



Dissolved Oxygen

90S53X1X0



The oxygen sensor uses luminescence-based optical measurement technology and delivers precise and reliable measurement results. Thanks to its low maintenance requirements and economical consumption of materials, the sensor offers a quick return on investment - only the membrane cap needs to be replaced every two years.

Another plus point: The sensor can also be used reliably at very low water flow rates, making it ideal for demanding operating conditions.

Advantages

- Low operating costs thanks to minimal maintenance requirements (no electrolyte change)
- Longer calibration intervals due to low drift
- No polarization voltage required
- High measuring accuracy, even at low concentrations
- Fast response time
- Reliable measurement without minimum inflow

Applications

- Waste water treatment
- Biological treatment
- Drinking water treatment
- Environmental monitoring
- Bathing and surface waters
- Industrial applications
- Seawater, brackish water
- Aquaculture

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Technical specifications

Measurement principle		Luminescence
Parameters		Dissolved oxygen
Measurement range		0...20 mg/L
		0...20 ppm
		0...200 %
Measuring accuracy		± 0.1 mg/L
		± 0.1 ppm
		± 1 %
Resolution		0,01
Response time		90 % of the value in less than 60 seconds
Measurement interval		> 5 s
Inflow velocity		No movement necessary
Temperature compensation		Via NTC (compensation active for temperatures below 0 °C)
Measurement range (temperature)		0...+50 °C
Resolution (temperature)		0,01 °C
Accuracy (temperature)		0,5 °C
Membrane cap		No cross sensitivity with: pH 1...14;CO ₂ , H ₂ S, SO ₂
		Cross sensitivity with organic solvents such as acetone, toluene, chloroform dichloromethane (methylene chloride) or chlorine gas
Material	Standard version	Housing, cap and screws made of passivated stainless steel (316L)
	Seawater applications	Housing, cap and screws made of titanium
	Cable	Polyurethane sheathing
	Cable gland	Polyamide Patch with active substance (black)

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	Membrane	Silicone for optical insulation	
Dimensions (L x Ø)		~146 mm x 25 mm	~ 5.7" x 1"
Weight	VA	~ 450 g	~ 1 lbs
	Ti	~ 300 g	~ 0.7 lbs
Interface		RS-485 (Modbus RTU)	
Power consumption		1 W	
Power supply		12 V (± 10 %)	
Sensor cable		2 m and 10 m	
Calibration/maintenance interval		2 years	
Warranty		1 year (EU & US: 2 years) on electrons; wearing parts are excluded from the warranty	

Installation

Max. Pressure	5 bar	~ 72.5 psi
Degree of protection	IP 68	
Sample temperature	0...+50 °C	~ +32... +122 °F
Ambient temperature	0...+50 °C	~ +32... +122 °F
Storage temperature	-10...+60 °C	~ +14... +140 °F