

Orion DuraProbe™ Conductivity Cells Instruction Sheet

Orion 013005, 013010, 013030, 013060, 013016, 013020, 013018

DuraProbe Conductivity Cells Orion 013005, 013010, 013030, and 013060 are epoxy, with a cell constant of 0.475. They are intended for general field or laboratory use. Orion Cell 013016 is stainless steel, with a cell constant of 0.1. It is intended for low conductivity or pure water samples. Orion Cell 013020 is glass, with platinum electrodes, and is intended for general laboratory use where a glass body and platinum electrodes are needed. Orion Cell 013018 is an epoxy body flow-through cell, and should be used where conductivity of a flowing sample must be measured.

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.

	Orion 013005, 013010, 013030, 013060	Orion 013016	Orion 013020	Orion 013018
Body Material	Epoxy	Stainless Steel	Glass	Epoxy
Electrode Type, Material	4, Graphite	2, Stainless Steel	4, Platinum Not Platinized	4, Graphite
Cell Constant	0.475 cm ⁻¹	0.1 cm ⁻¹	1.0 cm ⁻¹	0.8 cm ⁻¹
Connector	8 pin Waterproof DIN	8 pin Waterproof DIN	8 pin Waterproof DIN	8 pin Waterproof DIN
Conductivity Range	1uS/cm to 200 mS/cm	1uS/cm to 200 mS/cm	1uS/cm to 1000 mS/cm	10uS/cm to 20 mS/cm
Temperature Range	-5 to 100 °C	-5 to 100 °C	0 to 100 °C	0 to 60 °C
Auto. Temp. Comp.	Yes	Yes	Yes	Yes
Approx. Fill Volume	n/a	n/a	n/a	7.5 mL
Cable Length	013005 - 1.5 M 013010 - 3 M 013030 - 10 M 013060 - 20 M	1 M	1 M	1 M Use Cable 013025

Cleaning

Contaminant	Cleaning Solution	Recommended Time	Recommended Time	Recommended Time
- Water soluble contaminants	- Rinse with distilled water	Epoxy Cells No Limit	Stainless Steel Cells No Limit	Glass Cell No Limit
- Lubricants, oil	- Warm water and liquid household detergent - Ethanol or acetone	No Limit 5 min. max.	No Limit 5 min. max.	No Limit No Limit
- Lime or hydroxide coating	-10% Acetic or Hydrochloric Acid	No Limit	No Limit	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.

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Storage

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

Conductivity Probe, Meter and Accessory Ordering Information

Orion	Description
012800	Conductivity Meter Kit, HH
012802	Conductivity Meter Kit, HH, No Probe
013000	Conductivity Meter Kit, HH
013002	Conductivity Meter Kit, HH, No Probe
013500	Conductivity Meter Kit, HH, 110V
013501	Conductivity Meter Kit, HH, 220V
013502	Conductivity Meter Kit, HH, No Probe or Line Adapter.
013010	DuraProbe™ Conductivity Cell, Epoxy/Graphite, 3 M Cable
013030	DuraProbe Conductivity Cell, Epoxy/Graphite, 10 M Cable
013060	DuraProbe Conductivity Cell, Epoxy/Graphite, 20 M Cable
013016	Conductivity Cell, Ultrapure Water, Stainless Steel
013017	Flow-Thru Cell, Glass, for 013016 and 014016 Cells
013044	Protective Sleeve, Stainless Steel, for 013010, 013030, 013060 and other selected conductivity and dissolved oxygen cells.
080044	Protective Sleeve, Plastic, for 013010, 013030, 013060 and other selected conductivity and dissolved oxygen cells.
013020	DuraProbe Conductivity Cell, Glass/Platinum, 4 Elec., K=1
013018	DuraProbe Conductivity Cell, Flow -Thru, 4 Elec., Epoxy/Graphite, K=0.8.
013020	Cable, 8 pin DIN to 7 pin DIN, for 013018, 018016 cells to 8 pin WP DIN meters.
010030	Electrode Holder, replacement for Conductivity and pH Field Kits
080022	Line Adapter, 110V, for Orion 135, 835, 265, 862
080023	Line Adapter, 220V, for Orion 135, 835, 265, 862

Environmental Instruments

Water Analysis

For updated contact information, visit www.thermo.com

North America

166 Cummings Center
Beverly, MA 01915 USA
Tel: 978-232-6000
Dom. Fax: 978-232-6015
Int'l. Fax: 978-232-6031

Europe

12-16 Sedgeway Business Park
Witchford, Cambridgeshire
England, CB6 2HY
Tel: 44-1353-666111
Fax: 44-1353-666001

Far East

Room 904, Federal Building
369 Lockhart Road
Wanchai, Hong Kong
Tel: 852-2836-0981
Fax: 852-2834-5160

Customer Support

Toll Free: 800-225-1480
www.thermo.com
Dom. e-mail: domcs1@thermoorion.com
Int'l. e-mail: intcs1@thermoorion.com