

2-WIRE LEVEL TRANSMITTER



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



Application:

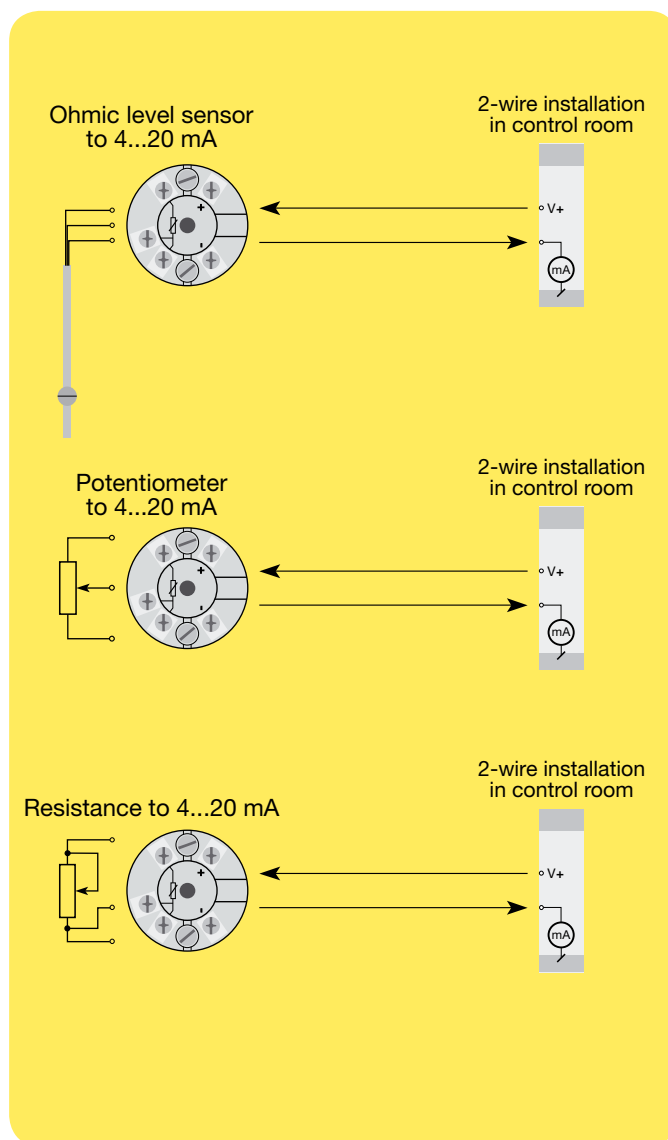
- Conversion of resistance variation to standard analogue current signals, e.g. from Ohmic level sensors or valve positions.
- User-defined linearisation function can be activated.

Technical characteristics:

- Within a few seconds the user can program PR5343A to measure within the defined Ohmic values.
- Continuous check of vital stored data for safety reasons.
- The transmitter is protected against polarity reversal.
- PR5343A 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.



Type
5343A

Connections:



Electrical specifications:

Specifications range:

-40°C to +85°C

Common specifications:

Supply voltage, DC	8.0...35 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 mm ² 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 approval:

KEMA 10ATEX0004 X.....	II 3 GD Ex nA [nL] IIC T4...T6 or II 3 GD Ex nL IIC T4...T6 or II 3 GD Ex nA [ic] IIC T4...T6 or II 3 GD Ex ic IIC T4...T6
ATEX Installation Drawing No.....	5343QA02

Marine approval:

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

GOST R approval:

VNIIM, Cert. No. www.prelectronics.com

Observed authority requirements: Standard:

EMC 2004/108/EC	EN 61326-1
ATEX 94/9/EC.....	EN 60079-0, -11, -15

Of span = Of the presently selected range