



# 光电传感器

**Photoelectric sensors** 

镜片反射型 (Polarizing lens reflective type) EN18P: 500cm; EN50: 1000CM



Riding the wind and waves to guide the security industry into a more beautiful realm.

## Brief Introduction

企业简介

上海本烜电气科技有限公司其前身是一家集设计开发、生产、销售于一体的专业的传感器的制造商。我公司拥有独立的研发部门,专业的生产团队,并吸取众家之长,所设计的产品在品质、外观均可与任何厂家媲美。

我们产品涵盖电感接近传感器、电容式接近传感器、霍尔传感器、光电传感器、 固态继电器、固态调压器及开关电源。我们一直致力于通过不断研发和质量管理, 以高品质和多种类的产品及优质的服务来满足用户的需要。

公司以完善的组织架构和技术实力,保证了生产效率,以高度的灵活性为客户提供优质的服务,大部分产品通过欧共体 CE 认证,并始终贯彻执行"今天的质量,明天的市场"的质量方针,使企业得到了飞速的发展。

quifm 在中国已被业界公认为传感器行业的领导品牌,并日益成为全球工控领域的知名品牌。

Shanghai Nature Beyond Electric Technology Co.,LTD is a sensor manufacturer, specialized in research and development, production and marketing. We have independent department and technical office for research and development. We also manage to accumulate other companies' strong points so that the products could compare with others about both the quality and the outward appearances.

Our production mainly deals with 9 varieties of products, including inductive proximity switch, capacitance proximity switch, hall switch, photoelectric sensor, color mark sensor, solid state relay, solid state regulator and magnetic transducer. We have been dedicated to improving the management of both technical and quality development as well as our services.

By sticking to the quality guideline that Today's Quality Should be the Assurance of Tommorrow's Market and with the efforts of the whole staff, our company has got the international quality approvals by ISO9001:2000 ststem and has developed the products into the advanced standard of the world with majority of them having gained CE approvals by European Community.

QWIFM, has been the leading brand in sersor market and gained its global reputation among industrial areas.

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EN50 Series Long Distance DC Voltage series sensor

EN50 Series Standard Distance wide Voltage series sensor

EN50 Series Standard distance DC Voltage series sensor

**TD Series Electrical Accessories** 

#### EN Series Photoelectric Sensor

#### 光电传感器概念

光电传感器是利用光线检测物体的传感器的统称,是由传感器的发射部分发射 光信号并经检测物体的反射、阻隔和吸收,再被接受部分检测并转换为相应电 信号来实现控制的装置。

#### 光电传感器特点

- 非接触式检测,传感器使用寿命长,对被检测物无损害。
- 适用于长距离检测,用途广泛。
- 适用的被检测物种类众多,对光线传播有影响的物体均可。
- 响应频率高,适用于高速流水线检测使用。
- 检测精度高,能用于不同的色彩分辨。
- 采用自主研发的 IC, 抗强光干扰。



Photoelectric sensor is a sensor that uses light to detect objects collectively, the light signal emitted by the sensor by detecting objects it shot, block and absorb longer accepted part of the detected and converted into corresponding electrical signal to the control device.

#### CHARACTERISTICS OF PHOTOELECTRIC SENSORS

- Non-contact detection, long sensing life, no damage to the objects to be detected.
- Suitable for long-distance detection of a wide range of uses.
- Applicable to a variety of subjects, also suitable to the objects which may affect ray propagating.
- High frequency response, suiteable for the use of the high speed line detection.
- high detection precision, different colors can be uesd to distinguish.
- Use IC of independent research and development, Anti–glare interference.

#### 光电传感器型号构成及含义 /MODEL COMPOSITION AND DEFINITION OF INFRARED RAY PHOTOELECTRIC SWITCH.

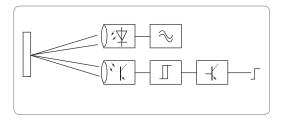
 $\frac{\text{EN}}{1}$   $\frac{18P}{2}$   $-\frac{D1}{3}$   $\frac{\text{T}}{4}$   $\frac{10}{5}$   $\frac{\text{N}}{6}$   $\frac{\text{A}}{7}$   $\frac{\text{I}}{8}$ 

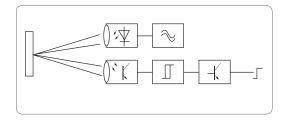
编号 N.o	构成 Composition	代码及含义 Code and definition				
1	基本形式 Basic form	EN: 第三代光电式传感器(远距离) ENO: 激光传感器 EN: Third generation photoelectric sensor(Long distance)				
2	外形编号 Outward appearance code	M18: 金属螺纹式外形 M18×118M: 短金属外壳 M18×118P: 塑料外壳 M18×1 M18: Metal thread type M18×118M:Short metal type M18×118P:Plastic shell M18×1				
3	工作电压 Working voltage	D1:12-24VDC(10-30VDC) D2:5-24VDC D3:6-36VDC D4:10-60VDC D0: 特殊电压 Special voltage A1:20-250VAC A2:90-250VAC U:24-240VDC 36-240VAC				
4	检测方式 Detection way	T: 漫反射型 (扩散反射型 ) S: 反馈反射型 (镜面反射型 ) E: 对射型接收器 E1: 对射型发射器 U: 槽型 Y: 背景抑制型 T:diffused reflection type(scattered reflection type) E:correlation type E1:correlation type U:Groove type				
5	检测距离 Detection distance	10:10cm 100:100cm 1000:1000cm				
6	输出形式 Output form	N: NPN				
7	输出状态 Output state	A: 常开 B: 常闭 C: 常开 + 常闭 A: Normally open B: Normally close C: Normally open+normally close				
8	引线长度 Lead length	无: 2M 5: 5m 15: 15m W: 弯插引线 Z: 直插引线 NO: 2M 5: 5m 15: 15m W: Bending-plug cable Z: Straight-plug cable				

例 Case: EN18P-DIT10NA 例如: For example: EN18P-DIT10NA

表示 : EN18P 塑料圆柱形 DC10-30V 工作电压,漫反射型,检测距离为 10cm,NPN( 负逻辑 ) 敞开式的红外线光电传感器。

The model indicates the infrared ray photoelectric switch of M18 cylinder shape, DC 10–30V working voltage, diffused reflection type, detection distance 10 cm, and NPN normally open type.





#### EN Series Photoelectric Sensor

#### 漫反射式光电传感器

漫反射式光电传感器是发射器和接收器置于一体,正常情况下接收器收不到发射器发出的光信号;当检测物通过时阻隔了光,并把光部分反射回来,接收器收到光信号,输出一个开关控制信号。

特点: ● 安装使用时不需要对齐光路

- 节省安装使用空间
- 安装接线简便
- 检测区更大

#### 对射式光电传感器

对射式光电传感器是由独立发射器和接收器组成的光电传感器。由于发射器和接收器分离,传感器的检测距离加大。它的检测距离可达几米乃至几十米。使用时把发射器和接收器分别装在检测物通过路径的两侧,并必须将两者对准以建立光路,被检物通过时阻挡光路,接收器就动作输出一个开关控制信号。



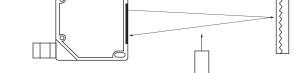
- 节省安装使用空间
- 安装接线简便
- 检测区域大

#### 反馈反射式光电传感器(镜面反射型)

反馈反射式光电传感器是把发射器和接收器装入同一个装置内,在其前方装一块反光板,利用反射原理完成光电控制作用的光电传感器。正常情况下,发射器发出的光被反光板发射回来被接收器收到;一旦光路被检测物挡住,接收器检测的光信号有变化,光电传感器就动作,输出一个开关控制信号。

特点:●安装使用时便于光路对齐

- 相对于对射式光电传感器,节省安装使用空间
- 安装接线简便
- 不受被检物的形状、颜色和材质影响。

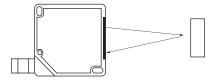


#### **DIFFUSE PHOTOELECTRIC SENSOR**

Diffuse reflection type photoelectric sensor is the transmitter and the receiver is placed integrally under normal circumstances, the receiver received less than the optical signal sent by the transmitter; when detection purified by blocking the light, and the light portion is reflected back, the receiver receives optical signal, and outputs a switch control signal.

