

Universal Isolated SMART Transmitter TRZ

- ◆ 11-pin relay socket for fast rail mounting
- ◆ 1500 VAC input / output / supply isolation
- ◆ Programmable input
- ◆ Programmable output
- ◆ Internally generated sensor supply
- ◆ Built-in programmable digital filter
- ◆ Manual output control
- ◆ Serial interface for programming

The intelligent isolated transmitter TRZ can be a proper solution when different signal conversions are needed. This transmitter allows the user to:

- select sensor and input signal type (RTD, T/C, mA, mV, V, R);
- select and adjust input range;
- select output type (0(4)...20 mA or 0...10 V);
- control the output manually;
- perform offset correction and device calibration;
- specify the input-to-output correspondence (direct or reverse);
- select decimal point position and measurement unit;
- select output reaction at sensor failure;
- adjust the digital filter.

The TRZ transmitter is easy to program via the specialized configuration software "TraCon". Thanks to its convenient 11-pin connector case, TRZ can be easily fit in a standard UNDECAL socket and mounted on DIN rail.



Technical specifications

Input	(programmable)
Pt100 (w=1.385); 3-wire	min. -200...max. 850 °C
Pt1000 (w=1.385); 3-wire	min. -100...max. 600 °C
PTC (1k at 25 °C); 3-wire	min. -50...max. 150 °C
PTC (2k at 25 °C); 3-wire	min. -50...max. 150 °C
RTD minimum range width	50 °C
Thermocouple "T"	min. -40...max. 400 °C
Thermocouple "J"	min. -20...max. 1000 °C
Thermocouple "K"	min. -20...max. 1300 °C
Thermocouple "S"	min. 0...max. 1700 °C
Thermocouple "R"	min. 0...max. 1700 °C
Thermocouple "B"	min. 200...max. 1800 °C
T/C minimum range width	100 °C
Linear current	0(4)...20 mA
Linear voltage	0...100 mV, 0...10 V
Linear resistive	0...1 kΩ
Custom linear (option)	on request ⁽¹⁾
Offset adjustment	within range limits
Digital low-pass filter	programmable
Digital peak filter	programmable
Input / output isolation	1500 VAC for 1 min
Input monitoring	(programmable)
Sensor failure reaction	0 mA or > 20.2 mA, programmable
Output	(programmable)
Current	0(4)...20 mA or 20...0(4) mA
- load	max. 600 Ω at 20 mA
Voltage	0...10 V or 10...0 V
- load	min. 2 kΩ at 10 V
Linearly proportional to	measured value
Resolution	4 μA / 2.5 mV
Output calibration	through interface
Manual output control	0...100%, programmable
Excitation voltage	18...28 VDC, max. 30 mA

⁽¹⁾ Instead of linear current or voltage 0...10 V

⁽²⁾ Ordered separately (see 'Accessories')

Accuracy

Measurement error	0.3% from span
Non-linearity	within measurement error
Temperature drift	0.01% from span for 1 °C
Cold junction compensation	automatic software, ± 0.5 °C

Power supply

Mains supply voltage	230 VAC or 115 VAC ± 10%
Isolated low voltage	12...24 V or 24 VAC
Consumption	max. 1.5 VA

Indication

'Power' LED	for power supply ON
'Load' LED	for voltage output overload
'Alarm' LED	for broken current output loop

Interface

Interface type	RS232-based, requiring special cable ⁽²⁾
Configuration software	"TraCon", free

Operating conditions

Ambient temperature	-20...70 °C
Ambient humidity	0...95 %RH, non-condensing

Design and materials

Case material	plastic
Mounting	in socket or on 35 mm DIN rail
Wiring	socket UNDECAL ⁽²⁾
Interface connector	3-pin
Interface cable type ⁽²⁾	K2 (RS232) or K12U (USB)
Dimensions	35x78x91 mm
Weight	180 g
Protection class	IP20

Ordering code TRZ - G1 - #1

Code	Feature or option	Code values
G1	Power supply	A - 230 VAC, B - 115 VAC, Q - 12...24 V, isolated, R - 24 VAC
#1	Auxiliary input signal	X - none, Z - linear signal (specify!) ⁽¹⁾