PERFORMANCE MADE SMARTER



2-wire level transmitter

5343B

- 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 analog current signals, e.g. from Ohmic level sensors or valve positions.
- User-defined linearization function can be activated.

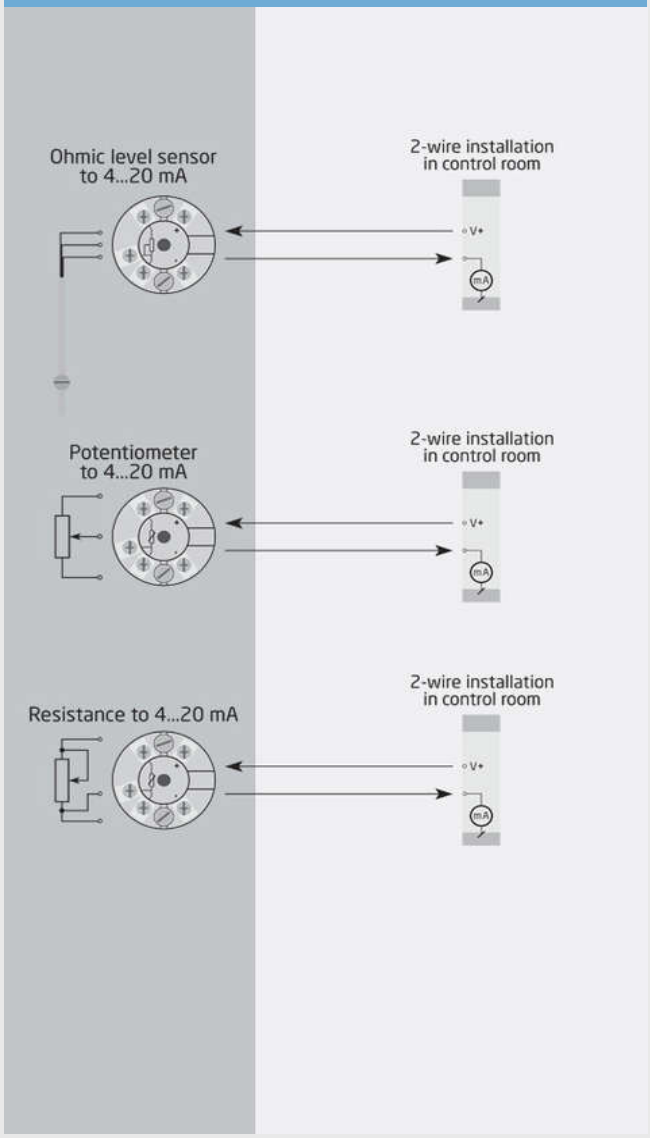
Technical characteristics

- 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 linearization 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 I.S. / Ex barrier for 5343B we recommend 5104B, 5114B or 5116B.

Connections



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Order:

Type
5343B

Environmental Conditions

Specifications range	-40°C to +85°C
Calibration temperature	20...28°C
Relative humidity	< 95% RH (non-cond.)
Protection degree (encl./terminal)	IP68 / IP00

Mechanical specifications

Dimensions	Ø 44 x 20.2 mm
Weight approx.	50 g
Wire size	1 x 1.5 mm^2 stranded wire
Screw terminal torque	0.4 Nm
Vibration	IEC 60068-2-6 : 2007
Vibration: 2...25 Hz	±1.6 mm
Vibration: 25...100 Hz	±4 g

Common specifications

Supply

Supply voltage	8.0...30 VDC

Response time

Response time (programmable)	0.33...60 s
Internal consumption	25 mW…0.8 W
Voltage drop	8.0 VDC
Warm-up time	5 min.
Programming	Loop Link
Signal / noise ratio	Min. 60 dB
Accuracy	Better than 0.1% of selected range
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

Common input specifications

Max. offset	50% of selected max. value

Linear resistance input

Measurement range / min. range (span)	0...100 kΩ / 1 kΩ
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, lin. R	Yes
Min. measurement range	1 kΩ

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 NE 43 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

Approvals

ATEX 2014/34/EU	KEMA 03ATEX1538
FM	2D5A7
IECEx	DEK 13.0036X
INMETRO	DEKRA 13.0002 X
EAC	TR-CU 020/2011
EAC Ex TR-CU 012/2011	RU C-DK.GB08.V.00410
DNV-GL Marine	Stand. f. Certific. No. 2.4
GL	V1-7-2