9582sc DISSOLVED OXYGEN ANALYZER

Applications
- Power

Simple to Integrate. Simple to Operate.

An integral part of the most complete water analytics system for the Power industry. Hach provides a broad range of product options designed to work together into flexible solutions to meet your unique needs. Hach's comprehensive approach saves you time on design, installation, training, maintenance, and operation.

Save Time on Design

A single design source and one product platform means you spend less time searching for design files or configuring components. Create and reuse your optimal design templates.

Accelerate Your Installation

One source, interchangeable electronic components, a common user interface, and one support team make installation faster and less complicated. Quickly and easily transfer user settings between dissolved oxygen loops.

Reduce Training Complexity

A single platform minimizes time required to teach and learn product operations, getting new systems in use faster.

Simplify Maintenance and Operation

Common menu guides reduce variability and provide step-by-step procedures for maintenance and calibration. Standard visual alerts across parameters notify operators when troubleshooting is required. Start-up and maintenance time are minimized with pre-mounted membrane cap and factory pre-conditioned sensors.

HACH®
Be Right™

Specifications*

Measurement Range	0 to 2000 ppb (0-2 ppm)
Lowest Detection Limit	< 1 ppb
Unit	mg/L, ppm, µg/L, ppb, mbar, hPa, inch Hg, mmHg
Repeatability	± 0.5 ppb or ±5%, whichever is greater
Reproducibility	± 0.5 ppb or ± 2%, whichever is greater
Response Time	For step change 1-40 ppb: <30s
Calibration Method	Zero: Electrically or with oxygen free water. Slope: in air or against a laboratory measurement
Maintenance Interval	Membrane Lifetime: 6 months, depending on sample
Operating Temperature Range	-20 to 60 °C at 0 to 95% RH (non-condensing)
Temperature Compensation	Automatic in the range of 0 to 45 °C (32 to 113 °F)
Connections	1/4 inch NPT thread (6mm or 1/4 inch tubing advised)
Sample Flow Rate	66 to 166 mL/min (4 to 10 L/hr)
Sample Pressure	Outlet at atmospheric pressure
Cable Length	10 m (33 ft)
Analogue Outputs	Two (Five with optional expansion module) 0/4 to 20 mA isolated current outputs, max 550 Ω . Accuracy: ± 0.1% of FS (20mA) at 25 °C, ± 0.5% of FS over -20 °C to 60 °C range
Relays	Four electromechanical SPDT (Form C) contacts, 1200 W, 5 A
Electrical Certifications	EMC CE compliant for conducted and radiated emissions: - CISPR 11 (Class A limits) - EMC Immunity EN 61326-1 (Industrial limits) Safety CAN/CSA C22.2 No. 61010-1 cETLus safety mark for: - General Locations per ANSI/UL 61010-1 & CAN/CSA C22.2. No. 61010-1
Enclosure Rating	NEMA 4X/IP66
Power Requirements (Voltage)	100 - 240 V AC, 24 V DC
Power Requirements (Hz)	50/60 Hz
Weight	7.05 lbs. (3.2 kg)

**Subject to change without notice.*

Principle of Operation

The measurement of dissolved oxygen is based on the well-known Clark cell principle. An oxygen-permeable membrane isolates the electrodes from the sample water, thus obviating the need for sample conditioning. Other reducible or oxidizable ions do not interfere, because they cannot pass through the gas-permeable membrane.

A constant voltage supply powers two electrodes, maintaining each at a constant potential. A gold, working electrode (cathode) reduces the dissolved oxygen to hydroxyl ions:

$O_2 + 2H_2O + 4e^- \rightarrow 4OH^-$

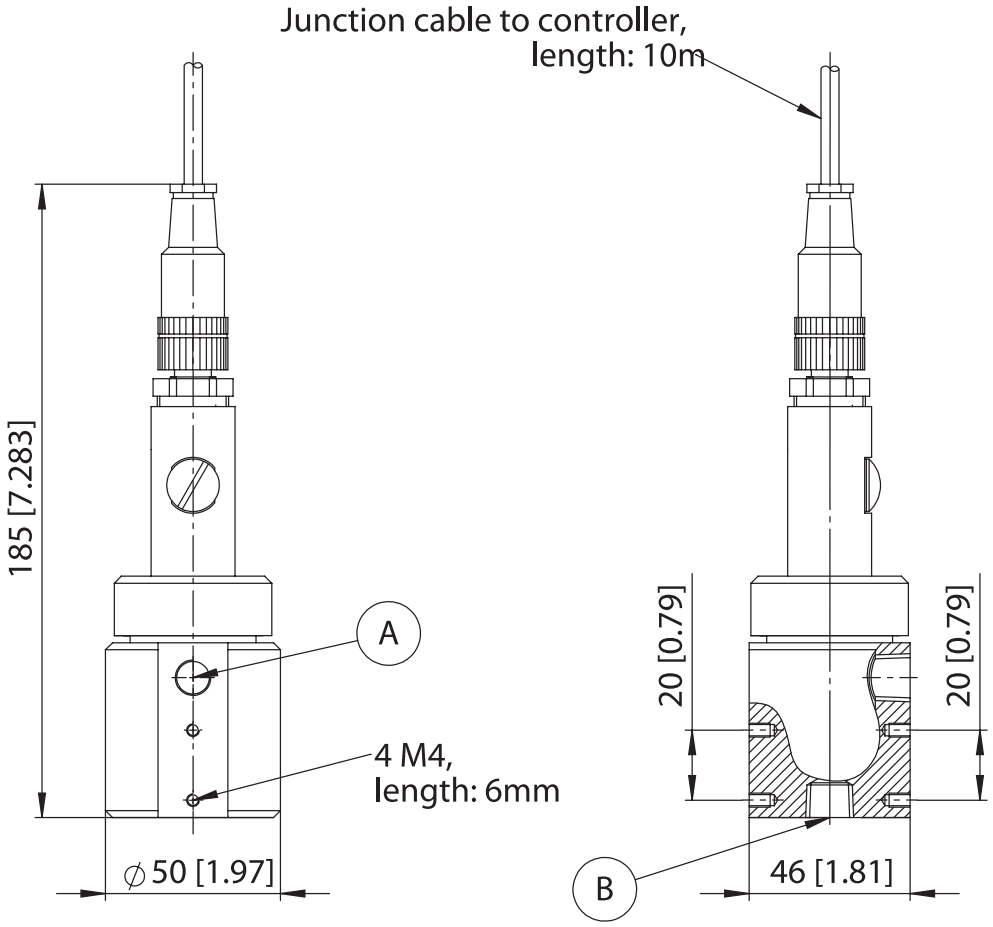
A large silver counter-electrode (anode) provides the oxidation reaction that occurs on its surface:

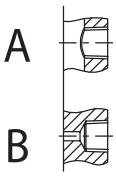
$4Ag^+ + 4Br^- \rightarrow 4AgBr + 4e^-$

The reduction of oxygen is the current limiting reaction, thus making the cell current linearly proportional to the dissolved oxygen concentration.

Electrochemical reactions and diffusion rates are temperature-sensitive. The measuring cell, therefore, is equipped with a temperature sensor which allows for automatic temperature compensation.

Dimensions





SAMPLE OUTLET: Female NPT 1/4", 6x8 mm tubing, atmospheric pressure.

SAMPLE INLET: Female NPT 1/4", 4x6 mm Stainless steel tubing,
0° to 45°C (32° to 115°F), Flow: 4 to 10l/h.

Ordering Information

Complete Analyzers

9582.99.00P2	9582sc Dissolved Oxygen System, AC-DC
9582.99.01P2	9582sc Dissolved Oxygen System, Modbus 232/485, AC-DC
9582.99.03P2	9582sc Dissolved Oxygen System, Profibus, AC-DC
9582.99.05P2	9582sc Dissolved Oxygen System, HART, AC-DC

Communication and Module Options

9334600	4-20 mA Output Module (Provides 3 additional mA Outputs)
9013200	Modbus 232/485 Module
9173900	Profibus DP Module
9328100	HART Module
9525700	Analog pH/ORP Module for Polymetron Sensors
9525800	Analog Conductivity Module for Polymetron Sensors

Accessories and Consumables

09181=A=3600	Dissolved Oxygen Probe Electrolyte, 25 mL
09182=A=1000	Replacement Electrode for 9582sc
09185=A=3500	Dissolved Oxygen Membranes, pack of 4

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