
	C/D	8	8	3	3	2	1	1	1	/	/	/	/	/	/	/	/	/	/
III	A/B	10	8	5	5	3	2	2	2	/	/	/	/	/	/	/	/	/	/
	C/D	10	8	5	5	3	2	2	2	/	/	/	/	/	/	/	/	/	/
IIIB	A/B	15	12	8	8	6	2	2	2	/	/	/	/	/	/	/	/	/	/
	C/D	10	8	5	5	3	2	2	2	/	/	/	/	/	/	/	/	/	/
IV	A/B	10	10	5	4	3	3	3	3	/	/	/	/	/	/	/	/	/	/
	C/D	14	12	7	5	4	4	4	4	/	/	/	/	/	/	/	/	/	/
IVB	A/B	15	15	8	8	6	3	3	3	/	/	/	/	/	/	/	/	/	/
	C/D	21	18	10	10	8	4	4	4	/	/	/	/	/	/	/	/	/	/
V	A/B	16	16	8	6	5	4	4	4	/	/	/	/	/	/	/	/	/	/
	C/D	16	16	8	6	5	4	4	4	/	/	/	/	/	/	/	/	/	/
VB	A/B	24	24	21	12	10	8	8	8	/	/	/	/	/	/	/	/	/	/
	C/D	24	24	21	12	10	8	8	8	/	/	/	/	/	/	/	/	/	/
VI	A/B	27	24	14	12	10	5	5	5	/	/	/	/	/	/	/	/	/	/
	C/D	30	30	16	14	12	6	6	6	/	/	/	/	/	/	/	/	/	/
VIB	A/B	45	32	28	18	15	10	10	10	/	/	/	/	/	/	/	/	/	/
	C/D	55	40	32	21	18	12	12	12	/	/	/	/	/	/	/	/	/	/
VII	A/B	30	30	16	14	12	6	6	6	/	/	/	/	/	/	/	/	/	/
	C/D	42	39	22	20	16	8	8	8	/	/	/	/	/	/	/	/	/	/
VIIIB	A/B	55	40	32	21	18	12	12	12	7	7	6	6	6	6	6	3	3	3
	C/D	70	52	44	30	24	16	16	16	11	11	9	9	9	9	9	4	4	4
VIII	A/B	70	52	44	30	24	16	16	16	11	11	9	9	9	9	9	4	4	4
	C/D	90	64	56	36	33	20	20	20	16	16	14	14	14	14	14	5	5	5

**Note:** For cable entries:

- 1) Please specify the direction and size of each cable entry.
- 2) Cable gland is optional, DQM-I (Ex e) is recommended. Please see P7/19~21.
- 3) Can be equipped with Gland plate.



**Selection table for max. dissipated power**

Enclosure type	Ambient temperature	Maximum heat loss power consumption (W)			Enclosure type	Ambient temperature	Maximum heat loss power consumption (W)		
		T6 or T80°C	T5 or T80°C	T4 or T95°C			T6 or T80°C	T5 or T80°C	T4 or T95°C
BXJ-S-I	-60°C to +40°C	5.87	7.93	-	BXJ-S-VB	-60°C to +40°C	107.37	167.77	-
	-60°C to +45°C	5.31	7.45	-		-60°C to +45°C	60.4	154.61	-
	-60°C to +55°C	-	5.87	-		-60°C to +55°C	-	107.37	-
	-60°C to +60°C	2.91	5.31	-		-60°C to +60°C	52.61	60.4	-
	-60°C to +70°C	-	2.91	7.93		-60°C to +70°C	-	52.61	167.77
BXJ-S-II	-60°C to +40°C	46.98	72.15	-	BXJ-S-VI	-60°C to +40°C	111.96	168.4	-
	-60°C to +45°C	41.19	64.72	-		-60°C to +45°C	99.65	143.49	-
	-60°C to +55°C	-	46.98	-		-60°C to +55°C	-	111.96	-
	-60°C to +60°C	19.59	41.19	-		-60°C to +60°C	48.83	99.65	-
	-60°C to +70°C	-	19.59	72.15		-60°C to +70°C	-	48.83	168.4
BXJ-S-III	-60°C to +40°C	26.48	36.79	-	BXJ-S-VIB	-60°C to +40°C	166.55	288.35	-
	-60°C to +45°C	22.84	36.34	-		-60°C to +45°C	157.9	254.79	-
	-60°C to +55°C	-	26.48	-		-60°C to +55°C	-	166.55	-
	-60°C to +60°C	16.35	22.84	-		-60°C to +60°C	46.14	157.9	-
	-60°C to +70°C	-	16.35	36.79		-60°C to +70°C	-	46.14	288.35
BXJ-S-IIIB	-60°C to +40°C	19.97	39.14	-	BXJ-S-VII	-60°C to +40°C	288.28	425.07	-
	-60°C to +45°C	16.78	35.5	-		-60°C to +45°C	248.57	376.53	-
	-60°C to +55°C	-	19.97	-		-60°C to +55°C	-	288.28	-
	-60°C to +60°C	8.44	16.78	-		-60°C to +60°C	110.48	248.57	-
	-60°C to +70°C	-	8.44	39.14		-60°C to +70°C	-	110.48	425.07
BXJ-S-IV	-60°C to +40°C	66.16	102.46	-	BXJ-S-VIIB	-60°C to +40°C	279.63	374.9	-
	-60°C to +45°C	52.28	81.68	-		-60°C to +45°C	223.86	341.6	-
	-60°C to +55°C	-	66.16	-		-60°C to +55°C	-	279.63	-
	-60°C to +60°C	29.4	52.28	-		-60°C to +60°C	121.03	223.86	-
	-60°C to +70°C	-	29.4	102.46		-60°C to +70°C	-	121.03	374.9
BXJ-S-IVB	-60°C to +40°C	115.24	191.22	-	BXJ-S-VIII	-60°C to +40°C	577.44	816.6	-
	-60°C to +45°C	111.37	162.22	-		-60°C to +45°C	546.65	799.9	-
	-60°C to +55°C	-	115.24	-		-60°C to +55°C	-	577.44	-
	-60°C to +60°C	52.97	111.37	-		-60°C to +60°C	263.62	546.65	-
	-60°C to +70°C	-	52.97	191.22		-60°C to +70°C	-	263.62	816.6
BXJ-S-V	-60°C to +40°C	127.22	195.34	-					
	-60°C to +45°C	106.06	175.32	-					
	-60°C to +55°C	-	127.22	-					
	-60°C to +60°C	47.14	106.06	-					
	-60°C to +70°C	-	47.14	195.34					

## Terminal Boxes

### BXJ-S Series Terminal Boxes

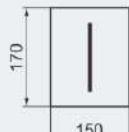
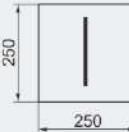
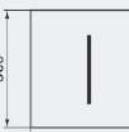
For current exceeds 520A, the copper bar is used. The below table applies.

Enclosure type	Ambient temperature	Maximum heat loss power consumption (W)			Enclosure type	Ambient temperature	Maximum heat loss power consumption (W)		
		T6 or T80°C	T5 or T80°C	T4 or T95°C			T6 or T80°C	T5 or T80°C	T4 or T95°C
BXJ-S-VI	-60°C to +30°C	SS (550A)	-	-	BXJ-S-VIIB	-60°C to +30°C	SS (550A)	-	-
	-60°C to +70°C	-	SS (550A)	-		-60°C to +70°C	-	SS (550A)	-
BXJ-S-VIB	-60°C to +30°C	SS (550A)	-	-		-60°C to +70°C	-	MS (700A)	-
	-60°C to +70°C	-	SS (550A)	-	BXJ-S-VIII	-60°C to +30°C	SS (550A)	-	-
BXJ-S-VII	-60°C to +30°C	SS (550A)	-	-		-60°C to +70°C	-	SS (550A)	-
	-60°C to +70°C	-	SS (550A)	-		-60°C to +70°C	-	MS (700A)	-
	-60°C to +70°C	-	MS (700A)	-		-60°C to +70°C	-	-	LS (1000A)

#### Selection table of BXJ-S series terminal boxes

Max. cross section of cable connected to terminals is 300mm<sup>2</sup>

See table for max. number of fitted terminals

Enclosure code/Ordering code	Outline	2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	120 (h)	185 (i)	300 (j)	Weight (kg)
		12	12	8	—	—	—	—	—	—	—	
I		12	12	8	—	—	—	—	—	—	—	1.73
II		27	23	18	15	12	8	—	—	—	—	3.80
III, IIIB		30	28	25	20	14	10	—	—	—	—	5.20 (III)
IV, IVB		45	40	35	28	23	9	—	—	—	—	6.50 (IV)
												7.10 (IVB)



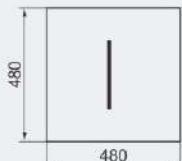
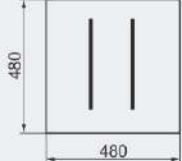
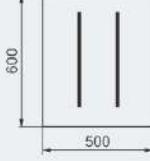
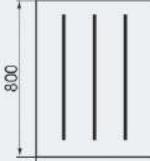
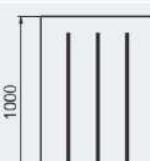
## Terminal Boxes

### BXJ-S Series Terminal Boxes

#### Selection table of BXJ-S series terminal boxes

Max. cross section of cable connected to terminals is 300mm<sup>2</sup>

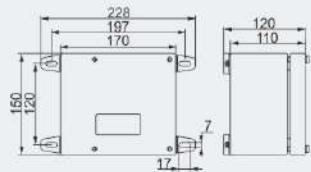
See table for max. number of fitted terminals

Enclosure code/Ordering code	Cross section of cable (mm <sup>2</sup> ) Outline	2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	120 (h)	185 (i)	300 (j)	Weight (kg)
		56	50	40	30	20	16	—	—	—	—	12.40 (V)
V, VB		112	100	80	60	40	—	—	—	—	—	17.60 (VB)
		150	140	120	100	80	56	—	—	—	—	17.90 (VB)
VI, VIB		315	300	240	225	180	120	—	—	—	—	29.30 (VI)
		270	250	210	190	160	100	—	—	—	—	34.30 (VIB)
VII, VIIIB		405	375	315	285	240	—	—	—	—	—	52.00 (VIIIB)
		135	125	105	95	80	50	27	24	18	18	—
VIII		135	125	105	95	80	50	27	24	18	18	—
		—	—	—	—	—	—	—	—	—	—	—

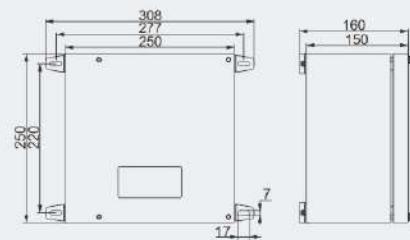
## Terminal Boxes

### BXJ-S Series Terminal Boxes

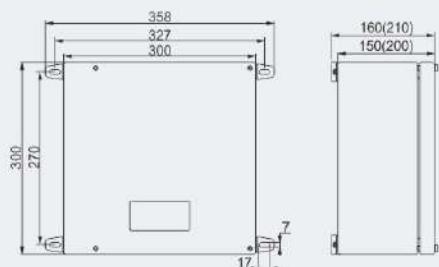
**Dimension drawings** (all dimensions in mm) - subject to alteration



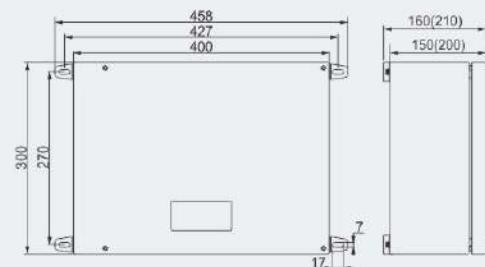
### Type I



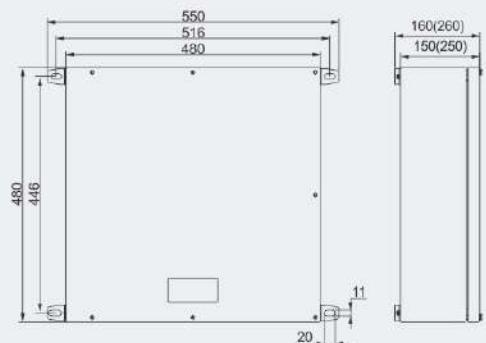
### Type II



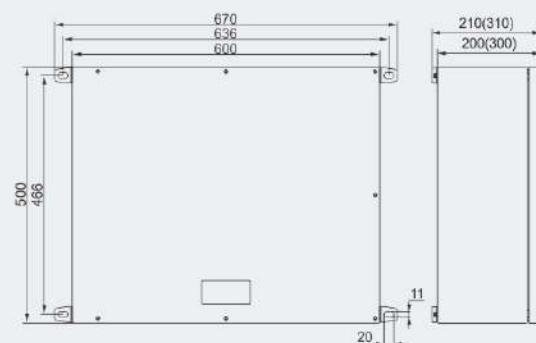
### Type III, IIIB



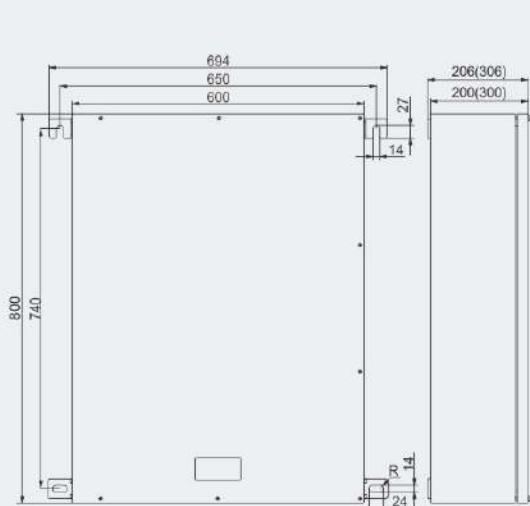
#### Type IV, IVB



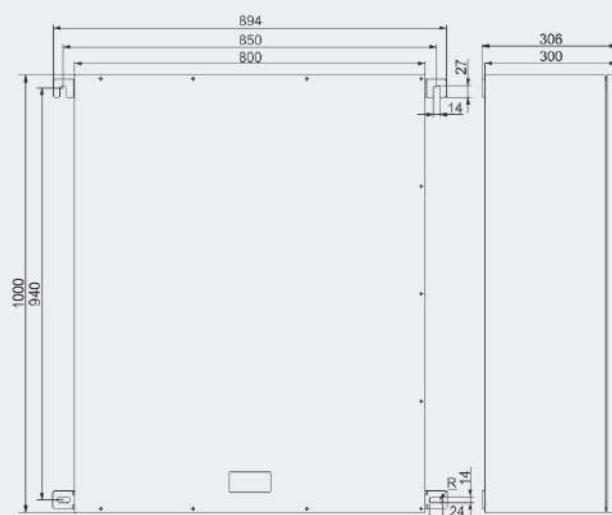
### Type V, VB



### Type VI, VIB



### Type VII, VIIB

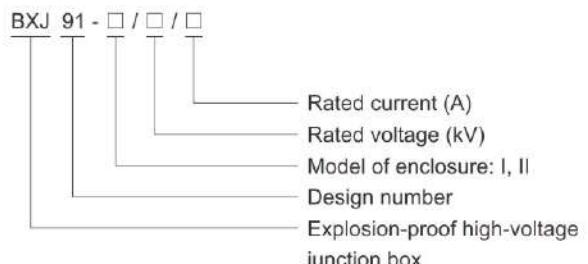


### Type VIII



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure: stainless steel or carbon steel.
- ◆ Special requirements on request.
- ◆ Copper bars and high-voltage insulators.

#### ■ Catalogue number logic



#### Technical data

##### Explosion-proof high-voltage junction box      BXJ91-□/□/□



Explosion protection	
Global (IECEx)	IECEx CQM 24.0021X
Gas and dust	Ex eb IIC T6...T4 Gb
	Ex ec IIC T6...T4 Gc
	Ex tb IIIC T80°C Db
Europe (ATEX)	ExVeritas 24 ATEX 1877X
Gas and dust	Ex II 2 G Ex eb IIC T6...T4 Gb
	Ex II 3 G Ex ec IIC T6...T4 Gc
	Ex II 2 D Ex tb IIIC T80°C Db
Certificates	IECEx; ATEX
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-7, IEC 60079-31
Enclosure material	Stainless steel or carbon steel
Exposed fastener	Stainless steel
Rated voltage	Max. 11kV AC(eb)
	Max. 15kV AC(ec)

**Zones 1&2; 21&22**

## Terminal Boxes

## BXJ91 Series Explosion-proof High-Voltage Junction Boxes

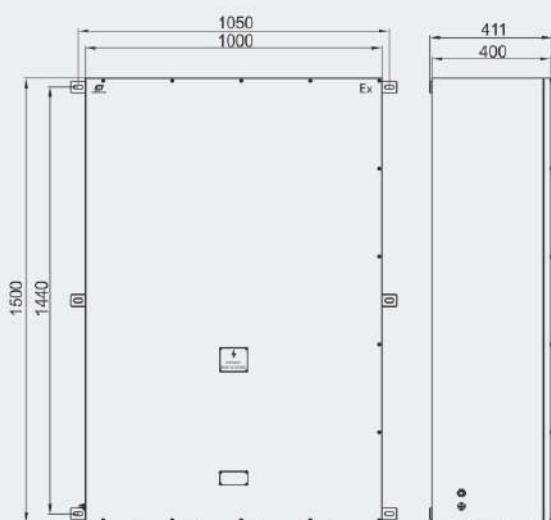
## Explosion-proof high-voltage junction box BXJ91-□/□/□

Rated current	Max. 800A			
	Conductor (mm <sup>2</sup> )	Safe carrying capacity (A)	Temp. Class	
			-60°C ≤ Ta ≤ +40°C	-60°C ≤ Ta ≤ +60°C
70	200			
95	250			
120	320		T6	T5
150	350			
185	400			
240	500			
300	630		T5	T4
400	800			

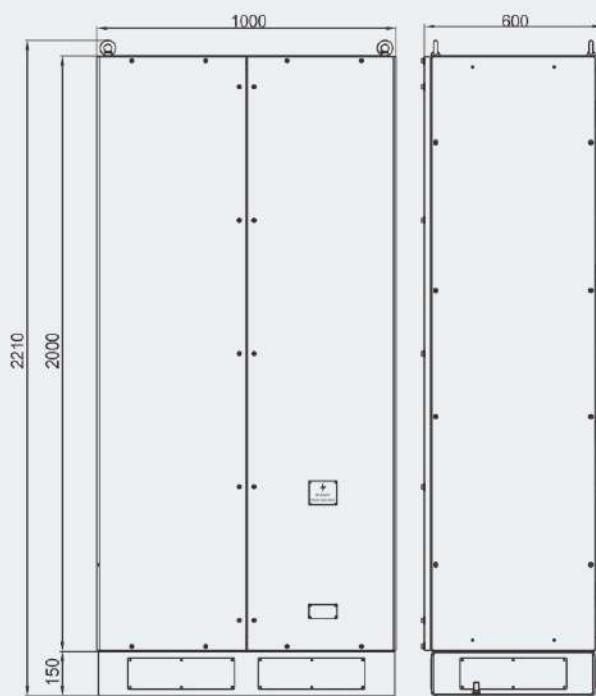
  

Internal & external earthing	M8/M8
Degree of protection	IP66
Ambient temperature	-60°C ≤ Ta ≤ +40°C/+60°C

## Selection table of BXJ91 series explosion-proof high-voltage junction box (all dimensions in mm)



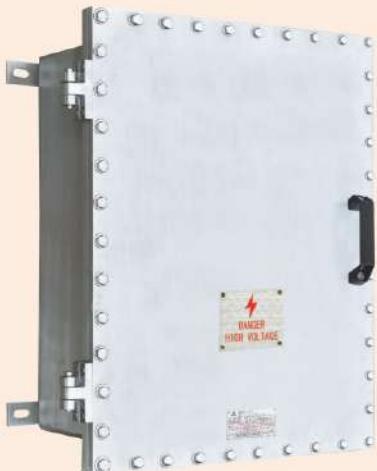
BXJ91-I/□/□



BXJ91-II/□/□

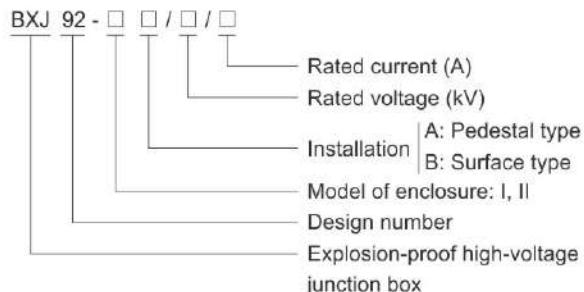
## Terminal Boxes

### BXJ92 Series Explosion-proof High-Voltage Junction Boxes



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure: stainless steel or carbon steel.
- ◆ Special requirements on request.
- ◆ Copper bars and high-voltage insulators.

#### Catalogue number logic



#### Technical data

##### Explosion-proof high-voltage junction box      BXJ92-□/□/□



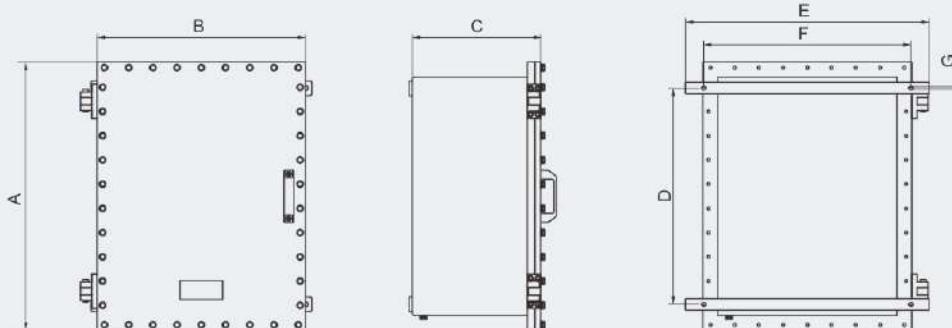
Explosion protection	IECEx PCET 24.0011X Ex db IIB T6...T5 Gb Ex tb IIIC T80°C...T95°C Db ExVeritas 24 ATEX 1911X Ex II 2 G Ex db IIB T6...T5 Gb Ex II 2 D Ex tb IIIC T80°C...T95°C Db		
Europe (ATEX)	IECEx; ATEX EN 60079-0, EN 60079-1, EN 60079-31		
Gas and dust	IEC 60079-0, IEC 60079-1, IEC 60079-31		
Gas and dust	Stainless steel or carbon steel		
Certificates	Stainless steel		
Conformity to standards	3~15kV (standard), 24~35kV(optional)		
Enclosure material	Up to max. 800A		
Exposed fastener	Form of maximum power dissipation and temperature rise		
Rated voltage	Ta=60°C	T5/T95°C	T6/T80°C
Rated current	Type	Power consumption (W)	Power consumption (W)
	BXJ92-I	371	180
	BXJ92-II	575	279
Internal & external earthing	M8/M12		
Degree of protection	IP66		
Ambient temperature	-60°C≤Ta≤+60°C		

Zones 1&2; 21&22

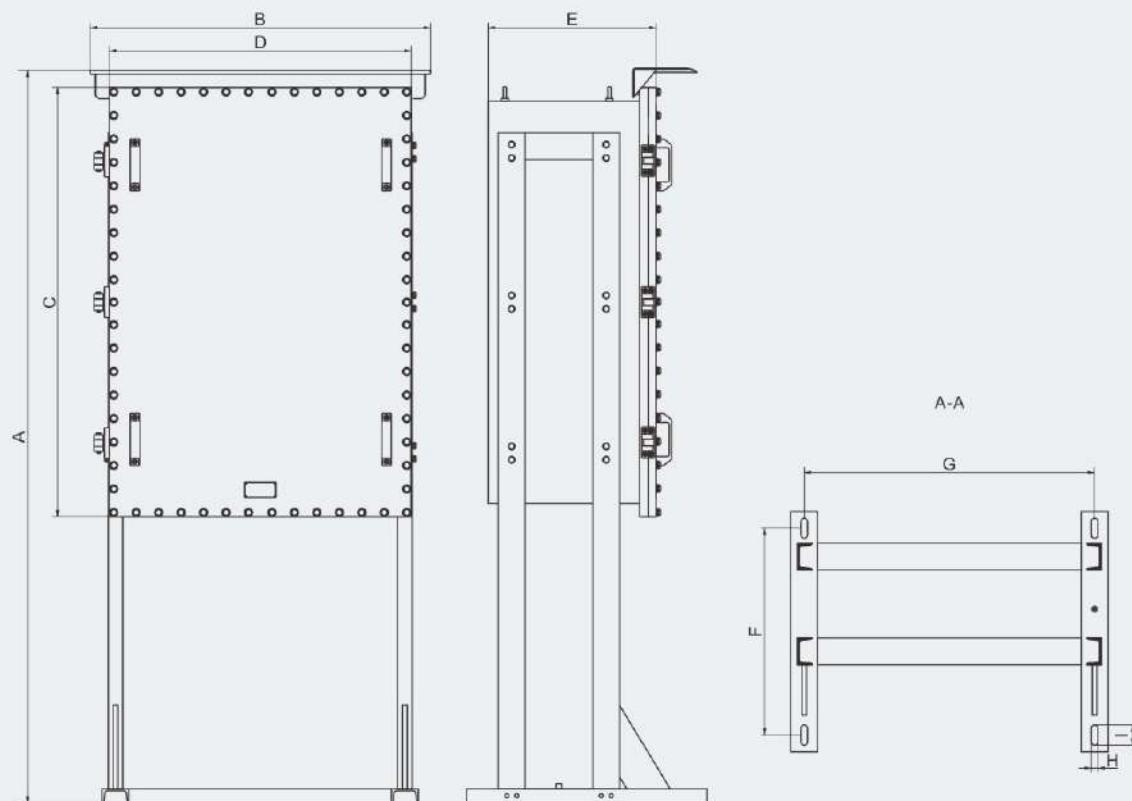
## Terminal Boxes

## BXJ92 Series Explosion-proof High-Voltage Junction Boxes

Selection table of BXJ92 series explosion-proof high-voltage junction box (all dimensions in mm)



Version	External dimension			Mounting dimension			
	A	B	C	D	E	F	G
BXJ92-IA/□/□	980	720	425	600	800	720	12
BXJ92-IIA/□/□	1280	900	500	1030	1060	900	12



Version	External dimension					Mounting dimension				
	A	B	C	D	E	F	G	H	I	
BXJ92-IB/□/□	1945	840	980	720	425	550	686	60	20	
BXJ92-IIB/□/□	2195	1015	1280	900	500	617	866	60	20	

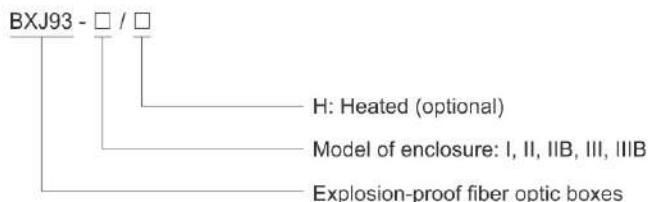
## Terminal Boxes

### BXJ93 Series Explosion-proof Fiber Optic Boxes



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure: stainless steel.
- ◆ Special requirements on request.
- ◆ Features an integrated fiber optic fusion panel, enabling the fusion, fixation, and branching of multiple-core optical fibers, thereby facilitating efficient distribution of optical signals.
- ◆ It also offers reserved space for coiling redundant optical fibers, preventing excessive bending and minimizing signal loss.

#### ■ Catalogue number logic



#### ■ Selection table

Type / Ordering code	Number of fibers	Ex-mark	Ambient temperature
BXJ93-I	48		
BXJ93-II	96		
BXJ93-IIB	192		
BXJ93-III	144		
BXJ93-IIIB	288		
BXJ93-II/H	96	Ex op pr IIC T6 Gb Ex tb IIIC T80°C/T95°C Db Ex II 2 G Ex op pr IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C/T95°C Db	-60°C~+60°C
BXJ93-IIB/H	192		
BXJ93-III/H	144		
BXJ93-IIIB/H	288	Ex op pr db eb IIC T5 Gb Ex tb IIIC T80°C/T95°C Db Ex II 2 G Ex op pr db eb IIC T5 Gb Ex II 2 D Ex tb IIIC T80°C/T95°C Db	-60°C~+50°C

Zones 1&2; 21&22

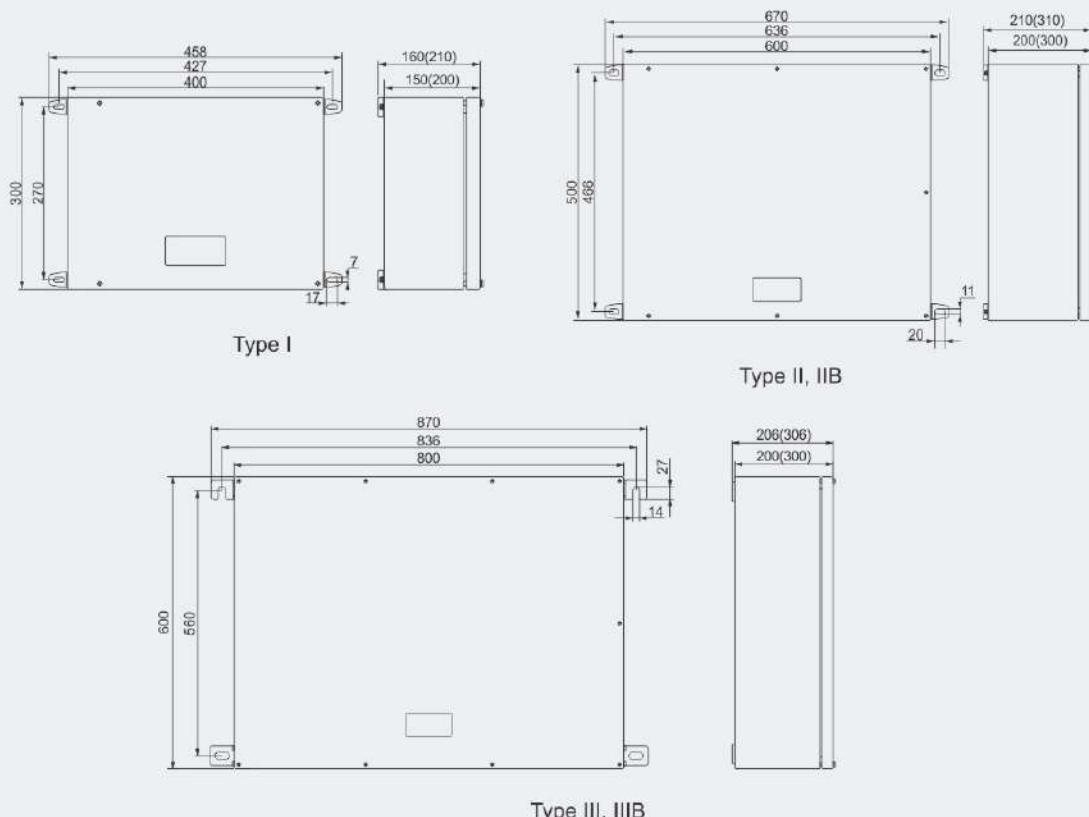
# Terminal Boxes

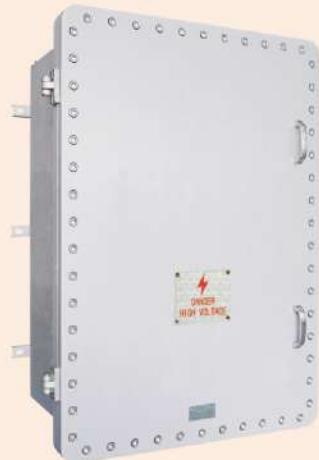
## BXJ93 Series Explosion-proof Fiber Optic Boxes

### Technical data

Explosion-proof fiber optic boxes	BXJ93-□/□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex op pr IIC T6 Gb
	Ex op pr db eb IIC T5 Gb
	Ex tb IIIC T80°C/T95°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex op pr IIC T6 Gb
	Ex II 2 G Ex op pr db eb IIC T5 Gb
	Ex II 2 D Ex tb IIIC T80°C/T95°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-28, IEC 60079-31
<b>Enclosure material</b>	Stainless steel
<b>Exposed fastener</b>	Stainless steel
<b>Rated voltage</b>	BXJ93-□H: 250V AC 50/60Hz
<b>Number of fibers</b>	48, 96, 192, 144, 288
<b>Internal &amp; external earthing</b>	M8/M12
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+60°C(+50°C)

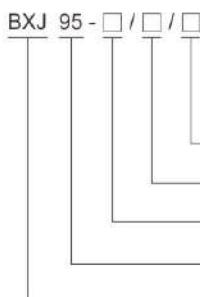
### Dimension drawings (all dimensions in mm) - subject to alteration





- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Flameproof enclosure (Ex d IIB+H2), which can be used as feed distribution equipment in control and distribution system(such as distribution box, switch box of main circuit ,control box, terminal box or motor starting box etc.)
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.
- ◆ The large space of the enclosure makes it easy for wire assembling.
- ◆ Adopting high-precision machining, excellent explosion-proof performance.
- ◆ Professionally designed door handles, reliable and safe when opening the door.
- ◆ Professionally designed hinges, reliable and safe when opening the door.

#### ■ Catalogue number logic



- Rated current (A)
- Rated voltage (V)
- Specification code(VIIB, IXB)
- Design No.
- Explosion-proof High-voltage junction box

**Zones 1&2; 21&22**

## Terminal Boxes

### BXJ95 Series Explosion-proof High-voltage Junction Boxes

#### Technical data

##### Explosion-proof High-voltage junction boxes BXJ95-□/□/□

#### Explosion protection

Global (IECEx)	IECEx PCET 24.0030X
Gas and dust	Ex db IIB+H <sub>2</sub> T6/T5 Gb
	Ex tb IIIC T80°C/T95°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db IIB+H <sub>2</sub> T6/T5 Gb
	Ex II 2 D Ex tb IIIC T80°C/T95°C Db

#### Certificates

#### Conformity to standards

#### Enclosure material

Copper-free Aluminium Alloy enclosure, powder coated surface, window grey (RAL7040)

#### Exposed fastener

Stainless steel

#### Rated voltage

Max. 15kV AC

#### Rated current

Max. 800A

#### Degree of protection

IP66

#### Internal&external earthing

M8/M8

#### Ambient temperature

T6/T80°C for Tamb: -60°C~+40°C

T5/T95°C for Tamb: -60°C~+60°C

#### Cable entries

Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT □ plug on request.

#### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

#### Entry direction

Bottom

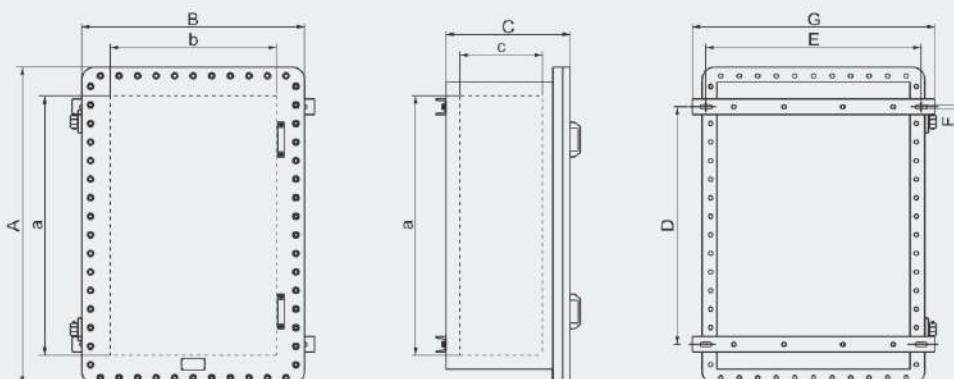
#### Mounting

Surface type (standard)

Pedestal type (optional)



#### Dimension drawings (all dimensions in mm) - subject to alteration



Model	A	B	C	a	b	c	D	E	F	G
BXJ95-VIIB	980	720	425	800	540	270	660	690	18	800
BXJ95-IXB	1280	900	500	1050	670	330	960	870	18	980

## Plugs and Sockets

### General Introduction

#### ■ Introduction of the voltage, number of pole, clock position and colour of explosion-proof plugs and sockets

Plug and Sockets are in compliance with the following international standards: IEC60309-1& IEC60309-2, CEIEN60309-1& CEIEN60309-2. They are also in compliance with the standards: VDE0623 &BS4343.

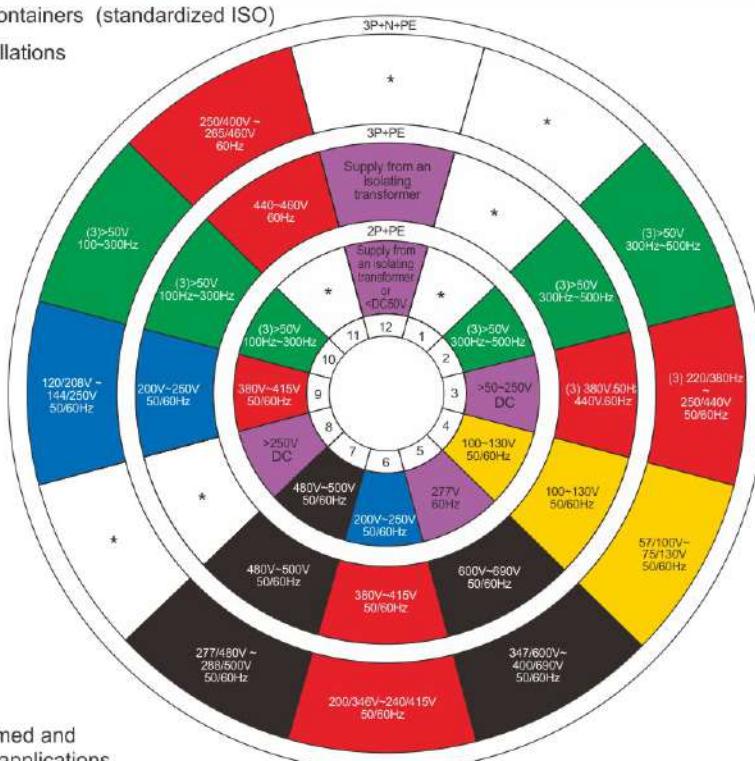
#### Position of the earthing contact according to IEC60309-2

Voltage (V)	Frequency (Hz)	1P+N+PE		2P+PE		3P+PE		3P+N+PE	
		16A, 32A	63A, 125A	16A, 32A	63A, 125A	16A, 32A	63A, 125A	16A, 32A	63A, 125A
57/110~75/130	50 / 60							4	4
100~130	50 / 60	4	4	4	4	4	4		
120/208~144/250	50 / 60							9	9
200~250	50 / 60			6	6	9	9		
200/346~240/415	50 / 60							6	6
220/380~250/440 <sup>(1)</sup>	50 / 60							3	3 <sup>(3)</sup>
250/400~265/460 <sup>(2)</sup>	60							11	11
277	60	5	5	5	5				
277/480~288/500	50 / 60							7	7
347/600~400/690	50 / 60							5	5
380~415	50 / 60			9	9	6	6		
380; 440 <sup>(1)</sup>	50 / 60					3	3 <sup>(3)</sup>		
440~460 <sup>(2)</sup>	60					11	11		
480~500	50 / 60			7	7	7	7		
600~690	50 / 60					5	5		
>50	100~300			10 <sup>(3)</sup>					
>50	>300~500			2	2 <sup>(3)</sup>	2	2 <sup>(3)</sup>	2	2
<50	DC	12							
>50 ~ 250	DC			3	3				
>250	DC			8	8			12	
Supply from an isolating transformer	50 / 60			12	12	12			

(1) Only for refrigeration containers (standardized ISO)

(2) Mainly for marine installations

(3) Non standard

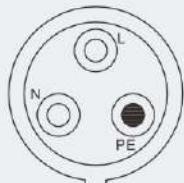


\* Clock positions not normed and free for use for special applications.

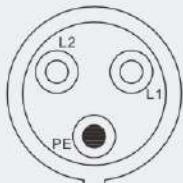
## Plugs and Sockets

### General Introduction

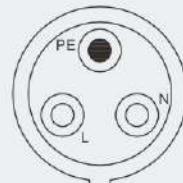
#### View: Front side socket or connector



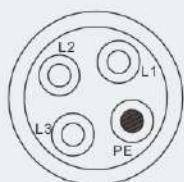
1P+N+PE 4h  
100V~130V



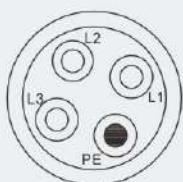
2P+PE 6h  
200V~250V



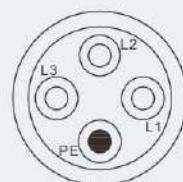
1P+N+PE 12h  
< DC50V



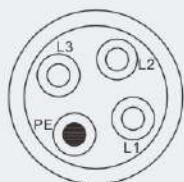
3P+PE 4h  
100V~130V



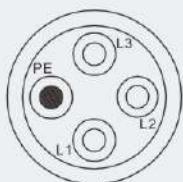
3P+PE 5h  
600V~690V



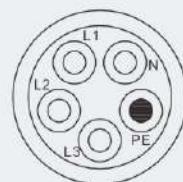
3P+PE 6h  
380V~415V



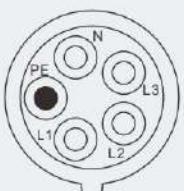
3P+PE 7h  
480V~500V



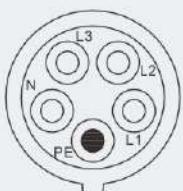
3P+PE 9h  
200V~250V



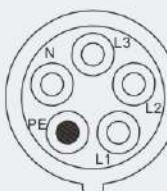
3P+N+PE 4h  
57/100V~75/130V



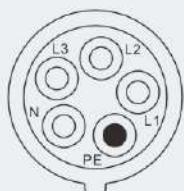
3P+N+PE 9h  
120/208V~144/250V



3P+N+PE 6h  
200/346V~240/415V



3P+N+PE 7h  
277/480V~288/500V



3P+N+PE 5h  
347/600V~400/690V

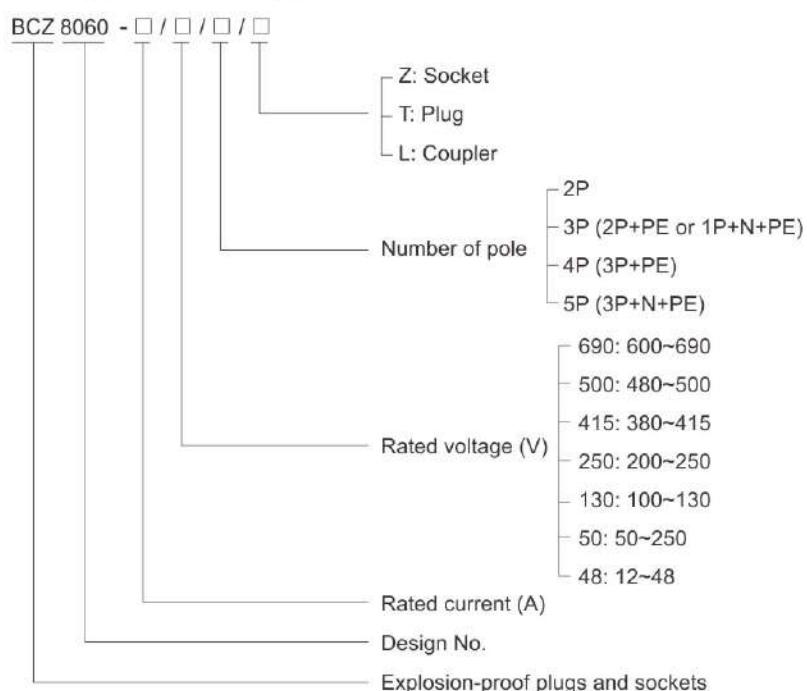


**Note:** Above drawings show the relationships among the clock position, voltage and pole number of our BCZ8060 series, BCZ85 series and BLJ85 series standard products. The clock position indicates the direction by plughole of socket or connector.



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ 2P, 3P, 4P and 5P.
- ◆ Only the switch in the socket cut off can plug be pulled out, power after inserting the plug.
- ◆ GRP (glass fibre-reinforced polyester resin).

#### ■ Catalogue number logic



Zones 1&2; 21&22

## Plugs and Sockets

### BCZ8060 Series Explosion-proof Plugs and Sockets

Selection table							
Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Ordering code	Weight (kg)
BCZ8060-16/□/□	480 ~ 500	16(10)	3P+PE		7	30048	1.85
	380 ~ 415		3P+N+PE		6	30049	1.85
	200 ~ 250		3P+PE		6	30050	1.85
	100 ~ 130		3P+N+PE		6	30051	1.85
	50 ~ 250		3P+PE		9	30052	1.85
	12 ~ 48		2P+PE		6	30053	1.85
	600 ~ 690		1P+N+PE		4	30054	1.85
	480 ~ 500		2P+PE		12	30055A	1.80
	380 ~ 415		2P			30056A	1.80
	200 ~ 250		2P+PE		12	30057A	1.80
BCZ8060-32/□/□	600 ~ 690	32(20)	2P			30058A	1.80
	480 ~ 500		3P+PE		5	30059	2.85
	380 ~ 415		3P+PE		7	30060	2.85
	200 ~ 250		3P+N+PE		6	30061	2.85
	600 ~ 690		3P+PE		6	30062	2.85
	480 ~ 500		3P+N+PE		6	30063	2.85
	200 ~ 250		3P+PE		9	30064	2.85
BCZ8060-63/□/□	600 ~ 690	63 (50), (60)	3P+PE		5	30080	16.00
	480 ~ 500		3P+PE		7	30081	16.00
	380 ~ 415		3P+N+PE		6	30065	16.00
	200 ~ 250		3P+PE		6	30066	16.00
	600 ~ 690		3P+N+PE		6	30067A	16.00
	480 ~ 500		3P+PE		9	30067B	16.00
	200 ~ 250		3P+PE		9	30068	16.00
BCZ8060-125/□/□	600 ~ 690	125(100)	3P+PE		5	30069	16.00
	480 ~ 500		3P+PE		7	30070	16.00
	380 ~ 415		3P+N+PE		6	30071	16.00
	200 ~ 250		3P+PE		6	30072	16.00
	600 ~ 690		3P+N+PE		6	30073	16.00
	480 ~ 500		3P+PE		9		



## Plugs and Sockets

### BCZ8060 Series Explosion-proof Plugs and Sockets

#### Technical data

Explosion-proof plugs and sockets BCZ8060-16/□/□

##### Explosion protection

Global (IECEx) IECEx CNEX 21.0004X

Gas and dust Ex db eb IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) CNEX 21 ATEX 0003X

Gas and dust Ex II 2 G Ex db eb IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

##### Enclosure material

GRP (glass fibre-reinforced polyester resin)

##### Exposed fastener

Stainless steel

##### Rated voltage

AC 480V~500V, 380V~415V, 200V~250V, 100V~130V, 12V~48V

DC 50V~250V, 12V~48V

##### Rated current

10A, 16A

##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

##### Cable entries (Socket)

Standard 1 x M25x1.5 cable gland(plastic), 1 x M25x1.5 plug (plastic)

##### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18.

##### Cross section of cable

2.5~4 mm<sup>2</sup>



#### Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
16A Coupler	480 ~ 500		3P+PE		7	Black	30099	1.30
			3P+N+PE		6	Red	30100	1.30
			3P+PE		6	Red	30101	1.30
			3P+N+PE		6	Blue	30102	1.30
	380 ~ 415	16(10)	3P+PE		9	Blue	30103	1.30
			2P+PE		6	Blue	30104	1.30
			1P+N+PE		4	Yellow	30105	1.30
			2P+PE		12	Violet	30106A	1.25
	200 ~ 250		2P			Violet	30107A	1.25
			2P+PE		12	Violet	30108A	1.25
			2P			Violet	30109A	1.25

## Plugs and Sockets

### BCZ8060 Series Explosion-proof Plugs and Sockets

#### Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
16A Socket	480 ~ 500	16(10)	3P+PE		7	Black	30075	1.50
	380 ~ 415		3P+N+PE		6	Red	30076	1.50
	200 ~ 250		3P+PE		6	Red	30077	1.50
	100 ~ 130		3P+N+PE		6	Blue	30078	1.50
	50 ~ 250		3P+PE		9	Blue	30079	1.50
	12 ~ 48		2P+PE		6	Blue	30080	1.50
	480 ~ 500		1P+N+PE		4	Yellow	30081	1.50
	380 ~ 415		2P+PE		12	Violet	30082A	1.45
	200 ~ 250		2P			Violet	30083A	1.45
	100 ~ 130		2P+PE		12	Violet	30084A	1.45
	50 ~ 250		2P			Violet	30085A	1.45
16A Plug	480 ~ 500	16(10)	3P+PE		7	Black	30087	0.35
	380 ~ 415		3P+N+PE		6	Red	30088	0.35
	200 ~ 250		3P+PE		6	Red	30089	0.35
	100 ~ 130		3P+N+PE		6	Blue	30090	0.35
	50 ~ 250		3P+PE		9	Blue	30091	0.35
	12 ~ 48		2P+PE		6	Blue	30092	0.35
	480 ~ 500		1P+N+PE		4	Yellow	30093	0.35
	380 ~ 415		2P+PE		12	Violet	30094A	0.35
	200 ~ 250		2P			Violet	30095A	0.35
	100 ~ 130		2P+PE		12	Violet	30096A	0.35
	50 ~ 250		2P			Violet	30097A	0.35



## Plugs and Sockets

### BCZ8060 Series Explosion-proof Plugs and Sockets

#### Technical data

##### Explosion-proof plugs and sockets BCZ8060-32/□/□

###### Explosion protection

Global (IECEx)

IECEx CNEX 21.0004X

Gas and dust

Ex db eb IIC T5 or T4 Gb

Europe (ATEX)

Ex tb IIIC T80°C Db

Gas and dust

CNEX 21 ATEX 0003X

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### Enclosure material

GRP (glass fibre-reinforced polyester resin)

###### Exposed fastener

Stainless steel

###### Rated voltage

AC 600V~690V, 480V~500V, 380V~415V, 200V~250V

###### Rated current

20A, 32A

###### Degree of protection

IP66

###### Ambient temperature

T5 for Tamb: -20°C~+40°C, T4 for Tamb: -20°C~+55°C

###### Cable entries (Socket)

Standard 1 x M40 x 1.5 cable gland (plastic), 1 x M40 x 1.5 plug(plastic)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18.

###### Cross section of cable

4~6 mm<sup>2</sup>

#### Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
	600 ~ 690	32(20)	3P+PE		5	Black	30110	1.90
	480 ~ 500		3P+PE		7	Black	30111	1.90
	380 ~ 415		3P+N+PE		6	Red	30112	1.90
			3P+PE		6	Red	30113	1.90
	200 ~ 250		3P+N+PE		6	Blue	30114	1.90
			3P+PE		9	Blue	30115	1.90
	600 ~ 690	32(20)	3P+PE		5	Black	30116	0.95
	480 ~ 500		3P+PE		7	Black	30117	0.95
	380 ~ 415		3P+N+PE		6	Red	30118	0.95
			3P+PE		6	Red	30119	0.95
	200 ~ 250		3P+N+PE		6	Blue	30120	0.95
			3P+PE		9	Blue	30121	0.95
	600 ~ 690	32(20)	3P+PE		5	Black	30122	1.75
	480 ~ 500		3P+PE		7	Black	30123	1.75
	380 ~ 415		3P+N+PE		6	Red	30124	1.75
			3P+PE		6	Red	30125	1.75
	200 ~ 250		3P+N+PE		6	Blue	30126	1.75
			3P+PE		9	Blue	30127	1.75

# Plugs and Sockets

## BCZ8060 Series Explosion-proof Plugs and Sockets

Technical data	
Explosion-proof plugs and sockets	BCZ8060-63/□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CNEX 21.0004X
Gas and dust	Ex db eb IIC T5 or T4 Gb
	Ex tb IIIC T80°C Db
Europe (ATEX)	CNEX 21 ATEX 0003X
Gas and dust	Ex II 2 G Ex db eb IIC T5 or T4 Gb
	Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
<b>Enclosure material</b>	GRP (glass fibre-reinforced polyester resin)
<b>Exposed fastener</b>	Stainless steel
<b>Rated voltage</b>	AC 600V~690V, 480V~500V, 380V~415V, 200V~250V
<b>Rated current</b>	50A, 60A, 63A
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	T5 for Tamb: -20°C~+40°C, T4 for Tamb: -20°C~+55°C
<b>Cable entries (Socket)</b>	Standard 1 x M50x1.5 cable gland (plastic), 1 x M50x1.5 plug (plastic)
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/18.
<b>Cross section of cable</b>	10~16 mm <sup>2</sup>

Accessories and spare parts										
Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)		
 63A Socket	600 ~ 690	63 (50), (60)	3P+PE		5	Black	30128A	14.30		
			3P+PE		7	Black	30129A	14.30		
	480 ~ 500		3P+N+PE		6	Red	30130A	14.30		
			3P+PE		6	Red	30131A	14.30		
	380 ~ 415		3P+N+PE		6	Blue	30132A	14.30		
			3P+PE		9	Blue	30133A	14.30		
 63A Plug	600 ~ 690	63 (50), (60)	3P+PE		5	Black	30128B	1.70		
			3P+PE		7	Black	30129B	1.70		
	480 ~ 500		3P+N+PE		6	Red	30130B	1.70		
			3P+PE		6	Red	30131B	1.70		
	380 ~ 415		3P+N+PE		6	Blue	30132B	1.70		
			3P+PE		9	Blue	30133B	1.70		
	200 ~ 250									



## Plugs and Sockets

### BCZ8060 Series Explosion-proof Plugs and Sockets

#### Technical data

##### Explosion-proof plugs and sockets BCZ8060-125/□/□

###### Explosion protection

Global (IECEx) IECEx CNEX 21.0004X

Gas and dust Ex db eb IIC T4 Gb

Europe (ATEX) Ex tb IIIC T80°C Db

Gas and dust CNEX 21 ATEX 0003X

Ex II 2 G Ex db eb IIC T4 Gb

Ex II 2 D Ex tb IIIC T80°C Db

###### Certificates

###### Conformity to standards

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### Enclosure material

GRP (glass fibre-reinforced polyester resin)

###### Exposed fastener

Stainless steel

###### Rated voltage

AC 600V~690V, 480V~500V, 380V~415V, 200V~250V

###### Rated current

100A, 125A

###### Degree of protection

IP66

###### Ambient temperature

-20°C~+55°C

###### Cable entries (Socket)

Standard 1 x M63x1.5 cable gland (plastic), 1 x M63x1.5 plug (plastic)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18.

###### Cross section of cable

25~35 mm<sup>2</sup>



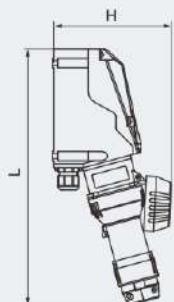
#### Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
 125A Socket	600 ~ 690	125(100)	3P+PE		5	Black	30134	14.30
	480 ~ 500		3P+PE		7	Black	30135	14.30
	380 ~ 415		3P+N+PE		6	Red	30136	14.30
	200 ~ 250		3P+PE		6	Red	30137	14.30
	380 ~ 415		3P+N+PE		6	Blue	30138	14.30
	200 ~ 250		3P+PE		9	Blue	30139	14.30
 125A Plug	600 ~ 690	125(100)	3P+PE		5	Black	30140	1.70
	480 ~ 500		3P+PE		7	Black	30141	1.70
	380 ~ 415		3P+N+PE		6	Red	30142	1.70
	200 ~ 250		3P+PE		6	Red	30143	1.70
	380 ~ 415		3P+N+PE		6	Blue	30144	1.70
	200 ~ 250		3P+PE		9	Blue	30145	1.70

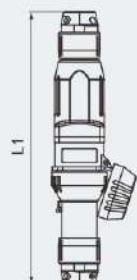
## Plugs and Sockets

### BCZ8060 Series Explosion-proof Plugs and Sockets

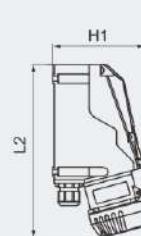
Dimension drawings (all dimensions in mm) - subject to alteration



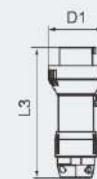
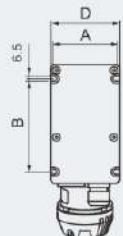
Plug and socket



Coupler (L)



Socket (Z)

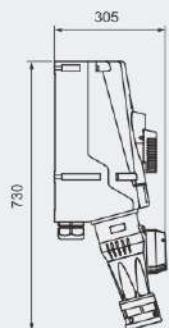


Plug (T)

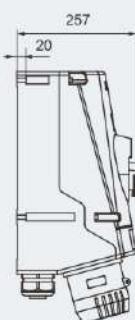
BCZ8060-16/□/□

BCZ8060-32/□/□

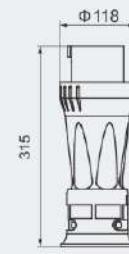
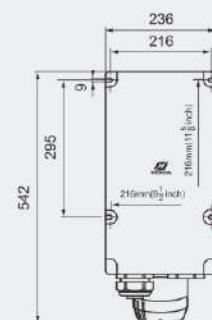
Version	L	H	L1	L2	H1	D	A	B	L3	D1
BCZ8060-16/□/(2P/3P)	336	154	356	227	120	90	80	122	171	72
BCZ8060-16/□/(4P/5P)	408	175	460	252	151	110	102	150	217	76.5
BCZ8060-32/□/□	460	209	514	283	171	120	113	169	253	95



Plug and socket



Socket (Z)



Plug (T)

BCZ8060-63/□/□

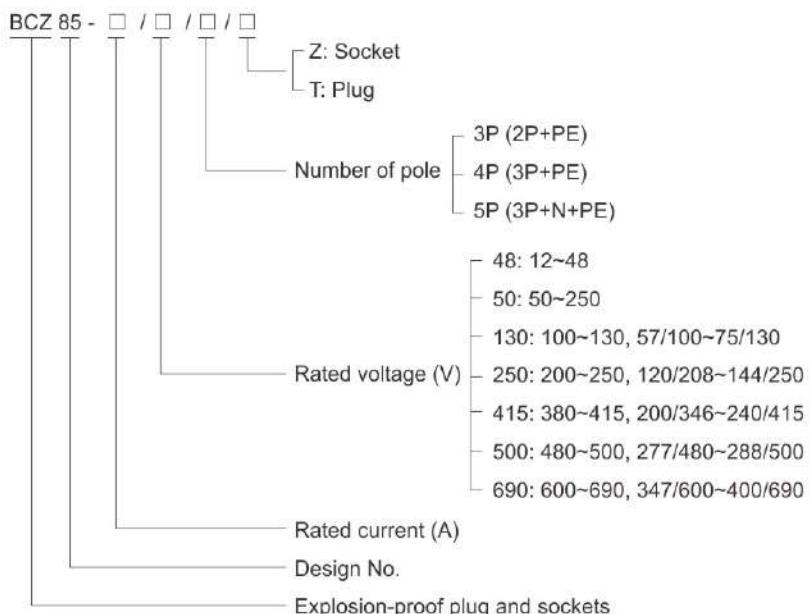
BCZ8060-125/□/□





- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Four enclosure types; Four current ratings (16A, 32A, 63A, 125A); 3P, 4P or 5P.
- ◆ Only the switch in the socket cut off can plug be pulled out, power after inserting the plug.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

#### ■ Catalogue number logic



Zones 1&2; 21&22

## Plugs and Sockets

### BCZ85 Series Explosion-proof Plugs and Sockets

Selection table

Version	Current (A)	Voltage (V)	Number of pole	Schematic diagram	h	Colour	Ordering code	Weight (kg)
BCZ85-16/□/□	16(10)	12~48	2P			Violet	30146A	2.60
		50~250				Violet	30146B	2.60
		12~48	2P+PE		12	Violet	30146C	2.60
		50~250			12	Violet	30146D	2.60
		100~130			4	Yellow	30147	2.60
		200~250			6	Blue	30148	2.60
		100~130	3P+PE		4	Yellow	30149	2.60
		200~250			9	Blue	30150	2.60
		380~415			6	Red	30151	2.60
		480~500			7	Black	30152	2.60
		600~690			5	Black	30153	2.60
		57/100~75/130	3P+N+PE		4	Yellow	30154	3.40
		120/208~144/250			9	Blue	30155	3.40
		200/346~240/415			6	Red	30156	3.40
		277/480~288/500			7	Black	30157	3.40
		347/600~400/690			5	Black	30158	3.40
BCZ85-32/□/□	32(20)	200~250	2P+PE		6	Blue	30159	3.40
		200~250	3P+PE		9	Blue	30160	3.40
		380~415			6	Red	30161	3.40
		480~500			7	Black	30162	3.40
		600~690			5	Black	30163	3.40
		120/208~144/250	3P+N+PE		9	Blue	30164	3.40
		200/346~240/415			6	Red	30165	3.40
		277/480~288/500			7	Black	30166	3.40
		347/600~400/690			5	Black	30167	3.40
BCZ85-63/□/□	63 (50), (60)	200~250	3P+PE		9	Blue	30168	4.50
		380~415			6	Red	30169	4.50
		480~500			7	Black	30170	4.50
		600~690			5	Black	30171	4.50
		200/346~240/415	3P+N+PE		6	Red	30172	4.50
		277/480~288/500			7	Black	30173	4.50
BCZ85-125/□/□	125(100)	200~250	3P+PE		9	Blue	30174	20.0
		380~415			6	Red	30175	20.0
		480~500			7	Black	30176	20.0
		600~690			5	Black	30177	20.0
		200/346~240/415	3P+N+PE		6	Red	30178	20.0
		277/480~288/500			7	Black	30179	20.0

## Plugs and Sockets

### BCZ85 Series Explosion-proof Plugs and Sockets

#### Technical data

##### Explosion-proof plug and sockets BCZ85-16/□/□

###### Explosion protection

Global (IECEx) IECEx CNEX 19.0015X

Gas and dust Ex db IIC T6 Gb

Europe (ATEX) Ex tb IIIC T80°C Db

CNEX 19 ATEX 0023X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

Certificates IECEx; ATEX; CU-TR

Conformity to standards EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Enclosure material Copper-free Aluminium Alloy, powder coated surface

Enclosure colour Window grey (RAL7040)

Exposed fastener Stainless steel

Rated voltage Max. 690V AC, Max. 250V DC

Rated current 10A, 16A

Number of pole 3P (2P+PE), 4P (3P+PE), 5P (3P+N+PE)

Degree of protection IP66

Internal&external earthing M5/M5

Ambient temperature -60°C~+60°C

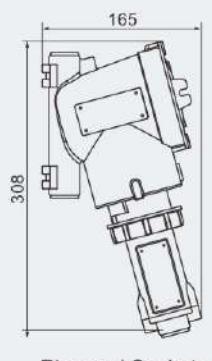
Cable entry of socket 2 x M25 x 1.5(3P/4P), 2 x M32 x 1.5(5P)

Cable entry of plug 1 x M25 x 1.5(3P/4P), 1 x M32 x 1.5(5P)

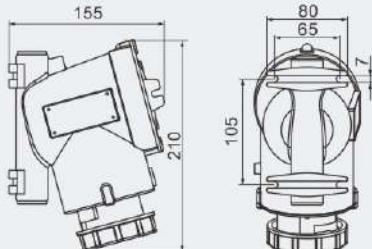
Cable gland (optional) DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

Cross section of cable 2.5~4 mm<sup>2</sup>

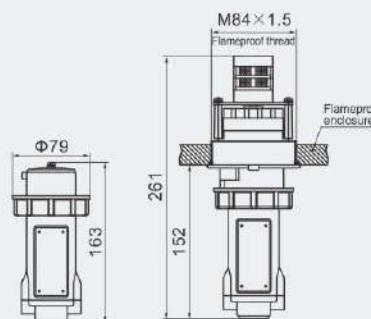
#### Dimension drawings (all dimensions in mm) - subject to alteration



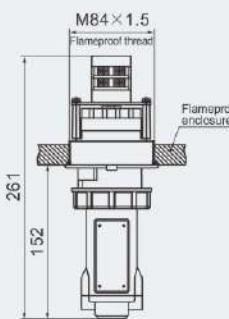
Plug and Sockets



Socket

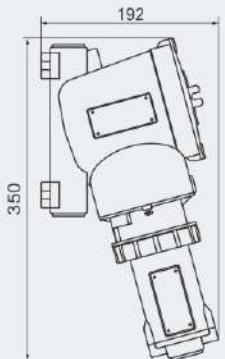


Plug

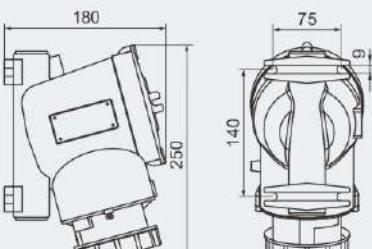


Install on the  
flameproof enclosure

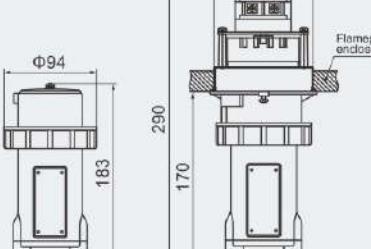
BCZ85-16/□/3P  
BCZ85-16/□/4P



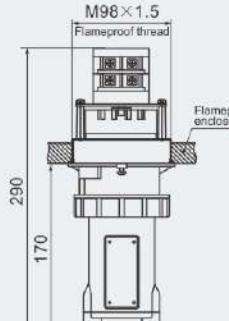
Plug and Sockets



Socket



Plug



Install on the  
flameproof enclosure

BCZ85-16/□/5P

## Plugs and Sockets

### BCZ85 Series Explosion-proof Plugs and Sockets

#### Technical data

##### Explosion-proof plug and sockets BCZ85-32/□/□

###### Explosion protection

Global (IECEx) IECEx CNEX 19.0015X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

Europe (ATEX) CNEX 19 ATEX 0023X

Gas and dust  $\text{Ex II 2 G Ex db IIC T6 Gb}$

$\text{Ex II 2 D Ex tb IIIC T80°C Db}$

###### Certificates

IECEx; ATEX; CU-TR

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure colour

Window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Rated voltage

Max. 690V AC

###### Rated current

20A, 32A

###### Number of pole

3P (2P+PE), 4P (3P+PE), 5P (3P+N+PE)

###### Degree of protection

IP66

###### Internal&external earthing

M5/M5

###### Ambient temperature

-60°C~+60°C

###### Cable entry of socket

2 x M32 x 1.5

###### Cable entry of plug

1 x M32 x 1.5

###### Cable gland (optional)

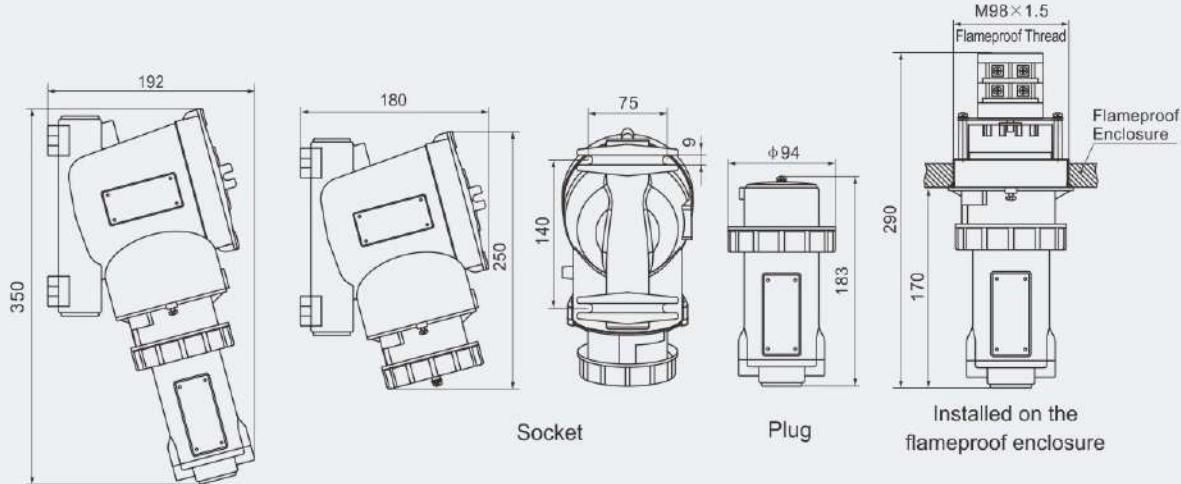
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

###### Cross section of cable

4~6 mm<sup>2</sup>



#### Dimension drawings (all dimensions in mm) - subject to alteration



Plug and Sockets

BCZ85-32/□/□

## Plugs and Sockets

### BCZ85 Series Explosion-proof Plugs and Sockets

#### Technical data

##### Explosion-proof plug and sockets BCZ85-63/□/□

###### Explosion protection

Global (IECEx) IECEx CNEX 19.0021X

Gas and dust Ex db IIC T6 Gb

Europe (ATEX) CNEX 19 ATEX 0030X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

###### Certificates

IECEx; ATEX; CU-TR

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure colour

Window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Rated voltage

Max. 690V AC

###### Rated current

50A, 60A, 63A

###### Number of pole

4P (3P+PE), 5P (3P+N+PE)

###### Degree of protection

IP66

###### Internal&external earthing

M6/M8

###### Ambient temperature

-60°C~+60°C

###### Cable entry of socket

2 x M40 x 1.5

###### Cable entry of plug

1 x M50 x 1.5

###### Cable gland (optional)

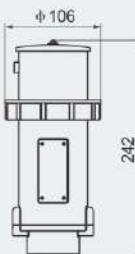
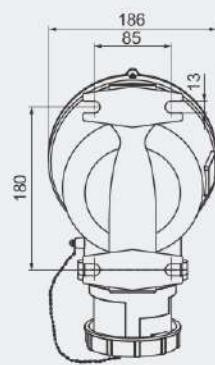
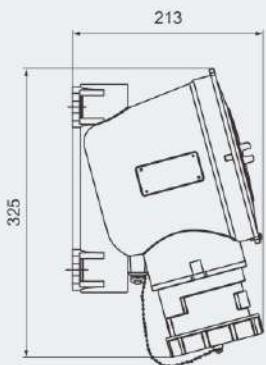
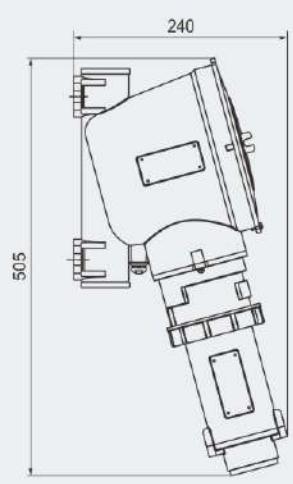
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

###### Cross section of cable

10~16 mm<sup>2</sup>



#### Dimension drawings (all dimensions in mm) - subject to alteration



BCZ85-63/□/□

## Plugs and Sockets

### BCZ85 Series Explosion-proof Plugs and Sockets

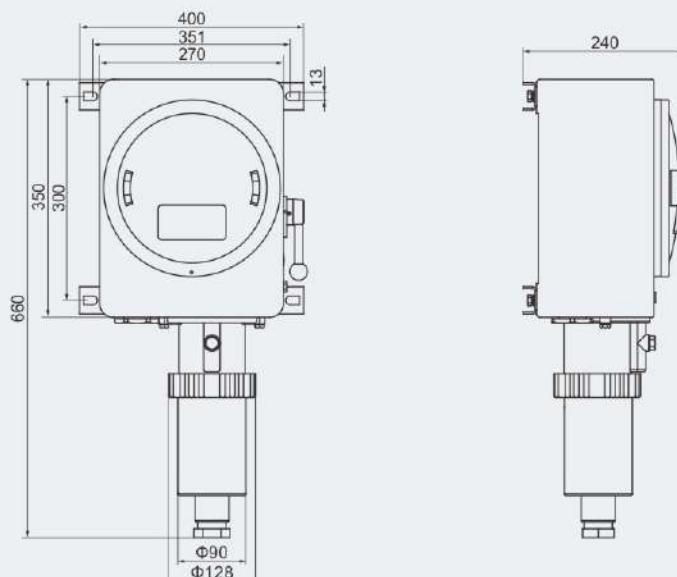
#### Technical data

#### Explosion-proof plug and sockets BCZ85-125/□/□

Explosion protection	
Global (IECEx)	IECEx CNEX 19.0020X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	CNEX 19 ATEX 0029X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
Certificates	IECEx; ATEX; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free Aluminium Alloy, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	100A, 125A
Number of pole	4P (3P+PE), 5P (3P+N+PE)
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60°C~+58°C
Cable entry of socket	1 x M63 x 1.5
Cable entry of plug	1 x M50 x 1.5
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
Cross section of cable	25~35 mm <sup>2</sup>



#### Dimension drawings (all dimensions in mm) - subject to alteration

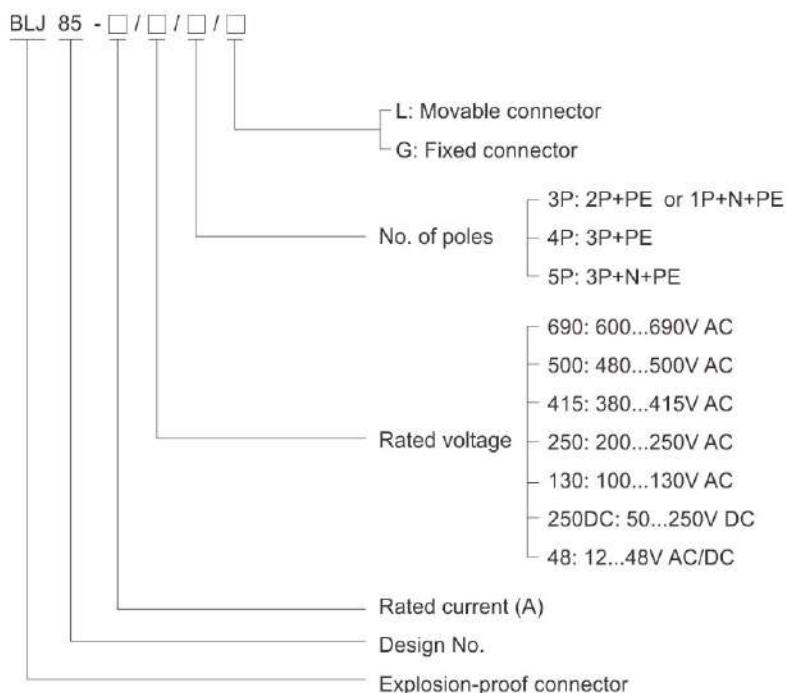


BCZ85-125/□/□



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ 4 enclosure types; 9 current ratings (10A, 16A, 20A, 25A, 32A, 50A, 60A, 63A, 100A); 3P, 4P and 5P.
- ◆ Copper-free Aluminium Alloy enclosure, anodic-oxidation treatment for surface.

