

Electr. Dual Pressure Switch

BPS3000

Features

- ▶ Measuring ranges: 0...0.2 bar to 0...600 bar gauge (switchable to psi + MPa)
- ▶ max. 2 switch points
- ▶ Analogue output 4 - 20 mA or 0 - 10 V
- ▶ Rotatable 320° display & electrical connection
- ▶ Menu navigation refers to VDMA standard

Applications

- ▶ Machine tool industry
- ▶ Hydraulic & Pneumatic
- ▶ Injection moulding machines
- ▶ Lubrication monitoring



Technical Data

Sensor element:	Ceramic sensor optional: piezoresistive sensor
Materials:	
Wetted parts:	Stainless steel, mat. no. 1.4301
Electronics housing:	Stainless steel, mat. no. V2A, PA
Seals:	FKM, EPDM
Operating elements:	3 easy-response pushbuttons
System of protection:	IP65, IP67 on request
Protection class:	III
Electrical connection:	Plug M12 x 1, 4-pin / 5-pin
Process connection:	G1/4" M, G1/4" NPT, G1/2" flush diaphragm
Dimensions:	110 x 41 mm (without plug connector)
Weight:	approx. 200 g
A/D converter:	
Resolution:	12 bit (4096 steps per measuring span)
Scanning rate:	1000 / s
Linearity error:	< ±0.5 % v. f. s. at +25 °C
Temperature influence:	TC zero ≤ ±0.2 % FSO / 10K TC span ≤ ±0.3 % FSO / 10K
Compensation range:	-10 °C... +70 °C
Repeatability:	±0.1 % FSO
Temperature range:	
Medium:	-25 °C... +100 °C
Electronics:	-10 °C... +70 °C
Storage:	-30 °C... +80 °C
Power supply:	15... 32 V DC, reversed polarity protected (SELV, PELV)

Digital display:	4-digit 14-segment LED display, red, digit height 9 mm	
Error display:	LED red and alphanumeric display	
Power consumption:	approx. 50 mA (without load)	
Analog output:		
Current output:	4...20 mA	
Scanning rate:	2 ms	
Voltage output:	0...10 V DC	
Rating:	max. 10 mA	
Adjustment range:	25 %... 100 % f. s.	
Transistor switching outputs PNP:		
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, short-circuit proof	
Delay	0.0 s ... 9.9 s adjustable	
Status display(s):	LED(s) red	
Approvals:		
EMI	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	1/2 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN EN 60028-2-27	50 g (11 ms)
Vibrations resistance	DIN EN 60028-2-26	20 g (10...2000 Hz)

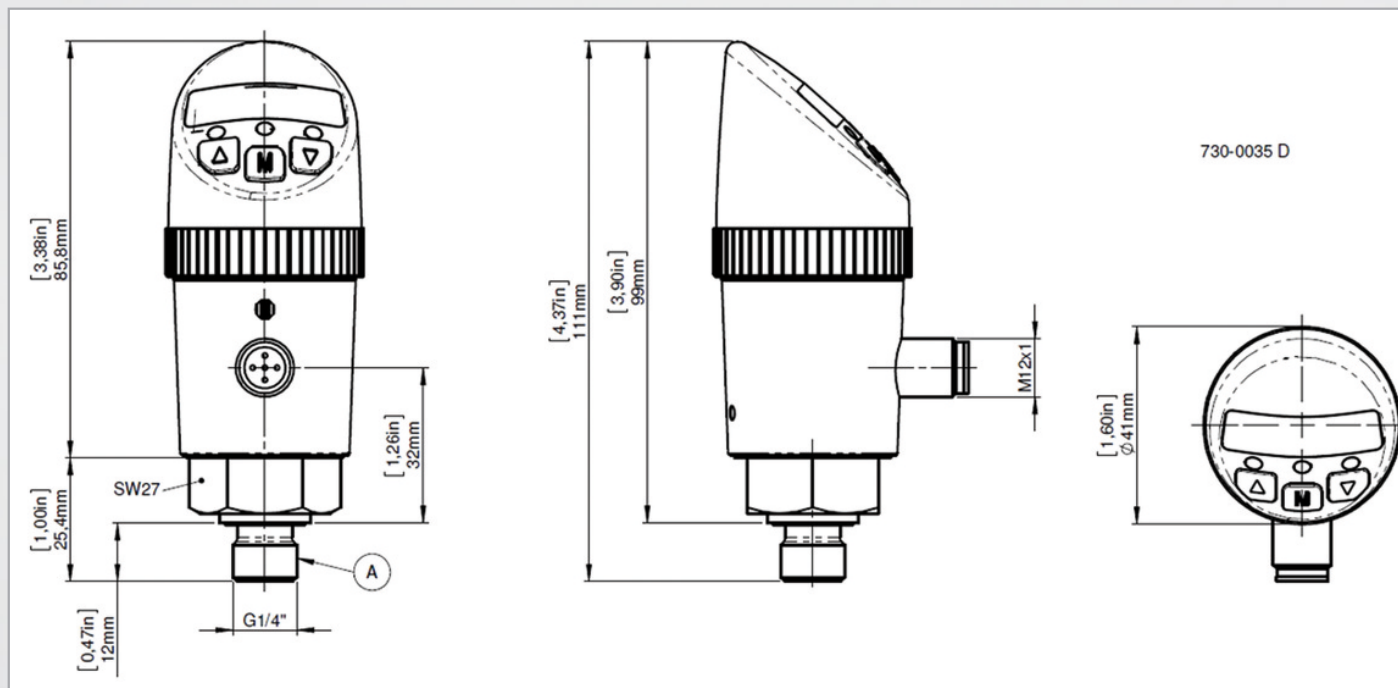
Accessories

Order Number	Description
907-0357	Plug connector M12 x 1, 4-pin, with screw terminals, angled
907-0185	Plug connector M12 x 1, 5-pin, with screw terminals
908-0361	Plug connector M12 x 1, 5-pin, with shielded cable

