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PROGRAMMABLE TRANSMITTER FOR DC SIGNALS

- user configuration by programming adaptor AY-USB
- SLIM design, width 12,5mm only
- active output 0-10V/10-0V or passive 4-20mA/20-4mA
- accuracy < 0,1%
- power supply in range 11-30V for 4-20mA output, 12-30V for 0-10V output
- conversion from temperature (RTD+Tc) and resistance (R, Pot) signals to passive output 4-20mA
- conversion from resistance temperature sensors (RTD) to active output 0-10V

Electrical specifications:

- Input
 - thermocouples: 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 or 6180ppm/K (-60...180°C)
 - R 0..320Ω, 0..2800Ω
 - Potentiometers: 0..320Ω, 0..2500Ω
 - Pot 10kΩ, NTC according to contract
- Accuracy:
 - error of measurement 0,07% + additive error, see table
 - thermal drift 0,03%/10K
- Output resolution 0,01%
- Sensor lead resistance < 10 Ω / 1 wire
- Output signal:
 - version 1 4..20mA (20..4mA)
 - version 2 0..10V (10-0V)
- Sensor current < 0,5mA
- Max. load of voltage output > 5kΩ
- Output current and voltage limiting: 2,5..23,4mA, 0..12V
- Damping 0,1..20s (basic design: R, Pot: 0,1s, RTD, Tc: 0,3s)
- For thermocouples cold junction compensation in range -30..70°C, accuracy ± 1°C
- Operating temperature: -30...+ 70°C
- Storage temperature: -40...+ 80°C
- Protection rating: housing / terminal: IP20 / IP10
- Weight: 90g
- User linearization: by table in Rawet Studio software
- Option: programmable adapter AY-USB (setting SW Rawet Studio)

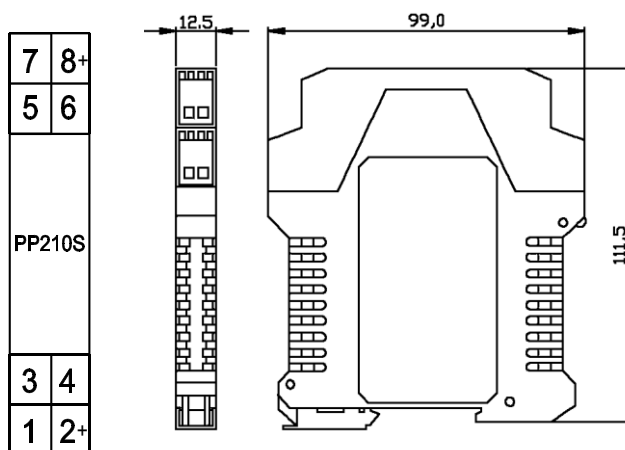


Type test:

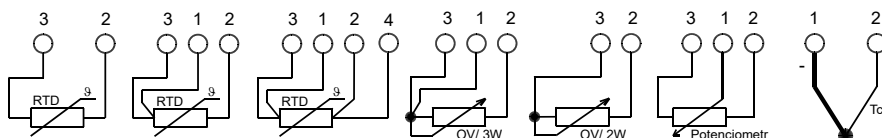
Basic type test by ČSN EN 60770-1 ed.2
EMC complies by ČSN EN 61326-1
Security complies by ČSN EN 61010-1

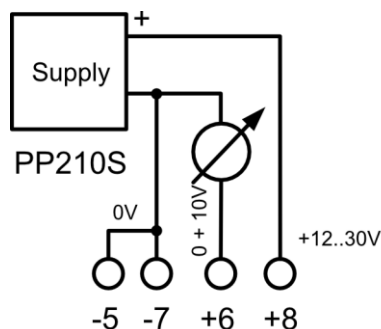
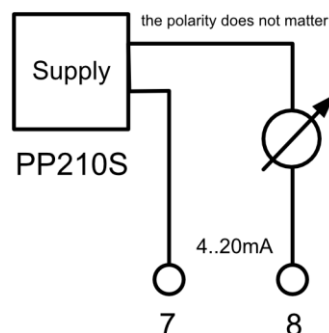
Dimensional drawing and connection terminals:

- 2, 3..... input RTD 2W
1+3, 2... input RTD 3W
2,1, 3 potentiometer
1+3, 2+4 input RTD 4W
1, 2(+)... input thermocouple
6(+)... voltage output
7, 8(+)... power supply
(for 4-20mA any polarity)



Input connection:



Output connection:
version 0-10V

version 4-20mA

Variant of input signals:

User configuration inputs: (You can set the actual input and measurement range within the maximum range limits.)

