

2-WIRE LEVEL TRANSMITTER



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



Application:

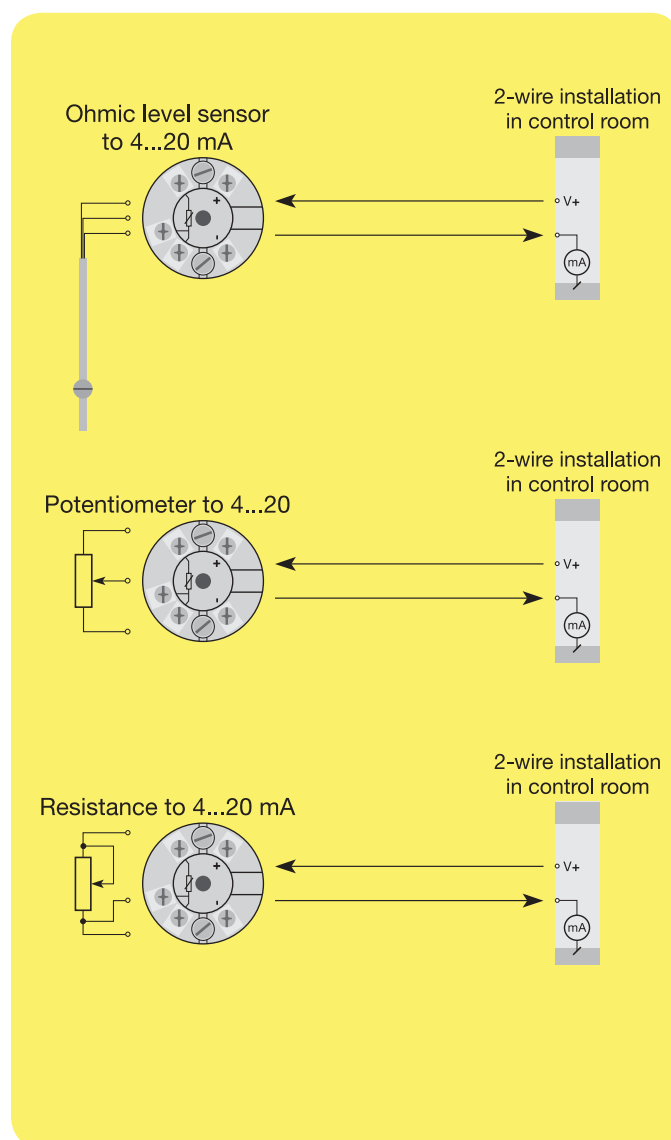
- Conversion of resistance variation to standard analogue current signals, e.g. from Ohmic level sensors or valve positions.
- User-defined linearisation function can be activated.

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 PRelevel software and the communications interface Loop Link 5905A.
- The PRelevel 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:

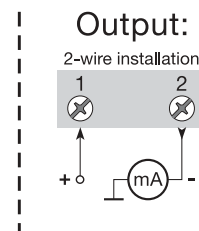
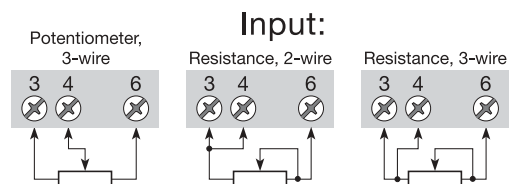
- For DIN form B sensor head or DIN rail mounting with a special fitting.



Order: 5343A

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 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 the general and basic values:

General values		
Input type	Absolute accuracy	Temperature coefficient
Lin. R	$\leq \pm 0.1\%$ of span	$\leq \pm 0.01\%$ of span / °C

Basic values		
Input type	Basic accuracy	Temperature coefficient
Lin. R	$\leq \pm 0.05 \Omega$	$\leq \pm 0.002 \Omega / ^\circ\text{C}$

EMC immunity influence.....	$< \pm 0.5\%$ of span
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Effect of supply voltage change.....	$< 0.005\%$ of span / VDC
Vibration	IEC 68-2-6 Test FC
Lloyd's specification no. 1	4 g / 2...100 Hz
Max. wire size.....	1 x 1.5 mm ²
Humidity	$< 95\%$ RH (non cond.)
Dimensions.....	Ø 44 x 20.2 mm
Tightness (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.....	$> 25 \mu\text{A}$, $< 120 \mu\text{A}$
Effect of sensor cable resistance (3-wire).....	$< 0.002 \Omega / \Omega$
Sensor error detection.....	Yes

Output:

Current output:

Signal range	4...20 mA
Min. signal range	16 mA
Updating time.....	135 ms
Load resistance	$< (V_{\text{supply}} - 8) / 0.023 [\Omega]$
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