



**Model Number**

**PIR20/31 sw**

Passive infrared motion sensor with terminal compartment

**Features**

- Door activation sensor
- One of the smallest sensors for person detection
- Reliable detection through change in the thermal image from +/- 0.5 °C
- Accurate and seamless field adjustment through aperture and zoom function
- Function only in case of movement

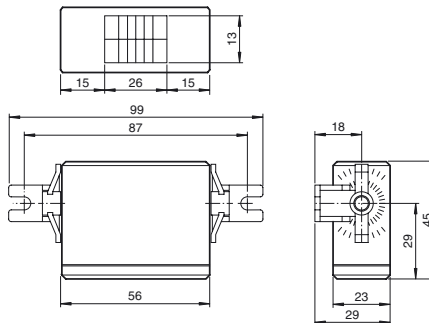
**Product information**

The PIR20 passive infrared scanner enables problem-free detection of people. It detects movement as soon as the temperature differential between an object and its environment is greater than ± 0.5°C. The detection range can be accurately set by means of zoom adjustment and lens apertures. The PIR20 detects people approaching as a door.

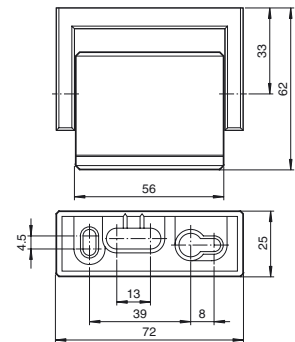
Release date: 2013-06-14 13:06 Date of issue: 2013-06-19 417999\_eng.xml

**Dimensions**

Mounting dimensions with mounting bracket

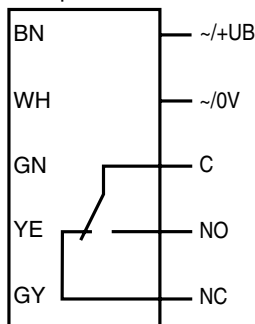


Mounting dimensions for swivel

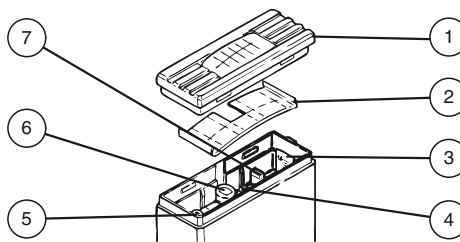


**Electrical connection**

Option:



**Indicators/operating means**



|   |                       |
|---|-----------------------|
| 1 | Housing cover         |
| 2 | Lens cover            |
| 3 | Zooming scale         |
| 4 | Zooming screw         |
| 5 | Sensitivity adjuster  |
| 6 | LED                   |
| 7 | Switch active/passive |

## Technical data

### General specifications

|                           |   |
|---------------------------|---|
| Effective detection range | max. 12 m (frontal)                                     |
| Detection field           | max. 1800 mm x 2600 mm for a mounting height of 2500 mm |

### Indicators/operating means

|                   |   |
|-------------------|---|
| Operating display | LED green   |
| Function display  | LED red: illuminates upon detection   |
| Controls          | Zoom screw for adjusting the detection field, sensitivity adjustment, changeover switch, active/passive |

### Electrical specifications

|                        |       |                                 |
|------------------------|-------|---------------------------------|
| Operating voltage      | $U_B$ | 12 ... 24 V AC / 12 ... 30 V DC |
| No-load supply current | $I_0$ | approx. 15 mA                   |
| Power consumption      | $P_0$ | approx. 350 mW at 24 V          |

### Output

|                    |                                     |                |
|--------------------|-------------------------------------|----------------|
| Switching type     | Output active/passive, programmable |                |
| Signal output      | Relay, 1 alternator                 |                |
| Switching voltage  | 48 V AC/DC                          |                |
| Switching current  | 1 A                                 |                |
| Switching power    | max. 30 W / 60 VA                   |                |
| De-energized delay | $t_{off}$                           | 0.5 s (preset) |

### Ambient conditions

|                     |                               |
|---------------------|-------------------------------|
| Ambient temperature | -20 ... 60 °C (-4 ... 140 °F) |
|---------------------|-------------------------------|

### Mechanical specifications

|                   |                            |
|-------------------|----------------------------|
| Mounting height   | recommended: max. 3.5 m    |
| Protection degree | IP52                       |
| Connection        | screw terminals, removable |
| Material          |                            |
| Housing           | black ABS                  |
| Optical face      | plastic lens               |
| Mass              | approx. 40 g               |

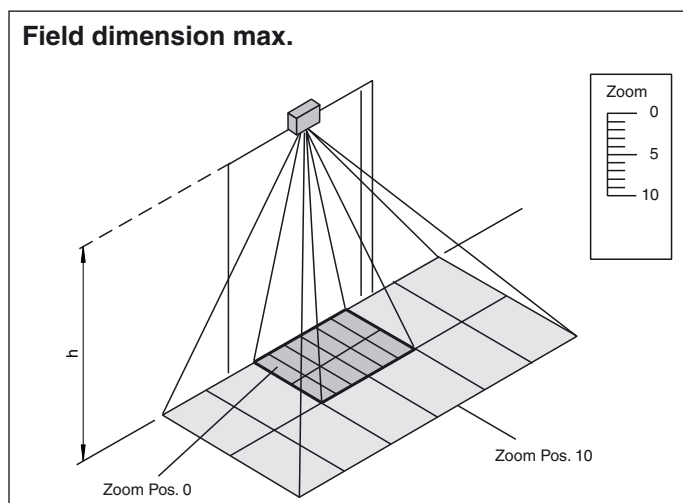
### Compliance with standards and directives

|                     |            |
|---------------------|------------|
| Standard conformity |            |
| Standards           | 89/336 EWG |

