

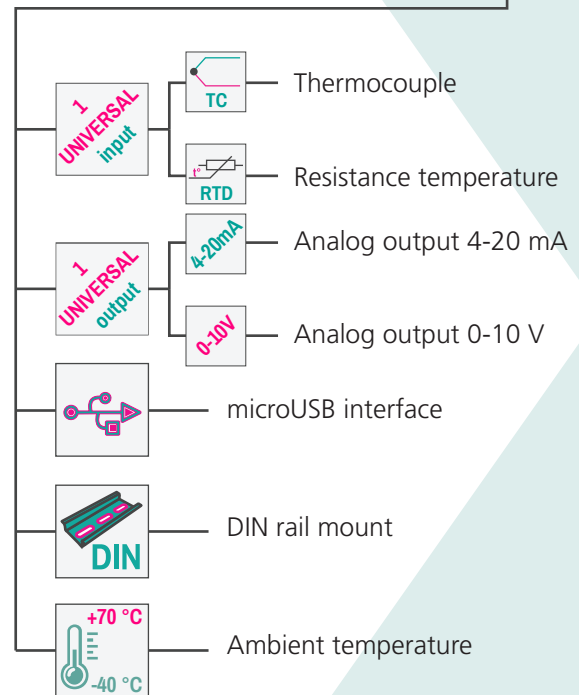
NPT4

Compact Temperature Transmitter

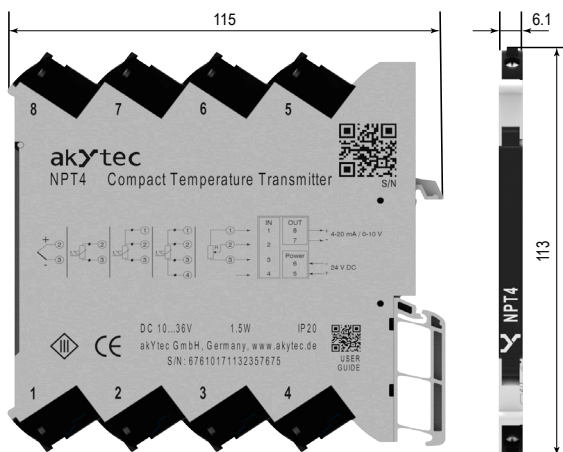
The NPT4 is a universal temperature transmitter housed in a 6-mm slim enclosure for DIN rail mounting. This device is intended to convert any input signal from a TC or RTD (2-, 3-, 4-wire) sensor into a 0(4)-20 mA or 0(2)-10 V standard signal. The input is protected against sensor break and short circuit. 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:

