



## Hach pH<sup>HD</sup> Online Process pH Sensor - General Purpose pH Sensor

Product #:

PD1P1.99

AED Price:

Contact Hach

### The smart choice for accurate and reliable online process pH measurement

General Purpose Online Process pH Sensor - pH<sup>HD</sup> Technology, Glass pH Electrode, PEEK Housing, Convertible Mount, 4.5 m Cable

#### Exceptional Process pH Sensor Performance with the Differential Electrode pH<sup>HD</sup> Measurement Technique

This field-proven technique uses three electrodes instead of the two normally used in conventional pH sensors. Process and reference electrodes measure the pH differentially with respect to a third ground electrode. The end result is unsurpassed measurement accuracy, reduced reference junction potential, and elimination of sensor ground loops. These process pH sensors provide greater reliability, resulting in less downtime and maintenance.

#### Lower Maintenance Needs with the Double Junction Salt Bridge

The double junction salt bridge creates a barrier to contamination which minimizes the dilution of the internal standard cell solution. The result is lower maintenance needs and a longer time period between calibrations.

#### Extended Working Life with the Replaceable Salt Bridge/Protector

The unique, replaceable salt bridge holds an extraordinary volume of buffer to extend the working life of the sensor by protecting the reference electrode from harsh process conditions. The salt bridge simply threads onto the end of the sensor if replacement is needed.

#### Reliability with Built-in Encapsulated Preamp

Encapsulated construction protects the sensor's built-in preamp from moisture and humidity, ensuring reliable sensor operation. The preamp in the pH<sup>HD</sup> analog sensor produces a strong signal, enabling the sensor to be located up to 1000 m (3280 ft.) from the analyzer.

#### Patented Technology

The former GLI, now a Hach Company brand, invented the Differential Electrode Technique for pH measurement in 1970. The pH<sup>HD</sup>™ sensor series (U.S. Patent Number 6395158B1, dated May 28, 2002) takes this field-proven technology to a new level.

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## Specifications

Accuracy:	± 0.02 pH
Cable connection:	Analog
Cable length:	4.5 m
Calibration method:	Two point automatic, one point automatic, two point manual, one point manual.
Communication:	MODBUS
Diameter:	34.9 mm
Drift:	0.03 pH per 24 hours, non-cumulative
Electrode type:	General Purpose
Flow:	max. 3 m/s
Housing material:	PEEK
Length:	196.3 mm
Material:	Titanium
Measuring range:	-2.0 - 14.0 pH

Mounting:	Convertible
Operating temperature range:	-5 - 105 °C
Pressure range:	max. 10.7 bar Sensor only (pressure range of mounting hardware to be checked separately)
Repeatability:	± 0.05 pH
Sensor thread:	1" NPT at both ends
Special notes:	pH-Wide Range Generic
Temperature accuracy:	± 0.5 °C
Temperature compensation:	Automatic with NTC 300 Ω thermistor, or manually fixed at a user-entered temperature,  additional selectable temperature correction factors (ammonia, morpholine, or user-defined pH/°C linear slope) available for pure water automatic compensation 0.0 - 50 °C
Temperature sensor:	NTC 300 Ω thermistor for automatic temperature compensation and analyser temperature readout
Warranty:	24 months
Weight:	0.9534 kg

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## Required Accessories

- SC1000 Probe Module, 4 Sensor Connectors, 4 mA Output, 4 Relays, 100-240 VAC, with EU plug (Item LXV400.99.2R121)
- SC1000 Display Module (Item LXV402.99.00001)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, without power cord (Item LXV525.99A11551)
- SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 100-240 VAC, without power cord (Item LXV525.99A11501)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 24 VDC, without plug (Item LXV525.99Z11551)