

RDI02 | RDI02 Small Range | RDI02 Spot

Motion detector

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Data sheet

Subject to technical changes
Issue date: 30.10.2026 • A141



Illustration similar

» APPLICATION

The ceiling motion detector detects the movement of persons indoors and can switch light as required or also provide a temperature reduction in unused rooms. The installation is inconspicuous in false ceilings because of the small design. There are 3 types available with different detection ranges.

» TYPES AVAILABLE

Ceiling sensor motion – active relay

- RDI02 Standard
- RDI02 Small Range
- RDI02 Spot

» SECURITY ADVICE – CAUTION



The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorized modifications are prohibited! The product must not be used in relation to any equipment that in case of failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installation. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

» PRODUCT TESTING AND CERTIFICATION



Declaration of conformity

The declaration of conformity of the products are available on our website
<https://www.thermokon.de/direct/en-gb/categories/rdi>

» NOTES ON DISPOSAL



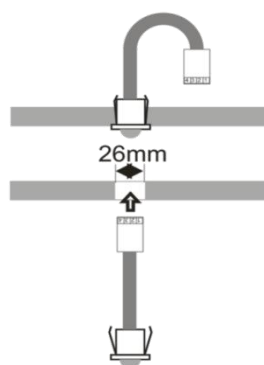
The crossed-out wheeled bin symbol indicates that the product or removable batteries must not be disposed of with household or commercial waste. Within the EU, you are legally obliged to dispose of the product separately and appropriately in accordance with the national laws of your country. Alternatively, please contact your supplier or Thermokon Sensortechnik GmbH. Further information can be found at: www.thermokon.com

» TECHNICAL DATA

Measuring values	Motion
Power supply	15..24 V = ($\pm 10\%$) or 24 V ~ ($\pm 10\%$) SELV
Power consumption	1,2 W / 2,4 VA with relay energized
Sensor	Panasonic series motion sensor
PIR detection range	3 types: RDI02 Standard, RDI02 Small Range, RDI02 Spot (see p. 3)
Display	None
Outputs (digital)	Motion, changeover contact (NO, C, NC), potential-free, max. 24 V, 1 A, with fixed delay time of approx. 8 s
Housing	Sensor housing PC V0, pure white / connection housing PC V0, traffic white
Cable entry	Side entry
Protection	IP 30 according to DIN EN 60529
Ambient conditions	-20..+70 °C, max. 85 %, non-condensing
Electrical connection	Terminal block, max. 1,5 mm ²
Mounting	Ceiling mounting

» MOUNTING ADVICE

Please make sure that the device is de-energized if you want to install it!

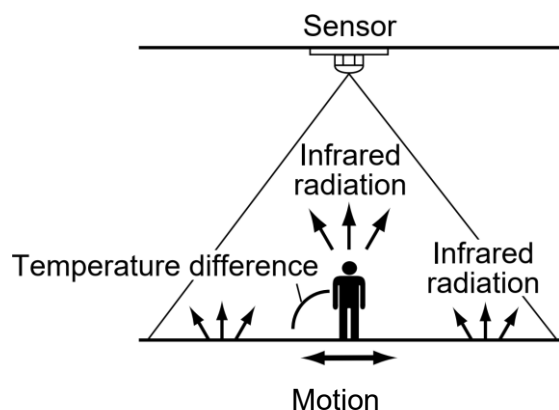


» FURTHER DOCUMENTS



Installation instructions

<https://www.thermokon.de/direct/alterra-base/mimes/get/a3126ae48d5eeff8d>



Remark: After having switched-on the operating voltage, the switch output is switched-on for approx. 30sec. in the stabilisation status of the sensor.

The specified ranges refer to average conditions at a certain installation height and are therefore to be regarded as guide values. The range can vary considerably with changing temperature conditions. The necessary temperature difference between the detectable object and the environment should be at least 4 °C. The speed of the object should be at least 0.3 to 1.0 m/s. The motion detector should not be mounted near disturbing heat sources (e.g. lamps, radiators, fans etc.) to avoid false alarms. The object to be detected must have a minimum size of 700x250 mm.

This sensor detects changes in infrared radiation that occur when a person (or an object) moves whose temperature differs from the ambient temperature by more than 4 K. The relay contact operates as a pulse contact. Upon motion detection, the contact closes briefly (for 5 to 10 s).

