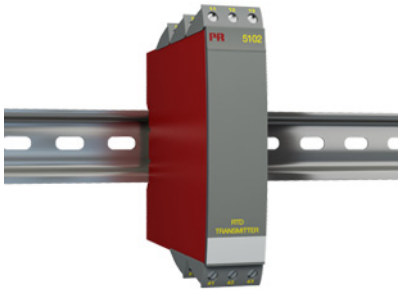
PERFORMANCE MADE SMARTER



RTD transmitter

5102

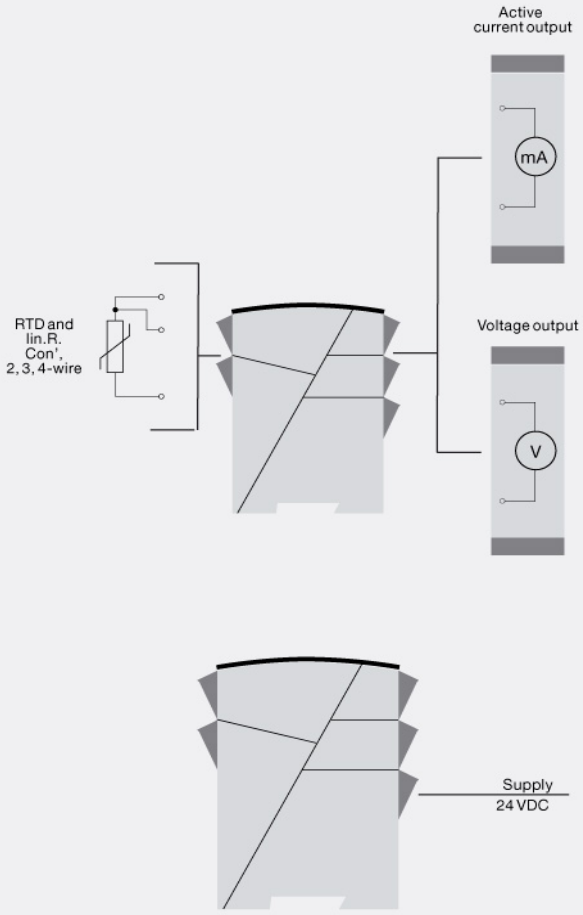
– Cost effective RTD transmitter
– Input for Pt100, Ni100 or Ohm
– Linearized analog output
– 1- or 2-channel version
– DIN rail mounting

Advanced features
- The 5102 transmitter can be configured with the software program PReset 5000 using a DOS-based PC and the Loop Link communications unit.

Application
- Linearized temperature measurement with Pt100 (to IEC 715) or Ni100 (to DIN 43760) sensors.
- Conversion of linear resistance change to standard analog current/voltage signal from for example valves or linear movements with attached potentiometer.
- Signal simulator via externally mounted 10-turn potentiometer, to aid with installation and commissioning the plant.
- 3-wire connection cable compensation or 2-wire connection without cable compensation.
- Sensor error detection with Upscale, Downscale or custom set values.
- Reversible inputs with 0% set to maximum value of the desired input range and 100% set to the minimum value of the desired input range.

Technical characteristics
- Analog current output can be configured to any current within 0...20 mA range.
- Voltage output range is selectable between 0...10 VDC and 0...1 VDC by use of internal jumpers.
- Programming can be performed with or without a power supply.

Connections



Order:

Type	Channels	
5102	1 channel	: A
	2 channels	: B

Environmental Conditions

Specifications range..... -40°C to +60°C
Calibration temperature..... 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Protection degree..... IP20

Mechanical specifications

Dimensions (HxWxD)..... 109 x 23.5 x 130 mm
Weight approx..... 170 g
DIN rail type..... DIN 46277
Screw terminal torque..... 0.5 Nm

Common specifications

Supply voltage..... 19.2...28.8 VDC
Internal consumption..... 1.7 W (2 channels)
Warm-up time..... < 5 min.
Communications interface..... Loop Link
Signal / noise ratio..... Min. 60 dB
Signal dynamics, input..... 17 bit
Signal dynamics, output..... 16 bit
Response time (0...90%, 100...10%)..... < 165 ms
Temperature coefficient..... < ±0.01% /°Camb.
Linearity error..... < 0.1% of span
EMC immunity influence..... < ±0.5% of span

Input specifications

Max. offset..... 50% of selected max. value
RTD input..... Pt100, Ni100, lin. R
Cable resistance per wire (max.), RTD..... 10...50 Ω (programmable)
Sensor current, RTD..... > 0.2 mA, < 0.4 mA
Sensor error detection, RTD..... Upscale

Output specifications

Max. offset..... 50% of selected max. value
Current output: Signal range..... 0...20 mA
Min. signal range..... 5 mA
Voltage output: signal range..... 0...10 VDC
Voltage output, min. signal range..... 250 mV
Load (max.)..... 20 mA/600 Ω/12 VDC
Load stability, current output..... ≤0.01% of span / 100 Ω
Current limit..... ≤ 28 mA
*of span..... = of the presently selected range

Approvals

EMC..... EN 61326-1
EAC TR-CU 020/2011..... EN 61326-1