



## Digital ORP Sensor, Stainless Steel, Immersion, Non-Hazardous Environment

**Product #:** DRS5.1  
**ZAR Price:** Contact Hach

### The smart choice for accurate and reliable online process ORP measurement

General Purpose Online Process ORP Sensor with Integrated Digital Electronics for "Plug and Play" with Digital Hach SC Controllers - Platinum ORP Electrode, Stainless Housing, Immersion Mount, 10m Cable

#### Exceptional Performance with the Differential Electrode Measurement Technique

This field-proven technique uses three electrodes instead of the two normally used in conventional ORP sensors. Process and reference electrodes measure the ORP 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 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 minimizes 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 analog sensor produces a strong signal, enabling the sensor to be located up to 1000 m (3280 ft.) from the analyzer.

#### 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.

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## Specifications

Body Material:	Stainless Steel
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Cable Connection:	Digital
Cable Length:	10 m (33 ft)
Compliance:	For non-hazardous and non-maritime applications only
Electrode Material:	Platinum
Electrode Type:	General Purpose
Flow:	3 m (10 ft.) per second, maximum
Measuring range:	-1500 to +1500 mV ORP
Mounting:	Immersion
Operating Temperature Range:	-5 - 70 °C (23 - 158 °F) pHD and ORP

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.

Please Note:

When the sensor is placed into the application sample, if that sample is more than 10-°C (18-°F) different than the previous temperature/pH calibration, then it is recommended to recalibrate the temperature while the sensor is in the sample to maintain the ±0.5-°C (±0.9-°F) temperature accuracy specification.

Sensitivity:	± 0.5 mV
Sensor Cable:	Integral
	4 conductor cable with one shield and polyurethane jacket; rated to 105 °C (221°F); 10 m (33 ft.) standard length
Sensor Type :	Digital
Temperature Accuracy:	± 0.5 °C (± 0.9 °F)
Temperature Sensor :	Sensor Pressure/Temperature Limits
	Digital: 6.9 bar
Transmission Distance:	100 m (328 ft.), maximum
Transmission Distance 2:	1000 m (3280 ft.), maximum when used with a termination box
Warranty:	12 months
What's included?:	Includes: sensor with 10 m (33 ft) cable and manual

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