

## Product Page

**The KNX-Sensor SK07-TTHC is used for measuring and controlling indoor air parameters**

- Air temperature ( sensor in the housing ) also weighted with external temperature
- Humidity ( sensor in the housing )
- Additional floor, ceiling or component temperature ( input for external PT1000 )
- 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
- Detection of minimum- and maximum-temperature
- Heat- and frost-alarm
- Limits for temperature, humidity
- Fan control by humidity
- 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

Two button inputs for:

- Light control as switch/button with short, long and double function
- Dimmer
- Blind and shutter control
- Programmable Encoder
- Temperature adjustment

The current state of the temperature controller can be indicated by LED's.

- Heating or cooling
- Slow pulsing if controller is active
- Pulse depth represents deviation between actual- and setpoint-temperature
- Display for comfort/standby/night mode configurable

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

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

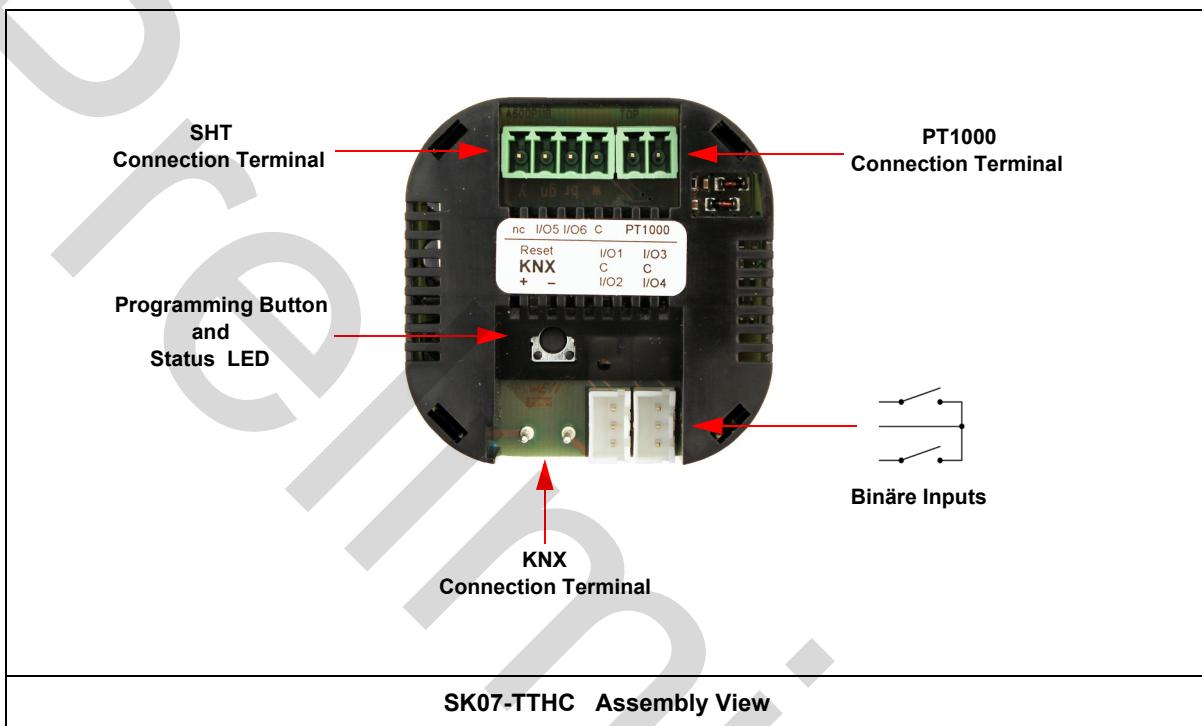
## Applications

- Detection and control of room temperature and humidity
- Decentralized control for steady KNX-valves or thermal actuators
- Decentralized ventilation control depending on humidity and air quality
- Detecting of component temperature and temperature control to prevent condensation and structural damage
- Evaluation of external switches and push buttons for switching functions



## 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 **SK07-TTHC** is intended for mounting in the interior.  
The sensor is located in a IP20 plastic housing 50 x 50 x 20 mm.  
The sensor fits into a 68 mm flush-mounted box.

## 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 to zero potential ( disconnect the KNX bus coupler ).  
Press and hold the programming button while reconnecting the KNX bus coupler 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 - SK07-TTHC

Measurement	Temperature ( PT1000 ) Temperature / rel. Humidity
Calculated Values	abs. Humidity Dewpoint Temperatur Enthalpy
Controlling	Integrated
Temperature Range ( PT1000 )	-50 .. +250°C
Resolution	± 0,01°C
Temperature Range	-20 .. +80°C
Accuracy	± 0,3°C
Resolution	± 0,01°C
rel. Humidity Range	0 .. 100% r.H
Resolution	± 3% r.H (20..80%) at +20°C, else ± 5% r.H
Button Inputs	4
Operating Voltage	KNX Bus Voltage 21 .. 32VDC
Power Consumption	approx. 240mW ( at 24VDC )
Environment Temperature KNX Module	Storage: -25 .. +85°C Operating: -25 .. +80°C
Environment Humidity KNX Module	0 .. 95% r.H not Condensed
Bus Coupler	Integrated
Auxiliary Supply	not Required
Start-up with ETS	<b>HLK305</b>
Connection	KNX-2-Pole Clamps ( red / black )
Protection Class	IP20
Housing KNX Module	Plastic
Dimensions KNX Module	( 50 x 50 x 20 ) mm ( W x H X D ) 55mm diagonal ( for a standard flush-mounted box)
Article Number	<b>30540780</b>

## Imprint

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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.

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