

TWO-WIRE PROGRAMMABLE TRANSMITTERS 5333 – for resistance thermometers
termometre



- RTD or Ohm input
- High measurement accuracy
- 3 - wire connection
- PC programmable sensor
- Installation in DIN head B

Use:

- Linearization of temperature measured with Pt 100...Pt 1000 or Ni 100...Ni 1000 2-wire installation
- Conversion of linear variation of resistance into an analog current signal, for example from a valve or Ohm level sensor according to a defined function

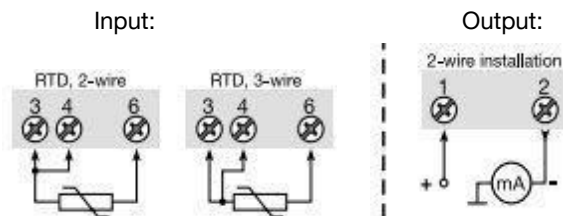
Technical characteristics:

- In a few seconds, the user can program the transmitter for measuring temperatures in all ranges for resistive sensors defined by standards, using the Modem for configuring temperature transmitters with the appropriate software
- If the input is RTD, 3-wire, wire compensation is performed

Installation:

- In the connection head DIN B or on the DIN rail using specific connectors type 8421
- Important recommendation: As an Ex barrier 5104B is recommended as well as the following: 5111B, or 5114B

Connecting:



Conditions of environment:

Range specification:..... -40°C to +85°C
 Calibration temperature:..... 20...28°C
 Relative humidity: <95% RH (not condensed)
 Protection degree (housing/terminals)P68/IP00

Technical specification:

Dimensions: Ø44 x
 20.2mm Weight approx.: 50 g
 Wire cross section: 1 x 1.5 mm² twisted
 Screw torque: 0.4 Nm
 Vibration:..... IEC 60068-2-6 Test FC
 Lloyd's specification no.1..... 4 g/ 2 100Hz

Common specification:

Power supply voltage..... 8.0...35 VDC
 Internal consumption..... 25 mW 0.8 W
 Voltage drop 8 VDC
 Warm-up time 5 min.
 Communication interface Loop Link 5905
 Signal / noise coefficient Min. 60 dB
 Response time (programmable) 0.33 ..60 s
 Signal dynamics, input 19 bit
 Signal dynamics, output 16 bit
 Impact of EMC onto resistance ≤ ±0.5% of range
 Effect of supply voltage change ≤ 0.005% of range / VDC

Input characteristics

Max. offset..... 50% of the select.max.value RTD
 input Pt 100, Ni 100, lin. R
 Water resistance of the cable (max) 10 Ω
 Sensor current..... > 0.2 mA, < 0.4 mA
 Effect of sensor cable resistance (3-wire) < 0.002 Ω / Ω
 Sensor error detection Yes

Output characteristics:

Current output, range..... 4...20mA
 Min. signal range 16mA
 Change update time 135 ms
 Load resistance ≤ (Vsupply- 8) / 0.023 [Ω]
 Load stability, current output < ±0.01% of range/100Ω
 Sensor errors det., current output.... programmable 3.5 23 mA
 Upper/lower limit 23mA/3.5mA

Ex data:

Ui 28 VDC
 Ii 120 mADC
 Pi 0.84 W
 Li 10 μH
 Ci 1.0 nF

EEx approval CENELEC:

DEMKO 99 ATEX 126964
 ATEX 0539 II 1 G
 EEx ia IIC T1 T6
 Max. amb. Temperature for T1...T4 85°C
 Max. amb. Temperature for T5 and T6 ...60°C
 Use in the zone 0, 1 or 2

Transmitter type selection:

- PR5333A – standard
- PR5333B – Ex

Possible delivery of:

- PR5335A – with HART protocol, universal
- PR5335D – with HART protocol, Ex, universal

TWO-WIRE PROGRAMMABLE TRANSMITTERS 5334 – for thermocouples



- Input: thermocouple
- High measurement accuracy
- Galvanic isolation
- Programmable sensor error
- Installation in DIN head B

Use:

- Linearization of temperature measured with thermocouples
- Amplification of a bipolar mV signal to a 4...20mA signal, linearized according to the defined function

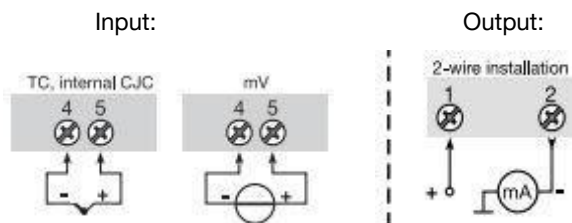
Technical characteristics:

- In a few seconds, the user can program the transmitter for measuring temperatures in all ranges for thermocouples defined by standards, using the Modem for configuring temperature transmitters with the appropriate software
- Compensation of the cold end with a built-in temperature sensor
- Continuous control of important, archived, data for security reasons.

Installation:

- In the connection head DIN B or on the DIN rail using specific connectors type 8421
- Important recommendation: As an Ex barrier 5104B is recommended as well as the following: 5111B, or 5114B

Connecting:



Conditions of environment:

Range specification:..... -40°C to +85°C
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 Relative humidity <95% RH (not condensed)
 Protection degree (housing/terminals) P68/IP00

Technical specification:

Dimensions Ø44 x
 20.2mm Weight approx. 50 g
 Wire cross section 1 x 1.5 mm² twisted
 Screw torque 0.4 Nm
 Vibration:..... IEC 68-2-6 Test FC
 Lloyd's specification no.1..... 4 g/ 2 100Hz

Common specification:

Power supply voltage7.2...28 VDC
 Internal consumption..... 25 mW 0.8 W
 Internal consumption 7.2 VDC
 Warm-up time 5 min.
 Communication interface Loop Link 5905
 Signal / noise coefficient Min. 60 dB
 Response time (programmable)1...60 s
 Signal dynamics, input 18 bit
 Signal dynamics, output 16 bit
 Impact of EMC onto resistance ≤ ±0.5% of range
 Effect of supply voltage change ≤ 0.005% of range / VDC

Input characteristics

Max. offset..... 50% of selec.max.value TC
 input Thermocouple type: B, E, J,
 K, L, N, R, S, T, U, W, W5
 Cold end compensation <± 1%

Output characteristics:

Current output, range..... 4...20mA
 Min. signal range 16mA
 Change update time 440 ms
 Load resistance ≤ (Vsupply- 7,2) / 0.023 [Ω]
 Sensor errors det..... programmable 3.5 23 mA
 Upper/lower limit 23mA/3.5mA

Ex data:

Ui 28 VDC
 Ii 120 mADC
 Pi 0.84 W
 Li 10 μH
 Ci 1.0 nF

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universal