

Thermo Scientific Orion 2002SS and 2002CC Conductivity Cells

Wide range of conductivity applications

We offer superior performance across a wide range of conductivity applications — to ensure optimum results with the confidence you have come to expect. Let us show you how to protect your most critical and expensive equipment with peace of mind and minimal maintenance.



Markets:

- Power Generation
- Pulp and Paper
- Semiconductor
- Process Water
- Industrial Water
- Drinking Water
- Pharmaceutical

Applications:

- Bottled Water and Municipal Water
- Boiler Chemistry
- Cooling Tower
- Manufacturing
- Steam/Condensate
- Fabrication
- Water for Injection
- Electroplating

As water is the universal solvent, it is used across a multitude of industrial processes. Conductivity measurements are an essential measurement for most industrial processes, from ultra pure water to final treatment applications. The measurement of specific conductivity related to impurities in an aqueous solution related to the concentration of dissolved chemicals is becoming increasingly more important for efficient process control. The mobility and valence of the ions in solution have an effect on the conductivity. Most ionic solutions will exhibit a linear increase in conductivity with a rise in temperature; however ultra pure water with specific compounds requires special compensation to obtain accurate results. Our industrial line of conductivity probes and monitors are designed for durability, reliability and high performance results every time.

Our Thermo Scientific™ Orion™ 2002SS 2-electrode conductivity cell is stainless steel, with a cell constant of 0.1 cm^{-1} . This sensor, with its low cell constant value, is designed to provide high accuracy in low conductivity, ultra pure water and pure water samples in a process environment. Built with 316 stainless steel, this high purity sensor provides months of accurate measurements with virtually no maintenance between calibrations.

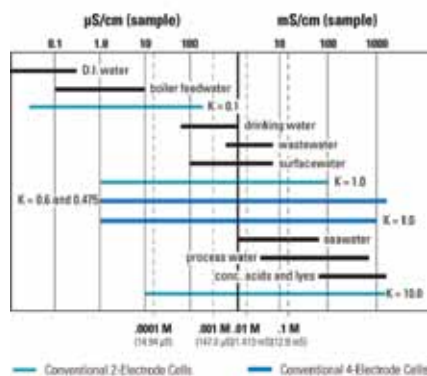
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Product Information

2002CC Conductivity Cell

The 2002CC 4-electrode conductivity cell is an epoxy body sensor, with a cell constant of 0.475 cm^{-1} . This sensor is ideal for high and standard conductivity samples across a variety of industrial applications. The 4-electrode design compensates for the electrode fouling, cable and connector resistance, and polarization errors. The epoxy/graphite cell material is extremely durable and chemically resistant.

For more information or to contact your local Thermo Scientific water quality specialist, call 1-800-225-1480 or visit our website at www.thermoscientific.com/processwater.



Typical Operating Ranges of Conductivity Cells

Product Specifications

2-Electrode and 4-Electrode Conductivity Cells

Property	2002CC 2002CC10M	2002SS 2002SS10M
Body Material	Epoxy	Stainless steel
Electrode Type	4-electrode cell	2-electrode cell
Electrode Material	Graphite	Stainless steel
Measuring Range	10 $\mu\text{S/cm}$ to 200 mS/cm	0.01 $\mu\text{S/cm}$ to 300 $\mu\text{S/cm}$
Nominal Cell Constant	0.475 cm^{-1}	0.1 cm^{-1}
Temperature Range	-5 to 100 °C	-5 to 100 °C
Automatic Temperature Compensation	Yes, 30 $\text{k}\Omega$ NTC	Yes, 30 $\text{k}\Omega$ NTC
Maximum Pressure	100 psi (6.9 bar)	100 psi (6.9 bar)
Cable Length	5 meters (16.4 ft) 10 meters (32.8 ft)	5 meters (16.4 ft) 10 meters (32.8 ft)

Ordering Information

Cat. No.	Description
2002AD	Flow cell adaptor for 2002CC
2002CC	Epoxy/graphite 4-electrode conductivity cell with 5 meter cable, includes 1 x 60 mL bottle each of 100 $\mu\text{S/cm}$, 1413 $\mu\text{S/cm}$ 12.9 mS/cm and 111.9 mS/cm conductivity standards
2002CC10M	Epoxy/graphite 4-electrode conductivity cell with 10 meter cable, includes 1 x 60 mL bottle each of 100 $\mu\text{S/cm}$, 1413 $\mu\text{S/cm}$ 12.9 mS/cm and 111.9 mS/cm conductivity standards
2002SS	Stainless steel 2-electrode conductivity cell with 5 meter cable, includes 1 x 60 mL bottle of 100 $\mu\text{S/cm}$ standard
2002SS10M	Stainless steel 2-electrode conductivity cell with 10 meter cable, includes 1 x 60 mL bottle of 100 $\mu\text{S/cm}$ standard
2002FC	Flow cell 2002SS (with adaptors) and 2002CC conductivity cells
011005	111.9 mS/cm conductivity standard, 5 x 60 mL bottles
011006	12.9 mS/cm conductivity standard, 5 x 60 mL bottles
011007	1413 $\mu\text{S/cm}$ conductivity standard, 5 x 60 mL bottles
011008	100 $\mu\text{S/cm}$ conductivity standard, 5 x 60 mL bottles



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

thermoscientific.com/processwater

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