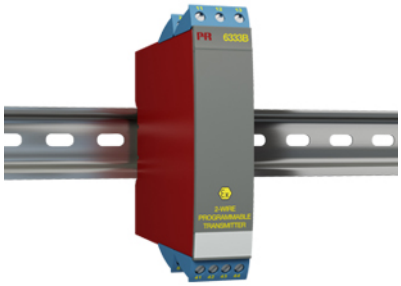
PERFORMANCE MADE SMARTER



2-wire programmable transmitter

6333B

- RTD or Ohm input
- High measurement accuracy
- 3-wire connection
- Can be installed in Ex zone 0
- 1- or 2-channel version

ATEX

Application

- Linearized temperature measurement with Pt100...Pt1000 or Ni100...Ni1000 sensor.
- Conversion of linear resistance variation to a standard analog current signal, for instance from valves or Ohmic level sensors.

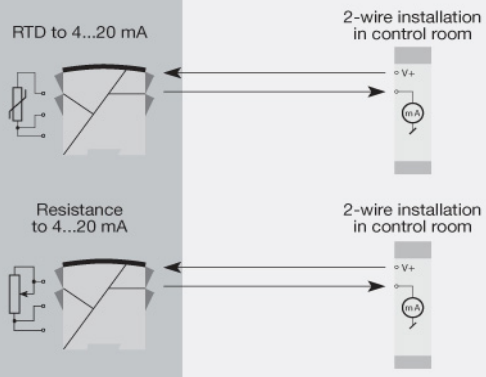
Technical characteristics

- Within a few seconds the user can program PR6333B to measure temperatures within all RTD ranges defined by the norms.
- The RTD and resistance inputs have cable compensation for 3-wire connection.
- A limit can be programmed on the output signal.

Mounting / installation

- Mounted vertically or horizontally on a DIN rail. Using the 2-channel version, up to 84 channels can be mounted per meter.
- NB: As Ex barrier we recommend 5104B, 5114B, or 5116B.

Connections



Order:

Type	Galvanic Isolation	Channels
6333B	None : 1	Single : A Double : B

Environmental Conditions

Specifications range..... -40°C to +60°C
Calibration temperature..... 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Protection degree..... IP20

Mechanical specifications

Dimensions (HxWxD)..... 109 x 23.5 x 104 mm
Weight (1 / 2 channels)..... 145 / 185 g
Wire size..... 1 x 1.5 mm^2 stranded wire

Common specifications

Supply voltage..... 8.0...30 VDC
Internal consumption..... 0.19...0.8 W
Voltage drop..... 8.0 VDC
Isolation voltage, ch. 1 / ch. 2..... 1500 VAC
Warm-up time..... 5 min.
Communications interface..... Loop Link
Signal / noise ratio..... Min. 60 dB
Response time (programmable)..... 0.33...60 s
Signal dynamics, input..... 19 bit
Signal dynamics, output..... 16 bit
Effect of supply voltage change..... < 0.005% of span / VDC

Input specifications

Max. offset..... 50% of selected max. value
RTD input..... Pt100, Ni100, lin. R
Cable resistance per wire (max.), RTD..... 10 Ω
Sensor current, RTD..... > 0.2 mA, < 0.4 mA
Effect of sensor cable resistance (3-wire), RTD..... < 0.002 Ω / Ω
Sensor error detection, RTD..... Yes

Output specifications

Current output: Signal range..... 4…20 mA
Min. signal range..... 16 mA
Updating time..... 135 ms
Load resistance, current output..... ≤ (Vsupply - 8) / 0.023 [Ω]
Load stability, current output..... ≤0.01% of span/100 Ω
Sensor error indication, current output..... Programmable 3.5…23 mA
NAMUR NE 43 Upscale/Downscale..... 23 mA / 3.5 mA
*of span..... = of the presently selected range

Approvals

EMC..... EN 61326-1
ATEX..... KEMA 09ATEX0147
GOST Ex..... Yes

6333B-061814