Digital oxygen sensor Memosens COS51E

Memosens 2.0 amperometric oxygen sensor for the wastewater industry and utilities

More information and current pricing:
www.endress.com/COS51E

Benefits:

- Wide measuring range: The amperometric measuring principle and cathode design make the sensor suitable for all wastewater applications from industrial to municipal plants.
- High accuracy: Thanks to its amperometric, three-electrode design, the sensor provides long-term stable measurement with low drift.
- Increased plant availability: Memosens technology and Liquiline transmitters enable plug & play for fast commissioning and sensor exchange.
- Non-contact, inductive signal transmission ensures maximum process integrity.
- Memosens 2.0 digital technology makes the sensor ready for predictive maintenance and IIoT services since it offers extended storage of calibration and process data.

Specs at a glance

- **Measuring range** 0.01 to 100 mg/l 0.00 to 1000 %SAT 0 to 2000 hPa
- **Process temperature** -5 to 60 °C (20 to 140 °F)
- **Process pressure** Max. 5 bar abs (Max. 72.5 psi abs)

Field of application: Memosens COS51E is perfectly suited for all wastewater and utility applications including hazardous areas. The sensor is highly accurate and moisture-resistant ensuring the safety of your processes. COS51E features Memosens 2.0 digital technology. It is able to store more calibration and process data and thus provides the perfect basis for predictive maintenance and IIoT services. Designed to be low-maintenance with a long operating life, the sensor offers outstanding value for money.

Features and specifications

Oxygen

Measuring principle

Amperometric oxygen measurement

Application

Typical applications are:
- Wastewater treatment plants: oxygen control in aeration basin, process water treatment and monitoring

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- Water plants: status monitoring of drinking water, water quality monitoring in rivers, lakes or seas

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- Utilities of all industries: Oxygen control in biological treatment, process water treatment and monitoring.

Characteristic

Digital amperometric 3-electrode longterm-stable sensor to measure dissolved oxygen

Measuring range

0.01 to 100 mg/l
0.00 to 1000 %SAT
0 to 2000 hPa

Measuring principle

Measuring principle

Design

Design

Material

Sensor shaft: POM
Membrane cap: POM
Working electrode: Gold
Counter and reference electrode: silver/silver halide
Membrane: ETFE (COS51-TN), FEP (COS51-TF)

Oxygen

Dimension
Diameter: 40mm (1.57 inch)
Shaft length: 146 mm (5.74 inch)

Process temperature
-5 to 60 °C
(20 to 140 °F)

Process pressure
Max. 5 bar abs
(Max. 72.5 psi abs)

Temperature sensor
NTC 30k

Ex certification
With ATEX, IECEx, CSA C/US, NEPSI, JapanEx and INMETRO approval for use in Zone 0, Zone 1 and Zone 2 hazardous areas. With CSA C/US approval also in Class I Division 1 hazardous areas in the Gas Ex area. Additionally suitable for Class I Division 2.

Connection
Inductive, contactless connection head with Memosens 2.0 technology

Ingress protection
IP 68

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