

## 2-wire programmable transmitter

### 6333A

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



#### 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.

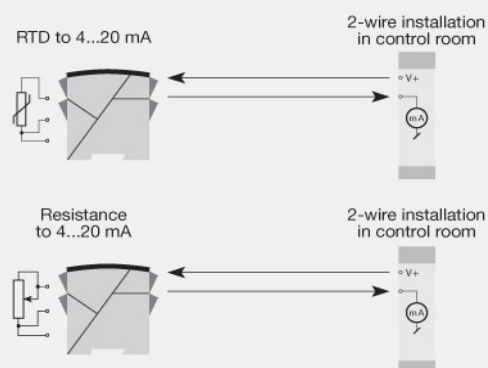
#### Technical characteristics

- Within a few seconds the user can program 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 meter can be mounted.

#### Connections



**Order:**

Type	Galvanic Isolation	Channels
6333A	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 2.5 mm <sup>2</sup> stranded wire

**Common specifications**

Supply voltage.....	8.0...35 VDC
Internal consumption.....	0.19...0.8 W
Voltage drop.....	8.0 VDC
Isolation voltage, ch. 1 / ch. 2.....	3.75 kVAC
Warm-up time.....	5 min.
Communications interface.....	Loop Link
Signal / noise ratio.....	Min. 60 dB
Accuracy.....	Better than 0.1% of selected range
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
EMC immunity influence.....	< ±0.5% of span

**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 2004/108/EC.....	KEMA 10ATEX0007 X
EAC TR-CU 020/2011.....	EN 61326-1