

Seametrics TempHion™ pH/ORP/ISE Smart Sensor with Datalogging

The TempHion™ is a submersible water quality sensor and data logger that includes a pH/ORP or Bromide element as well as one thermistor-based temperature element. With a patented reference electrode, the TempHion provides long-term stability for continuous or intermittent monitoring – making unattended in-situ pH testing and Bromide tracer studies possible without frequent calibrations or service.

FEATURES

- Measures pH, ORP, and temperature
- Or measures Bromide and temperature
- Small, .75" probe diameter
- Field replaceable AA batteries
- Dual Modbus and SDI-12 or RS485 protocol
- Integrated data logger collects 200,000+ records
- Includes Aqua4Plus software
- Optional Geotech telemetry system available

APPLICATIONS

- Precise single- or multi-well tracer tests
- Saltwater intrusion tracking
- Tidal influence studies
- Wastewater treatment discharge
- pH monitoring



CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

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SPECIFICATIONS

Housing & Cable

Weight	0.8 lb. (0.4 kg)
Body Material	Acetal & 316 stainless or titanium
Wire Seal Material	Fluoropolymer and PTFE
Cable	Submersible: polyurethane, polyethylene, or ETFE (4 lb./100 ft., 1.8 kg/30 m)
Field Connector	Standard

Temperature

Operating Range	0° to 55°C (32° to 131°F)
Storage Range	Without batteries: -20° to 80°C (-4° to 176°F)

Power

Internal Battery	Two replaceable lithium 'AA' batteries – Expected battery life: 18 months at 15 min. polling interval (may vary do to environmental factors)
Auxiliary	12 VDC – Nominal, 6-16 VDC – range

Communication

Modbus®	RS485 Modbus® RTU, output = 32-bit IEEE floating point
SDI-12	SDI-12 (ver. 1.3) – ASCII

Logging

Memory	4MB – 200,000 records
Logging Types	Variable, user-defined, profiled
Logging Rates	2x/sec. maximum, no minimum
Baud Rates	9600, 19200, 38400
Software	Complimentary Aqua4Plus
Networking	32 available addresses per junction (Address range: 1 to 255)
File Formats	.a4d and .csv

Output Channels

	Temperature	pH	ORP	Bromide
Element	30K ohm thermistor, Epoxy bead/external housing	Glass combination electrode	Platinum ring	Ag/AgCl solid-state electrode (Ion electrode method)
Accuracy	±0.2°C	±0.2 pH units, 0.1% mV value (typical)	0.1 mVH, 0.1% mV value (typical)	±5.0% of measured value (typical)
Resolution	0.1°C	0.01 pH units	0.01 mVH units	0.1 ppm
Units	Celsius, Fahrenheit, Kelvin	pH, mV	Eh, mV	ppm, mV
Range	0° to 55°C (32° to 131°F)	0-14 pH units/-538 to 260 mV	±1200 mV	0-10,000 ppm
Compensated	–	0° to 40°C (32° to 104°F)	0° to 40°C (32° to 104°F)	Isopotential point characterization
Calibration	–	One or two point calibration w/pH buffers (4 & 7 or 7 & 10)	EH 1 pt. calibration	One or two point calibration w/ionic strength adjustment
Reference Solution	–	Potassium Nitrate - (KNO ₃)	Potassium Nitrate - (KNO ₃)	Potassium Nitrate - (KNO ₃)

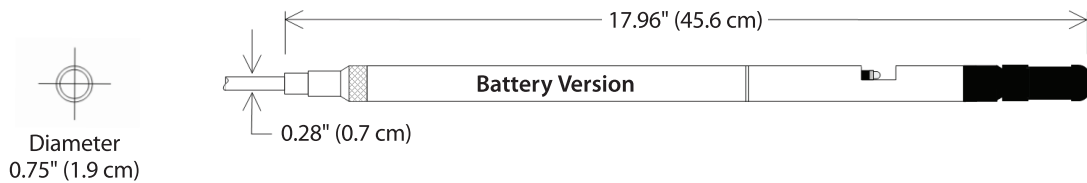
Reference Ag/AgCl solid state electrode, capillary liquid junction, TempHion™ reference solution

Maximum Depth pH/ORP: 700 ft. (210 m)/300 psi, ISE: 230 ft. (70 m)/100 psi

Environmental IP-68, NEMA 6P

Specifications subject to change.

Modbus is a registered trademark of Schneider Electric.



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