

METERS

pH °C

pH-1 SMA LG1



This small pH meter can be set up almost anywhere. It is compatible with non-invasive sensors, dipping probes and flow-through cells of type LG1 (pH 4.0 - 7.5). pH-1 SMA LG1 has temperature compensation, so even in environments with changing temperatures precise pH measurements can be performed. The optical pH sensors can directly be integrated in bioreactors and cultivation vessels, and are read out with pH-1 SMA LG1 non-invasively from outside. This way it is possible to take reliable long-term measurements without sampling or the risk of contamination. This USB-powered pH meter is operated with the PreSens Measurement Studio 2 software, which enables simultaneous control of several PreSens pH, O₂ and CO₂ devices, so measurement networks can be set up. With numerous features, the software makes the pH-1 SMA LG1 applicable in almost any application.

- Measurement range of pH 4.0 - 7.5
- Compact system with small outer dimensions
- Lightweight (only 128 g)
- USB-powered
- Controlled by PreSens Measurement Studio 2
- For use with non-invasive sensors, dipping probes & flow-through cells
- One calibration for a multitude of sensor spots

TECHNICAL

Specifications	
pH sensors	LG1 (optical SMA connector, 2 mm POF)
Temperature sensor	1 x Pt100 temperature connector (sensor not included)
Temperature performance	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	0 °C to + 50 °C / + 5 °C to + 40 °C
Relative humidity	0 % to 80 % (non-condensing)
Dimensions	101 mm (with connectors) x 35 mm x 30 mm
Weight	128 g
Digital interface	USB interface cable to PC (cable included)

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 CO₂-1 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

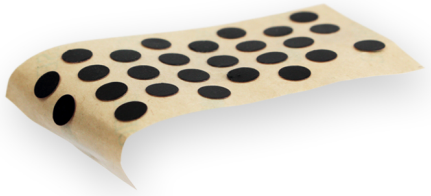
TECHNICAL

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 ₂ mini	All devices with ST connector, e.g. Microx 4 or OXY-1 ST series

SENSORS



Self-adhesive pH Sensor Spots SP-LG1-SA



These new pH Sensor Spots cover a broader measurement range from pH 4.0 to 7.5, and are therefore optimally suited for bioprocess development, pharmaceutical applications and different fields of research. Due to their optical isolation and the optimized spectral properties the pH sensor spots are less sensitive to interfering fluorescences. The self-adhesive technology eases integration of the SP-LG1-SA in transparent glass or plastic vessels. They can simply be stuck on the inside surface and measurements can be taken non-invasively from the outside through the vessel wall. These sensor spots are available irradiated or untreated. They come pre-calibrated and ready-to-use.

- Non-invasive, online pH measurements from pH 4.0 to 7.5
- No electrical interferences due to optical measurements
- No assembly necessary, ready-to-use
- No electrolyte to replenish
- Pre-calibrated, one-point calibration possible

TECHNICAL

Specifications*	
Measurement range	4.0 - 7.5 pH
Resolution	at pH = 6.5: ± 0.01 pH
Drift	at pH = 6: < 0.005 pH per day (sampling interval of 1 min.)
Measurement temperature range	from + 5 °C to + 50 °C
Response time (t_{90})**	< 120 sec.
Properties*	
Compatibility	Aqueous solutions, ethanol (max. 10 % v/v), methanol (max. 10 % v/v), pH 2 - 10
Cross-sensitivity	Reduced ionic strength (salinity); a high concentration of small fluorescent molecules in the visible range can interfere
Cleaning procedure	pH spots are delivered either beta-irradiated or untreated, a second irradiation or ethylene oxide treatment is not recommended
Calibration	pH spots are pre-calibrated; re-calibration is possible
Carrier materials	Adheres to nearly all surfaces like glass, polystyrene, polyethylene, polymethacrylate (acrylic glass), polycarbonate. The sensor does NOT adhere to silicone surfaces!
*provided pH sensors are used without further handling in physiological solution	
**calibration and following measurements in the same conditions / system; equilibrated sensor kept in well stirred solution at + 37 °C	

ACCESSORIES

Integration Set for Sensor Spots IS-SP



The integration set is a suction pump that comes with fitting tips for easy handling and integration of PreSens self-adhesive sensor spots, but can also be applied to integrate our other sensor spots using liquid glue. The sensors can be picked up, and moved inside even tall vessels or containers that are difficult to access.




- Easy integration of self-adhesive and non-sticky sensor spots
- Safe sensor handling
- Integration in tall and difficult to access containers

TECHNICAL

Specifications

Dimensions	Included brass extension tube: length 300 mm, \square 4,0 mm
Power Supply	230V / 50 Hz, 3.1 W
Airflow	150 L/h

GET IN CONTACT

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

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