# OF14+

Contact temperature sensor

thermokon®
HOME OF SENSOR TECHNOLOGY

## Datasheet

Subject to technical alteration
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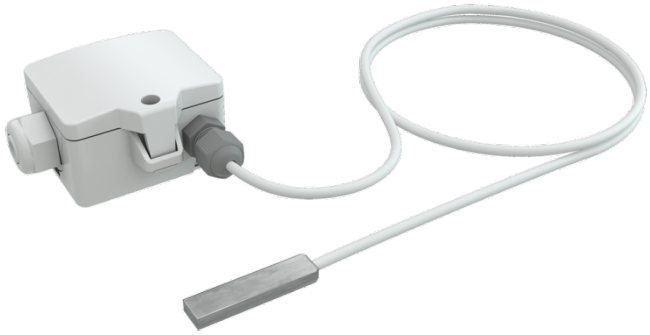


## » APPLICATION

Sensor for temperature measurement on glass surfaces or similar. Designed for control and monitoring applications.

## » TYPES AVAILABLE

**Contact sensors 0..+50 °C – active 0..10 V | 4..20 mA**

- OF14+ TRV3 MultiRange L1000
- OF14+ TRA3 MultiRange L1000

## » 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

CE

**Declaration of conformity**
The declaration of conformity of the products are available on our website
https://www.thermokon.de/direct/en-gb/categories/of14plus

## » NOTES ON DISPOSAL

The crossed-out wheelie 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

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

The electrical power loss of sensors with electronic components can influence the temperature measurement and is dependent on the respective operating voltage. This power loss must be taken into account in the temperature measurement. With a fixed operating voltage (±0.2 V), this is usually done by adding or subtracting a constant offset value.

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

At this voltage, the expected measurement deviation of the output signal is at its lowest. Other operating voltages can cause a measurement deviation.

Recalibration can be carried out directly on the device or via a software variable (APP or BUS).

**Remark: Occurring draft 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 | | |
| **Output voltage** | **TRV**<br>1x 0..10 V or 0..5 V, configurable via jumper, min. load 5 kΩ | | |
| **Output ampere** | **TRA**<br>1x 4..20 mA, max. load 500 Ω | | |
| **Power supply** | **TRV**<br>15..24 V = (±10%) or 24 V ~ (±10%) SELV | **TRA**<br>15..24 V = (±10%) SELV | |
| **Power consumption** | **TRV**<br>typ. 0,4 W (24 V =) \| 0,8 VA (24 V ~) | **TRA**<br>typ. 0,5 W (24 V =) | |
| **Output signal range temp.**<br>**Scaling analogue output* | **TRV \| TRA**<br>default setting: 0..+50 °C<br>selectable from 8 temperature ranges -50..+50 \| -20..+80 \| -15..+35 \| -10..+120 \| 0..+50 \| 0..+100 \| 0..+160 \| 0..+250 °C, adjustable at the transducer | | |
| **Operating temperature range**<br>** Max. permissible operating temperature* | **sensor pocket**<br>-35..+70 °C | **enclosure**<br>-35..+70 °C | **mounting base**<br>-35..+90 °C |
| **Accuracy temperature** | ±0,5 K (typ. at 21 °C within default measuring range) | | |
| **Enclosure** | enclosure USE-S, PC, pure white | | |
| **Protection** | IP65 according to EN 60529 | | |
| **Cable entry** | Flextherm M20, for wire Ø=4,5..9 mm, removable | | |
| **Connection electrical** | removable plug-in terminal, max. 2,5 mm², connection wire PVC, 2x Ø=0,25 mm², grey,<br>1 m (default), 2 m, 4 m, 6 m, for other lengths please request | | |
| **Pocket** | aluminium, dimensions: 35x10x6 mm | | |
| **Ambient condition** | max. 85% rH short term condensation | | |
| **Mounting** | Sensor attachment with double-sided adhesive tape (acrylic adhesive) | | |
| **Notes** | other cable lengths on request | | |

## »MOUNTING ADVICES

The OF14 + sensor is e.g. glued on the inside of windows to detect the internal pane temperature and to regulate the climate so that no condensation occurs. For use on flat surfaces, the acrylic adhesive is applied to the sensor surface (double-sided adhesive tape with protective foil).

## »CONNECTION PLAN AND CONFIGURATION

The adjustment of the measuring ranges is made by changing the jumpers in a de-energized state. The output value of the new measuring range is available after 2 seconds. *Fig. (Measuring range and offset adjustment, default settings: 0 °C..+50 °C | 0 K)*

