

TempHion™

SMART SENSOR WITH DATA LOGGING



APPLICATIONS

Single- or multi-well tracer tests

Saltwater intrusion tracking

Tidal influence studies

Wastewater treatment discharge

pH monitoring

Features

- Measures & records pH/ORP or Bromide and temperature
- Low power
- Modbus® RTU (RS485) and SDI-12
- Measures pH at up to 150 PSI
- 6-month sensor stability*
- Solution ground for excellent noise protection
- Small diameter — 0.75" (1.9 cm)
- 200,000 records in non-volatile memory
- Free, easy-to-use software

* may vary due to environmental factors

The **Seametrics TempHion™** Smart Sensor is a microprocessor-based submersible sensor with built-in data logging.

The internal processor in the TempHion allows for easy calibration, using the calibration utilities in Aqua4Plus. Once calibrated, this calibration data is stored in non-volatile memory within the Smart Sensor. When data is collected, this calibration information is applied to the data, resulting in highly accurate readings at a wide range of temperatures.

The TempHion is powered internally with two replaceable AA batteries. Alternately it can be powered with an external auxiliary power supply for data intensive applications. The unit is programmed using our easy-to-use Aqua4Plus control software. Once programmed the unit will measure and collect data on a variety of time intervals.

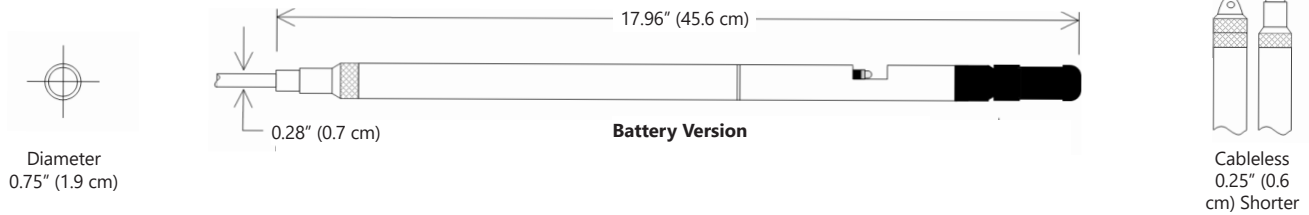
Several TempHions, or a combination of TempHions and other Seametrics Smart Sensors, can be networked together and controlled directly from a single computer.

While most will use the TempHion with our free, easy-to-use Aqua4Plus software, it is by no means limited to that software. You can use your own Modbus® RTU or SDI-12 software or logging equipment to read measurements, thus tying into your existing telemetry and control systems.

Contact Your Supplier



Dimensions



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, 9-15 Vdc - range			
Communication	Modbus®	RS485 Modbus® RTU, output=32bit 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 (also .xls in Windows 8 and earlier)			
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	IP68, NEMA 6P				

*Specifications subject to change. Please consult our web site for the most current data (seametrics.com). Modbus is a registered trademark of Schneider Electric.