



Hach pHD sc Online Process pH Sensor, HF Resistance, Low pH, 10 m Cable

Product #: DPD1P3

ZAR Price: Contact Hach

Ships within 3-5 weeks

The smart choice for accurate and reliable online process pH measurement

HF Resistant, Low pH Online Process pH Sensor with Integrated Digital Electronics for "Plug and Play" with Hach Digital SC Controllers - pHD Technology, Glass pH Electrode, PEEK Housing, Convertible Mount, 10 m Cable

This instrument connects to Claros, Hach's innovative Water Intelligence System, enabling you to seamlessly connect and manage instruments, data, and process – anywhere, anytime. The result is greater confidence in your data and improved efficiency in your operations. To unlock the full potential of Claros, insist on Claros Enabled instruments.

Exceptional Process pH Sensor Performance with the Differential Electrode pHD 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 minimises 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 pHD analogue sensor produces a strong signal, enabling the sensor to be located up to 1000 m (3280 ft.) from the analyser.

Innovative Technology

The former GLI, now a Hach Company brand, invented the Differential Electrode Technique for pH measurement in 1970. The pHD sensor series takes this field-proven technology to a new level.

Specifications

Accuracy: $\pm 0.02 \text{ pH}$ Body material: PEEK
Cable Connection: Digital

Cable Length: 10 m PUR (polyurethane) 4-conductor with one shield, rated to 105°C

Calibration Method: Two point automatic, one point automatic, two point manual, one point manual.

Communication: Modbus

Compliance: Hazardous location, Maritime, CE

Drift: 0.03 pH per 24 hours, non-cumulative

Electrode Type: HF Resistant

Flow Rate: 3 m (10 ft.) per second, maximum

Length: 271.3 mm

Measuring range: -2.0 to 14.0 pH
Mounting: Convertible

Operating Temperature Range: -5 - 70 °C (23 - 158 °F) pHD and ORP

0 - 50 °C (32 - 122 °F) SS pHD

Before initial pH calibration, calibrate the temperature measurement when the sensor is in water or buffer which is at approximately the same temperature as the pH buffers (matches current

recommendation)

Pressure Range: Maximum 10.7 bar . 6.9 bar for Digital Sensor at 70°C, and 6.9 bar for Analog Sensor at 105°C.

Repeatability: $\pm 0.05 \, \mathrm{pH}$ Sensitivity: $\pm 0.01 \, \mathrm{pH}$

Sensor Cable: 10 m (33 ft.) polyurethane, 4-conductor cable with one shield, rated to 105°C (221°F)

Sensor Thread: 1" NPT

Storage conditions: 4 - 70°C, 0-95% relative humidity (non-condensing)

Temperature Accuracy: ± 0.5 °C (± 0.9 °F)

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 analyzer temperature readout

Transmission Distance: 100 m (328 ft.), maximum

Transmission Distance 2: 1000 m (3280 ft.), maximum when used with a termination box.

Warranty: 12 months
Weight: 0.316 kg

Wetted Materials: PEEK or PPS, salt bridge of matching material with PVDF junction, glass process electrode,

titanium ground electrode, and FKM/FPM® O-ring seals (pH sensor with optional HF-resistant glass process electrode has 316 stainless steel ground electrode, and perfluoroelastomer wetted O-

rings; consult factory for other available wetted O-ring materials)

What's included?: Includes: sensor with 33 ft cable and manual

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Required Accessories

- SC1000 Display Module, Multi-Parameter Universal Controller (Item LXV402.99.00002)
- SC1000 Probe Module, 6 Sensor Connectors, Prognosys, Modbus 485, 100-240 VAC with Conduits (Item LXV400.99.1H082)
- SC1000 Probe Module, 8 Sensor Connectors, Prognosys, 100-240 VAC with Conduits (Item LXV400.99.1G092)
- SC1500 Controller, 6 Sensor Connectors, 8Ma Out, 110V/Cond Ext MOD (Item LXV446.99.103N1)
- SC1500 Controller, 6 Sensor Connectors, 8Ma Out, 110V/Cond 4 Relay/C Ext MOD (Item LXV446.99.1R3S1)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, US plug (Item LXV525.99E11551)
- 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)