中信重工开诚智能装备有限公司
CITIC HIC KAICHENG INTELLIGENCE EQUIPMENT CO., LTD.

- RXR-MC80JD Explosion-proof firefighting and scouting robot 03
- RXR-M40D Firefighting robot 07
- RXR-C6BD Explosion-proof scouting robot 09
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Special Robot Products

Focus on intelligent technology, protect life safety

CITIC HIC Kaicheng Intelligence Equipment Co., Ltd. is a subsidiary of CITIC Heavy Industries Company Ltd. (Stock Code: 601608), a part of the CITIC Group. The company began in 1991 under the name of Tangshan Kaicheng Electronic Control & Equipment Group Co., Ltd. It is now a famous intelligent equipment manufacturing enterprise in China that covers R&D, production, sales and service. The company has developed 2 series products: special robots and mine intelligent equipment, more than 300 kinds of products. The products cover the application of firefighting, rescuing, mines, petrochemical industry, electricity, marine work, subway, utility tunnel and many other fields.

The company holds more than 230 key technology patents and over 52 software copyright, and runs the national special robot laboratory certified by China NDRC and the national technology center certified by national government, also has 4 MW driven product laboratory which is the one of largest in Asia, and sets the workstation for academicians.

Focusing on the special robot as a core technology, the company is committed to high-end intelligent equipment manufacturing. At the end of 2015, the company starts to mass production of special robots. Nowadays, the company has become the most competitive special robot industrial base in China. Automation will be the permanent topic of our company. We insist on independent innovation and sustainable innovation, mutual development and common prosperity, trying to build the best leading company of intelligent equipment with core competent in China.

RXR-MC80JD
Explosion-proof firefighting and scouting robot

RXR-M40D
Firefighting robot

RXR-C6BD
Explosion-proof scouting robot

RXR-MC4JD-G
Explosion-proof high expansion foam firefighting robot

RXLS-EX102
Explosion-proof wheeled inspection robot

RXR-MC200BD
Firefighting and scouting robot

RXR-YM80000D
Firefighting smoke-removal robot

RXR-YC10000JD
Explosion-proof firefighting smoke exhaust reconnaissance robot

RXR-MC40BD(S)
Explosion-proof medium expansion foam firefighting robot

RXR-CJD
Explosion-proof scouting robot

Mine-used explosion-proof wheeled inspection robot

KRXJ48
Mine-used explosion-proof and intrinsically safe inspection robot

RXGD-Ex100
Explosion-proof rail type inspection robot

Utility tunnel inspection robot (MD)

Utility tunnel inspection robot

KCFX-01
Antiepidemic spray disinfection robot

KCFX-02
Indoor antiepidemic disinfection robot

Train braking examination robot

KC-ROV-L300
Underwater robot

Underwater robot

Focus on intelligent technology, protect life safety

As one of the earliest enterprises developing special robots in China, in 2005, CITIC HIC Kaicheng Intelligence Equipment Co., Ltd. developed China's first mine rescue robot, which filled the domestic technology gap in this field and reached the international advanced level. After 15 years of independent research and development, we have produced more than 30 kinds of robot products. The disaster area detection robot is the first mine detection and rescue robot that has passed test of the national safety standard and obtained explosion-proof certificate, as well as the MA certificate. Explosion-proof firefighting and scouting robot is the first firefighting robot that certificated by China national quality supervision test center for explosion-proof and safety products for coal mine.

RXR-MC80JD

Explosion-proof firefighting and scouting robot

Overview

Explosion-proof firefighting and scouting robot is designed and certified for fire-extinguishing and reconnaissance in explosive environment, such as petrochemical refining, oil and fuel gas storage, and other chemical manufacturing, storage, transportation site, etc. The product consists of robot platform with monitor, remote control panel. It will help the fireman crew improve the rescue safety and reducing casualties in the mission.

