

ISC-PPR1-WA16G and ISC-PPR1-WA16H
Professional Series PIR Detectors with Anti-Mask
ARCHITECTURAL AND ENGINEERING SPECIFICATION
Section 281600 - Intrusion Detection

PART 2 - PRODUCTS

2.01 Manufacturer

- A. Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York 14450
Phone: +1(585) 223 4060
Fax: +1 (585) 223 9180
www.boschsecurity.com
- B. The specified product shall be manufactured by a firm whose quality system is in compliance with the I.S. /ISO 9001/EN 29001, QUALITY SYSTEM.

2.02 Detector General Description

- A. The product specified shall be a PIR detector designed for commercial indoor applications. The unit shall consist of a self-locking two-piece enclosure with a built in two-way bubble level to help simplify the installation. The detector shall incorporate 1) sensor data fusion technology to ensure that the detector sends alarm conditions based only on precise information and 2) tri-focus optics technology to eliminate coverage gaps, and 3) Multi-Point Anti-mask with Integrated Spray Detection protects the detector against masking attempts.

2.03 Detector Requirements

- A. The detector specified shall provide active white light suppression capable of measuring the light intensity directed at the face of the unit and use the data gathered by the sensors to eliminate false alarms caused by the bright light source. False alarms shall not be caused from bright light sources up to 10,000 lux.
- B. The detector shall provide the following DIP switch selectable fields of coverage:
 - 1) 16 m x 21 m (50 ft x 70 ft)
 - 2) 8 m x 10 m (25 ft x 33 ft)
- C. The detector shall be designed to be mounted at a height between 2.1 m to 3m (7 ft to 10 ft) and require no adjustments.
- D. The detector shall provide dynamic temperature compensation that adjusts the PIR sensitivity to identify human body heat accurately at critical temperatures to avoid false alarms and deliver consistent catch performance at all operating temperatures.
- E. The detector shall provide a cover and wall tamper switch with a normally closed contact that opens to notify the control panel in the event the cover is removed or the detector is separated from the wall. The contacts shall be rated at 25 VDC, 125 mA maximum.
- F. The detector shall contain a blue light emitting diode (LED) that adjusts automatically to the surrounding light level. The LED indicates alarms, and will activate during a walk test.



- G. The walk test LED may be enabled or disabled via a command from the control panel, or, it may be enabled or disabled using the local DIP switch of the detector.
- H. The detector shall provide a solid state relay that is power supervised and uses less current and provides longer standby capacity than a mechanical relay. The solid state relay shall be used to send a silent alarm output signal. Rating of the relay shall be 3W, 125 mA, 25 VDC, with resistance less than 10 ohms.
- I. The detector shall reduce false alarms by having a sealed optic chamber that provides immunity to drafts and insects.

2.04 Sensor Technology Requirements

- A. The detector shall incorporate **sensor data fusion technology** that uses an internal microprocessor to gather, analyze, and compare the sensor data to make the most intelligent alarm decisions. The data processed from the microcontroller shall be from two pyroelectric sensors, a room temperature sensor, and a light level sensor.
- B. The detector shall also incorporate **tri-focus technology** that uses optics with three specific focal lengths: long-range coverage, middle-range coverage, and short-range coverage. The detector shall apply the three focal lengths to 86 detection zones which combine to produce 11 solid curtains of detection. The tri-focal optics technology shall include two pyroelectric sensors which deliver twice the standard optical gain.
- C. The detector shall provide **multi-point anti-mask with integrated spray detection**, utilizing patented prism lenses and active infrared detection to provide industry-leading protection against all known forms of attack.

2.05 Mounting Brackets

- A. The manufacturer shall offer the following three optional mounting brackets
 - 1) A Gimbal-mount bracket [Bosch B328] that mounts on a single-gang box and allows rotation of the detector.
 - 2) A Low profile plastic wall swivel mount bracket [Bosch B335-3]. The mount allows a vertical pivot range of +10° to -20° and a horizontal pivot range of ±25°.
 - 3) A plastic universal swivel bracket for ceiling mounting [Bosch B338]. The mount allows a vertical pivot range of +7° to -16° and a horizontal pivot of ±45°.

2.06 CERTIFICATIONS and APPROVALS

- A. The specified detector is designed to comply with the following standards and approvals:
 - 1) UL639 and cULus
 - 2) CE
 - 3) C-Tick
 - 4) EN50131-2-2 Grade 3

2.07 MECHANICAL SPECIFICATIONS

- A. Dimensions: 127 mm x 69 mm x 58mm (5 in. x 2.75 in. x 2.25 in.)
- B. Material: High impact ABS plastic.
- C. Color: white

2.08 ELECTRICAL SPECIFICATIONS

- A. Operating Voltage: 9 VDC to 15 VDC
- B. Current (maximum): less than 26 mA
- C. Current (Standby): less than 18 mA at 12 VDC

2.09 ENVIRONMENTAL SPECIFICATIONS

- A. Temperature, Operating and Storage: -30°C to +55°C (-20°F to +130° F)
 - 1) For UL Certified Installations: 0°C to +49°C (+32°F TO +120°F).
- B. IP Rating: IP 41, IK02 (EN60529 and EN50102)
- C. Relative humidity: 0 to 95%, non-condensing

The product specified shall be the Bosch Professional Series PIR Detectors with Anti-Mask Model ISC-PPR1-WA16G and ISC-PPR1-WA16H.

2/2008

Specifications Subject to Change without Notice

