

**KNX-Sensor Temperature with Screw-In Immersion Probe and Cable Connection, SK01-T-ESTF**

The KNX-sensor temperature SK01-T-xx with the probe ESTF is used for temperature detection of fluid and gaseous media in piping and tubes. The integrated KNX-Bus Coupler does not need additional auxiliary voltage. A straight sheath tube encloses the temperature sensor and is flange connected to a cable. Cables made of silicone or PVC are available in different sizes. 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.

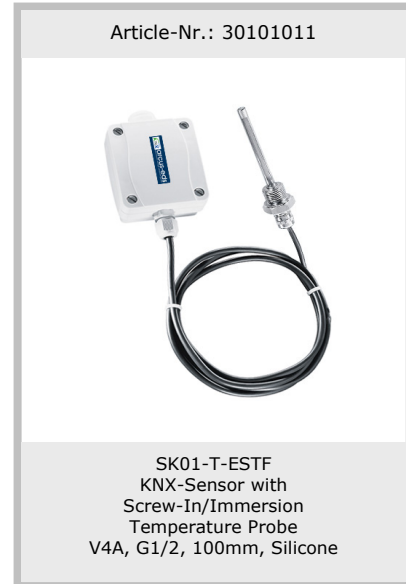
The sensor is configured with ETS (KNX Tool Software) and the application program. Controlling functions such as HVAC, switching threshold and various adjustment parameters are parameterized with ETS.

**Application:**

- In piping systems, in heating technology
- In storage tanks and district heating stations
- In hot and cold water installations
- In oil and lubrication cycle systems
- In industry-wide machine, apparatus and plant construction

**Application Area:**

- Recording temperature in pipes, storage tanks and containers
- 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:  
 Screw-In/Immersion Probe Temperature

Probe Description:  
 Temperature Probe PT1000, high long term stability

A straight sheath tube ( $\varnothing=8\text{mm}$ , max. pressure 41bar) encloses the exchangeable temperature sensor and is flange connected to a cable.

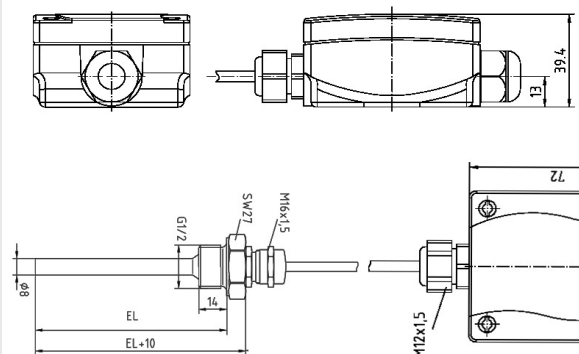
In the different temperature ranges you can select between PVC and silicone. The cable length KL (see picture) is standard 1,5m, but is also available in other lengths according to the customers' conditions. The probe is optional shed/roller-burnished water proof.

Sensor Application:  
 Installation in tubes and cases and for replacement/reparation of already established systems.


Temperature Range:                                   -30...+105°C PVC  
   -50...+180°C Silicone

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

Protection Casing:                                   IP65



Technical Data	SK01-T- ESTF
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:	-30...+105 °C (PVC) / -50...+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:	<b>ARC_TFK.VD2</b> Product: Sensor Temperature IP65
Circuit Points:	EIB-2-pol clamp (red/black)
Protection:	IP65
Fittings:	Finery, two screws, screw-in thread G1/2
Casing:	White plastic
Measurements:	72 mm x 64 mm x 39,4 mm (W x H x D)
Cable:	PVC, Silicone, in standard 1,5m
Sleeve:	Ø 8mm, length 50/100mm, IP65, shed roller-burnished, G1/2
Article Number:	<b>30101008, 30101009, 30101010, 30101011</b>

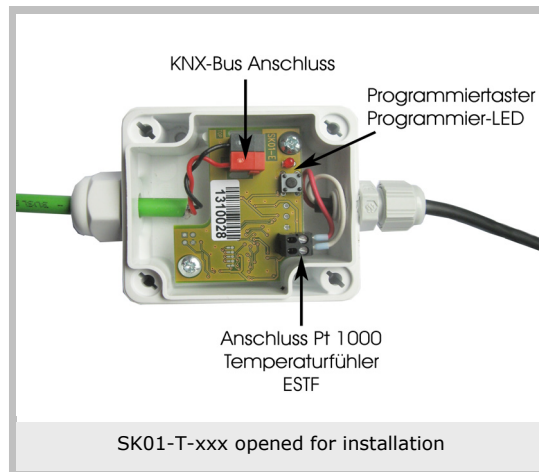
Optional Available:			
ESTF PT1000-xx	KNX-Sensor Temperature with Screw-In/Immersion Probe G1/2 V4A		
ESTF PT1000-50		PVC, G1/2 50mm V4A	<b>30101008</b>
ESTF PT1000-100		PVC, G1/2 100mm V4A	<b>30101009</b>
ESTF PT1000-50		Silicone, G1/2 50mm V4A	<b>30101010</b>
ESTF PT1000-100		Silicone, G1/2 100mm V4A	<b>30101011</b>

**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 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.

**Imprint:**

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