

CO<sub>2</sub> pH



## SOFTWARE



# 💁 📧 🛛 PreSens Measurement Studio 2

The PreSens Measurement Studio 2 has been developed and designed to control several PreSens devices connected to a PC / notebook with one software. Easy data management for sensors, measurement files, and users as well as export of files into .csv and .xslx format can be realized with just a few clicks. The intuitive measurement control eases performing precise oxygen, pH and CO<sub>2</sub> measurements with multiple devices simultaneously.

The software offers many additional features, like compensation of salinity, so most precise measurements can be conducted. You can also group measurement channels so the temperature and (for  $O_2 \& CO_2$  devices) pressure inputs from one single device can be shared with the rest of the grouped devices. Build your own measurement network and measure  $O_2$ , pH and  $CO_2$  simultaneously, all controlled from one PC.

- Easy data management
- Simultaneous 0<sub>2</sub>, pH and C0<sub>2</sub> monitoring
- Grouping of measurement channels
- Control measurement networks from one PC

# TECHNICAL

	Minimum System Requirements	Suggested Configuration
Operating system	Microsoft® Windows® 10 (32 or 64 Bit)	Microsoft® Windows® 10 (64 Bit)
Processor	2.4 GHz Single Core (one device) 2.4 GHz Multi Core (up to 10 devices)	3 GHz Multi Core
RAM	2 GB	4 GB or more
Hard disk	10 GB free memory	40 GB or more free memory
USB	USB 2.0	USB 2.0
Screen resolution	1200 x 800	1920 x 1080 (Full HD) or higher





### METERS



# o₂ °C OXY-1 ST

This extremely small and lightweight oxygen meter can be used with microsensors (200 µm fiber) in different designs, non-invasive sensors, dipping probes and flow-through cells (1 mm fiber). Its small outer dimensions make it feasible for almost any application. 0XY-1 ST is compatible with sensor type PSt7 (detection limit 15 ppb, 0 - 100 % oxygen). It is operated with the PreSens Measurement Studio 2 software and offers temperature, pressure and salinity compensated measurements. The software has numerous features and allows to control several 0XY-1 ST simultaneously. Powered via USB no extra cables or adapters are needed. This oxygen meter is the solution for most precise micro-invasive or non-invasive measurements.

- Measurement range of 0 100 % oxygen
- For use with microsensors, dipping probes, non-invasive sensor spots and FTCs
- USB-powered
- Controlled by PreSens Measurement Studio 2
- Compensation of temperature, pressure and salinity
- Lightweight (only 128 g)
- Small outer dimensions

# TECHNICAL

Specifications		
Oxygen sensor	PSt7 (optical ST connector)	
Temperature sensor	Pt100 temperature connector (sensor not included)	
Temperature performance	from 0 °C to + 50 °C, resolution $\pm$ 0.1 °C, accuracy $\pm$ 1.0 °C	
Power supply	5 VDC (USB-2.0-Mini-B, cable included)	
Temperature: operating / storage	from 0 °C to + 50 °C / from - 20 °C to + 70 °C	
Relative humidity	0 % to 80 % (non-condensing)	
Dimensions	99 mm (with connectors) x 35 mm x 30 mm	
Weight	128 g	
Digital Interface	USB interface cable to PC (cable included)	

 $(\boldsymbol{\Sigma})$ 





## METERS



# 02 °C OXY-4 ST (G3)

Due to its small outer dimensions OXY-4 ST can be set up almost anywhere. It can be used with microsensors (230 µm fiber) in different designs, non-invasive sensors, dipping probes and flow-through cells (1 mm fiber). This makes it the ideal tool especially for benchtop applications. OXY-4 ST is compatible with sensor type PSt7 (detection limit 15 ppb, 0 - 100 % oxygen). This USB-powered oxygen meter is operated with the PreSens Measurement Studio 2 software and offers separate temperature compensation for each channel. The software has numerous features, offers additional pressure and salinity compensation and allows controlling several single and multi-channel meters simultaneously. This oxygen meter is the solution for most precise micro-invasive or non-invasive oxygen measurements.

