

Datalogging Water Quality Sensor

AquiStar® TempHion™ Submersible Smart pH/ORP Sensor with Data Logging

The AquiStar® TempHion™ Smart Sensor is a submersible water quality sensor and datalogger capable of measuring pH, ORP, redox, and temperature. Each unit comes with one thermistor based temperature element plus up to four pH, ORP, or redox elements. The TempHion™ Smart Sensor records, operates on low power, and comes with easy-to-use software with powerful features.

Several TempHions, or a combination of TempHions and other AquiStar® Smart Sensors, can be networked together and controlled from one location, either directly from a single computer or via a WaveData® Wireless Data Collection System.

FEATURES

- RS485/RS232 interface
- Small diameter
- Up to 261,000 records/non-volatile
- 316 stainless steel, Viton®, Delrin® and PTFE construction
- Polyethylene, polyurethane and FEP cable options
- Solution ground for excellent noise protection
- Long-term sensor stability
- MODBUS® protocol
- Easy export to spreadsheets & databases
- Powered internally with two AA alkaline batteries

APPLICATIONS

- Single- or multi-well tracer tests
- Saltwater intrusion tracking
- Tidal influence studies
- Waste water treatment discharge
- pH monitoring



CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

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SPECIFICATIONS

General

Length	17.625" (44.8 cm)
Diameter	0.75" (1.9 cm)
Weight	.85 lb. (385.5 g)
Body Material	Delrin® & 316 stainless steel or titanium
Wire Seal Materials	Viton® and PTFE
Submersible Cable	Polyurethane, polyethylene, or FEP
Cable Weight	4 lbs./100 ft.
Protection Rating	IP68, NEMA 6P
Terminating Connector	Available
Communication	RS485 Modbus, SDI-12 (ver. 1.3) (optional)
Millivolt Channels	
<i>No. Available Channels</i>	2 mV, 1 temp
<i>Range</i>	±1200 mV
<i>Accuracy</i>	0.1% value
<i>Resolution</i>	0.1mV
Operating Temp. Range	0°C to 55°C
Storage Temp. Range¹	-20°C to 80°C
Reference	
<i>Electrode</i>	Ag/AgCl solid-state electrode
<i>Junction</i>	Patented capillary liquid junction
<i>Electrolyte</i>	TempHion reference solution

Logging

Memory	2MB – 261,000 records
Log Types	Variable, User-Defined, Logarithmic, Profiled
Programmable Baud Rate (optional)	9600, 19200, 38400
Logging Rate	2x/sec maximum
Software	Complimentary Aqua4Plus or Aqua4Push
Networking	32 available addresses per junction w/batching capabilities (up to 255)
File Formats	.xls/.csv/.a4d

Power

Internal Battery	2x 1.5V AA Alkaline ²
Auxiliary Power	12 VDC – Nominal 6V-15 VDC – Range
Expected Battery Life	18 months at 15 min. polling interval ³

Temperature

Element Type	30K Ohm thermistor
Element Material	Epoxy bead/external housing
Accuracy	±0.2°C
Resolution	0.01°C
Range	-5°C to 60°C
Units	Celsius, Fahrenheit, Kelvin

pH/ORP

Sensor Type/Material	
<i>pH</i>	Glass combination electrode
<i>ORP</i>	Platinum ring
Ranges	
<i>pH</i>	0-14 pH units -538 mV to 260 mV
<i>ORP</i>	±1200 mV
Units	pH, mV, Eh
Typical Accuracy	
<i>pH</i>	±.2 pH units
<i>ORP</i>	0.1 mVH
Resolution	
<i>pH</i>	0.01 pH units
<i>ORP</i>	0.01 mVH
Maximum Zero Offset	±1200 mV (user defined)
Compensated Range	0°C to 40°C
Calibration	
<i>pH</i>	One or two point calibration w/pH buffers (7 & 4 or 10)
<i>ORP</i>	EH 1 pt. calibration
Reference Solution	Potassium Nitrate – (KNO ₃)

1 Storage without batteries

2 Lithium available upon request

3 May vary due to environmental factors

Information in this document is subject to change without notice.



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