PERFORMANCE MADE SMARTER



2-wire level transmitter

5343A

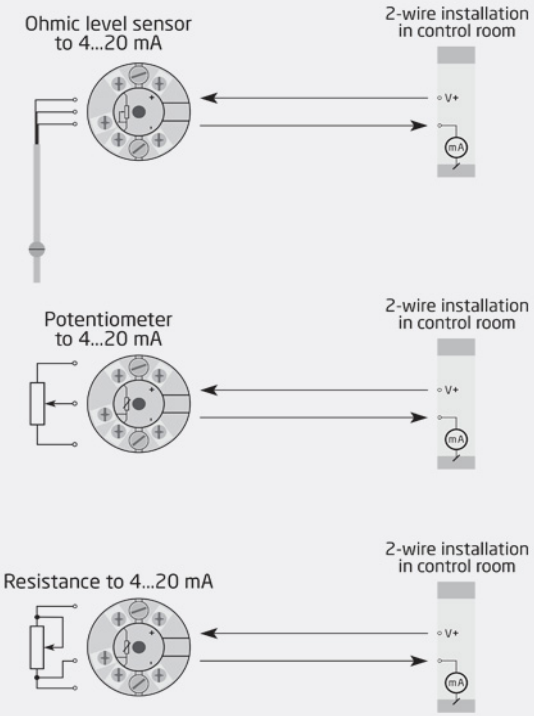
- Potentiometer or Ohmic input
- Programmable sensor error value
- High measurement accuracy
- Unique process calibration function
- Programmable via standard PC

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 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 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 2 / Div. 2	: A

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...35 VDC
Internal power dissipation ..... 25 mW…0.8 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 3 G Ex nA [ic] IIC T6...T4 Gc, II 3 G Ex ec [ic] IIC T6...T4 Gc, II 3 G Ex ic IIC T6...T4 Gc, II 3 D Ex ic IIIC Dc
IECEx ..... Ex nA [ic] IIC T6…T4 Gc, Ex ec [ic] IIC T6…T4 Gc, Ex ic IIC T6…T4 Gc, Ex ic IIIC Dc
INMETRO ..... Ex ec [ic] IIC T6...T4 Gc, Ex ic IIC T6...T4 Gc, Ex ic IIIC Dc

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 20ATEX0106X
IECEx ..... DEK 20.0062X
INMETRO ..... DEKRA 23.0010X
EAC Ex ..... EAEU KZ 7500361.01.01.08756
DNV Marine TAA0000101