Photoelectric, Ionization And Thermal Distributed Intelligent Detectors

76-010   Technical Data

FEATURES

- **Analog Photoelectric Ionization and thermal types**
- **True distributed intelligence**
- **Field programmable alarm and prealarm set points**
- **Internal supervision**
- **Fail soft operation**
- **Alarm verification**
- **Calibrated alarm test by command to sensor level**
- **Drift compensation**
- **Status LED**
- **Non polarized**
- **Low profile style**
- **Euro style base**
- **Full analog display of detector values**
- **Electronic addressing**

DESCRIPTION

non-volatile memory. The prealarm set point typically is used as an early warning signal. On receipt of a prealarm signal, the operator may, in addition to sending someone to investigate, request actual percent obscuration levels or temperature in real time from that, or any other, detector. To disable the prealarm function, the set point must be programmed the same as the alarm set point.

Drift Compensation
Each smoke detector is self-monitoring for drift from alarm set point caused by long-term environmental conditions, contamination or electronic component aging. Using a carefully designed alogrithm, the detector measures and averages 32 days of "normal" smoke level. This data then is used in the drift compensation alogrithm to maintain the proper set point as programmed for the unit. If the detector cannot compensate, a trouble signal is sent to the Central Control Panel identifying the affected detector and the state: "Drift Error".

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Status LED

A LED is provided on the SmartOne™ detector to indicate status of the smoke detector. A 2 second flash rate indicates alarm; a 9 second rate normal; when a trouble exists, the LED is off.

2. "T" tapping wiring method is acceptable for Style 4 wiring. Number of taps <u>only</u> a funtion of good practice.

BASE WIRING INFORMATION

(Both 70-400001-100 and -101 Bases)

NOTE: *Factory setting of detectors are as follows:*
Photoelectric detectors - Alarm 2.0%/ft.,
Prealarm 1.5%/ft.
Ionization detectors - Alarm 1.0%/ft.,
Prealarm 0.8%/ft.
Thermal - Alarm 140° F (60° C)
Prealarm 80° F

DETECTOR IDENTIFICATION

Part Number	Description
70-400001-100	Common Mounting Base Model 6SB
70-400001-101	Euro Style Mounting Base 4SB
71-402001-100	Ionization Detector - Model CPD 7052
71-402001-100	Photoelectric Detector - Model PSD 7152
70-404001-100	Thermistor Heat Detector - Model THD 7252

NOTE: *These detectors are compatible only with fire alarm systems, utilizing a Receiver/Transmitter Module, P/N76-100005-001*

SmartOne Ionization Smoke Detector

Model CPD 704X is a dual chamber ionization type detector which sense both visible and invisible smoke. A unique sensing chamber design permits 360° smoke entry and response.

SmartOne Photoelectric Smoke Detector

Model PSD 714X is a smart photoelectric smoke detector. These detectors will respond to a broad range of flaming and smoldering fire conditions. Improved long-term stability is achieved through the use of a custom integrated circuit that features multi-stage amplification.

SmartOne Thermistor Heat Detector

Model THD 72XX is a thermistor based analog device that can be programmed to respond to fixed temperature rate compensated heat rise without problems associated with thermal lags.

Smart One Mounting Bases

All models of SmartOne detection devices use a universal mounting base arrangement. The mounting base is available in two models, Model 6SB and Model 4SB. Base model 6SB provides a trim ring which masks any inconsistencies between the electrical box and the ceiling material. Model 4SB is electrically the same as model 6SB and does not provide the trim ring. The 4SB's outside diameter matches that of the detection devices thus allowing installation into tight spaces (i.e., Under floor area's).

7050

7152

7252

APPLICATION DATA

The SmartOne detection devices are compatible with the **PEGAsys** control equipment which utilizes the RX/TX communications controller. Each RX/TX can communicate to 255 SmartOne devices. The RX/TX supports NFPA Style 4, 6 and 7 wiring schemes. Style 4 allows unlimited "T" tapping and Style 6 requires a loop back on each side of the loop wiring. Style 7 requires the use of Loop isolator devices. Loop isolator devices are available for mounting on the RX/TX, Single Gang electrical box mount and base model 6 SB mounting.

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