



# Thermo Scientific Orion Micro pH Electrodes

Delicate Electrode for Small Volumes, Fits 384 Microwell Plates

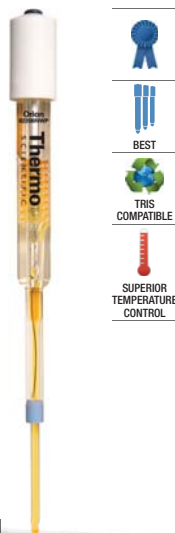
Micro electrodes are designed to measure small volumes down to 0.5  $\mu\text{L}$ . These are extremely delicate electrodes because of their size and should be treated as such. The small stem and bulb diameter allow the electrode to be inserted into small devices such as 384 microwell plates. There are a variety to choose from based on your measurement needs.

The ROSS 8220BNWP micro electrode provides the best accuracy and response time of the micro electrodes. It can be used in biological samples. The 8220BNWP is more durable than the silver chloride electrodes.

Silver chloride micro electrodes are single junction electrodes. They are available to measure samples as small as 0.5  $\mu\text{L}$ , for use in NMR tubes and available with a stainless steel needle tip over the glass stem and bulb.

The double junction micro electrode is for moderate size samples. The double junction design is good for use when measuring TRIS samples, proteins, sulfides or biologicals.

**Accurate in extremely small samples**



**PerpHecT<sup>®</sup> ROSS<sup>®</sup> combination pH electrode with glass body, micro**

- Measures samples as small as 15  $\mu\text{L}$  in 384 well plates
- Minimum depth of immersion is 4.5 mm
- Durable tip design

**Measure samples as small as 0.5  $\mu\text{L}$**



**Micro combination pH electrode with glass body, small tip**

- Designed for gels and small sample volumes
- Measure samples as small as 0.5  $\mu\text{L}$

**For use in NMR tubes**



**Micro combination pH electrode with glass body, long length**

- Ideal for measurements in extremely small vessels

**For piercing septa**



**Micro combination pH electrode with needle tip**

- 16 gauge stainless steel bevel tip

**For samples with size limitations**



**Double Junction combination pH electrode with glass body, semi-micro tip**

- Measure samples as small as 0.2 mL
- Easy-to-clean refillable design

Cat. No.	8220BNWP	9810BN	9826BN	9863BN	9110DJWP
<b>pH Range</b>	0-14	0-14	0-14	0-14	0-14
<b>pH Precision</b>	0.01	0.02	0.02	0.02	0.02
<b>Temp. Range</b>	0-100 °C	0-80 °C	0-80 °C	0-80 °C	0-60 °C
<b>Temp. Accuracy</b>	±0.5 °C	–	–	–	–
<b>Internal Reference</b>	ROSS	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl Double junction
<b>Junction</b>	Sleeve	Ceramic	Ceramic	Ceramic	Ceramic
<b>Fill Solution (Cat. No.)</b>	3 M KCl (810007)	4 M KCl w/ Ag/AgCl (900011)	4 M KCl w/ Ag/AgCl (900011)	4 M KCl w/ Ag/AgCl (900011)	3 M KCl (910008-WA)
<b>Dimension D (Dia) L (Length) T (Tip)</b>	L - 155 mm T - 3 mm x 40 mm L	L - 120 mm T - 1.3 mm x 37 mm L	L - 228 mm T - 2.5 mm x 2.5 mm L	L - 137 mm T - 1.7 mm x 40 mm L	L - 150 mm T - 4.5 mm x 90 mm L
<b>Depth of Immersion</b>	4.5 mm	1 mm	2 mm	3 mm	–
<b>Connector Type</b>	BNC Waterproof	BNC	BNC	BNC	BNC Waterproof



**Key Information**

All cap diameters are 16 mm at bottom of cap except 9810BN, 9826BN & 9863BN  
All cable lengths are 1 meter