

» RDF18

Room sensor temperature, flush mounting at ceiling

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

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» APPLICATION

Ceiling flush mounted sensor for temperature measurement in interior spaces to be mounted inconspicuously into ceiling panels thus providing an overall architectural picture.

» TYPES AVAILABLE

RDF18 Sensor passive, with sensor on request*

*e.g.: PT100/PT1000/Ni1000/Ni1000TK5000/LM235Z/NTC.../PTC... please contact us for other sensors.

» 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. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a 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 installing. 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

» NOTES ON DISPOSAL



As a component of a large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

» GENERAL REMARKS CONCERNING SENSORS

Especially with regard to passive sensors in 2-wire conductor versions, the wire resistance of the supply wire has to be considered. If necessary the wire resistance has to be compensated by the follow-up electronics. Due to self-heating, the wire current affects the measurement accuracy. So it should not exceed 1 mA.

When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one for the measuring current.

Sensing devices with transducer should always be operated in the middle of the measuring range to avoid deviations at the measuring end points. The ambient temperature of the transducer electronics should be kept constant. The transducers must be operated at a constant supply voltage ($\pm 0,2$ V). When switching the supply voltage on/off, onsite power surges must be avoided.

» PRODUKTPRÜFUNG UND-ZERTIFIZIERUNG



Konformitätserklärung

Erklärungen zur Konformität der Produkte finden Sie auf unserer Webseite <https://www.thermokon.de/>.

» USE-GEHÄUSE MIT UV- UND WETTERSCHUTZ

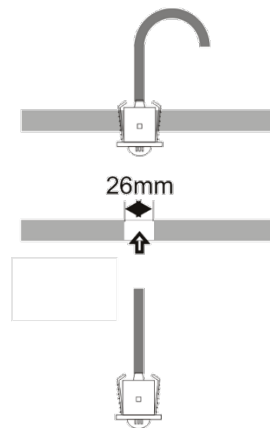
Kunststoffgehäuse im Außenbereich können nach einiger Zeit ihre Farbe und Qualität verlieren. Daher bestehen alle USE-Gehäuse aus speziellem weißem Polycarbonat (PC). Die lichtstabilsten Farbstoffe und Additive werden verwendet, um einen optimalen Schutz des Polymers bei gleichzeitiger Aufrechterhaltung der Farbstabilität zu erreichen. Das verwendete Titandioxid wurde speziell für Polycarbonat entwickelt und bietet durch die Reflexion des gesamten Lichtspektrums einschließlich des UV-Anteils um 340 nm einen hervorragenden UV-Schutz. Dies wirkt effektiv dem ansonsten auftretenden photochemischen Polymerabbau entgegen. Die Farben bleiben lange erhalten, ohne zu verblassen. Das Material ist auch kälte- und frostbeständig.

» TECHNICAL DATA

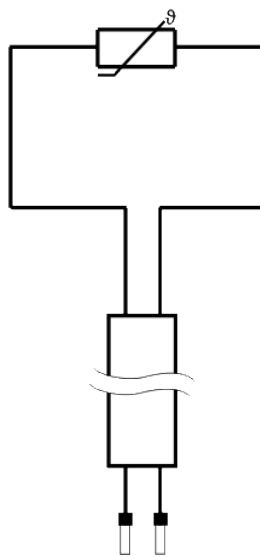
Measuring values	temperature
Output passive	optional, PT100/PT1000/NI1000/NI1000TK5000/LM235Z/NTC.../PTC... other sensors on request
Measuring range temp.	-35..+70 °C
Operating temperature range *max. permissible operating temperature	-35..+70 °C
Accuracy temperature	depending on used sensor
Sensor	2-wire (standard), 3-wire oder 4-wire
Protection	IP30 according to EN 60529
Connection electrical	connection wire PVC, 2x $\varnothing=0,25$ mm ² , grey, 1 m (default), 2 m, 4 m, 6 m, for other lengths please request
Pocket	ABS, white, $\varnothing=30$ mm
Ambient condition	max. 85% rH non-condensing
Mounting	facet mounting
Notes	active types for temperature and humidity available (see humidity – FT-RDF18+)

» MOUNTING ADVICES

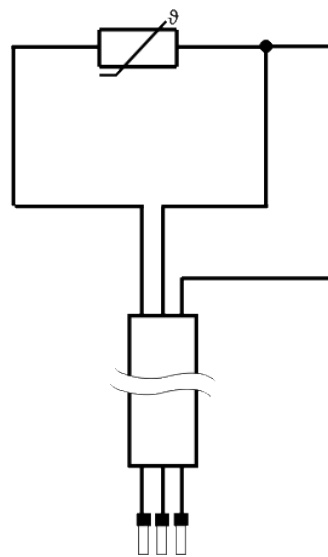
The devices are supplied in an operational status. Installation must be made on representative places for the room temperature, to avoid a falsification of the measuring result. Solar radiation and draught should be avoided. Furthermore, installation near the door (occurring draft) or near the window (colder outer wall) should be avoided.



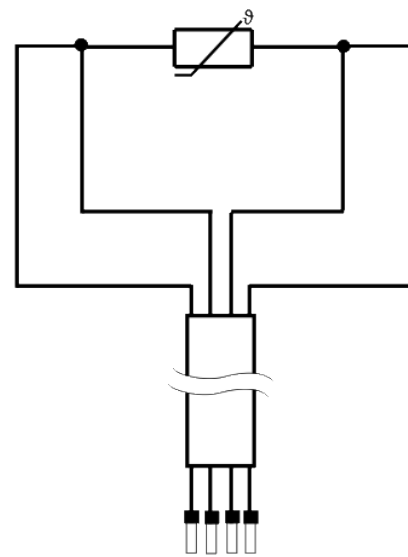
» CONNECTION PLAN



white – brown



white – brown/green



white/white – red/red

» DIMENSIONS (MM)

