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PERFORMANCE MADE SMARTER



2-wire programmable transmitter

5334B

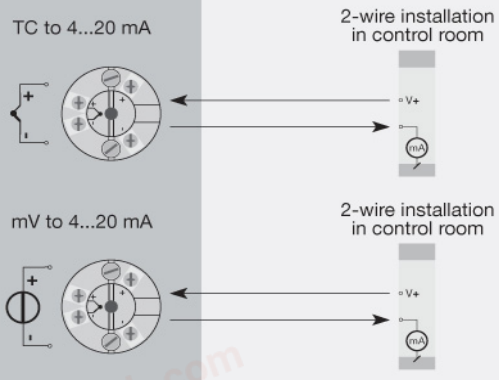
– TC input
– High measurement accuracy
– Galvanic isolation
– Programmable sensor error value
– For DIN form B sensor head mounting

Application
- Linearized temperature measurement with TC sensor.
- Amplification of bipolar mV signals to a 4...20 mA signal, optionally linearized according to a defined linearization function.

Technical characteristics
- Within a few seconds the user can program PR5334B to measure temperatures within all TC ranges defined by the norms.
- Cold junction compensation (CJC) with a built-in temperature sensor.
- Continuous check of vital stored data for safety reasons.

Mounting / installation
- For DIN form B sensor head mounting.
- NB: As Ex barrier we recommend 5104B, 5114B, or 5116B.

Applications



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Order:

Type	Ambient temperature	Galvanic isolation
5334B	-40°C...+85°C : 3	1500 VAC : B

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
Vibration ..... IEC 60068-2-6
2...25 Hz ..... ±1.6 mm
25...100 Hz ..... ±4 g

Common specifications

Supply

Supply voltage ..... 7.2...30 VDC
Internal power dissipation ..... 25 mW…0.8 W

Isolation voltage

Isolation voltage, test / working ..... 1.5 kVAC / 50 VAC

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 ..... 18 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

TC input

Thermocouple type ..... B, E, J, K, L, N, R, S, T, U, W3, W5, LR
Cold junction compensation (CJC) ..... < ±1.0°C
Sensor error detection ..... Yes
Sensor error current: When detecting / else ..... Nom. 33 µA / 0 µA

Voltage input

Measurement range ..... -12...150 mV
Min. measurement range (span) ..... 5 mV
Input resistance ..... 10 MΩ

Output specifications

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

Common output specifications

Updating time ..... 440 ms

of span ..... = of the presently selected range

Observed authority requirements

EMC 2014/30/EU
EAC ..... TR-CU 020/2011

Approvals

ATEX 2014/34/EU ..... KEMA 06ATEX0062X
IECEx ..... DEK 13.0035X
INMETRO ..... DEKRA 16.0013 X
EAC Ex TR-CU 012/2011 ..... RU C-DK.GB08.V.00410
DNV-GL Marine ..... Stand. f. Certific. No. 2.4