

Transmitter with Selectable Input TRA

- ◆ **Low cost**
- ◆ **High resistance to electromagnetic disturbances**
- ◆ **10 selectable ranges for Pt100 sensors**
- ◆ **7 selectable thermocouples**
- ◆ **In-head and DIN-rail versions**
- ◆ **IP65 protection box available**

COMECO's temperature transmitter series TRA is a compromising solution between the analog transmitters with fixed range and the programmable transmitters. TRA transmitters allow on-site selection of input range and sensor type (for thermocouples) as well as transmitter reaction to sensor break by the means of a group of soldering bridges (jumpers). The exact range is adjustable by ZERO and SPAN potentiometers. TRA are available in case for mounting inside sensor protection head type "B", in watertight box with high protection class, and in case for mounting on a DIN rail. This series of transmitters is also applicable in Ex zones when used with external Zener barrier. Thanks to their flexibility, excellent resistance against electromagnetic disturbances, and low price, the TRA transmitters are easy-to-use and very widely applicable.



Technical specifications

Input

Pt100 (w=1.385); 3-wire	-50...50 °C; -50...100 °C; 0...50 °C; 0...100 °C; 0...150 °C; 0...200 °C; 0...250 °C; 0...300 °C; 0...400 °C; 0...500 °C
Thermocouple "E"	0...600 °C
Thermocouple "J"	0...800 °C
Thermocouple "K"	0...1200 °C
Thermocouple "L" ⁽¹⁾	0...700 °C
Thermocouple "L - GOST" ⁽¹⁾	0...600 °C
Thermocouple "N"	0...1200 °C
Thermocouple "T"	0...300 °C
Range selection	with jumpers
Thermocouple selection	with jumpers
ZERO adjustment	± 50%
SPAN adjustment	± 10%

Output

Signal type	4...20 mA
RTD linearly proportional to	temperature
T/C linearly proportional to	input voltage
Current limits	Low = 3 mA, High = 28 mA
Current limit selection	with jumpers
RTD at sensor break	Low or High (depends on terminal)
T/C at sensor break	High = 28 mA

Accuracy

Measurement error	0.3% from span
Non-linearity	0.3% from span
Temperature drift	0.02% from span for 1 °C
Cold junction compensation	automatic hardware, ± 1 °C

Power supply

Supply voltage	8...30 VDC
Admissible variations	10% p-p at 50 Hz
Maximum line load	620 Ω (800 Ω for T/C) at 24V/20mA

Operating conditions

Operating temperature	-30...80 °C
Operating humidity	0...95 %RH, non-condensing

Design and materials

Case material	plastic		
Wiring	screw terminals		
Mounting	in head ⁽²⁾	on rail	in box
Dimensions [mm]	φ44x19	18x90x58	80x80x60
Weight	30 g	90 g	170 g
Protection class	IP20	IP20	IP65

⁽¹⁾ Contact COMECO for availability.

⁽²⁾ May be mounted on rail by a special snap-on accessory, which is ordered separately.

Ordering code



TRA - G6'.G12

Code	Feature or option	Code values
G6'	Input signal	B - thermoresistance Pt100, C - thermocouple ⁽³⁾
G12	Mounting	B - in head type "B" ⁽²⁾ , C - on DIN rail, D - in box IP65 (box included)

⁽³⁾ Thermocouple type is user selectable by jumpers.