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ISOLATED PROGRAMMABLE TRANSMITTER WITH ACTIVE OUTPUT

- user - programmable
- galvanic separation 4000Vef input – output – power supply
- designed for DIN 35 rail mounting
- active output 4-20mA, 0-20mA or 0-10V
- accuracy < 0,1%
- auxiliary supply in wide range 19-300VDC and 90-250VAC

Description:

This isolated programmable transmitter with software-adjustable active output convert:

- thermocouple temperature sensors with linearization and internal cold-junction compensation
- RTD temperature sensors (Pt100, Pt1000, Ni1000 etc)
- resistance sensors or potentiometers (in ranges 0..320Ω and 0..2,5kΩ)
- thermistor sensors (KTY, NTC..., see table below)

Specifications:

- | | |
|----------------------------------|---|
| - input PXN30.A: | thermocouple: J, K, T, B, L, S, F, E, N, R, C, D, G, U, M
Pt100 (-200...+610°C), Pt1000 (-200...+500°C) according to IEC 751,
Ni100, Ni1000 TCR 5000 or 6180ppm/K (-60...180°C)
Variable resistance 0..320Ω, 0..2800Ω,
Potentiometer ranging from: 0 ..320Ω, 0..2500Ω |
| - input PXN30.B: | < 10 Ω /1 wire |
| - max. lead resistance | <0,5mA |
| - sensor excitation | cold junction temperature compensation by means of a Pt100 internal sensor fitted at the converter terminals < ±1°C in range -30 ..70°C |
| - compensation for thermocouple | active 4..20mA, 0..20mA, 0..10V |
| - output | <0,01% |
| - resolution | 0,1..20s (initial setting: resistance <0,2s; RTD, Tc 0,3s) |
| - damping | < 0,1% (see the table with accuracy) |
| - accuracy: measurement error | < 0,03% / 10K |
| - accuracy: temperature error | -25...+ 70°C |
| - ambient temperature | -40...+ 80°C |
| - storage temperature | standard 19 – 300V DC and 90 – 250 V AC |
| - auxiliary supply | per order 20 – 60V AC |
| - input power | max. 1,5VA |
| - output voltage amplitude | min. 15V (load 750ohm) in 20mA |
| - voltage output load | max. 10mA |
| - voltage drop on current output | 0,54V |
| - current and voltage limits | 2,5...23,4mA, 0...24mA, 0...12V |
| - degree of cover | housing / terminal: IP40 / IP20 |
| - weight | 90g |
| - environment | pollution degree 2 |
| - user linearization | overvoltage category III |
| - optional accessories | by table in „Rawet Studio“ software
programming adapter AY-USB (+ „Rawet Studio“ software) |

Type tests:

- | | |
|-----------------------|-------------------------|
| - Standard type test: | to ČSN EN 60770-1 ed. 2 |
| - EMC: | to ČSN EN 61326-1 ed. 2 |
| - Safety: | to ČSN EN 61010-1 ed. 2 |



Input signal variants:

User-programmable input: It is possible to set actual input and measuring range in these limits of maximal ranges:

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Typ	Vstup		Rozsah	Nelinearita	
PXN30/R.A	Thermocouple (Tc) internal compensation	Fe-CuNi J	-210..1200°C	0,3°C od -60°C	
			-210..1050°C	0,3°C od -100°C	
			-210..300°C	0,3°C od -160°C	
		Fe-Ko L	0..899°C	0,05%	
		NiCr-NiAl K	-210..400°C	0,3°C od -150°C	
			-270..1372°C	0,1% od -99°C	
			-60..1372°C	0,3°C od -20°C	
		Pt10Rh-Pt S	-50..1768°C	0,1% od 40°C	
		Pt30Rh-Pt6Rh B	0..1820°C	0,1% od 386°C	
		NiCr-CuNi E	-270..1000°C	0,1% od -153°C	
		NiCrSi-NiSi N	-270..1300°C	0,1% od -122°C	
		Pt13Rh-Pt R	-50..1768°C	0,1% od 54°C	
		Cu-CuNi T	-270..400°C	0,1% od -163°C	
		Ni-Ni18Mo M	-50..1410°C	0,1%	
		W5Re-W26Re C	0..2301°C	0,05%	
		W3Re-W25Re D	0..2301°C	0,1% od 49°C	
		W-W26Re G	0..2301°C	0,1% od 286°C	
		F	-30..1400°C	0,05%	
		U	-200..400°C	0,1%	
		Resistance thermometer (RTD) 2w or 3w	Pt100	-200..400°C	0,18°C
			Pt100	-30..600°C	0,18°C
	Pt1000		-200..400°C	0,18°C	
	Pt1000		-100..500°C	0,18°C	
	Ni100, Ni1000 TKR6180/5000		-60..180°C	0,18°C	
	Linear temp. sensor	KTY81.....KTY85.....	-55..150°C	0,25°C	
	Resistance	resistive transmitter/3w	0..320Ω, 0..2800Ω	0,03Ω, 0,2Ω	
	Potentiometer Or resistance/2w		0..321Ω	0,04Ω	
			0..2500Ω	0,3Ω	
	PXN30/R.B	Potentiometer and linear tepm.sensor	Potentiometer	0..150 Ω	0,03 Ω
Potentiometr			0..1300 Ω	0,25 Ω	
Potentiometer			0..11 kΩ	2 Ω	
KTY81-210 3w			-55..150°C	0,2°C	
KTY81-210 2w			-50..145°C	0,15°C	
resistive transmitter/2w			0..11kΩ	2Ω	

Electrical connection: The terminals accept wires with cross sections 0,5..2, 5mm².

