AF25

Contact temperature sensor

thermokon Sensortechnik GmbH

Datasheet

Subject to technical alteration
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Application

Contact temperature sensor for measuring temperature on pipes and arched surfaces. Designed for control and monitoring systems.

Types Available

AF25	Sensor	passive, with Sensor according to customer´s need*
AF25	TRA	active, 4..20 mA
AF25	TRV	active, 0..10 V

* eg: PT100/PT1000/NI1000/NI1000TK5000/LM235Z/NTC.../PTC... and other sensors on request.
** Measuring range (TRA/TRV) 1: -50..+50 °C, 2: -10..+120 °C, 3: 0..+50 °C, 4: 0..+160 °C, 8: -15..+35 °C

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 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 Thermokon products contain valuable materials that should be recycled rather than disposed as domestic waste. Please note the relevant regulations for local disposal.

Technical Data

Sensor wire:	1 m, 2 m, 4 m, 6 m, other lengths on request, Cable ends with conductor sleeves as standard
Connection wire material:	PVC
Conductor cross-section:	0,25 mm²
Operating temperature:	-35..+100 °C
Pocket:	Brass, max. operating temp. +150 °C
Pocket length:	35 mm
Pocket diameter:	Ø=6 mm
Protection:	SI-Protection

Type Sensor

Measuring elements:	Sensor according to customer´s request
Measuring range:	Depending on sensor used
Accuracy:	Depending on sensor used and on wire length
Measuring current:	Typ. <1 mA
Connection:	2pole (two-wire), 3pole (Three-wire), 4pole (four-wire)
Weight:	30 g

Type TRA

Power supply:	15..24 V = (±10%)
Power consumption:	Max. 20 mA
Measuring range:	Adjustable at the transducer
TRA1:	-50.. +50 °C
TRA2:	-10..+120 °C
TRA3:	0.. +50 °C
TRA4:	0..+160 °C
TRA8:	-15.. +35 °C
Output:	4..20 mA, max. load 500 Ω / 24 V =
Accuracy@21°C:	Typ. ±1% of measuring range with wire of max. 2 m
Clamps:	2-pole (two-wire), Terminal screw max 1,5 mm²
Cable entry:	Single entry, M20 for cable max Ø=8 mm
Ambient temperature enclosure	-35..+70 °C
Transport:	-35..+70 °C / max. 85% rH, no condensation
Weight:	120 g

Type TRV

Power supply:	15..24 V = (±10%) or 24 V ~ (±10%)
Power consumption:	0,42 W / 0,84 VA
Measuring range:	Adjustable at the transducer
TRV1:	-50.. +50 °C
TRV2:	-10..+120 °C
TRV3:	0.. +50 °C
TRV4:	0..+160 °C
TRV8:	-15.. +35 °C
Output:	0..10 V, min. load 5 kΩ
Accuracy@21°C:	Typ. ±1% of measuring range with wire of max. 2 m
Clamps:	3-pole (three-wire), Terminal screw max 1,5 mm²
Cable entry:	Single entry, M20 for cable max Ø=8 mm
Ambient temperature enclosure:	-35..+70 °C
Transport:	-35..+70 °C / max. 85% rH, no condensation
Weight:	120 g

