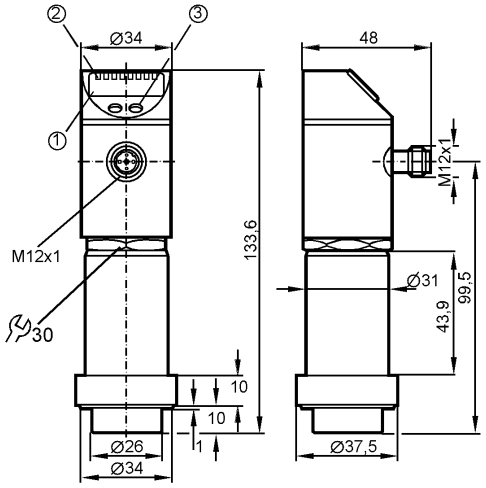
efectorsoo

PY9000

PY-600-SE MFRKG/US/ /V

Pressure sensors



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

Made in Germany

Product characteristics

Pressure sensor 600 bar
for homogenisers

Quick disconnect

Zero and span adjustable

Function programmable

Process connection: Clamp fitting

2 outputs
OUT1 = switching output
OUT2 = switching output or analog output

4-digit alphanumeric display

Measuring range: 0...600 bar

Application

Application		Type of pressure: relative pressure Liquids and gases For gaseous media the application is limited to max. 25 bar
Pressure rating	[bar]	800
Bursting pressure min.	[bar]	1200
Medium temperature	[°C]	-25...100 (145 max 1h)

Electrical data

Electrical design		DC PNP/NPN
Operating voltage	[V]	20...30 DC
Current consumption	[mA]	< 65
Insulation resistance	[MΩ]	> 100 (500 V DC)
Protection class		III
Reverse polarity protection		yes

Outputs

Output	2 outputs OUT1 = switching output OUT2 = switching output or analog output
Output function	2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x analog (4...20 mA / 0...10 V; programmable 1:4)

Current rating	[mA]	2 x 250
Voltage drop	[V]	< 2
Short-circuit protection		Yes (non-latching)
Overload protection		yes
Switching frequency	[Hz]	≤ 170
Analog output		4...20 mA / 0...10 V
Max. load	[Ω]	4...20 mA: max. (Ub - 10 V) x 50 / 0...10 V: min. 2000
Measuring / setting range		
Display unit		bar, psi, MPa
Measuring range	[bar]	0...600
Setting range		
Set point, SP	[bar]	6...600
Reset point, rP	[bar]	3...597
Analog start point, ASP	[bar]	0...240
Analog end point, AEP	[bar]	150...600
in steps of	[bar]	3
Accuracy / deviations		
Accuracy / deviations (in % of the span) Turn down 1:1		
Switch point accuracy		< ± 1.0
Characteristics deviation *)		< ± 1.0
Linearity		< ± 0.5
Hysteresis		< ± 1.0
Repeatability **)		< ± 0.25
Long-term stability ***)		< ± 0.25
Temperature coefficients (TEMPCO) in the temperature range 0...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
Min. response time switching output	[ms]	3
Damping for the switching output (dAP)	[s]	0...4
Damping for the analog output (dAA)	[s]	0 - 0; 1 - 0; 5 - 2
Response time analog output	[ms]	3
Integrated watchdog		yes
Software / programming		
Programming options		hysteresis / window function; N.O. / N.C; output polarity; current / voltage outputs; damping; calibration of displayed values; display can be rotated / deactivated; display unit
Environment		
Ambient temperature	[°C]	-25...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 EN 60068-2-27:	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6:	20 g (10...2000 Hz)
MTTF [Years]	145	

Mechanical data

Process connection	Clamp fitting
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al2 O3); FKM
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PA; FPM (Viton); EPDM/X (Santoprene)
Switching cycles min.	50 million
Weight [kg]	0.366

Displays / operating elements

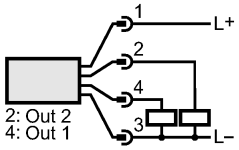
Display	Display unit	3 x LED green
	Switching status	2 x LED yellow
	Function display	4-digit alphanumeric display
	Measured values	4-digit alphanumeric display

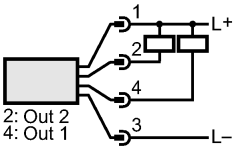
Electrical connection

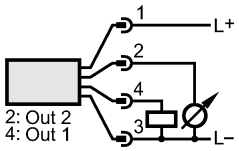
Connection	M12 connector; gold-plated contacts

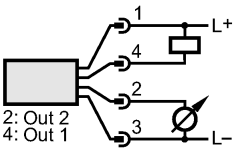
Wiring

Programming of the output function
(OUT1 / OUT2):
Hno = hysteresis / normally open
Hnc = hysteresis / normally closed
Fno = window function / normally open
Fnc = window function / normally closed
Complementary outputs:
output 1: = Hno, output 2: = Hnc
(with the same SP / rP)









Programming of the analog output (OUT2):
I = current output (4...20 mA)
U = voltage output (0...10 V)

Remarks

Remarks	*) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086) **) with temperature fluctuations < 10 K ***) in % of the span per year
Pack quantity [piece]	1