

**MRI-2351TIRAP
SELECT SERIES
PTIR INTELLIGENT SMOKE DETECTOR**



Model MRI-2351TIRAP Advanced Multi-Criteria Detector installed on a B300-6 base

Description

The Select Series low profile smoke detectors are intelligent addressable plug-in detectors with point ID capability that enables each detector address to be set with rotary address switches providing exact device locations.

Detector sensitivity is continually monitored and reported to the fire alarm control panel. These intelligent sensors utilize a state-of-the-art thermistor sensing circuit for fast response.

Advanced Protocol uses a high speed communication protocol that greatly increases the speed of communication between the intelligent devices.

The modern design and expanded color options support contemporary aesthetic demands. In addition, each detector is constructed for exceptional installation and maintenance efficiency.

The Select Series MIX-2351TIRAP is an intelligent, multi-criteria detectors incorporating photoelectric, thermal, and infrared (PTIR) detection principles. Advanced algorithms maximize the advantages of each sensor type creating a more robust detection strategy rejecting nuisance sources, but still responding quickly to real fires.

By using multiple sensors and communication between the sensing elements, nuisance alarms can be greatly reduced when compared to single-sensing methods.

- Photoelectric sensors detect particulate in the air associated with smoke
- The thermal sensors detect heat including its rate-of-rise with a 135°F (57°C) fixed temperature threshold
- The Infrared sensor discerns light patterns in the environment as an additional data point for alarm determination

Because it rejects certain nuisance alarm triggers, the PTIR detector is ideal for applications where moderate nuisance conditions exist. For example, single-sensing detectors might trigger a false alarm on transient cigarette smoke or a quick burst of steam.

The PTIR detector meets both UL 268 7th edition and UL 521 (MIX-2351TIRAP) 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.

Features

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

Specifications

Physical/ Operating Specifications	
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 base.
Shipping Weight	3.4 oz (95 g)
Operating temperature Range	32°F to 100°F (0°C to 38°C)
Operating Humidity Range	10% to 90% Relative Humidity, Non-condensing
Air Velocity	0 to 300 ft./min. (0 to 91.4 m/min.)
Electrical Specifications	
Voltage Range	15 to 32 VDC
Operating Current @ 24 VDC	200 uA (one communication every 5 seconds with green LED blink on communication)
Maximum Current	4.5 mA @ 24 VDC (one communication every 5 seconds with amber LED solid on)
Maximum Alarm Current	2 mA @ 24 VDC (one communication every 5 seconds with red LED solid on)
Isolator Load Rating	0.0063



Ordering Information

Model	Description	Color
Intelligent PTIR Detectors		
MRI-2351TIRAP	Intelligent Photoelectric, thermal and infrared smoke detector - UL	White
Bases		
B501-WHITE	4" Flangeless mounting base - UL/ ULC	White
B501-IV	4" Flangeless mounting base - UL/ ULC	Ivory
B300-6	6" Flanged mounting base - UL	White
B300-6-IV	6" Flanged mounting base - UL	Ivory
B200SR-WH	Standard Sounder Base - UL	White
B200SR-IV	Standard Sounder Base - UL	Ivory
B200SR-LF-WH	Low-frequency Sounder Base - UL	White
B200SR-LF-IV	Low-frequency Sounder Base - UL	Ivory
B224BI-WH	Isolator Base - UL	White
B224BI-IV	Isolator Base - UL	Ivory
B224RB-WH	Relay Base - UL	White
B224RB-IV	Relay Base - UL	Ivory
Accessories		
CK300-IR	PTIR Color Kit (includes cover and trim ring) - Pack of 10	White
CK300-IR-IV	PTIR Color Kit (includes cover and trim ring) - Pack of 10	Ivory
CK300-IR-BL	PTIR Color Kit (includes cover and trim ring) - Pack of 10	Black
TR300	Trim Ring	White
TR300-IR	Trim Ring	Ivory
RA100Z	Remote LED annunciator - UL	Ivory

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