

WRF06 TRV

Flush mounting Room sensor

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration

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» APPLICATION

Flush mounting room sensor for measuring temperature in room and office spaces. For direct connection to a DDC or a monitoring system, for building automation.

» TYPES AVAILABLE

Room sensor temperature – active

- WRF06 TRV3

» 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

» 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/wrf06>

» 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

» GENERAL REMARKS CONCERNING SENSORS

Sensing devices with a 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.

» MOUNTING ADVISE ROOM OPERATING PANELS

The Accuracy of the room sensors are influenced by the technical specifications as well as the positioning and the installation type.

During Assembly:

- Seal mounting box (if present).
- Installation type, air draught, heat source, radiation heat or direct sunlight can affect the measurement.
- Bulding material specific properties of the installation place (*brick-, concrete-, partition wall, cavity wall, ...*) can affect the measurement.

Assembly not recommendet in...

- Air draught (e.g.: close to windows / doors / fans ...)
- Near heating sources,
- Direct sunlight
- Niches / between furniture / ...

» BUILD-UP OF SELF-HEATING BY ELECTRICAL DISSIPATIVE POWER

Sensors with electronic components always have a dissipative power, which affects the temperature measurement of the ambient air. The dissipation in active temperature sensors shows a linear increase with rising operating voltage. This dissipative power has to be considered when measuring temperature. In case of a fixed operating voltage ($\pm 0,2$ V) this is normally done by adding or reducing a constant offset value.

Thermokon transducers can be operated with variable operating voltages. The transducers are set at the factory with a reference operating voltage of 24 V =.

At this voltage, the expected measuring error of the output signal will be the least. Other operating voltages, can cause a measurement deviation changing power loss of the sensor electronics.

A recalibration can be carried out directly on the unit or via a software variable (app).

Remark: Occurring draught leads to a better carrying-off of dissipative power at the sensor. Thus temporally limited fluctuations might occur upon temperature measurement.

» TECHNICAL DATA

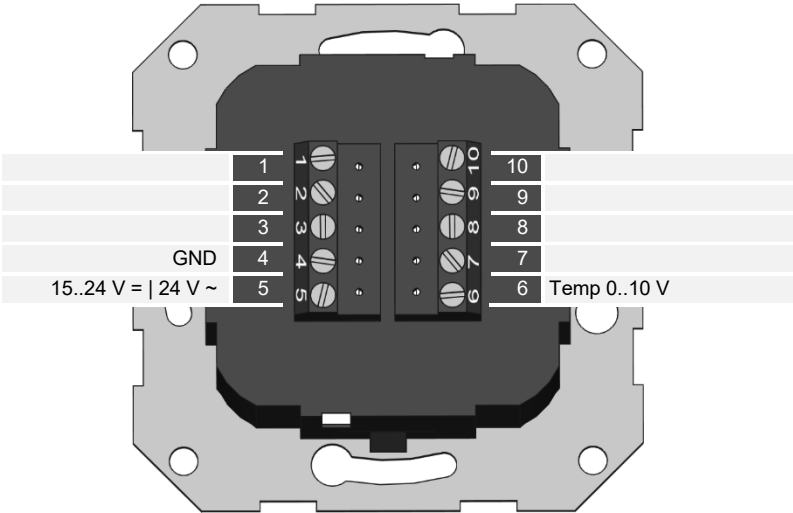
Measuring values	Temperature
Measuring values	TRV3 1x 0..10 V (min. load 5 k Ω)
Power supply	15..24 V = ($\pm 10\%$) or 24 V~ ($\pm 10\%$) SELV
Power consumption	max. 0,4 W (24 V =) 0,8 VA (24 V ~)
Measuring values temp	0..+50 °C
Accuracy temperature	$\pm 0,5$ K (typ. at 21 °C)
Enclosure (<i>depending on manufacturer switch program</i>)	PC, pure white brilliant, pure white matt, aluminium, anthracite
Protection	IP20 according to EN 60529
Connection electrical	terminal block max. 1,5mm ²
Ambient condition	0..+50 °C, max. 85% rH non-condensing
Notes	please specify frame design when ordering

