arcus-eds | KNX

1.1 Product Page

The KNX-sensor Temperature-Humidity-Climate **SK03-TFK** is used to measure the air temperature and humidity in dry interior spaces IP20. The integrated KNX bus coupler does not need additional auxiliary supply. The transducer with the bus coupler is enclosed in a plastic casing which fulfils protection degree IP20.

Several controllers are available in the application software HVAC, Continuous, (PWM) for the temperature, and a two-position controller is available for humidity. Additional functions include frost alarm, temperature and humidity limits, minimum/maximum value and update. The climate controller displays absolute humidity (g/kg), dew point temperature (°C), enthalpy (kJ/kg) and comfort according to DIN 1946.

The sensor is configured with ETS (KNX Tool Software) and the application program. Controlling functions such as HVAC, switching threshold and various adjustment parameters are parameterized with ETS.

Article-No.: 30303201 / 30303202

SK03-TFK
with integrated Probe
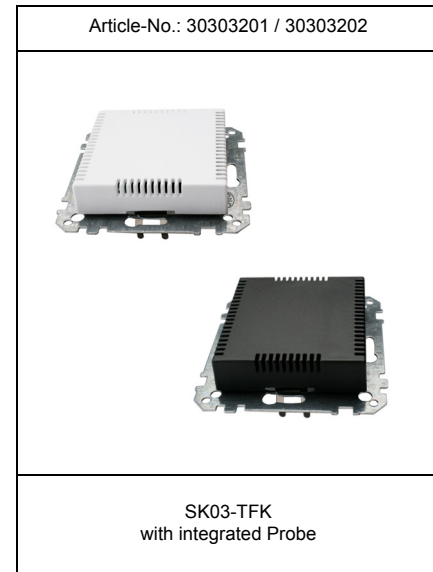
Areas of Application

- Recording the temperature and relative humidity of indoor areas
- Decentralized heating regulation for constant KNX-Valves or electro-thermal valves
- Decentralized ventilation controller
- Dew point controller and alarm for cooling ceilings or winter gardens
- Dew point alarm for identification of possible mould build-up in cellars
- Shows saved maximum and minimum values on external displays
- Room temperature controller with options Comfort/Standby/Night/Frost Protection
- Direct set point presetting and display of current set point via KNX-Bus
- Various disable options for the controller

Sensor:	Sensirion SHT11
Measurement Range:	-25 .. +55 °C 10 .. 90% rH
Accuracy:	± 0,01 °C
Resolution:	± 0,3 °C 3% rH + Accuracy of the sensors
Operating Temperature:	-25 .. +55 °C
Storage Temperature:	-25 .. +55 °C
Protection Class:	IP20

