

How to understand the model number of an explosion-proof distribution box

Article Overview

The model number of an explosion-proof distribution box encodes its protection type, applicable hazardous zones, gas or dust group, temperature class, and equipment protection level.

Key Components of the Model Number

o Equipment Group

o I: For mining environments (methane gas)

o II: For other explosive atmospheres outside mines, such as industrial gas or dust areas

o Category / Zone

o 1 / Zone 0: Very high risk, continuous or long-term explosive atmosphere

o 2 / Zone 1: High risk, occasional explosive atmosphere

o 3 / Zone 2: Normal risk, rare or brief exposure

o Atmosphere Type

o G: Gas, vapor, or mist

o D: Combustible dust

o Some devices may have dual markings like G/D for mixed hazards

o Protection Method

o Ex d: Flameproof enclosure, containing internal explosions

o Ex e: Increased safety, preventing sparks or overheating

o Ex i: Intrinsically safe, limiting energy to prevent ignition

o Ex t: Dust protection, preventing ignition of combustible dust

o Gas/Dust Group

o IIA, IIB, IIC: Specifies the type of gas the box can safely handle, with IIC being suitable for the most volatile gases like hydrogen

o Temperature Class

o T1-T6: Maximum surface temperature of the enclosure; lower numbers indicate higher allowable temperatures before ignition risk

o Equipment Protection Level (EPL)

o Gb / Gc: Gas protection levels

o Db / Dc: Dust protection levels

o Indicates the degree of protection and suitability for specific zones

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Example

A model number like II 2G Ex db IIB T4 Gb can be interpreted as:

- o II: Industrial explosive atmosphere
- o 2G: Category 2, suitable for Zone 1 gas areas
- o Ex db: Flameproof enclosure
- o IIB: Gas group, suitable for ethylene and similar gases
- o T4: Maximum surface temperature 135°C
- o Gb: Equipment protection level for gas, suitable for Zone 1

Additional Notes

- o Some manufacturers, like HRMD92 series, include extra identifiers for enclosure material (stainless steel, aluminum), hinge type, and optional features like meters, breakers, or PLCs .
- o Customization may be reflected in the model number or suffixes, indicating special configurations or additional safety features.
- o Always cross-reference the model number with the certification label to ensure compliance with ATEX, IECEx, or local standards . By understanding each segment of the model number, you can determine the suitability of the distribution box for specific hazardous environments, its protection method, and operational limits.

Models like BXD, BXD51, BXD53, BXD8030, BXD8050, BXD8060, BXD8061, BDG58,

Explosion-proof (also spelled explosionproof) and flameproof enclosures are solidly constructed junction boxes for use in hazardous

Designed to withstand extreme temperatures, EJBX terminal boxes and junction boxes support operation in environments as cold as

Learn the top 3 facts about explosion proof distribution boxes & electrical enclosures--certifications (ATEX, IECEx,

These certifications include an explosion-proof marking (Ex marking), which may look complex at first glance. This

Reliable power distribution increases both system availability and the safety of personnel and systems. Thanks

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to our modular

The HRMD91 distribution box (intelligent type) can continuously collect electrical parameters such as voltage, current, power, and

Examples of Explosion-Proof Enclosures One example of explosion-proof standards is

Explosion proof junction boxes need to operate effectively across a range of temperatures. Check the following ratings:

Explosion-Proof Distribution box: These smaller components are structurally similar to distribution cabinets. You can

What NEMA Rating Is Explosion Proof & What Is NEMA With the various ratings used to define hazard protection, it

Durable Hexlon Explosion Proof Distribution Boxes and Electrical Enclosures, IECEx and ATEX certified for Zone 1 and Zone 2.

Explosion-proof lighting distribution boxes and cabinets come in a variety of models. They vary in terms of materials,

Explosion proof panelboards sale at SUREALL! Explosion proof starter disconnect enclosure provides professional lighting solutions

7) Temperature Ratings When operating in extreme conditions, temperature ratings become vital for an explosion

Flameproof and explosion proof, these power overhaul distribution boxes are suitable for use in hazardous areas. Specs: Ex mark:

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