



Thermo Scientific Orion
Solutions, Standards and Buffers



The high-quality solutions you need
for electrochemistry measurement

Thermo
SCIENTIFIC

High-quality solutions deliver correct measurements every time

Whether in the laboratory or in the field, you need to be able to rely on your pH, ion concentration, conductivity, redox potential and dissolved oxygen measurements. Using high-quality solutions to calibrate and maintain your sensors is the best way to ensure your data is both accurate and reproducible. Using low-quality, home-made, or expired buffers can lead to measurement errors, which require lengthy troubleshooting, or even worse – can go unnoticed. By insisting on high-quality solutions, you are eliminating one of the major causes of measurement inaccuracy.

Don't take chances with your measurements!

Solutions for every application

Thermo Scientific™ Orion™ Solutions, Standards and Buffers include:

- Orion pH Buffers, Sensor Maintenance Solutions, and Fill Solutions
- Orion ORP Standards
- Orion ISE Calibration Standards, Ionic Strength Adjusters, Reagents and Fill Solutions
- Orion Conductivity Standards
- Orion Polarographic Dissolved Oxygen Solutions

Perfectly designed to work together

Orion solutions are an essential part of the entire Orion portfolio of electrochemistry measurement products.

Whether you are in the lab or in the field, you can be confident that your Orion benchtop and portable meters, electrodes, accessories and solutions will deliver the accuracy and repeatable measurements you need, every time.



Manufactured with quality in mind

Thermo Scientific Orion electrochemistry solutions are manufactured for accuracy and repeatability to the highest quality standard in the industry. Orion solutions are produced in controlled batches using ultrapure water that satisfies USP requirements for purified water and undergo rigorous quality testing throughout the process to prevent contamination before and after bottling. Strict quality procedures verify correct bottle labeling and volume, so each batch meets specific lot-release criteria. A pressure-sensitive seal that bonds to the bottle, an outer safety seal and torque-testing ensure the cap is secure and the solutions are free of contamination and tampering.

Accelerated and standard lifetime testing ensures that Orion solutions are within published specifications, do not degrade over time, and remain in usable condition for their entire shelf life. You can trust Thermo Scientific Orion solutions to keep your measurements in check, sample after sample.

Attention to quality ensures accurate and reproducible measurements	Electrochemistry expertise enables solution performance and longevity	Extensive application knowledge results in the right solution for your needs, when you need it
• USP-grade purified water • NIST traceability • Rigorous testing for accuracy and shelf life performance • Manufacturing in the USA under ISO 9001 standards and strict ecological controls	• Solutions formulated exclusively for electrochemistry • Produced using ultra pure water and chemicals • Strict control over manufacturing process • Special handling and packaging when applicable	• All the solutions you will need from one high-quality source • Technical and applications phone support • Quick and timely shipments ensure measurement readiness

NIST Traceability

All Orion pH buffers, ISE and conductivity standards are traceable to NIST standard reference materials, and are labeled with a lot code and expiration date. The NIST materials used for each product are listed on its Certificate of Analysis, along with the method of analysis, lot-specific test data with test tolerances and expiration date (if applicable). Certificates of Analysis and Material Safety Data Sheets (MSDS) are available online: www.thermoscientific.com/waterCoA



Orion pH Buffers and Solutions

We have the pH buffers, storage solutions, cleaning solutions, kits and pH electrode filling solutions for every application. All Orion pH buffers and standards are traceable to NIST reference materials. A wide variety of sizes are available from 15 mL single use pouches to large volume 19 L cubitainers.

pH Buffers in 475 mL (1 Pint) Bottles

Cat. No.	Description
810199	ROSS All-in-One pH Buffer Kit – 475 mL each of pH 4.01, 7.00 and 10.01 buffers; 475 mL of ROSS pH electrode storage solution (810001); 60 mL of pH electrode cleaning solution; and 12 mm diameter electrode storage bottle
910199	Standard All-in-One pH Buffer Kit – 475 mL each of pH 4.01, 7.00 and 10.01 buffers; 475 mL of pH electrode storage solution (910001); and 12 mm diameter electrode storage bottle
910168	pH 1.68 buffer, NIST traceable, 475 mL
910104	pH 4.01 buffer, color coded red, NIST traceable, 475 mL
910105	pH 5.00 buffer, color coded orange, NIST traceable, 475 mL
910686	pH 6.86 buffer, DIN standard, NIST traceable, 475 mL
910107	pH 7.00 buffer, color coded yellow, NIST traceable, 475 mL
910918	pH 9.18 buffer, DIN standard, NIST traceable, 475 mL
910110	pH 10.01 buffer, color coded blue, NIST traceable, 475 mL
910112	pH 12.46 buffer, NIST traceable, 475 mL

