BOSCH
Invented for life

Professional Series PIR Detector ISC-PPR1-W16

- **16 m x 21 m (50 ft x 70 ft) coverage, field selectable to 7.5 m x 10 m (25 ft x 33 ft)**
- **Sensor data fusion technology**
- **2.1 m to 3 m (7 ft to 10 ft) mounting height, no adjustments required**
- **Tri-focus optics technology**
- **Active white light suppression**
- **Dynamic temperature compensation**
- **Remote walk test**
- **Alarm memory**
- **Draft and insect immunity**

The Professional Series PIR Detector ISC-PPR1-W16 is exceptionally suited for commercial indoor applications. The self-locking two-piece enclosure, built-in two-way bubble level, flexible mounting height, and three optional mounting brackets simplify installation and reduce service time. Sensor data fusion technology ensures that the detector sends alarm conditions based on precise information. Tri-focus optics technology eliminates coverage gaps and responds efficiently to intruders. The powerful combination of unique features in the Professional Series delivers superior catch performance and virtually eliminates false alarms.

Functions

Sensor Data Fusion Technology

Sensor data fusion technology is a unique feature that uses a sophisticated internal microcontroller to gather signals from four sensors: two pyroelectric sensors, a room temperature sensor, and a 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 7.5 m x 10 m)

Installers can use a DIP switch to select 16 m x 21 m or 7.5 m x 10 m (50 ft x 70 ft or 25 ft x 33 ft) coverage.

Dynamic Temperature Compensation

The detector 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 alarms and activates during a walk test.

Remote Walk Test LED

Users can enter a command at the control panel 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 will 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 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.

Trouble Memory

When the walk test input switches to its true state for less than two seconds, 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

The detector is designed to comply with the following standards and approvals.

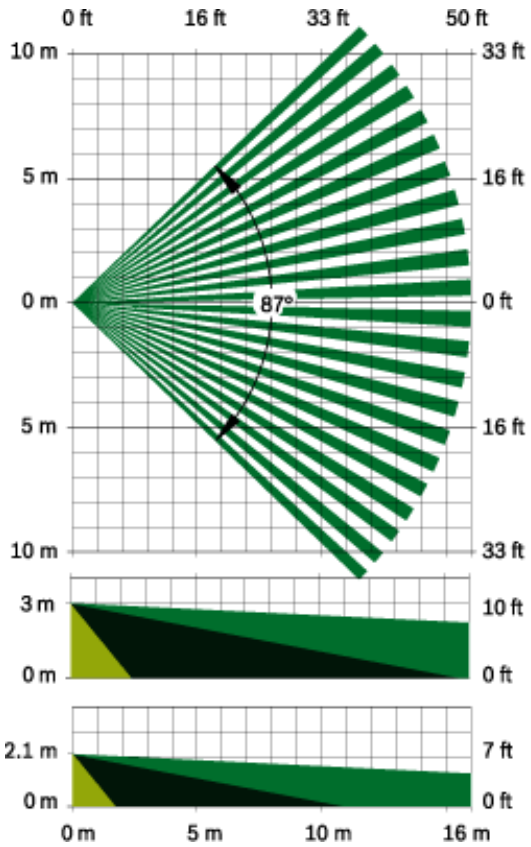
cULus - UL639, Intrusion Detection Units

CE

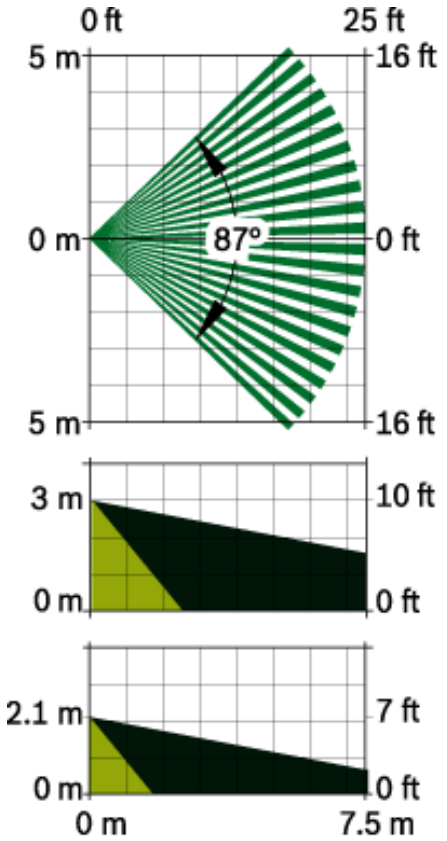
C-Tick

EN50131-1 Grade 2

Installation/Configuration Notes



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



Selectable Short-range Coverage: 7.5 m x 10 m (25 ft x 33 ft)

Mounting Considerations

The recommended mounting height is 2.1 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.
Use an optional B338 Universal Ceiling Bracket to mount the detector on the ceiling.

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

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

Environmental Considerations

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	
IP Rating:	IP 41, IK02 (EN60529, EN50102)

Indicators

Alarm Indicator:	Blue LED

Number of...

Zones:	89

Outputs

Relay:	Solid state relay, normally-closed (NC) contacts, power supervised. 3 W, 125 mA, 25 VDC, resistance < 10 ohm
Tamper:	Normally-closed (NC) contacts (with cover on) rated at 25 VDC, 125 mA maximum. Connect tamper circuit to 24-hour protection circuit.

Power Requirements

Voltage (Operating):	9 VDC to 15 VDC
Current (Maximum):	< 15 mA
Current (Standby):	< 10 mA at 12 VDC

Ordering Information

Professional Series PIR Detector ISC-PPR1-W16 Indoor PIR commercial detector with tri-focus optics, sensor data fusion, 16 m x 21 m (50 ft x 70 ft) coverage, and blue LED.	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
B335-3 Low-profile Swivel-mount Bracket Plastic, swivel, low profile bracket for walls. The vertical pivot range is +10° to -20°; the horizontal pivot range is ±25°. Shipped in packages of three.	B335-3
B338 Universal Ceiling Bracket Plastic swivel bracket for ceilings. The vertical pivot range is +7° to -16°; the horizontal pivot range is ±45°.	B338

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Americas:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Asia-Pacific:
Bosch Security Systems Pte Ltd
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3450
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com

Represented by

© Bosch Security Systems 2006 | Data subject to change without notice
F2366673803 | Cur: en-US, V3, 25 Sep 2006