Product advantages

- Explosion-proof certified and waterproof up to IP65;
- The robot track surface covers by heat tolerant, flame retardant rubber, track internal adopts metal frame;
- Preventing fire hose knotting function;
- With large traction, which can drag two 60m length ⌀80mm fire hoses filled with water;
- High temperature tolerance, which comes with automatic sprinkling cooling system, named double water curtain;
- Remote control of monitor for rotation, pitching and conversion of multiple spraying modes, and easily switch between water and foam;
- High-definition wireless image transmission system, which realizes the remote real-time video surveillance;
- Advanced wireless communication technology, which has long communication distance and strong anti-interference ability. Strong network communication capability, can connect to the internet and transmit field data to the control center, provide reliable support for decision-maker;
- Strong obstacle-crossing ability, which can climb and cross obstacle trough large angle;
- Independent suspension shock mitigation system, strong impact resistance;
- Highly maneuverability, fast movement speed, which can be adjusted;
- Explosion-proof lift cradle head is flexible can meet the requirements of data collection for different gases concentration at different observation points.
- Remote hose drop off function (optional).

Function of products

Internet connection

The robot has network communication function, which can connect to the internet, transfer data and provide reliable evidence to command center.

Remote diagnosis functions

Realize the remote diagnosis and malfunction analysis of the robot via Internet.

Environment acquisition(optional)

Integrated gases detecting devices to detect the gases contentration on different height in the air. (Radioactive substances detection is optional).

Heat eye detection(optional)

Tracking and monitoring heat source through infrared thermal imaging.

Automatic power generation and restrain recoil

To restrain recoil, robot driving motor uses specified type, which can be changed from driving mode to generating mode, charge the battery when the water being sprayed.

Sound collection

The robot can collect the site sound in real time for rescue.

Image collection

Collecting and uploading the scene images in real time through three cameras, which include adjustable front, back and monitor tracking view.

Automatic obstacle avoidance

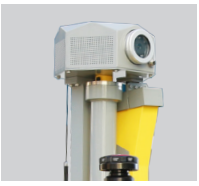
High sensitivity and long distance obstacle avoidance system, which can recognize obstacle automatically.

Long distance fire fighting for dangerous cargo

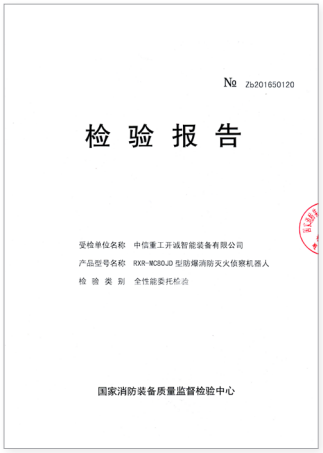
Remote control distance up to 1 kilometer thanks the advanced communication technology. The robot applied dual channel transmission for data and video, therefore the fireman can operate the robot from long distance to the fire site, ensured rescue security.

Rescue function

The robot can tow an additional rescue car into the disaster area, and rescue stranded people.



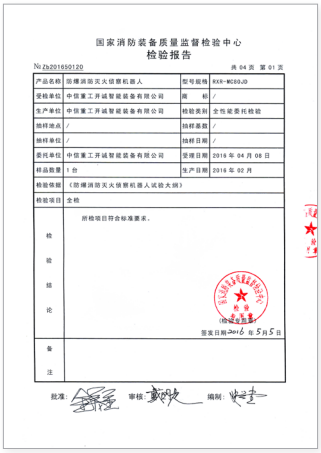
Qualification of product


№ Zb201650120

检 验 报 告

受检单位名称 中信重工开诚智能装备有限公司
产品型号名称 RXR-MC80JD 型防爆消防灭火侦察机器人
检 验 类 别 全性能委托检验

国家消防装备质量监督检验中心


国家消防装备质量监督检验中心
检验报告

№ Zb201650120 共 04 页 第 01 页

产品名称	防爆消防灭火侦察机器人	型号规格	RXR-MC80JD
受检单位	中信重工开诚智能装备有限公司	厂 牌	/
生产单位	中信重工开诚智能装备有限公司	检验类别	全性能委托检验
抽样地点	/	抽样基数	/
抽样单位	/	抽样日期	/
委托单位	中信重工开诚智能装备有限公司	受理日期	2016 年 04 月 08 日
样品数量	1 台	生产日期	2016 年 02 月
检验依据	《防爆消防灭火侦察机器人试验大纲》		
检验项目	全检		
检验结论	所检项目符合标准要求。		
备注			

