PS81 – Ultra-Long Life Vacuum Switches

- 0.75˝ to 15˝ Hg (25 to 508 mbar)
- Sensitive Diaphragm for Lower Set Points
- Factory Fixed or Adjustable Set Points
- DPDT Versions Available

For low vacuum applications, the longevity of our PS81 Series is hard to beat. A life expectancy of 1 million cycles means long-term reliability. Their brass housing and choice of four diaphragm materials ensures chemical compatibility with your system. PS81 series switches have a field adjustable set point or can be factory set.

Specifications

Operating Temperature	-40°F to +180°F (-40°C to +80°C)
Switch*	5 Amp @ 24 VDC and 250 VAC 1 Amp @ 24 VDC (-G option)
Repeatability	±2% of Full Set Point Range at 70°F (20°C)
Wetted Parts	
Diaphragm	Nitrile standard (optional EPDM, Viton® or Kapton®)
Fitting	Brass
Housing	Brass
Spring	Stainless Steel
Spring Guide	Dolrin
Electrical Termination	DIN 43650A IP65; Terminals IP00; Flying Leads IP65; IP option IP66
Proof Pressure	150 psi (10 bar)
Approvals	CE, UL Approved units available
Weight, Approximate	0.31 lbs. (0.14 kg)

*Gold contacts (option G) may be required for less than 12 VDC and 20 mA.

How To Order

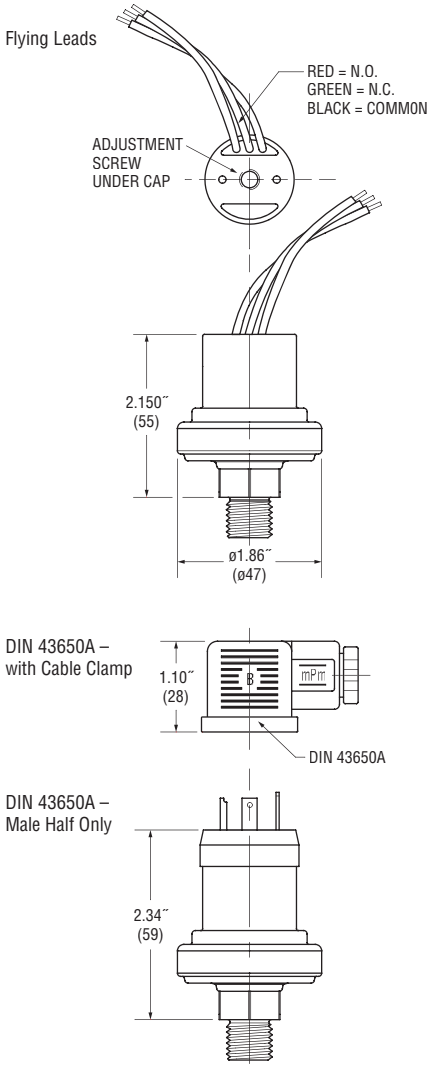
Use the **Bold** characters from the chart below right to construct a product code.

SELECT **PS81** **-10** **-4MNB** **-C** **-H** **-XX** **-XXXX**

1. Pressure Range Code
   Insert Pressure Range Code from table below
2. Pressure Fitting
   -2MNB 1/8˝ NPTM Brass; **-4MNB** 1/4˝ NPTM Brass;
   -2FNB 1/8˝ NPTF Brass; **-4MGB** 1/4˝ BSPM Brass;
   -4MSB 7/16˝-20 SAE Male, Brass;
   -6MSB 9/16˝-18 SAE Male, Brass
3. Circuit
   -A SPST/NO; **-B** SPST/NC; **-C** SPDT;
   -AA DPST/NO; **-BB** DPST/NC; **-CC** DPDT
4. Electrical Termination
   -FLXX Flying Leads[1]; **-ELXX** 1/2˝ NPT Male Conduit w/Flying Leads[2];
   -H DIN 43650A Male Half Only[3]; **-HC** DIN 43650A 9mm Cable Clamp[3];
   -HN DIN 43650A with 1/2˝ Female NPT Conduit[3]
5. Options
   -V Viton® Diaphragm; **-E** EPDM Diaphragm; **-K** Kapton® Diaphragm;
   -G Gold Contacts (for loads less than 12 mA @ 12 VDC); **-OXY** Oxygen Cleaned;
   -IP Ingress Protection[4]
6. Fixed Set Point (optional)
   A. Specify set point **-FS** (in Inches Hg or mBAR, see example)[5]
   B. Set Point Actuation
   R on Rising Vacuum; **F** on Falling Vacuum
   Example: **-FS100MBARF** for 100 mBAR Falling or **-FS2INHGR** for 2˝ Hg Rising

Notes:
1. 18˝ is standard. Specify lead length in inches (max. 48˝). e.g. **-FL18** or **-FL30**.
2. 18˝ is standard. Specify cable length in inches (max. 48˝). e.g. **-EL18** or **-EL30**.
3. DIN connectors require **-C** SPDT circuit.
4. Ingress Protection is available only with **-FL** Electrical Termination and requires Fixed Set Point **-FS**.
5. Set Point must be within Pressure Range selected in Step 1 above.

Dimensions



Pressure Range Table

Pressure Range Code	Pressure Range	Average Dead Band
10	.75-5˝ Hg (25.4-169.3 mbar)	0.2-0.5˝ Hg (0.6-0.15 mbar)
20	4-15˝ Hg (135.5-508.0 mbar)	0.3-0.7˝ Hg (0.9-2 mbar)