

Technical Specification

PH Sensors - PH100, PH300 & PH1200

Description

The Greenspan Analytical pH Sensors are versatile instruments offering superior features to provide un-paralleled reliability while tolerating rough treatment in the tough environments where they are deployed.

Range Benefits

- Optically isolated signal conditioning electronics ensure true and accurate readings at all times.
- Built in temperature compensation removes temperature related errors.
- Field proven gel-filled double junction electrode provides long-term stability.
- Optical isolation of signal conditioning electronics enables operation in combination with other sensors without compromising performance.
- The low power energy saving design enables long-term operation in remote data logging applications.
- All sensors are packaged in Delrin (plastic) body, which can sustain harsh environmental conditions or as an option, passivated 316 Stainless Steel.

PH100 Features

- Current (4-20mA / 3 wire) output.

PH300 Features

- Built in data logger for storage of measured parameters, capable of holding 42,600 records or a reading every 15 minutes for 15 months.
- Logging parameters and schedules are set up using Greenspan Analytical's easy to use Smartcom software package, which runs on IBM compatible PCs.
- Data can be reviewed in tabular or graphical format by using Greenspan Analytical's Aquagraph software package.
- Automatic transfer of data to a central office can be simply achieved by attaching a data modem.
- Improved linearity and accuracy through the use of microprocessor based compensation.

PH1200 Features

- Serial data interface that provides a linearised signal output that may be transmitted further than RS232 output.
- SDI-12 (serial data interface operating at 1200 baud) is intended for applications which demand low power and minimal current drain. Data can be transmitted up to 100 feet between sensor and data logger. Multiple sensors will function with only one data logger producing a low cost of ownership.

With all the features of a conventional data acquisition system in one compact package, the Greenspan Analytical 300 Series intelligent sensors provide the most cost-effective solution available today where combined measurement and data collection functions are required.



Specification		Model PH100	Model PH300	Model PH1200
Standard ranges	PH	2 - 12	2 - 12	2 - 12
Optional parameters		0-50°C	Same as pH100	Same as pH100
Linearity	PH	+/- 0.1pH	Same as pH100	Same as pH100
	Temp	N/A	+/- 0.2°C	+/- 0.2°C
Accuracy	PH	+/- 0.2pH (+/- 0.2mA)	Same as pH100	Same as pH100
	Temp	N/A	+/- 1°C	+/- 1°C
Temperature compensation		0 - 50°C	Same as pH100	Same as pH100
Supply voltage	10 -14VDC	Reverse polarity protected Surge protected to 2kV	Same as pH100	Same as pH100
Warm up / reading time		2 sec	Same as pH100	Same as pH100
Electrode type		Glass membrane with Gel filled Ag/AgCl internal reference type	Same as pH100	Same as pH100
Dimensions		Length 435mm	Length 435mm	Length 435mm
		OD 47mm	OD 47mm	OD 47mm
Weight (Potted)		1.48kg (Stainless Steel) 680g (Delrin)	Same as pH100	Same as pH100
Memory		N/A	0.5Mb Upgradeable to 1Mb	N/A
Output		4-20mA	RS232	SDI-12 protocol
Software supplied		N/A	AQUAGRAPH, SMARTCOM	N/A
Standard configuration		Sensor calibrated to 2 - 12 pH	Same as pH100	Same as pH100
Wetted material		316 Stainless Steel or Delrin	Same as pH100	Same as pH100
Standard cable lengths			1m, 3m, 5m, 10m, 15m, 20m, 30m, 50m, & 100m Non-standard cable lengths available on request.	
Maximum depth		100m	Same as pH100	Same as pH100

Applications

- STP aeration tanks
- Borehole observations
- Tidal and estuarine studies
- Effluent monitoring
- River and stream measurement



Logging parameters and schedules are set up using Greenspan Analytical's easy to use graphical software package, Smartcom, which runs on IBM compatible PCs.

Graphical representation of data can be made using Greenspan Analytical's AquaGraph software. The software makes graphing your data simple and allows data to be exported in different formats.

Integrated Installation and Technical Support

The correct choice of sensor is essential to the long-term success of an installation. Professional commissioning and dedicated technical support is equally important. Greenspan Analytical offers the reassurance of integrated expert field advice, via its affiliation with sister technical services company Greenspan.

Greenspan is intimately familiar with Greenspan Analytical's complete range of sensors and analysers, with numerous successful installations throughout the world.

Greenspan Analytical and Greenspan can offer customers real value by packaging the supply of instruments with installation, commissioning, technical support and even data acquisition into a complete 'turnkey' solution.