

# PS31 – Kapton® Diaphragm OEM Subminiature Pressure Switch

- ▶ 5 to 150 psi (.345 to 10 bar) *formerly PS-JL series*
- ▶ Ideal for Pneumatic and Low Pressure Hydraulic Applications
- ▶ Adjustable or Factory Set

These compact pressure switches are designed for OEM applications. Made economical with metal blade contacts in lieu of microswitches, the PS31 series features Kapton® diaphragms. Kapton® polyimide maintains excellent physical properties over a wide temperature range. It also offers superb chemical resistance with no known organic solvents.

## Specifications

<b>Operating Temperature</b>	-40°F to +200°F (-40°C to +93°C)
<b>Switch*</b>	100 VA Max.
<b>Repeatability</b>	±5% of Full Set Point Range @ 70°F (20°C)
<b>Wetted Parts</b>	
<b>Diaphragm</b>	Teflon® Coated Kapton®
<b>O-Ring</b>	Nitrile
<b>Fitting</b>	Brass (optional 316 Stainless Steel)
<b>Electrical Termination</b>	Exposed Terminals IP00; IP option IP66
<b>Deadband</b>	<5% of Set Point
<b>Proof Pressure</b>	500 psi (35 bar)
<b>Approvals</b>	CE (limits switch voltage to 42 VDC)
<b>Weight, Approximate</b>	Brass: 0.14 lbs. (0.06 kg)

\*Gold contacts (option G) may be required for less than 12 VDC and 20 mA.  
Kapton® is a registered trademark of Dupont.

## How To Order

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

<b>SELECT</b>	<b>PS31</b>	<b>-20</b>	<b>-4MNB</b>	<b>-A</b>	<b>-SP</b>	<b>-XX</b>	<b>-XXXX</b>
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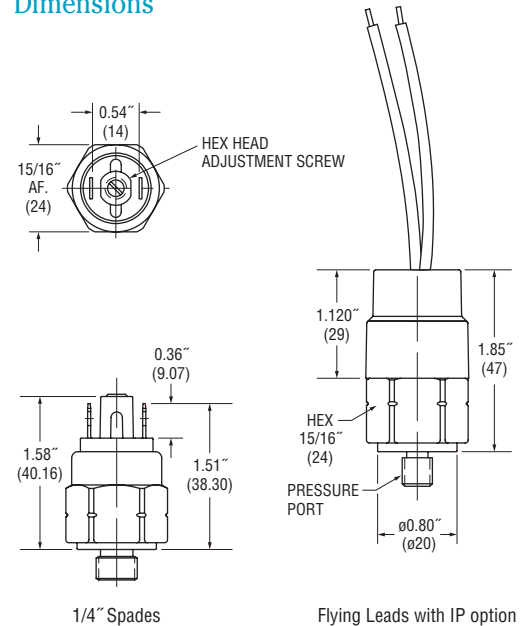
- Pressure Range Code                       
Insert Pressure Range Code from table below right
- Pressure Fitting<sup>1</sup>                       

Brass	<b>316 Stainless Steel</b>
<b>-2MNB</b> 1/8" NPTM	<b>-2MNS</b> 1/8" NPTM
<b>-4MNB</b> 1/4" NPTM	<b>-4MNS</b> 1/4" NPTM
<b>-2MGB</b> 1/8" BSPM	<b>-2MGS</b> 1/8" BSPM
<b>-4MGB</b> 1/4" BSPM	<b>-4MGS</b> 1/4" BSPM
<b>-8MGB</b> 1/2" BSPM	<b>-4MSS</b> 7/16"-20 SAE Male
<b>-M10B</b> M10 x 1.0, Straight	<b>-6MSS</b> 9/16"-18 SAE Male
<b>-M12B</b> M12 x 1.5, Straight	
<b>-4MSB</b> 7/16"-20 SAE Male	
<b>-6MSB</b> 9/16"-18 SAE Male	
- Circuit                       
**-A** SPST/NO; **-B** SPST/NC
- Electrical Termination                       
**-SP** Spade Terminals (standard); **-TS** Terminal Screws; **-FLXX** Flying Leads<sup>2</sup>;  
**-FLSXX** Flying Leads w/PVC Shrink Tubing<sup>2</sup>; **-CABXX** 18 AWG PVC Cable<sup>3</sup>
- Options                       
**-G** Gold Contacts (for loads less than 12 mA @ 12 VDC); **-IP** Ingress Protection<sup>4</sup>;  
**-OXY** Oxygen Cleaned; **-RB** Rubber Boot (shipped loose);  
**-WF** Weather Pack Connector, Female; **-WM** Weather Pack Connector, Male;  
**-DE** Deutsch Connector, Male, DT04 Series
- Fixed Set Point (optional)  
A. Specify set point **-FS** (in PSI or BAR, see example)<sup>5</sup>                       
B. Set Point Actuation                       
**R** on Rising Pressure; **F** on Falling Pressure  
Example: **-FS0.6BARF** for 0.6 BAR Falling or **-FS10PSIR** for 10 PSI Rising

- Notes:
- Other connectors available. Consult factory.
  - 18" is standard. Specify lead length in inches (max. 48"). e.g. **-FL18** or **-FLS30**.
  - 36" is minimum. Specify cable length in inches. e.g. **-CAB36** or **-CAB120**.
  - Ingress Protection is available only with **-FL**, **-FLS** or **-CAB** Electrical Termination choices and requires Fixed Set Point (**-FS**).
  - Set Point must be within Pressure Range selected in Step 1 above.



## Dimensions



1/4" Spades

Flying Leads with IP option

## Pressure Range Table

Pressure Range Code	Pressure Range
20	5-25 psi (0.345-1.7 bar)
30	20-60 psi (1.4-4.1 bar)
40	50-150 psi (3.4-10.3 bar)