OEM Sensors.com™

Wireless Temperature Sensor

Technical Overview

General Description
The OEM Wireless Water Temperature Sensor uses a sealed, type NTC thermistor with 3 ft. lead wires to measure water temperature.

Features
- Accurate to ± 1° C (± 1.8° F)
- Sealed, 3 ft. lead wire

Principle of Operation
The OEM Wireless Water Temperature Sensor collects temperature data of water or other non-combustible liquids using a sealed NTC thermistor with 3 foot lead wires. It is programmed to sleep for a user-given time interval (heartbeat) and then wakeup, send power to the NTC Thermistor and wait for it to stabilize, and convert the analog data, mathematically compute the temperature and transmit the data to the gateway. To stay within the abilities of the processor, the temperature is computed off a data table provided by the manufacturer. To reduce error, a variable resistor configuration is implemented over specified temperature ranges.

OEM Sensor Core Specifications
- Power: 3.0 V coin cell battery
- Communication: RF 900, 868 and 433 MHz
- Antenna: 4" wire antenna
- Operating Temperature: -40° to 85°C (-40° to 185°F)
- Device Range: 250 - 300 ft. non-line-of-sight*
- Only 1 inch by 1 inch

* Actual range may vary depending on environment.

Applications
- Water / Liquid Storage Tanks
- Manufacturing Processes
- Swimming Pools
- Aquariums

Specifications

Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 µA (sleep mode) 2 mA (radio idle/off mode) 2 mA (measurement mode) 25 mA (radio RX mode) 35 mA (radio TX mode)
Electronics Operating Temperature Range	-40°C to +85°C (-40°F to +185°F) **
Available Operating Frequencies	900 MHz (25 Channels), 868 MHz (5 Channels) and 433 MHz (15 Channels)
Probe Temperature Range	-40°C to +100°C (-40°F to +212°F)
Accuracy @ 25°C	+/- 2%
Lead Wire Length	3 ft. (36 in.) with Water Tight Seal ***
Certifications FC CE ◆Industry Canada	900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).

* Hardware can not withstand negative voltage. Please take care when connecting a power device.

** At temperatures above 100°C, it is possible to lose programmed memory.

For more product information, to get a quote, or to place an order, please contact our sales department at 801-561-5555. Visit us on the web at www.oemsensors.com.

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