efector500

ifm electronic

Pressure sensors

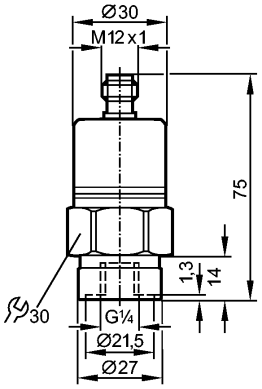
PA3029

Electronic pressure sensor
PA30

Plug and socket
Process connection G¼ I

Analogue output

Measuring range
-1...0 bar



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Application		**Type of pressure: relative pressure Liquids and gases**
Electrical design		**DC**
Output		**4...20 mA analogue**
Operating voltage	[V]	9.6...32 DC [1])
Reverse polarity protection		yes
Overload protection		yes
Analogue output		4...20 mA
Load for analogue output [ohms]		max. (Ub - 9.6 V) x 50; 720 at Ub = 24 V
Pressure rating	[bar]	10
Bursting pressure min.	[bar]	30
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

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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 pulse resistance: according to ISO7637-2 / severity level 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

[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.
*) 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

Wiring