WiFi temperature, relative humidity, CO2 and atmospheric pressure sensor with integrated probe

code: W4710



Sensors with WiFi interface are designed to measure the temperature, relative humidity, CO2 and atmosperic pressure with a connected probe (included in delivery).

Communication with the sensor is done via a wireless WiFi network. The device allows sending measured values to the online COMET Cloud (with the shortest interval of 5 minutes) or into COMET Database. The values can be displayed on integrated web pages and provided to third party systems using the Modbus TCP, SNMP, JSON and XML. The measured values are displayed on the LCD display.

The device continuously evaluates the alarm limits of the measured values and in case of exceeding them, it can send an e-mail or inform by means of acoustic or optical signaling. Two alarm limits are supported for each measurement channel.

The main advantage of sensors with WiFi interface is the simplicity of deployment in places where WiFi infrastructure is already available. Just place the sensor in the desired location and connect it to the WiFi network. WiFi sensor in conjunction with COMET Cloud offers a comprehensive solution for monitoring and alarm without the need for a server solution on the part of the user. If necessary, however, the sensor can also be connected to third-party systems, either using the Modbus TCP protocol, SNMP protocol or by sending JSON data to an http server. Sensor allow to provide values via XML and JSON using HTTP GET requests as well.

Thanks to these unique features, the WiFi sensor will find applications and a wide range of application areas.

Optional CO_2 measuring range extension from the standard 0 to 5,000 ppm up to 0 to 10,000 ppm (available at extra cost):

- **Extended measuring range:** 0 to 10 000 ppm
- **Accuracy in extended range:** 100 ppm + 5% of the measured value at 25 °C and 1013 hPa

Technical data

TEMPERATURE SENSOR	
Measuring range	-20 to +60 °C
Accuracy	±0.4 °C
Resolution	0.1 °C
HUMIDITY SENSOR	
Measuring range	0 to 95 % RH
Accuracy	±1.8 % RH from 0 to 90 % at 23 °C
Resolution	0.1% RH
DEW POINT	
Measuring range	-60 to +60 °C

Accuracy	±1.5 °C at ambient temperature T < 25 °C and RH > 30 %
Resolution	0.1 °C
CO2 SENSOR	
Measuring range	0 to 5000 ppm
Accuracy	±(50ppm +3% from reading) at 25°C and 1013hPa
Resolution	1 ppm
ATMOSPHERIC PRESSURE SENSOR SENSOR	
Measuring range	700 to 1100 hPa
Accuracy	±1.3 hPa at 23 °C
Resolution	0.1 hPa
GENERAL TECHNICAL DATA	
Operating temperature	-30 to +60 °C
Channels	sensor of temperature, humidity sensor, CO2 and atmospheric pressure
Measuring interval	15 s
Sending interval to COMET Cloud	adjustable 5 minutes to 12 hours
Communication protocols	HTTP(S), SMTP, ModbusTCP, SNMP (v1, v2c, v3), HTTP POST, HTTP GET (JSON, XML)
Alarm signalization	e-mail, acoustic, LED
Power	5.0 to 5.4 VDC; consumption 150 mA (max. 500 mA); USB-C connector
Radio section	frequency: 2.4 GHz; max. transmit power: 18 dBm; standard: IEEE 802.11 b/g/n
WiFi security	Open, WEP, WPA, WPA2, WPA2-PMF, WPA3, WPA2-EAP
Protection class	IP30
Dimensions	156 x 93 x 32 mm
Weight	125 g
Warranty	3 years