Features: • Do not need to align with the optical path when installing

- Saving installation space
- Easy to install wiring
- Large detection area



#### THROUGH BEAM TYPE PHOTOELECTRIC SENSOR

Beam photoelectric sensor is composed by an independent transmitter and receiver of the photoelectric sensor. Since the separation of the transmitter and receiver, the detection distance of the sensor to increase. Detection distance of up to a few meters or even tens of meters. To use the transmitter and receiver are mounted in the test object through the sides of the path, and must be aligned to create an optical path, when the subject was purified by blocking the light path, the receiver operation outputs a switching control signal.

Features: ● Long-distance detection, precised detection

- Can detect small objects
- Free from impact of the shape, color and texture of the detected objects
- Suitable for harsh working environment.

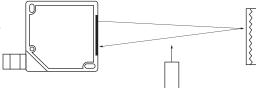


#### RETRO-REFLECTIVE PHOTOELECTRIC TRANSFER DEVICE

Retro-reflective photoelectric sensor is the transmitter and the receiver is loaded into the same apparatus, and a reflective plate mounted in front thereof, and the completion of the principle of reflection of the photoelectric control role. Under normal circumstances, the light emitted by the transmitter is reflection plate reflected back is received by the receiver, blocker once the optical path of the object to be detected, the receiver detects the optical signal changes, the operation of the photoelectric sensor, outputs a switch control signal.

Features: • Easy to align with the optican path when installing

- Saving installation space when compared with the through beam type sensor
- Easy to Instal wirin
- Free from influence of the shape, color and texture of the detected objects.



#### EN Series Photoelectric Sensor

#### 标准检测物:

用于确定漫反射式光电传感器检测距离的标准被检物,一般为无光泽纸 20cm × 20cm。

#### 检测距离:

对于漫反射式(包括限定反射式)——在稳定检测条件下,传感器与标准检测物之间的距离。 对于对射式——在稳定检测条件下,发射器与接收器之间的距离。

对于反馈反射式(包括偏振反射式)——在稳定检测条件下,传感器与反光板之间的距离。

#### 光源:

光电传感器的发射器通常使用以下几种光源:

红光 LED——可见光,可方便调整。

红外光 LED——高能量不可见光。

红色激光——可见光,其物理特性是用于小物体检测和大范围检测范围的理想选择。 qwifm 光电系列传感器主要是用红外光 LED 作为光源。

#### 负载电流:

负载电流就是正常情况下经过传感器的工作电流。

#### 压降:

压降是指传感器接通时在传感器两端或者输出端测量得到的电压。

#### 消耗电流:

传感器工作状态下所需的电流。

#### 漏电流:

传感器没有接通时,在其负载中残留的电流,称作漏电流。

#### **DETECTION OF SRANDARDS:**

The diffuse reflection type photoelectric sensor detecting distance standards for determining the analyte. usually white matte's.

#### **DETECTION DISTANCE:**

For diffuse reflection(including defining a reflection-type) – in the stability testing conditions, the distance between the sersors with standard test object. For radio – stability testing conditions, the distance between the transmitter and the receiver.

Retroreflective(including polarized reflectance) – stable testing conditions, the distance between the sensor and reflector plate.

#### **LIGHT SOURCE:**

The emitter of the photoelectric sensors typically use the following light sources:

Red LED-visible, can be easily adjusted.

Infrared LED-high-energy unvisivle light.

Red laser-visible light, its physical characteristics are the ideal choice for small detected body and a wide range of detection.

The Vanguard IFM brand photoelectric sensor using infrared LED as a light source.

#### LOAD CURRENT:

The load current is in the normal case, the working current through the sensor.

#### **VOLTAGE DROP:**

The voltage drop is when the sensor is working, the voltage obtained from the ends of the sensor or the output end.

#### **CURRENT CONSUMPTION:**

The needde current of the sensor in working state.

#### LEAKAGE CURRENT:

When the sensor is not turned on, the residual current in its load, is called leakage current.

#### EN Series Photoelectric Sensor

#### 回差:

检测体接近传感器感应面,触发传感器动作的感应距离与检测体远离传感器时动 作复归时的复归距离之差。

#### 重复精度:

重复精度是指在外壳温度为 (23 ± 5)℃,相对湿度为随机的,供电电压为额定测量电压 ± 5%,在 8 个小时的范围内进行测量所产生的的有效作用距离的变化量。

#### 开关频率:

开关频率是指每秒钟传感器动作的最大次数。

#### 极性保护:

直流传感器防止极性接反的保护功能。

#### 浪涌保护:

浪涌主要指的是电路中超出正常工作电压的瞬间过电压,它很可能使电路在浪涌的一瞬间烧坏。浪涌保护装置可以有效地吸收或分流突发的巨大 能量,以保护设备免于受损。

#### 短路保护:

如果极限电流超过的话,输出会周期性地封闭和释放,直至短路状态解除。

#### 防护等级:

IP防护等级系统是由IEC(INTERNATIONAL ELECTROTECHNICAL COMMISSION)所起草。将电器依其防尘防湿气之特性加以分级。这里所指的外物含工具,人的手指等均不可解除到电器内之带电部分,以免触电。IP防护等级是由两个数字所组成。第1个数字代表产品防尘、防止外物侵入的等级,第2个数字表示产品防湿气、防水侵入的密闭程度,数字越大表示其防护等级越高。

#### **BACKLASH:**

The difference between the distances of proximity sensors detect body sensing surface, triggering the sensor action sensing distance away from the sensor detects body movements reversion reversion.

#### REPEATABILITY:

Repeated accuracy is in the housing temperature  $(23 \pm 5)^{\circ}$ C, the relative humidity is random, the supply voltage for rated measuring voltage  $\pm 5$ , the effective distance measuring the resulting amount of change in the range of 8 hours.

#### **SWITCHING FREQUENCY:**

The switching frequency is the maximum times of sensor operation per second.

#### POLARITY PROTECTION:

DC sensors prevent reversed polarity protection function.

#### SURGE PROTECTION:

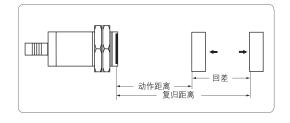
The surge is transient overvoltage cicuit in excess of the normal operating voltage, it is likely to make the circuit in the surge of the moment burned out. Surge protection device can effectively absorb the huge energy burst was sent streams, in order to protect the equipment from damage.

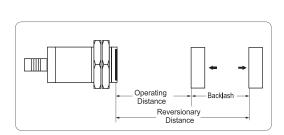
#### SHORT CIRCUIT PROTECTION:

If the limit current is exceeded, the output will be periodically closed and released, until the short-circuit state can be released.

#### **PROTECTION CLASS:**

IP protection class system is drafted by the IEC (INTERNATIONAL ELECTROTECHNICAL COMMISSION). Appliances according to their dustproof anti-moisture characteristics to grade. Referred to foreign objects including tools, fingers, etc. Do not touch the live parts of the electrical appliances to avoid electric shock. IP protection class is composed by two figures. The first figure represents the level of protection to prevent the intrusion of foreign objects, the second figure indicate the product against moisture, waterproof intrusion the airtight degree, the larger the figures are, the higher level of protection.





