TR-PTIR-W and TR-PTIR-IV

Multi-Criteria Photo / Thermal / Infrared Detector

General Description

TR-PTIR-W and TR-PTIR-IV are intelligent, multi-criteria detectors that combine photoelectric, thermal, and infrared (PTIR) sensors in one unit to sense multiple components of a fire. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulates.

Multiple sensors and communication can greatly reduce nuisance alarms compared to single sensing methods. Sophisticated algorithms maximize the advantages of all four sensor types creating our best detection strategy offering heightened immunity to nuisance particulate and enhanced sensitivity to real fire.

• Photoelectric sensor detects airborne particles associated with smoke.
• Thermal sensor detects heat and rate-of-rise (135°F fixed temperature threshold).
• Infrared sensors discern light patterns in the environment as an additional data point for alarm determination.

This ability to reject certain nuisance alarm triggers, such as theater smoke, supports the use of the detector in applications where moderate to heavy nuisance conditions exist that might cause single sensing detectors to trigger a false alarm.

The PTIR detector meets both UL 268 7th edition and UL 521 listing requirements and can indicate distinct smoke and heat alarms. This dual nature supports a local alarm setting for photoelectric detection and a general evacuation setting based on thermal detection. This can minimize work interruptions in multi-level buildings.

TR-PTIR-W in TR-B200S-WH sounder base

TR-RA100Z Remote LED Annunciator

FEATURES & BENEFITS

• Multi-criteria detection

• Analog communications

• Low standby current

• Rotary address switches

• Dual LEDs for 360° visibility

• New modern profile

• Expanded color options

• UL 268 7th Edition and UL 521 Listed

TRIGA
Powered by Honeywell

Technical Specifications

PHYSICAL/OPERATING

Dimensions:

Height: 2.0 inches (51 mm) installed in TR-B300-6 base

Diameter: 6.2 inches (156 mm) installed in TR-B300-6 base; 4.1 inches (104 mm) installed in TR-B501-WHITE/-IV/-BL base

Weight: 3.4 oz. (95 g)

Operating Humidity Range: 15% to 90% Relative Humidity, Non-condensing

Operating Temperature Range: 32°F to 100°F (0°C to 38°C)

Air Velocity: 0 to 300 ft./min. (0 to 91.4 m/min.)

ELECTRICAL SPECIFICATIONS

Operating Voltage Range: 15 to 32 VDC

Operating Current @ 24 VDC: 200 uA (one communication every 5 seconds with green LED blink on communication)

Maximum Alarm Current: 2 mA @ 24 VDC (one communication every 5 seconds with red LED solid on)

Maximum Current: 4.5 mA @ 24 VDC (one communication every 5 seconds with amber LED solid on)

Isolator Load Rating: 0.0063

STANDARDS

The devices in this datasheet meet the standards of UL 268 7th Edition.

AGENCY LISTINGS AND APPROVALS

The listings and approvals below apply to the TR-PTIR-W nd TR-PTIR-IV. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult the factory for the latest listing status.

UL Listed

FM Approved

ORDERING INFORMATION

TR-PTIR-W: Multi-criteria photoelectric, thermal and infrared smoke detector, bright white color.

TR-PTIR-IV: Multi-criteria photoelectric, thermal and infrared smoke detector, ivory color.

BASES

TR-B501-WHITE: 4" Mounting base, white

TR-B501-IV: 4" Mounting base, ivory

TR-B501-BL: 4" Mounting base, black

TR-B300-6: 6" Flanged mounting base, white

TR-B300-6-IV: 6" Flanged mounting base, ivory

TR-B200S-WH: Intelligent addressable sounder base, white

TR-B200S-IV: Intelligent addressable sounder base, ivory

TR-B200S-LF-WH: Intelligent addressable sounder base, low-frequency, white

TR-B200S-LF-IV: Intelligent addressable sounder base, lowfrequency, ivory

TR-B224BI-WH: Isolator base, white

TR-B224BI-IV: Isolator base, ivory

TR-B224RB-WH: Relay base, white

TR-B224RB-IV: Relay base, ivory

ACCESSORIES

TR-RA100Z: Remote LED annunciator

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

Country of origin: Mexico

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