

Product Page

The KNX-Sensor SK10-TTHC-AFF is used for measuring and controlling indoor air parameters

- Air temperature (sensor on housing) also weighted with external temperature
- Relative humidity (sensor on housing)
- Calculated values absolute humidity, dew point temperature and energy content (enthalpy)
- External PT1000 connector (PT1000 not included)
- Control functions for heating and cooling applications (can be combined)
- Setpoint temperatures for Comfort, Standby, Economy and Protection, selectable via KNX HVAC objects
- Setpoint change via objects
- Storage of minimum- and maximum-temperature
- Heat- and frost-alarm
- Limits for temperature and humidity
- Fan control by humidity limits and external inputs
- Detecting of dew point temperature and alarm / regulation at risk of condensation
- Adaptation for setpoint and maximum temperatures
- Controller output 0...100% or programmable PWM for thermal actuators
- Valve rinse function
- Second temperature controller as auxiliary controller

Four logic blocks for the logical link between internal and external signals.

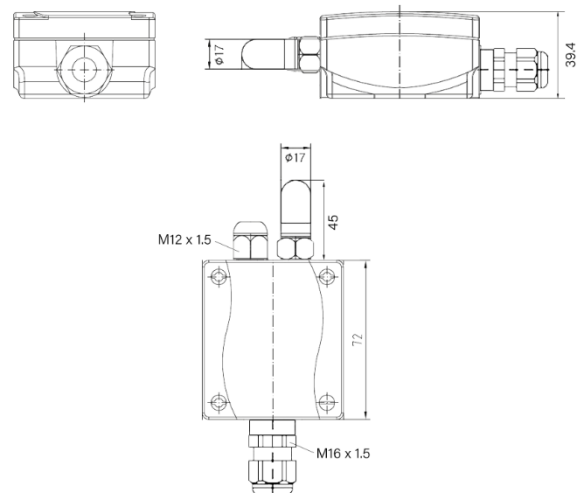
- 10 associated logic inputs / outputs
- Heat- and cooling-request as additionally available signals
- Functions "AND, OR, NOT, XOR" for binary logic
- Functions "+ - *" for 8-bit values
- Function "=" for conditional forwarding of events

Article No. 30541053



**SK10-TTHC-AFF
+ ext. PT1000 Connector**

Sensor:	Sensirion SHT21 Ø 17mm The probe is protected from dust by a poroplast protective coating
ext. Sensor	PT1000 (not included)
Measurement Ranges	
Temperature:	-25 .. +80°C
Resolution:	0.02°C
Accuracy:	± 0,4°C (5..60°C), else ± 0,8°C
rel. Humidity:	0 .. 100% r.H
Resolution:	0.02% r.H
Accuracy:	± 3% r.H (20..80%) @ 25°C, else ± 5%
ext. Temperature:	-50 .. +400°C (depending on the sensor used)
Resolution:	0.02°C
Accuracy	depending on the sensor used
Operation Temperature:	-25 ..
+80°C Storage Temperature:	-25
Protection Class:	IP54/65



