PERFORMANCE MADE SMARTER



2-wire level transmitter

5343B

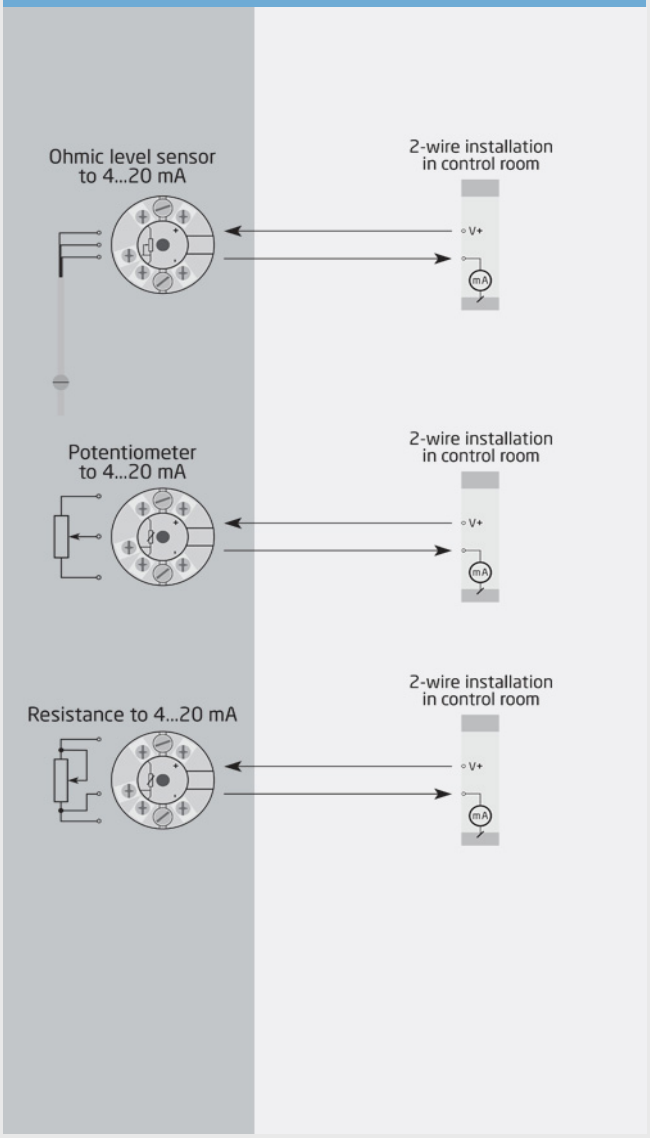
- Potentiometer or Ohmic input
- Programmable sensor error value
- High measurement accuracy
- Unique process calibration function
- Programmable via standard PC

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.

Applications



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Order

Type	Version	
5343	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2	: B

Environmental Conditions

Operating temperature..... -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
2...25 Hz..... ±1.6 mm
25...100 Hz..... ±4 g

Common specifications

Supply

Supply voltage..... 8.0...30 VDC
Internal power dissipation..... 25 mW…0.7 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..... > 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
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..... 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 (1)
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

I.S. / Ex marking

ATEX..... II 1 G Ex ia IIC T6...T4 Ga, II 2 D Ex ia IIIC Db, I M1 Ex ia I Ma
IECEx..... Ex ia IIC T6...T4 Ga, Ex ia IIIC Db, Ex ia I Ma
FM, US..... Cl. I, Div. 1, Gp. A, B, C, D T4/T6; Cl. I Zone 0, AEx ia IIC T4/T6; Cl. 1, Div. 2, Gp. A, B, C, D, T4/T6
INMETRO..... Ex ia IIC T6...T4 Ga, Ex ia IIIC Db, Ex ia I Ma

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
INMETRO..... DEKRA 23.0010X
EAC Ex..... EAEU KZ 7500361.01.01.08756
DNV Marine..... TAA0000101