#### ■ Catalogue number logic



Zones 2; 21&22

## Plugs and Sockets

### BLJ85 Series Explosion-proof Connector

#### Technical data

#### Explosion-proof connector BLJ85 - □ / □ / □ / □

##### Explosion protection

Global (IECEx)	IECEx CNEX 23.0003X
Gas and dust	Ex ec IIC T6/T5 Gc
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	Ex II 3 G Ex ec IIC T6/T5 Gc

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-7, IEC 60079-31

##### Enclosure material

Copper-free Aluminium Alloy, anodic-oxidation treatment for surface

##### Exposed fastener

Stainless steel

##### Rated voltage

AC 380...415V, 200...250V, 100...130V; DC 50...250V; AC/DC 12...48V

##### Rated current

10A, 16A

##### Degree of protection

IP66

##### Ambient temperature

T6: -60°C~+40°C, T5: -60°C~+60°C

##### Cable gland

Suitable for cables of Φ9~Φ14 (mm)

#### Selection table

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering code	Weight (kg)
 BLJ85-10/□/□ BLJ85-16/□/□	AC 100...130	10/16	1P+N+PE		12	Yellow	30180	0.30
	AC 200...250	10/16	1P+N+PE		12	Blue	30181	0.30
	AC 200...250	10/16	2P+PE		12	Blue	30182	0.30
	AC 200...250	10/16	3P+PE		12	Blue	30183	0.30
	AC 380...415	10/16	3P+PE		12	Red	30184	0.30
	AC 380...415	10/16	3P+N+PE		12	Red	30185	0.32
	DC20...250V	10/16	2P+PE		12	White	30186	0.30
	AC/DC12...48V	10/16	2P+PE		12	Purple	30187	0.30



#### Installation method



## Plugs and Sockets

### BLJ85 Series Explosion-proof Connector

#### Technical data

##### Explosion-proof connector BLJ85 - □ / □ / □ / □

###### Explosion protection

Global (IECEx)

IECEx CNEX 23.0003X

Gas and dust

Ex ec IIC T5/T4 Gc

Europe (ATEX)

Ex tb IIIC T80°C/T95°C Db

Gas and dust

CNEX 23 ATEX 0006X(Gas), CNEX 23 ATEX 0007X(Dust)

Ex II 3 G Ex ec IIC T5/T4 Gc

Ex II 2 D Ex tb IIIC T80°C/T95°C Db

###### Certificates

###### Conformity to standards

###### Enclosure material

IECEx; ATEX

###### Exposed fastener

EN 60079-0, EN 60079-7, EN 60079-31

###### Rated voltage

IEC 60079-0, IEC 60079-7, IEC 60079-31

###### Rated current

Copper-free aluminium Alloy, anodic-oxidation treatment for surface

###### Degree of protection

Stainless steel

###### Ambient temperature

AC 600...690V, 480...500V, 380...415V, 200...250V

###### Cable gland

20A, 25A, 32A, 50A, 60A, 63A, 100A

###### IP66

IP66

###### Ambient temperature

T5: -60°C~+40°C, T4: -60°C~+60°C

25A/32A

63A

100A

Φ 17...Φ 24mm

Φ 26...Φ 32mm

Φ 28...Φ 41mm

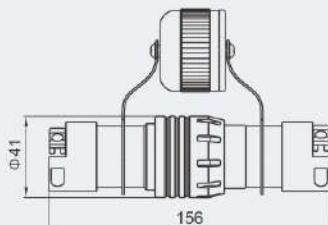
#### Selection table

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering code	Weight (kg)
 BLJ85-20/□/□ BLJ85-25/□/□ BLJ85-32/□/□	200...250	20/25/32	3P+PE		9	Blue	30189	1.10
	200...250	20/25/32	3P+N+PE		6	Blue	30190	1.20
	380...415	20/25/32	3P+PE		6	Red	30191	1.10
	380...415	20/25/32	3P+N+PE		6	Red	30192	1.20
	480...500	20/25/32	3P+PE		7	Black	30193	1.10
	600...690	20/25/32	3P+PE		5	Black	30194	1.10
 BLJ85-50/□/□ BLJ85-60/□/□ BLJ85-63/□/□	200...250	50/60/63	3P+PE		7	Blue	30195	1.80
	200...250	50/60/63	3P+N+PE		6	Blue	30196	1.85
	380...415	50/60/63	3P+PE		6	Red	30197	1.80
	380...415	50/60/63	3P+N+PE		6	Red	30198	1.85
	480...500	50/60/63	3P+PE		7	Black	30199	1.80
	600...690	50/60/63	3P+PE		5	Black	30200	1.80
 BLJ85-100/□/□	200...250	100	3P+PE		7	Blue	30201	2.50
	200...250	100	3P+N+PE		6	Blue	30202	2.60
	380...415	100	3P+PE		6	Red	30203	2.50
	380...415	100	3P+N+PE		6	Red	30204	2.60
	480...500	100	3P+PE		7	Black	30205	2.50
	600...690	100	3P+PE		5	Black	30206	2.50

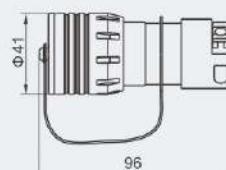
## Plugs and Sockets

### BLJ85 Series Explosion-proof Connector

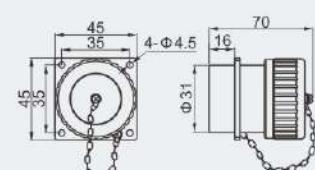
Dimension drawings (all dimensions in mm) - subject to alteration



Movable connector

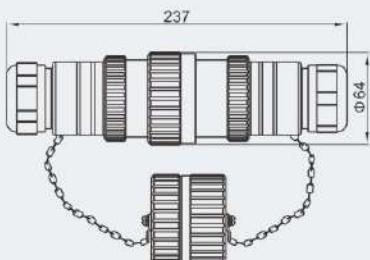


Plug

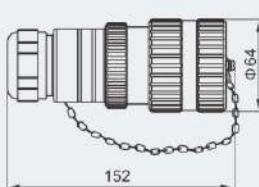


Socket assembly (Fixed connector)

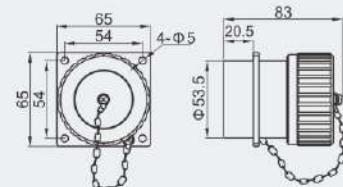
BLJ85-10, BLJ85-16



Movable connector

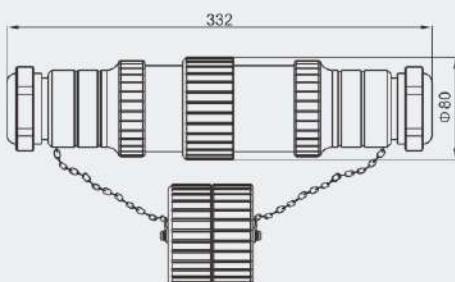


Plug

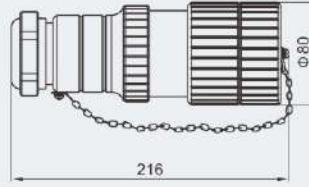


Socket assembly (Fixed connector)

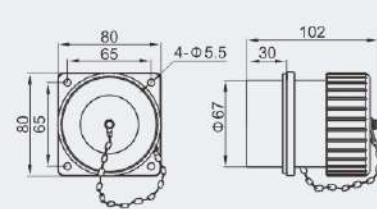
BLJ85-20, BLJ85-25, BLJ85-32



Movable connector

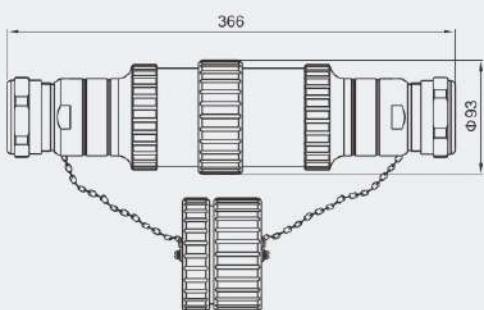


Plug

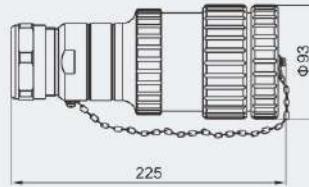


Socket assembly (Fixed connector)

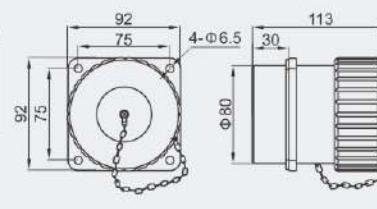
BLJ85-50, BLJ85-60, BLJ85-63



Movable connector



Plug



Socket assembly (Fixed connector)

BLJ85-100





## Control Equipments



# Contents

## Position Switches

HRZX91 Series Explosion-proof Position Switches (Ex db IIC)	4/2
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## Control Stations

BZC Series Explosion-proof Control Stations (Ex db IIB+H <sub>2</sub> )	4/6
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## Components for BZC Control Stations

HA Flameproof Push Button (Ex db IIC)	4/10
HD Series Indicators (Ex db IIC)	4/14
HK Series Control Switches (Ex db IIC)	4/16

## Control Unit Systems and Control Stations

BZA85 Series Explosion-proof Control Unit Systems (Ex db IIC, Copper-free Aluminum Alloy Enclosure)	4/20
BZC8050 Series Control Stations (Ex db eb mb IIC, Ex db eb IIC, GRP Enclosure)	4/24
BZC8050 Series Control Stations (Ex db eb mb IIC, Ex db eb IIC, Copper-free Aluminium Alloy Enclosure)	4/28
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BZC-HMI Series Explosion-proof Touchscreen (Ex db eb nA IIC)	4/36

## Components for BZC8050 Control Stations

BA8060 Series Control Buttons (Ex db eb IIC)	4/38
BD8060 Series Indicators (Ex db eb IIC)	4/42
BK8050 Series Control Switches (Ex db eb IIC)	4/45
BB8050 Series Explosion-proof Ammeters/Voltmeters (Ex eb IIC, Ex eb mb IIC)	4/51
HRFM Series Explosion-proof Buzzer (Ex eb ib mb IIC, Ex db ib mb IIC)	4/54

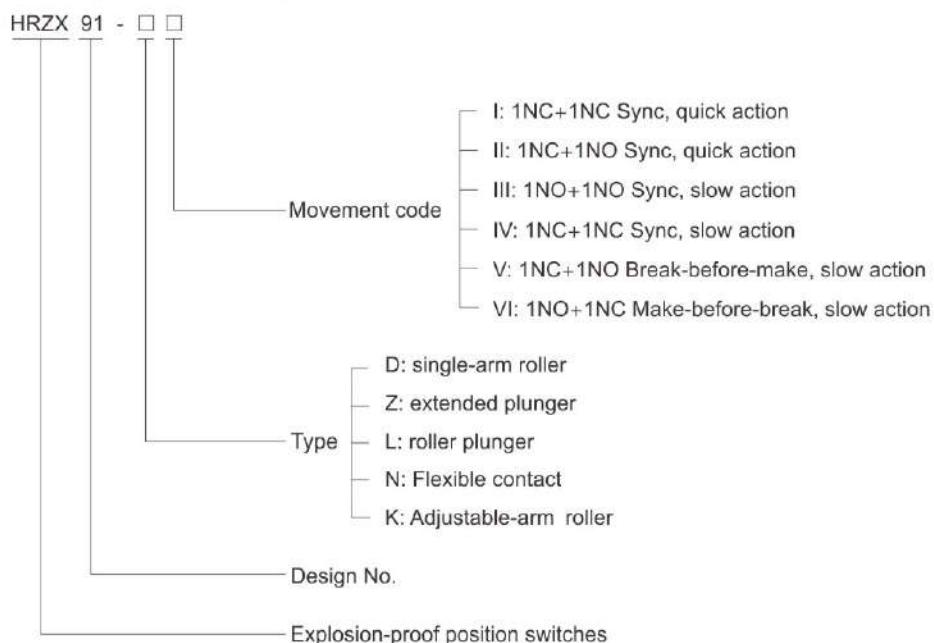


More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Types: D, Z, L, N, K.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

### ■ Catalogue number logic



Zones 1&2; 21&22

## Position Switches

### HRZX91 Series Explosion-proof Position Switches

**Selection table**

Version	Rated voltage	Rated current (A)	Type of contact	Ordering code
HRZX91-D	380V AC	3	1NC+1NC Sync, quick action	40001a
			1NC+1NO Sync, quick action	40001b
			1NO+1NO Sync, slow action	40001c
			1NC+1NC Sync, slow action	40001d
			1NC+1NO Break-before-make, slow action	40001e
			1NO+1NC Make-before-break, slow action	40001f
HRZX91-Z	380V AC	3	1NC+1NC Sync, quick action	40002a
			1NC+1NO Sync, quick action	40002b
			1NO+1NO Sync, slow action	40002c
			1NC+1NC Sync, slow action	40002d
			1NC+1NO Break-before-make, slow action	40002e
			1NO+1NC Make-before-break, slow action	40002f
HRZX91-L	380V AC	3	1NC+1NC Sync, quick action	40003a
			1NC+1NO Sync, quick action	40003b
			1NO+1NO Sync, slow action	40003c
			1NC+1NC Sync, slow action	40003d
			1NC+1NO Break-before-make, slow action	40003e
			1NO+1NC Make-before-break, slow action	40003f
HRZX91-N	380V AC	3	1NC+1NC Sync, quick action	40004a
			1NC+1NO Sync, quick action	40004b
			1NO+1NO Sync, slow action	40004c
			1NC+1NC Sync, slow action	40004d
			1NC+1NO Break-before-make, slow action	40004e
			1NO+1NC Make-before-break, slow action	40004f
HRZX91-K	380V AC	3	1NC+1NC Sync, quick action	40005a
			1NC+1NO Sync, quick action	40005b
			1NO+1NO Sync, slow action	40005c
			1NC+1NC Sync, slow action	40005d
			1NC+1NO Break-before-make, slow action	40005e
			1NO+1NC Make-before-break, slow action	40005f



## Position Switches

### HRZX91 Series Explosion-proof Position Switches

#### Movement diagram

Code	Contact type	Schematic diagram	Movement diagram	Action diagram of rocker arms	Action diagram of plungers
I	1NC+1NC Sync, quick action		 21-22 1.8 7 21-22 11-12 21-22 11-12 0 0.9 Unit:mm	 21-22 *30° 90° 21-22 11-12 21-22 11-12 0° 0.5° Unit:mm	 21-22 2.5 6.5 21-22 11-12 21-22 11-12 0 0.9 Unit:mm
II	1NC+1NO Sync, quick action		 21-22 1.8 7 21-22 13-14 21-22 13-14 0 0.9 Unit:mm	 21-22 *30° 90° 21-22 13-14 21-22 13-14 0° 0.5° Unit:mm	 21-22 2.5 6.5 21-22 13-14 21-22 13-14 0 0.9 Unit:mm
III	1NO+1NO Sync, slow action		 23-24 1.8 7 23-24 13-14 23-24 13-14 0 0.9 Unit:mm	 23-24 *30° 90° 23-24 13-14 23-24 13-14 0° 0 Unit:mm	 23-24 2.5 6.5 23-24 13-14 23-24 13-14 0 0.9 Unit:mm
IV	1NC+1NC Sync, slow action		 21-22 1.8 7 21-22 11-12 21-22 11-12 0 0.9 Unit:mm	 21-22 *30° 90° 21-22 11-12 21-22 11-12 0° 0 Unit:mm	 21-22 2.5 6.5 21-22 11-12 21-22 11-12 0 0.9 Unit:mm
V	1NC+1NO Break-before-make, slow action		 21-22 1.8 7 21-22 13-14 21-22 13-14 0 1.2 Unit:mm	 21-22 *30° 90° 21-22 13-14 21-22 13-14 0° 14° Unit:mm	 21-22 2.5 6.5 21-22 13-14 21-22 13-14 0 1.2 Unit:mm
VI	1NO+1NC Make-before-break, slow action		 21-22 3 7 21-22 13-14 21-22 13-14 0 1.2 Unit:mm	 21-22 32° 90° 21-22 13-14 21-22 13-14 0° 14° Unit:mm	 21-22 3.7 6.5 21-22 13-14 21-22 13-14 0 1.2 Unit:mm

Note: The size with "\*" has a certain error, and the Angle can be adjusted by adjusting the starting position of the rocker arm.

## Position Switches

### HRZX91 Series Explosion-proof Position Switches

#### Technical data

#### Explosion-proof position switches HRZX91-□

##### Explosion protection

Global (IECEx) IECEx NEP 20.0010X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

PTB 20 ATEX 1010X

Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

IECEx; ATEX

##### Certificates

##### Conformity to standards

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Type of contact

1NO+1NC or 2NO or 2NC

##### Swing angle or distance of roller arm

	HRZX91-D	HRZX91-Z	HRZX91-L	HRZX91-K	HRZX91-N
	180°	6.5mm	6.5mm	180°	180°

##### Rated voltage

Max. 380V AC 50/60Hz, 250V DC

##### Rated current

3A AC / 0.27A DC

##### Degree of protection

IP66

##### Internal&external earthing

M4/M4

##### Ambient temperature

-60°C~+60°C

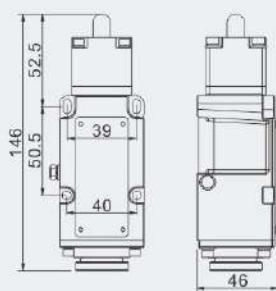
##### Cable entries

1 x M20 x 1.5

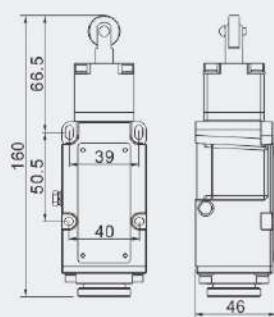
##### Available cable outer diameter

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.

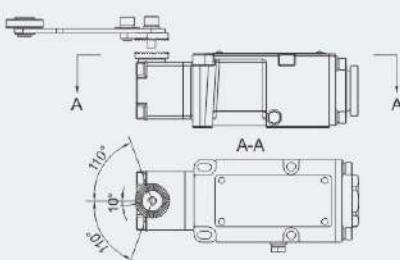
#### Dimension drawings (all dimensions in mm) - subject to alteration



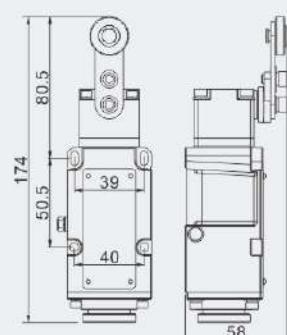
HRZX91-Z



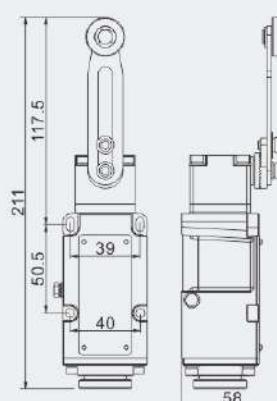
HRZX91-L



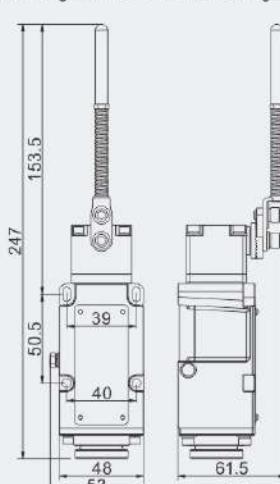
The initial adjustable angle of the rocker arm  
(Adjust the angle in multiples of 10°, the maximum  
adjustment angle is 110° for both left and right side)



HRZX91-D



HRZX91-K



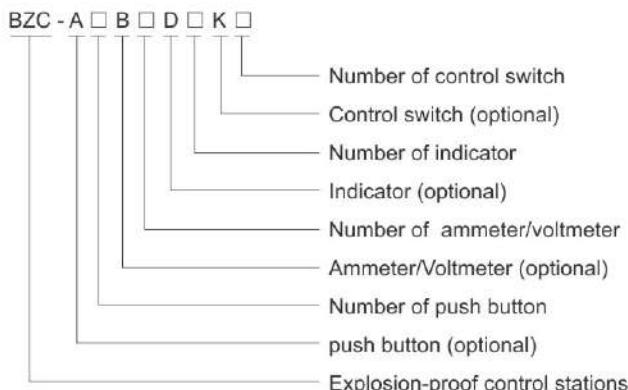
HRZX91-N





- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Six types of enclosure .
- ◆ Features excellent dustproof, waterproof, and corrosion-resistant properties, making it adaptable to various harsh working environments.
- ◆ The layout of buttons, switches, and other components on the control station is rational and straightforward, ensuring ease of use and quick mastery.
- ◆ A range of control methods can be selected based on actual needs, such as manual control, automatic control, or remote control, catering to varying application scenarios.

### ■ Catalogue number logic



### ■ Note

1. Please refer to the Selection table on P4/7.
2. Please select internal components as below:
  - Selection table of HA push button on P4/10~13 (Nominal contact is 1NO+1NC);
  - Selection table of HD indicator on P4/14~15;
  - Selection table of HK control switch on P4/16~19;
  - Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC-A2B1K1
  - Components: Two push buttons, one ammeter, one control switch ;
  - Tech. Details: One start push button (40036B + 40023 + 40024, green, 1NO+1NC);  
One stop push button (40036A + 40023 + 40024, red, 1NO+1NC);  
One ammeter (40126, 100/5A);  
One control switch (Function A, stop-run-start);
4. Special requirements on request.

Zones 1&2; 21&22

## Control Stations

### BZC Series Explosion-proof Control Stations (Ex db IIB+H2)

Selection table of control station BZC (Ex db IIB+H2)

Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I	a b c d e f	2-M25 x 1.5 Bottom entry	40017.....	8.00
II	a b c d	1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40018.....	9.10
III	a b c d	1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40019.....	10.20
IV	a b c d e f	1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40020.....	15.90
V	a b c	1-M40 x 1.5 or 4-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40021.....	27.50
VI	a b	1-M40 x 1.5 or 4-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40022.....	40.00



## Control Stations

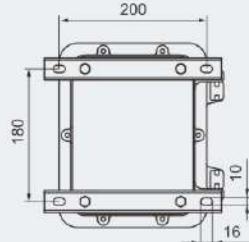
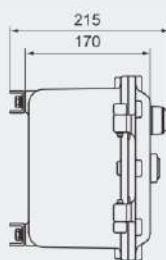
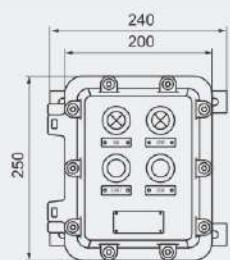
### BZC Series Explosion-proof Control Stations (Ex db IIB+H2)

#### Technical data

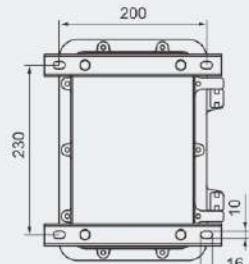
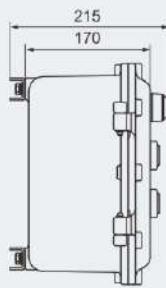
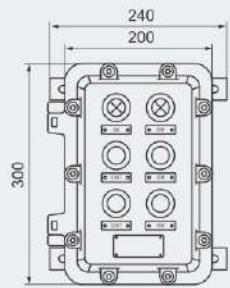
Explosion-proof control stations	BZC (Ex db IIB+H2)
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 11.0043
Gas and dust	Ex db IIB+H2 T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db IP66
Gas and dust	Ex II 2 G Ex db IIB+H2 T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db IP66
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31	
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Rated voltage</b>	Max. 415V AC
<b>Max. current</b>	10A
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	I, II, III: M6/M6; IV, V, VI : M6/M8;
<b>Ambient temperature</b>	-60°C~+55°C
<b>Components</b>	1. Technical data of HA push button on P4/10~13; 2. Technical data of HD indicator on P4/14~15; 3. Technical data of HK control switch on P4/16~19; 4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
<b>Cable entries</b>	Standard M□ x 1.5 plug. Please see the Selection table on P4/7
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Mounting</b>	Surface type



#### Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure I

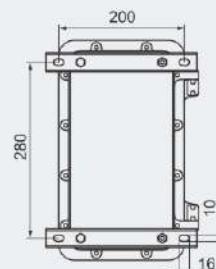
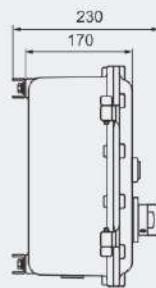
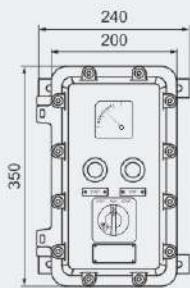


Enclosure II

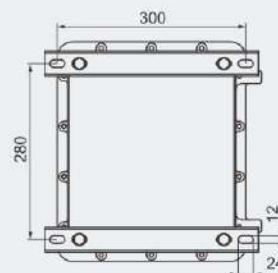
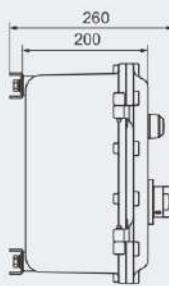
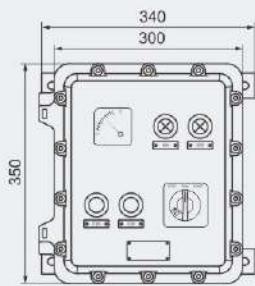
## Control Stations

### BZC Series Explosion-proof Control Stations (Ex db IIB+H2)

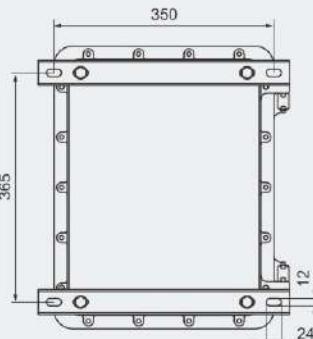
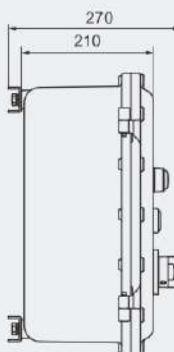
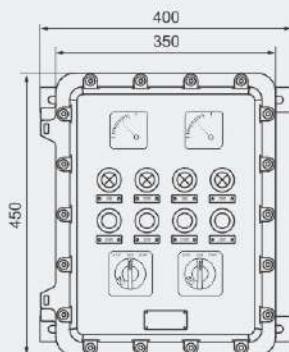
**Dimension drawings** (all dimensions in mm) - subject to alteration



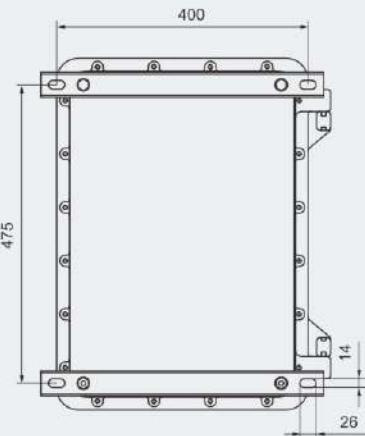
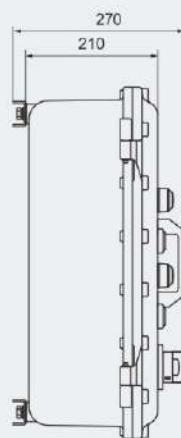
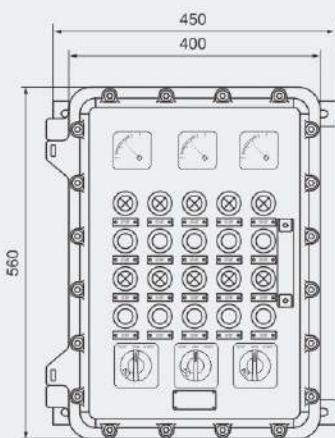
Enclosure III



Enclosure IV



Enclosure V



Enclosure VI

## Components for BZC Control Stations

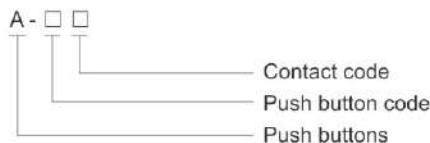
### HA Flameproof Push Button



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Five different ways of operation
  - Spring-return push button
  - Key-operated push button
  - Mushroom stay-put emergency push button
  - Mushroom turn-to-release emergency push button
  - Rotary push button
- ◆ Mushroom stay-put emergency push button mushroom turn-to-release emergency push button can be equipped with protection cover, please specify when ordering.  
Material of protection cover: stainless steel and PC, please specify when ordering.

#### ■ Catalogue number logic

HA (A for short)



#### Technical data

##### HA Flameproof push button

###### Explosion protection

Global (IECEx)

Gas and dust

Europe (ATEX)

Gas and dust

###### Certificates

###### Conformity to standards

###### Rated voltage

###### Rated current

###### Degree of protection

###### Ambient temperature

IECEx CML 17.0161U

Ex db IIC Gb

Ex tb IIIC Db

CML 17 ATEX 1289U

Ex II 2 G Ex db IIC Gb

Ex II 2 D Ex tb IIIC Db

IECEx; ATEX

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

660V AC; 440V DC

10A (for 660V AC); 6A (for 440V DC)

IP66

-60°C~+70°C

**Zones 1&2; 21&22**

## Components for BZC Control Stations

### HA Flameproof Push Button

**Selection table**

Cover mounting	Specification	Code	Ordering code	Weight (kg)
	Spring-return push button ● Red ● Green ● Yellow ● Black ● Blue ○ White	a b c d e p	40036A 40036B 40036C 40036D 40036E 40036F	0.15 0.15 0.15 0.15 0.15 0.15
	Mushroom stay-put emergency push button Red	f	40037	0.27
	Mushroom turn-to-release emergency push button Red	g	40040	0.27
	Self-reset mushroom button Red	q	40040B	0.27
	Key-operated mushroom emergency push button Red	h	40040A	0.30
	Rotary push button Black	i	40039	0.27
	Three-position switch Black	r	40039A	0.27
	Key-operated push button Black	j	40038	0.27
	Push button with indicator ● Red ● Green ● Yellow ● Blue ○ White	k l m n o	40057A 40057B 40057C 40057D 40057E	0.15 0.15 0.15 0.15 0.15



## Components for BZC Control Stations

### HA Flameproof Push Button

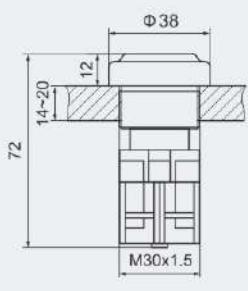
#### Selection table of push button contact

Version	Specification	Contact code	Ordering code	Weight (kg)
Screw type	1NC 	T1	40023	0.03
	1NO 	S1	40024	0.03

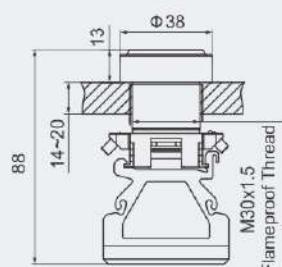
#### Accessories

Description	Material	Ordering code	Weight (kg)
Emergency push button protection cover	PC	40196	0.03
Emergency push button protection cover	Stainless steel	40197	0.15
Emergency push button warning plate	LF2	40198	0.003

#### Dimension drawings (all dimensions in mm) - subject to alteration



Spring-return push button

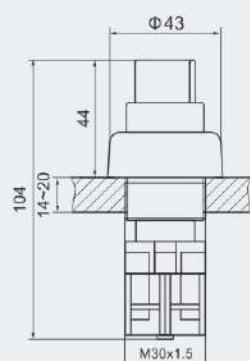


Push button with indicator

## Components for BZC Control Stations

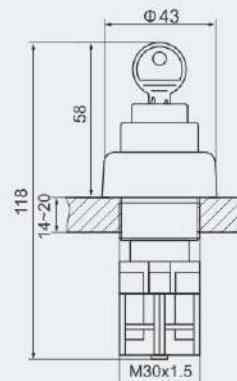
### HA Flameproof Push Button

Dimension drawings (all dimensions in mm) - subject to alteration



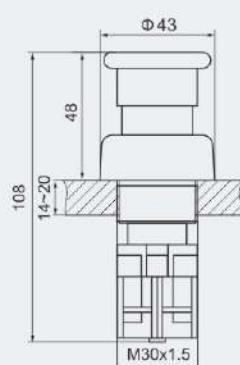
Flameproof Thread

Rotary push button



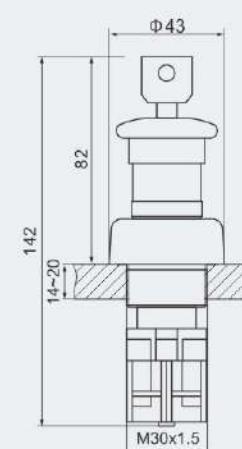
Flameproof Thread

Key-operated push button



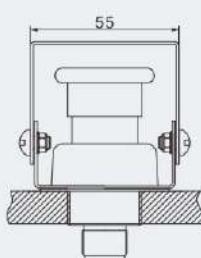
Flameproof Thread

Mushroom stay-put/ turn-to-release emergency push button

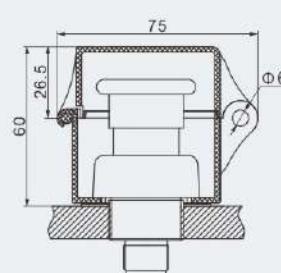
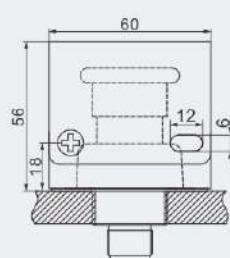


Flameproof Thread

Key-operated mushroom emergency push button



HA Emergency push button with stainless steel protection cover



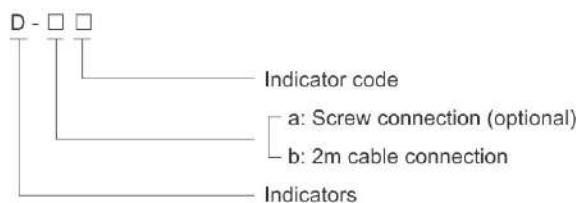
HA Emergency push button with PC protection cover



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Available in
  - red
  - green
  - yellow
  - blue
  - white
- ◆ Two versions
  - screw connection
  - 2m cable connection

#### ■ Catalogue number logic

HD(D for short)



#### Technical data

##### Indicator HD-\*\*

###### Explosion protection

Global (IECEx) IECEx CQM 17.0008U

Gas and dust Ex db IIC Gb

Europe (ATEX) Ex tb IIIC Db IP66

Gas and dust EPT 17 ATEX 2649U

II 2 G Ex db IIC Gb

II 2 D Ex tb IIIC Db IP66

IECEx; ATEX

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

###### Rated voltage

440V AC, 50/60Hz; 220~415V AC, 50/60Hz;

220V DC; 48~120V AC/DC; 12~36V AC/DC

###### Degree of protection

IP66

###### Ambient temperature

-60°C~+70°C

## Zones 1&2; 21&22

## Components for BZC Control Stations

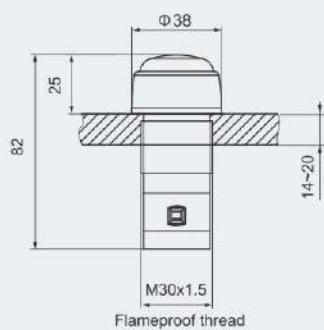
### HD Series Indicators

**Selection table**

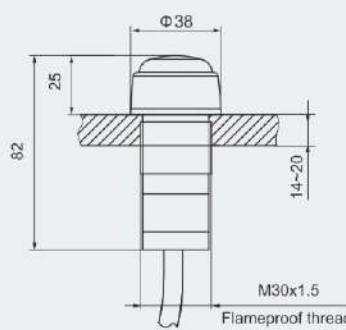
Version	Rated voltage	Schematic diagram	Colour	Code	Ordering code	Weight (kg)
a: Screw connection	220~415V AC		Red	Ra	40041A	0.10
			Green	Ga	40042A	
			Yellow	Ya	40043A	
			Blue	Ba	40162A	
			White	Wa	40044A	
	220V DC		Red	Rb	40045A	0.10
			Green	Gb	40046A	
			Yellow	Yb	40047A	
			Blue	Bb	40163A	
			White	Wb	40048A	
	48~120V AC/DC		Red	Rc	40049A	0.10
			Green	Gc	40050A	
			Yellow	Yc	40051A	
			Blue	Bc	40164A	
			White	Wc	40052A	
	12~36V AC/DC		Red	Rd	40053A	0.10
			Green	Gd	40054A	
			Yellow	Yd	40055A	
			Blue	Bd	40165A	
			White	Wd	40056A	
b: 2m cable connection	220~415V AC		Red	Ra	40041B	0.30
			Green	Ga	40042B	
			Yellow	Ya	40043B	
			Blue	Ba	40162B	
			White	Wa	40044B	
	220V DC		Red	Rb	40045B	0.30
			Green	Gb	40046B	
			Yellow	Yb	40047B	
			Blue	Bb	40163B	
			White	Wb	40048B	
	48~120V AC/DC		Red	Rc	40049B	0.30
			Green	Gc	40050B	
			Yellow	Yc	40051B	
			Blue	Bc	40164B	
			White	Wc	40052B	
	12~36V AC/DC		Red	Rd	40053B	0.30
			Green	Gd	40054B	
			Yellow	Yd	40055B	
			Blue	Bd	40165B	
			White	Wd	40056B	



**Dimension drawings** (all dimensions in mm) - subject to alteration



a: Screw connection



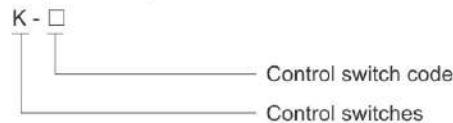
b: 2m cable connection (cable specification: 2x1.5mm<sup>2</sup>)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Available in latching and spring-return forms.
- ◆ Different function options.
- ◆ Number of pole: 2P, 3P, 4P, 6P.
- ◆ The switch shall be fitted inside Ex d enclosure.
- ◆ Standard products do not have locks. If you need locks, please specify.
- ◆ Standard products can be equipped with locks, locks can be chosen by user.

#### ■ Catalogue number logic

HK(K for short)



#### Technical data

##### HK Control Switches

###### Explosion protection

Global (IECEx)	IECEx CML 17.0166U
Gas and dust	Ex db IIC Gb
Europe (ATEX)	Ex tb IIIC Db
Gas and dust	CML 17 ATEX 1306U
Gas and dust	Ex II 2 G Ex db IIC Gb
	Ex II 2 D Ex tb IIIC Db

###### Certificates

###### Conformity to standards

###### Rated voltage

###### Rated current

###### Degree of protection

###### Ambient temperature

500V AC, 400V DC
16A
IP66
-60°C~+70°C

Zones 1&2; 21&22

# Components for BZC Control Stations

## HK Series Control Switches

Selection table

Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
A				A. Functional wiring is same as double buttons with auto-reset function.
B				B. Functional wiring is same as double buttons; auto-reset after start; lock-stop gear added to avoid mistake operation.
C				C. Button with 2 NO contacts and available at auto-reset function. Suitable for high-voltage engine control circuit or function panel uses switch code "a".
D				D. Low-power switch.
E				E. Function is same as three buttons; able to control engine in forward and backward rotation. FW&BW starting positions can auto-reset.
F				F. Selection switch with stop gear in the intermediate zone.
G				G. Be equal to mounting two buttons and one changeover switch in one axis. Possible to output contact signal or monitoring signal between start and stop.
H				H. Multi-signals transmit gradually.
I				I. Add function of transmitting resultant signal on the base of function panel uses switch code "h".
J				J. Two positions step; change-over gradually.
K				K. Changeover switch.



# Components for BZC Control Stations

## HK Series Control Switches

Selection table

Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
L				L. Selection switch with three poles and two launches.
M				M. Three-position changeover switch among auto, manual and start; auto-reset after start; it can convert to auto gear only after passing stop gear.
N				N. Structure is a little different to universal structure of switch code "m"; it directly rotates to auto gear without passing stop gear after starts.
O				O. Double contacts auto reset for start, with lock-stop gear.
P				P. Double contacts for stop, to substitute switch code "a" and "c" for start and stop; auto-reset.
Q				Q. Stop with double contacts, with lock stop gear; auto-reset after start.
R				R. Double contacts for both start and stop; it is same as universal panel of switch code "a", with auto-reset for start and stop.
S				S. Transmit a contact signal before start and stop.
T				T. With lock-stop gear for start and stop to prevent mistake operation; without auto-reset.
U				U. Double-control selection switch.
V				V. Changeover switch for voltage phase-changing and measuring.

## Components for BZC Control Stations

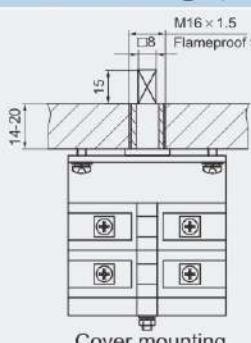
### HK Series Control Switches

#### Selection table

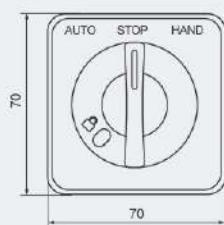
Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
W				W. One 2NO auto-reset pushbutton, both left and right are the same.
X				X. Two 2NO auto-reset buttons.
Y				Y. Self-reset button with 4 normally open contacts.
Z				Z. Power supply program switch, disconnected in the middle, close to left and right, can be used as a fire-fighting switch.
a				a. Used for starting and inching hybrid circuits.
b				b. Double linkage switch.
e				e. Emergency stop switch.
f				f. 2 normally open and 2 normally closed option switches.



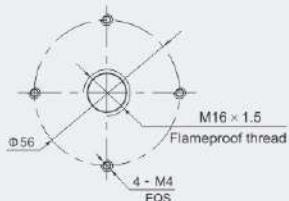
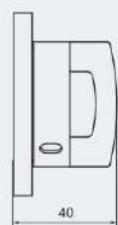
#### Dimension drawings (all dimensions in mm) - subject to alteration



Cover mounting



Rotary actuator

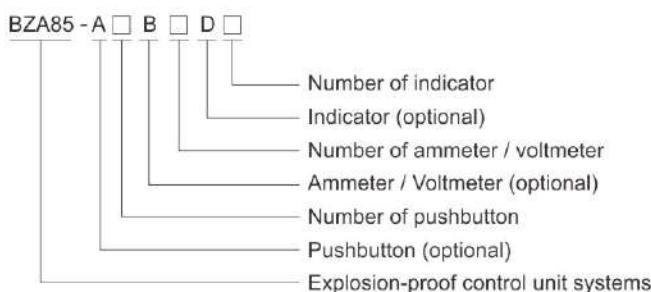


Mounting hole



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Copper-free Aluminium Alloy, powder coated surface.
- ◆ Features excellent dustproof, waterproof, and corrosion-resistant properties, making it adaptable to various harsh working environments.
- ◆ The layout of button, indicator, and other components on the control station is rational and straightforward, ensuring ease of use and quick mastery.

#### ■ Catalogue number logic



#### ■ Note

1. Please refer to the Selection table on P4/21~22.
2. Please select internal components as below:
  - Selection table of HA pushbutton on P4/10~13 (nominal contact is 1NO+1NC);
  - Selection table of HD indicator on P4/14~15;
  - Dimension drawings of ammeter (type 48) and voltmeter (type 48) see P4/23.
3. Example: BZA85-A1
  - Components: One control button;
  - Tech. Details: One start control button (40036B + 40023 + 40024, green, 1NO+1NC).
4. Special requirements on request.

**Zones 1&2; 21&22**

# Control Unit Systems

## BZA85 Series Explosion-proof Control Unit Systems

### Technical data

#### Explosion-proof control unit systems BZA85

##### Explosion protection

Global (IECEx)	IECEx CQM 17.0021X
Gas and dust	Ex db IIC T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db IP66
Gas and dust	Ex II 2 G Ex db IIC T6 Gb

##### Certificates

##### Conformity to standards

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Rated voltage

Max.500V AC, 250V DC (600V for voltmeter)

##### Rated current

Max.10A (AC), 6A (DC)

##### Degree of protection

IP66

##### Ambient temperature

-60°C~+60°C

##### Components

###### HA pushbutton

Technical data on P4/8~11

###### HD indicator

Technical data on P4/12~13

###### Ammeter (type 48) / Voltmeter (type 48)

	Working mode	Accuracy	Overload times
Ammeter	Electromagnetic type	Class 1.5	5 times (2 or 6 times on request)
Voltmeter	(moving iron)		-

##### Cable entries

Standard 2 x M25 x 1.5 plugs

2 x NPT3/4" plugs on request

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.



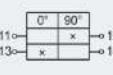
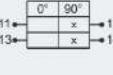
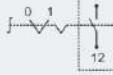
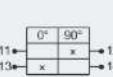
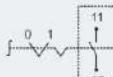
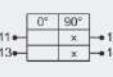
### Selection table (Pushbutton / Indicator)

Outline	Colour	Chart of contact	Ordering code	Weight (kg)
 Indicator	Red		40171A	0.65
	Green		40171B	
 Spring-return button	Red		40172A	0.65
	Green		40172B	
 Mushroom stay-put emergency pushbutton	Red		40173	0.7
 Mushroom turn-to-release emergency pushbutton	Red		40174	0.7

## Control Unit Systems

### BZA85 Series Explosion-proof Control Unit Systems

#### Selection table (Pushbutton)

Outline	Chart of contact	Ordering code	Weight (kg)
 Key-operated pushbutton	 	40175A	0.7
	 	40175B	0.7
 Rotary button	 	40176A	0.7
	 	40176B	0.7

#### Selection table (Ammeter)

Version	Description	Overload scale	Measuring range	Ordering code	Weight (kg)
 A <sub>s</sub>	Direct measuring	-	0~20/40 mA	40177	0.70
			4~20/40 mA	40178	
	Direct measuring	-	0~1 A	40179	
			0~5 A	40180	
	For CT (current transformer)	2 times or 6 times	sec. 1 A	40181	
			sec. 5 A	40182	

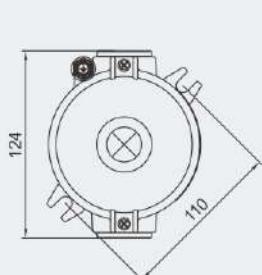
#### Selection table (Voltmeter)

Version	Description	Measuring range	Ordering code	Weight (kg)
 V <sub>s</sub>	Direct measuring	0~10 V	40183	0.70
		0~25 V	40184	
		0~40 V	40185	
		0~60 V	40186	
		0~100 V	40187	
		0~150 V	40188	
		0~250 V	40189	
		0~300 V	40190	
		0~450 V	40191	
		0~500 V	40192	
	For PT (potential transformer)	sec. 100 V	40193	
		sec. 110 V	40194	
		sec. 120 V	40195	

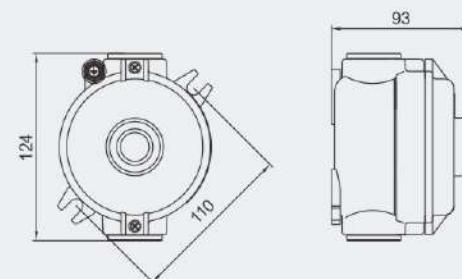
## Control Unit Systems

### BZA85 Series Explosion-proof Control Unit Systems

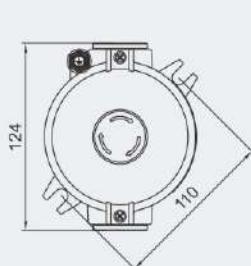
Dimension drawings (all dimensions in mm) - subject to alteration



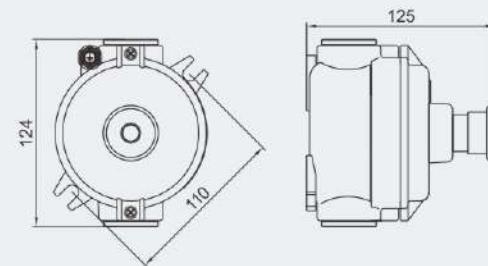
Indicator



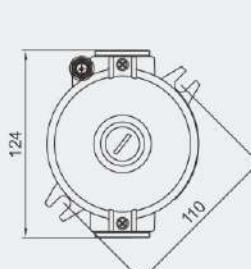
Spring-return button



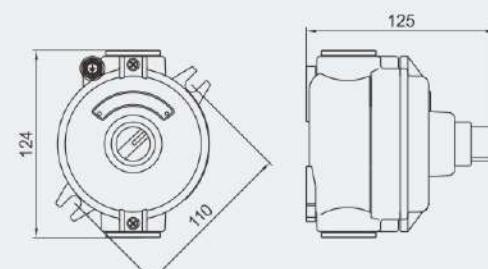
Mushroom turn-to-release  
emergency pushbutton



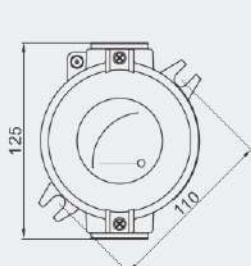
Mushroom stay-put  
emergency pushbutton



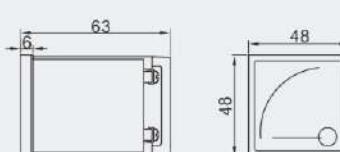
Key-operated pushbutton



Rotary button



Ammeter / Voltmeter



Ammeter (48 type) / Voltmeter (48 type)



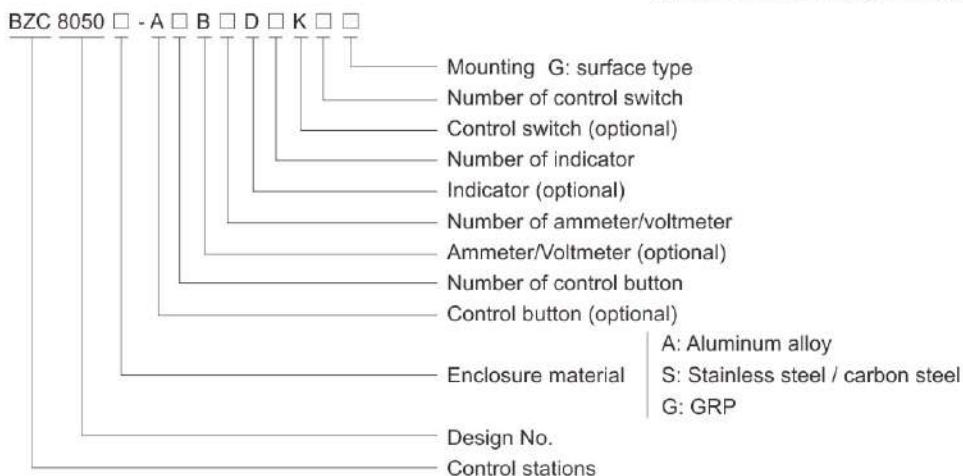
## Control Stations

### BZC8050 Series Control Stations (GRP)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ GRP (glass fibre-reinforced polyester resin) enclosure.
- ◆ Four types of enclosure.
- ◆ Features excellent dustproof, waterproof, and corrosion-resistant properties, making it adaptable to various harsh working environments.
- ◆ The layout of buttons, switches, and other components on the control station is rational and straightforward, ensuring ease of use and quick mastery.
- ◆ A range of control methods can be selected based on actual needs, such as manual control, automatic control, or remote control, catering to varying application scenarios.

#### Catalogue number logic



#### Note

1. Please refer to the Selection table on P4/25.
2. Please select internal components as below:
  - Selection table of BA8060 control button on P4/38~41 (nominal contact is 1NO+1NC);
  - Selection table of BD8060 indicator on P4/42~44;
  - Selection table of BK8050 control switch on P4/45~50;
  - Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
  - Components: Two control buttons, two indicators; surface type
  - Tech. Details: One start control button (40092B + 40090-1+40090-2, green, 1NO+1NC);  
 One stop control button (40092A+ 40090-1+40090-2, red, 1NO+1NC);  
 One indicator (40116B+40100B, green, 230V AC);  
 One indicator (40115B+40099B, red, 230V AC);
4. Special requirements on request.

Zones 1&2; 21&22

## Control Stations

## BZC8050 Series Control Stations (GRP)

Selection table of control station BZC8050(GRP)(Without terminal)

Enclosure type	Components arrangement				Cable entries and direction	Ordering code	Enclosure weight (kg)
I	a 	b 	c 	d 	1-M25 x 1.5 Bottom entry	40074.....	0.65
II	a 	b 	c 		1-M25 x 1.5 Bottom entry	40075.....	0.85
III	a 	b 	c 	d 	1-M25 x 1.5 Bottom entry	40076.....	1.10
IV	a 	b 	c 	d 	2-M25 x 1.5 Bottom entry	40077.....	1.30
V	a 	b 	c 	d 	1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40078.....	2.10
VI	a 	b 	c 	d 	1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40078.....	3.25
VII	a 	b 	c 	d 	1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40078.....	4.60
VIII	a 	b 	c 	d 	1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40078.....	4.15
IX	a 	b 	c 	d 	1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40078.....	7.30



## Control Stations

### BZC8050 Series Control Stations (GRP)

#### Technical data

##### Control stations BZC8050 (GRP)

###### Explosion protection

Global (IECEx)

Gas and dust

Europe (ATEX)

Gas and dust

IECEx CQM 24.0057X

Ex db eb mb IIC T6/T5 Gb<sup>1)</sup>

Ex db eb IIC T6/T5 Gb<sup>1)</sup>

Ex tb IIIC T80°C Db<sup>1)</sup>

TUV CY 25 ATEX 0207269X

Ex II 2 G Ex db eb mb IIC T6/T5 Gb<sup>1)</sup>

Ex II 2 G Ex db eb IIC T6/T5 Gb<sup>1)</sup>

Ex II 2 D Ex tb IIIC T80°C Db<sup>1)</sup>

<sup>1)</sup>See Selection table.

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

GRP (glass fibre-reinforced polyester resin)

Black

Stainless steel

IP66

-60°C(-40°C)~+55°C(+40°C)

1. Technical data of BA8060 control button on P4/38~41

2. Technical data of BD8060 indicator on P4/42~44

3. Technical data of BK8050 control switch on P4/45~50

4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53

###### Components

M□ x 1.5 plug, please see the Selection table on P4/25

DQM-I (Ex e) is recommended. Please see P7/18

Surface type

Please specify the number and size of entries (applicable for surface type only)

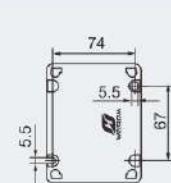
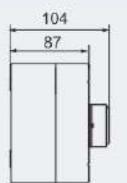
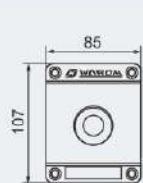
#### Selection table (Ex markings and ratings)

Rated operating voltage (V)	Rated operating current (A)	Ex-mark	
		-60°C(-40°C)~+40°C	-60°C(-40°C)~+55°C
Max. 500V AC	Max. 16A	Ex db eb IIC T6 Gb	Ex db eb IIC T6/T5 Gb
Max. 220V DC	(only with BK8050)	Ex db eb mb IIC T6 Gb	Ex db eb mb IIC T6/T5 Gb
Max. 440V AC	Max. 10A	Ex tb IIIC T80°C Db	Ex tb IIIC T80°C Db
Max. 220V DC			

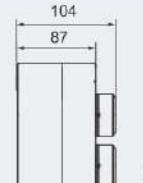
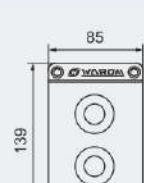
Note: When the ambient temperature is -60°C(-40°C) to +55°C and falls within the T6 temperature class, the maximum configuration is as follows: BZC8050-□-D3, BZC8050-□-A3, BZC8050-□-B1K1, BZC8050-□-A2D2, BZC8050-□-A2B1.

Note: Protection type "mb" depends on the use of certified Ex component, the voltmeter. When the seal strip is made of polyurethane (PU) material, the ambient temperature is -40°C~+40°C (+55°C); when the seal strip is made of silicone rubber, the ambient temperature is -60°C~+40°C(+55°C).

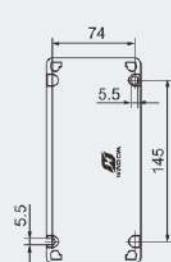
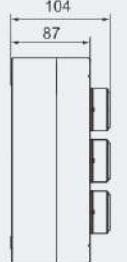
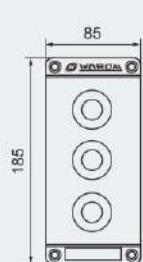
#### Dimension drawings (all dimensions in mm) - subject to alteration



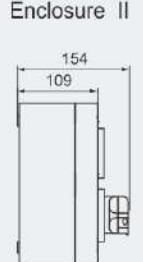
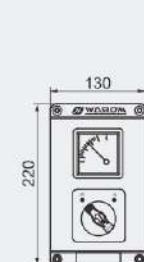
Enclosure I



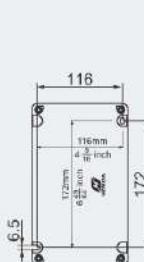
Enclosure II



Enclosure III



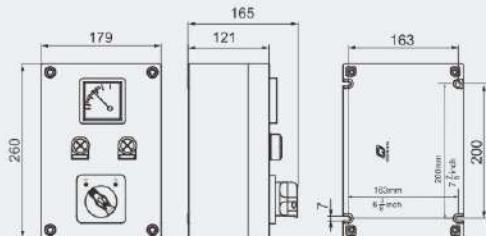
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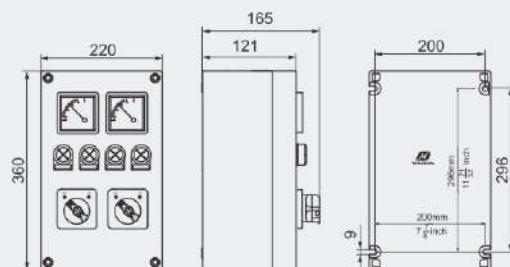
## Control Stations

### BZC8050 Series Control Stations (GRP)

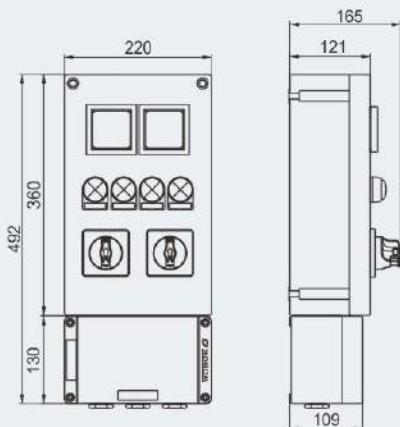
**Dimension drawings** (all dimensions in mm) - subject to alteration



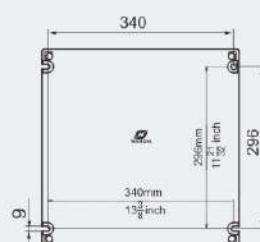
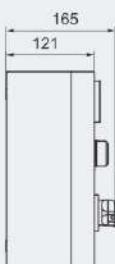
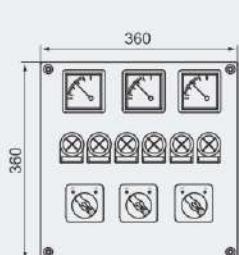
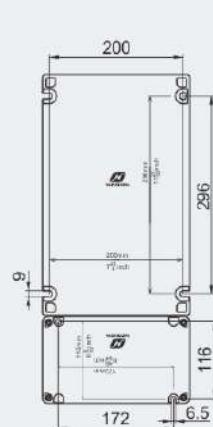
Enclosure V



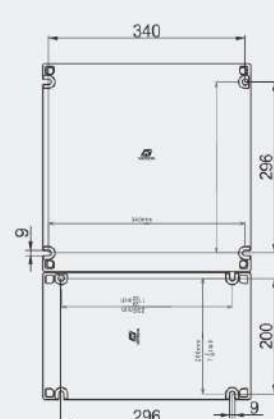
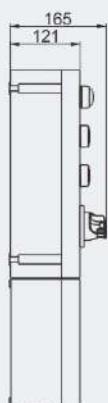
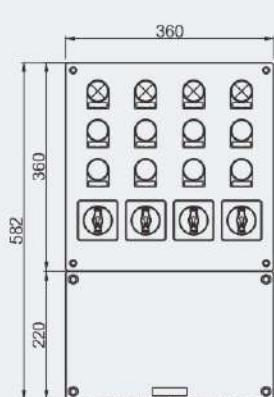
Enclosure VI



Enclosure VII



Enclosure VIII

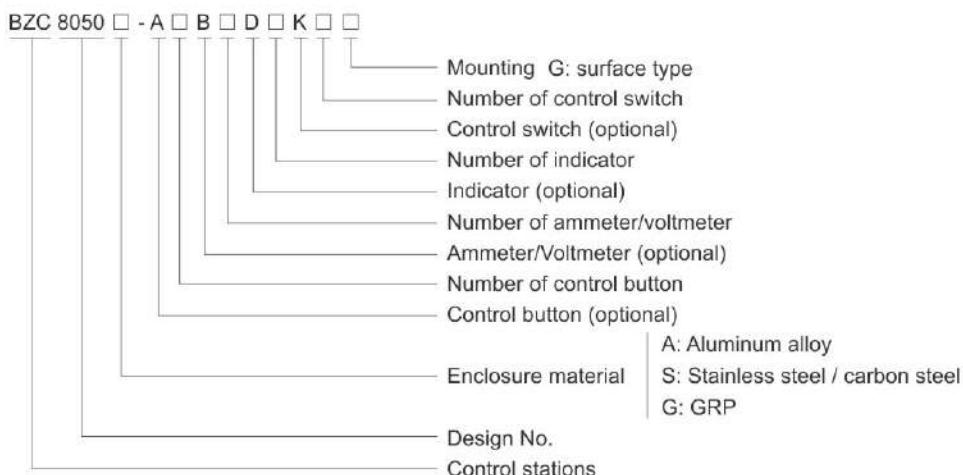


Enclosure IX



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Seven types of enclosure.
- ◆ Features excellent dustproof, waterproof, and corrosion-resistant properties, making it adaptable to various harsh working environments.
- ◆ The layout of buttons, switches, and other components on the control station is rational and straightforward, ensuring ease of use and quick mastery.
- ◆ A range of control methods can be selected based on actual needs, such as manual control, automatic control, or remote control, catering to varying application scenarios.

### Catalogue number logic



### Note

1. Please refer to the Selection table on P4/29.
2. Please select internal components as below:
  - Selection table of BA8060 control button on P4/38~41 (Nominal contact is 1NO+1NC);
  - Selection table of BD8060 indicator on P4/42~44;
  - Selection table of BK8050 control switch on P4/45~50;
  - Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
  - Components: Two control buttons, two indicators; surface type
  - Tech. Details: One control start button (40092B + 40090-1+40090-2, green, 1NO+1NC);  
 One control stop button (40092A+ 40090-1+40090-2, red, 1NO+1NC);  
 One indicator (40116B+40100B, green, 230V AC);  
 One indicator (40115B+40099B, red, 230V AC);
4. Special requirements on request.

Zones 1&2; 21&22

## Control Stations

## BZC8050 Series Control Stations (Copper-free Aluminium Alloy)

Selection table of control station BZC8050 (aluminium alloy)

Enclosure type	Components arrangement			Cable entries and direction	Ordering code	Enclosure weight (kg)
I				1-M25 x 1.5 Bottom entry	40079.....	0.65
II				1-M25 x 1.5 Bottom entry	40080	0.85
III				1-M25 x 1.5 Bottom entry	40081	1.10
IV				1-M25 x 1.5 Bottom entry	40082.....	2.80
V				1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40083.....	3.75
VI				1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40084.....	5.00
VII				1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40085.....	6.50
VIII				1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40085.....	7.50
IX				1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40085.....	9.00
X				2-M32 x 1.5 or 5-M25 x 1.5 Bottom entry	40084.....	9.20
XI				1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40085.....	13.70



## Control Stations

## BZC8050 Series Control Stations (Copper-free Aluminium Alloy)

## Technical data

## Control stations BZC8050 (aluminium alloy)

## Explosion protection

Global (IECEx)

Gas and dust

Europe (ATEX)

Gas and dust

IECEx CQM 24.0057X

Ex db eb mb IIC T6/T5 Gb<sup>1)</sup>Ex db eb IIC T6/T5 Gb<sup>1)</sup>Ex tb IIIC T80°C Db<sup>1)</sup>

TUV CY 25 ATEX 0207269X

Ex II 2 G Ex db eb mb IIC T6/T5 Gb<sup>1)</sup>Ex II 2 G Ex db eb IIC T6/T5 Gb<sup>1)</sup>Ex II 2 D Ex tb IIIC T80°C Db<sup>1)</sup><sup>1)</sup>See Selection table.

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

Copper-free Aluminium Alloy, powder coated surface

Window grey (RAL7040)

Stainless steel

IP66

-60°C(-40°C)~+55°C(+40°C)

1. Technical data of BA8060 control button on P4/38~41

2. Technical data of BD8060 indicator on P4/42~44

3. Technical data of BK8050 control switch on P4/45~50

4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53

## Components

## Cable entries

## Cable gland (optional)

## Mounting

## Note

Please specify the number and size of entries (applicable for surface type only)

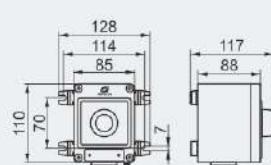
## Selection table (Ex markings and ratings)

Rated operating voltage (V)	Rated operating current (A)	Ex-mark	
		-60°C(-40°C)~+40°C	-60°C(-40°C)~+55°C
Max. 500V AC	Max. 16A	Ex db eb IIC T6 Gb	Ex db eb IIC T6/T5 Gb
Max. 220V DC	(only with BK8050)	Ex db eb mb IIC T6 Gb	Ex db eb mb IIC T6/T5 Gb
Max. 440V AC	Max. 10A	Ex tb IIIC T80°C Db	Ex tb IIIC T80°C Db
Max. 220V DC			

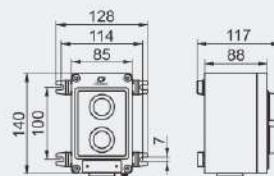
Note: When the ambient temperature is -60°C(-40°C) to +55°C and falls within the T6 temperature class, the maximum configuration is as follows: BZC8050-□-D3, BZC8050-□-A3, BZC8050-□-B1K1, BZC8050-□-A2D2, BZC8050-□-A2B1.

Note: Protection type "mb" depends on the use of certified Ex component, the voltmeter. When the seal strip is made of polyurethane (PU) material, the ambient temperature is -40°C~+40°C (+55°C); when the seal strip is made of silicone rubber, the ambient temperature is -60°C~+40°C(+55°C).

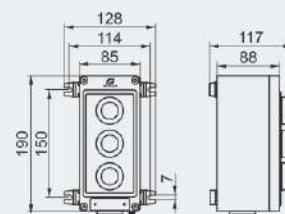
## Dimension drawings (all dimensions in mm) - subject to alteration



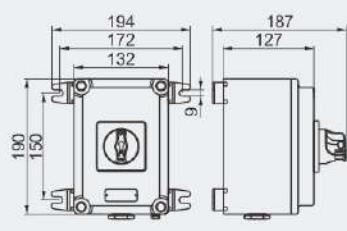
Enclosure I



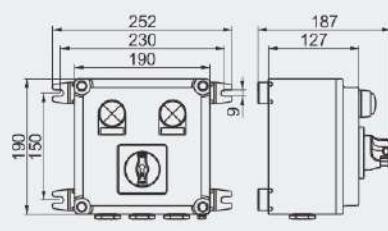
Enclosure II



Enclosure III



Enclosure IV

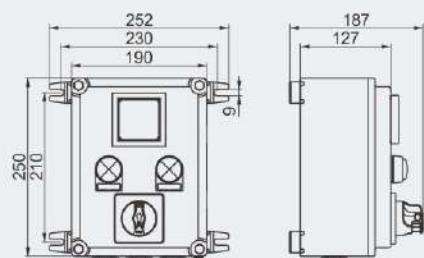


Enclosure V

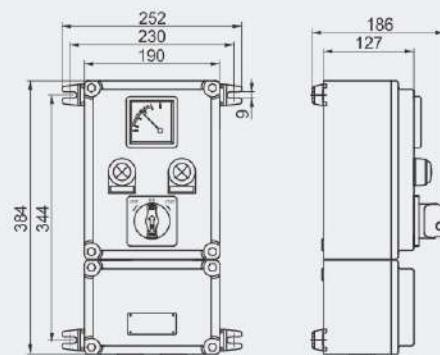
## Control Stations

### BZC8050 Series Control Stations (Copper-free Aluminium Alloy)

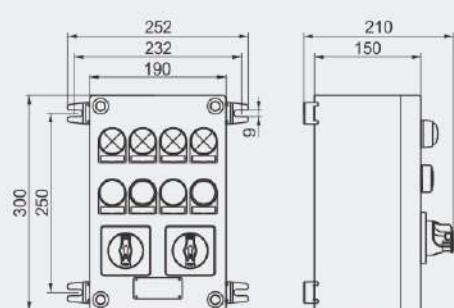
Dimension drawings (all dimensions in mm) - subject to alteration



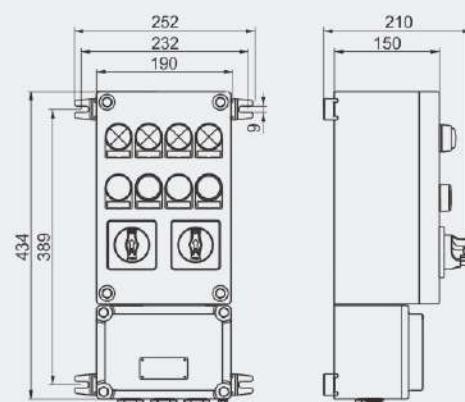
Enclosure VI



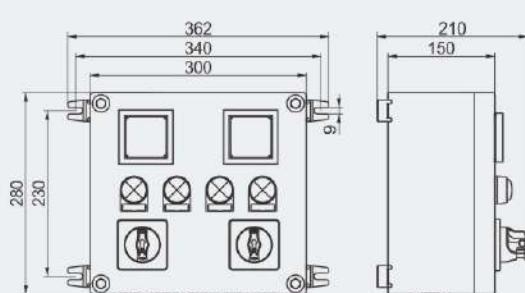
Enclosure VII



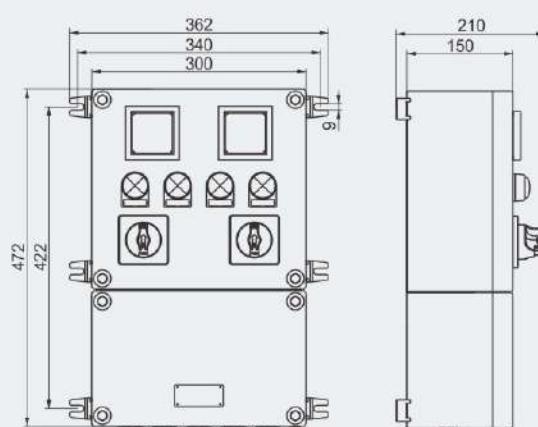
Enclosure VIII



Enclosure IX



Enclosure X



Enclosure XI



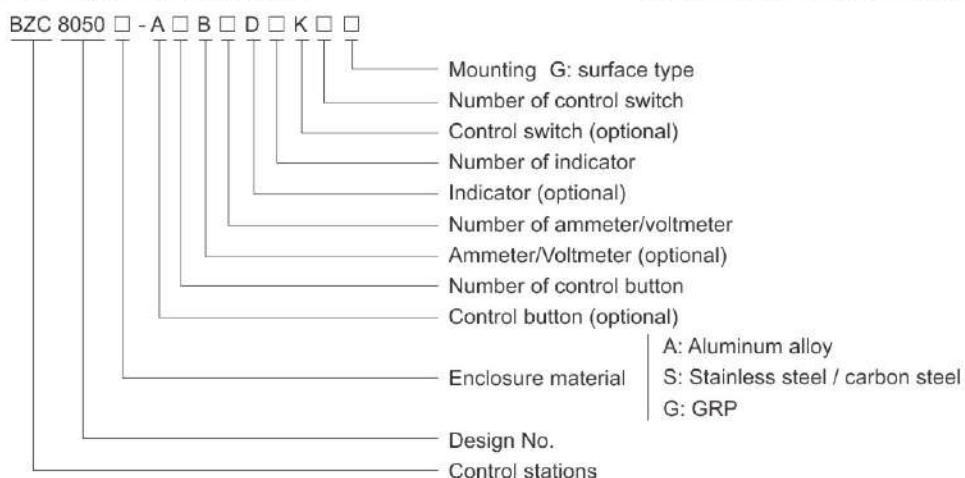
## Control Stations

### BZC8050 Series Control Stations (Stainless Steel)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Stainless steel enclosure.
- ◆ Five types of enclosure.
- ◆ Features excellent dustproof, waterproof, and corrosion-resistant properties, making it adaptable to various harsh working environments.
- ◆ The layout of buttons, switches, and other components on the control station is rational and straightforward, ensuring ease of use and quick mastery.
- ◆ A range of control methods can be selected based on actual needs, such as manual control, automatic control, or remote control, catering to varying application scenarios.

#### Catalogue number logic



#### Note

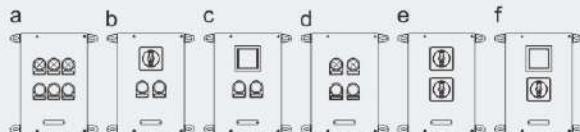
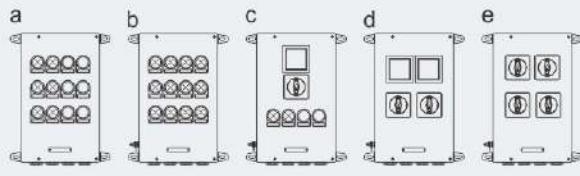
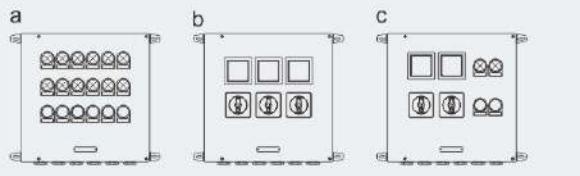
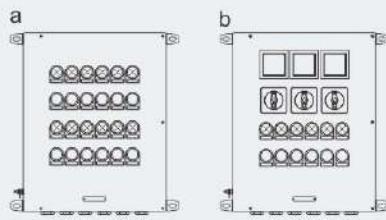
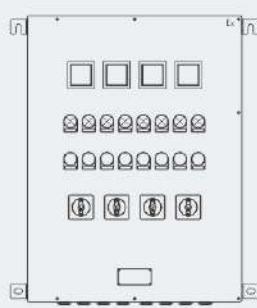
1. Please refer to the Selection table on P4/33.
2. Please select internal components as below:
  - Selection table of BA8060 control button on P4/38~41 (Nominal contact is 1NO+1NC);
  - Selection table of BD8060 indicator on P4/42~44;
  - Selection table of BK8050 control switch on P4/45~50;
  - Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
  - Components: Two control buttons, two indicators; surface type
  - Tech. Details: One control start button (40092B + 40090-1+40090-2, green, 1NO+1NC);
  - One control stop button (40092A+ 40090-1+40090-2, red, 1NO+1NC);
  - One indicator (40116B+40100B, green, 230V AC );
  - One indicator (40115B+40099B, red, 230V AC );
4. Special requirements on request.

**Zones 1&2; 21&22**

## Control Stations

### BZC8050 Series Control Stations (Stainless Steel)

Selection table of control station BZC8050 (stainless steel)(Without terminal)

Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		2-M25 x 1.5 Bottom entry	40086.....	2.80
II		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40087.....	4.50
III		1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40088.....	6.75
IV		1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40089.....	10.25
V		1-M50 x 1.5 or 2-M40 x 1.5 or 6-M32 x 1.5 Bottom entry	40090.....	13.50
VI		1-M50 x 1.5 or 2-M40 x 1.5 or 8-M32 x 1.5 Bottom entry	40090.....	22.00



## Control Stations

### BZC8050 Series Control Stations (Stainless Steel)

#### Technical data

##### Control stations BZC8050 (stainless steel)

###### Explosion protection

Global (IECEx)	IECEx CQM 24.0057X
Gas and dust	Ex db eb mb IIC T6/T5 Gb <sup>1)</sup> Ex db eb IIC T6/T5 Gb <sup>1)</sup> Ex tb IIIC T80°C Db <sup>1)</sup>
Europe (ATEX)	TUV CY 25 ATEX 0207269X
Gas and dust	Ex II 2 G Ex db eb mb IIC T6/T5 Gb <sup>1)</sup> Ex II 2 G Ex db eb IIC T6/T5 Gb <sup>1)</sup> Ex II 2 D Ex tb IIIC T80°C Db <sup>1)</sup>

<sup>1)</sup>See Selection table.

###### Certificates

IECEx; ATEX; CU-TR

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

###### Enclosure material

Stainless steel

###### Enclosure colour

Metal colour

###### Exposed fastener

Stainless steel

###### Degree of protection

IP66

###### Ambient temperature

-60°C(-40°C)~+55°C(+40°C)

###### Components

1. Technical data of BA8060 control button on P4/38~41
2. Technical data of BD8060 indicator on P4/42~44
3. Technical data of BK8050 control switch on P4/45~50
4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53

###### Cable entries

M□ x 1.5 plug, please see the Selection table on P4/33

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18

###### Mounting

Surface type

###### Note

Please specify the number and size of entries (applicable for surface type only)

#### Selection table (Ex markings and ratings)

Rated operating voltage (V)	Rated operating current (A)	Ex-mark	
		-60°C(-40°C)~+40°C	-60°C(-40°C)~+55°C
Max. 500V AC	Max. 16A	Ex db eb IIC T6 Gb	Ex db eb IIC T6/T5 Gb
Max. 220V DC	(only with BK8050)	Ex db eb mb IIC T6 Gb	Ex db eb mb IIC T6/T5 Gb
Max. 440V AC	Max. 10A	Ex tb IIIC T80°C Db	Ex tb IIIC T80°C Db
Max. 220V DC			

Note: When the ambient temperature is -60°C(-40°C) to +55°C and falls within the T6 temperature class, the maximum configuration is as follows: BZC8050-□-D3, BZC8050-□-A3, BZC8050-□-B1K1, BZC8050-□-A2D2, BZC8050-□-A2B1.

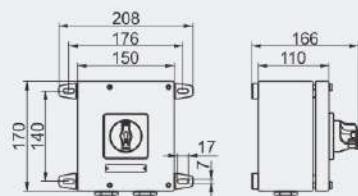
Note: Protection type "mb" depends on the use of certified Ex component, the voltmeter. When the seal strip is made of polyurethane (PU) material, the ambient temperature is -40°C~+40°C (+55°C); when the seal strip is made of silicone rubber, the ambient temperature is -60°C~+40°C(+55°C).



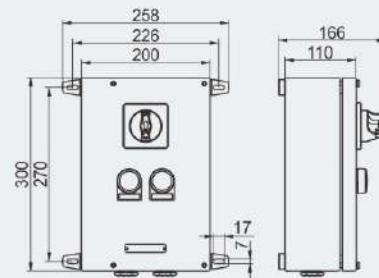
## Control Stations

### BZC8050 Series Control Stations (Stainless Steel)

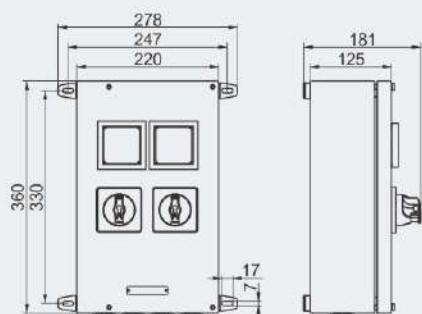
Dimension drawings (all dimensions in mm) - subject to alteration



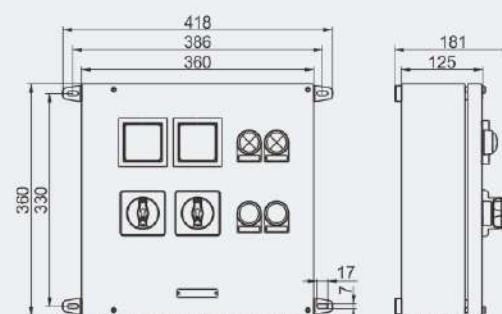
Enclosure I



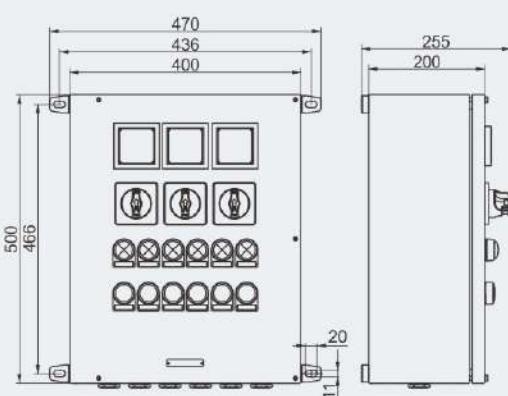
Enclosure II



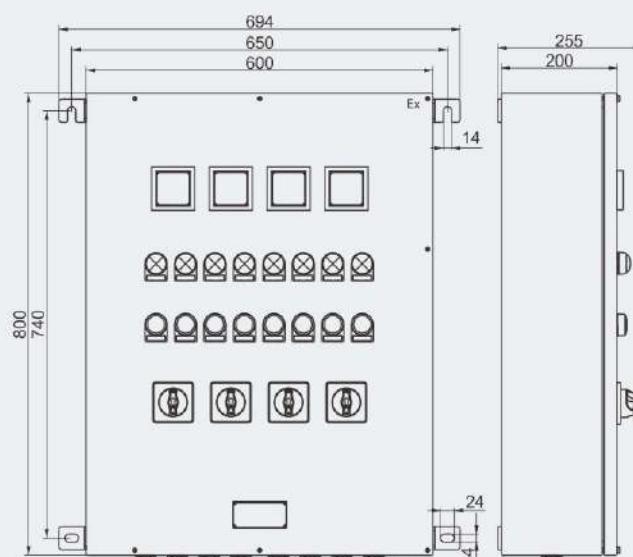
Enclosure III



Enclosure IV



Enclosure V

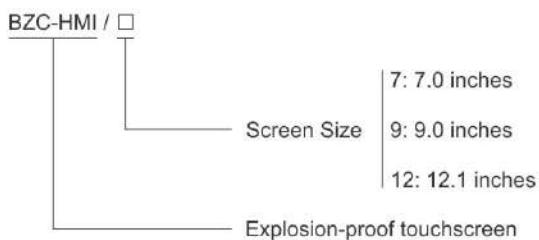


Enclosure VI



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Stainless steel enclosure.
- ◆ Three types of enclosure.
- ◆ The explosion-proof touchscreen is a human-machine interaction device specifically designed for hazardous locations.
- ◆ With high-definition display capabilities, it makes images and text clearly visible, allowing operators to accurately gather information.
- ◆ Featuring rapid response and high touch precision, it offers a smooth operation experience, enhancing work efficiency.
- ◆ It supports various interface types, facilitating connection and integration with other devices, achieving inter-connectivity of systems.

#### ■ Catalogue number logic



**Zones 2; 21&22**

## Control Stations

### BZC-HMI Series Explosion-proof Touchscreen

#### Technical data

##### Explosion-proof Touchscreen BZC-HMI□

###### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db eb nA IIC T6 Gc
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for) Ex II 3 G Ex db eb nA IIC T6 Gc

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31

###### Enclosure material

Stainless steel

###### Enclosure colour

Metal colour

###### Exposed fastener

Stainless steel

###### Screen Size

7.0 inches	9.0 inches	12.1 inches
------------	------------	-------------

###### Resolution

800×480	800×480	1280×800
---------	---------	----------

###### Rated voltage

24V DC

###### Degree of protection

IP65

###### Internal&external earthing

M6/M6

###### Ambient temperature

-0°C~+50°C

###### Cable entries

M□ x 1.5 plug

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/19-21

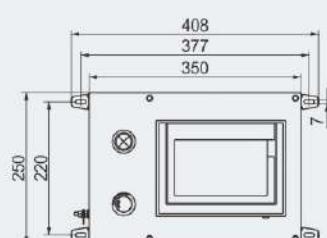
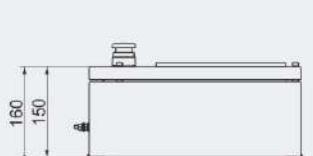
###### Mounting

Surface type

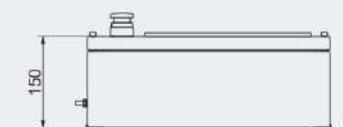
###### Note

Please specify the number and size of entries (applicable for surface type only);

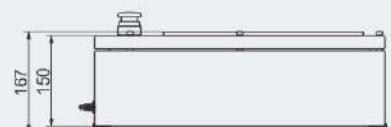
#### Dimension drawings (all dimensions in mm) - subject to alteration



BZC-HMI/7



BZC-HMI/9



BZC-HMI/12

## Components for BZC8050 Control Stations

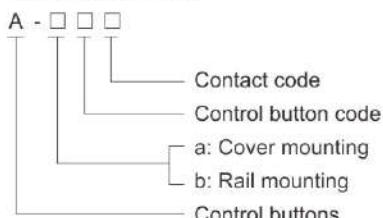
### BA8060 Series Control Buttons



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ 2 versions of component
  - 1 NO
  - 1 NC
- ◆ Eight different ways of operation
  - Spring-return control button
  - Mushroom stay-put emergency control button
  - Key-operated control button
  - Rotary control button
  - Double control button
  - Mushroom turn-to-release emergency control button
  - Push button with indicator
  - Key-operated mushroom emergency control push button
- ◆ Mushroom stay-put emergency push button/ mushroom turn-to-release emergency push button can be equipped with protection cover, please specify when ordering.
  - Material of protection cover: stainless steel and PC, please specify when ordering.
- ◆ Two-wire interface, can be paralleled, the maximum wire diameter is 2.5mm<sup>2</sup>.

