

T-Node

temperature string

- **Build multi-point temp strings**
- **$\pm 0.1^{\circ}\text{C}$ temperature accuracy**
- **NIST Traceable factory calibration**
- **Includes SDI-12 & RS-485 signals**
- **Easily integrate 3rd party sensors**

The NexSens **T-Node** connectorized water temperature sensor features an integral digital sensor secured in a protective housing for underwater deployments down to 100 meters in fresh, brackish, or seawater. Each **T-Node** sensor is factory calibrated to $\pm 0.1^{\circ}\text{C}$ for high-precision measurements. The sensors can be connected in-series using UW underwater cables and suspended vertically in a water column or horizontally along a stream or riverbed. Double o-ring seals ensure a waterproof sensor connection.

Temperature data is transmitted on a 1-wire temp string bus. In addition to the 1-wire bus, the **T-Node** offers pass-through signals for SDI-12 and RS-485, allowing the user to connect Nodes and other environmental measurement sensors along the string. This sensorBUS architecture has been designed so that researchers can easily build and customize multi-point temperature strings or more powerful environmental monitoring networks.

The **T-Node** sensors feature a plug-&-play interface to NexSens **SDL500** submersible data loggers and offshore data buoys. Data collection options include standalone, radio, and cellular telemetry. NexSens **iChart** Software is a Windows-based program for interfacing both locally (direct-connect) and remotely (through telemetry) to an **SDL500** data logger or network of data loggers. For connection to external data collection platforms, the **T-Node** sensor string can integrate with a NexSens controller for data output in SDI-12 or Modbus RTU.

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specifications

Sensor	Semiconductor
Range	0 to 50°C (32 to 122°F)
Accuracy	±0.1°C (±0.2°F)
Reading time	60 seconds max for 50 sensors
Maximum sensors	50
Maximum length	100m
Power requirement	Supplied by SDL500 data logger
Calibration	NIST Traceable
Cable	8-Conductor polyurethane jacketed; anti-chafing armored cables available
Connection Seal	Double o-ring, gland & face seal
Connector	8 pin, sensorBUS
Dimensions	5.3" L x 1.4" Dia.



parts list

Part #	Description
T-Node	T-Node connectorized water temperature sensor
UW-0.5	Underwater connectorized cable assembly, 0.5m
UW-1	Underwater connectorized cable assembly, 1m
UW-2	Underwater connectorized cable assembly, 2m
UW-5	Underwater connectorized cable assembly, 5m
UW-10	Underwater connectorized cable assembly, 10m
UW-20	Underwater connectorized cable assembly, 20m
UW-30	Underwater connectorized cable assembly, 30m
UW-40	Underwater connectorized cable assembly, 40m
UW-50	Underwater connectorized cable assembly, 50m
SDL500	Submersible data logger
1001	iChart Software for Windows-based computers



937.426.2703
8am to 7pm EST, Monday-Friday

937.426.1125
24 hours a day, every day

NexSens Technology, Inc.
PO Box 151
Alpha, OH 45301-0151

info@nexsens.com

nexsens.com