# Holosys Wireless M-Bus PulseReader WP1 / WP2

Holosys Wireless M-Bus **PulseReader** is a radio module used for collecting consumption readouts for one or two utility meters (water, gas, electrical energy, heating etc.). The module is capable of reading meters equipped with pulse outputs. The WP2 module is a two-channel pulsereader designed to collect readouts from two independent utility meters. The Wireless M-Bus communication protocol ensures compatibility with a wide range of AMR equipment.



**Wireless M-Bus in accordance with EN 13757- 4**
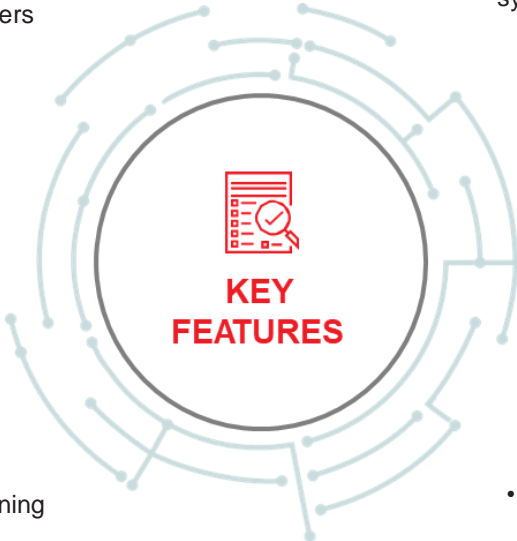


**Operating Frequency 868 MHz**



**Compatible with utility meters that have pulse outputs**



**Support for meter reading on due date**

## KEY FEATURES

• Support for two-tariff systems (WP2)

• Radio range: up to 800 meters

• Protection type: IP68

• Adjustable radio packet sending interval

• Periodical sending of Wireless M-Bus radio packets for transferring meter readouts

• AES128 encryption of radio telegrams to protect message content

• CBC-MAC (Cipher Block Chaining Message Authentication Code)

• Embedded Real-time clock

• Pseudorandom transmission of radio packets in order to avoid synchronous collision

• Each radio telegram sends a timestamp in order to detect any fraud attempts

• SENDING: stored counter values at a specifc time (Due Date function), manipulation alarm information (Tamper), low battery alarm

• Possible synchronization with battery-powered radio repeater

• Configuration using AES128 protected radio channel

• Possibility to change AES128 passwords

## TECHNICAL CHARACTERISTICS

| Pulse input data | |
|---|---|
| Min. pulse duration (closed contact) | 2 ms |
| Min. pause between pulses (open contact) | 20 ms |
| Max. pulse frequency | 45 Hz |
| Max. pulse frequency with 50% duty cycle | 25 Hz |
| Contact voltage | 2.5V...3.6V |
| Contact current | 4 µA |
| Contact resistance | 1 MΩ |
| **Radio interface** | |
| Frequency | 868.95 MHz |
| Antenna type | Internal |
| Data transmission rate | 100Kchips |
| Standard | EN 13757-4 |
| **General data** | |
| Power supply | Integrated battery<br><br>Battery life time (25°C): ~15 years  (depending on the configuration) |
| Housing | Material: Thermoplastic<br><br>Dimensions (w x h x l): 77 x 77 x 35 mm<br><br>Mounting: Bolts on the mountable surface<br><br>Protection type: IP68<br><br>Connecting  cables length: ~1.5 m |
| Operating temperature range | -20°C ...+80°C |
| Weight | ~230 g (WP1), ~270 g (WP2) |