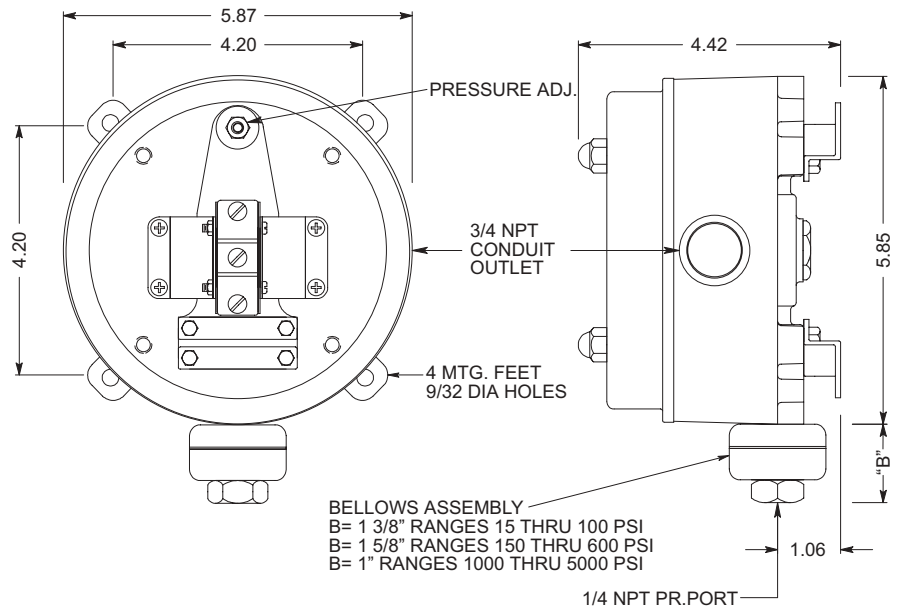




- Ranges from 0-15 PSI To 0-5000 PSI
- Rugged NEMA 4X & 12 Housing Std.
- Class I, Div. I, Gr. C & D Available
- Up to Four SPDT Contacts
- Stainless Steel Wetted

MODEL SERIES 6PSB Pressure Switch Bellows Sensing Element



GENERAL DESCRIPTION

The Model Series 6PSB Pressure Switch is constructed using a rugged cast aluminum housing that incorporates Solon's standard "frictionless" switching mechanism actuated by a stainless steel bellows assembly. The housing can be specified 6PSWB, watertight; or 6PSXB, explosion proof. The housing is large enough to accommodate up to four full size S.P.D.T. electric switches. These electric switches are available in a variety of configurations including adjustable switch differential (dead band), D.P.D.T., High-Low operation, and manual reset. In addition many switching configurations can be supplied with electric switches that have:

- Low switch differentials (dead band).
- High direct current ratings.
- Gold contacts.
- Hermetically sealed contacts.

Bellows assemblies of various areas, when applied to the 6PSB model, allow a wide variety of adjustable pressure ranges. See the Special Features section on page 2 for other materials and other options that are useful for particular applications.

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



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.



Canadian Standards Association Certified:
Industrial Control Equipment Type 4 & 12, LR88975.
Switches Pressure Type for Hazardous Locations,
Class I, Groups C & D; Class II, Groups E, F & G, LR88975.

Solon Manufacturing Company

425 Center Street, P.O. Box 207, Chardon, Ohio 44024
(440) 286-7149 800-323-9717 FAX (440) 286-9047
www.solonmfg.com

ORDERING A SWITCH

MODEL SERIES 6PSB Pressure Switch Bellows Sensing Element

1. SPECIFY A MODEL NUMBER

6PS W 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
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 1/2 NPT
P - PANEL MOUNTING
Q - DOUBLE SNAP ACTION (BELLEVILLE SPRING)
R> - MANUAL RESET, SWITCH ON INCR. PR.
R< - MANUAL RESET, SWITCH ON DECR. PR.
U - ADDITIONAL PAINTING AFTER ASSEMBLY
V - HIGH TEMPERATURE SERVICE - NOT A UL OR CSA LISTED FEATURE

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 SWITCH
1A-125VAC; 25A RES, 10A IND, 5A MOTOR
3A LAMP-28VDC
- 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 CAPABILITES AND PRICING FOR ANY FEATURES NOT SHOWN.

2. SPECIFY A RANGE

| ADJUSTABLE PRESSURE RANGE | MAXIMUM 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 |

DEADBAND NOTES

The deadbands listed in the tables are the maximum 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* - Multiply TYPE 2 table values by six.

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.

INSTALLATION NOTES

Orientation - The 6PSB 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.

Wiring Schematic

