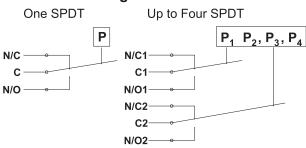
Diaphragm Actuated Pressure Switch



Ranges from 0-1.5" WC to 0-150" WC

Rugged NEMA 4X and 12 housing standard CSA Certified Class I, Div. I, Gr. C and D available Up to four SPDT contacts Various wetted materials available

Wiring Schematic



Installation Notes

Orientation - The 7WPS Diaphragm Actuated will operate satisfactorily in any position. However, mounting the device vertically will allow the easist 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 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 four 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		
Housing	Cast aluminum		
Pressure Connection	¹ /4" NPT		
Electrical Connection	³ /4" NPT		
Port Material	Aluminum		
Diaphragm Material	Buna N, Teflon [®] protected Viton [®]		
Deadband	Fixed		
Sensitivity	1/2% of range (for SPDT)		
Drift	<1% of range (100,000 operations)		
Contact Ratings	15A - 125, 250, 480 VAC		
Set Point Adjustment	Screw type, field adjustable		
No. of Contacts	1, 2, 3 or 4 SPDT or 1 DPDT		
Contact Listings	UL Recognized, CSA Certified		
Maximum Ambient Temperature	180°F (82°C)		
Minimum Ambient Temperature	-20°F (-29°C)		
Weight	Approx. 6 lbs.		

Diaphragm Actuated Pressure Switch

Series Number (how to order)

MODEL SERIES

HOUSING'

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

NUMBER OF ELECTRIC SWITCHES

ONE S.P.D.T.
 TWO TANDEM ELECTRIC SWITCHES OPERATE IN PARALLEL D.P.D.T.

7WPS

W

1

SST

2

- 2 -3 -TWO S.P.D.T. INDEPENDENT ADJUSTMENT THREE S.P.D.T. INDEPENDENT ADJUSTMENT
- 4 FOUR S.P.D.T. INDEPENDENT ADJUSTMENT

SPECIAL FEATURES

- NO SPECIAL FEATURES ADJUSTABLE DEADBAND
- Α-
- E EXTERNAL PRESSURE ADJUSTMENT EE TWO EXTERNAL PRESSURE ADJUSTMENTS
- G -
- FLANGE BASE MOUNTING DOUBLE DIAPHRAGM EXTRA SENSITIVE LOW PR SAFETY SEAL J -
- Ĺ-
- L ONE INDICATOR LIGHT (NOT ON X HOUSING) LL TWO INDICATOR LIGHTS (NOT ON X HOUSING) M MALE PIPE MOUNTING ½ NPT
- М-Р-

- 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 DAINTING CETED ASESARDIX
- ADDITIONAL PAINTING AFTER ASSEMBLY HIGH TEMPERATURE SERVICE U -
- V -
- VITON DIAPHRAGM

Ranges Diaphragm Actuated				
Type 2	Type 5	Working Pressure		
	Pres	sure		
0-1.5" WC	0.15	-	25	
0-3" WC	0.16	-	25	
0-6" WC	0.2	0.4	25	
0-15" WC	0.3	0.6	25	
0-30" WC	0.6	1.1	25	
0-60" WC	0.7	1.4	25	
0-100" WC	0.8	1.6	25	
0-150" WC	1.2	2.4	25	
Vacuum				
0-1.5" WC	-	0.17	50	
0-3" WC	-	0.18	50	
0-6" WC	0.23	0.45	50	
0-15" WC	0.33	0.65	50	
0-30" WC	0.6	1.2	50	
0-60" WC	0.7	1.4	50	
0-100" WC	0.8	1.6	50	
0-150" WC	1.2	2.5	50	
Vacuum-Pressure				
0-3" WC	0.45	0.87	25	
0-6" WC	0.8	1.6	25	
0-15" WC	1.7	3.4	25	
0-30" WC	2.5	5.0	25	
0-60" WC	4.8	9.6	25	
0-100" WC	8.0	16.0	25	

TYPE OF ELECTRIC SWITCHES

- LOW DEADBAND 15A 125, 250, 480 VAC
 STANDARD DEADBAND 15A 125, 250, 480 VAC
 STANDARD DEADBAND 15A 125, 250, 480 VAC; 0.5A 125 VDC
 HIGH DC RATED (MAGNETIC BLOWOUT) 10A 125 VDC; 3A 250 VDC
 HERMETICALLY SEALED SWITCH 14 A 125 VAC; 3EA DES 100 IND 56 MOTO
- 1.A-125VAC; 25A.RES, 10A.IND, 5A.MOTOR 3A.LAMP-28VDC 6 -GOLD CONTACT -
- 1 A 125 VAC

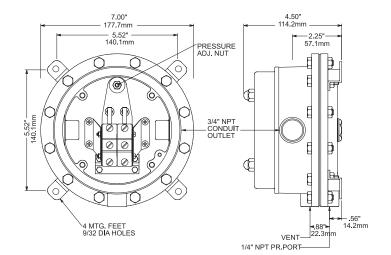
* SPECIAL FEATURES SUCH AS STAINLESS TAGGING, OR SPECIAL WETTED PARTS; KYNAR, KALREZ, HASTELLOY, ETC. ARE AVAILABLE ON REQUEST. CONSULT WINTERS FOR CAPABILITES AND PRICING FOR ANY FEATURES NOT SHOWN

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
- Gold Contact Use Type 2 table values Type 6





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.