

## Product Page

The KNX-Sensor SK10L-TTHC-L-AFF is used for measuring and controlling indoor air parameters

### 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 )
- Additional floor, ceiling or component temperature ( Terminal for external PT1000 )
- 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

### Applications

- Detection and control of room temperature and humidity
- Decentralized control for steady KNX-valves or thermal actuators
- Decentralized ventilation control depending on humidity
- Detecting of component temperature and temperature control ( Terminal for external PT1000 ) to prevent condensation and structural damage

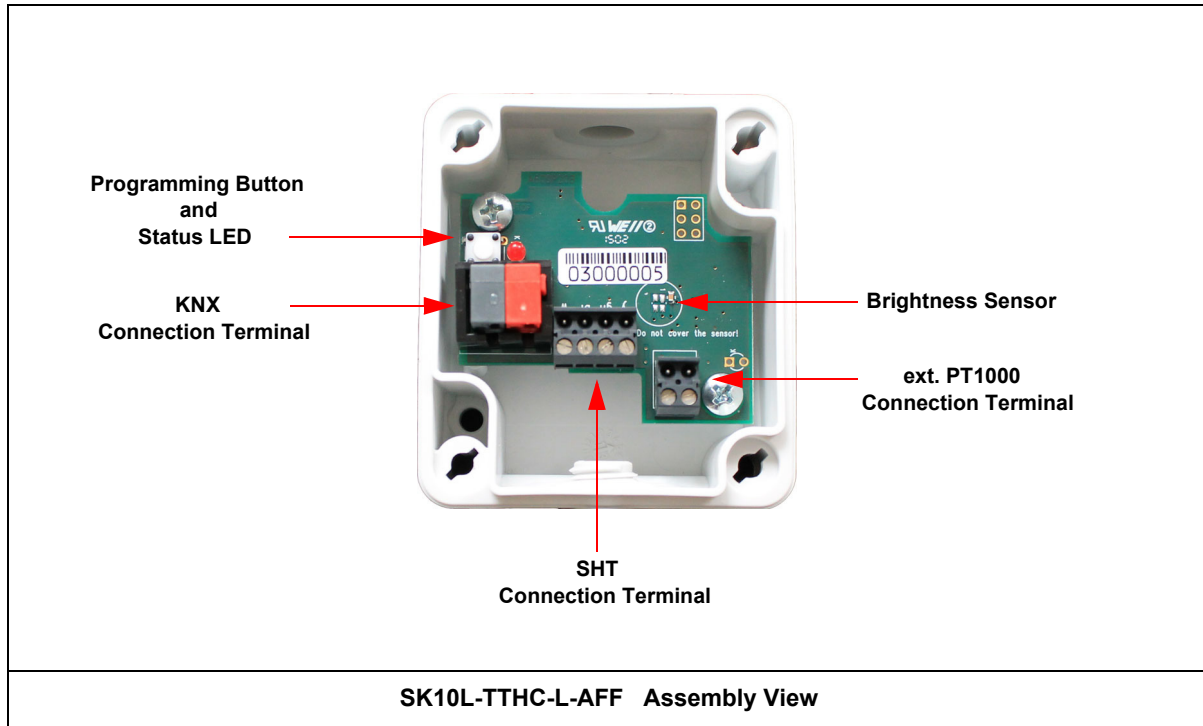
Article No. 30544153



SK10L-TTHC-L-AFF

## 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 sensor **SK10L-TTHC-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-TTHC-L-AFF

Measurement	Temperature rel. Humidity Brightness Temperature ( PT1000, external )
Calculated Values	abs. Humidity Dewpoint Temperature Enthalpie
Control	Integrated
Temperature Range	-20 .. +80°C
Accuracy	± 0,3°C
Resolution	± 0,01°C
Humidity Range	0 .. 95% r.H
Accuracy	± 3% r.H (20..80%) at +20°C, else ± 5% r.H
Temperature Range ( PT1000, external )	-50 .. +400°C
Accuracy	± 0,3°C ( depending on the sensor used )
Resolution	± 0,01°C
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	Storage: -20 .. +85°C Operating: -20 .. +80°C
Environment Humidity KNX-Module	0 .. 95% r.H Non Condensing
Bus Coupler	Integrated
Auxiliary Supply	Not Required
Startup with the ETS Version 4 or higher	<b>HLK305</b>
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
Article Number	<b>30544153</b>

## Imprint

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

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