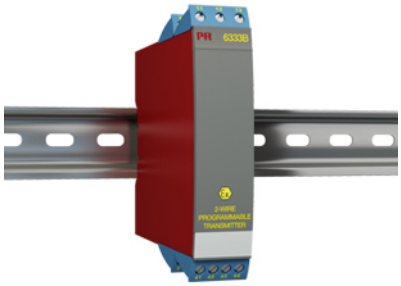
PERFORMANCE MADE SMARTER



2-wire programmable transmitter

6333B

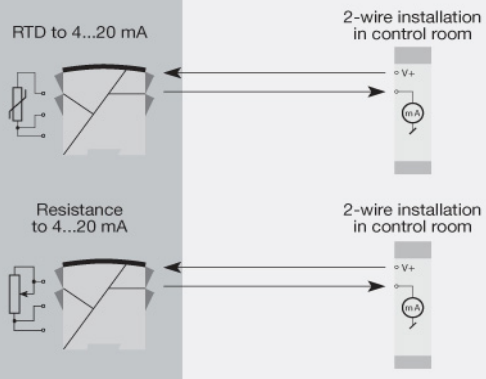
- RTD or Ohm input
- High measurement accuracy
- 3-wire connection
- Can be installed in Ex zone 0
- 1- or 2-channel version

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.
- The 6333B can be mounted in zone 0, 1, 2 and zone 21, 22 including M1 / Class I, Division 1, Groups A, B, C, D.

Applications



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Order

Type	Version	Galvanic isolation	Channels
6333	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : B	None : 1	Single : A Double : B

Environmental Conditions

Operating temperature ..... -40°C to +85°C
Storage temperature ..... -40°C to +85°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
DIN rail type ..... DIN EN 60715/35 mm
Wire size ..... 0.13...2.08 mm^2 AWG 26...14 stranded wire
Screw terminal torque ..... 0.5 Nm

Common specifications

Supply

Supply voltage ..... 8.0...30 VDC
Max. required power ..... ≤ 0.8 W/≤ 1.6 W (1 ch./2 ch.)
Internal power dissipation ..... 0.19...0.8 W

Response time

Response time (programmable) ..... 0.33...60 s
Voltage drop ..... 8.0 VDC
Warm-up time ..... 5 min.
Programming ..... PR 5909 Loop Link communications interface
Signal / noise ratio ..... Min. 60 dB
Accuracy ..... Better than 0.1% of sel. range
Signal dynamics, input ..... 19 bit
Signal dynamics, output ..... 16 bit
Effect of supply voltage change ..... < 0.005% of span / VDC

Input specifications

Common input specifications

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

RTD input

RTD type ..... Pt100…1000, Ni100...1000, lin. R
Cable resistance per wire ..... 10 Ω (max.)
Sensor current ..... > 0.2 mA, < 0.4 mA
Effect of sensor cable resistance (3-wire) ..... < 0.002 Ω / Ω
Sensor error detection ..... Yes

Linear resistance input

Linear resistance min....max ..... 0 Ω...10000 Ω

Output specifications

Current output

Signal range ..... 4…20 mA
Min. signal range ..... 16 mA
Load (@ current output) ..... ≤ (Vsupply - 8) / 0.023 [Ω]
Load stability ..... ≤ 0.01% of span / 100 Ω
Sensor error indication ..... Programmable 3.5…23 mA
NAMUR NE43 Upscale/Downscale ..... 23 mA / 3.5 mA

Common output specifications

Updating time ..... 135 ms
of span ..... = of the presently selected range

Observed authority requirements

EMC 2014/30/EU
ATEX 2014/34/EU
RoHS 2011/65/EU
EAC ..... TR-CU 020/2011
EAC Ex ..... TR-CU 012/2011

Approvals

ATEX ..... DEKRA 20ATEX0105X
IECEx ..... DEK 20.0062X
FM FM17US0013X
CSA 1125003
INMETRO ..... DEKRA 23.0010X
EAC Ex ..... EAEU KZ 7500361.01.01.08756