Advanced XP95A Multicriteria Detector

The XP95A Multi-Criteria Detector (Smoke/Heat) uses new photoelectric sensing technology, Purelight®, to detect smoke particles entering the chamber. It reduces the possibility of false alarms whilst increasing the reliability of detecting a real fire.

Electrical description

The XP95A Multi-Criteria Detector (Smoke/Heat) 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 Multi-Criteria Detector (Smoke/Heat) is sleek and evolutionary, with a 360° LED indicator which illuminates red when in alarm. At the heart of the photoelectric smoke sensor is Purelight® Sensing Technology which incorporates: • Cone technology combined with a high-intensity infra[1]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. Signals from the photoelectric smoke chamber and temperature sensors are independent and represent the smoke level and air temperature respectively in the vicinity of the detector; the detectors micro-controller processes both signals. The temperature signal processing extracts only rate-of-rise information for combination with the smoke signal. The optical sensor will trigger an alarm at 1.2 %/ft and the heat sensor at 69.8 ºF (21 ºC) rise. Minimum time to alarm is ten seconds. The detector will not respond to slow increases in temperature, but a large, sudden change can cause an alarm without the presence of smoke. The sensor will respond to smoke or heat, or a combination of both.

System compatibility

The low profile design of the XP95A Multi-Criteria Detector (Smoke/Heat) is sleek and evolutionary, with a 360° LED indicator which illuminates red when in alarm. At the heart of the photoelectric smoke sensor is Purelight® Sensing Technology which incorporates: • Cone technology combined with a high-intensity infra[1]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. Signals from the photoelectric smoke chamber and temperature sensors are independent and represent the smoke level and air temperature respectively in the vicinity of the detector; the detectors micro-controller processes both signals. The temperature signal processing extracts only rate-of-rise information for combination with the smoke signal. The optical sensor will trigger an alarm at 1.2 %/ft and the heat sensor at 69.8 ºF (21 ºC) rise. Minimum time to alarm is ten seconds. The detector will not respond to slow increases in temperature, but a large, sudden change can cause an alarm without the presence of smoke. The sensor will respond to smoke or heat, or a combination of both.

Maintenance and service

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

Features

- Purelight® optical technology for 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

Listings and approvals

- Approved to UL268 7th edition, UL521

This detector is a direct replacement for the 55000-886AEL XP95A multisensor detector.

Specification

Digital communication protocol	XP95
Supply wiring	Two wire supply, polarity insensitive
Sensitivity	1.2-2.1%/ft
Supply voltage (Vmin-Vmax)	17-28 Vdc
Sampling frequency	Once per second
Modulation voltage	5-9V 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	5mA maximum
Product operating temperature	32° F to 131° F (0° C to 55° C)
Effect of atmospheric pressure	None
Air velocity	0-300 fpm
Humidity	0% to 95% RH (no condensation or icing)
IP rating	IP44
Weight	2.93 ounces (83g)
Dimensions	4" (100mm) diameter x 1.5" (38mm height) 2" (50 mm) height with XPERT8 Intelligent Mounting Base
Materials	Housing: White flame-retardant polycarbonate. Terminals: Tin-plated stainless steel

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

Order Codes and Options

SA5050-350ADV	Advanced XP95A Multicriteria Detector

SA5000-210ADV	Axis AX UL Base - 4"
SA5000-230ADV	Axis AX UL Base - 6"

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As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.