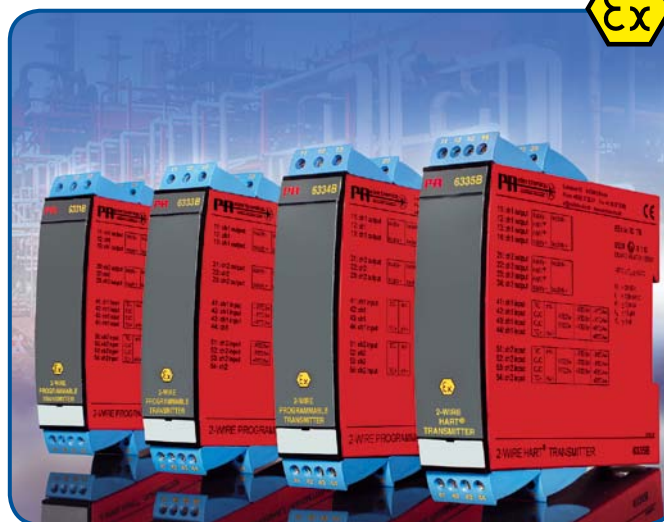


2-WIRE PROGRAMMABLE TRANSMITTER



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



Application:

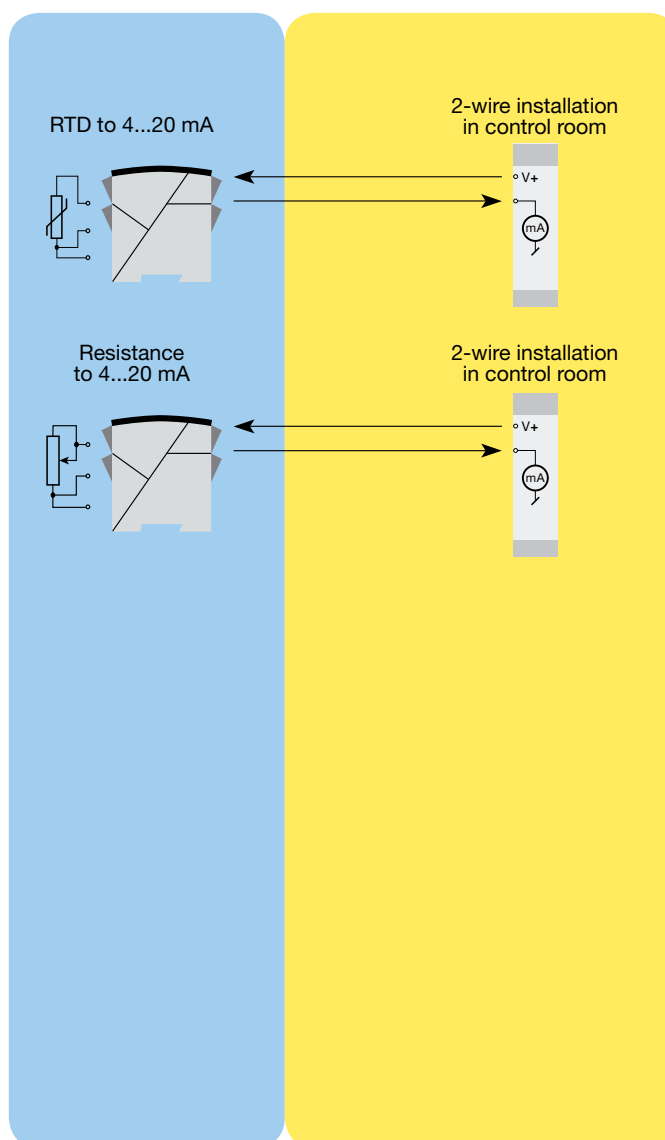
- Linearised temperature measurement with Pt100...Pt1000 or Ni100...Ni1000 sensor.
- Conversion of linear resistance variation to a standard analogue current signal, for instance from valves or Ohmic level sensors.