1.2 Technical Data

Technical Data   -   SK03-TFK
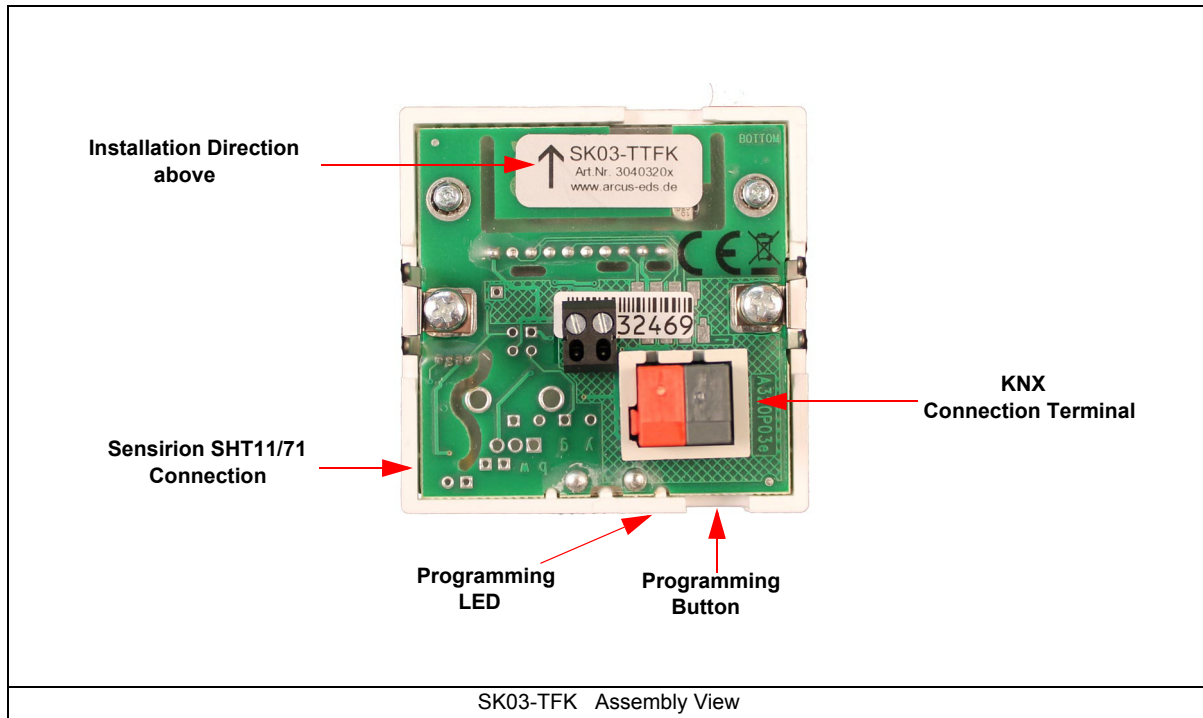
Measurement	Temperature, Humidity
Object Typ	2-Byte-float
Temperature Controller HVAC Modi	HVAC with Increase / Decrease Options HVAC with Relative Set Point Adjustment HVAC with Absolute Set Point Adjustment
Temperature Controller Operating Modes	Comfort Temperature Standby Temperature Night Temperature Frost Protection Temperature
Temperature Controller Controller Output	Steady PI Controller Switched PI Controller (PWM) Two-Position Controller
Temperature Controller HVAC-Display	HVAC-Status Byte
Limit Alarm (upper / lower)	Temperature
Minimum / Maximum Temperature	Saved Minimum / Maximum Actual Temperature
Frost Protection Alarm	Falling Below Frost Protection Temperature
Humidity Controller Mode	Controller with increase/decrease options
Humidity Controller, Controller Output	Two-position controller with hysteresis
Tracking	Temperature
Comfort Field	Comfort Output Text
Calculated Value	Absolute Humidity, Dew Point Temperature, Enthalpy
Adjustment Parameters	Offset Adjustment, Output Inversion
Lock and Reset Object	Minimum / Maximum Temperature
Send Options	Do not Send Periodic Sending by Adjustments
Environment Temperature	Storage: -25 .. +55°C Operating: -25 .. +55°C
Environment Humidity	0 .. 95% rH not Condensed
Temperature Range	-25 .. +55°C
Accuracy	± 0,3°C
Resolution	± 0,01°C
Humidity Range	10 .. 90% rH
Accuracy of Humidity	3% rH

Subject to change

Page   2

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   e1

Technical Data - SK03-TFK   (Fortsetzung)

Operating Voltage	EIB/KNX Bus Voltage 21 .. 32VDC
Power Consumption	approx. 240mW (at 24VDC)
Auxiliary Supply	not Required
Bus Coupler	Integrated
Start-up with ETS	**ARC_TFK.VD2** **Product: Temperature/Humidity/Climate SK03**
Curcuit Points	EIB-2-Pole Clamps (red / black)
Protection Class	IP20
Assembly Type Transducer	In-wall mounting
Casing Transducer	Plastic white, anthrazit
Casing Dimensions	55 x 55 x 13 mm (W x D x H)
Article Number	**30303201** white **30303202** anthrazit
Sensor	Sensirion SHT11

arcus-eds | KNX

1.3 Startup

The KNX Sensor is set up using the ETS (KNX Tool Software) and the applicable application program.
The sensor is delivered unprogrammed.
All functions are programmed and parameterized with ETS.
Please read the ETS instructions.

Installation Direction
above

SK03-TTFK
Art.Nr. 3040320x
www.arcus-eds.de

KNX
Connection Terminal

Sensirion SHT11/71
Connection

Programming
LED

Programming
Button

SK03-TFK   Assembly View

1.4 Assembly

The **SK03-TFK** sensors for indoor areas.
They fulfill protection class (IP20). They can be fitted directly to a 68mm flush-mounted box with the attached supporting frame.
The SK03-xxx can be combined with all switch ranges with 55 mm profile (e.g. Gira, Merten). The design frame is not included,
so test the combination of the frame model with the SK03.

Be careful not to scratch the protective film, and do not touch the square edges.

In Case of Bus Voltage Recurrence

All changes made using the help key for the KNX/EIB bus are saved if the device has been correctly parameterized.
The controller and outputs start with their current values and the ETS parameter settings are saved.

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 EIB bus coupler).
Press and hold the programming button while reconnecting the EIB 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.