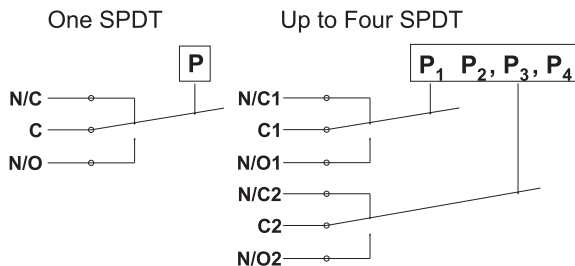




**Ranges from 0-1.5" WC to 0-150" WC**  
Class I, Div. I, Gr. C and D available

### Wiring Schematic



### Installation Notes

**Orientation** - The 7WPS Diaphragm Actuated 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 and calibration instructions are provided for every shipment. Setting adjustment is available at no charge.

Teflon® is a registered trademark of Dupont Corporation  
Viton® is a registered trademark of DuPont Performance Elastomers

### Description & Features:

- Rugged cast aluminum NEMA 4X and 12 housing incorporates standard accurate switching mechanism actuated by a large area diaphragm
- Housing can be specified watertight or explosion proof and is large enough to accommodate up to 4 full size SPDT electric switches
- Electric switches are available in a variety of configurations including adjustable switch differential (dead band), DPDT, high-low operation, 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
- Standard pressure-sensing element uses a strong Buna N elastomer diaphragm. Other diaphragm and wetted area materials are available
- 1 year warranty

### Applications:

- Designed for low pressure applications

Specifications	
<b>Housing</b>	Cast aluminum
<b>Pressure Connection</b>	1/4" NPT
<b>Electrical Connection</b>	3/4" NPT
<b>Port Material</b>	Aluminum
<b>Diaphragm Material</b>	Buna N, Teflon® protected Viton®
<b>Deadband</b>	Fixed
<b>Sensitivity</b>	1/2% of range (for SPDT)
<b>Drift</b>	<1% of range (100,000 operations)
<b>Contact Ratings</b>	15A - 125, 250, 480 VAC
<b>Set Point Adjustment</b>	Screw type, field adjustable
<b>No. of Contacts</b>	1, 2, 3 or 4 SPDT or 1 DPDT
<b>Contact Listings</b>	UL Recognized, CSA Certified
<b>Maximum Ambient Temperature</b>	180°F (82°C)
<b>Minimum Ambient Temperature</b>	-20°F (-29°C)
<b>Weight</b>	Approx. 6 lbs.

## Series Number (how to order)

**7WPS W 1 SST 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

### SPECIAL FEATURES

-- NO SPECIAL FEATURES  
**A** - ADJUSTABLE DEADBAND  
**E** - EXTERNAL PRESSURE ADJUSTMENT  
**EE** - TWO EXTERNAL PRESSURE ADJUSTMENTS  
**F** - FLANGE BASE MOUNTING  
**G** - DOUBLE DIAPHRAGM EXTRA SENSITIVE LOW PR  
**J** - SAFETY SEAL  
**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.  
**SS** - SPECIAL TRIM BASE 316 STAINLESS STEEL  
**SI** - SPECIAL TRIM BASE TEFLON (NOT ON X SWITCHES)  
**SY** - SPECIAL TRIM BASE PVC (NOT ON X SWITCHES)  
**T** - TEFLON PROTECTED DIAPHRAGM  
**U** - ADDITIONAL PAINTING AFTER ASSEMBLY  
**V** - HIGH TEMPERATURE SERVICE  
**Z** - VITON DIAPHRAGM

### 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, OR SPECIAL WETTED PARTS; KYNAR, KALREZ, HASTELLOY, ETC. ARE AVAILABLE ON REQUEST. CONSULT WINTERS FOR CAPABILITIES AND PRICING FOR ANY FEATURES NOT SHOWN.

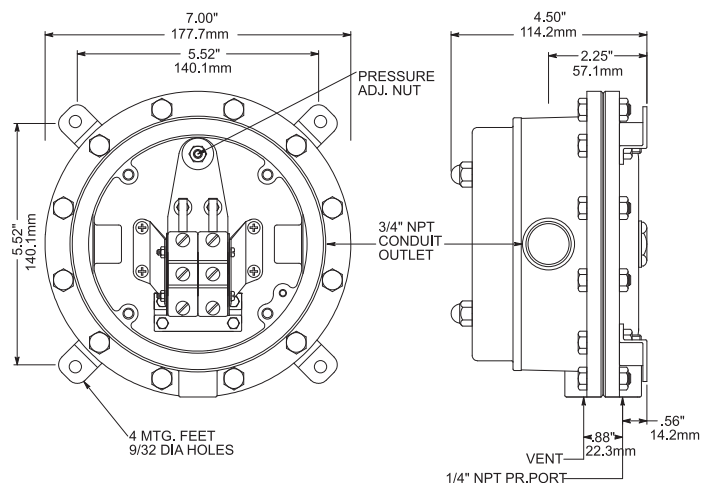
### Deadband Notes

The deadbands listed in the tables are the maximum switch differentials when the Type 1 or Type 2 electric switch is 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

