

KFK03

Duct-/Immersion temperature sensor

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

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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



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

» **TECHNICAL DATA**

Measuring values	temperature		
Output voltage	TRV 1x 0..10 V , min. load 3 kΩ		
Output ampere	TRA 1x 4..20 mA, max. load 500 Ω		
Output passive	passive PT100 PT100 1/3 DIN PT1000 PT1000 1/3 DIN Ni1000 Ni1000TK5000, NTC10k NTC 10k Precon NTC20k NTC1,8k, LM235Z		
Power supply <i>(type-dependent)</i>	TRV 15..35 V = or 15..26 V ~ SELV	TRA 15..24 V = (±10%) SELV	
Power consumption <i>(type-dependent)</i>	TRV typ. 1 W (24 V =) 1,4 VA (24 V ~)	TRA typ. 0,5 W (24 V =)	
Measuring range temp. <i>(type-dependent)</i>	passive 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. <i>*Scaling analogue output</i>	TRV TRA TRV1 TRA1 -58..+122 °F, TRV2 TRA2 +14..+248 °F, TRV3 TRA3 +32..+122 °F, TRV4 TRA4 +32..+320 °F, TRA5 TRV5 +32..+482 °F		
Operating temperature range <i>* Max. permissible operating temperature</i>	sensor pocket -58..+320 °F optional -112..+500 °F	electronic – TRV TRA -31..+158 °F	electronic – passive -31..+194 °F
Accuracy temperature <i>(type-dependent)</i>	TRV TRA ±0,2 K or ±0,1 % (whatever is greater, typ. at 70 °F)		passive depending on used sensor, PT100 PT1000: ±0,3 K (typ. at +32 °F, Kl.B) , Ni1000: ±0,4 K (typ. at +32 °F), Ni1000TK5000: ±0,4 K (typ. at +32 °F), NTC10K: ±0,22 K (typ. at 77 °F)
Sensor	passive 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=0.28 in.		
Connection electrical	terminal block, max. 16AWG		
Pocket	stainless steel V4A, Ø=0.31 in., mounting lengths: 3.94 in., 5.91 in., 7.87 in., 9.84 in.		
Ambient condition	max. 85% rH short term condensation		

» **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/kfk03>

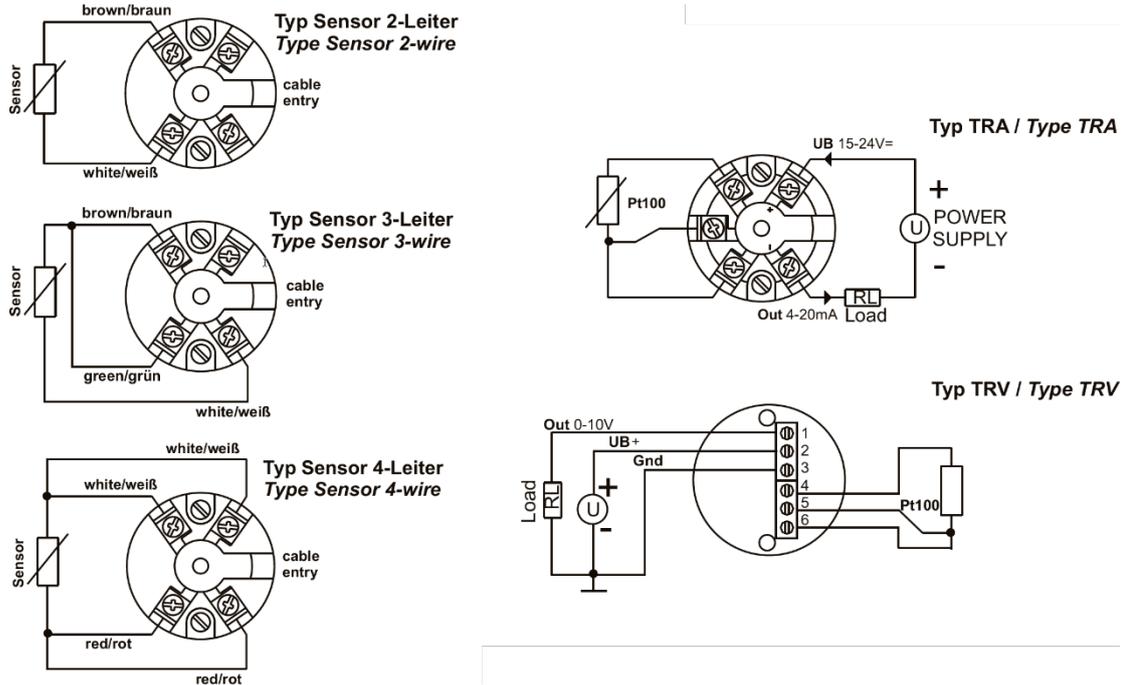
» **MOUNTING ADVICES**

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.

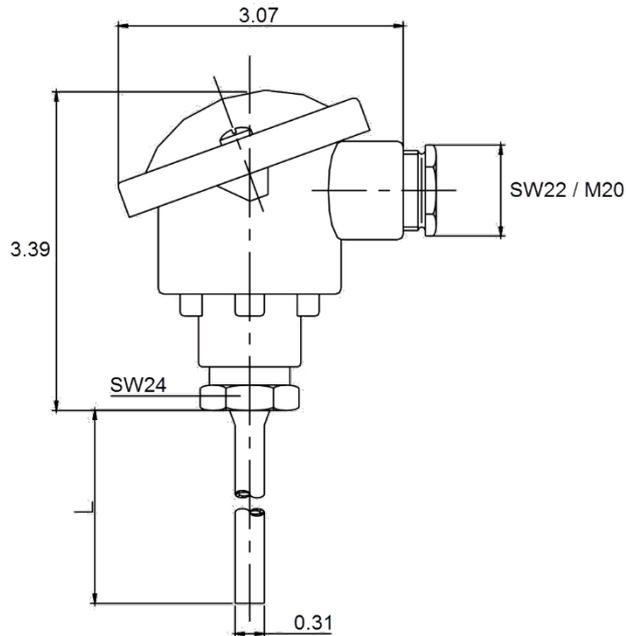
» **TERMINAL CONNECTION PLAN**

Attention:

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



» **DIMENSIONS (IN.)**



» **ACCESSORIES (OPTIONAL)**

Thermowell pockets stainless steel / brass for sensors with pocket $\varnothing=0.31$ in.

length	3.94 in.	5.9 in.	7.87 in.	9.84 in.	13.77 in.
THVA	584180	584197	584203	594738	675444

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