

# IP Fire Series™ XP/Discovery Line Isolators

- **DXI, DXP-LIB**
- **DXP-IB**

**Description**

IPF Series distributed intelligent systems can be wired as Style 7 (Class A) closed loop systems. When placed on the analog loop, the DXP-ISO line isolator module ensures that all devices remain active if an open condition exists on the circuit. In a short circuit condition, the entire analog circuit could potentially be disabled. By strategically placing isolators along the analog circuit only the shorted area fault condition between isolators would be affected.

The DXI uses its own unique installation base (DXP-LIB) which will not accept any other device eliminating the possibility that any other IPF Series™ devices could be installed in place of the isolator. The DXI is compatible with XP and DISC detector circuits.

The DXP-IB is a unique isolating base that accepts both XP and Discovery detectors – eliminating the need for traditional isolator bases at separate locations. Both XP and Discovery detectors may be mounted directly onto the DXP-IB

**Operation**

The DXP-IB and the DXI utilize a patented technique to recognize a wiring short circuit by monitoring a drop in voltage. In standby operation the isolator provides a two-way power and data pathway with low resistance of 0.4±0.1 ohms in either direction. If the incoming or outgoing supply voltage falls below 15 V±0.5 V, this is detected and the line isolator from the remainder of the SLC isolates the short circuit. The yellow LED on the isolator will then flash at 3 second intervals. The isolator continues to monitor voltage, and when the short circuit is repaired the isolator automatically reverts to its low resistance condition.

The ideal number of isolators is determined by the system layout with 50 DXI or DXP-IB isolator modules maximum on any SLC circuit. Isolators are polarity sensitive and the positive DC supply must be connected to terminal ‘L2 IN/OUT’ and the negative DC supply to terminal ‘L1 IN/OUT’.




**Features**

- **Protects integrity of SLC for open and short fault conditions**
- **Up to 50 isolator modules per SLC**
- **Flashing yellow LED indicates active device**
- **Unique base version with restricted base does not allow insertion of any other device**
- **Sensor base version for use with standard XP/DISC Sensors**
- **Utilizes patented sensing technique**
- **Self-extinguishing polycarbonate that does not fade**
- **Nickel-plated steel terminals for connecting a sensor**
- **Green/RoHS Compliant**

**Listings**

UL File S5022  
CSFM: 7300-1394:115  
MEA: 294-95-E-4

Product	Data Sheet Number	Rev/Revision Date	
IPF Series™ XP/Discovery Line Isolator	2300	1.4/ 10/1/2009	

## Engineer Specification

The contractor shall furnish and install, where indicated on the plans, line isolators to protect the integrity of analog circuits. The use of isolators on an analog circuit shall ensure that all line devices remain active if an open condition exists and that short circuits will be isolated between isolators. The line isolator shall be used on analog circuits that branch off in a unique direction or to provide additional protection by isolating zone monitoring devices. The mounting base will be unique to the isolator and will not accept any other device type. The isolator shall contain a yellow LED that shall flash at 3 second intervals when the isolator circuit is switched on. The combination isolator and mounting base shall be UL listed and UL listed as compatible with the AsBuilt IP Fire Series network fire controls. The line isolator shall be As Built models DXI, DXP-LIB, and DXP-IB.

## Technical Data

**Standby Current:** 340uA

**Alarm LED Current:** 0.00434 A

**Remote Alarm Output:** 0.004 A @ 5 VDC

**Temperature range:** 32°F to 140°F (0°C-60°C)

**Relative Humidity (non-condensing):**0%-95%

## Ordering Information

<b>DXI</b>	Analog XP/Discovery line isolator (model 55000-750)
<b>DXI-LIB</b>	4" Isolator base for DXI Isolator only (45681-211)
<b>DXP-IB</b>	Isolator base for XP/DISC Smoke Sensor (45681-321)
<b>DXP-6</b>	6" Low Profile Base w/Expert Card (model 45681-250)
<b>DXP-4</b>	4" Low Profile Base w/Expert Card (model 45681-210)
<b>DXP-RLY</b>	6" Low Profile 4-wire Relay Base w/Expert Card (model MB-RLYT-AA)
<b>DXP-SNDR</b>	6" Low Profile 4-wire Sounder Base w/Expert Card (model MB-SDRT-AA)
<b>DXP65</b>	Sync Module for Temporal Sounder Bases (model MB-SDRT-SM/G/R)
<b>DXP-XPC</b>	Additional XPERT programming card
<b>DXP-XPC#A</b>	Order "A" for Addresses 1-42, "B" for 43-84, "C" for 85-126, # for Loop #
<b>DXP-126</b>	126 Pre-Programmed XPERT cards
<b>DXP-REM</b>	Remote LED (24V)



## Related Data Sheets

**Discovery Detectors:** DISC-P, 2106; DISC-I, 2107; DISC-T, 2108; DISC-M, 2109

**XP Detectors:** XP-P, 2101; XP-I, 2102; XP-T, 2103; XP-M, 2104

**Addressable Devices:** DXP-PIM/MPIM, DXP-PID/MPID, 2810; DXP-IOM, 2812; DXP-SDR, 2814, DXP-2PID, 2816; DXP-OCR, 2818

**Addressable Base Options:** All Bases, 2310

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