

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.



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:

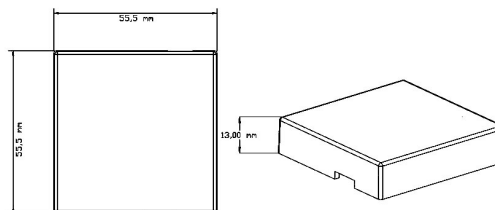
- Recording the temperature and relative humidity outdoors/damp room areas
- Decentralized heating regulation for constant KNX-Valves or electro-thermal valves
- Decentralized ventilation controller
- Dew point controller and alarm for cooling ceilings or winter gardens
- Dew point alarm for identification 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,



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

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.

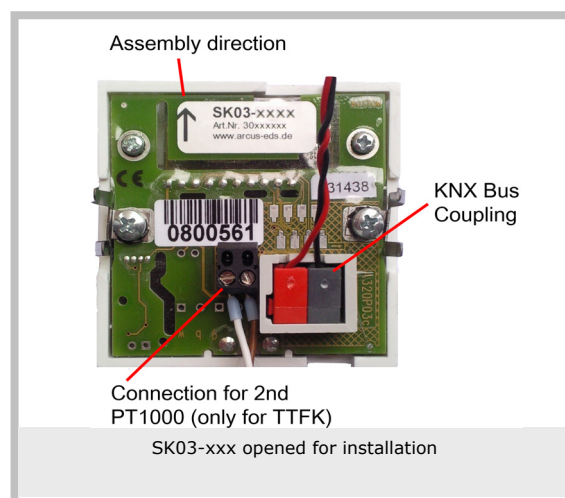
Installation:

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.


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:

Publisher: Arcus-EDS GmbH, Rigaer Str. 88, 10247 Berlin

Responsible for Content: Hjalmar Hevers, Reinhard Pegelow

Reprints, including partial reprints, can be made only with expressed permission from Arcus-EDS GmbH. This information is the best to our knowledge and is without guarantee. We reserve the right to make any technical and price changes at any time.

Liability:

Selection and determining the appropriateness of the devices for a designated purpose is the customer's full responsibility. We offer no liability or guarantee for this. The data in the catalogue and data sheets is a result of experienced measurements and does not embody a guarantee of particular features. Arcus excludes responsibility for damage done on the part of the customer due to improper operation/projecting or malfunctions. On the contrary, the operator/projector must ensure that improper operation, and projection and malfunctions do not lead to any further damage.

Safety Guidelines:

Attention! Installing and assembling electrical devices must only be done by an electronics specialist. The customer should be aware of and adhere to the safety guidelines of VDE, TÜV and the appropriate energy provider. Our guarantee does not include defects and damage caused by improper use or non-compliance of operating instructions.

Warranty:

We provide a warranty as required by law. Please contact us in case of malfunction and send the device with a full description of the fault to the address below

Manufacturer:**Registered Trademarks:**

The CE Trademark is an unofficial market trademark used exclusively by authorities and provides no warranty of properties.



Registered Trademark of Konnex Association