	Input	Range (linearization table)	Accuracy
Thermocouple sensor (Tc), internal compensation	Fe-CuNi J	-210..1200°C	0,3°C from -60°C
		-210..1050°C	0,3°C from -100°C
		-210..300°C	0,3°C from -160°C
	Fe-Ko L	0..899°C	0,05%
	NiCr-NiAl K	-210..400°C	0,3°C from -150°C
		-270..1372°C	0,1% from -99°C
		-60..1372°C	0,3°C from -20°C
	Pt10Rh-Pt S	-50..1768°C	0,1% from 40°C
	Pt30Rh-Pt6Rh B	0..1820°C	0,1% from 386°C
	NiCr-CuNi E	-270..1000°C	0,1% from -153°C
	NiCrSi-NiSi N	-270..1300°C	0,1% from -122°C
	Pt13Rh-Pt R	-50..1768°C	0,1% from 54°C
	Cu-CuNi T	-270..400°C	0,1% from -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% from 49°C
	W-W26Re G	0..2301°C	0,1% from 286°C
Resistance sensor (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 (KTY)	KTY81..KTY85	-55..150°C	0,3°C
Resistance (R)		0..320Ω, 0..2,5kΩ	0,1Ω, 1Ω
Potentiometer (POT)		0..320Ω, 0..2,5kΩ	0,1Ω, 1Ω
Potentiometer 10kΩ		0..150Ω, 0..1300Ω, 0..10kΩ	0,03%

Other inputs: (spec. adjustment is necessary)

- Thermocouple sensor with external compensation of cold junction by Pt100 sensor
- Resistance transmitter or potentiometer from 3kΩ to 10 kΩ
- Thermistors NTC 10k, 15k, 20k, 25k ...
- Linear temperature sensors KTY, thermistors etc.
- **Customers design is possible**

Ordering:

specify:

- type of converter
- input signal, range and type (or "Default")
Default = Pt100, 0...100°C
- output signal 4-20mA - version 1 (it is impossible to change by software!)
0-10V - version 2 (it is impossible to change by software!)
- number of pieces

Examples of orders:

Basic version: (can be set using the adapter AX-USB)

5 pcs PP210S, Tc „J“, 0..300°C / 4-20mA

2 pcs PP210S, 2w 0..60°C / 0-10V

3 pcs PP210S, Pt100 3w 0..200°C / 4-20mA

1 pcs PP210S, Default / 4-20mA

4ks PP210S, Ni1000/5000 2W -10..150°C / 0-10V

6ks PP210S 0..1kΩ / 4-20mA potentiometer

2ks PP210S, 0..100 Ohm / 4-20mA OV/3

1ks PP210S, Default / 0-10V

Mounting:

The converter is designed to be fitted onto a DIN 35 mm rail. To install the converter, fix the fitting slot on the rail, use a screw-driver to push away the latch and, subsequently, push the instrument bottom towards the bar. Release the screw-driver and lock the spring mechanism to complete the instrument installation.

Replacement of transmitter:

You can replace this transmitter very easy, without demounting of leads.

You have to push out a terminal board by screwdriver, replace this transmitter and push in back this terminal board.

1)

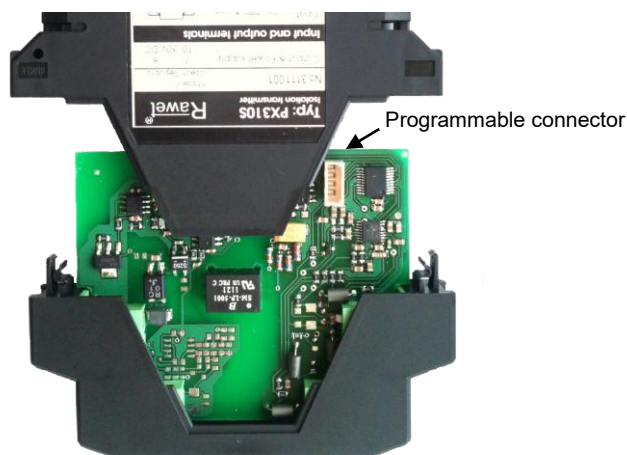
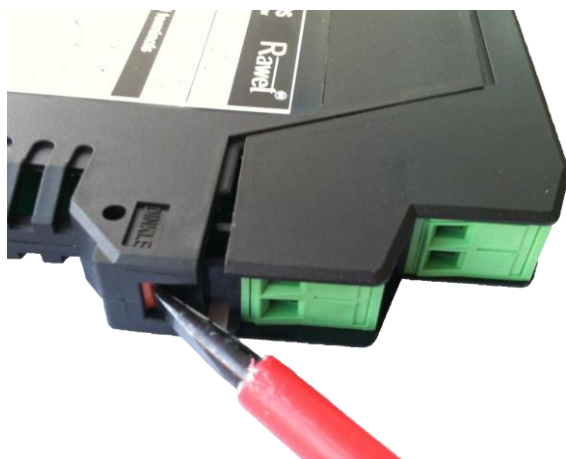


2)



Programming:

You have to open this transmitter. For opening you have to press an orange lock in the side of this transmitter (see picture). Programming connector is inside.



Notes:

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rev.6