

# 2-Wire Programmable Transmitter

Model 5334A

- TC or mV Input
- Extremely High Measurement Accuracy
- 1.5 kVAC Galvanic Isolation
- Programmable Sensor Error Value



## Application:

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

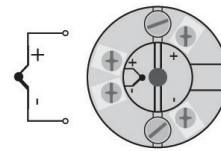
## Technical Characteristics:

- Within seconds the user can program a 5334A to measure temperatures within all standard TC ranges.
- Cold junction compensation (CJC) with a built-in temperature sensor.
- Continuous check of vital stored data.

## Mounting/Installation:

- DIN Form B sensor head compatible.
- Supplied with 2 x M4 screws on a 33 mm(1.3") BC (optional 6-32 screws available).

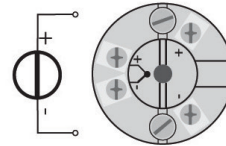
TC to 4...20mA



2-wire installation in control room



Voltage to 4...20 mA

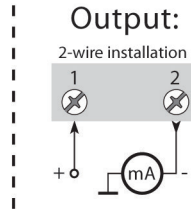
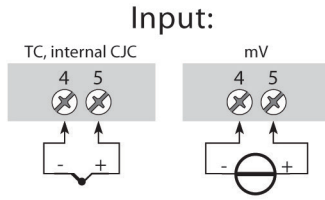


2-wire installation in control room



**Conax**  
TECHNOLOGIES

Ideas. Solutions. Success.



**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...60s
- 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<sup>2</sup>(16 AWG)  
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 selected 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 M Ω

**Current Output:**

- Signal range ..... 4...20 mA
- Min. signal range..... 16 mA
- Updating time ..... 440 ms
- Load resistance ..... ≤ (Vsupply- 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

**Observed Authority Requirements: Standard:**

EMC 2004/108/EC ..... EN 61326-1

**Of Span =** Of the presently selected range

**Loop Link =** PC compatible programming software.

\*The transmitter is manufactured by PR electronics. All approvals listed are recognized under the PR name.

2300 Walden Avenue, Buffalo, New York 14225

+1 800 223 2389 (P) | +1 716 684 7433 (F)

conax@conaxtechnologies.com

Bulletin 6078, Rev B' ©2020 Conax Technologies 11/20

