

2-WIRE PROGRAMMABLE TRANSMITTER



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



Application:

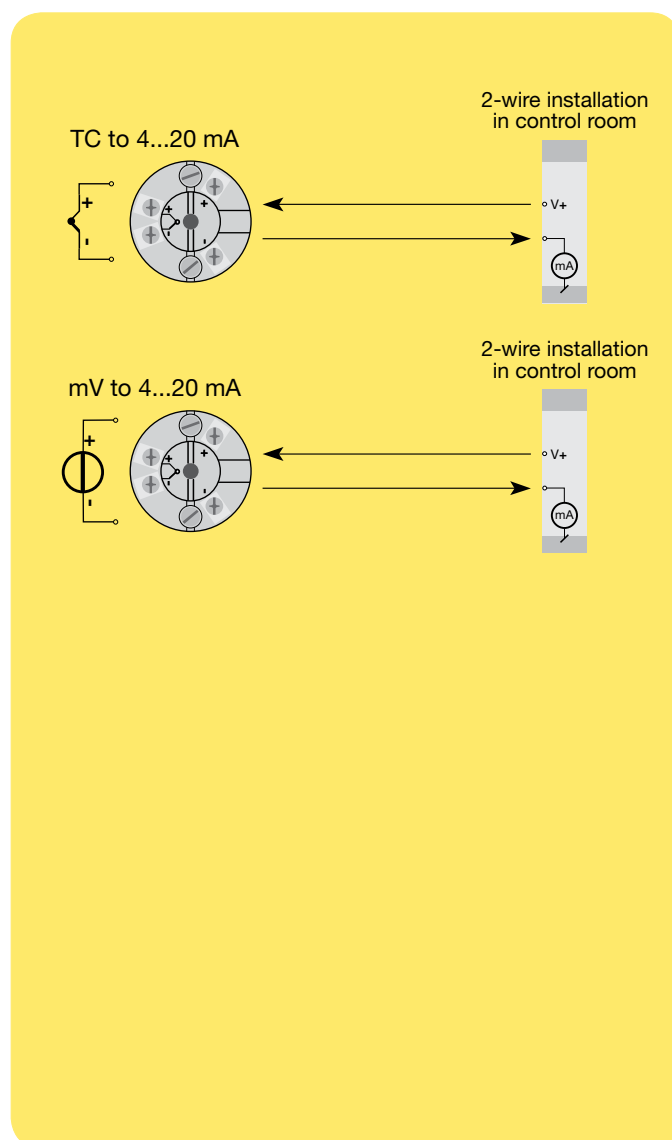
- Linearised temperature measurement with TC sensor.
- Amplification of bipolar mV signals to a 4...20 mA signal, optionally linearised according to a defined linearisation function.

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.

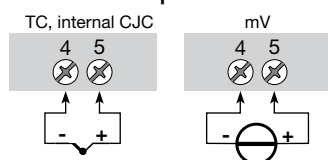


Order: 5334A

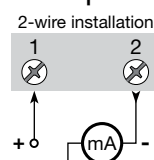
Type	Ambient temperature	Galvanic isolation
5334A	-40°C...+85°C : 3	1500 VAC : B

Connections:

Input:



Output:



Electrical specifications:

Specifications range:

-40°C to +85°C

Common specifications:

Supply voltage, DC	7.2...35 VDC
Internal consumption.....	25 mW...0.8 W
Voltage drop	7.2 VDC
Isolation voltage, test / operation.....	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
Calibration temperature.....	20...28°C

Accuracy, the greater of general and basic values:

General values		
Input type	Absolute accuracy	Temperature coefficient
All	≤ ±0.05% of span	≤ ±0.01% of span / °C

Basic values		
Input type	Basic accuracy	Temperature coefficient
Volt	≤ ±10 µV	≤ ±1 µV / °C
TC type: E, J, K, L, N, T, U	≤ ±1°C	≤ ±0.05°C / °C
TC type: B, R, S, W3, W5, LR	≤ ±2°C	≤ ±0.2°C / °C

EMC immunity influence	< ±0.5% of span
Extended EMC immunity: NAMUR NE 21, A criterion, burst.....	< ±1% of span

Effect of supply voltage variation	< 0.005% of span / VDC
Vibration	IEC 60068-2-6 Test FC
Lloyd's specification no. 1	4 g / 2...100 Hz
Max. wire size.....	1 x 1.5 mm ² stranded wire
Humidity	< 95% RH (non-cond.)
Dimensions.....	Ø 44 x 20.2 mm
Protection degree (encl. / terminal) ...	IP68 / IP00
Weight	50 g

Electrical specifications, input:

Max. offset.....	50% of selec. max. value
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TC input:

Type	Min. temperature	Max. temperature	Min. span	Standard
B	+400°C	+1820°C	100°C	IEC584
E	-100°C	+1000°C	50°C	IEC584
J	-100°C	+1200°C	50°C	IEC584
K	-180°C	+1372°C	50°C	IEC584
L	-100°C	+900°C	50°C	DIN 43710
N	-180°C	+1300°C	50°C	IEC584
R	-50°C	+1760°C	100°C	IEC584
S	-50°C	+1760°C	100°C	IEC584
T	-200°C	+400°C	50°C	IEC584
U	-200°C	+600°C	50°C	DIN 43710
W3	0°C	+2300°C	100°C	ASTM E988-90
W5	0°C	+2300°C	100°C	ASTM E988-90
LR	-200°C	+800°C	50°C	GOST 3044-84

Cold junction compensation < ±1.0°C

Voltage input:

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

Current output:

Signal range	4...20 mA
Min. signal range	16 mA
Updating time.....	440 ms
Load resistance	≤ (V _{supply} - 7.2) / 0,023 [Ω]

Sensor error detection:

Programmable.....	3.5...23 mA
NAMUR NE43 Upscale.....	23 mA
NAMUR NE43 Downscale.....	3.5 mA

Ex approval:

KEMA 10ATEX0002 X.....	II 3 GD Ex nA [nL] IIC T4...T6 or II 3 GD Ex nL IIC T4...T6 or II 3 GD Ex nA [ic] IIC T4...T6 or II 3 GD Ex ic IIC T4...T6
ATEX Installation Drawing No.....	5331QA02

Marine approval:

Det Norske Veritas, Ships & Offshore ..	Stand. f. Certific. No. 2.4
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GOST R approval:

VNIIM, Cert. No.	www.prelectronics.com
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Observed authority requirements: Standard:

EMC 2004/108/EC	EN 61326-1
ATEX 94/9/EC.....	EN 60079-0, -11, -15

Of span = Of the presently selected range