签发日期：2016 年 5 月 5 日

批准： 审核： 填制：

Explosion-proof certificate

防爆电气设备
防爆合格证

证书编号：CNEx 11.0222

产品名称	防爆消防灭火侦察机器人
产品型号	RXR-MC80JD
产品规格	DC48V；最大工作电流：40A 本安参数：Uo:DC12V，Io:1.1A，Co:1μF，Lo:0.1mH。
代表产品	无
关联设备	无
防爆标志	Exd[ib]ⅡBT4 Gb
检验依据	GB3836.1-2010《爆炸性环境 第1部分：设备 通用要求》 GB3836.2-2010《爆炸性环境 第2部分：由隔爆外壳"d"保护的设备》 GB3836.4-2010《爆炸性环境 第4部分：由本质安全型"i"保护的设备》
备 注	无

上列产品由本中心按检验依据进行了技术文件审查和样机检验，结果符合 矿用隔爆兼本安 型设备的规定。特发此证。

持证单位： 中信重工开诚智能装备有限公司

发证日期： 2016年3月29日

有效期至： 2021年3月28日

颁发单位： 国家煤矿防爆安全产品质量监督检验中心

批准：

注：1.本证仅对符合送检样品有效，并证书单位有责任保证产品符合检验依据文件。
2.本中心地址：辽宁省抚顺市经济开发区滨河路1号 邮编：113122
本中心电话：（024）56013881；56013321 传真：（024）56613080
本中心电子邮件：cmcw@fscerl.com

Technical parameters

Explosion-proof firefighting and scouting robot	
Basic parameters	
Application fields	For the firefighting and reconnaissance in all areas,especially for explosive environment, such as petrochemical, fuel gas
Explosion-proof type	Exd [ib] Ⅱ B T4 Gb
Dimension	Length1660mm×Width820mm×Hight1320mm
Weight	520kg
Traction mechanism	All-terrain high-intensity track, track internal adopts metal frame
Tractive force	3700N
Speed	1.5m/s
Obstacle crossing height	220mm
Roll angle	35°
Climbing ability	78%(38°)
Turning diameter	1900mm
Control mode	Wireless remote control
Continuous running	3h
Working hours	10h
Communication distance	1km(Affected by weather, environment, terrain, etc.)
Wading depth	350mm
Protection grade	IP65
Monitor parameters	
Type of fire extinguishing agent	Water and foam, easily switch
Material	Cannon body-304 stainless steel,cannon head-aluminum alloy hard anodizing
Working pressure	1.2MPa
Spraying mode	Water column and atomization, continuously adjustable
Maximum flow	80L/s
Range	85m
Rotation and pitch angle	Horizontal -30°~+30°, Vertical 0°~ +85°(±5°)
Image acquisition parameters	
Infrared camera	Three, Image resolution 700TVL
HMI parameters	
Dimension	Length 420mm×Width 300mm×Height 110mm
Weight	7kg
Display	10-inch high brightness LCD screen
Display images	3 Video channel switch
Working hours	8h
System	Windows7 operating system
Intelligent configuration	
Sound collection at scene	●
Automatic cooling	●
Automatic obstacle avoidance	●
Heat eye detection and automatic tracking for combustion source	○
Multiple gas detection	○
Automatic rising-lowing detection	●
Automatic control for recoil and Automatic power generation	●
Internet remote control	●
Function of internet	●

※ “●” Standard configured, “○” Optional.

Field application

- Fire-drill at Daqing oil field

- Fire-drill at the Forbidden City

- Warehouse firefighting

- Furniture factory firefighting

- Chemical plant firefighting

- Chemical plant firefighting

- Pharmaceutical factory firefighting

- Paint factory firefighting

RXR-M40D
Firefighting robot

Overview

In recent years, China fire department is promoting construction and upgrade of mini fire station, especially the utilization of modern fire fighting equipements. Kaicheng provides the new developed fire fighting robot which is mainly used in the mini fire station for extinguishing the fire in early stage. The robot's size is small but it is powerful and easy to operate. This robot can be connected to fire truck and municipal fire hydrant.

