

- 1: 4-digit alphanumeric display
2: LEDs (display unit / switching status)
3: Programming button



Product characteristics

Combined pressure sensor

Quick disconnect

Sealing of the measuring cell: EPDM

Function programmable

Process connection: G 1/4 I

Switching output, Analog output

4-digit alphanumeric display

Measuring range: -1000...0 mbar

Application

Application

Type of pressure: relative pressure
Liquids and gases
Cannot be used for oils

Pressure rating [mbar]
Bursting pressure min. [mbar]
Medium temperature [°C]

10000

30000

-25...80

Electrical data

Electrical design

DC PNP

Operating voltage [V]

18...36 DC 1)

Current consumption [mA]

< 50

Insulation resistance [MΩ]

> 100 (500 V DC)

Protection class

III

Reverse polarity protection

yes

Overvoltage protection [V]

up to 40 V

Outputs

Output

Switching output, Analog output

Output function

normally open / closed programmable; 4...20 mA or 0...10 V

Current rating [mA]

250

Voltage drop [V]

< 2

Short-circuit protection

yes (non-latching)

Switching frequency [Hz]

≤ 170

Analog output

4...20 mA / 0...10 V

Max. load [Ω]

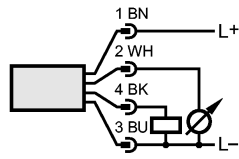
4...20 mA: max. 500 / 0...10 V: min. 2000

Measuring / setting range

PE3029 - Combined pressure sensor - eclass: 27201302 / 27-20-13-02

Display unit	mbar, kPa, psi, inHg
Measuring range [mbar]	-1000...0
Setting range	
Set point, SP [mbar]	-990...0
Reset point, rP [mbar]	-995...-5
in steps of [mbar]	5
Factory setting	SP1 = -750 mbar; rP1 = -770 mbar
Accuracy / deviations	
Accuracy / deviations (in % of the span)	
Switch point accuracy	< ± 0.5
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.25
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.05
Temperature coefficients (TEMPCO) in the temperature range -20...80° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2
Reaction times	
Power-on delay time [s]	0.3
Delay time programmable dS, dr [s]	0; 0.2...50
Response time analog output [ms]	< 3
Integrated watchdog	yes
Software / programming	
Programming options	hysteresis / window function; N.O. / N.C.; on delay, off delay; damping; display unit; current / voltage output
Adjustment of the switch point	Programming button
Environment	
Ambient temperature [°C]	-20...80
Storage temperature [°C]	-40...100
Protection	IP 67
Tests / approvals	
EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 0.5/1 kV EN 61000-4-6 HF conducted: 10 V
Shock resistance	DIN IEC 68-2-27: 50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6: 20 g (10...2000 Hz)
MTTF [Years]	213
Mechanical data	
Process connection	G ¼ I
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al ₂ O ₃); Sealing of the measuring cell; EPDM
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); EPDM/X (Santoprene); PTFE
Switching cycles min.	100 million
Weight [kg]	0.265
Displays / operating elements	
Display	Display unit 4 x LED green Switching status LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
Electrical connection	
Connection	M12 connector; gold-plated contacts
Wiring	

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Remarks
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1) to EN50178, SELV, PELV
 *) BFSL = Best Fit Straight Line / LS = Limit Value Setting
 **) with temperature fluctuations < 10 K
 ***) in % of value of measuring range / 6 months

Pack quantity [piece]

1