



Diaphragm Actuated: 15 to 300 PSI
(Differential) Bellows Actuated: 15 to 5000 PSI

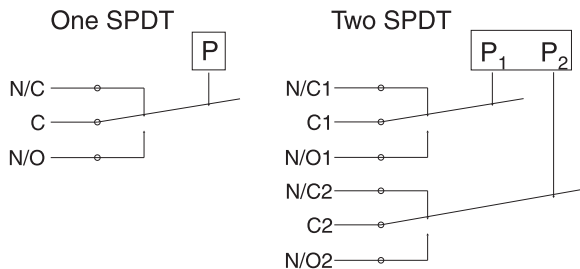
Description & Features:

- Features a rugged cast aluminum housing (NEMA 4X, 12 and 13 standard) and cover incorporating Winters' accurate switching mechanism actuated by a diaphragm
- Either 1 or 2 SPDT electric switches are available in a variety of configurations: tandem settings for DPDT operation, independent adjustment for High-Low operation, adjustable switch differential (deadband), manual reset on either increasing or decreasing pressure
- Many switching configurations can be supplied with electric switches that have: low switch differentials (deadband), high direct current ratings, gold contacts, hermetically sealed contacts
- 1 year warranty

Applications:

- Common applications include: pumping stations, remote locations, ideal for High-Low level control (requiring dual elements)

Wiring Schematic



Installation Notes

Orientation - The 5WPS 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 - $\frac{1}{4}$ " NPT female is standard. $\frac{1}{2}$ " NPT male is available.

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

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Specifications	
Housing	Cast aluminum
Pressure Connection	$\frac{1}{4}$ " NPT female standard $\frac{1}{2}$ " NPT male available
Electrical Connection	$\frac{1}{2}$ " NPT
Port Material	Diaphragm Actuated: Aluminum Bellows Actuated: SS with silver braze
Diaphragm Material	Buna N, Teflon® protected
Deadband	Fixed
Sensitivity	0.5% 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	One or Two SPDT, One DPDT
Contact Listings	UL Recognized, CSA Certified
Maximum Ambient Temperature	180°F (82°C)
Minimum Ambient Temperature	Diaphragm Actuated: -20°F (-29°C) Bellows Actuated: -40°F (-40°C)
Weight	Approx. 3 lbs

Diaphragm Actuated

Adjustable Pressure Range		Maximum Deadband				Maximum Working Pressure	
		Type 1		Type 2			
psi	MPa	psi	kPa	psi	kPa	psi	MPa
0-15	0-0.104	0.3	2.07	0.6	4.14	50	0.35
0-30	0-0.207	0.4	2.76	0.8	5.52	100	0.69
0-60	0-0.414	0.5	3.45	1.0	6.90	200	1.38
0-100	0-0.69	1.0	6.90	2.0	13.8	300	2.07
0-150	0-1.035	1.0	6.90	2.5	17.2	300	2.07
0-200	0-1.38	2.0	13.8	3.5	24.1	500	3.45
0-300	0-2.07	3.0	20.7	5.0	34.5	500	3.45

Deadband Notes

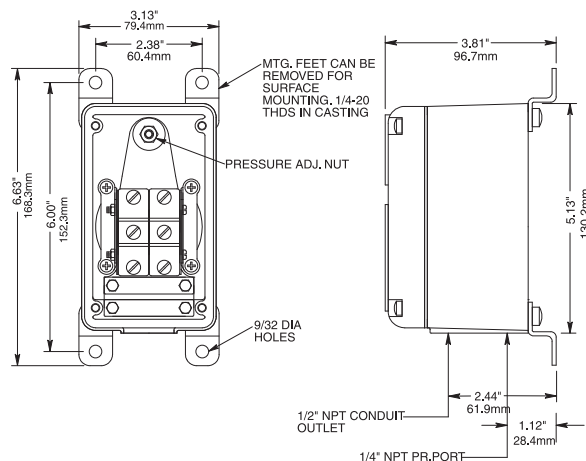
The deadbands listed in the tables are the maximum switch differentials when the Type 1 or Type 2 electric switch is used. Deadband is affected by the type of switch used. Each type of switch's effect on deadband is as follows:

- 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 6
- Type 6** Gold Contact - Use Type 2 table values

