Differential Diaphragm Pressure Switch



Ranges from 0-15 PSID to 0-60 PSID

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

Wiring Schematic



Installation Notes

Orientation - The 6WPSDO 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 - $\frac{1}{4}$ " NPT female is standard. $\frac{1}{4}$ " 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.

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Description & Features:

 Designed to sense low differential pressures between high pressure sources

6WPSD

- High pressure seals are opposed stainless steel bellows assemblies, while the differential pressure is sensed by a diaphragm clamped between these bellows assemblies
- Diaphragm has a large area to accurately sense low differential pressure. During over-pressure the diaphragm is fully supported
- Both high or low pressure sides of the element can withstand the maximum pressure with the opposite side at atmospheric pressure
- Rugged cast aluminum housing incorporates Winters' standard accurate switching mechanism, and can be specified watertight or explosion proof
- Housing is large enough to accommodate up to four full size SPDT electric switches
- Standard differential pressure-sensing element is constructed of a strong aluminum alloy using a Buna N elastomer diaphragm. Other diaphragm and wetted area materials are available
- 1 year warranty

Applications:

 Utilized in high static low differential pressure filtration applications and system level controls

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. 5 lbs.

Series Number (how to order)

ADJUSTABLE DEADBAND

P - PANEL MOUNTING

VITON DIAPHRAGM

EXTERNAL PRESSURE ADJUSTMENT

R> - MANUAL RESET, SWITCH ON INCR. PR. R< - MANUAL RESET, SWITCH ON DECR. PR. SS - SPECIAL TRIM BASE 316 STAINLESS STEEL

U - ADDITIONAL PAINTING AFTER ASSEMBLY
V - HIGH TEMPERATURE SERVICE

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 ½ NPT

Α-

Ε-

7 -

0-60 psi



* SPECIAL FEATURES SUCH AS STAINLESS TAGGING, OR SPECIAL WETTED PARTS; BRASS, 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 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 2Std. 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



2,500 psi

Ranges Adjustable Maximum Maximum Deadband psi Pressure Working Pressure Range Type 1 Type 2 0-15 psi 0.3 0.6 2,500 psi 0-30 psi 0.35 0.7 2,500 psi

0.7

0.35