

**Datasheet**

Subject to technical alteration  
Issue date: 26.02.2018 • A001

**Application**

Wall-mounted recessed sensor for inconspicuous humidity and temperature measurement in living rooms, offices and large rooms. Designed for control and monitoring applications.

**Types Available****Room sensor temperature + humidity – active 2x 0..10 V**

FTB+ VV 34.06 L15m

FTB+ VV 66.06 L15m

**Room sensor temperature + humidity – active 2x 4..20 mA**

FTB+ AA 34.06 L15m

FTB+ AA 66.06 L15m

**Security Advice – Caution**

The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

## Notes on Disposal



As a component of a large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

## Application Notice for Humidity Sensors

**Refrain from touching the sensitive humidity sensor/element. Touching the sensitive surface will void warranty.**

For standard environmental conditions re-calibration is recommended once a year to maintain the specified accuracy. When exposed to high ambient temperature and/or high levels of humidity or presence of aggressive gases (i.e. chlorine, ozone, ammonia) the sensor element may be affected and re-calibration may be required sooner than specified. Re-calibration and deterioration of the humidity sensor due to environmental conditions are not subject to the general warranty.

## Technical Data

<b>Measuring values</b>	temperature, humidity (humidity output configurable)	
<b>Output voltage</b>	<b>VV</b> 2x 0..10 V or 0..5 V, configurable via Jumper, min. load 10 kΩ	
<b>Output ampere</b>	<b>AA</b> 2x 4..20 mA, max. load 500 Ω	
<b>Power supply</b>	<b>VV</b> 15..24 V = (±10%) or 24 V ~ (±10%) SELV	<b>AA</b> 15..24 V = (±10%) SELV
<b>Power consumption</b>	<b>VV</b> typ. 0,4 W (24 V =)   0,8 VA (24 V ~)	<b>AA</b> typ. 1 W (24 V =)
<b>Measuring range temp.</b>	<b>VV   AA</b> adjustable at the transducer: -20..+80   0..+50   -40..+60   -15..+35 °C default setting: -20..+80 °C	
<b>Measuring range humidity</b>	0..100% rH non-condensing	
<b>Measuring range abs. hum.</b>	adjustable at the transducer: 0..50   0..80 g/m <sup>3</sup> , default setting: 0..50 g/m <sup>3</sup>	
<b>Measuring range enthalpy</b>	0..85 KJ/kg	
<b>Measuring range dew point</b>	adjustable at the transducer: 0..50   -20..+80 °C, default: 0..50 °C	
<b>Accuracy temperature</b>	±0,3 K (typ. at 21 °C within default measuring range)	
<b>Accuracy humidity</b>	±2% between 10..90% rH (typ. at 21 °C)	
<b>Enclosure</b>	enclosure USE-M, PC, pure white	
<b>Protection</b>	<b>enclosure</b> IP65 according to EN 60529	
<b>Cable entry</b>	M16 for cable max. Ø=8 mm, removable	
<b>Connection electrical</b>	removable plug-in terminal, max. 2,5 mm <sup>2</sup> , connection wire between sensor head module and enclosure: PVC 15m (49,2ft.)	
<b>Sensor head</b>	<b>34.06</b> stainless steel V2A, wall sleeve Ø 13 x length 34,4 mm	<b>66.06</b> stainless steel V2A, wall sleeve Ø 13 x length 66,4 mm
<b>Ambient condition</b>	<b>enclosure</b> -20..+70 °C, max. 85% rH short term condensation	<b>sensor head</b> -40..+120 °F, short term condensation

## Installation

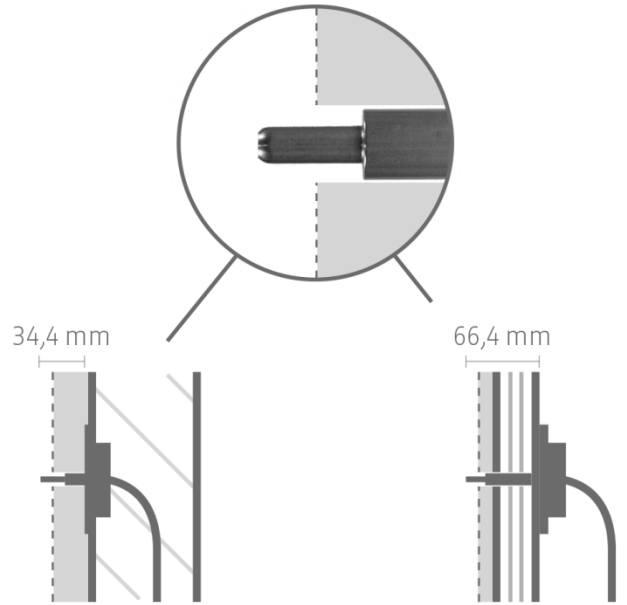
Before plastering, place the sensor sleeve on a trial basis and mark the orientation (top).

To plastering the sensor, replace the sensor sleeve with the plastic dummy. If necessary, treat the plastic dummy with a suitable release agent to prevent it from sticking to the plaster.

After setting the plaster, remove the plastic dummy and attach the sensor sleeve according to the marked orientation.

Before final plastering, treat the sensor sleeve with the release agent to avoid sticking to the plaster.

(the picture shows the situation after completion)



## Connection Plan and Configuration

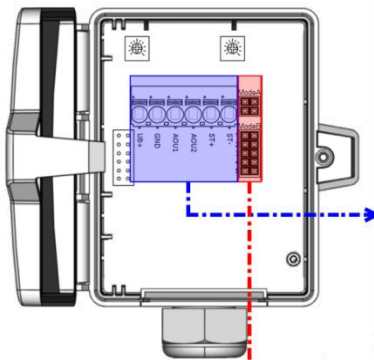
**Note** (type FTB+ AA)

When only using the temperature output, the humidity output must always be connected to mass/GND of the analog input module.

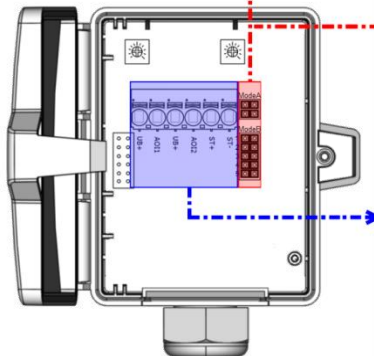
AOI1 | AOU1 → Feuchte

AOI2 | AOU2 → Temperatur

VV, VVS  
2x 0..10 V | 0..5 V



AA, AAS  
2x 4..20 mA



AOI1 | AOU1: humidity  
AOI2 | AOU2: temperature

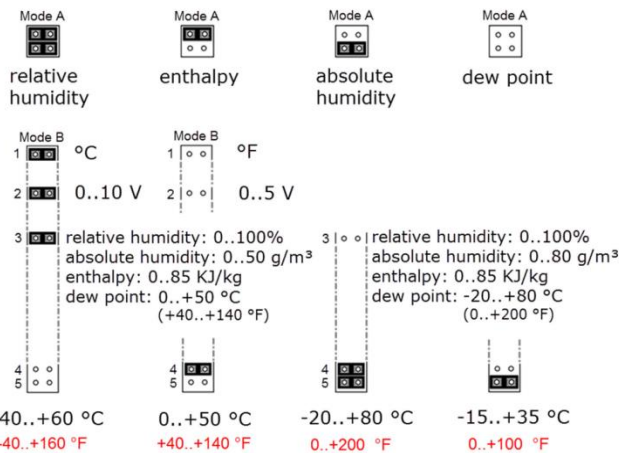
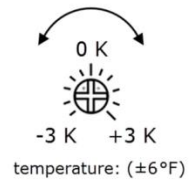
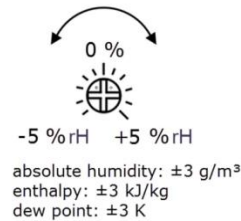
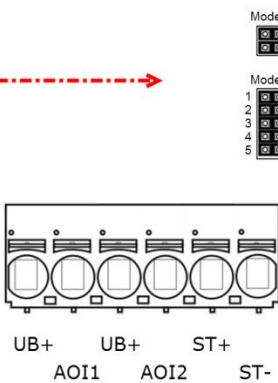
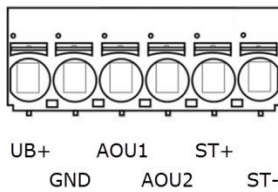
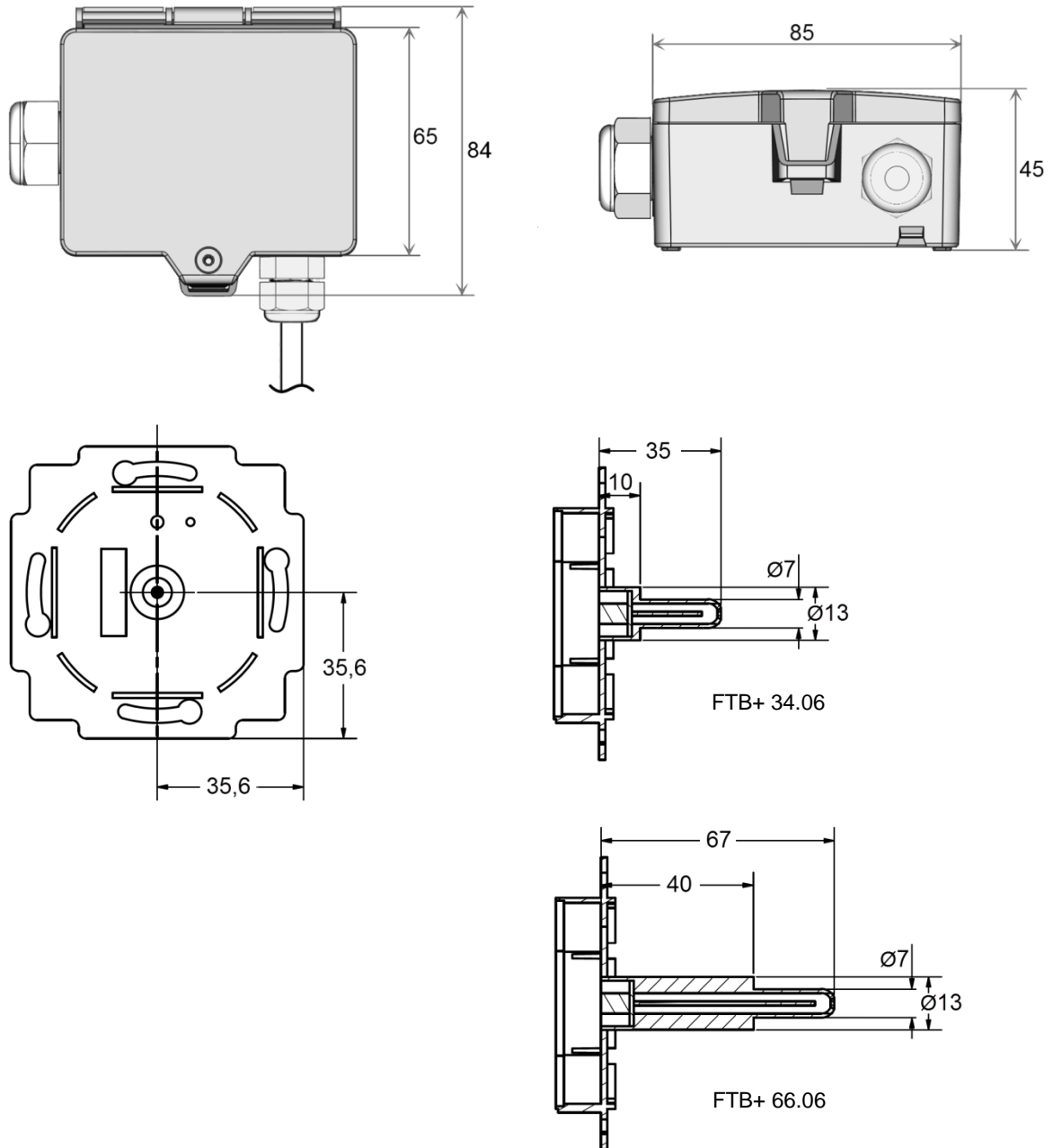


fig. (Measuring range and offset adjustment, default settings: -20 °C..+80 °C | 0 K)

**Dimensions (mm)**



**Accessories (included in delivery)**

Mounting base enclosure USE pure white

Item No. 631228

Mounting kit universal

Item No. 698511

- Cover screw + screw cover • 2 Rawplugs • 2 Screws (countersunk head) • 2 Screws (rounded head)

**Accessories (optional)**

**M16 Sealing inserts cable entry (packaging unit 10 pcs.)**

for wire with $\varnothing$	3 mm	5 mm	7 mm	8 mm
Item No.	641036	641012	639248	641340