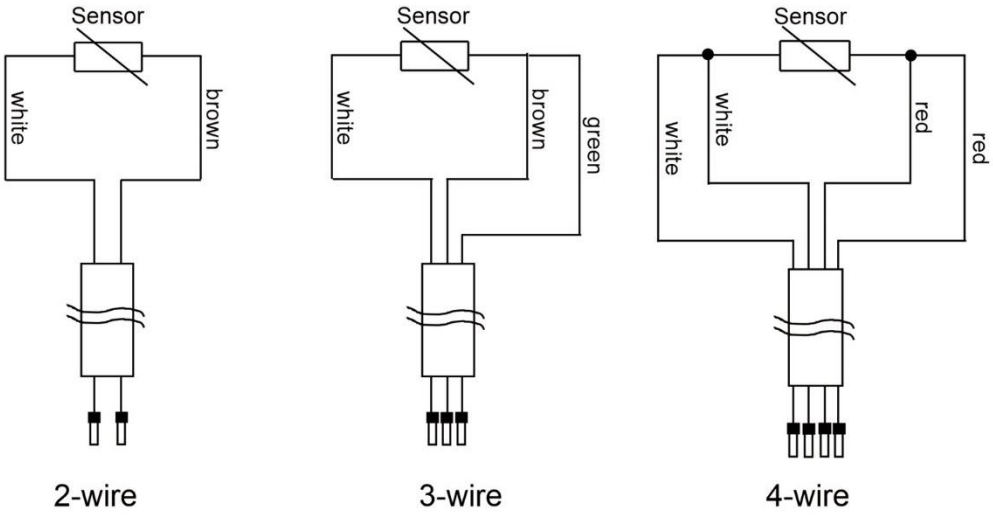
Mounting Advices

Fixing is done by tightening strap. Use contact fluid for better heat transfer between sensor and measuring medium.

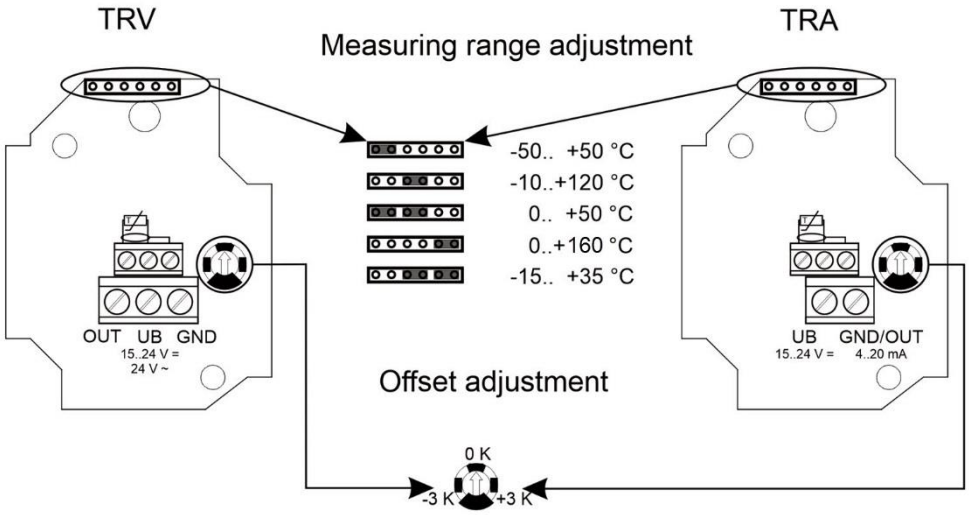
To avoid permeation of condensate, mount sensor on top of the tube, if possible.

Terminal Connection Plan

Passive:



Active:

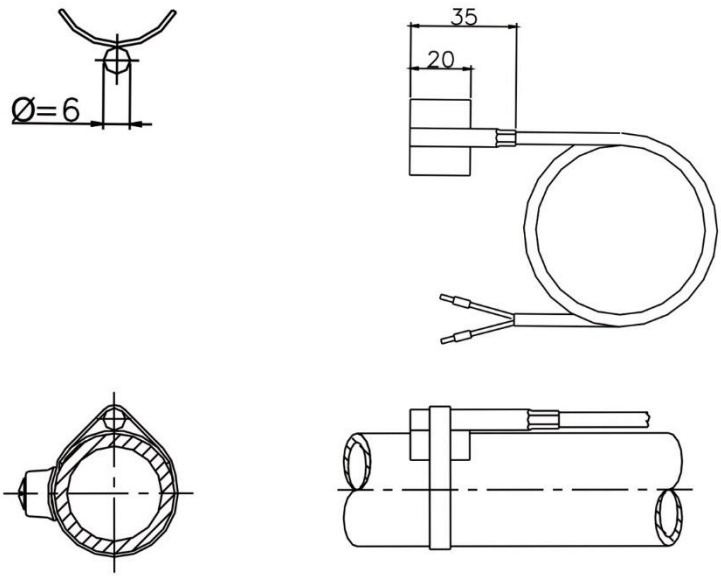


Caution:

With electronic sensors e.g. AD592, SMT160, LM235, DS1820 use: brown= plus (+), white= minus (-) , green=out

Dimensions (mm)

Passive:



Active: