PERFORMANCE MADE SMARTER

2-wire programmable transmitter

5334A

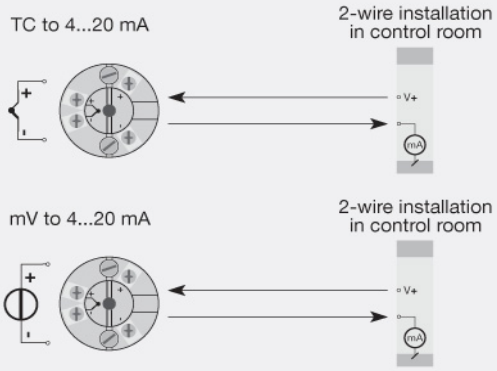
– TC input
– High measurement accuracy
– Galvanic isolation
– Programmable sensor error value
– For DIN form B sensor head mounting

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 PR5334A 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 or DIN rail mounting with the PR fitting type 8421.

Connection



Environmental Conditions

Specifications range	-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 Test FC
Lloyd's specification no. 1	4 g / 2...100 Hz

Common specifications

Supply voltage	7.2...35 VDC
Internal consumption	25 mW…0.8 W
Voltage drop	7.2 VDC
Isolation voltage, test / working	1.5 kVAC / 50 VAC
Warm-up time	5 min.
Communications interface	Loop Link
Signal / noise ratio	Min. 60 dB
Response time (programmable)	1...60 s
EEprom error check	< 3.5 s
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 NE 21, A criterion, burst	< ±1% of span

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, TC	Yes
Sensor error current - when detecting / else	Nom. 33 µA / 0 µA
Voltage input: Measurement range	-12...150 mV
Min. measurement range (span), voltage input	5 mV
Input resistance, voltage input	10 MΩ

Output specifications

Current output: Signal range	4…20 mA
Min. signal range	16 mA
Updating time	440 ms
Load resistance, current output	≤ (Vsupply - 7.2) / 0.023 [Ω]
Load stability, current output	≤0.01% of span/100 Ω
Sensor error detection, current output	Programmable 3.5…23 mA
NAMUR NE 43 Upscale/Downscale	23 mA / 3.5 mA
*of span	= Of the presently selected range

Approvals

EMC	EN 61326-1
ATEX	KEMA 10ATEX0002 X
GOST R	Yes