

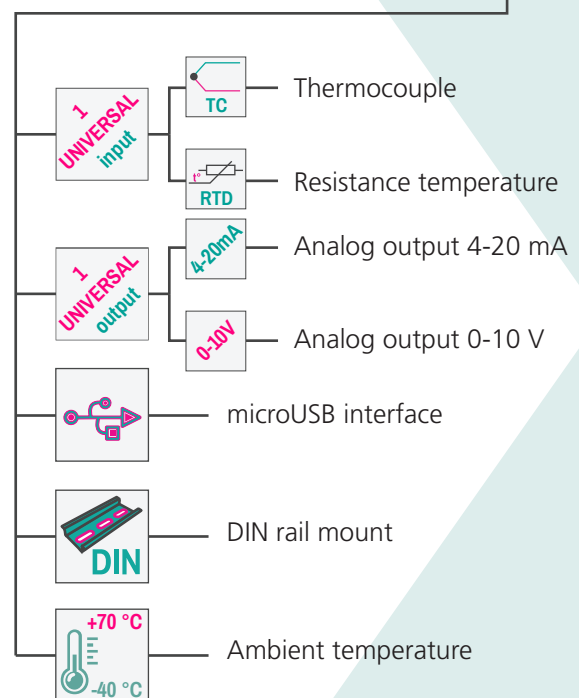
NPT4

Compact Temperature Transmitter

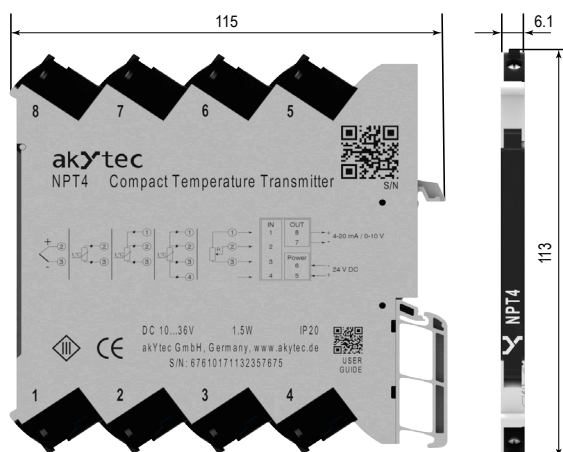
The NPT4 is a universal temperature transmitter housed in a 6-mm slim enclosure for DIN rail mounting. This device is intended to convert any input signal from a TC or RTD (2-, 3-, 4-wire) sensor into a 0(4)-20 mA or 0(2)-10 V standard signal. The input is protected against sensor break and short circuit. The power supply circuit is protected against reverse polarity. A wide variety of RTD and TC sensors are accepted. The device configuring is performed via the USB interface.

Functions and features:

- Support for a wide variety of RTD and TC
- 2-, 3- or 4-wire connection
- Analog output 0-5 mA, 0(4)-20 mA, 0(2)-10 V
- Operating temperature -40...70 °C
- High reliability
- High accuracy and resolution
- Configuring over the built-in USB port



Dimensions



General specification

| | |
|-------------------------|------------------------------|
| Power supply | 24 (10...36) V DC |
| Power consumption, max. | 1.5 W |
| Galvanic isolation | 1500 V |
| PC interface | microUSB (USB2.0 Full Speed) |
| Protection class | III |
| IP code | IP20 |
| Ambient temperature | -40...+70 °C |
| Humidity | up to 95% (non-condensing) |
| Dimensions | 6,1 x 113 x 115 mm |
| Weight | approx. 200 g |

Input

| | | |
|--------------------|-----|--------|
| Analog input | | 1 |
| Accuracy | TC | 0.5% |
| | RTD | 0.25% |
| Resolution ADC | TC | 15 bit |
| | RTD | 15 bit |
| Galvanic isolation | | 1500 V |

Output

| | | |
|--------------------|--------------------|--------------------|
| Analog output | | 1 |
| Galvanic isolation | | 1500 V |
| Measuring range | | 0...23 mA |
| | | 0...11 V |
| Input signal | | 0-5 mA, 0(4)-20 mA |
| | | 0-5 V, 0(2)-10 V |
| Input resistance | 0-5 mA, 0(4)-20 mA | ≤ 480 ohm |
| | 0-5 V, 0(2)-10 V | ≥ 1000 ohm |
| Resolution DAC | | 12 bit |
| Output ripple | | 0.12 mA |

Sensor types:

| Sensor | Measuring range, °C | Temperature coefficient, °C ⁻¹ | Conversion range, min., °C | Sensor | Measuring range, °C | Conversion range, min., °C |
|---------------------------------|---------------------|---|----------------------------|----------------------------------|---------------------|----------------------------|
| RTD according to IEC 60751:2008 | | | | TC according to IEC 60584-1:2013 | | |
| Pt50 | -200...+850 | 0.00385 | 100 | J | -200...+1200 | 400 |
| Pt100 | -200...+850 | | 100 | N | -200...+1300 | 500 |
| RTD according to GOST 6651 | | | | K | -200...+1300 | 500 |
| 50P | -200...+850 | 0.00391 | 100 | S | 0...+1750 | 600 |
| 50M | -180...+200 | 0.00428 | 50 | R | 0...+1750 | 600 |
| Cu50 | -50...+200 | 0.00426 | 50 | B | +200...+1800 | 1200 |
| 100P | -200...+850 | 0.00391 | 100 | A | 0...+2500 | 600 |
| 100M | -180...+200 | 0.00428 | 50 | T | -200...+400 | 600 |
| Cu100 | -50...+200 | 0.00426 | 50 | TC according to DIN 43710 | | |
| Ni100 | -60...+180 | 0.00617 | 50 | L | -200...+900 | 400 |
| Position encoders | | | | TC according to GOST 8.585 | | |
| Potentiometer (3-wire) | 0...100 % | - | 10 % | L | -200...+800 | 400 |
| Resistance sensor (2-wire) | 0...1000 Ohm | - | 100 Ohm | A-2 | 0...+1800 | 600 |
| | | | | A-3 | 0...+1800 | 600 |

Electrical connections:

