



Electronic Pressure Switch



measuring
•
monitoring
•
analysing

PSC



- Measuring range:
-1 ... +700 bar
- Measuring accuracy:
1,0% of full scale
- p_{max} : 1200 bar; t_{max} : 80 °C
- Process connection:
G 1/4, G 1/2,
1/4" NPT, 1/2" NPT male
- Display 330° rotating
- Four-digit LED display
- Easy 2-key programming
- Integrated password protection



P3

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Description

The electronic KOBOLD pressure switch PSC with integrated display is used for continuous pressure monitoring and allows simple switching point programming without pressurisation. For each switching point, the contact function (NC contact/NO contact), the reset points, the switch types (n/p switch) and the switching function (hysteresis/window function) can be programmed.

Switching currents ranging from a few μA to 500 mA can be switched by the output transistors. The long-term proven ceramic or thin-film cells give this pressure switch very good repeating accuracy and a long life, even at high load alternation. The rotating display and rotating connection allow the switch also to be used under extreme mounting conditions.

Its high-quality stainless steel housing makes the pressure switch also suitable for unfavourable environmental conditions. For the higher pressure ranges, all wetted parts are made of stainless steel, making almost all media restrictions unnecessary for the electronic pressure switch. The electronic pressure switch PSC can be used for a wide range of measuring tasks in hydraulics and pneumatics.

Fields of application and areas of use

- Mechanical engineering
- Vacuum technology
- Refrigeration technology
- Filter monitoring
- Building technology
- Gas technology

Technical Data

Display:	7-segment LED, 7.6 mm high -.999 ... 9999 digits
Unit:	bar or PSI selectable
Accuracy:	1.0 % of full scale \pm 1 digit
Repeating accuracy:	0.2 % of full scale
Effect of temperature:	0.3 % / 10 K
Temperature ranges	
• Storage:	-30 ... +80 °C
• Medium to be measured:	-20 ... +80 °C
• Ambient:	-20 ... +70 °C
Alternating loads:	> 10 million pressure cycles
Max. pressure:	see table
Housing:	stainless steel 1.4305
Display electronics:	plastic
Wetted parts	
Measuring ranges \leq 50 bar:	stainless steel, Al_2O_3 , NBR (ceramic measuring cell)
Measuring ranges \geq 100 bar:	only stainless steel 1.4404 (thin-film measuring cell)
Pressure connection:	G 1/4 DIN 3852-E, G 1/2, 1/4" NPT, 1/2" NPT, stainless steel, rotating (330°)
Power supply:	12 ... 30 V _{DC} , pole-reversal-proof
Current consumption:	\leq 50 mA, without load current
Electrical connection:	connector M12x1, 4-pin
Switching outputs	
Switching function:	NC contact or NO contact p- or n-switching programmable
Switching power:	max. 0,5 A
Setting:	2-key programming
• Switching point:	1 ... 100 % of full scale
• Reset point:	0 ... 99 % of full scale
Analogue output:	4 ... 20 mA or 0 ... 10 V, 3-wire
Load resistance:	Voltage output > 10 k Ω Current output < 500 Ω
Hysteresis:	0,3 % of the range for the ceramic cell 0,2 % of the range for the thin-film cell
Protection class:	IP 65
Shock resistance:	50 g according to IEC
Vibration resistance:	10 g according to IEC
Weight:	approx. 0,3 kg



Max. Pressure

Measuring range [bar]	Overload limit [bar]	Burst pressure [bar]	Sensor element
-1 ... +2	5	6	Ceramic cell
-1 ... +3	5	6	
-1 ... +5	10	12	
-1 ... +10	20	25	
0 ... 2	5	6	
0 ... 5	10	12	
0 ... 10	20	25	
0 ... 20	40	50	
0 ... 50	100	120	Thin-film cell
0 ... 100	200	800	
0 ... 160	320	1000	
0 ... 250	500	1200	
0 ... 400	800	1700	
0 ... 600	1000	2400	
0 ... 700	1000	2400	

Order Details (Example: PSC-132R2 AG A)

Display	Connection				Measuring range	Options
	[G ¼]	[G ½]	[¼" NPT]	[½" NPT]		
2 x PNP/NPN switching outputs	PSC-132R2..	PSC-132R4..	PSC-132N2..	PSC-132N4..	..AG.. = -1 ... +2 bar rel. ..A2.. = -1 ... +3 bar rel. ..A3.. = -1 ... +5 bar rel. ..AK.. = -1 ... +10 bar rel. ..BF.. = 0 ... 2 bar rel.	..A = Standard ..D = Valve
1 x PNP/NPN switching output + 4-20 mA	PSC-232R2..	PSC-232R4..	PSC-232N2..	PSC-232N4..	..BH.. = 0 ... 5 bar rel. ..B7.. = 0 ... 10 bar rel. ..BL.. = 0 ... 20 bar rel. ..BN.. = 0 ... 50 bar rel.	
1 x PNP/NPN switching output + 0-10 V	PSC-332R2..	PSC-332R4..	PSC-332N2..	PSC-332N4..	..C2.. = 0 ... 100 bar rel. ..C3.. = 0 ... 160 bar rel. ..C4.. = 0 ... 250 bar rel. ..C5.. = 0 ... 400 bar rel. ..C6.. = 0 ... 600 bar rel. ..CA.. = 0 ... 700 bar rel.	

Dimensions

