

High Purity Water pH Sensor with pHaser™ Flowing Junction



- “pHaser” laser drilled capillary junction ensures constant reference electrolyte flow for unsurpassed performance

- ACCURATE AND STABLE Measurement of pH in Boiler Water, Boiler Feedwater and Steam Condensate
- REFILLABLE FLOWING REFERENCE and Replaceable Open-Capillary Junction for Years of Dependable Service
- QUICK AND EASY Calibration and Maintenance
- ELECTRONIC SHIELDING of Glass Electrode Improves Immunity to EMI
- RUGGED Combination Electrode with VP Connector
- INTEGRAL SOLUTION GROUND for Measurement Stability and Complete Diagnostic Functionality
- EXPOSED STAINLESS STEEL Thermowell for Rapid Temperature Response
- VP8 CABLE In Multiple Lengths



FEATURES AND APPLICATIONS

The Rosemount Analytical Model 3200HP pH sensor is designed for the accurate measurement of pH in low conductivity, high purity (HP) water. Boilers, both industrial and in power plants, provide several points where low conductivity pH measurements are necessary. The key to an accurate measurement is a stable reference electrode that produces the same potential over many months of service whether in calibrating solutions or high purity water.

The 3200HP sensor is a panel mounted system consisting of an electrolyte reservoir, a flow cell, a combination pH, reference, temperature sensor with integral solution ground and a calibration cup holder. The flowing reference electrode uses a laser drilled capillary for the liquid junction, the pHaser™ reference junction.

The pHaser reference electrode is unaffected by the conductivity changes that occur when the sensor is moved between calibration buffers and low conductivity water; it continues to produce the same potential. The laser drilled capillary design is immune to drift caused by the long term plugging common to all ceramic reference junctions. A 100 ohm platinum RTD is housed in a 316 SS solution ground near the pH glass electrode assuring fast and accurate temperature compensation. These features combined with the rapid response and stability of the AccuGlass™ pH electrode provide an unsurpassed level of performance in high purity water. VP8 cable assembly works with both VP6 and VP8 sensor connectors.

PERFORMANCE AND PHYSICAL SPECIFICATIONS

Calibrations are easily accomplished by loosening the sensor union nut and moving the 3200HP from the flow cell to the supplied buffer cup, complete the calibration and return the sensor to the flow cell.

As in many pH applications, in high purity water, the reference electrode wears out long before the glass electrode fails. The reference electrode of the 3200HP is rebuildable. The pHaser liquid junction is easily replaced and the electrolyte reservoir is refillable. The reservoir typically provides greater than 2 months trouble free service between refills.

Sensor Type: 3200HP (High Purity)

¹ Viton is a registered trademark of DuPont Performance Elastomers.

Accuracy: ± 0.05 pH

Noise: < 0.02 pH; **Drift:** < 0.05 pH per week

Conductivity Range: > 0.4 $\mu\text{S}/\text{cm}$

Sample Temperature: 0°C to 70°C (32°F to 160°F)

Sample Pressure: 5 to 10 psig – drain to atmosphere

Sample Flow Rate: 1- 3 gph, (60 to 180 ml/min)

Wetted Materials: Silicone, polycarbonate/ polyester, glass, stainless steel, PVDF, Viton¹