#### ■ Catalogue number logic

BA8060(A for short)



Zones 1&2; 21&22

## Components for BZC8050 Control Stations

### BA8060 Series Control Buttons

Selection table

Version	Description	Contact code	Ordering code	Weight (kg)
 a: Cover mounting	11 1NC 12	R	40090-3	0.06
	11 1NO 12	S	40090-4	0.06
 b: Rail mounting	11 1NC 12	R	40091-3	0.05
	11 1NO 12	S	40091-4	0.05

Selection table of BA8160 series of explosion-proof Button operating device

Version	Description	Code	Ordering code	Weight (kg)
	Spring-return control button	● Red ● Green ● Yellow ● Black ○ White	a5 a7 a8 a9 a10	40092A 40092B 40092C 40092D 40092E
	Mushroom stay-put emergency control button	Red	d	40093
	Key-operated control button	Black	e	40094
	Rotary control button	Black	b	40095
	Mushroom turn-to-release emergency control button	Red	c2	40096
	Double control button	Red/Green	h	40097
	Push button with indicator	● Red ● Green ● Yellow	i j k	40098A 40098B 40098C
	Key-operated mushroom emergency control push button	Red	l	40099

## Components for BZC8050 Control Stations

### BA8060 Series Control Buttons

#### Technical data

##### Control buttons BA8060

###### Explosion protection

Global (IECEx) IECEx CQM 24.0016U

Gas Ex db eb IIC Gb

Europe (ATEX) CML 24 ATEX 1224U

Gas  $\text{Ex II 2 G Ex db eb IIC Gb}$

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7

IEC 60079-0, IEC 60079-1, IEC 60079-7

Polyamide (PA66)

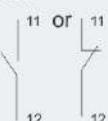
###### Enclosure material

500V AC

###### Rated current

10A

Contact type



Switch capacity

AC15: Ue 480V/le 2.5A; Ue 240V/le 5A

DC13: Ue 240V/le 0.5A; Ue 24V/le 5A

$10^5$  times

Mechanical life

$10^5$  times

Electrical life

-60°C~+90°C

Ambient temperature

Suitable for 2.5mm<sup>2</sup> cable

###### Terminal

Polyamide (PA66)

###### Button element

Material

Washer

###### Function

Spring-return control button

Spring-return control button

Mushroom stay-put emergency control button

Self-latching when pulled, self-locking

Key-operated control button

Rotate to lock; release with key, key movable in both ways

Rotary control button

Two-position switch function, key movable in 90°

Double control button

Spring-return control button, 1 control button element has the function of 2 control buttons

Mushroom turn-to-release emergency control button

Rotary resetting control button; self-locking



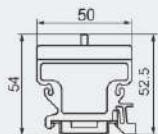
#### Accessories

Description	Material	Ordering code	Weight (kg)	Description (Not applicable to button switch with key)	Material	Ordering code	Weight (kg)
Cover mounting bracket 	PC	40098	0.01	Emergency push button protection cover 	PC	40198	0.02
Locking mechanism 	-	40120	0.12	Emergency push button protection cover 	Stainless steel	40199	0.10

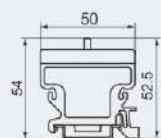
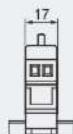
## Components for BZC8050 Control Stations

### BA8060 Series Control Buttons

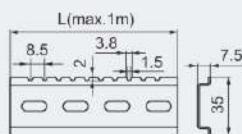
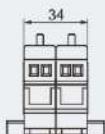
#### Dimension drawings (all dimensions in mm) - subject to alteration



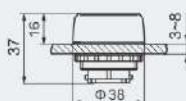
Control button, single (rail mounting)



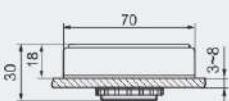
Control button, double (rail mounting)



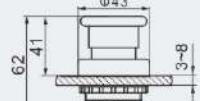
Rail



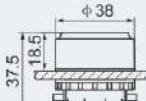
Spring-return control button



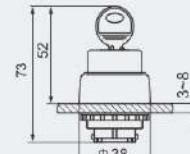
Double control button



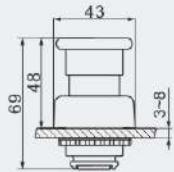
Mushroom stay-put emergency control button



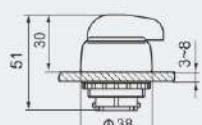
Pushbutton with indicator



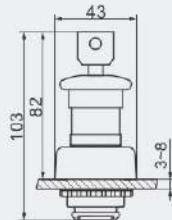
Key-operated control button



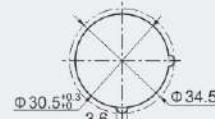
Mushroom turn-to-release emergency control button



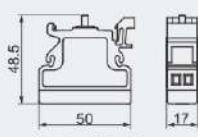
Rotary control button



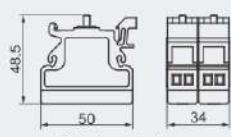
Key-operated mushroom turn-to-release emergency control push button



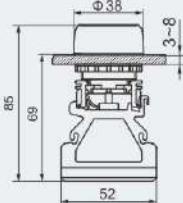
Mounting hole



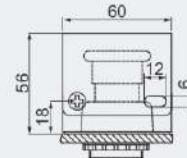
Control button, single (cover mounting)



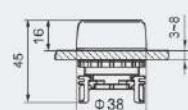
Control button, double (cover mounting)



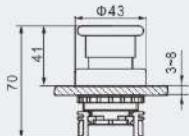
Control button cover mounting



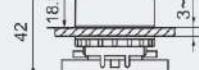
BA8050 Emergency push button with stainless steel protection cover



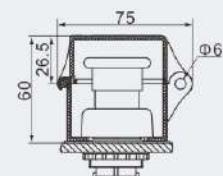
Operation for spring-return control button



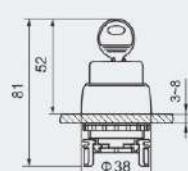
Mushroom stay-put emergency control button



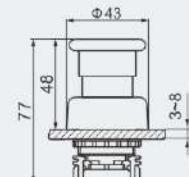
Pushbutton with indicator



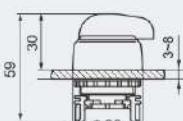
BA8050 Emergency push button with PC protection cover



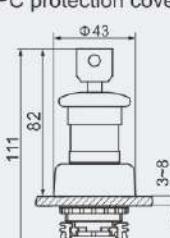
Key-operated control button



Mushroom turn-to-release emergency control button



Rotary control button



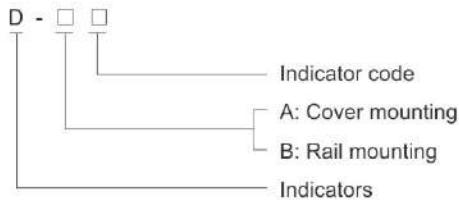
Key-operated mushroom turn-to-release emergency control push button



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Available in
  - red
  - green
  - yellow
  - blue
  - white
- ◆ Two mounting types
  - cover mounting
  - rail mounting
- ◆ Two-wire interface, can be paralleled, the maximum wire diameter is 2.5mm<sup>2</sup>.
- ◆ High power, high brightness, even and harmonious.

#### ■ Catalogue number logic

BD8060(D for short)



**Zones 1&2; 21&22**

# Components for BZC8050 Control Stations

## BD8060 Series Indicators

Selection table

Version	Voltage	Schematic diagram	Colour	Code	Ordering code	Weight (kg)
Indicator  	Rated voltage: AC 220V...AC 440V Voltage range: -10%...+6% Frequency: 50Hz...60Hz	 	Red	Ra	40099C/40099D	0.05
			Green	Ga	40100C/40100D	
			Yellow	Ya	40101C/40101D	
			Blue	Ba	40166C/40166D	
			White	Wa	40102C/40102D	
	Rated voltage: AC/DC 48V...125V Voltage range: -10%...+6% Frequency: 0Hz...60Hz	 	Red	Rb	40103C/40103D	0.05
			Green	Gb	40104C/40104D	
			Yellow	Yb	40105C/40105D	
			Blue	Bb	40167C/40167D	
			White	Wb	40106C/40106D	
A: Cover mounting  	Rated voltage: AC/DC 12V...36V Voltage range: -10%...+6% Frequency: 0Hz...60Hz	 	Red	Rc	40107C/40107D	0.05
			Green	Gc	40108C/40108D	
			Yellow	Yc	40109C/40109D	
			Blue	Bc	40168C/40168D	
			White	Wc	40110C/40110D	
	Rated voltage: DC 220V~250V Voltage range: -10%...+6%	 	Red	Rd	40111C/40111D	0.05
			Green	Gd	40112C/40113D	
			Yellow	Yd	40113C/40113D	
			Blue	Bd	40169C/40169D	
			White	Wd	40114C/40114D	
BD8160 Indicator cover  			Red	a	40115A	0.05
			Green	b	40116A	
			Yellow	c	40117A	
			White	d	40118A	
			Blue	e	40170A	
BD8160 Indicator cover  			Red	a	40115B	0.05
			Green	b	40116B	
			Yellow	c	40117B	
			White	d	40118B	
			Blue	e	40170B	

**Technical data**
**Indicators BD8060**
**Explosion protection**

Global (IECEx)

IECEx CQM 24.0019U

Gas

Ex db eb IIC Gb

Europe (ATEX)

CML 24 ATEX 1227U

Gas

Ex II 2 G Ex db eb IIC Gb

**Certificates**

IECEx; ATEX

**Conformity to standards**

EN 60079-0, EN 60079-1, EN 60079-7

IEC 60079-0, IEC 60079-1, IEC 60079-7

**Rated voltage**

AC/DC12V~36V, AC/DC48V~125V, DC220V~250V, AC220V~440V

**Rated current**

Max.15mA

**Frequency**

0Hz...60Hz

**Rated output wattage**

Max.3W

**Service life**
10<sup>5</sup> hours
**Ambient temperature**

-60°C~+90°C

**Colour**

Red, green, yellow, blue, white

**Lamp**

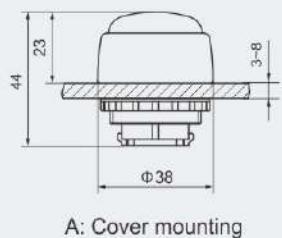
LED

**Enclosure material**

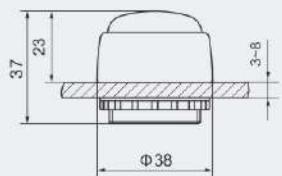
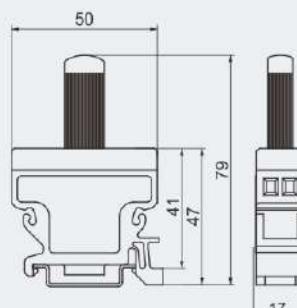
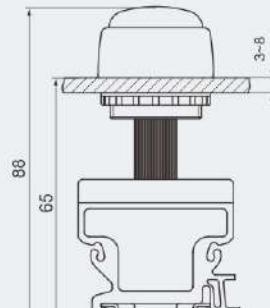
Polyamide (PA66)

**Terminal**
Suitable for 2.5mm<sup>2</sup> cable
**Indicator cover material**

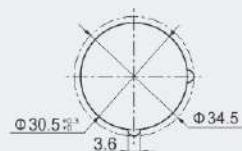
PC

**Dimension drawings** (all dimensions in mm) - subject to alteration


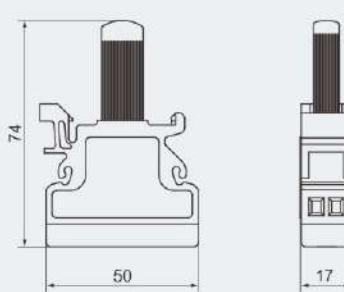
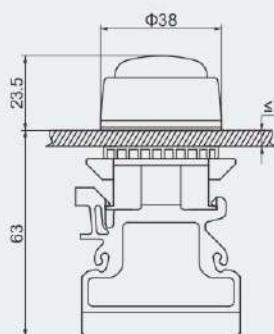
A: Cover mounting

B: Rail mounting  
Indicator coverIndicator  
(rail mounting)

Rail mounting



Mounting hole

Indicator  
(cover mounting)

Cover mounting

## Components for BZC8050 Control Stations

### BK8050 Series Control Switches

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Number of pole: 2P, 3P, 4P, 6P.
- ◆ Available in latching and spring-return forms.



#### Catalogue number logic

BK8050(K for short)



#### Technical data

##### Control switches BK8050

<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 11.0011U
Gas	Ex db eb IIC Gb
Europe (ATEX)	LCIE 09 ATEX 3096U
Gas	Ex II 2 G Ex db eb IIC Gb
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7
IEC 60079-0, IEC 60079-1, IEC 60079-7	
<b>Enclosure material</b>	Plastic
<b>Rated voltage</b>	AC: 500V, 460V, 440V, 400V, 380V, 230V
	AC/DC: 220V, 110V, 48V, 36V, 24V, 12V
<b>Rated current</b>	Max. 20A
<b>Switch angle</b>	n x 45°/n x 90°
<b>Service life</b>	10 <sup>5</sup> times
<b>Ambient temperature</b>	-20°C~+70°C(ATEX), -60°C~+90°C(IECEx)
<b>Cable connection</b>	2.5mm <sup>2</sup>
<b>Material of rotary actuator</b>	Polycarbonate (PC)
<b>Panel material</b>	Acrylonitrile-butadiene-styrene (ABS)
<b>Seal material</b>	Nitrile butadiene rubber (NBR)

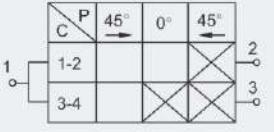
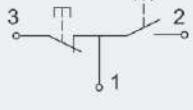
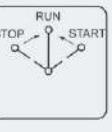
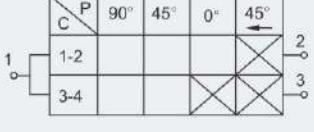
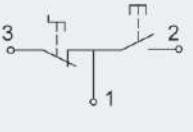
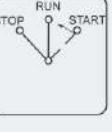
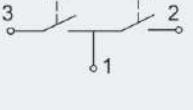
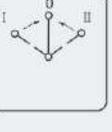
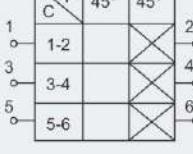
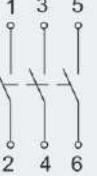
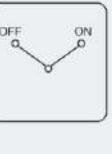
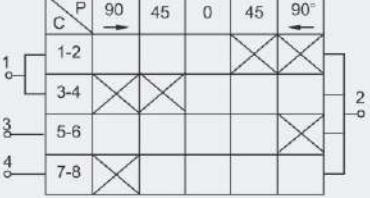
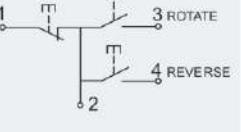
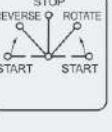
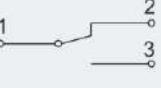
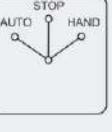
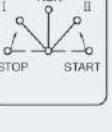
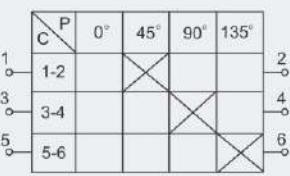
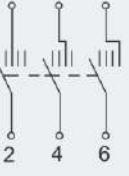
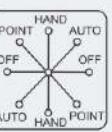


Zones 1&2; 21&22

## Components for BZC8050 Control Stations

### BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
A				A. Functional wiring is the same as double buttons with auto-reset function.
B				B. Functional wiring is the same as double buttons; auto-reset after start; lock-stop gear added to avoid mistake operation.
C				C. Button with 2 NO contacts and available at auto-reset function. Suitable for high-voltage engine control circuit or function panel uses switch code "a".
D				D. Low-power switch.
E				E. Function is the same as three buttons; able to control engine in forward and backward rotation. FW&BW starting positions can auto-reset.
F				F. Selection switch with stop gear.
G				G. Be equal to mounting two buttons and one changeover switch in one axis. Possible to output contact signal or monitoring signal between start and stop.
H				H. Multi-signals transmit gradually.

# Components for BZC8050 Control Stations

## BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
I				I. Add function of transmitting resultant signal on the base of function panel uses switch code "h".
J				J. Two positions step; change-over gradually.
K				K. Changeover switch.
L				L. Selection switch with three poles and two launches.
M				M. Three-position changeover switch among auto, manual and start; auto-reset after start; it can convert to auto gear only after passing stop gear.
N				N. Structure is a little different to universal structure of switch code "m"; it directly rotates to auto gear without passing stop gear after starts.
O				O. Double contacts auto reset for start, with lock-stop gear; lock switch at stop gear to prevent mistake operation.



## Components for BZC8050 Control Stations

### BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
P				P. Double contacts for stop, to substitute switch code "a" and "c" for start and stop; auto-reset.
Q				Q. Stop with double contacts, with lock stop gear; auto-reset after start; possible to add lock-stop gear to lock switch at stop to prevent mistake operation.
R				R. Double contacts for both start and stop; it is same as universal panel of switch code "a", with auto-reset for start and stop.
S				S. Transmit a contact signal before start and stop.
T				T. With lock-stop gear for start and stop to prevent mistake operation; without auto-reset.
U				U. Double-control selection switch.
V				V. Changeover switch for voltage phase-changing and measuring.
W				W. One 2NO auto-reset pushbutton, both left and right are the same.
X				X. Two 2NO auto-reset buttons.

# Components for BZC8050 Control Stations

## BK8050 Series Control Switches

### Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
Y				Y. Self-reset button with 4 normally open contacts.
Z				Z. Power supply program switch, disconnected in the middle, close to left and right, can be used as a fire-fighting switch.
a				a. Used for starting and inching hybrid circuits.
b				b. Double linkage switch.
e				e. Emergency stop switch.
f				f. 2 normally open and 2 normally closed option switches.
g				g. Double control option switch (make before break)



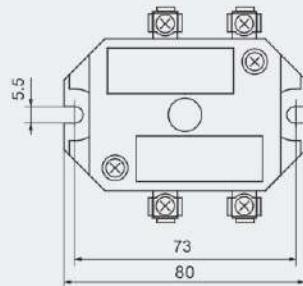
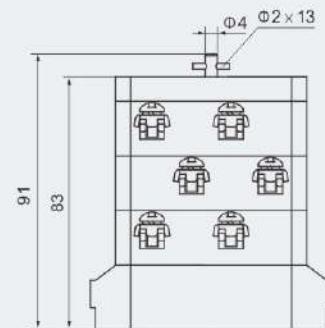
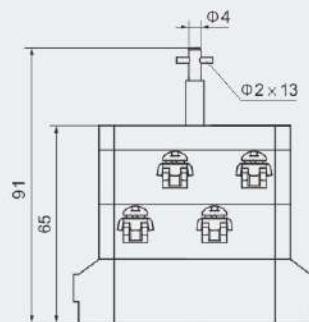
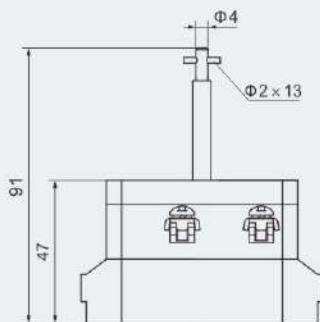
### Accessories

Description	Illustration	Ordering code	Weight (kg)
Rotary actuator (padlockable)		40119	0.05

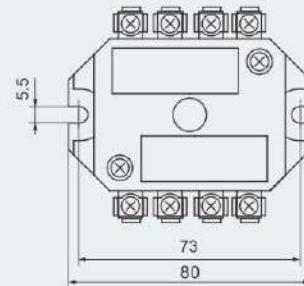
## Components for BZC8050 Control Stations

### BK8050 Series Control Switches

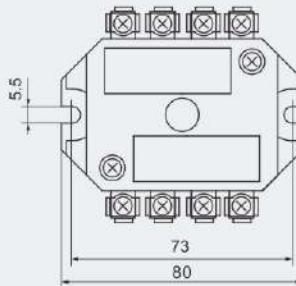
Dimension drawings (all dimensions in mm) - subject to alteration



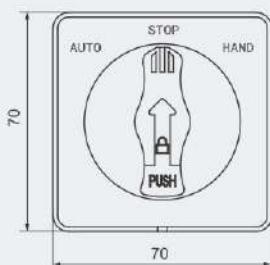
Control switch 2 poles



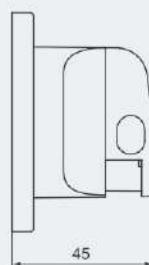
Control switch 3 or 4 poles



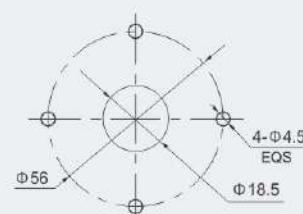
Control switch 6 poles



Rotary actuator



Mounting hole



## Components for BZC8050 Control Stations

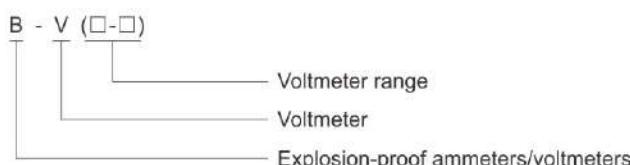
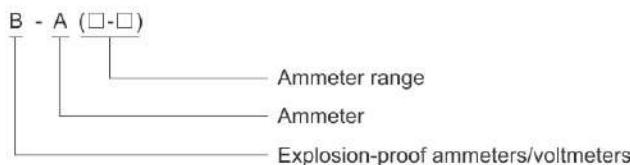
### BB8050 Series Explosion-proof Ammeters/Voltmeters

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Fast comparison of measurement with set values
- ◆ Versions available
  - Ammeter (type 72)
  - Voltmeter (type 72)



#### ■ Catalogue number logic

BB8050(B for short)



Zones 1&2; 21&22

## Components for BZC8050 Control Stations

### BB8050 Series Explosion-proof Ammeters/Voltmeters

Selection table

Version	Description	Overload scale	Measuring range	Ordering code	Weight (kg)
Ammeter BB8050-A(□-□)	Direct measuring	-	0~20/40 mA	40121	0.20
			4~20/40 mA	40122	
	Direct measuring	-	0~1 A	40123	
			0~5 A	40124	
	For CT (current transformer)	2 times or 5 times	sec. 1 A	40125	
			sec. 5 A	40126	

Selection table

Version	Description	Measuring range	Ordering code	Weight (kg)
Voltmeter BB8050-V(□-□)	Direct measuring	0~10 V	40127	0.20
		0~25 V	40128	
		0~40 V	40129	
		0~60 V	40130	
		0~100 V	40131	
		0~150 V	40132	
		0~250 V	40133	
		0~300 V	40134	
		0~450 V	40135	
		0~500 V	40136	
	For PT (potential transformer)	0~600 V	40137	
		sec. 100 V	40138	
		sec. 110 V	40139	
		sec. 120 V	40140	

## Components for BZC8050 Control Stations

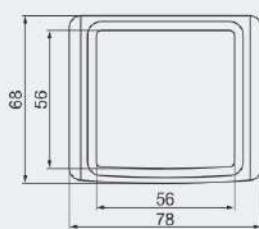
### BB8050 Series Explosion-proof Ammeters/Voltmeters

#### Technical data

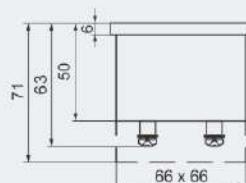
##### Explosion-proof ammeters/voltmeters BB8050

	Ammeter	Voltmeter
<b>Explosion protection</b>		
Global (IECEx)	IECEx TPS 22.0022U	IECEx TPS 22.0022U
Gas	Ex eb IIC Gb	Ex eb mb IIC Gb
Europe (ATEX)	TPS 22 ATEX 089761 0023U	TPS 22 ATEX 089761 0023U
Gas	Ex II 2 G Ex eb IIC Gb	Ex II 2 G Ex eb mb IIC Gb
<b>Certificates</b>	IECEx; ATEX	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-7 IEC 60079-0, IEC 60079-7	EN 60079-0, EN 60079-7, EN 60079-18 IEC 60079-0, IEC 60079-7, IEC 60079-18
<b>Enclosure material</b>	Flame retardant plastic	Flame retardant plastic
<b>Insulation voltage</b>	/	0~600V
<b>Working mode</b>	DC available	DC available
<b>Accuracy</b>	Electromagnetic type (moving iron)	Electromagnetic type (moving iron)
<b>Overload times</b>	Class 1.5	Class 1.5
<b>Service temperature</b>	5 times	-60°C~+80°C
<b>Cable connection</b>	-60°C~+80°C	2.5mm <sup>2</sup>
<b>Size</b>	2.5mm <sup>2</sup>	72x72mm
	72x72mm	

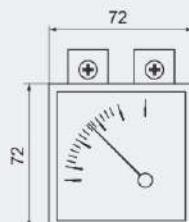
#### Dimension drawings (all dimensions in mm) - subject to alteration



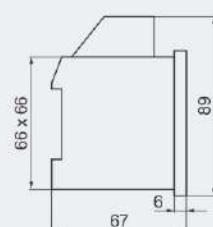
Bezel (□72mm)



Cover mounting



Rail mounting



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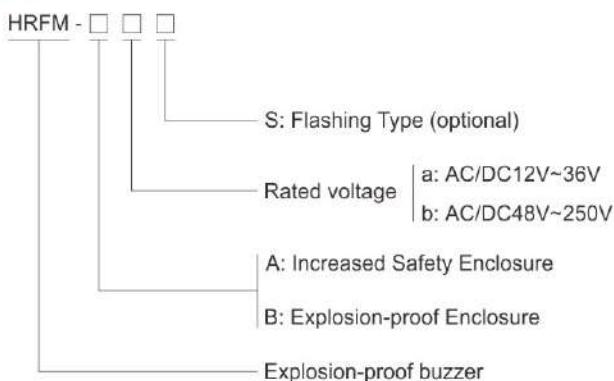
## Components for BZC8050 Control Stations

### HRFM Series Explosion-proof Buzzer



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Cover mounting.
  - ◆ Explosion-proof enclosure: aluminum enclosure with PC cover
  - Increased safety enclosure: Polyamide enclosure with PC cover high product strength and stable performance.
- ◆ Flashing Type: Red PC cover.
- Non-flashing Type: Black PC cover.

#### Catalogue number logic



Selection table

Model	Rated voltage (V)	Rated current (mA)	Ex-mark
HRFM-A	AC/DC12~36	<50	Ex eb ib mb IIC Gb/Ex tb IIIC Db
	AC/DC48~250	<100	
HRFM-B	AC/DC12~36	<50	Ex db ib mb IIC Gb/Ex tb IIIC Db
	AC/DC48~250	<100	

Zones 1&2; 21&22

# Components for BZC8050 Control Stations

## HRFM Series Explosion-proof Buzzer

### Technical data

#### Explosion-proof Buzzer HRFM

##### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex eb ib mb IIC Gb
	Ex db ib mb IIC Gb
	Ex tb IIIC Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex eb ib mb IIC Gb
	Ex II 2 G Ex db ib mb IIC Gb
	Ex II 2 D Ex tb IIIC Db

##### Certificates

##### Conformity to standards

IECEx; ATEX

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-11, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-11, IEC 60079-18, IEC 60079-31

##### Enclosure material

Ex eb: Plastic

Ex db: Aluminium alloy

##### Enclosure colour

Black / Red

##### Rated voltage

48~250V AC/DC, 12~36V AC/DC

##### Rated current

<100mA, <50mA

##### Sound Pressure

60dB(30cm from the source)

##### Ambient temperature

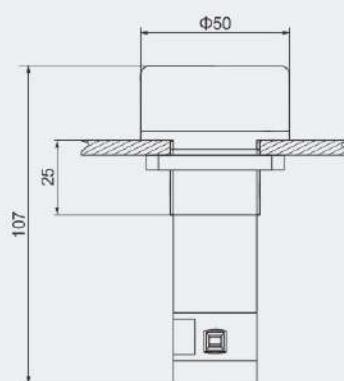
-60°C~+90°C

##### Mounting

Cover mounting



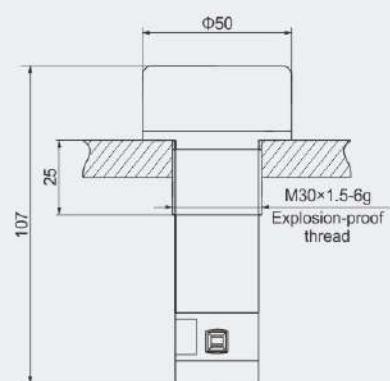
### Dimension drawings (all dimensions in mm) - subject to alteration



HRFM-A



Enclosure cover hole size



HRFM-B



## Loads and Motor Switchgears



# Contents

## **Motor Switches**

BLK Series Explosion-proof Motor Switches (Ex db IIB)	5/2
BLK Series Explosion-proof Motor Switches (Ex db IIC)	5/6

## **Standard Motor Starters**

BQD Series Explosion-proof Motor Starters (Ex db IIB)	5/12
BQD Series Explosion-proof Motor Starters (Ex d e IIC)	5/16



More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

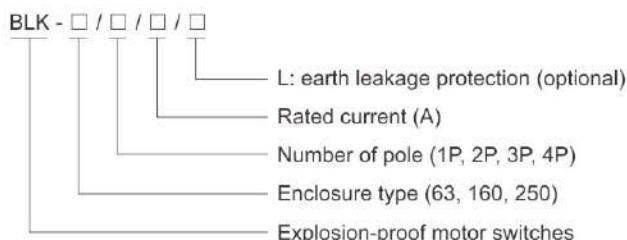
## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIB)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- ◆ Classified as IIB according to gas atmosphere.
- ◆ Copper-free Aluminium Alloy enclosure, powder-coated surface.
- ◆ Built-in MCB (miniature circuit breaker), MCCB (moulded case circuit breaker).
- ◆ Earth leakage protection device is optional.

#### ■ Catalogue number logic



#### ■ Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size and direction on request.

**Zones 1&2; 21&22**

## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIB)

#### Technical data

##### Explosion-proof motor switches BLK-63/□/□/□

###### Explosion protection

Global (IECEx) IECEx CNEEx 18.0034X  
Gas and dust Ex db IIB T6 Gb

Europe (ATEX) CNEX 18 ATEX 0027 X  
Gas and dust Ex II 2 G Ex db IIB T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

###### Certificates

Conformity to standards EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure colour

Window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Circuit breaker

MCB (miniature circuit breaker)

###### Max. working voltage

440V AC 50/60Hz

###### Rated voltage

1P/230V AC, 2P/3P/4P/400V AC 50/60Hz

###### Rated current

16A/32A/63A

###### Number of pole

1P, 2P, 3P, 4P

###### Breaking capacity

6kA, 10kA, 15kA

###### Tripping characteristic

Instantaneous tripping range (5~10) In, (7~10) In or (10~14) In

###### Impulse withstand voltage

6kV

###### Degree of protection

IP66

###### Internal&external earthing

M6/M6

###### Ambient temperature

-60°C~+60°C

###### Cable entries

Standard 1~16A: 2 x M25 x 1.5 plugs

20~32A: 2 x M32 x 1.5 plugs

40~63A: 2 x M40 x 1.5 plugs

###### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

###### Entry direction

Bottom

###### Enclosure weight

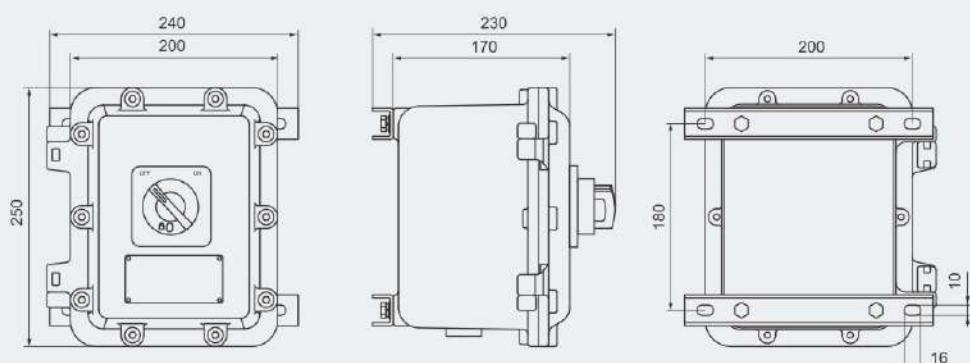
8.00 kg

###### Earth leakage protection

On request



#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-63/□/□/□

## Motor Switches

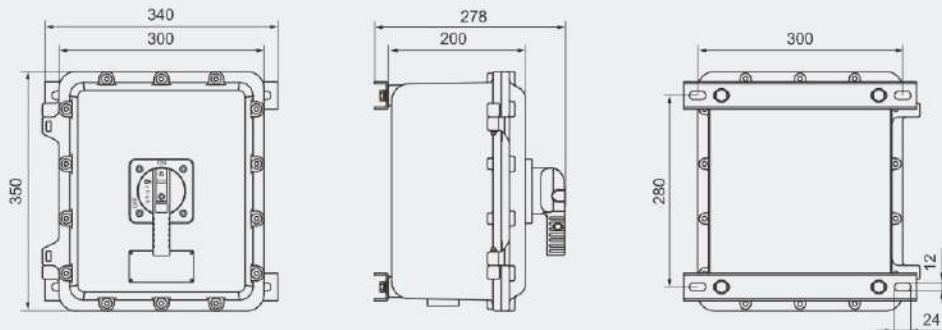
### BLK Series Explosion-proof Motor Switches (Ex db IIB)

#### Technical data

Explosion-proof motor switches	BLK-160/□/□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CNEx 18.0034X
Gas and dust	Ex db IIB T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	CNEx 18 ATEX 0027 X
	Ex II 2 G Ex db IIB T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31	
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Circuit breaker</b>	MCCB (moulded case circuit breaker)
<b>Max. working voltage</b>	690V AC 50/60Hz
	500V DC
<b>Rated current</b>	80A/100A/125A/160A
<b>Number of pole</b>	3P, 4P
<b>Breaking capacity</b>	380/415V AC 50/60Hz, 36kA/50kA
	440V AC 50/60Hz, 30kA/45kA
<b>Impulse withstand voltage</b>	8kV
<b>Tripping characteristic</b>	Thermomagnetic type
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	-60°C~+60°C
<b>Cable entries</b>	Standard 80~100A: 2 x M50 x 1.5 plugs
	125~160A: 2 x M63 x 1.5 plugs
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	Bottom
<b>Enclosure weight</b>	18.90kg
<b>Earth leakage protection</b>	On request



#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-160/□/□/□

## Motor Switches

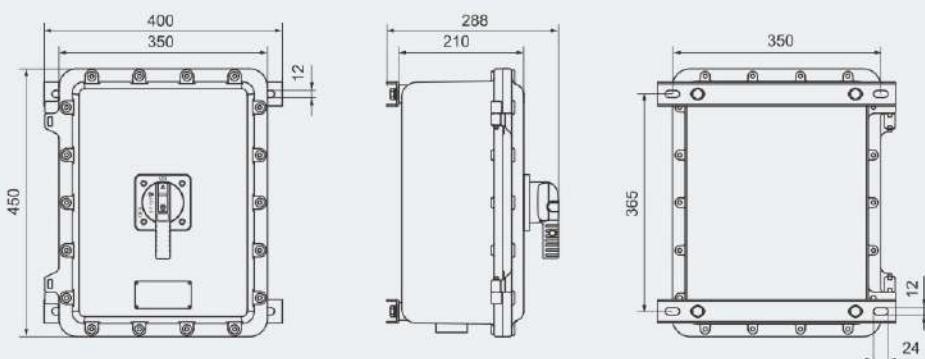
### BLK Series Explosion-proof Motor Switches (Ex db IIB)

#### Technical data

Explosion-proof motor switches	BLK-250/□/□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CNEx 18.0034X
Gas and dust	Ex db IIB T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	CNEx 18 ATEX 0027 X
	Ex II 2 G Ex db IIB T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31	
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Circuit breaker</b>	MCCB (moulded case circuit breaker)
<b>Max. working voltage</b>	690V AC 50/60Hz
	500V DC
<b>Rated current</b>	200A/250A
<b>Number of pole</b>	3P, 4P
<b>Breaking capacity</b>	380/415V AC 50/60Hz, 36kA/50kA
	440V AC 50/60Hz, 25kA/40kA
<b>Impulse withstand voltage</b>	8kV
<b>Tripping characteristic</b>	Thermomagnetic type
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	-60°C~+60°C
<b>Cable entries</b>	Standard 2 x M63 x 1.5 plugs
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	Bottom
<b>Enclosure weight</b>	28.50kg
<b>Earth leakage protection</b>	On request
<b>Note</b>	Rated current > 250A on request.



#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/□/□/□

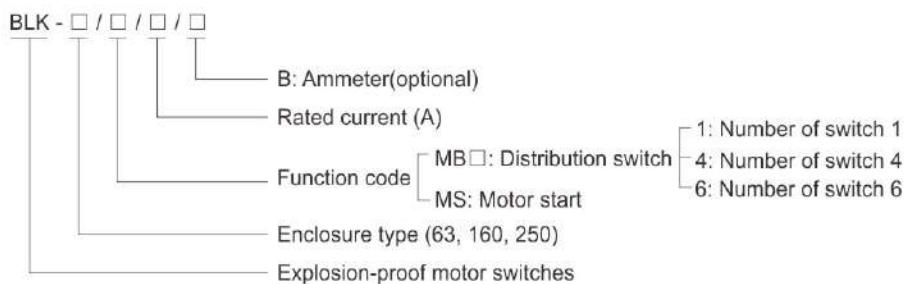
## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Classified as IIC according to gas atmosphere.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Built-in MCB (miniature circuit breaker), MCCB (moulded case circuit breaker).
- ◆ Earth leakage protection device is optional.

#### ■ Catalogue number logic



#### ■ Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size and direction on request.

**Zones 1&2; 21&22**

## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIC)

#### Technical data

##### Explosion-proof motor switches BLK-63/MB□/□

###### Explosion protection

Global (IECEx) IECEx CQM 12.0037X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db IP66

Europe (ATEX) Presafe 17 ATEX 10687X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

###### Certificates

###### Conformity to standards

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure colour

Window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Circuit breaker

MCB (miniature circuit breaker)

###### Max. working voltage

Max.690V AC 50/60Hz; 500V DC

###### Rated voltage

1P/230V AC, 2P/3P/4P/400V AC 50/60Hz

###### Rated current

1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

###### Number of pole

1P, 2P, 3P, 4P

###### Breaking capacity

6kA, 10kA, 15kA

###### Impulse withstand voltage

6kV

###### Tripping characteristic

Instantaneous tripping range (5~10) In, (7~10) In or (10~14) In

###### Degree of protection

IP66

###### Internal&external earthing

M5/M8

###### Ambient temperature

-60°C~+55°C

###### Cable entries

Standard 1~16A: 2 x M25 x 1.5 plugs

20~32A: 2 x M32 x 1.5 plugs

40~63A: 2 x M40 x 1.5 plugs

###### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

###### Entry direction

Bottom

###### Enclosure weight

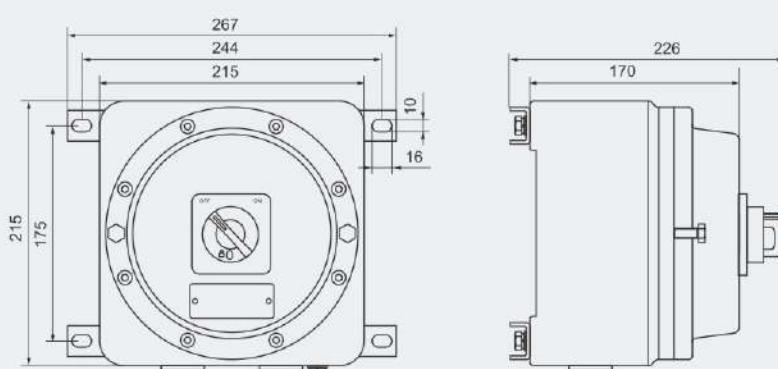
6.50 kg

###### Earth leakage protection

On request



#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-63/MB□/□

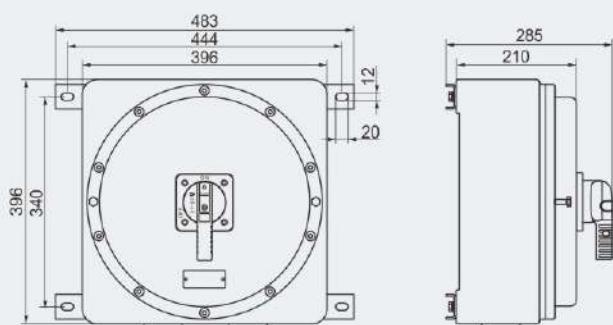
## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIC)

#### Technical data

Explosion-proof motor switches	BLK-160/MB□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 12.0037X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db IP66
Europe (ATEX)	Presafe 17 ATEX 10687X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Circuit breaker</b>	MCB (miniature circuit breaker); MCCB (moulded case circuit breaker)
<b>Max. working voltage</b>	MCB: 440V AC 50/60Hz; MCCB: 690V AC 50/60Hz; 500V DC
<b>Rated voltage</b>	MCB: 1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
<b>Rated current</b>	MCB: max.50A(1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50) MCCB: 80A, 100A, 125A, 160A
<b>Number of pole</b>	MCB: 1P, 2P, 3P, 4P MCCB: 3P, 4P
<b>Breaking capacity</b>	MCB: 6kA, 10kA, 15kA MCCB: 380/415V AC 50/60Hz, 36kA/50kA; 440V AC 50/60Hz, 30kA/45kA
<b>Impulse withstand voltage</b>	MCB: 6kV; MCCB: 8kV
<b>Tripping characteristic</b>	Thermomagnetic type
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	-60°C~+55°C
<b>Cable entries</b>	Standard 4 x 1~16A: 1 x M40 x 1.5 + 4 x M25 x 1.5 plugs 4 x 20~32A: 1 x M50 x 1.5 + 4 x M32 x 1.5 plugs 4 x 40~63A: 1 x M63 x 1.5 + 4 x M40 x 1.5 plugs 1 x 80~100A: 2 x M50 x 1.5 plugs 1 x 125~160A: 2 x M63 x 1.5 plugs
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	Bottom
<b>Enclosure weight</b>	28.00kg
<b>Earth leakage protection</b>	On request

#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-160/MB□/□

## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIC)

#### Technical data

##### Explosion-proof motor switches BLK-160/MS/□

###### Explosion protection

Global (IECEx) IECEx CQM 12.0037X

Gas and dust Ex db IIC T6 Gb

Ex tb IIIC T80°C Db IP66

Europe (ATEX) Presafe 17 ATEX 10687X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

###### Certificates

###### Conformity to standards

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure colour

Window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

###### Rated voltage

Max.440V AC 50/60Hz

###### Degree of protection

IP66

###### Internal&external earthing

M6/M8

###### Ambient temperature

-60°C~+55°C

###### Cable entries

Standard M□ x 1.5 plug; See Selection table as below

###### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

###### Entry direction

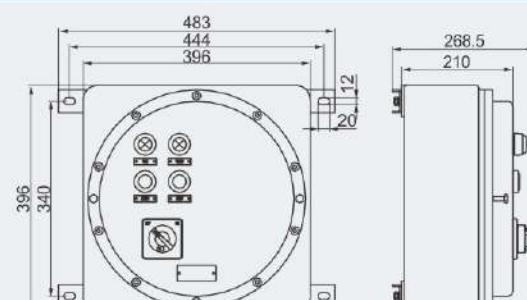
Bottom

#### Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BLK-160/MS/10	4	10	7~10, Ie=9	12	2 x M25 x 1.5	28.00
BLK-160/MS/16	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	28.00
BLK-160/MS/20	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	28.00
BLK-160/MS/32	11	32	16~24, Ie=21	32	2 x M32 x 1.5	28.00
BLK-160/MS/40	15	40	30~40, Ie=32	40	2 x M32 x 1.5	28.00
BLK-160/MS/50	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	28.00
BLK-160/MS/63	22	63	37~50, Ie=48	65	2 x M40 x 1.5	28.00



#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-160/MS/□

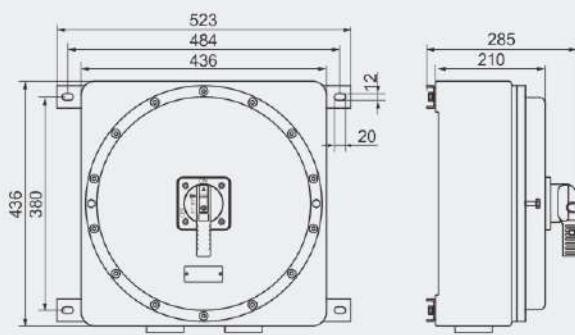
## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIC)

#### Technical data

Explosion-proof motor switches	BLK-250/MB□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 12.0037X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db IP66
Europe (ATEX)	Presafe 17 ATEX 10687X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Circuit breaker</b>	MCB (miniature circuit breaker); MCCB (moulded case circuit breaker)
<b>Max. working voltage</b>	MCB: 440V AC 50/60Hz; MCCB: 690V AC 50/60Hz; 500V DC
<b>Rated voltage</b>	MCB: 1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
<b>Rated current</b>	MCB: max.50A(1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50) MCCB: 200A, 250A
<b>Number of pole</b>	MCB: 1P, 2P, 3P, 4P MCCB: 3P, 4P
<b>Breaking capacity</b>	MCB: 6kA, 10kA, 15kA MCCB: 380/415V AC 50/60Hz, 36kA/50kA; 440V AC 50/60Hz, 30kA/45kA
<b>Impulse withstand voltage</b>	MCB: 6kV; MCCB: 8kV
<b>Tripping characteristic</b>	Thermomagnetic type
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	-60°C~+55°C
<b>Cable entries</b>	Standard 6 x 1~16A: 1 x M40 x 1.5 + 6 x M25 x 1.5 plugs 6 x 20~32A: 1 x M50 x 1.5 + 6 x M32 x 1.5 plugs 6 x 40~63A: 1 x M63 x 1.5 + 6 x M40 x 1.5 plugs 1 x 200~250A: 2 x M63 x 1.5 plugs
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	Bottom
<b>Enclosure weight</b>	31.00kg
<b>Earth leakage protection</b>	On request

#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/MB□/□

## Motor Switches

### BLK Series Explosion-proof Motor Switches (Ex db IIC)

#### Technical data

##### Explosion-proof motor switches BLK-250/MS/□/B

###### Explosion protection

Global (IECEx) IECEx CQM 12.0037X

Gas and dust Ex db IIC T6 Gb

Europe (ATEX) Ex tb IIIC T80°C Db IP66

Presafe 17 ATEX 10687X

Gas and dust Ex II 2 G Ex db IIC T6 Gb

Ex II 2 D Ex tb IIIC T80°C Db

###### Certificates

###### Conformity to standards

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Enclosure colour

Window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

Ammeter

Max.440V AC 50/60Hz

###### Rated voltage

IP66

###### Degree of protection

M6/M8

###### Internal&external earthing

-60°C~+55°C

###### Ambient temperature

Standard M□ x 1.5 plug; See Selection table as below

###### Cable entries

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

###### Cable gland (optional)

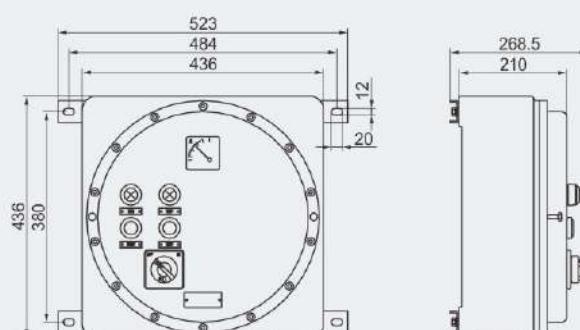
Bottom

#### Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BLK-250/MS/10/B	4	10	7~10, Ie=9	12	2 x M25 x 1.5	31.00
BLK-250/MS/16/B	5.5	16	9~13, Ie=12	18	2 x M25 x 1.5	31.00
BLK-250/MS/20/B	7.5	20	12~18, Ie=17	25	2 x M25 x 1.5	31.00
BLK-250/MS/32/B	11	32	16~24, Ie=21	32	2 x M32 x 1.5	31.00
BLK-250/MS/40/B	15	40	30~40, Ie=32	40	2 x M32 x 1.5	31.00
BLK-250/MS/50/B	18.5	50	37~50, Ie=40	50	2 x M40 x 1.5	31.00
BLK-250/MS/63/B	22	63	37~50, Ie=48	65	2 x M40 x 1.5	31.00



#### Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/MS/□/B

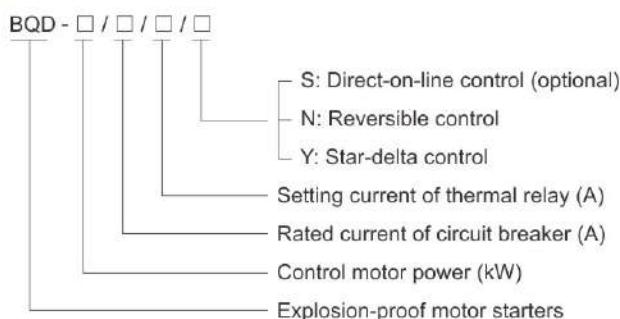
## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex db IIB)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- ◆ Classified as IIB according to gas atmosphere.
- ◆ Different motor starters.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

#### ■ Catalogue number logic



#### ■ Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size, entry direction, enclosure material, etc. on request.

**Zones 1&2; 21&22**

# Standard Motor Starters

## BQD Series Explosion-proof Motor Starters (Ex db IIB)

### Technical data

#### Explosion-proof motor starters (direct-on-line control) BQD-□/□/□

##### Explosion protection

Global (IECEx)	IECEx CNEX 18.0035X
Gas and dust	Ex db IIB T6 or T5 Gb
Europe (ATEX)	Ex tb IIIC T80°C or T95°C Db
Gas and dust	CNEX 18 ATEX 0028 X

##### Certificates

Conformity to standards	IECEx; ATEX
	EN 60079-0, EN 60079-1, EN 60079-31

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

##### Rated voltage

380/400V AC 50/60Hz

##### Degree of protection

IP66

##### Internal&external earthing

M6/M8

##### Ambient temperature

T6/T80°C for Tamb: -60°C~+50°C; T5/T95°C for Tamb: -60°C~+60°C

##### Cable entries

Standard M□ x 1.5 plug; See Selection table as below

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

##### Entry direction

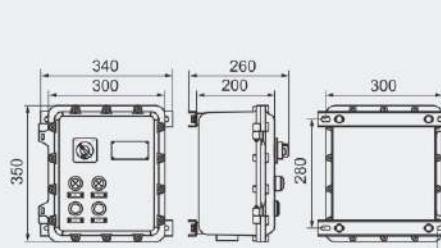
Bottom

### Selection table

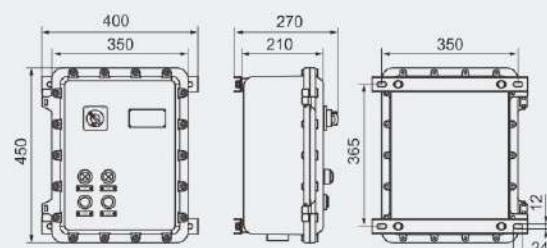
Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/10/7~10	4	10	7~10, le=9	12	2 x M25 x 1.5	20.00
BQD-5.5/16/9~13	5.5	16	9~13, le=12	18	2 x M25 x 1.5	20.00
BQD-7.5/20/12~18	7.5	20	12~18, le=17	25	2 x M25 x 1.5	20.00
BQD-11/32/16~24	11	32	16~24, le=21	32	2 x M32 x 1.5	30.00
BQD-15/40/30~40	15	40	30~40, le=32	40	2 x M32 x 1.5	30.00
BQD-18.5/50/37~50	18.5	50	37~50, le=40	50	2 x M40 x 1.5	30.00
BQD-22/63/37~50	22	63	37~50, le=48	65	2 x M40 x 1.5	30.00



### Dimension drawings (all dimensions in mm) - subject to alteration



4kW-7.5kW



11kW-22kW

## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex db IIB)

#### Technical data

#### Explosion-proof motor starters (reversible control) BQD-□/□/□/N

##### Explosion protection

Global (IECEx) IECEx CNEX 18.0035X

Gas and dust Ex db IIB T6 or T5 Gb

Ex tb IIIC T80°C or T95°C Db

Europe (ATEX) CNEX 18 ATEX 0028 X

Gas and dust Ex II 2 G Ex db IIB T6 or T5 Gb

Ex II 2 D Ex tb IIIC T80°C or T95°C Db

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

##### Rated voltage

380/400V AC 50/60Hz

##### Degree of protection

IP66

##### Internal&external earthing

M6/M8

##### Ambient temperature

T6/T80°C for Tamb: -60°C~+50°C; T5/T95°C for Tamb: -60°C~+60°C

##### Cable entries

Standard M□ x 1.5 plug; See Selection table as below

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31

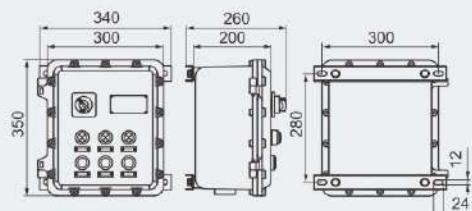
##### Entry direction

Bottom

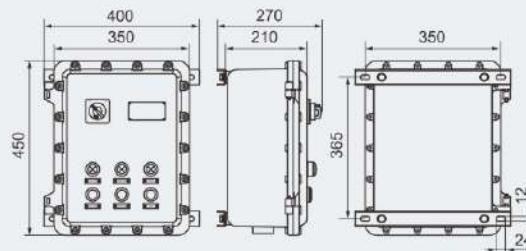
#### Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/10/7~10/N	4	10	7~10, le=9	12	2 x M25 x 1.5	20.50
BQD-5.5/16/9~13/N	5.5	16	9~13, le=12	18	2 x M25 x 1.5	20.50
BQD-7.5/20/12~18/N	7.5	20	12~18, le=17	25	2 x M25 x 1.5	20.50
BQD-11/32/16~24/N	11	32	16~24, le=21	32	2 x M32 x 1.5	30.50
BQD-15/40/30~40/N	15	40	30~40, le=32	40	2 x M32 x 1.5	30.50
BQD-18.5/50/37~50/N	18.5	50	37~50, le=40	50	2 x M40 x 1.5	30.50
BQD-22/63/37~50/N	22	63	37~50, le=48	65	2 x M40 x 1.5	30.50

#### Dimension drawings (all dimensions in mm) - subject to alteration



4kW-7.5kW



11kW-22kW

## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex db IIB)

#### Technical data

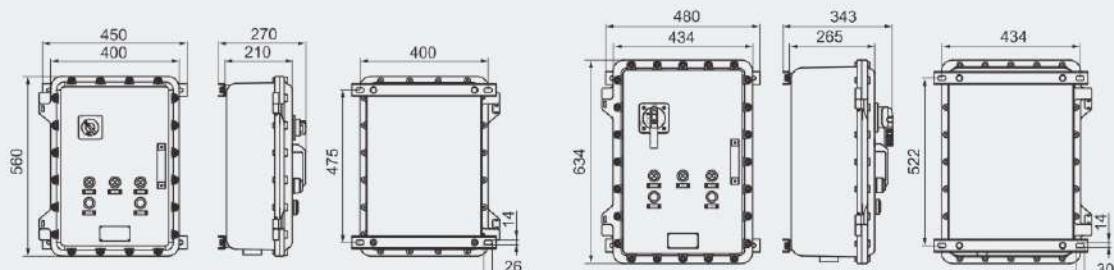
Explosion-proof motor starters (star-delta control)		BQD-□/□/□/Y
<b>Explosion protection</b>		
Global (IECEx)	IECEx CNEX 18.0035X	
Gas and dust	Ex db IIB T6 or T5 Gb	
Europe (ATEX)	Ex tb IIIC T80°C or T95°C Db	
Gas and dust	CNEX 18 ATEX 0028 X	
	Ex II 2 G Ex db IIB T6 or T5 Gb	
	Ex II 2 D Ex tb IIIC T80°C or T95°C Db	
<b>Certificates</b>	IECEx; ATEX; CU-TR	
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31	
IEC 60079-0, IEC 60079-1, IEC 60079-31		
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface	
<b>Enclosure colour</b>	Window grey (RAL7040)	
<b>Exposed fastener</b>	Stainless steel	
<b>Components</b>	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)	
	AC contactor	
	Thermal overload relay	
	Indicator, pushbutton	
<b>Rated voltage</b>	380/400V AC 50/60Hz	
<b>Degree of protection</b>	IP66	
<b>Internal&amp;external earthing</b>	M6/M8	
<b>Ambient temperature</b>	T6/T80°C for Tamb: -60°C~+50°C; T5/T95°C for Tamb: -60°C~+60°C	
<b>Cable entries</b>	Standard M□ x 1.5 plug; See Selection table as below	
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31	
<b>Entry direction</b>	Bottom	

#### Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Setting value of delay time	Cable entry size	Enclosure weight (kg)
BQD-18.5/50/17~25/Y	18.5	50	17~25, Ie=23.5	13s	3 x M50 x 1.5	40.00
BQD-22/63/23~32/Y	22	63	23~32, Ie=28	15s	3 x M50 x 1.5	40.00
BQD-30/80/30~40/Y	30	80	30~40, Ie=38	17s	3 x M63 x 1.5	54.50
BQD-37/80/37~50/Y	37	80	37~50, Ie=47	18s	3 x M63 x 1.5	54.50
BQD-45/100/48~65Y	45	100	48~65, Ie=57	20s	3 x M63 x 1.5	54.50



#### Dimension drawings (all dimensions in mm) - subject to alteration



18.5kW-22kW

30kW-45kW

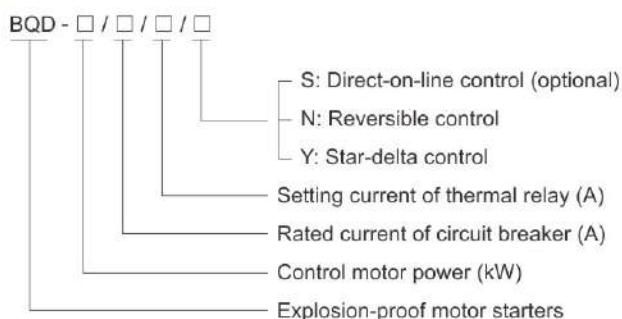
## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex d e IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Classified as IIC according to gas atmosphere.
- ◆ Different motor starters.
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.

#### ■ Catalogue number logic



#### ■ Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size, entry direction, enclosure material, etc. on request.

**Zones 1&2**

# Standard Motor Starters

## BQD Series Explosion-proof Motor Starters (Ex d e IIC)

### Technical data

#### Explosion-proof motor starters (direct-on-line control) BQD-□/□/□

##### Explosion protection

Global (IECEx) IECEx CQM 11.0017X

Gas and dust Ex d e IIC T6 Gb

Europe (ATEX) LCIE 10 ATEX 3075

Gas and dust Ex II 2 G Ex d e IIC T6

##### Certificates

##### Conformity to standards

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

##### Rated voltage

380/400V AC 50/60Hz

##### Degree of protection

IP65

##### Internal&external earthing

M6/M6

##### Ambient temperature

-20°C~+55°C

##### Cable entries

Standard M□ x 1.5 plug; See Selection table as below

##### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/19~21

##### Entry direction

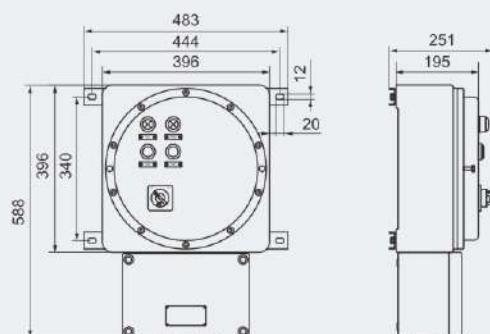
Bottom

### Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/10/7~10	4	10	7~10, le=9	12	2 x M25 x 1.5	33.00
BQD-5.5/16/9~13	5.5	16	9~13, le=12	18	2 x M25 x 1.5	33.00
BQD-7.5/20/12~18	7.5	20	12~18, le=17	25	2 x M25 x 1.5	33.00
BQD-11/32/16~24	11	32	16~24, le=21	32	2 x M32 x 1.5	33.00
BQD-15/40/30~40	15	40	30~40, le=32	40	2 x M32 x 1.5	33.00
BQD-18.5/50/37~50	18.5	50	37~50, le=40	50	2 x M40 x 1.5	33.00
BQD-22/63/37~50	22	63	37~50, le=48	65	2 x M40 x 1.5	33.00



### Dimension drawings (all dimensions in mm) - subject to alteration



4kW-22kW

## Standard Motor Starters

### BQD Series Explosion-proof Motor Starters (Ex d e IIC)

#### Technical data

#### Explosion-proof motor starters (reversible control) BQD-□/□/□/N

##### Explosion protection

Global (IECEx) IECEx CQM 11.0017X

Gas and dust Ex d e IIC T6 Gb

Europe (ATEX) LCIE 10 ATEX 3075

Gas and dust  $\text{Ex II 2 G Ex d e IIC T6}$

##### Certificates

##### Conformity to standards

##### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

##### Enclosure colour

Window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Components

MCB (miniature circuit breaker)

AC contactor

Thermal overload relay

Indicator, pushbutton

##### Rated voltage

380/400V AC 50/60Hz

##### Degree of protection

IP65

##### Internal&external earthing

M6/M6

##### Ambient temperature

-20°C~+55°C

##### Cable entries

Standard M $\square$  x 1.5 plug; See Selection table as below

##### Cable gland(optional)

DQM-I (Ex e) is recommended. Please see P7/19~21

##### Entry direction

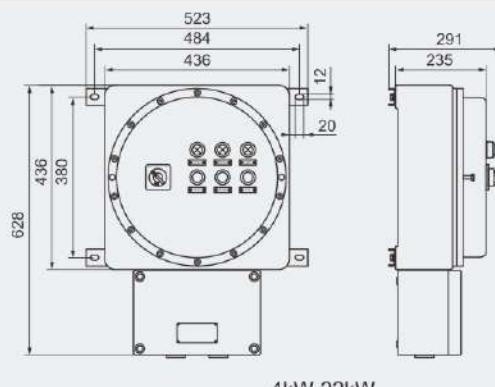
Bottom

#### Selection table



Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/10/7~10/N	4	10	7~10, le=9	12	2 x M25 x 1.5	35.00
BQD-5.5/16/9~13/N	5.5	16	9~13, le=12	18	2 x M25 x 1.5	35.00
BQD-7.5/20/12~18/N	7.5	20	12~18, le=17	25	2 x M25 x 1.5	35.00
BQD-11/32/16~24/N	11	32	16~24, le=21	32	2 x M32 x 1.5	35.00
BQD-15/40/30~40/N	15	40	30~40, le=32	40	2 x M32 x 1.5	35.00
BQD-18.5/50/37~50/N	18.5	50	37~50, le=40	50	2 x M40 x 1.5	35.00
BQD-22/63/37~50/N	22	63	37~50, le=48	65	2 x M40 x 1.5	35.00

#### Dimension drawings (all dimensions in mm) - subject to alteration







## Distribution Boxes and Empty Enclosures

# Contents

## Distribution Boxes

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## Components for Distribution Boxes

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More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

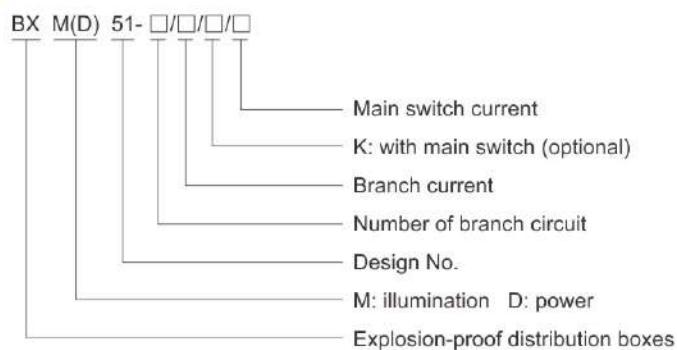
## Distribution Boxes

### BXM(D)51 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex db eb IIB)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups C, D
- ◆ Enclosure for modular combination (Ex d & Ex e).
- ◆ Main switch and branch switch are operated with external rotary actuator.
- ◆ Internal wiring to the terminal is finished.
- ◆ International brand of explosion-proof terminal blocks.
- ◆ Copper-free Aluminium Alloy, powder coated surface.
- ◆ Entries plugged. Cable glands on request (see P7/19~21).
- ◆ Special requirements on request.

#### ■ Catalogue number logic



**Zones 1&2; 21&22**

## Distribution Boxes

### BXM51 Series Explosion-proof Illumination Distribution Boxes (Ex db eb IIB)

#### Technical data

##### Explosion-proof illumination distribution boxes BXM51-□/□/□/□

###### Explosion protection

Global (IECEx)	IECEx PCET 24.0032X
Gas and dust	Ex db eb IIB T5...T4 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for) Ex II 2 G Ex db eb IIB T5...T4 Gb

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### General power supply

Rated voltage: Max. AC 690V 50/60Hz, Max. DC 500V; Rated current: Max. 250A

###### Branch current

1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A

###### Exposed fastener

Stainless steel

###### Enclosure

Enclosure material: Copper-free Aluminium Alloy, powder coated surface

Enclosure colour: Window grey (RAL7040)

Enclosure type: Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.

###### Built-in components

Main switch: MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)

Note: earth leakage protection on request

Branch switch: MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)

Note: earth leakage protection on request

Terminal: International brand of explosion-proof terminal blocks

Indicator: Red

###### Degree of protection

IP66

###### Internal&external earthing

M6/M8

###### Ambient temperature

T5 for Tamb: -40°C~+40°C

T4/T80°C for Tamb: -40°C~+60°C

###### Cable entries

Standard M□ x 1.5 plug (see the Selection table on P6/4)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/19~21

###### Entry direction

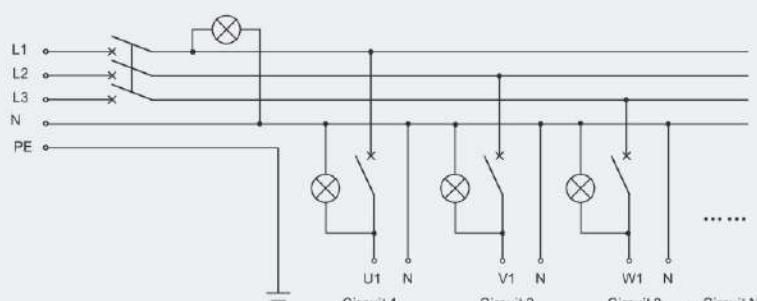
Bottom

###### Mounting

Surface type (standard), Pedestal type (optional)



#### Electrical schematic diagram



BXM51 Series explosion-proof illumination distribution boxes

## Distribution Boxes

## BXM51 Series Explosion-proof Illumination Distribution Boxes (Ex db eb IIB)

Selection table of BXM 51 series explosion-proof illumination distribution boxes

Version	Description					Cable entries	
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator		
BXM51-4/□/K/□	MCB or MCCB	4 6 8 10 12	MCB 1 P/2 P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	1+4	1 x M40 x 1.5 + 4 x M25 x 1.5	
BXM51-6/□/K/□						1 x M40 x 1.5 + 6 x M25 x 1.5	
BXM51-8/□/K/□					1+8	1 x M40 x 1.5 + 8 x M25 x 1.5	
BXM51-10/□/K/□						1 x M40 x 1.5 + 10 x M25 x 1.5	
BXM51-12/□/K/□					1+10	1 x M40 x 1.5 + 12 x M25 x 1.5	
BXM51-4/□	—	4 6 8 10 12	MCB 1 P/2 P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request		1 x M40 x 1.5 + 4 x M25 x 1.5	
BXM51-6/□						1 x M40 x 1.5 + 6 x M25 x 1.5	
BXM51-8/□				8	1 x M40 x 1.5 + 8 x M25 x 1.5		
BXM51-10/□					1 x M40 x 1.5 + 10 x M25 x 1.5		
BXM51-12/□				10 12	1 x M40 x 1.5 + 12 x M25 x 1.5		

**Note**

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

## Distribution Boxes

#### **BXD51 Series Explosion-proof Power Distribution Boxes (Ex db eb IIB)**

## Technical data

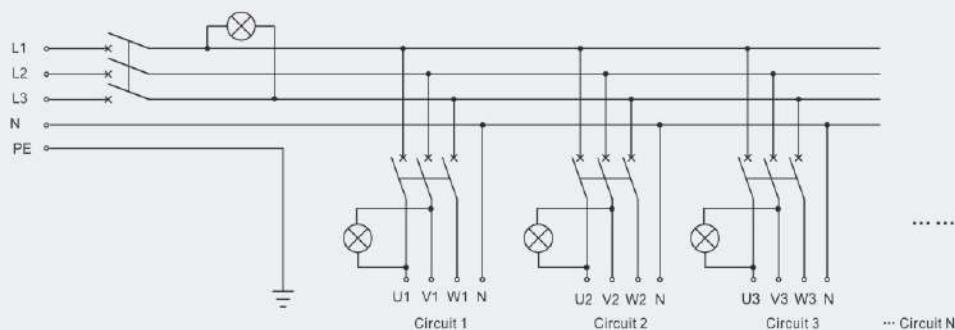
## Explosion-proof power distribution boxes

**BXD51-□/□/□/□**

<b>Exlosion protection</b>	
Global (IECEx)	IECEx PCET 24.0032X
Gas and dust	Ex db eb IIB T5...T4 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for)
	 II 2 G Ex db eb IIB T5...T4 Gb
	 II 2 G Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
<b>General power supply</b>	Rated voltage: Max. AC 690V 50/60Hz, Max. DC 500V; Rated current: Max. 250A
<b>Branch current</b>	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
<b>Exposed fastener</b>	Stainless steel
<b>Enclosure</b>	
Enclosure material	Copper-free Aluminium Alloy, powder coated surface
Enclosure colour	Window grey (RAL7040)
Enclosure type	Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.
<b>Built-in components</b>	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal blocks
Indicator	Red
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8
<b>Ambient temperature</b>	T5 for Tamb: -40°C~+40°C T4/T80°C for Tamb: -40°C~+60°C
<b>Cable entries</b>	Standard M□ x 1.5 plug (see the Selection table on P6/6)
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/19~21
<b>Entry direction</b>	Bottom
<b>Mounting</b>	Surface type (standard), Pedestal type (optional)



## Electrical schematic diagram



BXD51 Series explosion-proof power distribution boxes

## Distribution Boxes

### BXD51 Series Explosion-proof Power Distribution Boxes (Ex db eb IIB)

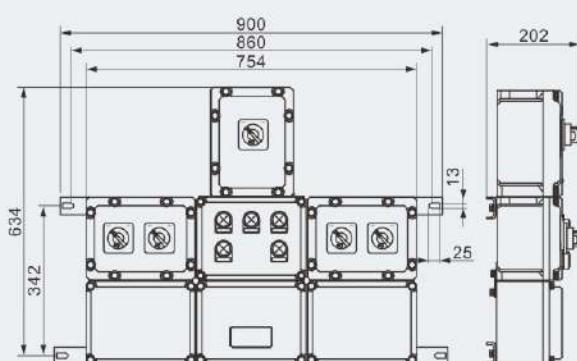
Selection table of BXD51 series explosion-proof power distribution boxes

Version	Description					Cable entries	
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator		
BXD51-4/□/K/□	MCB or MCCB	4	MCB 3P	1A	1+4	1 x M50 x 1.5 + 4 x M25 x 1.5	
BXD51-6/□/K/□				2A		1 x M50 x 1.5 + 6 x M25 x 1.5	
BXD51-8/□/K/□		6		4A	1+6	1 x M50 x 1.5 + 8 x M25 x 1.5	
BXD51-10/□/K/□				6A		1 x M50 x 1.5 + 10 x M25 x 1.5	
BXD51-12/□/K/□		8		10A	1+8	1 x M50 x 1.5 + 12 x M25 x 1.5	
BXD51-4/□				16A		1 x M50 x 1.5 + 20A	
BXD51-6/□		10		25A	1+10	1 x M50 x 1.5 + 32A	
BXD51-8/□				40A		1 x M50 x 1.5 + 50A	
BXD51-10/□		250A		63A	1+12	1 x M50 x 1.5 + 63A	
BXD51-12/□				On request		1 x M50 x 1.5 + 12 x M25 x 1.5	
BXD51-4/□	—	4	MCB 3P	1A	4	1 x M50 x 1.5 + 2A	
BXD51-6/□				4A		1 x M50 x 1.5 + 6A	
BXD51-8/□		6		10A	6	1 x M50 x 1.5 + 16A	
BXD51-10/□				20A		1 x M50 x 1.5 + 25A	
BXD51-12/□		8		32A	8	1 x M50 x 1.5 + 40A	
BXD51-4/□	—	10		50A	10	1 x M50 x 1.5 + 63A	
BXD51-6/□				63A		1 x M50 x 1.5 + On request	
BXD51-8/□		12		On request	12	1 x M50 x 1.5 + 12 x M25 x 1.5	

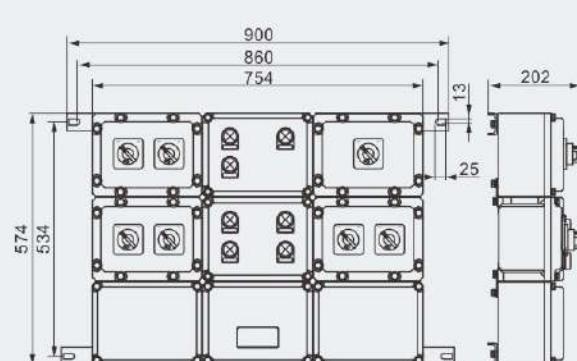
#### Note

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Dimension drawings (all dimensions in mm) - subject to alteration



BXM(D)51-4/□/K/□

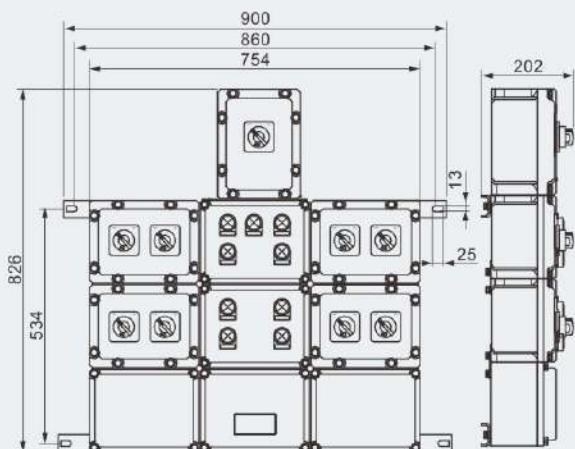


BXM(D)51-6/□/K/□

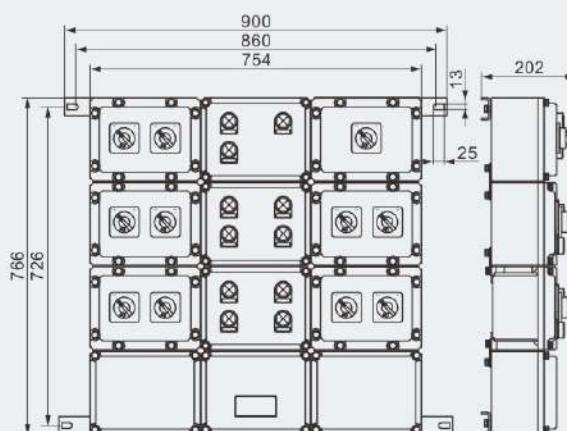
## Distribution Boxes

### BXM(D)51 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex db eb IIB)

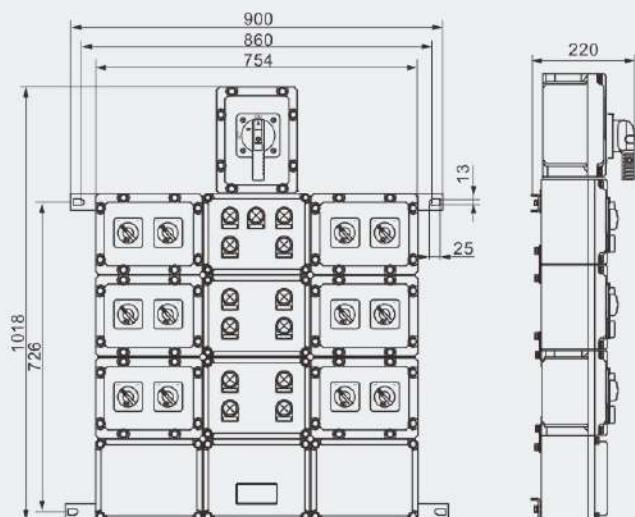
Dimension drawings (all dimensions in mm) - subject to alteration



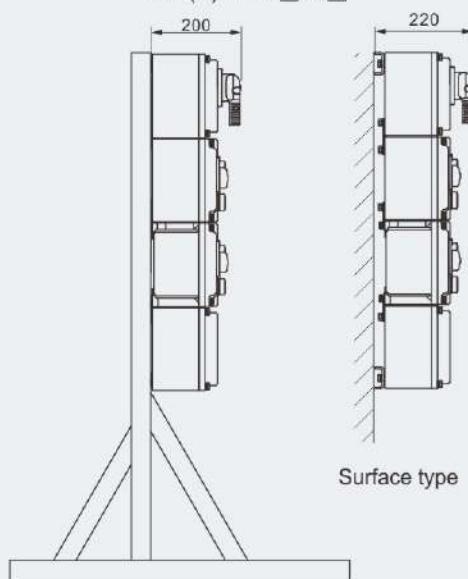
BXM(D)51-8/□/K/□



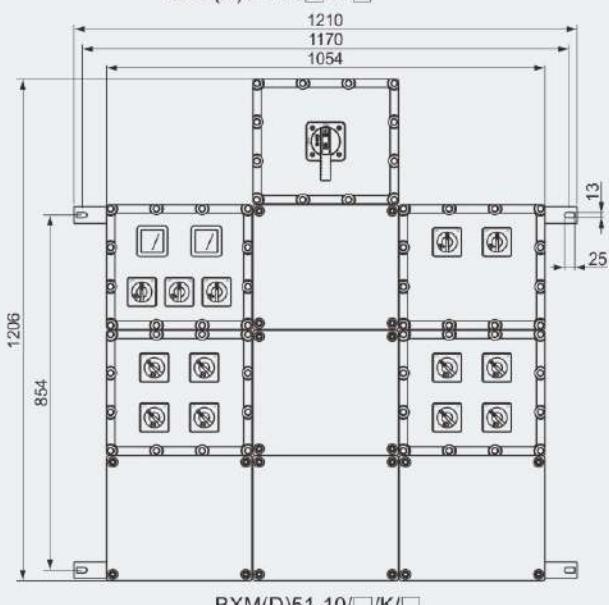
BXM(D)51-10/□/K/□



BXM(D)51-12/□/K/□



Pedestal type



BXM(D)51-10/□/K/□



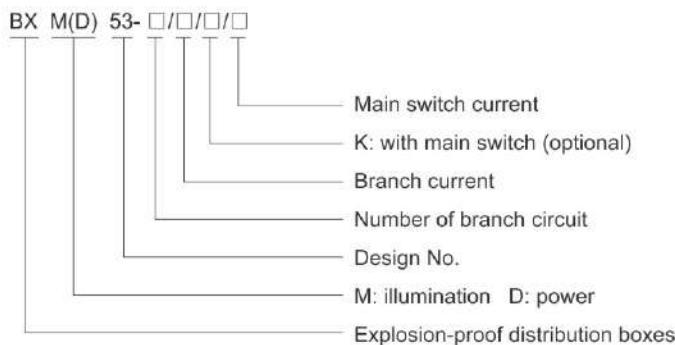
## Distribution Boxes

### BXM(D)53 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex db eb IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure for modular combination (Ex d & Ex e).
- ◆ Main switch and branch switch are operated with external rotary actuator.
- ◆ Internal wiring to the terminal is finished.
- ◆ International brand of explosion-proof terminal blocks.
- ◆ Copper-free Aluminium Alloy, powder coated surface.
- ◆ Entries plugged. Cable glands on request (see P7/17~19).
- ◆ Special requirements on request.

