

PS76 – Rugged Cylindrical Pressure Switch

New!

- ▶ Side Mounted DIN Connection
- ▶ Top Mounted Electrical Connection
- ▶ 15 to 1750 psi (1 to 121 bar)
- ▶ Minimal Set Point Change at Low Temperature Extremes
- ▶ DPDT Models Available

These versatile microswitch based pressure switches are designed for high pressure OEM applications. They offer all the performance of our proven PS75 model with the low temperature capability of Kapton®.

Specifications

Switch	SPST; SPDT; DPST; DPDT
Repeatability	See Table 1
Wetted Parts	
Port Fitting	Zinc-Plated Steel (316L Stainless Steel available)
Diaphragm	Kapton® (polyimide)
O-Ring	Nitrile (other materials available)
Electrical Termination	DIN 43650A IP65; Conduit with Flying Leads IP65; Flying Leads IP65
Proof Pressure	4500 psi (517 bar) except Range 10: 500 psi (35 bar)
Burst Pressure	6000 psi (414 bar)
Approvals	CE, UL Approved units available
Weight, Approximate	Steel: 0.6 lbs. (0.27 kg)

Recommended Operating Temperature Limits

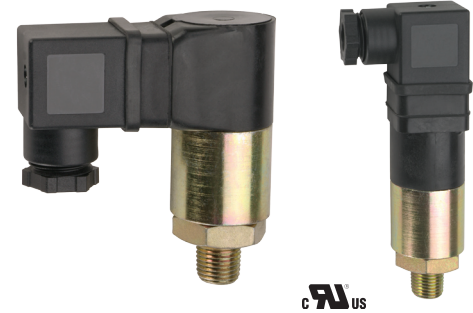
Diaphragm Material	Circuit Codes	
	-A, -B, -C	-AA, -BB, -CC (or -A, -B, -C with -RD option)
Teflon® Coated Kapton®	-40°F to +185°F (-40°C to +85°C)	-40°F to +250°F (-40°C to +121°C)

Electrical Switch Ratings

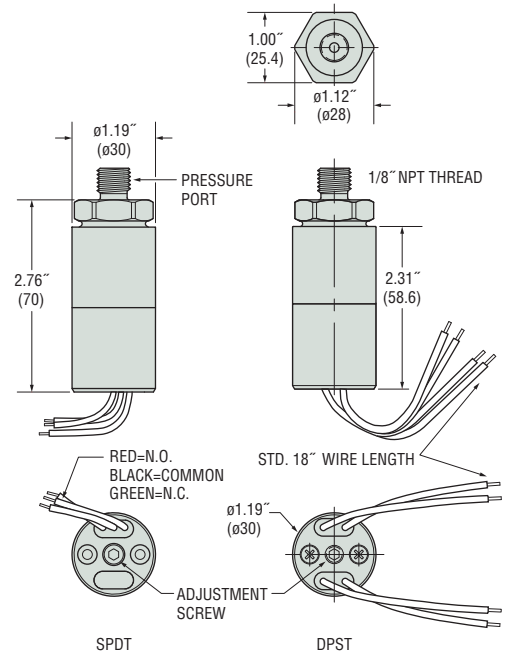
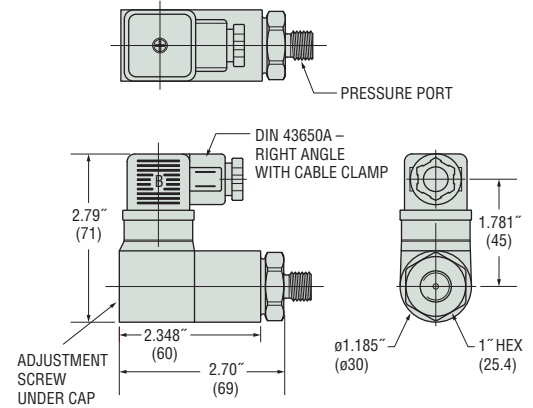
Circuit Code	AC	DC
-A, -B, -C ¹	5 amps @ 125/250 Volts	5 amps resistive, 3 amps inductive @ 28 Volts
-A, -B, -C ²	1 amp @ 125 Volts	1 amp resistive, 0.5 amp inductive @ 28 Volts
-AA, -BB, -CC ¹	2 switches rated 5 amps @ 125/250 Volts	2 switches rated 5 amps resistive, 3 amps inductive @ 28 Volts
-AA, -BB, -CC ²	2 switches rated 1 amp @ 125/250 Volts	2 switches rated 1 amp resistive, 0.5 amp inductive @ 28 Volts

Notes:

- Without Gold Contacts Option (-G).
- With Gold Contacts Option (-G).

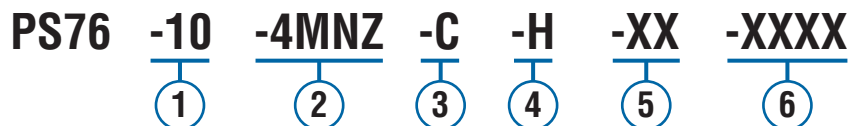


Dimensions



How To Order

Use the **Bold** characters from the chart below to construct a product code. Please reference Notes.



