Ranges from 2 to 300 PSI
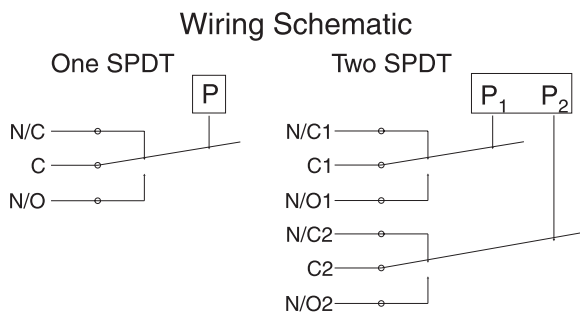Rugged NEMA 4X, 12 and 13 housing
One or two SPDT contacts
Various wetted materials available
Field adjustable set points

Wiring Schematic

One SPDT

P

N/C
C
N/O

Two SPDT

P_1 P_2

N/C1
C1
N/O1
N/C2
C2
N/O2

Installation Notes

Orientation - The 2WPS 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. Not recommended for use on diaphragm seals.

Wiring - Switches may be wired to 'normally open' or 'normally closed' terminals on electric switch(es). Single switch units have screw terminals while dual switch versions use a terminal block.

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

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

Description & Features:

- Features a rugged, compact, sensitive switching mechanism actuated by a diaphragm assembly
- Can be supplied with one SPDT electric switch or two SPDT electric switches that are independently adjusted
- Can be supplied with no housing or enclosed in a rugged die cast NEMA 4X, 12 and 13 housing (the enclosed model is designated 2WPSW)
- With the cover of the enclosure removed, the terminals of the electric switch(es) and pressure adjustment(s) are exposed for easy wiring and adjustment of the pressure setting
- Die cast cover is equipped with captive stainless steel screws that retain the cover gasket when the cover is removed
- Other options can be specified
- 1 year warranty

Applications:

- The modular design of pressure-sensing elements used in the 2WPS series switches allows for different pressure applications
- Applications include high pressure, differential pressure, vacuum and vacuum-pressure models using diaphragms, bellows and pistons for actuation
- Common applications include: tank and compressor level and precision control, hydraulic systems, pumping controls and hazardous area lift station controls

Specifications	
Housing	Diecast aluminum
Pressure Connection	$\frac{1}{4}$" NPT female standard $\frac{1}{2}$" NPT male available
Electrical Connection	$\frac{1}{2}$" NPT
Port Material	Brass and aluminum
Diaphragm Material	Buna N, Teflon® protected, Viton®
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
Contact Listings	UL Recognized, CSA Certified
Maximum Ambient Temperature	180°F (82°C)
Minimum Ambient Temperature	-20°F (-29°C)
Weight	Approx. 1.5 lbs

Adjustable Pressure Range		Maximum Deadband				Maximum Working Pressure	
		Type 2		Type 5			
psi	MPa	psi	kPa	psi	kPa	psi	MPa
0-2	0-0.01	0.25	1.72	0.23	1.59	20	0.14
0-5	0-0.05	0.27	1.86	0.50	3.45	20	0.14
0-10	0-0.07	0.34	2.34	0.90	6.21	50	0.35
0-20	0-0.14	0.50	3.45	1.9	13.1	50	0.35
0-50	0-0.35	1.6	11.03	6.0	41.35	250	1.72
0-100	0-7.0	1.9	13.1	8.3	57.23	250	1.72
0-200	0-1.38	4.4	30.34	16.0	110.3	500	3.45
0-300	0-2.07	5.3	36.54	22.0	151.7	500	3.45

Deadband Notes
The deadbands listed in the tables are the maximum switch differentials when the standard (Type 2 or Type 5) 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 ½ Type 2 table values
Type 2   Std. Deadband - Use table values
Type 3   High DC Rated - Multiply Type 2 table values by two
Type 5   Sub Miniature - 2 SPDT - Use Type 5 table values
Type 6   Gold Contact - Use Type 2 table values

2.88"
73.1mm
PRESSURE ADJ. NUT

4.12"
104.6mm
3.47"
88.1mm
1/2" NPT CONDUIT OUTLET
3.00"
76.1mm
MTG. BRACKET 9/32 DIA HOLES
1/4" NPT PR.PORT
1.50"
38.1mm
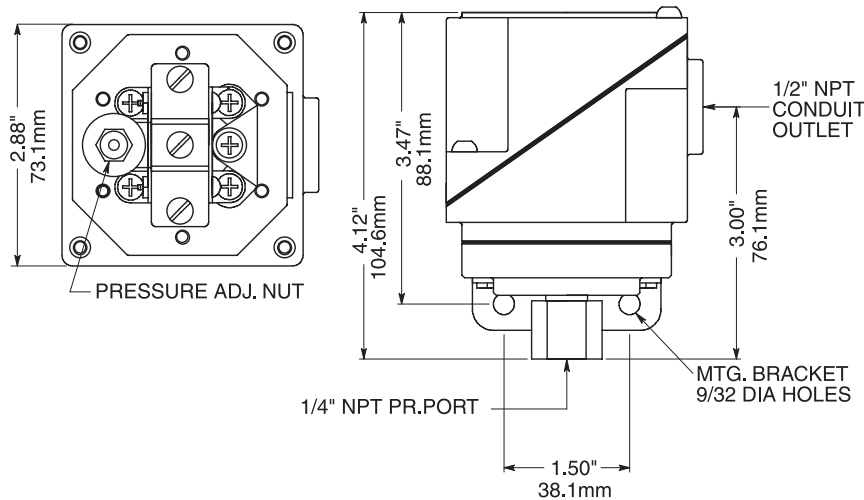
Series Number (how to order)

2WPS   W   1   SST   2

SERIES

HOUSING
'-' - NO HOUSING
W - WATERTIGHT - NEMA 4X,12 & 13

NUMBER OF ELECTRIC SWITCHES
1 - ONE S.P.D.T.
2 - TWO S.P.D.T. - (SWITCH TYPE "5" ONLY)

SPECIAL FEATURES
M - 1/2 NPT MALE PIPE MOUNTING
O - HIGH OVERPRESSURE - INCREASES MAX. PRESSURE TO 1000 PSI FOR RANGES 0-2 PSI TO 0-20 PSI; MAX. PRESSURE IS 1500 PSI FOR RANGES 0-50 PSI AND UP
Q - DOUBLE SNAP ACTING BELLEVILLE SPRING - TO PROVIDE POSITIVE SETPOINT ACCURACY IN HIGH VIBRATION APPLICATIONS
SS - STAINLESS STEEL WETTED TRIM MATERIAL
SN - BRASS WETTED TRIM MATERIAL
SI - TEFLON WETTED TRIM MATERIAL
SY - PVC WETTED TRIM MATERIAL
T - TEFLON PROTECTED DIAPHRAGM
U - ADDITIONAL PAINTING AFTER ASSEMBLY
Z - VITON DIAPHRAGM MATERIAL

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
5 - SUB MINIATURTE SWITCH - 2 S.P.D.T.
        5A - 125, 250 VAC; 0.5A - 125 VDC
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.