

Thermosense



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Passive Infrared Motion Detectors Thermosense

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Smart Access

Thermosense – 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 Thermosense weather shield.

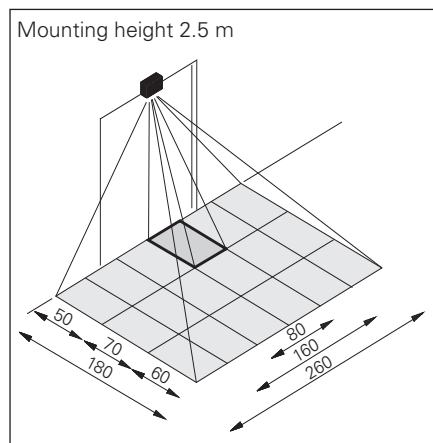
Function

Thermosense 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 Thermosense 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.

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

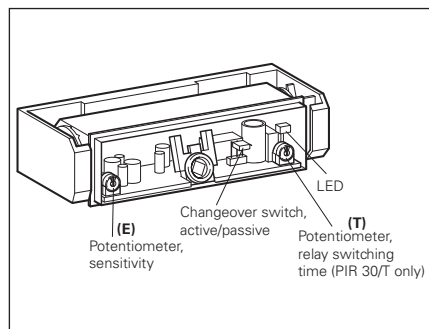
The drop-out delay time (relay holding time) is set to 0.5 s in the Thermosense and cannot be altered. In the Thermosense/T, the drop-out delay time can be set from 0.5–6 s using potentiometer T.

• Switching type

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

• Swivel bracket

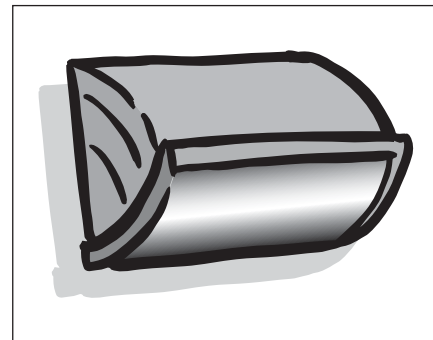
The swivel bracket with detents at every 5 degrees of angle permits a total swivel range of 270° .



Accessories

• Thermosense 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 passive infrared, 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

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 / 12–30 V DC (-0 % / +15 %)
Current consumption	approx. 20 mA at 24 V DC
Signal output	Thermosense 1 x floating changeover contact Max. switching voltage 48 V AC/DC Max. switching current 1 A at 30 V DC Max. switching power 30 W / 60 VA
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
Index of protection	IP52
Housing material	ABS
Operating temperature	-20° C to +60° C
Weight	approx. 280 g incl. cable
Housing/colour	Plastic, black
EMC compatibility	89/336 EEC, EN 61000-6-1, EN 61000-6-2

Thermosense

Thermosense/T

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 / 12–30 V DC (-0 % / +15 %)
Current consumption	approx. 60 mA at 24 V DC
Signal output	Thermosense/T 1 x floating changeover contact Max. switching voltage 48 V AC/DC Max. switching current 1 A at 30 V DC Max. switching power 30 W / 60 VA
Drop-out delay time	0.5–6 s adjustable
Switching type	Can be switched over
Function indication	LED red/green Red: Lights up on detection Green: Ready
Connection type	5 m connection cable
Index of protection	IP52
Housing material	ABS
Operating temperature	-20° C to +60° C
Weight	approx. 280 g incl. cable
Housing/colour	Plastic, black
EMC compatibility	89/336 EEC, EN 61000-6-1, EN 61000-6-2

Option

Housing colour white

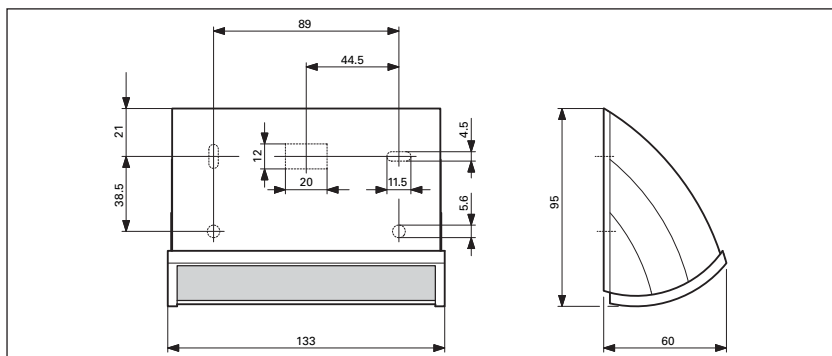
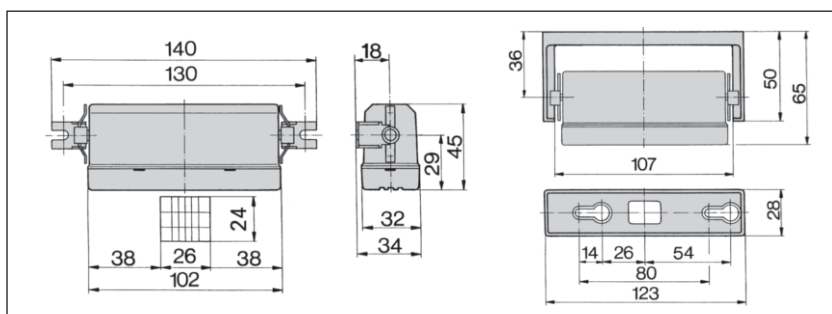
Thermosense

Ordering note: Option – on request
(please state when ordering)

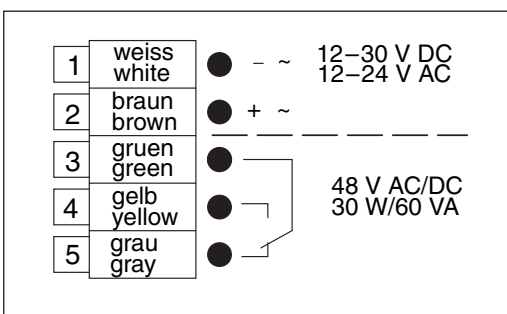
Thermosense/T

Ordering note: Option – on request
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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.

Lifts

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



Ordering information

Article no.	Designation	Specification	
212638	Thermosense	Signal output: relay	Colour: black
212642	Thermosense	Signal output: relay	Colour: white

Accessories

212827	Weather protective cover	IP65	
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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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