

XP95A

Heat Detector



Product overview

Product	Heat Detector
Part No.	55000-450
Digital Communication	XP95, Discovery and CoreProtocol® compatible

Compliance



Product information

The XP95A Heat Detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature. It is classified as an ordinary detector by UL.

- Electronic temperature sensing
- Alarm flag for fast alarm responding
- Automatic addressing with the XPERT 7 card
- Electronic free 4" or 6" bases
- Easy installation
- Elegant design
- Ideal for environments that are dirty or smoky under normal circumstances
- Well suited for warehouses, loading docks and parking areas

Technical data

All data is supplied subject to change without notice. Specifications are typical at 24 V, 73°F and 50% RH unless otherwise stated.

Sensor	Single NTC thermistor
Sampling frequency	One second
Digital communication	XP95, Discovery and CoreProtocol compatible
Supply voltage	17 - 28 V dc
Modulation Voltage at Detector	5 V to 9 V peak to peak
Supervisory current	250 µA
Surge current	1 mA
Alarm current	3 mA max
Operating temperature range	32 °F to 151°F
Humidity	0% to 95% RH (no condensation or icing)
Standards and approvals	UL, FM, CSFM
Dimensions	3.93" diameter x 1.65" height
Weight	3.70 oz
Materials	Housing: White flame-retardant polycarbonate Terminals: Nickel plated stainless steel
Test method	Hair dryer
Spacing	Smooth ceiling 60 ft to wall or partition 25 ft

Operation

The XP95A Heat Detector has a common profile with the ionisation and optical smoke detectors but has a low air flow resistance case made of white polycarbonate.

The device monitors heat using a single thermistor network which provides a voltage output proportional to the external air temperature.

Electrical description

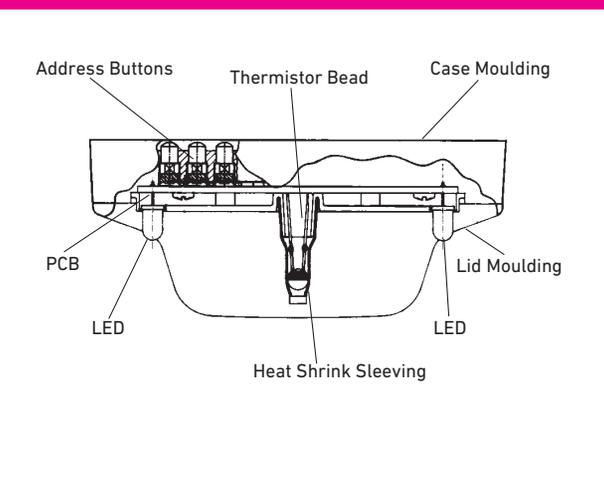
The XP95A Heat Detector is designed to be connected to a two wire loop circuit carrying both data and a 17 V to 28V dc supply. The detector is connected to the incoming and outgoing supply via terminals L1 and L2 in the mounting base. A remote LED indicator requiring not more than 1 mA may be connected between the +R and L2 terminals. An earth connection terminal is also provided. The detector is calibrated to give an analogue value of 25±5 counts at 70°F. This value increases with rising temperature. A count of 55 corresponds to the UL alarm sensitivity level of 135°F.

When the detector is energized the 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. The voltage output is processed in the analogue to digital converter and stored by the communications ASIC. It is transmitted to the control equipment when the device is interrogated. When a count of 55 is exceeded the alarm flag is initiated and the device address is added to the data stream every 32 polling cycles from its last polling for the duration of the alarm level condition, except when an alarming device is being interrogated. This can provide a location identified alarm from any device on the loop in approximately two seconds.

Environmental characteristics

The XP95A Heat Detector range is unaffected by wind or atmospheric pressure. Standard detectors are rated at 200 °F.

XP95A Heat Detector diagram



Response characteristics of XP95A Heat Detector

Type of fire	Heat Detector
OverHeating/Heat combustion	Very poor
Smouldering/glowing combustion	Very poor
Flaming combustion	Poor
Flaming with high Heat output	Moderate/Good
Flaming - clean burning	Moderate/Good