

PIR 30



WORLD OF SENSORIC

## Passive Infrared Motion Detectors PIR 30

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**BIRCHER**

Smart Access

# PIR 30 – Passive Infrared Motion Detectors

## Function / Settings / Mounting

### Benefits and advantages

- Ideal for detecting people.
- Simple and precise setting of the detection area using two 3-part slide inserts.
- Compensation for temperature fluctuations.
- Small size in standard 30 series housing for quick and easy integration.
- Option of concealed or surface-mounted installation with index of protection IP65.
- Suitable for ceiling installation or wall mounting.
- Available with mounting brackets, universal swivel bracket or PIR 30 weather shield.

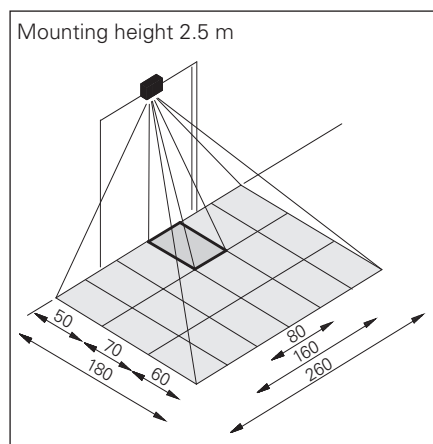
### Function

PIR motion detectors do not emit any radiation themselves, as indicated by their name of Passive Infrared Motion Detector. As soon as an object with a surface temperature different to its surroundings enters the detection area of a PIR motion detector, lenses deflect its thermal radiation onto sensor elements and a switching operation is triggered.

### Setting the detection area

The 18 Fresnel lenses are directly installed in the front cover. There is a six-part slide insert inside in front of the lenses, with three masking steps each on the left and right. Covering each individual Fresnel lens and the associated field segments on the ground produces an extremely wide range of detection areas. These can be set exactly almost however required, like an invisible carpet.

### PIR 30 detection area



### Mounting

#### • Stationary mounting

The motion detector is designed for stationary mounting (e.g. on or in the impost section of automatic door systems). It is not suitable for mounting on moving objects.

#### • Moving door panel

Moving door panels must not move into the detection area. As a check, hold your bare hand 3–5 cm off the floor and establish the defined detection area.

#### • Universal mounting

Quick and easy to integrate into any impost section. Option of concealed or surface-mounted installation with index of protection IP65. Suitable for ceiling installation or wall mounting.

### Settings

#### • Lens

Each of the three rows of Fresnel lenses can be covered individually in three masking stages 1/2/3 using slides A/B/C (from the left or right towards the middle of the unit).

#### • Temperature threshold

The temperature threshold can be set using potentiometer E (sensitivity setting). – At maximum sensitivity, a temperature differential of approx.  $\pm 0.5^\circ\text{C}$  from the background temperature is required, with a differential of  $\pm 6^\circ\text{C}$  at minimum sensitivity.

#### • Drop-out delay time

The drop-out delay time (relay holding time) is set to 0.5 s in the PIR 30 and cannot be altered.

#### • Switching type

The switching type can be changed over: active/passive.

#### • Swivel bracket

The swivel bracket with detents at every 5 degrees of angle permits a total swivel range of  $270^\circ$ .

### Accessories

#### • PIR 30 weather shield

- For mounting on a wall or impost section to afford protection against precipitation.
- For adaptation to a design
- For protection against mechanical movement of the unit (vandalism)

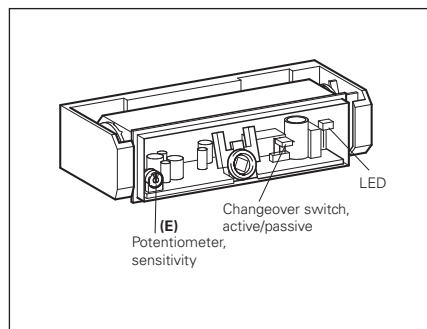


#### • Recessed ceiling-mounting box IP65

Set consisting of a box with retractable side walls for accommodating the unit in a rotating arrangement, housing cover permeable to microwaves and PIR, with seal and cover frame for neat final installation.

#### • Surface-mounting box IP65

Same set as for ceiling installation, although without cover frame.



Technical data		PIR 30
Field dimensions	With slide insert for setting to 3 different masking stages	
Range	Frontal max. 12 m	
Mounting height	Max. 5 m	
Sensitivity setting	Potentiometer	
Lens	18 Fresnel lenses	
Operating voltage	12–24 V AC –0% / +15%, 50/60 Hz 12–30 V DC –0% / +15%	
Current consumption	approx. 20 mA at 24 V DC	
Signal output	<b>PIR 30/31</b> 1 x floating changeover contact Switching voltage max. 48 V AC/DC Switching current max. 0,5 A AC/1 A DC Switching power max. 60 VA / 30 W	
Drop-out delay time	0.5 s	
Switching type	Can be switched over	
Function indication	LED red: Lights up on detection	
Connection type	5 m connection cable	
Protection class	IP52 (IEC60529)	
Housing material	ABS	
Operating temperature	–20° C to +60° C	
Air humidity	Max . 90% relative, non-condensing	
Weight	Approx. 280 g incl. cable	
Housing/colour	Plastic, black	
Conformity	EMC 2014/30/EU	

Dimensions	Relay wiring diagram

## Applications

### Automatic doors

- Opening sensor in automatic door systems (e.g. sliding doors, revolving doors) only used by people.
- Compact area opening sensor for automatic door systems (e.g. folding doors) where space is restricted.

### Automatic industrial gates

- Opening sensor in automatic industrial gate systems only used by people.

### Elevators

- Checking the area in front of the doors of elevators used for transporting people. No unintended door closure (e.g. when loading or unloading the elevator).
- Checking the elevator cabin is occupied in elevators used for transporting people.



## Ordering information

Article no.	Designation	Specification	
212638	PIR 30/31	Signal output: relay	Colour: black
<b>Accessories</b>			
212827	Weather protective cover	IP65	

## Scope of delivery

2 mounting brackets (for integration), 1 swivel bracket (for surface-mounting)

## Your contact

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### Note:

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