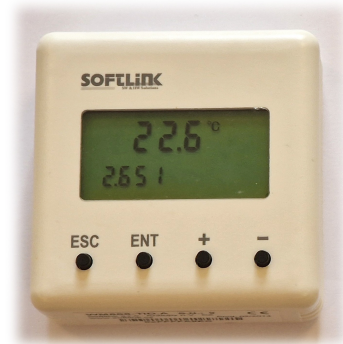


## WM868-TID



## USAGE

The thermometer is designed to measure the air temperature, display the current values and radio transmission of the measurements values.

## UNIT DESCRIPTION

The thermometer is equipped with an integrated temperature sensor. Thanks to the side vents, rapid detection of ambient temperature changes is achieved. The thermometer senses the temperature at minute intervals and transmits the current temperature, which is expressed as an average of the measured values, to the central data acquisition system via a communication gateway at adjustable intervals. Wireless data transmission is implemented in the 868 MHz radio band with a choice of two transmission technologies: WACO868 or wM-BUS. The thermometer uses the possibility of two-way communication via the communication gateway for remote setting of basic parameters. Configuration parameters can be set using a configuration cable. The thermometer is available in two versions, which differ in power supply. The TID.L variant is equipped with a primary lithium battery with a capacity of 3.6 Ah, and the TID.A variant is powered by two replaceable 1.5V AAA conventional batteries. The lifetime of the thermometer depends on the capacity and type of battery, but it is in the order of years. The thermometer is primarily designed for indoor environments, but can also be used outdoors where the influence of splashing water is excluded.

## TECHNICAL PARAMETERS

**Wireless interface**

- Frequency Band: 868.0 - 868.6 MHz
- Wireless Technology: WACO 868
- Protocols: WACO

- Modulation: GFSK
- Channel Width: WACO 100 kHz, wM-BUS 200 kHz
- Transmission Power: 10-25 mW
- Receiver Sensitivity: WACO -114 dBm, wM-BUS -105 dBm
- Data Rate: WACO 38400 bps, wM-BUS 100 kbps
- Output Impedance: 50 Ω
- Antenna: external, SMA-female connector

### Temperature measurement

- Measured temperature Range: -40 to 80 °C
- Temperature measure resolution: 0.1 °C
- Temperature measure accuracy: ±0.2 °C (-10 ÷ 85 °C)

### Power

- Battery: Li-SOCI2 or 2x AAA, 1.5V
- Battery Capacity: 2.2 Ah (Li-SOCI2)
- Battery Life: 7 years

### Physical Properties

- Length: 70 mm
- Width: 70 mm
- Height: 27 mm
- Weight: 220 g

### Operating Conditions

- Operating Temperatures: (-20 to +50) °C
- Storage Temperatures: (0 to +40) °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)