

1WU-HTPVoC B1

Temperature, Air quality,
Relative Humidity
and Atmospheric
pressure sensor



Temperature – °C



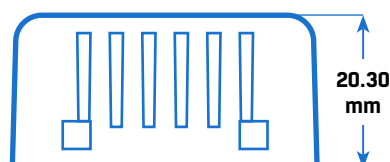
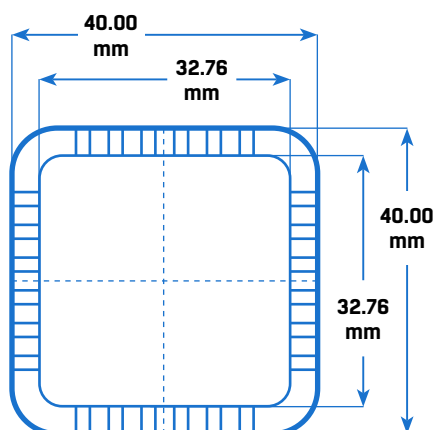
Relative Humidity – %RH



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 1WU-HTPVoC B1

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

Technical specifications

- **Maximum length of the RJ11 (1WU):** 30 m
- **Maximum number of sensors per RJ11 (1WU) port:** 1
- **Sensor dimensions:** 40×40×20 mm
- **Protection:** IP30
- **Communication interface:** RJ11 (1WU)
- Combined sensor of 4 quantities – reads as 4 independent sensors on the bus
- 5V power from the RJ11 (1WU)



Temperature

- **Range:** -30 to +70 °C
- **Accuracy:** 0.8 °C - 3.0 °C
* (see below Installation and use 5)
- **Resolution:** 0.1 °C



Relative Humidity

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



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)



Air quality

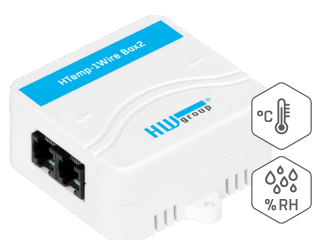
- **Range:** 0 – 60 000 ppb
- **Accuracy:** 15 %
- **Resolution:** 1 ppb (0 ppb – 2008 ppb)

Installation and use

- 1) Connect the sensor to any HW group monitoring device (RJ11 cable included).
- 2) Switch on device power and search for the sensors.
- 3) Temperature, relative humidity, and air pressure values are available immediately.
- 4) **The HTPVoC 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.
- 5) *Temperature accuracy of CO₂ model can be affected by local conditions (air movement) and sensor mounting orientation due to selfheating principle of CO₂ detection.

Versions and related products

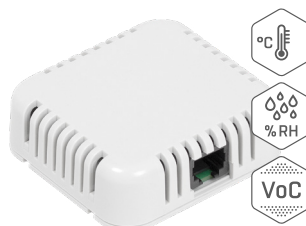
Compatibility: Ares, NB-2x1Wire, Perseus, Poseidon2, SD-2x1Wire, STE2 R2



1WR-HTemp



1WR-HTemp B1



1WU-HTemp CO2



1WU-HTPVOC B1

Sensor name	RJ11 (1WU) ports	Temperature	Relative Humidity	Atmospheric pressure	VOC	CO ₂	Sensor values
1WR-HTemp	2	✓	✓	✗	✗	✗	2
1WR-HTemp B1	1	✓	✓	✗	✗	✗	2
1WU-HTemp CO2	1	✓	✓	✗	✗	✓	3
1WU-HTPVOC B1	1	✓	✓	✓	✓	✗	4