pH Buffers 5-Pack (60 mL/2 oz. ea.)

Cat. No.	Description
916099	All-in-One 60 mL pH Buffer Kit – 60 mL each of pH 4.01, 7.00 and 10.01 buffers; 60 mL of pH electrode storage solution (910060); and 60 mL of pH electrode cleaning solution (900024)
9116860	pH 1.68 buffer, NIST traceable, 5 x 60 mL
910460	pH 4.01 buffer, color coded red, NIST traceable, 5 x 60 mL
916860	pH 6.86 buffer, DIN standard, NIST traceable, 5 x 60 mL
910760	pH 7.00 buffer, color coded yellow, NIST traceable, 5 x 60 mL
9191860	pH 9.18 buffer, DIN Standard, NIST traceable, 5 x 60 mL
911060	pH 10.01 buffer, color coded blue, NIST traceable, 5 x 60 mL
911260-WA	pH 12.46 buffer, NIST traceable, 5 x 60 mL

pH Buffers/Rinse Solution Individual-Use Pouches

Cat. No.	Description
910410-WA 910425	pH 4.01 Buffer, Color Coded Red, NIST Traceable Individual use pouches, 10 x 15 mL Individual use pouches, 25 x 15 mL
910710 910725	pH 7.00 Buffer, Color Coded Yellow, NIST Traceable Individual use pouches, 10 x 15 mL Individual use pouches, 25 x 15 mL
911010 911025-WA	pH 10.01 Buffer, Color Coded Blue, NIST Traceable Individual use pouches, 10 x 15 mL Individual use pouches, 25 x 15 mL
911110 911125	pH Electrode Rinse Solution Individual use pouches, 10 x 15 mL Individual use pouches, 25 x 15 mL

pH Buffers in 19 L (5 Gallon) Cubitainers

Cat. No.	Description
9104CB	pH 4.01 buffer, color coded red, NIST traceable, 19 L (5 gallon) cubitainer with easy-pour spout
9107CB	pH 7.00 buffer, color coded yellow, NIST traceable, 19 L (5 gallon) cubitainer with easy-pour spout
9110CB	pH 10.01 buffer, color coded blue, NIST traceable, 19 L (5 gallon) cubitainer with easy-pour spout

Choose the Size to Fit Your Needs

Always have fresh solutions on hand. Our pH buffers come in a variety of sizes to match all applications and uses.



475 mL/1 Pint

bottles for standard laboratory applications and everyday use.



5 x 60 mL

(5 x 2 oz.) Bottles are perfect for field measurements, occasional pH analysis or limited lab space.



15 mL Individual-

Use Pouches ensure buffer integrity and are ideal for field use, pharmaceutical applications, or infrequent measurements.



19 L (5 Gallon)

Cubitainers are excellent for large laboratories and multiple users.

pH and ROSS pH Electrode Storage and Cleaning Solutions

Cat. No.	Description
810001	ROSS pH Electrode Storage Solution – 475 mL
910001	pH Electrode Storage Solution
910060	475 mL
9100CB	5 x 60 mL
900020	 pH Electrode Cleaning Kit – 30 mL of cleaning solution A and C, 60 mL of cleaning solution B and D, beaker and pipet
900021-WA	 pH electrode cleaning solution A for protein removal, 4 x 30 mL, beaker and pipet
900022-WA	pH electrode cleaning solution B for bacteria removal, 4 x 60 mL, beaker and pipet
900023	 pH electrode cleaning solution C for general cleaning, 4 x 30 mL, beaker and pipet
900024	pH electrode cleaning solution D for general cleaning and oil and grease removal, 4 x 60 mL, beaker and pipet
510015	Stain lifter solution for no cal fill solution and ORP standard stain removal, 60 mL

pH Specialty Solutions

Cat. No.	Description
700001	Pure Water Low Ionic Strength pH Test Kit – 4 x 475 mL of pH 6.97 buffer, 2 x 475 mL of pH 4.10 buffer, 2 x 60 mL of pHISA adjuster and app note
700003	Pure water pHISA low ionic strength adjuster, 5 x 60 mL
700402	Pure water pH 4.10 buffer B for low ionic strength pH samples, 4 x 475 mL
700702	Pure water pH 6.97 buffer A for low ionic strength pH samples, 4 x 475 mL
700902	Pure water pH 9.15 buffer C for low ionic strength pH samples, 4 x 475 mL
700010	Total Alkalinity Test Kit – 475 mL of alkalinity reagent (700011-WA), 475 mL of alkalinity standard (700012), conversion chart and app note
700011-WA	Total alkalinity reagent refill, 4 x 475 mL
700012	Total alkalinity standard/control refill, 475 mL

pH Accessories

Cat. No.	Description
020017	No Cal electrode storage chamber
810017	Storage sleeve and base for 12 mm x 120 mm electrodes
910003	12 mm electrode storage bottles, 3 pack
910004	8 mm electrode storage bottles, 3 pack
910005	Bulb guard for glass pH electrode, 5 pack
910006	6 mm electrode storage bottles, 3 pack



Protect and condition your pH electrode when not in use with the electrode storage sleeve and base.

Make sure you have everything you need by selecting one of our solution kits:

ROSS All-in-One Kit:

Maintain pH electrodes more effectively with this convenient buffer kit. Includes 4.01, 7.00 and 10.01 buffers, ROSS storage solution, cleaning solution and storage bottle.



Standard All-in-One Kit:

Work with ease using this color-coded pH buffer kit. Includes 4.01, 7.00 and 10.01 buffers, storage solution and storage bottle.



Thermo Scientific™ Orion™ Pure Water™ pH Test Kit:

Get fast, accurate pH results in high purity waters such as well, rain, distilled/deionized, boiler feed and process. The kit includes special low ionic strength buffers and pHISA additive that increases sample ionic strength without changing the pH. For best results, a high quality pH electrode such as the ROSS Ultra 8102BNUWP is recommended (purchase separately).



Total Alkalinity Test Kit:

A two-step direct measurement of total alkalinity and pH. Calibrate for pH, add alkalinity reagent and read total alkalinity of 0-200 ppm CaCO_3 from the included pH conversion chart.



ORP Standards

Cat. No.	Description
967901	ORP Standard, +420 mV vs. standard hydrogen electrode (EH), +220 mV vs. Ag/AgCl electrode using 900011 fill solution, 475 mL
967961	ORP Standard, +420 mV vs. standard hydrogen electrode (EH), +220 mV vs. Ag/AgCl electrode using 900011 fill solution, 5 x 60 mL

Never again worry about mixing reagents, hazardous chemical exposure or disposal. Our premixed ORP standards have produced great results in ASTM round-robin testing and are specified in ASTM Method D1498. Where standards based on quinhydrone are only good for one day and those based on Zorbell's solution are only good for one year, the stability of our ORP standard gives it a two-year shelf-life.



