

pH HydroACT Sensor

The HydroACT range of online analyzers utilize the very latest and best pH sensors available in the world today for measuring the online pH of any aqueous solution. They are combination glass electrodes with integral reference, automatic temperature compensation, solid polymeric junction (pH4), which use no reagents, are extremely stable, and have reduced maintenance and reduced whole life costs.

- Up to 5 years continuous operation
- Stable and reliable - excellent process control
- Suitable for all potable and process waters
- Suitable for very low conductivity waters
- Integral temperature compensation
- Suitable for use in Autoflush

The pH sensors and flow cells are available with different controllers giving you the same great performance with different communication, display, and control options. With the HydroACT range of pH controllers, you get everything that you need and nothing that you don't.



HydroACT 2

- High quality and multilingual
- Lowest purchase cost
- Mix and match sensors
- Up to 2 sensors
- Options include:
 - up to 2 4-20mA outputs
 - up to 4 relays (solid state or mechanical)
 - Modbus TCP
 - Modbus ASCII/ RTU
 - Profibus
 - HART
 - PID control
 - Flow switch input

HydroACT 4

- High quality and multilingual
- Low cost
- Color display and keypad
- Sophisticated Comms and Control
- Mix and match sensors
- Datalogging
- Up to 4 sensors
- All HydroACT 2 options plus:
 - texting alarms
 - remote internet access
 - automatic cleaning
 - integrated flow control

Sensor Selection

pH 1



- Suitable for pools and spas
- Max. temp 80°C
- Flow cell mounting options

pH 2*



- Suitable for potable and process waters
- Max. temp 80°C
- Flow cell, at line tee, handrail and welding stub mounting options

pH 3*



- Suitable for waste water
- Max. temp 80°C
- Autoclean immersion, at line tee, handrail and welding stub mounting options

pH 4*



- Suitable for potable and process waters
- Max. temp 100°C
- All mounting options

*Includes a temperature sensor for automatic temperature control

DESCRIPTION

At the heart of the HydroACT range of pH sensors are the pH electrodes. The pH4 electrode is patented and has a large area electrochemically active solid polymer junction. This innovative design makes the electrodes more responsive and with a longer life than ordinary electrodes (up to 3 years). Although they command a higher price in the marketplace these sensors are more than cost effective with their longer life and considerably lower maintenance requirements, typically only needing calibration once per two or three months.

pH4 is particularly sensitive to difficult pH4 application such as very low ionic strength waters or chemically corrosive applications. pH1- pH3 are less expensive, more traditional combination electrodes.

Applications

- Remote Sites
- Potable Water
- Cooling Towers
- Food Preparation
- Paper Mills

Anywhere you have a requirement to measure pH is a suitable application for the pH sensor. The HydroACT pH sensor range is particularly suited to working in sites where reliability and ease of use are most important.

Autoflush

As described in a separate brochure, the HydroACT unit with pH sensor can come equipped to automatically clean itself at user defined intervals. The Autoflush is particularly useful in food preparation, pulp and paper, and many applications where there is likely to be a build up of solids in the sample. Autoflush is available for at line, and in line versions including dip and screw in autoclean piper versions.

Multi-Sensor Systems

The HydroACT range of online analyzers can be fitted with additional sensors such as chlorine or ORP. Please contact Chemtrac or a local representative for more details.

GENERAL SPECIFICATIONS

Type:	Combined reference, and measuring electrode
Reference Type:	Patented electrochemically active solid polymer junction
pH Range:	0-14
Slope:	95-102%
Pressure Range:	0 - 145 psi (0 - 10 bar)
Long Term Stability (drift):	< 0.01 pH/hour
Reproducibility:	< 0.01 pH
Impedence:	pH Glass <200 MOhm
Solid State:	<200 KOhm
Response Time:	95% of step pH2 to pH12 < 5 sec
Temperature Range:	32° - 212° F (0° - 100° C)
Wetted Surface:	pH Glass - Red Polymer - PVDF Body - Viton O Rings
Cable:	Low noise Coaxial + 4 wires Cable length - 6.5 ft. (2 m) Up to 32.8 ft. (10 m)
Shelf Life:	12 months
Temperature Compensation:	Automatically by integrated thermistor PT100 (ATC)
Estimated Life:	12 - 24 months (application dependent)

Installation

The pH Sensor can be installed in a variety of auxiliary flow cells and self-cleaning devices.

Flow Cell Mounted



Pipe Insert Autoclean

