

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



Product characteristics
Electronic pressure monitor

Quick disconnect

Function programmable

Process connection: G ¼ I

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: -1...10 bar / -14.5...145 psi / -0.1...1.0 MPa

Application

Application

Type of pressure: relative pressure
Liquids and gases

Pressure rating	75 bar	1087 psi	7.5 MPa
Bursting pressure min.	150 bar	2175 psi	15 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)		
Switching frequency [Hz]	≤ 170		
Measuring / setting range			

PY9294 - Electronic pressure monitor - eclass: 27201302 / 27-20-13-02

Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1.0 MPa
Setting range			
Set point, SP	-0.90...10.00 bar	-12...145 psi	-0.090...1.000 MPa
Reset point, rP	-0.95...9.95 bar	-13...144 psi	-0.095...0.995 MPa
in steps of	0.05 bar	1 psi	0.005 MPa
Accuracy / deviations			
Accuracy / deviations (in % of the span)			
Switch point accuracy		< ± 0.5	
Characteristics deviation *)		< ± 0.5	
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		
Environment			
Ambient temperature [°C]	-20...80 (UB < 32 V) / -20...60 (UB > 32 V)		
Storage temperature [°C]	-40...100		
Protection	IP 65		
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]		219	
Mechanical data			
Process connection		G ¼ I	
Materials (wetted parts)		stainless steel (303S22); ceramics; FPM (Viton)	
Housing materials		stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE	
Switching cycles min.		100 million	
Weight [kg]		0.261	
Displays / operating elements			
Display	Display unit	3 x LED green	
	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	
Wiring			

PY9294 - Electronic pressure monitor - eclass: 27201302 / 27-20-13-02

Programming of the output function

-----OUT1-----

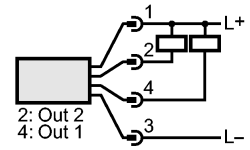
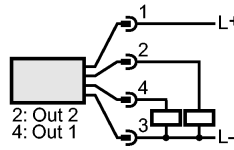
Hno = hysteresis / normally open
 Hnc = hysteresis / normally closed
 Fno = window function / normally open
 Fnc = window function / normally closed

-----OUT2-----

Hno = hysteresis / normally open
 Hnc = hysteresis / normally closed
 Fno = window function / normally open
 Fnc = window function / normally closed
 dESI = diagnostic function (normally closed)

Factory setting:

OUT1 = Hno
 OUT2 = dESI



Remarks

Remarks

1) to EN50178, SELV, PELV
 *) linearity, incl. hysteresis and repeatability;
 (limit value setting to DIN 16086)
 **) with temperature fluctuations < 10 K
 ***) in% of the span / 6 months

Pack quantity [piece]

1