

## 5-WIRE DIFFERENTIAL pH AND ORP SENSORS



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**Extended electrode lifetime with minimal maintenance**

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**Simple upkeep with replaceable reference cell junction**

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**Superior accuracy through elimination of ground loops**

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**Buffered reference cell solution resists contamination**

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**Flexible deployment options with longer cable lengths**

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**Suitable for rapidly fluctuating temperature conditions**

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The SD7000CD and SD7000CD-ORP pH & ORP sensors are a reliable, low maintenance solution for online process control. By employing differential sensor technology, these products offer advantages over conventional combination sensors. The differential design employs two glass electrodes, which record pH or ORP measurements differentially with respect to a third metal electrode. Using a second glass electrode to create a standard reference cell permits the use of a known buffer solution, which resists pH change. Consequently, the reference cell is less susceptible to contamination, which might otherwise lead to additional maintenance and downtime. This technique also provides unsurpassed accuracy by virtually eliminating ground loops. In environments with rapid temperature changes, the SD7000 series ensures measurement accuracy through built-in quick response automatic temperature compensation (ATC). Extended sensor lifetime can be achieved by replacing the sensor reference (salt bridge), a feature that is impossible for conventional combination models. The benefits of differential sensor technology make the SD7000 series an excellent solution for difficult applications, including high temperature and high pressure process control.

### RECOMMENDED APPLICATIONS:

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

### DIRECT FIT COMPATIBILITY:

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- **Hach® 6028PO**
- **Hach® 6022PO**
- **Water Analytics® P60C-8**

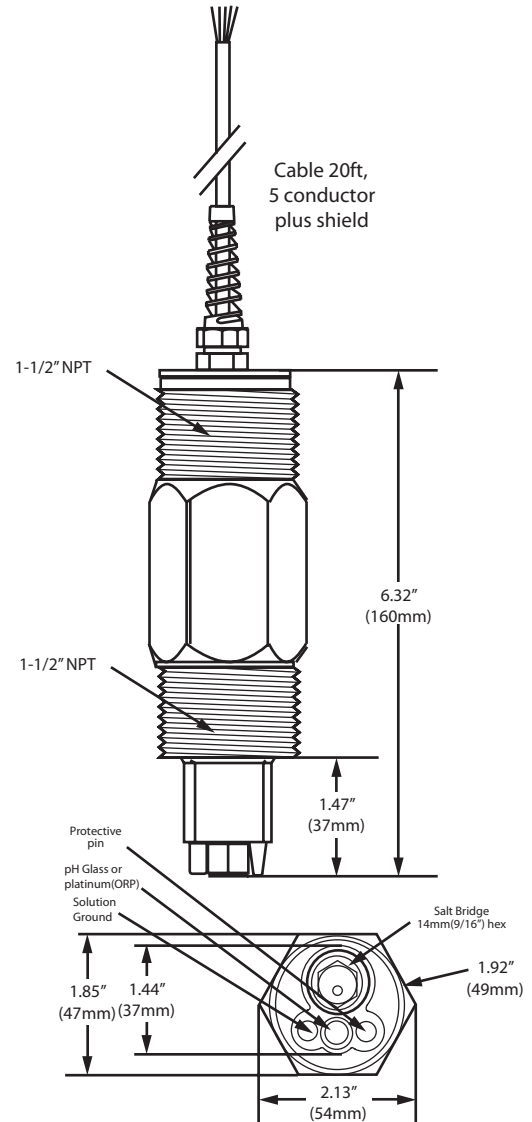
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**DESIGNED AND ASSEMBLED IN CALIFORNIA, USA**

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### OUTLINE AND DIMENSIONS



### SPECIFICATIONS

<b>pH Measurement Range:</b>	0 to 14
<b>ORP Measurement Range</b>	-2000mV to 2000mV
<b>pH Stability</b>	0.03pH 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>	300 Ohm NTC
<b>Temperature Range:</b>	0-95°C(32-203°F)
<b>Pressure Maximum:</b>	100psig @ 40°C (104°F)- for PVC tee/ fitting 100psig @ 60°C (140°F)- for CPVC tee/fitting 100psig @ 95°C (203°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)

### ORDERING INFORMATION

Part Number	Description
<b>SD7000CD</b>	Differential pH sensor with replaceable salt bridge, 20ft cable, tinned leads, 1.5" NPT mounting
<b>SD7000CD-ORP</b>	Differential ORP sensor with replaceable salt bridge, 20ft cable, tinned leads, 1.5" NPT mounting
<b>SDA-7001</b>	Salt bridge for SD7000CD & SD7000CD-ORP, 1 each
<b>SDA-7003</b>	Salt bridge for SD7000CD & SD7000CD-ORP, 3 each
<b>SDA-7010</b>	Salt bridge for SD7000CD & SD7000CD-ORP, 10 each
<b>SDS-7015</b>	Standard cell refill solution, 125mL

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