

# 2-WIRE PROGRAMMABLE TRANSMITTER



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



**Application:**

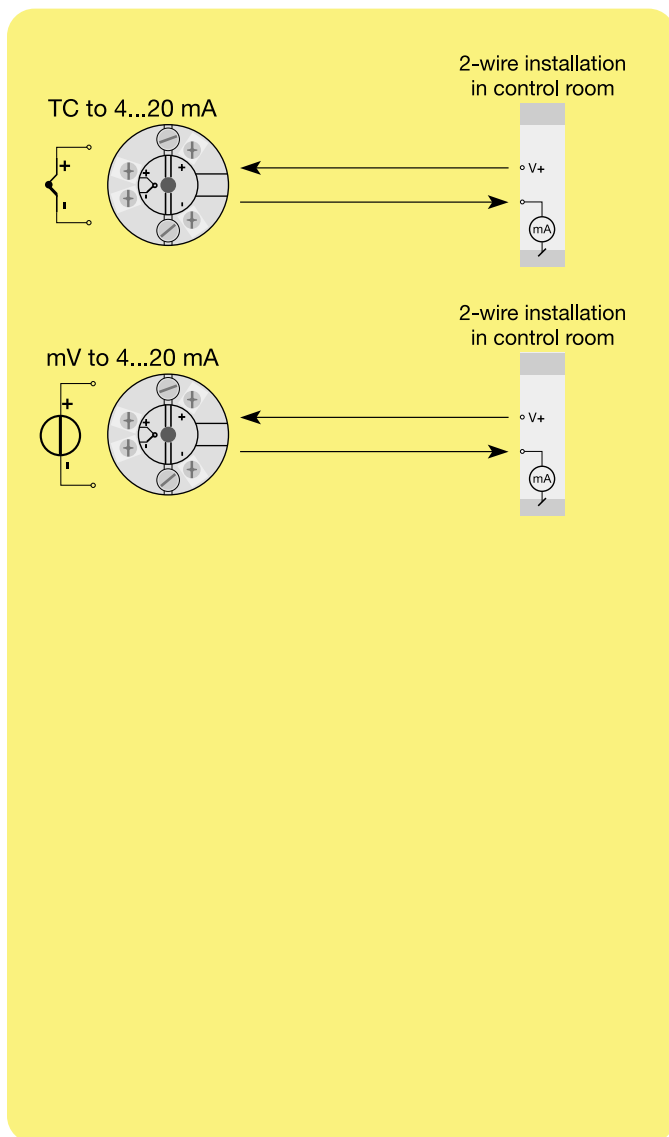
- Linearised temperature measurement with TC sensor.
- Amplification of bipolar mV signals to a 4...20 mA signal, optionally linearised according to a defined linearisation function.

**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 a special fitting.

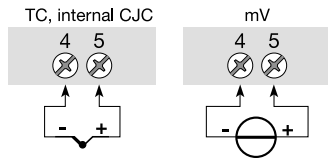


Order: 5334A

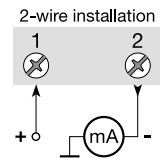
Type	Ambient temperature	Galvanic isolation
5334A	-40°C...+85°C : 3	1500 VAC : B

**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 5905
- 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	≤ ±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 68-2-6 Test FC
- Lloyd's specification no. 1 ..... 4 g / 2...100 Hz
- Max. wire size ..... 1 x 1.5 mm<sup>2</sup>
- Humidity ..... < 95% RH (non-cond.)
- Dimensions ..... Ø 44 x 20.2 mm
- Tightness (enclosure/terminal) ..... IP68 / IP00
- Weight ..... 50 g

**Electrical specifications, input:**

Max. offset ..... 50% of selec. max. value

**TC-input:**

Type	Min. temperature	Max. temperature	Min. span	Norm
B	+400°C	+1820°C	200°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	100°C	IEC584
R	-50°C	+1760°C	200°C	IEC584
S	-50°C	+1760°C	200°C	IEC584
T	-200°C	+400°C	50°C	IEC584
U	-200°C	+600°C	75°C	DIN 43710
W3	0°C	+2300°C	200°C	ASTM E988-90
W5	0°C	+2300°C	200°C	ASTM E988-90

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<sub>supply</sub> - 7.2) / 0,023 [Ω]

**Sensor error detection:**

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

**Observed authority requirements: Standard:**

- EMC 89/336/EEC, Emission ..... EN 50 081-1, EN 50 081-2
- Immunity ..... EN 50 082-2, EN 50 082-1

**Of span** = Of the presently selected range