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 metre.
- **NB:** As Ex barrier we recommend 5104B, 5114B, or 5116B.

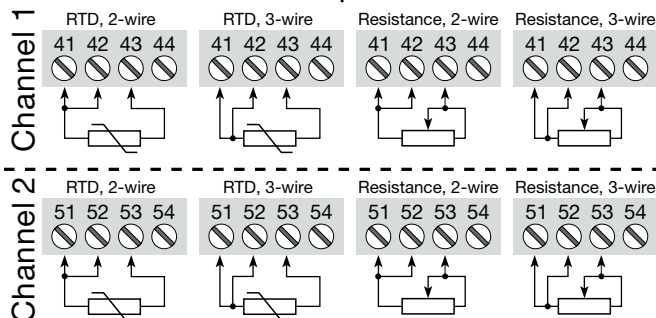


Order: 6333B

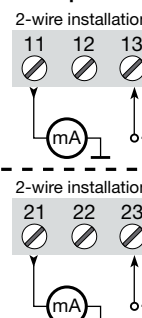
Type	Galvanic Isolation	Channels
6333B	None : 1	Single : A Double : B

Connections:

Inputs:



Outputs:



Electrical specifications:

Specifications range:

-40°C to +60°C

Common specifications:

Supply voltage, DC 8.0...30 VDC
Internal consumption..... 0.19...0.8 W
Voltage drop 8 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
Calibration temperature..... 20...28°C
Accuracy, the greater of general and basic values:

General values		
Input type	Absolute accuracy	Temperature coefficient
All	$\leq \pm 0.1\%$ of span	$\leq \pm 0.01\%$ of span / °C

Basic values		
Input type	Basic accuracy	Temperature coefficient
RTD	$\leq \pm 0.3^\circ\text{C}$	$\leq \pm 0.01^\circ\text{C}/^\circ\text{C}$
Lin. R	$\leq \pm 0.2 \Omega$	$\leq \pm 20 \text{ m}\Omega / ^\circ\text{C}$

EMC immunity influence	$< \pm 0.5\%$ of span
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Effect of supply voltage variation $\leq 0.005\%$ of span / VDC
Max. wire size..... 1 x 1.5 mm² stranded wire
Humidity < 95% RH (non-cond.)
Dimensions (H x W x D)..... 109 x 23.5 x 104 mm
Protection degree..... IP20
Weight (1 / 2 channels)..... 145 / 185 g

Electrical specifications, input:

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

RTD and linear resistance input:

RTD type	Min. value	Max. value	Min. span	Standard
Pt100	-200°C	+850°C	25°C	IEC 60751
Ni100	-60°C	+250°C	25°C	DIN 43760
Lin. R	0 Ω	10000 Ω	30 Ω	-----

Cable resistance per wire (max.) 10 Ω
Sensor current..... > 0.2 mA, < 0.4 mA
Effect of sensor cable resistance (3-wire)..... < 0.002 Ω / Ω
Sensor error detection..... Yes

Outputs:

Current outputs:

Signal range 4...20 mA
Min. signal range..... 16 mA
Updating time..... 135 ms
Load resistance $\leq (V_{\text{supply}} - 8) / 0.023 [\Omega]$
Load stability < $\pm 0.01\%$ of span/100 Ω

Sensor error detection:

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

Ex / I.S. approval:

KEMA 09ATEX0147 II 1 G
Ex ia IIC T6...T5
Max. amb. temperature for T6..... 40°C
Max. amb. temperature for T5..... 60°C
ATEX, applicable in zone 0, 1 or 2
ATEX Installation Drawing No. 6333QA01

GOST R approval:

VNIIFTRI, Cert. no. www.prelectronics.com

Observed authority requirements: Standard:

EMC 2004/108/EC EN 61326-1
ATEX 94/9/EC EN 60079-0, -11 and -26

Of span = Of the presently selected range