

## Datasheet

Subject to technical alteration  
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## » APPLICATION

Passive immersion sensor with integrated thermowell pocket for high temperature measurement of liquids in duct applications. Types SFKH01 with a 70 mm neck pipe are designed for applications with insulation materials.

## » TYPES AVAILABLE

### Immersion sensor temperature – passive

SFK(H)01 <sensor> <xxx>.08

<Sensor>: PT100/PT1000/Ni1000/Ni1000TK5000/LM235Z/NTC.../PTC...other sensors on request  
<xxx>: mounting length 50/100/150/200/250/450 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.

## » GENERAL REMARKS CONCERNING SENSORS

Especially with regard to passive sensors in 2-wire conductor versions, the wire resistance of the supply wire has to be considered. If necessary the wire resistance has to be compensated by the follow-up electronics. Due to self-heating, the wire current affects the measurement accuracy, so it should not exceed 1 mA. When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one for the measuring current.

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.

## » PRODUCT TESTING AND CERTIFICATION



### Declaration of conformity

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

## » TECHNICAL DATA

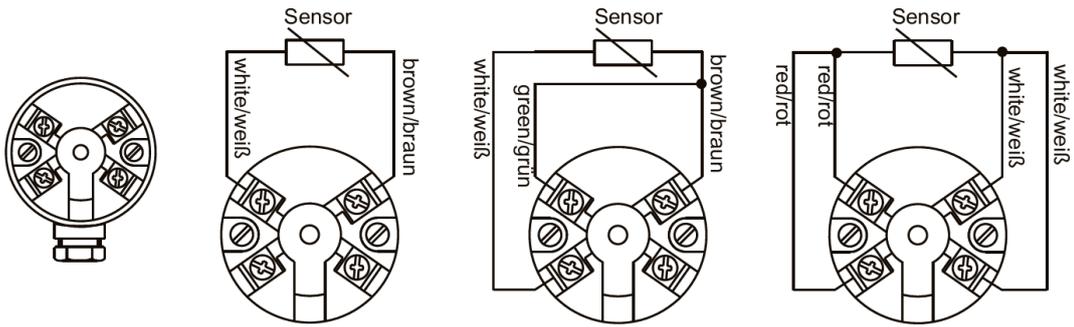
Measuring values	temperature	
Medium	gases, fluids	
Output passive (type-dependent)	PT100   PT100 1/3 DIN   PT1000   PT1000 1/3 DIN   Ni1000   Ni1000TK5000, NTC10k   NTC 10k Precon   NTC20k   NTC1,8k, LM235Z	
Measuring range temp. (type-dependent)	PT / Ni: -50..+160 °C (T160), optional -80..+260 °C (T260), NTC: -50..+150 °C (T150), LM235Z: -50..+120 °C (T120)	
Operating temperature range * Max. permissible operating temperature	<b>sensor pocket</b> -50..+160 °C optional -80..+260 °C (T260)	<b>enclosure</b> -35..+90 °C
Accuracy temperature (type-dependent)	depending on used sensor, PT100   PT1000: $\pm 0,3$ K (typ. at 0 °C, Kl.B) , Ni1000: $\pm 0,4$ K (typ. at 0 °C), Ni1000TK5000: $\pm 0,4$ K (typ. at 0 °C), NTC10K: $\pm 0,22$ K (typ. at 25 °C)	
Sensor (type-dependent)	2-wire (standard), 3-wire or 4-wire	
Enclosure	shape J, aluminium	
Protection	IP65 according to EN 60529, SI-Protection	
Cable entry	M16, for wire $\varnothing=8$ mm	
Connection electrical	terminal block, max. 1,5 mm <sup>2</sup>	
Neck pipe (optional)	stainless steel V2A, $\varnothing=12$ mm, L=70 mm	
Pocket	stainless steel V4A, $\varnothing=8$ mm, mounting length: 50   100   150   200   250   450 mm, thread G 1/2" max. operating pressure 40 bar (580,15 psi)	
Ambient condition	max. 85% rH, short term condensation	

## » MOUNTING ADVICES

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.

» CONNECTION PLAN

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



» DIMENSIONS (MM)