Electrode Fill Solutions

Cat. No.	Description	Use With Electrodes
810007	ROSS electrode fill solution, 3 M KCl, 5 x 60 mL	ROSS Ultra, ROSS and Micro ROSS Electrodes 800300, 800500U, 8102BN, 8102BNWP, 8103BN, 8103BNWP, 8104BN, 8104BNWP, 8115BN, 8115BNWP, 8135BN, 8135BNWP, 815600, 8156BNWP, 8157BNU, 8157BNUMD, 8157UWMMMD, 8163BNWP, 8165BNWP, 8172BNWP, 8175BNWP, 8220BNWP, 8302BNUMD
900011	Silver Chloride pH electrode fill solution, 4 M KCl with Ag/AgCl, 5 x 60 mL	Standard, Specialty, Single Junction Refillable Green, Micro and ORP Electrodes 9102BNWP, 9103BNWP, 9104BNWP, 9156BNWP, 9157BN, 9157BNMD, 9162BNWP, 9165BNWP, 9172BNWP, 9180BN, 9180BNMD, 9678BNWP, 9778BNWP, 9780SC, 9810BN, 9826BN, 9863BN, GS9156BNWP
900004	Silver Chloride pH electrode (low level) fill solution, 2 M KCl with Ag/AgCl, 5 x 60 mL	Standard, Specialty, Single Junction Refillable Green, Micro and ORP Electrodes (low ionic strength samples) 9102BNWP, 9103BNWP, 9104BNWP, 9156BNWP, 9157BN, 9157BNMD, 9162BNWP, 9165BNWP, 9172BNWP, 9180BN, 9180BNMD, 9678BNWP, 9778BNWP, 9780SC, 9810BN, 9826BN, 9863BN, GS9156BNWP
910008-WA	Double junction pH electrode fill solution, 3 M KCl, 5 x 60 mL	Double Junction, Double Junction Refillable Green and KNiPHE Electrodes 9102DJWP, 9110DJWP, 9120APWP, GD9156BNWP
510011	No Cal pH electrode fill solution, 5 x 60 mL	No Cal Electrodes 5107BNMD, 5107NC
900001	Single junction reference electrode fill solution, equitransferent solution with Ag/AgCl, 5 x 60 mL	Single Junction Reference Electrode 900100
900002	Double junction reference electrode inner fill solution, equitransferent solution with Ag/AgCl, 5 x 60 mL	Double Junction Reference Electrode 900200
900003	Double junction reference electrode outer fill solution, 10 % KNO ₃ , 5 x 60 mL	Double Junction Reference Electrode 900200

ISE Calibration Standards, Ionic Strength Adjusters, Reagents and Fill Solutions

Our solutions are known for delivering accurate and reproducible ISE measurement results. We test our Orion ISE solutions using the measurement equipment and ISE it is made for. Ensure the integrity of your ISE measurements by pairing your high quality electrodes with our high quality solutions.

No matter what ion measurement you require, we have the solutions you need. Our high-quality ISE standards and ionic strength adjusters are available in a variety of ion-types and are essential to obtaining reliable measurements.

Cat. No.	Description
Ammonia for 9512BNWP Standard and 9512HPBNWP High Performance Electrodes	
951006	0.1 M NH_4Cl Ammonia standard, 475 mL
951007	1000 ppm Ammonia as Nitrogen (N) standard, 475 mL
951207	100 ppm Ammonia as Nitrogen (N) standard, 475 mL
951211 	Ammonia Ionic Strength Adjuster (ISA) with pH-indicating blue dye, 475 mL, for samples containing metallic ions
951210 	Ammonia low level Ionic Strength Adjuster (ISA) with pH-indicating blue dye, 475 mL, for samples with no metallic ions
951213	Ammonia electrode storage solution, 475 mL
951209	Ammonia high perform electrode fill solution, 60 mL
951202	Ammonia standard electrode fill solution, 60 mL
Ammonium Solutions for 931801 Module, 9300BNWP Handle & 900200 Reference Electrode	
951007	1000 ppm Ammonium as Nitrogen (N) standard, 475 mL
900018-WA	Ammonium electrode fill solution, 5 x 60 mL
Bromide Solutions for 9635BNWP Combination or 9435BN & 900200 Half-cell Electrodes	
943506	0.1 M NaBr Bromide standard, 475 mL
940011	Bromide Ionic Strength Adjuster (ISA), 475 mL
900063	Optimum results D fill solution, 5 x 60 mL
Cadmium Solutions for 9648BNWP Combination or 9448BN & 900200 Half-cell Electrode	
940011	Cadmium Ionic Strength Adjuster (ISA), 475 mL
900061	Optimum results A fill solution, 5 x 60 mL
Calcium Solutions for 9720BNWP Combination or 9320BN & 900100 Half-cell Electrodes	
922006	0.1 M CaCl_2 Calcium standard, 475 mL
923206	100 ppm as CaCO_3 Calcium standard, 475 mL
932011	Calcium Ionic Strength Adjuster (ISA), 475 mL
900061	Optimum results A fill solution, 5 x 60 mL

We have the Ammonia ISA solutions for your application needs. Our ISA solutions are formulated with a pH-indicating blue dye and are available in a low-level formulation for clean waters and a formulation for waters that may contain metallic ions.

