FTK+ BAT LRW

LoRaWAN® Duct sensor for humidity and temperature

thermokon®
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
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» APPLICATION

Duct air sensor for measuring temperature and humidity with LoRaWAN® interface.

» TYPES AVAILABLE

Duct sensor – LRW
FTK+ <xxx> BAT LRW incl. MF20 (TPO)

<xxx>: 140/270/400 mm

» 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

» PRODUCT TESTING AND CERTIFICATION

CE

Declaration of conformity
The declaration of conformity of the products can be found on our website
https://www.thermokon.de/direct/en-gb/categories/ftkplus

» NOTES ON DISPOSAL

The crossed-out wheelie bin symbol indicates that the product or removable batteries must not be disposed of with household or commercial waste. Within the EU, you are legally obliged to dispose of the product separately and appropriately in accordance with the national laws of your country. Alternatively, please contact your supplier or Thermokon Sensortechnik GmbH. Further information can be found at: www.thermokon.com

»APPLICATION NOTICE FOR HUMIDITY SENSORS

At regular environmental condition, it is recommended to calibrate the sensor annually to check the compliance with the accuracy required in the application. The following conditions can damage the sensor element or lead in long therm to loss of the specified accuracy:

- Mechanical stress
- Contamination (e.g. dust / fingerprints)
- Aggressive chemicals
- Ambient conditions (e.g. condensation on measuring element)

Do not touch the sensor elements!

Re-calibration or exchange of the sensor element are not subject of the general warranty.

»TECHNICAL DATA

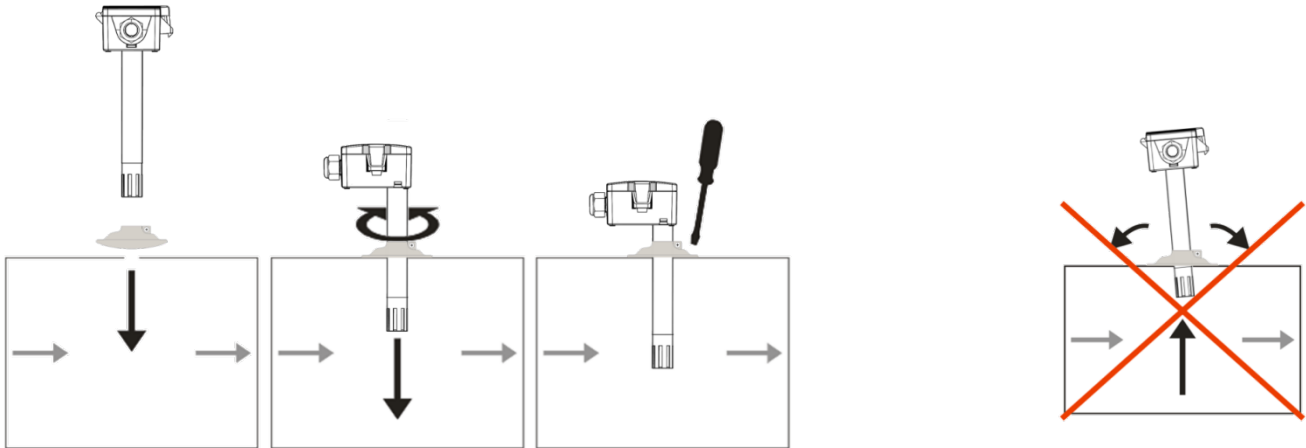|	
Measuring values	Temperature, humidity
Power supply	1-2x AA batteries (1,5-3,6V)
Measuring range temp.	-20..+80 °C
Measuring range humidity	0..100% rH non-condensing
Accuracy temperature	±0,3 K (typ. at 21 °C)
Accuracy humidity	±2% between 10..90% rH (typ. at 21 °C)
Air Speed	min. 0,3 m/s, max. 12 m/s
Enclosure	enclosure USE-M / cover, PC, pure white
Protection	IP65 according to EN 60529
Pipe	PA6, black, Ø=19,5 mm, length 140 | 270 | 400 mm
Ambient condition	-20..+70 °C, max. 85% rH short term condensation
Configuration	Thermokon LRWapp, uConfig Software, LoRaWAN® Downlink
Battery life	+/- 5 years (depending on device configuration, LoRaWAN® network setup and environmental conditions)

»LoRaWAN®

Radio technology	LoRaWAN®
LoRaWAN version	1.0.4
Device class	Class A
Frequency	EU868 (863-870 MHz)
Max. transmission power	+14 dBm (25 mW)
Receiver sensitivity	-137 dBm
Antenna	Internal send- / receiver antenna, external antenna available on request
LoRaWAN Features	Over the Air Activation (OTAA), Adaptive Data Rate (ADR)
Data transmission	Heartbeat interval (Default: 1440 min), measurement interval (default: 1 min), hysteresis send behavior

» MOUNTING ADVICES

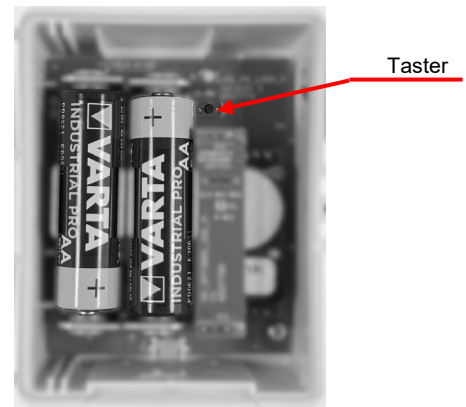| Mounting	Dismount
The sensor can be mounted into the ventilation duct with the mounting flange MF20 TPO. To prevent condensate permeation the pipe must be installed in an orientation that occurring condensate can run off.	Remove the lower section of the sensor carefully and pulling straight out.

