

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



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**Employs differential measurement technique**

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**Complete encapsulation protects internal electronics**

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**Buffered reference cell solution resists contamination**

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**Superior accuracy through elimination of ground loops**

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**No transmitter required: direct 4-20mA output signal**

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**Two year limited warranty**

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#### 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:

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

### DIRECT FIT COMPATIBILITY:

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- **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**

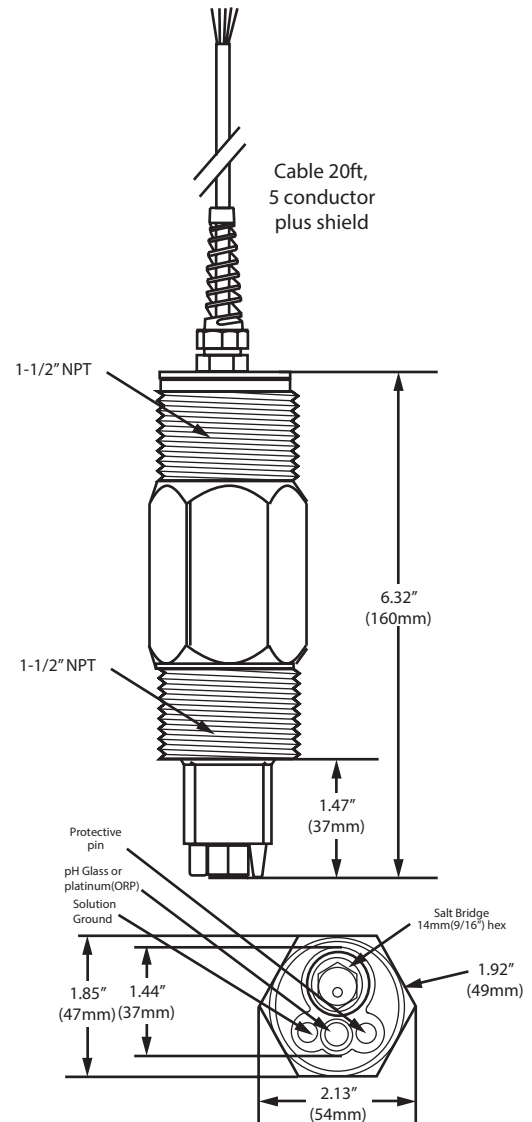
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### SPECIFICATIONS

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



### ORDERING INFORMATION

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