#### EN Series Photoelectric Sensor

#### 安装调试

#### 漫反射式(包括限定反射式)

虽然灵敏度处在最大位置,调节时还是要依照周围环境的反射材料。 把检测物放在检测范围内,将调节电位器调节到刚好检测到与最大检测距离的 中间位置。

规格表中的检测距离是在检测目标为 100\*100mm、200\*200mm、300\*300mm的白色无光泽纸的条件下测得。

#### **大**根权

将发射器和接收器面对面安装,并连接电源。 调节发射器和接收器的上下左右位置,使中心对正,使指示灯状态变化。 可靠安装两者后并校对使其检测到目标。

#### 反馈反射式 (镜面反射型)

将传感器和反光板镜面对面安装后,连接电源。 调节反射面的上下左右位置,传感器的指示灯状态变化。 可靠安装两者后并校对使其检测到目标。

注意:如果并行使用两个以上光电传感器,它们之间的距离应大于30mm,如果被检测物的反射率比反光板面更高,它会发生误动作,因此,在传感器和被检测物之间留有足够的空间,或把被检测物和光轴放置成30-45度的角度,或者考虑采用偏振反射式产品。



引线方式——以电缆引线连接 插件方式——通过接插件连接

#### DIFFUSE REFLECTION(INCLUDING LIMITED REFLECTION)

Although the sensitivity is in the maximum position, when adjusting or in accordance with the surrounding environment of a reflective material.

The detector was placed within the detection range, the adjustment potentiometer is adjusted to exactly detect the intermediate position with the maximum detection distance.

Specifications table in the dection distance is measured in the dection target of 100\*100mm, 200\*200mm, 300\*300mm non-glossy paper.

#### **THROUGH BEAM TYPE**

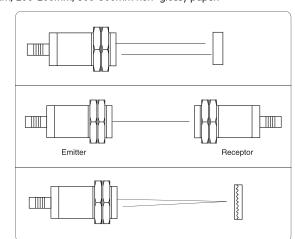
Install the transmitter and the receiver face to face, and connect the power. Vertical and horizontal position adjustment of transmitter and receiver, center positive, so that the indicator status change.

The reliable install both and proofread it to detect the target.

#### FEEDBACK-REFLECTIVE TYPE(MIRROR REFLECTION TYPE)

Sensor and reflector mirror face—to—face installation, connecter to a power supply. Adjust the vertical and horizontal position of the reflecting surface, the sensor indicator status changes.

And reliable installation both proofreading and make it to the target is detected.

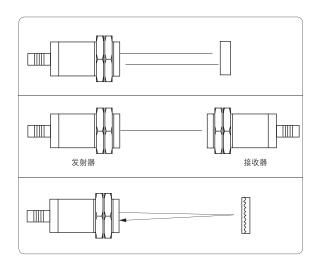


Note: If the AC line to use more than two photoelectric sensors, and the distance between themn should be greater than 30mm, the reflectance of the object if it is detected is higher than the reflector surface, it will maifunction, therefore, the sensor and the test object, enough space left between the object to be detected, and the optical axis is placed in an angle of 30–45 degrees, or consider the use of the polarized refection—type products.

#### **SENSOR CONNECTION WAYS**

About way of leads——cable leads

About connection——connecting through socket



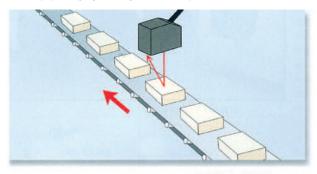
### EN Series Photoelectric Sensor

#### 光电传感器应用实例

光电式传感器主要利用光电效应检测物体。在环境条件比较好,无粉尘污染的场合,可采用光电式传感器。光电式传感器有检测距离远,对被监测物无影响的特性,广泛用于电子行业、食品饮料行业、包装物流行业、机械、纺织印染、道闸控制系统等智能设备和自动化装备中起到侦测、计数、测速、信号传送等功能。

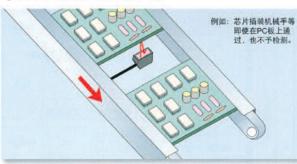
#### PHOTOELECTRIC SENSOR APPLICATION EXAMPLES

Photoelectric sensor photoelectric effect to detect objects. Better environmental conditions, no dust pollution occasions, can be used photoelectric sensor. Photoelectric sensor detection distance, had no effect on the characteristics of the test object, are widely used in the electronics industry, the food and beverage industry, packaging and logistics industry.

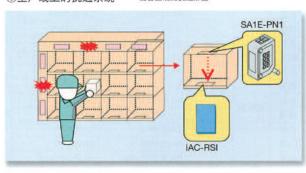


①检测滚动输送带上的被检测体…… 不检测滚筒以及其他物体 (滚筒间距大时)