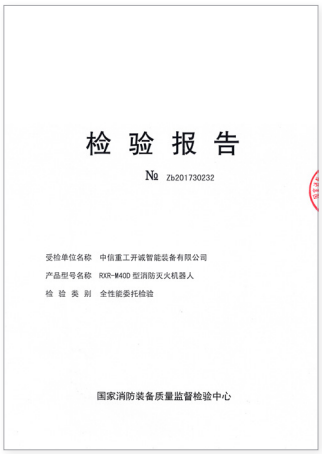
Product advantages

- Applicable to fire truck lorry, municipal fire hydrant and other water supply system;
- Track surface covers by heat tolerant, flame retardant rubber, track internal adopts metal frame;
- Independent suspension shock mitigation system, strong impact resistance;
- High temperature tolerance, which comes with automatic sprinkling cooling system of double water curtain;
- Remote control of monitor for rotation, pitching and conversion of multiple spraying modes;
- Optional high-definition wireless image transmission system, which realizes the remote real-time video surveillance;
- Advanced wireless communication technology, which has long communication distance and strong anti-interference ability. Strong network communication capability, can connect to the internet and transmit field data to the control center, provide reliable support for decision-maker;
- Highly maneuverability, fast movement speed,which can be adjusted.

Technical parameters

Product Model	RXR-M40D
Basic parameters	
Application fields	For the fire fighting and reconnaissance in all areas
Dimension	Length1100mm× Width650mm× Hight1300mm
Weight	250kg
Traction mechanism	All-terrain high-intensity track, track internal adopts metal frame
Tractive force	1900N
Speed	1.8m/s
Obstacle crossing height	150mm
Roll angle	30°
Climbing ability	47%(25°)
Turning diameter	1360mm
Control mode	Wireless remote control
Continuous running	2.5h
Working hours	10h
Communication distance	1km(Affected by weather, environment, terrain, etc.)
Wading depth	250mm
Protection grade	IP65
Fire fighting monitor parameters	
Material	Body, 304 stainless steel, head, aluminium alloy hard anodizing
Working pressure	0.7MPa
Spraying mode	Low pressure straight stream nozzle, water column and atomization
Maximum flow	40L/s
Range	60m
Rotation angle	Horizontal -30°~ +30°, Vertical 0°~ +80°(±5°)
Camera parameters	
Infrared camera	Two, Image resolution700TVL
HMI parameters	
Dimension	Length420mm×Width300mm×Hight110mm
Weight	7kg
Display	10-inch high brightness LCD screen
Display images	2 video channel switch
Working hours	8h
Control system	Windows7 operating system

Qualification of product



检 验 报 告

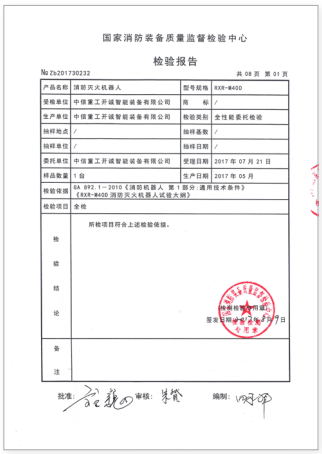
№ Zb201730232

受检单位名称 中信重工开诚智能装备有限公司

产品型号名称 RXR-M40D 型消防灭火机器人

检 验 类 别 全性能委托检验

国家消防装备质量监督检验中心



国家消防装备质量监督检验中心

检验报告

№ Zb201730232 共 08 页 第 01 页

产品名称	消防灭火机器人	型号规格	RXR-M40D
受检单位	中信重工开诚智能装备有限公司	商 标	/
生产单位	中信重工开诚智能装备有限公司	检验类别	全性能委托检验
抽样地点	/	抽样基数	/
抽样单位	/	抽样日期	/
委托单位	中信重工开诚智能装备有限公司	受理日期	2017 年 07 月 21 日
样品数量	1 台	生产日期	2017 年 05 月
检验依据	GA 892.1—2010《消防机器人 第 1 部分：通用技术条件》《RXR-M40D 消防灭火机器人试验大纲》		
检验项目	全检		
检验结论	所检项目符合上述检验依据。		
备注			

批准： 审核： 编制：

RXR-C6BD
Explosion-proof scouting robot

Overview

Explosion-proof scouting robot is designed and certified for reconnaissance in explosive environment, such as petrochemical refining, oil and fuel gas storage, and other chemical manufacturing, storage, transportation site, etc. The product consists of robot and remote control panel. It will help the fireman crew improve the rescue safety and reducing casualties in the mission.

