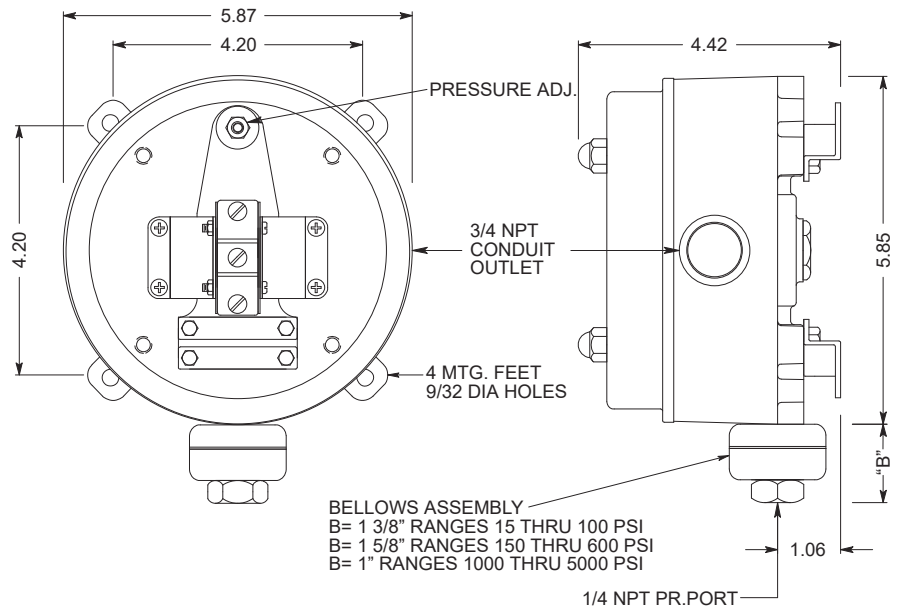




# MODEL SERIES 6PSXB Explosion-Proof Pressure Switch Bellows Sensing Element

- Ranges 0-15 psi to 0-5000 psi
- NEMA 7, 9 housing
- Class I, Div. I, Gr. C & D available
- Up to four SPDT contacts
- Stainless steel wetted



## SPECIFICATIONS

### PHYSICAL DATA (Standard)

-see page 2 for special features

**Maximum Ambient Temperature:** 180°F

**Minimum Ambient Temperature:** -40°F

**Pressure Connection:** 1/4 NPT

**Electrical Connection:** 3/4 NPT

**Housing:** Cast Aluminum

**Deadband:** Fixed

**Sensitivity:** 1/2% of range (for one SPDT switch)

**Drift:** <1% of range (100,000 operations)

**Weight:** Approx. 5 lbs.

**Contact Ratings:** 15A - 125, 250, 480 VAC

**Port Material:** Stainless Steel

**Bellows Material:** Stainless Steel

**Set Point Adjustment:** Screw type, field adjustable

**No. Contacts:** 1, 2, 3 or 4 S.P.D.T or 1 D.P.D.T.

**Contact Listings:** UL Recognized, CSA Certified

## GENERAL DESCRIPTION

- Explosion-proof cast-aluminum housing
- Frictionless switching mechanism, which amplifies the movement of the switching element, resulting in improved life, repeatability, and lower deadbands
- Accommodates up to four full-size SPDT electric switches, which are available in a variety of configurations, including: adjustable deadband, DPDT, high/low operation, & manual reset
- Switch configurations can be supplied with low deadband, high direct current ratings, gold contacts, hermetically-sealed contacts
- Standard vacuum-sensing element constructed of aluminum alloy using a strong Buna-N elastomer diaphragm (other diaphragm and wetted materials are available)
- A wide variety of adjustable pressure ranges are available



Underwriters Laboratories, Inc. Listed:  
Industrial Controls Equipment Type 4 & 12, File E130423,  
Pressure Operated Switch for Hazardous Locations,  
Class I, Groups C & D; Class II, Groups E, F, & G File E65371.