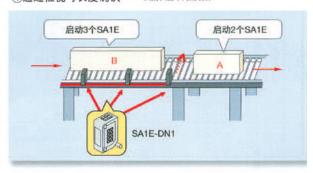
②仅检测PC板检查装置上的PC板……



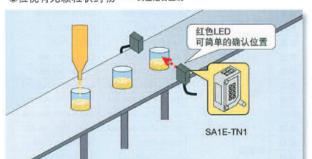
③生产线上的挑选系统 …… 能否正确的挑选部品



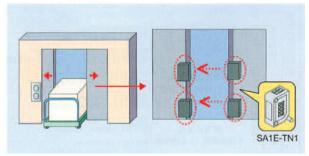
④通过检视与长度确认……识别长度不同的物体



⑤检视有无颗粒状药物……药量是否正确



⑥控制电梯门的开关……有无障碍物

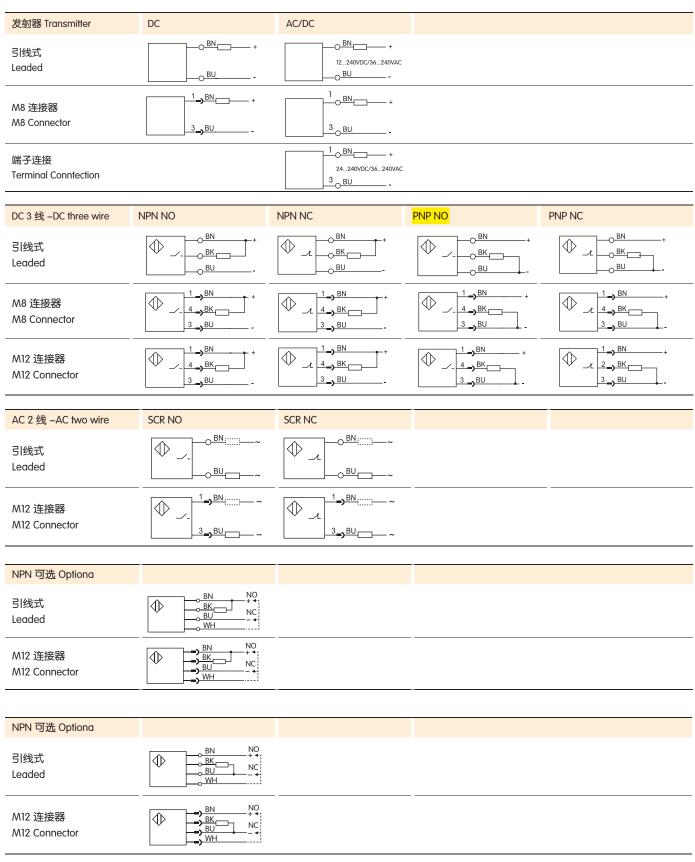


## EN 系列

## 光电传感器

### EN Series Photoelectric Sensor

#### 产品接线图示 / PRODUCT WIRING DIAGRAM

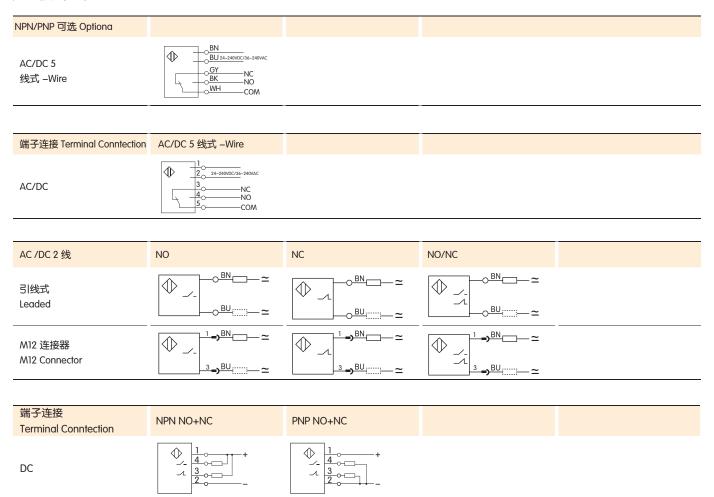


### EN 系列

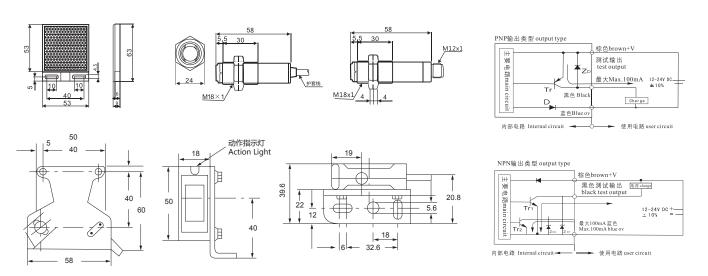
## 光电传感器

### EN Series Photoelectric Sensor

#### 产品接线图示 / PRODUCT WIRING DIAGRAM



#### 产品说明图 /Explanation of the product



## EN18P 漫反射型

## 长距离引线式光电传感器

EN18P Diffised Type Long Distance Cable Type Photoelectric Sensor

外形尺寸 Dimensions: M18×1×58



- 螺纹柱状光电传感器
- 长寿命
- 具有光电 -IC 技术
- 抗强光干扰
- 带灵敏度调节器
- 国际时尚款式
- 同时拥有领先的两项顶尖技术专利
- Threaded cylindrical photoelectric sensor
- Long life
- Photo–IC technology
- High Anti-Glare interference
- With sensitivity adjustment

产品型号			EN18P-DIT □□□			
检测方式			漫反射型			
检测距离			50cm	100cm	200cm	
检测物体			非透明体、半透明体、透明体	非透明体、半透明体、透明体		
		常开	EN18P-D1T50NA	EN18P-D1T100NA	EN18P-D1T200NA	
	负逻辑	常闭	EN18P-D1T50NB	EN18P-D1T100NB	EN18P-D1T200NB	
型号		一开一闭	EN18P-D1T50NC	EN18P-D1T100NC	EN18P-D1T200NC	
空亏		常开	EN18P-D1T50PA	EN18P-D1T100PA	EN18P-D1T200PA	
	正逻辑	常闭	EN18P-D1T50PB	EN18P-D1T100PB	EN18P-D1T200PB	
		一开一闭	EN18P-D1T50PC	EN18P-D1T100PC	EN18P-D1T200PC	
标准检测物			无光泽白板纸 20cm×20cm			
响应时间			无移动和复位小于 1ms			
电源电压			12-24VDC(10-30V)			
光源			红光 LED 660nm/ 红外线 880nm			
使用温度范围	1		-25℃ ~ 55℃没有结冰和结露			
产品标准			GB/T14048.10-2016			
保护结构			IP66(IEC 规格)			
材质			外壳: 塑料 镜头盖: 丙烯酸树脂 镜头: 丙烯酸树脂			
受光面照度			白炽灯:小于3000LUS.阳光:小于	11000LUS.		

Product model			EN18P-DIT			
Туре			Diffuse type			
Detecting di	istance		50cm	100cm	200cm	
Detecting to	ırget		Transparent,Tanslucent,Opaque mate	erials		
		NO	EN18P-D1T50NA	EN18P-D1T100NA	EN18P-D1T200NA	
	NPN	NC	EN18P-D1T50NB	EN18P-D1T100NB	EN18P-D1T200NB	
Model		NO+NC	EN18P-D1T50NC	EN18P-D1T100NC	EN18P-D1T200NC	
Model		NO	EN18P-D1T50PA	EN18P-DIT100PA	EN18P-D1T200PA	
	PNP	NC	EN18P-D1T50PB	EN18P-D1T100PB	EN18P-D1T200PB	
		NO+NC	EN18P-D1T50PC	EN18P-D1T100PC	EN18P-D1T200PC	
Standard se	ensing object		Matte white board paper 20cm × 20cm			
Response ti	me		Move and reset less than 1ms			
Power supp	oly		12-24VDC(10-30V)			
Light			Red light LED 660nm/ Infrared 880nm			
Ambient Ter	Ambient Temperature		-25°C ~+55°C without icing and condensation			
Product Standards			GB/T14048.10-2016			
Protection			IP66(IEC Specification)			
Material			Shell: Plactic, Lens cap: Acrylic, Lens: Acrylic			
Ambient illu	mination		Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			

### EN18P 镜面反射型

## 长距离引线式光电传感器

EN18P Retroreflective Long Distance Cable Type Photoelectric Sensor

外形尺寸 Dimensions: M18×1×58





- 螺纹柱状光电传感器
- 具有光电 -IC 技术
- 抗强光干扰

●长寿命

- 带灵敏度调节器
- 国际时尚款式
- 同时拥有领先的两项顶尖技术专利
- Threaded cylindrical photoelectric sensor
- Long life
- Photo–IC technology
- High Anti-Glare interference
- With sensitivity adjustment

产品型号			EN18P−D1S □□□				
检测方式			镜面反射型				
检测距离			200cm	400cm	500cm		
检测物体			Φ60mm 以上的非透明体				
		常开	EN18P-D1S200NA	EN18P-D1S400NA	EN18P-D1S500NA		
	负逻辑	常闭	EN18P-D1S200NB	EN18P-D1S400NB	EN18P-D1S500NB		
型号		一开一闭	EN18P-D1S200NC	EN18P-D1S400NC	EN18P-D1S500NC		
空亏		常开	EN18P-D1S200PA	EN18P-D1S400PA	EN18P-D1S500PA		
	正逻辑	常闭	EN18P-D1S200PB	EN18P-D1S400PB	EN18P-D1S500PB		
		一开一闭	EN18P-D1S200PC	EN18P-D1S400PC	EN18P-D1S500PC		
标准检测物			无光泽白板纸 20cm × 20cm				
响应时间			无移动和复位小于 lms				
电源电压			12-24VDC(10-30V)				
光源			红光 LED 660nm/ 红外线 880nm				
使用温度范围	围		-25℃ ~ 55℃没有结冰和结露				
产品标准			GB/T14048.10-2016				
保护结构			IP66(IEC 规格)				
材质			外壳: 塑料 镜头盖: 丙烯酸树脂 镜头: 丙烯酸树脂				
受光面照度			白炽灯:小于 3000LUS. 阳光:小于 11000LUS.				

