TRANSMITTERS

COMECO
CONTROL & MEASUREMENT

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BS EN ISO 9001
Reg.No FM 403446

TR

DIN-Rail SMART Transmitters TRBC

- ♦ **Low-cost**
- ♦ **Universal programmable input**
- ♦ **Select one of 4 RTD types and 4 thermocouples**
- ♦ **Programmable input and output range**
- ♦ **Built-in programmable digital filter**
- ♦ **Serial interface for programming**
- ♦ **Convenient programming even without power supply**

The intelligent non-isolated transmitters of the **TRBC** series, manufactured by COMECO, are designed especially for DIN-rail mounting applications.
This model allow the user to:
- **select sensor type** (4 RTD types and 11 thermocouples)
- **create an input for a custom sensor** (mV, Ω)
- select and adjust input range
- perform **device and sensor calibration**
- specify input ranges and output type (4…20 mA/20…4mA)
- select output **reaction on sensor break**
- adjust the "zero" (the offset), the **digital filter** and the sampling time
The TRBC transmitters are easy to program by using the specialized software. They do not need to be powered for programmaing. Due to their large capabilities and their low price TRY transmitters can be very useful in different industrial applications requiring temperature conversion before following measurement and control.

Technical specifications

Input	Programmable
PtX (w=1.385) 3 wire	from min. -100 to max. +800 °C
PtX (w=1.391), 3 wire	from min. -100 to max. +800 °C
RTD resistance at 0 °C	46Ω ≤ X ≤ 100Ω
CuX (w=1.426), 3 wire	from min.. -50 to max.. +200 °C
CuX (w=1.428), 3 wire	from min. -50 to max. +200 °C
RTD resistance at 0 °C	50Ω ≤ X ≤ 100Ω
RTD selectable range	programmable in the ranges above
RTD minimal range width	20 Ω
Thermocouples (4 types)	J, K, S, L-GOST
TC input range	from min. 0 to max. +100 mV
TC selectable range	programmable in the ranges above
TC minimal range width	5 mV
Other custom input	mV/Ω within the ranges above
ZERO adjustment	within the range limits
Input /output isolation	none

Input monitoring	Programmable
Sensor break reaction	Programmable: 3 or 22 mA

Output	Programmable
Signal type	4 to 20 mA or 20 to 4 mA
Linearly proportional to	measured value
Resolution	5 µA
Current limits	L=3.5 mA, H=21.6 or 22.8 mA
Output refresh time	programmable
Digital filter	programmable

ABBREVIATIONS: RTD - thermoresistance; TC - thermocouple

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

Power supply	
Voltage	8 to 32 VDC ±10%
Maximal line load	750Ω @ 24V/20mA

Interface	
Interface type	RS-232 (special)
Software (optional)	For Windows: 3.11, 9x and NT

Operating conditions	
Operating temperature	-20 to 85 °C
Operating humidity	0 to 90 %RH, no condensing

Design and materials	
Case material	Plastic
Wiring	Two screw-terminal connectors
Interface wiring (optional)	Separate connector
Mounting	On rail
Dimensions (HxWxD)	106x35x57mm
Weight	90 g
Protection: case/terminals	IP 20/20

Ordering code ➔ TRBC - #1#2

Code	Feature or option	Code values
#1	Interface separate connector	**X** - none, **C** - separate interface connector on the front panel
#2	Software	**X** - none, **S** - plus a software package for programming, monitoring and a cable to PC