

Orion pH Electrodes

Orion KNIpHE®



Orion 71-20
KNIpHE pH Electrode
Stainless steel cutting blade surrounding a special combination pH electrode.
(Available as a kit, see key (3) below)
Recommended Use:
For pH determinations in meats and meat by-products where glass electrodes alone may break
Orion #
7120BN(2) (6)
7121BN Replacement KNIpHE pH Electrode
712001 Replacement Blade
712002 Protective Sheath

Orion No Cal®



Orion 51-07/09
Combination electrode with Epoxy Body
Recommended Use:
Use: Field pH measurement where stability and high performance is desired and when a pH electrode that doesn't require calibration is needed
Orion #
5107NC (4)
5109NC (5)
5107BNMD (7)

New

Orion Economy Line



Orion 91-05/06
Combination with epoxy body.
Non-refillable
Recommended Use:
Routine pH for rugged use, schools, field and plant applications.
Orion #
910500 (1)
9106BNWP



Orion 91-35/36
Combination with epoxy body.
Non-refillable. Flat surface
Recommended Use:
Routine pH for food, agar gel plates.
Orion #
913500 (1)
913600 (2)
See also ROSS Ultra® 81-35U on page 5 and AquaPro below



Orion 91-25/26
Combination with epoxy body.
Non-refillable flask electrode
Recommended Use:
Routine pH for use in long-necked flasks and other tall vessels.
Orion #
912500 (1)
912600 (2)



Orion 91-15/16
Combination with epoxy body.
Non-refillable, semi-micro
Recommended Use:
Routine pH for use in test tubes, small samples.
Orion #
911500 (1)
911600 (2)

Orion Tris Calomel Line



Orion 7102BN
Glass-Body Combination Calomel pH Electrode with screw cap connector
Recommended Use:
Routine pH measurements in all biotech samples. Ideal for use with and in Tris-buffers.
Orion #
7102BN (3)
See also ROSS Ultra® 8102BNUWJP on page 3 and AquaPro below



Orion 7103BN
Glass-Body Semi-Micro Combination Calomel pH Electrode with screw cap connector
Recommended Use:
Small samples, test tubes, same as 71-02. Minimum sample volume: 0.2-0.4 mL.
Orion #
7103BN (3)
See also ROSS Ultra® 8103BNUWJP on page 3 and AquaPro below



Orion 7110BN
Glass-Body Micro Combination Calomel pH Electrode with screw cap connector
Recommended Use:
Very small samples, microtiter plates. Same as 71-02. Minimum volume 0.1 mL.
Orion #
7110BN (3)
711002
Micro Flow Cell For 7110BN Calomel pH Electrode
See also Micro Electrodes on page 10

Orion AquaPro Professional



Orion 9102AP
AquaPro Combination Low Maintenance™ double junction with glass body
Recommended Use:
General purpose pH, double junction, no sample contact with Ag.
Orion #
9102AP (1)



Orion 9103APWP
AquaPro Combination Low Maintenance double junction, glass semi-micro
Recommended Use:
Small samples, test tubes. Minimum sample volume 0.2-0.4 mL.
Orion #
9103APWP (1)



Orion 9104APWP
AquaPro Combination Low Maintenance double junction with glass body, "hard nose" bulb
Recommended Use:
Rugged durable lab use, double junction, no sample contact with Ag.
Orion #
9104APWP (1)



Orion 9115APWP
AquaPro Combination Low Maintenance double junction, epoxy semi-micro
Recommended Use:
Small samples, test tubes. Aqueous solutions only. Minimum sample volume 0.2-0.4 mL.
Orion #
9115APWP (1)



Orion 9135APWP
AquaPro Combination Low Maintenance double junction, epoxy flat-surface
Recommended Use:
pH of moist, surface, both solid and semi-solid such as agar gel plates, meats, bread dough and similar samples. Small samples in micro sample dish.
Orion #
9135APWP (1)



Orion 9156APWP
Combination Low Maintenance double junction with epoxy body
Recommended Use:
Routine pH. Rugged durable lab or field use, double junction.
Orion #
9156APWP (1)

