Process Optical Dissolved Oxygen Sensor with Modbus output MBRTU-PODO

SKU: MBRTU-PODO

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

Introduction

MBRTU-PODO is Process Optical Dissolved Oxygen Electrode with optic technology is based on the proven method whereas oxygen concentration is determined by the luminescent quenching of a dye embedded on the sensor surface. Unlike polarographic or galvanic sensors, this optical sensor does not require filling solutions nor a “warm-up” time. The electrode comes with dual ¾” NPT threads, a durable Ryton body and is submersible. Output is Modbus RTU for easily integrating with any PLC, controller, SCADA, BMS or IoT gateway.

- Affordable, complete electrode system
- Fully documented RS485 output for existing PLC/controllers/monitors
- No electrolyte solution to replenish
  Replaceable sensor cap with >2 year life expectancy
- No calibration or replacement sensor cap for at least 1 year in most applications
- Saltwater compensation
- On-probe pressure sensor for compensation
- Sample flow not necessary for measurement accuracy
- Standard ModbusRTU output;

Typical Applications

MBRTU-PODO is used in monitoring of Dissolved oxygen in:

- Waste water;
- Aquaculture;
- ...

PROCESS OPTICAL DISSOLVED OXYGEN SENSOR MBRTU-PODO



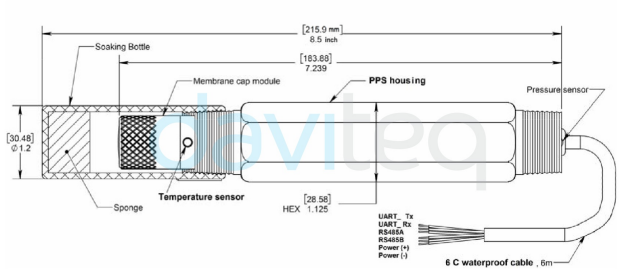
MBRTU-PODO-H1.PNG

MEASURING DISSOLVED OXYGEN IN WATER



MBRTU-PODO-H3.PNG

DIMENSION DRAWING OF MBRTU-PODO
(Unit: mm)



MBRTU-PODO-H2.PNG

DO TRANSMITTER, DIN-RAIL MOUNT



MBRTU-PODO-H4.PNG

Specification

ODO SENSOR SPECIFICATION	
Sensing Technology	Optical sensor
Measuring range	0 - 20 ppm or 0-200% Saturation
Resolution	0.1 ppm
Accuracy	+/- 0.1 ppm for below 1ppm and +/- 0.2 ppm for above 1 ppm
Response Time	T90 < 30s
Working temperature	0 .. 65 oC
Process connection	3/4" NPT both ends
Wetted parts	Ryton
Sensor Cable	6m
Rating	IP68
Sensor Dimension	D28 x 184 (mm)
Sensor net weight	< 200 grams
ODO TRANSMITTER SPECIFICATION	
Inputs	Optical ODO sensor
Output	RS485, ModbusRTU protocol, max 19200 baud
Power supply	18..36VDC, avg. < 200mA
Mounting	DIN Rail
Working temperature	-40 .. 85 oC

Working humidity	0 .. 95% RH, non-condensing
Housing	Engineered Plastic
Ingress Protection	IP20
Dimension	93 x 40 (mm)
Net weight	<200 grams

Ordering Code

Item code	**Descriptions**
MBRTU-PODO-02	PROCESS OPTICAL DISSOLVED OXYGEN SENSOR IP68, 3/4" NPT SUBMERSIBLE, DIN-RAIL MOUNT TRANSMITTER WITH MODBUSRTU RS485 OUTPUT, 9-36VDC, 6M CABLE
Accessories	
RS485-FM12-USB-1	RS485 FEMALE M12 4-PIN, CODING A TO USB CABLE WITH POWER ADAPTER 12VDC/2.0A FOR CONFIGURATION
** Configuration cable for pH sensor, Windows' software is free. Contact our sales for more information.*	

⚠ Link to download datasheet: https://filerun.daviteq.com/wl/?id=HgJJgPMINRIt2BgiloKMPNY2Unpn6gY7

⚠ Link for manual:

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