simex

SPT-88

- digital temperature transmitter
- measuring input: TC or Pt100
- automatic identification of 2-, 3- and 4-wire connection
- output signal 4-20 mA, directly proportional to the temperature
- in-head mounting, DIN B housing
- signaling LEDs
- configuration software

Temperature transmitters **SPT-88** are designed to work with RTD and TC sensors. They convert the chosen measured value range into the linear output signal 4 - 20 mA. In case of the measuring range exceeding or short circuit / interruption at the measuring input, the device would alarm that by one of the output current levels (3,6 mA or 21,5 mA). The design of our devices lets to mount them into the B-type head of the temperature sensors.
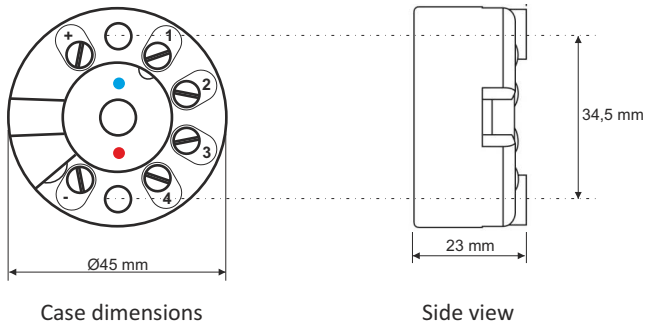
SPT-88 transmitters are easy to set up by using the specialized configuration software SPT Device Manager. Thanks to a lot of capabilities and low price, they can be used in many industrial applications, where the temperature conversion is useful or needed.

TECHNICAL DATA

	SPT-88PT	SPT-88TC
Power supply	12 ÷ 24V DC ±1%	9 ÷ 30V DC
Input signal; measurement range; accuracy	Pt100, 2-/3-/4-wires: -200 ÷ +850°C; <0,4% in full temperature range	TC K: -230 ÷ +1370°C; 1°C TC J: -210 ÷ +1200°C; 1°C TC N: -200 ÷ +1300°C; 1°C TC R i S: -50 ÷ +1760°C; 2°C TC T: -200 ÷ +400°C; 1°C TC E: -200 ÷ +1000°C; 1°C
Factory settings	Pt100 with 3-wire circuit, range: 0 ÷ +100°C; sensor offset 0°C; sampling 0,2 s; fault current NAMUR NE 43	TEK sensor, range -200 ÷ +1000°C; sensor offset 0°C; sampling 0,5 s; fault current NAMUR NE 43
Output signal	2-wire, 4-20 mA (3-22 mA)	
Minimum range width	50°C	
Measurement wires resistance	$(Uz - 9)V / 0,022A$ [Ω]	
Sensor break reaction	< 3,6 or > 21,5 mA (default), programmable	
Response time	< 500 ms (warm-up time 5 min)	
Sampling	> 500 ms	
Output protection	against reversed polarity - surge protection	
Software	configuration software SPT Device Manager (option)	
Environmental conditions	operating and storage temperature: -20°C ÷ 80°C, humidity: <95%, no condensation	
Protection class	IP 40	
Dimensions	Ø45 x 23 mm	
Material	Nylon 66	
Cross section	2,5 mm^2	
Weight	50 g	

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DIMENSIONS

Case dimensions

Ø45 mm

Side view

34,5 mm

23 mm

WIRING

SPT-88TC: electrical connections

9 ÷ 30V DC

Thermocouple

TC

LED1

LED2

4-20 mA

meter
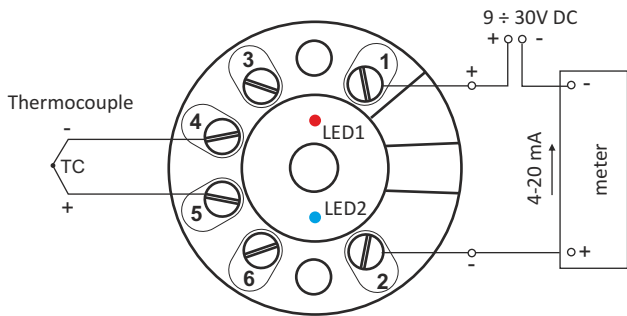
SPT-88PT: electrical connections

Pt100, Two-wire circuit

Pt100, Three-wire circuit

Pt100, Four-wire circuit

RTD

12 ÷ 24V DC

LED1

LED2

4-20 mA

meter
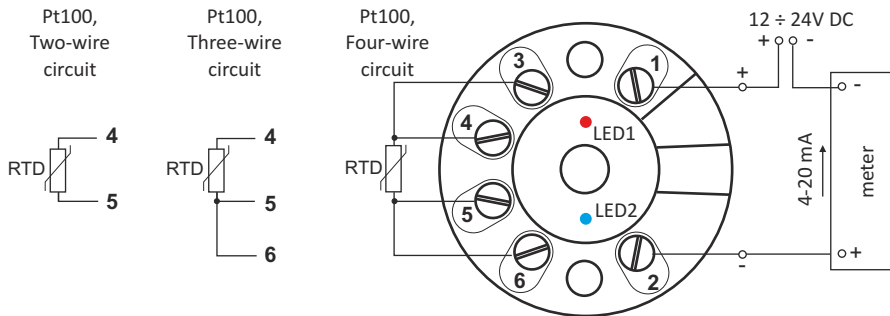
STATUS LEDs

LED1 (red)	LED2 (blue)	
OFF	ON	normal mode
blink	ON	sensor error
OFF	blink	configuration mode

ORDERING

SPT-88X

    input:
    PT : Pt100
    TC : thermocouple

Accessories:
SPT-USB/88 - USB cable and **SPT Device Manager** software for programming transmitters type SPT-88

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SPT-88.2

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