KNX-Sensor Temperature/Humidity/Climate + Measuring Input PT1000

The KNX-Sensor with the Temperature/Humidity/Climate SK03-TTFK is used to measure air temperature and humidity in indoor dry rooms (IP20) and an additional Measuring Input for a PT1000. The integrated KNX bus coupler does not need additional auxiliary supply.

The SK03-TTFK can be fitted in all switch ranges with 55 mm profile currently available from the equipment manufacturers, and comes in the colours white or anthracite. Its flat construction and small size make it possible to integrate the device unobtrusively in a previously installed system as well as a new one.

Several controllers are available in the application software (HVAC, Continuous, PWM) for the temperature, and a two-position controller is available for humidity. Additional functions include frost alarm, temperature and humidity limits, minimum/maximum value and update. The climate controller displays absolute humidity (g/kg), dew point temperature (°C), enthalpy (kJ/kg) and comfort according to DIN 1946.

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.

Artikel-Nr.:
30403201 white
30403202 anthracite

SK01-TTFK

The second temperature reading enables the user to add-on an additional two-position controller based on the external temperature or dew point reading. The additional temperature reading is especially useful in preventing structural damage. The sensor calculates the dew point temperature with its integrated probe by measuring the room temperature and humidity content. The extra external sensor is placed directly on the monitored building component and activates an alarm or makes an adjustment when the dew point temperature is approached.

Areas of Application:

- Recording the temperature and relative humidity outdoors/damp room areas
- Decentralized heating regulation for constant KNX-Valves or electro-thermal valves
- Decentralized ventilation controller
- Dew point controller and alarm for cooling ceilings or winter gardens
- Dew point alarm for identification of possible mould build-up in cellars
- Shows saved maximum and minimum values on external displays
- 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

Description:
Interior Temperature Humidity Probe

Sensor Application:
The KNX-sensor system for recording and controlling is delivered in a casing for flush-mounting. The sensor can be used in living quarters and interior areas, in hotels, offices, schools and training rooms. The casing is provided for flush-mounting with 2 springs and a supporting frame. The casing is fitted to the appropriate frame and inserted into the 68 mm flush-mounted box.

Sensor:
Capacitor humidity sensor with integrated temperature sensor (Sensirion SHT11/SHT71), condensation-proof with high long term stability.

Storage Temperature:	-30...+55°C
Operating Temperature:	-25...+45°C
Humidity Range:	0...99% rH
	Non-condensating,

55,5 mm
55,5 mm
13,00 mm

361   e11
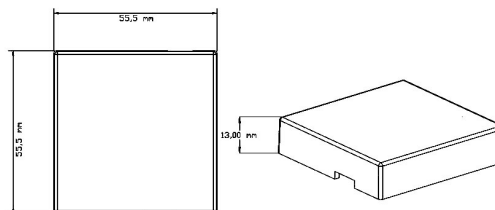
Technical Data	SK03-TTFK
Measurement	Temperature, , Humidity
Temperature Controller HVAC Modi:	HVAC with increase/decrease options
	HVAC with relative set point adjustment
	HVAC with absolute set point adjustment
Temperature Controller Options:	Comfort Temperature, Stand-by Temperature
	Night Temperature, 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, Humidity
Minimum/Maximum Temperature:	Saved minimum/maximum actual temperature
Frost Protection Alarm:	Falling below frost protection temperature
Dew Point Alarm:	Surpassing the dew point
Humidity Controller Mode:	Controller with increase/decrease options
Humidity Controller, Controller Output:	Two-position controller with hysteresis
Update:	Temperature, Humidity, Dew Point
Comfort Field:	Comfort Output Text
Calculated Value:	Absolute Humidity, Dew Point Temperature, Enthalpy
Adjustment Parameters:	Offset adjustment, Elevation, Output Inversion
Lock and Reset Objects:	Humidity Controller, Temperature Controller, Minimum/Maximum Temperature
Send Options:	Do Not Send, Periodic Sending by Adjustments
Temperature/Humidity Probe:	Sensirion, SHT71/11 embedded in casing
PT1000-Input:	16Bit-ADC, accuracy: +/- 0,4°C, resolution +/- 0,01°C
Environment Temperature:	Storage -30...+55°C, Operating -25...+45°C
Environment Humidity:	0…99% rH, non-condensating
Temperature Range:	-25…+45 °C
Accuracy of Temperature:	+/- 0,5 °C
Temperature Resolution:	+/- 0,01 °C
Humidity Range:	0…100% rH
Accuracy of Humidity:	3% rH
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/Humidity/Climate+ SK03
Circuit Points:	KNX-2-pol clamp (red/black)
Protection:	IP20
Fittings:	Flush-mounting, component fitted with 2 spring clips in a support ring, the ring inserted in a 68 mm flush-mounted box
Casing:	White, or anthracite plastic
Measurements:	55 mm x 55mm x 13 mm (W x H x D)
Article Number:	**30403201, 30403202**

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| Bestellvarianten:				
SK03-TTFK		**Raumpendelfühler**		
SK03-TTFK		Sensor Temperature/Humidity/Climate white		**30403201**
SK03-TTFK		Sensor Temperature/Humidity/Climate anthracite		**30403202**
HTF PT1000 PVC		PT1000 Temperature Probe		**90100002**

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:
SK03-xxx sensors are for installation in dry interiors. They fulfill protection class IP20 and can be fitted directly to a 68mm flush-mounted box with the attached supporting frame.
The SK03-xxx can be used with all switch ranges with 55 mm profile (e.g. Gira, Merten). The design frame is not included, so test the combination of the frame model with the SK03-xxx before installing it.

→ Be careful not to scratch the protective film or touch the square edges.

For installation the SK03-xxx casing is fitted to the design frame and then inserted in the previously mounted supporting frame. The switch-key for programming and the integrated temperature-humidity probe must be placed at the lower edge of the casing. The mounting direction is marked on the back of the component. For optimal accuracy do not place the sensor in direct sunlight or near other heat sources.

SK03-xxx opened for installation
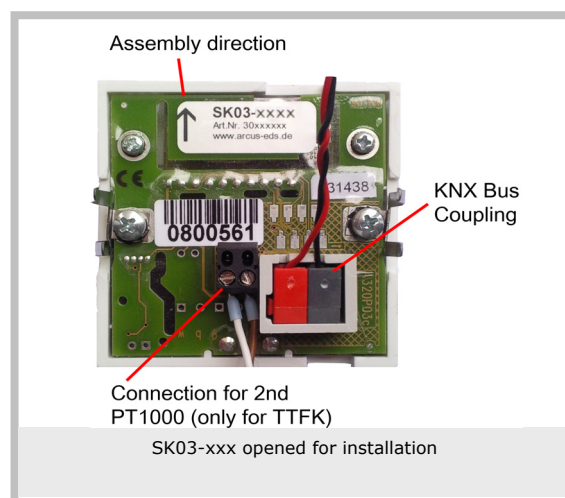
In case of bus line voltage restoration (voltage outage):
All temperature defaults on the KNX/EIB bus are restored. After a line voltage restoration the temperature data is rounded up or down to 0.5°C of the actual value. The controller and outputs start with their current values. The HVAC mode byte 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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