



## SPT-88

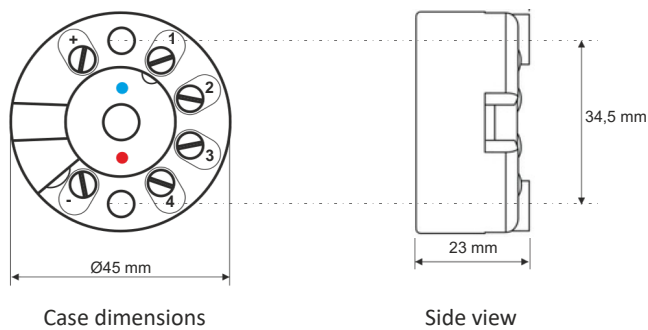
- digital temperature transmitter
- measuring input: TC or Pt100
- automatic identification of 2-, 3- and 4-wire connection
- output signal 4-20 mA, directly proportional to the temperature
- in-head mounting, DIN B housing
- signaling LEDs
- configuration software

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

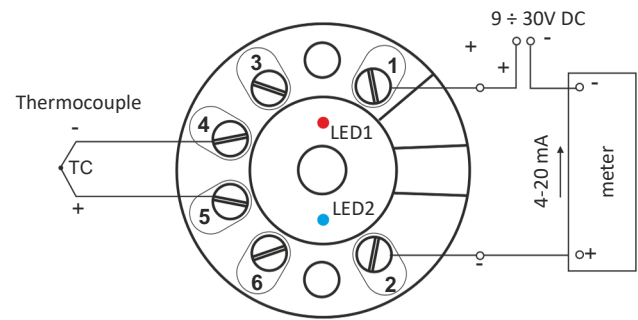
|                                           | SPT-88PT                                                                                                   | SPT-88TC                                                                                                                                                                     |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply                              | 9 ÷ 30V DC                                                                                                 | 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<br>TC J: -210 ÷ +1200°C; 1°C<br>TC N: -200 ÷ +1300°C; 1°C<br>TC R i S: -50 ÷ +1760°C; 2°C<br>TC T: -200 ÷ +400°C; 1°C<br>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              | (U <sub>z</sub> - 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 <sup>2</sup>                                                                                        |                                                                                                                                                                              |
| Weight                                    | 50 g                                                                                                       |                                                                                                                                                                              |

DIMENSIONS

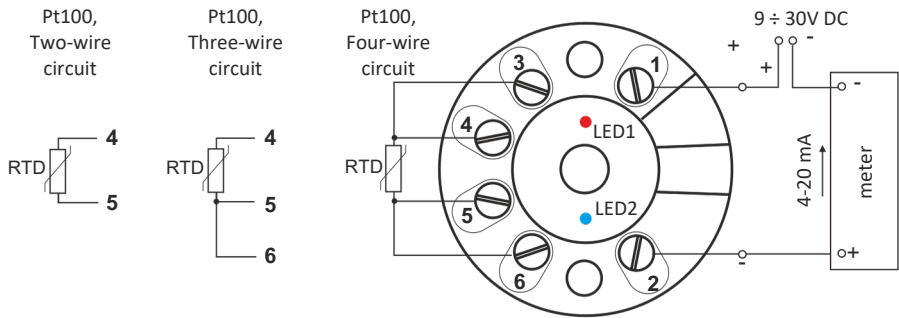


WIRING

SPT-88TC: electrical connections



SPT-88PT: electrical connections



STATUS LEDs

| LED1<br>(red) | LED2<br>(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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