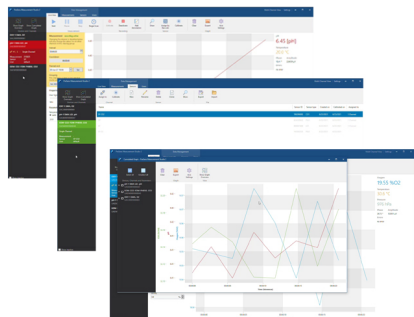


## SOFTWARE



### 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 .xlsx 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<sub>2</sub> & CO<sub>2</sub> 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<sub>2</sub>, pH and CO<sub>2</sub> simultaneously, all controlled from one PC.

- Easy data management
- Simultaneous O<sub>2</sub>, pH and CO<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

O<sub>2</sub> °C

### OXY-1 SMA



Due to its small outer dimensions OXY-1 SMA can be set up almost anywhere. It is compatible with non-invasive sensors, dipping probes and flow-through cells of type PSt3 (detection limit 15 ppb dissolved oxygen, 0 - 100 % oxygen). OXY-1 SMA has temperature compensation, so most precise measurements in environments with changing temperature can be taken. This USB-powered oxygen meter is operated with the PreSens Measurement Studio 2 software, which enables simultaneous control of several devices, so measurement networks can be set up. With numerous features and additional pressure and salinity compensation, the software makes the OXY-1 SMA suitable for almost any application where precise oxygen measurements are needed.

- Measurement range of 0 - 100 % oxygen
- Compact system with small outer dimensions
- Lightweight (only 128 g)
- USB-powered
- Controlled by PreSens Measurement Studio 2
- Compensation of temperature, pressure and salinity
- For use with non-invasive sensors, dipping probes and flow-through cells
- One calibration for a multitude of sensor spots

## TECHNICAL

Specifications	
Oxygen sensor	PSt3 (optical SMA connector)
Temperature sensor	Pt100 temperature connector (sensor not included)
Temperature performance	from 0 °C to + 50 °C , resolution ± 0.1 °C, accuracy ± 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	ca. 101 mm (with connectors) x 35 mm x 30 mm
Weight	128 g
Digital Interface	USB interface cable to PC (cable included)

## METERS

$O_2$  °C

### OXY-4 SMA (G3)



This multi-channel oxygen meter is ideally suited for benchtop applications. It is compatible with non-invasive sensors, dipping probes and flow-through cells of type PSt3 (detection limit 15 ppb dissolved oxygen, 0 – 100 % oxygen). Each channel of OXY-4 SMA has separate temperature compensation, so most precise measurements in environments with changing temperatures can be taken. The oxygen meter is USB-powered and operated with the PreSens Measurement Studio 2 software, which enables simultaneous control of several devices, so measurement networks can be set up. With numerous features and additional pressure and salinity compensation, the software makes the OXY-4 SMA applicable in almost any application.

- Measurement range of 0 - 100 %  $O_2$
- Individual temperature compensation for each channel
- Pressure & salinity compensation
- For use with non-invasive sensors, dipping probes & flow-through cells

## TECHNICAL

## ACCESSORIES

### Polymer Optical Fiber POF



A polymer optical fiber (POF) is needed to transfer excitation light to the sensor and the sensor response back to the meter. We offer different versions for different meters depending on their optical connector type. A POF enables non-invasive and non-destructive measurements to be made from the outside through the wall of a transparent or slightly colored container. The POF with SMA connector is compatible with meters of the Fibox, OXY-1 SMA, OXY-1 WM, OXY mini and pH-1 SMA series, as well as the CO<sub>2</sub>-1 SMA. The POF with ST connector is compatible with meters of the Microx 4 and OXY-1 ST series. Different standard lengths are offered, e. g. 2.5 m, and fibers with connectors on one or both ends are available, depending on your adapter or sensor application.

- Enables contactless measurement
- Versatile light guide
- Different lengths available

## TECHNICAL

Specifications	SMA	ST
Dimensions	Optical diameter: 2 mm Outer diameter (incl. black cladding): approx. 2.7 mm Min. bending radius: 40 mm	Optical diameter: 1 mm Outer diameter (incl. black cladding): 2.2 mm Min. bending radius: 17 mm
Connector type	SMA connectors on one or both ends available for use with SOA or ARC	ST connectors on one or both ends available for use with SOA or ARC-1 ST
Length of fiber	Available standard lengths 1.0, 2.5 and 5.0 m; for lengths of more than 5 m, please contact our service team	
Compatibility	All devices with SMA connector, e.g. Fibox, OXY-1 SMA, pH mini series, pCO <sub>2</sub> mini	All devices with ST connector, e.g. Microx 4 or OXY-1 ST series

## SENSORS

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$O_2$

### $O_2$ Flow-Through Cell FTC-PSt3

Miniaturized chemical optical oxygen sensors integrated in flow-through cells (FTC-PSt3) allow non-invasive online monitoring of oxygen in perfusion systems. The sensors are fixed to color coded sticks, which can be attached to flow-through cells of different size and shape according to your requirements. A polymer optical fiber connects the sensor inside the flow-through cell to the respective  $O_2$  meter (e. g. Fibox 4). The FTC-PST3 cells are made of polycarbonate.

- Precise online monitoring of oxygen
- Different sizes and shapes for various flow rates
- Easy connection to external tubing

## TECHNICAL

Specifications	Dissolved O <sub>2</sub>
Measurement range	0 – 45 mg/L 0 – 1400 µmol/L
Resolution	± 0.004 mg/L at 0.091 mg/L ± 0.04 mg/L at 9.1 mg/L
Accuracy at + 20 °C*	± 0.4 % O <sub>2</sub> at 20.9 % O <sub>2</sub> ± 0.05 % O <sub>2</sub> at 0.2 % O <sub>2</sub>
Drift at 0 % oxygen	< 0.03 % O <sub>2</sub> within 30 days (sampling interval of 1 min.)
Measurement temperature range	From 0 to + 50 °C
Response time (t <sub>90</sub> )**	< 30 sec.
Properties	
Compatibility	Aqueous solutions, ethanol, methanol
Cross-sensitivity	Organic solvents, such as acetone, toluene, chloroform or methylene chloride Chlorine gas
Sterilization procedure***	Irradiation Ethylene oxide (EtO)
Calibration	Sensor sticks are pre-calibrated; Two-point calibration in oxygen-free environment (nitrogen, sodium sulfite) and air-saturated environment
Storage stability	Up to 60 months provided the sensor material is stored in the dark at room temperature
T-cell formats	Luer T-cell (delivered), inner diameter 5 mm, cell volume 0.3 mL; 1/4" x 1/4" (Qosina), cell volume 2.1 mL; 3/8" x 3/8" (Qosina), cell volume 4.6 mL; 1/2" x 1/2" (Qosina), cell volume 8.3 mL
*after two-point calibration as described in the manual	
**equilibrated FTC with physiological solution and sufficient flow rate (min. 15 mL/min) at 37 °C	
***recalibration may be required	



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## GET IN CONTACT

 **Request more info**

 **Request a quote**

 **Rent-a-meter**

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