

DIFFERENTIAL pH AND ORP PROBES WITH DIRECT 4-20mA OUTPUT



Employs differential measurement technique

Complete encapsulation protects internal electronics

Buffered reference cell solution resists contamination

Superior accuracy through elimination of ground loops

No transmitter required: direct 4-20mA output signal

Two year limited warranty

Differential sensors have longer working lifetimes

The differential design employs two glass electrodes, which record pH or ORP measurements differentially with respect to a third metal electrode. The reference cell of a differential sensor is actually a measuring electrode in a concentrated pH 7.0 buffer solution rather than a traditional silver/silver chloride reference. This type of reference cell resists contamination by the sample, improving measurement accuracy and extending sensor lifetime.

Save time and money with quick and easy maintenance

With differential technology, you won't have to replace the entire sensor after just a few months. Simply replace the salt bridge and refill the reference solution to keep your electrode working longer.

Don't want to purchase a transmitter or controller?

You don't have to. With a direct 4-20mA output, these differential sensors can be hooked up to a PLC or SCADA system with no transmitter or controller required.

Reliable performance in variable operating conditions

The differential design provides unsurpassed accuracy by virtually eliminating ground loops. Automatic temperature compensation ensures measurement accuracy in environments with rapid temperature changes. Durable Ryton® PPS body construction for extensive chemical compatibility.

RECOMMENDED APPLICATIONS:

- **Wastewater Treatment**
- **Drinking Water Treatment**
 - **Odor Scrubbers**
 - **Food Processing**
 - **Metal Finishing**
 - **Pulp and Paper**
- **Chemical Processing**

DIRECT FIT COMPATIBILITY:

- **Hach® 6428PO or 2428R0 (LCP body)**
- **Hach® 6422PO or 2422R0 (Ryton body)**
- **Water Analytics® P65C-8 or R65C-8 (CPVC Body)**

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DESIGNED AND ASSEMBLED IN CALIFORNIA, USA

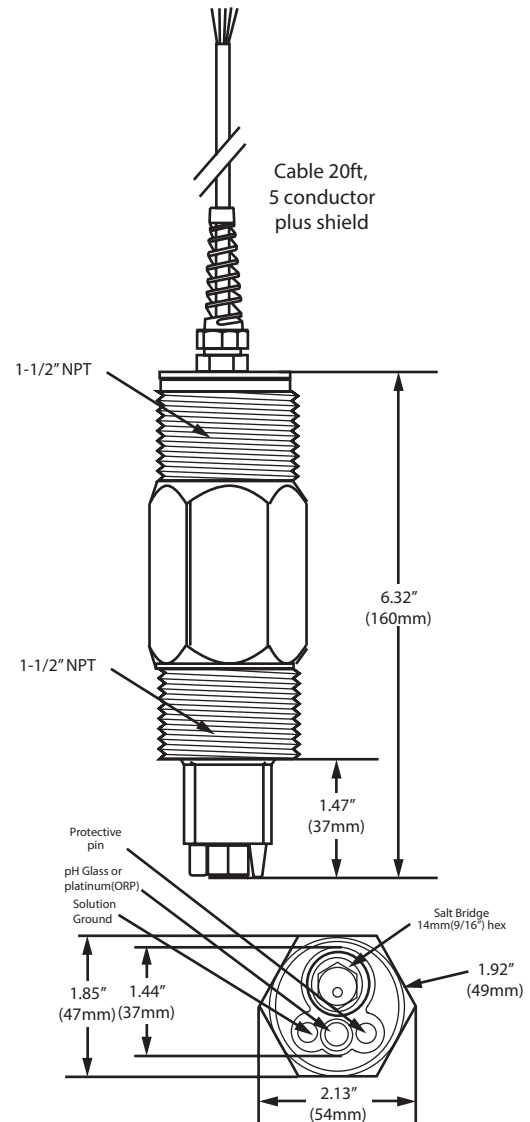
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SPECIFICATIONS

pH Measurement Range:	0 to 14 (4-20mA)
ORP Measurement Range:	-2000mV to 2000mV (4-20mA)
pH Stability:	0.03 pH per 24 hours, non-cumulative
Wetted Materials:	PPS body and salt bridge, PVDF & ceramic junction, Viton o-rings, titanium solution ground, pH glass or ORP - platinum band
Transmission Distance:	3000ft (914m)
Temperature Compensation:	10K NTC (no separate temperature output)
Temperature Range:	0-85°C (32-185°F)
Pressure Maximum:	100psig @ 40°C (104°F)- for PVC tee/ fitting 100psig @ 60°C (140°F)- for CPVC tee/fitting 100psig @ 85°C (185°F)- for stainless steel tee/ fitting
Flow Rate:	10ft/sec maximum (3 meters/sec)
Sensor Cable:	5 conductor plus shield, 22AWG, 20ft (6.1m), use only red and black wires
Power Requirement:	12 - 30V DC (> 24V DC recommended)



ORDERING INFORMATION

Part Number	Description
SD7420CD	Differential pH sensor with direct 4-20mA output, 20ft cable, tinned leads, 1.5" NPT mounting
SD7420CD-ORP	Differential ORP sensor with direct 4-20mA output, 20ft cable, tinned leads, 1.5" NPT mounting
SDA-7001	Replacement salt bridge for SD7420CD & SD7420CD-ORP, 1 each
SDA-7003	Replacement salt bridge for SD7420CD & SD7420CD-ORP, 3 each
SDA-7010	Replacement salt bridge for SD7420CD & SD7420CD-ORP, 10 each
SDS-7015	Standard cell refill solution, 125mL