» **SWITCH PROGRAM**

Switch ranges Berker	S.1, B.3 Aluminium, B.7 Glass
Switch ranges Feller	EDIZIOdue
Switch ranges Gira	E2, E3, Standard 55, Esprit, Event
Switch ranges Jung	LS 990, A 500, AS 500, A plus, A creation, CD 500
Switch ranges Merten	M-Smart, M-Arc, M-Plan, 1-M, Atelier-M, M-Pure, Artec
Switch ranges Peha	Aura, Aura glass

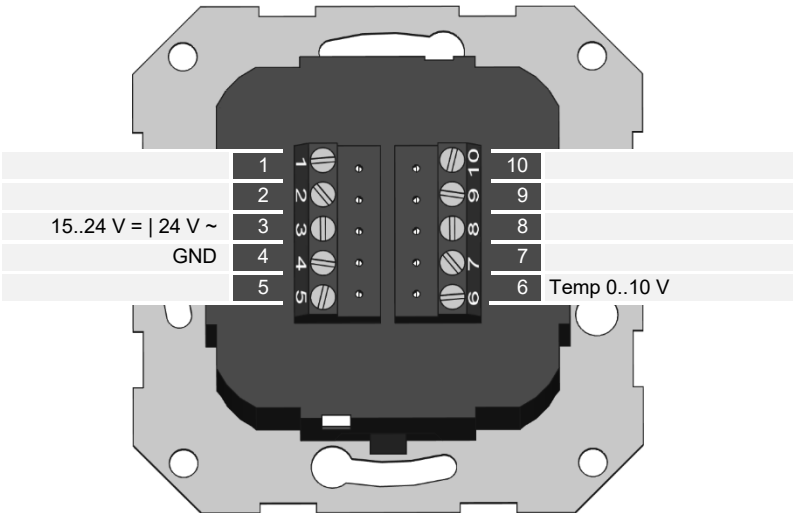
» **CONNECTION PLAN**

55mm switch program (i.e. Gira).



The connection plan on the device applies.

Other switch program (i.e. Busch-Jäger)



The connection plan on the device applies.

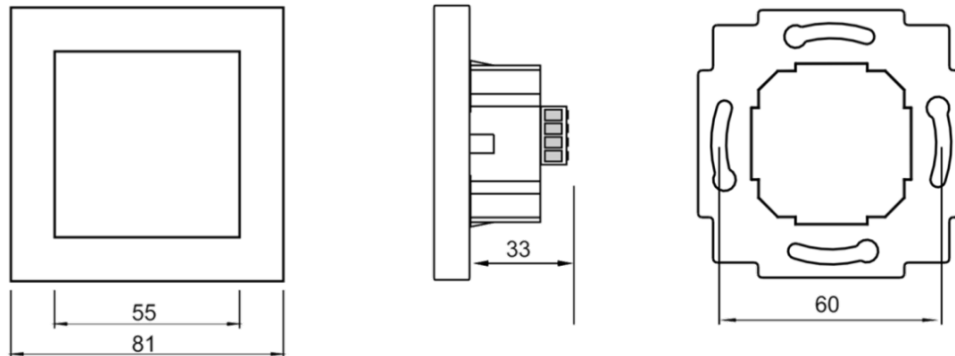
» MOUNTING ADVICES

The device is designed for mounting on a flush box. The bus cable is connected to the device by a terminal screw. For pre-wiring, the terminal screw can be drawn from the device.

Due to the extended retaining capacity for the cabling, the use of deep installation boxes is recommended. Installation must be made on representative places for the measurement value logging to avoid a falsification of the measuring result. Solar radiation and draught should be avoided. The end of the installation tube in the flush box must be sealed to avoid any draught in the tube falsifying the measuring result.

» DIMENSIONS (MM)

Example: WRF06 Dimensions Insert, (*Frame dimensions manufacturer dependent*)



» ACCESSORIES (OPTIONAL)

Raw plugs and screws (2 pcs. each)

Item No.: 660945