

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

SENSORS



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



[microsensor not included]

Manual Micromanipulator MM




The Manual Micromanipulator MM is specifically designed for PreSens needle-type microsensors (NTH). The system allows moving the microsensor vibration-free in 3 axes with μm reading accuracy. A solid base plate ensures a stable set-up of the micromanipulator and enables safely tilting the whole system up to 90° - so you can use it in any required position. With the safe-insert function the microsensor retracted in its steel needle can be securely inserted into your area of interest. The sensor tip can then be extended delicately and safely with μm reading accuracy, without risk of breaking the sensor fiber.

- Safe-insert function for retractable microsensors
- 90° tilting mechanism
- Specifically designed for PreSens microsensors
- Vibration-free micromanipulation in 3D
- Fine drive with μm reading accuracy
- Solid base plate for most stable set-up

TECHNICAL

Specifications	
Compatibility	Needle-type Housed (NTH), Profiling (PM) and Implantable (IMP) oxygen & pH microsensors
Dimensions	230 mm x 130 mm x 200 mm
Weight	Weight w/o base plate: 1,1 kg Weight with base plate: 3 kg
Travel range	x-axis: 37 mm, fine drive: 10 mm y-axis: 20 mm z-axis: 25 mm
Reading accuracy	Coarse adjustment: 0.1 mm Fine adjustment: 0.01 mm
Coarse positioning	x-axis: 70 mm
Rotability	360°
Material	Aluminum & steel

GET IN CONTACT

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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