

TR-MCS-PTIR

Multi-criteria detector with three sensing elements (Photo, Thermal, IR)

The TR-MCS-PTIR is an intelligent, multi-criteria detector that combine photoelectric, thermal, and infrared (PTIR) sensors in one unit to sense multiple components of a fire.

This multi-sensor approach on the TR-MCS-PTIR Series 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-MCS-PTIR
with TR-B200S-WH Sounder Base

FEATURES & BENEFITS

- UL 268 7th Edition and UL 521 Listed
- Multi-criteria detection
- Analog communications
- Low standby current
- Rotary address switches
- Dual LEDs for 360° visibility
- New modern profile
- Expanded color options



Note: Specifications are subject to change without notice.



Technical Specifications

PHYSICAL

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 base

Weight: 3.4 oz. (95 g)

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

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

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

ELECTRICAL

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.

ORDERING INFORMATION

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

BASES

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

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

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

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

TR-B224BI-WH: Isolator base, white

TR-B224RB-WH: Relay base, white

ACCESSORIES

TR-RA100Z: Remote LED annunciator

AGENCY LISTINGS AND APPROVALS

For exact certification listings for each model,
please reference the respective agency website.

UL listed

FM approved

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