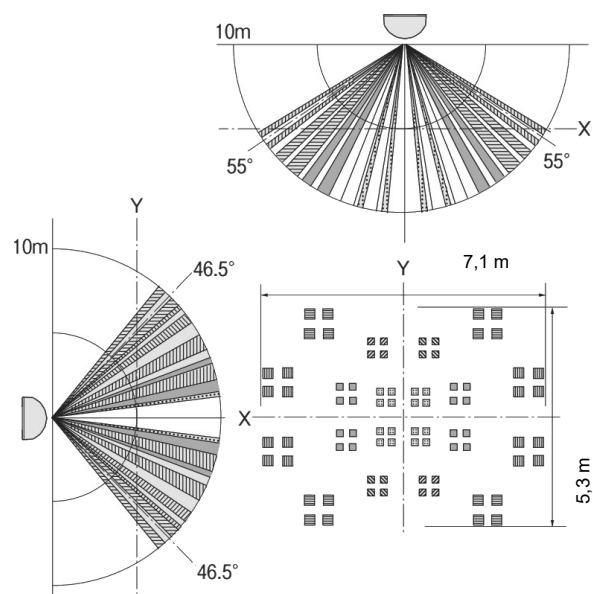
RDI02 Standard

Detection area	
Range	max. 10 m
Horizontal detection angle	110°
Vertical detection angle	93°
Detection zones	80

At a mounting height of 2,5 m the detection area is approx. 7,1 x 5,3 m – divided into 80 detection zones.

Formula: $\tan(55) \times \text{Mounting height} = \text{Detection radius } x$

Formula: $\tan(46,5) \times \text{Mounting height} = \text{Detection radius } y$

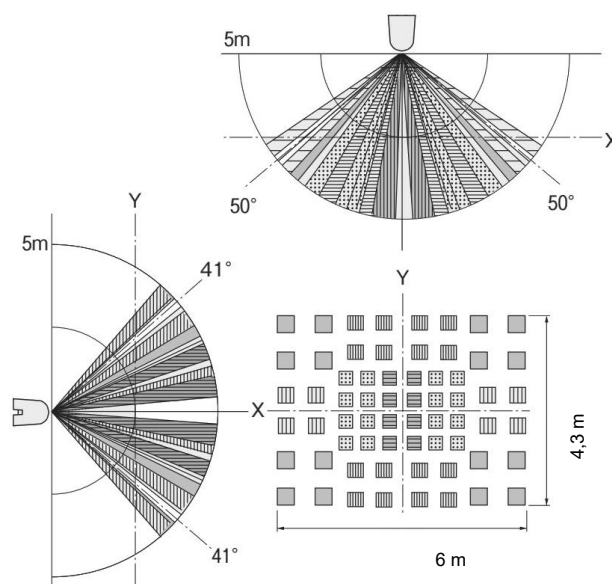
**RDI02 Small Range**

Detection area	
Range	max. 5 m
Horizontal detection angle	100°
Vertical detection angle	82°
Detection zones	64

At a mounting height of 2,5 m the detection area is approx. 6 x 4,3 m – divided into 64 detection zones.

Formula: $\tan(50) \times \text{Mounting height} = \text{Detection radius } x$

Formula: $\tan(41) \times \text{Mounting height} = \text{Detection radius } y$

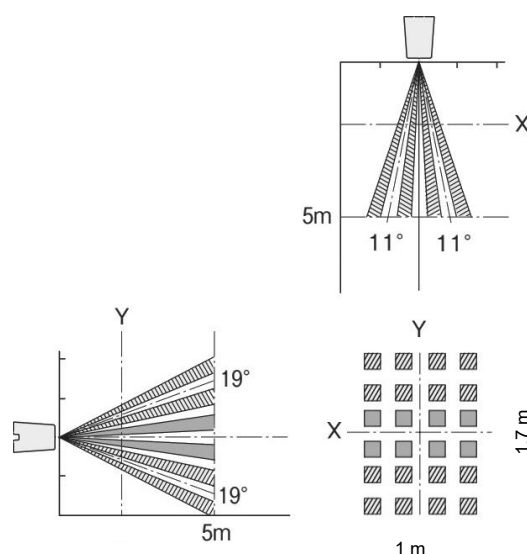
**RDI02 Spot**

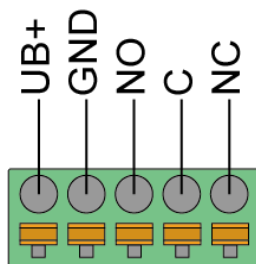
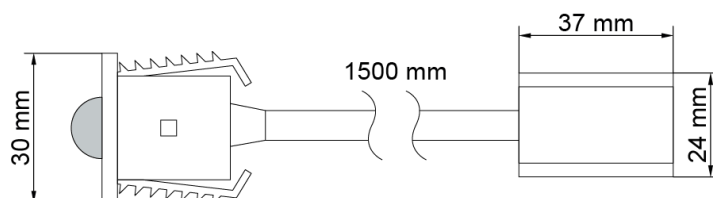
Detection area	
Range	max. 5 m
Horizontal detection angle	38°
Vertical detection angle	22°
Detection zones	24

At a mounting height of 2,5 m the detection area is approx. 1 x 1,7 m – divided into 24 detection zones.

Formula: $\tan(19) \times \text{Mounting height} = \text{Detection radius } y$

Formula: $\tan(11) \times \text{Mounting height} = \text{Detection radius } x$



» WIRING DIAGRAM**» DIMENSIONS (MM)****» ACCESSORIES (OPTIONAL)**

Wall plugs and screws (2 pcs. each)

Item No.: 102209