

## Datasheet

Subject to technical alteration  
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## » APPLICATION

Duct sensor for measurement of air temperature and other gaseous mediums for HVAC applications (e.g. supply and exhaust ducts).

## » TYPES AVAILABLE

### Duct/Immersion sensor temperature – passive

KFK03.xxx.08 Sensor

### Duct/Immersion sensor temperature – active TRV 0..10 V | TRA 4..20 mA

KFK03.xxx.08 TRV

KFK03.xxx.08 TRA

\* e.g.: PT100, PT1000, NI1000, NI1000TK5000, LM235Z, NTC..., PTC... for other sensors please request.

\*\* mounting length: 100 mm, 150 mm, 200 mm, 250 mm

## » 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.

## » TECHNICAL DATA

Measuring values	temperature		
Output voltage	<b>TRV</b> 1x 0..10 V , min. load 3 kΩ		
Output ampere	<b>TRA</b> 1x 4..20 mA, max. load 500 Ω		
Output passive	<b>passive</b> PT100   PT100 1/3 DIN   PT1000   PT1000 1/3 DIN   Ni1000   Ni1000TK5000, NTC10k   NTC 10k Precon   NTC20k   NTC1,8k, LM235Z		
Power supply (type-dependent)	<b>TRV</b> 15..35 V = or 15..26 V ~ SELV	<b>TRA</b> 15..24 V = (±10%) SELV	
Power consumption (type-dependent)	<b>TRV</b> typ. 1 W (24 V =)   1,4 VA (24 V ~)	<b>TRA</b> typ. 0,5 W (24 V =)	
Measuring range temp. (type-dependent)	<b>passive</b> PT / Ni: -50..+160 °C (T160), optional -80..+260 °C (T260), NTC: -50..+150 °C (T150), LM235Z: -50..+120 °C (T120)		
Output signal range temp. *Scaling analogue output (type-dependent)	<b>TRV   TRA</b> TRV1   TRA1 -50..+50 °C, TRV2   TRA2 -10..+120 °C, TRV3   TRA3 0..+50 °C, TRV4   TRA4 0..+160 °C, TRA5   TRV5 0..+250 °C		
Operating temperature range * Max. permissible operating temperature	<b>sensor pocket</b> -50..+160 °C optional -80..+260 °C	<b>electronic – TRV TRA</b> -35..+70 °C	<b>electronic – passive</b> -35..+90 °C
Accuracy temperature (type-dependent)	<b>TRV   TRA</b> ±0,2 K or ±0,1 % (whatever is greater, typ. at 21 °C)	<b>passive</b> depending on used sensor Sensor, PT100   PT1000: ±0,3 K (typ. bei 0 °C, Kl.B) , Ni1000: ±0,4 K (typ. bei 0 °C), Ni1000TK5000: ±0,4 K (typ. bei 0 °C), NTC10K: ±0,22 K (typ. bei 25 °C)	
Sensor	<b>passive</b> 2-wire (default), 3-wire or 4-wire		
Enclosure	shape B, aluminium		
Protection	IP66 according to EN 60529		
Cable entry	M20 for cable with max. Ø=7 mm		
Connection electrical	terminal block, max. 1,5 mm <sup>2</sup>		
Pocket	stainless steel V4A, Ø=8mm, mounting lengths: 100   150   200   250 mm		
Ambient condition	max. 85% rH short term condensation		

## » PRODUCT TESTING AND CERTIFICATION



### Declaration of conformity

The declaration of conformity of the products can be found on our website <https://www.thermokon.de/>.

