·:::XP95A®

XP95A
Smoke Detector

Product overview

Product	XP95A Smoke Detector
Part No.	SA5050-250
Digital Communication	XP95 protocol

Approvals

UL   F M

Product information

The XP95A Smoke Detector uses new sensing technology, Purelight®, to detect smoke particles entering the chamber. This reduces the possibility of false alarms whilst increasing the reliability of detection of a real fire.

- Approved to UL268 7th edition
- Purelight® optical technology provides enhanced smoke detection and false alarm management
- Internal drift compensation
- Easy installation
- Backwards compatible with XP95 systems
- Base locking mechanism (grub screw)
- Polarity insensitive wiring
- In-built self test
- XPERT card addressing

Technical data

CAUTION: System compatibility
The XP95A Smoke Detector, Part No SA5050-250 can only be used on existing systems operating with XP95 protocol.

This detector is a direct replacement for the 55000-650 XP95A Smoke Detector.

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

Detection principle	Photo-electric light scattering
Sensor configuration	Chamber with surface-mount infrared emitter and prism. Solid state integrated photo-diode and amplifier.
Digital communication protocol	XP95 protocol only
Supply wiring	Two wire supply, polarity insensitive
Sampling frequency	Once per second
Sensitivity	1.2 -2.1%/ft
Supply voltage (Vmin-Vmax)	17 V – 28 V dc
Modulation voltage	5 V – 9 V peak to peak
Supervisory current	340 μA
Switch-on surge current	1.0 mA
Alarm/operated current, LED On	4.0 mA
Status indicator	Alarm (Red)
Additional Remote LED current	5 mA maximum
Product operating temperature	32 ºF to 131 ºF (0°C to 55°C)
Humidity	0% to 95% RH (no condensation or icing)
Effect of atmospheric pressure	None
Air velocity	0 - 300 fpm
IP rating	IP44
Standards and Approvals	UL 268 7th Edition, ULC S529, FM 3230
Dimensions	4 in.(100 mm) diameter x 1.41 in. (36 mm) height (1.88 in. (48) mm height with XPERT 8 Intelligent Mounting Base)
Weight	2.93 ozs. (83 g)
Materials	Housing: White flame-retardant polycarbonate Terminals: Tin plated stainless steel

LPCB   LPCB   LPCB
Assessed to ISO 9001:2015 Cert/LPCB ref. 010   Assessed to ISO 14001:2015 Cert/LPCB ref. 010 EMS   Cert/LPCB ref. 010

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Electrical description

The XP95A Smoke Detector is designed to be connected to a two-wire loop circuit carrying both data and a 17 V – 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 may be connected between the +R and –R terminals. A ground connection terminal is also provided.

Operation

The low profile design of the XP95A Smoke Detector is sleek and evolutionary, with a 360° LED indicator which illuminates red when in alarm.

At the heart of the smoke sensor of the XP95A Detector is Purelight® Sensing Technology which incorporates:

- Cone technology combined with a high-intensity infra-red LED to provide stability and accurate sensitivity to smoke

- A sophisticated dynamic algorithm, providing transient rejection and compensation for drift whilst maintaining accurate sensitivity

The smoke chamber of the detector is a unique cone shape which serves to reduce any stray reflection. This ultra dark internal light chamber also contains a high-intensity infra-red LED that is highly sensitive to smoke particles. When smoke enters the chamber, infra-red light is scattered and registered by the photodiode and amplifier that are included in an application-specific integrated circuit (ASIC). This circuit ensures long term reliability, even in extreme conditions.

System compatibility

This XP95A detector has been designed to operate with XP95A detectors and loops. This XP95A detector can operate on an approved XPERT intelligent mounting base, however, the eighth bit of the address will be ignored.

The device will compensate for drift internally and the fire panel will see this as an increase in analog value. When internal drift limits are reached a fault analog value will be generated.

Maintenance and service

Maintenance has to be done in accordance with all applicable standards. Clean the detector externally using a soft damp cloth.

Compatible Bases

Part Number	Product Name
SA5000-210	Soteria UL Base - 4"
SA5000-230	Soteria UL Base – 6"
SA5300-800	Soteria UL CO Sounder Base - 6" High Frequency
SA5300-802	Soteria UL Sounder Base - 6" High Frequency
SA5300-805	Soteria UL CO Sounder Base - 6" Low Frequency
SA5300-806	Soteria UL Sounder Base – 6" Low Frequency

	Smoke	Multi-Criteria	Heat
For existing XP95A installations choose:	SA5050-250 XP95A Smoke Detector	SA5050-350 XP95A Multi-Criteria Detector (Smoke/Heat)	SA5500-450 XP95A Heat Detector