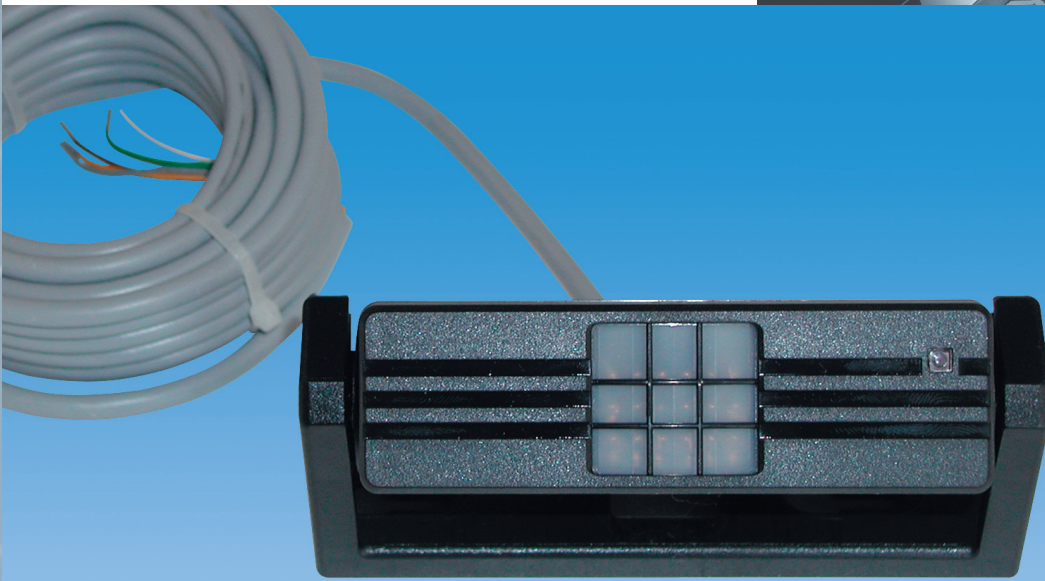
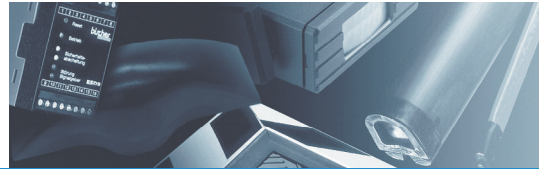


Thermosense



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## Passive Infrared Motion Sensors Thermosense

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**BIRCHER**

Smart Access

# Thermosense – Passive Infrared Motion Sensors

## 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 of temperature fluctuations.
- Small size in standard 30 series housing for quick and easy integration.
- Option of surface-mounted installation with index of protection IP65 (NEMA 4).
- Suitable for ceiling installation or wall mounting.
- Available with mounting brackets, universal swivel bracket or Thermosense weather shield.

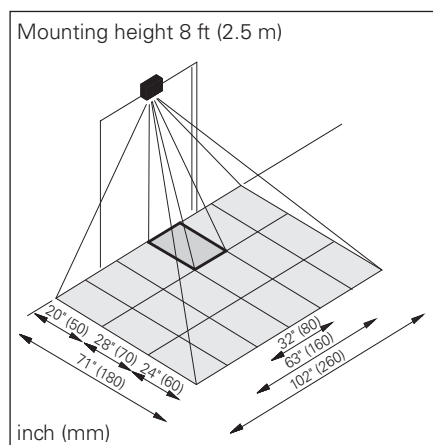
### Function

Thermosense motion sensors do not emit any radiation themselves, as indicated by their name of Passive Infrared Motion Sensor. As soon as an object with a surface temperature different to its surroundings enters the detection area of a Thermosense motion sensor, lenses deflect its thermal radiation onto sensor elements and a output transition 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 possible detection areas. These can be set exactly almost however required, like an invisible carpet.

### 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 sensing area. As a check, hold your bare hand 1–2" (3–5 cm) off the floor and determine the detection area.

#### • Universal mounting

Quick and easy to integrate into any impost section. Option of surface-mounted installation with index of protection IP65 (NEMA 4). 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 detected, 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 output logic can be changed:  
NO / NC.

#### • Swivel bracket

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

### Accessories

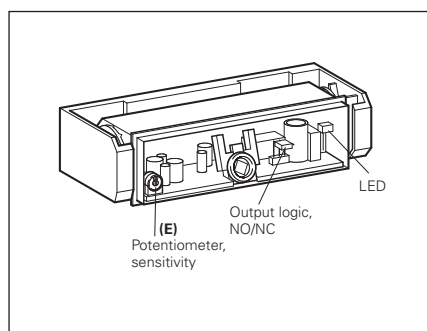
#### • Thermosense weather shield

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



#### • Surface-mounting box IP65 (NEMA4)

Set consisting of a box with retractable side walls for accommodating the unit in a rotating arrangement and a housing cover permeable to microwaves and passive infrared.



