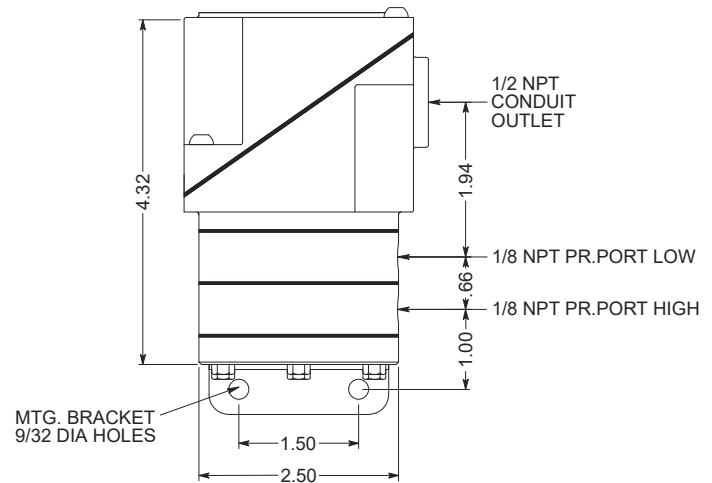
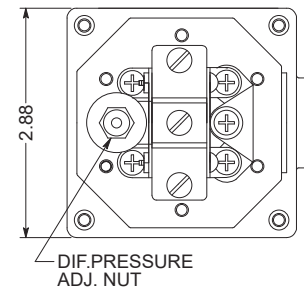




# MODEL SERIES 2PSD Differential Pressure Switch Diaphragm Sensing Element

- Ranges from 10 to 100 PSID
- Rugged NEMA 4X, 12 & 13 housing
- One or two SPDT contacts
- Various wetted materials available



## GENERAL DESCRIPTION

- Cast-aluminum housing available in explosion-proof or weather-tight options
- Frictionless switching mechanism, which amplifies the movement of the switching element, resulting in improved life, repeatability, and lower deadbands
- Available with one or two SPDT electric switches that are independently adjustable
- Removable enclosure cover for easy wiring and adjustment of the differential pressure setting. Features s/s screws that retain the cover gasket when the enclosure cover is removed.
- Other useful options can easily be specified with this model including the "O" special feature for applications requiring higher working pressures

## SPECIFICATIONS

### PHYSICAL DATA (Standard) -see page 2 for special features

**Maximum Ambient Temperature:** 180°F

**Minimum Ambient Temperature:** -20°F

**Pressure Connections:** 1/8 NPT

**Electrical Connection:** 1/2 NPT

**Housing:** Diecast Aluminum

**Deadband:** Fixed

**Sensitivity:** 1/2% of range (for SPDT)

**Drift:** <1% of range (100,000 operations)

**Weight:** Approx. 2 lbs.

**Contact Ratings:** 15A - 125, 250, 480 VAC

**Port Material:** Aluminum

**Diaphragm Material:** Buna N

**Set Point Adjustment:** Screw type, field adjustable

**No. Contacts:** One or Two S.P.D.T.

**Contact Listings:** UL Recognized

# ORDERING A SWITCH

# MODEL SERIES 2PSD Differential Pressure Switch Diaphragm Sensing Element

## 1. SPECIFY A MODEL NUMBER

**2PS    W    1    D    SST    2**

**MODEL 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**  
 O - HIGH OVERPRESSURE - INCREASES MAX. WORKING PRESSURE TO 300 PSI  
 SS - STAINLESS STEEL WETTED TRIM MATERIAL  
 SN - BRASS WETTED TRIM MATERIAL  
 SI - PTFE WETTED TRIM MATERIAL - DECREASES MAX. WORKING PRESSURE TO 50 PSI  
 SY - PVC WETTED TRIM MATERIAL  
 T - PTFE PROTECTED DIAPHRAGM (MULTIPLY DEADBAND TABLE VALUE BY 1.5)  
 V - HIGH TEMPERATURE SERVICE - INCREASED FROM 180°F TO 250°F AMBIENT  
 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  
 4 - HERMETICALLY SEALED 11 AMP, 125, 250 VAC; 5A-30 VDC  
 5 - SUB MINIATURE 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 FACTORY FOR CAPABILITIES AND PRICING FOR ANY FEATURES NOT SHOWN.

## 2. SPECIFY A RANGE

ADJUSTABLE PRESSURE RANGE	TYPICAL DEADBAND*		MAX. WORKING PRESSURE
	TYPE "2"	TYPE "5"	
0-10 PSID	.67 PSID	1.6 PSID	100 PSI
0-20 PSID	.88 PSID	3.8 PSID	100 PSI
0-50 PSID	1.50 PSID	6.4 PSID	100 PSI
0-100 PSID	2.2 PSID	N/A	100 PSI

\*Maximum deadbands may be 50% greater.

## DEADBAND NOTES

The deadbands listed in the tables are the typical switch differentials when the standard (Type "2" or Type "5") electric switch is used.

Deadband is affected by the type of electric 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 TYPE 2 table values.

**Type "3"** - *High DC Rated* - Multiply TYPE 2 table values by two.

**Type "4"** - *Hermetically Sealed Switch* - Use TYPE 2 table value UL-recognized component, guide WSQ2, File E85076. All stainless steel construction.

**Type "5"** - *Sub Miniature* - 2 S.P.D.T. - Use TYPE 5 table values.

**Type "6"** - *Gold Contact* - Use TYPE 2 table values.

## INSTALLATION NOTES

**Orientation** - The 2PSD 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 Connections** - 1/8 NPT female is standard.

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

## Wiring Schematic

