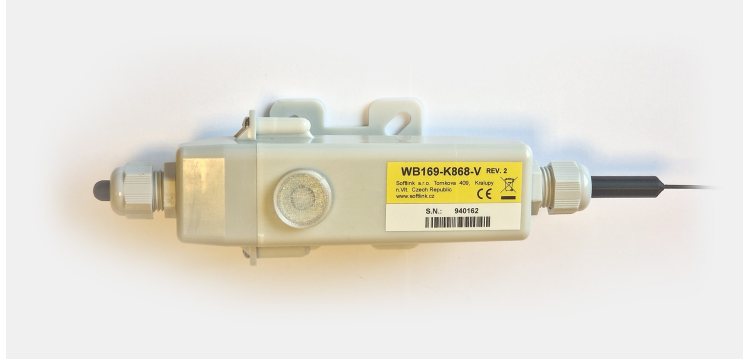


WB169-K868-V



USAGE

The wireless meter reader is designed for remote reading of the status of Sensus iPERL series water meters equipped with a radio transmitter of the read data in the 868 MHz band and for forwarding the read data to the remote reading system via the wM-Bus 169MHz radio network

UNIT DESCRIPTION

The wireless meter serves as a local communication gateway for remote reading of Sensus iPERL series inductive water meters or devices equipped with wM-Bus interface. The reader receives regular radio messages from water meters in its vicinity and stores their contents in memory. At set time intervals, it transmits a summary of the received data to the master remote reading system in the form of radio messages using 169MHz wM-Bus radio technology. The reader can be used to read up to 20 iPERL water meters located at a distance of tens to hundreds of meters. The water meters send their statuses with a fixed period of 15 seconds, the meter receives this data in adjustable receiving "windows" and stores the received data in memory. With a set transmit period, the meter sends a summary message with all stored data over the wM-Bus network to the parent server. Alternatively, the reader can also operate in "on-line" mode, where it sends data to the parent server immediately after each receive window.

TECHNICAL PARAMETERS

Wireless interface

- Frequency Band: 169,400 - 169,475 MHz
- Wireless Technology: Wireless M-Bus
- Protocols: wM-Bus
- Modulation: 2-GFSK, 4-GFSK
- Channel Width: 12.5 or 50 kHz

- Transmission Power: 500 mW
- Receiver Sensitivity: - 109 dBm
- Data Rate: 2,4 - 19,2 kBd
- Output Impedance: 50 Ω
- Antenna: external, SMA-female connector

Wireless receiving interface

- Base frequency: 868 MHz
- Antenne connector: SMA-F
- Communication protocols: Sensus iPERL, wM-Bus
- Maximum number of wireless devices: 20

Bluetooth Specifications

- Bluetooth Version: BLE 5.2
- Bluetooth Frequency: 2.4 GHz
- Bluetooth Data Rate: 1 Mbps
- Bluetooth Maximum Power: 8 dBm

Power

- Battery: Li-SOCI2
- Battery Capacity: 13 Ah
- Battery Life: 5 years

Physical Properties

- Length: 145 mm
- Width: 45 mm
- Height: 100 mm
- Weight: 300 g

Operating Conditions

- Operating Temperatures: (-20 to +50) °C
- Storage Temperatures: (0 to +40) °C
- Relative Humidity: 90% (non-condensing)
- IP Rating: IP65 or IP68

UART configuration

- UART Data Rate: 9.6 kbps
- Transmission method: Asynchronous
- UART parameters: 8 data bits, 1 stop bit, no parity
- Voltage Level: 3.6 V (CMOS)