

## **T-Node FR Temperature Sensor**

A temperature sensor string shall be provided to provide a temperature profile of the water column in (Specify Location).

The temperature sensor shall incorporate an integral titanium thermistor secured in a protective housing for underwater deployments in fresh, brackish, or seawater.

The temperature sensor shall be connected in-series using modular, marine-grade connectorized cables available in multiple standard increments, both metric and imperial.

The temperature sensor cables shall incorporate a heavy wall, UV-stabilized polyurethane jacket, braided Kevlar core and flexible strain reliefs on both ends.

The temperature sensor connectors shall employ double O-ring seals to ensure a waterproof sensor connection to 200 ft. depths.

The temperature sensor shall transmit data on a RS-485 Modbus RTU bus with SDI-12, RS-232 and RS-485 pass-through signals to allow for connection of additional sensors (water quality, depth, etc.) along the string.

The temperature sensor shall have an accuracy of +/- 0.075°C and resolution of 0.01°C.

The temperature sensor thermistor shall exhibit of long-term stability of less than or equal to 0.003°C over 50,000 hours of deployment.

The temperature sensor shall have the capability to add up to 250 temperature elements or 1219m of cable along a single string.

The temperature sensor string shall have the capability of being lengthened or shortened by the user without returning the string to the factory.

The temperature sensor shall offer a waterproof connection to the data collection platform.

The temperature sensor shall offer mooring accessories for attachment to a 3/16" vinyl-coated stainless steel mooring line.

The temperature sensor shall offer communication accessories to convert the output to RS-232.

The temperature sensor shall be Model T-Node FR as manufactured by NexSens Technology, Inc. or approved equal.