

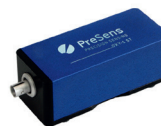
NEW O₂ METERS

Single- and Multi-channel Devices for Precise Oxygen Measurements



OXY-1 SMA & OXY-1 SMA trace

Due to their small outer dimensions these oxygen meters can be set up almost anywhere. They are compatible with non-invasive spots, dipping probes and flow-through cells. The devices have temperature, pressure and salinity compensation.



OXY-1 ST & OXY-1 ST trace

The extremely small and light-weighted oxygen meters can be used with microsensors, non-invasive spots, dipping probes and flow-through cells. They are suitable for almost any application. OXY-1 ST devices have temperature, pressure and salinity compensation.



OXY-4 SMA & OXY-4 SMA trace

These 4-channel oxygen meters are the compact solution for taking oxygen measurements with 4 sensors simultaneously. The devices are controlled with the PreSens Measurement Studio 2 software.



OXY-4 ST & OXY-4 ST trace

These 4-channel devices allow measurements with 4 microsensors, non-invasive sensors, dipping probes or flow-through cells simultaneously. Controlled via PreSens Measurement Studio 2 the have temperature, pressure and salinity compensation.



OXY-1 WM & OXY-1 WM trace

These wall mount oxygen meters offer temperature, pressure and salinity compensated measurements. The housing is splash-proof (protection class IP64) so the devices can be installed in harsh industrial environments. OXY-1 WM trace allows measurements from 0.5 ppmv to 100 % oxygen.

Is your application missing? Contact us and we find your customized solution!

Specifications

	OXY-1 SMA / OXY-1 SMA Trace OXY-1 ST / OXY-1 ST Trace	OXY-4 SMA / OXY-4 SMA Trace OXY-4 ST / OXY-4 ST Trace	OXY-1 WM / OXY-1 WM trace
Specifications			
Oxygen sensors	OXY-1 SMA: PSt3 (optical SMA connector) OXY-1 SMA Trace: PSt3, PSt6 (optical SMA connector) OXY-1 ST: PSt7 (optical ST connector) OXY-1 ST Trace: PSt7, PSt8 (optical ST connector)	OXY-4 SMA: PSt3 (optical SMA connector) OXY-4 SMA Trace: PSt3, PSt6 (optical SMA connector) OXY-4 ST: PSt7 (optical ST connector) OXY-4 ST Trace: PSt7, PSt8 (optical ST connector)	OXY-1 WM: PSt3 (SMA compatible, 2 mm PMMA fiber) OXY-1 WM Trace: PSt3, PSt6, PSt9 (SMA compatible, 2 mm PMMA fiber)
Temperature sensor	Pt100 temperature connector (sensor not included)	Pt100 temperature connector (sensor not included)	Duct for Pt100 4-wire temperature sensor; cable diameter 5 - 9 mm
Temperature performance	0 °C to + 50 °C, resolution: ± 0.1 °C, accuracy ± 0.1 °C	0 °C to + 50 °C, resolution: ± 0.1 °C, accuracy ± 0.1 °C	-
Power supply	5 VDC (USB-2.0-Mini-B, cable included)	5 VDC (USB-2.0-Mini-B, cable included)	Duct for AC 100 - 240 VAC (with PSU) or 18 - 30 VDC power lead; cable diameter 5 - 9 mm
Temperature: operating / storage	0 °C to + 50 °C / - 20 °C to + 70 °C	0 °C to + 50 °C / - 20 °C to + 70 °C	-40 °C to + 90 °C / - 20 °C to + 70 °C
Relative humidity	0 % to 80 % (non-condensing)	0 % to 80 % (non-condensing)	0 % to 80 % (non-condensing)
Dimensions, weight	95 mm (with connectors) x 34 mm x 30 mm, 128 g	135 mm x 41 mm x 82 mm (with connectors), 590 g	241 mm x 229 mm x 106 mm, 1.65 kg
Digital interface	USB interface cable to PC (cable included)	USB interface cable to PC (cable included)	Duct for serial communication: RS 485 via ModBus RTU, RS232 via ModBus RTU, Ethernet via ModBus RTU USB-2.0-Mini-B-Port for data I/O
Display	-	-	3.5" color TFT, 70.08 mm x 52.56 mm, 320 x 240 pixels
Internal Memory	-	-	4 GB memory (about 10,000,000 data sets)
Analog input	-	-	4 - 20 mA for pressure measurement
Analog output	-	-	Two individually configurable 4 - 20 mA outputs: Output range 4 - 20 mA, max. load 800 Ohm Error output relay and concentration alarm relay Service software for analog output configuration available

