Electronic Pressure Switch

BPS1000

Features

- Developed in accordance with railway standard EN50155
- Designed for increased electromagnetic compatibility
- For pressure control applications with increased ambient load
- · With internal membrane
- Switch point accuracy ± 0.5%

Measuring ranges

• 0...10 bar to 0... 400 bar gauge





Applications

- · OEM applications
- · Hydraulic and Pneumatics
- Railway applications

General Specifications

Sensor element	Ceramic sensor
Materials: Wetted parts Electronics housing Plug	Stainless steel, mat. no. 1.4301, FKM, Ceramic Stainless steel, mat. no. 1.4301 Brass nickel coated, polyamid 6.6
System of protection	IP68 with mating connector
Protection class	III
Process connection	M12 x 1.5 male, G1/4 B male (Manometer)
Dimensions	Ø 31 (SW27) x 70 (in screwed-in condition)
Weight	approx. 125 g
Overpressure [bar]	1.5 x FSO
Burst pressure	3 x FSO
Electrical connection	M12, 4-pin
Switch point resolution	0.1 bar
Operating cycles / life time	8 mio cycles / 10 years
Switch point accuracy*	± 0.5% FSO
Long term stability	± 0.1% FSO (per year / typical)
Compensated termperature range	-10 °C +70 °C
Temperature range: Medium Electronics Storage	-40 °C 85 °C -40 °C 80 °C -40 °C 85 °C

^{*}includes temperature error, repeatability, hysteresis

Transistor switching outputs			
Switching function	Normally open/normally closed, standard / window mode and diagnosis function adjustable		
Adjustment range for switching point and hysteresis	0% 125% f. s.		
Switching frequency	max. 100 Hz		
Load	max. 500 mA/output, short-circuit proof		
Delay	0.0 s 50 s adjustable		
Power supply	8 - 33,6 V DC, reversed porarity protected (SELV, PELV)		
Insulation test	750 V DC 1 min		
Insulation resistance test	500 V DC 2 s, max 3 mA, R ≥ 500 MΩ		
Power consumption	max. 40 mA		
Response time	≤ 2 ms		
Shock / Vibration	30g / 4g - successfully tested according to EN50155		
EMV / ESD**	Basic norm EMC EN 50121-3-2:2016+A1:2019		
	EN 61000-4-2 ESD	12 kV CD / 15 kV AD	
	EN 61000-4-3 HF radiated	30 V/m	
	EN 61000-4-4 Burst	4 kV	
	EN 61000-4-5 Surge	2 kV	
	EN 61000-4-6 HF conducted	20 V	

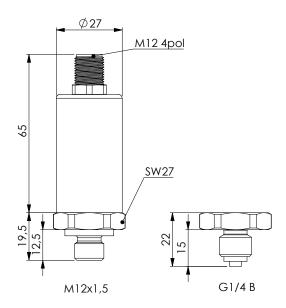
^{**}only valid when the housing is grounded



Electronic Pressure Switch

BPS1000

Sizes and dimensions



Plug

4-pin
4 • 3
1 • • 2

Process connections

G1/4 B according to DIN EN 837-1 M12 x 1.5

Connection table

Pin	Output
1	+ UB
2	SP2
3	0V
4	SP1

Order code

