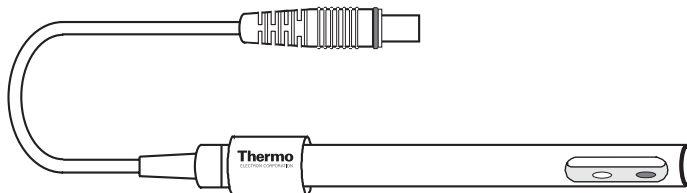


Orion DuraProbe™ Conductivity Cells

Instruction Sheet

013610 and 013660

DuraProbe Conductivity Cells 013610 and 013660 are epoxy, with a cell constant of 0.55 cm⁻¹. They are intended for general field or laboratory use.



Calibration

Periodic calibration in an Orion Conductivity/TDS Standard is recommended. Choose the standard, which is closest to the expected sample value. Calibration frequency depends on sample and measurement conditions. Orion DuraProbe Conductivity Cells require less frequent calibration because the 4-electrode design compensates for the effects of electrode contamination.

Probe Specifications, Service and Use

Specifications are for cell only. See your meter instruction manual for additional service and use instructions.

Model	013610	013660
Body Material	Epoxy	Epoxy
Electrode Type	4 - cell	4 - cell
Electrode Material	Graphite	Graphite
Nominal Cell Constant	0.55 cm ⁻¹	0.55 cm ⁻¹
Connector	8 pin Waterproof DIN	8 pin Waterproof DIN
Conductivity Range	10 µS/cm to 200 mS/cm	10 µS/cm to 200 mS/cm
Temperature Range	-5 to 50°C	-5 to 50°C
Auto. Temp Comp	Yes	Yes
Approx. Fill Volume	N/A	N/A
Cable Length	3 meters	20 meters

Cleaning

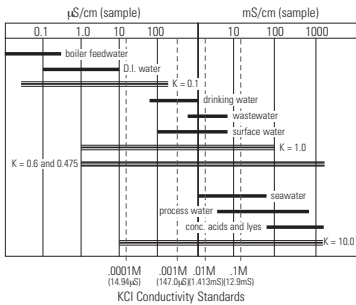
Contaminant	Cleaning Solution	Recommended Time
Water soluble contaminants	Rinse with DI water	No Limit
Lubricants, oil	Warm water and liquid household detergent	No Limit
	Ethanol or acetone	5 min. max
Lime or hydroxide coating	10% Acetic or Hydrochloric acid	No Limit

Rinse off any cleaning agents from cells with copious amounts of water. If contaminants cannot be removed by the above cleaning methods, concentrated acid (such as nitric or acetic) may be used with care, and for limited amounts of time. It is recommended that the cell be recalibrated after cleaning.

Storage

For overnight or longer, conductivity cells should be stored clean and dry. Storage in water is acceptable while in use.

Typical Operating Ranges of Conductivity Cells



Legend
 ===== Conventional 2-Electrode Cells
 ===== DuraProbe 4-Electrode Cells

Chart represents general guidelines for choosing a cell for your application. Performance characteristics of some models may vary. See individual cell specifications, or call Orion Technical Service at 800.225.1480.

Ordering Information

Orion	Description
011006	Conductivity Standard 12.9 mS, five 60 mL bottles
011007	Conductivity Standard 1413 μS, five 60 mL bottles
011008	Conductivity Standard 100 μS, five 60 mL bottles
0162A0	Model 162A Advanced Benchtop Meter, and Cell
0162A2	Model 162A Advanced Benchtop Meter Only
0130A0	Basic Waterproof Conductivity Meter, Handheld, w/ Cell
0130A2	Basic Waterproof Conductivity Meter, Handheld, No Cell
0135A0	Advanced Waterproof Conductivity Meter, Handheld, w/ Cell
0135A2	Advanced Waterproof Conductivity Meter, Handheld, No Cell
011010A	2-Cell Pt/glass, K=1.0, 1M cable, 8 pin WP (waterproof) DIN
011020A	2-Cell Pt/glass, K=0.1, 1M cable, 8 pin WP (waterproof) DIN
011050A	2-Cell Pt/epoxy, K=1.0, 1M cable, 8 pin WP (waterproof) DIN
011510	2-Cell epoxy/graphite, K=1.0, 3M cable, 8 pin DIN
011510A	2-Cell epoxy/graphite, K=1.0, 3M cable, 8 pin WP (waterproof) DIN
013005A	Duraprobe™ 4 Electrode Conductivity Cell, Epoxy/Graphite, 1.5 M Cable, 8 pin WP DIN
013005D	Duraprobe 4 Electrode Cond. Cell, Epoxy/Graphite, 1.5 M Cable, 8 pin DIN
013010A	Duraprobe 4 Electrode Cond. Cell, Epoxy/Graphite, 3 M Cable, 8 pin WP DIN
013010D	Duraprobe 4 Electrode Cond. Cell, Epoxy/Graphite, 3 M Cable, 8 pin DIN
013030A	Duraprobe 4 Electrode Cond. Cell, Epoxy/Graphite, 10 M Cable, 8 pin WP DIN
013030D	Duraprobe 4 Electrode Cond. Cell, Epoxy/Graphite, 10 M Cable, 8 pin DIN
013060A	DuraProbe Conductivity Cell, Epoxy/Graphite, 20 M Cable
013016A	2-Cell Stainless Steel for ultrapure water, K=0.1, 1M cable, 8 pin WP DIN
013016D	2-Cell Stainless Steel for ultrapure water, K=0.1, 1M cable, 8 pin DIN
011220	NIST Traceable Calibration Resistors with 8 pin DIN connectors
011221	NIST Traceable Calibration Resistors with 8 pin waterproof DIN connectors
013045	Protective Sleeve, Stainless Steel, for 013010A, 013030A, 013060A and other Selected Conductivity and Dissolved Oxygen electrodes.
013150A	DuraProbe 4 Electrode Conductivity Cell, Epoxy/Graphite with Stainless Steel Guard, 50 M Cable
013300A	DuraProbe 4 Electrode Conductivity Cell, Epoxy/Graphite with Stainless Steel Guard, 100 M Cable
018020A	Conductivity Cell for conc. samples, K=10, Pt/Glass 1 M Cable, 8 pin WP DIN
018020D	Conductivity Cell for conc. samples, K=10, Pt/Glass 1 M Cable, 8 pin DIN

For additional product information, see the latest version of the Orion Laboratory Products Catalog.

Environmental Instruments

Water Analysis

For updated contact information, visit www.thermo.com

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