

Datalogging Water Quality Sensor

AquiStar® TempHion™ Submersible Smart ISE Sensor with Datalogging

The TempHion™ ISE is a submersible water quality sensor and datalogger that comes with powerful, easy-to-use Aqua4Plus software. Each unit includes either a chloride or bromide sensing 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 possible without frequent calibrations or service.

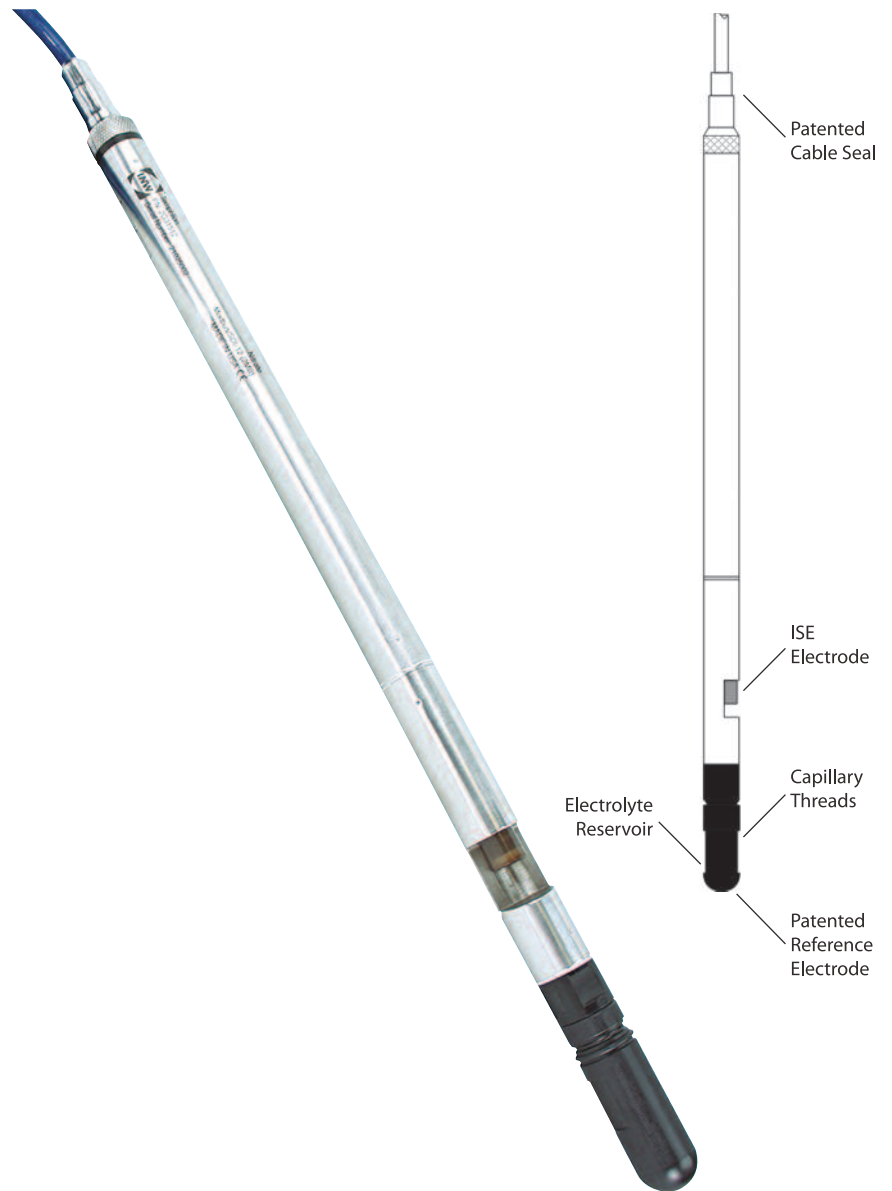
FEATURES

- **Measures chloride or bromide and temperature**
- **RS485 network**
- **Integrated datalogger collects 200,000+ records**
- **Low power**
field replaceable AA batteries
- **Dual protocol (Modbus® and SDI-12)**
great flexibility
- **Patented reference electrode**
*6-month sensor stability**
- **Solution ground**
for excellent noise protection
- **Small diameter**
0.75" (1.9 cm)
- **260,000 record non-volatile memory**
no data loss in the event of a power failure
- **Wireless connectivity**
radios and/or cellular
- **Includes Aqua4Plus software**

* may vary due to environmental factors

APPLICATIONS

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



CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

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Datalogging Water Quality Sensor

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SPECIFICATIONS

General

Length	17.96" (45.6 cm)
Diameter	0.75" (1.9 cm)
Weight	0.85 lb. (0.4 kg)
Body Material	Acetal & 316 stainless steel or titanium
Wire Seal Material	Fluoropolymer and PTFE
Submersible Cable	Polyurethane, polyethylene, or ETFE
Protection Rating	IP68, NEMA 6P
Terminating Connector	Available
Communication	RS485 Modbus® RTU, SDI-12 (ver. 1.3)
Direct Modbus Read Output	32-bit IEEE floating point
Millivolt Channels	
<i>No. Available Channels</i>	1 mV, 1 temp
<i>Range</i>	±1200 mV
<i>Accuracy</i>	0.1% value
<i>Resolution</i>	0.1 mV
Reference	
<i>Electrode</i>	Ag/AgCl solid-state electrode
<i>Junction</i>	Patented capillary liquid junction
<i>Electrolyte</i>	TempHion™ reference solution
Operating Temp. Range	-0°C to 55°C
Storage Temp. Range¹	-20°C to 80°C
Maximum Depth	230 ft. (70 m) 100 PSI

Logging

Memory	4MB – 400,000 records
Log Types	Variable, User-Defined, Logarithmic, Profiled
Programmable Baud Rate <i>(optional)</i>	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	2 x 1.5V AA Alkaline ²
Auxiliary Power	12 VDC – <i>Nominal</i> 6-15 VDC – <i>Range</i>
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	0.1°C
Range	-5°C to 60°C
Units	Celsius, Fahrenheit, Kelvin

Chloride or Bromide

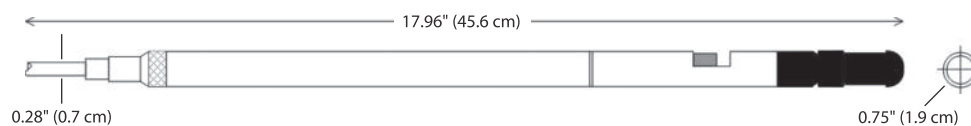
Measurement Principle	Ion electrode method
Probe Material	Ag/AgCl solid-state electrode
Range	0-10,000 ppm
Typical Accuracy	± 5.0% of measured value
Resolution	0.1 ppm
Thermal Compensation	Isopotential point characterization
Calibration	One or two point method w/ionic strength adjustment
Reference Solution	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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