

Pressure sensors

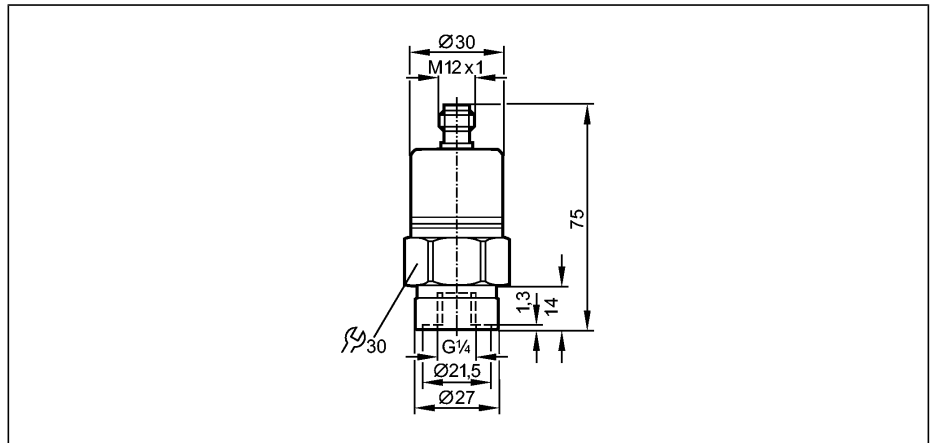
**PA3029**

Electronic pressure sensor  
PA30

Plug and socket  
Process connection G $\frac{1}{4}$  I

Analogue output

Measuring range  
-1...0 bar



<b>Application</b>	<b>Type of pressure: relative pressure</b>
<b>Electrical design</b>	<b>Liquids and gases</b>
<b>Output</b>	<b>DC</b>
Operating voltage [V]	9.6...32 DC <sup>1)</sup>
Reverse polarity protection	yes
Overload protection	yes
Analogue output	4...20 mA
Load for analogue output [ohms]	max. (U <sub>b</sub> - 9.6 V) x 50; 720 at U <sub>b</sub> = 24 V
Pressure rating [bar]	10
Bursting pressure min. [bar]	30
<b>Accuracy / deviations (in % of the span)</b>	
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

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Step response time analogue output [ms]	3	
Ambient temperature [°C]	-25...80	
Medium temperature [°C]	-25...90 ****)	
Storage temperature [°C]	-40...100	
Protection	IP 65, III	
Insulation resistance [MΩ]	> 100 (500 V DC)	
Shock resistance	DIN IEC 68-2-27:50 g (11 ms)	
Vibration resistance	DIN IEC 68-2-6:20 g (10...2000 Hz)	
Min. pressure cycles	100 million	
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
		according to ISO7637-2 / severity level 3
	pulse resistance	3
	Housing materials	stainless steel 316L / 1.4404; FPM (Viton); PA; EPDM/X (Santoprene)
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)	
Connection	M12 connector	
Remarks	<p>1) The device shall be supplied from an isolating source and protected by an overcurrent device such that the limited voltage circuit requirements in accordance with UL 508 are met.</p> <p>*) BFSL = Best Fit Straight Line / LS = Limit Value Setting</p> <p>** ) with temperature fluctuations &lt; 10 K</p> <p>*** ) in % of value of measuring range / 6 months</p> <p>**** ) -40...90 °C upon request</p>	

**Wiring**

