



PRODUCT DATASHEET

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Rosemount™ 3200HP

High Purity Water pH Sensor



A reliable sensor for accurately measuring pH in high purity water

The Rosemount™ 3200HP pH sensor is used to accurately measure pH in high purity water applications such as boiler water, boiler feedwater, and steam condensate. These sensors feature a flowing reference design for improved signal stability in low conductivity water.

Overview



A Robust Sensor Design

- Operates in low conductivity water down to 0.4 $\mu\text{S}/\text{cm}$.
- High signal stability with flowing reference electrode and laser drilled capillary junction.
- Operates in sample temperatures of 0 to 70 °C (32 to 158 °F).
- Built-in solution ground for measurement stability and complete diagnostic functionality.

Ease of Installation and Maintenance

- Rosemount 3200HP features a complete panel mounted system, including an electrolyte reservoir, a flow cell, a pH sensor, and a calibration cup holder.
- Easy to replace liquid junction and refillable electrolyte reservoir.
- Variopol (VP8) cable connection option, for quick cable-to-sensor release, which eliminates cable twisting.

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Ordering Information

The Rosemount 3200HP High Purity Water pH Sensor comes as a complete panel mounted system, consisting of an electrolyte reservoir, flow cell, combination pH sensor, calibration cup holder, and quick disconnect VP8 sensor cable. All components are mounted on an ABS plate which is suitable for wall mounting. Sensors feature a 316 stainless steel solution ground and integral Pt-100 RTD for quick and accurate temperature compensation.

Table 1. Rosemount 3200HP High Purity Water pH Sensor ordering information

Model	Sensor type
3200HP	pH sensor
Variopol cable selection	
01	Complete panel with 10 ft VP cable and sensor
02	Complete panel with 20 ft VP cable and sensor
03	Complete panel with 30 ft VP cable and sensor
Typical Model Number: 3200HP-01	

Specifications

Table 2. Rosemount 3200HP High Purity Water pH Sensor specifications

Physical characteristics	Specifications
Measurement range	pH: 0 to 14 ORP: -1500 to +1500 mV
Wetted materials	Silicone, polycarbonate/polyester, glass, stainless steel, PVDF, and Viton
Accuracy	±0.05 pH
Noise	< 0.02 pH
Conductivity range	> 0.4 µS/cm
Sample temperature	0 to 70 °C (32 to 158 °F)
Sample inlet pressure	5 to 10 psig (134-370 kPa abs); no back pressure allowed; sample must drain to open atmosphere
Sample flow rate	1 to 3 gph (60 to 180 mL/min)
Process connections	1/4 in. FPT
Reference electrode	Flowing, open capillary
Weight/shipping weight	5.4 lb / 7.6 lb (2.5 kg / 3.5 kg)

Product Certifications

Please see online certificates for further details

IECEX

Ex ia IIC T4 Ga (-20 °C ≤ Ta ≤ +60 °C)

Per standards IEC60079-0: 2011, IEC 60079-11: 2011

ATEX

II G Ex ia IIC T4 Ga (-20 °C ≤ Ta ≤ +60 °C)

Per standards EN60079-0:2012+ A11: 2013, EN 60079-11: 2012

FM

Intrinsically safe for use in Class I, II, and III, Division 1, Groups A, B, C, D, E, F, and G; Temperature Class T6 Ta = -20 °C to + 60 °C

Intrinsically safe for use in Class I, Zone 0, AExia IIC T6 Ta = -20 °C to + 60 °C

Nonincendive for use in Class I, Division 2, Groups A, B, C, and D; Temperature Class T6 Ta = -20 °C to + 60 °C

Suitable for use in Class II and III, Division 2, Groups E, F, and G; Temperature Class T6 Ta = -20 °C to + 60 °C Hazardous (Classified)

Locations

IS/I,II,III/1/ABCDEFG/T6 Ta = 60 °C - 1400332; Entity; I/0/AEx ia IIC/T6 Ta = 60 °C - 1400332; Entity; NI/1/2/ABCD/T6 Ta = 60 °C;