### Approvals and certificates

|               |     |
|---------------|-----|
| CE conformity | yes |
|---------------|-----|

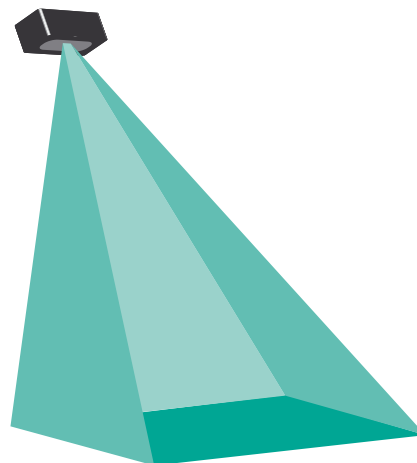
## Curves/Diagrams



## Typical applications

- Detection of movement by people
- Opening impulse sensor for people at automatic doors
- Elevator entrance area monitoring

## Detection area



## Accessories

### Wetterschutzhaube PIR 20

Weather hood for series PIR20

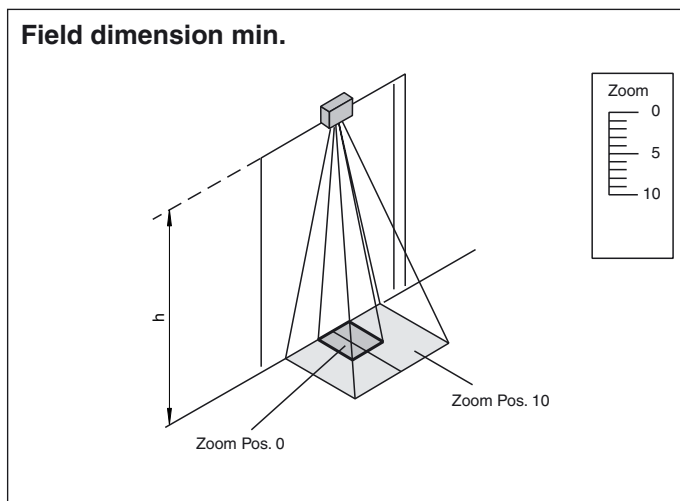
### Flush Mounting PIR20

Flush-mounted frame for sensors in the PIR20

### AIR20/PIR20 Weather Cap

All-weather hood for AIR20 and PIR20 series sensors

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)



### Operating principle

The passive infrared scanner functions differently to most optical sensors — as a passive device. A passive device is not equipped with a transmitter element, but does feature a receiver element. The receiver reacts to heat emission in the form of infrared light transmitted by the human body. This infrared light is detected by a multi-part lens system (fresnel lens), which means that the intended detection range can be fully covered by the receiver. Within 20 seconds of switching on the sensor, the receiver measures and stores the infrared image identified. A switching signal is transmitted when two conditions have been met:

1. The temperature of the object to be detected deviates from the ambient temperature by at least  $\pm 0.5^{\circ}\text{C}$ .
2. The object to be detected moves at a speed of at least 100 mm/sec.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Photoelectric Sensors](#) category:*

*Click to view products by [Pepperl & Fuchs](#) manufacturer:*

Other Similar products are found below :

[E3JM-DS70R4T-US](#) [E3L2DC4](#) [E3RA-DN12 2M](#) [E3RA-DP12 2M](#) [E3S5LE4S](#) [E3S-AD38](#) [E3S-CR11 5M](#) [E3SCT11D5M](#) [E3SCT11M1J03M](#)  
[E3T-SL14R](#) [E3T-SL24 5M](#) [E3T-ST12R](#) [E3X-CN02](#) [E3X-CN11 5M](#) [E3X-CN21 10M](#) [E3ZM-B66](#) [E3ZM-CL81H 2M](#) [E3Z-T62 2M](#)  
[NJL5303R-TE1](#) [PB10CNT15PO](#) [PD60CNX20BP](#) [CX-491-P-J](#) [CX-491-Z](#) [XUM2BKCNL2T](#) [XUM2BKCNL2T](#) [XUM2BNANL2R](#) [Y92E-](#)  
[ES30M](#) [Y92E-GS08SS](#) [ZXTDS04T](#) [ZX-XC4A 4M](#) [E3E23Y2US](#) [E3JM-DS70S4-US](#) [E3RA-RN11 2M](#) [E3S5LE42M](#) [E3S-LS20XB4 5M](#)  
[E3TFD14N](#) [E3T-FD14R](#) [E3T-SL21 5M](#) [E3T-SL21M](#) [E3T-ST11R](#) [E3T-ST12 5M](#) [E3X-DA41-S-M1J 0.3M](#) [E3X-DAB6](#) [E3X-DAG8](#) [E3ZM-](#)  
[B86](#) [E3ZM-CR81 2M](#) [E3ZM-CR86](#) [E3Z-T61A-L 2M](#) [ZX-XGC2R](#) [ZX-XB1A](#)