① Pressure Range Code

Insert Pressure Range Code from Table 1, below.

② Pressure Fitting¹

12L14 Zinc-Plated Steel

- 2MNZ = 1/8" NPTM
- 4MNZ = 1/4" NPTM
- 4FNZ = 1/4" NPTF
- 4MGZ = 1/4" BSPM (G type)
- 4FGZ = 1/4" BSPF (G type)
- 4MSZ = 7/16"-20 SAE Male
- 6MSZ = 9/16"-18 SAE Male
- 4SSZ = 7/16"-20 SAE Male Swivel

316L Stainless Steel

- 4MNS = 1/4" NPTM
- 4MGS = 1/4" BSPM (G type)
- 4FGS = 1/4" BSPF (G type)
- 6MSS = 9/16"-18 SAE Male

③ Circuit

- A = SPST/N.O.
- B = SPST/N.C.
- C = SPDT
- AA = DPST/N.O.²
- BB = DPST/N.C.²
- CC = DPDT²

④ Electrical Termination

- FLXX = Flying Leads³
- ELXX = 1/2" NPT Male Conduit w/Flying Leads⁴
- H = DIN 43650A Male Half Only⁵
- HR = Right Angle DIN 43650A Male Half Only⁵
- HC = DIN 43650A 9mm Cable Clamp⁵
- HCR = Right Angle DIN 43650A 9mm Cable Clamp⁵
- HN = DIN 43650A with 1/2" Female NPT Conduit⁵
- HNR = Right Angle DIN 43650A with 1/2" Female NPT Conduit⁵

⑤ Options

- G = Gold Contacts
(for loads less than 12 mA @ 12 VDC)
- RD = Reduced Differential
(25% reduction typical)
- OXY = Oxygen Cleaned⁶
- R = Restrictor (low damping coefficient) Brass
- SR = Spiral Restrictor (high damping coefficient)
300 Series Stainless Steel⁷
- WF = Weather Pack Connector, Female
- WM = Weather Pack Connector, Male
- DE = Deutsch Connector, Male, DT04 Series

⑥ Fixed Set Point (optional)

- A. Specify set point -FS
(in PSI or BAR, see example)⁸
- B. Set Point Actuation
R on Rising Pressure
F on Falling Pressure
Example: -FS1BARF for 1 BAR Falling
or -FS20PSIR for 20 PSI Rising

Notes:

1. Manifold mounts available. Consult factory.
2. Requires -FL or -EL electrical termination.
3. 18" is standard. Specify lead length in inches (max. 48"). e.g. -FL18 or -FL30.
4. 18" is standard. Specify lead length in inches (max. 48"). e.g. -EL18 or -EL30.
5. DIN connectors require -C SPDT circuit.
6. Requires stainless steel pressure fitting.
7. -SR will result in wider deadbands and slower response times.
8. Set Point must be within Pressure Range selected in Step 1.

Table 1 — Pressure Range Codes

For Circuit Codes -A, -B and -C

Pressure Range Code	Pressure Range	Repeatability*	Average Deadband**
10	15-75 psi (1.0-5.2 bar)	±2.5 psi (0.17 bar) +3% of setting	5 psig (0.34 bar) +11% of setting
20	50-150 psi (3.5-10.3 bar)	±6 psi (0.41 bar) +3% of setting	15 psig (1.03 bar) +14% of setting
30	150-650 psi (10.3-44.8 bar)	±15 psi (1.03 bar) +3% of setting	25 psi (1.72 bar) +15% of setting
40	500-1750 psi (34.5-121 bar)	±25 psi (1.72 bar) +3% of setting	55 psi (3.79 bar) +16% of setting

For Circuit Codes -AA, -BB and -CC***

Pressure Range Code	Pressure Range	Repeatability*	Average Deadband**
10	15-75 psi (1.0-5.2 bar)	±3.5 psi (0.24 bar) +4% of setting	4 psig (0.28 bar) +9% of setting
20	50-150 psi (3.5-10.3 bar)	±9 psi (0.62 bar) +4% of setting	13 psig (0.90 bar) +11% of setting
30	150-650 psi (10.3-44.8 bar)	±22 psi (1.51 bar) +4% of setting	21 psi (1.45 bar) +12% of setting
40	500-1750 psi (34.5-121 bar)	±35 psi (2.41 bar) +4% of setting	45 psi (3.10 bar) +13% of setting

* Repeatability and set point of units may change due to the effects of temperature.

** In certain applications deadband can be tailored and controlled to customer specifications. Consult factory for details.

*** Operation of both switches in most cases will not be simultaneous but will occur within the specifications listed. Deadband figures already reflect the improvement from the -RD option which is automatically included in the -AA, -BB and -CC circuits.