

WIRELESS CO2 SENSOR WITH HUMIDITY & TEMPERATURE

SKU: WS433-CO2

WIRELESS CO2 SENSOR WITH HUMIDITY & TEMPERATURE WS433-CO2



WS433-CO2-H1.PNG

WS433-CO2 sensor utilizes CMOSens® Technology for IR detection enables carbon dioxide measurements of the highest accuracy at a competitive price. Along with the NDIR measurement technology for detecting CO2 comes a best-in-class humidity and temperature sensor integrated on the same sensor module. Ambient humidity and temperature can be measured by special algorithm expertise through modelling and compensating of external heat sources without the need of any additional components. The wireless portion is Sub-GHz technology from Texas Instruments allows long range transmission at ultra-low power consumption. It will connect 2-way wirelessly to the wireless co-ordinator WS433-CL to send data and receiving the configuration. It can be configured the operation parameters like data sending interval, health check cycle...remotely from Globiots platform or via ModbusRTU software (thru the WS433-CL). Its default data rate is 50 kbps, can be switched to 625 bps to increase the communication range. The sensor can last up to 5 years with 2 x AA battery.

Typical Applications: Indoor Air Quality monitoring, HVAC Control, Green house, Smart Agriculture,...

- ✓ **RELIABLE & SECURED WIRELESS CONNECTION**
Sub-GHz technology from Texas Instruments allows reliable wireless connection and secured data by AES-128
- ✓ **ULTRA-LOW POWER WITH 5 YEARS BATTERY**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology from Texas Instruments allow the sensor can last up to 5 years
- ✓ **HIGH ACCURACY & STABLE**
Advanced ultrasonic sensor with NDIR CO2 sensor technology processing to deliver high accuracy and stable measurement
- ✓ **MEASURE OTHER PARAMETERS**
Integrated temperature and humidity sensor to monitor the ambient environment

DETECT CO2 GAS IN HVAC SYSTEM



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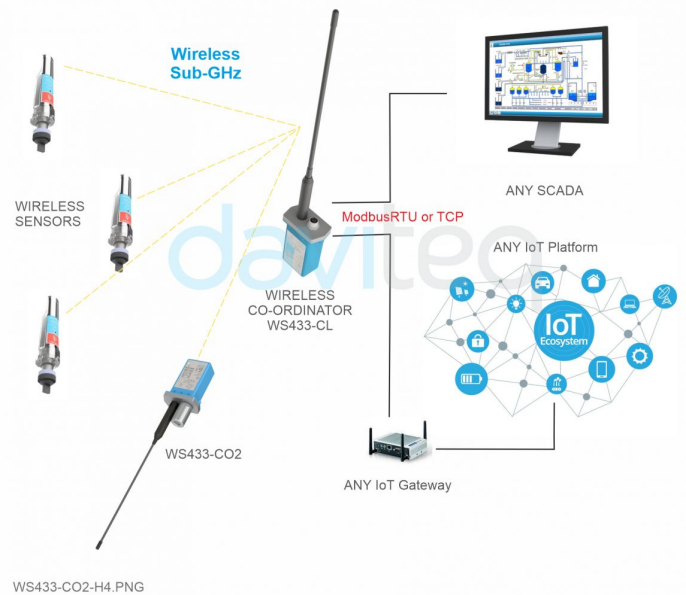
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JUL-2021

