

Engineering Specification

DPHX

1.5" Differential pH Sensor

The DPHX pH sensor is a dependable industrial grade sensor designed to provide accurate measurement and longer service life under the most demanding conditions. Some features of this sensor include: differential measurement technology, replaceable salt bridge and encapsulated preamp.

This technique uses two glass electrodes to make the measurement differentially with respect to a third metal electrode. The domed glass process electrode is specially designed for tough applications. The second electrode is immersed in a pH 7 buffer encapsulated in the sensor.

This second electrode is protected from the process by a double junction replaceable salt bridge. The resulting true differential measurement has several advantages over conventional sensors: ground loop problems are virtually eliminated, and the salt bridge is easily replaced.

If the internal solution becomes contaminated, the sensor can be rejuvenated at modest cost by replacing the salt bridge and reference solution. Automatic temperature compensation is accomplished through the use of a Pt1000 RTD at the tip of the sensor. This Pt1000 RTD placement provides rapid response for process temperature variations.

The encapsulated preamplifier provides an output signal which can be transmitted 3000 feet over inexpensive cable. Another version encapsulates a blind 4-20 mA two wire transmitter which can transmit a virtually unlimited distance over a twisted pair cable.



Features

- Differential measurement technology
- Replaceable Salt Bridge
- Double junction for longer life
- Low Maintenance Cost
- Field-proven
- Encapsulated Preamplifier
- Transmits up to 3000 ft.
- Chemically resistant

Applications

- Process Control
- Industrial and Municipal Water Treatment
- Industrial and Municipal Waste Treatment and Neutralization
- Fume Scrubbers
- Plating
- Circuit Board Manufacturing
- Food and Beverage
- Chemical Processing
- Pulp and Paper
- Mining

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Specification

Call customer service if you need assistance with technical details.

Linear Measurement Range	1 to 12 pH Response at pH<1 or >12 is non-linear (<59.2 mV/pH @ 25°C)
Wetted Materials	Ryton, CPVC, Kynar, glass, titanium palladium alloy and Viton *PVC (cable jacket) and Dynaflex (strain relief) when fully submerged.
Temperature Limits	-5 to 75°C (23 to 167°F)
Maximum Pressure	100 psig at 150°F (65°C)
Maximum Flow Rate	10 ft./sec maximum (3 meters/sec) but lower in water with low conductivity water or suspended solids
Automatic Temperature Compensation	Standard PT1000Ω RTD; Optional: 300 NTC
Stability	0.03 pH per day, non-cumulative
Sensitivity	0.01 pH
Accuracy	± 0.02 pH
Sensor Cable	Default Length 30 ft (9 m) 5 Conductor plus shield

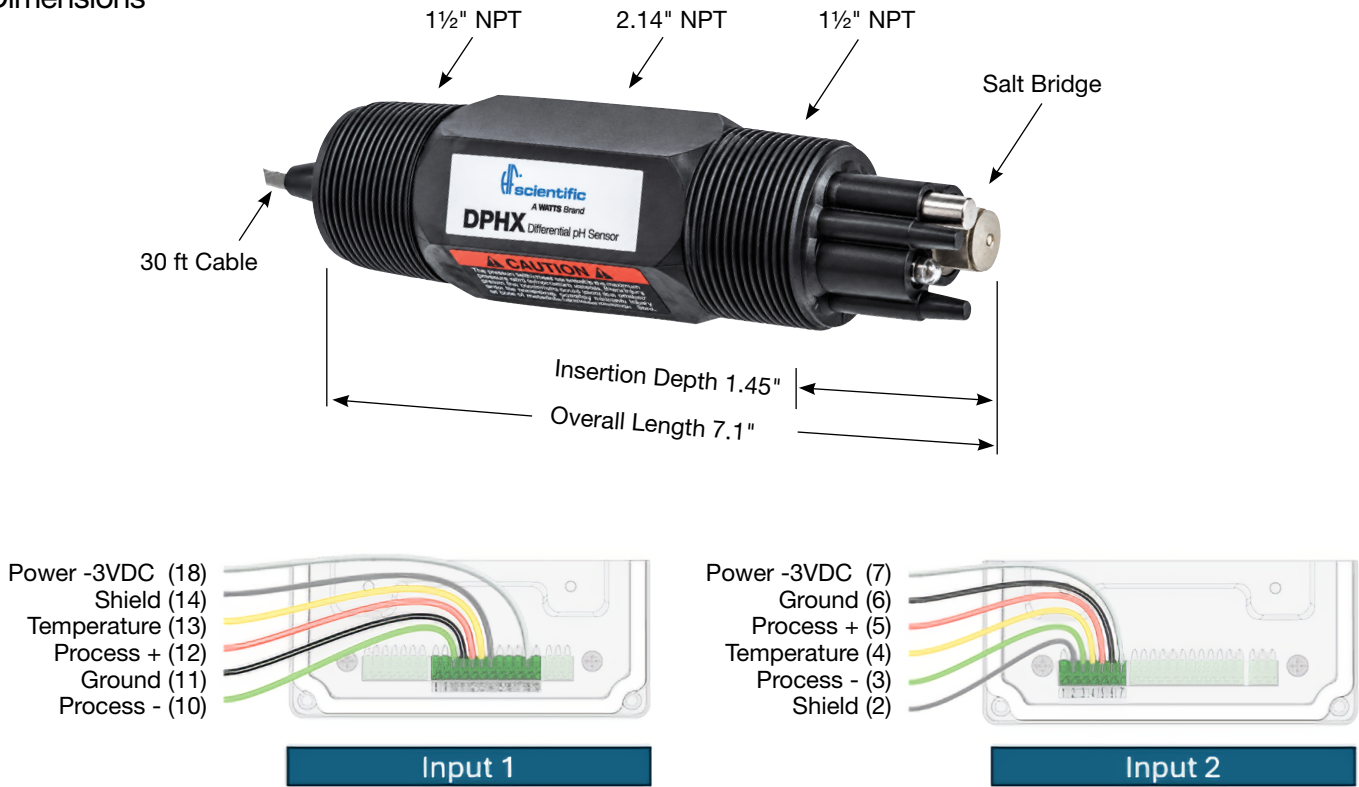
Related Products

ANALYZERS	
1000003559	MPX Dual Input Multi-Parameter Controller
ACCESSORIES	
1000003933	Salt bridge kit for -R8 series sensor (3 Pack)
1000003934	Electrode protector for -R8 series sensor
1000003721	2" Union Tee with adaptor for -R8 series

Ordering Information

1000003610	pH sensor, 1½" NPT threaded body
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Dimensions



A WATTS Brand

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Latin America: T: (52) 55-4122-0138 • HFscientific.com

