

CSIM11 pH and CSIM11-ORP Sensors



The CSIM11 and CSIM11-ORP are versatile sensors, manufactured by Wedgewood Analytical. The CSIM11 measures the full pH range and the CSIM11-ORP measures oxidation reduction potential (ORP). They are designed for submersion or insertion into tanks, pipelines, and open channels. Compatible dataloggers include our CR800-series, CR1000, and CR3000; one differential analogue input channel is required.

The construction of the two sensors is identical except the CSIM11-ORP includes a 0.2 inch, large surface area, platinum band measuring electrode. This allows the CSIM11-ORP to respond to the electron activity 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. An integral titanium ground rod picks up stray current to help 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. Manufacturer's warranty applies.

Note: The CSIM11 and CSIM11-ORP use glass bulb technology which has a life expectancy of around 6 months to 2 years, depending on the conditions of the water.

*Patent No. 4,333,812

**Patent No. 4,128,468

Specifications

Temperature Range: 0° to +80°C

Pressure Range: 0 to 30 psig

Accuracy: $\pm 0.1\%$ over full range

Impedance: $< 1 \text{ Mohm}$ @ 25°C

Reference Cell: Single Junction
KCl/AgCl

Body Material: ABS

Wetted Materials: ABS, Teflon®,
Viton®, Glass, Titanium

Response Time: 95% of reading
in 10 seconds

Drift: $< 2 \text{ mV}$ per week

Internal Lithium Battery Lifetime:
5 yrs (life of probe)

pH Sensor:

pH Range: 0 to 14

Zero Potential: $7.0 \text{ pH} \pm 0.2 \text{ pH}$

Sodium Error: $< 0.05 \text{ pH}$ in 0.1

Molar Na⁺ ion @ 12.8 pH

Output: $\pm 59 \text{ mV/pH unit}$

ORP Sensor:

ORP Range: -700 to +1100 mV

ORDERING INFORMATION

CSIM11 pH sensor with bulb protectors and refillable chamber. Standard lead length 5 m
CSIM11ORP ORP sensor with bulb protectors and refillable chamber. Standard lead length 5 m
M11REFILL PH/ORP Probe Refill solution for CSIM11 or CSIM11-ORP (113g container)