Product datasheet

Wireless current sensor: three channel

Monitor granular energy use at a circuit, zone or machine level, in real time.

Our wireless current sensors (CT) simply clip around a three individual cables measuring the alternating current (AC) and the wireless transmitter attaches outside the panel for reliable wireless data transmission. The small, energy harvesting devices use ultra-low power wireless and battery-less technology, making them easy to install and very low maintenance.

Features

Measures current (50Hz or 60Hz) every 30 seconds in three separate channels
Measurement ranges:

- 1A-60A (+/- 0.1A or 2%)
- 2A-200A (+/- 0.1A or 2.5%)
- 2A-600A (+/- 1A or 3%)

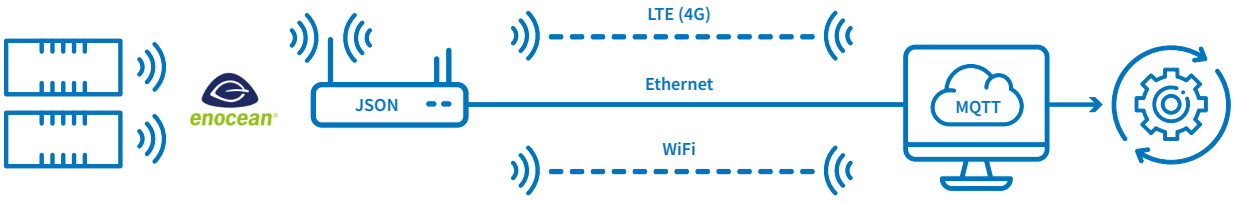
Self-powered using ultra-low energy from the measured conductor, so there's no need for batteries or wiring

Simply clip around cables with no interruption to electrical supply

Transmit data wirelessly via EnOcean wireless protocol, which uses internationally approved, licence-free ISM bands

Integrating sensor data

Our smart gateway receives near real-time data from all sensors within range, converts the raw data into an easy-to-use JSON format, then publishes it using MQTT protocol. Data can be sent - via Ethernet, LTE (4G) or WiFi – to any local or cloud MQTT broker; securely to IBM Watson IoT, Microsoft Azure IoT Hub or AWS IoT Core; directly into Google Sheets; or to a Node-RED application.



*Ready-made connections with:

aws
Microsoft Azure Certified
Node-RED

Pressac

Technology that makes buildings talk

Technical specification

Measurement	**Transmission rate:** reports average of 5 measurements every 30 seconds **Measurement ranges:** • 1A-60A (+/- 0.1A or 2%, whichever is greater) • 2A-200A (+/- 0.1A or 2.5%, whichever is greater) • 2A-600A (+/- 0.1A or 3%, whichever is greater) **AC current frequencies:** 50Hz or 60Hz
Power specification	**Power:** energy harvesting - powered by the measured conductor
Wireless specification	**Protocol:** EnOcean **Radio frequency:** • 868 MHz for Europe and other countries adopting RED • 902 MHz for USA (FCC specification) and Canada (IC specification) • 928 MHz for Japan (ARIB specification) **Range:** up to 30 metres in buildings and 300 metres in free field **Telegram type:** VLD **EnOcean Equipment Profile (EEP):** D2-32-02 **Interoperability:** EnOcean certification 2.0
Enclosure specification	**Material:** nylon 66 **IP rating:** IP4X **Dimensions of CT clamp:** • 60A: 25 x 22 x 35 mm (approx) • 200A: 35 x 45 x 65 mm (approx) • 600A: 65 x 41 x 85mm (approx) **Dimensions of transmitter:** 80 x 55 x 20 mm (approx)
Installation	**Fixing:** clamp clips around single core cable. Adhesive pads or screws for transmitter **Diameter of measurable conductor:** • 60A: 10mm or less • 200A: 24mm or less • 600A: 36mm or less **Operating temperature and humidity range:** -5°C to +40°C; 0-85% **Storage temperature and humidity range:** -20°C to +55°C; 0-85% **Environment:** indoor **Calibration:** not required
Compliance	CE approved, RoHS compliant, FCC compliant
Part number	CTV3_[868]-[902]-[928]_3CH_060A, CTV3_[868]-[902]-[928]_3CH_200A, CTV3_[868]-[902]-[928]_3CH_600A