BOSCH
Invented for life

ISC-PPR1-W16 Professional Series PIR Detector

- **16 m x 21 m (50 ft x 70 ft) coverage, selectable to 8 m x 10 m (25 ft x 33 ft)**
- **EN50131-2-2 Grade 2 and VdS G107504 Class B compliant**
- **Sensor data fusion technology**
- **Tri-focus optics technology**
- **Active white light suppression**
- **Dynamic temperature compensation**
- **Remote walk test**
- **Alarm memory**
- **Draft and insect immunity**
- **2 m to 3 m (7 ft to 10 ft) mounting height, no adjustments required**

The ISC-PPR1-W16 Professional Series PIR Detector is exceptionally suited for commercial indoor applications. Sensor data fusion technology ensures that the detector sends alarm conditions based on precise information. Tri-focus optics eliminate coverage gaps and respond efficiently to intruders. The powerful combination of unique features in the Professional Series delivers superior catch performance and virtually eliminates false alarms.

The self-locking two-piece enclosure, built-in bubble level, flexible mounting height, and three optional mounting brackets simplify installation and reduce service time.

Functions

Sensor Data Fusion Technology

Sensor data fusion technology is a unique feature that uses a sophisticated software algorithm to gather signals from multiple sensors: two pyroelectric sensors, a room temperature sensor, and a white light level sensor. The microcontroller analyzes and compares the sensor data to make the most intelligent alarm decisions in the security industry.

Tri-focus Optics Technology

Tri-focus optics technology uses optics with three specific focal lengths: long-range coverage, middle-range coverage, and short-range coverage. The detector applies the three focal lengths to 86 detection zones, which combine to make 11 solid curtains of detection. Tri-focus optics technology also includes two pyroelectric sensors, which deliver twice the standard optical gain. The sensors process multiple signals to deliver precise performance virtually free of false alarms.

Active White Light Suppression

An internal light sensor measures the level of light intensity directed at the face of the detector. Sensor data fusion technology uses this information to eliminate false alarms from bright light sources.

Field Selectable Coverage (16 m x 21 m or 8 m x 10 m)

Installers can use a DIP switch to select 16 m x 21 m or 8 m x 10 m (50 ft x 70 ft or 25 ft x 33 ft) coverage.

Dynamic Temperature Compensation

The detector automatically adjusts PIR sensitivity to identify human intruders at critical temperatures. Dynamic temperature compensation detects human body heat accurately, avoids false alarms, and delivers consistent catch performance at all operating temperatures.

Cover and Wall Tamper Switch
When an intruder removes the cover or attempts to separate the detector from the wall, a normally-closed contact opens to alert the control panel.

Self-adjusting LED
The LED brightness adjusts automatically to the surrounding light level. A blue light-emitting diode (LED) indicates an alarm condition and activates during a walk test.

Remote Walk Test LED
Users can enter a command through a keypad, a control center, or programming software to remotely enable or disable the walk test LED. Users can locally enable or disable the walk test LED through the DIP switch.

Alarm Memory
Alarm memory flashes the alarm LED to indicate stored alarms for use in multiple unit applications. A switched voltage from the control panel controls the alarm memory.

Solid State Relays
Solid state relays send silent alarm output signals to provide a higher level of security and reliability. An external magnet does not activate the relay. The solid state relay uses less current than a mechanical relay, providing longer standby capacity during a power loss.

Draft, Insect, and Small Animal Immunity
The sealed optic chamber provides immunity to drafts and insects, reducing false alarms. Small animal immunity reduces false alarms caused by animals less than 4.5 kg (10 lb), such as rodents.

Remote Self Test
A remote self test initiates when the walk test input switches to its true state. The alarm relay and alarm LED activate for four seconds following a successful test. The trouble relay activates, and the alarm LED flashes following a failed test.

Input Power Supervision
When the power is lower than 8 V, a low input power trouble condition activates the trouble relay and causes the LED to flash. The trouble condition clears automatically when power reaches or exceeds 8 V.

DIP Switch Programming
The following functions are all programmed using DIP switch settings:

- Remote Walk Test LED
- Long and Short Range Select

Trouble Memory
When the walk test input switches to its true state for less than two seconds, the LED flashes to indicate the most recent trouble condition. If there is no trouble in memory, the LED does not flash. After twelve hours, or after the detector receives a second walk test pulse for two seconds or less, the LED stops flashing and the trouble memory clears.

