Sensor THPVoc 1W-UNI

Temperature, Air quality, Relative Humidity and Atmospheric pressure sensor

Temperature – °C

Relative Humidity – %RH

Pa

Atmospheric pressure – Pa

Air quality – ppb

This unique sensor protects comfortable conditions in working and living environments. Different combinations of values for every home, office, or public installation.

Sensor THPVoc 1W-UNI

Combined sensor of 4 quantities in 4×4 cm indoor box. RJ11 interface (1-Wire UNI bus) can be connected to all HW group metering devices. It can be mounted on a wall or a ceiling or placed on a desk (use double-sided adhesive tape).
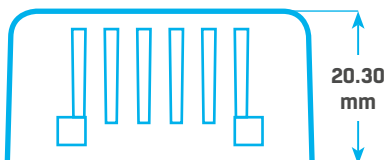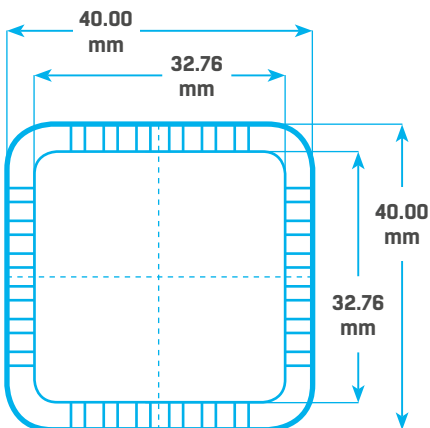
The sensor can be connected to:

GSM / LTE

LAN

WiFi

NB IoT

Air quality levels	
Less than 60 ppb	Excellent
60-200 ppb	Very good
200-660 ppb	Good
660-2200 ppb	Bad
More than 2200 ppb	Unhealthy

40.00 mm

32.76 mm

40.00 mm

32.76 mm

20.30 mm

Technical specifications

- **Maximum length of the 1-Wire bus:** 30 m
- **Maximum number of sensors per 1-Wire UNI port:** 1 (use 1-Wire Hub Power if more are needed)
- **Sensor dimensions:** 40×40×20 mm
- **Protection:** IP30
- **Communication interface:** 1-Wire bus, RJ11 jack
- Combined sensor of 4 quantities – reads as 4 independent sensors on the bus
- 5V power from the 1-Wire port

Temperature
- **Range:** -30 to +70 °C
- **Accuracy:** 0.8 °C
- **Resolution:** 0.1 °C

Pa Atmospheric pressure
- **Range:** 30 – 110 kPa
- **Accuracy:** 12 Pa (95 – 105 kPa / 25 °C)
- **Resolution:** 10 Pa
- **Absolute accuracy:** 100 Pa (30 – 110 kPA / -20 °C to 65 °C)
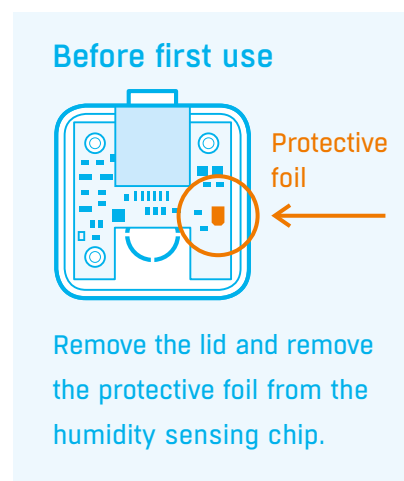- **Temperature coefficient:** 1.5 Pa / K (25 to 40 °C / 90 kPa)

Relative Humidity
- **Range:** 0 – 100 % RH
- **Accuracy:** 5 % RH / 25 °C
- **Resolution:** 0.1 % RH

Air quality
- **Range:** 0 – 60 000 ppb
- **Accuracy:** 15 %
- **Resolution:** 1 ppb (0 ppb – 2008 ppb)

Installation and use

1. Open the box and remove the protective foil from the humidity sensing chip.
2. Connect the sensor to any HW group monitoring device (RJ11 cable included).
3. Switch on device power and search for the sensors.
4. Temperature, relative humidity, and air pressure values are available immediately.
5. **The TVOC sensor needs to be first calibrated in its environment**. The calibration takes 10 days; during this time, it is necessary to air the premises regularly and thoroughly, at least twice a day. Moreover, the values in ppb only become available 10 seconds after the sensor is powered up.

Before first use

Protective foil

Remove the lid and remove the protective foil from the humidity sensing chip.

Versions and related products

Compatibility: Ares, NB 2x1-Wire, Poseidon2, SD 2x1-Wire, STE2 r2

Temp HomeBox

HTemp HomeBox

Sensor CO$_2$ 1W-UNI

Sensor THPVoc 1W-UNI

Sensor name	Temperature	Relative Humidity	Atmospheric pressure	VOC	CO$_2$	Sensor values
Temp HomeBox	✔	✘	✘	✘	✘	1
HTemp HomeBox	✔	✔	✘	✘	✘	2
Sensor CO$_2$ 1W-UNI	✔	✔	✘	✘	✔	3
Sensor THPVoc 1W-UNI	✔	✔	✔	✔	✘	4