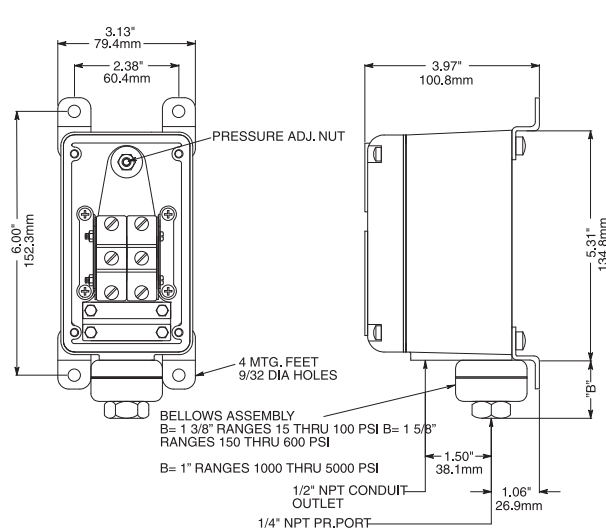
Bellows Actuated

Adjustable Pressure Range		Maximum Deadband				Maximum Working Pressure	
		Type 1		Type 2			
psi	MPa	psi	kPa	psi	kPa	psi	MPa
0-15	0-0.104	0.7	4.83	1.5	10.34	300	2.07
0-30	0-0.207	0.8	5.52	1.7	11.72	300	2.07
0-60	0-0.414	0.9	6.21	1.9	13.10	300	2.07
0-100	0-0.69	1.1	7.58	2.2	15.17	300	2.07
0-150	0-1.035	4.0	27.58	8.5	58.61	1500	10.35
0-200	0-1.38	4.0	27.58	8.8	60.67	1500	10.35
0-300	0-2.07	5.0	34.47	9.5	65.5	1500	10.35
0-600	0-4.14	6.0	41.37	12.0	82.74	1500	10.35
0-1,000	0-6.90	15.0	103.4	30.0	206.8	3000	20.69
0-2,000	0-13.8	17.0	117.2	35.0	241.3	3000	20.69
0-3,000	0-20.7	40.0	275.8	82.0	565.4	7000	48.28
0-5,000	0-34.5	48.0	331.0	96.0	661.9	7000	48.28

Diaphragm Actuated



Bellows Actuated



Differential Bellows Actuated

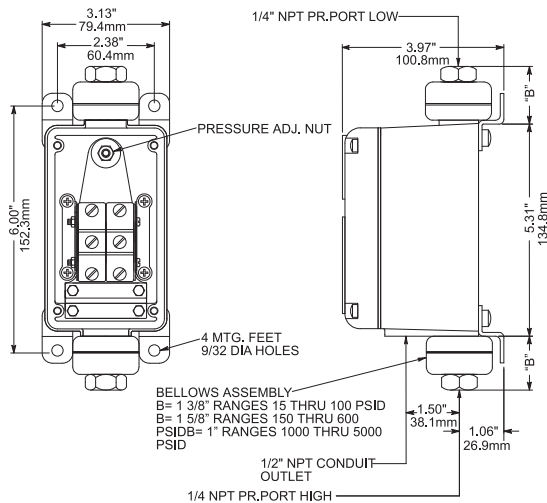
Adjustable Pressure Range		Maximum Deadband				Maximum Working Pressure	
		Type 1		Type 2			
psi	MPa	psi	kPa	psi	kPa	psi	MPa
0-15	0-0.104	0.7	4.83	1.3	8.96	300	2.07
0-30	0-0.207	0.7	4.83	1.4	9.65	300	2.07
0-60	0-0.414	0.8	5.52	1.6	11.03	300	2.07
0-100	0-0.69	1.0	6.90	1.9	13.10	300	2.07
0-150	0-1.035	4.0	27.58	7.3	50.33	1500	10.35
0-200	0-1.38	4.0	27.58	7.6	52.40	1500	10.35
0-300	0-2.07	4.0	27.58	8.2	56.54	1500	10.35
0-600	0-4.14	5.0	34.47	10.0	68.95	1500	10.35
0-1,000	0-6.90	12.0	82.74	25.0	172.4	3000	20.69
0-2,000	0-13.8	15.0	103.4	30.0	206.8	3000	20.69
0-3,000	0-20.7	37.0	255.1	75.0	517.1	7000	48.28
0-5,000	0-34.5	45.0	310.3	90.0	620.5	7000	48.28

Deadband Notes

The deadbands listed in the tables are the maximum switch differentials when the standard electric switch is used. Deadband is affected by the type of switch used. Each type of 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 value

Differential Bellows Actuated



Series Number (how to order)

5WPS W 1 BD V 2

SERIES

HOUSING:
W - WATERTIGHT - NEMA 4X, 12 & 13

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

SENSING ELEMENT
BD - BELLOWS ACTUATED DIFFERENTIAL PRESSURE
B - BELLOWS ACTUATED
LEAVE BLANK FOR DIAPHRAGM

SPECIAL FEATURES
- - NO SPECIAL FEATURES
A - ADJUSTABLE DEADBAND
E - EXTERNAL PRESSURE ADJUSTMENT
EE - TWO EXTERNAL PRESSURE ADJUSTMENTS
L - ONE INDICATOR LIGHT
LL - TWO INDICATOR LIGHTS
M - MALE PIPE MOUNTING 1/2 NPT
Q - DOUBLE SNAP ACTION (BELLEVILLE SPRING)
R - MANUAL RESET, SWITCH ON INCR. PR.
R - MANUAL RESET, SWITCH ON DECR. PR.
V - HIGH TEMPERATURE SERVICE

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 WINTERS FOR CAPABILITIES AND PRICING FOR ANY FEATURES NOT SHOWN.