



PS-02N

Compact Pressure Switch



Features

- / Compact
- / Robust
- / 6 Pressure ranges
- / Up to 600 bar
- / Plug connection

Description:

Mechanical pressure switches are intended for pressure-dependent switching on and off an electrical circuit. A pressure switch can be used as a control device as well as for visual or acoustical control for an operating point. The PS-02N series of compact pressure switches is designed as piston or diaphragm pressure switches depending on the pressure range. Both the versions are similar in construction where, in the case of the former, a spring-loaded piston actuates the micro-switch while, in the case of the latter, a spring-loaded elastomer membrane assumes this function. The setpoints can be set by means of a female hexagon SW5. Fine adjustments are optionally possible depending on customer requirements. The contacts for the micro-switch can be gold-plated on request so as to minimize the electrical transitional resistance, if necessary.

Application:

Thanks to the compact design of the PS-02N series and the broad spectrum of pressure range of 1 bar to 600 bar in 6 levels, these switches are well-suited for machine and vehicle manufacturing, packaging industry, pneumatic and hydraulic technologies and for equipment manufacturing.



Electrical Specifications:

- Switching Element /** changeover contact (SPDT)
- Electrical connection /** plug DIN EN 175301-803A or plug M 12x1, 4-pole or plug M 12x1, 4-pole with 2 m tipped cable or cable gland with 0,7 m cable
- Protection class /** IP65 for plug connections
IP68 for cable gland with 0,7 m cable
- EX-Versions /** intrinsically safe design on request
EEx ia (U_{max} = 28 V, I_{max} = 50 mA)
- Options /** approval for shipping as per GL
US-approval as per UL
Low hysteresis LH

Technical Specifications:

- Media temp. /** -40...+80°C for piston switch
-20...+80°C for diaphragm switch
-50°C on request
- Switching frequency /** max. 60/min for piston switch
max. 30/min for diaphragm switch
- Repeatability /** ±1% for piston switch
±2% for diaphragm switch
- Housing /** Aluminium, st. steel 1.4305 on request
- Wetted parts /** NBR, PTFE with bronze and st. steel 1.4301;
for piston switch: steel FKM, EPDM, CR instead of NBR
- Setting Screw /** st. steel 1.4305 (SW5)
- Pressure connection /** G1/4"-female, 1/4"-NPT-female straight or angular (others on request)
- Total weight /** approx. 350g

Electrical Connection /

	Plug DIN EN 175301-803A	Plug M12x1, 4-pole	Cable gland with two meters cable
COMMON	1	1	BN
normally closed	2	2	BK
normally open	3	4	GY
PE	-	3	GN / YE

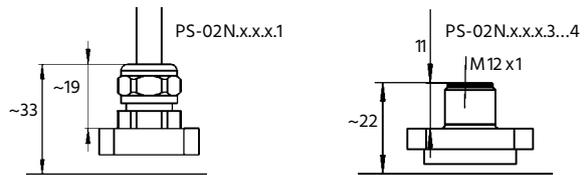
Electrical load capacity /

Ag contacts	ind. load	res. load	Au contacts	ind. / res. load
30 VDC	2.0 A	5.0 A	≅ 300 mVDC	- / ≅ 400 mA
250 VDC	0.03 A	0.2 A	≅ 30 VDC	- / ≅ 4 mA
250 VAC	2.0 A	5.0 A	AC	U x I = max. 0.12 VA
125 VAC	2.0 A	5.0 A		
minimum load	10 mA at 12 VDC		0 mA / 0 VDC	

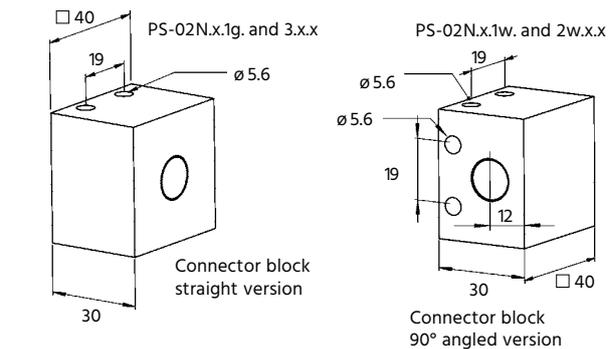
Operating range /

Type	Setting range dropping pressure	Setting range rising pressure	max. Hysteresis (end of range)	max. op. Pressure [bar] (*test press.)
Diaphragm switch				
PS-02N.1	0.4...5.7 bar	0.6...6.0 bar	≤ 15%	50 (*80)
PS-02N.2	2.0...17 bar	3.0...20 bar	≤ 15%	50 (*80)
PS-02N.3	3.0...41 bar	4.0...45 bar	≤ 15%	50 (*80)
Piston switch				
PS-02N.5	3.0...160 bar	5.0...180 bar	≤ 15%, at LH ≅ 7.5%	250 (*600)
PS-02N.6	30...300 bar	50...350 bar	≤ 15%, at LH ≅ 7.5%	450 (*600)
PS-02N.7	55...520 bar	80...600 bar	≤ 15%, at LH ≅ 7.5%	600 (*900)

Electrical Connection /

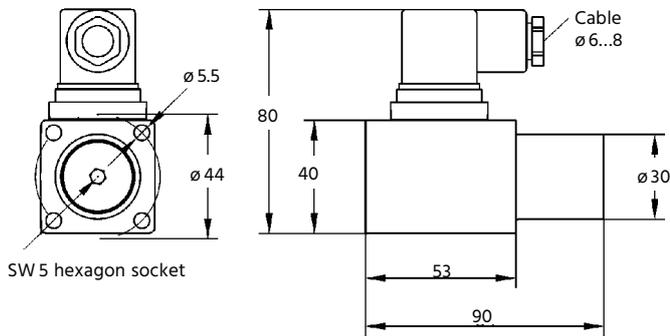


Process connection /





Dimensions in mm:



Ordering Codes:

Order number PS-02N. 7. 1w. 1. 1

PS-02N Compact Pressure Switch

Operating range /

- 1 = 0.4 .. 5.7 bar falling, 0.6 .. 6.0 bar rising
- 2 = 2.0 .. 17 bar falling, 3.0 .. 20 bar rising
- 3 = 3.0 .. 41 bar falling, 4.0 .. 45 bar rising
- 5 = 3.0 .. 160 bar falling, 5.0 .. 180 bar rising
- 6 = 30 .. 300 bar falling, 50 .. 350 bar rising
- 7 = 55 .. 520 bar falling, 80 .. 600 bar rising

Process connection /

- 1g = G1/4"-female straight
- 1w = G1/4"-female angular
- 2g = 1/4"-NPT-female straight
- 2w = 1/4"-NPT-female angular

Contacts /

- 1 = silver
- 2 = gold

Electrical connection /

- 1 = Cable gland, 0,7 m cable, IP68
- 2 = Plug DIN EN175301-803A, IP65, with counterpart
- 3 = Plug M12, 4-pole, without counterpart, IP65
- 4 = Plug M12, 4-pole, with counterpart angular 90° with 2 m cable, IP65

