METERS

pH °C

pH-1 micro

The pH-1 micro is a precise fiber optic pH meter. It is temperature compensated and used with pH microsensors based on a 140 µm optical fiber. A PC is connected to run the user-friendly software. pH-1 micro is additionally equipped with an analogue output and a trigger input.

- For use with pH microsensors
- Simple one-point calibration possible
- Software included

TECHNICAL

Specifications	
pH sensors	HP5
Temperature sensor	1 x Pt1000 temperature connector (sensor included)
Temperature performance	0 °C to + 50 °C, resolution ± 0.1 °C, accuracy ± 1.0 °C
Power supply	18 VDC / 5 W (110 - 240 VAC, 50/60 Hz, adapter included)
Temperature: operating / storage	0 °C to + 50 °C / - 10 °C to + 60 °C
Relative humidity	up to 80 % (non condensing)
Dimensions	210 mm x 120 mm x 50 mm
Weight	0.65 kg
Digital interface	RS232 interface (with RJ connector to serial port, cable included)
External trigger	TTL compatible with galvanic isolation (BNC connector)
Analogue output specifications	Dual outputs, 0 - 4.095 mV, resolution 12 bit, accuracy ± 10 mV (BNC connectors)

	10 mV represent
pH	0.1 pH
Temperature	1 °C
Phase	0.25 °

SENSORS

pH Profiling pH Microsensor PM-HP5

The pH Profiling Microsensor can be used for all profiling applications in semi-solid substrates, such as sediments, microbial mats or biofilms. The PM-HP5 is the most robust version of PreSens pH Microsensors and has a close-fitting fiber guidance and mechanical interlock for precise vertical localization of the measurement tip. The sensor tip is extendable with a turning mechanism.

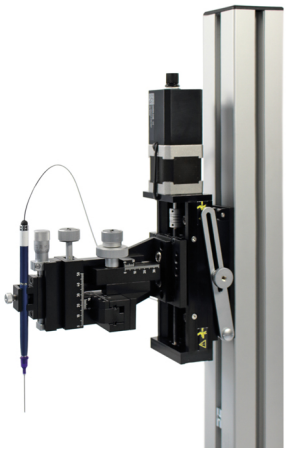
- Close-fitting fiber guidance
- Mechanical interlock
- High spatial resolution
- Measurement in smallest volumes
- Profiling of pH gradients

TECHNICAL

Specifications*	
Measurement range	5.5 - 8.5 pH
Resolution	at pH = 7: ± 0.02 pH
Accuracy**	at pH = 7: ± 0.1 pH with sensor calibration
Drift	at pH = 7: < 0.05 pH per day (sampling interval of 1 min.)
Measurement temperature range	from + 5 to + 50 °C
Response time (t_{90})**	at 25 °C: < 30 sec.
Properties*	
Compatibility	Aqueous solutions, ethanol (max. 10 % v/v), methanol (max. 10 % v/v), pH 2 - 10
No cross-sensitivity	Electrical fields, proteins
Cross-sensitivity	Reduced to ionic strength (salinity); a high concentration of small fluorescent molecules in the visible range can interfere
Sterilization procedure	Ethylene oxide (EtO), recalibration recommended
Cleaning procedure	Water, Acrylan, pepsin solution
Calibration	pH sensors are pre-calibrated, recalibration is possible

*provided pH sensors are used without further handling in physiological solutions
**calibration and following measurements in the same conditions / system; equilibrated sensor kept in well stirred solution at + 37 °C

ACCESSORIES



Automated Micromanipulator AM

The Automated Micromanipulator is specifically designed for profiling applications with the PreSens profiling microsensor (PM), and can also be operated with needle-type housed (NTH) and implantable (IMP) microsensors, as well as dipping probes (DP). With this system the microsensor can be moved vibration-free with µm reading accuracy and it enables exact localization of the sensor in the sample. Automated profiling can be performed along one dimension in µm resolution. The micromanipulator additionally comprises a tilting platform so the microsensor can be adjusted at an angled position. The associated user-friendly, and database-supported software PreSens Profiling Studio allows easy control of the AM and the respective oxygen, pH or CO_2 meter via USB. The software offers multiple features from clear data organization and export, easy creation of profiling templates, to analysis functions.

