

# BOW-PIR90A

**Passive infrared detector (PIR)**

**Detects movement by e.g. a person**

**Indoor applications**

**Slight motion detection type**

**Operating distance: Max. 6 m**

**Operating angle: 90°**

**Walk test: LED indication**

**Channel coding by BGP-COD-BAT**

**Supplied by smart-house**



## GENERAL SPECIFICATIONS

<b>Channel coding</b>	By BGP-COD-BAT and special cable: GAP-TPH-CAB
<b>No. of channels</b>	1
<b>Enclosure</b>	LKNES OPUS Mechanics
<b>Environment</b>	
Degree of protection	IP 20
Pollution degree	3 (IEC 60664)
Operating temperature	0° to +50°C (+32° to +122°F)
Storage temperature	-20° to +70°C (-4° to +158°F)
<b>Humidity</b> (non condensing)	20 - 80%

<b>Weight</b>	50 g
<b>Dimensions</b>	
OPUS (WxHxD)	66 x 66 x 30 mm (including frame)
<b>Connection</b>	Screw terminals
Max. wire in terminals	4 x 0.75 mm <sup>2</sup>
Terminal D+	Signal
Terminal D-	GND
<b>Power-on delay</b>	Typ. 10 s

## INPUT/OUTPUT SPECIFICATIONS

<b>Inputs</b>	PIR on I/O 1
Lens	Dual detecting zones
Segments	26
Detection zones	104
Angle	90°
Operating distance	≤ 6 m, depending on ceiling

height (see radiation diagram)	
Wave length	7 to 14 μm
Input detection speed	0.5 to 5 pulses/s
<b>Output</b>	
LED output	Red LED on I/O 2

## SUPPLY SPECIFICATIONS

<b>Power supply</b>	Supplied by smart-house
<b>Consumption</b>	
Activated	< 1.7 mA
Activated (LED ON)	< 2.3 mA

## TYPE SELECTION

<b>Supply</b>	<b>Ordering no.</b>
By smart-house	BOW-PIR90A

## MODE OF OPERATION

BOW-PIR90A is a 1-channel monostable transmitter with a PIR detector, which operates by means of a dual-element detector.

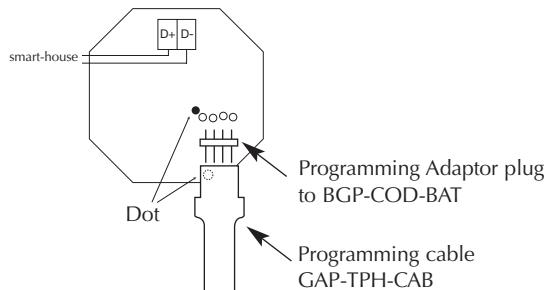
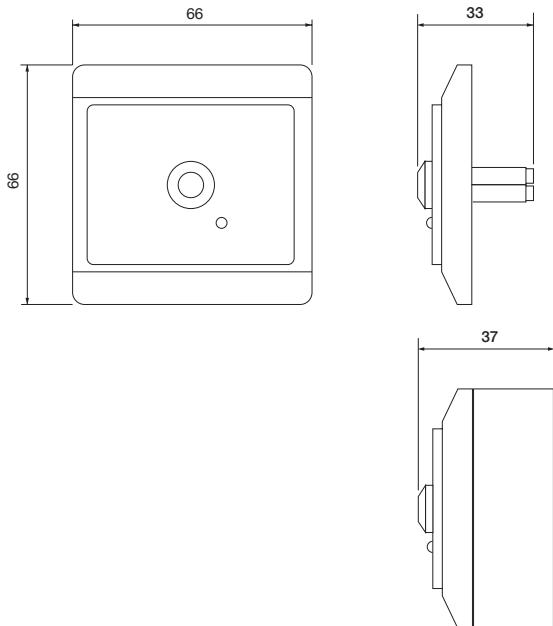
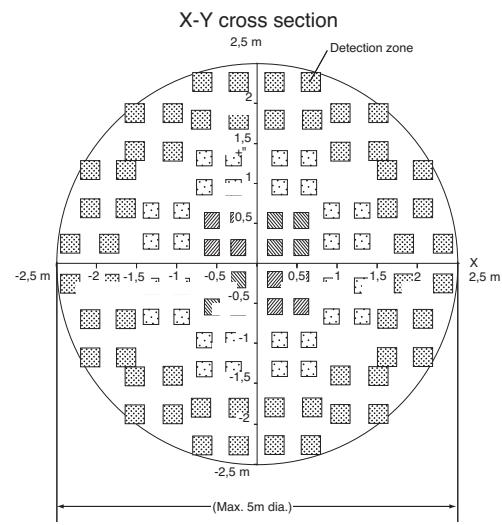
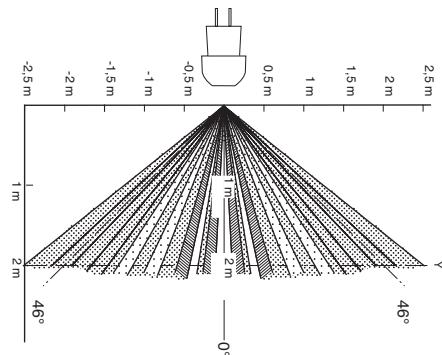
The transmitter is activated if the temperature suddenly changes (most often it will be heat radiation from a person) in relation to the background radiation. Consequently, the transmitter can be used for ON/OFF switching of lighting, air conditioning etc. If a person moves within a detection zone, BOW-PIR90A is activated.

Slow movements between zones resulting in a detection speed of less than 0.5 pulses/sec will not be detected. Nor will rapid movements resulting in a detection speed of more than 5 pulses/sec be detected. As BOW-PIR90A is a passive device, several detectors can be placed in the same room without interfering with each other.

Walk test: The LED responds to any channel coded on I/O 2. If the LED is coded to the same channel as the PIR input on I/O 1, the transmission follows the LED. The LED turns ON when the PIR is activated.

The module should not be installed as follows:

- a) Outdoors.
- b) In places exposed either to sunlight or to motor vehicle headlights pointing directly at the sensor.
- c) In places exposed to direct air flow from a heater or air conditioner.
- d) In places where rapid temperature changes occur.
- e) In places exposed to severe vibration.
- f) Close to glass or other objects which might reflect the infrared radiation.
- g) For burglar detection.

**WIRING DIAGRAM****DIMENSIONS****RADIATION DIAGRAMS**

Remarks: 1. The X-Y cross-sectional diagram shows the detection area.  
2. The differences in the detection zone patterns are indicative of the projections of the 26 lenses with single focal point and with three optical axes. An object whose temperature differs from the background temperature and which crosses inside the detection zone will be detected.

**ACCESSORIES**

Programming cable to BGP-COD-BAT  
OPUS wall-mounting box

GAP-TPH-CAB  
87-012