#### Catalogue number logic



Zones 1&2; 21&22

## Distribution Boxes

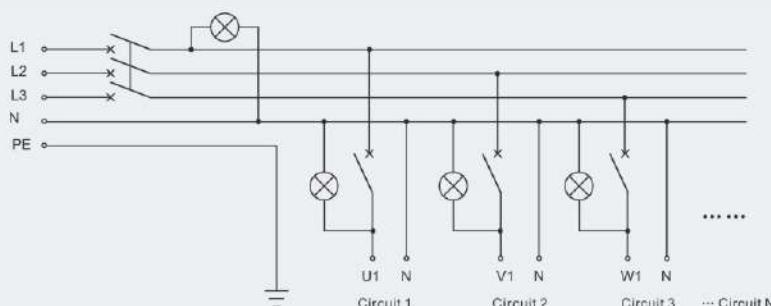
### BXM53 Series Explosion-proof Illumination Distribution Boxes (Ex db eb IIC)

#### Technical data

Explosion-proof illumination distribution boxes		BXM53-□/□/□/□
<b>Explosion protection</b>		
Global (IECEx)	IECEx CQM 11.0042X	
Gas and dust	Ex db eb IIC T6 Gb	
Europe (ATEX)	Ex tb IIIC T80°C Db IP66 TÜV CY 18 ATEX 0206016X	
Gas and dust	Ex II 2 G Ex db eb IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db IP66	
<b>Certificates</b>	IECEx; ATEX; CU-TR	
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31	
<b>General power supply</b>	Rated voltage: max. 690V AC 50/60Hz; Rated current: max.100A	
<b>Branch current</b>	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A	
<b>Exposed fastener</b>	Stainless steel	
<b>Enclosure</b>		
Enclosure material	Copper-free Aluminium Alloy, powder coated surface	
Enclosure colour	Window grey (RAL7040)	
Enclosure type	Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.	
<b>Built-in components</b>		
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request	
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request	
Terminal	International brand of explosion-proof terminal blocks	
Indicator	Red	
<b>Degree of protection</b>	IP66	
<b>Internal&amp;external earthing</b>	M6/M8	
<b>Ambient temperature</b>	-40°C~+55°C	
<b>Cable entries</b>	Standard M□ x 1.5 plug (see the Selection table on P6/10)	
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/19~21	
<b>Entry direction</b>	Bottom	
<b>Mounting</b>	Surface type (standard) Pedestal type (optional)	



#### Electrical schematic diagram



BXM53 Series explosion-proof illumination distribution boxes

## Distribution Boxes

## BXM53 Series Explosion-proof Illumination Distribution Boxes (Ex db eb IIC)

Selection table of BXM53 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM53-4/□/K/□	MCB or MCCB	4 6 8 10 12	MCB 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	1+4 1+6 1+8 1+10 1+12	1 x M40 x 1.5 + 4 x M25 x 1.5 1 x M40 x 1.5 + 6 x M25 x 1.5 1 x M40 x 1.5 + 8 x M25 x 1.5 1 x M40 x 1.5 + 10 x M25 x 1.5 1 x M40 x 1.5 + 12 x M25 x 1.5
BXM53-6/□/K/□						
BXM53-8/□/K/□						
BXM53-10/□/K/□						
BXM53-12/□/K/□						
BXM53-4/□	—	4 6 8 10 12	MCB 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	4 6 8 10 12	1 x M40 x 1.5 + 4 x M25 x 1.5 1 x M40 x 1.5 + 6 x M25 x 1.5 1 x M40 x 1.5 + 8 x M25 x 1.5 1 x M40 x 1.5 + 10 x M25 x 1.5 1 x M40 x 1.5 + 12 x M25 x 1.5
BXM53-6/□						
BXM53-8/□						
BXM53-10/□						
BXM53-12/□						

**Note**

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

## Distribution Boxes

### BXD53 Series Explosion-proof Power Distribution Boxes (Ex db eb IIC)

#### Technical data

##### Explosion-proof power distribution boxes BXD53-□/□/□/□

###### Explosion protection

Global (IECEx)	IECEx CQM 11.0042X
Gas and dust	Ex db eb IIC T5 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db IP66
Gas and dust	Ex II 2 G Ex db eb IIC T5 Gb
	Ex II 2 D Ex tb IIIC T80°C Db IP66

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### General power supply

Rated voltage: max. 690V AC 50/60Hz; Rated current: max.200A

###### Branch current

1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

###### Exposed fastener

Stainless steel

###### Enclosure

Enclosure material

Copper-free Aluminium Alloy, powder coated surface

Enclosure colour

Window grey (RAL7040)

Enclosure type

Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.

###### Built-in components

Main switch

MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)

Note: earth leakage protection on request

Branch switch

MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)

Note: earth leakage protection on request

Terminal

International brand of explosion-proof terminal blocks

Indicator

Red

###### Degree of protection

IP66

###### Internal&external earthing

M6/M8

###### Ambient temperature

-40°C~+55°C

###### Cable entries

Standard M□ x 1.5 plug (see the Selection table on P6/12)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/19~21

###### Entry direction

Bottom

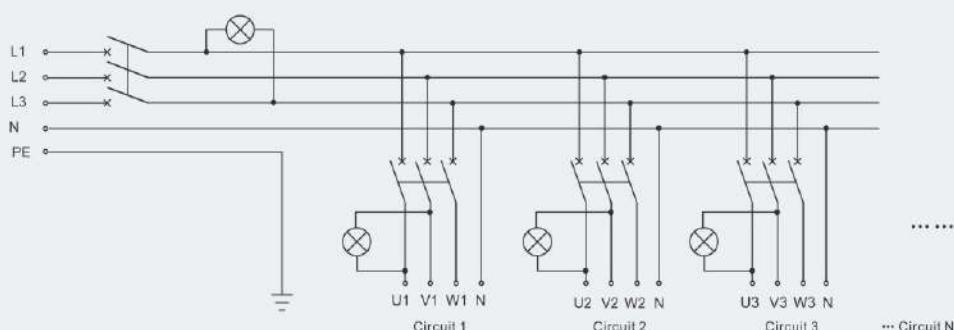
###### Mounting

Surface type (standard)

Pedestal type (optional)



#### Electric schematic diagram



BXD53 Series explosion-proof power distribution boxes

## Distribution Boxes

### BXD53 Series Explosion-proof Power Distribution Boxes (Ex db eb IIC)

Selection table of BXD53 series explosion-proof power distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD53-4/□/K/□	MCB or MCCB	4	MCB 3P	1A	1+4	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD53-6/□/K/□				2A		
BXD53-8/□/K/□				4A	1+6	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD53-10/□/K/□				6A		
BXD53-12/□/K/□				10A	1+8	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD53-4/□				16A		
BXD53-6/□				20A	1+10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD53-8/□				25A		
BXD53-10/□				32A	1+12	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD53-12/□				40A		
BXD53-4/□/K/□	Current: max. 200A	10	MCB 3P	50A	1+10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD53-6/□/K/□				63A		
BXD53-8/□/K/□				On request	1+12	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD53-10/□/K/□				1A		
BXD53-12/□/K/□				2A	4	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD53-4/□				4A		
BXD53-6/□				6A	6	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD53-8/□				10A		
BXD53-10/□				16A	8	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD53-12/□				20A		
BXD53-4/□				25A	10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD53-6/□				32A		
BXD53-8/□				40A	12	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD53-10/□				50A		
BXD53-12/□				63A		

#### Note

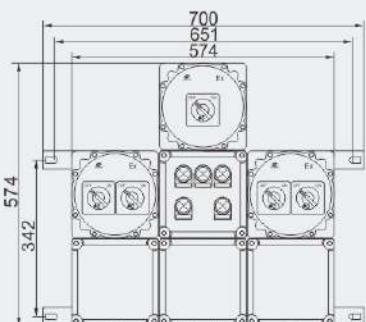
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.



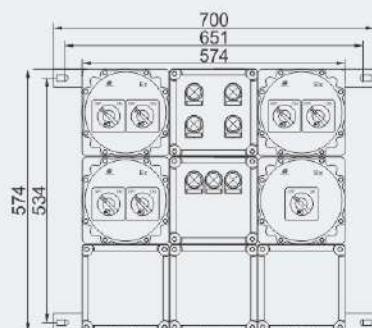
## Distribution Boxes

### BXM(D)53 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex db eb IIC)

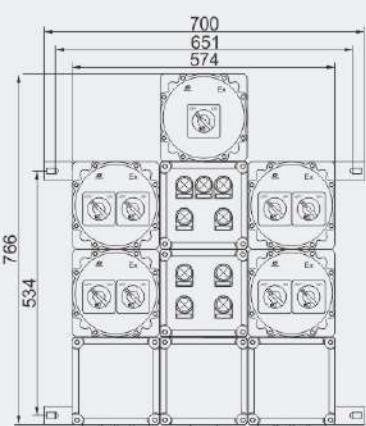
#### Dimension drawings (all dimensions in mm) - subject to alteration



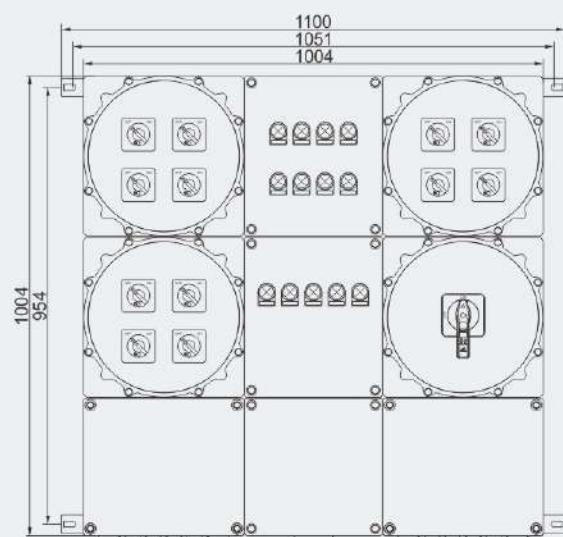
BXM(D)53-4/□/K/□



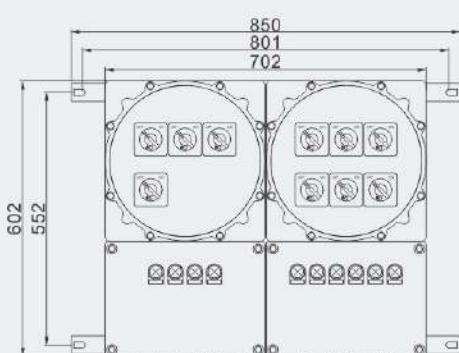
BXM(D)53-6/□/K/□



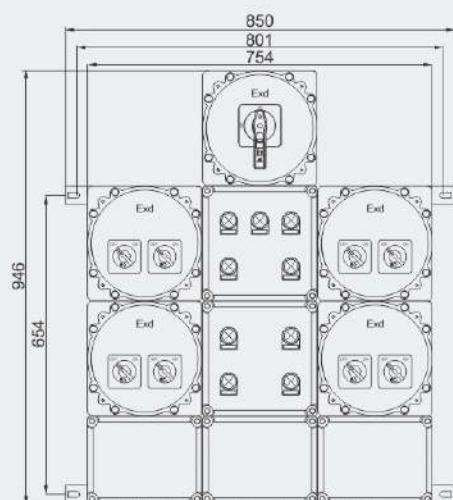
BXM(D)53-8/□/K/□



BXM(D)53-12/□/K/□



BXM(D)53-8/□/K/□  
(with electrical surge protection device)



BXM(D)53-4/□/K/□  
(magnetic force)



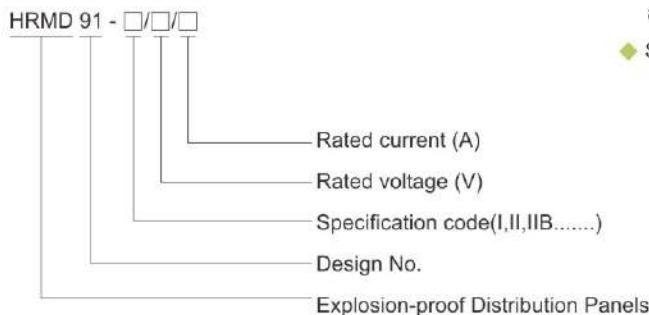
## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Flameproof enclosure (Ex d IIB+H2), which can be used as feed distribution equipment in control and distribution system(such as distribution box, switch box of main circuit ,control box, terminal box or motor starting box etc.)
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the panels, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.

#### Catalogue number logic



**Zones1& 2; 21& 22**

# Distribution Boxes

## HRMD91 Series Explosion-proof Distribution Panels

Technical data	
<b>Explosion-proof Distribution Panels</b>	<b>HRMD91-□/□/□</b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CML 18.0157X
Gas and dust	Ex db IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex db [ib] IIB+H <sub>2</sub> T <sup>1)</sup> Gb
Europe (ATEX)	Ex tb IIIC T <sup>1)</sup> Db IP66 CML 18 ATEX 1338X
Gas and dust	Ex II 2 G Ex db IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex II 2 G Ex db [ib] IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex II 2 D Ex tb IIIC T <sup>1)</sup> Db IP66
	<sup>1)</sup> See Selection table, P6/16-17
<b>Certificates</b>	IECEx; ATEX; CUTR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy enclosure, powder coated surface, window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Built-in components</b>	Ammeters voltmeters, power meters, tachometers temperature control meters and other meters, control switches, disconnecting switches, Moulded Case Circuit Breakers (MCCB), Miniature Circuit Breakers(MCB), AC contactors, thermal relays, intermediate relays, time relays, control transformers, DC power supplies, current transformers, surge protectors, PLCs, fuses, soft starters, frequency converters, terminals, bus bars, resistors, light-operated switches, time controllers, optical fiber control boxes, magnet valves, analytical instruments, heaters, self-regulation trace heating cables, display screens, magnetic ballasts of HID light sources, electronic ballasts of fluorescent lamps, drivers of LED light sources, emergency devices of HID light sources, emergency devices of fluorescent lamps, emergency devices of LED light sources, safety barriers, integrated protectors of motors, lighting building controllers, lighting energy saving controllers, fire monitoring controllers, temperature controllers, humidity controllers, current monitors, voltage monitors, motor protection switches, dual power transfer switches, counters, timers, solid state relays, diode modules, industrial personal computers, UPS, batteries.
<b>Rated voltage</b>	Max. 1000V AC 50/60Hz Max. 1500V DC
<b>Rated current</b>	Max. 1200A
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8, M8/M8
<b>Ambient temperature</b>	-60°C~+60°C(+40°C)
<b>Cable entries</b>	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT □ plug on request.
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Entry direction</b>	Bottom
<b>Mounting</b>	Surface type (standard) Pedestal type (optional)



## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels

See table for max. dissipated power

Ta=60°C	HRMD91 with metal cover without glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD91-I	200	70	80	33	38	17
HRMD91-II	200	65	80	31	40	17
HRMD91-IIB	240	67	100	31	50	17
HRMD91-III	290	66	130	32	60	17
HRMD91-IIIB	350	67	140	32	75	17
HRMD91-IV	420	62	190	33	100	17
HRMD91-IVB	500	65	210	34	100	17
HRMD91-V	520	60	240	31	125	17
HRMD91-VB	620	61	280	31	140	17
HRMD91-VI	660	61	300	31	150	17
HRMD91-VIB	660	53	330	31	180	17
HRMD91-VII	700	50	400	28	210	17
HRMD91-VIIB	700	49	400	27	220	17

Ta=60°C	HRMD91 with metal cover with glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD91-I	170	69	70	33	38	17
HRMD91-II	170	69	70	33	38	17
HRMD91-IIB	200	69	80	33	38	17
HRMD91-III	260	66	110	33	55	17
HRMD91-IIIB	320	67	120	31	65	17
HRMD91-IV	380	69	160	35	72	17
HRMD91-IVB	425	68	170	34	81	17
HRMD91-V	450	66	200	34	90	17
HRMD91-VB	540	66	220	34	100	17
HRMD91-VI	620	70	260	34	140	17
HRMD91-VIB	660	58	330	34	170	17
HRMD91-VII	700	56	400	32	185	17
HRMD91-VIIB	700	56	400	32	190	17

Ta=40°C	HRMD91 with full metal cover without glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD91-I	240	85	150	54	90	37
HRMD91-II	250	84	150	54	90	37
HRMD91-IIB	300	85	170	54	110	37
HRMD91-III	360	84	210	54	140	37
HRMD91-IIIB	430	83	230	54	190	37
HRMD91-IV	550	82	310	54	210	37
HRMD91-IVB	640	84	330	54	220	37
HRMD91-V	710	83	410	54	270	37
HRMD91-VB	830	82	480	54	300	37
HRMD91-VI	870	81	520	54	320	37
HRMD91-VIB	980	79	570	54	390	37
HRMD91-VII	1100	79	770	54	460	37
HRMD91-VIIB	1100	77	800	54	480	37

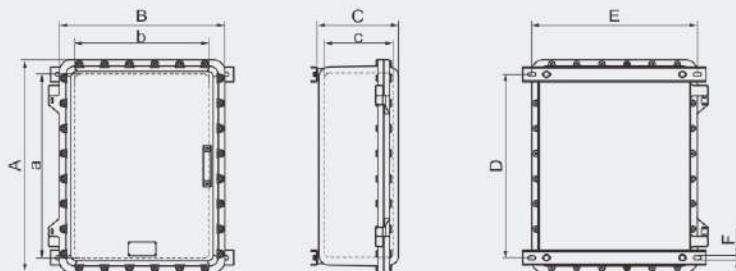


## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels

Ta=40°C	HRMD91 with full metal cover with glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
	Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)
HRMD91-I	220	85	120	53	80	37
HRMD91-II	220	84	120	53	80	37
HRMD91-IIB	240	79	140	53	90	37
HRMD91-III	330	85	180	54	120	37
HRMD91-IIIB	400	84	200	53	140	37
HRMD91-IV	450	83	240	53	170	37
HRMD91-IVB	510	82	260	53	180	37
HRMD91-V	550	81	310	53	210	37
HRMD91-VB	610	80	350	53	240	37
HRMD91-VI	700	79	400	53	310	37
HRMD91-VIB	888	78	510	53	370	37
HRMD91-VII	970	78	650	53	450	37
HRMD91-VIIB	975	78	660	53	460	37

#### Dimension drawings (all dimensions in mm) - subject to alteration



Version	External dimension			Internal dimension			Mounting dimension			Weight of enclosure (kg)
	A	B	C	a	b	c	D	E	F	
HRMD91-I	250	200	170	192	142	131	180	200	10	6.70
HRMD91-II	300	200	170	242	142	131	230	200	10	8.00
HRMD91-IIB	350	200	170	292	142	131	280	200	10	9.50
HRMD91-III	350	300	200	290	240	159	280	300	12	14.50
HRMD91-IIIB	350	300	270	290	240	229	280	300	12	17.50
HRMD91-IV	450	350	210	378	278	163	365	350	12	23.00
HRMD91-IVB	450	350	280	378	278	233	365	350	12	27.50
HRMD91-V	560	400	210	488	328	155	475	400	14	34.50
HRMD91-VB	560	400	280	488	328	225	475	400	14	39.50
HRMD91-VI	634	434	265	560	360	205	522	430	14	46.00
HRMD91-VIB	634	434	335	560	360	275	522	430	14	52.00
HRMD91-VII	720	560	275	640	480	215	620	560	14	74.50
HRMD91-VIIB	720	560	345	640	480	285	620	560	14	83.00

Note: For cable entries:

- 1). Please specify the direction and size of each cable entry.
- 2). Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended, please see P7/22~31.

## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels

#### HRMD91 Explosion-proof distribution panels for terminal box use

Suitable for terminal boxes of distribution system

Note: 1. HRMD91 terminal boxes have various different terminal arrangement methods.

2. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The Max. number of terminals and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.
3. This table is only for reference.



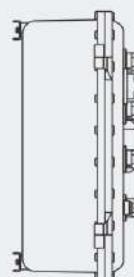
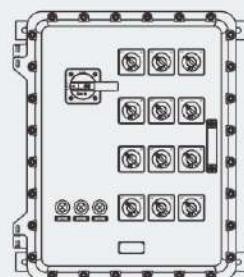
#### HRMD91 Explosion-proof distribution panels for distribution box use

Suitable for power units of distribution system

Note: 1. MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker), AC contactor, thermal overload relay, PLC programmer, soft starter, HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc. in HRMD91 distribution boxes.

2. HRMD91 power unit can be used for distribution or on-off of circuit. It also can be used for controlling the start, stop, corotation and inversion of motor and provide comprehensive protection for motor. It can be equipped with two-site control or multi-site control.

3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.



## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels

#### HRMD91 Explosion-proof Distribution panels for control box use

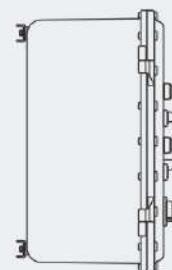
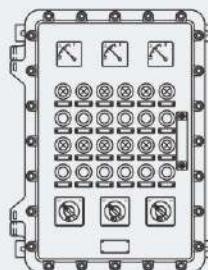
##### Suitable for control unit of distribution system

Note: 1. HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc.in HRMD91 control boxes.

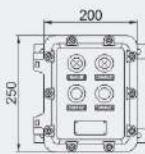
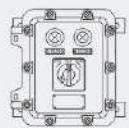
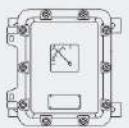
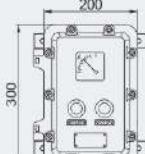
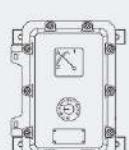
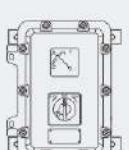
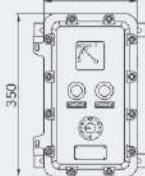
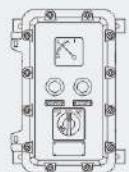
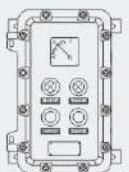
2. HRMD91 control box can be used for on-off operation of circuit. It also can realize the remote control or local control of the start, stop, corotation and inversion of motor. When it is equipped with ammeter, it also can monitor the running of motor and circuit status.

3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate.

The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.



#### Typical scheme diagram

Enclosure type	Components arrangement		
HRMD91-I	  		
HRMD91-II	  		
HRMD91-IIB	  		



## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels

#### Typical scheme diagram

Enclosure type	Components arrangement		
HRMD91-III			
HRMD91-IIIB			
HRMD91-IV			
HRMD91-IVB			
HRMD91-V			

## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Panels

#### Typical scheme diagram

Enclosure type	Components arrangement		
HRMD91-VB			
HRMD91-VI			
HRMD91-VIB			
HRMD91-VII			
HRMD91-VIIB			



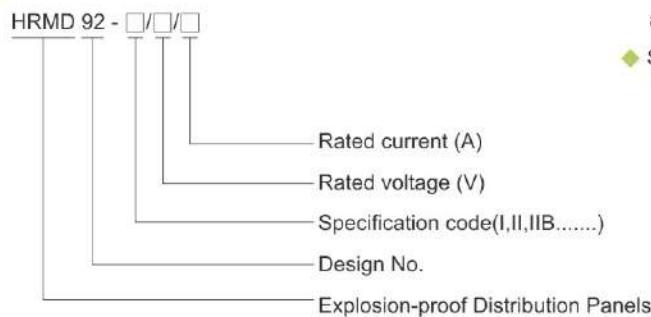
## Distribution Boxes

### HRMD92 Series Explosion-proof Distribution Panels



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Flameproof enclosure (Ex d IIB+H2), which can be used as feed distribution equipment in control and distribution system (such as distribution box, switch box of main circuit, control box, terminal box or motor starting box etc.)
- ◆ Enclosure: stainless steel.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the panels, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.

#### Catalogue number logic



**Zones1& 2; 21& 22**

# Distribution Boxes

## HRMD92 Series Explosion-proof Distribution Panels

Technical data	
<b>Explosion-proof Distribution Panels</b>	<b>HRMD92-□/□/□</b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CML19.0176X
Gas and dust	Where the Spec. type is: I, II, IIB ... VIIIB Ex db IIB+H <sub>2</sub> T <sup>1</sup> Gb Ex db [ib] IIB+H <sub>2</sub> T <sup>1</sup> Gb Ex tb IIIC T <sup>1</sup> Db IP66 Where the Spec. type is: VIII, VIIIB, IX, IXB Ex db IIB T <sup>1</sup> Gb Ex db [ib] IIB T <sup>1</sup> Gb Ex tb IIIC T <sup>1</sup> Db IP66
Europe (ATEX)	CML 19 ATEX 1482X Where the Spec. type is: I, II, IIB ... VIIIB Ex II 2 G Ex db IIB+H <sub>2</sub> T <sup>1</sup> Gb Ex II 2 G Ex db [ib] IIB+H <sub>2</sub> T <sup>1</sup> Gb Ex II 2 D Ex tb IIIC T <sup>1</sup> Db IP66 Where the Spec. type is: VIII, VIIIB, IX, IXB Ex II 2 G Ex db IIB T <sup>1</sup> Gb Ex II 2 G Ex db [ib] IIB T <sup>1</sup> Gb Ex II 2 D Ex tb IIIC T <sup>1</sup> Db IP66
	<sup>1</sup> See Selection table, P6/24-25
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Enclosure material</b>	Stainless steel.
<b>Exposed fastener</b>	Stainless steel
<b>Built-in components</b>	Ammeters voltmeters, power meters, tachometers temperature control meters and other meters, control switches, disconnecting switches, Moulded Case Circuit Breakers (MCCB), Miniature Circuit Breakers(MCB), AC contactors, thermal relays, intermediate relays, time relays, control transformers, DC power supplies, current transformers, surge protectors, PLCs, fuses, soft starters, frequency converters, terminals, bus bars, resistors, light-operated switches, time controllers, optical fiber control boxes, magnet valves, analytical instruments, heaters, self-regulation trace heating cables, display screens, magnetic ballasts of HID light sources, electronic ballasts of fluorescent lamps, drivers of LED light sources, emergency devices of HID light sources, emergency devices of fluorescent lamps, emergency devices of LED light sources, safety barriers, integrated protectors of motors, lighting building controllers, lighting energy saving controllers, fire monitoring controllers, temperature controllers, humidity controllers, current monitors, voltage monitors, motor protection switches, dual power transfer switches, counters, timers, solid state relays, diode modules, industrial personal computers, UPS, batteries.
<b>Rated voltage</b>	Max. 1000V AC 50/60Hz Max. 1500V DC
<b>Rated current</b>	Max. 2000A
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+60°C(+40°C)
<b>Cable entries</b>	Standard M <sub>□</sub> x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT <sub>□</sub> plug on request.
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Entry direction</b>	Bottom
<b>Mounting</b>	Surface type (standard) Pedestal type (optional)



## Distribution Boxes

### HRMD92 Series Explosion-proof Distribution Panels

#### Selection table for max. dissipated power

Ta=60°C	HRMD92 with full metal cover without glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
	Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)
HRMD92-I	101	70	51	35	22	17
HRMD92-II	101	70	51	35	25	17
HRMD92-IIB	101	70	51	35	25	17
HRMD92-III	145	70	73	35	31	17
HRMD92-IIIB	168	70	84	35	41	17
HRMD92-IV	148	70	74	35	36	17
HRMD92-IVB	188	70	94	35	46	17
HRMD92-V	190	70	95	35	40	17
HRMD92-VB	239	70	119	35	56	17
HRMD92-VI	279	70	139	35	55	17
HRMD92-VIB	288	70	144	35	70	17
HRMD92-VII	279	70	139	35	55	17
HRMD92-VIIB	299	70	149	35	72	17
HRMD92-VIII	686	70	343	35	167	17
HRMD92-VIIB	743	70	371	35	180	17
HRMD92-IX	975	70	488	35	237	17
HRMD92-IXB	1149	70	575	35	279	17



Ta=60°C	HRMD92 with metal cover with glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
	Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)
HRMD92-I	101	70	51	35	19	17
HRMD92-II	101	70	51	35	20	17
HRMD92-IIB	129	70	65	35	26	17
HRMD92-III	150	70	75	35	31	17
HRMD92-IIIB	155	70	77	35	38	17
HRMD92-IV	215	70	108	35	38	17
HRMD92-IVB	224	70	112	35	49	17
HRMD92-V	187	70	93	35	37	17
HRMD92-VB	251	70	125	35	61	17
HRMD92-VI	266	70	133	35	71	17
HRMD92-VIB	319	70	160	35	79	17
HRMD92-VII	290	70	145	35	71	17
HRMD92-VIIB	313	70	157	35	76	17
HRMD92-VIII	709	70	354	35	172	17
HRMD92-VIIB	780	70	390	35	189	17
HRMD92-IX	953	70	476	35	231	17
HRMD92-IXB	1206	70	603	35	293	17

## Distribution Boxes

### HRMD92 Series Explosion-proof Distribution Panels

Ta=40°C	HRMD92 with metal cover without glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD92-I	130	90	79	55	43	37
HRMD92-II	130	90	79	55	53	37
HRMD92-IIB	130	90	79	55	53	37
HRMD92-III	187	90	114	55	61	37
HRMD92-IIIB	216	90	132	55	89	37
HRMD92-IV	190	90	116	55	89	37
HRMD92-IVB	242	90	148	55	99	37
HRMD92-V	244	90	149	55	78	37
HRMD92-VB	307	90	188	55	111	37
HRMD92-VI	358	90	219	55	147	37
HRMD92-VIB	371	90	226	55	152	37
HRMD92-VII	358	90	219	55	108	37
HRMD92-VIIB	384	90	235	55	158	37
HRMD92-VIII	882	90	539	55	362	37
HRMD92-VIIB	955	90	584	55	393	37
HRMD92-IX	1254	90	766	55	515	37
HRMD92-IXB	1478	90	903	55	607	37

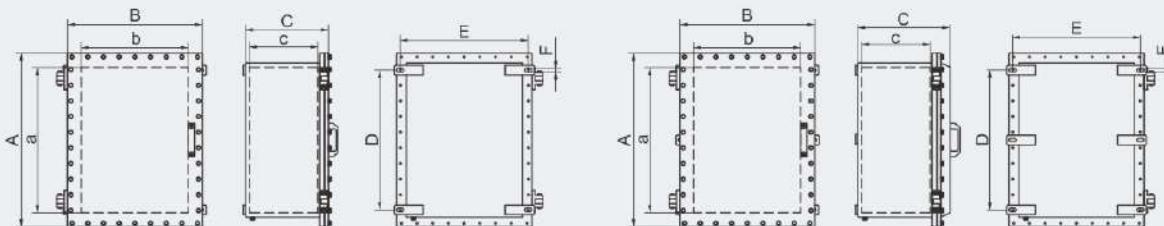
Ta=40°C	HRMD92 with full metal cover with glass					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD92-I	130	90	79	55	19	37
HRMD92-II	130	90	79	55	20	37
HRMD92-IIB	166	90	101	55	26	37
HRMD92-III	193	90	118	55	31	37
HRMD92-IIIB	199	90	122	55	38	37
HRMD92-IV	277	90	169	55	38	37
HRMD92-IVB	288	90	176	55	49	37
HRMD92-V	240	90	147	55	37	37
HRMD92-VB	322	90	197	55	61	37
HRMD92-VI	342	90	209	55	71	37
HRMD92-VIB	411	90	251	55	79	37
HRMD92-VII	373	90	228	55	71	37
HRMD92-VIIB	403	90	246	55	76	37
HRMD92-VIII	911	90	557	55	172	37
HRMD92-VIIB	1003	90	613	55	189	37
HRMD92-IX	1225	90	749	55	231	37
HRMD92-IXB	1551	90	948	55	293	37



## Distribution Boxes

### HRMD92 Series Explosion-proof Distribution Panels

**Dimension drawings** (all dimensions in mm) - subject to alteration



HRMD92-I/□/□ ~ HRMD92-VIIB/□/□

HRMD92-VIII/□/□ ~ HRMD92-IXB/□/□

Version	External dimension			Internal dimension			Mounting dimension			Weight of enclosure (kg)
	A	B	C	a	b	c	D	E	F	
HRMD92-I	250	200	170	192	142	135	150	180	9	15.30
HRMD92-II	300	200	170	242	142	135	200	180	10	17.70
HRMD92-IIIB	350	200	170	292	142	163	250	180	10	20.10
HRMD92-III	350	300	200	292	242	168	250	290	10	28.70
HRMD92-IIIB	350	300	270	292	242	238	250	290	10	31.80
HRMD92-IV	450	350	210	362	262	163	330	318	10	44.80
HRMD92-IVB	450	350	280	362	262	233	330	318	10	49.40
HRMD92-V	560	400	210	468	308	163	420	370	14	68.30
HRMD92-VB	560	400	280	468	308	225	420	370	14	73.80
HRMD92-VI	634	434	265	542	342	218	494	404	14	103.50
HRMD92-VIB	634	434	335	542	342	319	494	404	14	112.80
HRMD92-VII	720	560	275	628	468	228	580	530	14	156.10
HRMD92-VIIB	720	560	345	628	468	298	580	530	14	169.30
HRMD92-VIII	980	720	325	884	624	272	840	690	14	329.40
HRMD92-VIIB	980	720	425	884	624	372	840	690	14	354.90
HRMD92-IX	1280	900	350	1184	804	297	1140	870	14	589.80
HRMD92-IXB	1280	900	500	1184	804	447	1140	870	14	655.90

Note: For cable entries:

- 1). Please specify the direction and size of each cable entry.
- 2). Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended, please see P7/22~31.



#### HRMD92 Explosion-proof distribution panels for terminal box use

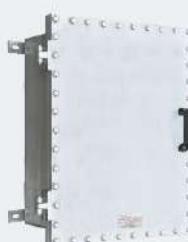
Suitable for terminal boxes of distribution system

Note: 1. HRMD92 terminal boxes have various different terminal arrangement methods.

2. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate.

The Max. number of terminals and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

3. This table is only for reference.



#### HRMD92 Explosion-proof Distribution Panels for control box use

Suitable for control unit of distribution system

Note: 1. HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc.in HRMD92 control boxes.

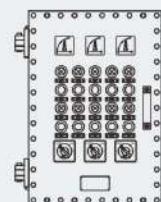
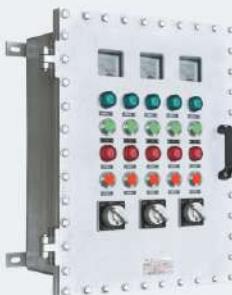
2. HRMD92 control box can be used for on-off operation of circuit. It also can realize the remote control or local control of the start, stop, corotation and inversion of motor. When it is equipped with ammeter, it also can monitor the running of motor and circuit status.

3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

## Distribution Boxes

### HRMD92 Series Explosion-proof Distribution Panels

#### Example diagram for control box use

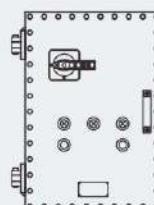
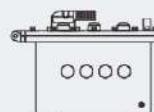


#### HRMD92 Explosion-proof distribution panels for distribution box use

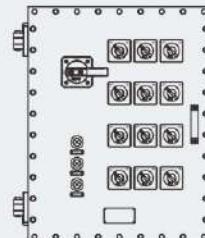
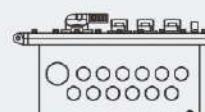
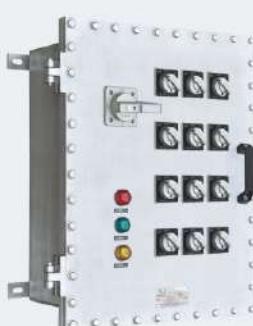
##### Suitable for power units of distribution system

- Note: 1. MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker), AC contactor, thermal overload relay, PLC programmer, soft starter, HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc. in HRMD92 distribution boxes.
2. HRMD92 power unit can be used for distribution or on-off of circuit. It also can be used for controlling the start, stop, corotation and inversion of motor and provide comprehensive protection for motor. It can be equipped with two-site control or multi-site control.
3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

#### Example diagram for distribution box use



Use for motor starting



Use for illumination (power) distribution

## Distribution Boxes

### HRMD92 Series Explosion-proof Distribution Panels

Typical scheme diagram

Enclosure type	Components arrangement		
HRMD92-I			
HRMD92-II			
HRMD92-IIB			
HRMD92-III			
HRMD92-IIIB			
HRMD92-IV			
HRMD92-IVB			
HRMD92-V			
HRMD92-VB			
HRMD92-VI			



# Distribution Boxes

## HRMD92 Series Explosion-proof Distribution Panels

### Typical scheme diagram

Enclosure type	Components arrangement		
HRMD92-VIB			
HRMD92-VII			
HRMD92-VIIB			
HRMD92-VIII			
HRMD92-VIIB			
HRMD92-IX			
HRMD92-IXB			



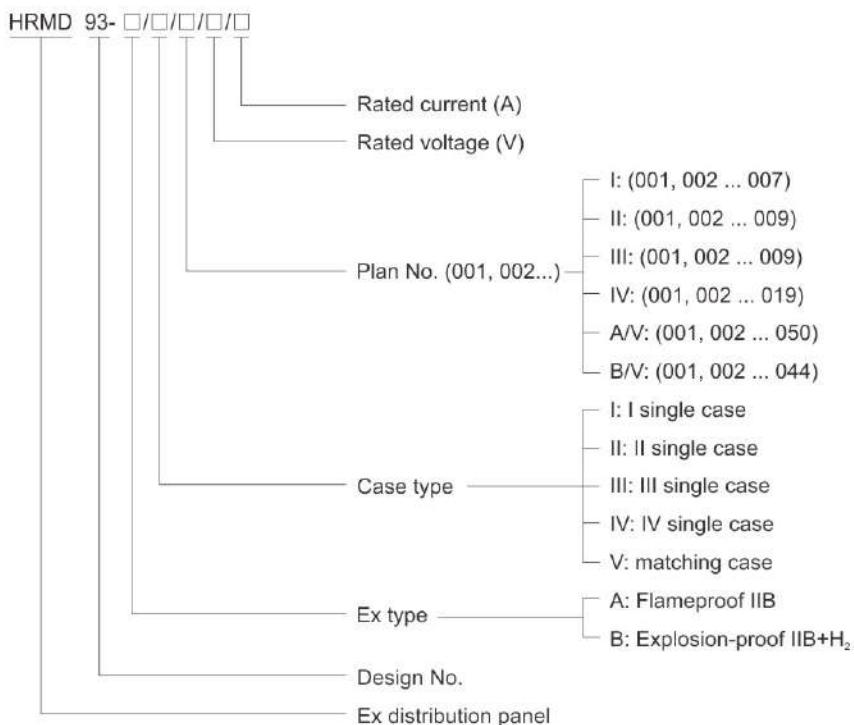
## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Main switch and branch switch are operated with external rotary actuator.
- ◆ Internal wiring to the terminal is finished.
- ◆ International brand of explosion-proof terminal blocks.
- ◆ Copper-free Aluminium Alloy, powder coated surface.
- ◆ Entries plugged. Cable glands on request (see P7/19~31).
- ◆ Special requirements on request.

#### ■ Catalogue number logic



**Zones 1& 2; 21& 22**

# Distribution Boxes

## HRMD93 Series Explosion-proof Distribution Panels

Technical data	
<b>Explosion-proof distribution panels</b> <b>HRMD93-□/□/□/□</b>	
<b>Explosion protection</b>	
Global (IECEx)	IECEx PCET 22.0011X
Gas and dust	Ambient temperature range: $-60^{\circ}\text{C} \leq \text{Ta} \leq +40(+60^{\circ}\text{C})$ Ex db IIB T6...T4 Gb Ex db IIB+H <sub>2</sub> T6...T4 Gb Ex tb IIIC T80°C...T130°C Db Ambient temperature range: $-40^{\circ}\text{C} \leq \text{Ta} \leq +40(+60^{\circ}\text{C})$ Ex db [ia Ga] IIB T6...T4 Gb Ex db [ib Gb] IIB T6...T4 Gb Ex db [ia Ga] IIB+H <sub>2</sub> T6...T4 Gb Ex db [ib Gb] IIB+H <sub>2</sub> T6...T4 Gb Ex tb IIIC T80°C...T130°C Db TPS 23 ATEX 089761 0029 X
Europe (ATEX)	Ambient temperature range: $-60^{\circ}\text{C} \leq \text{Ta} \leq +40(+60^{\circ}\text{C})$ Ex II 2 G Ex db IIB T6...T4 Gb Ex II 2 G Ex db IIB+H <sub>2</sub> T6...T4 Gb Ex II 2 D Ex tb IIIC T80°C...T130°C Db Ambient temperature range: $-40^{\circ}\text{C} \leq \text{Ta} \leq +40(+60^{\circ}\text{C})$ Ex II 2 G Ex db [ia Ga] IIB T6...T4 Gb Ex II 2 G Ex db [ib Gb] IIB T6...T4 Gb Ex II 2 G Ex db [ia Ga] IIB+H <sub>2</sub> T6...T4 Gb Ex II 2 G Ex db [ib Gb] IIB+H <sub>2</sub> T6...T4 Gb Ex II 2 D Ex tb IIIC T80°C...T130°C Db
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Rated voltage</b>	Low voltage: MAX. 1000V AC 50/60Hz; MAX. 1500V DC High voltage: 6kV, 10kV, 24kV, 35kV AC 50/60Hz
<b>Rated current</b>	Max. 2000A
<b>Exposed fastener</b>	Stainless steel
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Built-in components</b>	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of terminal blocks
Indicator	Red, green, yellow
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8, M8/M8
<b>Ambient temperature</b>	$-40^{\circ}\text{C} \leq \text{Ta} \leq +40(+60^{\circ}\text{C})$ , $-60^{\circ}\text{C} \leq \text{Ta} \leq +40(+60^{\circ}\text{C})$
<b>Cable entries</b>	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT □ plug on request.
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
<b>Entry direction</b>	Bottom
<b>Mounting</b>	Surface type (standard) Pedestal type (optional)



## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels

#### Form of maximum power dissipation and temperature rise

Ta=60°C	HRMD93 with full metal cover without glass window					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD93-B/I	178	50	106	35	52	18
HRMD93-B/II	300	50	132	35	63	18
HRMD93-B/III	425	50	250	35	130	18
HRMD93-B/IV	700	50	410	35	215	18

#### HRMD93 with full metal cover with glass window

Ta=60°C	HRMD93 with full metal cover with glass window					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD93-B/I	150	50	85	35	38	18
HRMD93-B/II	185	50	112	35	58	18
HRMD93-B/III	325	50	210	35	95	18
HRMD93-B/IV	700	50	410	35	180	18

#### HRMD93 with full metal cover without glass window

Ta=40°C	HRMD93 with full metal cover without glass window					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD93-B/I	255	70	178	55	116	38
HRMD93-B/II	375	70	215	55	150	38
HRMD93-B/III	575	70	425	55	276	38
HRMD93-B/IV	975	70	700	55	480	38

#### HRMD93 with full metal cover with glass window

Ta=40°C	HRMD93 with full metal cover with glass window					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD93-B/I	255	70	150	55	96	38
HRMD93-B/II	375	70	185	55	130	38
HRMD93-B/III	575	70	325	55	215	38
HRMD93-B/IV	975	70	660	55	460	38

#### Power consumption at Ta=60°C

Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-A/V/045	type III and IV	III: 310W IV: 460W	III: 155W IV: 310W	III: 80W IV: 160W
*HRMD93-A/V/046	type II and III and IV	II: 146W III: 280W IV: 383W	II: 115W III: 155W IV: 310W	II: 50W III: 80W IV: 160W
*HRMD93-A/V/047	type I and II and III and IV	I: 108W II: 146W III: 280W IV: 383W	I: 55W II: 110W III: 150W IV: 305W	I: 30W II: 50W III: 80W IV: 160W
*HRMD93-A/V/048	type I and III and IV	I: 103W III: 275W IV: 378W	I: 60W III: 155W IV: 310W	I: 30W III: 80W IV: 160W

## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels

Power consumption at Ta=40°C				
Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-A/V/045	type III and IV	III: 370W IV: 787W	III: 310W IV: 460W	III: 155W IV: 310W
*HRMD93-A/V/046	type II and III and IV	II: 245W III: 393W IV: 787W	II: 146W III: 280W IV: 383W	II: 115W III: 155W IV: 310W
*HRMD93-A/V/047	type I and II and III and IV	I: 150W II: 220W III: 320W IV: 700W	I: 108W II: 146W III: 280W IV: 383W	I: 55W II: 110W III: 150W IV: 305W
*HRMD93-A/V/048	type I and III and IV	I: 150W III: 385W IV: 787W	I: 103W III: 275W IV: 378W	I: 60W III: 155W IV: 310W

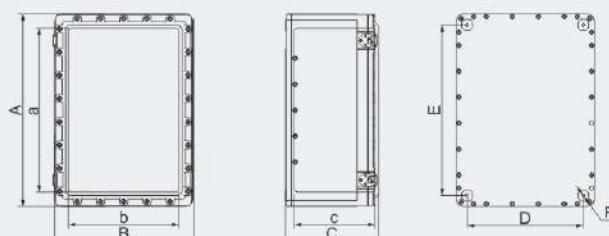
Power consumption at Ta=60°C				
Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-B/V/025	type I and II	I: 116W II: 153W	I: 60W II: 115W	I: 30W II: 50W
*HRMD93-B/V/020	type II and IV	II: 146W IV: 460W	II: 115W IV: 310W	II: 50W IV: 160W
*HRMD93-B/V/019	type III and IV	III: 310W IV: 460W	III: 155W IV: 310W	III: 80W IV: 160W

Power consumption at Ta=40°C				
Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-B/V/025	type I and II	I: 150W II: 225W	I: 116W II: 153W	I: 60W II: 115W
*HRMD93-B/V/020	type II and IV	II: 245W IV: 787W	II: 146W IV: 460W	II: 115W IV: 310W
*HRMD93-B/V/019	type III and IV	III: 385W IV: 787W	III: 310W IV: 460W	III: 155W IV: 310W

Note: \*reference represents a representative type, which can cover the type of HRMD93-B/V and HRMD93-A/V.



#### Dimension drawings (all dimensions in mm) - subject to alteration



Version	External dimension			Internal dimension			Mounting dimension			Wight of enclosure (kg)
	A	B	C	a	b	c	D	E	F	
I	250	200	215	175	125	173	125	175	M10	21.00
II	350	250	290	280	180	236	175	175	M10	40.10
III	500	350	298	420	270	233	275	425	M12	76.20
IV	700	500	343	610	410	278	425	625	M12	155.00

#### Note

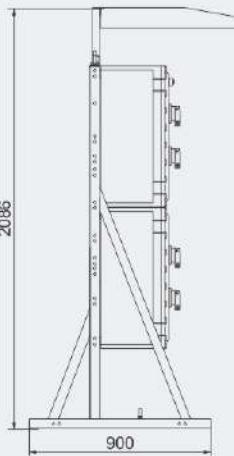
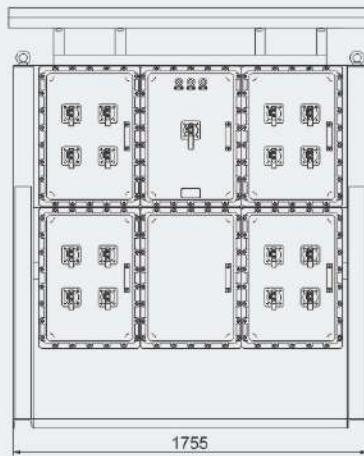
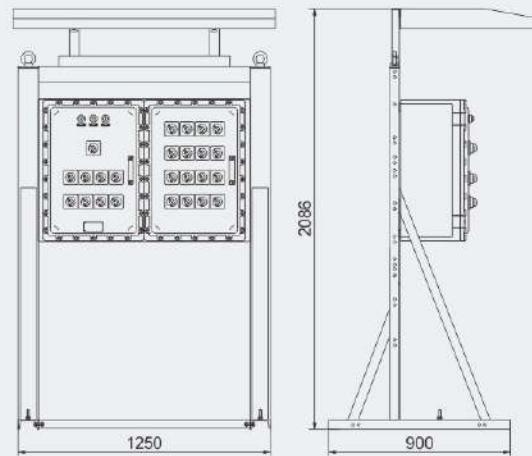
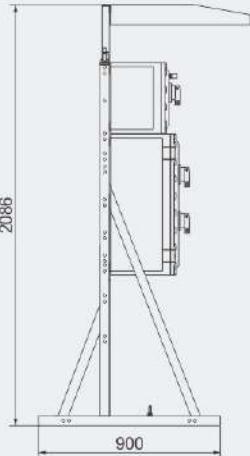
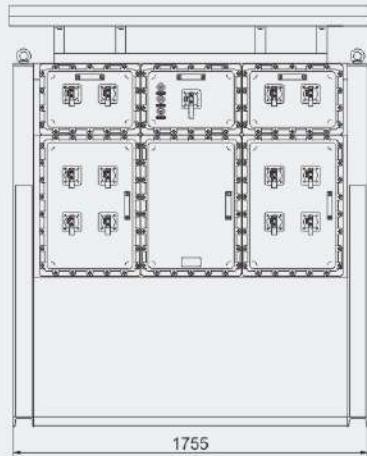
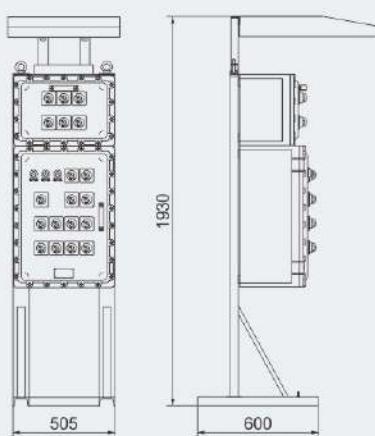
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

## Distribution Boxes

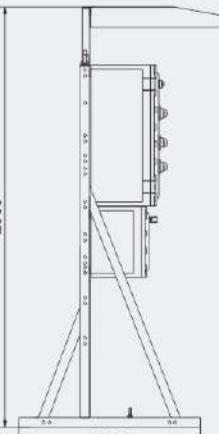
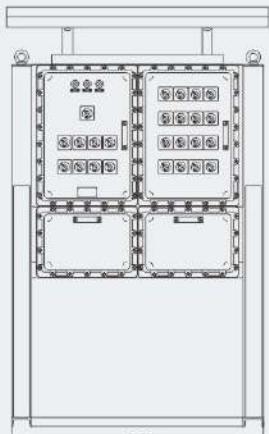
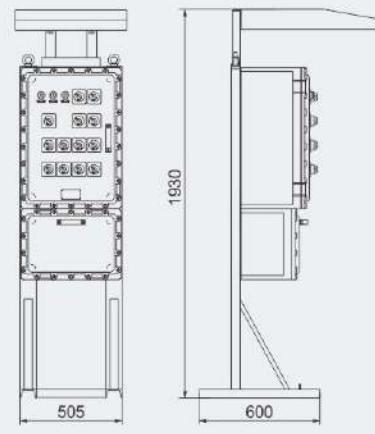
### HRMD93 Series Explosion-proof Distribution Panels

#### Dimension drawings (all dimensions in mm) - subject to alteration

From 2B



From 4B

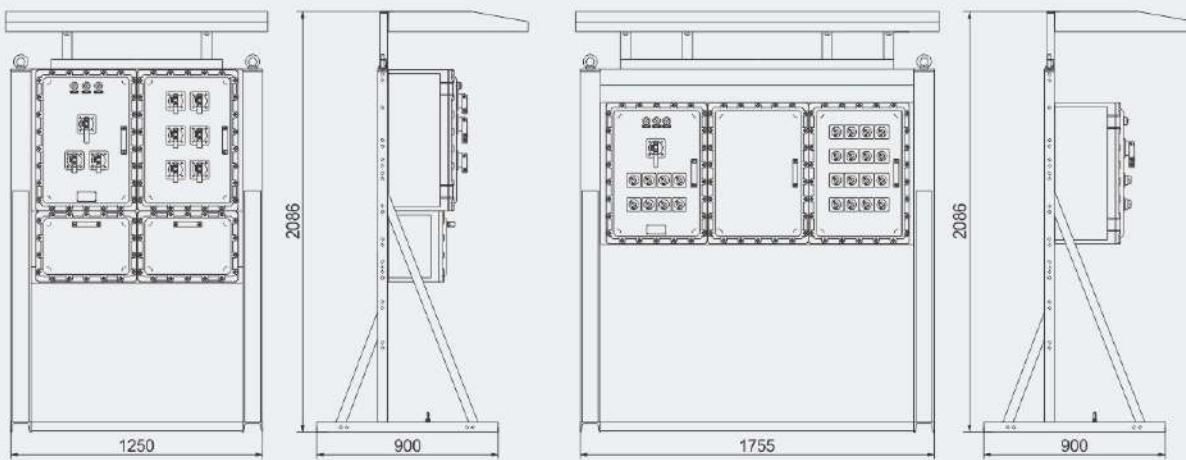


## Distribution Boxes

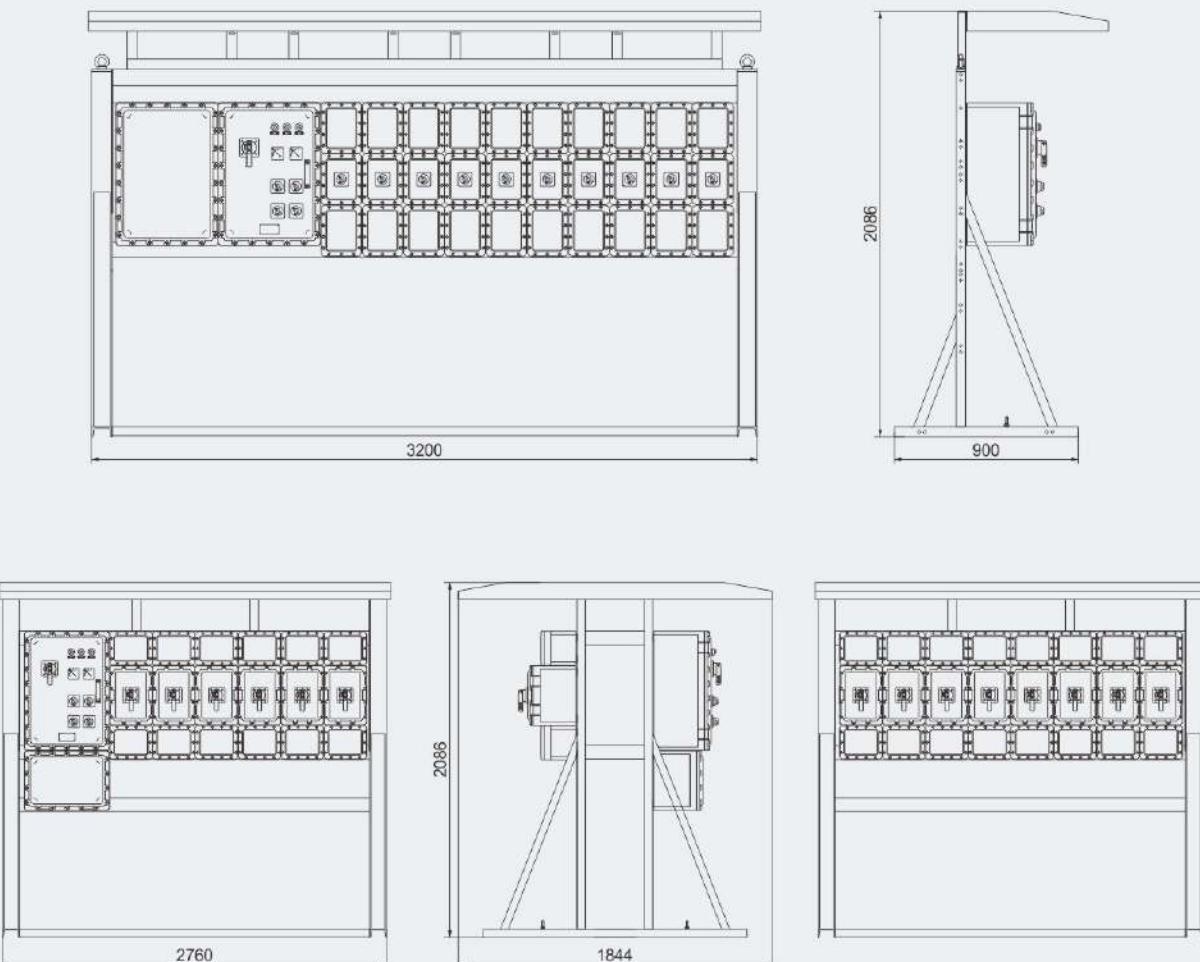
### HRMD93 Series Explosion-proof Distribution Panels

#### Dimension drawings (all dimensions in mm) - subject to alteration

From 4B



Independent type



## Distribution Boxes

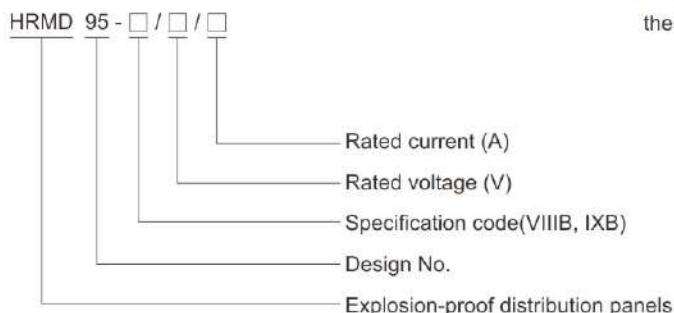
### HRMD95 Series Explosion-proof Distribution Panels



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Flameproof enclosure (Ex d IIB+H<sub>2</sub>), which can be used as feed distribution equipment in control and distribution system(such as distribution box, switch box of main circuit ,control box, terminal box or motor starting box etc.)
- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.
- ◆ The large space of the enclosure makes it easy for wire assembling.
- ◆ Adopting high-precision machining, excellent explosion-proof performance.
- ◆ Professionally designed door handles, reliable and safe when opening the door.
- ◆ Professionally designed hinges, reliable and safe when opening the door.



#### Catalogue number logic



**Zones1& 2; 21& 22**

## Distribution Boxes

### HRMD95 Series Explosion-proof Distribution Panels

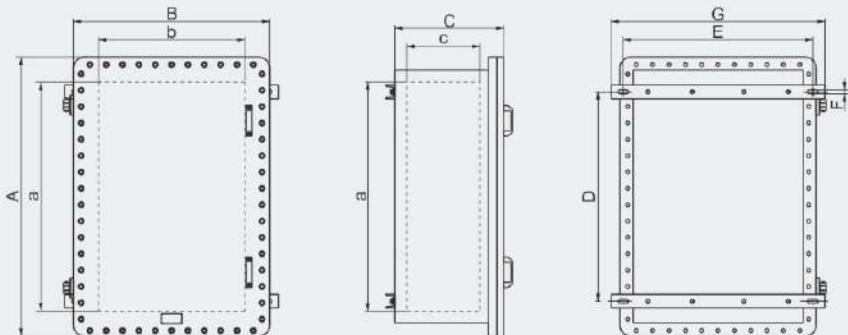
Technical data	
<b>Explosion-proof distribution panels</b>	HRMD95-□/□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx PCET 24.0030X
Gas and dust	Ex db IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex db [ia Ga] IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex db [ib Gb] IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex tb IIIC T <sup>1)</sup> Db ATEX (applied for)
Europe (ATEX)	Ex II 2 G Ex db IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex II 2 G Ex db [ia Ga] IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex II 2 G Ex db [ib Gb] IIB+H <sub>2</sub> T <sup>1)</sup> Gb Ex II 2 D Ex tb IIIC T <sup>1)</sup> Db
	<sup>1)</sup> See table for max. dissipated power
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy enclosure, powder coated surface, window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Built-in components</b>	The cover panel components include buttons, indicator lights, circuit breakers, and operating handles for universal switches, glass windows, etc. The internal components of the enclosure include MCCBs, MCBs, AC contactors, thermal relays, intermediate relays, fuses, transformers, PLCs, soft starters, inverters, terminal blocks, appropriately certified intrinsic safety associated apparatus, switches, gateways, power supplies, small solar panels, fire control modules, and transmitters, Light-operated switch, Time controller, Optical fiber control box, Magnet valve, Analytical instrument, Heater, Self-regulation trace heating cable, Magnetic ballast of HID light source, Electronic ballast of fluorescent lamp, Driver of LED light source, Ammeter, voltmeter, power meter, tachometer, temperature control meter, etc, Disconnecting switch, Time relay, DC power supply, Current transformer, Surge protector, Emergency device of HID light source, Emergency device of fluorescent lamp, Emergency device of LED light source, Safety barrier, Integrated protector of motor, Lighting building controller, Lighting energy saving controller, Fire monitoring controller, PLC, Temperature controller, Humidity controller, Current monitor, Voltage monitor, Motor protection switch, Dual power transfer switch, Counter, Timer, Solid state relay, Diode module, Industrial Personal Computer, UPS, Battery.
<b>Rated voltage</b>	Max. 1000V AC 50/60Hz
<b>Rated current</b>	Max. 1500V DC
<b>Degree of protection</b>	Max. 2000A
<b>Internal&amp;external earthing</b>	IP66
<b>Ambient temperature</b>	M8/M8
<b>Cable entries</b>	-60°C(-40°C)~+60°C(+40°C)
<b>Cable gland (optional)</b>	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT □ plug on request.
<b>Entry direction</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Mounting</b>	Bottom Surface type (standard) Pedestal type (optional)

#### See table for max. dissipated power

Type	Ta max	Cover without glass window			Cover with glass window		
		T4	T5	T6	T4	T5	T6
HRMD95-VIIB	Ta max=40/60°C	955/743	584/371	393/180	1003/780	613/390	189/189
HRMD95-IXB	Ta max=40/60°C	1478/1149	903/575	607/279	1551/1206	948/603	293/293

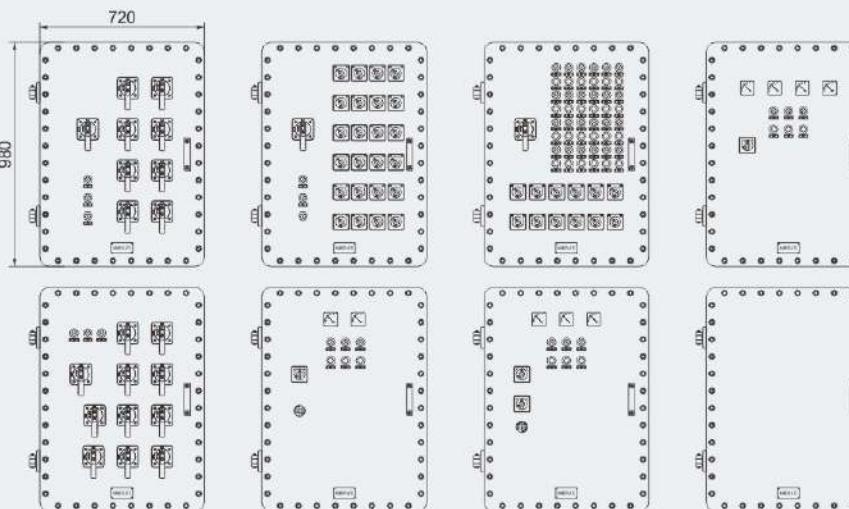
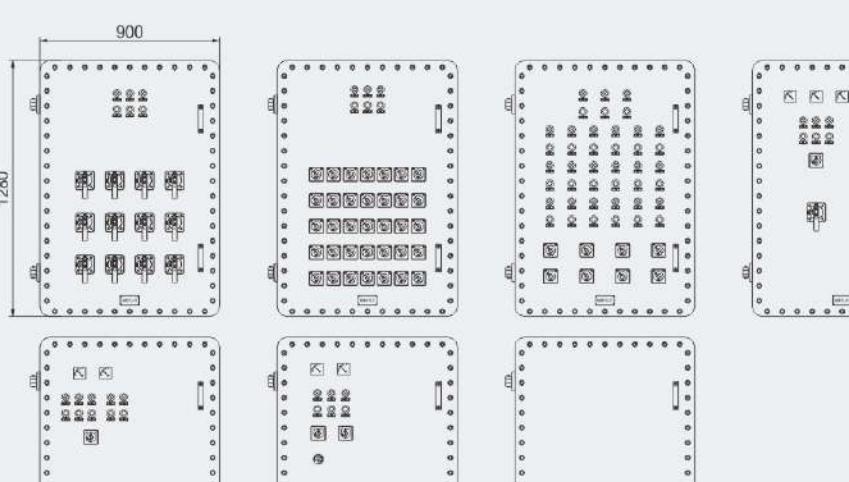


**Dimension drawings** (all dimensions in mm) - subject to alteration



Model	A	B	C	a	b	c	D	E	F	G
HRMD95-VIIB	980	720	425	800	540	270	660	690	18	800
HRMD95-IXB	1280	900	500	1050	670	330	960	870	18	980

### Typical scheme diagram

Enclosure type	Components arrangement
HRMD95-VIIB	
HRMD95-IXB	

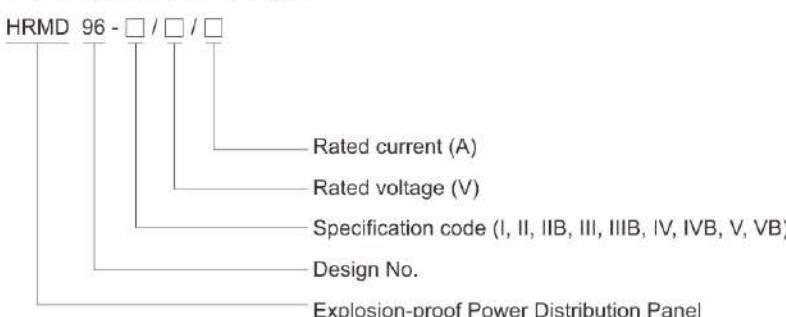
## Distribution Boxes

### HRMD96 Series Explosion-proof Distribution Panels

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Flameproof enclosure (Ex db), which can be used as feed distribution equipment in control and distribution system (such as distribution box, switch box of main circuit ,control box, terminal box or motor starting box etc.)
- ◆ Enclosure: 304 stainless steel, 316L stainless steel and Q235.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.



#### Catalogue number logic



**Zones 1& 2; 21& 22**

## Distribution Boxes

### HRMD96 Series Explosion-proof Distribution Panels

#### Technical data

Explosion-proof distribution panels	HRMD96-□/□/□
<b>Explosion protection</b>	
Global (IECEx)	IECEx PCET 24.0027X
Gas and dust	Ex db IIC T6...T4 <sup>1)</sup> Gb Ex db [ia Ga] IIC T6...T4 <sup>1)</sup> Gb Ex db [ib Gb] IIC T6...T4 <sup>1)</sup> Gb Ex tb IIIC T80°C...T130°C <sup>1)</sup> Db Ex tb [ia Da] IIIC T80°C...T130°C <sup>1)</sup> Db Ex tb [ib Db] IIIC T80°C...T130°C <sup>1)</sup> Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db IIC T6...T4 <sup>1)</sup> Gb Ex II 2 G Ex db [ia Ga] IIC T6...T4 <sup>1)</sup> Gb Ex II 2 G Ex db [ib Gb] IIC T6...T4 <sup>1)</sup> Gb Ex II 2 D Ex tb IIIC T80°C...T130°C <sup>1)</sup> Db Ex II 2 D Ex tb [ia Da] IIIC T80°C...T130°C <sup>1)</sup> Db Ex II 2 D Ex tb [ib Db] IIIC T80°C...T130°C <sup>1)</sup> Db See Selection table, P6/41~42
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN IEC 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Enclosure material</b>	304 stainless steel, 316L stainless steel and Q235
<b>Exposed fastener</b>	Stainless steel
<b>Built-in components</b>	Ammeters voltmeters, power meters, tachometers temperature control meters and other meters, control switches, disconnecting switches, Molded Case Circuit Breakers (MCCB), Miniature Circuit Breakers(MCB), AC contactors, thermal relays, intermediate relays, time relays, control transformers, DC power supplies, current transformers, surge protectors, PLCs, fuses, soft starters, frequency converters, terminals, bus bars, resistors, light-operated switches, time controllers, optical fiber control boxes, magnet valves, analytical instruments, heaters, self-regulation trace heating cables, display screens, magnetic ballasts of HID light sources, electronic ballasts of fluorescent lamps, drivers of LED light sources, emergency devices of HID light sources, emergency devices of fluorescent lamps, emergency devices of LED light sources, safety barriers, integrated protectors of motors, lighting building controllers, lighting energy saving controllers, fire monitoring controllers, temperature controllers, humidity controllers, current monitors, voltage monitors, motor protection switches, dual power transfer switches, counters, timers, solid state relays, diode modules, industrial personal computers, UPS, batteries.
<b>Rated voltage</b>	Max. 1000V AC 50/60Hz Max. 1500V DC
<b>Rated current</b>	Max. 1000A
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C(-40°C)~+60°C(+40°C), -40°C~+60°C(+40°C)
<b>Cable entries</b>	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT □ plug on request.
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31.
<b>Entry direction</b>	Bottom
<b>Mounting</b>	Surface type (standard) Pedestal type (optional)



## Distribution Boxes

### HRMD96 Series Explosion-proof Distribution Panels

#### Selection table for max. dissipated power

Ta=60°C	HRMD96 with full metal cover without glass		
	T4(T130°C)	T5(T95°C)	T6(T80°C)
Type	Power (W)	Power (W)	Power (W)
HRMD96-I	101	51	22
HRMD96-II	216	110	41
HRMD96-IIB	216	110	41
HRMD96-III	302	127	69
HRMD96-IIIB	302	127	69
HRMD96-IV	600	250	150
HRMD96-IVB	600	250	150
HRMD96-V	652	276	140
HRMD96-VB	652	276	140

Ta=60°C	HRMD96 with metal cover with glass		
	T4(T130°C)	T5(T95°C)	T6(T80°C)
Type	Power (W)	Power (W)	Power (W)
HRMD96-I	101	51	19
HRMD96-II	199	101	38
HRMD96-IIB	199	101	38
HRMD96-III	271	120	64
HRMD96-IIIB	271	120	64
HRMD96-IV	603	258	153
HRMD96-IVB	603	258	153
HRMD96-V	650	273	142
HRMD96-VB	650	273	142



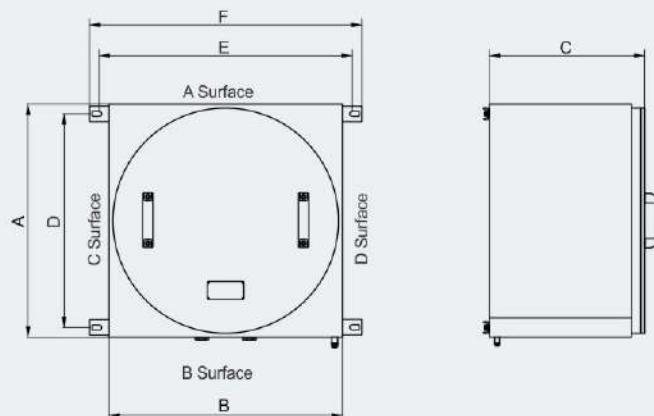
Ta=40°C	HRMD96 with full metal cover without glass		
	T4(T130°C)	T5(T95°C)	T6(T80°C)
Type	Power (W)	Power (W)	Power (W)
HRMD96-I	130	79	51
HRMD96-II	355	168	136
HRMD96-IIB	355	168	136
HRMD96-III	474	223	158
HRMD96-IIIB	474	223	158
HRMD96-IV	800	400	300
HRMD96-IVB	800	400	300
HRMD96-V	858	479	330
HRMD96-VB	858	479	330

## Distribution Boxes

### HRMD96 Series Explosion-proof Distribution Panels

Ta=40°C	HRMD96 with metal cover with glass		
	T4(T130°C)		T5(T95°C)
	Type	Power (W)	Power (W)
HRMD96-I	130	79	51
HRMD96-II	330	155	122
HRMD96-IIB	330	155	122
HRMD96-III	419	214	153
HRMD96-IIIB	419	214	153
HRMD96-IV	806	408	300
HRMD96-IVB	806	408	300
HRMD96-V	852	475	330
HRMD96-VB	852	475	330

#### Dimension drawings (all dimensions in mm) - subject to alteration



Version	Dimension (mm)					
	A	B	C	D	E	F
HRMD96-I	200	200	150	150	226	260
HRMD96-II	300	300	150	250	351	400
HRMD96-IIB	300	300	250	250	351	400
HRMD96-III	400	400	150	350	451	500
HRMD96-IIIB	400	400	250	350	451	500
HRMD96-IV	500	500	250	450	561	600
HRMD96-IVB	500	500	400	450	561	600
HRMD96-V	600	600	250	550	651	700
HRMD96-VB	600	600	400	550	651	700

Note: For cable entries:

- 1). Please specify the direction and size of each cable entry.
- 2). Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended, please see P7/22~31.

## Distribution Boxes

### HRMD96 Series Explosion-proof Distribution Panels

#### Typical scheme diagram

Enclosure	Components arrangement			
HRMD96-I	 200 200			
HRMD96-II HRMD96-IIB	 300 300			
HRMD96-III HRMD96-IIIB	 400 400			
HRMD96-IV HRMD96-IVB	 500 500			
HRMD96-V HRMD96-VB	 600 600			



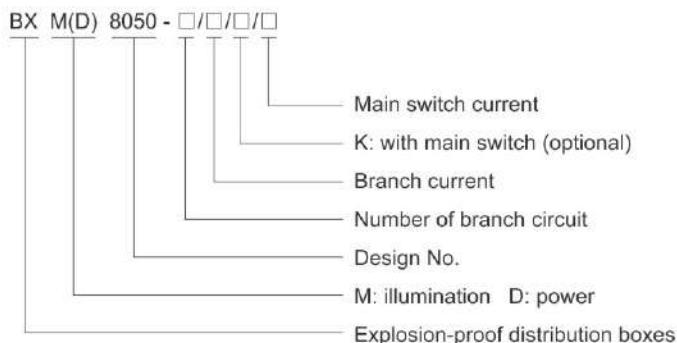
## Distribution Boxes

### BXM(D)8050 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure for modular combination (Ex e).
- ◆ Main switch and branch switch are operated with external rotary actuator.
- ◆ Internal wiring to the terminal is finished.
- ◆ International brand of explosion-proof terminal blocks.
- ◆ Enclosure: GRP (glass fibre-reinforced polyester resin)
- ◆ Entries plugged. Cable glands on request (see P7/18).
- ◆ Special requirements on request.

#### Catalogue number logic



#### Note

1. Please refer to the Selection table on P6/49~51.
2. Please select internal components as below:
  - BL8060 Series explosion-proof circuit breaker modules on P6/58~63.
  - BRT8060 Series explosion-proof fuses on P6/64~65.

**Zones 1&2; 21&22**

## Distribution Boxes

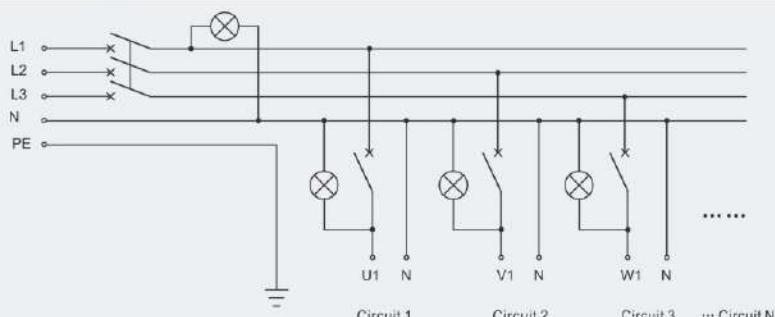
### BXM8050 Series Explosion-proof Illumination Distribution Boxes (Ex d e IIC)

#### Technical data

Explosion-proof illumination distribution boxes		BXM8050-□/□/□/□
<b>Explosion protection</b>		
Global (IECEx)	IECEx CQM 14.0033X	
Gas and dust	Ex db eb mb IIC T5 Gb (Ta: -20°C/-40°C~+40°C) Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+55°C) Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+55°C) When the product is equipped with an explosion-proof heater, the marking is: Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+45°C) Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+45°C) Note: protection type "mb" depends on the use of Ex component certified voltmeter or fuse module.	
Europe (ATEX)	EPT 15 ATEX 2265	
Gas and dust	Ex II 2 G Ex db eb mb IIC T5 Gb (Ta: -20°C/-40°C~+40°C) Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+55°C) Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+55°C) When the product is equipped with an explosion-proof heater, the marking is: Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+45°C) Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+45°C) Note: protection type "mb" depends on the use of Ex component certified voltmeter or fuse module.	
<b>Certificates</b>	IECEx; ATEX; CU-TR	
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31	
<b>Rated voltage</b>	Max. 690V AC 50/60Hz, Max. DC 500V	
<b>Rated current</b>	Max.250A	
<b>Branch current</b>	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A	
<b>Exposed fastener</b>	Stainless steel	
<b>Enclosure</b>	GRP (glass fibre-reinforced polyester resin) Black Ex e	
<b>Built-in components</b>		
Main switch	BL8060 Please see P6/58~63 Note: earth leakage protection on request	
Branch switch	BL8060 Please see P6/58~63 Note: earth leakage protection on request	
Terminal	International brand of explosion-proof terminal blocks	
Indicator	Red	
<b>Degree of protection</b>	IP66	
<b>Ambient temperature</b>	-40°C(-20°C)~+55°C(+45°C/+40°C)	
<b>Cable entries</b>	Standard M□ x 1.5 plug (see the Selection Table on P6/46)	
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/18	
<b>Entry direction</b>	Bottom	
<b>Mounting</b>	Surface type (standard)	



#### Electrical schematic diagram



BXM8050 Series explosion-proof illumination distribution boxes

## Distribution Boxes

### BXM8050 Series Explosion-proof Illumination Distribution Boxes (Ex d e IIC)

Selection table of BXM8050 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM8050-4/□/K/□	BL8060	Current max. 100A	BL8060 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM8050-6/□/K/□						1 x M40 x 1.5 + 6 x M25 x 1.5
BXM8050-8/□/K/□						1 x M40 x 1.5 + 8 x M25 x 1.5
BXM8050-10/□/K/□						1 x M40 x 1.5 + 10 x M25 x 1.5
BXM8050-12/□/K/□						1 x M40 x 1.5 + 12 x M25 x 1.5
BXM8050-4/□					3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM8050-6/□						1 x M40 x 1.5 + 6 x M25 x 1.5
BXM8050-8/□					3	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM8050-10/□						1 x M40 x 1.5 + 10 x M25 x 1.5
BXM8050-12/□					3	1 x M40 x 1.5 + 12 x M25 x 1.5

#### Note

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

## Distribution Boxes

### BXD8050 Series Explosion-proof Power Distribution Boxes (Ex d e IIC)

#### Technical data

##### Explosion-proof power distribution boxes BXD8050-□/□/□/□

###### Explosion protection

Global (IECEx)

Gas and dust

IECEx CQM 14.0033X

Ex db eb mb IIC T5 Gb (Ta: -20°C/-40°C~+40°C)

Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+55°C)

Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+55°C)

When the product is equipped with an explosion-proof heater, the marking is:

Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+45°C)

Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+45°C)

Note: protection type "mb" depends on the use of Ex component certified voltmeter or fuse module.

