



pH Measurement System

pHSys:DataStick



Features:

- ❖ Differential pH measurement
- ❖ Pre-calibrated
- ❖ Plug & play sensor heads
- ❖ Replaceable quad junction salt bridges
- ❖ Electrode protection options
- ❖ Offered in a variety of materials
- ❖ Direct data reporting (24-bit)
- ❖ Plug & play industrial communications adapters
- ❖ Titanium Ground electrode

Benefits:

- ❖ Retains calibration in the head
- ❖ Sensor head replacement without powerdown
- ❖ Variable mounting options
- ❖ Auto temperature compensation
- ❖ Either direct connect to PLC or use with AV38/Aquapro controllers.
- ❖ Multiple communications protocols available

Applications:

- ❖ Wastewater treatment
- ❖ Neutralization of effluent – Steel
 - Pulp and paper
 - Food
 - Chemical
 - Pharmaceutical
- ❖ Metal finishing (chrome/cyanide destruct)
- ❖ High purity water
- ❖ Odor scrubbers
- ❖ Pharmaceutical
- ❖ Chemical & petrochemical
- ❖ Reverse osmosis
- ❖ Cooling tower control
- ❖ Food processing
 - Carbon dioxide control – Cleaning
 - Canning



This pH sensor utilises the Differential Electrode Technique, using two electrodes to compare the process value to a stable internal reference standard buffer solution. The standard electrode has a non-flowing and fouling-resistant characteristic. The built-in electronics of the sensor are completely encapsulated and O-ring sealed for protection from moisture and humidity. The sensor has a built-in pre-amplifier, universal signal conditioning electronics, universal engineering units conversion, and interactive communications with a host computer or display interface using one of several protocols including Modbus® RTU, DeviceNet, Profibus, USB, CANopen or Ethernet. It has an integral temperature sensor to automatically compensate measured values for changes in process temperature and also incorporates a titanium ground electrode (standard) to eliminate ground loop currents in the measuring electrode.

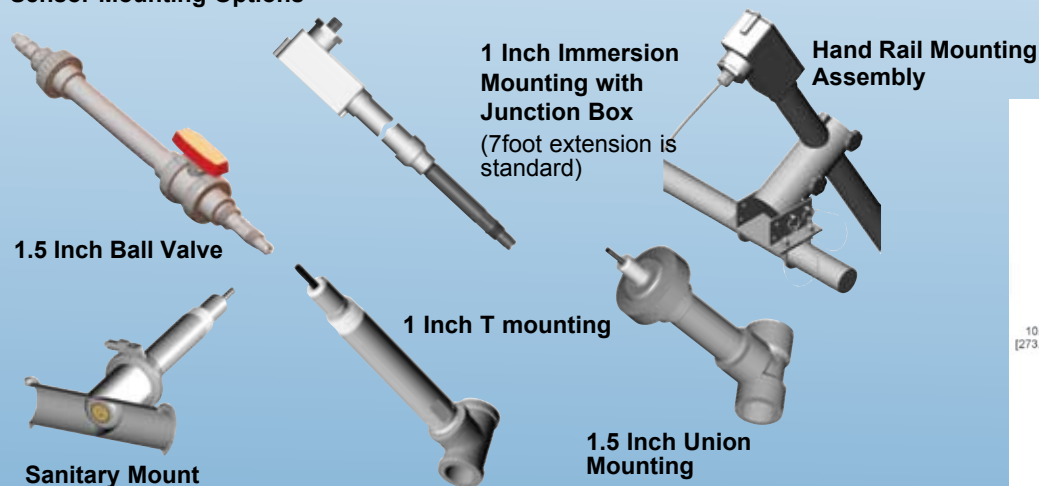
It is ideal for a large range of onerous industrial and municipal applications



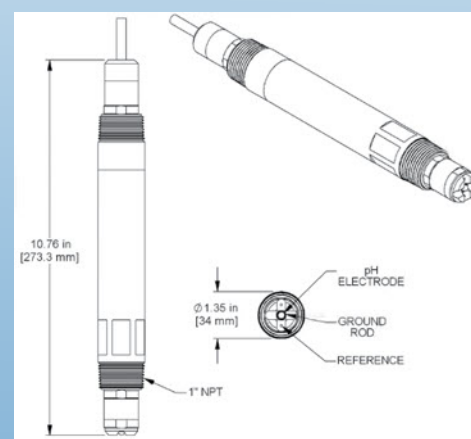
System Specification

Measurement System Performance	Range: 0 to 14 pH Resolution: 0.01 pH Accuracy: 0.1% of reading Step Response Time: 90% in 30	Note: Typical at 25°C Performance unaffected by cable length
Operational Environment	PEEK Sensor Head Temperature Range: -5°C to 95 °C Maximum Pressure: 150psig @ 95 °C Maximum Flow Rate: 10 ft/sec	CPVC Sensor Head Temperature Range: -5°C to 75 °C Maximum Pressure: 85psig @ 75 °C Maximum Flow Rate: 10 ft/sec
Power Requirements	Voltage Range: 10 to 30 VDC Maximum Power: 200 mW Typical Power: 120 mW	Note: Class II DC power supply required
Construction	Process Electrode: “G”, “HF”, low temperature, pure water, or high temperature glass Ground Rod: Titanium, 316 stainless steel or Hastelloy C	O-rings: Viton® (other materials available) Sensor Head Material: CPVC, PEEK Data stick Material: 316 SS, CPVC, PEEK Weight 1.2 lbs (PEEK or CPVC) 2.6 lbs (316 Stainless Steel)
Units of Measure	Measurement Units: pH, mV Temperature Units: °C, °F	
Calibration	Automatic Buffer: 1 and 2 point, Sample: 1 and 2 point, Temperature: 1 point	
Temperature compensation option	Linear: % per °C Built-in tables: Ammonia or Morpholine Note: pH & Temperature are precalibrated at factory	
Other Configuration Options	Sensor Filter: 0-100 seconds Temperature Filter: 0-100 secs Auto Calibration Buffer Standards: (4, 7, 10) and DIN 19267	
Approvals and Ratings	Immunity & Emissions: CE Certified 89/336/EEC: CISPER 11, EN61000 (-4-2,-4-3,-4-4,-4-6, 4-8) Safety: cULus Listed; 367G E303570 Hazardous Locations: Haz Loc Class 1, Division 2, Groups A, B, C, D. Max Ambient 50 °C	

Sensor Mounting Options



Sensor Dimensions



Display/Control Options



See separate sheets for details of above controllers

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