

## Product overview

Screw-in sensor for measuring temperature in liquid and gaseous media of heating, cooling and air-conditioning systems (e.g. in pipeline systems). Designed for locking on to control and display systems.



SFK01

SFK02

## Types available

Type code	Type	Description
EXT-TN-1066630	SFK01.200.08 NTC10k	NTC10k, Pocket L 200mm, $\Phi$ 8
EXT-TN-1072471	SFK02.100.08 PT1000	PT1000, Pocket L 100mm, $\Phi$ 8
EXT-TN-1072440	SFK02.100.08 NTC10k	NTC10k, Pocket L 100mm, $\Phi$ 8
EXT-TN-1072457	SFK02.100.08 NTC10kPRE	NTC10k Precon, Pocket L 100mm, $\Phi$ 8
EXT-TN-1072464	SFK02.100.08 NTC10kPRE11k	NTC10k Precon 11k, Pocket L 100mm, $\Phi$ 8
EXT-TN-1072495	SFK02.100.08 TRA3	4...20mA, Pocket L 100mm, $\Phi$ 8
EXT-TN-1072501	SFK02.100.08 TRA4	4...20mA, Pocket L 100mm, $\Phi$ 8
EXT-TN-1072518	SFK02.200.08 NTC10k	NTC10k, Pocket L 200mm, $\Phi$ 8

## Technical data

<b>Standards</b>	CE conformity	2004/108/EG Electromagnetic compatibility
	EN conformity	- EN60730-1(2000) Interference resistance - EN60730-1(2000) Emitted interference
<b>General data</b>	Mounting lengths L	100mm/200mm
	Operating temperature	-50...160°C
	Sensor bushing	Stainless steel, material 1.4571 suitable up to 40bar
	Screw-in part	SW24, G1/2", stainless steel material 1.4305
<b>Type sensor</b>	Connection head	- SFK01: Form J, material aluminium - SFK02: Polyamide, colour white
	Protection	IP65 according to EN60529
	Measuring element	Sensor according to customer's request
	Measuring range	Depending on sensor used
	Accuracy	Depending on sensor used
	Measuring current	Typical <1mA
	Clamps	- 2 pole (two wire) - 3 pole (three wire) - 4 pole (four wire) Terminal screw max 1.5mm <sup>2</sup>
	Cable entry	- SFK01 : M16 - SFK02 : Single entry, M16 for cable with max. D=8mm
	Ambient temperature	Connection head - SFK01 : -25...70°C - SFK02 : -35...70°C
	Weight	- SFK01 : 195g - SFK02 : 155g
<b>Type TRA (only SFK02)</b>	Power supply	DC 15-24V(±10%)
	Power consumption	Max. 20mA / DC 24V
	Measuring range	Adjustable at the transducer - TRA2 : -10°C...+120°C - TRA3 : 0°C...+50°C - TRA4 : 0°C...+160°C
	Output	4...20mA, max. load 500 $\Omega$ / DC 24V
	Accuracy@21°C	Typical 1% of measuring range
	Clamps	2 pole (two wire) Terminal screw max. 1.5mm <sup>2</sup>
	Cable entry	Single entry, M20 for cable max. D=8mm
	Ambient temperature	Connection head -35...70°C
	Transport	-35...70°C / max 85% RH, non-condensing
	Weight	SFK02 : 180g

## Security advice

The installation and assembly of electrical equipment may only be performed by a skilled electrician. The modules must not be used with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people or animals.

## Mounting advice

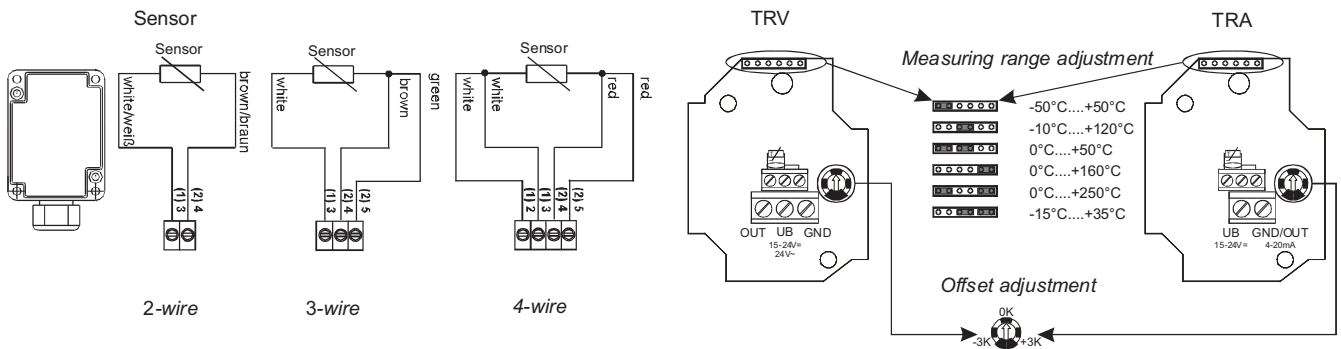
For risk of condensate permeation in the sensor tube, the bushing must be installed so that occurred condensate can run off. Material for sealing of single or double cable entry into the pipeline system is not included in delivery.

## Electrical connection

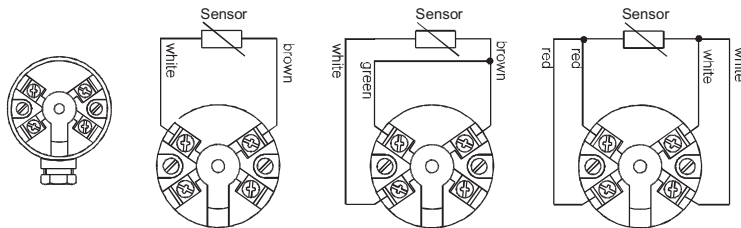
The devices are constructed for the operation of protective low voltage (SELV). For the electrical connection, the technical data of the corresponding device is valid. With regard to passive sensors (e.g. PT100 etc.) in 2 wire conductor versions, the wire resistance of the supply wire has to be considered. It is likely that the same has to be compensated by the following electronics. Due to the self heating, the wire current affects the accuracy of the measurement. Therefore it should not exceed 1mA. Sensing devices with transducers should in principle 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. The adjustment of the measuring ranges is made by changing the bonding jumpers (see terminal connection diagram). The output value in the new measuring range is available after approximately 2 seconds.

## Terminal connection plan

### SFK02



### SFK01



## Caution

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

**Dimensions (mm)**

