

2-WIRE PROGRAMMABLE TRANSMITTER



- RTD or Ohm input
- High measurement accuracy
- 3-wire connection
- Programmable sensor error value
- 1- or 2-channel version



Application:

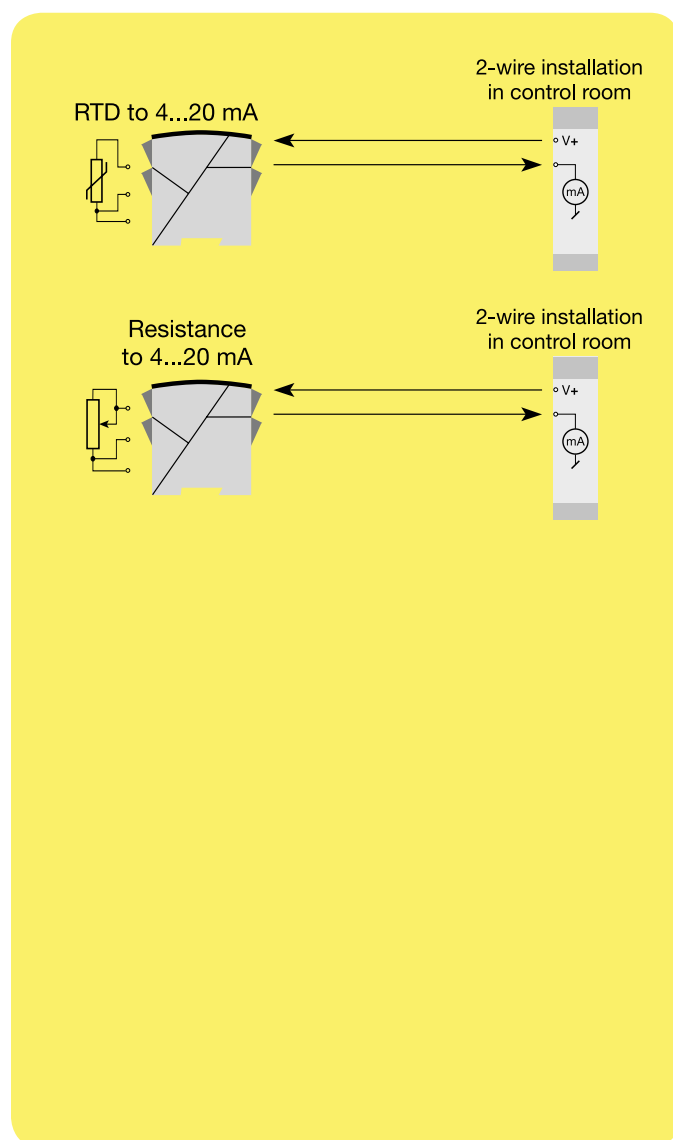
- Linearised temperature measurement with Pt100...Pt1000 or Ni100...Ni1000 sensor.
- Conversion of linear resistance variation to a standard analogue current signal, for instance from valves or Ohmic level sensors.

Technical characteristics:

- Within a few seconds the user can program PR6333A 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 per metre can be mounted.

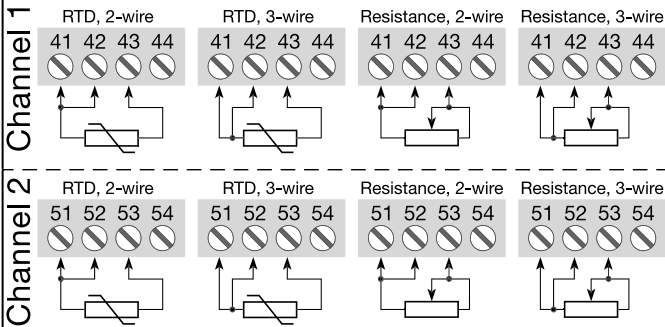


Order: 6333A

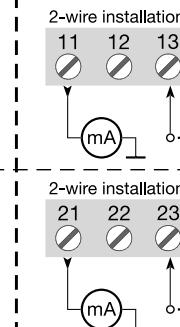
Type	Galvanic isolation	Channels
6333A	None : 1	Single : A Double : B

Connections:

Inputs:



Outputs:



Electrical specifications:

Specifications range:

-40°C to +60°C

Common specifications:

- Supply voltage, DC 8.0...35 VDC
- Internal consumption..... 0.19...0.8 W
- Voltage drop 8 VDC
- Isolation voltage, channel 1 / channel 2 3.75 kVAC
- Warm-up time..... 5 min.
- Communications interface Loop Link 5905A
- 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:

Output:

Current output:

- 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

Observed authority requirements: Standard:

- EMC 89/336/EEC, Emission EN 50 081-1, EN 50 081-2
- Immunity EN 50 082-2, EN 50 082-1
- Emission and immunity..... EN 61 326

Of span = Of the presently selected range

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 $\leq \pm 0.5\%$ of span

- Effect of supply voltage variation $< 0.005\%$ of span / VDC
- Max. wire size..... 1 x 1.5 mm²
- Humidity $< 95\%$ RH (non-cond.)
- Dimensions (H x W x D)..... 109 x 23.5 x 104 mm
- Tightness (enclosure / terminal) IP50 / 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
Pt100	-200°C	+850°C	25°C
Ni100	-60°C	+250°C	25°C
Lin.R	0 Ω	10000 Ω	30 Ω

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