Product Page

SK10-TTHC-AFF

External Sensor + ext. PT1000 Connector

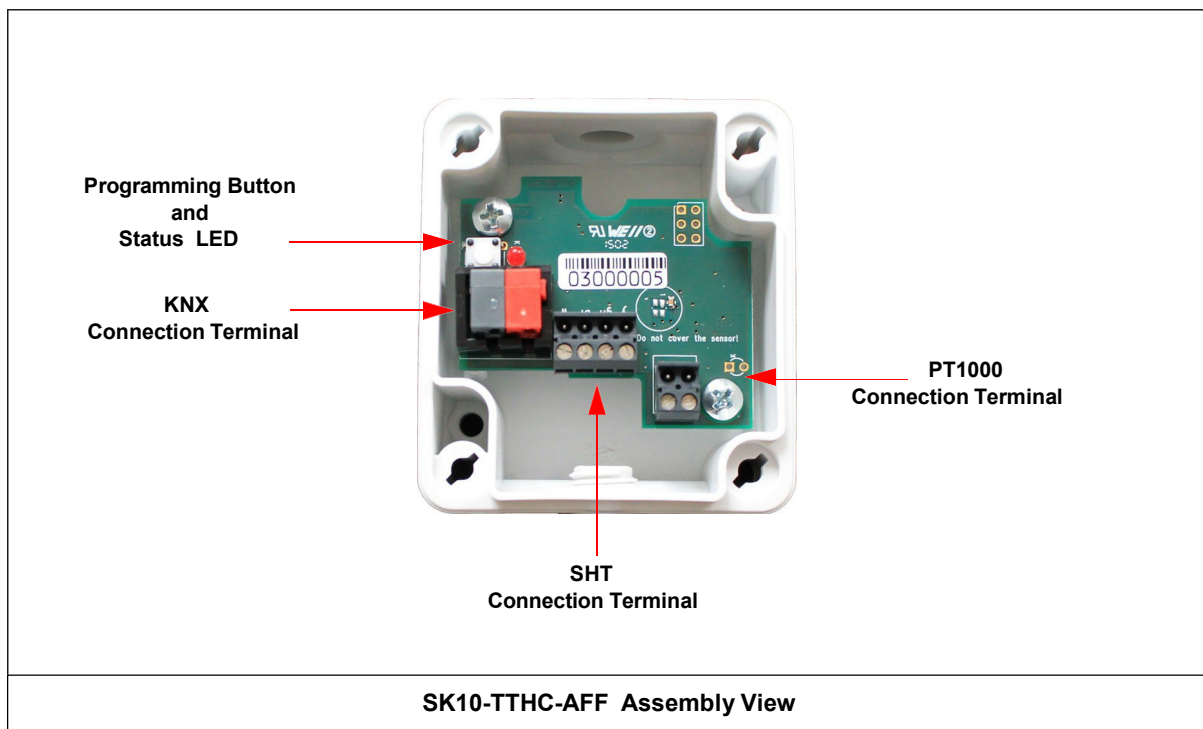
Startup

The KNX Sensor is set up using the ETS (Version 4 or higher) and the applicable application program.

The sensor is delivered unprogrammed.

All functions are programmed and parameterized with ETS.

Please read the ETS instructions.



Assembly

The **SK10-TTHC-AFF** sensor is designed for indoor and outdoor installation with the sensor facing down.

The sensor is located in a IP54/65 plastic housing.

The sensor is mounted on the wall with two screws.

In Case of Bus Voltage Recurrence

All changes made using the help key for the KNX bus are saved if the device has been correctly parameterized.

By using the weighted mixture temperature, the external temperature scaling is set to 0% until an external temperature value is received.

The measuring and control values start with their current values (integral component=0 by PI-Controller).

The ETS parameter settings are retained.

Discharge Program and Reset Sensor

In order to delete the programming (projecting) and to reset the module back to delivery status, it must be switched off (disconnect the KNX bus).

Press and hold the programming button while reconnecting the KNX bus and wait until the programming LED lights up (approx. 5-10 seconds).

Now you can release the programming button.

The module is ready for renewed projecting.

If you release the programming button too early, repeat the aforementioned procedure.

Product Page

SK10-TTHC-AFF

External Sensor + ext. PT1000 Connector

Technical Data**Technical Data - SK10-TTHC-AFF**

Measurement	Temperature Relative Humidity
Calculated Values	Absolute Humidity Dewpoint Temperature Enthalpie
Control	Integrated
Temperature Range	-25 .. +80°C
Resolution	0.02°C
Accuracy	± 0,4°C (5..60°C), else ± 0,8°C
rel. Humidity Range	0 .. 100% r.H
Resolution	0.02% r.H
Accuracy	± 3% r.H (20..80%) @ +25°C, else ± 5% r.H
PT1000 not included	
Temperature Range	-50 .. +400°C (depending on the sensor used)
Resolution	0.02°C
Accuracy	depending on the sensor used
Operating Voltage	KNX Bus Voltage 21 .. 32VDC
Power Consumption	approx. 240mW (at 24VDC)
Environment Temperature KNX-Module	Operating: -25 .. +80°C Storage: -25 .. +80°C
Environment Humidity KNX-Module	0 .. 100% r.H Non Condensing
Bus Coupler	Integrated
Auxiliary Supply	Not Required
Startup with the ETS Version 4 or higher	HLK305
Curcuit Points	KNX 2-Pole Clamps (red / black)
Protection Class	IP54/65
Housing KNX-Module	Plastic
Dimensions Housing KNX-Module	(72 x 64 x 40) mm
Article Number	30541053

Product Page

SK10-TTHC-AFF

External Sensor + ext. PT1000 Connector

Imprint

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

Responsible for the contents: Hjalmar Hevers, Sascha Bergmann

Reprinting in part or in whole is only permitted with the prior permission of Arcus-EDS GmbH.

All information is supplied without liability. Technical specifications and prices can be subject to change.

Liability

The choice of the devices and the assessment of their suitability for a specified purpose lie solely in the responsibility of the buyer. Arcus-EDS does not take any liability or warranty for their suitability. Product specifications in catalogues and data sheets do not represent the assurance of certain properties, but derive from experience values and measurements. A liability of Arcus-EDS for damages caused by incorrect operation/projecting or malfunction of devices is excluded. The operator/project developer has to make sure that incorrect operation, planning errors and malfunctions cannot cause subsequent damages.

Safety Regulations

Attention! Installation and mounting must be carried out by a qualified electrician.

The buyer/operator of the facility has to make sure that all relevant safety regulations, issued by VDE, TÜV and the responsible energy suppliers are respected. There is no warranty for defects and damages caused by improper use of the devices or by non-compliance with the operating manuals.

Warranty

We take over guarantees as required by law.

Please contact us if malfunctions occur. In this case, please send the device including a description of the error to the company's address named below.

Manufacturer**Registered Trademarks**

The CE trademark is a curb market sign that exclusively directs to authorities and does not include any assurance of product properties.



Registered trademark of the Konnex Association.