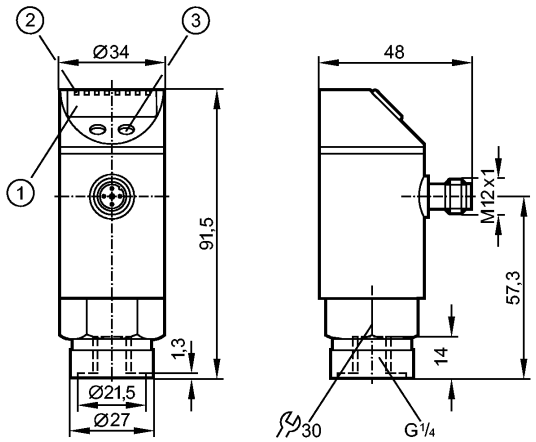
efectorsoo
PE7002

PE-100-SDR14-QFRKG/US/ /E

Pressure sensors



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

CE cULus LISTED IO-Link

Product characteristics

Electronic pressure monitor
Quick disconnect
Sealing of the measuring cell: EPDM
Function programmable
Process connection: G ¼ I
2 outputs OUT1 = switching output OUT2 = switching output or diagnostic output
4-digit alphanumeric display
Measuring range: 0...100 bar / 0...1450 psi / 0...10 MPa

Application

Application		Type of pressure: relative pressure Liquids and gases Cannot be used for oils Use in gases at pressures > 25 bar only after contacting the manufacturer ifm		
Pressure rating		300 bar	4350 psi	30 MPa
Bursting pressure min.		650 bar	9400 psi	65 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

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Short-circuit protection		yes (non-latching)		
Switching frequency	[Hz]	≤ 170		
Measuring / setting range				
Measuring range		0...100 bar	0...1450 psi	0...10 MPa
Setting range				
Set point, SP		1.0...100.0 bar	20...1450 psi	0.10...10.00 MPa
Reset point, rP		0.5...99.5 bar	10...1440 psi	0.05...9.95 MPa
in steps of		0.5 bar	10 psi	0.05 MPa
Factory setting		SP1 = 25.0 bar; rP1 = 23.0 bar SP2 = 75.0 bar; rP2 = 73.0 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		309 d / 00 01 35 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]	219		
Mechanical data				
Process connection		G ¼ I		
Materials (wetted parts)		stainless steel 316L / 1.4404; ceramics; Sealing of the measuring cell; EPDM		
Housing materials		stainless steel (304S15); stainless steel 316L / 1.4404; PC; PBT; PEI; FPM; EPDM/X		
Switching cycles min.		100 million		
Weight	[kg]	0.26		
Displays / operating elements				
Display		Display unit Switching status	3 x LED green 2 x LED yellow	

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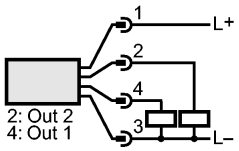
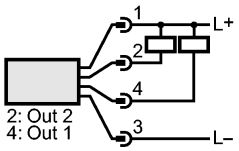
	Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
Electrical connection	
Connection	M12 connector; gold-plated contacts

Wiring

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