PIM-230 Interface Module

Protetowire PHSC & PLR Linear Heat Detector Interface Module

Features

- Provides a single zone interface for Protectowire Type PHSC & PLR Linear Heat Detectors
- Capable of Class A (Style D) or Class B (Style B monitoring of up to 6560 Feet (2000 Meters) of Protectowire Type PHSC or PLR Line Heat Detectors.
- Eight alarm temperature ratings
- Integrated IDC loop ground fault detection
- Modbus over RS-485 communications
- Compact size for easy integration

General

The PIM-230 is a detection control module that acts as an interface between a fire alarm control panel detection circuit or addressable node and Protectowire Type PHSC or PLR Linear Heat Detectors. The module provides one (1) supervised detection circuit that may be field wired for either Class A (Style D) or Class B (Style B) service. The alarm initiation circuit is capable of operation up to 6560 feet (2000 meters) of Protectowire Type PHSC or PLR Linear Heat Detectors. The PIM-230 operates using conventional initiating device circuit technology and is compatible with other types of non-resistive normally open contact alarm initiating devices.

Description

The PIM-230 is designed for easy installation and is optionally available in a NEMA-4X* (IP66) rated enclosure for mounting outside of the host fire alarm control panel or remotely near the hazard to be protected. In order to ensure proper operation, each PIM-230 module requires regulated resettable external power provided by a listed and approved host fire alarm or auxiliary power supply panel.

Each module contains one (1) green “Power” LED indicator, one (1) red “Alarm” LED indicator, and one (1) yellow “Fault” LED indicator. One (1) set of Form C (SPDT) Alarm contacts and one (1) set of normally energized Form C (SPDT) Fault contacts are also provided to interface the unit to the host fire alarm panel. The module is capable of Modbus over RS-485 communications providing module status information.

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Specifications

Electrical
- Power input - Regulated 12 - 24 VDC @ 1.1 Watt Standby, 1.4 Watt Alarm
- Power Limited, on board surge and EMI protection devices
- End of line resistor, 10K 1/2Watt

Inputs
- One initiating device circuit capable of monitoring up to 6560 Feet (2000 Meters) of Protectowire Type PHSC or PLR Linear Heat Detectors.

Environmental
- Ambient temperature range:
  UL Listed: -40° to 120°F (-29° to 49°C)
- FM Approved: -40° to 140°F (-29° to 60°C)
- Humidity Maximum 95% non-condensing

Indicators
- One (1) green “Power” LED indicator
- One (1) red “Alarm” LED indicator
- One (1) yellow “Fault” LED indicator

Note: All measurements are approximate.

Relay outputs (Rated 1 amp @ 24VDC Resistive)
- One (1) set of Form C (SPDT) Alarm contacts
- One (1) set of Form C (SPDT) Fault contacts

Module dimensions
- 2.75”W x 3.75”H x 1.25”D (70mm x 95mm x 32mm) - Depth accounts for included mounting track

Optional Enclosure Specifications
- 4.72”W x 4.72”H x 2.38”D (120mm x 120mm x 61mm)
- Clear full view cover
- NEMA 4X Rated (UL Listed Only)
  (Closest IEC equivalent - IP66)

** Additional enclosures and sizes available. Consult Factory*

Modbus over RS-485 Description

The PIM-230 interface module provides integrated Modbus over RS-485 communications. Each module can be configured as a Modbus slave device on an RS-485 network. Once configured to communicate on a network, each module can be poled by a master device for a variety of module specific data. A master device, such as a PLC (Programmable Logic Controller) can monitor the status of one or more modules and take actions based on their status. Modbus over RS-485 communication is a convenient method for utilizing detector status information to implement equipment shutdown or other automation events.

Ordering Information

Model No.	Description
PIM-230	Interface Module for Protectowire Type PHSC & PLR Linear Heat Detectors
PIM-230E	Interface Module for Protectowire Type PHSC & PLR Linear Heat Detectors in a NEMA 4X (IP 66) rated Enclosure.

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