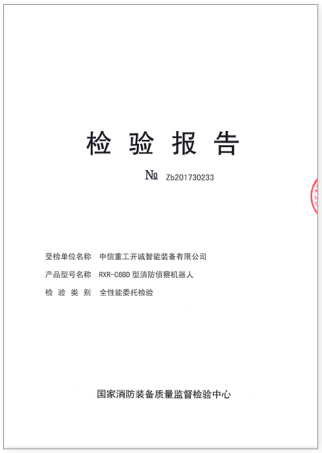
Product advantages

- Explosion-proof certified and waterproof up to IP65;
- High-definition wireless image transmission system, which realizes the remote real-time video surveillance;
- The robot has network communication function, which can connect to the internet, transfer data and provide reliable evidence to command center.
- Advanced wireless communication technology, which has long communication distance and strong anti-interference ability. Strong network communication capability, can connect to the internet and transmit field data to the control center, provide reliable support for decision-maker;
- Explosion-proof lift cradle head is fiexible can meet the requirements of data collection for different gases concentration at different observation points;
- Collecting the scene images and uploading them in real time through three cameras, which include adjustable front, back and monitor tracking view;
- Tracking and monitoring heat source through infrared thermal imaging;
- Highly maneuverability, fast movement speed, which can be adjusted;
- With high-energy density lithium battery, which is rechargeable and replaceable;
- Intuitive GUI, user-friendly HMI.

Technical parameters

Explosion-proof scouting robot	
Basic parameters	
Application fields	For reconnaissance in the fire areas, especially for explosive environment, such as petrochemical, fuel gas
Explosion-proof type	Exd [ib] Ⅱ B T4 Gb
Dimension	Length1320 × Width820 × Hight1360 (mm)
Weight	520kg
Traction mechanism	All-terrain high-intensity track, track internal adopts metal frame
Tractive force	3700N
Speed	1.5m/s
Obstacle crossing height	220mm
Roll angle	35°
Climbing ability	78%(38°)
Turning diameter	1600mm
Control mode	Wireless remote control
Continuous running	3h
Working hours	10h
Communication distance	1km (Affected by weather, environment, terrain, etc.)
Wading depth	350mm
Protection grade	IP65
Gas detection	CO, NH_3, H_2S, O_2, CO_2, combustible gas, other gas detection is optional.
Image acquisition parameters	
Thermal infrared imager	1, resolution: 384x288, temperature range: 0°~550°
Infrared camera	2, image resolution: 700TVL
PTZ	Horizontal angle: 0°~ 360°, vertical angle: -90°~ +90°, continuous rotating. The infrared camera on PTZ provides 30x optical zoom.
Optional device	The cradle head can be added 1 front camera
HMI parameters	
Dimension	Length 420mm×Width 300mm×Height 110mm
Weigh	7kg
Display	10-inch high brightness LCD screen
Display images	3 video channel switch
Working hours	8h
Control system	Windows7 operating system

Qualification of product



检 验 报 告

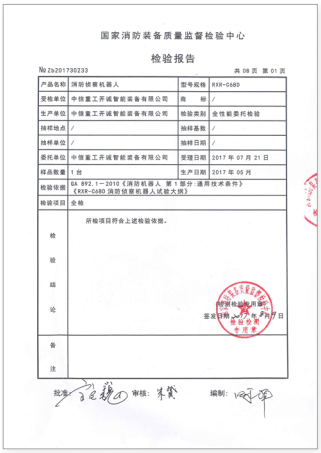
№ Zb201730233

受检单位名称 中信重工开诚智能装备有限公司

产品型号名称 RXR-C6BD 型消防侦察机器人

检 验 类 别 全性能委托检验

国家消防装备质量监督检验中心



国家消防装备质量监督检验中心

检验报告

№ Zb201730233 共 08 页 第 01 页

产品名称	消防侦察机器人	型号规格	RXR-C6BD
受检单位	中信重工开诚智能装备有限公司	商 标	/
生产单位	中信重工开诚智能装备有限公司	检验类别	全性能委托检验
抽样地点	/	抽样基数	/
抽样单位	/	抽样日期	/
委托单位	中信重工开诚智能装备有限公司	受理日期	2017 年 07 月 21 日
样品数量	1 台	生产日期	2017 年 05 月
检验依据	GA 892.1—2010《消防机器人 第 1 部分:通用技术条件》《RXR-C6BD 消防侦察机器人试验大纲》		
检验项目	全检		
检验结论	所检项目符合上述检验依据。		
备注			

检验专用章 年 月 日

批准: 审核: 编制:

Explosion-proof certificate

防爆电气设备

Electrical Apparatus for Explosive Atmospheres

防爆合格证

CERTIFICATE OF CONFORMITY

CMExC

证书编号: CMExC17.0557

Certificate No.