Europe (ATEX)

Gas and dust

EPT 15 ATEX 2265

Ex II 2 G Ex db eb mb IIC T5 Gb (Ta: -20°C/-40°C~+40°C)

Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+55°C)

Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+55°C)

When the product is equipped with an explosion-proof heater, the marking is:

Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C/-40°C~+45°C)

Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C/-40°C~+45°C)

Note: protection type "mb" depends on the use of Ex component certified voltmeter or fuse module.

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

Max. 690V AC 50/60Hz, Max. DC 500V

Max. 250A

1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

Stainless steel

###### Certificates

###### Conformity to standards

###### Rated voltage

###### Rated current

###### Branch current

###### Exposed fastener

###### Enclosure

Enclosure material

Enclosure colour

Enclosure type

GRP (glass fibre-reinforced polyester resin)

Black

Ex e

###### Built-in components

Main switch

BL8060 Please see P6/58~63

Note: earth leakage protection on request

Branch switch

BL8060 Please see P6/58~63

Note: earth leakage protection on request

Terminal

International brand of explosion-proof terminal blocks

Indicator

Red

###### Degree of protection

IP66

###### Ambient temperature

-40°C(-20°C)~+55°C(+45°C/+40°C)

###### Cable entries

Standard M□ x 1.5 plug (see the Selection Table on P6/48)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18

###### Entry direction

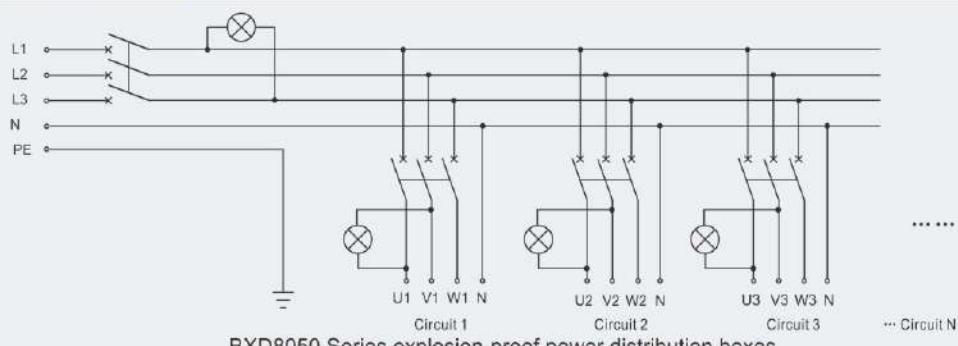
Bottom

###### Mounting

Surface type (standard)



#### Electrical schematic diagram



## Distribution Boxes

## BXD8050 Series Explosion-proof Power Distribution Boxes (Ex d e IIC)

Selection table of BXD8050 series explosion-proof power distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD8050-4/□/K/□	BL8060 Current: max. 250A	4 6 8 10 12	BL8060 3P	1A	3	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD8050-6/□/K/□				2A		
BXD8050-8/□/K/□				4A	3	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD8050-10/□/K/□				6A		
BXD8050-12/□/K/□				10A	3	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD8050-4/□				16A		
BXD8050-6/□				20A	3	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD8050-8/□				25A		
BXD8050-10/□				32A	3	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD8050-12/□				40A		
				50A	3	
				63A		
				On request	3	
BXD8050-4/□	—	4 6 8 10 12	BL8060 3P	1A	3	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD8050-6/□				2A		
BXD8050-8/□				4A	3	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD8050-10/□				6A		
BXD8050-12/□				10A	3	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD8050-4/□				16A		
BXD8050-6/□				20A	3	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD8050-8/□				25A		
BXD8050-10/□				32A	3	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD8050-12/□				40A		
				50A	3	
				63A		
				On request	3	

**Note**

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

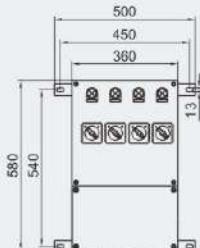
## Distribution Boxes

### BXM(D)8050 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIC)

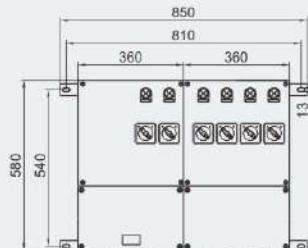
#### Dimension drawings (all dimensions in mm) - subject to alteration

**Note:** The following drawings are suitable for:

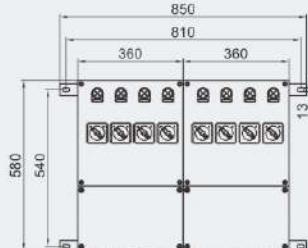
- 1.BXM8050 main switch 63A, branch switch (1P/2P) without earth leakage protection.
- 2.BXD8050 main switch 63A, branch switch (3P) without earth leakage protection.
- 3.BXM8050 main switch 63A, branch switch (1P) with earth leakage protection.



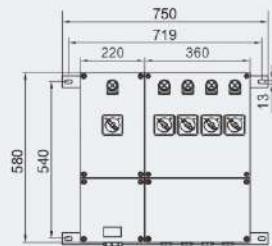
BXM(D)8050-4



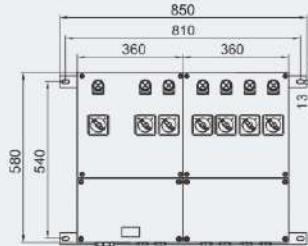
BXM(D)8050-6



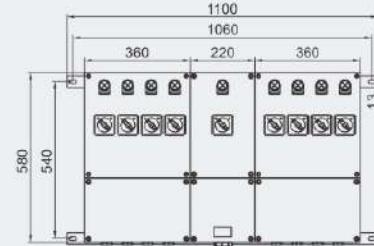
BXM(D)8050-8



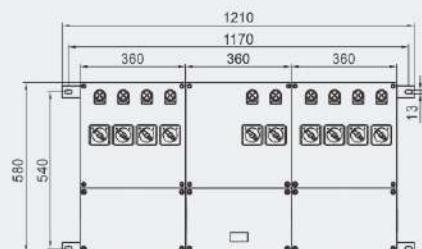
BXM(D)8050-4/K



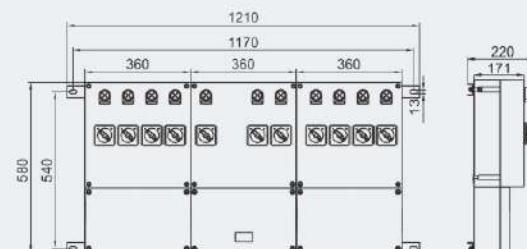
BXM(D)8050-6/K



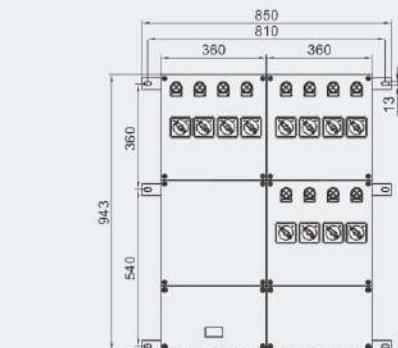
BXM(D)8050-8/K



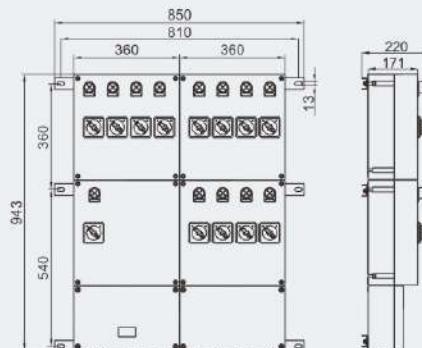
BXM(D)8050-10



BXM(D)8050-10/K



BXM(D)8050-12



BXM(D)8050-12/K



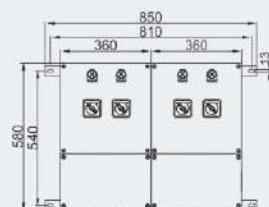
## Distribution Boxes

### BXM8050 Series Explosion-proof Illumination Distribution Boxes (Ex d e IIC)

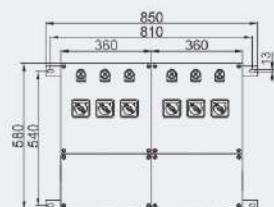
#### Dimension drawings (all dimensions in mm) - subject to alteration

Note: The following drawings are suitable for:

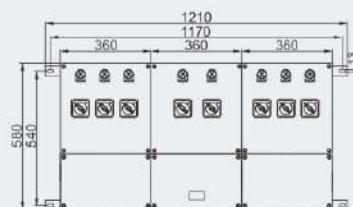
BXM8050 main switch 63A, branch switch (2P) with earth leakage protection.



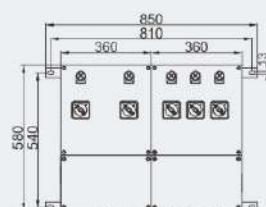
BXM8050-4



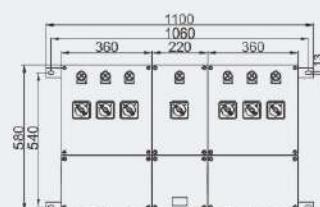
BXM8050-6



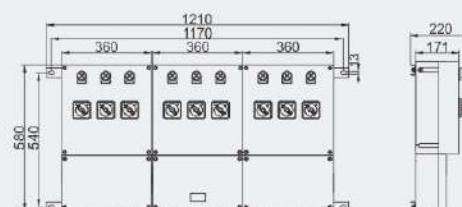
BXM8050-8



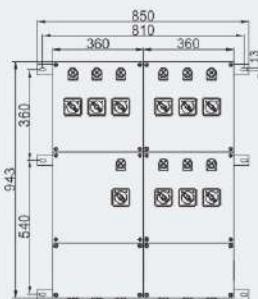
BXM8050-4/K



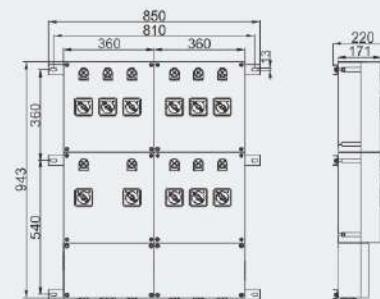
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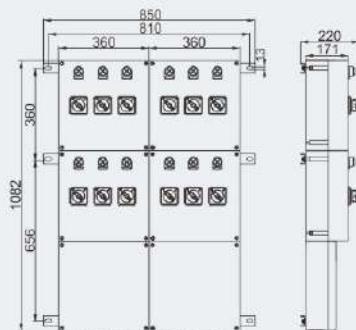
BXM8050-8/K



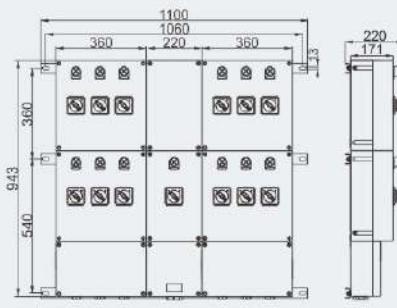
BXM8050-10



BXM8050-10/K



BXM8050-12



BXM8050-12/K

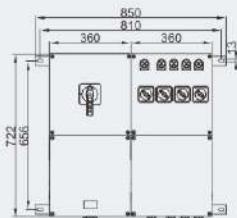
## Distribution Boxes

### BXD8050 Series Explosion-proof Power Distribution Boxes (Ex d e IIC)

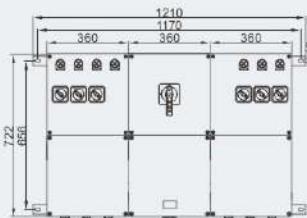
#### Dimension drawings (all dimensions in mm) - subject to alteration

**Note:** The following drawings are suitable for:

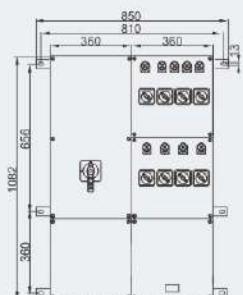
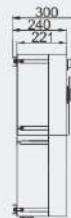
BXD8050 main switch: 80A~250A, branch switch (3P) without earth leakage protection.



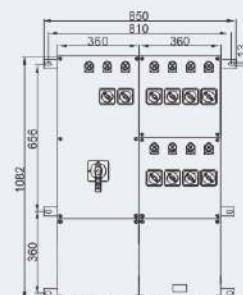
BXD8050-4/K



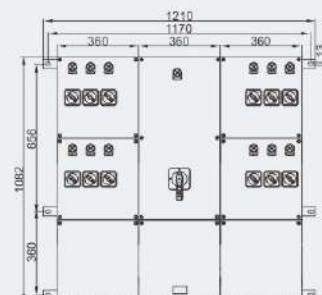
BXD8050-6/K



BXD8050-8/K



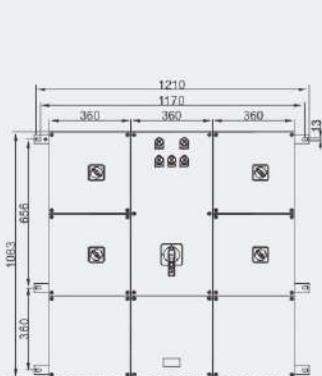
BXD8050-10/K



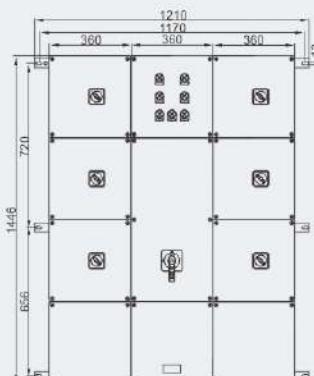
BXD8050-12/K

**Note:** The following drawings are suitable for:

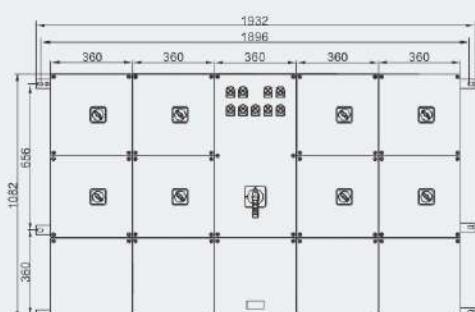
BXD8050 main switch: 80A~250A, branch switch (3P/4P) with earth leakage protection.



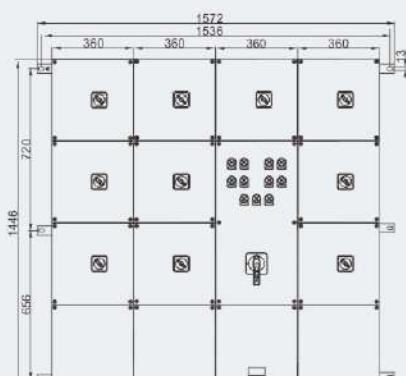
BXD8050-4/K



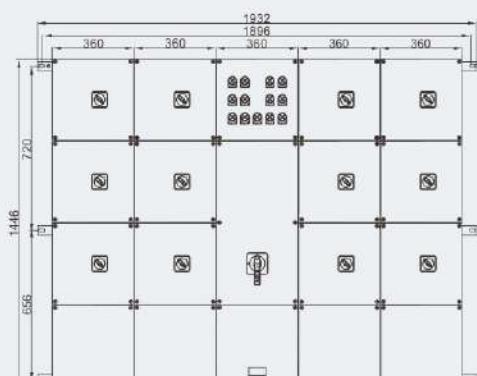
BXD8050-6/K



BXD8050-8/K



BXD8050-10/K



BXD8050-12/K

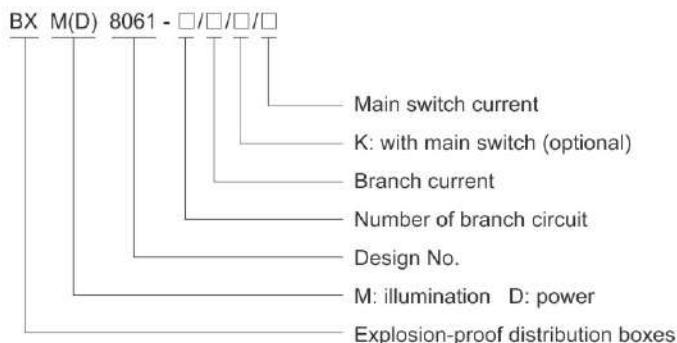
## Distribution Boxes

### BXM(D)8061 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex db eb IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Enclosure for modular combination (Ex e).
- ◆ Main switch and branch switch are operated with external rotary actuator.
- ◆ Internal wiring to the terminal is finished.
- ◆ International brand of explosion-proof terminal blocks.
- ◆ Enclosure: stainless steel.
- ◆ Entries plugged. Cable glands on request (see P7/18).
- ◆ Special requirements on request.

#### Catalogue number logic



#### Note

1. Please refer to the Selection table on P6/57.
2. Please select internal components as below:
  - BL8060 Series explosion-proof circuit breaker modules on P6/58~63.
  - BRT8060 Series explosion-proof fuses on P6/64~65.

**Zones 1&2; 21&22**

## Distribution Boxes

### BXM8061 Series Explosion-proof Illumination Distribution Boxes (Ex db eb IIC)

#### Technical data

##### Explosion-proof illumination distribution boxes BXM8061-□/□/□/□

###### Explosion protection

Global (IECEx)

IECEx CQM 22.0002X

Gas and dust

Ex db eb mb IIC T5 Gb (Ta: -20°C~+40°C)

Ex db eb mb IIC T4 Gb (Ta: -20°C~+55°C)

Ex tb IIIC T80°C Db (Ta: -20°C~+55°C)

When the product is equipped with an explosion-proof heater, the marking is:

Ex db eb mb IIC T4 Gb (Ta: -20°C~+45°C)

Ex tb IIIC T80°C Db (Ta: -20°C~+45°C)

Europe (ATEX)

TÜV CY 22 ATEX 0206669X

Gas and dust

Ex II 2 G Ex db eb mb IIC T5 Gb (Ta: -20°C~+40°C)

Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C~+55°C)

Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C~+55°C)

When the product is equipped with an explosion-proof heater, the marking is:

Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C~+45°C)

Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C~+45°C)

###### Certificates

###### Conformity to standards

###### Rated voltage

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

Max. AC 690V 50/60Hz, Max. DC 500V

###### Rated current

Max. 250A

###### Exposed fastener

Stainless steel

###### Enclosure

Stainless steel

Enclosure material

Ex e

###### Enclosure type

Ex e

###### Built-in components

Main switch

BL8060 Please see P6/58~63

Note: earth leakage protection on request

Branch switch

BL8060 Please see P6/58~63

Note: earth leakage protection on request

Terminal

International brand of explosion-proof terminal blocks

Indicator

Red

###### Degree of protection

IP66

###### Ambient temperature

-20°C~+55°C(+45°C/+40°C)

###### Cable entries

Standard M□ x 1.5 plug (see the Selection Table on P6/54)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18

###### Entry direction

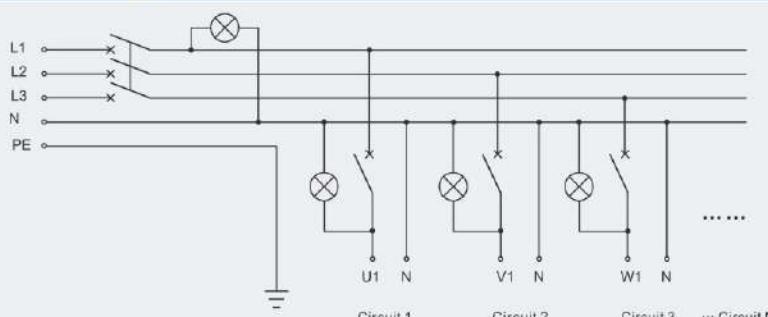
Bottom

###### Mounting

Surface type (standard)



#### Electrical schematic diagram



BXM8061 Series explosion-proof illumination distribution boxes

## Distribution Boxes

### BXM8061 Series Explosion-proof Illumination Distribution Boxes (Ex db eb IIC)

Selection table of BXM8061 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM8061-4/□/K/□	BL8060	Current max. 100A	BL8060 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM8061-6/□/K/□						1 x M40 x 1.5 + 6 x M25 x 1.5
BXM8061-8/□/K/□						1 x M40 x 1.5 + 8 x M25 x 1.5
BXM8061-10/□/K/□						1 x M40 x 1.5 + 10 x M25 x 1.5
BXM8061-12/□/K/□						1 x M40 x 1.5 + 12 x M25 x 1.5
BXM8061-4/□					3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM8061-6/□						1 x M40 x 1.5 + 6 x M25 x 1.5
BXM8061-8/□					3	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM8061-10/□						1 x M40 x 1.5 + 10 x M25 x 1.5
BXM8061-12/□					3	1 x M40 x 1.5 + 12 x M25 x 1.5

#### Note

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

## Distribution Boxes

### BXD8061 Series Explosion-proof Power Distribution Boxes (Ex db eb IIC)

#### Technical data

##### Explosion-proof power distribution boxes BXD8061-□/□/□/□

###### Explosion protection

Global (IECEx)

IECEx CQM 22.0002X

Gas and dust

Ex db eb mb IIC T5 Gb (Ta: -20°C~+40°C)

Ex db eb mb IIC T4 Gb (Ta: -20°C~+55°C)

Ex tb IIIC T80°C Db (Ta: -20°C~+55°C)

When the product is equipped with an explosion-proof heater, the marking is:

Ex db eb mb IIC T4 Gb (Ta: -20°C~+45°C)

Ex tb IIIC T80°C Db (Ta: -20°C~+45°C)

Europe (ATEX)

TÜV CY 22 ATEX 0206669X

Gas and dust

Ex II 2 G Ex db eb mb IIC T5 Gb (Ta: -20°C~+40°C)

Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C~+55°C)

Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C~+55°C)

When the product is equipped with an explosion-proof heater, the marking is:

Ex II 2 G Ex db eb mb IIC T4 Gb (Ta: -20°C~+45°C)

Ex II 2 D Ex tb IIIC T80°C Db (Ta: -20°C~+45°C)

###### Certificates

###### Conformity to standards

###### Rated voltage

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

Max. AC 690V 50/60Hz, Max. DC 500V

###### Rated current

Max. 250A

###### Exposed fastener

Stainless steel

###### Enclosure

Enclosure material

Stainless steel

Enclosure type

Ex e

###### Built-in components

Main switch

BL8060 Please see P6/58~63

Note: earth leakage protection on request

Branch switch

BL8060 Please see P6/58~63

Note: earth leakage protection on request

Terminal

International brand of explosion-proof terminal blocks

Indicator

Red

###### Degree of protection

IP66

###### Ambient temperature

-20°C~+55°C(+45°C/+40°C)

###### Cable entries

Standard M□ x 1.5 plug (see the Selection table on P6/56)

###### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/18

###### Entry direction

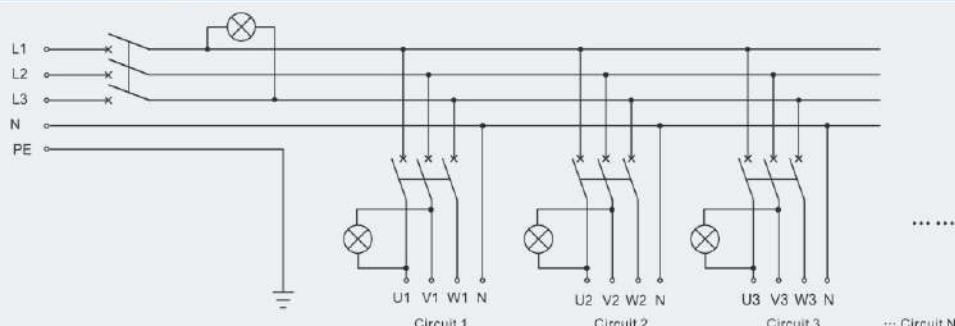
Bottom

###### Mounting

Surface type (standard)



#### Electrical schematic diagram



BXD8061 Series explosion-proof power distribution boxes

## Distribution Boxes

## BXD8061 Series Explosion-proof Power Distribution Boxes (Ex db eb IIc)

Selection table of BXD8061 series explosion-proof power distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD8061-4/□/K/□	BL8060 Current: max. 250A	4 6 8 10 12	BL8060 3P	1A	3	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD8061-6/□/K/□				2A		
BXD8061-8/□/K/□				4A	3	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD8061-10/□/K/□				6A		
BXD8061-12/□/K/□				10A	3	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD8061-4/□				16A		
BXD8061-6/□				20A	3	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD8061-8/□				25A		
BXD8061-10/□				32A	3	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD8061-12/□				40A		
				50A	3	
				63A		
				On request	3	
BXD8061-4/□	—	4 6 8 10 12	BL8060 3P	1A	3	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD8061-6/□				2A		
BXD8061-8/□				4A	3	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD8061-10/□				6A		
BXD8061-12/□				10A	3	1 x M50 x 1.5 + 8 x M25 x 1.5
				16A		
				20A	3	1 x M50 x 1.5 + 10 x M25 x 1.5
				25A		
				32A	3	
				40A		
				50A	3	
				63A		
				On request	3	

**Note**

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.



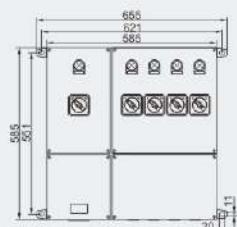
## Distribution Boxes

### BXM(D)8061 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex db eb IIC)

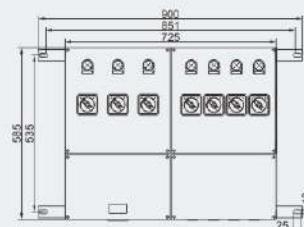
#### Dimension drawings (all dimensions in mm) - subject to alteration

**Note:** The following drawings are suitable for:

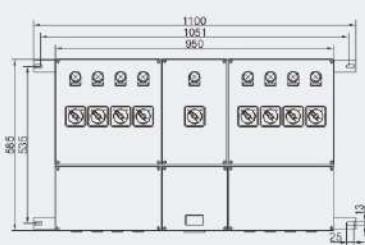
BXM(D)8061 main switch: 63A, branch switch (3P/2P/1P) without earth leakage protection.



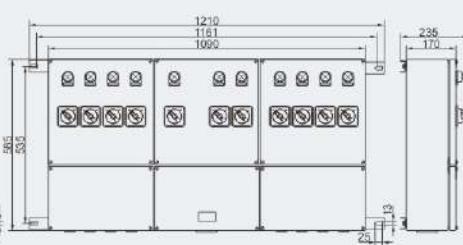
BXM(D)8061-4K



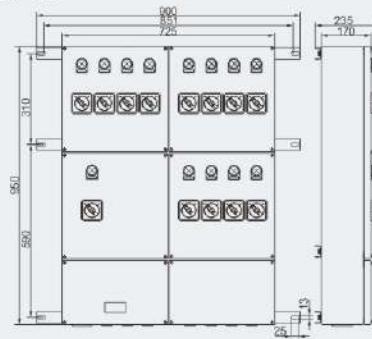
BXM(D)8061-6K



BXM(D)8061-8K



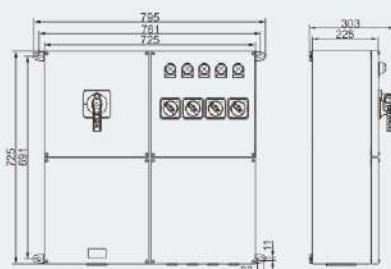
BXM(D)8061-10K



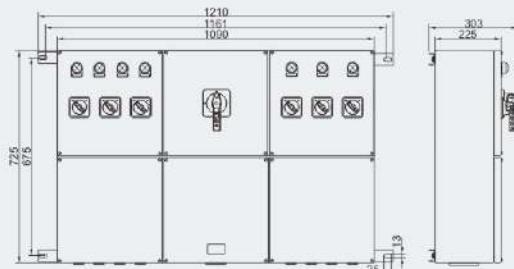
BXM(D)8061-12K

**Note:** The following drawings are suitable for:

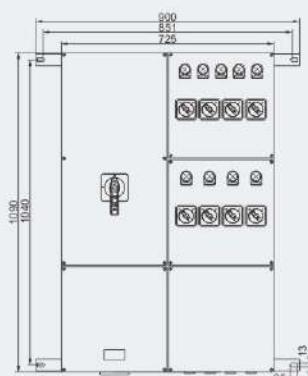
BXM(D)8061 main switch: 80A~250A, branch switch (3P/2P/1P) without earth leakage protection.



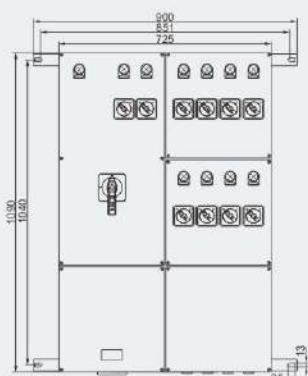
BXM(D)8061-4K



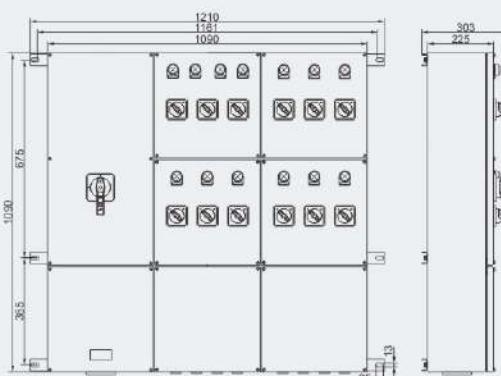
BXM(D)8061-6K



BXM(D)8061-8K



BXM(D)8061-10K



BXM(D)8061-12K

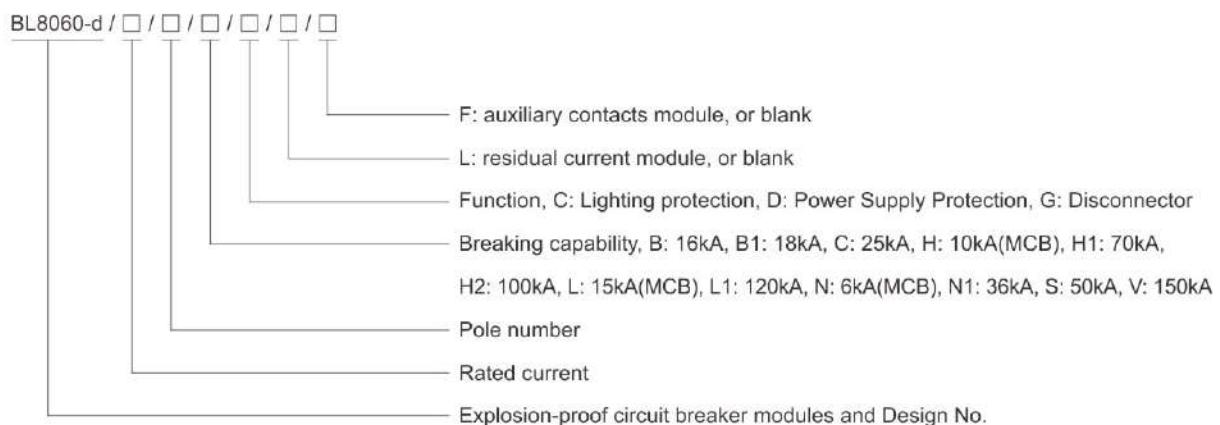
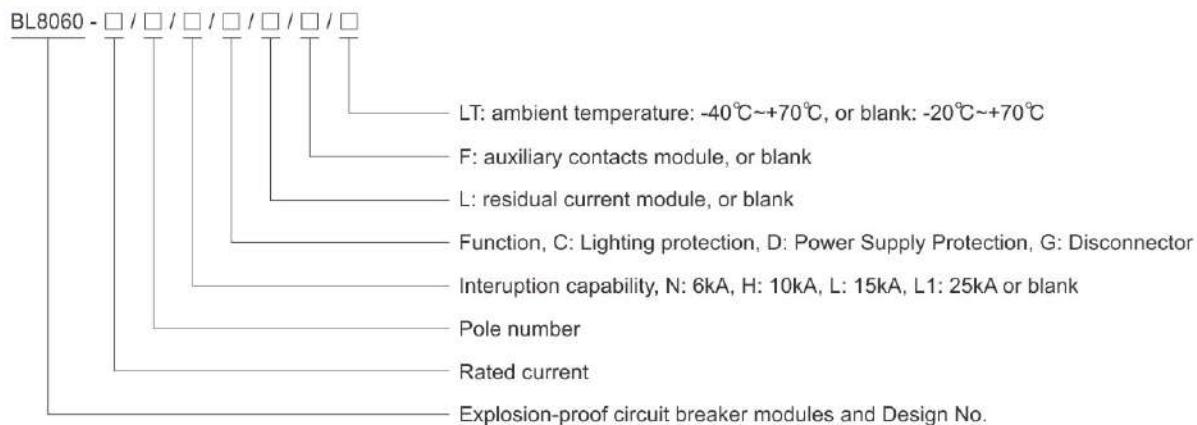
## Components for Distribution Boxes

### BL8060 Series Explosion-proof Circuit Breaker Modules



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Product of flame-proof structure; the cavity is of engineering plastic embedded with high strength metal frame structure; with strong corrosion-proof capacity and reliable performance.
- ◆ Built-in Schneider iC65 series MCB, special operation mechanism internally designed, reliable overall operation.

#### Catalogue number logic



## Zones 1&2

## Components for Distribution Boxes

### BL8060 Series Explosion-proof Circuit Breaker Modules

#### Technical data

#### Explosion-proof circuit breaker modules BL8060-□/□/□/□/□/□(≤63A)(-20°C~+70°C)

##### Explosion protection

Global (IECEx) IECEx CQM 14.0031U

Gas Ex db eb IIC Gb

Europe (ATEX) EUT 14 ATEX 1301U

Gas Ex II 2 G Ex db eb IIC Gb

##### Certificates

##### Conformity to standards

##### Enclosure material

GRP (glass fibre-reinforced polyester resin)

Max.690V AC 50/60Hz, Max. 500V DC

1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

30mA, 300mA, 300mA S: Under-voltage tripping(instant)

##### Rated residual current characteristics

AC, A

##### Mechanical life

20000 times

##### Auxiliary contact

1NO+1NC (indicating contact in OFF state)

##### Number of pole

1P, 2P, 3P, 4P, 1PL, 2PL

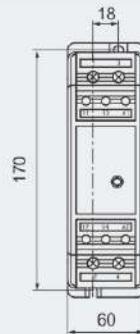
##### Ambient temperature

-20°C~+70°C

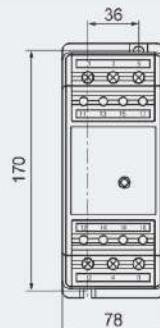
##### Breaking capacity

Ph.-Ph. (2P, 3P, 4P)	12~133V	220~240V	380~415V	440V	Use breaking capacity
Ph.-N (1P, 1P+N)	12~60V	100~133V	220~240V	-	
Rated current	1~4A 6~63A		6kA, 10kA, 22kA		100%lcu 75%lcu

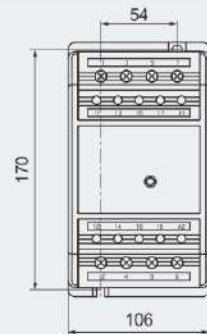
#### Dimension drawings (all dimensions in mm) - subject to alteration



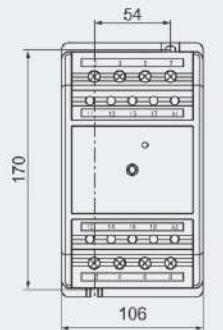
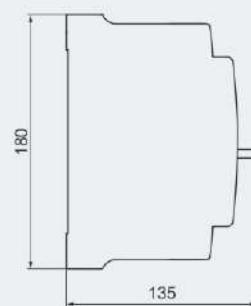
BL8060-□/1/□/□/□/□  
BL8060-□/1/□/□/□/F  
BL8060-□/2/□/□/□/□



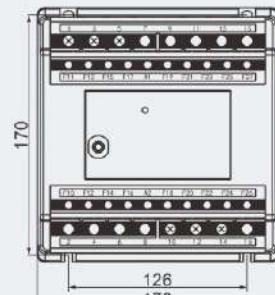
BL8060-□/2/□/□/□/F  
BL8060-□/3/□/□/□/□



BL8060-□/3/□/□/□/F  
BL8060-□/4/□/□/□/□  
BL8060-□/4/□/□/□/F



BL8060-□/2/□/□/□/L



BL8060-□/3/□/□/□/L  
BL8060-□/4/□/□/□/L



## Components for Distribution Boxes

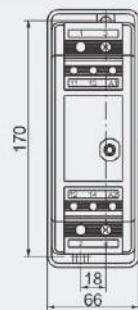
### BL8060 Series Explosion-proof Circuit Breaker Modules

#### Technical data

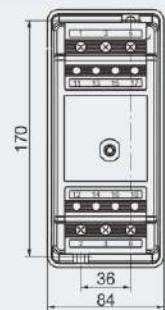
##### Explosion-proof circuit breaker modules BL8060-□/□/□/□/□/LT(≤63A)(-40°C~+70°C)

<b>Explosion protection</b>						
Global (IECEx)	IECEx CQM 14.0031U					
Gas	Ex db eb IIC Gb					
Europe (ATEX)	EUT 14 ATEX 1301U					
Gas	Ex II 2 G Ex db eb IIC Gb					
<b>Certificates</b>	IECEx; ATEX					
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7					
<b>Enclosure material</b>	IEC 60079-0, IEC 60079-1, IEC 60079-7					
<b>Rated voltage</b>	GRP (glass fibre-reinforced polyester resin)					
<b>Rated current</b>	Max.690V AC 50/60Hz, Max. 500V DC					
<b>Rated residual operating current</b>	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A					
<b>Rated residual current characteristics</b>	30mA, 300mA, 300mA <small>S: Under-voltage tripping(instant)</small>					
<b>Mechanical life</b>	AC, A					
<b>Auxiliary contact</b>	20000 times					
<b>Number of pole</b>	1NO+1NC (indicating contact in OFF state)					
<b>Ambient temperature</b>	1P, 2P, 3P, 4P, 1PL, 2PL					
<b>Breaking capacity</b>	-40°C~+70°C					
	Ph.-Ph. (2P, 3P, 4P)	12~133V	220~240V	380~415V	440V	Use breaking capacity
	Ph.-N (1P, 1P+N)	12~60V	100~133V	220~240V	-	
	Rated current	1~4A		6kA, 10kA, 22kA		100%lcu
		6~63A				75%lcu

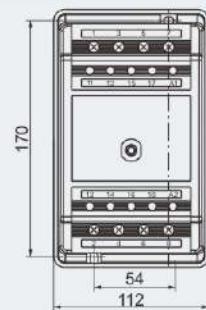
#### Dimension drawings (all dimensions in mm) - subject to alteration



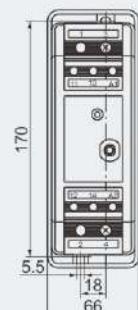
BL8060-□/1/□/□/LT  
BL8060-□/2/□/□/LT  
BL8060-□/1/□/□/F/LT



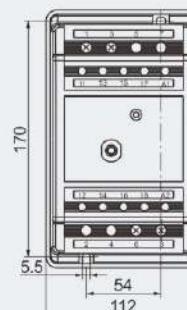
BL8060-□/3/□/□/LT  
BL8060-□/2/□/□/F/LT



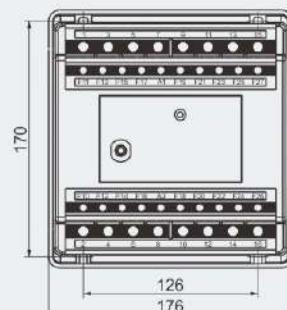
BL8060-□/4/□/□/LT  
BL8060-□/3/□/□/F/LT  
BL8060-□/4/□/□/F/LT



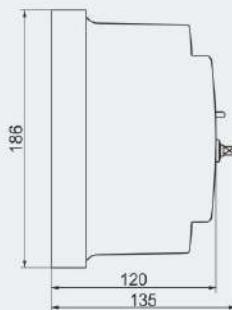
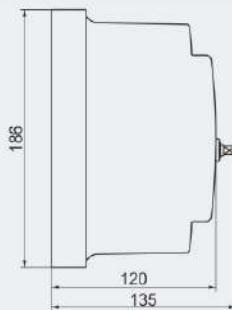
BL8060-□/2/□/□/L/LT  
BL8060-□/2/□/□/L/F/LT



BL8060-□/2/□/□/L/LT  
BL8060-□/2/□/□/L/F/LT



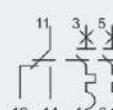
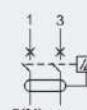
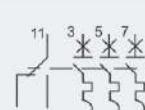
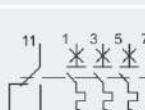
BL8060-□/3/□/□/L/LT  
BL8060-□/4/□/□/L/LT  
BL8060-□/3/□/□/L/F/LT  
BL8060-□/4/□/□/L/F/LT



## Components for Distribution Boxes

### BL8060 Series Explosion-proof Circuit Breaker Modules

Selection table

Version	Rated voltage (V)	Rated current (A)	Rated residual operating current (mA)	Auxiliary contact	Schematic diagram
BL8060-□/1/□/□/□	230/440/690	1, 2, 4, 6, 10 16, 20, 25, 32 40, 50, 63	/	/	
BL8060-□/1/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-□/2/□/□/□	230/440/690	1, 2, 4, 6, 10 16, 20, 25, 32 40, 50, 63	/	/	
BL8060-□/2/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-□/2/□/□/L	230/440/690	40	30	/	
			300	/	
			300 	/	
		63	30	/	
			300	/	
			300 	/	
BL8060-□/3/□/□/□	230/440/690		/	/	
BL8060-□/3/□/□/F	230/440/690	1, 2, 4, 6, 10 16, 20, 25, 32 40, 50, 63	/	Indicating contact in OF state	
BL8060-□/4/□/□/□	230/440/690		/	/	
BL8060-□/4/□/□/F	230/440/690		/	Indicating contact in OF state	



## Components for Distribution Boxes

### BL8060 Series Explosion-proof Circuit Breaker Modules

#### Technical data

##### Explosion-proof circuit breaker modules **BL8060-d - □ / □/ □/ □/ □/ □**

###### Explosion protection

Global (IECEx) IECEx CQM 15.0016U

Gas Ex db IIC Gb

Europe (ATEX) TÜV CY 22 ATEX 0206668U

Gas Ex II 2 G Ex db IIC Gb

###### Certificates

###### Conformity to standards

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface

###### Rated voltage

Max. 690V AC, Max. 500V DC

###### Rated current

Max. 250A

###### Rated residual operating current

30mA, 300mA, 300mA **S** **S**:Under-voltage tripping(instant)

###### Rated residual current characteristics

AC, A

###### Mechanical life

20000 times

###### Auxiliary contact

1NO+1NC(Indicating contact in OFF state)

###### Number of pole

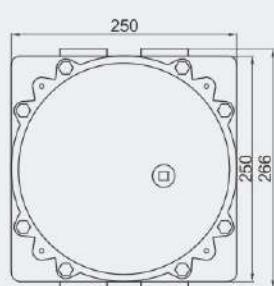
1P, 2P, 3P, 4P

###### Ambient temperature

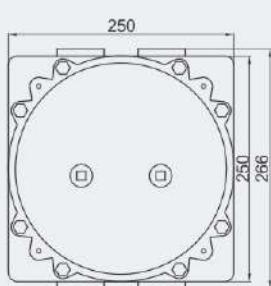
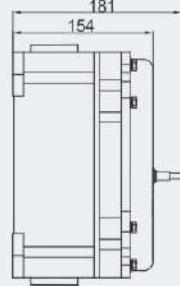
-40°C~+70°C

Breaking capacity	Ph.-Ph. (3P, 4P)	220~230V	380~415V	440V	500V	690V	Use breaking capacity
	Rated current	63A	20kA	10kA	6kA	-	-
		80~160A			36kA		100%lcu
	100~250A		-			50kA	-

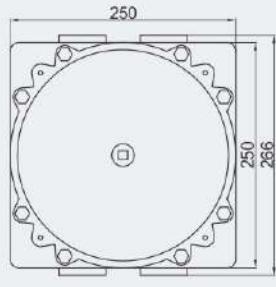
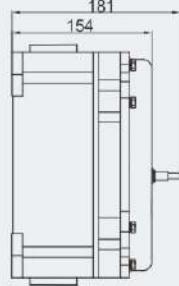
#### Dimension drawings (all dimensions in mm) - subject to alteration



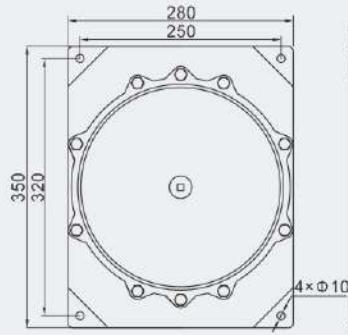
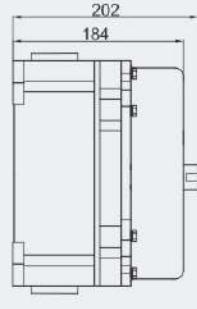
BL8060-d-□/1/□/□/L; BL8060-d-□/2/□/□/L  
BL8060-d-□/3/□/□/L; BL8060-d-□/4/□/□/L  
(≤ 63A)



BL8060-d-□/1/□/□/L; BL8060-d-□/2/□/□/L  
BL8060-d-□/1/□/□; BL8060-d-□/2/□/□/□  
BL8060-d-□/3/□/□; BL8060-d-□/4/□/□/□  
(≤ 63A)



BL8060-d-□/3/□/□; BL8060-d-□/4/□/□  
(80A~160A)

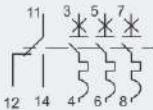
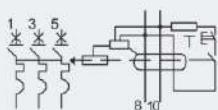
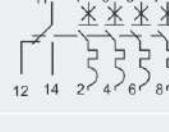
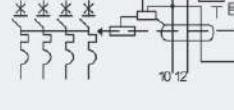
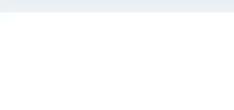


BL8060-d-□/3/□/□  
(100A~250A)

## Components for Distribution Boxes

### BL8060 Series Explosion-proof Circuit Breaker Modules

Selection table

Version	Rated voltage (V)	Rated current (A)	Rated residual operating current (mA)	Auxiliary contact	Schematic diagram
BL8060-d-□/3/□/□/□	230/440/690	63, 80, 100, 125, 160, 250	/	/	
BL8060-d-□/3/□/□/F	230/440/690	63, 80, 100, 125, 160, 250	/	Indicating contact in OF state	
BL8060-d-□/3/□/□/L	230/440/690	63	30	/	
			300		
			300 [S]		
BL8060-d-□/4/□/□/□	230/440/690	63, 80, 100, 125, 160, 250	/	/	
BL8060-d-□/4/□/□/F	230/440/690	63, 80, 100, 125, 160, 250	/	Indicating contact in OF state	
BL8060-d-□/4/□/□/L	230/440/690	63	30	/	
			300		
			300 [S]		



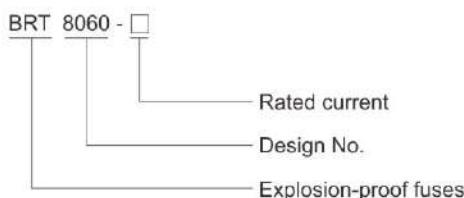
## Components for Distribution Boxes

### BRT8060 Series Explosion-proof Fuses



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ The explosion-proof fuse is a safety device designed to protect circuits from damage caused by overloading and short-circuit currents.
- ◆ It features a specialized design and materials that ensure safe operation in environments prone to combustible or explosive conditions.
- ◆ This device is capable of quickly interrupting fault currents, safeguarding circuits and equipment from damage, and ensuring the safe operation of the system.

#### Catalogue number logic



**Selection table**

Version	Rated voltage (V)	Rated current (A)
BRT8060-1		1
BRT8060-2		2
BRT8060-4	230	4
BRT8060-6	400	6
BRT8060-8	500	8
BRT8060-10		10
BRT8060-16		16

**Zones 1&2**

## Components for Distribution Boxes

### BRT8060 Series Explosion-proof Fuses

#### Technical data

##### Explosion-proof fuses BRT8060 - □

###### Explosion protection

Global (IECEx) IECEx CQM 23.0002U

Gas Ex eb mb IIC Gb

Europe (ATEX) CML 24 ATEX 3178U

Gas Ex II 2 G Ex eb mb IIC Gb

###### Certificates

IECEx; ATEX

###### Conformity to standards

EN 60079-0, EN 60079-7, EN 60079-18

IEC 60079-0, IEC 60079-7, IEC 60079-18

###### Enclosure material

PC

###### Rated voltage

MAX. 500V AC/DC 50/60Hz

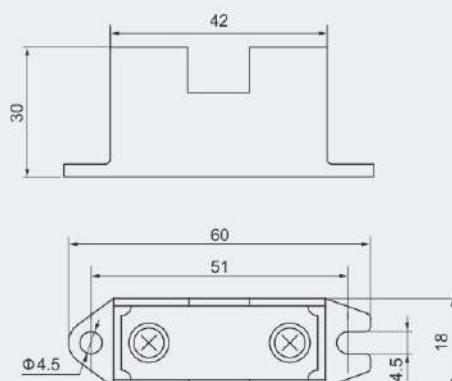
###### Rated current

0.5A, 0.63A, 0.8A, 1A, 1.25A, 1.6A, 2A, 2.5A, 3.15A, 4A, 5A, 6.3A, 8A, 10A, 12.5A, 16A

###### Ambient temperature

-60°C~+100°C

#### Dimension drawings (all dimensions in mm) - subject to alteration



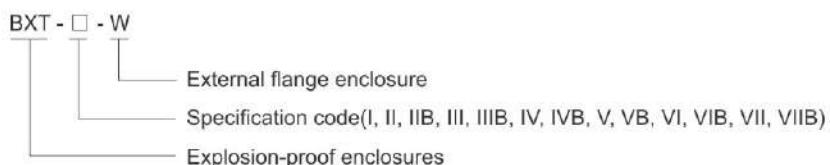
## Empty Enclosures

### BXT-□-W Series Explosion-proof Enclosures (Ex db IIB+H2)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- ◆ Flameproof enclosure (Ex d IIB) in Copper-free Aluminium Alloy, formed of low pressure casting. 13 versions (external flange).
- ◆ Cable entries can be drilled and components can be installed by user on request.
- ◆ Safety shall be considered when installing components according to related electrical standards.
- ◆ Special requirements on request.

#### ■ Catalogue number logic



**Zones 1&2; 21&22**

## Empty Enclosures

### BXT-□-W Series Explosion-proof Enclosures (Ex db IIB+H2)

#### Technical data

Explosion-proof enclosures	BXT-□ -W
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 14.0011U
Gas and dust	Ex db IIB+H <sub>2</sub> Gb
Europe (ATEX)	LCIE 11 ATEX 3012U
Gas and dust	Ex tb IIIC Db IP66
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31	
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	I, II, IIB: M6/M6; III, IIIB, IV, IVB, V, VB, VI, VIB: M6/M8; VII, VIIIB: M8/M8
<b>Ambient temperature</b>	-60°C~+200°C
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface, window grey (RAL7040)
<b>Exposed fastener</b>	Stainless steel
<b>Mounting feet</b>	Carbon steel, power coated surface
<b>Hinge</b>	With hinge

#### Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)

Table of max. number of possible enclosure entries

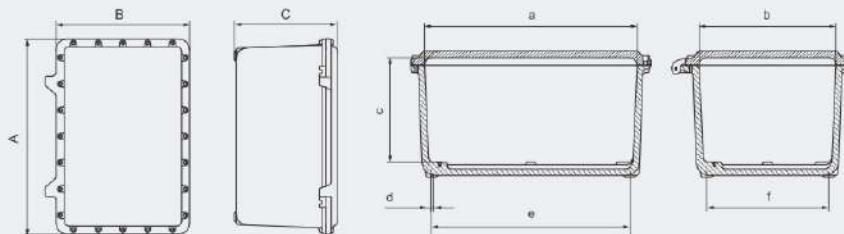
	I	II	IIB		III		IIIB		IV		IVB	
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	5	8	5	10	5	12	10	12	16	20	12	16
M25 x 1.5	5	7	5	9	5	10	9	11	12	15	11	14
M32 x 1.5	2	3	2	4	2	6	7	9	9	12	9	12
M40 x 1.5	2	2	2	3	2	4	3	4	5	6	4	5
M50 x 1.5	1	2	1	3	1	3	3	3	4	5	3	4
M63 x 1.5	1	2	1	2	1	3	2	3	2	3	3	3
	V		VB		VI		VIB		VII		VIIIB	
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	14	21	24	40	20	35	30	50	30	40	45	65
M25 x 1.5	12	19	18	27	18	30	20	36	26	36	30	44
M32 x 1.5	10	15	14	21	15	26	18	30	20	30	25	36
M40 x 1.5	4	7	8	12	8	13	11	18	10	16	15	21
M50 x 1.5	4	5	5	9	6	11	6	10	8	12	12	12
M63 x 1.5	3	5	4	7	3	5	5	9	4	6	7	10



## Empty Enclosures

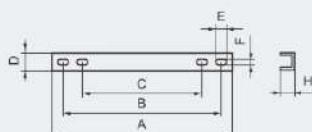
## BXT-□-W Series Explosion-proof Enclosures (Ex db IIB+H2)

Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)



Enclosure

Version	Dimensions									Weight (kg)
	A	a	B	b	C	c	e	f	d	
BXT-I-W	250	192	200	142	170	131	180	130	M8	6.70
BXT-II-W	300	242	200	142	170	131	230	130	M8	8.00
BXT-IIB-W	350	292	200	142	170	131	280	130	M8	9.50
BXT-III-W	350	290	300	240	200	159	280	230	M10	14.50
BXT-IIIB-W	350	290	300	240	270	229	280	230	M10	17.50
BXT-IV-W	450	378	350	278	210	163	365	265	M10	23.00
BXT-IVB-W	450	378	350	278	280	233	365	265	M10	27.50
BXT-V-W	560	488	400	328	210	155	475	315	M10	34.50
BXT-VB-W	560	488	400	328	280	225	475	315	M10	39.50
BXT-VI-W	634	560	434	360	265	205	522	322	M10	46.00
BXT-VIB-W	634	560	434	360	335	275	522	322	M10	52.00
BXT-VII-W	720	640	560	480	275	215	620	460	M12	74.50
BXT-VIIB-W	720	640	560	480	345	285	620	460	M12	83.00



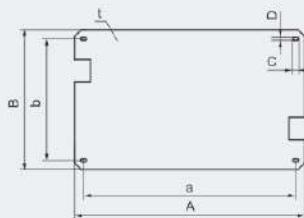
Mounting feet

Version	Dimensions						
	A	B	C	D	E	F	H
BXT-I-W	240	200	130	30	16	10	20
BXT-II-W	240	200	130	30	16	10	20
BXT-IIB-W	240	200	130	30	16	10	20
BXT-III-W	340	300	230	40	24	12	20
BXT-IIIB-W	340	300	230	40	24	12	20
BXT-IV-W	400	350	265	40	24	12	20
BXT-IVB-W	400	350	265	40	24	12	20
BXT-V-W	450	400	315	40	26	14	20
BXT-VB-W	450	400	315	40	26	14	20
BXT-VI-W	480	430	320	40	26	14	20
BXT-VIB-W	480	430	320	40	26	14	20
BXT-VII-W	620	560	460	50	26	14	20
BXT-VIIB-W	620	560	460	50	26	14	20

## Empty Enclosures

### BXT-□-W Series Explosion-proof Enclosures (Ex db IIB+H2)

Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)



Mounting plate

Version	Dimensions						
	A	a	B	b	C	D	t
BXT-I-W	170	120	120	70	14	7	2
BXT-II-W	220	170	120	70	14	7	2
BXT-IIB-W	270	220	120	70	14	7	2
BXT-III-W	270	220	220	170	14	7	2
BXT-IIIB-W	270	220	220	170	14	7	2
BXT-IV-W	350	300	250	200	14	7	2
BXT-IVB-W	350	300	250	200	14	7	2
BXT-V-W	450	390	290	230	14	7	2
BXT-VB-W	450	390	290	230	14	7	2
BXT-VI-W	530	470	330	270	14	7	2
BXT-VIB-W	530	470	330	270	14	7	2
BXT-VII-W	600	550	440	390	14	7	2
BXT-VIIB-W	600	550	440	390	14	7	2



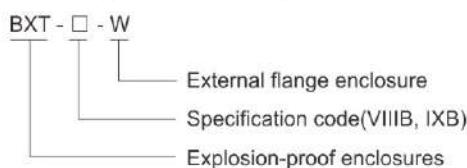
## Empty Enclosures

### BXT-□-W Series Explosion-proof Enclosures (Ex db IIB+H2)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- ◆ Flameproof enclosure (Ex d IIB) in Copper-free Aluminium Alloy, formed of low pressure casting. 2 versions (external flange).
- ◆ Cable entries can be drilled and components can be installed by user on request.
- ◆ Safety shall be considered when installing components according to related electrical standards.
- ◆ Professionaly designed explosion-proof large enclosure provides space for more compnents.
- ◆ Adopting high-precision machining, excellent explosion-proof performance.
- ◆ Professionally designed door handles, reliable and safe when opening the door.
- ◆ Professionally designed hinges, reliable and safe when opening the door.
- ◆ Special requirements on request.

#### Catalogue number logic



#### Technical data

##### Explosion-proof enclosures

##### BXT-□-W

###### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db IIB+H2 Gb
Europe (ATEX)	Ex tb IIIC Db
Gas and dust	ATEX (applied for)

###### Certificates

###### Conformity to standards

IECEx; ATEX  
EN 60079-0, EN 60079-1, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-31

###### Degree of protection

IP66

###### Internal&external earthing

M8/M8

###### Ambient temperature

-60°C~+200°C

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface, window grey (RAL7040)

###### Exposed fastener

Stainless steel

###### Mounting feet

Carbon steel, power coated surface

###### Hinge

With hinge

## Zones 1&2; 21&22

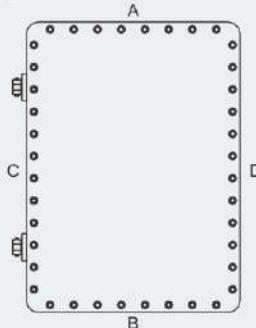
## Empty Enclosures

### BXT-□-W Series Explosion-proof Enclosures (Ex db IIB+H2)

#### Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)

BXT-VIIIB, IXB-W

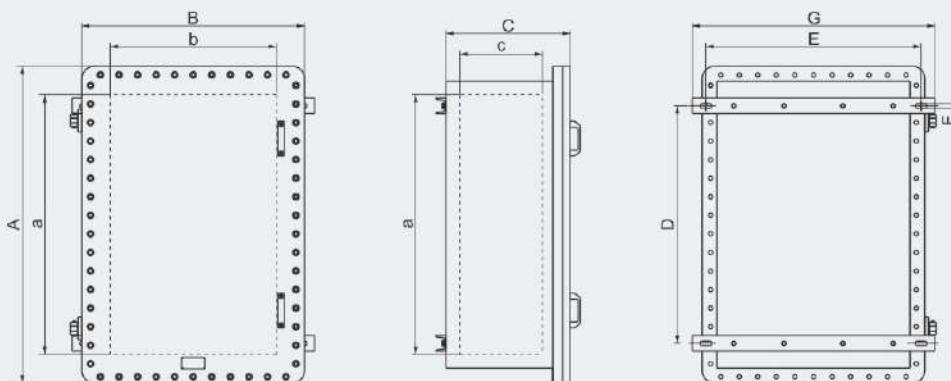
Table of max. number of possible enclosure entries



Type	A/B side		C/D side		Thread spec.
	Hole QTY	Hole distance range(mm)	Hole QTY	Hole distance range(mm)	
BXT-VIIIB-W	28	60~70	44	60~70	NPT 1/2", M20×1.5, NPT 1/2", M25×1.5
	18	80~90	24	80~90	NPT 1", M32×1.5, NPT 1 1/4", M40×1.5
	8	110~120	12	110~120	NPT 1 1/2", M50×1.5, NPT 2", M63×1.5
	3	230~240	4	230~240	NPT 2 1/2", M75×1.5
	2	230~240	3	230~240	NPT 3", M90×1.5
	2	230~240	3	230~240	NPT 4", M115×1.5
BXT-IXB-W	45	60~70	70	60~70	NPT 1/2", M20×1.5, NPT 3/4", M25×1.5
	24	80~90	32	80~90	NPT 1", M32×1.5, NPT 1 1/4", M40×1.5
	15	110~120	24	110~120	NPT 1 1/2", M50×1.5, NPT 2", M63×1.5
	3	230~240	5	230~240	NPT 2 1/2", M75×1.5
	3	230~240	4	230~240	NPT 3", M90×1.5
	2	230~240	4	230~240	NPT 4", M115×1.5



#### Dimension drawings (all dimensions in mm) - subject to alteration



Model	A	B	C	a	b	c	D	E	F	G
BXT-VIIIB-W	980	720	425	800	540	270	660	690	18	800
BXT-IXB-W	1280	900	500	1050	670	330	960	870	18	980

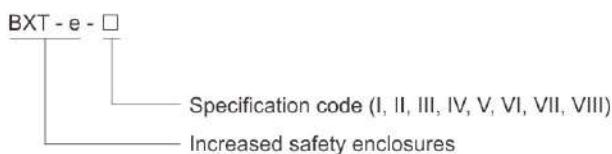
## Empty Enclosures

### BXT-e Series Increased Safety Enclosures (Ex e IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Copper-free Aluminium Alloy enclosure (Ex e IIC), 8 versions.
- ◆ Cable entries can be drilled and components can be installed by user on request.
- ◆ Safety shall be considered when installing components according to related electrical standards.
- ◆ Special requirements on request.

#### ■ Catalogue number logic



#### Technical data

##### Increased safety enclosures

##### BXT-e-□

###### Explosion protection

Global (IECEx) IECEx CQM 13.0036U

Gas and dust Ex e IIC Gb

Europe (ATEX) LCIE 13 ATEX 3053X

Gas and dust Ex II 2 G Ex e IIC Gb

###### Certificates

IECEx; ATEX

###### Conformity to standards

EN 60079-0, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-7, IEC 60079-31

###### Degree of protection

IP66

###### Internal&external earthing

M6/M6

###### Ambient temperature

-60°C~+100°C

###### Enclosure material

Copper-free Aluminium Alloy, powder coated surface, window grey (RAL7040)

###### Exposed fastener

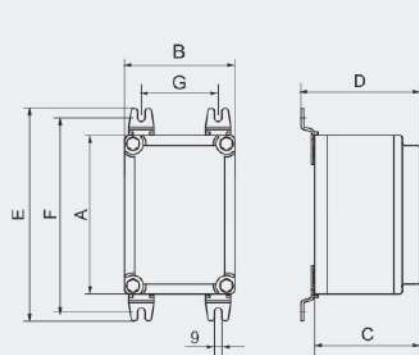
Stainless steel

**Zones 1&2; 21&22**

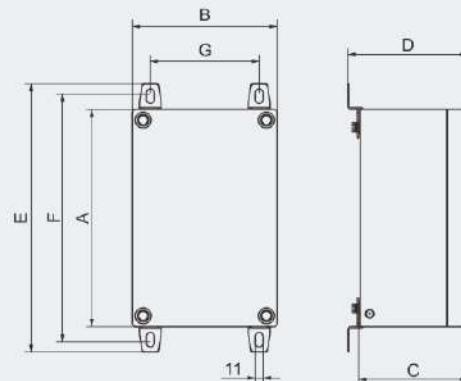
## Empty Enclosures

### BXT-e Series Increased Safety Enclosures (Ex e IIC)

Selection table of BXT-e series increased safety enclosures (all dimensions in mm)



BXT-e-I~BXT-e-IV

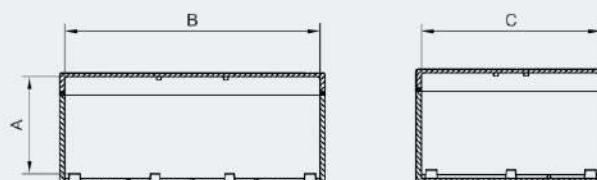


BXT-e-V~BXT-e-VIII

#### Outline & Installation

Version	Outline dimensions				Installation dimensions		
	A	B	C	D	E	F	G
BXT-e-I	190	132	128	143	252	232	92
BXT-e-II	190	190	128	143	252	232	150
BXT-e-III	250	190	128	143	312	292	150
BXT-e-IV	250	250	128	143	312	292	210
BXT-e-V	300	190	151	164	370	342	150
BXT-e-VI	300	280	151	164	370	342	250
BXT-e-VII	350	250	151	164	420	392	200
BXT-e-VIII	502	350	151	164	572	544	300

Note: Other dimensions on request



#### Internal

Version	Dimensions			Weight (kg)
	A	B	C	
BXT-e-I	108	177	120	2.40
BXT-e-II	107	177	177	2.80
BXT-e-III	107	237	177	3.80
BXT-e-IV	107	235	235	5.10
BXT-e-V	130	286	179	5.80
BXT-e-VI	130	286	269	7.10
BXT-e-VII	130	336	236	7.00
BXT-e-VIII	130	488	336	9.50

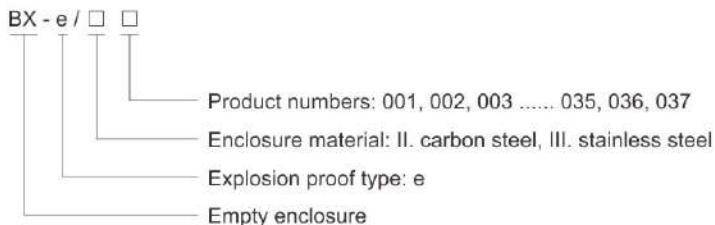
## Empty Enclosures

### BX-e Series Empty Enclosure (Ex eb IIC)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Empty enclosure (Ex eb IIC) in stainless steel or carbon steel
  - 37 versions.
- ◆ Cable entries can be drilled and components can be installed by user on request.
- ◆ Safety shall be considered when installing components according to related electrical standards.
- ◆ Special requirements on request.

#### ■ Catalogue number logic



#### Technical data

##### Empty enclosure

##### BX-e/[ ] [ ]

##### Explosion protection

Global (IECEx)	IECEx CQM 24.0010U
Gas and dust	Ex eb IIC Gb
Europe (ATEX)	Ex tb IIIC Db
Gas and dust	ExVeritas 24 ATEX 1876U

Ex II 2 G Ex eb IIC Gb

Ex II 2 D Ex tb IIIC Db

IECEx; ATEX

##### Certificates

EN 60079-0, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-7, IEC 60079-31

##### Degree of protection

IP66

##### Internal&external earthing

M6/M8/M10

##### Service temperature

-60°C~+110°C

##### Enclosure material

Stainless steel or carbon steel

##### Exposed fastener

Stainless steel

##### Mounting

Surface type, pedestal type

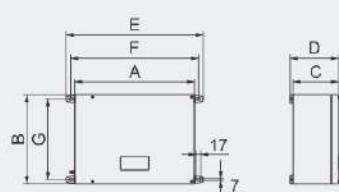
## Zones 1&2; 21&22

## Empty Enclosures

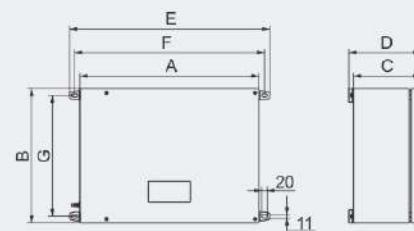
### BX-e Series Empty Enclosure (Ex eb IIC)

#### Selection table of BX-e series empty enclosure (all dimensions in mm)

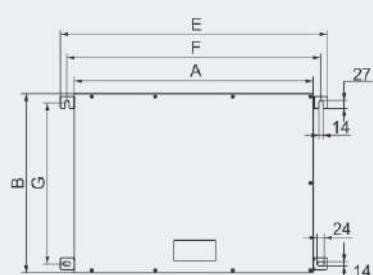
Surface type



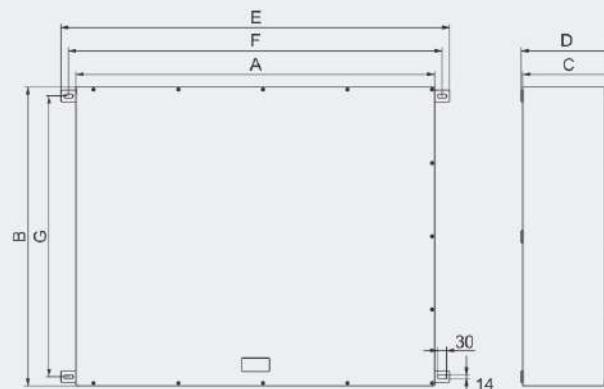
BX-e/II(III) 001-013



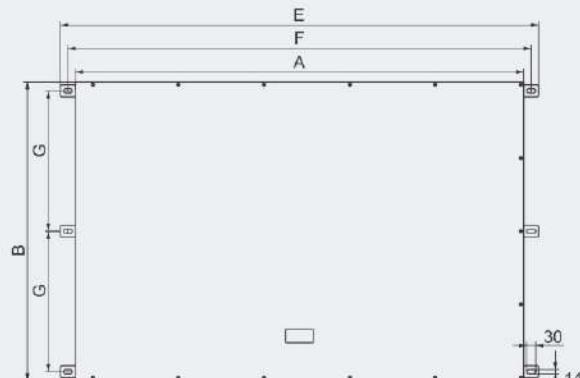
BX-e/II(III) 014-019



BX-e/II(III) 020-022



BX-e/II(III) 023



BX-e/II(III) 024



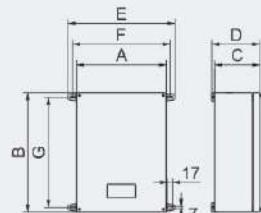
Model specifications	External dimensions AxBxC	D	E	Installation dimensions FxG	Model specifications	External dimensions AxBxC	D	E	Installation dimensions FxG
BX-e/II(III) 001	170x150x110	120	228	198x120	BX-e/II(III) 013	360x360x165	175	418	388x330
BX-e/II(III) 002	220x180x110	120	278	248x150	BX-e/II(III) 014	500x400x200	210	570	536x366
BX-e/II(III) 003	300x200x110	120	358	328x170	BX-e/II(III) 015	500x400x300	310	570	436x466
BX-e/II(III) 004	300x200x125	135	358	328x170	BX-e/II(III) 016	480x480x150	160	550	516x446
BX-e/II(III) 005	360x220x125	135	418	388x190	BX-e/II(III) 017	480x480x250	260	550	516x446
BX-e/II(III) 006	360x220x165	175	418	388x190	BX-e/II(III) 018	600x500x200	210	670	636x466
BX-e/II(III) 007	250x250x150	160	308	278x220	BX-e/II(III) 019	600x500x300	310	670	636x466
BX-e/II(III) 008	300x300x150	160	358	328x270	BX-e/II(III) 020	800x600x200	218	894	850x540
BX-e/II(III) 009	300x300x200	210	358	328x270	BX-e/II(III) 021	800x600x300	318	894	850x640
BX-e/II(III) 010	300x400x150	160	358	328x370	BX-e/II(III) 022	1000x800x300	318	1094	1050x740
BX-e/II(III) 011	300x400x200	210	358	328x370	BX-e/II(III) 023	1200x1000x300	306	1300	1250x940
BX-e/II(III) 012	360x360x125	135	418	388x330	BX-e/II(III) 024	1500x1000x400	406	1600	1550x(470+470)

## Empty Enclosures

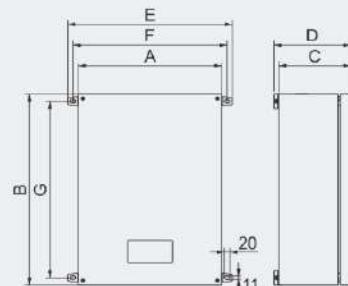
### BX-e Series Empty Enclosure (Ex eb IIC)

**Selection table of BX-e series empty enclosure (all dimensions in mm)**

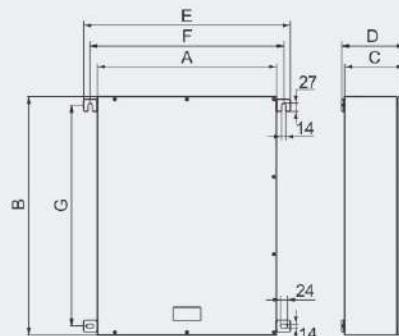
Surface type



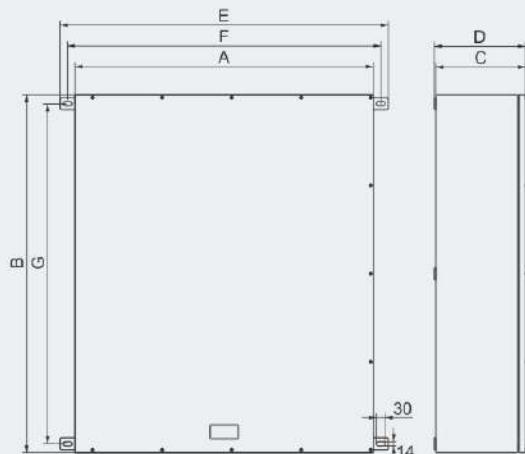
BX-e/II(III) 001-013



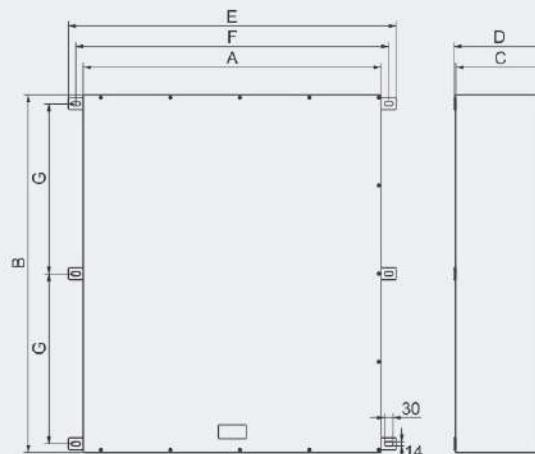
BX-e/II(III) 014-019



BX-e/II(III) 020-022



BX-e/II(III) 023



BX-e/II(III) 024

Model specifications	External dimensions		D	E	Installation dimensions F×G	Model specifications	External dimensions		D	E	Installation dimensions F×G
	A	B×C					A	B×C			
BX-e/II(III) 001	150	170×110	120	208	178×140	BX-e/II(III) 013	360	360×165	175	418	388×330
BX-e/II(III) 002	180	220×110	120	238	208×190	BX-e/II(III) 014	400	500×200	210	470	436×466
BX-e/II(III) 003	200	300×110	120	258	228×270	BX-e/II(III) 015	400	500×300	310	470	436×466
BX-e/II(III) 004	200	300×125	135	258	228×270	BX-e/II(III) 016	480	480×150	160	550	516×446
BX-e/II(III) 005	220	360×125	135	278	248×330	BX-e/II(III) 017	480	480×250	260	550	516×446
BX-e/II(III) 006	220	360×165	175	278	248×330	BX-e/II(III) 018	500	600×200	210	570	536×566
BX-e/II(III) 007	250	250×150	160	308	278×220	BX-e/II(III) 019	500	600×300	310	570	536×566
BX-e/II(III) 008	300	300×150	160	358	328×270	BX-e/II(III) 020	600	800×200	218	694	650×740
BX-e/II(III) 009	300	300×200	210	358	328×270	BX-e/II(III) 021	600	800×300	318	694	650×740
BX-e/II(III) 010	300	400×150	160	358	328×370	BX-e/II(III) 022	800	1000×300	318	894	850×940
BX-e/II(III) 011	300	400×200	210	358	328×370	BX-e/II(III) 023	1000	1200×300	306	1100	1050×1140
BX-e/II(III) 012	360	360×125	135	418	388×330	BX-e/II(III) 024	1000	1500×400	406	1100	1050×(720+720)

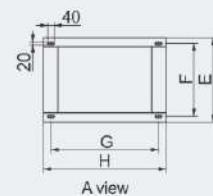
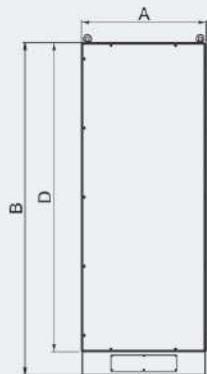
## Empty Enclosures

### BX-e Series Empty Enclosure (Ex eb IIC)

Selection table of BX-e series empty enclosure (all dimensions in mm)

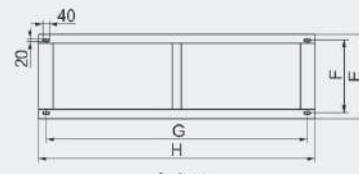
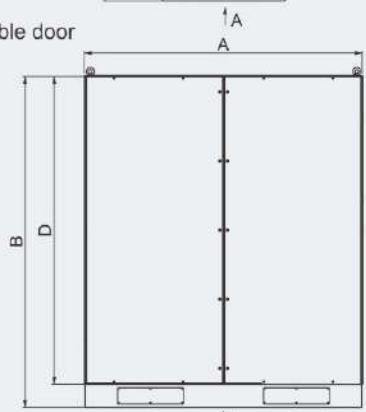
Pedestal type

1. Single door



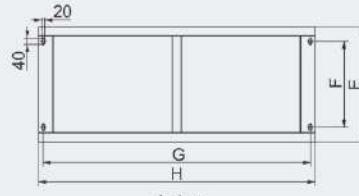
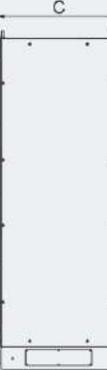
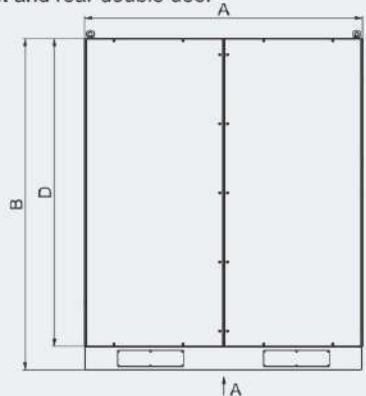
A view

2. Double door



A view

3. Front and rear double door



A view



Model and Specifications	Dimensions	Base Dimensions	Base Mounting Dimensions	Cabinet Height	Note
	A×B×C	E×H	G×F	D	
BX-e/II(III) 025	600×1800×400	600×350	500×274	2010	Single door
BX-e/II(III) 026	800×1800×400	800×350	700×274	2010	
BX-e/II(III) 027	800×2000×400	800×350	700×274	2210	
BX-e/II(III) 028	800×2000×600	800×550	700×474	2210	
BX-e/II(III) 029	1000×2000×600	1000×550	920×474	2210	Double door
BX-e/II(III) 030	1000×1800×400	1000×350	900×274	2010	
BX-e/II(III) 031	1200×1800×400	1200×350	1100×274	2010	
BX-e/II(III) 032	1600×1800×400	1600×350	1500×274	2010	
BX-e/II(III) 033	1200×2000×400	1200×350	1100×274	2210	Front and rear double door
BX-e/II(III) 034	1200×2000×600	1200×550	1100×474	2210	
BX-e/II(III) 035	1800×2000×600	1800×550	1700×474	2210	
BX-e/II(III) 036	1200×2000×800	1200×750	1140×560	2210	
BX-e/II(III) 037	1800×2000×800	1800×750	1740×560	2210	

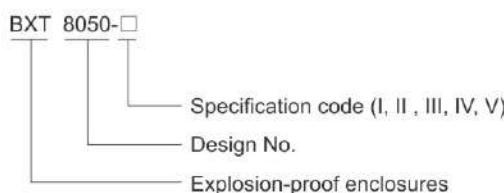
## Empty Enclosures

### BXT8050 Series Explosion-proof Enclosures (Ex e)



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Increased-safety enclosure (Ex e) in GRP; 5 versions.
- ◆ Cable entries can be drilled and components can be installed by user on request.
- ◆ Safety shall be considered when installing components according to related electrical standards.
- ◆ Special requirements on request.

