WB169-R4

USAGE

The converter is designed for remote reading of electronic consumption meters (electricity meter, gas meter, calorimeter) equipped with RS-485 interface.

UNIT DESCRIPTION

The transmitter reads meters with RS-485 bus interface and M-Bus, Modbus, or IEC62056 data format at adjustable intervals over the local RS-485 bus, converts the messages into a uniform wacoSystem format (NEP protocol), and sends them to the master remote reading system as radio messages.
The converter can be used to read up to six meters located on a single RS-485 bus. The transmitter reads individual meters with individually adjustable parameters (period, protocol, speed) and stores the received data in memory. With the set transmission period, the transmitter sends a summary message with all stored data over the radio network to the master server. Alternatively, the transmitter can also operate in "on-line" mode, where it sends data to the master server immediately after each meter reading. The transmitter can read up to four values from each meter, and can send up to 100 values at a time in a summary message.
The configuration parameters of the transmitter can be set using a configuration cable, or from a standard mobile phone via a Bluetooth wireless connection

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

Data interface

- Physical interface: RS-485
- Transmission speed: 300 - 57 600 Bd
- Data protocols: M-Bus, IEC 62056, Modbus
- Maximum number of devices: 20

Power

- Power supply: DC 9 - 24V
- Maximum current: 200 mA
- Connector: clamps

Physical Properties

- Length: 58 mm
- Width: 54 mm
- Height: 90 mm
- Weight: 150 g

Operating Conditions

- Operating Temperatures: (-20 to +50) ^{0}C
- Storage Temperatures: (0 to +40) ^{0}C
- Relative Humidity: 90% (non-condensing)
- IP Rating: IP20

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)