T1/T1R
SUBMERSIBLE TEMPERATURE SMART SENSOR

Seametrics

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.
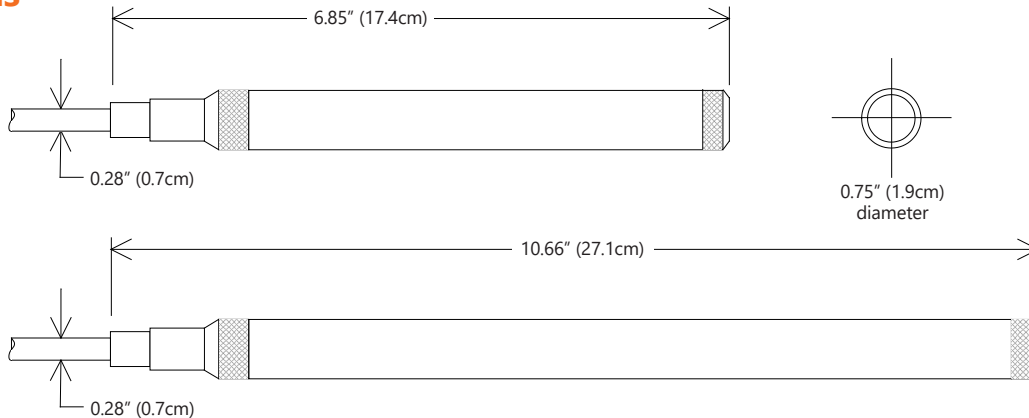
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Dimensions

6.85" (17.4cm)

0.28" (0.7cm)

0.75" (1.9cm) diameter

10.66" (27.1cm)

0.28" (0.7cm)

Specifications*

Housing & Cable	**Weight**	0.8 lb. (0.4 kg)
	Body Material	316 stainless
	Wire Seal Material	Fluoropolymer and PTFE
	Cable	Submersible: polyurethane, polyethylene, or ETFE (4 lb./100 ft., 1.8 kg/30 m)
	Desiccant	1-3 mm indicating silica gel
	Field Connector	T1: Optional, T1R: Standard
Temperature	**Operating Range**	Recommended: -5˚ to 70˚C (23˚ to 158˚F)
	Storage Range	Without batteries: -40˚ to 80˚C (-40˚ to 176˚F)
Power (T1)	**Operating Voltage**	9-15 Vdc
	Supply Current	Reading: 3mA, Sleep: 250µA
	Protection	Electromagnetic & transient: IEC-61000 - 4-3, 4-4, 4-5, 4-6
Power (T1R)	**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, 9-15 Vdc - range
Communication	**Modbus®**	RS485 Modbus® RTU, output=32bit IEEE floating point
	SDI-12	SDI-12 (ver. 1.3) - ASCII
Logging (T1R)	**Memory**	4MB - 520,000 records
	Logging Types	Variable, user-defined, profiled
	Logging Rates	8x/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
Temperature Output	**Element**	Digital IC on board
	Accuracy	±0.2˚C
	Resolution	0.06˚C
	Units	Celsius, Fahrenheit, Kelvin
Environmental		IP68, NEMA 6P

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

User is responsible for reviewing end use application with their supplier for product suitability.

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