Dual-port information panel explosion-proof type



Overview

Atexshop offers explosion proof Computers and HMI Panels for use in hazardous areas. Our atex certified Computer/HMI are available for sale.

Key Takeaways

Dual-port explosion-proof panels are industrial-grade, double-compartment enclosures designed to safely house electrical controls and circuit breakers in hazardous locations. OverviewDual-port explosion-proof panels, also known as double-door or dual-compartment panelboards, are engineered to contain internal ignition sources and prevent sparks or arcs from igniting flammable atmospheres. They are commonly used in Class I, Division 1 or Zone 1 hazardous areas, such as refineries, chemical plants, LNG terminals, grain silos, and paint spray booths.

These panels are built with precision-machined flamepaths, thick-walled enclosures, and fully gasketed doors to ensure both compartments remain raintight and explosionproof.

Design Features

Dual Compartments: One compartment typically houses the junctions or wiring, while the other contains circuit breakers or control devices, allowing safer maintenance and separation of high- and low-voltage components. Explosionproof Construction: Panels are designed to withstand internal pressure spikes and prevent flame propagation through flamepath joints and robust enclosures. Prewired Breakers: Many models, such as Appleton™ D2P and EWP, come with prewired breakers to terminal blocks, reducing installation time.

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Padlockable Handles: Rotary actuating handles can be individually padlocked in ON or OFF positions without tripping breakers, enhancing operational safety. Environmental Protection: Panels are often watertight, dust-ignitionproof, and corrosion-resistant, suitable for damp or corrosive environments. Certifications and StandardsDual-port explosion-proof panels are typically UL Classified for hazardous locations and comply with NEC/CEC standards.

They are suitable for Class I, Division 1, Zone 1, and can handle Group B and IIB + H2 gases depending on the model.

NEM

A ratings, such as NEMA 4X, are available for additional environmental protection.

Applications

These panels are ideal for branch power distribution, lighting, heat tracing, and motor control in hazardous areas. They support industrial automation and human-machine interfaces (HMI), integrating computing and fieldbus protocols for modern process control. Dual-port designs allow simultaneous access to wiring and breaker compartments without compromising safety, which is critical in continuous operation environments.

ExamplesAppleton™ D2P and EWP Panelboards: Factory-sealed, dual-compartment, explosionproof, UL Classified, 120/208 or 120/240 Vac, 6–36 Amp.

Eaton Power

Plus EX

D Panelboards: Certified for Class I, Division 1 and Zone 1, with optional NEMA 4X rating and factory-installed brackets for long-term breaker operability. Dual-port explosion-proof panels provide a robust, safe, and efficient solution for electrical control in hazardous environments, combining mechanical containment, environmental protection, and operational convenience.

Article Content

Which SIMATIC HMI operator panels and SIPLUS extreme HMIs

Using the application TIA Selection Tool you can obtain a list of all the SIMATIC HMI operator panels that have a certification for the Explosion Protection Zone 22 and Explosion

Explosion-proof Panel PC and Monitor

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Our PCAP touch panel PCs ensure reliable operation in hazardous areas, making them ideal for oil and gas facilities, chemical processing, petrochemical plants, offshore platforms, and other locations

Intrinsically Safe Computer/HMI | Explosion Proof & Atex Certified

Atexshop offers explosion proof Computers and HMI Panels for use in hazardous areas. Our atex certified Computer/HMI are available for sale.

Hazardous Location Enclosures | nVent HOFFMAN

Choose from an extensive line of enclosures to protect electrical components in environments subject to potentially hazardous atmospheres created by vapor or dust.

How to Choose an Explosion-Proof Touch Panel: A Practical Guide

A no-fluff, decision-first guide on selecting explosion-proof touch panels—covering certifications, real-world trade-offs, durability specs, and what actually matters for hazardous

Industrial Panel PCs and Monitors

The explosion-protected human-machine interface panels ensure safe operation while delivering critical control capabilities across dangerous industrial settings.

ATEX Panel PC

Winmate''s ATEX panel PC makes them suitable for nearly any oil and gas application. Our explosion-proof rugged computing solutions are designed to

Explosion Proof Control Panel & Equipment for Hazardous Areas

Hexlon customizable Explosion Proof Control Panels and Equipment, designed for IECEx and ATEX compliance in Zone 1 and Zone 2 hazardous environments.

PowerPlus EXD Explosionproof Panelboards | Crouse-Hinds series

Crouse-Hinds series PowerPlus panelboards provide premium factory sealed and value non-factory sealed solutions for the protection and distribution of lighting, power and heat tracing circuits. EXD

IEP Technologies | Explosion Venting for reliable

Used correctly, explosion venting is a viable and proven explosion protection strategy. Explosion venting offers overpressure protection from potential

Terminal and Junction Boxes (Ex d) | Explosion Protection

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Various sizes and design variants of copper-free, corrosion-resistant aluminum enclosures build the basis for the highly durable EJB terminal boxes and junction boxes. They comply with IP66 (IP66/67

Buy explosion venting panels | ATEX.CENTER EU

Explosion venting panels – efficient and cost-effective solutions for explosion protection of industrial facilities. Minimize risks and protect equipment from dust

Explosion-proof, Ex Zone 2 Multi-touch Panels from Beckhoff

Explosion-proof, Ex Zone 2 Multi-touch Panels from Beckhoff December 4, 2019 Beckhoff CPX Series Panel Series By systematically integrating advanced multi-touch technologies into its

What Is an Explosion-Proof Control Panel and How Does It Work?

Choosing the wrong control panel in a classified hazardous zone is not just a mistake; it is a blunder which can endanger people, equipment, and finances. Explosion-proof panels are no

PowerPlus EXD & D2D Explosion Proof Panelboards

PowerPlus EXD and D2D panelboards for hazardous areas, offering reliable circuit protection and flexibility with premium options. Get in touch with Spike today!

Explosion-proof Panel PC and Monitor

Ensures the Safety of the Workplace Advantech''s explosion-proof HMI and Zone 2 certified panel computers (SPC-618WE RPL) are engineered for hazardous area operations in industrial automation

Selecting the Appropriate Explosion-Proof Panels: A Comprehensive

UL standards (such as UL 1203 for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment) ensure that equipment complies with specific safety requirements for hazardous

Control and Distribution Panels | Ex d | EJB Series

A series of control and distribution panels made from aluminum. Ex d and Ex tb certified for installation in explosion-hazardous areas. Suitable for use in gas group IIB+H 2 environments. Customizable

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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