

Orion pHR Process ROSS Electrode

High performance, reliability and longevity for a variety of in-process pH measurements

Thermo Scientific™ Orion™ pHR Process ROSS™ Electrode

Designed to provide fast and accurate pH measurements in a variety of samples. The double junction design has a replaceable salt bridge that enhances the longevity of your electrode, eliminating frequent electrode replacement. A periodic change of salt bridge and electrolyte ensures performance to a “like-new” electrode.

The Orion pHR Process ROSS Electrode offers drift-free measurement, increasing long-term accuracy and stability for on-line pH measurements. The minimal maintenance requirements and long-term product stability provide very low cost of ownership and adds to your plant’s bottom line.

The Orion pHR Process ROSS Electrode utilizes renowned ROSS Electrode chemistry which provides highly accurate measurements and rapid response between temperature extremes.

Applications

- Wastewater treatment
- Industrial water treatment
- Drinking water treatment

Advantages

- Field-proven ROSS drift-free reference system provides longer lifetime
- Consistent repeatability in high usability type applications
- Double junction design prevents contamination
- Exceptional pH response to extreme temperature changes
- Optimum stability and accuracy in harsh operating



Key features

- 1 inch NPT mounting
- Replaceable salt bridge
- PT1000 temperature element
- Available in cable lengths of 10 to 30 feet — kits available to customize cable length
- pH signal transmission up to 3,000 ft.
- Four models: 3 with pre-amp, 1 without pre-amp
- Rugged PEEK™ material on body and salt bridge environments



Product specifications

Orion pHR Process ROSS Electrode	
Measurement system performance	Range: 0-14 pH
	Resolution: 0.01 pH
	Accuracy: 0.1 pH
	Minimum Conductivity: > 5 µS/cm
	pH Response Time: 95% in 30 seconds for a pH change of ±3
	Temperature Response: 90% in 2 minutes for a 10°C temperature change
	Precision: 0.05 pH-0.5°C
Operational equipment	Temperature Compensation: Yes
	Temperature range: -5°C to 100°C (23°F-212°F)
	Pressure range: 0-690 KPa (0-100 psig)
	Temperature Element: PT1000
Physical Construction	Sensor: Low temperature, pure water, high temperature, pH glass
	Sensor type: Combination or differential
	Ground Rod: Titanium
	O-rings: Viton™
	Sensor material: PEEK
	Length: 6.17" (156.6 mm)
	Diameter: 1.40" (35.9 mm)
	Weight: 0.5 lbs.
	Cable: Integral (1-100 meters)
	Pre-amp: Available
Range: Up to 100 meters	

Ordering information

Orion pHR Process ROSS Electrode	
Description	Cat. No.
Electrodes	
pHR ROSS pH with 15' (4.57 m) cable	SH36A9E115
pHR ROSS pH with pre-amplifier, 10' (3.05 m) cable	SH36A9E210
pHR ROSS pH with pre-amplifier, 20' (6.10 m) cable	SH36A9E220
pHR ROSS pH with pre-amplifier, 30' (9.14 m) cable	SH36A9E230
Salt bridge replacements	
PEEK protected for pHR ROSS, qty 1	SBPHR-1
PEEK protected for pHR ROSS, qty 3	SBPHR-3
pH solutions	
pHR ROSS cell solution, 60 mL	RCPHR-60
4.01 pH buffer, 475 mL bottle	910104
7.00 pH buffer, 475 mL bottle	910107
10.01 pH buffer, 475 mL bottle	910110
Mounting hardware	
1 Inch tee mounting, CPVC	MH3022
1 Inch tee mounting, 316 SS	MH3011
1.5 Inch union mounting, CPVC	MH3042
1.5 Inch union mounting, 316 SS	MH3041
1.5 Inch ball valve, CPVC, low pressure	MH1112
1.5 Inch ball valve, 316 SS, low pressure	MH1111
1.5 Inch ball valve, CPVC, high pressure	MH1122
1.5 Inch ball valve, 316 SS, high pressure	MH1121
Junction box for extension cables	JBOX01
Extension cable, xx=ft diameter	APECxx

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