

ORP Sensor Digital Differential

90S330200 · 90S330230



Robust digital differential REDOX sensor for operation on TriBox controllers and HS100 DIN G2 module. The closed design ensures separation of the REDOX electrode reference system from the medium to be measured, thus excluding electrode poisoning. A dirt-resistant salt bridge minimizes cleaning efforts and prevents dilution of electrolytes. The sensor therefore achieves an extremely long service life even in heavily contaminated media.

Benefits

- Measurement transmission via digital Modbus RTU protocol
- Longer electrode life thanks to differential measurements
- All calibrations can be performed via the digital interface
- No moving mechanical parts
- Plug and Play

Applications

- Difficult measurement of inlets for waste water treatment plants
- Process monitoring and control

Accessories

- Cable: Extension cables of 0.3 m, 2 m, 10 m, 25 m
- Controller: TriBox3, TriBox Mini, HS100
- Fittings: FlowCell

Technical Specifications

OPERATION AND SYSTEM CONFIGURATION

Measurement principle	Differential
Measuring method	Potentiometry

AUXILIARY POWER

Electrical connection	8-pin M12 plug
Power supply	12...24 V
Power consumption	2 W

INPUT PARAMETERS

Measured variables	REDOX and temperature
Measuring ranges	-1500 mV...1500 mV
Cable specification	black PUR (halogen free), shielded, M12 plug

OUTPUT SIZES

Temperature compensation	Pt100
Accuracy	± 1 mV
Data interface	RS-485, Modbus RTU

PERFORMANCE CHARACTERISTICS

Response time	90 % of the value in 5 sec.
Repeatability	98 %

AMBIENT CONDITIONS

Protection type	IP68
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PROCESS CONDITIONS

Process temperature	-5...+50 °C
Process pressure	6.9 bar at 50 °C
Conductivity	Min. operating conductivity 50 µS

STRUCTURAL DESIGN

Dimensions (Ø x L)	37.5 mm x 292.5 mm
Materials	Ryton® and PVC body, Viton® O-rings, other materials: Teflon®, carbon, epoxy
Thread	1" NPT