Cat. No.	Description
Carbon Dioxide Solutions for 9502BNWP Electrode	
950206	0.1 M NaHCO_3 Carbon Dioxide standard, 475 mL
950207	1000 ppm as CaCO_3 Carbon Dioxide standard, 475 mL
950210	Carbon Dioxide Ionic Strength Adjuster (ISA), 475 mL
950202	Carbon Dioxide electrode fill solution, 60 mL
Chloride Solutions for 9617BNWP Combination or 9417BN & 900200 Half-cell Electrodes	
941706	0.1 M NaCl Chloride standard, 475 mL
941708	1000 ppm Chloride standard, 475 mL
941707	100 ppm Chloride standard, 475 mL
940011	Chloride Ionic Strength Adjuster (ISA), 475 mL
941709 	Chloride Complexation Ionic Strength Adjuster (CISA) reagent pack, 2 x 1 L
900062	Optimum results B fill solution, 5 x 60 mL
900017	Chloride electrode fill solution, 5 x 60 mL
Chlorine, Residual Solutions for 9770BNWP Electrode	
977007	100 ppm as Cl_2 Residual Chlorine standard, 475 mL
977011 	Residual Chlorine acid reagent, 475 mL
977010	Residual Chlorine iodide reagent, 5 x 50 mL
Cupric Solutions for 9629BNWP Combination or 9429BN & 900200 Half-cell Electrodes	
942906	0.1 M $\text{Cu}(\text{NO}_3)_2$ Cupric standard, 475 mL
940011	Cupric Ionic Strength Adjuster (ISA), 475 mL
900063	Optimum results D fill solution, 5 x 60 mL
Cyanide Solutions for 9606BNWP Combination or 9406BN & 900200 Half-cell Electrodes	
951011 	Cyanide alkaline reagent, 10 N NaOH , 475 mL
900062	Optimum results B fill solution, 5 x 60 mL
Fluoride Solutions for 9609BNWP Combination or 9409BN & 900100 Half-cell Electrodes	
940906	0.1 M NaF Fluoride standard, 475 mL
940907	100 ppm Fluoride standard, 475 mL
040908	10 ppm Fluoride standard premixed with TISAB II, color coded blue, 475 mL
040907	2 ppm Fluoride standard premixed with TISAB II, color coded red, 475 mL
040906	1 ppm Fluoride standard premixed with TISAB II, color coded green, 475 mL
940916	Fluoride Standard Bulk Pack – 4 x 475 mL each of 1 ppm Fluoride standard premixed with TISAB II (040906) and 10 ppm Fluoride standard premixed with TISAB II (040908)
940909	TISAB II for Fluoride ISE, 1 gallon
940999	TISAB II for Fluoride ISE, 4 x 1 gallon
940911	TISAB III (concentrated) for Fluoride ISE, 475 mL
900061	Optimum results A fill solution, 5 x 60 mL