- Fully automated system
- No electrical interference due to optical measurement
- Adaptable to any sample
- Software PreSens Profiling Studio included
- Easy USB connection
- Individual profile and step-zone definition
- Compact, with additional manual motor control

TECHNICAL

Specifications	
Compatibility	Profiling (PM), Needle-type Housed (NTH) and Implantable (IMP) oxygen, pH & CO_2 microsensors
Dimensions	275 mm x 95 mm x 220 mm
Weight	2 kg
Travel range automated	x-axis: 75 mm
Travel range manual	x-axis: 37 mm, fine drive: 10 mm y-axis: 20 mm z-axis: 25 mm
Resolution	1 µm
Repeatability	< 2.5 µm
Mounting adapter	M6 screws, 13 mm length
Power supply	100 - 240 VAC, 50 - 60 Hz Use supplied power adapter (15 VDC, 2.1 mm center poisitve plug) only.
Digital interface	USB interface (cable included)
Control software	PreSens Profiling Studio (compatible with Windows 7, 8, 10 at 32 or 64 bit)

ACCESSORIES

Heavy Stand (HS)

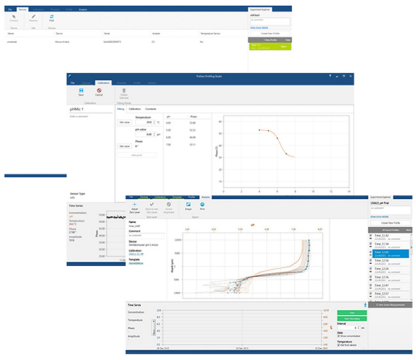
The Heavy Stand (HS) ensures save mounting and operation of the Automated Micromanipulator. The heavy base plate enables a most stable and vibration-free set-up. The HS comes with two square profile rails of different lengths, so the micromanipulator can be installed in different heights, and is adaptable to different samples. Additionally, two metal rods can be attached to the HS to install further measurement equipment, like VisiSens, cameras or lighting next to the AM. The HS can be balanced with its three adjusting feet and the spirit level integrated in the base plate if required.

- Adjustable micromanipulator height and orientation & can be balanced
- For AM & MM33
- Additional mounting rods for further equipment

TECHNICAL

Specifications	
Dimensions (H x W x D)	Base plate: 60 mm x 400 mm x 450 mm Posts (H): 500 mm (long post) / 300 mm (short post)
Weight	14 kg
Mounting	M6 screws
Material	Aluminium & stainless steel (screws & mounting rods)
Features	3 x adjustable feet, 1 x circular level, 2 x mounting rods (⌀ 12 mm)

SOFTWARE



O_2 pH CO_2 PreSens Profiling Studio

This software enables control of the Automated Micromanipulator and connected oxygen, pH or CO_2 meter. It is database supported and offers multiple features from clear data organization and export, easy creation of profiling templates, to analysis functions.

- Controls AM & connected meter
- Easy creation of profiling templates
- Database supported

TECHNICAL

	Minimum System Requirements		
Operating system	Microsoft® Windows® 7, 8 and 10 (32 or 64 Bit)		
Processor	2 GHz CPU		
RAM	2 GB		
Hard disk	500 MB free memory		
USB	2x USB 2.0		
Applications	.xlsx and .csv format reader software		
Compatibility	O_2 meters: Microx 4 & trace OXY-1 ST & Trace, Fibox 4 & trace OXY-1 SMA & Trace EOM-FDM SMA & trace EOM-FDM ST & trace (Microx TX3 & trace)	pH meters: pH-1 micro pH-1 mini	CO_2 meters: pCO2 mini

GET IN CONTACT

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

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