

MCS-PTIR and MCS-PTIR-IV

Multi-Criteria Photo/Thermal/Infrared Detector

General Description

MCS-PTIR and MCS-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.



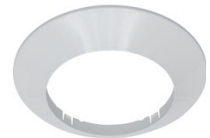
MCS-PTIR in B200S-WH sounder base



RA100Z Remote LED Annunciator



*CK300-IR-BL
Color Kit*



*TR300
Trim Ring*

FEATURES & BENEFITS

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

MCS-PTIR and MCS-PTIR-IV Technical Specifications

PHYSICAL/OPERATING

Dimensions:

Height: 2.0 inches (51 mm) installed in B300-6 base
Diameter: 6.2 inches (156 mm) installed in B300-6 base; 4.1 inches (104 mm) installed in 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 MCS-PTIR and MCS-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: S1195

FM Approved

CSFM: 7272-1703:0508

ORDERING INFORMATION

MCS-PTIR: Multi-criteria photoelectric, thermal and infrared smoke detector, Velociti, bright white color
MCS-PTIR-IV: Multi-criteria photoelectric, thermal and infrared smoke detector, Velociti and CLIP, ivory color

Bases

B501-WHITE: 4" Mounting base, white
B501-WHITE-BP: 4" mounting base, white, 10-pack
B501-IV: 4" Mounting base, ivory
B501-BL: 4" Mounting base, black
B300-6: 6" Flanged mounting base, white
B300-6-BP: 6" Flanged mounting base, white, 10-pack
B300-6-IV: 6" Flanged mounting base, ivory
B200S-WH: Intelligent addressable sounder base, white
B200S-IV: Intelligent addressable sounder base, ivory
B200S-LF-WH: Intelligent addressable sounder base, low-frequency, white
B200S-LF-IV: Intelligent addressable sounder base, low-frequency, ivory
B224BI-WH: Isolator base, white
B224BI-IV: Isolator base, ivory
B224RB-WH: Relay base, white
B224RB-IV: Relay base, ivory

Accessories

SMB600: Surface mounting kit (flanged)
TR300: Trim ring, white
TR300-IV: Trim ring, ivory
CK300-IR: IR color kit (includes cover and trim ring), white, 10-pack
CK300-IR-IV: IR color kit (includes cover and trim ring), ivory, 10-pack
CK300-IR-BL: IR color kit (includes cover and trim ring), black, 10-pack
RA100Z: Remote LED annunciator
M02-04-00: Detector test magnet
M02-09-00: Telescoping test magnet

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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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9021-62006 | A | 04/19
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