

RS485 SMART DIN-Rail Transmitter TRIS

- ◆ Low-cost network transmitter - up to 32 devices
- ◆ Universal programmable input
- ◆ User-selectable 4 RTD types and 6 thermocouples
- ◆ Accepts linear current and voltage signals
- ◆ Built-in programmable digital filter
- ◆ Convenient programming through RS485
- ◆ Input / output / supply isolation

TRIS is an intelligent rail-mountable transmitter with universal input and RS485 output, specially designed for multi-point process measurement and data acquisition in a network with up to 32 devices. This transmitter allows the user to:

- select sensor and input signal type (4 RTD types, 6 thermocouples, and 4 linear signals);
- select and adjust input range;
- perform offset correction and device calibration;
- select decimal point position and measurement unit;
- adjust the digital filter.

A network of up to 32 transmitters can be configured and monitored by using the universal COMECO data-acquisition program "PolyMonitor". Thanks to its isolated universal input, networking capabilities, and low price, TRIS is particularly suitable for multi-point data acquisition applications.

Technical specifications

Input	(programmable)
Pt100 (w=1.385); 3-wire	min. -100...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 or 0...10 V
Custom linear (option)	on request ⁽¹⁾
Offset adjustment	within range limits
Digital low-pass filter	programmable
Digital peak filter	programmable
Isolation	> 1000 VAC for 1 min
Output / Interface	
Interface type	RS485
Function	configuration and networking
Network devices	up to 32
Format	8 (data) + 1 (stop), even parity
Baud rate	1200 / 2400 / 4800 / 9600 bps
Isolation	2500 VAC for 1 min

⁽¹⁾ Instead of linear current

⁽²⁾ Ordered separately

Ordering code TRIS - G9

Code	Feature or option	Code values
G9	Protocol	A - ASCII, C - ASCII for "PolyMonitor"



Software ⁽²⁾

Configuration software	"UniConf", free
Monitoring and data acquisition software	"PolyMonitor"
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	
Supply voltage	12...24 V
Consumption	max. 100 mA
Indication	
'ON' LED	for power supply ON
'SEL' LED	for active communication
Operating conditions	
Ambient temperature	-20...70 °C
Ambient humidity	0...95 %RH, non-condensing
Design and materials	
Case material	plastic
Wiring	plug-in terminals
Mounting	on 35 mm DIN rail
Dimensions	35x110x58 mm
Weight	90 g
Protection class	IP20