Product mo	Product model		EN18P-D1S 🗆 🗆			
Type	Туре		Retroreflective			
Detecting di	istance		200cm	400cm	500cm	
Detecting to	ırget		Opaque materials of Min. Φ 60mm			
		NO	EN18P-D1S200NA	EN18P-D1S400NA	EN18P-D1S500NA	
	NPN	NC	EN18P-D1S200NB	EN18P-D1S400NB	EN18P-D1S500NB	
Model		NO+NC	EN18P-D1S200NC	EN18P-D1S400NC	EN18P-D1S500NC	
Model		NO	EN18P-D1S200PA	EN18P-D1S400PA	EN18P-D1S500PA	
	PNP	NC	EN18P-D1S200PB	EN18P-D1S400PB	EN18P-D1S500PB	
		NO+NC	EN18P-D1S200PC	EN18P-D1S400PC	EN18P-D1S500PC	
Standard se	ensing object		Matte white board paper 20cm × 20cm			
Response ti	me		Move and reset less than 1ms			
Power supp	oly		12-24VDC(10-30V)			
Light			Red light LED LED 660nm/ Infrared 880nm			
Ambient Ter	Ambient Temperature		-25°C ~+55°C without icing and condensation			
Product Standards			GB/T14048.10-2016			
Protection			IP66(IEC Specification)			
Material			Shell: Plactic, Lens cap: Acrylic, Lens: Acrylic			
Ambient illu	mination		Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			

### EN18P 对射型

## 长距离引线式光电传感器

EN18P Through beam Type Long Distance Cable Type Photoelectric Sensor

外形尺寸 Dimensions: M18×1×58



- 螺纹柱状光电传感器
- 专感器 长寿命
- 具有光电 -IC 技术 ● 带灵敏度调节器
- 抗强光干扰
- 国际时尚款式
- 同时拥有领先的两项顶尖技术专利
- Threaded cylindrical photoelectric sensor
- Long life
- Photo–IC technology
- High Anti-Glare interference
- With sensitivity adjustment

产品型号		EN18P-DIE1 🗆 🗆				
检测方式			对射型			
检测距离			500cm	1000cm	2000cm	
检测物体			Φ60mm 以上的非透明体			
		常开	EN18P-D1E500NA	EN18P-D1E1000NA	EN18P-D1E2000NA	
	负逻辑	常闭	EN18P-D1E500NB	EN18P-D1E1000NB	EN18P-D1E2000NB	
型号		一开一闭	EN18P-D1E500NC	EN18P-D1E1000NC	EN18P-D1E2000NC	
空亏		常开	EN18P-D1E500PA	EN18P-D1E1000PA	EN18P-D1E2000PA	
	正逻辑	常闭	EN18P-D1E500PB	EN18P-D1E1000PB	EN18P-D1E2000PB	
		一开一闭	EN18P-D1E500PC	EN18P-D1E1000PC	EN18P-D1E2000PC	
标准检测物			无光泽白板纸 20cm × 20cm			
响应时间			无移动和复位小于 lms			
电源电压			12-24VDC(10-30V)			
光源			红光 LED 660nm/ 红外线 880nm			
使用温度范围	1		-25℃ ~ 55℃没有结冰和结露			
产品标准			GB/T14048.10-2016			
保护结构			IP66(IEC 规格)			
材质			外壳: 塑料 镜头盖: 丙烯酸树脂 镜头: 丙烯酸树脂			
受光面照度			白炽灯: 小于 3000LUS. 阳光: 小于 11000LUS.			

Product model			EN18P-D1E1			
Туре			Opposite type (Through beam type)			
Detecting di	istance		500cm	1000cm	2000cm	
Detecting to	ırget		Opaque materials of Min. Φ 60mm			
		NO	EN18P-D1E500NA	EN18P-D1E1000NA	EN18P-D1E2000NA	
	NPN	NC	EN18P-D1E500NB	EN18P-D1E1000NB	EN18P-D1E2000NB	
Model		NO+NC	EN18P-D1E500NC	EN18P-D1E1000NC	EN18P-D1E2000NC	
Model		NO	EN18P-D1E500PA	EN18P-D1E1000PA	EN18P-D1E2000PA	
	PNP	NC	EN18P-D1E500PB	EN18P-D1E1000PB	EN18P-D1E2000PB	
		NO+NC	EN18P-D1E500PC	EN18P-D1E1000PC	EN18P-D1E2000PC	
Standard se	ensing object		Matte white board paper 20cm × 20cm			
Response ti	me		Move and reset less than 1ms			
Power supp	oly		12-24VDC(10-30V)			
Light			Red light LED 660nm/ Infrared 880nm			
Ambient Ter	mperature		-25°C ~+55°C without icing and condensation			
Product Star	Product Standards		GB/T14048.10-2016			
Protection	Protection		IP66(IEC Specification)			
Material			Shell: Plactic, Lens cap: Acrylic, Lens: Acrylic			
Ambient illu	mination		Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			

## EN18P 漫反射型

## 长距离接插件式光电传感器

EN18P Diffised Type Long Distance Cable Type Photoelectric Sensor With Connector

外形尺寸 Dimensions: M18 x 1 x 58



- 螺纹柱状光电传感器
- 具有光电 -IC 技术
- 长寿命 ● 抗强光干扰
- 带灵敏度调节器
- 国际时尚款式
- 同时拥有领先的两项顶尖技术专利
- Threaded cylindrical photoelectric sensor
- Long life
- Photo–IC technology
- High Anti-Glare interference
- With sensitivity adjustment

产品型号			EN18P-DIT 🗆 🗆			
检测方式			漫反射型			
检测距离			50cm	100cm	200cm	
检测物体			非透明质、半透明体、透明体	非透明质、半透明体、透明体		
		常开	EN18P-D1T50NAW	EN18P-D1T100NAW	EN18P-D1T200NAW	
	负逻辑	常闭	EN18P-D1T50NBW	EN18P-D1T100NBW	EN18P-D1T200NBW	
型号		一开一闭	EN18P-D1T50NCW	EN18P-D1T100NCW	EN18P-D1T200NCW	
空亏		常开	EN18P-D1T50PAW	EN18P-D1T100PAW	EN18P-D1T200PAW	
	正逻辑	常闭	EN18P-D1T50PBW	EN18P-D1T100PBW	EN18P-D1T200PBW	
		一开一闭	EN18P-D1T50PCW	EN18P-D1T100PCW	EN18P-D1T200PCW	
标准检测物			无光泽白板纸 20cm × 20cm			
响应时间			无移动和复位小于 lms			
电源电压			12-24VDC(10-30V)			
光源			红光 LED 660nm/ 红外线 880nm			
使用温度范围	1		-25℃ ~ 55℃没有结冰和结露			
产品标准			GB/T14048.10-2016			
保护结构			IP66(IEC 规格)			
材质			外壳: 塑料 镜头盖: 丙烯酸树脂 镜头: 丙烯酸树脂			
受光面照度			白炽灯: 小于 3000LUS. 阳光: 小于 11000LUS.			

Product model			EN18P-DIT			
Туре			Diffuse type			
Detecting di	stance		50cm	100cm	200cm	
Detecting to	rget		Transparent, Tanslucent, Opaque mate	rials		
		NO	EN18P-D1T50NAW	EN18P-D1T100NAW	EN18P-D1T200NAW	
	NPN	NC	EN18P-D1T50NBW	EN18P-D1T100NBW	EN18P-D1T200NBW	
		NO+NC	EN18P-D1T50NCW	EN18P-D1T100NCW	EN18P-D1T200NCW	
Model		NO	EN18P-D1T50PAW	EN18P-D1T100PAW	EN18P-D1T200PAW	
	PNP	NC	EN18P-D1T50PBW	EN18P-D1T100PBW	EN18P-D1T200PBW	
		NO+NC	EN18P-D1T50PCW	EN18P-D1T100PCW	EN18P-D1T200PCW	
Standard se	nsing object		Matte white board paper 20cm × 20cm			
Response tir	me		Move and reset less than 1ms			
Power supp	ly		12-24VDC(10-30V)			
Light			Red light LED 660nm/ Infrared 880nm			
Ambient Ter	Ambient Temperature		-25°C ~+55°C without icing and condensation			
Product Standards			GB/T14048.10-2016			
Protection			IP66(IEC Specification)			
Material			Shell: Plactic, Lens cap: Acrylic, Lens: Acrylic			
Ambient illu	mination		Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			

