TempHion™ pH/ORP
SMART SENSOR WITH DATA LOGGING

Seametrics
Precision Environmental Sensors
An ONICON Brand

APPLICATIONS

Single- or multi-well tracer tests

Saltwater intrusion tracking

Tidal influence studies

Wastewater treatment discharge

pH monitoring

Features

- Measures & records pH, ORP, 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
- Wireless connectivity
- Free, easy-to-use software

** may vary due to environmental factors*

Contact Your Supplier

The **Seametrics TempHion™ pH/ORP** Smart Sensor is a microprocessor-based submersible sensor with built-in data logging. This device stores thousands of records of pH, ORP(redox), and temperature.

The internal processor in the TempHion allows for easy calibration, using the calibration utilities in Aqua4Plus/Aqua4Plus Lite. 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 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 or Aqua4Plus Lite 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 from one location, either directly from a single computer or via Seametrics' Wireless Data Collection System.

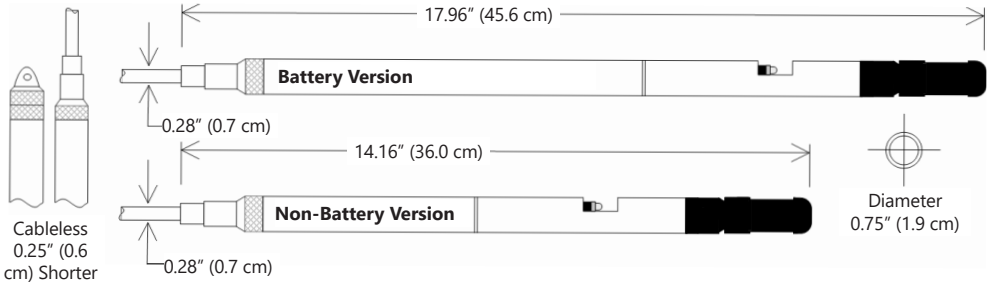
While most will use the TempHion with our free, easy-to-use Aqua4Plus Lite or Aqua4Plus software, it is by no means limited to that software. You can use your own Modbus® RTU or SDI-12 software or logging equipment to read measurements, thus tying into your existing systems and data bases.

ISO 9001:2008 Certified Company

PROUDLY MADE IN THE USA

TempHion™ pH/ORP
SMART SENSOR WITH DATA LOGGING

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 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=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 and Aqua4Plus Lite		
	Networking	32 available addresses per junction (Address range: 1 to 255)		
	File Formats	.a4d and .csv		
Output Channels		**Temperature**	**pH**	**ORP**
	Element	30K ohm thermistor, Epoxy bead/external housing	Glass combination electrode	Platinum ring
	Accuracy	±0.2˚C	±0.2 pH units, 0.1% mV value (typical)	0.1 mVH, 0.1% mV value (typical)
	Resolution	0.1˚C	0.01 pH units	0.01 mVH units
	Units	Celsius, Fahrenheit, Kelvin	pH, mV	Eh, mV
	Range	0˚ to 55˚C (32˚ to 131˚F)	0-14 pH units / -538 to 260mV	± 1200mV
	Compensated	---	0˚ to 40˚C (32˚ to 104˚F)	0˚ to 40˚C (32˚ to 104˚F)
	Calibration	---	One or two point calibration w/ pH buffers (4 & 7 or 7 & 10)	EH 1 pt. calibration
	Reference Solution		Potassium Nitrate - (KNO_3)	Potassium Nitrate - (KNO_3)
Reference		Ag/AgCl solid state electrode, capillary liquid junction, TempHion™ reference solution		
Maximum Depth		700 ft (210m) / 300psi		
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.*

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