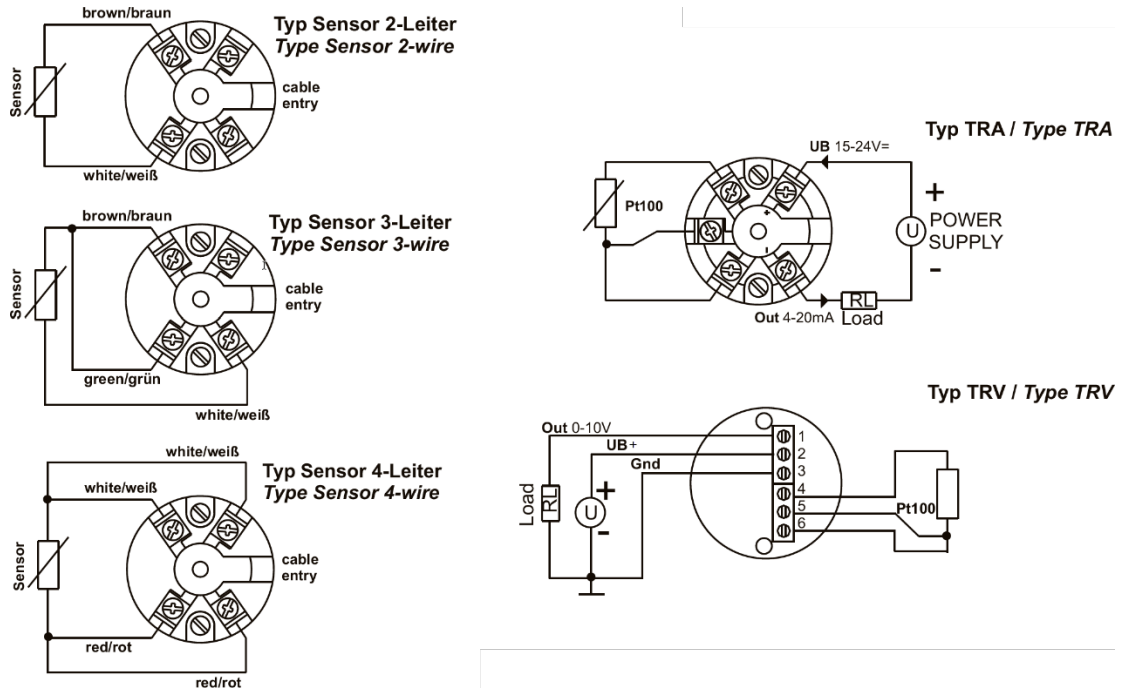
## » MOUNTING ADVICES

The sensor can be mounted on the ventilation duct by means of a mounting flange. For risk of condensate permeation in the sensor tube respectively in the immersion pocket the bushing must be installed in a position that occurred condensate can run off. Mounting with immersion pocket for usage in liquid media. Use contact fluid for better heat transfer between sensor and measuring medium.

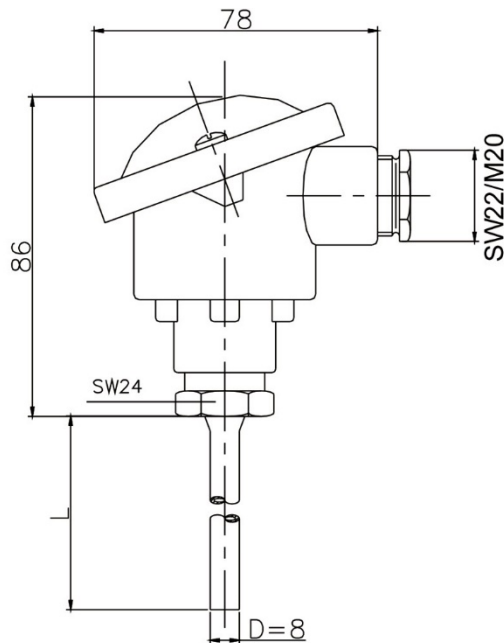
» **TERMINAL CONNECTION PLAN**

**Attention:**

With digital sensors such as **AD592, SMT160, LM235, DS1820** the following applies: brown = plus (+), white = minus (-), green=out



» **DIMENSIONS (MM)**



» **ACCESSORIES (OPTIONAL)**

Thermowell pockets stainless steel / brass for sensors with pocket Ø=8 mm

for length	100 mm	150 mm	200 mm	250 mm	350 mm
THVA	584180	584197	584203	594738	675444

VA-thermowell pocket (stainless steel, suitable up to 40 bar) type THVA <xx>.