Cat. No.	Description
Fluoroborate Solutions for 9305BN & 900200 Half-cell Electrodes	
930711	Fluoroborate Ionic Strength Adjuster (ISA), 475 mL
Iodide Solutions for 9653BNWP Combination or 9453BN & 900200 Half-cell Electrodes	
945306	0.1 M NaI Iodide standard, 475 mL
940011	Iodide Ionic Strength Adjuster (ISA), 475 mL
900063	Optimum results D fill solution, 5 x 60 mL
Lead Solutions for 9682BNWP Combination or 9482BN & 900200 Half-cell Electrodes	
948206	0.1 M Pb(ClO ₄) ₂ Lead standard, 475 mL
900062	Optimum results B fill solution, 5 x 60 mL
Nitrate Solutions for 9707BNWP Combination or 9307BNWP & 900200 Half-cell Electrodes	
920706	0.1 M NaNO ₃ Nitrate standard, 475 mL
920707	1000 ppm Nitrate as Nitrogen (N) standard, 475 mL
930707	100 ppm Nitrate as Nitrogen (N) standard, 475 mL
930711	Nitrate Ionic Strength Adjuster (ISA), 475 mL
930710	Nitrate Interference Suppressor Solution (NISS), 475 mL
900046	Optimum results F fill solution, 5 x 60 mL
Nitrite Solutions	
954606	0.1 M NaNO ₂ Nitrite standard, 475 mL
934610	Nitrite interference suppressor solution, 475 mL
900046	Optimum results F fill solution, 5 x 60 mL
Nitrogen Oxide Solutions	
954606	0.1 M NaNO ₂ Nitrogen Oxide standard, 475 mL
956410	 Nitrogen Oxide acid buffer, 475 mL
954602	Nitrogen Oxide electrode fill solution, 50 mL
Perchlorate Solutions	
930711	Perchlorate Ionic Strength Adjuster (ISA), 475 mL

Cat. No.	Description
Potassium Solutions for 9719BNWP Combination or 9319BN & 900200 Half-cell Electrodes	
921906	0.1 M KCl Potassium standard, 475 mL
931911	Potassium Ionic Strength Adjuster (ISA), 475 mL
900065	Optimum results E fill solution, 5 x 60 mL
Silver Solutions for 9616BNWP Combination or 9416BN & 900200 Half-cell Electrodes	
940011	Silver Ionic Strength Adjuster (ISA), 475 mL
900062	Optimum results B fill solution, 5 x 60 mL
900067	Optimum results C fill solution (when sample temperatures vary), 5 x 60 mL
Sodium Solutions for 8611BNWP Combination or 8411BN & 800300 Half-cell Electrodes	
941706	0.1 M NaCl Sodium standard, 475 mL
841108	1000 ppm Sodium standard, 475 mL
941107	100 ppm Sodium standard, 475 mL
941105	10 ppm Sodium standard, 475 mL
841111	Sodium Ionic Strength Adjuster (ISA), 475 mL
841113	Sodium electrode reconditioning solution, 475 mL
841101	Sodium electrode storage solution, 475 mL
650700	Sodium KAP Analysis Kit – 3 x 475 mL of 1 M NaCl with ISA and 475 mL of Sodium ISA (841111)
841109	Sodium KAP standard, 1000 ppm with ISA, 475 mL
900010	Sodium electrode fill solution, 5 x 60 mL
900012	Sodium electrode (low level) fill solution, 5 x 60 mL
900004	Sodium micro electrode fill solution, 5 x 60 mL
Sulfate Solution for 9682BNWP Lead Electrode	
948207	0.1 M Na ₂ SO ₄ sulfate standard for lead electrode, 475 mL

Low level standards have the added convenience of being pre-made into popular concentrations without the need for extra dilution. Our Fluoride standards are pre-made with total ionic strength adjustor buffer (TISAB) and requiring the TISAB be added only to your samples. TISAB II requires a 50:50 dilution with the sample and is available in gallon bottles. TISAB III is a concentrate that requires a 1:10 dilution.



Cat. No.	Description
Sulfide Solutions for 9616BNWP Combination or 9416BN & 900200 Half-cell Electrodes	
941609 	Sulfide SAOB reagent pack, 4 x 475 mL
900061	Optimum results A fill solution for Sulfide electrode (when sample temperatures vary), 5 x 60 mL
900062	Optimum results B fill solution for Silver/Sulfide electrode, 5 x 60 mL
Surfactant Solutions for 9342BN & 900200 Half-cell Electrodes	
654202	0.01 M SLS Surfactant standard, 1 x 60 mL
654201	0.05 M hyamine Surfactant titrant, 475 mL
654205	Non-ionic Surfactant titrant, 475 mL
654203	Surfactant sample additive, tritonX-100, 475 mL
810007	Surfactant electrode fill solution, 5 x 60 mL

Cat. No.	Description
Thiocyanate Solutions for 9458BN & 900200 Half-cell Electrodes	
940011	Thiocyanate Ionic Strength Adjuster (ISA), 475 mL
Water Hardness Solutions	
922006	0.1 M CaCl ₂ Water Hardness standard, 475 mL
923206	100 ppm as CaCO ₃ Water Hardness standard, 475 mL

 Signifies a hazardous solution.

