

Description

Harding fire control systems provides for Addressable Loop Modules (ALM3-IP) that may be installed throughout a protected facility in any number up to the system maximum of 50 modules. Harding ALM3-IP modules offer addressable signaling line (SLC) circuits that may each have up to 126 detectors or 126 addressable control devices in any combination.

The Harding Switch Monitor I/O Modules (IOM2106, IOM2102, IOM2110) provide for two different types of input and one relay output all on single addressable module yet consumes only one device address.

The DXP-IOM is a loop powered device that incorporates:

1. a supervised input circuit for switch monitoring, or,
2. a non-supervised opto-coupled input (open collector) for the monitoring of 12 or 24VDC input voltages, and,
3. a volt-free relay output

The I/O modules connect to the SLC and are programmed via an 8 pin DIL switch (1-7 for addressing, 8 for Class A/B). There are no limitations on the number of I/O Modules that may be added to a single SLC loop (up to the SLC maximum of 126 device/detector types).

The supervised inputs are designed to monitor the state of one or more single-pole, volt-free contacts connected on a single pair of cables and may be wired in either a Class A or B (Style D or B) fashion.

The non-supervised opto-coupled open collector input circuit can be used to monitor for the activation of any 12 or 24VDC circuit. Supervision is not required if the connection length is less than 3 feet.

Regardless of which type of input is selected, activation will cause an input event to be generated on the Harding control via the SLC connected to the ALM3-IP.

The volt-free relay is fired programmatically through the Harding fire control system and NOT automatically (by simple activation of the input - unless programmed to do). The relay portion of the I/O Module may be activated by any other input device on the system independent of the status of the two input circuits located on the same card. This allows the I/O Module to truly function as two distinct addressable controls while only occupying a single SLC address point in a cost-effective application.

The open connector input is non-supervised with a 30VDC maximum current. The relay output is a non-supervised, programmable, dry contact with current ratings of 24VDC. 1A:30 VAC .5A (resistive) for the IOM2106 and 24VDC. 4A:30 VAC 4A (resistive) for the IOM2102 and IOM2110.

These devices all use end of line monitoring resistance of 47k Ω on the supervised input side of the device.



Features

- Opto-coupled, open collector type input monitors 12VDC or 24VDC circuits for activation
- Second, supervised input type monitors standard dry contact devices, Class A or B
- Volt-free relay output on same device
- Inputs and outputs operate independently and are tied to other devices on the Harding system programmatically
- Plate mounted for surface/flush mounting in 4" square boxes
- Fully supervised
- Field programmable
- LED for polling/alarm annunciation
- DIL switch addressing
- RoHS Compliant

Listing

UL Standard 864 9th Edition

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Represented by:

Engineer Specification

The contractor shall furnish and install, where indicated on the plans, addressable interface devices for the monitoring and supervision of contact type devices connected to the Fire Alarm control. The devices shall monitor a normally open dry contact. The contractor shall also furnish and install, where indicated on the plans, addressable interface devices to be used in monitoring any 12VDC or 24VDC circuit whose status/activation is being monitored by the Fire Alarm control. Further, the contractor shall furnish and install, where indicated on the plans, addressable interface devices to be used to drop or activate power to systems being controlled by the Fire Alarm control (e.g., elevator recall, door closure) by means of switching a relay. The addressable interface devices shall communicate to the main fire control via the addressable circuit. The addressable interface device must be UL listed and UL listed as compatible with Harding network fire controls. The addressable interface device shall be Harding part numbers IOM2106, IOM2102 and IOM2110.

Technical Data

IOM2106:

Dimensions: 4 1/2"W x 4 1/2"H x 1"D
Supervisory Current: 2.5mA
Surge Current: 7.5mA
Max Alarm Current: 6.0 mA
IDC Voltage: 10 VDC
IDC Current: 1.7 mA max

IOM2102/IOM2110:

Dimensions: 4 1/2"W x 4 1/2"H x 1"D
Supervisory Current: .95 mA
Alarm Current: 3 mA
Max Alarm Current: 5 mA (with LED on)
IDC Voltage: 10 VDC
IDC Max Current: 1.7 mA

Supervised Switch Monitor Input:

Normally open switch generates alarm on closure. Contact Resistance: 5k Ω
@ 200 μ A

Opto-Coupled Open Collector Input:

Low: <1.5VDC, High:>10VDC (30VDC max)
OFF <1VDC; ON>10 VDC;
Voltages between 1.5 and 10VDC Indeterminate

Programmable Dry Contact (IOM2106):

1A@30VDC/.5A@120VAC (Resistive)

Programmable Dry Contact (IOM2102/2110):

4A@30VDC/4A@120VAC (Resistive)

Ordering Information

Part Number	Description
IOM2106	S21 Switch Monitor I/O Module, Low Voltage
IOM2102	S21 Switch Monitor I/O Module, 120V AC
IOM2110	S21 Switch Monitor I/O Module, 120V AC

Related Modules

Part Number	Description
IOM2104	S21 Switch Monitor Module
IOM2109	S21 Mini Switch Monitor Module
IOM2105	S21 Priority Switch Monitor Module
IOM2108	S21 Mini Priority Switch Monitor Module
IOM2101	S21 DIN Rail Switch Monitor Module
IOM2103	S21 Dual Priority Switch Monitor Module
IOM2107	S21 Sounder Control Module
IOM2111	S21 Relay Output Module

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