### EN18P 镜面反射型

## 长距离接插件式光电传感器

EN18P Retroreflective Long Distance Cable Type Photoelectric Sensor With Connector

外形尺寸 Dimensions: M18 x 1 x 58





- 螺纹柱状光电传感器
- 具有光电 -IC 技术
- 带灵敏度调节器
- 长寿命
- 抗强光干扰
- 国际时尚款式
- 同时拥有领先的两项顶尖技术专利
- Threaded cylindrical photoelectric sensor
- Long life
- Photo–IC technology
- High Anti-Glare interference
- With sensitivity adjustment

产品型号			EN18P−D1S □□ W(Z)			
检测方式			镜面反射型			
检测距离			200cm	400cm	500cm	
检测物体			Φ60mm 以上的非透明体			
		常开	EN18P-D1S200NAW	EN18P-D1S400NAW	EN18P-D1S500NAW	
	负逻辑	常闭	EN18P-D1S200NBW	EN18P-D1S400NBW	EN18P-D1S500NBW	
型号		一开一闭	EN18P-D1S200NCW	EN18P-D1S400NCW	EN18P-D1S500NCW	
空亏		常开	EN18P-D1S200PAW	EN18P-D1S400PAW	EN18P-D1S500PAW	
	正逻辑	常闭	EN18P-D1S200PBW	EN18P-D1S400PBW	EN18P-D1S500PBW	
		一开一闭	EN18P-D1S200PCW	EN18P-D1S400PCW	EN18P-D1S500PCW	
标准检测物			无光泽白板纸 20cm × 20cm			
响应时间			无移动和复位小于 1ms			
电源电压			12-24VDC(10-30V)			
光源			红光 LED 660nm/ 红外线 880nm			
使用温度范	围		-25℃~ 55℃没有结冰和结露			
产品标准			GB/T14048.10-2016			
保护结构			IP66(IEC 规格)			
材质			外壳: 塑料 镜头盖: 丙烯酸树脂 镜头: 丙烯酸树脂			
受光面照度			白炽灯:小于3000LUS.阳光:小于	11000LUS.		

Product model			EN18P−D1S □□ W(Z)			
Туре			Retroreflective			
Detecting di	stance		200cm	400cm	500cm	
Detecting ta	rget		Opaque materials of Min. Φ 60mm			
		NO	EN18P-D1S200NAW	EN18P-D1S400NAW	EN18P-D1S500NAW	
	NPN	NC	EN18P-D1S200NBWW	EN18P-D1S400NBW	EN18P-D1S500NBW	
AAl - l		NO+NC	EN18P-D1S200NCW	EN18P-D1S400NCW	EN18P-D1S500NCW	
Model		NO	EN18P-D1S200PAW	EN18P-D1S400PAW	EN18P-D1S500PAW	
	PNP	NC	EN18P-D1S200PBW	EN18P-D1S400PBW	EN18P-D1S500PBW	
		NO+NC	EN18P-D1S200PCW	EN18P-D1S400PCW	EN18P-D1S500PCW	
Standard se	nsing object		Matte white board paper 20cm × 20cm			
Response tir	me		Move and reset less than 1ms			
Power supp	ly		12-24VDC(10-30V)			
Light			Red light LED 660nm/ Infrared 880nm			
Ambient Ter	mperature		-25°C ~+55°C without icing and condensation			
Product Standards			GB/T14048.10-2016			
Protection			IP66(IEC Specification)			
Material			Shell: Plactic, Lens cap: Acrylic, Lens: Acrylic			
Ambient illu	mination		Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			

### EN18P 对射型

## 长距离接插件式光电传感器

EN18P Through beam Type Long Distance Cable Type Photoelectric Sensor With Connector



- 螺纹柱状光电传感器
- 具有光电 -IC 技术
- 抗强光干扰

● 长寿命

- 带灵敏度调节器
- 国际时尚款式
- 同时拥有领先的两项顶尖技术专利
- Threaded cylindrical photoelectric sensor
- Long life
- Photo–IC technology
- High Anti-Glare interference
- With sensitivity adjustment

产品型号		EN18P−D1E □□ W(Z)					
检测方式			对射型				
检测距离			500cm	1000cm	2000cm		
检测物体			Φ60mm 以上的非透明体				
		常开	EN18P-D1E500NAW	EN18P-D1E1000NAW	EN18P-D1E2000NAW		
	负逻辑	常闭	EN18P-D1E500NBW	EN18P-D1E1000NBW	EN18P-D1E2000NBW		
型号		一开一闭	EN18P-D1E500NCW	EN18P-D1E1000NCW	EN18P-D1E2000NCW		
空亏		常开	EN18P-D1E500PAW	EN18P-D1E1000PAW	EN18P-D1E2000PAW		
	正逻辑	常闭	EN18P-D1E500PBW	EN18P-D1E1000PBW	EN18P-D1E2000PBW		
		一开一闭	EN18P-D1E500PCW	EN18P-D1E1000PCW	EN18P-D1E2000PCW		
标准检测物			无光泽白板纸 20cm×20cm				
响应时间			无移动和复位小于 1ms				
电源电压			12-24VDC(10-30V)				
光源			红外光 LED660nm/ 红外线 880nm				
使用温度范围	围		-25℃ ~ 55℃没有结冰和结露				
产品标准			GB/T14048.10-2016				
保护结构			IP66(IEC 规格)				
材质			外壳: 塑料 镜头盖: 丙烯酸树脂 镜头: 丙烯酸树脂				
受光面照度			白炽灯:小于 3000LUS. 阳光:小于 11000LUS.				

Product model			EN18P−D1E □□ W(Z)			
Туре			Opposite type (Through beam type)			
Detecting distance			500cm	1000cm	2000cm	
Detecting target			Opaque materials of Min. Φ 60mm			
Model		NO	EN18P-D1E500NAW	EN18P-D1E1000NAW	EN18P-D1E2000NAW	
	NPN	NC	EN18P-D1E500NBW	EN18P-D1E1000NBW	EN18P-D1E2000NBW	
		NO+NC	EN18P-D1E500NCW	EN18P-D1E1000NCW	EN18P-D1E2000NCW	
	PNP	NO	EN18P-D1E500PAW	EN18P-D1E1000PAW	EN18P-D1E2000PAW	
		NC	EN18P-D1E500PBW	EN18P-D1E1000PBW	EN18P-D1E2000PBW	
		NO+NC	EN18P-D1E500PCW	EN18P-D1E1000PCW	EN18P-D1E2000PCW	
Standard sensing object			Matte white board paper 20cm × 20cm			
Response time			Move and reset less than 1ms			
Power supply			12-24VDC(10-30V)			
Light			Infrared LED 660nm/ Infrared 880nm			
Ambient Temperature			$-25$ °C $\sim$ +55°C without icing and condensation			
Product Standards			GB/T14048.10-2016			
Protection			IP66(IEC Specification)			
Material			Shell: Plactic, Lens cap: Acrylic, Lens: Acrylic			
Ambient illumination			Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			

## 长距离宽电压系列传感器

## EN50 Series Long Distance wide Voltage series sensor



- 长距离检测: 比普通产品检测距离远 1 倍以上
- 新式光电 -IC 抗强光干扰
- 同时具备常开常闭输出
- 长寿命,高可靠
- Long-distance detection: One times more than normal product detection distance
- New photoelectric—IC in order to increase the Anti-glare interference
- Along with normally open and normally closed output
- Long life, high reliability

