

# WIRELESS CURRENT LOOP

## Rpp 1.00



**Radio transmission of the current value  
0-20 mA**

**Range up to 300m without transceiver**

**Unlicensed band 868 MHz**

**Coded transmission**

The device is designed for wireless, single-channel transmission of current loop signal. It consists of two modules: a transmitter and a receiver.

Optionally a [Rpp 1.00-T](#) retransmitter is offered that extends the operating range.

The transmitter measures the current quantity, averages it in the period of 30 s and sends it to the receiver, which forces the received value. The transmission takes place in the band, intended for Low Power Radio Devices (LPRD), which does not require permits or fees.

Transmitted data packets contain an individual address, which allows the work of many devices in the same area.

The devices are delivered with fixed values of operating frequency, baud rate, output power and packet address. The above parameters can be changed at the recipient's request in the intervals given in brackets in the technical data.

The device makes it easy to bring the measurement signal to the controller. It is very useful in cases when the measuring point is moving on land or water. An additional effect of the application of the wireless current loop is the galvanic separation of the measuring sensor and the object controller.

If it is necessary to display the value of the measuring current, you can use the receiver in the [Rpp 2.01-O](#) version with the OLED display.

## Technical data

**Operating frequency:** 868.29388 (868.0 ÷ 868.6) MHz

**Modulation type:** GFSK

**Output power:** +10 (-10 ÷ +10) dBm

**Receiver sensitivity:** -110 dBm

**Range:** 300 m in an open area (without use of a transceiver)

**Transmission:** autonomous, average period 30 seconds (min. 103 ms), test mode 2s

**Baud rate:** 1.2 (1.2 ÷ 500) kbps

**Polite spectrum access** - CCA Clear Channel Assessment

**Antenna:** internal, right angle

**I / O signal:** current 0-20 mA

**Transmitter input current resistance:** 115 ÷ 135  $\Omega$

**Receiver output current load resistance:** max. 750  $\Omega$

**Accuracy of transfer:** 0.25% in the range of 4 ÷ 20 mA

**Power supply:** 24 V DC  $\pm$  5% external

**Power consumption:** max. transmitter - 55 mA , receiver - 65 mA

**Terminals:** Pg7 cable entry, outer diameter of the wire 3.5 ÷ 6 mm, core diameter max. 0.75 mm<sup>2</sup>

**Housing:** 82 x 80 x 55 (W x H x D), wall mounted - IP65

**Operating environment:** temperature -20 ÷ +55 °C , relative humidity <95 % , non condensing

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