## Technical data

<b>Field dimensions</b>	With slide insert for setting to 3 different masking stages
<b>Range</b>	Frontal max. 39 ft (12 m)
<b>Mounting height</b>	Max. 16 ft (5 m)
<b>Sensitivity setting</b>	Potentiometer
<b>Lens</b>	18 Fresnel lenses
<b>Operating voltage</b>	12–24 V AC –0% / +15%, 50/60 Hz 12–30 V DC –0% / +15%
<b>Current consumption</b>	approx. 20 mA at 24 V DC
<b>Signal output</b>	<b>Thermosense</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
<b>Drop-out delay time</b>	0.5 s
<b>Switching type</b>	Can be switched over
<b>Function indication</b>	LED red: Lights up on detection
<b>Connection type</b>	5 m connection cable
<b>Protection class</b>	NEMA 5, IP52 (IEC60529)
<b>Housing material</b>	ABS
<b>Operating temperature</b>	–4° F to +140° F (–20° C to +60° C)
<b>Air humidity</b>	Max. 90% relative, non-condensing
<b>Weight</b>	Approx. 10 oz (280 g) incl. cable
<b>Housing/colour</b>	Plastic, black
<b>Conformity</b>	EMC 2014/30/EU

## Thermosense

With slide insert for setting to 3 different masking stages

Frontal max. 39 ft (12 m)

Max. 16 ft (5 m)

Potentiometer

18 Fresnel lenses

12–24 V AC –0% / +15%, 50/60 Hz  
12–30 V DC –0% / +15%

approx. 20 mA at 24 V DC

### Thermosense

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

0.5 s

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5 m connection cable

NEMA 5, IP52 (IEC60529)

ABS

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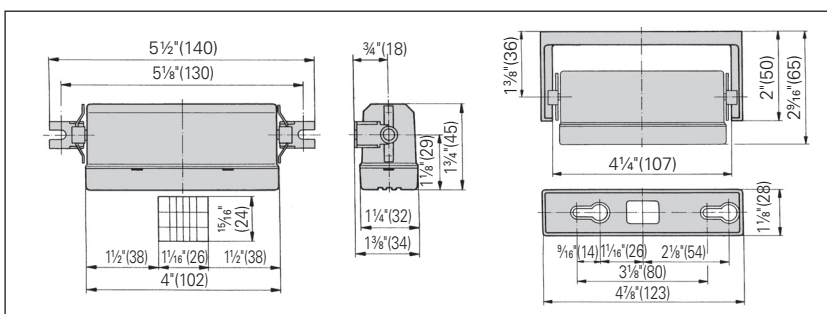
Max. 90% relative, non-condensing

Approx. 10 oz (280 g) incl. cable

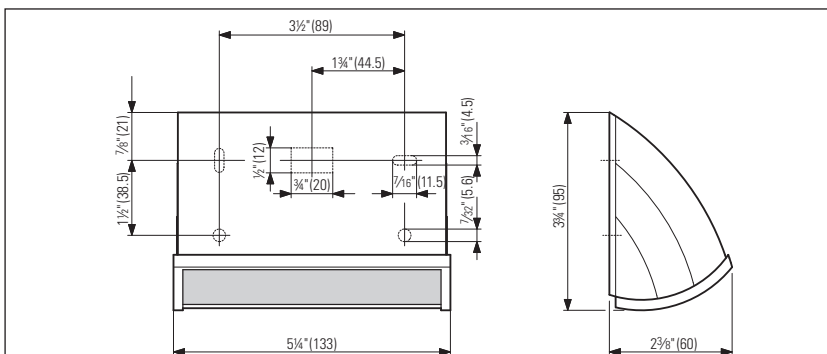
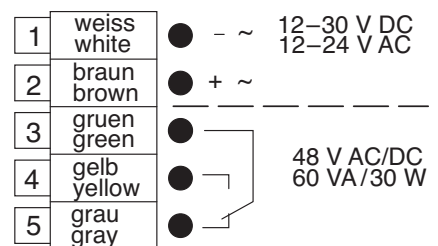
Plastic, black

EMC 2014/30/EU

## Dimensions in inch (mm)



## 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	Thermosense	Signal output: relay	Colour: black
<b>Accessories</b>			
212827	Weather protective cover	NEMA 4 (IP65)	

**Scope of delivery**

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

**Your contact**

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