Temperature   Humidity CO_2 VOC   Barometric pressure   Ambient light

Indoor air quality sensors

![unipi technology logo] unipi technology
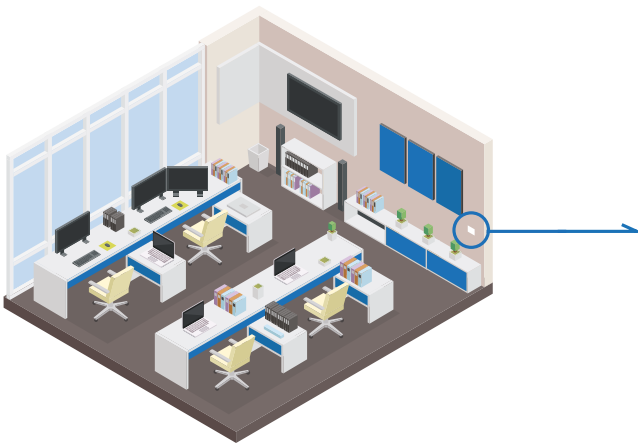
Indoor air quality sensors

Model name	Temperature	Humidity	CO₂ concentration	VOC	Barometric pressure	Ambient light	LoRaWAN	WiFi host / AP	RS485, Modbus RTU
RW–TH	✔	✔	✘	✔	✔	✔	✘	✔	✔
RLW–TH	✔	✔	✘	✔	✔	✔	✔	✔	✔
RW–THC	✔	✔	✔	✔	✔	✔	✘	✔	✔
RLW–THC	✔	✔	✔	✔	✔	✔	✔	✔	✔

- the sensor monitors important parameters of air quality and displays the status in a simple way
- indication of air quality via an RGB LED
- all values are displayed in a web interface (current overview, historical data for the last week)
- data are relayed to MaR control systems
- easy configuration through Wi-Fi
- **Communication protocols**
  - » LoRaWAN (ABP support, OTAA activation)
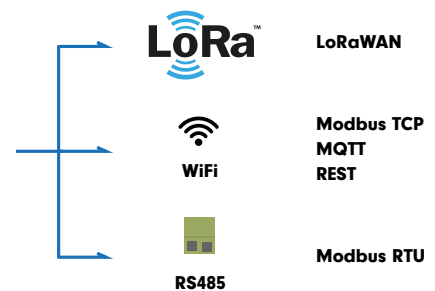 - » Modbus TCP, MQTT, HTTP/REST (WiFi)
  - » Modbus RTU (RS485)

Web interface preview

Examples of use and communication

Temperature
Humidity
CO₂
VOC
Barometric pressure
Ambient light

LoRaWAN

Modbus TCP
MQTT
REST

WiFi

RS485

Modbus RTU

Technical parameters

- **General**

Power supply	– terminal block	5 – 24 V DC, avg. power consumption 0,6 W
	– micro USB	5 V DC, max. 1 A (typ. 120 mA)
Size		120 × 80 × 25 mm
Installation		Wiring box (KU 68)

- **Communication interface**

WiFi (AP/client)	802.11 b/g/n 2,4 GHz
LoRaWAN	Class A, 14 dBm, SF 7-12, 868 MHz
RS485	Modbus RTU

- **Outputs**

Digital output	Galvanically isolated open collector, max 20 mA / 24 V

- **Measuring and parameter accuracy**

Air temperature	-40°C / +85°C, ± 0.5°C accuracy
Relative air humidity	0 – 90 % RH non-condensing, ± 2% accuracy (in range of 20–80%)
CO₂ concentration	300 – 5 000 ppm, ± 30 ppm accuracy, ± 3% from the value
VOC concentration	AQ Index 0 – 500, indicative value
Bar. pressure	300 – 1 100 hPa, ± 5hPa accuracy
Ambient light	0 – 7 500 lx, indicative value

- **Standards**

In accordance with	EN 300 328; EN 300 220; EN 301 489; EN 60730; EN 60950; EN 62311; EN 62479; RoHS; WEEE