- Measurement range of max. 0 100 % oxygen
- For use with microsensors, dipping probes, non-invasive spots & FTCs
- USB-powered
- Controlled by PreSens Measurement Studio 2
- Compensation of temperature, pressure & salinity
- Small outer dimensions

# TECHNICAL

Specifications		
Oxygen sensors	PSt7 (optical ST connector)	
Temperature sensor	4 x Pt100 temperature connection (sensor not included)	
Temperature performance	From 0 °C to + 50 °C, resolution $\pm$ 0.1 °C, accuracy $\pm$ 1.0 °C	
Power supply	Supply voltage: 5 VDC (USB-2.0-Mini-B), current/power: 400 mA	
Temperature: operating / storage	From 0 °C to + 50 °C / - 20 °C to + 70 °C	
Relative humidity	From 0 to 80 % (non-condensing)	
Dimensions (L x W x H)	164 mm x 85 mm x 50 mm	
Weight	417 g	
Digital interface	USB interface cable to PC, cable included	





## SENSORS



# Needle-Type Oxygen Microsensor NTH-PSt7

The glass fiber with its oxygen-sensitive tip (< 50  $\mu$ m with tapered sensor tip TS, < 230  $\mu$ m with flat-broken sensor tip TF) is protected inside a stainless steel needle and can be extended for measurements. As long as the sensor tip is retracted and sheltered inside this needle the microsensor can be pierced through septum rubber or any other harsh material. With its small tip size and fast response time (t<sub>90</sub> < 3 s) this sensor is ideally suited for research and packaging applications, where micro-invasive and small sensors are needed.

- High spatial resolution (down to < 50  $\mu$ m)
- High temporal resolution  $(t_{90} < 3 \text{ sec.})$
- No consumption of oxygen
- Signal independent of flow velocity
- Measures in liquids as well as in gas phase





## TECHNICAL

Specifications*	Gaseous & Dissolved O <sub>2</sub>	Dissolved O <sub>2</sub>	
Management was as	0 – 100 % 0 <sub>2</sub>	0 – 45 mg/L	
Measurement range	0 – 1000 hPa	0 – 1400 µmol/L	
Limit of detection	0.03 % oxygen	15 ppb	
Resolution	$\pm0.01\%O_2$ at 1 $\%O_2$	± 0.005 mg/L at 0.4mg/L	
Resolution	$\pm~0.05\%0_2$ at 20.9 $\%0_2$	$\pm$ 0.025 mg/L at 9.06 mg/L	
Accuracy at + 20 ℃**	$\pm$ 0.05 % 0_2 or $\pm$ 3 % rel.		
Measurement temperature range	from 0 to + 50 °C		
Response time (t <sub>90</sub> )	< 3 sec. (gas)	< 10 sec. (liquid)	
Properties			
Compatibility	Aqueous solutions, ethanol, methanol		
	рН 1 — 14		
No cross-sensitivity	CO <sub>2</sub> , H <sub>2</sub> S, SO <sub>2</sub>		
	lonic species		
Cross-sensitivity	Organic solvents, such as acetone, toluene, chloroform or methylene chloride		
cross-sensitivity	Chlorine gas		
Sterilization procedure	Ethylene oxide (EtO)		
	3 % H <sub>2</sub> O <sub>2</sub>		
Cleaning procedure	Ethanol		
	Soap solution		
Calibration	Two-point calibration with oxygen-free environment (nitrogen, sodium sulfite) and air-saturated environment		
Storage stability	60 months provided the sensor material is stored in the dark at room temperature		

\*\*after two-point calibration as described in the manual





## **GET IN CONTACT**

- Request more info
- **Nequest a quote**
- **Rent-a-meter**

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