



## Wireless 0-20mA Current Sensor

### Technical Overview

#### General Description

The OEM RF Wireless 0-20 mA Current Sensor is capable of measuring the current off another device or sensor up to 20mA VDC.

#### Features

- Measures current up to 20 mA.

#### Principle of Operation

By connecting the leads on the OEM Wireless 0-20 mA Current Sensor to the positive and ground terminals of another device, the sensor can measure the current and send data to the sensor monitoring software. The data is stored in the software and can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when certain thresholds have been met or exceeded.

#### 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

- Current transducers.
- pH sensors.
- Dissolved oxygen sensors
- Pressure sensors.
- Magnetic flow sensors.

### Specifications

Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 $\mu$ A (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)
Sensor Resolution	~ 0.01 mA (11-bit single ended)
Conversion Time	228 $\mu$ s
Full Scale Current	0 - 20 mA ***
Input Resistance	51 ohms
Certifications	 <p>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).</p>

\* 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.

\*\*\* If application exceeds 20 mA the sensor will return a maximum reading of 20 mA.

If current applied to measurement port exceeds 30mA, circuit protection and conditioning is required.

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](http://www.oemsensors.com).

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