PERFORMANCE MADE SMARTER



2-wire programmable RTD transmitter

5332D

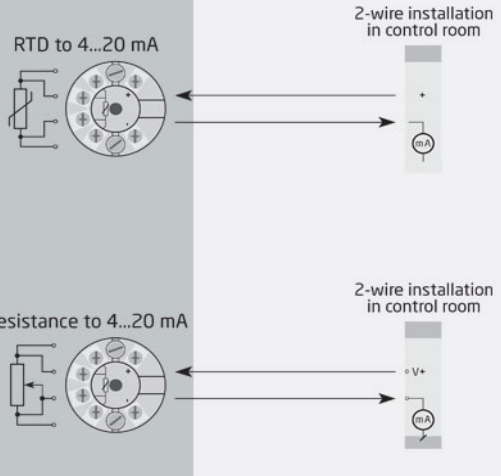
- RTD or Ohm input
- Accuracy: Better than 0.05% of selected range
- Programmable sensor error value
- For DIN form B sensor head mounting

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 PR5332D 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 mounting.

Applications



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Order

Type	Version	
5332	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2	: D

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...30 VDC
Internal power dissipation	25 mW…0.7 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 1 G Ex ia IIC T6...T4 Ga, II 2 D Ex ia IIIC Db, I M1 Ex ia I Ma
IECEx	Ex ia IIC T6...T4 Ga, Ex ia IIIC Db, Ex ia I Ma
FM, US	Cl. I, Div. 1, Gp. A, B, C, D T4/T6; Cl. I Zone 0, AEx ia IIC T4/T6; Cl. 1, Div. 2, Gp. A, B, C, D, T4/T6
CSA	Cl. I, Div. 1, Gp. A, B, C, D Ex ia IIC, Ga
INMETRO	Ex ia IIC T6...T4 Ga, Ex ia IIIC Db, Ex ia I Ma
PESO	Ex ia IIC T6...T4 Ga

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 20ATEX0095X
IECEx	DEK 20.0059X
FM	FM17US0013X
CSA	1125003
INMETRO	DEKRA 23.0009X
PESO	P658778/2
EAC Ex	EAEU KZ 7500361.01.01.08756