ISE Accessories, Membranes and Modules

A full line of supporting accessories is offered to meet your measurement needs. Replacement modules are available individually or in convenient three-packs.

Cat. No.	Description
948201	Polishing strips for solid state electrodes
Ammonia, High Performance (9512HPBNWP, 9512HP01)	
951214	20 loose membranes
951215	3 pre-assembled bodies and membrane caps
Ammonia, Standard (9512BNWP, 951201)	
951204	20 loose membranes
951205	3 bonded membranes
Carbon Dioxide (9502BNWP)	
950204	4 membranes with o-rings
Nitrogen Oxide (9546BN)	
954604	20 loose membranes
950015	Spare electrode parts kit
97 Series Plastic Membrane Calcium, Nitrate and Potassium Combination Electrode Accessories	
9700BNWP	97 series electrode body with waterproof BNC connection
972001	Replacement module for calcium combination electrode (9720BNWP)
970701	Replacement module for nitrate combination electrode (9707BNWP)
971901	Replacement module for potassium combination electrode (9719BNWP)

Cat. No.	Description
93 Series Plastic Membrane Ammonium, Calcium, Chloride, Fluoroborate, HF Resistant pH, Nitrate, Perchlorate, Potassium and Water Hardness Half-Cell Electrode Accessories	
9300BNWP	93 series electrode body with waterproof BNC connection
930000	93 series electrode body with U.S. standard connection
9300SC	93 series electrode body with screw cap, separate cable required
900100	Single junction reference electrode with pin tip connection
900200	Double junction reference electrode with pin tip connection
931801	Replacement module for ammonium half-cell electrode
932001	Replacement module for calcium half-cell electrode (9320BN)
930501	Replacement module for fluoroborate half-cell electrode (9305BN)
930702	Replacement module for nitrate half-cell electrode (9307BNWP)
930701	Replacement modules (3) for nitrate half-cell electrode (9307BNWP)
931901	Replacement module for potassium half-cell electrode (9319BN)

Orion Conductivity Standards and Accessories

Our conductivity standards ensure maximum repeatability and accuracy in your conductivity readings. Pouch or bottled packaging ensures that your measurements deliver the results you need, whether you are in the field or in the lab.

Pair your standards with the right accessories for optimal conductivity measurement. Accessories include conditioning solutions, electrode holders, replacement flow cells, and more.

Cat. No.	Description
011008	100 µS/cm conductivity/TDS standard, 5 x 60 mL
01100910	147 µS/cm conductivity standard, 10 pouches
011007	1413 µS/cm conductivity/TDS standard, 5 x 60 mL
01100710	1413 µS/cm conductivity/TDS standard, 10 pouches
011006	12.9 mS/cm conductivity/TDS standard, 5 x 60 mL
01100610	12.9 mS/cm conductivity/TDS standard, 10 pouches
011005	111.9 mS/cm conductivity standard, 5 x 60 mL
01100510	111.9 mS/cm conductivity standard, 10 pouches
990106	0.1 M KCl conductivity standard, 475 mL
011001	Conditioning solution for 011050, 011050A, and 011050MD conductivity cells
1010001	Conductivity calibration resistor kit for Orion Star and Orion Star A Series conductivity meters, MiniDIN
013017	Replacement flow cell for use with 2-electrode conductivity cell for ultra-pure water (Cat. No. 013016A, 013016D, and 013016MD)
080045	Stainless steel and plastic protective probe guard (for 013005MD, 013010MD, 013025MD, 013005A, 013010A, 013030A, 013060A, 013005D, 013010D)
081045	Plastic protective probe guard (for 013005MD, 013010MD, 013025MD, 013005A, 013010A, 013030A, 013060A, 013005D, 013010D)
090044	5 electrode holder (4 X 12 mm and 1 X 15 mm) to be used with 090043 electrode swing arm and 15 mm conductivity cells



Suitable for ultrapure water measurements, our low-level conductivity standards will help you meet your accuracy requirements. Our low-level conductivity standards hold their value, while others can be affected by container and atmospheric contamination. For USP <645> cell constant verification and other critical pure water applications, our standards are the ideal choice.