**SOLON MANUFACTURING COMPANY**

425 Center St. | Chardon, OH 44024  
440.286.7149 | 800.323.9717 | Fax 440.286.9047  
solon@solonmfg.com | www.solonmfg.com

# ORDERING A SWITCH

## 1. SPECIFY A MODEL NUMBER

**6PS X 1 B U 2**

**MODEL SERIES** ————

**HOUSING**

W - WATERTIGHT - NEMA 4X & 12  
 X - EXPLOSION PROOF - NEMA 7 & 9

**NUMBER OF ELECTRIC SWITCHES**

1 - ONE S.P.D.T.  
 11 - TWO TANDEM ELECTRIC SWITCHES OPERATE IN PARALLEL D.P.D.T.  
 2 - TWO S.P.D.T. INDEPENDENT ADJUSTMENT  
 3 - THREE S.P.D.T. INDEPENDENT ADJUSTMENT  
 4 - FOUR S.P.D.T. INDEPENDENT ADJUSTMENT

**SENSING ELEMENT**

B - BELLOWS ACTUATED

**SPECIAL FEATURES**

"." - NO SPECIAL FEATURES

A - ADJUSTABLE DEADBAND (ADJ. 25% - 50% OF RANGE)  
 E - EXTERNAL PRESSURE ADJUSTMENT  
 EE - TWO EXTERNAL PRESSURE ADJUSTMENTS  
 L - ONE INDICATOR LIGHT (NOT ON X HOUSING)  
 LL - TWO INDICATOR LIGHTS (NOT ON X HOUSING)  
 M - MALE PIPE MOUNTING ½ NPT  
 P - PANEL MOUNTING  
 R> - MANUAL RESET, SWITCH ON INCR. PR.  
 R< - MANUAL RESET, SWITCH ON DECR. PR.  
 V - HIGH TEMPERATURE SERVICE - NOT A UL-LISTED FEATURE

# MODEL SERIES 6PSXB

## Explosion-Proof Pressure Switch

### Bellows Sensing Element

#### TYPE OF ELECTRIC SWITCHES

- 1 - LOW DEADBAND  
15A - 125, 250, 480 VAC
- 2 - STANDARD DEADBAND  
15A - 125, 250, 480 VAC; 0.5A - 125 VDC
- 3 - HIGH DC RATED (MAGNETIC BLOWOUT)  
10A - 125 VDC; 3A - 250 VDC
- 4 - HERMETICALLY SEALED 11 AMP, 125, 250 VAC; 5A-30 VDC (ADDING THIS OPTION REMOVES UL LISTING DESIGNATION)
- 6 - GOLD CONTACT -  
1 A - 125 VAC

\* SPECIAL FEATURES SUCH AS STAINLESS TAGGING, APPLICATION OF DIAPHRAGM SEALS, ETC. ARE AVAILABLE ON REQUEST. CONSULT FACTORY FOR CAPABILITIES AND PRICING FOR ANY FEATURES NOT SHOWN.

## 2. SPECIFY A RANGE

ADJUSTABLE PRESSURE RANGE	TYPICAL DEADBAND PSI		MAX. WORKING PRESSURE
	TYPE "1"	TYPE "2"	
0-15 PSI	.7	1.3	300 PSI
0-30 PSI	.7	1.4	300 PSI
0-60 PSI	.8	1.6	300 PSI
0-100 PSI	1.0	1.9	300 PSI
0-150 PSI	4.0	7.3	1500 PSI
0-200 PSI	4.0	7.6	1500 PSI
0-300 PSI	4.0	8.2	1500 PSI
0-600 PSI	5.0	10.0	1500 PSI
0-1000 PSI	12.0	25.0	3000 PSI
0-2000 PSI	15.0	30.0	3000 PSI
0-3000 PSI	37.0	75.0	7000 PSI
0-5000 PSI	45.0	90.0	7000 PSI

\*MAXIMUM DEADBANDS MAY BE 50% GREATER.

## INSTALLATION NOTES

**Orientation** - The 6PS will operate satisfactorily in any position, however, mounting the device vertically will allow the easiest adjustability and reduce sediment in the pressure chamber.

**Wiring** - Switches may be wired to 'normally open' or 'normally closed' terminals on electric switch(es).

**Pressure Connection** - 1/4 NPT female is standard. 1/2 NPT male is available ("M" option).

**Adjustment** - Turn pressure adjustment nut(s) clockwise to increase setpoint. Detailed installation & calibration instructions are provided for every shipment. Factory setting is available at no charge.

## DEADBAND NOTES

The deadbands listed in the tables are the typical switch differentials when the Type "1" or Type "2" electric switch are used.

Deadband is affected by the type of electric switch used. Each type of electric switch's effect on deadband is as follows:

**Type "1" - Low Deadband** - Use table values.

**Type "2" - Std. Deadband** - Use table values.

**Type "3" - High DC Rated** - Multiply TYPE 2 table values by two.

**Type "4" - Hermetically Sealed Switch** - Use TYPE 2 table value UL-recognized component, guide WSQ2, File E85076. All stainless steel construction.

**Type "6" - Gold Contact** - Use TYPE 2 table values.

For D.P.D.T., 2, 3 or 4 S.P.D.T. switches multiply calculated value from above by 1.5 to 2.

## Wiring Schematic