Orion Redox/ORP and ORP Triode™



Orion 9179BNMD
Epoxy Low Maintenance ORP Triode
Recommended Use:
Measurement of oxidation/reduction potential and temperature in water/wastewater, metal plating, and biotech.
Orion #
9179BNMD (7)
9179 (1) (8)



Orion 9180BNMD
Epoxy Refillable ORP Triode
Recommended Use:
Measurement of oxidation/reduction potential and temperature in water/wastewater, metal plating, and biotech.
Orion #
9180BNMD (7)
9180 (1) (8)



Orion 9678BNWP
Epoxy Sure-Flow® Combination Redox/ORP
Recommended Use:
For measurement of reduction/oxidation potential and Redox titrations.
Orion #
9678BNWP (1)
967800 (2)



Orion 9778BNWP
Glass Combination Redox/ORP
Recommended Use:
For measurement of reduction/oxidation potential and Redox titrations.
Orion #
9778BNWP (1)
977800 (2)
9778SC (3)

Orion pH Electrode Specifications

Orion KNIpHE®	Orion No	Orion Tris Calomel Line	Orion Double Junction Ag/AgCl Tris Line*			Orion D/J KNIpHE®*			
	71-20	51-07/09	7102BN	7103BN	7110BN	9102DJWP	9110DJWP	9156DJWP	9120APWP
pH Range	0-14	-2.000 to 16.00	0-14	0-14	0-14	0-14	0-14	0-14	0-14
Temp. Range	0-60 °C	0-100 °C	0-90 °C	0-90 °C	0-90 °C	0-60 °C	0-60 °C	0-60 °C	0-60 °C
Internal Ref.	Calomel	Patent pending, Double Junction	Calomel	Calomel	Calomel	Ag/AgCl Double Junction	Ag/AgCl Double Junction	Ag/AgCl Double Junction	Ag/AgCl Double Junction
Junction	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic
Dimensions	215 mm x 25 mm cap dia 16 mm	120 mm x 12 mm	110 mm x 12 mm (5 mm section is 90 mm long, cap dia 16 mm)	210 mm x 7 mm, cap dia 16 mm	150 mm x 5 mm, 7 mm section is 150 mm long, cap dia 16 mm				

Orion Economy Line					
	91-05/06	91-35/36	91-25/26	91-15/16	91-45
pH Range	0-14	0-12	0-12	0-14	0-14
Temp. Range	0-80 °C	0-80 °C	0-80 °C	0-100 °C	0-80 °C
Internal Ref.	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl refillable	Ag/AgCl
Junction	Wick	Wick	Wick	Wick	Wick
Dimensions	120 mm x 12 mm, cap dia 16 mm	110 mm x 12 mm, cap dia 16 mm	165 mm x 6 mm (6mm section is 95mm long)	150 mm x 6 mm	120 mm x 12 mm, cap dia 16 mm

Orion AquaPro Professional							
	9102AP	9103APWP	9104APWP	9107APMD	9115APWP	9135APWP	9156APWP
pH Range	0-14	0-14	0-14	0-14	0-14	0-14	0-14
Temp. Range	0-60 °C	0-60 °C	0-60 °C	0-60 °C	0-60 °C	0-60 °C	0-60 °C
Internal Ref.	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Junction	Double Junction Open	Double Junction Open	Double Junction Open	Double Junction Epoxy/Open	Double Junction Epoxy/Open	Double Junction Epoxy/Open	Double Junction Epoxy/Open

Orion Redox/ORP and ORP Triode™				
	9179BNMD	9180BNMD	9678BNWP	9778BNWP
Temp. Range	0-90 °C	0-80 °C	0-80 °C	0-100 °C
Internal Ref.	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Junction	Wick	Wick	Sure-Flow	Ceramic

Key for page 8

- (1) BNC connector, 1 m cable (2) U.S. Standard connector, 1 m cable (3) Screw cap connector, requires separate cable
 (5) E Din Connector (6) 7120BN KNIpHE Electrode Kit includes: pH Electrode, Electrode Handle, Removable blade, One bottle of Filling Solution and Instruction Manual See page 13 for Orion pH electrode cleaning kits
 (7) BNC Connector MiniDIN Connector for Orion Star™ Series meters 1m cable (8) Same as key 4 on page 7

* Images not available

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