产品型号	EN50-UE2000JC	EN50-US1000JC	EN50-UT200JC	
检测方式	透过型	镜面反射型	漫反射型	
标准检测物	无光泽白板纸 20cm × 20cm			
检测距离	2000cm	10-1000cm	200cm	
检测物体	Φ16mm 以上的非透明体	Φ60mm 以上的非透明体	非透明体、半透明体、透明体	
光源	红外线 880nm	红光 LED 660nm/ 红外线 880nm		
响应时间	移动和复位小于 1ms			
电源电压	AC36-240V±10%50/60Hz,DC24-240V±10%(波纹P-P:10%以下)			
调节灵敏度	-	内置调节灵敏度的 VR		
控制输出	继电器输出 批点容量 :DC 30V 3A 阻抗负载、AC 250V 3A 阻抗负载 接点组成: NO+NC			
受光面照度	面照度 白炽灯: 小于 3000LUS. 阳光: 小于 11000LUS.			
使用温度范围	-25℃ ~+55℃没有结冰和结露			
材质	外壳: ABS. 镜片: PC.			
产品标准	GB/T14048.10-2016			
保护等级	IP64(IEC)			
Product model	EN50-UE2000JC	EN50-US1000JC	EN50-UT200JC	
Туре	Through beam type	Retroreflective(*1)	DIffuse type	
Standard sensing object	andard sensing object Matte white board paper 20cm × 20cm			
			000	
Detecting distance	2000cm	10–1000cm	200cm	
Detecting distance  Detecting target	2000cm Opaque materialsΦ16mm	10–1000cm Opaque materials with minimum length of Φ60mm	Non-transparent,translucent or transparent	
		Opaque materials with minimum	Non-transparent,translucent or	
Detecting target	Opaque materialsΦ16mm	Opaque materials with minimum length of $\Phi60\text{mm}$	Non-transparent,translucent or	
Detecting target Light	Opaque materialsΦ16mm Infrared 880nm	Opaque materials with minimum length of $\Phi$ 60mm  Red light LED 660nm/ Infrared 880nm	Non-transparent,translucent or	
Detecting target Light Response time	Opaque materialsΦ16mm Infrared 880nm Move and reset less than 1ms	Opaque materials with minimum length of $\Phi$ 60mm  Red light LED 660nm/ Infrared 880nm	Non-transparent,translucent or	
Detecting target Light Response time Power supply	Opaque materialsΦ16mm Infrared 880nm Move and reset less than 1ms AC36-240V ± 10%50/60Hz,DC24-244	Opaque materials with minimum length of $\Phi$ 60mm  Red light LED 660nm/ Infrared 880nm  OV $\pm$ 10%(Ripple P–P:10% below)  Adjustable by built–in VR  A Resistive load、250VAC 3A Resistive l	Non-transparent, translucent or transparent	
Detecting target  Light  Response time  Power supply  Sensitivity	Opaque materialsΦ16mm  Infrared 880nm  Move and reset less than 1ms  AC36-240V ± 10%50/60Hz,DC24-240-240-2400 Capacity:DC 30V 36	Opaque materials with minimum length of $\Phi$ 60mm  Red light LED 660nm/ Infrared 880nm  OV $\pm$ 10%(Ripple P–P:10% below)  Adjustable by built—in VR  A Resistive load、250VAC 3A Resistive light	Non-transparent, translucent or transparent	
Detecting target  Light  Response time  Power supply  Sensitivity  Control output	Opaque materialsΦ16mm  Infrared 880nm  Move and reset less than 1ms  AC36-240V ± 10%50/60Hz,DC24-240-240-2400 Capacity:DC 30V 3A0 10 Contact orde: N	Opaque materials with minimum length of \$\Phi\$ 60mm  Red light LED 660nm/ Infrared 880nm  OV \$\pm\$ 10%(Ripple P-P:10% below)  Adjustable by built—in VR  A Resistive load, \$250VAC 3A Resistive light 10+NC  : Less than 11000LUS.	Non-transparent, translucent or transparent	
Detecting target  Light  Response time  Power supply  Sensitivity  Control output  Ambient illumination	Opaque materialsΦ16mm Infrared 880nm Move and reset less than 1ms AC36-240V ± 10%50/60Hz,DC24-240-  Relay output Capacity:DC 30V 34/10 Contact orde: N Lamp: Less than 3000LUS. Sunlight	Opaque materials with minimum length of \$\Phi\$ 60mm  Red light LED 660nm/ Infrared 880nm  OV \$\pm\$ 10%(Ripple P-P:10% below)  Adjustable by built—in VR  A Resistive load, \$250VAC 3A Resistive light 10+NC  : Less than 11000LUS.	Non-transparent, translucent or transparent	
Detecting target  Light  Response time  Power supply  Sensitivity  Control output  Ambient illumination  Ambient Temperature	Opaque materialsΦ16mm  Infrared 880nm  Move and reset less than 1ms  AC36-240V ± 10%50/60Hz,DC24-240  Relay output Capacity:DC 30V 3A 10 Contact orde: N  Lamp: Less than 3000LUS. Sunlight  -25℃ ~+55℃ without icing and cond	Opaque materials with minimum length of \$\Phi\$ 60mm  Red light LED 660nm/ Infrared 880nm  OV \$\pm\$ 10%(Ripple P-P:10% below)  Adjustable by built—in VR  A Resistive load, \$250VAC 3A Resistive light 10+NC  : Less than 11000LUS.	Non-transparent, translucent or transparent	
Detecting target  Light  Response time  Power supply  Sensitivity  Control output  Ambient illumination  Ambient Temperature  Material	Opaque materialsΦ16mm  Infrared 880nm  Move and reset less than 1ms  AC36-240V ± 10%50/60Hz,DC24-240  Relay output Capacity:DC 30V 340 10 Contact orde: N  Lamp: Less than 3000LUS. Sunlight  -25℃ ~+55℃ without icing and conditional conditions. PC.	Opaque materials with minimum length of \$\Phi\$ 60mm  Red light LED 660nm/ Infrared 880nm  OV \$\pm\$ 10%(Ripple P-P:10% below)  Adjustable by built—in VR  A Resistive load, \$250VAC 3A Resistive light 10+NC  : Less than 11000LUS.	Non-transparent, translucent or transparent	

## 长距离直流电压系列传感器

## EN50 Series Long Distance DC Voltage series sensor



- 长距离检测: 比普通产品检测距离远1倍以上
- 新式光电 -IC 抗强光干扰
- 同时具备常开常闭输出
- 长寿命,高可靠
- Long-distance detection: One times more than normal product
- New photoelectric–IC in order to increase the Anti-glare interference
- Along with normally open and normally closed output
- Long life, high reliability

产品型号	EN50-D1E2000JC	EN50-D1S1000JC	EN50-D1T200JC	
检测方式	透过型	镜面反射型	漫反射型	
标准检测物	无光泽白板纸 20cm × 20cm			
检测距离	2000cm	10–1000cm	200cm(100×100mm 白色无光纸)	
检测物体	Φ16mm 以上的非透明体	Φ60mm 以上的非透明体	非透明体、半透明体、透明体	
光源	红外线 880nm	红光 LED 660nm/ 红外线 880nm		
响应时间	移动和复位小于 1ms			
电源电压	12-24VDC(10-30VDC) 波纹 P-P:10% 以下			
调节灵敏度	-	内置调节灵敏度的 VR		
控制输出	继电器输出			
受光面照度	白炽灯:小于 3000LUS. 阳光:小于 11000LUS.			
使用温度范围	-25℃~+55℃没有结冰和结露			
材质	外壳: ABS. 镜片: PC.			
产品标准	GB/T14048.10-2016			
保护等级	IP64(IEC)			
Product model	EN50-D1E2000JC	EN50-DIS1000JC	EN50-DIT200JC	
Туре	Through beam type	Retroreflective(*1)	Diffuse type	
Standard sensing object	Matte white board paper 20cm × 20cm			
Detecting distance	2000cm	10-1000cm	$200$ cm( $100 \times 100$ mm white paper)	
Detecting target	Opaque materialsΦ16mm	Opaque materials with minimum length of $\Phi60\text{mm}$	Non-transparent, translucent or transparent	
Light	Infrared 880nm	Red light LED 660nm/ Infrared 880nm		
Response time	Move and reset less than 1ms			
Power supply	12-24VDC(10-30VDC) Ripple P-P:10% below			
Sensitivity	-	Adjustable by built–in VR		
Control output	Relay output Capacity:DC 30V 3A Resistive load 250VAC 3A Resistive load 10 Contact orde: NO+NC		load	
Ambient illumination	Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			
Ambient Temperature $-25^{\circ}\mathrm{C}$ ~+55 $^{\circ}\mathrm{C}$ without icing and condensation				
Material	Housing: ABS. lens: PC.			
Product Standards	GB/T14048.10-2016			
Protection	IP64(IEC)			