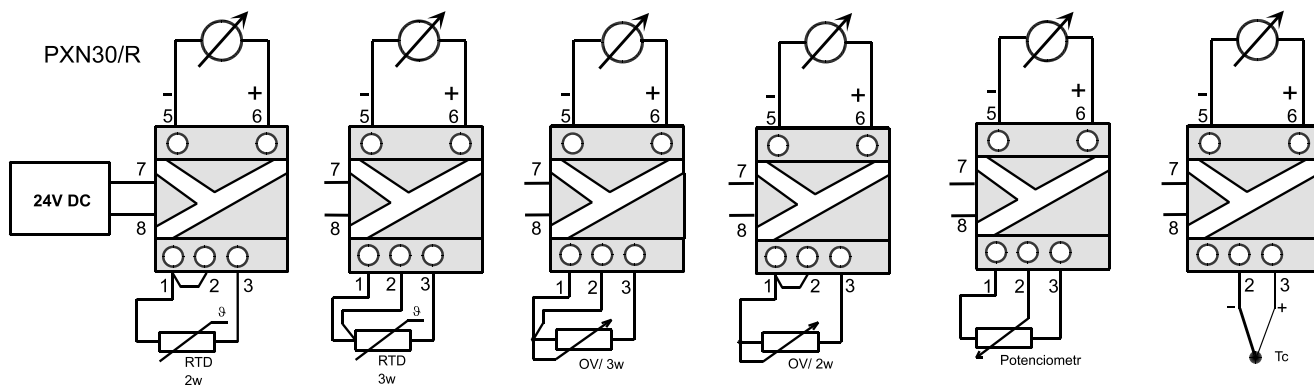
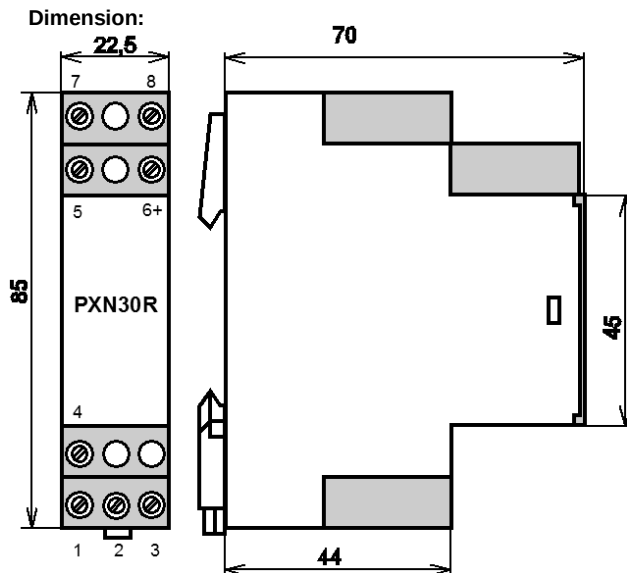
Mechanical installation:

The converter is mounted on the 35 mm DIN rail. The units can operate in any position.

1. Hook upper holder on the rail.
2. Push-out the lower lock by screwdriver.
3. Press down this transmitter and snap the lower lock.

Terminal connection:

- 1, 3..... input RTD 2W, connect 1+2
- 1+2, 3... input RTD 3W
- 2, 3(+)... input thermocouple
- 5, 6..... output (No. 6 is +)
- 7, 8..... auxiliary supply (any polarity)



Ordering instruction:

Your purchase order should include:

- converter type
- input signal type and range
- output signal type and range
- connection
- number of pieces
- special requirements

Examples:

Type	variant	input	range	output	connection	damping	pieces
PXN30/R	.A	Pt100	-15...120°C	4-20mA	3w	0,2	2
PXN30/R	.A	Ni1000/6180	0-90°C	0-10V	2w)*	0,5	4
PXN30/R	.A	Tc"K"	-30...330°C	4-20mA		0,3	1
PXN30/R	.A	R	5-105 Ohm	4-20mA	OV/3w	-	5
PXN30/R	.A	Pt1000	0...180°C	0-20mA	2w)*	-	3
PXN30/R	.B	R	0-10k Ohm	0-10V	potenciometr	0,2	6
PXN30/R	.B	KTY81-210	0..145°C	0-20mA		0,3	1

)* connect clamps 1,2



rev.2