Dont tilt the sensor during mounting / dismounting!

» BATTERY INSTALLATION

The FTK+ BAT LRW is permanently supplied by 1 or 2 installed AA batteries. When using 2 batteries, the battery life is increased. Insert the batteries into the battery compartment as shown in the picture. (included in the scope of delivery)

Taster

» ADVICE FOR COMISSIONING:

The LoRaWAN credentials required for commissioning can be read out via the uConfig software or the LRWapp. On request, the LoRaWAN credentials can also be provided in digital form. For this purpose, please contact your respective contact person.
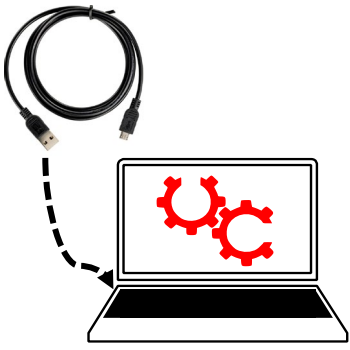
» INFORMATION ABOUT LORAWAN SPECIFICATION

The Thermokon LoRaWAN specification can be downloaded from our website.

» CONFIGURATION

The configuration is performed in powered state. The following options are available for configuring the device:

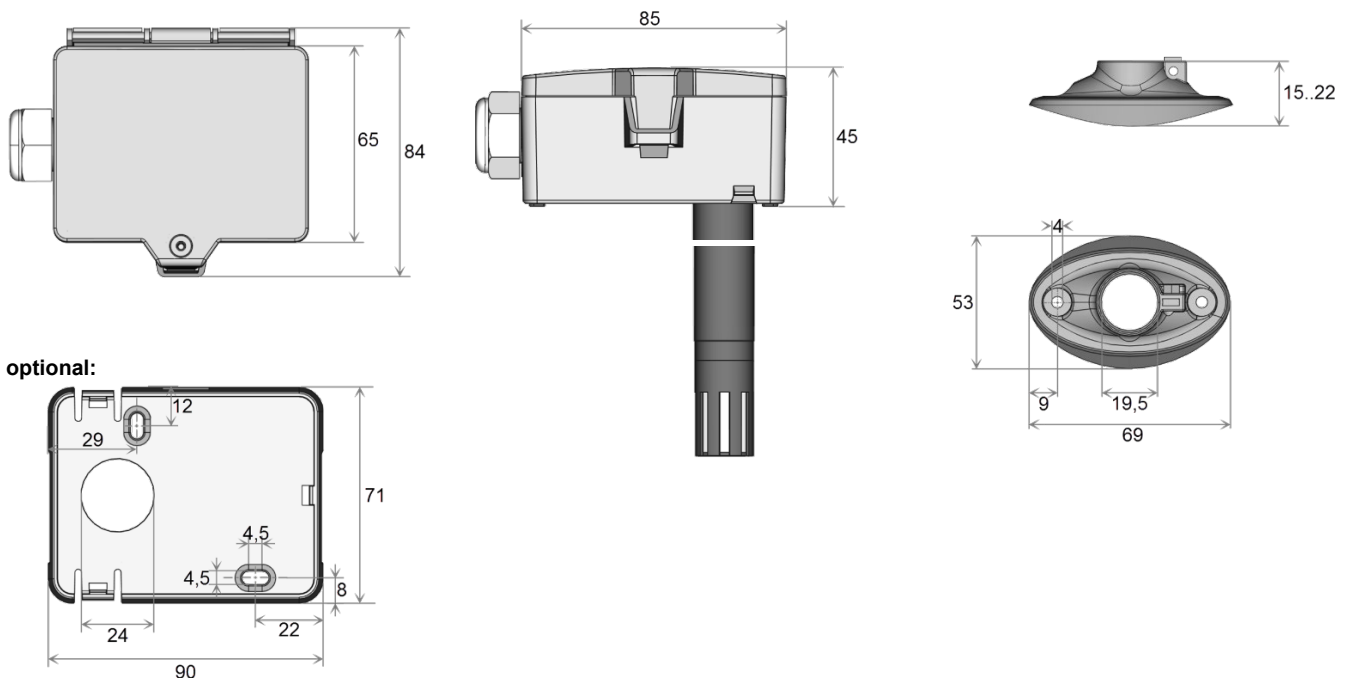| Device connection	Micro-USB cable	Bluetooth radio	LoRaWAN® downlink
		GET IT ON Google Play / Download on the App Store	LoRaWAN® DOWNLINK
Configurations-software	PC/Notebook with uConfig software	Smartphone/Tablet with LRWApp	LoRaWAN Infrastructure

The configuration app with the corresponding instructions can be downloaded from the Google Play Store or the Apple App Store.

» ADVICE FOR BLUETOOTH CONFIGURATION

Press the button to start Bluetooth communication. After pressing the button, a connection can be established via the app within approx. 20 seconds. This is indicated by a flashing LED.

» DIMENSIONS (MM)

optional:

» ACCESSORIES (INCLUDED IN DELIVERY)

Battery 1,5V AA	Item No. 459099
Mounting flange MF20 TPO	Item No. 612562
Mounting kit universal	Item No. 698511

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

» ACCESSORIES (OPTIONAL)

Mounting base	Item No. 631228
Filter stainless steel, wire mesh (spare part)	Item No. 231169
Weather protection for FTK, FTK+, WSA (replacement)	Item No. 625241
Battery ER14505 (Lithium 3,6V AA)	Item No. 759182