Illumino Ignis Ltd™
LIGHTING & FIRE DESIGN, SUPPLY & SUPPORT

XP95 Multisensor Detector

Addressable - Devices

Part No. 55000-885APO

www.illuminoignis.co.uk

Product Details

The XP95 Multisensor Detector combines optical smoke and temperature sensors whose outputs are combined to give the final analogue value.

The signals from the optical smoke sensing element and the temperature sensor are independent, and represent the smoke level and the air temperature respectively in the vicinity of the detector.

Key Features

- Sensitive to a wide range of fires
- Well suited to environments such as hotel bedrooms
- Unaffected by wind or atmospheric pressure

Operation

The XP95 Multisensor Detector contains an optical smoke sensor and a thermistor temperature sensor whose outputs are combined to give the final analogue value.

The Multisensor construction is similar to that of the optical detector but uses a different lid and optical moulding to accommodate the thermistor temperature sensor.

The signals from the optical smoke sensing element and the temperature sensor are independent and represent the smoke level and the air temperature respectively in the vicinity of the detector.

The detectors micro-controller processes the two signals. The temperature signal processing extracts only rate of rise information for combining with the optical signal. The detector will not respond to a slow temperature increase - even if the temperature reaches a high level. A large sudden change in temperature can however, cause an alarm without the presence of smoke if sustained for 20 seconds.

The processing algorithms in the multisensor incorporate drift compensation. The control panel must not have a drift compensation algorithm enabled.

The sensitivity of the detector is considered the optimum for most general applications since it offers good response to both smouldering and flaming fires.

Environmental characteristics

The XP95 Multisensor Detector is unaffected by wind or atmospheric pressure and operates over the temperature range -20°C to +60°C.

Electrical description

The XP95 Multisensor 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 5 V may be connected between the +R and -R terminals. An earth connection terminal is also provided. The detector is calibrated to give an analog value of 23 +4/-0 counts in clean air. This value increases with smoke density. A count of 55 corresponds to the EN 54 alarm sensitivity level.

Construction Products Regulation 305/2011/EU

The XP95 Multisensor 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.

EMC Directive 2014/30/EU

requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this data sheet.

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

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

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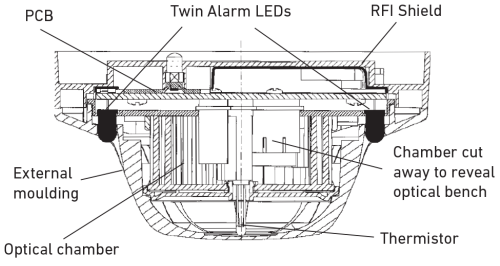
Technical Specifications

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

Detection principle	Smoke: Photo-electric detection of light scattered by smoke particles Heat: Temperature-sensitive resistance	
Chamber configuration - smoke element only	Horizontal optical bench housing an infrared emitter and sensor arranged radially to detect scattered light	
Sensor - smoke element only	Silicon PIN photo-diode	
Emitter- smoke element only	GaAs infra-red light emitting diode	
Sampling frequency smoke element only	Once per second	
Supply Wiring	Two wire supply, polarity insensitive	
Terminal functions	L1 & L2	Loop in & out
	+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)
Operating voltage	17 V to 28 V dc	
Digital communication	XP95, Discovery and CoreProtocol compatible	
Modulation voltage	5−9V peak to peak	
Quiescent current	500 µA average, 750 µA peak	
Power-up surge current	1 mA	
Max power-up time	10 seconds	
Alarm indicator	Two colourless light emitting diode (LED) emitting red light in alarm	
Alarm LED current	3.5 mA	
Remote LED current	4 mA at 5 V (measured across remote load)	

Clean air analogue value	23 +4/-0
Alarm level analogue value	23 +4/-0
Storage temperature	-30°C to +80°C
Operating temperature	-20°C to + 60°C
Humidity (no condensation or icing)	0% to 95% RH
Effect of atmospheric pressure on optical sensor	None
Effect of wind speed on optical sensor	None
Vibration, impact and shock	To EN 54-5. EN54-7
Designed to IP Rating	IP23D
Standards and approvals	EN 54-5, EN 54-7, CPR, LPCB, VdS, VNIIPO, BOSEC, SBSC, CCMG
Dimensions	100 mm diameter x 50 mm height (58 mm height with mounting base)
Weight	105 g 160 g with base
Materials	Housing: White flame-retardant polycarbonate Terminals: Nickel plated stainless steel

XP95 Multisensor Detector sectional diagram



All information in this document is given in good faith but Apollo Fire Detectors Ltd cannot be held responsible for any omissions or errors. The company reserves the right to change the specifications of products at any time and without prior notice.

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