产品名称 Name of Product: 消防侦察机器人

产品型号 Type of Product: RXR-C6BD

产品规格 Specification of Product: DC48V; ≤30A

防爆标志 Marking: Exd[ib] Ⅱ BT4Gb

经对上述产品图样及技术文件的审查和样品检验，确认符合下列标准。

The drawings,technical documents and the samples are verified and certified according to standard(s) for safety as below:

GB3836.1-2010《爆炸性环境 第1部分：设备 通用要求》

GB3836.2-2010《爆炸性环境 第2部分：由隔爆外壳"d"保护的设备》

GB3836.4-2010《爆炸性环境 第4部分：由本质安全型"i"保护的设备》

说明事项 Remarks: 本安参数:本安输出电源:U_o:12V, I_o:1A, C_o:3μF, L_o:20μH, U_m:5.3V, I_m:2A, C_i:30μF, L_i:30μH;
485通讯:U_o:10V, I_o:64mA, C_o:10μF, L_o:10mH;
232通讯:U_o:10V, I_o:20mA, C_o:10μF, L_o:10mH;
CAN通讯:U_o:8V, I_o:70mA, C_o:10μF, L_o:10mH;

持证单位 Certificate Holder: 中信重工开诚智能装备有限公司

发证日期 Date of Issue: 2017年8月1日

有效期至 Valid Date: 2022年7月31日

批准 Approved By

颁发单位 Issued By: 国家煤矿防爆安全产品质量监督检验中心 China National Quality Supervision&Test Center for Explosion-proof and Safety Products for Coal Mine

注：本证仅对符合送检样品生产出有效，证书持有者有责任保证产品符合标准规定。

Notes:This certificate is only valid for the products which are in conformity with the samples. This certificate holder has the responsibility to ensure the products complying with the relative standards.

地址：辽宁省抚顺经济开发区滨河路11号 电话：(024) 56613521 证书查询网址：www.fcmcsc.com

Address: 11 Binhe Road, Development Zone,Fushun city,Liaoning Province,China Tel: 0086 24 56613521

Certificate query URL: www.fcmcsc.com

RXR-MC4JD-G

Explosion-proof high expansion foam firefighting robot

Overview

Explosion-proof high expansion foam firefighting robot is designed and certified for flowing fire extinguishing in explosive environment, such as petrochemical refining, oil and fuel gas storage, and other chemical manufacturing, storage, transportation site, etc. The product consists of robot platform with foam generator, remote control panle. It will help the fireman crew improve the rescue safety and reducing casualties in the mission.

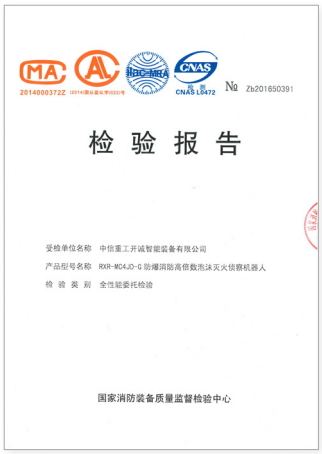
Product advantages

- Explosion-proof certified and waterproof up to IP65;
- The robot track surface covers by heat tolerant, flame retardant rubber, track internal adopts metal frame;
- With large traction, which can drag one 100m length ⌀80mm fire hose filled with water;
- High-definition wireless image transmission system, which realizes the remote real-time video surveillance;
- Pressed foam mixture take the role of both extinguishing media and driving force for the fan to reduce energy consumption;
- Cover type fire extinguishing, low water consumption, non-corrosiveness;
- Advanced wireless communication technology, which has long communication distance and strong anti-interference ability. Strong network communication capability, can connect to the internet and transmit field data to the control center, provide reliable support for decision-maker;
- Remote diagnosis function: realize the remote diagnosis and malfunction analysis of the robot via Internet;
- Image collection: Collecting and uploading the scene images in real time.