#### Catalogue number logic



#### Technical data

##### Explosion-proof enclosures BXT8050-□

###### Explosion protection

Europe (ATEX)

LCIE 09 ATEX 3095U

Gas

Ex II 2 G Ex e II

###### Certificates

ATEX

###### Conformity to standards

EN 60079-0, EN 60079-7

IEC 60079-0, IEC 60079-7

###### Degree of protection

IP54

###### Ambient temperature

-20°C~+60°C

###### Enclosure material

GRP (glass fibre-reinforced polyester resin)

###### Exposed fastener

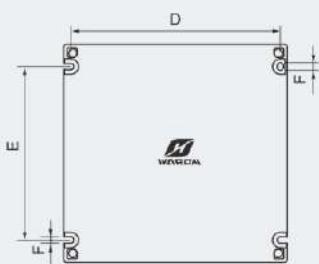
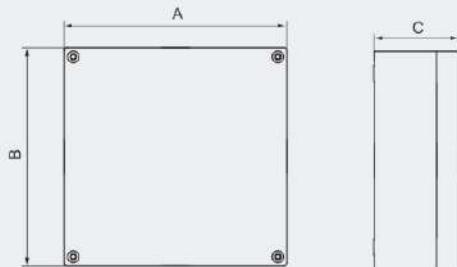
Stainless steel

Zones 1&2

## Empty Enclosures

### BXT8050 Series Explosion-proof Enclosures (Ex e)

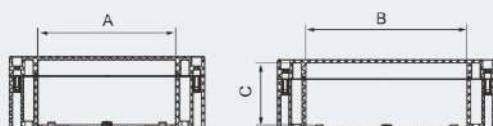
Selection table of BXT8050 series explosion-proof enclosures (all dimensions in mm)



#### Outline & Installation

Version	Outline dimensions			Installation dimensions		
	A	B	C	D	E	F
BXT8050-I	110	139	98	96	91	6.5
BXT8050-II	130	220	109	116	172	6.5
BXT8050-III	179	260	121	163	200	7
BXT8050-IV	220	360	121	200	296	9
BXT8050-V	360	360	121	340	296	9

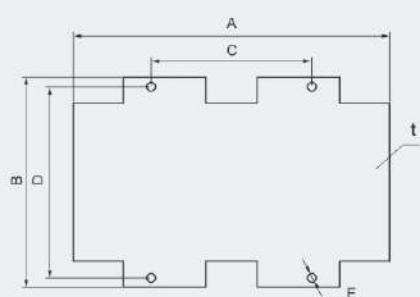
#### Internal



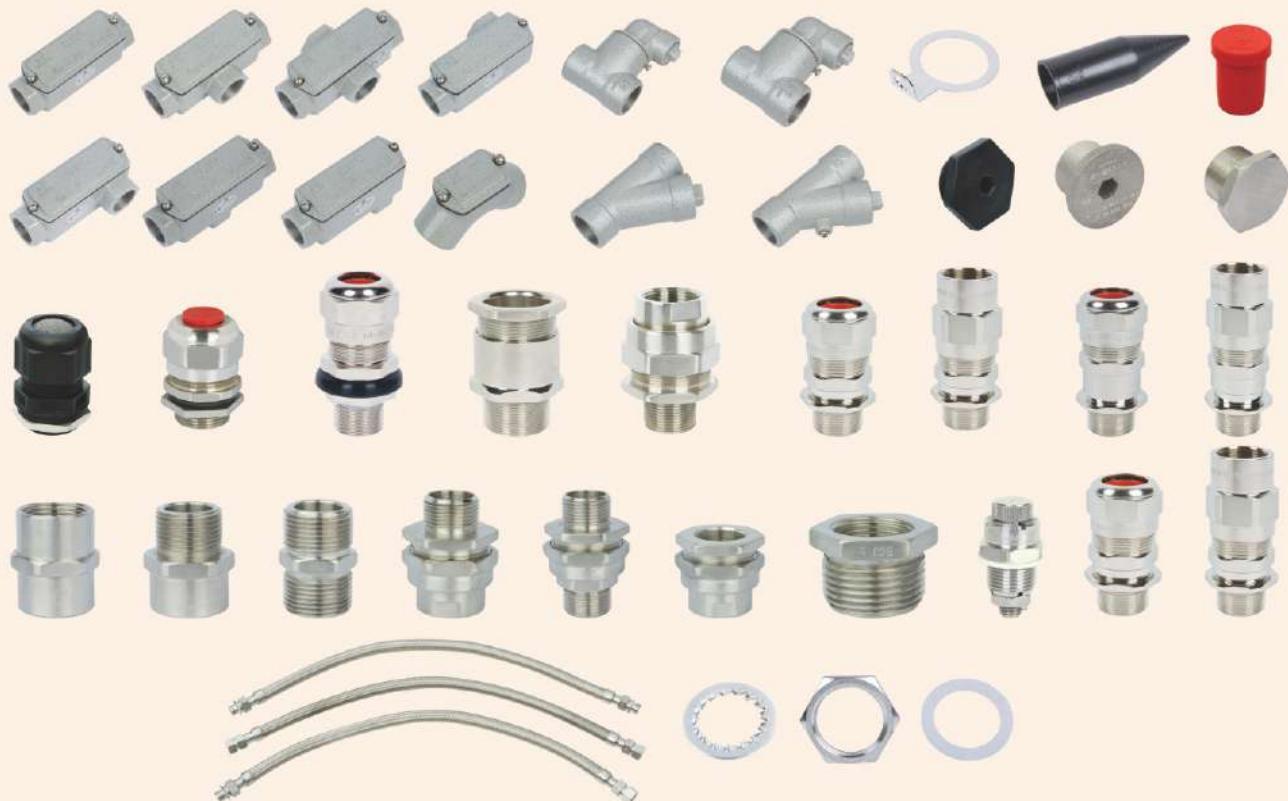
Version	Dimensions			Weight (kg)
	A	B	C	
BXT8050-I	104	104	63	1.20
BXT8050-II	148	94	90	1.30
BXT8050-III	130	174	102	2.10
BXT8050-IV	169	266	102	3.25
BXT8050-V	266	309	102	4.25



#### Mounting plate



Version	Dimensions					
	A	B	C	D	E	t
BXT8050-I	-	-	-	-	-	-
BXT8050-II	204	114	190	-	Φ7	2
BXT8050-III	240	159	122	145	Φ7	2
BXT8050-IV	322	188	282	142	Φ7	2
BXT8050-V	332	316	282	282	Φ7	2



## Cable Glands and Bushings

# Contents

## Accessories for Installation

BHC Series Explosion-proof Aluminium Alloy Bushings (Ex eb IIC)	7/2
BHC Series Explosion-proof Cast Iron Bushings (Ex eb IIC)	7/5
BGJ Series Explosion-proof Connectors (Ex db IIC, Ex eb IIC)	7/8
BGJ-w Series Explosion-Proof Right Angle Connectors (Ex db IIC, Ex eb IIC)	7/12
BAG Series Explosion-proof Seal Bushings (Ex db IIC, Ex eb IIC)	7/14

## Cable Glands

DQM-I Series Explosion-proof Cable Glands (Ex eb IIC)	7/18
DQM-II Series Explosion-proof Cable Glands (Ex d IIC, Ex e IIC)	7/22
DQM-III/I Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)	7/28
DQM-III/II Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)	7/30
DQM-CF Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)	7/32

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BNG Series Stainless Steel Explosion-proof Flexible Conduits (Ex d IIC)	7/34
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## Accessories

7/36



More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

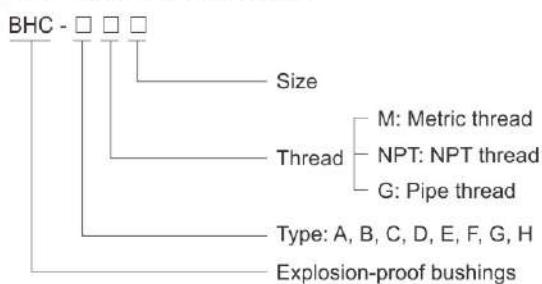
## Accessories for Installation

### BHC Series Explosion-proof Aluminium Alloy Bushings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ex e enclosure, copper-free Aluminium Alloy, powder coated surface.
- ◆ Widely used for connection in steel pipe wiring system.

#### Catalogue number logic



#### Technical data

##### Explosion-proof aluminium alloy bushings BHC-□□□

<b>Explosion protection</b>	IECEx CNEX 18.0028U
Global (IECEx)	Ex eb IIC Gb
Gas and dust	Ex tb IIIC Db
Europe (ATEX)	CNEX 18 ATEX 0022U
Gas and dust	Ex II 2 G Ex eb IIC Gb
	Ex II 2 D Ex tb IIIC Db
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-7, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface.
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+100°C
<b>Type</b>	A, B, C, D, E, F, G, H
<b>Connection thread</b>	1. Metric thread is standard type; G thread or NPT thread is optional. 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

**Note:** M75, M90, M115 equivalent G thread and NPT thread can be customized.

## Zones 1&2; 21&22

## Accessories for Installation

### BHC Series Explosion-proof Aluminium Alloy Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
Type A	M20	1/2"	1/2"	35	45	110	701001	0.15
	M25	3/4"	3/4"	38	49	118	701002	0.20
	M32	1"	1"	45	54	145	701003	0.35
	M40	1 1/4"	1 1/4"	54	65	170	701004	0.50
	M50	1 1/2"	1 1/2"	60	71	176	701005	0.60
	M63	2"	2"	72	83	204	701006	0.65
Type B	M20	1/2"	1/2"	52	45	110	701007	0.20
	M25	3/4"	3/4"	55	49	118	701008	0.20
	M32	1"	1"	63.5	54	145	701009	0.35
	M40	1 1/4"	1 1/4"	71	65	170	701010	0.50
	M50	1 1/2"	1 1/2"	80	71	176	701011	0.65
	M63	2"	2"	93.5	83	204	701012	1.20
Type C	M20	1/2"	1/2"	69	45	110	701013	0.20
	M25	3/4"	3/4"	72	49	118	701014	0.25
	M32	1"	1"	80	54	145	701015	0.40
	M40	1 1/4"	1 1/4"	88	65	170	701016	0.55
	M50	1 1/2"	1 1/2"	100	71	176	701017	0.65
	M63	2"	2"	115	83	204	701018	1.20
Type D	M20	1/2"	1/2"	52	45	101	701019	0.20
	M25	3/4"	3/4"	55	49	108	701020	0.20
	M32	1"	1"	63	54	135	701021	0.35
	M40	1 1/4"	1 1/4"	71	65	162.5	701022	0.50
	M50	1 1/2"	1 1/2"	80	71	165.5	701023	0.60
	M63	2"	2"	93.5	83	194.5	701024	1.20



## Accessories for Installation

### BHC Series Explosion-proof Aluminium Alloy Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
Type E	M20	1/2"	1/2"	52	45	101	701025	0.20
	M25	3/4"	3/4"	55	49	108	701026	0.20
	M32	1"	1"	63	54	135	701027	0.35
	M40	1 1/4"	1 1/4"	71	65	162.5	701028	0.50
	M50	1 1/2"	1 1/2"	80	71	165.5	701029	0.60
	M63	2"	2"	93.5	83	194.5	701030	1.20
Type F	M20	1/2"	1/2"	35	62	101	701031	0.20
	M25	3/4"	3/4"	38	66	108	701032	0.20
	M32	1"	1"	46	71	135	701033	0.50
	M40	1 1/4"	1 1/4"	54	82	162.5	701034	0.50
	M50	1 1/2"	1 1/2"	60	91	165.5	701035	0.60
	M63	2"	2"	72	104	194.5	701036	1.15
Type G	M20	1/2"	1/2"	35	62	110	701037	0.20
	M25	3/4"	3/4"	38	66	118	701038	0.20
	M32	1"	1"	46	71	145	701039	0.35
	M40	1 1/4"	1 1/4"	54	82	170	701040	0.50
	M50	1 1/2"	1 1/2"	60	91	176	701041	0.60
	M63	2"	2"	72	104	204	701042	1.20
Type H	M20	1/2"	1/2"	30	51	84	701043	0.10
	M25	3/4"	3/4"	35	53	89	701044	0.15
	M32	1"	1"	41	64	108	701045	0.25
	M40	1 1/4"	1 1/4"	51	69	116	701046	0.25
	M50	1 1/2"	1 1/2"	57	76	130	701047	0.35
	M63	2"	2"	70	95	168	701048	0.55

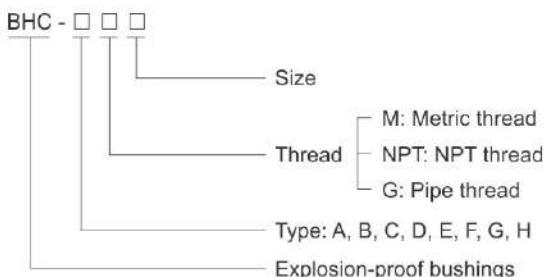
## Accessories for Installation

### BHC Series Explosion-proof Cast Iron Bushings

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ex e enclosure, cast iron, powder coated surface.
- ◆ Widely used for connection in steel pipe wiring system.



#### Catalogue number logic



#### Technical data

##### Explosion-proof cast iron bushings BHC-□□□

###### Explosion protection

Global (IECEx)	IECEx CNEX 18.0028U
Gas and dust	Ex eb IIC Gb
Europe (ATEX)	Ex tb IIIC Db
Gas and dust	CNEX 18 ATEX 0022U

###### Certificates

###### Conformity to standards

###### Enclosure material

Cast iron, powder coated surface.

###### Enclosure colour

Window grey (RAL7040)

###### Degree of protection

IP66

###### Ambient temperature

-60°C~+100°C

###### Type

A, B, C, D, E, F, G, H

###### Connection thread

1. Metric thread is standard type; G thread or NPT thread is optional.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

**Note:** M75, M90, M115 equivalent G thread and NPT thread can be customized.



## Zones 1&2; 21&22

## Accessories for Installation

### BHC Series Explosion-proof Cast Iron Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
Type A	M20	1/2"	1/2"	31	37	106	702001	0.55
	M25	3/4"	3/4"	35	42	120	702002	0.65
	M32	1"	1"	44	52	138	702003	0.85
	M40	1 1/4"	1 1/4"	53	62	164	702004	1.25
	M50	1 1/2"	1 1/2"	60	67	175	702005	1.50
	M63	2"	2"	75	82	200	702006	2.65
	M20	1/2"	1/2"	45	37	106	702007	0.60
	M25	3/4"	3/4"	50	42	120	702008	0.75
	M32	1"	1"	60	52	138	702009	1.00
	M40	1 1/4"	1 1/4"	73	62	164	702010	1.30
Type B	M50	1 1/2"	1 1/2"	80	67	175	702011	1.60
	M63	2"	2"	95	82	200	702012	2.85
	M20	1/2"	1/2"	59	37	106	702013	0.65
	M25	3/4"	3/4"	65	42	120	702014	0.80
	M32	1"	1"	76	52	138	702015	1.15
	M40	1 1/4"	1 1/4"	93	62	164	702016	1.40
	M50	1 1/2"	1 1/2"	100	67	175	702017	1.70
	M63	2"	2"	115	82	200	702018	2.80
	M20	1/2"	1/2"	45	37	98.5	702019	0.55
	M25	3/4"	3/4"	50	42	110	702020	0.75
Type C	M32	1"	1"	60	52	126	702021	0.85
	M40	1 1/4"	1 1/4"	73	62	149	702022	1.25
	M50	1 1/2"	1 1/2"	80	67	159	702023	1.55
	M63	2"	2"	95	82	183.5	702024	3.00

## Accessories for Installation

### BHC Series Explosion-proof Cast Iron Bushings

**Selection table**

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
Type E	M20	1/2"	1/2"	45	37	98.5	702025	0.55
	M25	3/4"	3/4"	50	42	110	702026	0.75
	M32	1"	1"	60	52	126	702027	0.90
	M40	1 1/4"	1 1/4"	73	62	149	702028	1.25
	M50	1 1/2"	1 1/2"	80	67	159	702029	1.65
	M63	2"	2"	95	82	183.5	702030	2.50
Type F	M20	1/2"	1/2"	31	41	98.5	702031	0.55
	M25	3/4"	3/4"	35	57	110	702032	0.65
	M32	1"	1"	44	68	126	702033	0.95
	M40	1 1/4"	1 1/4"	53	82	149	702034	1.25
	M50	1 1/2"	1 1/2"	60	87	159	702035	1.55
	M63	2"	2"	75	102	183.5	702036	2.85
Type G	M20	1/2"	1/2"	31	41	106	702037	0.55
	M25	3/4"	3/4"	35	57	120	702038	0.70
	M32	1"	1"	44	68	138	702039	0.95
	M40	1 1/4"	1 1/4"	53	82	164	702040	1.25
	M50	1 1/2"	1 1/2"	60	87	185	702041	1.25
	M63	2"	2"	75	102	200	702042	2.75
Type H	M20	1/2"	1/2"	28	46	84	702043	0.30
	M25	3/4"	3/4"	33	50	86	702044	0.30
	M32	1"	1"	40	58	99	702045	0.45
	M40	1 1/4"	1 1/4"	48	78	122	702046	0.65
	M50	1 1/2"	1 1/2"	56	82	129	702047	0.80
	M63	2"	2"	69	78	158	702048	1.55



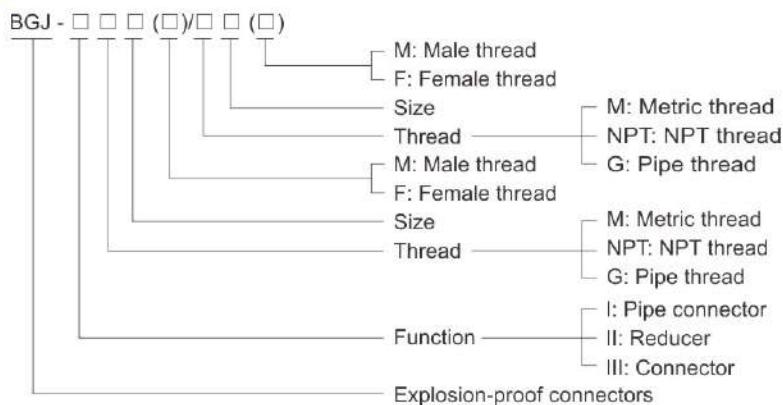
## Accessories for Installation

### BGJ Series Explosion-proof Connectors



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Available in nickel plated brass, stainless steel or galvanized carbon steel.

#### ■ Catalogue number logic



#### Technical data

##### Explosion-proof connectors

BGJ-□□□(□)/□□(□)

##### Explosion protection

Global (IECEx)

Gas and dust

IECEx CNEX 18.0038U

Ex db IIC Gb

Ex eb IIC Gb

Ex tb IIIC Db

CNEX 18 ATEX 0030U

Ex II 2 G Ex db IIC Gb

Ex II 2 G Ex eb IIC Gb

Ex II 2 D Ex tb IIIC Db

IECEx; ATEX; CU-TR

##### Europe (ATEX)

Gas and dust

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

##### Certificates

##### Conformity to standards

##### Material

##### Degree of protection

##### Ambient temperature

##### Type

##### Function

Nickel plated brass, stainless steel or galvanized carbon steel

IP66

-60°C~+100°C

F/F, M/F or M/M

Pipe connector, reducer, connector

Zones 1&2; 21&22

## Accessories for Installation

### BGJ Series Explosion-proof Connectors

Selection table

Version	Female thread "H"			Dimensions (mm)						Ordering code	Weight (kg)	
	Metric	NPT	G	A	B	C	D	L	L1	L2		
BGJ-I□□(F)/□□(F)	M20	1/2"	1/2"	30	27	25		34	15	15	703001	0.10
	M25	3/4"	3/4"	35	32	31		34	15	15	703002	0.10
	M32	1"	1"	42	38	37		44	19	19	703003	0.15
	M40	1 1/4"	1 1/4"	54	49	46		44	19	19	703004	0.25
	M50	1 1/2"	1 1/2"	60	55	54		44	19	19	703005	0.25
	M63	2"	2"	72	68	67		46	19	19	703006	0.35
	M75	2 1/2"	2 1/2"	88	83	81		46	19	19	703007	0.50
	M90	3"	3"	105	100	98		46	19	19	703008	0.65
	M110	4"	4"	130	125	123		46	19	19	703009	1.00
BGJ-I□□(M)/□□(F)	M20	1/2"	1/2"	30	27	25	15	36	15	17	703010	0.10
	M25	3/4"	3/4"	35	32	31	18	36	15	17	703011	0.10
	M32	1"	1"	42	38	37	25	44	19	20	703012	0.15
	M40	1 1/4"	1 1/4"	54	49	46	32	44	19	20	703013	0.20
	M50	1 1/2"	1 1/2"	60	55	54	38	44	19	20	703014	0.25
	M63	2"	2"	72	68	67	50	46	19	21	703015	0.35
	M75	2 1/2"	2 1/2"	88	83	81	65	46	19	21	703016	0.50
	M90	3"	3"	105	100	98	75	46	19	21	703017	0.65
	M110	4"	4"	130	125	123	100	46	19	21	703018	1.00
BGJ-I□□(M)/□□(M)	M20	1/2"	1/2"	30	27		15	36	15	15	703019	0.05
	M25	3/4"	3/4"	35	32		18	36	15	15	703020	0.10
	M32	1"	1"	42	38		25	46	19	19	703021	0.15
	M40	1 1/4"	1 1/4"	50	46		32	46	19	19	703022	0.25
	M50	1 1/2"	1 1/2"	60	55		38	46	19	19	703023	0.25
	M63	2"	2"	72	68		50	46	19	19	703024	0.35
	M75	2 1/2"	2 1/2"	88	83		65	46	19	19	703025	0.50
	M90	3"	3"	100	95		75	46	19	19	703026	0.65
	M110	4"	4"	127	122		100	46	19	19	703027	1.00



**Note:** 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.

Above weight is based upon galvanized carbon steel.

2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

## Accessories for Installation

### BGJ Series Explosion-proof Connectors

Selection table

Version	Female thread "H1"			Female thread "H2"			Dimensions (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Metric	NPT	G			
BGJ-II□□(F)/□□(F)	M20	1/2"	1/2"	M25	3/4"	3/4"	36	703028	0.10
	M25	3/4"	3/4"	M32	1"	1"	38	703029	0.15
	M32	1"	1"	M40	1 1/4"	1 1/4"	44	703030	0.25
	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	44	703031	0.30
	M50	1 1/2"	1 1/2"	M63	2"	2"	44	703032	0.35
	M63	2"	2"	M75	2 1/2"	2 1/2"	44	703033	0.50
	M75	2 1/2"	2 1/2"	M90	3"	3"	44	703034	0.65
	M90	3"	3"	M110	4"	4"	44	703035	1.00
BGJ-II□□(M)/□□(F)	M20	1/2"	1/2"	M25	3/4"	3/4"	21	703036	0.05
	M25	3/4"	3/4"	M32	1"	1"	25	703037	0.10
	M32	1"	1"	M40	1 1/4"	1 1/4"	25	703038	0.25
	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	25	703039	0.45
	M50	1 1/2"	1 1/2"	M63	2"	2"	25	703040	0.60
	M63	2"	2"	M75	2 1/2"	2 1/2"	25	703041	0.75
	M75	2 1/2"	2 1/2"	M90	3"	3"	25	703042	0.90
	M90	3"	3"	M110	4"	4"	25	703043	1.20
BGJ-II□□(M)/□□(M)	M20	1/2"	1/2"	M25	3/4"	3/4"	36	703044	0.10
	M25	3/4"	3/4"	M32	1"	1"	40	703045	0.15
	M32	1"	1"	M40	1 1/4"	1 1/4"	46	703046	0.25
	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	46	703047	0.25
	M50	1 1/2"	1 1/2"	M63	2"	2"	46	703048	0.35
	M63	2"	2"	M75	2 1/2"	2 1/2"	46	703049	0.50
	M75	2 1/2"	2 1/2"	M90	3"	3"	46	703050	0.65
	M90	3"	3"	M110	4"	4"	46	703051	1.00

**Note:** 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.

Above weight is based upon galvanized carbon steel.

2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

## Accessories for Installation

### BGJ Series Explosion-proof Connectors

Selection table

Version	Female thread "H"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	A	B	L		
BGJ- III□□(F)/□□(F)	M20	1/2"	1/2"	37	15	40	703052	0.15
	M25	3/4"	3/4"	42	20	40	703053	0.25
	M32	1"	1"	48	25	46	703054	0.35
	M40	1 1/4"	1 1/4"	65	32	46	703055	0.50
	M50	1 1/2"	1 1/2"	70	38	46	703056	0.50
	M63	2"	2"	85	50	52	703057	0.85
	M75	2 1/2"	2 1/2"	108	65	52	703058	1.25
	M90	3"	3"	115	76	57	703059	1.70
	M110	4"	4"	145	100	57	703060	2.20
BGJ- III□□(M)/□□(F)	M20	1/2"	1/2"	37	15	55	703061	0.20
	M25	3/4"	3/4"	42	20	55	703062	0.30
	M32	1"	1"	48	25	64	703063	0.45
	M40	1 1/4"	1 1/4"	65	32	64	703064	0.60
	M50	1 1/2"	1 1/2"	70	38	64	703065	0.65
	M63	2"	2"	85	50	73	703066	1.05
	M75	2 1/2"	2 1/2"	110	102	73	703067	1.45
	M90	3"	3"	115	110	81	703068	1.55
	M110	4"	4"	145	140	81	703069	2.00
BGJ- III□□(M)/□□(M)	M20	1/2"	1/2"	37	15	64	703070	0.20
	M25	3/4"	3/4"	42	20	64	703071	0.30
	M32	1"	1"	48	25	74	703072	0.45
	M40	1 1/4"	1 1/4"	65	32	74	703073	0.70
	M50	1 1/2"	1 1/2"	70	38	74	703074	0.75
	M63	2"	2"	85	50	84	703075	1.20
	M75	2 1/2"	2 1/2"	110	102	84	703076	1.60
	M90	3"	3"	115	110	94	703077	2.05
	M110	4"	4"	145	140	94	703078	2.55



Note: 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.

Above weight is based upon galvanized carbon steel.

2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

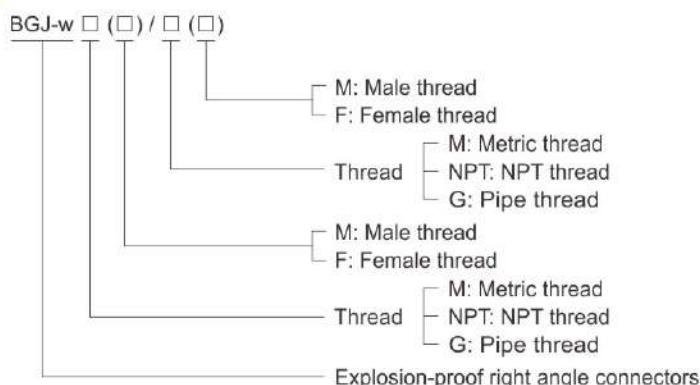
## Accessories for Installation

### BGJ-w Series Explosion-Proof Right Angle Connectors



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Available in stainless steel.

#### ■ Catalogue number logic



#### Technical data

##### Explosion-proof right angle connectors BGJ-w□(□)/□(□)

###### Explosion protection

Global (IECEx)

Gas and dust

IECEx (applied for)

Ex db IIC Gb

Ex eb IIC Gb

Ex tb IIIC Db

ATEX (applied for)

Ex II 2 G Ex db IIC Gb

Ex II 2 G Ex eb IIC Gb

Ex II 2 D Ex tb IIIC Db

IECEx; ATEX

###### Europe (ATEX)

Gas and dust

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

stainless steel

IP66

-60°C~+100°C

F/F, M/F or M/M

Pipe connector, reducer, connector

###### Certificates

###### Conformity to standards

###### Material

###### Degree of protection

###### Ambient temperature

###### Type

###### Function

## Zones 1&2; 21&22

## Accessories for Installation

### BGJ-w Series Explosion-Proof Right Angle Connectors

Selection table

Version	Thread "H"			Dimensions (mm)					Ordering code	Weight (kg)
	Metric	NPT	G	A	B	C	L1	L2		
BGJ-w□(M)/□(F)	M20	1/2"	1/2"	52	50	Φ25	17	15	723001	0.10
	M25	3/4"	3/4"	58	56	Φ31	17	15	723002	0.14
	M32	1"	1"	67	66	Φ37	20	19	723003	0.17
	M40	1 1/4"	1 1/4"	76	75	Φ46	20	19	723004	0.25
	M50	1 1/2"	1 1/2"	84	83	Φ54	20	19	723005	0.30
	M63	2"	2"	98	97	Φ67	21	20	723006	0.35
	M75	2 1/2"	2 1/2"	115	120	Φ81	24	29	723007	0.70
	M90	3"	3"	134	139	Φ98	26	31	723008	1.30
	M110	4"	4"	161	167	Φ123	28	34	723009	1.90
BGJ-w□(F)/□(F)	M20	1/2"	1/2"	48	48	Φ25	15	15	723010	0.10
	M25	3/4"	3/4"	54	54	Φ31	15	15	723011	0.15
	M32	1"	1"	64	64	Φ37	19	19	723012	0.20
	M40	1 1/4"	1 1/4"	73	73	Φ46	19	19	723013	0.25
	M50	1 1/2"	1 1/2"	81	81	Φ54	19	19	723014	0.30
	M63	2"	2"	94	94	Φ67	19	19	723015	0.35
	M75	2 1/2"	2 1/2"	113	113	Φ81	24	24	723016	0.70
	M90	3"	3"	132	132	Φ98	26	26	723017	1.30
	M110	4"	4"	159	159	Φ123	28	28	723018	2.00
BGJ-w□(M)/□(M)	M20	1/2"	1/2"	50	50	Φ25	15	15	723019	0.07
	M25	3/4"	3/4"	56	56	Φ31	15	15	723020	0.10
	M32	1"	1"	66	66	Φ37	19	19	723021	0.15
	M40	1 1/4"	1 1/4"	75	75	Φ46	19	19	723022	0.25
	M50	1 1/2"	1 1/2"	83	83	Φ54	19	19	723023	0.25
	M63	2"	2"	97	97	Φ67	20	20	723024	0.30
	M75	2 1/2"	2 1/2"	120	120	Φ81	29	29	723025	0.60
	M90	3"	3"	139	139	Φ98	31	31	723026	1.30
	M110	4"	4"	167	167	Φ123	34	34	723027	1.70



**Note:** 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.

Above weight is based upon galvanized carbon steel.

2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

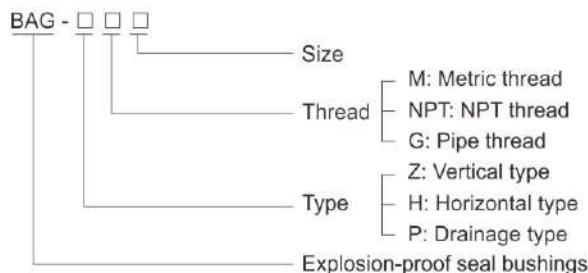
## Accessories for Installation

### BAG Series Explosion-proof Seal Bushings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Copper-free Aluminium Alloy, powder coated surface.  
(cast steel or stainless steel is optional)
- ◆ Widely used for isolating seal between pipes or pipes and explosion-proof enclosures.

#### ■ Catalogue number logic



#### Technical data

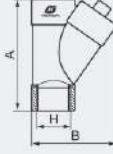
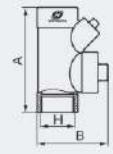
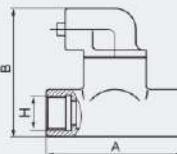
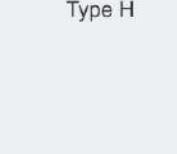
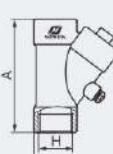
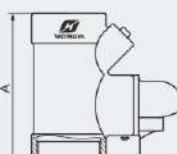
<b>Explosion-proof seal bushings</b>	<b>BAG-<input type="text"/> <input type="text"/> <input type="text"/></b>
<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 13.0029X
Gas and dust	Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db
Europe (ATEX)	EPT 14 ATEX 1124X
Gas and dust	Ex II 2 G Ex db IIC Gb Ex II 2 D Ex tb IIIC Db Ex II 2 G Ex eb IIC Gb IECEx; ATEX; CU-TR
<b>Certificates</b>	
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface. (cast steel or stainless steel is optional) Note: Other material can be customized on request.
<b>Enclosure colour</b>	Window grey (RAL 7040)
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+75°C
<b>Type</b>	Type Z, Type H, Type P
<b>Connection thread</b>	1. Metric thread is standard type; G thread or NPT thread is optional. (The seal bushings are supplied without filling compound. Please specify when ordering) 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

**Zones 1&2; 21&22**

## Accessories for Installation

### BAG Series Explosion-proof Seal Bushings

Selection table

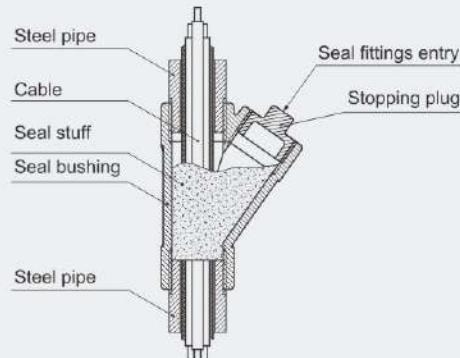
Version	Female thread "H"			Dimensions (mm)		Cable outer diameter (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	A	B			
 Type Z	M20	1/2"	1/2"	77	54	8~10	704001	0.10
	M25	3/4"	3/4"	87	65	10~14	704002	0.15
	M32	1"	1"	102	78	12~17	704003	0.20
 Type Z	M40	1 1/4"	1 1/4"	130	87	15~23	704004	0.35
	M50	1 1/2"	1 1/2"	130	92	17~26	704005	0.35
	M63	2"	2"	140	107	25~35	704006	0.50
 Type H	M20	1/2"	1/2"	74	95	8~10	704007	0.30
	M25	3/4"	3/4"	74	101	10~14	704008	0.30
	M32	1"	1"	74	107	12~17	704009	0.30
 Type H	M40	1 1/4"	1 1/4"	98	115	15~23	704010	0.35
	M50	1 1/2"	1 1/2"	98	134	17~26	704011	0.45
	M63	2"	2"	120	142	25~35	704012	0.55
 Type P	M20	1/2"	1/2"	88	61	8~10	704013	0.15
	M25	3/4"	3/4"	100	74	10~14	704014	0.20
	M32	1"	1"	111	83	12~17	704015	0.25
 Type P	M40	1 1/4"	1 1/4"	130	116	15~23	704016	0.45
	M50	1 1/2"	1 1/2"	130	121	17~26	704017	0.45
	M63	2"	2"	140	143	25~35	704018	0.65



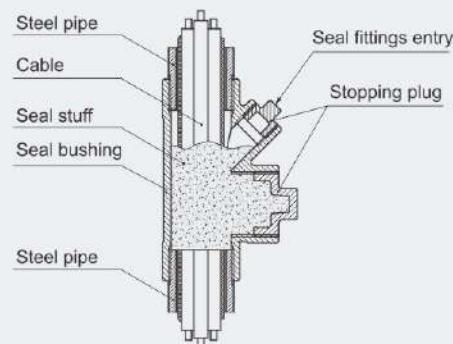
## Accessories for Installation

### BAG Series Explosion-proof Seal Bushings

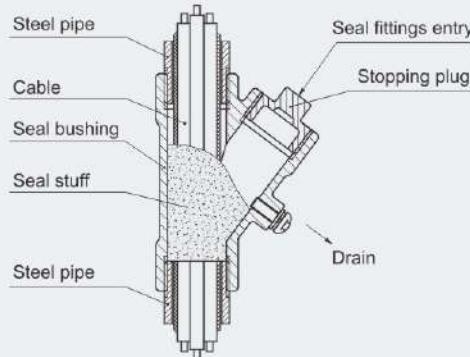
#### Schematic diagram



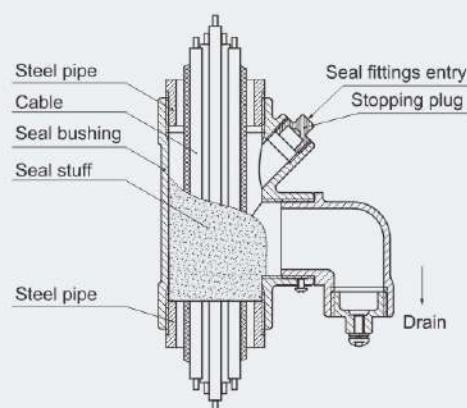
BAG-Z(Vertical type M20 x 1.5~M32 x 1.5)



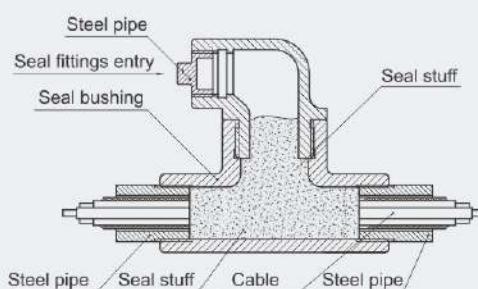
BAG-Z(Vertical type M40 x 1.5~M63 x 1.5)



BAG-P(Drainage type M20 x 1.5~M32 x 1.5)



BAG-P(Drainage type M40 x 1.5~M63 x 1.5)



BAG-H(Horizontal type)

## Cable Glands

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
  - Class I, Division 2, Groups A , B, C, D
- ◆ Ex d and Ex e versions
- ◆ Cable glands:
  - Suitable for armored or unarmored cable
  - Suitable for cable or steel pipe wiring



Explosion-proof cable glands include:

- 1) DQM-I (Ex e)
  - Plastic, unarmored
  - Metal, unarmored or armored
- 2) DQM-II (Ex d Ex e)
  - Metal, unarmored, single seal
  - Metal, armored, dual seal
- 3) DQM-III (Ex db Ex eb)
  - Metal, unarmored, compound barrier
  - Metal, armored, compound barrier
- 4) DQM-CF (Ex d Ex e)
  - Metal, unarmored, single seal
  - Metal, armored, dual seal



Zones 1&2; 21&22

## Cable Glands

## DQM-I Series Explosion-proof Cable Glands (Ex e)

## Plastic Unarmored



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ex e structure, made of plastic, black.
- ◆ Single seal, suitable for unarmored cable.

## Technical data

## Explosion-proof cable glands DQM-I (plastic unarmored)

## Explosion protection

Global (IECEx)  
Gas

Europe (ATEX)

Gas

## Certificates

## Conformity to standards

## Gland material

## Degree of protection

## Ambient temperature

## Connection thread

IECEx CQM 07.0009

Ex e II

PTB 04 ATEX 1087X

Ex II 2 G Ex e IIC Gb

IECEx; ATEX; CU-TR

EN 60079-0, EN 60079-7; IEC 60079-0, IEC 60079-7

Plastic, black

IP65

-20°C~+55°C

Metric thread is standard type; G thread is optional, but limited at G3/4"; NPT thread is not suitable

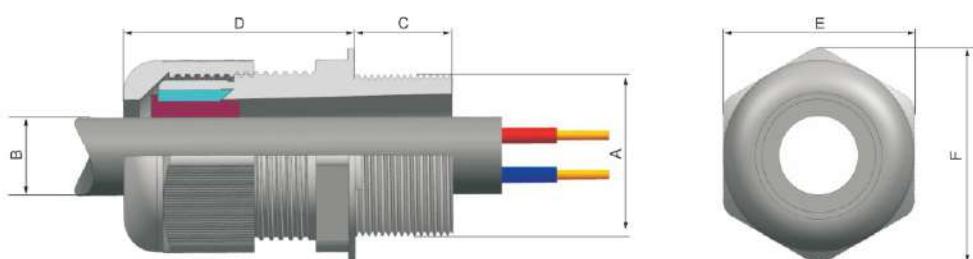


## Selection table

Gland size	Entry thread "A"	Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across flats E (mm)	Across corners F (mm)	Ordering code	Weight (kg)
		Min	Max						
16	M16 x 1.5	5	8	15	27	19	21	705001	0.05
20	M20 x 1.5	6	10	15	29	24	26	705002	0.05
25	M25 x 1.5	9	12	15	33	30	33	705003	0.05
		12	16						
3/4	G 3/4"	9	12	15	33	30	33	705004	0.05
		12	16						
32	M32 x 1.5	10	18	15	35	41	45	705005	0.05
40	M40 x 1.5	17	25	14	46	50	55	705006	0.10
50	M50 x 1.5	23	32	14	51	57	63	705007	0.11
63	M63 x 1.5	32	44	15	51	70	78	705008	0.15

Note: 1. Supplied with locknut (nickel plated brass) and seal gasket, without stopping rod.

2. Stopping rod on request. See P7/37.

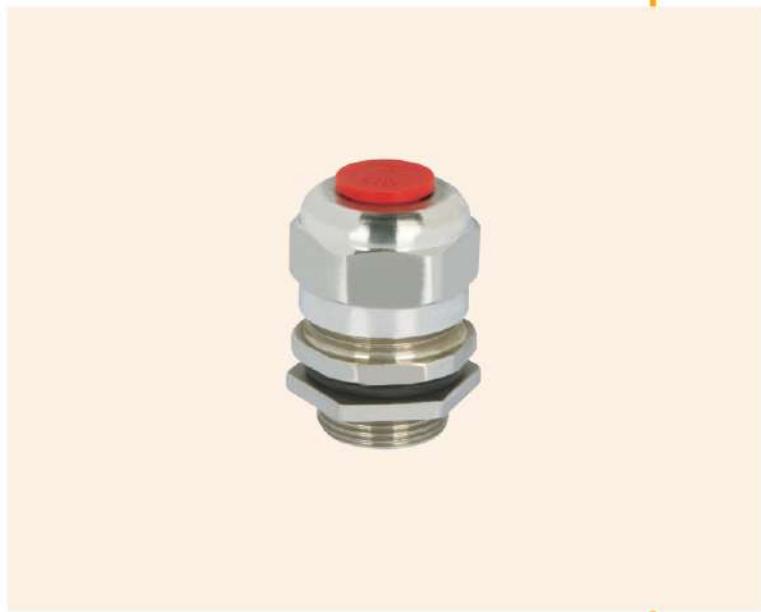


## Cable Glands

### DQM-I Series Explosion-proof Cable Glands (Ex eb IIC)

#### Metal Unarmored

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ex e structure; available in stainless steel or nickel plated brass.
- ◆ Single seal, suitable for unarmored cable.



#### Technical data

##### Explosion-proof cable glands      DQM-I (metal unarmored)

###### Explosion protection

Global (IECEx)	IECEx EUT 17.0001X
Gas and dust	Ex eb IIC Gb
Europe (ATEX)	Ex tb IIIC Db IP66 / IP67
Gas and dust	EPT 15 ATEX 1965

###### Europe (ATEX)

Ex tb IIIC Db IP66 / IP67

###### Gas and dust

EPT 15 ATEX 1965

###### Gas and dust

Ex II 2 G Ex e IIC Gb

Ex II 2 D Ex tb IIIC Db IP66 / IP67

IECEx; ATEX; CU-TR

###### Certificates

###### Conformity to standards

###### Gland material

EN 60079-0, EN 60079-7, EN 60079-31

###### Degree of protection

IEC 60079-0, IEC 60079-7, IEC 60079-31

###### Ambient temperature

Stainless steel or nickel plated brass

###### Connection thread

IP66 / IP67

-60°C~+100°C

Metric thread is standard type; G thread or NPT thread is optional



#### Selection table

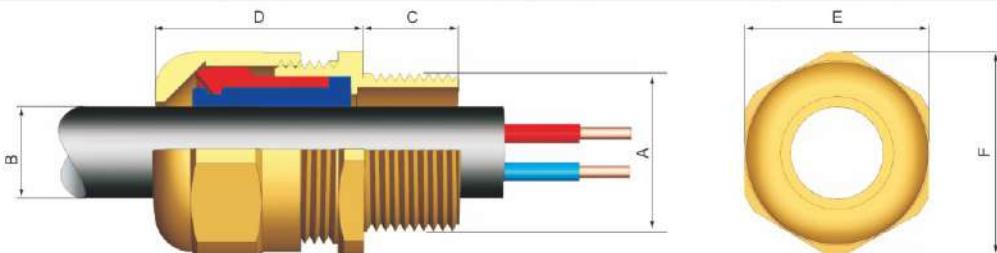
Gland size	Entry thread "A"			Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across flats E (mm)	Across corners F (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Min	Max						
20	M20	1/2"	1/2"	5	10	15	33	27	30	706001	0.15
25	M25	3/4"	3/4"	9	14	15	33	32	35	706002	0.15
32	M32	1"	1"	13	18	19	37	38	41	706003	0.30
40	M40	1 1/4"	1 1/4"	17	24	19	40	47	50	706004	0.50
50	M50	1 1/2"	1 1/2"	22	32	19	40	55	60	706005	0.55
63	M63	2"	2"	31	44	19	53	68	72	706006	0.70
75	M75	2 1/2"	2 1/2"	43	56	19	53	80	85	706007	0.90

**Note:** 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.

2. Supplied with locknut and seal gasket.

3. Earth lug and shroud on request. See P7/38~39.

4. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



## Cable Glands

### DQM-I Series Explosion-proof Cable Glands (Ex eb IIC)

#### Metal Armored



Cable wiring

Steel pipe wiring

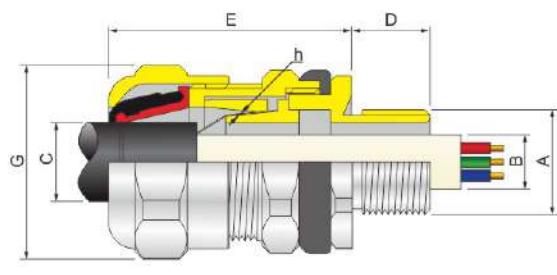
- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Ex e structure; available in stainless steel or nickel plated brass.
- ◆ Single seal, suitable for both armored and unarmored cable.
- ◆ EMC Cable Gland. (360° contact) - EMC tested.

#### Technical data

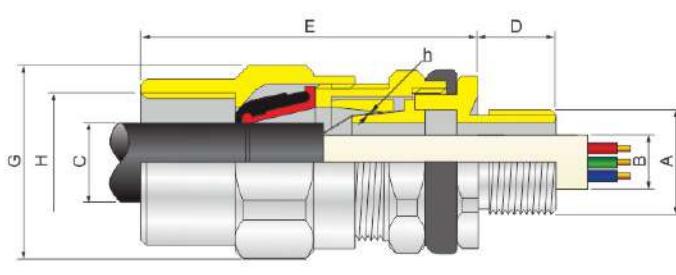
##### Explosion-proof cable glands      DQM-I (metal armored)



<b>Explosion protection</b>	
Global (IECEx)	IECEx EUT 17.0001X
Gas and dust	Ex eb IIC Gb
Europe (ATEX)	Ex tb IIIC Db IP66 / IP67
Gas and dust	EPT 15 ATEX 1965
	Ex II 2 G Ex e IIC Gb
	Ex II 2 D Ex tb IIIC Db IP66 / IP67
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-7, EN 60079-31
IEC 60079-0, IEC 60079-7, IEC 60079-31	
<b>Gland material</b>	Stainless steel or nickel plated brass
<b>Degree of protection</b>	IP66 / IP67
<b>Ambient temperature</b>	-60°C~+100°C
<b>Connection thread</b>	Metric thread is standard type; G thread or NPT thread is optional



Cable wiring



Steel pipe wiring

## Cable Glands

### DQM-I Series Explosion-proof Cable Glands (Ex eb IIC)

#### Metal Armored

#### Selection table of cable wiring

Gland size	Entry thread "A"		Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)	
	Metric	NPT/G		Max	Min				X	W			
20A	M20	1/2"	10.5	5.5	12.0	15	51	31	0~0.6	0.8~1.4	707001	0.11	
20B	M20	1/2"	10.5	9.0	16.0	15	51	31	0~0.6	0.8~1.4	707002	0.14	
20C	M20	1/2"	14.5	12.5	20.5	15	53	37	0~0.6	0.8~1.4	707003	0.14	
25A	M25	3/4"	10.5	9.0	16.0	15	51	37	0~0.6	0.8~1.4	707004	0.18	
25B	M25	3/4"	14.5	12.5	20.5	15	53	37	0~0.6	0.8~1.4	707005	0.17	
25C	M25	3/4"	19.5	17.0	26.0	15	58	45	0~0.7	1.0~1.7	707006	0.17	
32A	M32	1"	14.5	12.5	20.5	15	53	45	0~0.6	0.8~1.4	707007	0.20	
32B	M32	1"	19.5	17.0	26.0	15	58	45	0~0.7	1.0~1.7	707008	0.26	
32C	M32	1"	25.5	22.0	33.0	15	62	54	0~0.8	1.0~1.7	707009	0.28	
40A	M40	1 1/4"	19.5	17.0	26.0	19	58	54	0~0.7	1.0~1.7	707010	0.28	
40B	M40	1 1/4"	25.5	22.0	33.0	19	62	54	0~0.8	1.0~1.7	707011	0.31	
40C	M40	1 1/4"	31.0	28.0	41.0	19	69	65	0~1.0	1.0~2.0	707012	0.37	
50A	M50	1 1/2"	25.5	22.0	33.0	19	62	65	0~0.8	1.0~1.7	707013	0.37	
50B	M50	1 1/2"	31.0	28.0	41.0	19	69	65	0~1.0	1.0~2.0	707014	0.55	
50C	M50	1 1/2"	37.0	36.0	52.5	19	77	77	0~1.0	1.0~2.0	707015	0.70	
63A	M63	2"	31.0	28.0	41.0	19	69	77	0~1.0	1.0~2.0	707016	0.85	
63B	M63	2"	37.0	36.0	52.5	19	77	77	0~1.0	1.0~2.0	707017	1.00	
63C	M63	2"	49.0	46.0	65.0	19	95	93	0~1.2	1.5~2.7	707018	1.30	
75A	M75	2 1/2"	37.0	36.0	52.5	19	77	90	0~1.0	1.0~2.0	707019	2.40	
75B	M75	2 1/2"	55.0	46.0	65.0	19	95	93	0~1.2	1.5~2.7	707020	2.70	
75C	M75	2 1/2"	NPT: 60.0 M/G: 64.0		57.0	78.0	19	100	110	0~1.5	2.0~3.5	707021	2.80
90	M90	3"	75.0	68.0	88.0	19	100	121	0~1.5	2.0~3.5	707022	3.70	
115	M115	4"	90.0	83.0	103.0	19	106	137	0~1.5	2.0~3.5	707023	4.40	

#### Selection table of steel pipe wiring

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)	
	Metric	NPT/G	Metric	NPT/G		Max	Min				X	W			
20A	M20	1/2"	M20	1/2"	10.5	5.5	12.0	15	66	31	0~0.6	0.8~1.4	707024	0.14	
20B	M20	1/2"	M20	1/2"	10.5	9.0	16.0	15	66	31	0~0.6	0.8~1.4	707025	0.18	
20C	M20	1/2"	M25	3/4"	14.5	12.5	20.5	15	68	37	0~0.6	0.8~1.4	707026	0.18	
25A	M25	3/4"	M20	1/2"	10.5	9.0	16.0	15	66	37	0~0.6	0.8~1.4	707027	0.23	
25B	M25	3/4"	M25	3/4"	14.5	12.5	20.5	15	68	37	0~0.6	0.8~1.4	707028	0.25	
25C	M25	3/4"	M32	1"	19.5	17.0	26.0	15	77	45	0~0.7	1.0~1.7	707029	0.25	
32A	M32	1"	M25	3/4"	14.5	12.5	20.5	15	68	45	0~0.6	0.8~1.4	707030	0.25	
32B	M32	1"	M32	1"	19.5	17.0	26.0	15	77	45	0~0.7	1.0~1.7	707031	0.30	
32C	M32	1"	M40	1 1/4"	25.5	22.0	33.0	15	81	54	0~0.8	1.0~1.7	707032	0.32	
40A	M40	1 1/4"	M32	1"	19.5	17.0	26.0	19	77	54	0~0.7	1.0~1.7	707033	0.32	
40B	M40	1 1/4"	M40	1 1/4"	25.5	22.0	33.0	19	81	54	0~0.8	1.0~1.7	707034	0.32	
40C	M40	1 1/4"	M50	1 1/2"	31.0	28.0	41.0	19	88	65	0~1.0	1.0~2.0	707035	0.42	
50A	M50	1 1/2"	M40	1 1/4"	25.5	22.0	33.0	19	88	65	0~0.8	1.0~1.7	707036	0.42	
50B	M50	1 1/2"	M50	1 1/2"	31.0	28.0	41.0	19	88	65	0~1.0	1.0~2.0	707037	0.65	
50C	M50	1 1/2"	M63	2"	37.0	36.0	52.5	19	96	77	0~1.0	1.0~2.0	707038	0.80	
63A	M63	2"	M50	1 1/2"	31.0	28.0	41.0	19	88	77	0~1.0	1.0~2.0	707039	0.98	
63B	M63	2"	M63	2"	37.0	36.0	52.5	19	96	77	0~1.0	1.0~2.0	707040	0.35	
63C	M63	2"	M75	2 1/2"	49.0	46.0	65.0	19	114	93	0~1.2	1.5~2.7	707041	1.65	
75A	M75	2 1/2"	M63	2"	37.0	36.0	52.5	19	96	90	0~1.0	1.0~2.0	707042	2.70	
75B	M75	2 1/2"	M75	2 1/2"	55.0	46.0	65.0	19	114	93	0~1.2	1.5~2.7	707043	3.00	
75C	M75	2 1/2"	M90	3"	NPT: 60.0 M/G: 64.0		57.0	78.0	19	119	110	0~1.5	2.0~3.5	707044	3.40
90	M90	3"	M115	4"	75.0	68.0	88.0	19	119	121	0~1.5	2.0~3.5	707045	4.00	
115	M115	4"	M125	4 1/2"	90.0	83.0	103.0	19	125	137	0~1.5	2.0~3.5	707046	4.80	



- Note:**
1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.
  2. Supplied with locknut and seal gasket.
  3. Earth lug and shroud on request. See P7/38~39.
  4. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

## Cable Glands

### DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)

#### Unarmored Single Seal



Cable wiring



Steel pipe wiring

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex d, Ex e structure; available in stainless steel or nickel plated brass.
- ◆ Single seal, suitable for unarmored cable.

#### Technical data

##### Explosion-proof cable glands      DQM-II (unarmored single seal)

###### Explosion protection

Global (IECEx) IECEx LCI 08.0011X

Gas and dust Ex d IIC Gb

Ex e IIC Gb

Ex tb IIIC Db IP66

LCIE 06 ATEX 6100X

Europe (ATEX) Ex II 2 G Ex d IIC Gb

Ex II 2 G Ex e IIC Gb

Ex II 2 D Ex tb IIIC Db IP66

IECEx; ATEX; CU-TR

Conformity to standards EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### Certificates

Conformity to standards EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

###### Gland material

Stainless steel or nickel plated brass

###### Degree of protection

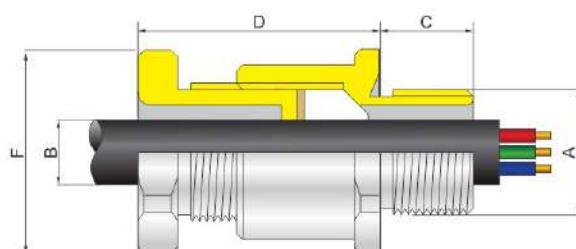
IP66

###### Ambient temperature

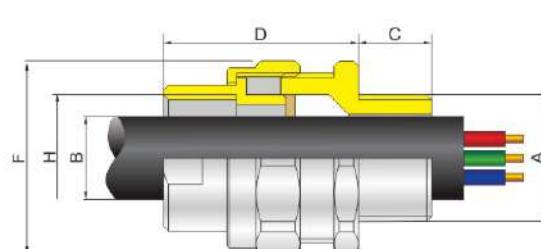
-60°C~+100°C

###### Connection thread

Metric thread is standard type; G thread or NPT thread is optional



Cable wiring



Steel pipe wiring

## Cable Glands

### DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)

#### Unarmored Single Seal

#### Selection table of cable wiring

Gland size	Entry thread "A"		Cable outer diameter B (mm)				Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across corners F (mm)	Ordering code	Weight (kg)					
	Standard Seal		Alternative Seal													
	Metric	NPT/G	Min	Max	Min	Max										
20A	M20A	1/2"A	6.5	10.5	4	8	15	33	31	708001	0.15					
20B	M20B	1/2"B	10	14.5	8	12	15	38	31	708002	0.15					
25	M25	3/4"	14.5	19.5	11	15.5	15	42	37	708003	0.20					
32	M32	1"	19	25.5	17	21.5	15	44	45	708004	0.30					
40	M40	1 1/4"	25	32	22	28	19	47	54	708005	0.45					
50	M50	1 1/2"	31.5	39	27.5	35	19	49	65	708006	0.70					
63	M63	2"	40	50	35	42	19	61	77	708007	0.90					
75	M75	2 1/2"	54.5	NPT: 60.0 M/G: 64.0	48.5	58	19	66	93	708008	2.30					
90	M90	3"	63		-	-	19	69	110	708009	2.50					
115	M115	4"	75	90	-	-	19	75	137	708010	4.60					

#### Selection table of steel pipe wiring

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across corners F (mm)	Ordering code	Weight (kg)
	Metric	NPT/G	Metric	NPT/G	Min	Max					
20A	M20A	1/2"A	M20	1/2"	8	12	15	40	34	708011	0.20
20B	M20B	1/2"B	M20	1/2"	10	14.5	15	40	34	708012	0.20
25A	M25A	3/4"A	M25	3/4"	11	15.5	15	40	42	708013	0.25
25B	M25B	3/4"B	M25	3/4"	14.5	19.5	15	40	42	708014	0.25
32A	M32A	1"A	M32	1"	17	21.5	15	45	48	708015	0.40
32B	M32B	1"B	M32	1"	19	25.5	15	45	48	708016	0.40
40	M40	1 1/4"	M40	1 1/4"	20	30	19	58	65	708017	0.60
50	M50	1 1/2"	M50	1 1/2"	26	37	19	58	75	708018	0.75
63	M63	2"	M63	2"	30	47	19	65	87	708019	1.15
75	M75	2 1/2"	M75	2 1/2"	38	57	19	65	110	708020	1.50
90	M90	3"	M90	3"	55	67	19	65	115	708021	1.80
115	M115	4"	M115	4"	48	80	19	69	145	708022	3.50

**Note:** 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.

2. Earth lug and shroud on request. See P7/38~39.

3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



## Cable Glands

### DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)

#### Armored Dual Seal



Cable wiring



Steel pipe wiring

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex d, Ex e structure; available in stainless steel or nickel plated brass.
- ◆ Dual seal, suitable for both armored and unarmored cable.
- ◆ EMC Cable Gland. (360° contact) - EMC tested.
- ◆ Deluge seal is optional.

#### Technical data

##### Explosion-proof cable glands

##### DQM-II (armored dual seal)

###### Explosion protection

Global (IECEx) IECEx LCI 08.0011X

Gas and dust

Ex d IIC Gb

Ex e IIC Gb

Ex tb IIIC Db IP66

LCIE 06 ATEX 6100X

Europe (ATEX)

Ex II 2 G Ex d IIC Gb

Gas and dust

Ex II 2 G Ex e IIC Gb

Ex II 2 D Ex tb IIIC Db IP66

IECEx; ATEX; CU-TR

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### Gland material

Stainless steel or nickel plated brass

###### Degree of protection

IP66

###### Ambient temperature

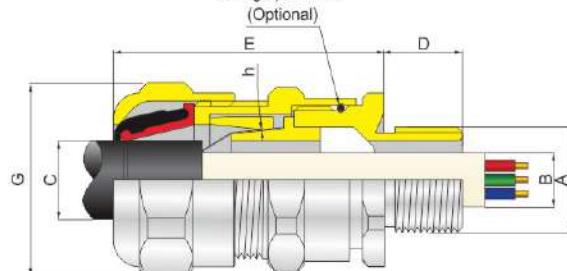
-60°C~+100°C

###### Connection thread

Metric thread is standard type; G thread or NPT thread is optional.

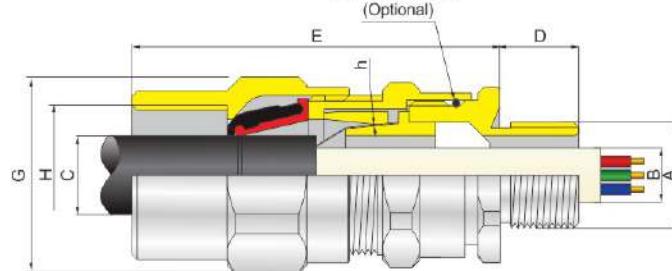


Deluge protection (Optional)



Cable wiring

Deluge protection (Optional)



Steel pipe wiring

**Cable Glands****DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)****Armored Dual Seal****Selection table of cable wiring**

Gland size	Entry thread "A"		Cable outer diameter B (mm)				Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)					
			Standard Seal		Alternative Seal															
	Metric	NPT/G	Min	Max	Min	Max	Min	Max				X	W							
20A	M20	1/2"	4.0	8.0	-	-	5.5	12.0	15	59	31	0~0.6	0.8~1.4	709001	0.12					
20B	M20	1/2"	6.5	10.5	-	-	9.0	16.0	15	59	31	0~0.6	0.8~1.4	709002	0.15					
20C	M20	1/2"	10.0	14.5	8.0	12.0	12.5	20.5	15	61	37	0~0.6	0.8~1.4	709003	0.15					
25A	M25	3/4"	6.5	10.5	-	-	9.0	16.0	15	59	37	0~0.6	0.8~1.4	709004	0.15					
25B	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	61	37	0~0.6	0.8~1.4	709005	0.19					
25C	M25	3/4"	14.5	19.5	11.0	15.5	17.0	26.0	15	68	45	0~0.7	1.0~1.7	709006	0.18					
32A	M32	1"	10.0	14.5	8.0	12.0	12.5	20.5	15	61	45	0~0.6	0.8~1.4	709007	0.18					
32B	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	15	68	45	0~0.7	1.0~1.7	709008	0.22					
32C	M32	1"	19.0	25.5	17.0	21.5	22.0	33.0	15	76	54	0~0.8	1.0~1.7	709009	0.30					
40A	M40	1 1/4"	14.5	19.5	11.0	15.5	17.0	26.0	19	68	54	0~0.7	1.0~1.7	709010	0.30					
40B	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	19	76	54	0~0.8	1.0~1.7	709011	0.40					
40C	M40	1 1/4"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	65	0~1.0	1.0~2.0	709012	0.40					
50A	M50	1 1/2"	19.0	25.5	17.0	21.5	22.0	33.0	19	76	65	0~0.8	1.0~1.7	709013	0.40					
50B	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	65	0~1.0	1.0~2.0	709014	0.60					
50C	M50	1 1/2"	31.5	39.0	27.5	35.0	36.0	52.5	19	91	77	0~1.0	1.0~2.0	709015	0.80					
63A	M63	2"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	77	0~1.0	1.0~2.0	709016	0.90					
63B	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	94	77	0~1.0	1.0~2.0	709017	1.00					
63C	M63	2"	42.5	50.0	39.0	46.5	46.0	65.0	19	112	93	0~1.2	1.5~2.7	709018	1.20					
75A	M75	2 1/2"	31.5	39.0	27.5	35.0	36.0	52.5	19	91	90	0~1.0	1.0~2.0	709019	2.50					
75B	M75	2 1/2"	42.5	55.5	39.0	46.5	46.0	65.0	19	112	93	0~1.2	1.5~2.7	709020	2.80					
75C	M75	2 1/2"	54.5	NPT: 60.0 M/G: 64.0	48.5	58.0	57.0	78.0	19	119	110	0~1.5	2.0~3.5	709021	2.90					
90	M90	3"	63.0		75.0	-	-	68.0	88.0	19	121	121	0~1.5	2.0~3.5	709022	3.90				
115	M115	4"	75.0	90.0	-	-	83.0	103.0	19	126	137	0~1.5	2.0~3.5	709023	4.55					

**Selection table of steel pipe wiring**

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)				Cable outer diameter C (mm)	Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)						
					Standard Seal		Alternative Seal															
	Metric	NPT/G	Metric	NPT/G	Min	Max	Min	Max					X	W								
20A	M20	1/2"	M20	1/2"	4.0	8.0	-	-	5.5	12.0	15	74	31	0~0.6	0.8~1.4	709024	0.15					
20B	M20	1/2"	M20	1/2"	6.5	10.5	-	-	9.0	16.0	15	74	31	0~0.6	0.8~1.4	709025	0.20					
20C	M20	1/2"	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	96	37	0~0.6	0.8~1.4	709026	0.20					
25A	M25	3/4"	M20	1/2"	6.5	10.5	-	-	9.0	16.0	15	74	37	0~0.6	0.8~1.4	709027	0.20					
25B	M25	3/4"	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	76	37	0~0.6	0.8~1.4	709028	0.24					
25C	M25	3/4"	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	15	83	45	0~0.7	1.0~1.7	709029	0.27					
32A	M32	1"	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	76	45	0~0.6	0.8~1.4	709030	0.28					
32B	M32	1"	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	15	87	45	0~0.7	1.0~1.7	709031	0.27					
32C	M32	1"	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	15	95	54	0~0.8	1.0~1.7	709032	0.33					
40A	M40	1 1/4"	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	19	87	54	0~0.7	1.0~1.7	709033	0.33					
40B	M40	1 1/4"	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	19	95	54	0~0.8	1.0~1.7	709034	0.36					
40C	M40	1 1/4"	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	102	65	0~1.0	1.0~2.0	709035	0.45					
50A	M50	1 1/2"	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	19	95	65	0~0.8	1.0~1.7	709036	0.45					
50B	M50	1 1/2"	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	102	65	0~1.0	1.0~2.0	709037	0.70					
50C	M50	1 1/2"	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	110	77	0~1.0	1.0~2.0	709038	0.85					
63A	M63	2"	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	102	77	0~1.0	1.0~2.0	709039	1.20					
63B	M63	2"	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	110	77	0~1.0	1.0~2.0	709040	1.50					
63C	M63	2"	M75	2 1/2"	42.5	50.0	39.0	46.5	46.0	65.0	19	131	93	0~1.2	1.5~2.7	709041	1.80					
75A	M75	2 1/2"	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	110	90	0~1.0	1.0~2.0	709042	2.80					
75B	M75	2 1/2"	M75	2 1/2"	42.5	55.5	39.0	46.5	46.0	65.0	19	131	93	0~1.2	1.5~2.7	709043	3.10					
75C	M75	2 1/2"	M90	3"	54.5	NPT: 60.0 M/G: 64.0	48.5	58.0	57.0	78.0	19	138	110	0~1.5	2.0~3.5	709044	3.50					
90	M90	3"	M115	4"	63.0		75.0	-	-	68.0	88.0	19	140	121	0~1.5	2.0~3.5	709045	4.10				
115	M115	4"	M125	4 1/2"	75.0	90.0	-	-	83.0	103.0	19	145	137	0~1.5	2.0~3.5	709046	4.90					

**Note:** 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.

2. Earth lug and shroud on request. See P7/38~39.

3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



## Cable Glands

### DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)

#### Armored Dual Seal



Cable wiring



Steel pipe wiring

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex d, Ex e structure; available in stainless steel or nickel plated brass.
- ◆ Dual seal, suitable for both armored and unarmored cable.
- ◆ EMC Cable Gland. (360° contact) - EMC tested.
- ◆ Deluge seal is optional.
- ◆ Provides a seal and an electrical bond on the cables lead inner sheath.

#### Technical data

##### Explosion-proof cable glands      DQM-II (armored dual seal)

###### Explosion protection

Global (IECEx)      IECEx LCI 08.0011X

Gas and dust      Ex d IIC Gb

Ex e IIC Gb

Ex tb IIIC Db IP66

Europe (ATEX)      LCIE 06 ATEX 6100X

Gas and dust      Ex II 2 G Ex d IIC Gb

Ex II 2 G Ex e IIC Gb

Ex II 2 D Ex tb IIIC Db IP66

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### Gland material

Stainless steel or nickel plated brass

###### Degree of protection

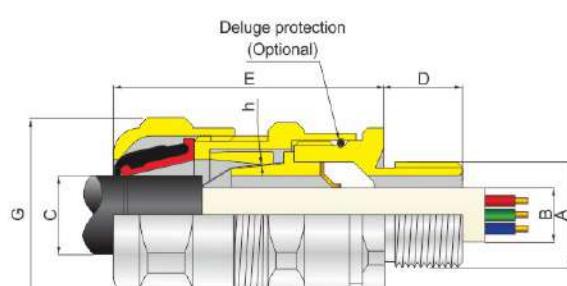
IP66

###### Ambient temperature

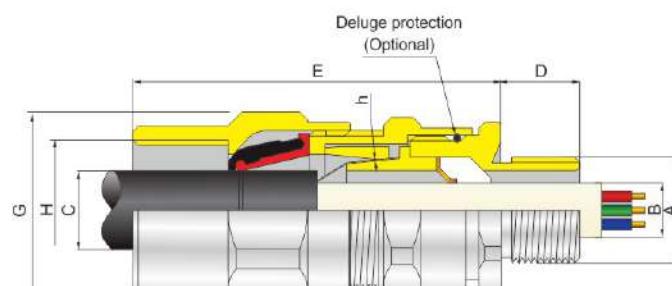
-60°C~+100°C

###### Connection thread

Metric thread is standard type; G thread or NPT thread is optional.



Cable wiring



Steel pipe wiring

## Cable Glands

### DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)

#### Armored Dual Seal

Selection table of cable wiring

Gland size	Entry thread "A"		Cable outer diameter B (mm)				Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)					
			Standard Seal		Alternative Seal															
	Metric	NPT/G	Min	Max	Min	Max	Min	Max				X	W							
20A	M20	1/2"	4.0	8.0	-	-	5.5	12.0	15	59	31	0~0.6	0.8~1.4	709101	0.12					
20B	M20	1/2"	6.5	10.5	-	-	9.0	16.0	15	59	31	0~0.6	0.8~1.4	709102	0.15					
20C	M20	1/2"	10.0	14.5	8.0	12.0	12.5	20.5	15	61	37	0~0.6	0.8~1.4	709103	0.15					
25A	M25	3/4"	6.5	10.5	-	-	9.0	16.0	15	59	37	0~0.6	0.8~1.4	709104	0.15					
25B	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	61	37	0~0.6	0.8~1.4	709105	0.19					
25C	M25	3/4"	14.5	19.5	11.0	15.5	17.0	26.0	15	68	45	0~0.7	1.0~1.7	709106	0.18					
32A	M32	1"	10.0	14.5	8.0	12.0	12.5	20.5	15	61	45	0~0.6	0.8~1.4	709107	0.18					
32B	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	15	68	45	0~0.7	1.0~1.7	709108	0.22					
32C	M32	1"	19.0	25.5	17.0	21.5	22.0	33.0	15	76	54	0~0.8	1.0~1.7	709109	0.30					
40A	M40	1 1/4"	14.5	19.5	11.0	15.5	17.0	26.0	19	68	54	0~0.7	1.0~1.7	709110	0.30					
40B	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	19	76	54	0~0.8	1.0~1.7	709111	0.40					
40C	M40	1 1/4"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	65	0~1.0	1.0~2.0	709112	0.40					
50A	M50	1 1/2"	19.0	25.5	17.0	21.5	22.0	33.0	19	76	65	0~0.8	1.0~1.7	709113	0.40					
50B	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	65	0~1.0	1.0~2.0	709114	0.60					
50C	M50	1 1/2"	31.5	39.0	27.5	35.0	36.0	52.5	19	91	77	0~1.0	1.0~2.0	709115	0.80					
63A	M63	2"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	77	0~1.0	1.0~2.0	709116	0.90					
63B	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	94	77	0~1.0	1.0~2.0	709117	1.00					
63C	M63	2"	42.5	50.0	39.0	46.5	46.0	65.0	19	112	93	0~1.2	1.5~2.7	709118	1.20					
75A	M75	2 1/2"	31.5	39.0	27.5	35.0	36.0	52.5	19	91	90	0~1.0	1.0~2.0	709119	2.50					
75B	M75	2 1/2"	42.5	55.5	39.0	46.5	46.0	65.0	19	112	93	0~1.2	1.5~2.7	709120	2.80					
75C	M75	2 1/2"	54.5	NPT:60.0 M/G:64.0	48.5	58.0	57.0	78.0	19	119	110	0~1.5	2.0~3.5	709121	2.90					
90	M90	3"	63.0		75.0	-	-	68.0	88.0	19	121	121	0~1.5	2.0~3.5	709122	3.90				
115	M115	4"	75.0	90.0	-	-	83.0	103.0	19	126	137	0~1.5	2.0~3.5	709123	4.55					

Selection table of steel pipe wiring

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)				Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)					
					Standard Seal		Alternative Seal															
	Metric	NPT/G	Metric	NPT/G	Min	Max	Min	Max	Min	Max				X	W							
20A	M20	1/2"	M20	1/2"	4.0	8.0	-	-	5.5	12.0	15	74	31	0~0.6	0.8~1.4	709124	0.15					
20B	M20	1/2"	M20	1/2"	6.5	10.5	-	-	9.0	16.0	15	74	31	0~0.6	0.8~1.4	709125	0.20					
20C	M20	1/2"	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	96	37	0~0.6	0.8~1.4	709126	0.20					
25A	M25	3/4"	M20	1/2"	6.5	10.5	-	-	9.0	16.0	15	74	37	0~0.6	0.8~1.4	709127	0.20					
25B	M25	3/4"	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	76	37	0~0.6	0.8~1.4	709128	0.24					
25C	M25	3/4"	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	15	83	45	0~0.7	1.0~1.7	709129	0.27					
32A	M32	1"	M25	3/4"	10.0	14.5	8.0	12.0	12.5	20.5	15	76	45	0~0.6	0.8~1.4	709130	0.28					
32B	M32	1"	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	15	87	45	0~0.7	1.0~1.7	709131	0.27					
32C	M32	1"	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	15	95	54	0~0.8	1.0~1.7	709132	0.33					
40A	M40	1 1/4"	M32	1"	14.5	19.5	11.0	15.5	17.0	26.0	19	87	54	0~0.7	1.0~1.7	709133	0.33					
40B	M40	1 1/4"	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	19	95	54	0~0.8	1.0~1.7	709134	0.36					
40C	M40	1 1/4"	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	102	65	0~1.0	1.0~2.0	709135	0.45					
50A	M50	1 1/2"	M40	1 1/4"	19.0	25.5	17.0	21.5	22.0	33.0	19	95	65	0~0.8	1.0~1.7	709136	0.45					
50B	M50	1 1/2"	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	102	65	0~1.0	1.0~2.0	709137	0.70					
50C	M50	1 1/2"	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	110	77	0~1.0	1.0~2.0	709138	0.85					
63A	M63	2"	M50	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	102	77	0~1.0	1.0~2.0	709139	1.20					
63B	M63	2"	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	110	77	0~1.0	1.0~2.0	709140	1.50					
63C	M63	2"	M75	2 1/2"	42.5	50.0	39.0	46.5	46.0	65.0	19	131	93	0~1.2	1.5~2.7	709141	1.80					
75A	M75	2 1/2"	M63	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	110	90	0~1.0	1.0~2.0	709142	2.80					
75B	M75	2 1/2"	M75	2 1/2"	42.5	55.5	39.0	46.5	46.0	65.0	19	131	93	0~1.2	1.5~2.7	709143	3.10					
75C	M75	2 1/2"	M90	3"	54.5	NPT:60.0 M/G:64.0	48.5	58.0	57.0	78.0	19	138	110	0~1.5	2.0~3.5	709144	3.50					
90	M90	3"	M115	4"	63.0		75.0	-	-	68.0	88.0	19	140	121	0~1.5	2.0~3.5	709145	4.10				
115	M115	4"	M125	4 1/2"	75.0	90.0	-	-	83.0	103.0	19	145	137	0~1.5	2.0~3.5	709146	4.90					

Note: 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.

2. Earth lug and shroud on request. See P7/38~39.

3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



## Cable Glands

### DQM-III/I Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)

#### Unarmored Compound Barrier



Cable wiring



Steel pipe wiring

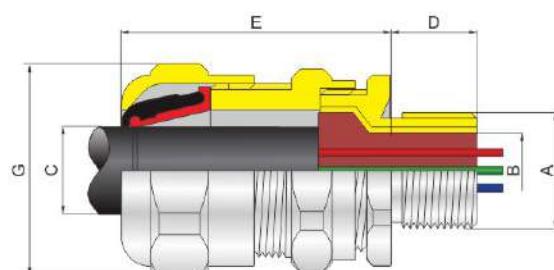
- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 20, Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex db, Ex eb structure; available in stainless steel or nickel plated brass.
- ◆ With sealring and sealing compound; suitable for unarmored cable.
- ◆ For particular use with: cables that exhibit "cold flow" characteristics.