S/II,III/2/EFG/T6 Ta = 60 °C; Entity Parameters

Per standards 3600: 1998, 3610: 2010, 3611:2004, 3810:2005

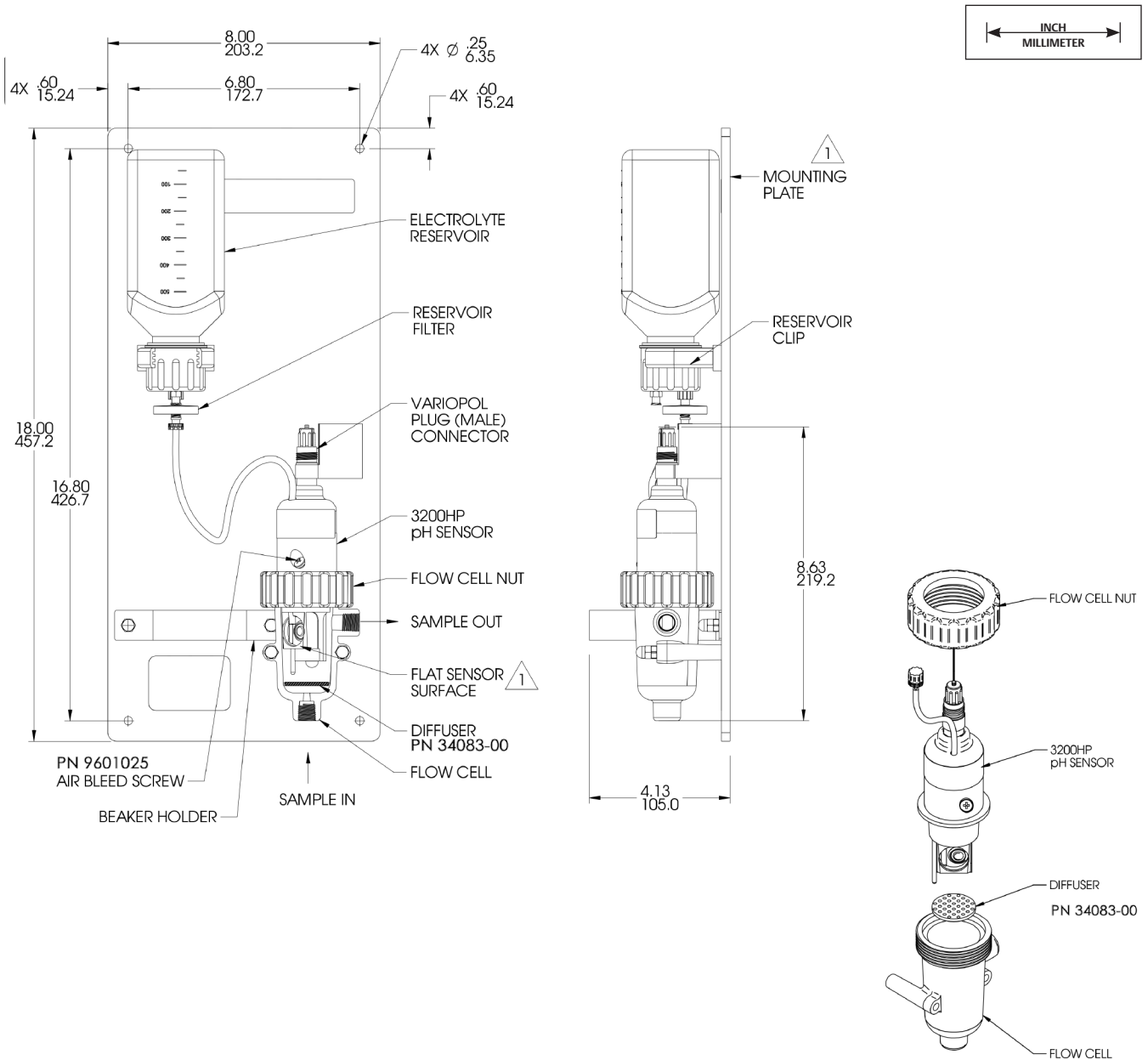
CSA

Intrinsically safe and nonincendive:

Class I, Division 1, Groups ABCD; Class II, Division 1, Groups EFG; Class II; Class I, Division 2, Groups ABCD; Ex ia IIC; T6; Ambient temperature rating -20 °C to +60 °C: (Simple Apparatus)

Per standards C22.2 No. 142 - M1987, C22.2 No. 157 = M1992, CAN/CSA E60079-0:07, CAN/CSA E60079-11:02, UL 50: 11th Ed., UL 508: 17th Ed., UL 913: 7th Ed., UL 60079-0: 2005, UL 60079-11: 2002

Dimensional and Installation Drawings



Accessories

Table 3. Rosemount 3200HP High Purity Water pH Sensor accessories information

Part number	Description
24281-00	15 ft (4.6 m) cable with mating VP8 connector
24281-01	25 ft (7.6 m) cable with mating VP8 connector
24281-02	2.5 ft (0.8 m) cable with mating VP8 connector
24281-05	4 ft (1.2 m) cable with mating VP8 connector
24281-07	20 ft (6.1 m) cable with mating VP8 connector
24281-08	30 ft (9.1 m) cable with mating VP8 connector
3200HP-00	3200HP replacement pH sensor
3200HP-OEM	3200HP pH system without panel and without VP cable
3200HP-OEM-01	3200HP pH system without panel and without VP cable, with 10 ft (3 m) VP cable
3200HP-OEM-02	3200HP pH system without panel and without VP cable, with 20 ft (6.1 m) VP cable
3200HP-OEM-03	3200HP pH system without panel and without VP cable, with 30 ft (9.1 m) VP cable
24185-00	HP pH reservoir kit
24193-00	Calibration cup, 100 mL
24212-00	Electrolyte tubing
33810-00	Calibration cup holder
34083-00	Diffuser
34132-00	Flowing junction capillary kit (capillary disc and O-ring)
9160590	Cartridge filter
9210391	3200HP electrolyte refill, 500 mL
9601025	Air bleed screw
9913804	Washer for air bleed screw

Notes



Our offering:

	Pressure Measurement		Level Measurement
	Temperature Measurement		Flow Measurement
	Marine Measurement & Analytical		Gas Analysis
	Liquid Analysis		Flame and Gas Detection
	Tank Gauging		Wireless Infrastructure
	Acoustic & Discrete		

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