

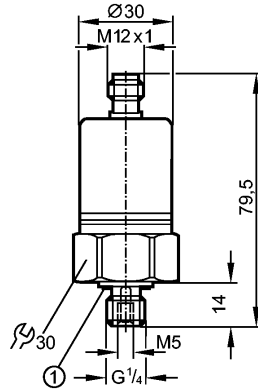


PA3509

PA-1-1-RBG14-A-ZVG/US/ IV



Pressure sensors



1: sealing FPM / DIN 3869-14



Product characteristics

Electronic pressure sensor

Quick disconnect

e1 compliant

Process connection: G 1/4 A / M5 I

Analog output

Measuring range: -1...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]	9.6...32 DC
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

Outputs

Output	Analog output
Output function	4...20 mA
Overload protection	yes
Max. load [Ω]	($U_b - 9.6 \text{ V}$) x 50; 720 at $U_b = 24 \text{ V}$

Measuring / setting range

Measuring range [bar]	-1...1
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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)



PA3509

PA-1-1-RBG14-A-ZVG/US/ IV

Pressure sensors

Greatest TEMPCO of the zero point	< ± 0.2
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: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 30 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-6 HF conducted: 10 V radiation of interference CISPR25 according to the automotive directive 2004/104/EC noise immunity according to the automotive directive 2004/104/EC ISO 11452-2 HF radiated: 100 V/m ISO 7637-2 pulse: severity level 4
Railway applications	DIN EN 50155 / IEC 60571 class T3, C1, S1
Shock resistance	DIN EN 60068-2-27 50 g (11 ms) DIN EN 61373: Category 3
Vibration resistance	DIN EN 60068-2-6 20 g (10...2000 Hz) DIN EN 61373: Category 2
MTTF [Years]	506

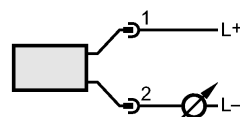
Mechanical data

Process connection	G ¼ A / M5 I
Materials (wetted parts)	stainless steel (303S22); ceramics; sealing: FPM (Viton); according to DIN 3869-14
Housing materials	stainless steel 316L / 1.4404; FPM (Viton); PA; EPDM/X (Santoprene)
Min. pressure cycles	100 million
Weight [kg]	0.219

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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