#### Technical data

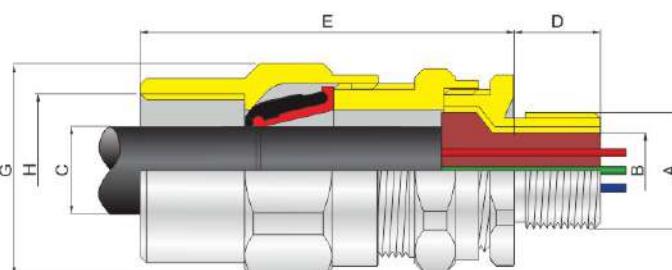
##### Explosion-proof cable glands

##### DQM-III/I (unarmored compound barrier)

<b>Explosion protection</b>	
Global (IECEx)	IECEx TUR 22.0035X
Gas and dust	Ex db IIC Gb (M and NPT thread)
Europe (ATEX)	Ex eb IIC Gb (M, NPT and G thread)
Gas and dust	Ex ta IIIC Da (M and NPT thread)
	TÜV 22 ATEX 8855X
	Ex II 2 G Ex db IIC Gb (M and NPT thread)
	Ex II 2 G Ex eb IIC Gb (M, NPT and G thread)
	Ex II 2 D Ex ta IIIC Da (M and NPT thread)
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
<b>Gland material</b>	Stainless steel or nickel plated brass
<b>Degree of protection</b>	IP66/IP68 (unarmored cable gland M25×1.5 to M63×1.5 and NPT 1/2" to NPT 2")
	IP66 (the other threads)
<b>Ambient temperature</b>	-60°C~+90°C
<b>Connection thread</b>	Metric thread is standard type; G thread or NPT thread is optional



Cable wiring



Steel pipe wiring

**Cable Glands****DQM-III/I Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)****Unarmored Compound Barrier****Selection table of cable wiring**

Gland size	Entry thread "A"		Cable outer diameter B (mm)		Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Ordering code	Weight (kg)
	Metric	NPT/G	Max	Min	Max						
20A	M20A	1/2"A	10	5.5	12	15	51	31	710001	0.10	
20B	M20B	1/2"B	13	9.0	16	15	51	31	710002	0.10	
25A	M25A	3/4"A	13	9.0	16	15	51	37	710003	0.12	
25B	M25B	3/4"B	18	12.5	20.5	15	53	37	710004	0.15	
32A	M32A	1"A	18	12.5	20.5	15	53	45	710005	0.17	
32B	M32B	1"B	24	17	26	15	58	45	710006	0.20	
40A	M40A	1 1/4"A	24	17	26	19	58	54	710007	0.22	
40B	M40B	1 1/4"B	30	22	33	19	62	54	710008	0.27	
50A	M50A	1 1/2"A	30	22	33	19	62	65	710009	0.40	
50B	M50B	1 1/2"B	37	28	41	19	69	65	710010	0.50	
63A	M63A	2"A	37	28	41	19	69	77	710011	0.80	
63B	M63B	2"B	47	36	52.5	19	77	77	710012	0.90	
75A	M75A	2 1/2"A	47	36	52.5	19	77	90	710013	2.30	
75B	M75B	2 1/2"B	55	46	65	19	95	110	710014	2.70	
90	M90	3"	60	57	78	19	100	121	710015	2.80	
115	M115	4"	70	68	88	19	106	137	710016	3.60	

**Selection table of steel pipe wiring**

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)		Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Ordering code	Weight (kg)
	Metric	NPT/G	Metric	NPT/G	Max	Min	Max						
20A	M20A	1/2"A	M20	1/2"	10	5.5	12	15	66	31	710017	0.12	
20B	M20B	1/2"B	M20	1/2"	13	9.0	16	15	66	31	710018	0.12	
25A	M25A	3/4"A	M20	1/2"	13	9.0	16	15	66	37	710019	0.15	
25B	M25B	3/4"B	M25	3/4"	18	12.5	20.5	15	68	37	710020	0.18	
32A	M32A	1"A	M25	3/4"	18	12.5	20.5	15	68	45	710021	0.21	
32B	M32B	1"B	M32	1"	24	17	26	15	77	45	710022	0.24	
40A	M40A	1 1/4"A	M32	1"	24	17	26	19	77	54	710023	0.29	
40B	M40B	1 1/4"B	M40	1 1/4"	30	22	33	19	81	54	710024	0.35	
50A	M50A	1 1/2"A	M40	1 1/4"	30	22	33	19	81	65	710025	0.50	
50B	M50B	1 1/2"B	M50	1 1/2"	37	28	41	19	88	65	710026	0.64	
63A	M63A	2"A	M50	1 1/2"	37	28	41	19	88	77	710027	0.98	
63B	M63B	2"B	M63	2"	47	36	52.5	19	96	77	710028	1.17	
75A	M75A	2 1/2"A	M63	2"	47	36	52.5	19	96	90	710029	2.60	
75B	M75B	2 1/2"B	M75	2 1/2"	55	46	65	19	114	110	710030	3.00	
90	M90	3"	M90	3"	60	57	78	19	119	121	710031	3.30	
115	M115	4"	M115	4"	70	68	88	19	125	137	710032	4.00	



**Note:** 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.  
2. Earth lug and shroud on request. See P7/38~39.

3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

**Cable Glands****DQM-III/II Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)****Armored Compound Barrier**

Cable wiring



Steel pipe wiring

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 20, Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex db, Ex eb structure; available in stainless steel or nickel plated brass.
- ◆ With sealing ring and sealing compound; suitable for armored cable.
- ◆ For particular use with: cables that exhibit "cold flow" characteristics.
- ◆ EMC Cable Gland. (360° contact) - EMC tested.

**Technical data****Explosion-proof cable glands****DQM-III/II (armored compound barrier)****Explosion protection**

Global (IECEx)

IECEx TUR 22.0035X

Gas and dust

Ex db IIC Gb (M and NPT thread)

Europe (ATEX)

Ex eb IIC Gb (M, NPT and G thread)

Gas and dust

Ex ta IIIC Da (M and NPT thread)

TÜV 22 ATEX 8855X

**Certificates**

Ex II 2 G Ex db IIC Gb (M and NPT thread)

**Conformity to standards**

Ex II 2 G Ex eb IIC Gb (M, NPT and G thread)

Ex II 2 D Ex ta IIIC Da (M and NPT thread)

IECEx; ATEX; CU-TR

**Gland material**

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

**Degree of protection**

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

**Ambient temperature**

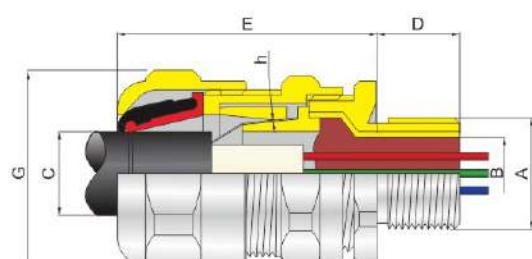
Stainless steel or nickel plated brass

**Connection thread**

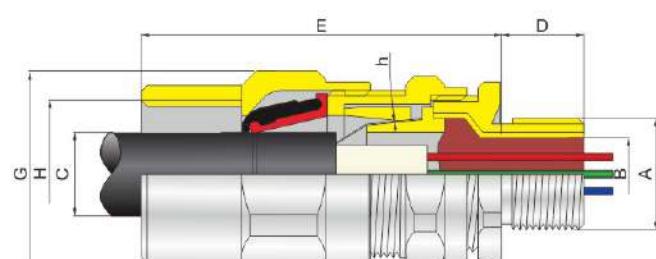
IP66

-60°C~+90°C

Metric thread is standard type; G thread or NPT thread is optional



Cable wiring



Steel pipe wiring

**Cable Glands****DQM-III/II Series Explosion-proof Cable Glands (Ex db IIC, Ex eb IIC)****Armored Compound Barrier****Selection table of cable wiring**

Gland size	Entry thread "A"		Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)
	Metric	NPT/G		Max	Min				X	W		
20A	M20	1/2"	10.0	5.5	12.0	15	51	31	0~0.6	0.8~1.4	711001	0.12
20B	M20	1/2"	10.0	9.0	16.0	15	51	31	0~0.6	0.8~1.4	711002	0.15
20C	M20	1/2"	13.0	12.5	20.5	15	53	37	0~0.6	0.8~1.4	711003	0.15
25A	M25	3/4"	10.0	9.0	16.0	15	51	37	0~0.6	0.8~1.4	711004	0.19
25B	M25	3/4"	13.0	12.5	20.5	15	53	37	0~0.6	0.8~1.4	711005	0.18
25C	M25	3/4"	18.0	17.0	26.0	15	58	45	0~0.7	1.0~1.7	711006	0.18
32A	M32	1"	13.0	12.5	20.5	15	53	45	0~0.6	0.8~1.4	711007	0.21
32B	M32	1"	18.0	17.0	26.0	15	58	45	0~0.7	1.0~1.7	711008	0.27
32C	M32	1"	24.0	22.0	33.0	15	62	54	0~0.8	1.0~1.7	711009	0.29
40A	M40	1 1/4"	18.0	17.0	26.0	19	58	54	0~0.7	1.0~1.7	711010	0.29
40B	M40	1 1/4"	24.0	22.0	33.0	19	62	54	0~0.8	1.0~1.7	711011	0.32
40C	M40	1 1/4"	30.0	28.0	41.0	19	69	65	0~1.0	1.0~2.0	711012	0.38
50A	M50	1 1/2"	24.0	22.0	33.0	19	62	65	0~0.8	1.0~1.7	711013	0.38
50B	M50	1 1/2"	30.0	28.0	41.0	19	69	65	0~1.0	1.0~2.0	711014	0.57
50C	M50	1 1/2"	37.0	36.0	52.5	19	77	77	0~1.0	1.0~2.0	711015	0.75
63A	M63	2"	30.0	28.0	41.0	19	69	77	0~1.0	1.0~2.0	711016	0.90
63B	M63	2"	37.0	36.0	52.5	19	77	77	0~1.0	1.0~2.0	711017	1.10
63C	M63	2"	47.0	46.0	65.0	19	95	93	0~1.2	1.5~2.7	711018	1.40
75A	M75	2 1/2"	37.0	36.0	52.5	19	77	90	0~1.0	1.0~2.0	711019	2.50
75B	M75	2 1/2"	55.0	46.0	65.0	19	95	93	0~1.2	1.5~2.7	711020	2.90
75C	M75	2 1/2"	60.0	57.0	78.0	19	100	110	0~1.5	2.0~3.5	711021	3.00
90	M90	3"	70.0	68.0	88.0	19	100	121	0~1.5	2.0~3.5	711022	3.90
115	M115	4"	90.0	83.0	103.0	19	106	137	0~1.5	2.0~3.5	711023	4.60

**Selection table of steel pipe wiring**

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)	Cable outer diameter C (mm)	Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)	
	Metric	NPT/G	Metric	NPT/G						X	W			
20A	M20	1/2"	M20	1/2"	10.0	5.5	12.0	15	66	31	0~0.6	0.8~1.4	711024	0.14
20B	M20	1/2"	M20	1/2"	10.0	9.0	16.0	15	66	31	0~0.6	0.8~1.4	711025	0.17
20C	M20	1/2"	M25	3/4"	13.0	12.5	20.5	15	66	37	0~0.6	0.8~1.4	711026	0.17
25A	M25	3/4"	M20	1/2"	10.0	9.0	16.0	15	66	37	0~0.6	0.8~1.4	711027	0.21
25B	M25	3/4"	M25	3/4"	13.0	12.5	20.5	15	68	37	0~0.6	0.8~1.4	711028	0.20
25C	M25	3/4"	M32	1"	18.0	17.0	26.0	15	77	45	0~0.7	1.0~1.7	711029	0.20
32A	M32	1"	M25	3/4"	13.0	12.5	20.5	15	68	45	0~0.6	0.8~1.4	711030	0.23
32B	M32	1"	M32	1"	18.0	17.0	26.0	15	77	45	0~0.7	1.0~1.7	711031	0.29
32C	M32	1"	M40	1 1/4"	24.0	22.0	33.0	15	81	54	0~0.8	1.0~1.7	711032	0.31
40A	M40	1 1/4"	M32	1"	18.0	17.0	26.0	19	77	54	0~0.7	1.0~1.7	711033	0.31
40B	M40	1 1/4"	M40	1 1/4"	24.0	22.0	33.0	19	81	54	0~0.8	1.0~1.7	711034	0.35
40C	M40	1 1/4"	M50	1 1/2"	30.0	28.0	41.0	19	88	65	0~1.0	1.0~2.0	711035	0.40
50A	M50	1 1/2"	M40	1 1/4"	24.0	22.0	33.0	19	81	65	0~0.8	1.0~1.7	711036	0.40
50B	M50	1 1/2"	M50	1 1/2"	30.0	28.0	41.0	19	88	65	0~1.0	1.0~2.0	711037	0.60
50C	M50	1 1/2"	M63	2"	37.0	36.0	52.5	19	96	77	0~1.0	1.0~2.0	711038	0.80
63A	M63	2"	M50	1 1/2"	30.0	28.0	41.0	19	88	77	0~1.0	1.0~2.0	711039	1.05
63B	M63	2"	M63	2"	37.0	36.0	52.5	19	96	77	0~1.0	1.0~2.0	711040	1.25
63C	M63	2"	M75	2 1/2"	47.0	46.0	65.0	19	114	93	0~1.2	1.5~2.7	711041	1.60
75A	M75	2 1/2"	M63	2"	37.0	36.0	52.5	19	96	90	0~1.0	1.0~2.0	711042	2.70
75B	M75	2 1/2"	M75	2 1/2"	55.0	46.0	65.0	19	114	93	0~1.2	1.5~2.7	711043	3.20
75C	M75	2 1/2"	M90	3"	60.0	57.0	78.0	19	119	110	0~1.5	2.0~3.5	711044	3.40
90	M90	3"	M115	4"	70.0	68.0	88.0	19	119	121	0~1.5	2.0~3.5	711045	4.20
115	M115	4"	M125	4 1/2"	90.0	83.0	103.0	19	125	137	0~1.5	2.0~3.5	711046	4.90



**Note:** 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.  
 2. Earth lug and shroud on request. See P7/38~39.  
 3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

## Cable Glands

### DQM-CF Series Explosion-proof Cable Glands (Ex db IIC Ex eb IIC)

#### Armored Dual Seal



Cable wiring



Steel pipe wiring

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex d, Ex e structure; available in stainless steel or nickel plated brass.
- ◆ Dual seal, suitable for both armored and unarmored cable.
- ◆ EMC Cable Gland. (360° contact) - EMC tested.
- ◆ For particular use with: cables that exhibit "cold flow" characteristics.

#### Technical data

##### Explosion-proof cable glands

##### DQM-CF (armored dual seal)

###### Explosion protection

Global (IECEx)

IECEx TUR 20.0072X

Gas and dust

Ex db IIC Gb (only for M and NPT thread)

Europe (ATEX)

Ex eb IIC Gb

Gas and dust

Ex tb IIIC Db

TÜV 20 ATEX 8593 X

###### Certificates

###### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

###### Gland material

Stainless steel or nickel plated brass

###### Degree of protection

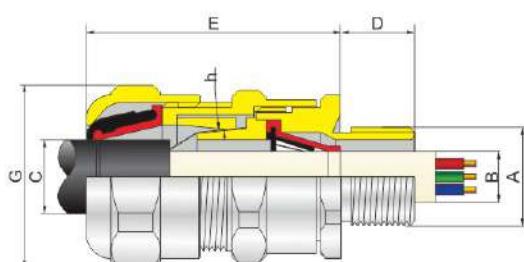
IP66

###### Ambient temperature

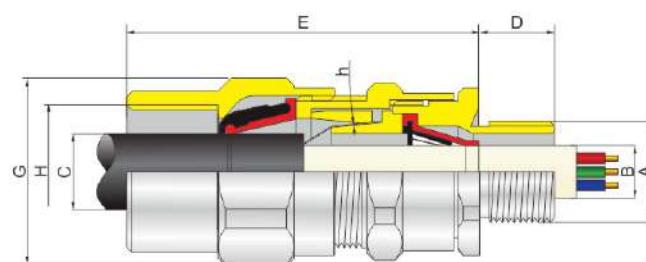
-60°C~+90°C

###### Connection thread

Metric thread is standard type; G thread or NPT thread is optional.



Cable wiring



Steel pipe wiring

**Cable Glands****DQM-CF Series Explosion-proof Cable Glands (Ex db IIC Ex eb IIC)****Armored Dual Seal****Selection table of cable wiring**

Gland size	Entry thread "A"		Cable outer diameter B (mm)		Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)
	Metric	NPT/G	Min	Max	Min	Max				X	W		
20A	M20	1/2"	4.0	8.0	5.5	12.0	15	59	31	0~0.6	0.8~1.4	722001	0.12
20B	M20	1/2"	6.5	10.5	9.0	16.0	15	59	31	0~0.6	0.8~1.4	722002	0.15
20C	M20	1/2"	8.5	14.5	12.5	20.5	15	61	37	0~0.6	0.8~1.4	722003	0.15
25B	M25	3/4"	8.5	14.5	12.5	20.5	15	61	37	0~0.6	0.8~1.4	722004	0.19
25C	M25	3/4"	11.0	19.5	17.0	26.0	15	65	45	0~0.7	1.0~1.7	722005	0.18
32B	M32	1"	11.0	19.5	17.0	26.0	15	65	45	0~0.7	1.0~1.7	722006	0.22
32C	M32	1"	17.0	25.5	22.0	33.0	15	70	54	0~0.8	1.0~1.7	722007	0.30
40B	M40	1 1/4"	17.0	25.5	22.0	33.0	19	70	54	0~0.8	1.0~1.7	722008	0.40
40C	M40	1 1/4"	23.0	32.0	28.0	41.0	19	78	65	0~1.0	1.0~2.0	722009	0.40
50B	M50	1 1/2"	23.0	32.0	28.0	41.0	19	78	65	0~1.0	1.0~2.0	722010	0.60
50C	M50	1 1/2"	29.0	39.0	36.0	52.5	19	90	77	0~1.0	1.0~2.0	722011	0.80
63B	M63	2"	29.0	39.0	36.0	52.5	19	90	77	0~1.0	1.0~2.0	722012	1.00
63C	M63	2"	42.0	50.0	46.0	65.0	19	115	93	0~1.2	1.5~2.7	722013	1.20
75B	M75	2 1/2"	42.0	50.0	46.0	65.0	19	115	93	0~1.2	1.5~2.7	722014	1.20
75C	M75	2 1/2"	48.0	60.0	57.0	78.0	19	125	110	0~1.5	2.0~3.5	722015	1.30

**Selection table of steel pipe wiring**

Gland size	Entry thread "A"		Entry thread "H"		Cable outer diameter B (mm)		Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across corners G (mm)	Armour/Braid(h)		Ordering code	Weight (kg)
	Metric	NPT/G	Metric	NPT/G	Min	Max	Min	Max				X	W		
20A	M20	1/2"	M20	1/2"	4.0	8.0	5.5	12.0	15	74	31	0~0.6	0.8~1.4	722024	0.15
20B	M20	1/2"	M20	1/2"	6.5	10.5	9.0	16.0	15	74	31	0~0.6	0.8~1.4	722025	0.20
20C	M20	1/2"	M25	3/4"	8.5	14.5	12.5	20.5	15	76	37	0~0.6	0.8~1.4	722026	0.20
25B	M25	3/4"	M25	3/4"	8.5	14.5	12.5	20.5	15	76	37	0~0.6	0.8~1.4	722027	0.24
25C	M25	3/4"	M32	1"	11.0	19.5	17.0	26.0	15	84	45	0~0.7	1.0~1.7	722028	0.27
32B	M32	1"	M32	1"	11.0	19.5	17.0	26.0	15	84	45	0~0.7	1.0~1.7	722029	0.27
32C	M32	1"	M40	1 1/4"	17.0	25.5	22.0	33.0	15	89	54	0~0.8	1.0~1.7	722030	0.33
40B	M40	1 1/4"	M40	1 1/4"	17.0	25.5	22.0	33.0	19	89	54	0~0.8	1.0~1.7	722031	0.36
40C	M40	1 1/4"	M50	1 1/2"	23.0	32.0	28.0	41.0	19	97	65	0~1.0	1.0~2.0	722032	0.45
50B	M50	1 1/2"	M50	1 1/2"	23.0	32.0	28.0	41.0	19	97	65	0~1.0	1.0~2.0	722033	0.70
50C	M50	1 1/2"	M63	2"	29.0	39.0	36.0	52.5	19	109	77	0~1.0	1.0~2.0	722034	0.85
63B	M63	2"	M63	2"	29.0	39.0	36.0	52.5	19	109	77	0~1.0	1.0~2.0	722035	1.50
63C	M63	2"	M75	2 1/2"	42.0	50.0	46.0	65.0	19	134	93	0~1.2	1.5~2.7	722036	1.70
75B	M75	2 1/2"	M75	2 1/2"	42.0	50.0	46.0	65.0	19	134	93	0~1.2	1.5~2.7	722037	1.70
75C	M75	2 1/2"	M90	3"	48.0	60.0	57.0	78.0	19	144	110	0~1.5	2.0~3.5	722038	1.80



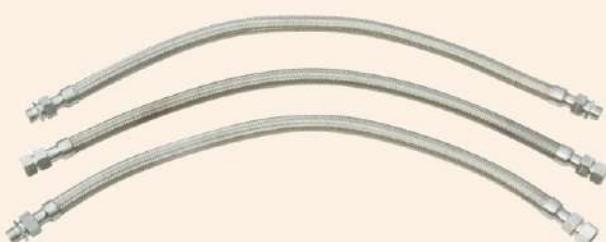
**Note:** 1. Standard material is nickel plated brass. Stainless steel is optional. Above weight is based upon nickel plated brass.

2. Earth lug and shroud on request. See P7/38~39.

3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

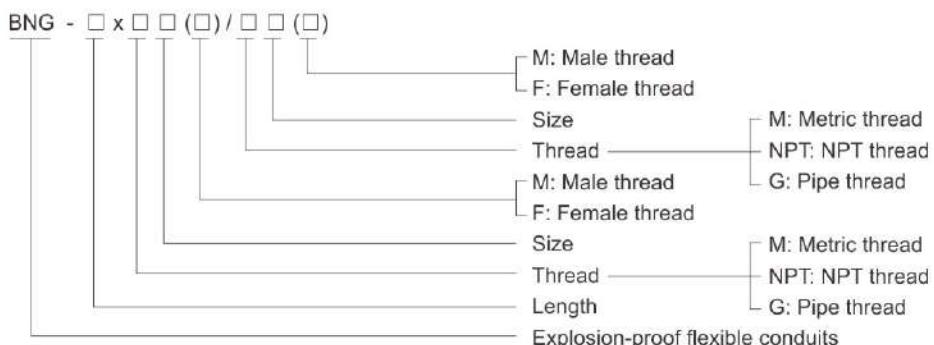
## Flexible Conduits

## BNG Series Stainless Steel Explosion-proof Flexible Conduits



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Ex d structure; stainless steel body; connectors at both ends in stainless steel.
- ◆ Application:
  - Widely used for flexible connection between explosion-proof boxes or explosion-proof light fittings and pipes
  - Protect cable from any damage
  - Highly corrosion-proof

## Catalogue number logic



## Technical data

## Stainless steel explosion-proof flexible conduits BNG-□x□□(□)/□□(□)

## Explosion protection

Global (IECEx) IECEx CQM 11.0014U

Gas and dust Ex d IIC Gb

## Europe (ATEX)

Gas and dust Ex tD A21 IP66

## Europe (ATEX)

Gas and dust DNV 10 ATEX 87636U

Ex II 2 G Ex d IIC Gb

Ex II 2 D Ex tD A21 IP66

IECEx; ATEX; CU-TR

## Certificates

## Conformity to standards

EN 60079-0, EN 60079-1, EN 61241-0, EN 61241-1

IEC 60079-0, IEC 60079-1, IEC 61241-0, IEC 61241-1

## Material

Stainless steel body; connectors at both ends in stainless steel

## Degree of protection

IP66

## Ambient temperature

-60°C~+55°C

## Connection thread

Metric thread is standard type; G thread or NPT thread is optional

## Type

F/F, M/F or M/M

Note: 1. M75, M90, M115 equivalent G thread and NPT thread can be customized, other length can be customized.

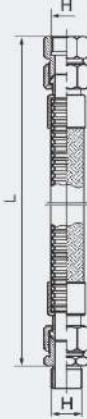
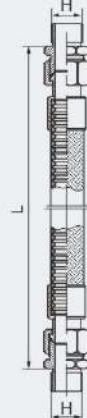
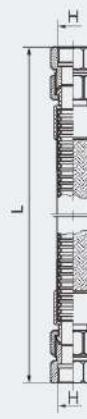
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Zones 1&amp;2; 21&amp;22

# Flexible Conduits

## BNG Series Stainless Steel Explosion-proof Flexible Conduits

**Selection table**

Version	Internal nominal diameter (mm)	Pipe connector thread "H"			Length L (mm)	Minimum bending radius (mm)	Ordering code	Weight (kg)
		Metric	NPT	G				
 <b>BNG-□x□□(M)/□□(F)</b>	13	M20	1/2"	1/2"	700	80	712001	0.55
	13	M20	1/2"	1/2"	1000	80	712002	0.70
	15	M25	3/4"	3/4"	700	110	712003	0.85
	15	M25	3/4"	3/4"	1000	110	712004	1.00
	18	M32	1"	1"	700	145	712005	1.05
	18	M32	1"	1"	1000	145	712006	1.15
	25	M40	1 1/4"	1 1/4"	700	180	712007	1.25
	25	M40	1 1/4"	1 1/4"	1000	180	712008	1.30
	30	M50	1 1/2"	1 1/2"	700	210	712009	1.70
	30	M50	1 1/2"	1 1/2"	1000	210	712010	1.95
	47	M63	2"	2"	700	250	712011	2.35
	47	M63	2"	2"	1000	250	712012	2.40
 <b>BNG-□x□□(M)/□□(M)</b>	13	M20	1/2"	1/2"	700	80	712013	0.50
	13	M20	1/2"	1/2"	1000	80	712014	0.65
	15	M25	3/4"	3/4"	700	110	712015	0.80
	15	M25	3/4"	3/4"	1000	110	712016	0.95
	18	M32	1"	1"	700	145	712017	1.00
	18	M32	1"	1"	1000	145	712018	1.05
	25	M40	1 1/4"	1 1/4"	700	180	712019	1.15
	25	M40	1 1/4"	1 1/4"	1000	180	712020	1.20
	30	M50	1 1/2"	1 1/2"	700	210	712021	1.60
	30	M50	1 1/2"	1 1/2"	1000	210	712022	1.80
	47	M63	2"	2"	700	250	712023	2.15
	47	M63	2"	2"	1000	250	712024	2.25
 <b>BNG-□x□□(F)/□□(F)</b>	13	M20	1/2"	1/2"	700	80	712025	0.65
	13	M20	1/2"	1/2"	1000	80	712026	0.75
	15	M25	3/4"	3/4"	700	110	712027	0.95
	15	M25	3/4"	3/4"	1000	110	712028	1.05
	18	M32	1"	1"	700	145	712029	1.10
	18	M32	1"	1"	1000	145	712030	1.30
	25	M40	1 1/4"	1 1/4"	700	180	712031	1.35
	25	M40	1 1/4"	1 1/4"	1000	180	712032	1.40
	30	M50	1 1/2"	1 1/2"	700	210	712033	1.80
	30	M50	1 1/2"	1 1/2"	1000	210	712034	2.15
	47	M63	2"	2"	700	250	712035	2.55
	47	M63	2"	2"	1000	250	712036	3.15





- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
  - Class I, Division 2, Groups A, B, C, D

- ◆ Accessories for cable gland include stopping rod, stopping plug, shroud, earth lug, etc., meeting requirements of connection between enclosure and cable gland.
- ◆ For example, the DQM-I Ex e stopping is used for DQM-I Ex e cable gland to plug up Ex e enclosure.
- ◆ Ex e stopping plug in plastic is used to plug up cable entries on Ex e enclosure.
- ◆ Ex d stopping plug in aluminium alloy and metal is used to plug up cable entries on Ex d enclosure.
- ◆ The shroud protects cable gland against damage.
- ◆ The earth lug between cable gland and enclosure is used for earth connection.



**Zones 1&2; 21&22**

## Accessories

### Selection table of DQM-I Ex e stopping rod

Version	Specification	Dimensions (mm)			Ordering code	Weight (kg)
		L	D	d		
	Φ 8 (for M16 x 1.5, M20 x 1.5)	24	10	7.5	713001	0.05
	Φ 12 (for M25 x 1.5, M32 x 1.5)	28	13	11.5	713002	0.05
	Φ 23 (for M40 x 1.5)	34	27	23	713003	0.05
	Φ 32 (for M50 x 1.5, M63 x 1.5)	34	35	32	713004	0.05
<b>Material:</b> Plastic <b>Ambient temperature:</b> -40°C~+55°C <b>Function:</b> Suitable for DQM-I Ex e unarmored cable gland (see P7/18).						
DQM-I Ex e stopping rod						

### Selection table of locknut

Version	Entry thread "H"		Dimensions (mm)			Ordering code	Weight (kg)
	Metric	G	A	B	L		
	M16	-	22	19	3.5	714001	0.003
	M20	1/2"	27	24	3	714002	0.005
	M25	3/4"	35	32	4	714003	0.012
	M32	1"	42	38	5	714004	0.017
	M40	1 1/4"	50	46	6	714005	0.026
	M50	1 1/2"	60	55	6	714006	0.028
	M63	2"	75	70	6	714007	0.055
	M75	2 1/2"	90	85	6	714008	0.078
	M90	3"	105	100	8	714009	0.146
	M115	4"	130	125	8	714010	0.255
<b>Material:</b> Galvanized carbon steel, nickel plated brass or stainless steel. <b>Function:</b> Secures a cable gland in position at the equipment. <b>Note:</b> 1. Metric thread is standard type; G thread or NPT thread is optional. Please specify material when ordering. The above weight is based upon carbon steel. 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.							
Locknut							



### Selection table of serrated washer

Version	Specification	Dimensions (mm)			Ordering code	Weight (kg)
		D	d	s		
	For M20 x 1.5	33	21	1.5	715001	0.005
	For M25 x 1.5	37	27.5	1.5	715002	0.006
	For M32 x 1.5	45.5	34	1.5	715003	0.008
	For M40 x 1.5	55	42.5	1.5	715004	0.010
	For M50 x 1.5	64.5	50.5	1.5	715005	0.014
	For M63 x 1.5	78	63.5	1.5	715006	0.024
	For M75 x 1.5	92.5	75.5	1.5	715007	0.033
Serrated washer						
<b>Material:</b> Stainless steel <b>Function:</b> For use on cable gland entry threads.						

## Selection table of sealing washer

Version	Specification	Dimensions (mm)			Ordering code	Weight (kg)
		D	d	t		
 Sealing washer	For M20 x 1.5	28	20	2	716001	0.0010
	For M25 x 1.5	35	25	2	716002	0.0018
	For M32 x 1.5	40	32	2	716003	0.0019
	For M40 x 1.5	50	40	2	716004	0.0025
	For M50 x 1.5	60	50	2	716005	0.0031
	For M63 x 1.5	74	63	2	716006	0.0045
	For M75 x 1.5	90	75	2	716007	0.0051
	For M90 x 1.5	108	90	2	716008	0.0130
	For M115 x 1.5	130	115	2	716009	0.0122
<b>Material:</b> Teflon (PTFE) <b>Function:</b> For use on cable gland entry threads.						

## Selection table of shroud

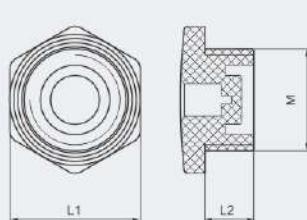
Version	Size Code	Dimensions (mm)			For						Ordering code	Weight (kg)	
		B	L	L1	Metal Unarmored	Metal Armored	Unarmored Single Seal	Armored Dual seal	Unarmored Compound Barrier	Armored Compound Barrier			
 Shroud	A	30	116	60	M20	M20A M20B M25A	M20A M20B M25A	M20A M20B M25A	M20A M20B M25A	M20A M20B M25A	717001	0.015	
	B	36	110	65	M25	M20C M25B M32A	M25	M20C M25B M32A	M25B M32A	M20C M25B M32A	717002	0.019	
	C	44	125	70	M32	M25C M32B M40A	M32	M25C M32B M40A	M32B M40A	M25C M32B M40A	717003	0.027	
	D	53	140	75	M40	M32C M40B M50A	M40	M32C M40B M50A	M40B M50A	M32C M40B M50A	717004	0.073	
	E	64	145	85	M50	M40C M50B M63A	M50	M40C M50B M63A	M50B M63A	M40C M50B M63A	717005	0.100	
	F	76	155	95	M63	M50C M63B M75A	M63	M50C M63B M75A	M63B M75A	M50C M63B M75A	717006	0.165	
	G	92	185	115	M75	M63C M75B	M75	M63C M75B	M75B	M63C M75B	717007	0.200	
	H	108	200	120	-	M75C	M90	M75C	-	M75C	717008	0.250	
	I	120	205	125	-	M90	-	M90	-	M90	717009	0.350	
<b>Material:</b> Polyvinyl chloride (PVC) <b>Function:</b> For fitting over cable glands when additional environmental and corrosion protection is required.													

## Accessories

### Selection table of earth lug

Version	Specification (Φ A,mm)	Rated short circuit current per second (kA)	Ordering code	Weight(kg)
 Earth lug	20	3.0	718001	0.05
	25	4.0	718002	0.05
	32	5.4	718003	0.05
	40	7.2	718004	0.05
	50	10.4	718005	0.10
	63	10.4	718006	0.10
	75	10.4	718007	0.15
	90	10.4	718008	0.20
	115	10.4	718009	0.30
<b>Material:</b> Nickel plated brass <b>Function:</b> Earth connection.				

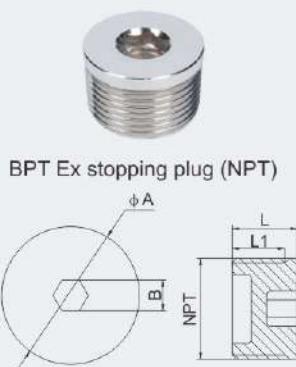
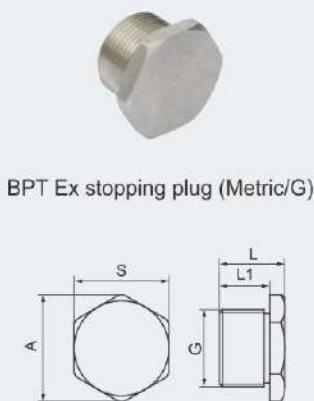
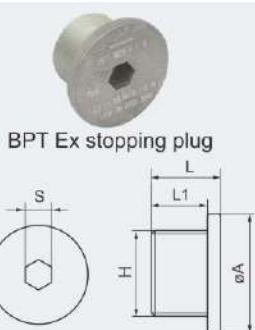
### Selection table of stopping plug (Ex e, plastic)

Version	Specification	Dimensions(mm)			Ordering code	Weight(kg)	
		M	L1	L2			
 BPT-e Ex e stopping plug (plastic)	M16 x 1.5	M16 x 1.5	19	15	719001	0.003	
				25	719002		
	M20 x 1.5	M20 x 1.5	24	15	719003	0.005	
				25	719004		
	M25 x 1.5	M25 x 1.5	29	15	719005	0.005	
				25	719006		
	M32 x 1.5	M32 x 1.5	41	15	719007	0.008	
				25	719008		
	M40 x 1.5	M40 x 1.5	50	15	719009	0.011	
				25	719010		
 BPT-e Ex e stopping plug (plastic)	M50 x 1.5	M50 x 1.5	57	15	719011	0.022	
				25	719012		
	M63 x 1.5	M63 x 1.5	70	15	719013	0.040	
				25	719014		
<b>Explosion protection:</b>							
Global (IECEx)		IECEx CQM 16.0021X					
Gas and dust		Ex e IIC Gb					
		Ex tb IIIC Db IP66					
Europe (ATEX)		EPT 16 ATEX 2502					
Gas and dust		 II 2 G Ex eb IIC Gb					
		 II 2 D Ex tb IIIC Db					
<b>Certificates</b>		IECEx; ATEX					
<b>Degree of protection</b>		IP66					
<b>Ambient temperature</b>		-40°C~+70°C					
<b>Material</b>		PA66 (Polyamide)					
<b>Function</b>		To be used at spare entries of explosion-proof equipment; made of plastic; Corrosion-proof and waterproof; Metric thread is standard type. Supplied with seal gasket.					
<b>Note:</b> Shall be used together with locknut.							



## Selection table of BPT stopping plug (Ex d Ex e)

<b>Version</b>	<b>Explosion protection</b>	
	Global (IECEx)	IECEx LCIE 15.0070U
<b>Certificates</b>	Gas and dust	Ex db IIC Gb Ex e IIC Gb Ex tb IIIC Db
	Europe (ATEX)	LCIE 09 ATEX 3040U Ex II 2 G Ex db IIC Gb Ex II 2 G Ex e IIC Gb Ex II 2 D Ex tb IIIC Db
<b>Degree of protection</b>	Gas and dust	IECEx; ATEX; CU-TR
		IP66
<b>Ambient temperature</b>		-60°C~+100°C
	<b>Material</b>	Copper-free Aluminium Alloy, galvanized carbon steel, nickel plated brass or stainless steel.
<b>Function</b>		Metric thread is standard type; G thread or NPT thread is optional. To be used at spare entries of explosion-proof equipment; corrosion-proof and waterproof; supplied with seal gasket (not applicable for NPT thread).
		<b>Note:</b> 1. Please specify material when ordering. The above weight is based upon nickel plated brass. 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



## BPT stopping plug (Copper-free Aluminium Alloy)

Entry thread "H"		Dimensions(mm)				Ordering code	Weight (kg)
Metric	G	A	S	L	L1		
M20	1/2"	30	8	22	17	720001	0.05
M25	3/4"	36	8	21	17	720002	0.05
M32	1"	45	10	26	20	720003	0.05
M40	1 1/4"	54	10	26	20	720004	0.05
M50	1 1/2"	62	10	26	20	720005	0.10
M63	2"	77	10	26	20	720006	0.16

## BPT stopping plug (galvanized carbon steel, nickel plated brass or stainless steel)

Entry thread "G"		Dimensions(mm)				Ordering code	Weight (kg)
Metric	G	A	S	L	L1		
M20	1/2"	30	27	22	15	720007	0.05
M25	3/4"	36	32	22	15	720008	0.07
M32	1"	42	38	26	15	720009	0.15
M40	1 1/4"	52	47	26	20	720010	0.17
M50	1 1/2"	60	55	26	20	720011	0.26
M63	2"	70	66	30	22	720012	0.47
M75	2 1/2"	88	83	30	22	720013	0.66
M90	3"	100	95	32	24	720014	0.90
M115	4"	127	122	32	24	720015	1.15

## BPT stopping plug (nickel plated brass or stainless steel)

Entry thread "NPT"		Dimensions(mm)				Ordering code	Weight (kg)
NPT	A	B	L	L1			
1/2"	22	10	17	15	720016	0.05	
3/4"	27	10	17	15	720017	0.07	
1"	34	10	21	19	720018	0.15	
1 1/4"	43	10	21	19	720019	0.17	
1 1/2"	49	19	22	19	720020	0.26	
2"	61	19	23	20	720021	0.47	
2 1/2"	74	19	32	29	720022	0.66	
3"	90	19	34	31	720023	0.90	
4"	115	19	38	34	720024	1.15	

## Accessories

### Selection table of BPS(H) explosion-proof drain plug (Breather)

	<b>Explosion protection</b>
	Global (IECEx) IECEx CQM 22.0023X
	Gas and dust Ex db IIC T6/T5/96°C (T4) Gb
	Europe (ATEX) Ex tb IIIC T80°C/T95°C/T130°C Db
	Gas and dust TÜV CY 23 ATEX 0206872U
	Ex II 2 G Ex db IIC T6/T5/96°C (T4) Gb
	Ex II 2 D Ex tb IIIC T80°C/T95°C/T130°C Db
	IECEx; ATEX; CU-TR
	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
	<b>Certificates</b>
	<b>Conformity to standards</b>
	<b>Material</b> SS316 (SS304, SS316L is optional)
	<b>Thread specification</b> M20x1.5
	<b>Degree of protection</b> IP66
	<b>Ambient temperature</b> T6 for Tamb: -60°C~+44°C
	T5 for Tamb: -60°C~+59°C 96°C(T4) for Tamb: -60°C~+60°C
	<b>Explosion protection</b>
	Global (IECEx) IECEx CQM 22.0023X
	Gas and dust Ex eb IIC T6...T4 Gb
	Ex tb IIIC T80°C/T95°C/T130°C Db
	Europe (ATEX) TÜV CY 23 ATEX 0206872U
	Gas and dust Ex II 2 G Ex eb IIC T6...T4 Gb
	Ex II 2 D Ex tb IIIC T80°C/T95°C/T130°C Db
	IECEx; ATEX
	EN 60079-0, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-7, IEC 60079-31
	<b>Certificates</b>
	<b>Conformity to standards</b>
	<b>Material</b> Brass (SS304, SS316, SS316L is optional)
	<b>Thread specification</b> M20x1.5
	<b>Degree of protection</b> IP66
	<b>Ambient temperature</b> T6/T80°C for Tamb: -60°C~+80°C
	T5/T95°C for Tamb: -60°C~+95°C T4/T130°C for Tamb: -60°C~+130°C

### Description of MCCB and MCB rotary actuator with padlock

Version	Description	Ordering code	Version	Description	Ordering code
	MCCB rotary actuator, metal material, with padlock, suitable for the locking bar outer diameter of Φ6-Φ8.	721001		MCB rotary actuator, metal material, with padlock, suitable for the locking bar outer diameter of Φ3-Φ4.5.	721004
	MCCB rotary actuator, plastic material, with padlock, suitable for the locking bar outer diameter of Φ5.5-Φ8.	721002		MCB rotary actuator, plastic material, with padlock, suitable for the locking bar outer diameter of Φ3-Φ6.5.	721005
	The product is provided with padlock, suitable for MCCB rotary actuator, the outer diameter of locking bar is Φ6.	721003		The product is provided with padlock, suitable for MCB rotary actuator, the outer diameter of locking bar is Φ4.	721006

Note: The conventional color of Padlock is red, other other colors can be customized, please specify when ordering.



**Exhaust Fans,  
Air Conditioners,  
Distribution Cabinets,  
Engineering Cabins,  
Camera,  
Online Monitoring Analysis System,  
Helicopter Platform,  
Explosion-proof Computer System**

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More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

## Air Conditioners

- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Mounting: window type, split wall type, and split tank type.
- ◆ Ambient temperature groups of T1, T2, T3 are available to meet different climates all over the world. Ambient temperature T1 ranges from -7°C~+43°C, Ambient temperature T2 ranges from -7°C~+35°C, Ambient temperature T3 ranges from -7°C~+52°C, the explosion-proof treatment of products of T1, T2, T3 groups is based on renowned brand. User should choose the proper product according to the local ambient temperature.
- ◆ It can be widely used in explosive gas atmosphere of II A, II B, II C with temperature groups of T1, T2, T3, such as petroleum, chemical, mine, oil storage, pharmacy, gas station, liquefied gas station, military facilities, etc..
- ◆ Product of T1 group is suitable for area with medium temperature while low temperature for T2 product and high for T3 respectively. The T3 group is mostly suitable for high temperature areas, such as Middle East, Middle Africa etc..
- ◆ For explosion-proof window type air conditioner, the corresponding product is the cooling-only air conditioner in T1, T3 group. For split tank and split wall types, both cooling-only and cooling & heating products in T1, T2, and T3 are available.
- ◆ Normally, the product is of T1 temperature class, and rated voltage is 220V AC/50Hz. Other voltages are available, such as 220V AC/60Hz, 230V AC/50Hz, 230V AC/60Hz, 240V AC/50Hz, 240V AC/60Hz etc., please specify when ordering.
- ◆ The Technical Parameters of all kinds of air conditioners are of T1 temperature class.
- ◆ Cooling capacity
 

Generally, cooling capacity of 1P (horse power) equals to 2000Kcal. According to international standard, cooling capacity of 1P=2000Kcal x 1.162=2324(W). W represents cooling capacity. Cooling capacity of 1.5P=2000Kcal x 1.5 x 1.162=3486(W). Therefore, it is easy to determine horse power of the air conditioner and the cooling capacity. Normally, 1P product is defined in the range of 2200(W)~2600(W); 3200(W)~3600(W) for 1.5P; 4500 (W)~5100(W) for 2P. For British unit, it should be calculated as follows: A(BTU) x 1.06+3.6 =B (W). For instance, 18000 (BTU) x 1.06+3.6=5300 (W), that is, 2P air conditioner. In room of 3 meters high and with out large heating unit, air conditioner of 1P, 1.5P, 2P, 3P, or 5P is suitably used in areas of 12~18, 20~25, 24~36, 30~40, 40~60(m<sup>3</sup>). Warning: explosion-proof air-conditioning products are not suitable for spaces <12m<sup>3</sup>, Increase the cooling capacity accordingly if the height of room exceeds 3 meters or there is frequent personnel in and out.

## Pressurized Products

### Distribution Cabinets

- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Explosion groups (for gases): IIC.
- ◆ Available in types K (Cabinet type), Q (Console type), T (Special requirement).
- ◆ The explosion-proof performance is achieved by isolating the ignition source by medium, that is, to put all the electrical components in an enclosure filled with pressurized and clean medium, which makes the combustible mixed gas unable to get in touch with the spark or dangerous temperature produced by the components during normal working.
- ◆ The product consists of main cavity and auxiliary cavity. The main cavity is of pressurized cavity, with electrical components that users need and pressure check sensor system, ventilation air distribution system, and air conditioning system etc.. The auxiliary cavity is installed with explosion-proof ventilation auto-control system, explosion-proof power auto-off system, explosion-proof alarm system, explosion-proof pressure display system, and air in/out connector; the auxiliary cavity with auto-air supply is equipped with explosion-proof air supply device.
- ◆ Px series pressurized cabinet is equipped with ventilation inter-lock mechanism; the auxiliary cavity can be energized and start to detect the air pressure of main cavity only after ventilation of main cavity. And there is no combustible gas in the main cavity after reaching the stipulated time and the ventilation value. Make sure the electrical components have been isolated effectively by medium before operation;

## General Introduction

- ◆ The air sources which are provided by user should include the clean or inert gases. Generally, the on-site instrument air can meet requirement. Air pressure is 0.2-0.8MPa or 0.2-0.5MPa (subject to volume size of main cavity).
- ◆ The applicable power system is the AC three-phase four-wire 380/220 system and all the light current system; high voltage system is not applicable.
- ◆ Pz series pressurized cabinet is a pressurized explosion-proof cabinet designed for Zone 2; compared with Px series, Pz series leave out the safety device that checks ventilation time, and only marks the ventilation time; it is operated according to requirement before energizing of main cavity by user; when air pressure is lower than 100Pa, the auto-control system automatically alarms (audio and visual); starts air inflow and automatically adjusts inner air; when air inflow succeeds, it recovers to normal; if not, the air pressure decreases to 60Pa; the system does not automatically de-energize, but continues to alarm.
- ◆ When ordering, users should provide electric system drawing, control schematic diagram, brand of inner components, layout drawing of panel components, cable side of inlet/out, and quantity, etc. .

## Engineering Cabins

- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Enclosure in carbon steel or stainless steel.
- ◆ Two types of enclosure.
- ◆ Can be customized on request.
- ◆ The pressurized engineering cabin is integral of the combination, completion, and installation of industrial online instruments, and is firstly widely used in oil field, oil refining and chemical enterprise;
- ◆ The engineering cabinet is of steel construction; the inner and outer walls are both steel plate, with thermal insulating layer in the middle;
- ◆ The product is mainly applicable for on-site centralized control, dispatch, craft analysis and instrument monitoring;
- ◆ The system consists of main structure of room, pressurized control system, pressurized ventilation system, pressure monitoring system, detection system of combustible gas, detection system of toxic gas, high temperature alarm system, smoking alarm system, audio and visual alarm system, lighting system, air conditioner system, general power system and electrical system.



## Camera

- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Explosion groups (for gases): IIB, IIC.
- ◆ This chapter introduces the BJK series explosion-proof video surveillance system, including explosion-proof camera, explosion-proof integrated camera, etc., with functions such as real-time monitoring, video playback, intelligent control, AI analysis, and permission assignment; the product meets the user's requirement for video surveillance in explosion-proof, waterproof, dustproof and other harsh environments.
- ◆ Usage requirements.

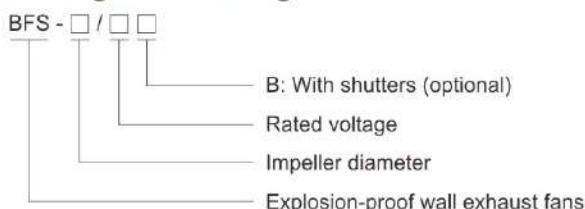
## Exhaust Fans

### BFS Series Explosion-proof Wall-mounted Exhaust Fans



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
- ◆ Enclosure in carbon steel or stainless steel
- ◆ Comprehensive Design: Comprising an explosion-proof motor, impellers, and an integrated mounting bracket, ensuring reliable installation.
- ◆ Aesthetic and Functional: The integrated mounting bracket enhances both appearance and stability.
- ◆ Quiet Operation: Equipped with vibration-reducing components, it operates with minimal noise.
- ◆ Ideal for Specialized Applications: Perfectly suited for air exhaust and intake in environments like equipment rooms and explosion-proof cabins.

#### ■ Catalogue number logic



#### ■ Selection table

Model	Rated voltage (V)	Impeller diameter (mm)	Power (kW)
BFS-300	220, 380	295~300	0.18
BFS-400	220, 380	395~400	0.25
BFS-500	220, 380	495~500	0.55
BFS-600	220, 380	595~600	0.75

Zones 1&2

## Exhaust Fans

### BFS Series Explosion-proof Wall-mounted Exhaust Fans

#### Technical data

#### Explosion-proof wall-mounted exhaust fans BFS-□/□□

##### Explosion protection

Global (IECEx) IECEx (applied for)

Gas Ex db IIB T4 Gb

Europe (ATEX) ATEX (applied for)

Gas  $\text{Ex II 2 G Ex db IIB T4 Gb}$

##### Certificates

##### Conformity to standards

EN 60079-0, EN 60079-1, IEC 60079-0, IEC 60079-1

##### Rated voltage

220V, 380V

##### Spindle speed

1450r/min

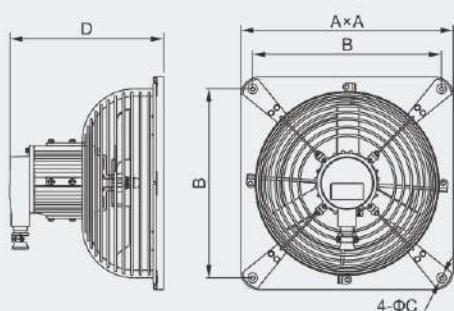
##### Inlet thread

G3/4"

##### Cable outer diameter

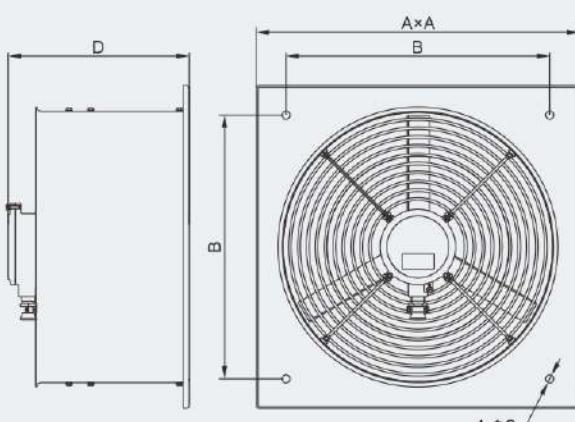
$\Phi 10\text{mm} \sim \Phi 14\text{mm}$

#### Dimension drawings (all dimensions in mm) - subject to alteration



Model	A(mm)	B(mm)	D(mm)	$\Phi$ C(mm)
BFS-300	385	340	280	8.5
BFS-400	485	390	290	8.5

BFS-300/BFS-400



Model	A(mm)	B(mm)	D(mm)	$\Phi$ C(mm)
BFS-500	600	500	310	8.5
BFS-600	700	590	310	8.5

BFS-500/BFS-600

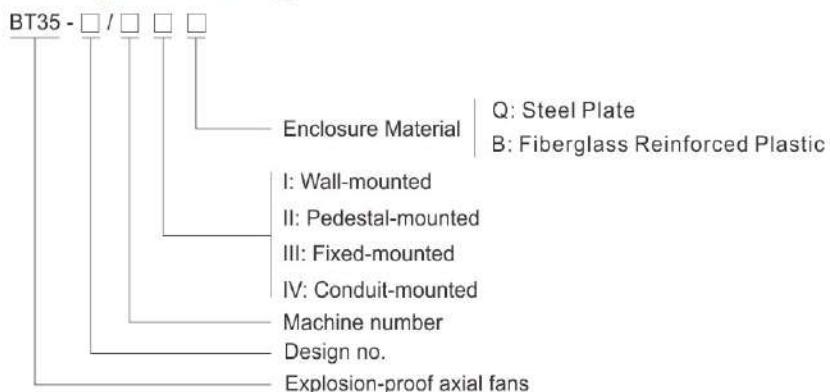
## Exhaust Fans

### BT35 Series Explosion-proof Axial Fans



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
- ◆ The explosion-proof axial flow fan is composed of an explosion-proof motor, blades, and a wind duct among other components.
- ◆ The housing material can be either steel plate or fiberglass reinforced plastic.

#### ■ Catalogue number logic



#### Technical data

Explosion-proof axial fans	BT35-□/□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas	Ex db IIC T4 Gb
Europe (ATEX)	ATEX (applied for)
Gas	Ex II 2 G Ex db IIC T4 Gb
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, IEC 60079-0, IEC 60079-1
<b>Rated voltage</b>	BT35-11-2.8~BT35-11-5: 220V/380V BT35-11-5.6~BT35-11-7.1: 380V
<b>Spindle speed</b>	1450r/min
<b>Inlet thread</b>	G3/4"
<b>Cable outer diameter</b>	Φ 10mm~Φ 14mm

Zones 1&2

**Exhaust Fans**  
**BT35 Series Explosion-proof Axial Fans**

**Selection table**

Machine number	Impeller diameter (mm)	Impeller circumference speed (m/s)	Impeller rotation speed (r/min)	Impeller angle (deg)	Air volume (m <sup>3</sup> /h)	Total pressure (mmH <sub>2</sub> O)	Efficiency	Motor power (kW)
2.8#	265	42.5	2900	15	1649	15.5	0.87	
				20	2167	17.2	0.88	0.18
				25	2685	17.7	0.89	
				30	2921	19	0.88	
				35	3202	23.7	0.86	0.25
	295	47.5	1450	15	826	3.8	0.87	
				20	1086	4.4	0.88	
				25	1346	4.5	0.89	0.18
				30	1464	4.9	0.88	
				35	1605	6.1	0.86	
3.15#	335	53.9	2900	15	2339	19.6	0.87	0.18
				20	3074	21.8	0.88	0.25
				25	3810	22.4	0.89	
				30	4414	24.2	0.88	0.37
				35	4545	30	0.86	0.55
	390	60.7	1450	15	1169	4.9	0.87	
				20	1537	5.4	0.88	
				25	1905	5.6	0.89	0.18
				30	2072	6.0	0.88	
				35	2273	7.5	0.86	
4#	435	34.2	1450	15	3367	24.6	0.87	
				20	4426	27.7	0.88	0.37
				25	5484	28.4	0.89	
				30	5965	30.6	0.88	0.55
				35	6542	38.0	0.86	
	435	34.2	2900	15	1680	6.2	0.87	
				20	2208	6.9	0.88	
				25	2737	7.1	0.89	0.25
				30	3265	7.6	0.88	
				35	3977	9.5	0.86	
4.5#	435	34.2	1450	15	4806	31.6	0.87	
				20	6316	35.2	0.88	0.55
				25	7826	36.1	0.89	0.75
				30	8513	39.8	0.88	
				35	9336	48.3	0.86	1.1
	435	34.2	1450	15	2406	7.9	0.87	
				20	3163	8.8	0.88	
				25	3922	9.0	0.89	0.55
				30	4263	9.7	0.88	
				35	4678	12.1	0.86	



## Exhaust Fans

### BT35 Series Explosion-proof Axial Fans

Selection table

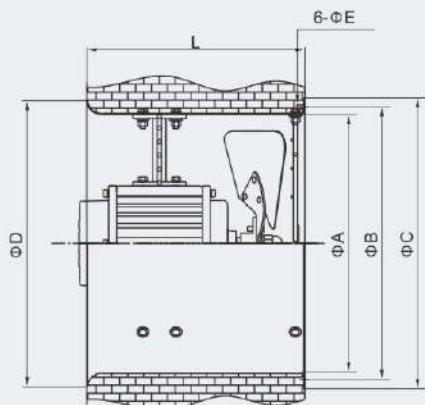
Machine number	Impeller diameter (mm)	Impeller circumference speed (m/s)	Impeller rotation speed (r/min)	Impeller angle (deg)	Air volume (m <sup>3</sup> /h)	Total pressure (mmH <sub>2</sub> O)	Efficiency	Motor power (kW)
5#	490	38.0	1450	15	4700	12.4	0.87	0.55
				20	6178	13.8	0.88	
				25	7655	14.1	0.895	0.75
				30	8832	15.2	0.88	
				35	9133	18.9	0.86	
	540	25.1	960	15	3314	5.4	0.87	
				20	4129	6.0	0.88	
				25	5117	6.2	0.895	0.37
				30	5566	6.6	0.88	
				35	6104	8.3	0.86	
5.6#	540	42.5	1450	15	6595	15.4	0.87	
				20	8667	17.2	0.88	0.75
				25	10739	17.7	0.895	
				30	11682	19.0	0.88	1.1
				35	12812	23.7	0.86	
	590	28.1	960	15	4362	6.8	0.87	
				20	5730	7.5	0.88	
				25	7101	7.7	0.895	0.37
				30	7724	8.3	0.88	
				35	8471	10.3	0.86	
6.3#	590	47.8	1450	15	9393	21.7	0.87	0.75
				20	12345	24.1	0.88	1.1
				25	15297	24.7	0.895	
				30	16639	24.1	0.88	1.5
				35	18250	30.3	0.86	
	690	31.7	960	15	6219	8.6	0.87	
				20	8173	9.6	0.88	
				25	10128	9.8	0.895	0.75
				30	11016	10.6	0.88	
				35	12082	13.1	0.86	
7.1#	690	53.9	1450	15	13444	24.9	0.87	
				20	17670	27.7	0.88	2.2
				25	21895	28.8	0.895	
				30	23815	30.6	0.88	3
				35	26120	38.0	0.86	4
	690	36.7	960	15	8902	11.0	0.87	
				20	11700	12.2	0.88	
				25	14498	12.5	0.895	0.75
				30	15769	13.4	0.88	
				35	17296	16.7	0.86	



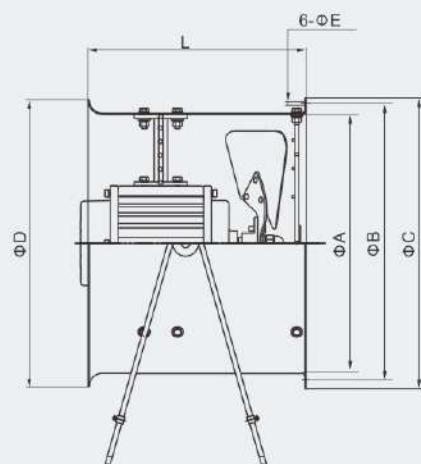
# Exhaust Fans

## BT35 Series Explosion-proof Axial Fans

Dimension drawings (all dimensions in mm) - subject to alteration

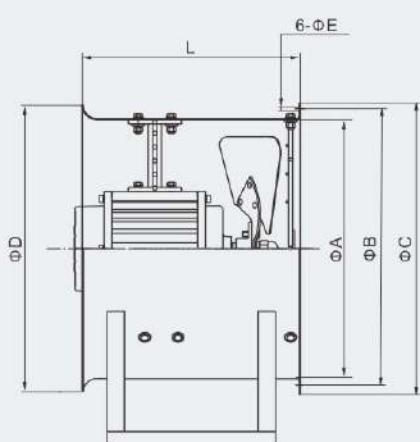


Wall-mounted (I)

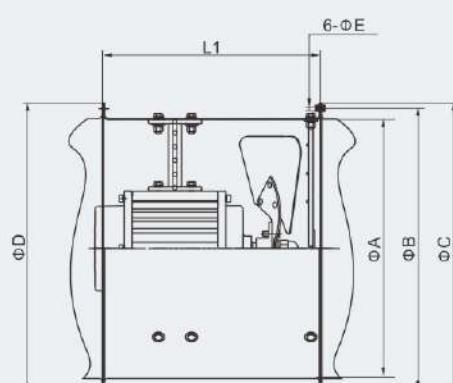


Pedestal-mounted (II)

Model	L	L1(Conduit-mounted)	ΦA	ΦB	ΦC	ΦD	ΦE
BT35-11-2.8	275(255)	300	283(285)	305	325(355)	320(355)	8.5
BT35-11-3.15	275(285)	275	315(320)	340	360(400)	355(405)	8.5
BT35-11-3.55	313(325)	300	355(363)	380	400(440)	395(450)	8.5
BT35-11-4.0	315(350)	330	418(408)	442	462(495)	455(500)	8.5
BT35-11-4.5	315(350)	330	454(458)	478	498(545)	494(560)	8.5



Fixed-mounted (III)



Conduit-mounted (IV)

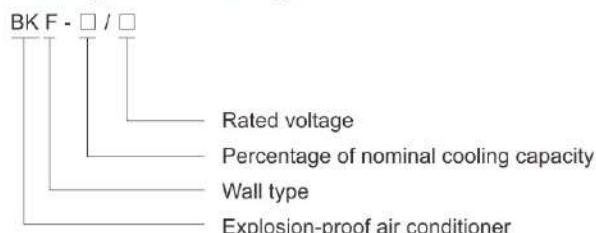
Model	L	L1(Conduit-mounted)	ΦA	ΦB	ΦC	ΦD	ΦE
BT35-11-5.0	315(365)	330	520(508)	545	565(595)	555(615)	8.5
BT35-11-5.6	405(420)	390	563(575)	590	610(670)	600(695)	8.5
BT35-11-6.3	405(468)	390	610(640)	635	655(740)	650(760)	8.5
BT35-11-7.1	515(510)	500	710(710)	735	755(830)	750(865)	8.5



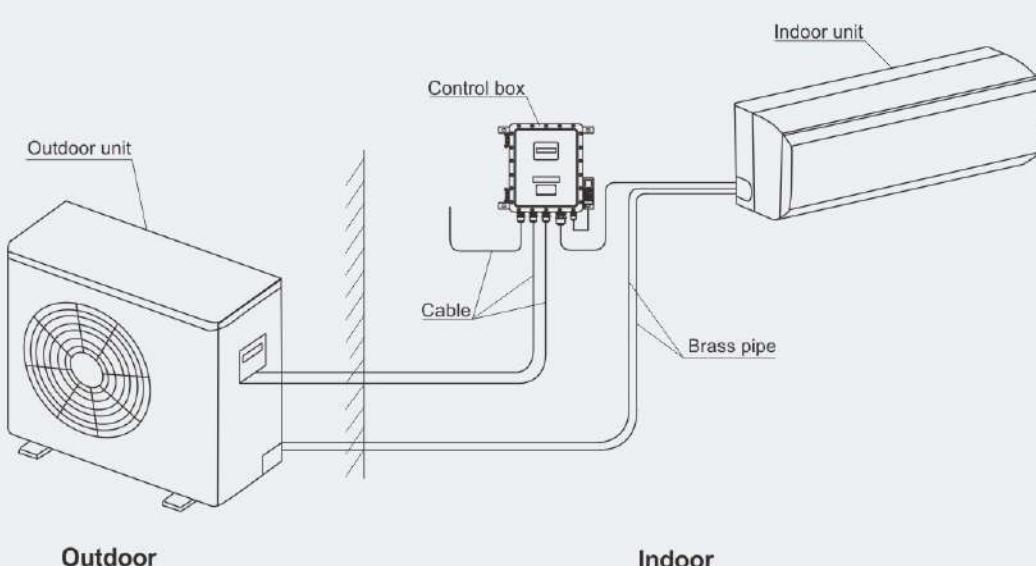


- ◆ Explosion protection to  
-CENELEC  
-IEC
- ◆ Can be used in  
Zone 1 and Zone 2
- ◆ For explosion-proof wall air conditioner, both cooling-only and cooling & heating products in T1, T2, and T3 are available, to meet different requirements of low, medium and high temperature zones in the world.
- ◆ Explosion-proof wall air conditioner is based on renowned brand, by taking explosion-proof measures to indoor and outdoor units. Measures to outdoor unit: by taking special technics and control, conduct explosion-proof treatment to internal control units, compressor, outdoor fan motor, protective system, heat-removal system, cooling system, etc. Besides, explosion-proof control box and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment. Indoor unit: by taking special technics and control, dismantle internal electric control units and redesign explosion-proof structure which enables explosion-proof control box seperated. Remote controller and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment.

#### ■ Catalogue number logic



#### Dimension drawings (all dimensions in mm) - subject to alteration



## Zones 1&2

# Air Conditioners

## BKF Series Explosion-proof Wall Air Conditioners (IIB)

### Technical data

#### Explosion-proof wall air conditioners BKF-□/□

<b>Explosion protection</b>	<b>Outdoor unit</b>		
	BYS Compressor	Ex II 3 G Ex nC II 146°C(T3)	<b>Outdoor unit</b>
	BZC Control station	Ex II 3 G Ex d IIB	Ex d nC IIB 146°C
	BDJ-W Fan motor	Ex II 3 G Ex d IIB	<b>Indoor unit</b>
	<b>Indoor unit</b>		
	BDJ-N Fan motor	Ex II 2 G Ex d IIB T4	Ex d [ib] ib IIB T4
	BXK Control station	Ex II 2 G Ex d [ib] ib IIB T4	<b>Whole unit</b>
<b>Certificates</b>	LCIE 08 ATEX 6031X		IECEx CQM 08.0017X
	IECEx; ATEX; CU-TR		
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-15 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-15		

### Technical data

Type		BKF-50/220	BKF-71/220
<b>Cooling capacity</b>	<b>W</b>	5275	7066
	<b>BTU</b>	18000*	24000*
<b>Rated voltage / Frequency (V/Hz)</b>		220~240/50	220~240/50
<b>Input power (P)</b>		2P	3P
<b>Cooling input power / Current (W/A)</b>		2300/10.5	3100/14.9
<b>Application areas (m<sup>3</sup>)</b>		24~36	29~48
<b>Sound level (dB)</b>	<b>Indoor unit</b>	43*	44*
	<b>Outdoor unit</b>	54*	55*
<b>Outline dimensions (L x W x H) (mm)</b>	<b>Indoor unit</b>	960 x 385 x 245*	1100 x 358 x 294*
	<b>Outdoor unit</b>	910 x 690 x 390*	910 x 690 x 390*
	<b>Control box</b>	420 x 350 x 178	420 x 350 x 178
<b>Weight (kg)</b>	<b>Indoor unit</b>	21.00*	25.00*
	<b>Outdoor unit</b>	62.00*	65.00*
	<b>Control box</b>	21.00	21.00

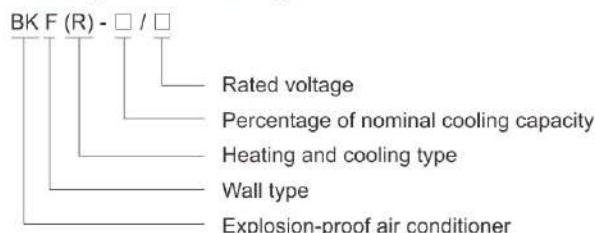


**Note:** 1. The above technical data is for normally supplied products of T3 (-7°C~+52°C) temperature class, voltage is 220~240V AC/50Hz, other voltages are available, for example 220~240V AC/60Hz, please specify when ordering.  
 2. The above data is only for reference, the actual product shall prevail.  
 3. Data with "\*" are for reference. The specific kind prevail.

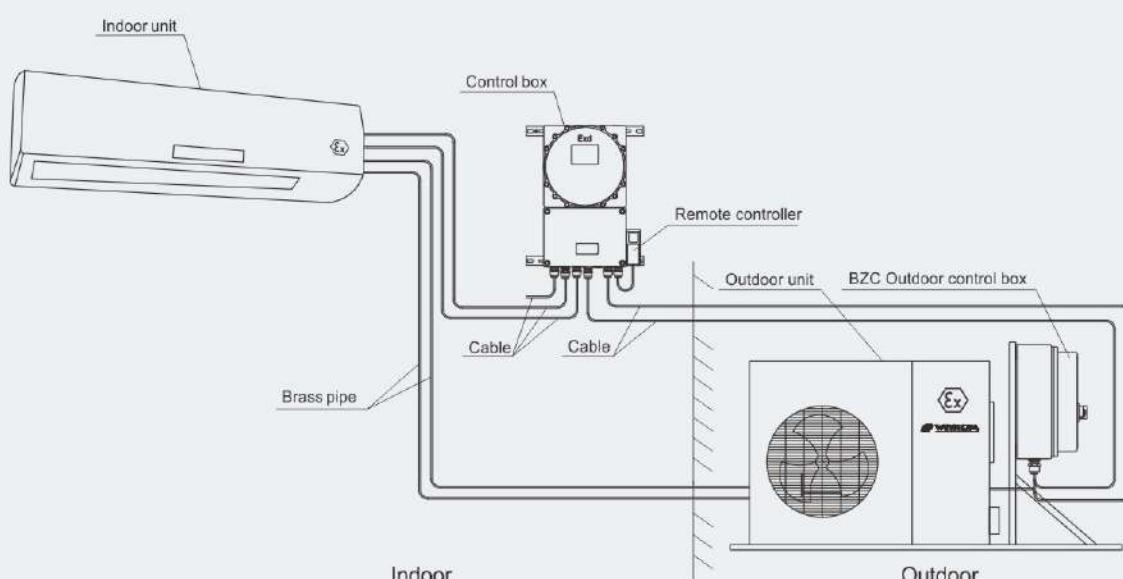


- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ For explosion-proof wall air conditioner, both cooling-only and cooling & heating products in T1, T2, and T3 are available, to meet different requirements of low, medium and high temperature zones in the world.
- ◆ Explosion-proof wall air conditioner is based on renowned brand, by taking explosion-proof measures to indoor and outdoor units. Measures to outdoor unit: by taking special technics and control, conduct explosion-proof treatment to internal control units, compressor, outdoor fan motor, protective system, heat-removal system, cooling system, etc. Besides, explosion-proof control box and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment. Indoor unit: by taking special technics and control, dismantle internal electric control units and redesign explosion-proof structure which enables explosion-proof control box separated. Remote controller and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment.

#### Catalogue number logic



#### Dimension drawings (all dimensions in mm) - subject to alteration



## Zones 1&2; 21&22

## Air Conditioners

### BKF(R) Series Explosion-proof Wall Air Conditioners (IIC)

#### Technical data

##### Explosion-proof wall air conditioners BKF(R)-□/□

<b>Explosion protection</b>	
Global (IECEx)	IECEx CQM 14.0001X
Gas and dust	Ex d e ib mb px IIC T4 Gb Ex ibD tb pD IIIC T130°C Db IP66
Europe (ATEX)	EUT 14 ATEX 1235
Gas and dust	Ex II 2 G Ex d e ib mb px IIC T4 Gb Ex II 2 D Ex ib tb pD IIIC T130°C Db IP66
<b>Certificates</b>	IECEx; ATEX; CU-TR
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-2, EN 60079-7, EN 60079-11, EN 60079-18 EN 60079-31, EN 61241-4, EN 13463-1 IEC 60079-0, IEC 60079-1, IEC 60079-2, IEC 60079-7, IEC 60079-11, IEC 60079-18 IEC 60079-31, IEC 61241-4, IEC 61241-11

#### Technical data

Type	BKF(R)-50/220	BKF(R)-71/220
Cooling capacity	5275	7032
	18000*	24000*
Heating capacity (W)	5600	6600
Rated voltage/Frequency (V/Hz)	220~240/50 220~240/60	220~240/50 220~240/60
Input power (P)	2P	3P
Cooling input power/Current (W/A)	1432/6.5	2200/10
Heating input power/Current (W/A)	1690/7.68	2600/11.8
Application areas (m <sup>2</sup> )	22~37	27~44
Sound level (dB)	Indoor unit	43*
	Outdoor unit	54*
Outline dimensions (L x W x H) (mm)	Indoor unit	960 x 385 x 245* 1070 x 400 x 275*
	Outdoor unit	1450 x 900 x 700* 1450 x 900 x 700*
	Control box	690 x 430 x 211 690 x 430 x 211
Weight (kg)	Indoor unit	21.00*
	Outdoor unit	146.00*
	Control box	30.00 30.00



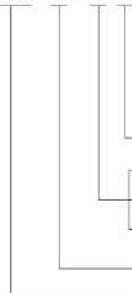
**Note:** 1. The above technical data is for normally supplied products of T3 (-7°C~+52°C) temperature class, voltage is 220~240V AC/50Hz, other voltages are available, for example 220~240V AC/60Hz, please specify when ordering.  
2. The above data is only for reference, the actual product shall prevail.  
3. Data with "\*" are for reference. The specific kind prevail.



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Explosion-proof types IIC.
- ◆ Available in types Q, T, K.
- ◆ The product consists of main cavity and auxiliary cavity. The main cavity is of pressurized cavity, with electrical components that users need and pressure check sensor system, ventilation air distribution system, and air conditioning system, etc.; the auxiliary cavity is installed with explosion-proof ventilation auto-control system, explosion-proof power auto-off system, explosion-proof alarm system, explosion-proof pressure display system, and air in/out connector; the auxiliary cavity with auto-air supply is equipped with explosion-proof air supply device.
- ◆ Cabinet type product adopts GGD frame; the main cavity and auxiliary cavity are of left and right structure; cable channel is of horizontal installation type; bottom inlet, front operation and back overhauling.
- ◆ Cabinet type product adopts high quality steel plate welding structure; the main cavity and auxiliary cavity are of up and down structure; wall type installation; bottom inlet, front operation and back overhauling.
- ◆ The back doors of cabinet type and console type are of rapid opening device, convenient for user to install and overhaul.

#### ■ Catalogue number logic

PXK - □ / □ □



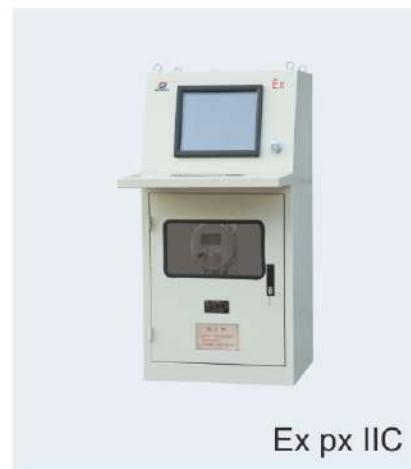
Protection type: Px & Pz  
 Cabinet type I: K1, K2, K3.....K15  
 Console type: Q  
 Special requirement:T  
 T: ventilated type; B: compensated type  
 Explosion-proof pressurized distribution cabinets



Ex pz IIC



Ex px IIC



Ex px IIC

Zones 1&2; 21&22

# Pressurized Products

## PXK Series Explosion-proof Pressurized Distribution Cabinets

### Technical data

#### Explosion-proof pressurized distribution cabinets (Ex pz IIC) PXK-□/□□

<b>Explosion protection</b>	
Global (IECEx)	IECEx EUT 17.0002X
Gas and dust	Ex pz IIC T5 Gc
Europe (ATEX)	Ex pz IIIC T95°C Dc
Gas and dust	EPT 15 ATEX 0187
CUTR	Ex II 3 G Ex pz IIC T5 Gc
Gas and dust	Ex II 3 D Ex pd IIIC T95°C Dc IP66
<b>Certificates</b>	RU C-CN.MI062.B.00413/19
<b>Conformity to standards</b>	2 Ex pz IIC T6 Gc / Ex tb IIIC T80°C Db IP66
<b>Positive pressure value</b>	2 Ex pz IIC T4 Gc / Ex tb IIIC T130°C Db IP66
<b>Air source</b>	IECEx; ATEX; CUTR; INMETRO
<b>Rated voltage</b>	EN 60079-0, EN 60079-2, EN 61241-4, IEC 60079-0, IEC 60079-2
<b>Rated current</b>	200Pa~800Pa(0.002bar~0.008bar)
<b>Enclosure material</b>	0.2MPa~0.8MPa (2bar~8bar)
<b>Degree of protection</b>	Max.690V AC 50/60Hz, 500V DC
<b>Ambient temperature</b>	Max.630A
	Stainless steel or powder coated carbon steel
	IP66
	IECEx, ATEX: -10°C~+55°C
	CUTR: -20°C~+55°C(T6/T80°C); -20°C~+75°C(T4/T130°C)

### Selection table

Type	Outline W×H×D (mm)	Main cavity W×H×D (mm)	Auxiliary cavity W×H×D (mm)	Effective dimension of main cavity operation panel W×H (mm)	Installation (mm)	Enclosure weight (kg)
K1	680 x 1400 x 385	680 x 1000 x 345	680 x 280 x 345	400 x 700	600 x 180	30.00
K2	880 x 1400 x 385	880 x 1000 x 345	880 x 280 x 345	580 x 700	800 x 180	40.00
K3	1000 x 1400 x 440	1000 x 1000 x 400	1000 x 280 x 345	700 x 700	920 x 280	50.00
K4	1000 x 1400 x 650	1000 x 1000 x 600	1000 x 280 x 345	700 x 700	920 x 459	60.00
K5	1000 x 1400 x 870	1000 x 1000 x 820	1000 x 280 x 345	700 x 700	920 x 679	70.00
K6	1000 x 1680 x 440	1000 x 1280 x 400	1000 x 280 x 345	700 x 980	920 x 280	60.00
K7	1000 x 1680 x 650	1000 x 1280 x 600	1000 x 280 x 345	700 x 980	920 x 459	75.00
K8	1000 x 1680 x 870	1000 x 1280 x 820	1000 x 280 x 345	700 x 980	920 x 679	90.00
K9	1000 x 1830 x 440	1000 x 1430 x 400	1000 x 280 x 345	700 x 1130	920 x 280	70.00
K10	1000 x 1830 x 650	1000 x 1430 x 600	1000 x 280 x 345	700 x 1130	920 x 459	90.00
K11	1000 x 1830 x 870	1000 x 1430 x 820	1000 x 280 x 345	700 x 1130	920 x 679	105.00
K12	1200 x 1920 x 870	1200 x 1800 x 820	700 x 300 x 250	900 x 1500	1120 x 679	130.00
K13	1000 x 1920 x 870	1000 x 1800 x 820	700 x 300 x 250	700 x 1500	920 x 679	110.00
K14	1200 x 2350 x 870	1200 x 2200 x 820	700 x 300 x 250	900 x 1900	1120 x 679	150.00
K15	1000 x 2350 x 870	1000 x 2200 x 820	700 x 300 x 250	700 x 1900	920 x 679	140.00



### Pz series pressurized cabinets

- It is a pressurized explosion-proof cabinet designed for Zone 2; compared with Px series, Pz series leave out the safety device that checks ventilation time, and only marks the ventilation time; it is operated according to requirement before energizing of main cavity by user; when air pressure is lower than 100Pa, the auto-control system automatically alarms (audio and visual); opens air inflow and automatically adjusts inner air; when air inflow successes, it recovers to normal; if not, the air pressure decreases to 60Pa; the system does not automatically de-energize, but continues to alarm.

### Ordering information

- Please specify the product type when ordering according to Catalogue Number Logic;
- Users should provide electrical system drawing, control schematic diagram, brand of inner components, layout drawing of panel components, cable size of inlet/outlet and quantity, etc..

## Pressurized Products

### PXK Series Explosion-proof Pressurized Distribution Cabinets

#### Technical data

#### Explosion-proof pressurized distribution cabinets (Ex db eb pxb IIC)      PXK-□/□□

##### Explosion protection

Global (IECEx)	IECEx CQM 19.0019X
Gas and dust	Ex db eb pxb IIC T4 Gb Ex pxb tb IIIC T130°C Db IP66
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex db eb pxb IIC T4 Gb Ex II 2 D Ex pxb tb IIIC T130°C Db IP66
CUTR	RU C-CN.HA65.B.01389/22
Gas and dust	1 Ex db px IIC T4 Gb X Ex px tb IIIC T130°C Db X

##### Certificates

##### Conformity to standards

IECEx; ATEX; CUTR; INMETRO

EN 60079-0, EN 60079-1, EN 60079-2, EN 60079-7, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-2, IEC 60079-7, IEC 60079-31

##### Positive pressure value

200Pa~800Pa(0.002bar~0.008bar)

##### Air pressure

0.2MPa~0.8MPa (2bar~8bar)

##### Rated voltage

Max.1000V AC 50/60Hz

Max.1500V DC

##### Rated current

Max.630A

##### Enclosure material

Powder coated carbon steel or stainless steel

##### Ambient temperature

-40°C~+55°C

#### Selection table

Model	Outline dimension (mm)	Positive pressure cavity volume (m <sup>3</sup> )	Ventilation flow (m <sup>3</sup> /h)	Ventilation time (min)	Air leakage (m <sup>3</sup> /h)
K1	600 x 600 x 350	0.126		5	
K2	600 x 800 x 350	0.168		6	
K3	800 x 1000 x 350	0.28		9	
K4	800 x 1200 x 400	0.384		13	
K5	800 x 1200 x 600	0.576		18	
K6	800 x 1600 x 600	0.64		20	
K7	800 x 2000 x 600	0.96	10	29	2
K8	1000 x 1800 x 600	1.08		33	
K9	1000 x 2000 x 600	1.2		40	
K10	1200 x 2000 x 600	1.44		45	
K11	1000 x 2000 x 800	1.6		48	
K12	1200 x 2000 x 800	1.92		58	
K13	1400 x 2000 x 800	2.24		68	

#### Px series pressurized cabinets

- The components of pressurized cavity of console type product are mainly used for on-site control components, analysis instrument, centralized control and signal contact; and used for on-site continuous operation and monitoring;
- Computer can be installed on request;
- Special design is on request.

