

Process Flat ORP Sensor with Modbus output MBRTU-ORPFLAT

SKU: MBRTU-ORPFLAT

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

Introduction

MBRTU-ORPFLAT is a general purpose in-line (continuous measurement) ORP sensor offering affordable, flat sensor application coverage for many water applications such as drinking water, industrial water, aquaculture, tank installations or related applications. The flat surface sensor is often referred to as "self-cleaning" when installed in a process stream since the water flow has a tendency to "shear off" biofouling and other debris from the sensor surface. Output is Modbus RTU for easily integrating with any PLC, controller, SCADA, BMS or IoT gateway.

- 1 Robust ORP electrode for continuous measurement;
- 2 Self-cleaning flat electrode;
- 3 Standard ModbusRTU output;
- 4 Plug & Play.

Typical Applications

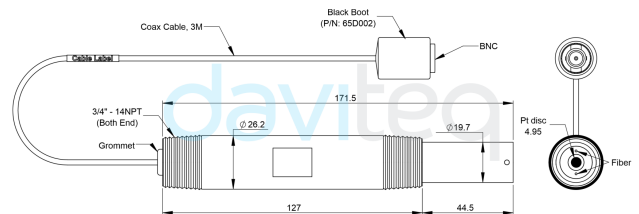
MBRTU-ORPFLAT is a cost effective method used to monitor a variety of processes. Common applications include disinfection using chlorine, ozone, and bromine. All of these species are strong oxidizers, so ORP is used as an indicator of sanitizing activity. ORP is also used in process applications to monitor destruction of chromate or cyanide, as well as in bleach production and wet scrubbers.

PROCESS ORP FLAT SENSOR
MBRTU-ORPFLAT



MBRTU-ORPFLAT-H1.PNG

DIMENSION DRAWING OF MBRTU-ORPFLAT
(Unit: mm)



MBRTU-ORPFLAT-H2.PNG

MEASURING ORP IN WATER



MBRTU-ORPFLAT-H3.PNG

ORP TRANSMITTER, DIN-RAIL MOUNT



MBRTU-ORPFLAT-H4.PNG

Specification

| ORP SENSOR SPECIFICATION | |
|-------------------------------|---|
| Sensing Technology | Glass, combine electrode |
| Measuring range | +/- 2000 mV |
| Resolution | 0.1 mV |
| Accuracy | +/- 1 mV |
| Working temperature | 0 .. 100 oC (compensated) |
| Working pressure | 0 .. 100 psig |
| Process connection | 3/4" NPT both ends |
| Wetted parts | PVC |
| Sensor Cable | 6m with BNC connector |
| Rating | IP68 |
| Sensor Dimension | D27 x 172 (mm) |
| Sensor net weight | < 200 grams |
| ORP TRANSMITTER SPECIFICATION | |
| Inputs | mV |
| Output | RS485, ModbusRTU protocol, max 19200 baud |
| Power supply | 9..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-ORPFLAT-01 | PROCESS ORP FLAT 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=Vy59lmYEtzVilaLxsjjDGpAwg799wMYI>

⚠ Link for manual:

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