

1: Pressure relief mechanism

No mechanical force must be exerted on the pressure relief mechanism.



Product characteristics

Electronic pressure sensor

Quick disconnect

e1 compliant

Process connection: G 1/4 I

Analog output

Measuring range: 0...250 bar

Application

Application

Type of pressure: relative pressure
Liquids and gases
Use in gases at pressures > 25 bar only after contacting the manufacturer ifm

Pressure rating [bar]

400

Bursting pressure min. [bar]

850

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]

0...250

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)

Greatest TEMPCO of the zero point

0.1

Greatest TEMPCO of the span

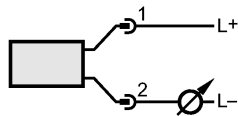
0.2

Reaction times

PA3021 - Electronic pressure sensor - eclass: 27201302 / 27-20-13-02

Step response time analogue output [ms]	3
Environment	
Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 68 / IP 69K
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 according to the automotive directive 2004/104/EC CISPR25
	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]	507
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]	0.224
Electrical connection	
Connection	M12 connector; gold-plated contacts

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

Pack quantity [piece]

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