## 标准距离宽电压系列传感器

## EN50 Series Standard Distance wide Voltage series sensor



- 长距离检测: 比普通产品检测距离远1倍以上
- 新式光电 -IC 抗强光干扰
- 同时具备常开常闭输出
- 长寿命,高可靠
- Long-distance detection: One times more than normal product detection distance
- New photoelectric—IC in order to increase the Anti-glare interference
- Along with normally open and normally closed output
- Long life, high reliability

产品型号	EN50-UE1000JC	EN50-US500JC	EN50-UT70JC	
检测方式	透过型	镜面反射型	漫反射型	
标准检测物	无光泽白板纸 20cm × 20cm			
检测距离	1000cm	5–500cm	70cm	
检测物体	Φ16mm 以上的非透明体	Φ60mm 以上的非透明体	非透明体、半透明体、透明体	
光源	红外线 880nm	红光 LED660nm/ 红外线 880nm		
响应时间	移动和复位小于 1ms			
电源电压	AC36-240V±10%50/60Hz,DC24-240V±10%(波纹P-P:10%以下)			
调节灵敏度	-	内置调节灵敏度的 VR		
控制输出	继电器输出 批点容量 :DC 30V 3A 阻抗负载、AC 250V 3A 阻抗负载 接点组成: NO+NC			
受光面照度	白炽灯:小于 3000LUS. 阳光:小于 11000LUS.			
使用温度范围	-25℃ ~+55℃没有结冰和结露			
材质	外壳: ABS. 镜片: PC.			
产品标准	GB/T14048.10-2016			
保护等级	IP64 (IEC 规格 )			
Product model	EN50-UE1000JC	EN50-US500JC	EN50-UT70JC	
Туре	Through beam type	Retroreflective(*1)	DIffuse type	
Standard sensing object	d sensing object Matte white board paper 20cm × 20cm			
Detecting distance	1000cm	5–500cm	70cm	
Detecting target	Opaque materialsΦ16mm	Opaque materials with minimum length of $\Phi60\text{mm}$	Non-transparent,translucent or transparent	
Light	Infrared 880nm Red light LED 660nm/ Infrared 880nm			
Response time	Move and reset less than 1ms			
Power supply	AC36-240V ± 10%50/60Hz,DC24-240V ± 10%(Ripple P-P:10% below)			
Sensitivity	-	Adjustable by built–in VR		
Control output	Relay output Capacity:DC 30V 3A Resistive load 250VAC 3A Resistive load 10 Contact orde: NO+NC			
Ambient illumination	bient illumination Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			
Ambient Temperature $-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$ without icing and condensation		densation		
Material	Housing: ABS. lens: PC.			
Product Standards	GB/T14048.10-2016			
Protection	IP64 (IEC Standard)			

## 标准距离直流电压系列传感器

## EN50 Series Standard distance DC Voltage series sensor



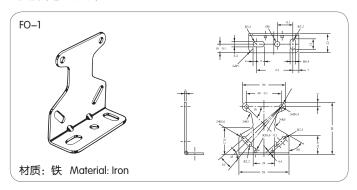
- 新式光电 -IC 抗强光干扰性
- 同时具备常开常闭输出
- 长寿命, 高可靠
- New photoelectric-IC in order to increase the Anti-glare interference
- Along with normally open and normally closed output
- Long life, high rellability

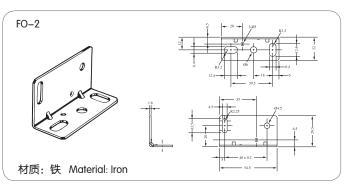
产品型号	EN50-D1E1000JC	EN50-D1S500JC	EN50-D1T70JC	
检测方式	透过型	镜面反射型	漫反射型	
标准检测物	无光泽白板纸 20cm×20cm			
检测距离	1000cm	5–500cm	70cm	
检测物体	Φ16mm 以上的非透明体	Φ60mm 以上的非透明体	非透明体、半透明体、透明体	
光源	红外线 880nm	红光 LED660nm/ 红外线 880nm		
响应时间	移动和复位小于 1ms			
电源电压	AC36-240V±10%50/60Hz,DC24-240V±10%(波纹P-P:10%以下)			
调节灵敏度	-	内置调节灵敏度的 VR		
控制输出	继电器输出 批点容量 :DC 30V 3A 阻抗负载、AC 250V 3A 阻抗负载 接点组成: NO+NC			
受光面照度	白炽灯:小于 3000LUS. 阳光:小于 11000LUS.			
使用温度范围	-25℃ ~+55℃没有结冰和结露			
材质	外壳: ABS. 镜片: PC.			
产品标准	GB/T14048.10-2016			
保护等级	IP64 (IEC 规格 )			
Product model	EN50-D1E1000JC	EN50-D1S500JC	EN50-D1T70JC	
Туре	Through beam type	Retroreflective(*1)	Dlffuse type	
Standard sensing object	Matte white board paper 20cm × 20cm			
Detecting distance	1000cm	5–500cm	70cm	
Detecting target	Opaque materialsΦ16mm	Opaque materials with minimum length of $\Phi$ 60mm	Non-transparent, translucent or transparent	
Light	Infrared 880nm	Red light LED 660nm/ Infrared 880nm		
Response time	Move and reset less than 1ms			
Power supply	AC36-240V ± 10%50/60Hz,DC24-240V ± 10%(Ripple P-P:10% below)			
Sensitivity	-	Adjustable by built-in VR		
Control output	Relay output Capacity:DC 30V 3A Resistive load 250VAC 3A Resistive load 10 Contact orde: NO+NC			
Ambient illumination	Lamp: Less than 3000LUS. Sunlight: Less than 11000LUS.			
Ambient Temperature $-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$ without icing and condensation				
Material Housing: ABS. lens: PC.				
Product Standards	GB/T14048.10-2016			

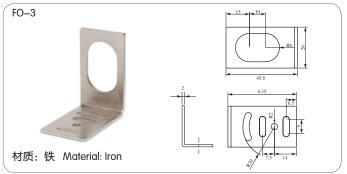


### TD Series Electrical Accessories

#### 光电传感器支架 /Holder





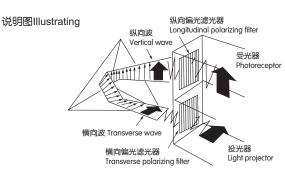


#### TD 镜面反射板及其工作原理/TD Mirror Reflector Plate And Working Principle

With the built-in polarization filter and retro-reflective characterists, the retro-reflective type photoelectric sensor only receive the beam returned from the reflector plate.







#### TD 镜面反射板 /TD Mirror Reflector Plate



TD-01(1) 尺寸 size: 85x85



TD-04 尺寸 size: 40x75



TD-01(2) 尺寸 size: 85x85



TD-05 尺寸 size: Φ82x8



TD-02 尺寸 size: 65x40



TD-08 尺寸 size: 62x51



TD-03 尺寸 size: 81x57



E39-R1 尺寸 size: 60x40