Product Page

The KNX-Sensor SK10-THC-ALKFx can be used on cooling ceilings, pipes or other objects centrally to avoid condensation.

With this sensor, the dew point control is implemented using the relative humidity (humidity controller).
The sensor is mounted directly on the component on which condensation is to be prevented.
At the contact point to the component there is a microclimate in which the relative humidity must not reach 100%.
The setpoints and the hysteresis must be set in such a way that this is prevented.

- Air temperature (microclimate)
- Relative humidity (microclimate)
- calculated dew point temperature
- Absolute humidity

- Control functions for heating and cooling applications (can be combined)
- Limits for temperature

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.   30531161 / 30531162

SK10-THC-ALKF1
SK10-THC-ALKF2
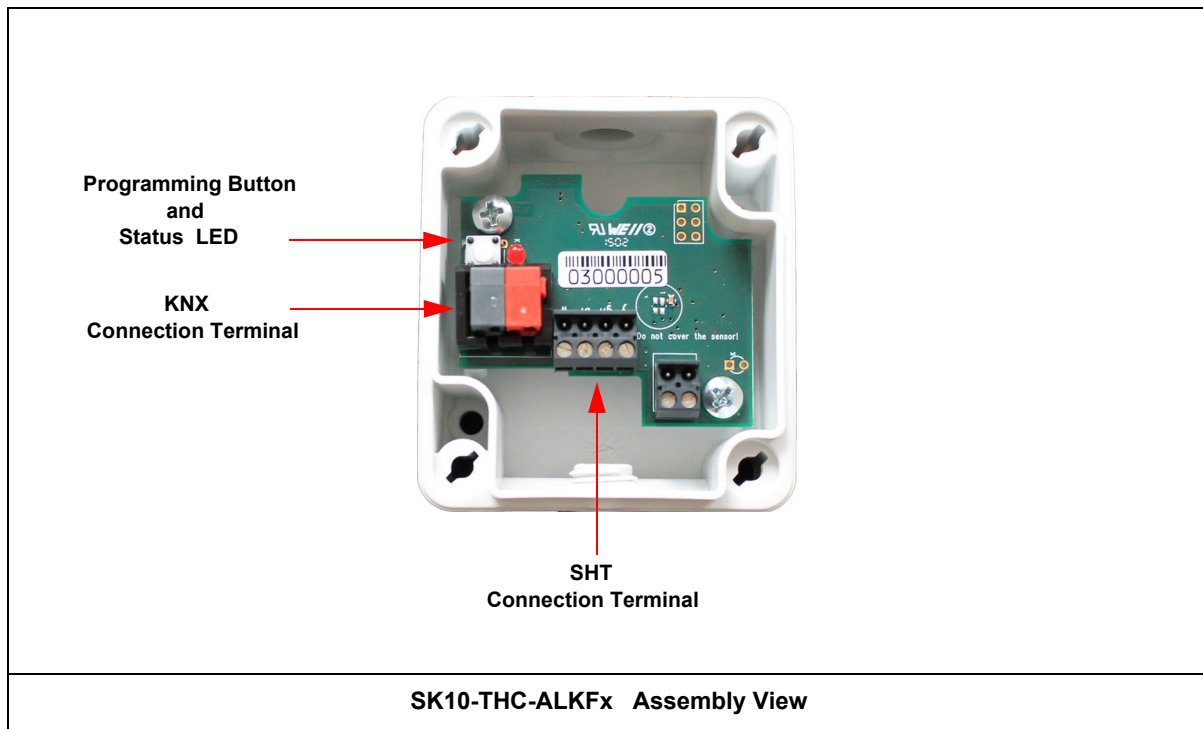
Sensor:	Sensirion SHT21 directly on the housing or with detached sensor head - 2m PVC

Measurement Range

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%

Operation Temperature:	-25 .. +80°C
Storage Temperature:	-25 .. +80°C

Protection Class:	IP54

When installing, make sure that no condensate can get into the sensor system !

ALKF1

ALKF2

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.

SK10-THC-ALKFx   Assembly View

Assembly

The **SK10-THC-ALKFx** sensor is intended for mounting on cooling ceilings, pipes and other objects.
The sensor is located in an IP54 plastic housing, whereby the installation position must be selected so that no condensate can get into the sensor in the event of condensation.
The sensor is mounted directly on the object with a tightening strap.

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.

Technical Data

Technical Data   -   SK10-THC-ALKFx

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
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
Housing KNX-Module	Plastic
Dimensions Housing KNX-Module	(72 x 64 x 44) mm
Article Number	ALKF1 : 30531161 with detached sensor head - 2m PVC ALKF2 : 30531162 sensor head directly on the housing

Subject to change   Page   3

Arcus-EDS GmbH   Rigaer Str. 88 , 10247 Berlin   Tel.:   +49 / (0)30 / 2593 3914
www.arcus-eds.de   sales@arcus-eds.de   Fax.: +49 / (0)30 / 2593 3915   e6

Imprint

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

Responsible for the content: Hjalmar Hevers, ReinhardPegelow

Reprints, including excerpts, are only permitted with the approval of Arcus-EDS GmbH.

All information without guarantee, subject to technical changes and price changes.

Liability

The selection of the devices and the determination of the suitability of the devices for a specific purpose are solely the responsibility of the purchaser. No liability or guarantee is assumed for these. The information in the catalogs and data sheets does not represent a guarantee of particular properties, but results from empirical values and measurements. Liability for damage caused by incorrect operation/project planning or malfunctions of the devices is excluded. Rather, the operator/planner must ensure that no further damage can occur as a result of incorrect operation, incorrect configuration and malfunctions.

Safety regulation

Caution! Installation and assembly of electrical devices may only be carried out by a qualified electrician.

The buyer/operator of the system must ensure compliance with the relevant safety regulations of the VDE, TÜV and the responsible energy supply companies. No warranty is accepted for defects and damage caused by improper use of the devices or non-observance of the operating instructions.

Disposal

The crossed-out wheeled bin symbol on the device or packaging means that the product must not be disposed of with other general waste at the end of its useful life.

Warranty

We provide warranty within the scope of the legal provisions.
In the event of a claim, please contact us and send the device, with a description of the error, to our company address below.

Manufacturer

The CE mark is a free trade mark, which is aimed exclusively at the authorities and does not include any assurance of properties.

Registered trademark of the Konnex Association

Subject to change   Page   4

Arcus-EDS GmbH   Rigaer Str. 88 , 10247 Berlin   Tel.:   +49 / (0)30 / 2593 3914
www.arcus-eds.de   sales@arcus-eds.de   Fax.: +49 / (0)30 / 2593 3915   e6