

# Wireless Pulse Counter

## ZPC-10/ZPC-20

data sheet



### FEATURES

- › Easy to install and commission
- › Mains- and battery-powered versions available
- › Pulse frequency up to 4Hz (battery) /30Hz (mains)
- › Battery life up to 10 years (subject to pulse frequency and reporting interval)
- › On-board data logging of up to 10,000 data points
- › 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 ZPC Wireless Pulse Counter interfaces to electricity, water and natural gas utility meters. Pulse readings are reported to the NGR-30 Smart Gateway at a configurable interval. Large networks of multiple ZPC units can connect to the Smart Gateway and deliver data to a central location for detailed analysis of energy and water consumption data. If wireless communications break down, up to 10,000 data points will be logged automatically.

The ZPC unit has on-board ZigBee wireless communications, is housed in a waterproof polycarbonate enclosure, and is available as a battery-powered unit (ZPC-10) or a mains-powered unit (ZPC-20).

### APPLICATIONS

The ZPC is designed for situations where a legacy utility meter exists and retrofit of additional metering equipment is difficult or unnecessary.

In data centers or manufacturing plants, facility managers may not be able to disconnect an electricity or gas supply, but may have access to a pulse output from existing meters.

The ZPC is an extremely rugged, cost-effective and easy-to-deploy solution for monitoring legacy utility meters within commercial and industrial buildings.

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### SPECIFICATION



Dimensions for ZPC-10 /ZPC-20 Wireless Pulse Counter

| Ordering Code         | ZPC-10<br>ZPC-20   | Battery-Powered Wireless Pulse Counter<br>Mains-Powered Wireless Pulse Counter   |
|-----------------------|--|--|
| Pulse Input           | Channels<br>Max. Pulse Frequency<br>Min. Pulse Length  | Single Channel<br>4 Hz (battery)/30Hz (mains)<br>10 mS   |
| Battery (ZPC-10 only) | Lifetime<br>Type   | up to 10 years (30 min reporting interval)<br>Lithium Thionyl Chloride (permanent)   |
| Certification         | Certification  | CE   |
| Wireless Technology   | Radio Technology<br>Radio Frequency<br>Channels<br>Max Tx Power<br>Rx Sensitivity<br>Data Rate | ZigBee Pro<br>2.4 Ghz ISM Band<br>16 Channels (11 - 26)<br>+3dBm (+5dBm in Boost Mode)<br>-98dBm @ 1% Packet Error Rate<br>up to 250 kbits/sec |
| Wireless Range        | Indoor Range<br>Outdoor Range  | up to 50m<br>up to 300m (direct line of sight)   |
| Security              | Encryption   | 128-bit AES Encryption   |
| Physical              | Dimensions (LxWxH)<br>Weight<br>Mounting<br>Enclosure  | 144 x 112 x 35 mm<br>150g<br>Wall Mounting Holes<br>Polycarbonate, Waterproof (IP67)   |
| Operating Conditions  | Operating Temperature<br>Operating Humidity  | -40°C to +85°C<br>up to 80% (non-condensing)   |