

Wireless 4-20mA Current Loop Sensor ZIO-20

data sheet



FEATURES

- › Easy to install and commission
- › Accuracy of +/- 2%
- › Current range: 4mA to 20mA
- › Voltage range: 0 to 3V
- › Low power consumption: ~ 1.1W
- › On-board data logging of up to 10,000 data points
- › Maximum, minimum, average and instantaneous sensors
- › Waterproof polycarbonate enclosure
- › Fully wireless communications
- › Wireless range up to 300m (LoS)
- › Dimensions (LxWxH): 144mm x 112mm x 35mm
- › Self-healing mesh network
- › 2.4GHz ISM band ZigBee® wireless radio
- › Fully secure communications: 128-bit AES encryption
- › Over-the-air software upgrade capability



INTRODUCTION

The EpiSensor ZIO-20, a rugged, mains-powered Wireless Analog Current Loop Sensor, monitors flow rates, pressures, levels, pH or any other energy related output which uses the industry standard 4-20mA current loop.

The ZIO-20 has a reliable on-board mains power supply and secure wireless ZigBee mesh communications for easy installation and minimum disruption to normal operations. The unit is housed in a waterproof polycarbonate enclosure and has a wireless range of up to 300m outdoors.

APPLICATIONS

The ZIO-20 can be used to monitor a very wide range of analog parameters that relate either directly or indirectly to energy usage in commercial and industrial buildings.

An example of indirect energy usage would be to monitor flow rates in a compressed air line; a high flow rate is maintained outside of production hours could indicate a leak in the system, or incorrect configuration of the control system. An example of direct energy monitoring via analog current loop would be tracking the level of fuel oil in a tank.



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SPECIFICATIONS



Dimensions for ZIO-20 Wireless 4-20mA Current Loop Sensor

Ordering Code	ZIO-20	4-20mA Current Loop Monitor
Current Loop	Current Range Voltage Range Accuracy Maximum Current Sensors	4 to 20mA 0 to 3.3V +/- 2% 50mA Minimum, maximum, average, instantaneous
Wireless Range	Indoor Range Extension Outdoor Range Extension	up to 50m up to 300m (direct line of sight)
Supply Voltage	Input Voltage Range Power Consumption	75V to 265V AC, 50/60Hz 1.1W
Certification	Certification	CE
Security	Encryption	128-bit AES Encryption
Wireless Technology	Radio Technology Radio Frequency Channels Max Tx Power Rx Sensitivity Data Rate	ZigBee Pro 2.4 Ghz ISM Band 16 Channels (11 - 26) +3dBm (+5dBm in Boost Mode) -98dBm @ 1% Packet Error Rate up to 250 kbits/sec
Physical	Dimensions (LxWxH) Weight Mounting Enclosure	144 x 112 x 35 mm 0.35kg Wall Mounting Flanges Polycarbonate Plastic, IP67 rated
Operating Conditions	Operating Temperature Operating Humidity	-40°C to +85°C up to 80% (non-condensing)