Explosion-proof distribution box heating tape temperature control



Overview

·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.

Key Takeaways

Explosion-proof distribution boxes use certified heating tapes and thermostats to safely maintain temperature in hazardous areas, with options for digital or mechanical control and integrated monitoring. OverviewExplosion-proof distribution boxes are designed for hazardous environments such as chemical plants, petrochemical facilities, and coal mines, where flammable gases or dust may be present. These boxes distribute power to electric heating tapes used for frost protection, temperature maintenance, or heat tracing of pipelines and equipment, while ensuring safety against ignition sources.

Heating Tape FeaturesExplosion-proof design: Heating tapes are made with special alloy elements and flame-retardant, anti-static sheaths to prevent sparks or high temperatures that could ignite explosive atmospheres. Durability: Internal structures are optimized for long-term bending and stable electrical performance. Applications: Suitable for gases like hydrogen, methane, and petroleum vapors, providing reliable heat tracing in Class I and Class II hazardous zones.

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Temperature Control Options

Mechanical or digital thermostats: Explosion-proof distribution boxes can be equipped with BJW thermostats or digital controllers to regulate heating tape temperature automatically based on ambient or surface conditions. Intelligent controllers: Advanced explosion-proof temperature controllers offer current protection, overcurrent and leakage monitoring, phase loss detection, fault alarms, and communication capabilities for remote monitoring. Control range: Some controllers, such as the eltherm Ex-TC, provide a wide control range from 0 °C up to 450 °C, suitable for various industrial heating applications.

Installation and Safety

Mounting options: Boxes can be hanging, floor-mounted, or pipe-mounted, with cable entries compatible with rubber or armored cables. Protection standards: Aluminum alloy housings with electrostatic spraying comply with GB3836 series or international standards like ATEX and IECEx. Monitoring: Modern systems integrate temperature sensing, leakage detection, and power monitoring, transmitting signals to control rooms for proactive safety management.

Practical Considerations

Channel configuration: Distribution boxes can have 1–12 output channels, supporting single-phase or three-phase heating circuits. Alarm integration: Optional alarms can alert operators to temperature deviations or electrical faults. Maintenance: Explosion-proof heating systems reduce the risk of freezing and prevent production interruptions while maintaining compliance with safety regulations.

In summary, explosion-proof distribution boxes with heating tape combine certified heating elements, thermostats, and intelligent controllers to safely maintain temperature in hazardous areas, offering both reliability and compliance with international safety standards.

Article Content

BR-3 Explosion-Proof Distribution Box

It features a sturdy aluminum alloy enclosure, provides multiple protections against overload, short circuit, and ground leakage, and can achieve automatic control

Turnkey Trace Heating Explosion Protection

Based on your requirements and the relevant standards, the program selects suitable components for an optimized heat tracing system: heating cable, power

ATEX products intended for in electrical heat tracing

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tracing system is much more than just the heating cable. TEP Ex provides the explosion proof distribution boards and junction boxes for diff rent types of heating cables and for temperature

Distribution Boxes HRMD96 Series Explosion-proof Distribution Panels

·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

Ex Local Control Stations & Distribution Boxes

Every control stations is designed and custom made manufacture to order. The robust design and the worldwide certifications guarantee functionality in all

Distribution Boxes HRMD92 Series Explosion-proof Distribution Panels

Distribution Boxes HRMD92 Series Explosion-proof Distribution Panels Catalogue number logic HRMD 92 - Rated current (A) Rated voltage (V) Specification code(I,II,IIB.) Design No. Explosion-proof

Explosion Proof Electrical Equipment, ATEX Lighting | Supermec

It''s cool to be safe Your Electrical & Explosion Proof specialist, and manufacturer of the complete range of ATEX and IECEx compliant Ex-proof electrical equipment for use in Zone 1 and Zone 2, such as

ESP Junction & Terminal boxes

Polyester distribution boxes have been of great advantage in many industrial plants. They offer safe protection even when they are exposed to extreme

Warom | Explosion Proof Lighting & Electrical Equipmen

Warom Group is a leading manufacturer of explosion-proof lighting and electrical equipment in China. We provide certified explosion-proof luminaires, control de

Heat Trace | Products | Chromalox

Heat Trace Products Our extensive range of heat trace cables, control, and monitoring products means we''ve got the solution for every heat trace

Norseman Product Catalog: Electric Explosion-Proof Heater

T3B The standard heater is configured with an explosion-proof junction box and includes a mounting bracket and hardware. As a precaution against excessive convector temperatures, the unit comes

Explosion-Proof Lights, Explosion-Proof Junction Box,

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Our main products are explosion-proof lightings, explosion-proof distribution boxes, explosion-proof cable glands, explosion-proof fans, explosion-proof junction

Explosion Proof Junction Box

Supermec Explosion Proof Junction Box & Hazardous Area Electrical Control Equipment are designed to satisfy most of our clients'' requirements. All equipment are manufactured using the latest

DISTRIBUTION BOARDS

Extol International are the leading suppliers of Control Panels & Distribution Boards for hazardous areas and explosive atmospheres – a comprehensive range of Explosion Proof control panels are available

Custom CZ1290 Explosion-proof distribution boxes

CZ Electric Co., Ltd is a Custom CZ1290 Explosion-proof distribution boxes suppliers and company, Modular design Easy operations with windows Operating handles on the panel Internal wiring is

HRMD92 Explosion proof Distribution Box (Ex d IIB+H2)

Warom Explosion proof Distribution Box (Ex d IIB+H2) in 316 stainless steel. Available with a wide range of built in components.

Electrical Enclosures

Electrical Enclosures in South Africa available in mild steel Electrical enclosures, stainless steel electrical enclosures and Polyester Electrical Enclosures.

Explosion Proof JB | Ex Rated Junction Box

Junction Box Suppliers in Saudi Arabia | Gulf Trans Power Company distributes explosion proof JB, Ex rated junction box, aluminium enclosures, control station box etc.

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