KNX-Sensor Temperature with (Tube-) Contacting Probe, SK01-T-ALTF1

The KNX-sensor temperature SK01-T-xx with the PT1000-probe ALTF1 is used for temperature detection of fluid or gaseous media in piping. The integrated KNX-Bus Coupler does not need additional auxiliary voltage. The temperature sensor is enclosed in a V4A stainless steel sheath tube which is affixed to the tube with a tightening strap (included in the scope of delivery). The glass-globe-reinforced impact-resistant plastic casing contains the KNX-Bus components and the electronic measuring equipment. It comes with two quick-locking screws.

Several controllers are available in the application software (HVAC, Continuous, PWM) for the temperature. Additional functions include frost alarm, temperature limits, minimum/maximum value and update.

The sensor is configured with ETS (KNX Tool Software) and the application program. Controlling functions such as HVAC, switching threshold and various adjustment parameters are parameterized with ETS.

Article-Nr.: 30101005

SK01-T-ALTF 1
KNX-Sensor with (Tube) Contacting
Temperature Probe
PT1000, Silicone

Application:

- Temperature detection on piping and tubes (cold water or hot-water)
- Temperature detection on heating systems for system control

Areas of Application:

- Temperature detection on piping indoors/outdoors and in damp locations
- Decentralized heating regulation for constant KNX-Valves or electro-thermal valves
- Saves maximum and minimum values
- Room Temperature Controller with options Comfort/Standby/Night/Frost Protection
- Direct set point presetting and display of current set point via KNX-Bus
- Various disable options for the controller

Probe:
Tube Contacting Probe Temperature

Probe Description:
Temperature probe PT1000 with
pre-bent contact plate, high long term stability

Sensor Application:
Installation on tubes with endless strap and metal tightener (included in the scope of delivery).
Strap dimensions: Ø=13-92 mm (1 / 4 - 3"), 300 mm

Temperature Range:
        PVC: -35 ...+105 °C
        Silicone: -35 ...+180 °C

Environment Temperature (Transducer): -20...+80°C

Protection Casing: IP65
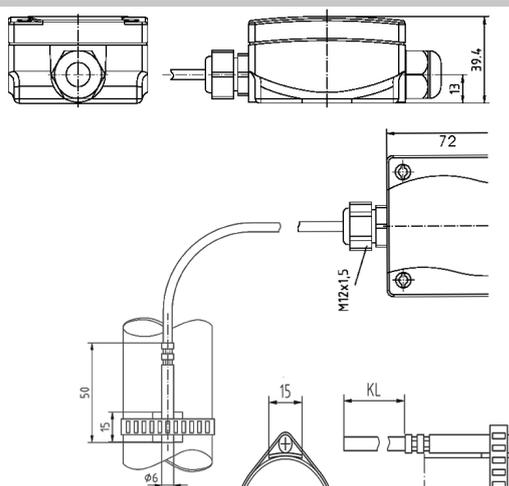
Technical Data	SK01-T-ALTF1
Measurement:	Temperature
Temperature Controller HVAC Modes:	HVAC with increase/decrease options
	HVAC with relative set point adjustment
	HVAC with absolute set point adjustment
Temperature Controller Options:	Comfort Temperature, Stand-by Temperature
	Night Temperature, Frost Protection Temperature
Temperature Controller Controller Output:	Continuous / Switching PI-Controller / Two-Position Controller with hysteresis
Temperature Controller HVAC-Display:	HVAC-Status Byte, HVAC-Status-Bits
Limit Alarm (Upper/Lower):	Temperature
Minimum/Maximum Temperature:	Saved minimum/maximum actual temperature
Frost Protection Alarm:	Falling below frost protection temperature
Update:	Temperature
Adjustment Parameters:	Offset adjustment, Output Inversion
Lock and Reset Objects:	Minimum/Maximum Temperature
Send Options:	Do Not Send, Periodic Sending by Adjustments
Temperature Probe:	PT1000, embedded in sheath tube IP65
Environment Temperature:	Storage -20...+100°C, Operating -20...+80°C (transducer)
Environment Humidity:	0...95% rH, not condensating
Temperature Range:	-35...+105 °C (PVC) +180 °C (Silicone)
Accuracy of Temperature:	+/- 0,5 °C
Temperature Resolution:	+/- 0,01 °C
Operating Voltage:	EIB/KNX Bus voltage 24 V DC
Power Consumption ca.:	10 mA at 24V DC
Auxiliary Supply:	Not necessary
Bus Coupler:	Integrated
Start-up with ETS:	ARC_TFK.VD2 Product: Sensor Temperature IP65
Circuit Points:	EIB-2-pol clamp (red/black)
Protection Casing:	IP65
Fittings:	Installation with endless strap and metal tightener
Fittings Transducer:	Finery, two screws
Casing Transducer:	white plastic
Measurements Casing:	72 mm x 64 mm x 39,4 mm (W x H x D)
Measurements Tightening Strap:	Ø=13-92 mm(1 / 4 - 3"), 300 mm
Protection Probe:	IP65 (optional IP68 humidity-tight compound-filled)
Article Numbers:	**30101004, 30101005**

