PERFORMANCE MADE SMARTER



2-wire programmable RTD transmitter

5332A

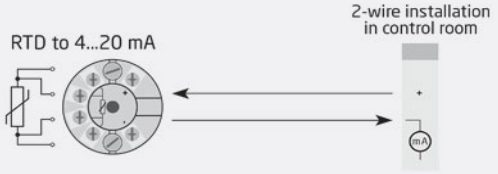
– RTD or Ohm input
– Accuracy: Better than 0.05% of selected range
– Programmable sensor error value
– For DIN form B sensor head mounting

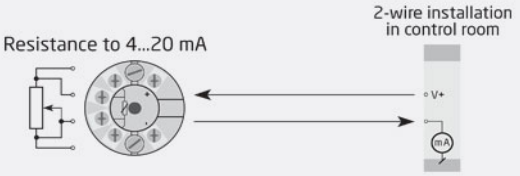
Application
- Linearized temperature measurement with Pt100...Pt1000 or Ni100...Ni1000 sensor.
- Conversion of linear resistance variation to a standard analog current signal, for instance from valves or Ohmic level sensors.

Technical characteristics
- Within a few seconds the user can program PR5332A to measure temperatures within all ranges defined by the norms.
- Dedicated programmable non-isolated 4-wire RTD transmitter.
- RTD and resistance inputs have cable compensation for 2-, 3- and 4-wire connection.
- Continuous check of vital stored data for safety reasons.

Mounting / installation
- For DIN form B sensor head or DIN rail mounting with the PR fitting type 8421.

Applications





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Order

Type	Version	
5332	Simple, no approvals	: N
	General purpose, Zone 2, ATEX, IECEx	: A

Environmental Conditions

Operating temperature ..... -40°C to +85°C
Calibration temperature ..... 20...28°C
Relative humidity ..... < 95% RH (non-cond.)
Protection degree (encl./terminal) ..... IP68 / IP00

Mechanical specifications

Dimensions ..... Ø 44 x 20.2 mm
Weight approx ..... 50 g
Wire size ..... 1 x 1.5 mm^2 stranded wire
Screw terminal torque ..... 0.4 Nm

Common specifications

Supply

Supply voltage ..... 7.2...35 VDC
Internal power dissipation ..... 25 mW…0.8 W

Response time

Response time (programmable) ..... 1...60 s
Voltage drop ..... 7.2 VDC
Warm-up time ..... 5 min.
Power on to stable output ..... 4.5 s
Programming ..... PR 5909 Loop Link communications interface
Signal / noise ratio ..... > 60 dB
EEprom error check ..... < 3.5 s
Accuracy ..... Better than 0.05% of selected range
Signal dynamics, input ..... 20 bit
Signal dynamics, output ..... 16 bit
Effect of supply voltage change ..... < 0.005% of span / VDC
EMC immunity influence ..... < ±0.5% of span
Extended EMC immunity: NAMUR NE21, A criterion, burst ..... < ±1% of span

Input specifications

Common input specifications

Max. offset ..... 50% of selected max. value

RTD input

RTD type ..... Pt100…1000, Ni100...1000, lin. R
Cable resistance per wire ..... 5 Ω (max.)
Sensor current ..... Nom. 0.2 mA
Effect of sensor cable resistance (3-/4-wire) ..... < 0.002 Ω / Ω
Sensor error detection ..... Yes

Linear resistance input

Linear resistance min....max ..... 0 Ω...5000 Ω

Output specifications

Common output specifications

Updating time ..... 440 ms

Current output

Signal range ..... 4…20 mA
Min. signal range ..... 16 mA
Load (@ current output) ..... ≤ (Vsupply - 7.2) / 0.023 [Ω]
Load stability ..... ≤ 0.01% of span / 100 Ω (1)
Sensor error indication ..... Programmable 3.5…23 mA
NAMUR NE43 Upscale/Downscale ..... 23 mA / 3.5 mA
of span ..... = of the presently selected range

I.S. / Ex marking

ATEX ..... II 3 G Ex nA [ic] IIC T6...T4 Gc, II 3 G Ex ec [ic] IIC T6...T4 Gc, II 3 G Ex ic IIC T6...T4 Gc, II 3 D Ex ic IIIC Dc
IECEx ..... Ex nA [ic] IIC T6…T4 Gc, Ex ec [ic] IIC T6…T4 Gc, Ex ic IIC T6…T4 Gc, Ex ic IIIC Dc
CSA ..... Cl. I, Div. 2, Gp. A, B, C, D T6...T4, Ex nA[ic] IIC T6…T4 Gc
INMETRO ..... Ex ec [ic] IIC T6...T4 Gc, Ex ic IIC T6...T4 Gc, Ex ic IIIC Dc

Observed authority requirements

EMC 2014/30/EU
ATEX 2014/34/EU
RoHS 2011/65/EU
EAC ..... TR-CU 020/2011
EAC Ex ..... TR-CU 012/2011

Approvals

ATEX ..... DEKRA 20ATEX0096X
IECEx ..... DEK 20.0059X
CSA 1125003
INMETRO ..... DEKRA 23.0009X
EAC Ex ..... EAEU KZ 7500361.01.01.08756