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.

**Applications**

- TC to 4...20 mA
- mV to 4...20 mA
- 2-wire installation in control room
Environmental Conditions

Operating temperature: -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 mm² stranded wire
Screw terminal torque: 0.4 Nm
Vibration: IEC 60068-2-6
2...25 Hz: ±1.6 mm
25...100 Hz: ±4 g

Common specifications

Supply
Supply voltage: 7.2...35 VDC
Internal power dissipation: 25 mW...0.8 W

Isolation voltage
Isolation voltage, test / working: 1.5 kVAC / 50 VAC

Response time
Response time (programmable): 1...60 s
Voltage drop: 7.2 VDC
Warm-up time: 5 min.
Programming: Loop Link
Signal / noise ratio: Min. 60 dB
EEprom error check: < 3.5 s
Accuracy: Better than 0.05% of selected range

Input specifications

Common input specifications
Max. offset: 50% of selected max. value

TC input
Cold junction compensation (CJC): ±1.0°C
Sensor error detection: Yes
Sensor error current: When the error is detected / else: Nom. 33 μA / 0 μA
Voltage input
Measurement range: -12...150 mV
Min. measurement range (span): 5 mV
Input resistance: 10 MΩ

Output specifications

Current output
Signal range: 4...20 mA
Min. signal range: 16 mA
Load stability: ≤ (%(supply - 7.2) / 0.023 [Ω])
Load stability: ≤ 0.01% of span / 100 Ω

Common output specifications

Updating time: 440 ms
of span: = of the presently selected range

I.S. / Ex marking

ATEX: II 3 G Ex nA [ic] IIC T4...T6 Gc, II 3 G Ex ic IIC T4...T6 Gc, II 3 D Ex ic IIIC Dc
IECEx: Ex nA [ic] IIC T4...T6 Gc, Ex ic IIC T4...T6 Gc, Ex ic IIC Dc
INMETRO: Ex nA [ic] IIC T6...T4 Gc, Ex ic IIC T6...T4 Gc, Ex ic IIC Dc

Observed authority requirements

EMC: 2014/30/EU
ATEX: 2014/34/EU
RoHS: 2011/65/EU
EAC: 2011/65/EU
EAC Ex: 2011/65/EU

Approvals

DNV-GL Marine: TAA0000101
ATEX: KEMA 10ATEX0002 X
IECEx: DEK 13.0035X
INMETRO: DEKRA 16.0013 Y
EAC Ex: RU C-DK.HA65.B.00355/19