Orion Polarographic and Optical Dissolved Oxygen Solutions and Accessories

Make sure your dissolved oxygen sensors are always in optimal working condition. Our polarographic dissolved oxygen solution is available in a convenient 60 mL bottle.

Choose from our assortment of dissolved oxygen measurement accessories. Products include calibration sleeves, maintenance kits, BOD adapters, and more.

RDO Optical DO Probe Accessories

Cat. No.	Description
087001	Replacement RDO optical cap
087002	Stainless steel protective probe guard for RDO probes
087003	Calibration sleeve for RDO probes

Polarographic DO Solutions and Accessories

Cat. No.	Description
080513	Maintenance kit, includes electrolyte solution, polishing disk and 2 membrane caps for 083005MD, 083010MD, 083025MD, 083060MD, 086030MD, 083005A, 083010A, 083005D, 086020A, 081010F
080113	Maintenance kit, includes electrolyte solution, polishing disk and 2 membrane caps for 080510MD, 081010MD, 081010
080515	1 membrane cap for 083005MD, 083010MD, 083025MD, 083060MD, 086030MD, 083005A, 083010A, 083005D, 086020A, 081010F
081003	3 membrane caps for 080510MD, 081010MD, 081010
970801	1 pre-filled membrane cap for 970899WP, 970800
080514	Polarographic electrolyte solution for 083005MD, 083010MD, 083025MD, 083060MD, 086030MD, 083005A, 083010A, 083005D, 086020A, 081010F, 080510MD, 081010MD, 081010
080017	Calibration sleeve for all DO probes excluding AUTO-STIR probes and RDO probe
086021A	Calibration chamber/stand for 086020A, 086030MD AUTO-STIR probes
080360	BOD adapter for 083005MD, 083010MD, 083025MD, 083060MD, 083005A, 083010A, 083005D
080160	BOD adapter for 081010MD, 081010
970802	BOD stir funnel for 970899WP, 970800
970803	2 batteries for 970899WP, 970800
080045	Stainless steel and plastic protective probe guard for 080510MD, 083005MD, 083010MD, 083025MD, 083060MD, 083005A, 083005D, 083010A
081045	Plastic protective probe guard for 080510MD, 083005MD, 083010MD, 083025MD, 083060MD, 083005A, 083005D, 083010A



Interested in colorimetry and turbidity measurement? We offer a full range of colorimetry and turbidity measurement solutions. See the Thermo Scientific™ Orion™ AQUAfast™ and Thermo Scientific™ Orion™ AquaMate™ product brochure for details.

Additional Resources

Wide Selection of Quality Electrodes

We offer a wide selection of electrodes, including the Thermo Scientific™ Orion™ ROSS™ pH electrodes, to deliver accurate and reproducible measurements in any application. Our Electrode Selection Guide mobile application will help you find the exact electrode for your application.



www.thermoscientific.com/OrionElectrodes

More Information

From laboratory to field to on-line process, Thermo Scientific Orion liquid measurement products get the job done. We provide a full range of laboratory products, process analyzers and on-line sensors serving markets such as environmental, water and wastewater, power, petrochemical, food and beverage, pharmaceutical and biotechnology.

Visit www.thermoscientific.com/water to learn more.

thermoscientific.com/water

© 2014 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries.

Water Analysis Instruments

North America

Toll Free: 1-800-225-1480
Tel: 1-978-232-6000
info.water@thermo.com

Netherlands

Tel: (31) 020-4936270
info.water.uk@thermo.com

China

Tel: (86) 21-68654588
wai.asia@thermofisher.com

India

Tel: (91) 22-4157-8800
wai.asia@thermofisher.com

Singapore

Tel: (65) 6778-6876
wai.asia@thermofisher.com

Japan

Tel: (81) 045-453-9175
wai.asia@thermofisher.com

Australia

Tel: (613) 9757-4300
in Australia (1300) 735-295
InfoWaterAU@thermofisher.com

Thermo
SCIENTIFIC

A Thermo Fisher Scientific Brand