



ORP Measurement System

ORPSys:DataStick



Features:

- ❖ Differential ORP measurement
- ❖ Pre-calibrated
- ❖ Plug & play sensor heads
- ❖ Replaceable quad junction salt bridges
- ❖ Electrode protection options
- ❖ Offered in a variety of materials
- ❖ Direct data reporting (24-bit)
- ❖ Plug & play industrial communications adapters
- ❖ Titanium Ground electrode

Applications:

- ❖ Wastewater treatment
- ❖ Bleaching Pulp
- ❖ Metal finishing (chrome/cyanide destruct)
- ❖ Disinfection control

Benefits:

- ❖ Retains calibration in the head
- ❖ Sensor head replacement without powerdown
- ❖ Variable mounting options
- ❖ Auto temperature compensation
- ❖ Either direct connect to PLC or use with AV38/Aquapro controllers.
- ❖ Multiple communications protocols available



This ORP sensor utilises the Differential Electrode Technique, using two electrodes to compare the process value to a stable internal reference standard buffer solution. The standard electrode has a non-flowing and fouling-resistant characteristic. The built-in electronics of the sensor are completely encapsulated and O-ring sealed for protection from moisture and humidity. The sensor has a built-in pre-amplifier, universal signal conditioning electronics, universal engineering units conversion, and interactive communications with a host computer or display interface using one of several protocols including Modbus® RTU, DeviceNet, Profibus, USB, CANopen or Ethernet. It has an integral temperature sensor to automatically compensate measured values for changes in process temperature and also incorporates a titanium ground electrode (standard) to eliminate ground loop currents in the measuring electrode..

It is ideal for a large range of onerous industrial and municipal applications



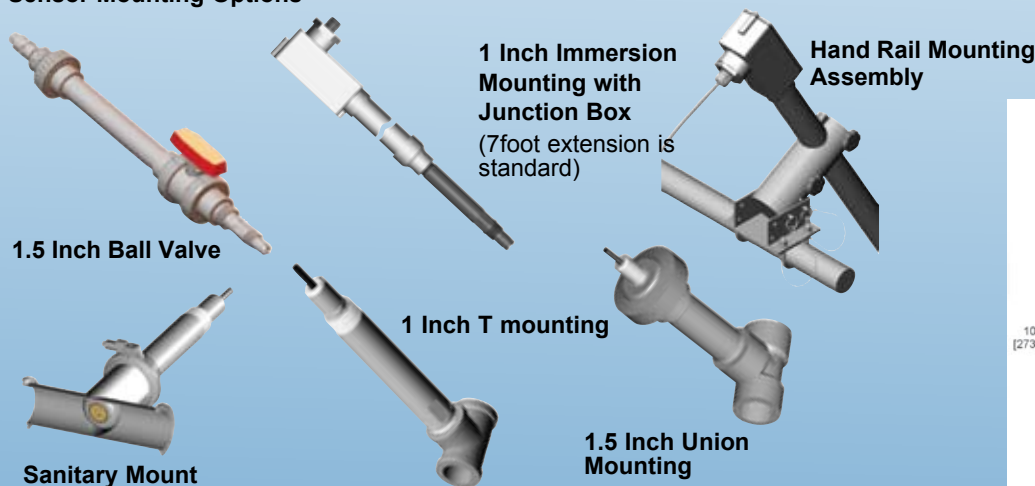
System Specification

Measurement System Performance	Range: -2100 mV to +2100 mV Resolution: 0.1 mV	
	Accuracy: 0.1% of reading	
	Step Response Time: 90% in 30 seconds	Note: Typical at 25°C Performance unaffected by cable length
Operational Environment	PEEK Sensor Head Temperature Range: -5°C to 95 °C Maximum Pressure: 100psig @ 95 °C Maximum Flow Rate: 10 ft/sec	CPVC Sensor Head Temperature Range: -5°C to 75 °C Maximum Pressure: 85psig @ 75 °C Maximum Flow Rate: 10 ft/sec
	Power Requirements	
	Voltage Range: 10 to 30 VDC Maximum Power: 200 mW Typical Power: 120 mW	Note: Class II DC power supply required
Construction	Process Electrode: Platinum or Gold	O-rings: Viton® (other materials available)
	“Ground Rod: Titanium (standard), 316 stainless steel or Hastelloy C	Sensor Head Material: CPVC, PEEK Data stick Material: 316 SS, CPVC, PEEK Weight 1.2 lbs (PEEK or CPVC) 2.6 lbs (316 Stainless Steel)
Units of Measure	Measurement Units: mV Temperature Units: °C, °F	
Calibration	Sample: 1 point, Temperature: 1 point Note: ORP & Temperature are precalibrated at	
Temperature compensation option	Temperature measurement is provided as an independent measurement.	Note: Temperature can be entered manually
Other Configuration Options	Sensor Filter: 0-100 seconds Temperature Filter: 0-100 secs	

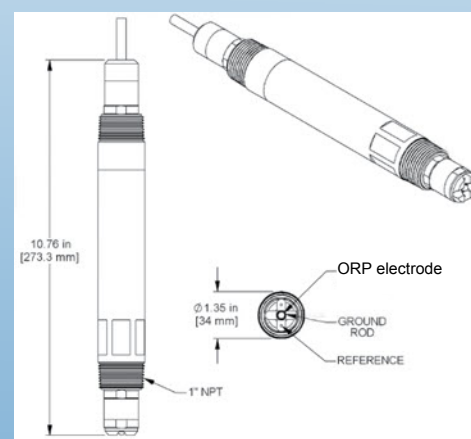
Approvals and Ratings

Immunity & Emissions: CE Certified 89/336/EEC: CISPER 11, EN61000 (-4-2,-4-3,-4-4,-4-6, 4-8)
Safety: cULus Listed; 367G E303570
Hazardous Locations: Haz Loc Class 1, Division 2, Groups A, B, C, D. Max Ambient 80 °C

Sensor Mounting Options



Sensor Dimensions



Display/Control Options



See separate sheets for details of above controllers

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