Specifications	Normal Oxygen Range		Trace Oxygen Range*		Ultra Trace Oxygen Range
	Gaseous & Dissolved Oxygen	Dissolved Oxygen	Gaseous & Dissolved Oxygen	Dissolved Oxygen	Gaseous Oxygen
Measurement range	0 - 100 % O ₂ 0 - 1000 hPa	0 - 45 mg/L 0 - 1400 µmol	0 - 4.2 % O ₂ 0 - 41.4 hPa	0 - 1.8 mg/L 0 - 56.9 µmol	0 - 200 ppm
Limit of detection	0.03 % oxygen	15 ppb	0.002 % oxygen	1 ppb	0.5 ppm
Resolution	± 0.01 % O ₂ at 1 % O ₂ ± 0.05 % O ₂ at 20.9 % O ₂ ± 0.1 hPa at 9.90 hPa ± 0.5 hPa at 207 hPa	± 0.005 mg/L at 0.4 mg/L ± 0.025 mg/L at 9.0 mg/L	± 0.0007 % O ₂ at 0.002 % O ₂ ± 0.0015 % O ₂ at 0.2 % O ₂ ± 0.007 hPa at 0.023 hPa ± 0.015 hPa at 2.0 hPa	± 0.010 µmol at 0.03 µmol ± 0.020 µmol at 2.8 µmol	10 ± 0.5 ppm 100 ± 0.8 ppm 200 ± 1.5 ppm
Accuracy	± 0.005 % O ₂ or < 3 % rel.		± 1 ppb or ± 3 %, whichever is higher		± 2 ppm or ± 5 %, whichever is higher
Measurement temperature range	0 - 50 °C		0 - 50 °C		0 - 40 °C
Response time (t ₉₀)	< 6 sec.	< 40 sec.	< 6 sec.	< 40 sec.	< 3 sec.
Properties					
Compatibility	Aqueous solutions, ethanol, methanol				Gas phase only
No cross-sensitivity with	pH 1 - 14 CO ₂ , H ₂ S, SO ₂ Ionic species				CO ₂ , SO ₂
Cross-sensitivity to	Organic solvents, such as acetone, toluene, chloroform or methylene chloride Chlorine gas				Organic vapor, chlorine gas
Sterilization procedures	Steam sterilization Ethylene oxide (EtO) Gamma irradiation				-
Cleaning procedures	Cleaning in place (CIP, 5 % NaOH, 90 °C, 194 °F) 3 % H ₂ O ₂ Acidic agents (HCl, H ₂ SO ₄), max. 4 - 5 %				-
Calibration	Two-point calibration in oxygen-free environment (nitrogen, sodium sulfite) and air-saturated environment		Two-point calibration in oxygen-free environment (nitrogen) and a second calibration value optimally between 1 and 2 % oxygen		Two-point calibration in oxygen-free environment (nitrogen 6.0) and a second calibration value optimally between 100 and 200 ppm gaseous oxygen
Storage Stability	2 years provided the sensor material is stored in the dark (-10 - 60 °C)				

* Microx 4 trace: Limit of detection 3 ppb; Resolution ± 0.7 ppb at 3 ppb; Accuracy ± 3 ppb or < 3 % rel.