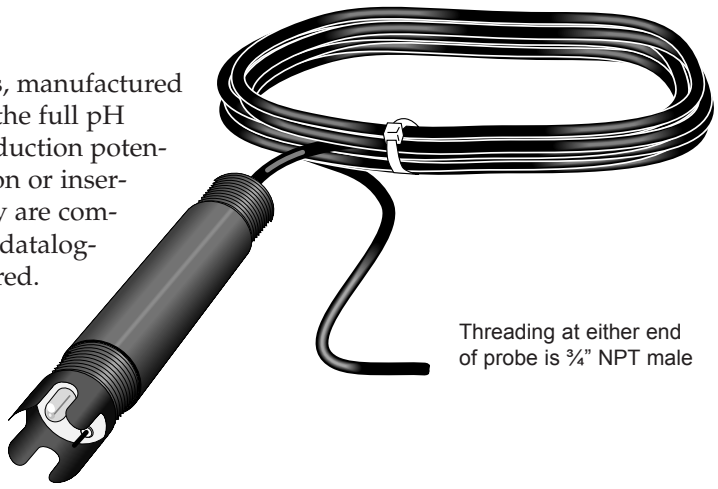
pH and ORP Sensors

Models CSIM11 and CSIM11-ORP



The CSIM11 and CSIM11-ORP are versatile sensors, manufactured by Innovative Sensors Inc. The CSIM11 measures the full pH range and the CSIM11-ORP measures oxidation reduction potential (ORP). The sensors are designed for submersion or insertion into tanks, pipelines, and open channels. They are compatible with our CR510, CR10(X), 21X, and CR23X dataloggers; one differential analog input channel is required.

The construction of the two sensors is identical except the CSIM11-ORP includes a 0.2 inch platinum band wrapped around the glass electrode. This allows the CSIM11-ORP to respond to the electron density in the fluid.

The sensors feature a plunger-style* pH glass electrode allowing them to be mounted at any angle. The porous Teflon® liquid junction** is less susceptible to clogging as compared to conventional reference junctions. A titanium ground rod runs inside the PPS outer body to eliminate ground loop errors. An internal amplifier boosts the signal, decreasing signal interference.

The reference solutions and bulb configuration are optimized for natural water applications. Alternate reference solutions and bulb configurations are available. Contact CSI for pricing and availability. Manufacturer's warranty applies.

Ordering Information

CSIM11-L	pH sensor with bulb protectors and reference solution. Enter lead length, in feet, after the L. A 15-foot lead (CSIM11-L15) is recommended.
CSIM11ORP-L	ORP sensor with bulb protectors and reference solution. Enter lead length, in feet, after the L. A 15-foot lead length (CSIM11-ORP-L15) is recommended.
M11REFILL	4 oz. bottle of KCI solution for refilling reference solution.

*Patent No. 4,333,812
**Patent No. 4,128,468

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Specifications

Temperature Range:	0° to +70°C
Pressure Range:	0 to 30 psig
Accuracy:	±0.1% over full range
Impedance:	<1 Mohm @ 25°C
Reference Cell:	Single Junction KCl/AgCl
Body Material:	PPS (Ryton®)
Wetted Materials:	PPS (Ryton®), Teflon®, Viton®, Glass, Titanium
Response Time:	95% of reading in 10 seconds
Drift:	Less than 2 mV per week
Internal Lithium Battery Lifetime:	5 yrs (life of probe)

pH Sensor

pH Range:	0 to 14
Zero Potential:	7.0 pH ±0.2 pH
Sodium Error:	Less than 0.05 pH in 0.1 Molar Na^+ ion @ 12.8 pH
Output:	±59 mV/pH unit

ORP Sensor

ORP Range:	-700 to +1100 mV

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Printed May 2002