| Doc No: WS433-CO2-DS-EN-10

SPECIFICATION

SENSOR SPECIFICATION	
CO2 Sensor technology	NDIR sensor
CO2 range/resolution/accuracy	0-40.000 ppm / 1ppm / (+/- 30ppm + 3% reading)
Repeatability	+/- 10ppm
Temperature Stability	+/- 2.5ppm / °C in range 0-50°C
Temperature range/resolution/accuracy	-40..+70°C / 0.1°C / ± 0.5 °C in range 0-50 °C
Humidity range/resolution/accuracy	0-100%RH / 0.1%RH / +/- 3.0%RH in range 25-100% RH
Sensor Filter	316SS sintered filter
Sensor housing material / Rating	SS316 / SS304 / for Indoor use
WIRELESS SPECIFICATION	
Data speed	Up to 50kbps
Transmission distance, LOS	1000m
Antenna	Internal Antenna
Battery	02 x AA 1.5-3.6VDC, up to 5 years operation, depends on the configuration
Frequency Band	ISM 433MHz, Sub-GHz technology from Texas Instrument, USA
International Compliance	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Vietnam Type Approval Certification	QCVN 73:2013/BTTTT, QCVN 96:2015/BTTTT (DAVITEQ B00122019)
Security Standard	AES-128
Operating temperature of PCB	-40°C..+60°C (with AA L91 Energizer)
Housing/Protection	Aluminum + Polycarbonate / IP67
Dimension	H180xW73xD42
Net weight	< 400 grams

CONNECT WIRELESS SENSORS TO
any PLC or HMICONNECT WIRELESS SENSORS TO
any SCADA or IoT Platform

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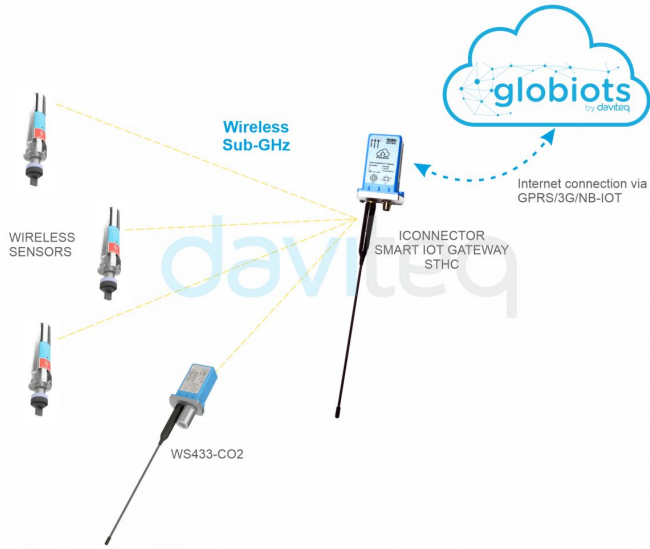
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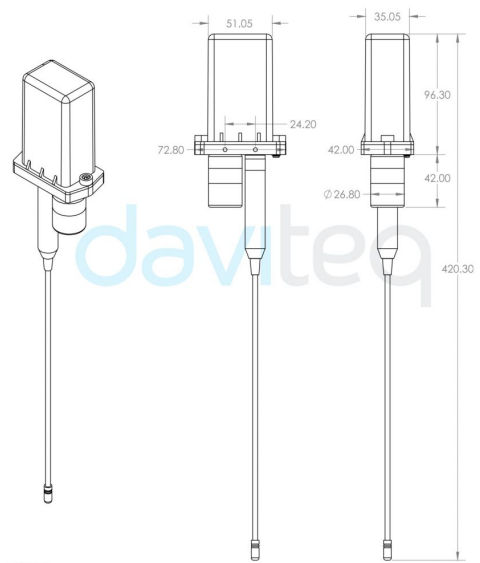
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CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



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DIMENSION DRAWING OF WIRELESS SENSOR (Unit: mm)



WS433-CO2-H6.PNG

RECOMMENDED BATTERIES

E91 AA Alkaline battery



- 18 .. + 60 oC working temperature
- 10-year shelf life
- 3000 mAh Capacity
- Price: 1X

WS433-CO2-H7.PNG

L91 AA Lithium battery



- 40 .. + 60 oC working temperature
- 20-year shelf life
- 3500 mAh Capacity
- Price: 3.5X

WS433-CO2-H8.PNG



ORDERING INFORMATION

ITEM CODE	DESCRIPTIONS
WS433-CO2-01	WIRELESS CARBON DIOXIDE GAS SENSOR, 433MHZ, 0-40.000PPM, 2 X AA 1.5 VDC BATTERY, IP67

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