

EX100.1™/EX200™ Single Zone Control Panel

Explosion Protection System Components

Advantages:

- Microprocessor controlled to provide high reliability and operational flexibility.
- Remote arm/disarm capability.
- Self-diagnostic LED fault indicators and built-in test codes for fast, easy troubleshooting.
- Class A or Class B detection wiring options using static pressure, dynamic pressure, or optical detectors.
- Multiple programming options and enclosure ratings to meet specific application needs.
- Single key arming procedure.
- Process interlock contacts included for personnel safety.
- Extinguisher low pressure switch and explosion vent status monitoring.
- 24-hour battery back-up.
- Separate output signals for alarm, trouble/fault, and warning conditions and programmable pre-alarm option.
- Compatible with all IEP Technologies explosion suppressors and isolation valves.
- FM, ATEX, CSA and CE approved.



Application

The EX100.1™ and EX200™ Control Panels provide an economical control solution for vital explosion protection applications. The control panel is designed to provide annunciation and control of explosion protection systems utilizing hardware provided by IEP Technologies and is compatible with numerous detectors, high rate discharge suppressors, and high-speed isolation valves. Typical applications include explosion protection of dust collectors, mills, bins, shredders, dryers and other process equipment handling explosive dusts or vapors.

The EX100 is ATEX approved. The EX200 control panel conforms to the requirements of NFPA 69.

Description

The EX100.1 and EX200 Control Panels are microprocessor based units designed primarily for small to medium sized explosion protection applications. A wall-mounted NEMA 4 (IP66/IP55) enclosure is standard to provide superior protection

against dust and weather infiltration (NEMA 4X and NEMA 7/9 enclosures are also available). System status is visible through a scratch-resistant polycarbonate window. Electrical terminations are protected behind a full face cover panel. Terminal access has been carefully designed for ease of installation. The microprocessor design provides comprehensive self-checking routines during start-up and during operation to provide the highest level of reliability. The control panel also provides flexibility in field wiring configurations and detection logic.

Specifications

Power Supply: EX 100.1 - 100/120 or 240 VAC at 50/60 Hz. EX200 - 115 or 230 VAC at 50/60 Hz.

Alarm Relay: Form "C" normally de-energized. Dry contacts rated 5 A at 24 VDC or 240 VAC resistive load.

Trouble/Fault Relay: Form "C" normally energized. Dry contacts rated 5 A at 24 VDC or 240 VAC resistive load.

Warning Relay: Form "C" normally energized. Dry contacts rated 1 A at 24 VDC or 0.5 A at 125 VAC resistive load.

Detection Circuit: Three detection circuits with multiple programming options. Class A or Class B wiring.

EX 100.1 EED Actuation Circuit: Capable of firing up to 8 EHRD actuators, 8 PHRD actuators, or 10 Firewolf actuators.

EX 200 EED Actuation Circuit: Capable of firing up to seventeen (17) explosive actuators.

Backup Battery: Available with 12V 12 AH, 18 AH, or 35 AH batteries.

Contact Information

For additional information, please contact:



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EX8000™ Multi Zone Control Unit

Explosion Protection System Components

Advantages:

- Compatible with IEP Technologies sensors, HRD-suppressors and slam valves
- Automatic self-test function to check function standby
- Redundant electronic system
- Functional safety SIL 2
- Readable memory with date stamp
- Configuration options for various process requirements
- Free assignment of potential-free contacts in coordination with process-control
- Arming and disarming of individual plant sections
- Fault and alarm display with light diodes and text indicators, allowing easy correlation
- Built into robust standard floor or wall cabinets



Application

Industrial process vessels such as silos, filters, cyclones, mixers and dryers, in which explosive products are processed, transported and stored, are exposed to the risk of an explosion if a combustible product coincides with an ignition source and oxygen.

Description

The Multi Zone Control Unit CIE (Control and Indication Equipment) assumes both control and system verification functions. The whole electronic system is integrated on a modern and reliable board with redundant circuitry. Power supply, emergency battery and connection technology are accommodated within a cabinet.

Any signals emerging from the explosion pressure, spark, flame or temperature sensors employed are recorded, tested and evaluated by the CIE. Depending on the configuration of the explosion protection system the related protection measures are activated selectively. The monitoring and activation lines are continuously checked with regard to wire breakage, earth fault and short circuit. In addition, an automatic self-test system ensures that all important functions of the CIE are monitored electronically.

In case of power failure the emergency battery automatically takes over without interruption. Power can be sustained for approximately 4 hours.

All fault and alarm messages are displayed by both light emitting diodes (LED) and a liquid crystal display (LCD) and can be forwarded by means of potential-free contacts.

Specifications

Input Voltage: 230 VAC, 50/60 Hz.

Option: 110 VAC, 50/60 Hz

Emergency Power Supply: 2x12 V, 15 AH.

Power failure bridging time: 4h

Cabinet: Powder-coated steel cabinet wall-mounted.

Alternative: floor cabinet

Colour: grey, RAL 7035

Dimensions: 600(w) x 800(h) x 220(d)

Ambient Temperature: -10°C – +40°C

Consumption: 250 watts

Approvals

CE Type Examination Certificate according to directive 94/9/EG (ATEX 95)	
System Certification - Explosion Suppression	FSA 09 ATEX 1595 X
System certification - Explosion Isolation	FSA 09 ATEX 1596 X FSA 09 ATEX 1597 X
Protection category	IP54

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