Ranges			
Diaphragm Actuated			
Adjustable Pressure Range	Maximum Deadband		Maximum Working Pressure
	Type 1	Type 2	
<b>Pressure (wc)</b>			
0-1.5" WC	0.15	-	25 psi
0-3" WC	0.16	-	25 psi
0-6" WC	0.2	0.4	25 psi
0-15" WC	0.3	0.6	25 psi
0-30" WC	0.6	1.1	25 psi
0-60" WC	0.7	1.4	25 psi
0-100" WC	0.8	1.6	25 psi
0-150" WC	1.2	2.4	25 psi
<b>Vacuum (wc)</b>			
0-1.5" WC	0.17	-	50 psi
0-3" WC	0.18	-	50 psi
0-6" WC	0.23	0.45	50 psi
0-15" WC	0.33	0.65	50 psi
0-30" WC	0.6	1.2	50 psi
0-60" WC	0.7	1.4	50 psi
0-100" WC	0.8	1.6	50 psi
0-150" WC	1.2	2.5	50 psi
<b>Vacuum-Pressure (wc)</b>			
0-3" WC	0.45	0.87	25 psi
0-6" WC	0.8	1.6	25 psi
0-15" WC	1.7	3.4	25 psi
0-30" WC	2.5	5.0	25 psi
0-60" WC	4.8	9.6	25 psi
0-100" WC	8.0	16.0	25 psi



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

# Pressure Switch Options

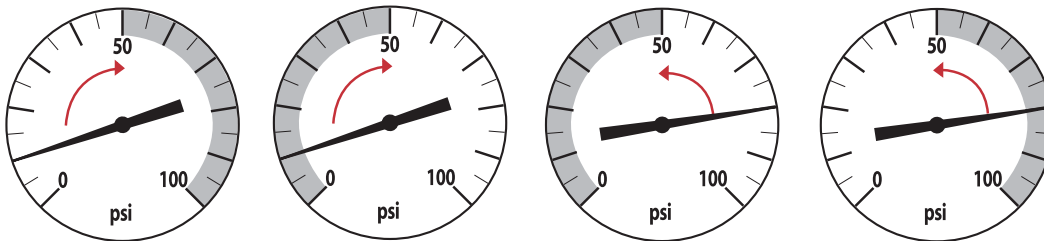
Code	Descriptions of Most Common Options	Availability			
		2WPS Series	5WPS Series	6WPS Series	7WPS Series
-	No Special Features	x	x	xx	xx
A	Adjustable Dead Band		x	xx	xx
B	Bellows Actuated	x	x	xx	
BD	Bellows Actuated Differential Pressure		x	xx	
D	Diaphragm Actuated Differential Pressure (DP)	x		xx	xx
E	External Pressure Adjustments		x	xx	xx
EE	Two External Pressure Adjustments		x	xx	xx
F	Flange Base Mounting			xx	xx
G	Double Diaphragm Extra Sensitive Low Pressure				xx
J	Safety Seal			xx	xx
I	One Indicator Light (Not on X Housing)		x	x	x
II	Two Indicator Lights (Not on X Housing)		x	x	x
M	Male Pipe Mounting 1/2" NPT	x	x	xx	xx
O	High Overpressure Diaphragm	x	x	xx	
P	Panel Mounting			xx	xx
Q	Double Snap Action (Belleville Spring)	x	x	xx	
R>	Manual Reset Switch on Increase Pressure (2 max.)		x	xx	xx
R<	Manual Reset Switch on Decrease Pressure (2 max.)		x	xx	xx
SS	Special Trim Base 316 Stainless Steel	x		xx	xx
SI	Special Trim Base Teflon® (Not on X Switches)	x		x	x
SY	Special Trim Base PVC (Not on X Switches)	x		x	x
T	Teflon® Protected Diaphragm	x	x	xx	xx
V	High Temperature Service	x	x	x	x
Z	Viton® Diaphragm	x	x	xx	xx

Note: Options may vary from none (-) to whatever may be required for a particular application  
Options can be combined with the exception of similar types, i.e. SS and SI may not be combined

- x** Standard options
- x** Options available on CSA Certified switches used in NEMA 4 and 12, as well as general purpose application
- xx** Options available on CSA Certified switches used in Class 1, Group C,D; Class II, Groups E, F and G hazardous locations

Note: Adjustment setting available at no extra charge

**Below are some illustrations to assist you in the definition and selection of the single pole switch.**



To “make” or “break” at 50 psi on rising or decreasing pressures: **Switch is closed in shaded zone on dial**