

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



Product characteristics  
Electronic pressure monitor

Quick disconnect

Sealing of the measuring cell: EPDM

Function programmable

Process connection: G 1/4 I

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: 0...25 bar / 0...363 psi / 0...2.5 MPa

Application

Application

Type of pressure: relative pressure

Liquids and gases

Cannot be used for oils

Pressure rating

150 bar

2175 psi

15 MPa

Bursting pressure min.

350 bar

5075 psi

35 MPa

Medium temperature

[°C]

-25...80

Electrical data

Electrical design

DC PNP/NPN

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

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

Output function

2 x normally open / closed programmable or 1 x normally open / closed programmable  
+ 1 x normally closed (diagnostic function)

Current rating

[mA]

250

Voltage drop

[V]

< 2


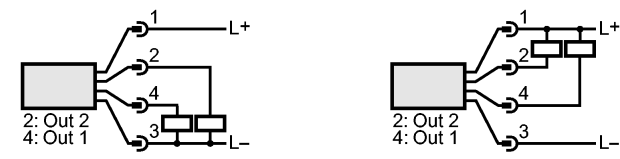
Short-circuit protection

yes (non-latching)

**PE7003 - Electronic pressure monitor - eclass: 27201302 / 27-20-13-02**

Switching frequency [Hz]	≤ 170		
Measuring / setting range			
Measuring range	0...25 bar	0...363 psi	0...2.5 MPa
Setting range			
Set point, SP	0.2...25.0 bar	4...362 psi	0.02...2.50 MPa
Reset point, rP	0.1...24.9 bar	2...360 psi	0.01...2.49 MPa
in steps of	0.1 bar	2 psi	0.01 MPa
Factory setting	SP1 = 6.3 bar; rP1 = 5.8 bar SP2 = 18.8 bar; rP2 = 18.3 bar		
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		
Integrated watchdog	yes		
Software / programming			
Programming options	hysteresis / window function; N.O. / N.C; diagnostic function; output polarity; on delay, off delay; damping; display unit		
Interfaces			
IO-Link Device			
Transfer type	COM2 (38.4 kBaud)		
IO-Link revision	1.1		
IO-Link Device ID	310 d / 00 01 36 h		
Profiles	no profile		
SIO mode	yes		
Required master port class	A		
Process data analogue	1		
Process data binary	2		
Min. process cycle time [ms]	2.3		
Environment			
Ambient temperature [°C]	-20...80 (UB < 32 V) / -20...60 (UB > 32 V)		
Storage temperature [°C]	-40...100		
Protection	IP 67		
Tests / approvals			
EMC	EN 61000-6-2 EN 61000-6-3		
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)	
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)	
MTTF [Years]	237		
Mechanical data			
Process connection	G ¼ I		
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al2 O3); Sealing of the measuring cell; EPDM		
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC; PBT; PEI; FPM; EPDM/X; PTFE		
Switching cycles min.	100 million		
Weight [kg]	0.264		
Displays / operating elements			
Display	Display unit	3 x LED green	

**PE7003 - Electronic pressure monitor - eclass: 27201302 / 27-20-13-02**

	Switching status 2 x LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
Electrical connection Connection	M12 connector; gold-plated contacts
<b>Wiring</b>	
Programming of the output function -----OUT1----- Hno = hysteresis / normally open Hnc = hysteresis / normally closed Fno = window function / normally open Fnc = window function / normally closed -----OUT2----- Hno = hysteresis / normally open Hnc = hysteresis / normally closed Fno = window function / normally open Fnc = window function / normally closed dESI = diagnostic function (normally closed) 	
Remarks Remarks	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