#### Ordering information

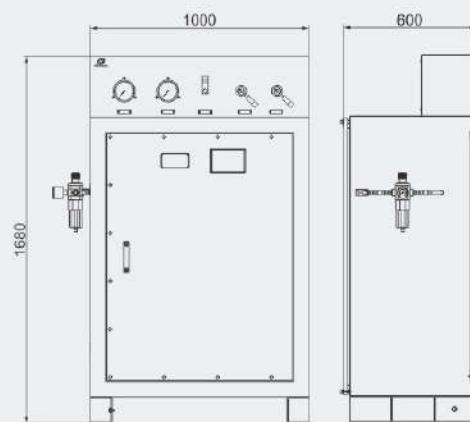
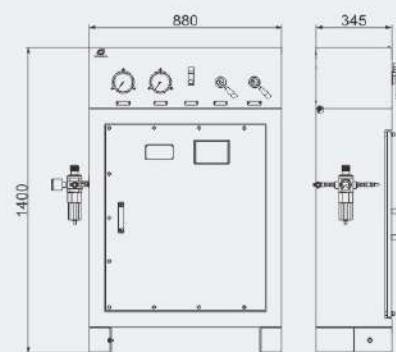
- Please specify the product type when ordering according to Catalogue Number Logic;
- Users should provide electrical system drawing, control schematic diagram, brand of inner components, layout drawing of panel components, cable size of inlet/outlet and quantity, etc..



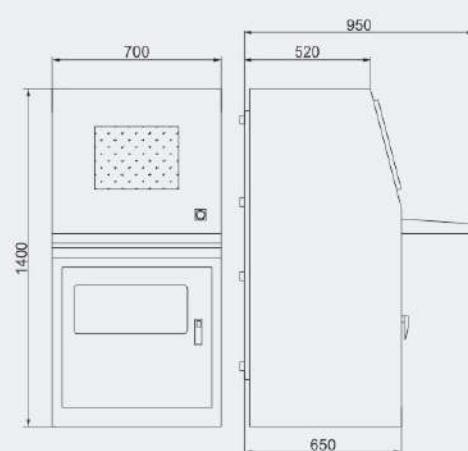
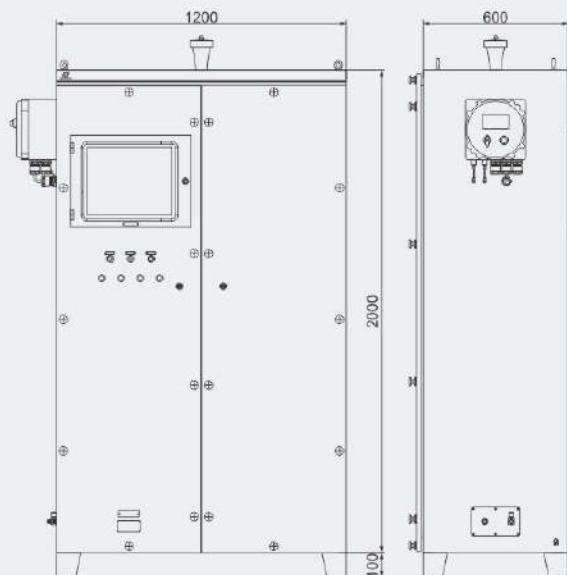
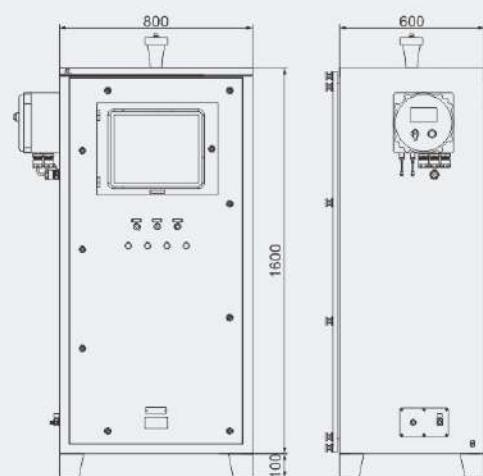
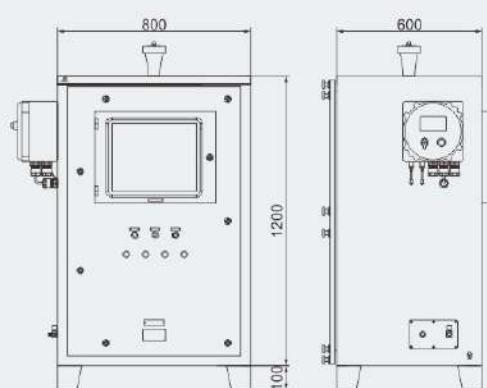
**Pressurized Products**  
**PXK Series Explosion-proof Pressurized Distribution Cabinets**

**Dimension drawings** (all dimensions in mm) - subject to alteration

Ex pz IIC



Ex px IIC



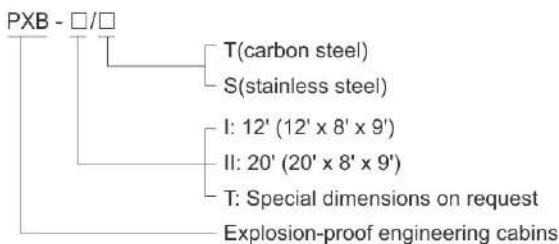
## Engineering Cabins

### PXB Series Explosion-proof Engineering Cabins



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- ◆ Enclosure in carbon steel or stainless steel
- ◆ The explosion-proof control box is the standard control box or PLC programmed control box. Combustible gas detector and toxic gas detector are modular designed. The thermal detector, smoking detector, and pressure transmitter are intrinsic safety explosion-proof components. The power of explosion-proof centrifugal fan is subject to the room size. The type of explosion-proof air conditioner is subject to the room size. With audio and visual alarm interlock system. Illumination system is the explosion-proof fluorescent lamp. The light source of explosion-proof emergency lamp is LED.

#### Catalogue number logic



- ◆ This product is welded by steel structure.
- ◆ A60 Zone I Rated.
- ◆ DNV 2.7-1, 2.7-2 Rated Structure.
- ◆ Protected with fire detection.
- ◆ Gas detection system.
- ◆ Fitted with dedicated air conditioning system.
- ◆ With continuous clean gas filled; keep the internal air fresh and safe.
- ◆ Automatic fire dampers (fail safe).
- ◆ Equipped with fire extinguishers.
- ◆ Two airtight doors, equipped with viewing window and emergency exit.
- ◆ Special requirement on request.



**Zones 1&2; 21&22**

# Engineering Cabins

## PXB Series Explosion-proof Engineering Cabins

### Technical data

#### Explosion-proof engineering cabins (Ex px IIB)      PXB-□/□□

##### Explosion protection

Global (IECEx)	IECEx CQM 14.0009X
Gas and dust	Ex px IIB T4 Gb
Europe (ATEX)	Ex px IIIC T130°C Db
Gas and dust	ATEX (applied for)
	Ex II 2 G Ex px IIB T4 Gb
	Ex II 2 D Ex px IIIC T130°C Db

##### Certificates

##### Conformity to standards

##### Normal operating pressure

Air pressure      50Pa~100Pa(0.0005bar~0.001bar)

0.4MPa~0.8MPa(4bar~8bar)

##### Rated voltage of user system

220V/380V/400V/440V/460V/660V/690V AC

##### Rated voltage of pressurized control system

220V/380V AC 50/60Hz

##### Rated current of pressurized control system

10A

##### Enclosure material

Powder coated carbon steel or stainless steel

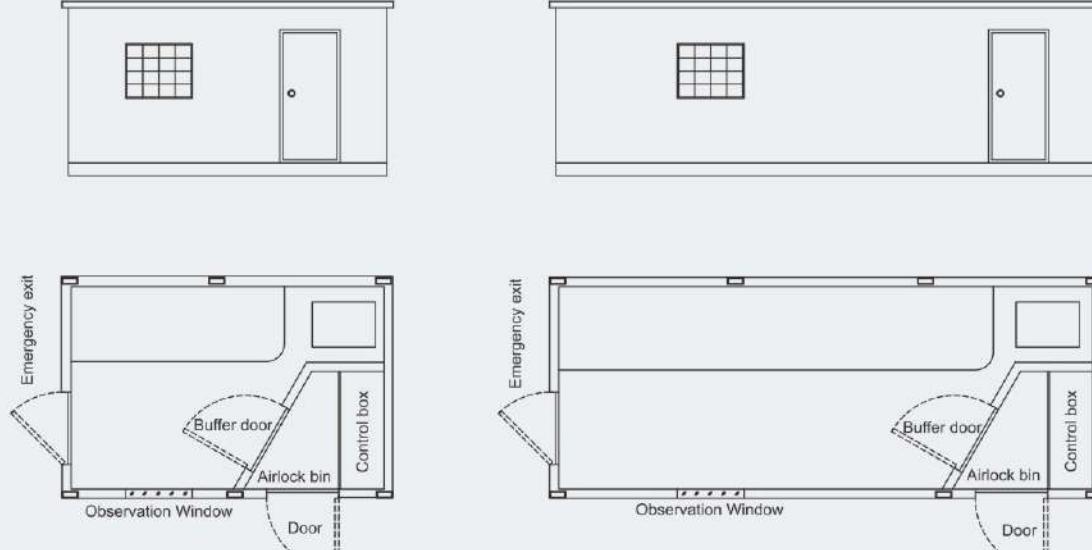
##### Degree of protection

IP66

##### Ambient temperature

-20°C~+55°C

### Dimension drawings (all dimensions in mm) - subject to alteration



PXB-I (12' x 8' x 9')

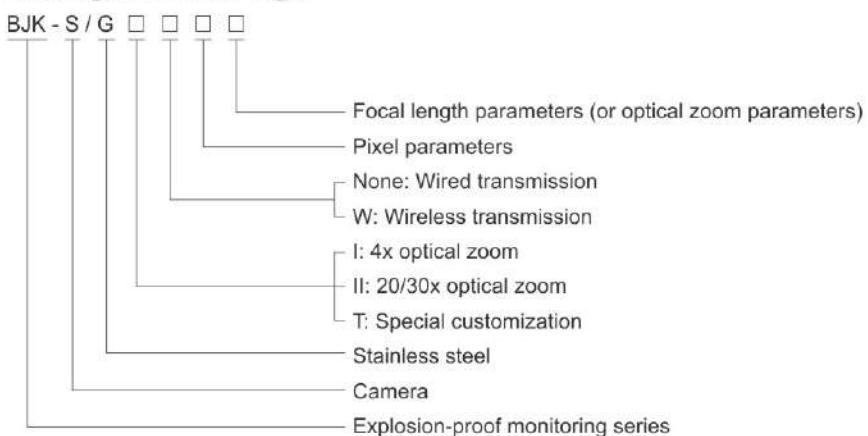
PXB-II (20' x 8' x 9')

## Camera BJK-S/G Series Explosion-proof Camera



- ◆ Explosion protection to  
-CENELEC  
-IEC
  - ◆ Can be used in  
Zone 1 and Zone 2  
Zone 21 and Zone 22

### ■ Catalogue number logic



## ■ Product characteristics

- ◆ The explosion-proof camera is used as a fixed terminal in the intelligent video surveillance system for on-site scanning transmission, real-time video transmission or real-time video storage, remote network image transmission and other functions;
  - ◆ Suitable for fixed-point monitoring of key areas; equipped with semi-fixed PTZ, whose angles can be adjusted vertically and horizontally;
  - ◆ Intelligent temperature control devices can be installed inside, and the product can be applied to -60°C to +63°C harsh working conditions;
  - ◆ The camera is configured with wireless module for transmitting video signals by using 4G, 5G, WIFI, and other wireless networks.

## Zones 1&2; 21&22

# Camera

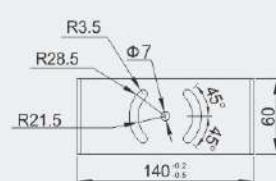
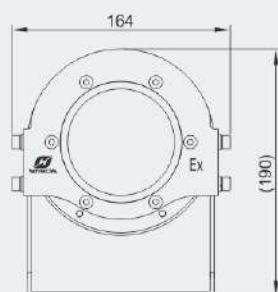
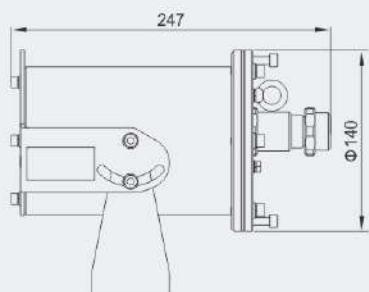
## BJK-S/G Series Explosion-proof Camera

### Technical data

Explosion-proof camera (Ex db IIC)	BJK-S/G□□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx TUR 22.0044X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	TÜV 22 ATEX 8864 X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN IEC 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Rated voltage</b>	176-264VAC, 88-132VAC, 24VAC, 24VDC and 12VDC
<b>Resolution</b>	2 million pixels 3 million pixels 4 million pixels
<b>Minimum illumination</b>	
Color	≤0.001lx (AGC ON)
Black & White	≤0.0001lx (AGC ON)
<b>Video coding format</b>	H.265, H.264, H.264B, MJPEG
<b>Wireless module</b>	Support 4G, 5G, WIFI connection
<b>Housing material</b>	304 stainless steel or 316 or 316L
<b>Degree of protection</b>	IP66/IP68
<b>Ambient temperature</b>	-60°C~+63°C
<b>Cable gland</b>	2×M20×1.5 or NPT 1/2" inlet port, suitable for Φ6.5mm~Φ14.5mm cable
<b>Installation method</b>	Fixed bracket, base, column
<b>Weight</b>	5kg



### Dimension drawings (all dimensions in mm) - subject to alteration



Installation dimensions

## Camera

### BJK-S/GD Series Explosion-proof Camera



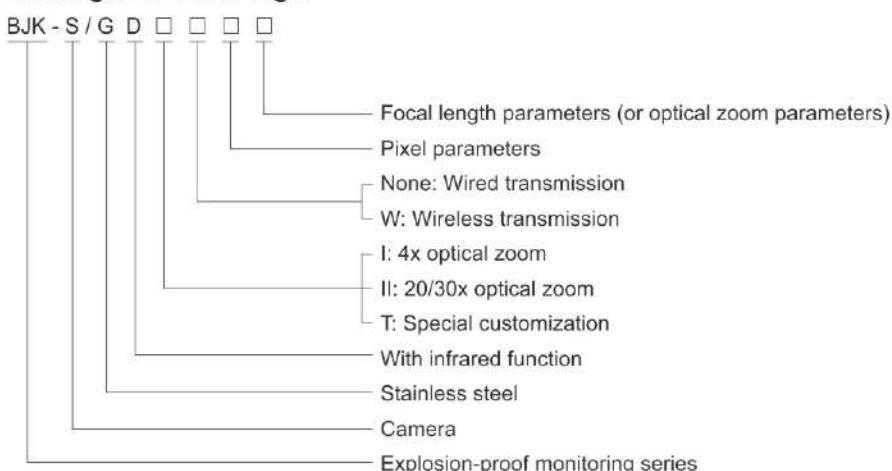
BJK-S/GD wired transmission



BJK-S/GDW wireless transmission

- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22

#### ■ Catalogue number logic



#### ■ Product characteristics

- ◆ The explosion-proof camera is used as a fixed terminal in the intelligent video surveillance system for on-site scanning transmission, real-time video transmission or real-time video storage, remote network image transmission and other functions;
- ◆ With infrared fill light function, the light can be changed to white light as needed;
- ◆ Suitable for fixed-point monitoring of key areas; equipped with semi-fixed PTZ, whose angles can be adjusted vertically and horizontally;
- ◆ Intelligent temperature control devices can be installed inside, and the product can be applied to -60°C to +63°C harsh working conditions;
- ◆ The camera is configured with wireless module for transmitting video signals by using 4G, 5G, WIFI, and other wireless networks.

**Zones 1&2; 21&22**

# Camera

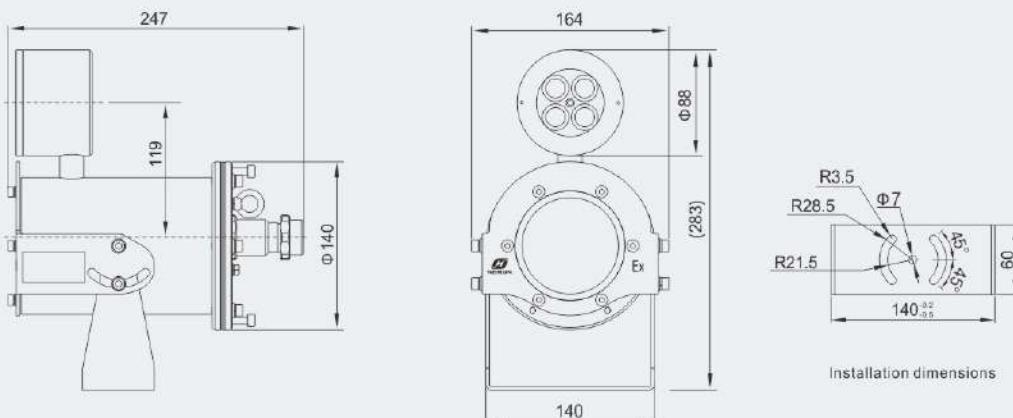
## BJK-S/GD Series Explosion-proof Camera

### Technical data

Explosion-proof camera (Ex db IIC)	BJK-S/GD□□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx TUR 22.0044X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	TÜV 22 ATEX 8864 X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN IEC 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Rated voltage</b>	176-264VAC, 88-132VAC, 24VAC, 24VDC and 12VDC
<b>Resolution</b>	2 million pixels 3 million pixels 4 million pixels
<b>Minimum illumination</b>	
Color	≤0.001lx (AGC ON)
Black & White	≤0.0001lx (AGC ON)
<b>Infrared fill light distance</b>	30m, 50m, 100m
<b>Video coding format</b>	H.265, H.264, H.264B, MJPEG
<b>Wireless module</b>	Support 4G, 5G, WIFI connection
<b>Housing material</b>	304 stainless steel or 316 or 316L
<b>Degree of protection</b>	IP66/IP68
<b>Ambient temperature</b>	-60°C~+63°C
<b>Cable gland</b>	2×M20×1.5 or NPT 1/2" inlet port, suitable for Φ6.5mm~Φ14.5mm cable
<b>Installation method</b>	Fixed bracket, base, column
<b>Weight</b>	5kg



### Dimension drawings (all dimensions in mm) - subject to alteration





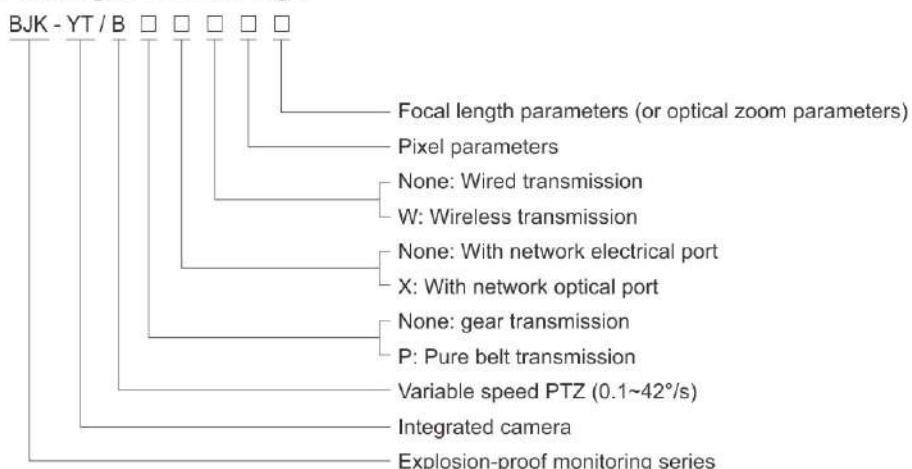
BJK-YT/B wired transmission



BJK-YT/BW wireless transmission

- ◆ Explosion protection to  
-CENELEC  
-IEC
  - ◆ Can be used in  
Zone 1 and Zone 2  
Zone 21 and Zone 22

## ■ Catalogue number logic



## ■ Product characteristics

- ◆ The explosion-proof integrated camera is used as a fixed terminal in the intelligent video surveillance system for on-site video image perception upload and other functions; the device has a variety of intelligent behavioral detection; support the linkage action of multiple trigger rules;
  - ◆ Suitable for all-round monitoring of key areas; the product supports horizontal 360° rotating and vertical ±90° rotating;
  - ◆ Intelligent temperature control devices can be installed inside, and the product can be applied to -60°C to +63°C harsh working conditions;
  - ◆ The camera is configured with wireless module for connecting with the platform by using 4G, 5G, WIFI, and other wireless networks and Internet networks.

## Zones 1&2; 21&22

## Camera

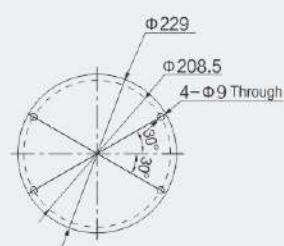
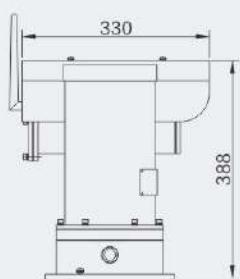
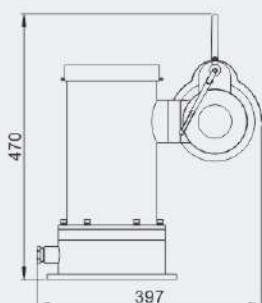
### BJK-YT/B Series Explosion-proof Integrated Camera

#### Technical data

Explosion-proof camera (Ex db IIC)	BJK-YT/B□□□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx TUR 22.0054X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	TÜV 22 ATEX 8884 X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN IEC 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Rated voltage</b>	264VAC to 176VAC, 132VAC to 88VAC, 24VAC or 24VDC
<b>Resolution</b>	2 million pixels 3 million pixels 4 million pixels
<b>Minimum illumination</b>	
Color	≤0.001lx (AGC ON)
Black & White	≤0.0001lx (AGC ON)
<b>Video coding format</b>	H.265, H.264, H.264B, MJPEG
<b>Angle adjustment</b>	Horizontal 360° rotation, vertical -90°~+90° rotation
<b>Wireless module</b>	Support 4G, 5G, WIFI connection
<b>Housing material</b>	304 stainless steel or 316 or 316L
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+63°C
<b>Cable gland</b>	M25×1.5 or NPT 3/4" inlet port, suitable for Φ10mm~Φ14mm cable
<b>Installation method</b>	Fixed bracket, base, column
<b>Weight</b>	30kg



#### Dimension drawings (all dimensions in mm) - subject to alteration



Installation dimensions

## Camera

## BJK-YT/BD Series Explosion-proof Integrated Camera



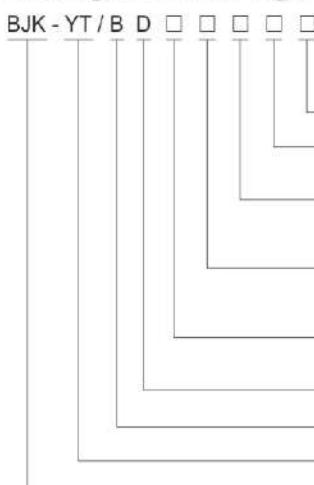
BJK-YT/BD wired transmission



BJK-YT/BDW wireless transmission

- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22

## ■ Catalogue number logic



- Focal length parameters (or optical zoom parameters)
- Pixel parameters
- None: Wired transmission
- W: Wireless transmission
- None: With network electrical port
- X: With network optical port
- None: gear transmission
- P: Pure belt transmission
- With infrared function
- Variable speed PTZ (0.1~42°/s)
- Integrated camera
- Explosion-proof monitoring series

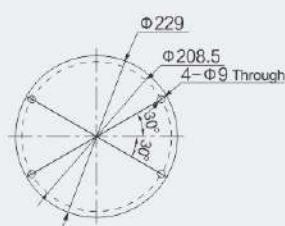
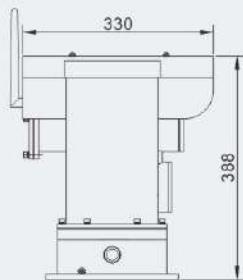
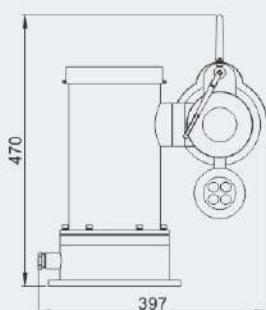
## ■ Product characteristics

- ◆ The explosion-proof integrated camera is used as a fixed terminal in the intelligent video surveillance system for on-site video image perception upload and other functions; the device has a variety of intelligent behavioral detection; support the linkage action of multiple trigger rules;
- ◆ With infrared fill light function, the light can be changed to white light as needed;
- ◆ Suitable for all-round monitoring of key areas; the product supports horizontal 360° rotating and vertical ±90° rotating;
- ◆ Intelligent temperature control devices can be installed inside, and the product can be applied to -60°C to +63°C harsh working conditions;
- ◆ The camera is configured with wireless module for connecting with the platform by using 4G, 5G, WIFI, and other wireless networks and Internet networks.

**Zones 1&2; 21&22**

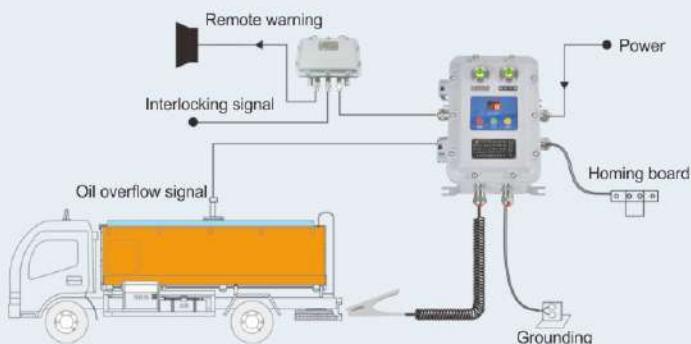
**Camera****BJK-YT/BD Series Explosion-proof Integrated Camera****Technical data**

Explosion-proof camera (Ex db IIC)	BJK-YT/BD□□□□
<b>Explosion protection</b>	
Global (IECEx)	IECEx TUR 22.0054X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	TÜV 22 ATEX 8884 X
Gas and dust	Ex II 2 G Ex db IIC T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN IEC 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
<b>Rated voltage</b>	264VAC to 176VAC, 132VAC to 88VAC, 24VAC or 24VDC
<b>Resolution</b>	2 million pixels 3 million pixels 4 million pixels
<b>Minimum illumination</b>	
Color	≤0.001lx (AGC ON)
Black & White	≤0.0001lx (AGC ON)
<b>Infrared fill light distance</b>	30m, 50m, 100m
<b>Video coding format</b>	H.265, H.264, H.264B, MJPEG
<b>Angle adjustment</b>	Horizontal 360° rotation, vertical -90°~+90° rotation
<b>Wireless module</b>	Support 4G, 5G, WIFI connection
<b>Housing material</b>	304 stainless steel or 316 or 316L
<b>Degree of protection</b>	IP66
<b>Ambient temperature</b>	-60°C~+63°C
<b>Cable gland</b>	M25×1.5 or NPT 3/4" inlet port, suitable for Φ10mm~Φ14mm cable
<b>Installation method</b>	Fixed bracket, base, column
<b>Weight</b>	30kg

**Dimension drawings** (all dimensions in mm) - subject to alteration

Installation dimensions

## Explosion-proof Online Monitoring Analysis System BXCQ Explosion-proof Overflow Static Grounding Control System

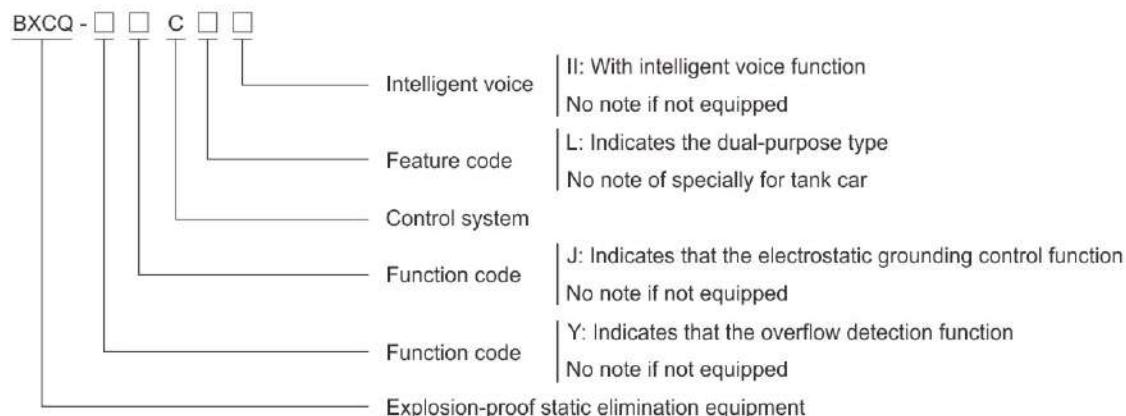


- ◆ Applied to explosive gas atmosphere Zone 1, Zone 2;
- ◆ Applied to IIA, IIB+H<sub>2</sub> explosive gas atmosphere;
- ◆ Applied to temperature group T1~T6;
- ◆ Ambient temperature: -50°C~+60°C/-60°C~+60°C;
- ◆ Widely used in monitoring and protection in petroleum, chemical, gas station, oil depot product platform, tank car assembly and disassembly, overflow static protector and quantitative loading system interlocking control. Avoid overflow accident, and ensure safety static grounding.

### Executive Standard

- ◆ EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31, EN 60079-32.
- ◆ IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31, IEC 60079-32.
- ◆ GB/T 3836.1, GB/T 3836.2, GB/T 3836.4, GB/T 3836.31.

### Catalogue number logic



### Performance Features

- ◆ The controller enclosure is flameproof type, reliable explosion-proof performance.
- ◆ Static grounding clamp has tank car identification function, ensure its installed on tank car correctly, not other electric conductor, with no-spark type grounding clamp, no spark produced when equipment impact.
- ◆ Static grounding clamp has resistance inspection and liquid level monitoring function, provide local and remote audible and visual alarm and interlocking signal for "static" and "overflow" status, which is convenient for operator to find out problem and avoid overflow accident.
- ◆ Grounding body resistance has inspection function, ensure reliable grounding of system, when electrostatic grounding is bad or grounding loop resistance >10Ω, provide alarm warning.
- ◆ With voice and LCD function, the intensity of the sound is 70~120db (the distance is 30cm).
- ◆ Relay signal output for DCS pump (valve), when grounding is not normal, cut off the operation, audible and visual alarm can still be remote controlled, remind operator the real-time status of on-site grounding.
- ◆ Red LED shows warning, green LED shows normal working, yellow LED shows standby status.
- ◆ Grounding clamp uses alloy aiding thimble, with the features of high hardness, good electric conduction, strong breaking paint and rust power, etc. ensure good grounding monitoring device.
- ◆ Grounding clamp is helix tube shrink design, with the capacities of strength anti-pull, anti-drop, etc.
- ◆ It can intelligently detect whether the human static voltage is conducted, when the human static voltage is in a dangerous value, sound and light alarm.

Zones 1&2; 21&22

# Explosion-proof Online Monitoring Analysis System

## BXCQ Explosion-proof Overflow Static Grounding Control System

Configuration selection table of system equipment

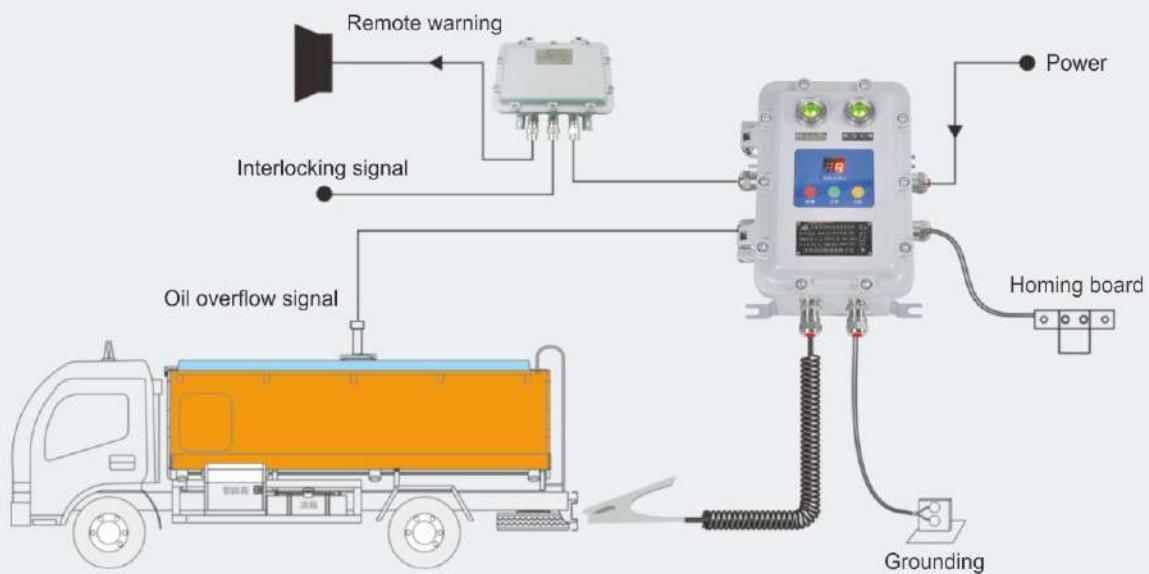
Legend	Type spec. and name	Parameters	Remark
	BXCQ-YJC Explosion-proof Overflow Static Grounding Controller	<p>Ex mark: <math>\text{Ex II 2 G Ex db ia IIB+H}_2\text{ T6 Gb}</math>  <math>\text{Ex II 2 D Ex ia tb IIIC T80}^{\circ}\text{C Db}</math></p> <p>Protection degree: IP66</p> <p>Response time: &lt;1S</p> <p>Test resistance: &lt;10Ω</p> <p>Working voltage: 100~250V AC 50/60HZ, 220V~240V AC 50/60Hz, 24V DC</p> <p>Working current: &lt;20mA</p> <p>Warning method: Interlocking signal and three color light instruction</p> <p>Output signal: Relay output, NO NC is optional, 10A 30VDC or 10A 250VAC</p> <p>Enclosure size: 200×300×170 mm</p> <p>Installation dimension: 210×230 mm</p>	Aluminium alloy enclosure
	BXCQ-JC Explosion-proof Static Grounding Controller	<p>Ex mark: <math>\text{Ex II 2 G Ex db ia IIB+H}_2\text{ T6 Gb}</math>  <math>\text{Ex II 2 D Ex ia tb IIIC T80}^{\circ}\text{C Db}</math></p> <p>Protection degree: IP66</p> <p>Response time: &lt;1S</p> <p>Test resistance: &lt;10Ω</p> <p>Working voltage: 100~250V AC 50/60HZ, 220V~240V AC 50/60Hz, 24V DC</p> <p>Working current: &lt;20mA</p> <p>Warning method: sound and light alarm (optional)</p> <p>Output signal: Relay output, NO NC is optional, 10A 30VDC or 10A 250VAC</p> <p>Enclosure size: 200×300×170 mm</p> <p>Installation dimension: 210×230 mm</p>	Aluminium alloy enclosure
	BXCQ-YC Explosion-proof Overflow Controller	<p>Ex mark: <math>\text{Ex II 2 G Ex db ia IIB+H}_2\text{ T6 Gb}</math>  <math>\text{Ex II 2 D Ex ia tb IIIC T80}^{\circ}\text{C Db}</math></p> <p>Protection degree: IP66</p> <p>Response time: &lt;1S</p> <p>Working voltage: 100~250V AC 50/60HZ, 220V~240V AC 50/60Hz, 24V DC</p> <p>Working current: &lt;20mA</p> <p>Warning method: Interlocking signal and three color light instruction</p> <p>Output signal: Relay output, NO NC is optional, 10A 30VDC or 10A 250VAC</p> <p>Enclosure size: 200×300×170 mm</p> <p>Installation dimension: 210×230 mm</p>	Aluminium alloy enclosure
	BXCQ-JCL Explosion-proof Static Grounding Controller (dual purposes of man and motor)	<p>Ex mark: <math>\text{Ex II 2 G Ex db ia IIB+H}_2\text{ T6 Gb}</math>  <math>\text{Ex II 2 D Ex ia tb IIIC T80}^{\circ}\text{C Db}</math></p> <p>Protection degree: IP66</p> <p>Response time: &lt;1S</p> <p>Test resistance: &lt;10Ω</p> <p>Working voltage: 220VAC or 24VDC</p> <p>Working current: &lt;20mA</p> <p>Warning method: sound and light alarm (optional)</p> <p>Output signal: Relay output, NO NC is optional, 10A 30VDC or 10A 250VAC</p> <p>Touching ball material: Electrostatic subconductor</p> <p>Touching ball diameter: 90mm</p> <p>Enclosure size: 200×300×170 mm</p> <p>Installation dimension: 210×230 mm</p>	Aluminium alloy enclosure
	BXJ-IIB Series Explosion-proof Junction Box	<p>Ex mark: <math>\text{Ex II 2 G Ex db IIB+H}_2\text{ T6 Gb}</math>  <math>\text{Ex II 2 D Ex tb IIIC T80}^{\circ}\text{C Db IP66}</math></p> <p>Protection degree: IP66</p>	Aluminium alloy enclosure
	Static Grounding Clamp	<p>Clamp tooth material: Tungsten alloy</p> <p>Opening range:</p> <p>Clamp body material: 304 (316 optional)</p>	
	Corrosion Resistance Helical Line	<p>Cable material: Copper wire</p> <p>Surface material: PU</p> <p>Standard equipment length: 7m</p>	The length of helical Line is customized, the max length is 15m
	Homing board	Material: 304 stainless steel	



## Explosion-proof Online Monitoring Analysis System BXCQ Explosion-proof Overflow Static Grounding Control System

### Typical scheme diagram

BXCQ-YJC/(II)  
Explosion-proof Overflow Static Grounding Control System (Voice prompt function)



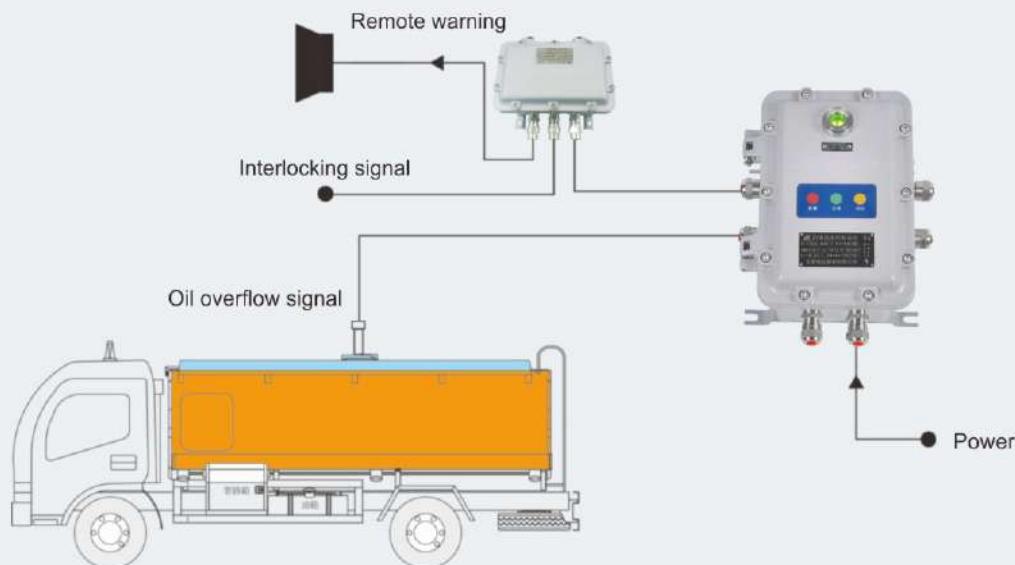
BXCQ-JC  
Explosion-proof Static Grounding Control System



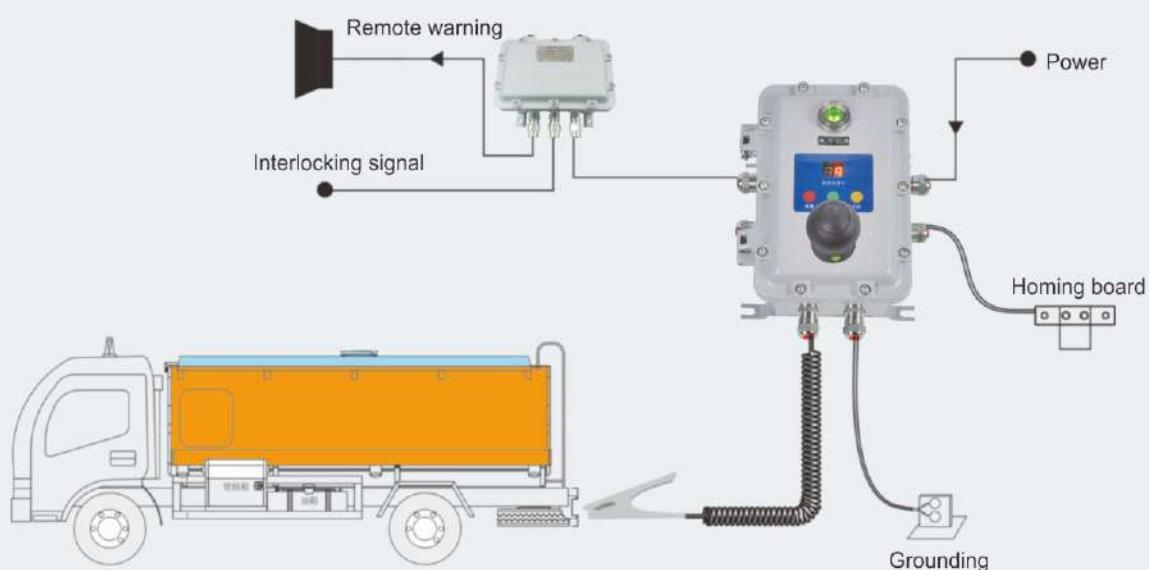
## Explosion-proof Online Monitoring Analysis System BXCQ Explosion-proof Overflow Static Grounding Control System

### Typical scheme diagram

BXCQ-YC  
Explosion-proof Overflow Control System

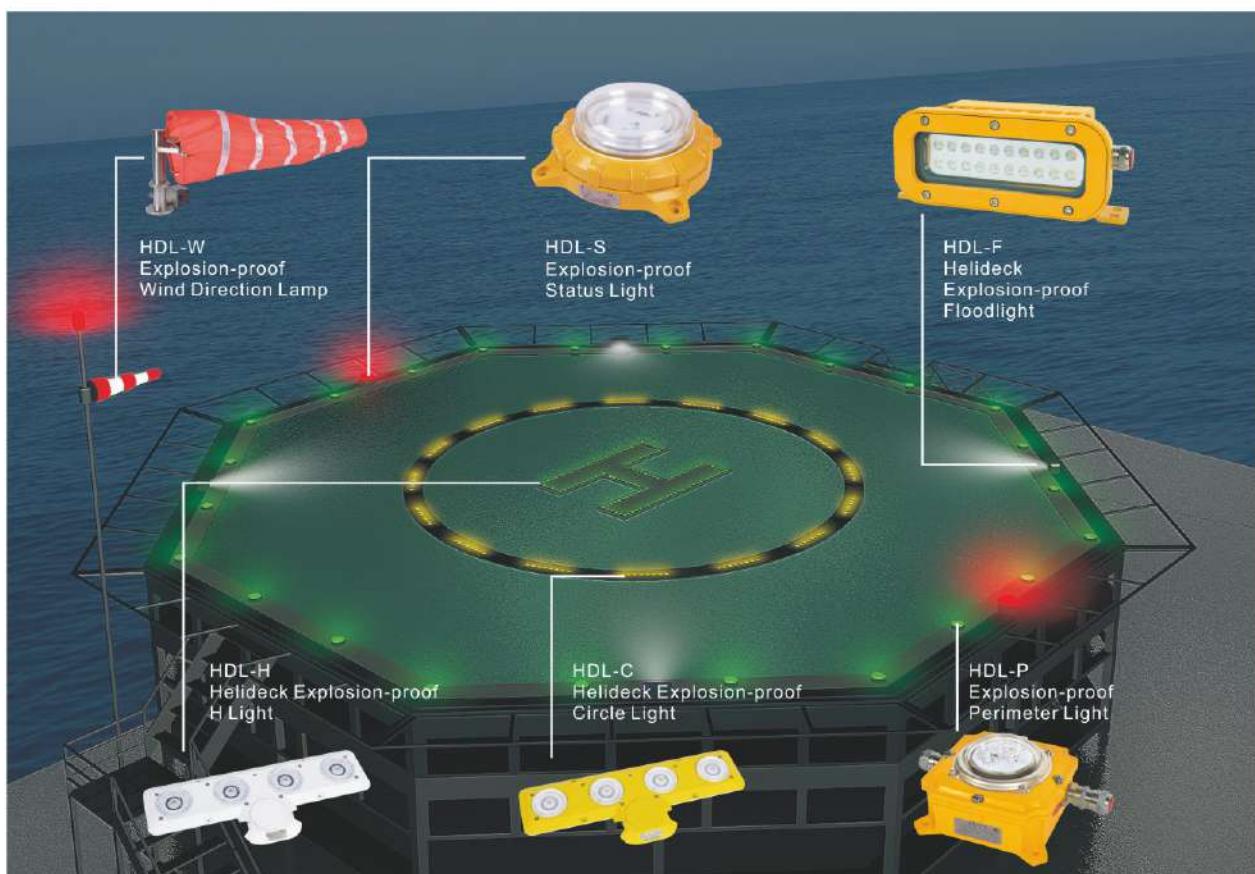


BXCQ-JCL  
Explosion-proof Static Grounding Control System (dual purposes of man and motor)



## Helicopter Platform

### Helicopter Landing Platform Aid System



#### ■ Application

- ◆ Widely used for landing aid signal on helideck of marine engineering oil and gas drilling platforms and ships etc. hazardous area.
- ◆ Can reliably work in severe environment susceptible to moisture, vibration, or corrosion.
- ◆ Explosive hazardous atmosphere Zone 1, Zone 2, Zone 21 and Zone 22.

#### ■ Executive Standard

- ◆ Comply with CAP 437 ICAO Annex 14, IMO standard requirements.
- ◆ Comply with IEC60079, EN60079, GB/T3836 standards.

#### ■ System Features

- ◆ High-performance explosion-proof security
- ◆ Long-life LED light source > 100000h
- ◆ High degree of protection: IP66 / IP67
- ◆ High anti-corrosion design, adapt to the marine environment
- ◆ Temperature: -40°C ~ +55°C

**Zones 1&2; 21&22**

## Helicopter Platform

### Helicopter Landing Platform Aid System

#### Field Application

We attach importance to the quality of the products and pay attention to the needs of our customers.

The products have been applied to many projects at home and abroad. Well received by the users!

Welcome your opinion and feedback.



Control panel



Effect Map of Helicopter Landing Platform Aid System



Helideck Explosion-proof Floodlight



Night View Map of Helicopter Landing Platform Aid System



Explosion-proof Wind Direction Lamp



Explosion-proof Perimeter Light

## Helicopter Platform

### Helicopter Landing Platform Aid System

#### Helideck landing aid signalisation lighting system

- ◆ Systematically meet CAP 437, ICAO standards;
- ◆ All the products and accessories installed on the platform of the helicopter platform are suitable for mounting in the range of ambient temperature(-40°C~+55°C);
- ◆ All explosion proof lamps and exposed fasteners installed on helicopter platforms can resist the corrosion of ocean environment.
- ◆ All lamps meet at least the requirements of the IEC international protection (IP) standard IP66, i. e. Dust proof and strong water injection.

HDL-H  
Helideck Explosion-proof H Light



Ex II 2 G Ex db eb IIC T6 Gb  
Ex II 2 D Ex tb IIIC T80°C Db IP66/IP67

- ◆ Enclosure uses high quality maritime aluminium alloy, which is applied to the ocean environment.
- ◆ LED green light source, service life is up to 100000 hours.
- ◆ Standard light and bright light of light fittings can be switched through controlling the system and the dimming instruction of light fittings.
- ◆ Professional optics software designed secondary light distribution system, conform to CAP437 standard requirements.
- ◆ Total height is less than 25mm, protection degree IP66/IP67/IP69.

HDL-C  
Helideck Explosion-proof Circle Light



Ex II 2 G Ex db eb IIC T6 Gb  
Ex II 2 D Ex tb IIIC T80°C Db IP66/IP67

- ◆ Enclosure uses high quality maritime aluminium alloy, which is applied to the ocean environment.
- ◆ LED yellow light source, service life is up to 100000 hours.
- ◆ Standard light and bright light of light fittings can be switched through controlling the system and the dimming instruction of light fittings.
- ◆ Professional optics software designed secondary light distribution system, conform to CAP437 standard requirements.
- ◆ Total height is less than 25mm, protection degree IP66/IP67/IP69.

HDL-P  
Explosion-proof Perimeter Light



Ex II 2 G Ex db eb IIC T6 Gb  
Ex II 2 D Ex tb IIIC T80°C Db IP66/IP67

- ◆ Enclosure is precision casting by 316 stainless steel, powder coated on surface after finish machining, strong corrosion resistance.
- ◆ LED green light source, service life is up to 100000 hours.
- ◆ Professional optics software designed secondary light distribution system, conform to CAP437 standard requirements.
- ◆ Protection degree IP66/IP67.

## Helicopter Platform

### Helicopter Landing Platform Aid System

#### Helideck landing aid signalisation lighting system

HDL-F  
Helideck Explosion-proof Floodlight



Ex II 2 G Ex db eb mb op is IIC T5 or T4 Gb  
Ex II 2 D Ex op is tb IIIC T95°C or T130°C Db

- ◆ Enclosure uses maritime aluminium alloy, powder coated on surface after preservative treatment.
- ◆ LED white light source, service life is up to 100000 hours.
- ◆ In-built constant voltage constant current driving power, wide voltage input, constant power output, fast start, stable performance, surge resistance, overcurrent, open circuit, short circuit, etc. protection function.
- ◆ Total height is less than 135mm, protection degree IP66/IP67.

HDL-S  
Explosion-proof Status Light



Ex II 2 G Ex db eb mb IIC T6 Gb  
Ex II 2 D Ex tb IIIC T80°C Db IP66

- ◆ Enclosure uses maritime aluminium alloy, powder coated on surface after preservative treatment.
- ◆ Professional optics software designed secondary light distribution system, conform to CAP437 standard requirements.
- ◆ Through the control system, status instructions are given to the lamps. The red LED light source flashes and gives warning signals.
- ◆ Protection degree IP66.

HDL-W  
Explosion-proof Wind Direction Lamp



Ex II 2 G Ex db eb op is IIC T6 Gb  
Ex II 2 D Ex tb op is IIIC T80°C Db



- ◆ Enclosure uses maritime aluminium alloy, powder coated on surface after preservative treatment.
- ◆ Professional optics software designed secondary light distribution system, conform to CAP437 standard requirements.
- ◆ Through the control system, status instructions are given to the lamps. The red LED light source flashes and gives warning signals.
- ◆ Protection degree IP66.

HRMD91  
Explosion-proof Distribution Panels



Ex II 2 G Ex db IIB+H<sub>2</sub> T6 Gb  
Ex II 2 D Ex tb IIIC T80°C Db IP66

- ◆ Copper-free Aluminium Alloy enclosure, powder coated surface.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.

## Explosion-proof Computer System HRS900 Series Explosion-proof Tablet



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2

### ■ Product characteristics

- ◆ This product is a professional explosion-proof tablet with waterproof, compression-resistant, drop-resistant structural design, and with the built-in barometric pressure sensor, e-compass, NFC and other sensors, safety and security for work and travel is greatly increased.



### ■ Product advantages

#### Indestructible Quality

- ◆ In order to push the quality of products to the limit, we conduct rigorous physical tests.
- ◆ Its functionality and performance have also been comprehensively evaluated.
- ◆ It is able to withstand the harshest conditions and deliver reliable performance in demanding environments.

#### Confronting Any Challenges

- ◆ A variety of technical guarantees for security , to provide safe and stable communication services in dangerous environments such as flammable and explosive gases.
- ◆ Easily cope with all kinds of harsh and extreme environments such as special operations, outdoor exploration, extreme sports or emergency rescue.

#### NFC Seamless Business Operations

- ◆ NFC-enabled products enhance business mobility and connectivity.
- ◆ Verify employee IDs and scan barcodes to make your business truly mobile and linked.

**Zones 1&2**

# Explosion-proof Computer System

## HRS606 Series Explosion-proof Tablet

Technical data	
Explosion-proof Tablet	HRS900
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas	Ex ib IIC T4 Gb
Europe (ATEX)	ATEX (applied for)
Gas	Ex II 2 G Ex ib IIC T4 Gb
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN IEC 60079-0, EN 60079-11, IEC 60079-0, IEC 60079-11
<b>Processor</b>	8 x MT8781 2.2GHz
<b>Operating system</b>	Android 13
<b>Cellular models</b>	GSM/WCDMA/CDMA/TDD-LTE/FDD-LTE
<b>Frequency bands</b>	
GSM	B2/3/5/8
WCDMA	B1/2/4/5/6/8/19
CDMA	BC0/BC1/BC10
FDD-LTE	B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28A/28B/66
TDD-LTE	B34/38/39/40/41
<b>SIM card</b>	SIM card, Nano SIM card, T card; hot-pluggable, dual standby
<b>Display</b>	11 inch FHD with IPS 1200*2000
<b>Camera</b>	Front camera 1600W pixels, rear camera 4800W pixels with one flashing light
<b>Face ID</b>	Provided
<b>RAM+Data memory</b>	8GB+256GB; TF could be extended to 256GB(Max. 2 TB)
<b>Battery</b>	Lithium-polymer battery (4.4V high voltage cell)
<b>Dimensions</b>	277.8×178×14mm
<b>Weight</b>	1008g
<b>Color</b>	Black+yellow
<b>Degree of protection</b>	IP68
<b>Ambient temperature</b>	-40°C~+60°C
<b>Touchscreen</b>	Capacitive 10 points touch screen, can be operated with gloves and stylus
<b>Speakers</b>	1326 dual box speakers
<b>Microphone</b>	Silicon microphone
<b>Charging</b>	Type-C USB 2.0
<b>Bluetooth</b>	BT 5.2
<b>WLAN</b>	WIFI(2.4G/5G)/WIFI 6
<b>GPS sensor</b>	GPS+GLONASS+BDS+Galileo
<b>Sensor</b>	Light sensor, acceleration sensor, gravity sensor, gyroscope, geomagnetic sensor, barometric pressure sensor, electricity meter, pedometer
<b>Touch ID</b>	Provided
<b>OTG connect</b>	Provided
<b>FM transmission</b>	Provided
<b>POC cellular</b>	Global POC public network intercom, Fast and convenient communication in distance (single call, group call, broadcast, one call and multiple responses) POC public network intercom, preset POC key for public network intercom

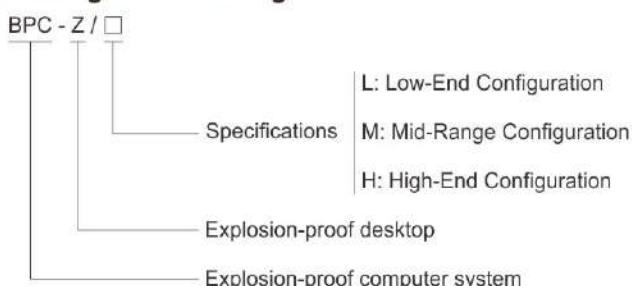


## Explosion-proof Computer System BPC-Z Series Explosion-proof Desktop



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22

### ■ Catalogue number logic



### ■ Product features

- ◆ The explosion-proof enclosure is welded by stainless steel, with a brushed finish on its surface.
- ◆ The system is equipped with Intel ATOM D series low-power high-performance processor solutions, offering comprehensive functionalities and strong environmental adaptability.
- ◆ It utilizes a miniaturized, low-power, high-performance embedded full-scale computer, featuring a compact structure and fanless design, with the enclosure also serving as a heat sink.
- ◆ Hard connections between internal modules enhance the reliability of signal conversion and assembly efficiency, significantly increasing the mean time between failures and reducing maintenance time.
- ◆ It features a wide voltage input, incorporating anti-reversal and over-current, over-voltage protection designs, ensuring normal operation in unstable voltage and supporting remote start-up and shutdown interfaces.
- ◆ The system employs high-quality wide temperature industrial-grade components, catering to industrial sites and special industry applications.

**Zones 1&2; 21&22**

# Explosion-proof Computer System

## BPC-Z Series Explosion-proof Desktop

### Technical data

#### Explosion-proof desktop BPC-Z

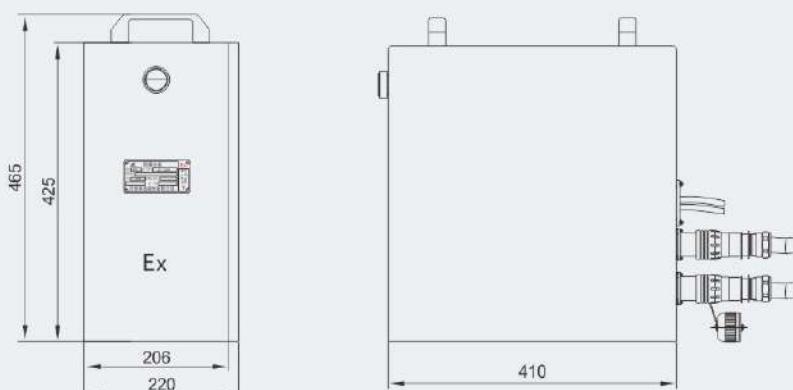
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db eb [ib] IIB T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for)
	$\text{Ex}$ II 2 G Ex db eb [ib] IIB T6 Gb
	$\text{Ex}$ II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-11, IEC 60079-31 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-11, EN 60079-31
<b>Degree of protection</b>	IP66

### Selection table

Product Model	BPC-Z/L	BPC-Z/M	BPC-Z/H
Configuration	Low-End Configuration	Mid-Range Configuration	High-End Configuration
Processor	Intel® H61	Intel® H61	Intel® Q77
CPU	Pentium Duo G2120 3.1G	Core Quad-Core 4 Threads i5-2400 3.1G	Core Quad-Core 8 Threads i7-2600 3.4G
Memory	2GB, supporting up to 16GB with two memory slots		
Hard Drive	500G	500G	1TB
Storage	4×SATA 2.0 Interfaces	4×SATA 2.0 Interfaces	6×SATA Interfaces with hot-swappable
Graphics Card	Discrete Graphics Card with 1GB memory		
Network Ports	2×10/100/1000Mbps	2×10/100/1000Mbps	2×Gigabit Ethernet Ports, supporting Wake-on-LAN and AMT 8.0 features
Watchdog Timer	255 Levels, programmable seconds/minutes, triggering interrupt on timeout or system reset		
Power Supply	250W	350W	350W
Operating Environment	-10°C~+60°C; 10%~90% (non-condensing state)	-10°C~+60°C; 10%~90% (non-condensing state)	-5°C~+60°C; 10%~90% (non-condensing state)



### Dimension drawings (all dimensions in mm) - subject to alteration

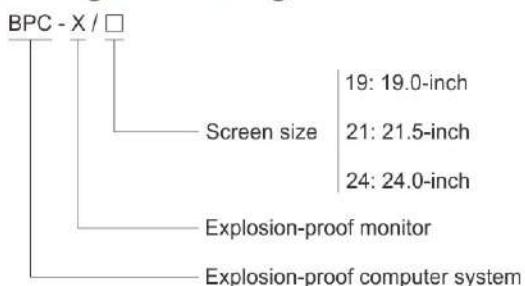


## Explosion-proof Computer System BPC-X Series Explosion-proof Monitor



- ◆ Explosion protection to  
-CENELEC  
-IEC
- ◆ Can be used in  
Zone 1 and Zone 2  
Zone 21 and Zone 22

### ■ Catalogue number logic



### ■ Product features

- ◆ Implements high-reliability industrial-grade monitors with explosion-proof treatment, featuring adjustable screen brightness, contrast, and menu functions;
- ◆ Installation: panel-type, wall mount, and VESA standard arm mount;
- ◆ High-brightness LCD screen;
- ◆ Enclosure constructed from high-quality stainless steel;
- ◆ Overall protection rating of IP66.

**Zones 1&2; 21&22**

# Explosion-proof Computer System

## BPC-X Series Explosion-proof Monitor

### Technical data

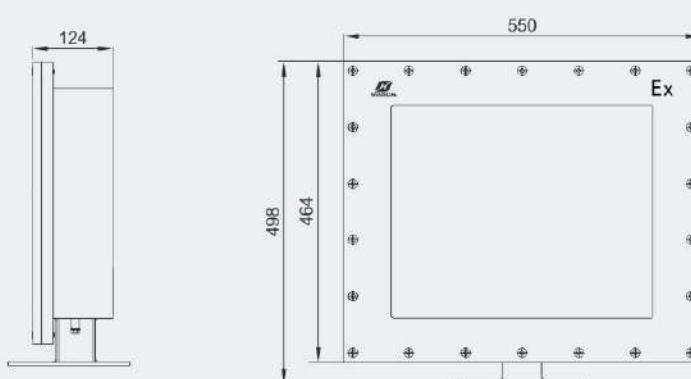
Explosion-proof Monitor	BPC-X
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db IIB T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for)
	$\text{Ex}$ II 2 G Ex db IIB T6 Gb
	$\text{Ex}$ II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	IEC 60079-0, IEC 60079-1, IEC 60079-31
	EN 60079-0, EN 60079-1, EN 60079-31
<b>Degree of protection</b>	IP66

### Selection table

Product Model	BPC-X/9	BPC-X/21	BPC-X/24
Screen Size	19.0 inches	21.5 inches	24.0 inches
Optimal Resolution	1280×1024	1920×1080	1920×1080
Aspect Ratio	5:4	16:9	16:9
Panel Type	IPS	VA	IPS
Backlight Type	LED	LED	W-LED
Static Contrast Ratio	1000:1	3000:1	1000:1
Response Time	8ms	8-12ms	8ms
Luminance	250cd/m <sup>2</sup> (>600cd/m <sup>2</sup> optional)	250cd/m <sup>2</sup> (>600cd/m <sup>2</sup> optional)	250cd/m <sup>2</sup> (>600cd/m <sup>2</sup> optional)
Viewing Angle	178/178°	178/178°	178/178°
Color Gamut	16.7M	16.7M	16.7M
Video Interface	D-Sub(VGA), HDMI, Displayport	HDMI, D-Sub(VGA)	D-Sub(VGA), HDMI, Displayport
Other Interfaces	USB3.0×2 USB2.0×2	DP	USB3.2 Gen1 upstream USB3.2 Gen1×4
Power Performance	120-230V, 50-60Hz	100-240V AC, 50-60Hz	100-240V AC, 50-60Hz
Power Consumption	≤14W	≤22W	≤48W



### Dimension drawings (all dimensions in mm) - subject to alteration



This diagram depicts a 19-inch model.

## Explosion-proof Computer System

### BPC-XM Series Explosion-proof Monitor (Touch-integrated)



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22

#### ■ Catalogue number logic

BPC - XM / □	
	12: 12.1-inch
Screen size	15: 15.0-inch
	17: 17.0-inch
	19: 19.0-inch
	21: 21.5-inch
	Explosion-proof monitor (Touch-integrated)
	Explosion-proof computer system



#### ■ Product features

- ◆ Explosion-Proof Human-Machine Interface (HMI) with touch capability, offering high efficiency and sensitivity, enabling direct touch in explosion-proof zones;
- ◆ Dual-NIC standard configuration provides network redundancy, enhancing client availability on the network;
- ◆ Fanless design featuring unique and innovative high-efficiency thermal management, preventing shutdowns caused by fan failures;
- ◆ Wide-screen display maintains the same resolution as DCS system operator stations, achieving optimal quality and viewing experience;
- ◆ Support direct communication with PLCs, facilitating seamless data exchange with connected devices;
- ◆ Specially designed for hazardous industrial environments, this integrated explosion-proof HMI operates via touch, supports onboard intrinsic safety keyboards, and explosion-proof mice, and is widely used in information and automation control systems across explosive hazard sites.

**Zones 1&2; 21&22**

# Explosion-proof Computer System

## BPC-XM Series Explosion-proof Monitor (Touch-integrated)

### Technical data

#### Explosion-proof monitor (Touch-integrated) BPC-XM

##### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db IIB T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for) Ex II 2 G Ex db IIB T6 Gb

##### Certificates

Conformity to standards	IEC 60079-0, IEC 60079-1, IEC 60079-31 EN 60079-0, EN 60079-1, EN 60079-31
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##### Degree of protection

Brightness	350cd/m <sup>2</sup> (>600cd/m <sup>2</sup> optional)
Operating Mode	Fingertip or touch-pen operation (explosion-proof keyboard and mouse optional)

##### CPU

Memory	8 GB(16GB, 32GB optional)
Storage	128G SSD(256G, 512G, 1T SSD optional)

##### Ethernet

Ethernet	2*10/100/1000 Mbps Ethernet/R45
Serial Port	4 * RS485 /RS422 /RS232

##### USB

Operating System	win 7, win 10, win 11, Kirin (Domestic version)
Operating Temperature	-40°C~+60°C

##### Operating Voltage

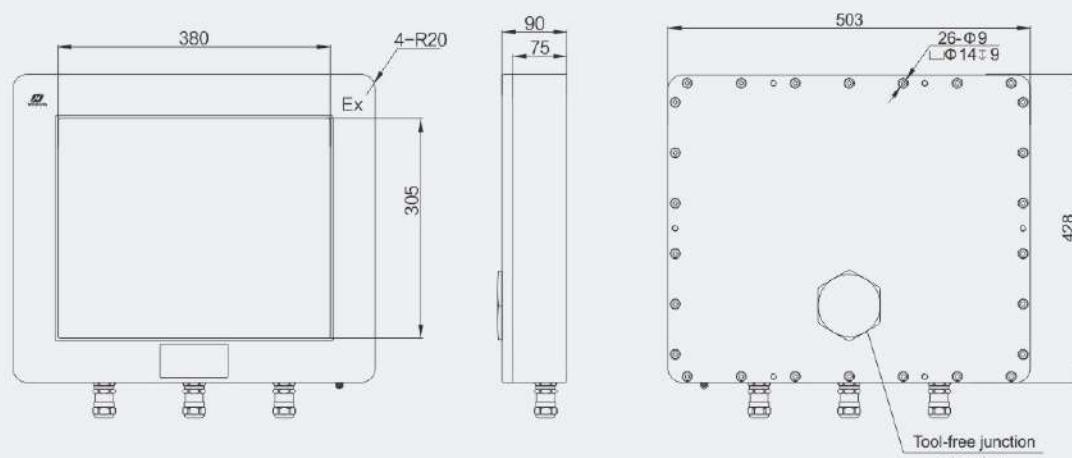
Installation Method	Wall-mounted, flush-mounted on front panel, optional column-/cantilever-/wall-mounted console



### Selection table

Product Model	BPC-XM/12	BPC-XM/15	BPC-XM/17	BPC-XM/19	BPC-XM/21
Screen Size	12.1"	15"	17"	19"	21.5"
Resolution	1024*768(4:3)		1280*1024(5:4)		1920*1080(16:9)
Unit Weight	16Kg	24Kg	30Kg	34Kg	36Kg

### Dimension drawings (all dimensions in mm) - subject to alteration



This diagram depicts a 19-inch model.

## Explosion-proof Computer System BPC-J Series Intrinsic Safety Keyboard



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22

### ■ Catalogue number logic



### ■ Product features

- ◆ Special industrial keyboard subject to intrinsic safety and explosion-proof treatment, with reliable anti-explosion performance and stable operation;
- ◆ High-strength aluminum alloy enclosure, stainless steel keyboard keys, weather-proof, protection rating IP66;
- ◆ 69-key general operating keyboard for convenient operation;
- ◆ Equipped with PS/2 or USB interface for user flexibility.

**Zones 1&2; 21&22**

# Explosion-proof Computer System

## BPC-J Series Intrinsic Safety Keyboard

### Technical data

#### Intrinsic safety keyboard BPC-J

##### Explosion protection

Global (IECEx)	IECEx (applied for)
Gas and dust	Ex ib IIB T6 Gb
Europe (ATEX)	Ex tb IIIC T80°C Db
Gas and dust	ATEX (applied for)
	Ex II 2 G Ex ib IIB T6 Gb
	Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

Conformity to standards	IECEx; ATEX
	IEC 60079-0, IEC 60079-11, IEC 60079-31

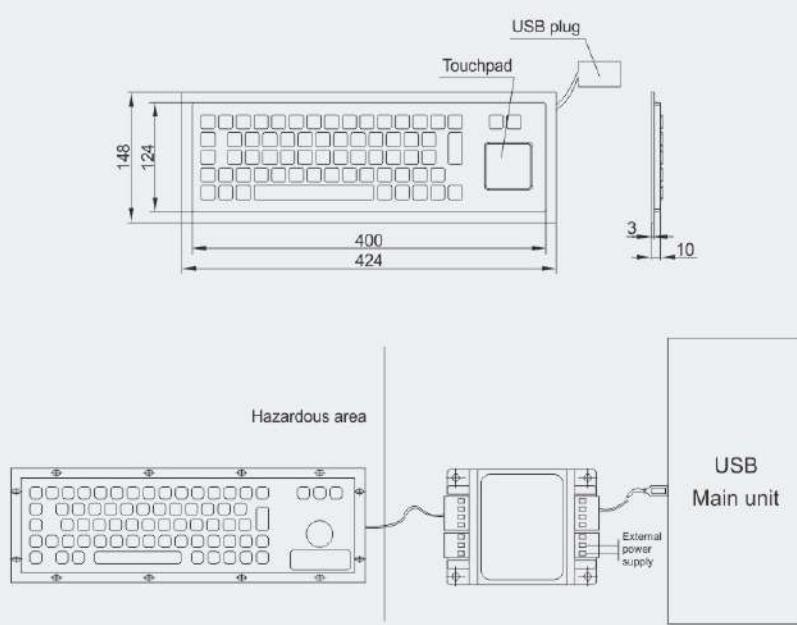
##### Degree of protection

Maximum input voltage	DC7.0V
Maximum input current	282mA
Maximum input power	494mW
Maximum internal capacitance	13.4μF
Maximum internal inductance	0mH

Port	USB2.0
Electromagnetic radiation	EN50081-1
Electromagnetic immunity	EN50082-1
Key travel distance	2mm
Key pressure	120g

Service life	5×10 <sup>6</sup> times
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### Dimension drawings (all dimensions in mm) - subject to alteration



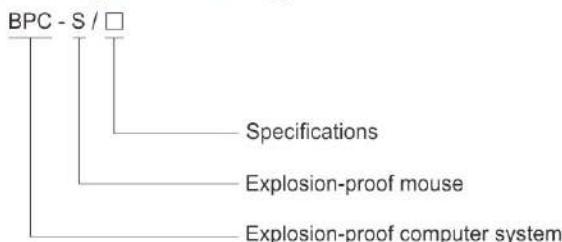
Note: this keyboard needs to be used in conjunction with our company's bpc-a explosion-proof safety bar.

## Explosion-proof Computer System BPC-S Series Explosion-proof Mouse



- ◆ Explosion protection to  
-CENELEC  
-IEC
- ◆ Can be used in  
Zone 1 and Zone 2

### ■ Catalogue number logic



### ■ Product features

- ◆ The explosion-proof mouse features a silicone shell and is equipped with an industrial-grade gold-plated PCB control board, enabling precise and rapid cursor positioning with an extremely comfortable and smooth operation, free of any noise.
- ◆ This mouse has undergone intrinsic safety explosion-proof treatment, ensuring stable signals and high safety performance.

**Zones 1&2; 21&22**

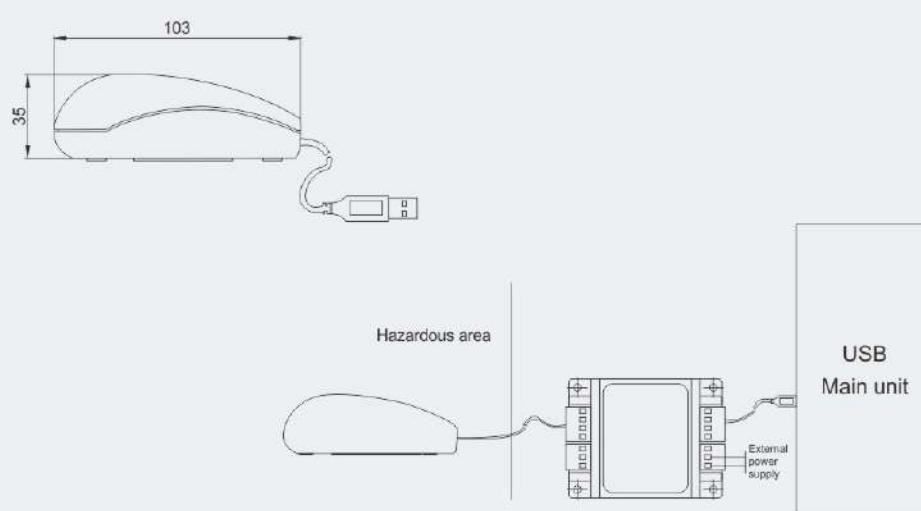
# Explosion-proof Computer System

## BPC-S Series Explosion-proof Mouse

### Technical data

Explosion-proof mouse	WR-BPC-S
<b>Explosion protection</b>	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex ib IIB T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ex II 2 G Ex ib IIB T6 Gb Ex II 2 D Ex tb IIIC T80°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	IEC 60079-0, IEC 60079-11, IEC 60079-31 EN 60079-0, EN 60079-11, EN 60079-31
<b>Degree of protection</b>	IP66
<b>Maximum input voltage</b>	DC7.0V
<b>Maximum input current</b>	282mA
<b>Maximum input power</b>	494mW
<b>Maximum internal capacitance</b>	12µF
<b>Maximum internal inductance</b>	0mH
<b>Port</b>	USB2.0

### Dimension drawings (all dimensions in mm) - subject to alteration



Note: This mouse is designed for use in conjunction with our company's BPC-A explosion-proof safety barrier.

## Explosion-proof Computer System

### BPC-A Series Safety Barrier for Explosion-proof Keyboard and Mouse



- ◆ Explosion protection to
  - CENELEC
  - IEC
- ◆ Can be used in
  - Zone 1 and Zone 2

#### ■ Catalogue number logic



#### ■ Product features

- ◆ Is formed from flame-retardant anti-arc plastic, with the entire circuit encapsulated within the enclosure and sealed with flame-retardant epoxy resin to prevent abnormal contact of components and eliminate the possibility of external mixed contact.
- ◆ Features clearly marked intrinsic safety terminals; the distance between the terminals, the creepage distance of the distance between the terminals, the enclosure, the printed board, and the sealing material, the electrical clearance, and the relative trace index, are all in line with the relevant provisions of the GB/T 3836.4 standard;
- ◆ Displays terminal identifiers on the exterior, facilitating product identification and preventing misconnection.
- ◆ The safety barrier for BPC-A intrinsic safety keyboard and mouse is an intrinsic safety device. It serves as a safety protection feature in the explosion-proof system as an intrinsic safety associated device for the keyboard and mouse. It serves as a link between intrinsic safety keyboards and explosion-proof mice in hazardous areas and computers or industrial PC in safe areas (the safety barrier should be located in the safe zone). Under normal operation, it does not affect the measurement system's detection and control functions. In fault states (e.g., abnormal high voltages from the computer or industrial PC), the safety barrier restricts excessive energy from entering hazardous areas. Utilizing its multifunctional protective features of voltage and current limitation and rapid circuit disconnection ensures safe use of intrinsic safety keyboards and explosion-proof mice in hazardous areas.
- ◆ The safety barrier for BPC-A intrinsic safety keyboard and mouse can be combined with various on-site intrinsic safety keyboards and explosion-proof mice to form intrinsic safety explosion-proof systems, thereby achieving the automation process control of the modern industrial.

**Zones 1&2**

# Explosion-proof Computer System

## BPC-A Series Safety Barrier for Explosion-proof Keyboard and Mouse

### Technical data

#### Safety barrier for explosion-proof keyboard and mouse BPC-A

##### Explosion protection

Global (IECEx) IECEx (applied for)

Gas [Ex ib Gb] IIC

Europe (ATEX) ATEX (applied for)

Gas  $\text{Ex II2 G [Ex ib Gb] IIC}$

##### Certificates

IECEx; ATEX IEC 60079-0, IEC 60079-11

EN 60079-0, EN 60079-11

##### Degree of protection

IP66

##### Operating environmental temperature

-20°C~+40°C

##### Maximum input voltage

DC7.0V

##### Maximum input current

282mA

##### Maximum input power

494mW

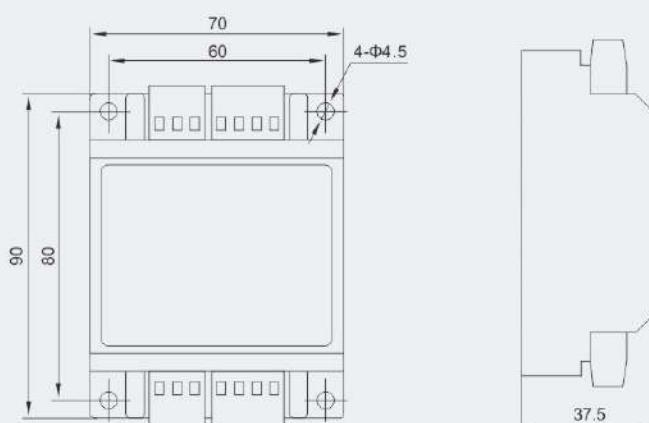
##### Maximum internal capacitance

13.7 $\mu$ F

##### Maximum internal inductance

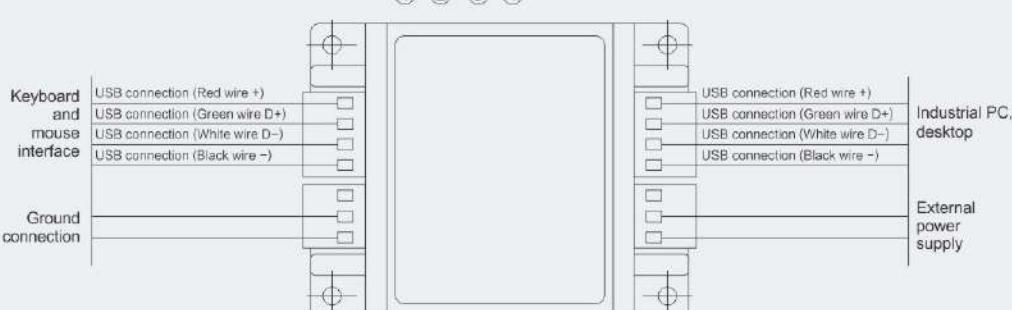
280 $\mu$ H

### Dimension drawings (all dimensions in mm) - subject to alteration



#### USB interface definition

- ① - (Power)
- ② D+ (Data)
- ③ D- (Data)
- ④ + (Power)



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