

METERS



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 nV (BC connectors) 10 mV represent	
	pH	0.1 pH
	Temperature	1 °C
	Phase	0.25 °

SENSORS

Implantable pH Microsensor IMP-HP5



The implantable pH Microsensor IMP-HP5 is not mounted into any additional housing and therefore ideally suited for implementation in customized applications. The bare glass fiber tip can be mounted to your own housings, steel tubes, catheters, etc. This tiny probe has a tip size of 150 μm , while the outer diameter ranges from 140 μm to 900 μm . As the IMP-HP5 is free of metal, it can be used in the presence of high electromagnetic fields and even NMR environment.

- High spatial resolution
- Measurement in smallest volumes
- Designed for customized applications
- Integration into plant and animal tissue
- Optimized for culture media and physiological solutions
- Independent of electromagnetic fields

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 per day (sampling interval of 1 sec.)
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
Storage stability	24 months provided the sensor is stored in the dark

* provided pH sensors are used without further handling in physiological solutions

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. 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 or pH meter via USB. The AM is compatible with PreSens oxygen meters Microx 4, Microx 4 trace, Microx TX3, Microx TX3 trace (with PSt1 sensor type), and the pH meter pH-1 micro. 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 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 μ m
Repeatability	< 2.5 μ m
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 positive 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 safe 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.

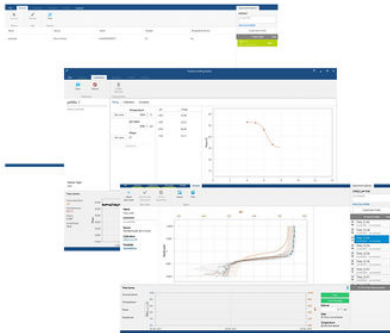
- Adjustable micromanipulator height and orientation & can be balanced
- For AM & MM33
- Additional mounting rods for further equipment

TECHNICAL

Specifications

Dimensions (H x W x D)	Base plate: 60 mm x 400 mm x 600 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 (Ø 12 mm)

SOFTWARE



PreSens Profiling Studio

This software enables control of the Automated Micromanipulator and connected oxygen or pH 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

ACCESSORIES



Transport Case

This high-quality transport case can contain the AM as well as one Heavy Stand. With a pull-out handle and robust wheels the case enables safe and convenient travel or storage of your micromanipulator.

- Safely travel with our profiling equipment outdoors, aboard ships or planes
- Water-, dust- and light-tight
- Protective foam inlay for AM & HS parts
- Trolley format with pull-out handle & robust wheels

TECHNICAL

Specifications




Dimensions (outer) 620 mm x 520 mm x 275 mm

Weight 10 kg

Material TTX01[®] & Polypropylen

Features Trolley format (pull-out handle & robust wheels), protective foam inlay for AM & HS parts, water- / dust- and light-tight (IP67), integrated address label & hand valve for pressure compensation

GET IN CONTACT

-  [Request more info](#)
-  [Request a quote](#)
-  [Rent-a-meter](#)

PreSens Precision Sensing GmbH
Am Biopark 11, D-93053 Regensburg
Phone +49 941 942 72 100
Fax +49 941 942 72 111
info@PreSens.de