Reference Electrode: Flowing, open capillary

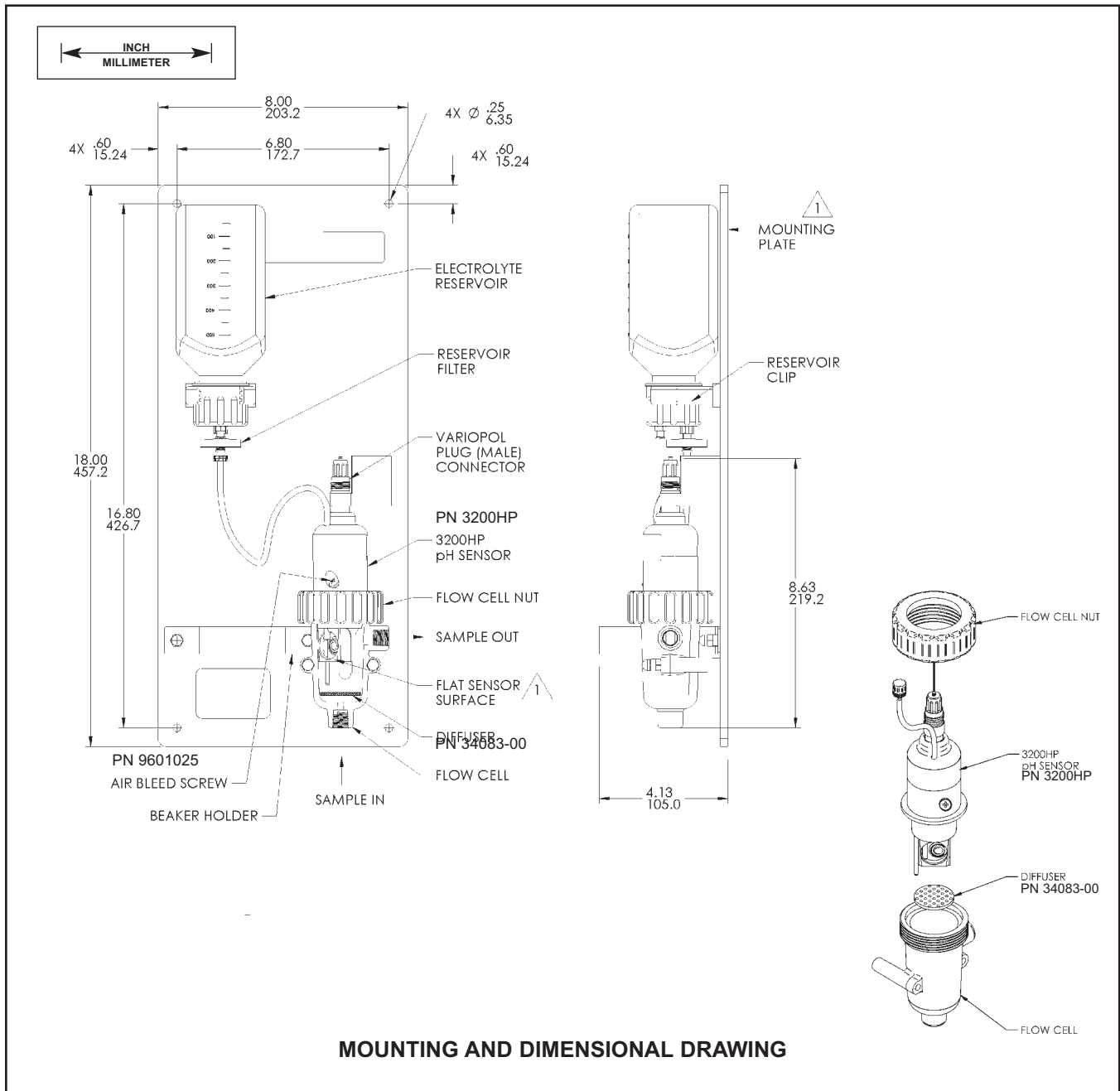
Process Connections: 1/4 in. FPT

Weight/Shipping Weight: 5.4 lb/7.6lb (2.5kg/3.5kg)

VP8 Cable Connection: 10ft use PN 24281-06

20ft use PN 24281-07

30ft use PN 24281-08



ORDERING INFORMATION

Model 3200HP Flowing Junction pH Sensor. Designed for use in condensate, boiler feedwater and boiler water. The sensor assembly includes a low flow cell, a reference electrolyte reservoir and a disposable pH sensor. All components are mounted on an ABS plate which is suitable for wall mounting. VP interconnecting cable from sensors to the instruments is also included. The VP8 cable assembly works with both VP8 and VP6 sensor connector. Compatible with most Rosemount Analytical pH Transmitters and Analyzers.

MODEL 3200HP FLOWING JUNCTION pH SENSOR	
Code	VP Cable Selection
01	Complete panel with 10' VP cable and sensor
02	Complete panel with 20' VP cable and sensor
03	Complete panel with 30' VP cable and sensor
3200HP	01 EXAMPLE

ANALYZER/TC COMPATIBILITY
For Models 1054, 1054A/B, 2054, 2081, 3081, 81, SCL-(P/Q), Solu Cube (PT 100 RTD), 5081, Xmt, 54e, 1055, 1056, 1057 and wireless 6081

ACCESSORIES

Part Number	Description
2001492	Tag, Stainless Steel, Specify Marking
23645-10	10' VP6 cable
23645-11	20' VP6 cable
23645-12	30' VP6 cable
24185-00	HP pH reservoir kit
24212-00	Electrolyte tubing
3200HP-00	3200HP pH sensor
3200HPO	3200HP pH sensor and panel without VP cable
3200HP-OEM	3200HP pH system without panel without cable
3200HP-OEM-01	3200HP pH system without panel with 10' VP cable
3200HP-OEM-02	3200HP pH system without panel with 20' VP cable
3200HP-OEM-03	3200HP pH system without panel with 30' VP cable
34031-00	Cal 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
24281-00	15 ft. cable with mating VP8 connector
24281-01	25 ft. cable with mating VP8 connector
24281-02	2.5 ft. cable with mating VP8 connector
24281-03	50 ft. cable with mating VP8 connector
24281-04	100 ft. cable with mating VP8 connector
24281-05	4 ft. cable with mating VP8 connector
24281-06	10 ft. cable with mating VP8 connector
24281-07	20 ft. cable with mating VP8 connector
24281-08	30 ft. cable with mating VP8 connector



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