

Thermo Scientific AquaSensors AnalogPlus

Differential ORP sensor – 1.0 inch

Thermo Scientific™ AquaSensors AnalogPlus™ series for challenging process applications.

AquaSensors AnalogPlus™ ORP 1.0 Sensor

- 1 inch NPT mounting
- Differential ORP sensor designed for continuous use in the most demanding industrial applications
- Replaceable salt bridge extends sensor life
- Offered with NTC300 or PT1000 temperature element
- Electrode protection options
- Available in choice of materials for a wide range of applications

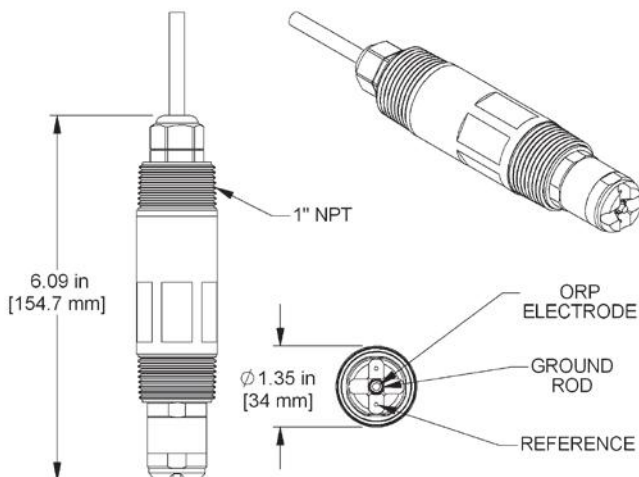
Markets/Applications

- Wastewater treatment
- Metal finishing
- Bleaching pulp
- Disinfection control



Engineering Specifications

1. The ORP sensor shall be of differential electrode technique design using two electrodes to compare the process value to a stable internal reference solution. The standard electrode shall have non-flowing and fouling-resistant characteristics.
2. The sensor shall have hex-shaped wrench flats to facilitate mounting, and shall be constructed of a material with exceptional chemical resistance and mechanical strength. This material shall enable the sensor to be installed in metal fittings without leakage usually caused by heating and cooling cycles when dissimilar materials are threaded together.
3. The sensor shall have a 1 inch NPT threads on both ends to mount into a standard 1 inch pipe tee, a 1.5 inch union mounting, or immersion hardware assembly. Sanitary tri-clamp mounting optional.
4. The built-in electronics of the sensor shall be completely encapsulated and O-ring sealed for protection from moisture and humidity.
5. The sensor shall have an integral temperature sensor to measure temperature independently.
6. The sensor includes a titanium ground electrode (standard) to eliminate ground loop currents in the measuring electrode. 316 SS optional.
7. The sensor shall be the Thermo Scientific AquaSensors AnalogPlus Differential ORP.



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Thermo Scientific AquaSensors AnalogPlus ORP 1.0 Sensor

- **Global support**—with experience that comes from supporting our customers for over 35 years throughout the world, our water quality specialists and customer support teams offer a quick, thorough and professional response to any problem encountered.
- **Focus on user benefits**—we work closely with you to define your needs, and ensure you are using the monitor in a way that improves your bottom line. For more information, contact your local water quality specialists or visit: www.thermoscientific.com/processwater.

AnalogPlus ORP 1.0 Sensor Specifications

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
Operational Environment	PEEK Sensor Head Temperature Range: -5 °C to 95 °C Maximum Pressure: 100 psig @ 95 °C Maximum Flow Rate: 10 ft/second CPVC Sensor Head Temperature Range: -5 °C to 75 °C Maximum Pressure: 85 psig @ 75 °C Maximum Flow Rate: 10 ft/second
Construction	Process Electrodes: Platinum or gold Ground Rod: Titanium (standard), 316 stainless steel or Hastelloy® C Membrane: FEP Teflon® O-rings: Viton® (other materials available) Sensor Material: PEEK or CPVC Weight: 0.5 lbs (PEEK or CPVC)
Approvals	Meets CE requirements for heavy industrial use

[†]Note: Typical at 25 °C with 20 feet of cable



Thermo Scientific AV88
Universal Analyzer

Connects to any AnalogPlus Sensor using plug-in module.
2 line display and 7 key navigation.

Certified System
Thermo Fisher Scientific
Water Analysis Instruments
Chelmsford, MA USA
Quality Management System
Registered to ISO 9001

AnalogPlus ORP 1.0 Sensor Ordering Information

Part No.	Description
SR-b-t-x-y-z-u	ORP 1.0 Sensor
Body Material (b)	2 = CPVC 3 = PEEK
Electrode Type (t)	1 = Platinum 2 = Gold
Sensor Tip (x)	A = Protected B = Process flat
Temperature Element (y)	8 = NTC300/P99 analyzer 9 = PT1000/AV88 analyzer
Ground Rod (z)	D = 316 stainless steel E = Titanium (standard) F = Hastelloy C
Cable Length (u)	1 = 10 feet 2 = 20 feet 3 = 30 feet

Accessories Ordering Information

Part No.	Description
Local Display Interface	
AV88	Universal analyzer; ¼ DIN, outputs, relays, digital communications options
P99	pH/ORP analyzer; ½ DIN, outputs, relays
Salt Bridge Replacements	
SBS01	PEEK protected
SBS02	PEEK process flat
SBS03	CPVC protected
SBS04	CPVC process flat
SBC01	Storage cap with sponge
ORP Solutions	
RCS04	ORP storage solution, 60 mL bottle
RCS01	Standard cell solution, 60 mL bottle
ORPSOL200	200 mV calibration, 500 mL bottle
ORPSOL600	600 mV calibration, 500 mL bottle
Mounting Hardware	
MH3022	1 inch tee mounting, CPVC
MH3011	1 inch tee mounting, 316 SS
MH3042	1.5 inch union mounting, CPVC
MH3041	1.5 inch union mounting, 316 SS
MH1112	1.5 inch ball valve, CPVC, low pressure
MH1111	1.5 inch ball valve, 316 SS, low pressure
MH1122	1.5 inch ball valve, CPVC, high pressure
MH1121	1.5 inch ball valve, 316 SS, high pressure
MH1242	Hand rail mounting assembly, swivel/immersion, PVC
MH3083	1 inch immersion mounting with junction box, PVC (7 foot extension is standard)

Consult factory for other sensor mounting options.

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