**Active**

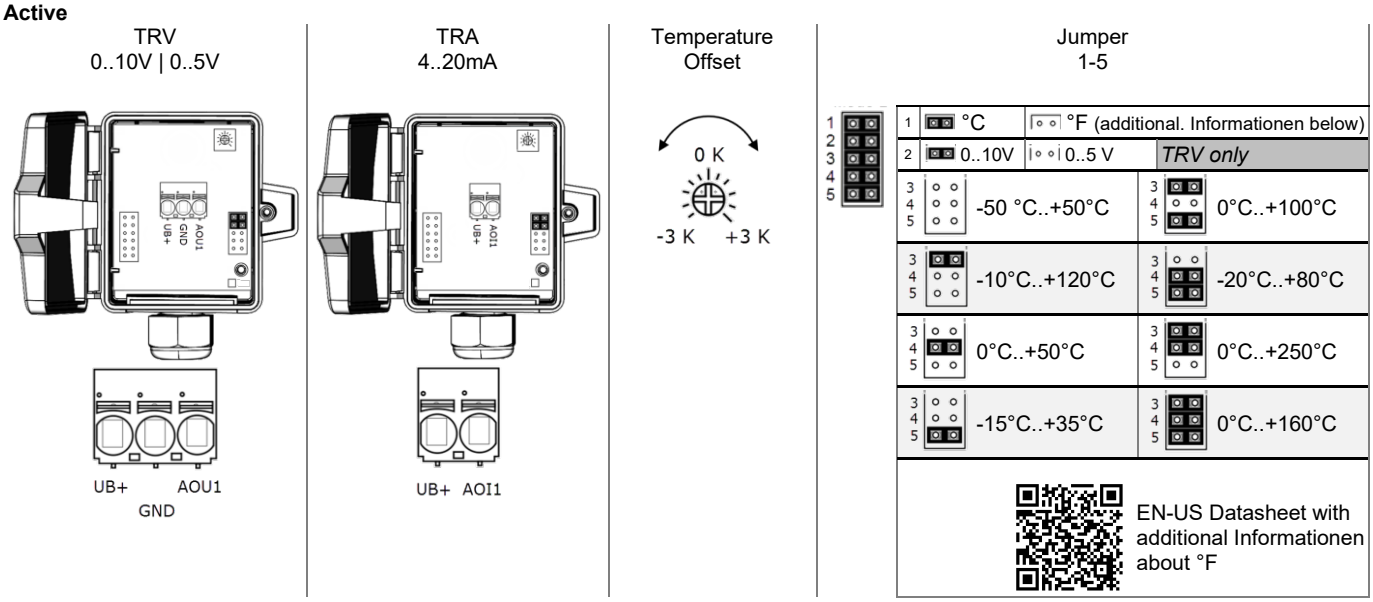
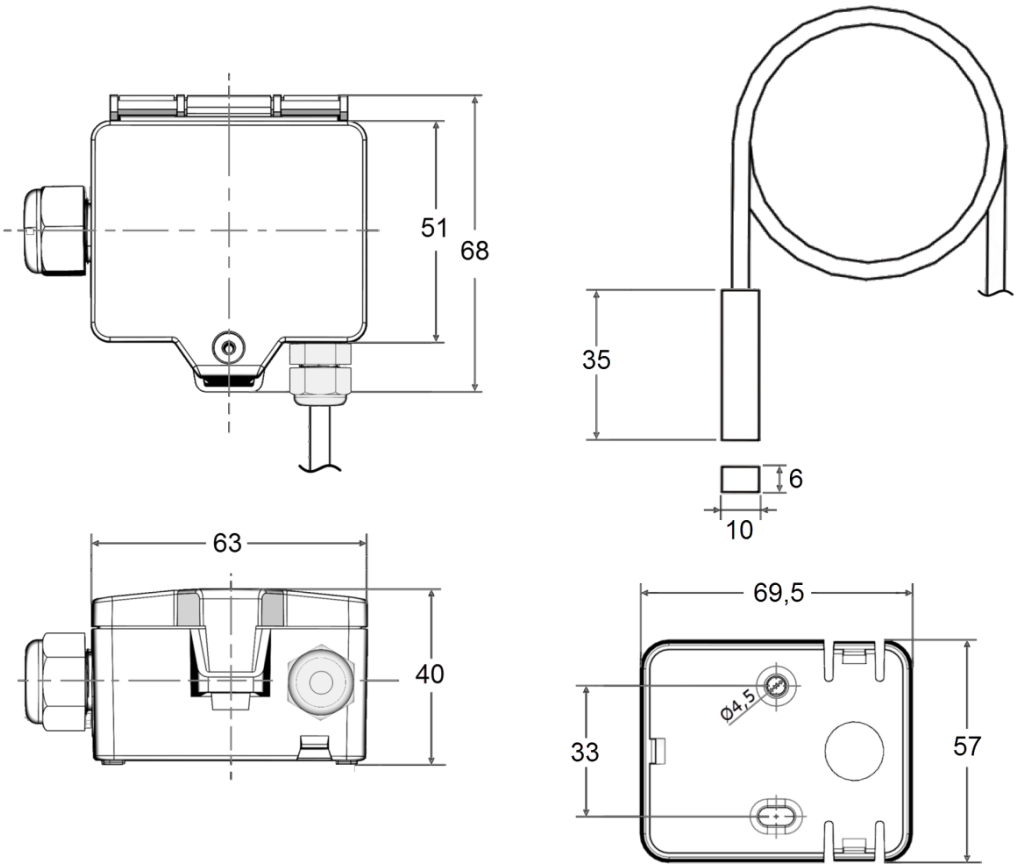



*fig. (Measuring range and offset adjustment, default settings: 0 °C..+160 °C | 0 K)*

## » DIMENSIONS (MM)




## » ACCESSORIES (INCLUDED IN DELIVERY)

| | |
|---|---|
| Mounting base enclosure USE pure white | Item No. 667722 |
| Mounting kit universal | Item No. 698511 |

• Cover screw + screw cover• 2 Rawlplugs • 2 Screws (countersunk head) • 2 Screws (rounded head)

## » ACCESSORIES (OPTIONAL)

| | |
|---|---|
| Mounting clip enclosure USE-S pure white | Item No. 667739 |
| Sealing insert M20 USE white, 2x Ø=7 mm (for 2 wire; PU 10 pieces) | Item No. 641333 |
| Conduit Adapter for M20x1,5 | Item No. 834834 |