PERFORMANCE MADE SMARTER



2-wire programmable RTD transmitter

5332D

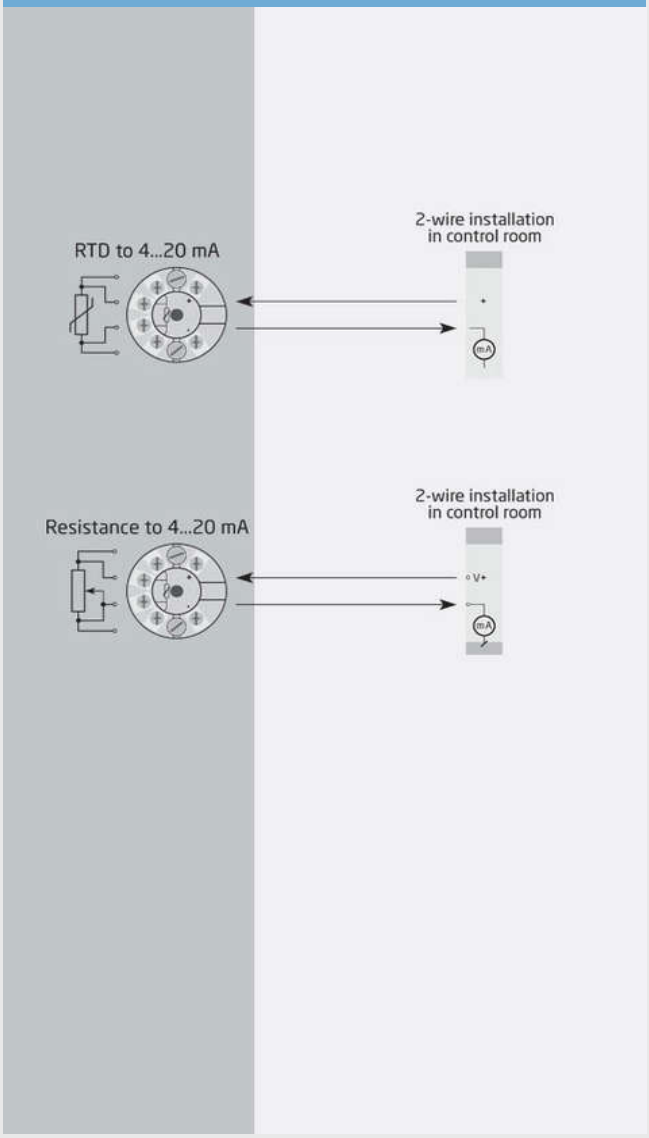
– RTD or Ohm input
– Accuracy: Better than 0.05% of selected range
– Programmable sensor error value
– For DIN form B sensor head mounting

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	Hazardous area, Zone 0 / Div. 0, ATEX, IECEx, FM, CSA : 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.
Programming..... Loop Link
Signal / noise ratio..... Min. 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, Ni100, 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
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 T4...T6 Ga, II 1 D Ex ia IIIC Da, I M1 Ex ia Ma
IECEx..... Ex ia IIC T4...T6 Ga, Ex ia IIIC Da, 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

Observed authority requirements

Directives
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..... KEMA 06ATEX0062X
IECEx..... DEK 13.0035X
c FM us..... FM17US0013X
CSA..... 1125003