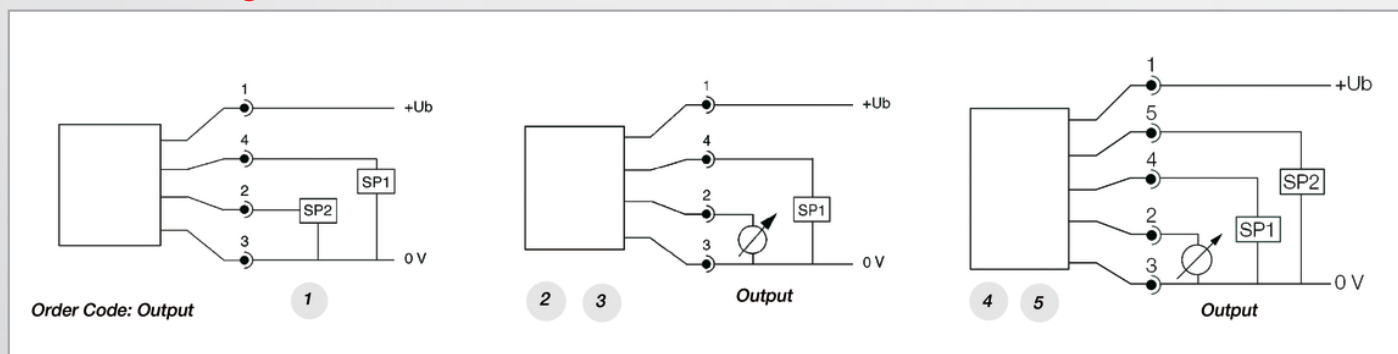
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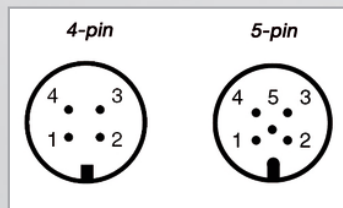
Dimensions (mm / inch)



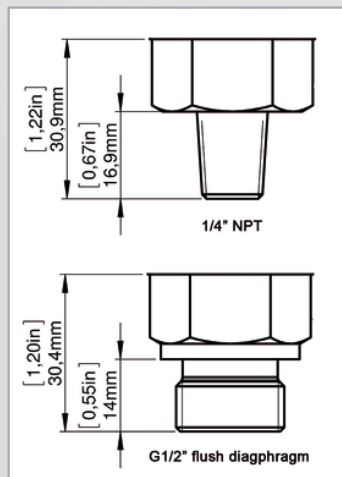
Connection diagram



Plug



Process connection



Order Code

BPS3000

BPS3		Base Model	
Output			
1		2 switch points	
2		4...20mA - 1 switch point	
3		0...10V - 1 switch point	
4		4...20mA - 2 switch points	
5		0...10V - 2 switch points	
Process Connection			
G		G1/4" ext. threat	
2		G1/2" flush diaphr. (requires piezoresistive sensor / code P)*	
N		1/4"NPT ext. threat	
3		1/2"NPT flush diaphr. (requires piezoresistive sensor / code P)* - on request	
1		40x40 Cetop/Manifold - on request	
E		7/16-20 UNF ext. threat - on request	
Sealing			
V		FKM	
E		EPDM	
Electrical Connection			
M		M12	
Range			
0 0 0 1 B A		0 - 1 bar absolute (requires piezoresistive sensor / code P)*	
0 0 0 5 B A		0 - 5 bar absolute (requires piezoresistive sensor / code P)*	
0 0 1 0 B A		0 - 10 bar absolute (requires piezoresistive sensor / code P)*	
0 0 . 2 B R		0 - 0.2 bar (requires piezoresistive sensor / code P)*, (IP65 only)	
0 0 . 5 B R		0 - 0.5 bar (requires piezoresistive sensor / code P)*, (IP65 only)	
0 0 0 1 B R		0 - 1 bar (requires piezoresistive sensor / code P)*, (IP65 only)	
0 0 0 2 B R		0 - 2 bar (requires piezoresistive sensor / code P)*, (IP65 only)	
0 0 0 5 B R		0 - 5 bar (requires piezoresistive sensor / code P)*, (IP65 only)	
0 0 1 0 B		0 - 10 bar	
0 0 5 0 B		0 - 50 bar	
0 1 0 0 B		0 - 100 bar	
0 2 0 0 B		0 - 200 bar	
0 4 0 0 B		0 - 400 bar (requires piezoresistive sensor / code P)*	
0 6 0 0 B		0 - 600 bar (requires piezoresistive sensor / code P)*	
		Others on request	
Sensor			
Blank		Standard ceramic sensor	
P		*Piezoresistive sensor	

Example:

BPS3 4 G V M 0 2 0 0 B

Special designs on request