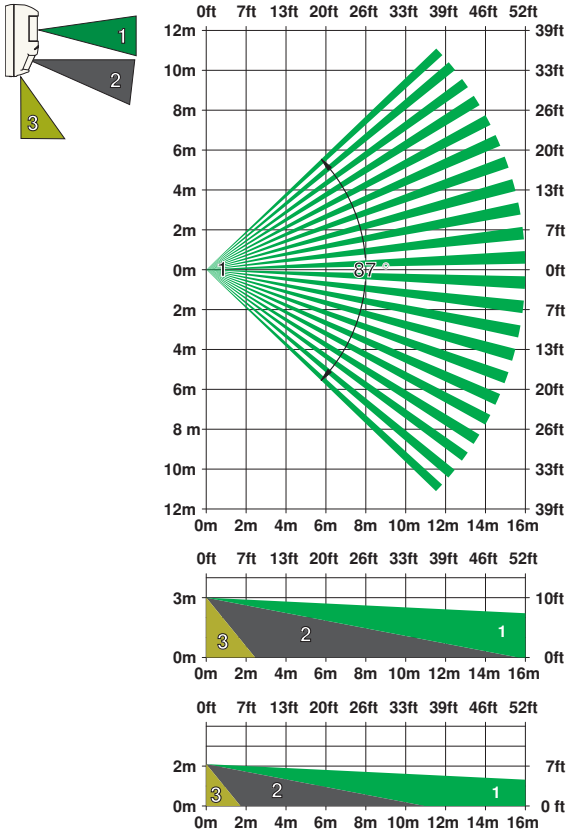
Certifications and Approvals

Region	Certification	
Europe	CE	89/336/EEC, EN55022: 1998 +A2: 2003 (CISPR 22: 1997), EN50130-4: 1995 +A2: 2003, EN61000-4-2: 1995 +A2: 2001, EN61000-4-3: 1996 +A1: 2002, EN61000-4-4: 1995 +A2: 2001, EN61000-4-5: 1995 +A1: 2001, EN61000-4-6: 2003, EN61000-4-11: 1994 +A1: 2001, EN60950-1: 2001 1st edition
	EN50131	Tested to EN 50131-1 Grade 2, TS 50131-2-2 August 2004, EN 50130-4, EN 50130-5
Belgium	INCERT	B-509-0051 B-509-0051/a
Poland	TECHOM	128/06
USA	UL	ANSR: Intrusion Detection Units (UL639), ANSR7: Intrusion Detection Units Certified for Canada (cULus)
Italy	IMQ	
France	AFNOR	Type 2 (*), NF et A2P (NF 324 - H 58)
China	CCC	2009031901000558
Sweden	INTYG	Nr07-168
the Netherlands	REQ	07223000/AA/00

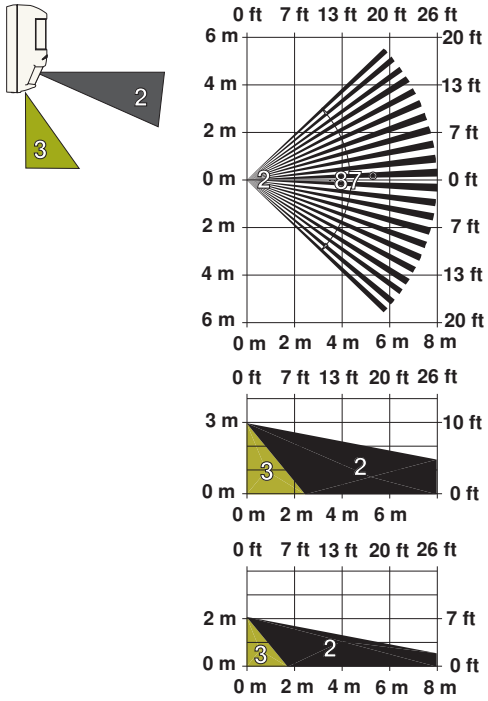
The detector is designed to also comply with the requirements of:

Australia	C-Tick	
Germany	VdS Schaden-verhütung GmbH	G107504, Class B
Norway	FGI	D-169/07, D-620/07

Installation/Configuration Notes



Long-range Coverage: 16 m x 21 m (50 ft x 70 ft)



Selectable Short-range Coverage: 8 m x 10 m (25 ft x 33 ft)

Mounting Considerations

The recommended mounting height is 2 m to 3 m (7 ft to 10 ft).

Use an optional B328 Gimbal-mount Bracket or B335-3 Low-profile Swivel-mount Bracket to surface-mount the detector on a flat wall or a corner.

Use an optional B338 Universal Ceiling Bracket to mount the detector on the ceiling.

Wiring Considerations

Recommended wire size is 0.2 mm^2 to 1 mm^2 (26 AWG to 16 AWG).

Parts Included

Quantity	Component
1	Detector
2	Flat-head screws
2	Screw anchors
1	Nylon cable tie
1	Pattern Mask
1	Installation Guide

Technical Specifications

Electrical

Power Requirements	
Voltage (Operating):	9 VDC to 15 VDC
Current (Maximum):	< 15 mA
Current (Standby):	< 10 mA at 12 VDC
Relay:	Solid state relay, normally-closed (NC) contacts, power supervised. 3 W, 125 mA, 25 VDC, resistance < 10 Ω
Tamper:	Normally-closed (NC) contacts (with cover on) rated at 25 VDC, 125 mA maximum. Connect tamper circuit to 24-hour protection circuit.

Mechanical

Enclosure Design	
Color:	White
Dimensions:	127 mm x 69 mm x 58 mm (5 in. x 2.75 in. x 2.25 in.)
Material:	High-impact ABS plastic
Indicators	
Alarm Indicator:	Blue alarm LED
Zones	
Zones:	86

Environmental

Relative Humidity:	0 to 95%, non-condensing
Temperature (Operating and Storage):	-29°C to +55°C (-20°F to +130°F) *For UL Certificated installations, 0°C to +49°C (+32°F to +120°F)*
Environmental Class II	EN 50130-5
Protection Rating:	IP41, IK04 (EN 60529, EN 50102)

Ordering Information

ISC-PPR1-W16 Professional Series PIR Detector ISC-PPR1-W16 Professional Series PIR Detector for commercial indoor applications	**ISC-PPR1-W16**
Accessories	
B328 Gimbal-mount Bracket Mounts on a single-gang box and allows rotation of a detector. Wires are hidden inside.	**B328**
Swiveling B335-3 low-profile mount Swiveling, low-profile, plastic mount for wall mounting. The vertical swivel range is +10° to -20°, while the horizontal swivel range is ±25°. Available in triple packs.	**B335-3**
B338 Universal Ceiling-mount Bracket Swiveling plastic mount for ceiling mounting. The vertical swivel range is +7° to -16°, while the horizontal swivel range is ±45°.	**B338**

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