

IP Fire Series™ XP Thermal Detector

- **XP-T**

Description

The AsBuilt intelligent analog addressable thermal detector (XP-T) operates seamlessly with the AsBuilt IP Fire Series™ network fire control. The XP-T communicates to and is managed and controlled by the IPF Series™ analog loop module (ALM).

XP-T heat detectors have a common profile with the photoelectric and ionization smoke detectors but have a low air flow resistance case made of self extinguishing white polycarbonate. The XP-T has a red colored LED that lights steady when in an alarm condition and flashes briefly when polled by the ALM.

Operation

The XP-T heat detector uses a single thermistor to sense the air temperature at the detector position. The thermistor is connected in a resistor network, which produces a voltage output dependant on temperature.

The design of the resistor network, together with the processing algorithm in the microcontroller, gives an approximate linear temperature characteristic. When a device is energized the onboard ASIC regulates the flow of power and controls the data processing. The thermistor provides an output over normal operating ranges that is proportional to the external air temperature. This voltage output is processed in the A/D converter and stored by the communication ASIC. The data is transmitted to the ALM when the XP-T is interrogated.

The XP-T thermal heat detector is unique in the industry as it is fully field programmable in 1 degree increments through the IP Fire Series network fire control. This allows field modifications to installed field devices that may be installed in normally hot conditions such as attic areas, rooftop dwellings and boiler rooms.

The change in the XP-T detector fixed temperature settings is implemented at the IPF control system and not at the field device. Multiple detector settings can be changed with ease. Only personnel authorized to program the IPF control system can access the XP-T programming menu and implement the desired changes on any XP-T device. No special programming tools or laptop computer are necessary.




Features

- Sleek, non-fading white polycarbonate enclosure
- Zero insertion force base
- Drift compensation to keep sensing window open and nuisance alarms eliminated
- Adjustable in 1 degree increments
- Patented XPert programming card eliminates addressing errors during system installation and maintenance
- Alarm flag sends signal to system even when device is not being interrogated
- Wide variety of addressable input/output devices
- Relay and synchronized temporal sounder bases
- Line isolators and isolator bases also available
- Green/ RoHS Compliant

Listings

UL File: S5022
CSFM: 7270-1394:105
MEA: 294-95-E-4

Product	Data Sheet Number	Rev/Revision Date	
IPF Series™ Detectors XP-T	2103	1.4/ 10/1/2009	

Engineer Specification

The contractor shall furnish and install, where indicated on the plans, intelligent thermal heat detectors with one of the several addressable mounting base options available. The detector base will contain the patented XPERT programming card which will permit the free interchange of sensor heads without requiring additional programming of the detector head or attached base. The intelligent detector shall be capable of generating an alarm flag and report its address when the pre-set UL thresholds are exceeded. The detector shall flash its LED intermittently when polled and shall latch when the unit goes into Alarm. The detector shall be capable of changing its fixed alarm threshold in one degree increments at any time by menu selections on the fire control. The combination of the detector head and twist lock mounting base shall be UL listed and UL listed as compatible with the AsBuilt IP Fire Series network fire controls. The detector base shall be installed without regard to wire polarity. The thermal heat detector shall be the AsBuilt model XP-T.

Technical Data

Operating Voltage: 17-28VDC

Clean-air Analog Value: 25 +4/-0

Standby Current: 250uA avg. / 500uA peak

Alarm Level Analog Value: 55

Alarm LED Current: 2mA

Wire Supply: Two-wire supply, polarity insensitive

Remote Alarm Output: 4mA max

Recommended Spacing:

Temperature range: -4°F to 158°F (-20°C to 70°C)

Meets the 30 ft. (9.1m) spacing guidelines in NFPA 72 Chapter 2, however, this spacing is based on ideal conditions and should be used as a layout guide only.

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

Ordering Information



Part Number	Data Sheet	Description
XP-T	2103	Intelligent XP Thermal Detector (model 55000-450)
DXP-6	2310	6" Low Profile Base w/Expert Card (model 45681-250)
DXP-4	2310	4" Low Profile Base w/Expert Card (model 45681-210)
DXP-RLY	2310	6" Low Profile 4-wire Relay Base (model MB-RLYT-AA)
DXP-SND/T	2310	6" Low Profile 4-wire Sounder Base (model MB-SDRT-AA)
DXP65	2310	Sync Module for Temporal Sounder Bases (model MB-SDRT-SM/G/R)
DXI	2300	Line Isolator (55000-750)
DXP-LIB	2300	Isolating Base for DXI only (45681-211)
DXP-IB	2300	Line Isolating Base for Use with XP/DISC Detectors (45681-321)
DXP-XPC		Additional XPERT programming card
DXP-XPC#A		Order "A" for Addresses 1-42, "B" for 43-84, "C" for 85-126, # for Loop #
DXP-126		126 Pre-Programmed XPERT cards
DXP-REM		Remote LED (24V)

Related Data Sheets

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

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

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

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