XP95
Heat Detector

Product overview

Product	**Heat Detector - A2S**
Part No.	**55000-400**
Product	**Heat Detector - A2S**
Part No.	**55000-420**
Product	**Heat Detector - CS**
Part No.	**55000-401**
Digital communication	**XP95, Discovery and CoreProtocol® compatible**

Compliance*

*Note: **
55000-400; CPR, LPCB only
55000-420; CPR, LPCB, VdS, BOSEC, SBSC, CCMG, FG
55000-401; CPR, LPCB, BOSEC, CCMG, SBSC, only

Product information

The XP95 Heat Detector monitors temperature by using a single thermistor which provides a count output proportional to the external air temperature.

- Ideal for environments that are dirty or smoky under normal circumstances
- Unaffected by wind or atmospheric pressure

Technical data

All data is supplied subject to change without notice. Specifications are typical at 24 V, 25°C and 50% RH unless otherwise stated.

Detection principle	*Linear approximation over temperature range 25°C to 90°C*	
Sensor	*Single NTC thermistor*	
Sampling frequency	*Continuous*	
Sensitivity	*90 °C: 55 counts*	
Supply Wiring	*Two wire supply, polarity insensitive*	
Terminal functions	*L1 & L2*	*Loop in & out positive*
	+R	*Remote indicator positive connection (internal 2.2 kΩ resistance to supply +ve)*
	–R	*Remote indicator negative connection (internal 2.2 kΩ resistance to supply -ve)*
Supply voltage	*17 V to 28 V dc*	
Digital communication	*XP95, Discovery and CoreProtocol compatible*	
Modulation voltage	*5 V - 9 V peak to peak*	
Quiescent current	*300 µA*	
Power-up surge current	*1mA*	
Duration of power-up surge current	*0.3 seconds*	
Max power-up time	*4 seconds*	
Analogue value at 25°C	*25 ± 5 counts*	
Alarm indicator	*Red light emitting diode (LED)*	
Alarm LED current	*4 mA*	
Remote LED current	*Internal 4.5 k to +ve line (5 mA max)*	
Storage temperature	*-30°C to +80°C*	
Operating temperature	*-20°C to +70°C*	
Humidity (no condensation or icing	*0% to 95% RH)*	
Effect of atmospheric pressure	*None*	
Effect of wind speed	*None in fixed temperature use*	
Vibration, impact and shock	*To EN 54 - 5*	
IP Rating	*IP54*	
*Standards and approvals**	*EN54, CPR, LPCB, VdS, BOSEC, SBSC, CCMG, FG*	
Dimensions	*100mm diameter x 42 mm height*	
Weight	*105 g*	
Material	*Housing: White flame retardant polycarbonate* *Terminals: Nickel plated stainless steel*	

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Operation

The XP95 Heat Detector has a common profile with the XP95 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 Heat Detector is designed to be connected to a two wire loop circuit carrying both data and a 17 V to 28 V 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 4 mA at 5V may be connected between the +R and -R terminals. An earth connection terminal is also provided. The detector is calibrated to give an analogue value of 25±5 counts at 5^{0}C. This value increases with rising temperature. A count of 55 corresponds to the EN 54 alarm sensitivity level.

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 XP95 Heat Detector range is unaffected by wind or atmospheric pressure. Standard detectors operate over the temperature range -20°C to +70°C.

EMC Directive 2014/30/EU

The XP95 Heat Detector complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this datasheet.

A copy of the Declaration of Conformity is available from Apollo upon request.

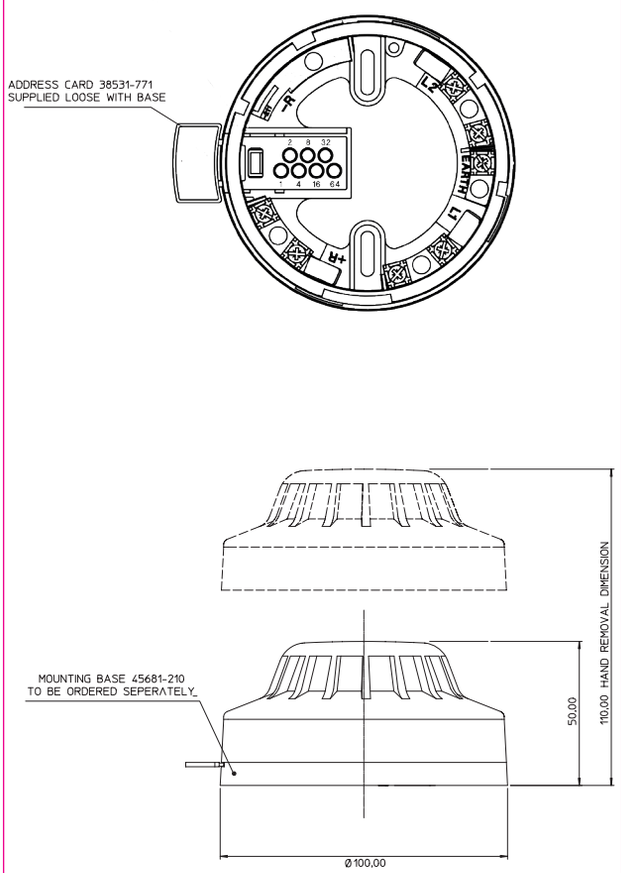
Conformity of the XP95 Heat Detector with the EMC Directive, does not confer compliance with the directive on any apparatus or systems connected to it.

Construction Products Regulation 305/2011/EU

The XP95 Heat Detector complies with the essential requirements of the Construction Products Regulation 305/2011/EU.

A copy of the Declaration of Performance is available from Apollo upon request.

XP95 Heat Detector dimensional drawing



XP95 Heat Detector sectional diagram