

# T1/T1R

## SUBMERSIBLE TEMPERATURE SMART SENSOR



### APPLICATIONS

Rugged construction—  
can replace analog sensors

Monitor temperature

- Ground water
- Well
- Tank
- Tidal

### Features

- Measures temperature
- SDI-12 v1.3 and Modbus® RTU
- Recording (T1R) and non-recording (T1) versions
- Non-volatile memory (T1R)
- Small diameter— 0.75" (1.9 cm)
- 316 stainless, fluoropolymer, and PTFE construction
- Polyethylene, polyurethane, and ETFE cable options
- Easy export to spreadsheets and databases (T1R)

Offering both SDI12 and Modbus® interfaces, the **Seametrics T1/T1R** is a smart choice for upgrading to digital and replacing your analog temperature sensors. The T1/T1R's rugged construction of 316 stainless steel, fluoropolymer, and PTFE resists weathering and data interferences, making it safe for long-term deployment.

The T1 is easy to interface with SDI-12 recorders and can be daisy-chained on one cable up to 200 feet, making it a preferred choice for many environmental professionals with existing SDI-12 systems.

The T1R is powered internally with two replaceable AA batteries. Alternately it can be powered with an external auxiliary power supply for data intensive applications.

While most will use the T1R 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

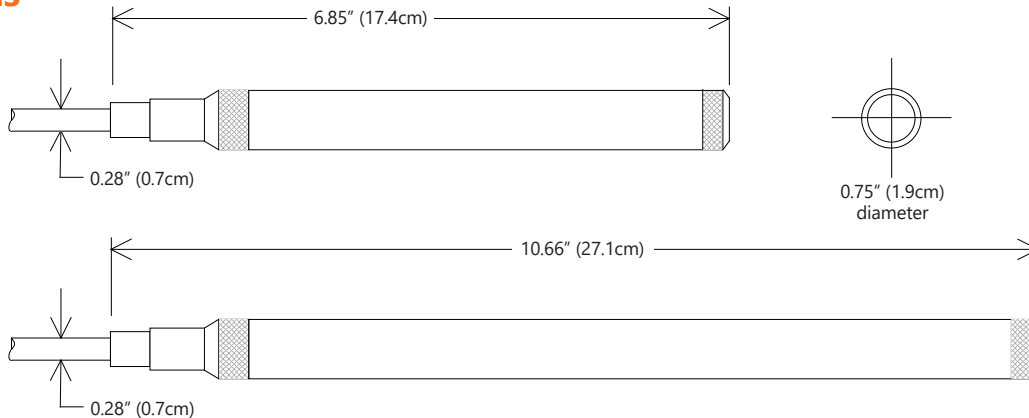


# T1/T1R

## SUBMERSIBLE TEMPERATURE SMART SENSOR



### Dimensions



### Specifications\*

<b>Housing &amp; Cable</b>	<b>Weight</b>	0.8 lb. (0.4 kg)
	<b>Body Material</b>	316 stainless
	<b>Wire Seal Material</b>	Fluoropolymer and PTFE
	<b>Cable</b>	Submersible: polyurethane, polyethylene, or ETFE (4 lb./100 ft., 1.8 kg/30 m)
	<b>Desiccant</b>	1-3 mm indicating silica gel
	<b>Field Connector</b>	T1: Optional, T1R: Standard
<b>Temperature</b>	<b>Operating Range</b>	Recommended: -5° to 70°C (23° to 158°F)
	<b>Storage Range</b>	Without batteries: -40° to 80°C (-40° to 176°F)
<b>Power (T1)</b>	<b>Operating Voltage</b>	9-15 Vdc
	<b>Supply Current</b>	Reading: 3mA, Sleep: 250µA
	<b>Protection</b>	Electromagnetic & transient: IEC-61000 - 4-3, 4-4, 4-5, 4-6
<b>Power (T1R)</b>	<b>Internal Battery</b>	Two lithium 'AA' batteries - Expected battery life: 18 months at 15 min. polling interval (may vary do to environmental factors)
	<b>Auxiliary</b>	12 Vdc - Nominal, 9-15 Vdc - range
<b>Communication</b>	<b>Modbus®</b>	RS485 Modbus® RTU, output=32bit IEEE floating point
	<b>SDI-12</b>	SDI-12 (ver. 1.3) - ASCII
<b>Logging (T1R)</b>	<b>Memory</b>	4MB - 520,000 records
	<b>Logging Types</b>	Variable, user-defined, profiled
	<b>Logging Rates</b>	8x/sec maximum, no minimum
	<b>Baud Rates</b>	9600, 19200, 38400
	<b>Software</b>	Complimentary Aqua4Plus
	<b>Networking</b>	32 available addresses per junction (Address range: 1 to 255)
<b>Temperature Output</b>	<b>File Formats</b>	.a4d and .csv
	<b>Element</b>	Digital IC on board
	<b>Accuracy</b>	±0.2°C
	<b>Resolution</b>	0.06°C
<b>Environmental</b>	<b>Units</b>	Celsius, Fahrenheit, Kelvin
		IP68, NEMA 6P

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