



SS-Series PTIR Intelligent Detector

*Photoelectric, thermal and infrared multi-criteria detector
responds quickly to fires with reduced nuisance alarms.*



SS-PTIR Advanced Multi-Criteria Detector
installed in B300-6 sounder base

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 options

SS-Series smoke detectors are intelligent (addressable) detectors with point ID capability. Each detector's address is set with rotary address switches for exact device locations. SS-Series detectors support current SK, LiteSpeed™ and SS Protocol systems. Refer to the Addressable Detector and Sounder Base Compatibility Chart or the Intelligent Control Panel SLC Wiring Manual for specific panel compatibility. Detector sensitivity is continually monitored and reported to the fire alarm control panel. The modern design and expanded color options support contemporary aesthetic demands. Each detector is constructed for exceptional installation and maintenance efficiency.

The System Sensor SS-PTIR is an intelligent, multi-criteria detector 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 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 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.

Agency Listings



SS-Series PTIR Intelligent Detector 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/-BL base
Weight	3.4 oz (95 g)
Color	White
Operating Humidity Range	15% to 90% Relative Humidity, Non-condensing
Operating Temperature Range	32°F to 115°F (0°C to 47°C)
Air Velocity	0 to 300 ft./min. (0 to 91.4 m/min.)
Sensitivity Range	Open Area 2.52-3.89%/FT Special Application 1.13-2.52%/FT
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

Ordering Information

Part No.			Description
White	Ivory	Black	
SS-PTIR	—	—	Photoelectric, thermal and infrared smoke detector
Bases			
B501-WHITE	B501-IV	B501-BL	4" Mounting base
B501-WHITE-BP	—	—	4" Mounting base, bulk pack
B300-6	B300-6-IV	—	6" Flanged mounting base
B300-6-BP	—	—	6" Flanged mounting base, bulk pack
B200S-WH	B200S-IV	—	Intelligent addressable sounder base
B200S-LF-WH	B200S-LF-IV	—	Intelligent addressable sounder base, low-frequency
B200SR-WH	B200SR-IV	—	Intelligent sounder base
B200SR-LF-WH	B200SR-LF-IV	—	Intelligent sounder base, low frequency
B224RB-WH	B224RB-IV	—	Relay base
B224BI-WH	B224BI-IV	—	Isolator base
Accessories			
—	SMB600	—	Surface Mounting Kit (flanged)
TR300	TR300-IV	—	Trim ring
CK300-IR	CK300-IR-IV	CK300-IR-BL	IR Color Kit (includes cover and trim ring)
—	RA100Z	—	Remote LED annunciator
M02-04-00			Detector test magnet
M02-09-00			Telescoping test magnet

Accessories



System Sensor® is a registered trademark of
and LiteSpeed™ is a trademark of
Honeywell International, Inc.



3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495

©2024 System Sensor.
Product specifications subject to change without notice. Visit systemsensor.com
for current product information, including the latest version of this data sheet.
SPDS-62168 Rev. B • 5/7/2024