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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 (any type) 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 | 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 TKR 5000 či 6180ppm/K (-60...180°C)
Variable resistance 0..320Ω, 0..2800Ω,
Potentiometer ranging from: 0 ..320Ω, 0..2500Ω |
| - max. lead resistance | < 10 Ω / 1 wire |
| - sensor excitation | < 0,5mA |
| - compensation for thermocouple | cold junction temperature compensation by means of a Pt100 internal sensor fitted at the converter terminals < ±1°C in range -30 ..70°C |
| - output | active 4..20mA, 0..20mA, 0..10V |
| - resolution | < 0,02% |
| - damping | 0,1..20s (initial setting: resistance < 0,2s; RTD, Tc 0,3s) |
| - accuracy: measurement error | < 0,1% |
| temperature error | < 0,03% / 10K |
| - ambient temperature | -25...+ 70°C |
| - storage temperature | -40...+ 80°C |
| - auxiliary supply | standard 19 – 300V DC a 90 – 250 V AC
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: IP20 / IP10 |
| - weight | 90g |
| - environment | pollution degree 2
overvoltage category III |
| - user linearization | by table in „Rawet Studio“ software |
| - optional accessories | programming adapter AX-USB (+ „Rawet Studio“ software) |



Type tests:

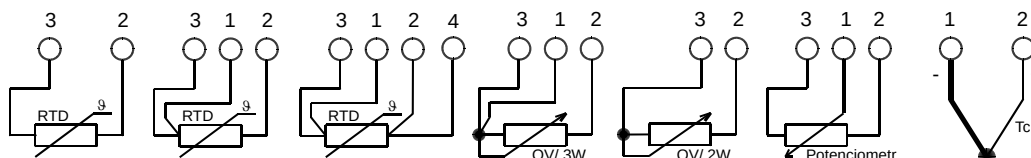
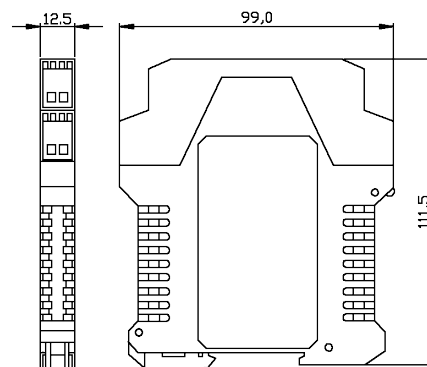
- Standard type test: to ČSN EN 60770-1 ed. 2
- EMC: to ČSN EN 61326-1
- Safety: assessed acc. to ČSN EN 61010-1

Terminal connection:

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

Dimensions:

7	8
5	6+
ISOL 600	
3	4
1	2+



Input signal variants:

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

Input		Range (linearization table)	Non-linearity
Thermocouple (Tc) internal compensation	Fe-CuNi J	-210..1200°C	0,1% od -137°C
		-210..1050°C	0,1% od -144°C
		-210..300°C	0,1% od -186°C
	Fe-Ko L	0..899°C	0,05%
	NiCr-NiAl K	-60..999°C	0,05%
		-210..400°C	0,1% od -177°C
		-270..1372°C	0,1% od -99°C
		-60..1372°C	0,05%
	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
Resistance thermometer (RTD) 2w or 3w	Pt100	-200..400°C	0,1°C
		-30..600°C	0,1°C
	Pt1000	-200..400°C	0,1°C
		-100..500°C	0,1°C
	Ni100, Ni1000 TKR6180 (5000)	-60..180°C	0,13°C
Linear temp. sensor	KTY81..KTY85	-55..150°C	0,2°C
Resistance		0..320Ω, 0..2,5kΩ	
Potentiometer		0..320Ω, 0..2,5kΩ	

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.

This transmitter is designed for easy change without take-down wires.
You can push-out this terminal block by screwdriver – see picture.



Ordering instructions:

Your purchase order should include:

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

Examples:

ISOL600 Ni1000/6180 0...150°C / 0-10V
ISOL600 KTY81-21 -20...80°C / 0-20mA
ISOL600 Pt100 -50...220°C / 4-20mA
ISOL600 0-1k Ohm / 4-20mA potentiometer



rev.2