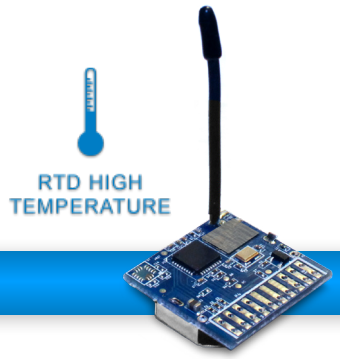
OEM SENSORS.COM™

Wireless RTD High Temperature Sensor



Technical Overview

General Description

The RF Wireless High Temperature Sensor uses a glass coated platinum RTD sensor to accurately measure temperatures from -50° C to +370° C (-58°F to 700°F).

Features

- Accurate to +/- 0.15°C.
- RTD temperature range: -50°C to +370°C (-58°F to 700°F)

Principle of Operation

The OEM Wireless High Temperature Sensor outputs the ambient temperature in degrees Celsius or Fahrenheit. It is programmed to sleep for a user-given time interval (heartbeat) and then wakeup, power up the RTD sensor and wait for it to stabilize then mathematically compute the temperature and transmit the data to the gateway.

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

- Heaters & Boilers
- Ovens & Cooking Devices
- Environmental Monitoring
- Smart Machines & Smart Structures
- HVAC Operation & Testing.

Electronics 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)
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F) **
Performance	0.7% BFSL Accuracy
Available Frequencies	900 MHz (25 Ch.), 868 MHz (5 Ch.) and 433 MHz (15 Ch.)
Certifications	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).

RTD Technical Specifications	
RTD Temperature Range (RTD and Cable Only)	-50°C to +370°C (-58°F to +700F)
Accuracy @ 25°C	+/- 0.6% (0.15°C)
Dissipation Constant	2mW/°C
Thermal Time Constant	15 sec max.

* 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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