

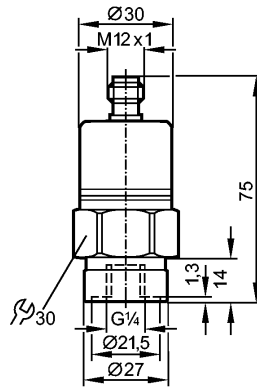


PA9027

PA-001-RBR14-B-DVG/US/V



Pressure sensors



Product characteristics

Electronic pressure sensor

Quick disconnect

e1 compliant

Process connection: G 1/4 I

Analog output

Measuring range: 0...1 bar

Application

Application

Type of pressure: relative pressure
Liquids and gases

Pressure rating [bar]

10

Bursting pressure min. [bar]

30

Medium temperature [°C]

-25...90 ****)

Electrical data

Electrical design

DC

Operating voltage [V]

16...32 DC 1)

Current consumption [mA]

< 18

Insulation resistance [MΩ]

> 100 (500 V DC)

Protection class

III

Reverse polarity protection

yes

Outputs

Output

Analog output

Output function

0...10 V

Overload protection

yes

Min. load [Ω]

2000

Measuring / setting range

Measuring range [bar]

0...1

Accuracy / deviations

Accuracy / deviations
(in % of the span)

Characteristics deviation *)

< ± 0.25 (BFSL) / < ± 0.5 (LS)

Repeatability **)

< 0.1

Long-term stability ***)

< ± 0.05

Temperature coefficients (TEMPCO) in the temperature range 0...80° C (in % of the span per 10 K)



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Pressure sensors

Greatest TEMPCO of the zero point	0.1
Greatest TEMPCO of the span	0.2

Reaction times

Step response time analogue output [ms]	3
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Environment

Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 65

Tests / approvals

EMC	EN 61000-4-2 ESD: EN 61000-4-3 HF radiated: EN 61000-4-4 Burst: EN 61000-4-6 HF conducted: radiation of interference CISPR25 noise immunity ISO 11452-2 HF radiated: ISO 7637-2 pulse:	4 kV CD / 8 kV AD 30 V/m 2 kV 10 V according to the automotive directive 2004/104/EC according to the automotive directive 2004/104/EC 100 V/m severity level 4
Railway applications	DIN EN 50155 / IEC 60571	class T3, C1, S1
Shock resistance	DIN EN 60068-2-27 DIN EN 61373:	50 g (11 ms) Category 3
Vibration resistance	DIN EN 60068-2-6 DIN EN 61373:	20 g (10...2000 Hz) Category 2
MTTF [Years]		478

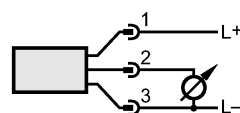
Mechanical data

Process connection	G ¼ I
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	stainless steel 316L / 1.4404; FPM (Viton); PA; EPDM/X (Santoprene)
Min. pressure cycles	100 million
Weight [kg]	0.222

Electrical connection

Connection	M12 connector; gold-plated contacts
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Wiring



Remarks

Remarks	*) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of value of measuring range / 6 months ****) -40...90 °C upon request
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Pack quantity [piece]	1
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