CO2 Sensor with Modbus output MBRTU-CO2

SKU: MBRTU-CO2

Doc No: MBRTU-CO2-DS-EN-10

Introduction

MBRTU-CO2 sensor utilizes CMOSens® Technology for IR detection enabling 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 into the same sensor module. Special algorithm expertise can measure ambient humidity and temperature by modeling and compensating external heat sources without needing additional components.

- NDIR CO2 sensor technology;
- Integrated temperature and humidity sensor;
- Best performance-to-price ratio;
- Dual-channel detection for superior stability;
- Standard ModbusRTU output;
- Plug & Play.

Typical Applications

Carbon Dioxide is a key indicator of indoor air quality. Thanks to new energy standards and better insulation, houses have become increasingly energy-efficient, but the air quality can deteriorate rapidly. Active ventilation is needed to maintain a comfortable and healthy indoor environment and improve the well-being and productivity of the inhabitants. Daviteq sensor solutions offer accurate and stable monitoring of CO2 in the air and temperature and humidity. This enables our customers to develop new solutions that increase energy efficiency and simultaneously support the well-being of everyone.

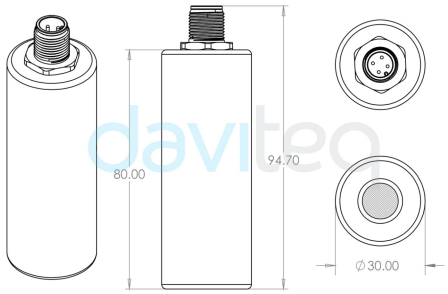
- Indoor Air Quality monitoring;
- HVAC Control;
- Greenhouse;
- Smart Agriculture.

CO2 SENSOR WITH MODBUS OUTPUT
MBRTU-CO2



MBRTU-CO2-H1.PNG

DIMENSION DRAWING OF CO2 SENSOR
(Unit: mm)



MBRTU-CO2-H2.PNG



MBRTU-CO2-H3.PNG

Specification

SENSOR SPECIFICATION	
CO2 Sensor technology	NDIR sensor, high accuracy type
CO2 range/resolution/accuracy	0-5.000 ppm / 1ppm / (+/- 30ppm + 3% reading)
Repeatability	+/- 10ppm
Sensor Filter and Protector	Nylon filter, with permanent protector
OTHER SPECIFICATION	
Communication Port	RS485, ModbusRTU protocol, max 19200 baud
Power supply	9..36VDC, avg. < 200mA
Connector	M12-male 4-pin Code A
Working temperature	0 .. 50 oC
Working humidity	15 .. 90% RH
Housing	Thermal Plastic
Rating of Housing	IP67
Dimension	H150xD30
Net weight	<200 grams

Ordering Code

Item code	**Descriptions**

MBRTU-CO2-01	MODBUSRTU OUTPUT INDUSTRIAL CARBON DIOXIDE GAS SENSOR, 0-5.000PPM CO2, 7..48VDC SUPPLY, M12-M CONNECTOR
Please select below M12 cable with different lengths	
2M-FM12CAB4X0.25	M12 4PIN FEMALE ASSEMBLY CONNECTOR WITH SOLDERING TERMINALS AND CODING A AND CONTROL CABLE CU/PVC/OS/PVC 4X0.25MM2, L=2M, ROHS, SHIELD 80%
5M-FM12CAB4X0.25	M12 4PIN FEMALE ASSEMBLY CONNECTOR WITH SOLDERING TERMINALS AND CODING A AND CONTROL CABLE CU/PVC/OS/PVC 4X0.25MM2, L=5M, ROHS, SHIELD 80%
10M-FM12CAB4X0.25	M12 4PIN FEMALE ASSEMBLY CONNECTOR WITH SOLDERING TERMINALS AND CODING A AND CONTROL CABLE CU/PVC/OS/PVC 4X0.25MM2, L=10M, ROHS, SHIELD 80%

⚠ Link for full datasheet:

⚠ Link for manual:

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