

Thermo Scientific

Orion pHR Process ROSS Electrode

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

The Thermo Scientific™ Orion™ pHR Process ROSS™ electrode is 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.



Applications:

- Wastewater Treatment
- Industrial Water Treatment
- Drinking Water Treatment

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.

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

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 environments

Product Specifications

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
Temperature Compensation	Yes

Operational Environment

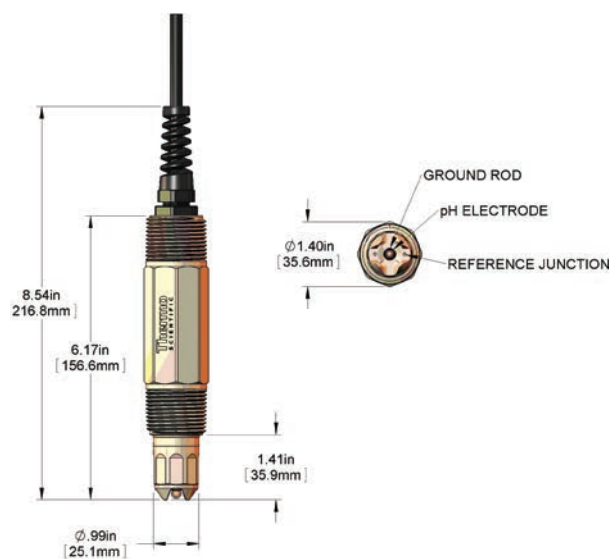
Temperature Range	-5°C to 100° C (23°F-212°F)
Pressure Range	0-690 KPa (0-100 psig)
Temperature Element	PT1000

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

Product Ordering Information

Part No.	Description
Electrodes	
SH36A9E115	pHR ROSS pH with 15' (4.57 m) cable
SH36A9E210	pHR ROSS pH with pre-amplifier, 10' (3.05 m) cable
SH36A9E220	pHR ROSS pH with pre-amplifier, 20' (6.10 m) cable
SH36A9E230	pHR ROSS pH with pre-amplifier, 30' (9.14 m) cable
Salt Bridge Replacements	
SBPHR-1	PEEK protected for pHR ROSS, Quantity 1
SBPHR-3	PEEK protected for pHR ROSS, Quantity 3
pH Solutions	
RCPHR-60	pHR ROSS Cell Solution, 60 mL
910104	4.01 pH Buffer, 475 mL Bottle
910107	7.00 pH Buffer, 475 mL Bottle
910110	10.01 pH Buffer, 475 mL Bottle
Mounting Hardware	
MH3022	1 Inch Tee Mounting, CPVC
MH3011	1 Inch Tee Mounting, 316 Stainless Steel
MH3042	1.5 Inch Union Mounting, CPVC
MH3041	1.5 Inch Union Mounting, 316 Stainless Steel
MH1112	1.5 Inch Ball Valve, CPVC, Low Pressure
MH1111	1.5 Inch Ball Valve, 316 SS, Low Pressure
MH1122	1.5 Inch Ball Valve, CPVC, High Pressure
MH1121	1.5 Inch Ball Valve, 316 SS, High Pressure
JBOXX01	Junction Box For Extension Cables
APECxx	Extension cable, xx=ft Diameter



thermoscientific.com/processwater

© 2014 Thermo Fisher Scientific Inc. All rights reserved. Viton is a registered trademark of DuPont Performance Elastomers L.L.C. PEEK is a registered trademark of Victrex plc. All other 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