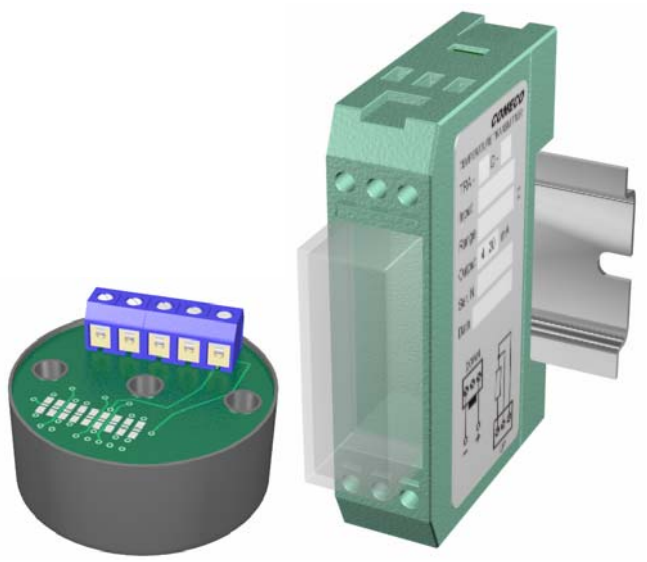
Transmitters with Selectable Input TRA

- **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**

The COMECO temperature transmitter series **TRA** is a compromising solution between the analog transmitters with fixed range and programmable transmitters. TRA transmitters allow on-site **selecting input range and sensor type** (for thermocouples) as well as transmitter reaction to **sensor break** by means of a group of soldering bridges (jumpers). The exact range can be adjusted by 'zero' and 'span' potentiometers. These transmitters have **a special plastic cover to protect solder jumpers from the environment. Various mounting options** are available: in sensor protection head type "B", in a box with high protection class, or on a DIN rail. This series of transmitters is also applicable in **Ex zones** using external Zener barrier. Due 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…+300°C; 0…+400°C; 0…+500°C; 0…+600°C
Thermocouple "E"	0 to +600 °C
Thermocouple "J"	0 to +800 °C
Thermocouple "K"	0 to +1200 °C
Thermocouple "L"	0 to +700 °C
Thermocouple "L-GOST"	0 to +600 °C
Thermocouple "N"	0 to +1200 °C
Thermocouple "T"	0 to +300 °C
Range selection	jumpers
Thermocouple selection	jumpers
Zero adjustment	± 50 °C
Range adjustment	±10%
Output	
Signal type	4 to 20 mA
RTD output proportional to	temperature
TC output proportional to	input voltage
Current limit	Low=3 mA, High=28 mA
Current limit selection	Jumpers
Sensor break RTD	Low or High (depends on terminal)
Sensor break TC	High=28 mA

Accuracy	
Measurement error	0.3 % from span
Nonlinearity	0.3 % from span
Temperature drift	0.02 % from span for 1 °C
Cold junction compensation	Automatic hardware ± 1 °C
Power supply	
For standard type	8 to 30 VDC
Admissible variations	4 Vp-p @ 50Hz
Max. line load	Max. 620Ω @ 24V/20mA
Operating conditions	
Operating temperature	-30 to 80 °C
Operating humidity	0 to 95 %RH, non-condensing
Design and materials	
Case material	Plastic
Wiring	Screw terminals
Central opening (in-head)	∅5 mm

Mounting	**In head** [1]	**On rail**	**In box**
Dimensions [mm]	∅43x30	75x17x60	80x80x60
Weight	35 g	90 g	180 g
Protection case/terminals	IP20/20	IP20/20	IP65

ABBREVIATIONS: RTD - thermoresistance; TC - thermocouple

Ordering code

➔ **TRA - G6'.G12 - #1**

Code	Feature or option	Code values
G6'	Input signal type	**B** - thermoresistance Pt100, **C** - thermocouple [2]
G12	Mounting	**B** - for mounting in head type "B" [1], **C** - for mounting on a DIN rail, **D** - for mounting in a box IP65 (box included)
#1	DIN-rail snap-on accessory	**X** - none, **SN** - DIN-rail mounting snap

[1] May be mounted on rail by a special snap-on accessory, which is ordered separately.
[2] Thermocouple type is user selectable by jumpers.