Product Page

The KNX-Sensor SK10L-THC-L-AFF is used for measuring and controlling indoor air parameters and to measure / determine the brightness.

- Air temperature (sensor in the housing) also weighted with external temperature
- Humidity (sensor in the housing)
- Brightness detection (sensor in the housing)
- Calculated values absolute humidity, dew point temperature and energy content (enthalpy)

- 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
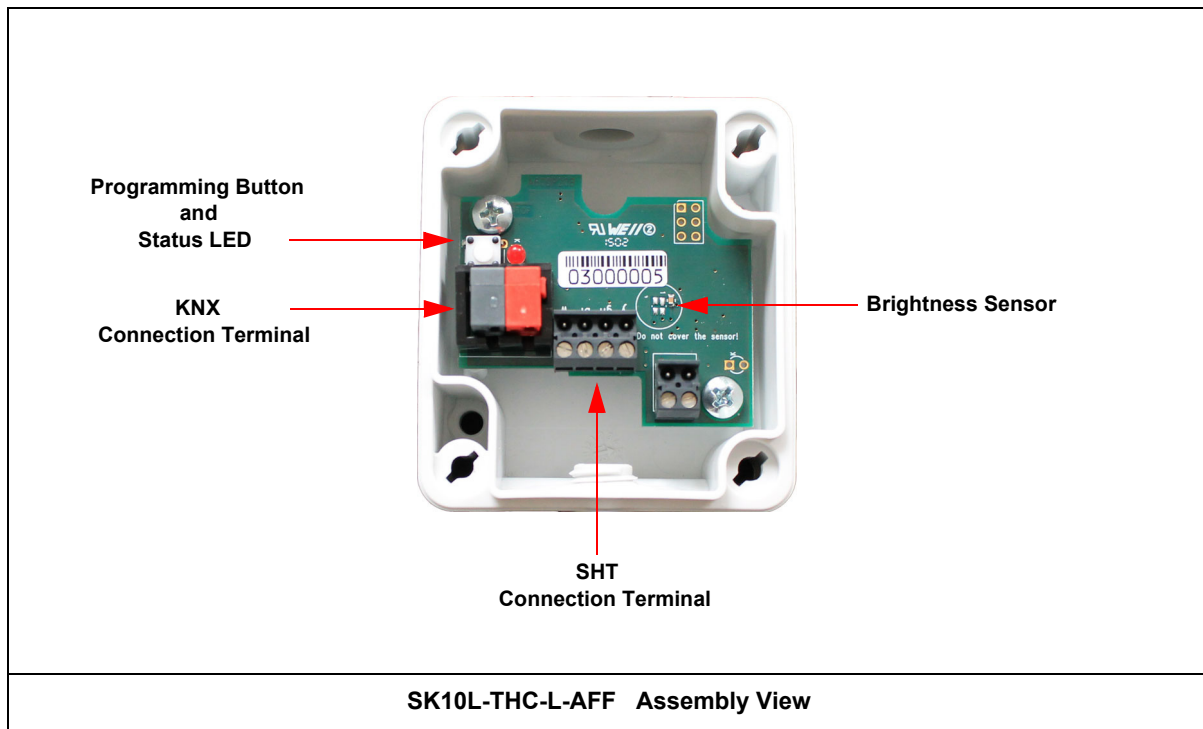
Article No.   30534153

SK10L-THC-L-AFF

Sensor:	Sensirion SHT21
	Ø 16 mm, 45 mm
	The probe is protected from dust by a poroplast protective coating

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%

Brightness Range	3 .. 220.000 lux ± 20%

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

Protection Class:	IP54/65

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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.

**Programming Button
and
Status LED**

**KNX
Connection Terminal**

Brightness Sensor

**SHT
Connection Terminal**

SK10L-THC-L-AFF   Assembly View

Assembly

The sensor **SK10L-THC-L-AFF** is for outdoor and (moist) indoor areas.
The sensor is located in a IP54/65 plastic housing with transparent cover.
The sensor is mounted surface-mounted 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.

Technical Data

Technical Data   -   SK10L-THC-L-AFF

Measurement	Temperature rel. Humidity Brightness
Calculated Values	abs. 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
Humidity Range	0 .. 100% r.H
Resolution	0.02% r.H
Accuracy	± 3% r.H (20..80%) @ +25°C, else ± 5% r.H
Brightness Range	3 .. 220.000 lux
Accuracy	± 20%
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, Cover transparent
Dimensions Housing KNX-Module	72 x 64 x 45 mm
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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

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