

2-WIRE PROGRAMMABLE TRANSMITTER



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



Application:

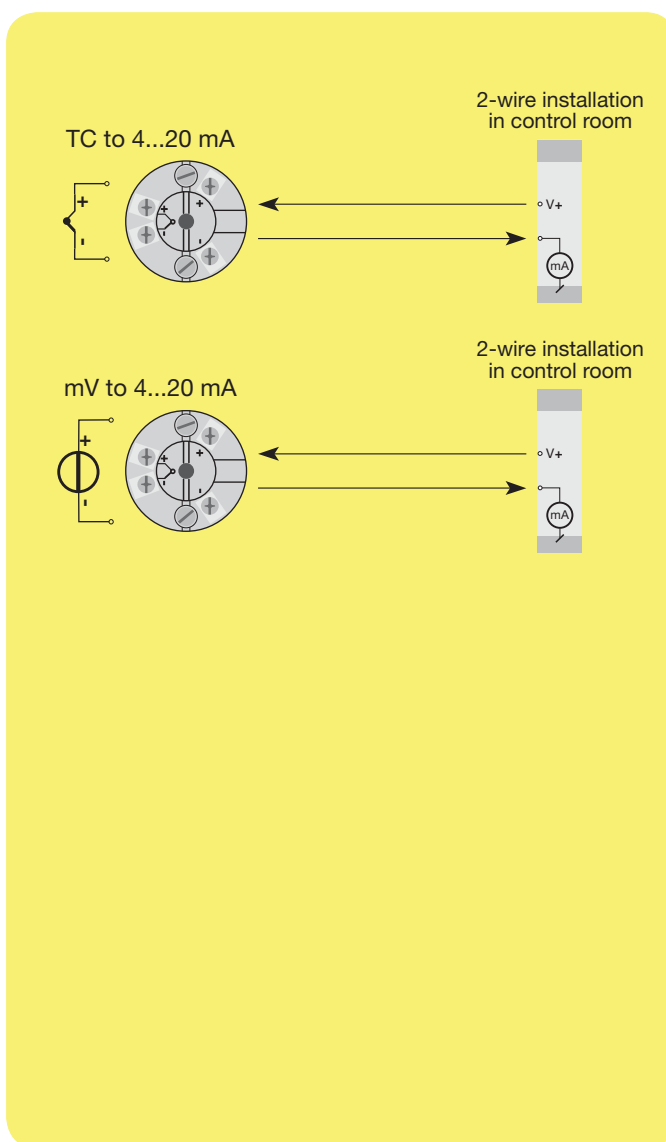
- Linearised temperature measurement with TC sensor.
- Amplification of bipolar mV signals to a 4...20 mA signal, optionally linearised according to a defined linearisation function.

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:

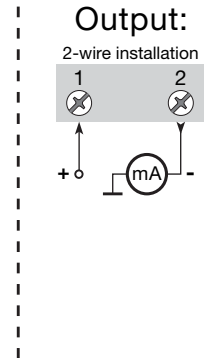
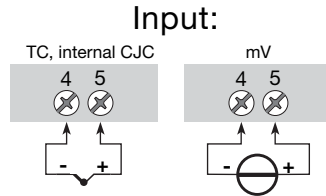
- For DIN form B sensor head or DIN rail mounting with the PR fitting type 8421.



Order: 5334A

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

Connections:



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 mm² 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

TC input:

Type	Min. temperature	Max. temperature	Min. span	Standard
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
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

Marine approval:

Det Norske Veritas, Ships & Offshore. Stand. for Certific. No. 2.4

GOST R approval:

VNIIM, Cert. No. See homepage

Observed authority requirements: Standard:

EMC 2004/108/EC EN 61326-1

Of span = Of the presently selected range