

# AquaSensors AnalogPlus Toroidal Conductivity Sensor

For challenging process applications

## Thermo Scientific™ AquaSensors™ AnalogPlus™ Toroidal Conductivity Sensor

### Key features

- Toroidal conductivity sensor designed for continuous use in the most demanding industrial applications
- 0 to 2 S/cm measurement range with 1  $\mu$ S/cm resolution
- Offered in PEEK™ for high temperature/sanitary applications
- Offered in CPVC for wide measurement range at the price of many two-electrode sensors
- For use with Thermo Scientific™ AV88 and AquaPro™ Universal Analyzers

### Markets and applications

- Chemical production
- Metal finishing
- Semiconductors
- Pulp and paper
- Food processing
- Pharmaceuticals



- Chemical concentration control
- Leak detection in heat exchangers
- Acid and caustic dilution
- Wet chemical scrubbers
- Cooling towers
- Plating bath control
- Parts cleaning and rinsing
- Pickling bath control
- Waste streams
- Black, white, or green liquor
- Pulp bleaching
- Vegetable rinsing

AquaSensors AnalogPlus Toroidal Conductivity Sensor



## Engineering specifications

1. The toroidal conductivity sensor has a diameter of 1.5 inches. It exhibits 1  $\mu\text{S}/\text{cm}$  resolution and measures up to 2 S/cm at 25°C. The sensor body has a tightly controlled wall thickness to help prevent cracking with heating and cooling cycles.
2. Hex-shaped wrench flats to facilitate mounting and are constructed of a material with exceptional chemical resistance and mechanical strength. This material enables 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 has  $\frac{3}{4}$  inch NPT threads to mount into a standard 2 inch union mounting, 2 inch ball valve or immersion hardware assembly. Tri-clamp sanitary mounting also available.
4. The built-in electronics of the sensor completely encapsulated and O-ring sealed for protection from moisture and humidity.
5. The sensor has an integral temperature sensor to automatically compensate measured values for changes in process temperature.

## Product specifications

AquaSensors AnalogPlus Toroidal Conductivity Sensor	
Measurement system performance*	Range: 0 to 2,000,000 $\mu\text{S}/\text{cm}$ (2 S/cm)
	Resolution: 4 or 5 significant digits
	Accuracy: 0.1% of reading
Operational equipment	<b>PEEK sensor head</b>
	Temperature range: -5°C to 200°C
	Maximum pressure: 200 psig @ 100°C
	Maximum flow rate: 10 ft/second
	<b>CPVC sensor head</b>
Construction	Temperature range: -5°C to 75°C
	Maximum pressure: 100 psig @ 75°C
	Maximum flow rate: 10 ft/second
	Sensor Material: PEEK or CPVC
	Temperature element: PT1000
Approvals	O-rings: Viton™
	Weight: 0.5 lbs. (PEEK or CPVC)
	Meets CE requirements for heavy industrial use

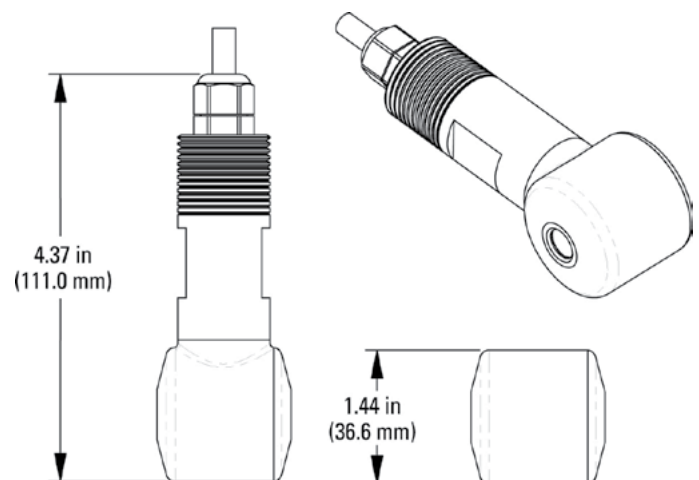
\*Note: Typical at 25°C with 20 feet of cable



### AquaSensors AV88 Universal Analyzer

Connects to any AnalogPlus sensor using plug-in module. 2 line display and 7 key navigation. Data reporting with up to 2 current outputs. 2 Form C relays.

## Engineering drawing



## AquaSensors AnalogPlus Toroidal Conductivity 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 helps improve your bottom line. For more information, contact your local water quality specialists or visit: [thermofisher.com/water](https://thermofisher.com/water)

## Ordering information

### AquaSensors AnalogPlus Sensor

Description	Cat. No.		
Conductivity sensor	ST-b-u-m		
Body material (b)	2	=	CPVC
	3	=	PEEK
Cable length (u)	1	=	10 feet
	3	=	30 feet
Mounting options (m)	B	=	2" sanitary tri-clamp
	C	=	¾" NPT

## Accessories ordering information

### AquaSensors AnalogPlus Sensor accessories

Description	Cat. No.
<b>Conductivity solutions - 500 mL bottles</b>	
1000 µS/cm calibration solution	SOL1000
2000 µS/cm calibration solution	SOL2000
5000 µS/cm calibration solution	SOL5000
<b>Mounting hardware</b>	
2.0 Inch union mounting, CPVC	MH3032-T
inch immersion mounting with junction box, PVC (7 foot extension is standard)	MH3083-T

Consult factory for additional configurations and accessories

Find out more at [thermofisher.com/water](https://thermofisher.com/water)