AquaSensors AnalogPlus Conductivity/Resistivity Sensors

High Temperature and Pressure Boiler Condensate Design

For challenging process applications

Thermo Scientific™ AquaSensors™ AnalogPlus™ Conductivity/Resistivity Sensor - high temperature and pressure

Key features

- Two-electrode conductivity sensors designed for continuous use in the most demanding boiler and pure water applications
- Versatile process mounting with 3/4” NPT threads for mounting in a standard tee or weldolet fitting in the side of a pressurized vessel.
- 0 to 2000 µS/cm measurement range (1.0 cell)
- 0 to 500 µS/cm measurement range (0.10 cell)
- 316 Stainless Steel electrodes with PEEK™ insulators (0.10 and 1.0 cell constants)
- Pt1000 RTD temperature compensation element
- Designed for up to 300 psi (2068 KPa) @ 392°F (200°C)

Markets and applications

- Boiler Monitoring
- Condensate Monitoring
- Reverse Osmosis Filtration
- Rinse Water
- Semiconductor
- Power Generation
- Metal Finishing
- Distilled Water

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Engineering specifications

1. The two-electrode contacting conductivity sensor has enhanced performance design characteristics and is designed for monitoring boiler water and condensate in return lines:

   – Manufactured to exacting tolerances using high quality, durable materials.

   – Include a Pt1000 RTD temperature compensation element for fast response to changes in process temperature with ± 0.1ºC accuracy.

   – Tested to exacting standards, ensuring highest possible measurement accuracy.

2. The sensor measures from pure water values up to 2,000 µS/cm. Ranges include 0-500 µS/cm (for 0.10 cell) and 0-2000 µS/cm (for 1.0 cell).

3. The boiler/condensate style sensor has 316 stainless steel electrodes with PEEK insulators, a nominal cell constant of 0.10 or 1.0, and a 3/4-inch NPT threaded 316 stainless steel body.

4. The boiler/condensate style sensor fastens into a pressurized boiler wall using a 3/4-inch weldolet, or mount into a process line using a standard 3/4-inch stainless pipe tee.

5. The sensor comes with a choice of extension cable lengths from 3 m (10 ft.), with transmission distances up to 300 ft (91 m) via extension cable to any Thermo Scientific analyzer/controller.

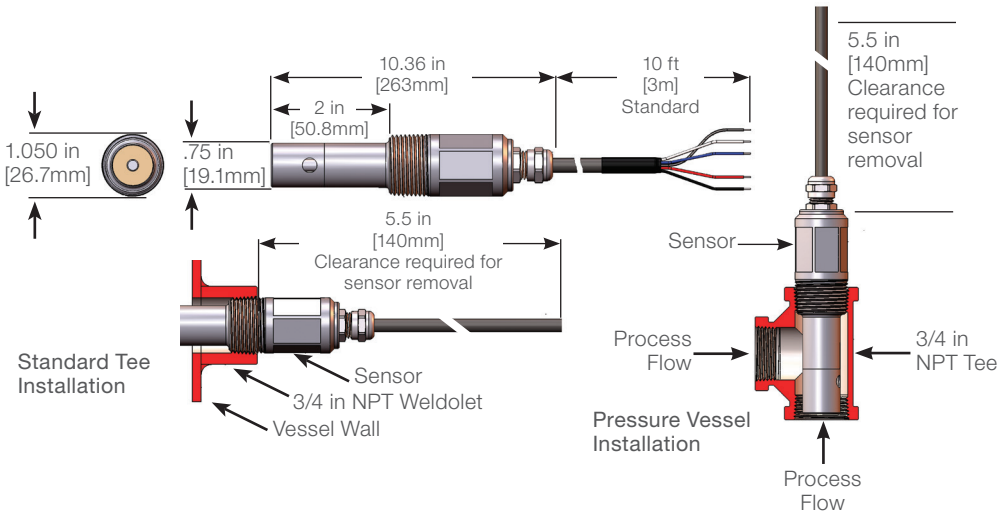
6. The sensor is the AquaSensors AnalogPlus Model.

Product specifications

AquaSensors AnalogPlus Conductivity/Resistivity Sensors	
Available cell constants	1.00 and 0.10
Operating temperature	-4°F to 392°F (-20°C to 200°C)
Maximum operating pressure	300 psi @ 392°F (2,068 KPa @ 200°C)
Maximum flow rate	10 ft/sec (3 m/sec)
Measuring range	0 to 2000 µS/cm
Resolution	4 or 5 significant digits
Temperature sensor	PT1000 RTD Temperature Element
Wetted materials	Sensor body: 316 stainless steel
	Electrodes: 316 stainless steel
	Insulator: PEEK
	Seals: Viton™
Standard sensor cable length	10 ft (3 m)
Maximum transmission distance	300 ft (91 m)

AquaSensors AV88 AnalogPlus 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



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AquaSensors AnalogPlus Conductivity/Resistivity 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: **thermofisher.com/water**

AquaSensors AnalogPlus Conductivity/Resistivity Sensor

Model number

BC Contacting conductivity sensor in 3/4-inch NPT boiler bodies. 316 Stainless steel electrodes. Cable connects to any AV88 universal analyzer, Alpha COND 2000W analyzer or most compatible conductivity analyzers. Integral temperature element for compensation.

Body type
1¾ Inch NPT thread (boiler cell)

Reserved category

Cell constant
A 0.1 Cell constant (500 µS/cm range)
B 1.0 Cell constant (2000 µS/cm range)

Reserved category

Cable length
10 10 feet
30 30 feet

BC		2		1	AnalogPlus contacting conductivity Cat. No.

Ordering information

AquaSensors AnalogPlus Conductivity/Resistivity Sensor Analyzers

Description	Cat. No.
AV88 universal analyzer	
2 outputs, 2 relays, PID. AC power. ¼ DIN	AV88CB0C2
Alpha COND 2000W analyzer	
2 outputs, 3 relays. AC power. ½ DIN	TSCONCTP2000W
1000 µS/cm, Conductivity calibration solution, 500 mL bottle	SOL1000
2000 µS/cm, Conductivity calibration solution, 500 mL bottle	SOL2000
Mounting hardware	
Junction box: For extension cables. Terminal strip included	JBOXX01
Extension cable: AnalogPlus extension cable	APECxx; xx=ft

Other conductivity sensors and mounting hardware options available upon request. Consult factory for details.

Australia: (613) 9757-4300 **In Australia:** (1300) 735-295 **China:** (86) 21-6865-4588
Germany: (49) 6184-90-6321 **India:** (91) 22-4157-8800 **Japan:** (81) 045-453-9175
North America: 1-978-232-6000 Toll Free: 1-800-225-1480 **Singapore:** (65) 6778-6876

Find out more at **thermofisher.com/water**

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