

2-WIRE LEVEL TRANSMITTER



- Potentiometer or Ohmic input
- Programmable sensor error value
- High measurement accuracy
- Unique process calibration function
- Programmable via standard PC

Application:

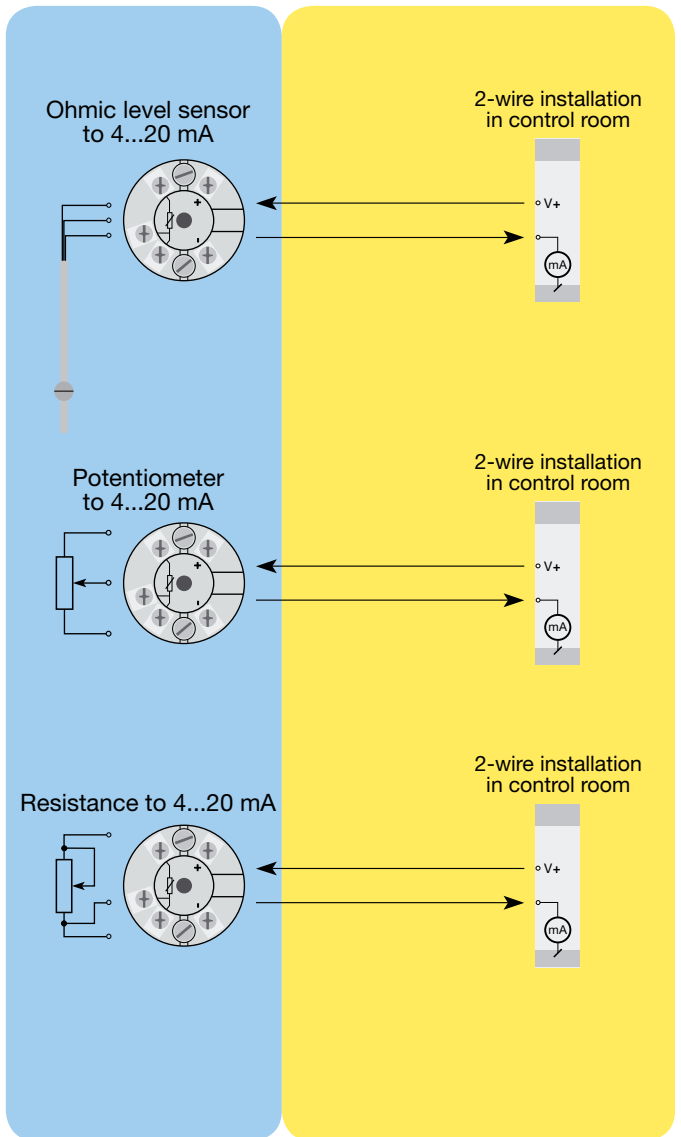
- Conversion of resistance variation to standard analogue current signals, e.g. from Ohmic level sensors or valve positions.
- User-defined linearisation function can be activated.

Technical characteristics:

- Within a few seconds the user can program PR5343B to measure within the defined Ohmic values.
- Continuous check of vital stored data for safety reasons.
- The transmitter is protected against polarity reversal.
- PR5343B is configured to the current task by way of a PC, the PReset software and the communications interface Loop Link.
- The PRelevel configuration tool included in the PReset software has been developed specifically for the configuration of level applications. Among other things, it contains a function for "on line" measurement of input span as well as a linearisation function for volume linear output from horizontal cylindrical tanks.

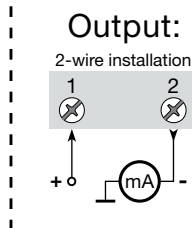
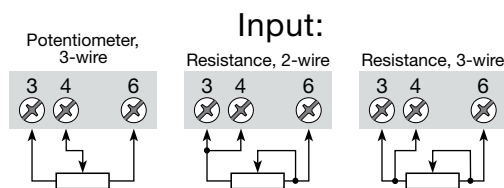
Mounting / installation:

- For DIN form B sensor head or DIN rail mounting with a special fitting.
- NB: As Ex barrier for 5343B we recommend 5104B, 5114B or 5116B.



Type
5343B

Connections:



Electrical specifications:

Specifications range:

-40°C to +85°C

Common specifications:

- Supply voltage, DC 8.0...30 V
- Internal consumption..... 25 mW...0.8 W
- Voltage drop 8 VDC
- 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 the general and basic values:

General values		
Input type	Absolute accuracy	Temperature coefficient
Lin. R	≤ ±0.1% of span	≤ ±0.01% of span / °C

Basic values		
Input type	Basic accuracy	Temperature coefficient
Lin. R	≤ ±0.05 Ω	≤ ±0.002 Ω / °C

- EMC immunity influence < ±0.5% of span
- Effect of supply voltage change < 0.005% of span / VDC
- Vibration IEC 60068-2-6 Test FC
- Lloyd's specification no. 1 4 g / 2...100 Hz
- Max. wire size..... 1 x 1.5 mm² stranded wire
- Screw terminal torque 0.4 Nm
- Humidity < 95% RH (non cond.)
- Dimensions..... Ø 44 x 20.2 mm
- Protection degree (enclosure / terminal)..... IP68 / IP00
- Weight 50 g

Electrical specifications, input:

Linear resistance input:

- Measurement range 0...100 kΩ
- Min. measurement range (span)..... 1 kΩ
- Max. offset..... 50% of selec. max. value
- Cable resistance per wire (max.) 100 Ω
- Sensor current..... > 25 µA, < 120 µA
- Effect of sensor cable resistance (3-wire)..... < 0.002 Ω / Ω
- Sensor error detection..... Yes

Output:

Current output:

- Signal range 4...20 mA
- Min. signal range 16 mA
- Updating time..... 135 ms
- Load resistance < (V_{supply} - 8) / 0.023 [Ω]
- Load stability < ±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 03ATEX1538..... II 1 G Ex ia IIC T4 or T6 II 1 D Ex iaD

- Max. ambient temp. for T1...T4 85°C
- Max. ambient temp. for T5 and T6.... 60°C
- ATEX, applicable in zone 0, 1, 2, 20, 21 or 22
- ATEX Installation Drawing No. 5343QA01

Marine approval:

- Det Norske Veritas, Ships & Offshore. Stand. f. Certific. No. 2.4

GOST R approval:

- VNIIM & 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, -26
- EN 61241-0, -11

Of span = Of the presently selected range