Optional Available:		
ALTF 1 PT1000		**KNX-Sensor Temp. with Contacting/Tube Contacting Probe**
SK01-T-ALTF 1 PT1000		PVC -35...+105°C	30101004
SK01-T-ALTF 1 PT1000		Silicone -35...+180°C	30101005

Start-up:

The KNX Sensor is set up using the ETS (KNX Tool Software) and the applicable application program. The sensor is delivered unprogrammed. All functions are programmed and parameterized with ETS. Please read the ETS instructions.

Installation:

SK01-T-xx sensors are for outdoor use and for (moist) indoor areas. They fulfill protection class IP65. The sensor is fitted onto the wall with two screws. The tube contacting probe is affixed to the tube with a tightening strap.

SK01-T-xxx opened for installation
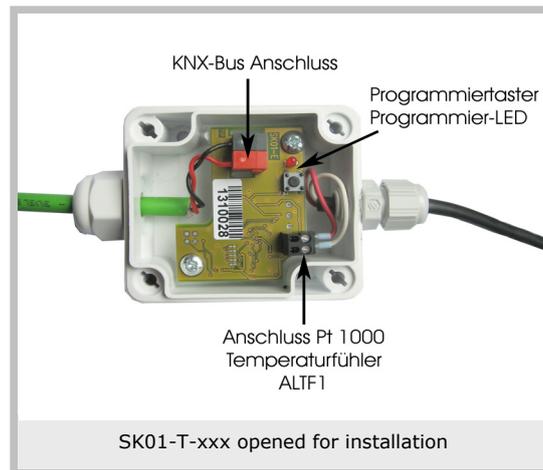
The lid can be opened to a 90° angle by loosening the screws.

The cable for the external temperature sensor (PT1000) can be detached from the terminal block. When reattaching, it is not necessary to pay attention to the polarity of clamps 1 and 2. After the sensor has been mounted onto the wall or ceiling, lead the KNX bus cable through the hole in the casing (PK screw connection). Remove the bus clamps from the device and connect the cable to it. Place the bus clamps back onto the device. After programming the device, place the lid back on by twisting the screws 90°.

→ Be careful not to damage the electronics during the installation process.

In case of bus line voltage restoration (voltage outage):

All temperature defaults on the KNX/EIB bus are restored. After a line voltage restoration the temperature data is rounded up or down to 0.5°C of the actual value. The controller and outputs start with their current values. The HVAC mode byte is set to 0. ETS Parameter adjustments are restored.

Program de-activate and reset sensor:

If there is an error in programming and the sensor no longer reacts, you can delete the project by pressing the program button. Press the program button down while connecting the EIB bus clamp and wait for the program LED to light up. This takes from 5-10 seconds.

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