Technical parameters

Explosion-proof high expansion foam firefighting robot parameters			
Basic parameters			
Application fields	For extinguishing the flowing fire at explosive environment, such as petrochemical, fuel gas.		
Explosion-proof type	Exd [ib] Ⅱ B T4 Gb		
Traction mechanism	All-terrain high-intensity track, track internal adopts metal frame		
Dimension	Length1520mm× Width920mm× High1580mm		
Weight	516kg		
Tractive force	3700N		
Speed	1.5m/s		
Obstacle crossing height	220mm		
Roll angle	30°		
Climbing ability	58%(30°)		
Turning diameter	1700mm		
Control mode	Wireless remote control		
Continuous running	3h		
Working hours	10h		
Communication distance	1km (Affected by weather, environment, terrain, etc.)		
Wading depth	350mm		
Protection grade	IP65		
Gas detection(optional)	CO, NH_3, H_2S, O_2, CO_2, combustible gas, other gas detection is optional.		
Foam generator parameters			
Mixed liquor flow	4L/s	Maximum foaming amount	140m^3/min
Mixed liquor ratio	3%~6%	Expansion ratio	590
Preset pressure	1MPa		
Image acquisition parameters			
Infrared camera	Two, Image resolution 700TVL		
HMI parameters			
Dimension	Length 420×Width 300×Height 110 (mm)	Weight	7kg
Working hours	8h	Display	10-inch high brightness LCD screen
Display images	Two video signal of channel	Control system	Windows7 operating system

Qualification of product



Explosion-proof certificate

RXLS-EX102
Explosion-proof wheeled inspection robot

Overview

Explosion-proof wheeled inspection robot is designed and certified for explosive site inspection, such as oil storage, fuel gas storage, and other chemical manufacturing, storage, transportation site, etc. The inspection function include meter reading and valve checking, as well as checking the leakage of stuff being stored. To ensure the DCS system works properly, which used to be taken by human inspector. The product consists of the robot, wireless base station, automatic charging station and a remote control platform. It will improve inspection quality, reduce labor intensity and the risks of human inspection.

Explosion-proof certificate & Qualification of product

Product advantages

- Certified explosion-proof category II;
- Self battery diagnosis and automatic charging function;
- Explosion-proof lift cradle head is flexible, can meet the requirements of data collection at different observation points;
- Modular design, expansion function, and with multiple sensors optional, suitable for different sites;
- Wireless transmission, remote inspection in real-time;
- With high energy density lithium-ion battery power supply, which can be charged;
- High power and four wheel drive design, can be used on different terrain;
- With combined navigation mode, ensure the accuracy of route and key point inspection;
- Meter reading and valve checking;
- Malfunction recognizing, report issues to remote control platform.

Function of products

Leakage detection
Detect gas leakage in real time at the site, alarm once the limitation been exceeded.

Video analysis function
Meters reading, valves state and other equipment checking through video analysis, depends on user 's requirements.

Abnormal temperature detection and analysis function
Identify, analyze and diagnose the temperature status of equipment, pipelines, and key components, and promptly report high and low temperature anomalous; Use the temperature imaging feature to detect the temperature trend of key components through different time nodes.

Automatic obstacle avoidance
The robot will automatic stop and alarm, in case there is any human or other objects blocked the route.

Image collection
HD video can be collected via anti-shake camera.

Data logging
Automatic record events, includes self-malfunction recognizing, in the remote control platform.

Duplex audio
Collecting sound in real time at the site, broadcast on the remote control platform. Operator can make remote broadcast through the robot at site. The robot will voice alarm on site and the control platform in case there is obstacle or malfunction was recognized.

Audio abnormality analysis function
According to the user's requirements, audio signal of oil pump, motor and other equipment can be analyzed, abnormal audio will trigger pre warning.

Technical parameters

Explosion-proof wheeled inspection robot parameters			
Working environment	Class Ⅱ explosion-proof environment	Dimension	Length1160mm× Width800mm× Hight840mm
Weight	≤240kg	Walking mechanism	Four-wheel drive design, meets complex road conditions
Speed	0.5m/s	Control mode	Remote control
Climbing ability	10°	Turning radius	spot turn
Working hours	4h (flat surface)	Working temperature	-15℃ ~ 60℃
Illumination	White light auxiliary lighting	Protection grade	IP65
Intrinsically safe dual-vision PTZ parameters			
Visible light camera	Image resolution 1920×1080, 30x optical zoom	Infrared camera	Image resolution 384×288, Temperature measurement range -20 ℃ ~ + 150 ℃
Vertical rotation angle	-90° ～ +90°	Horizontal rotation angle	0° ～ 360°
Lifting height	0.7m		

Field application

Inspection at Sinopec.

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