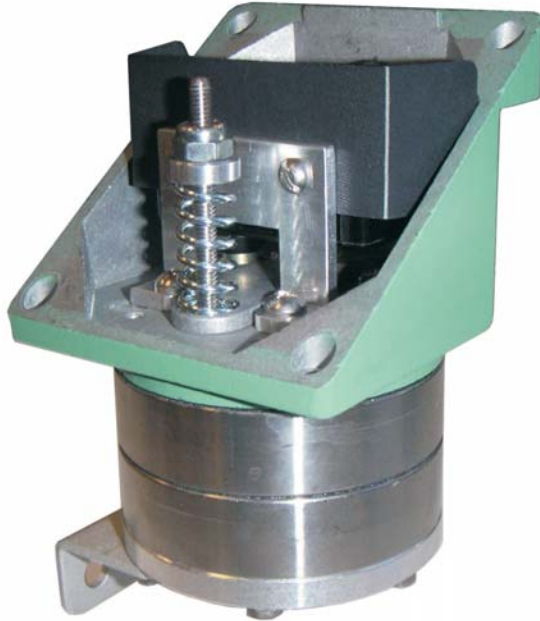




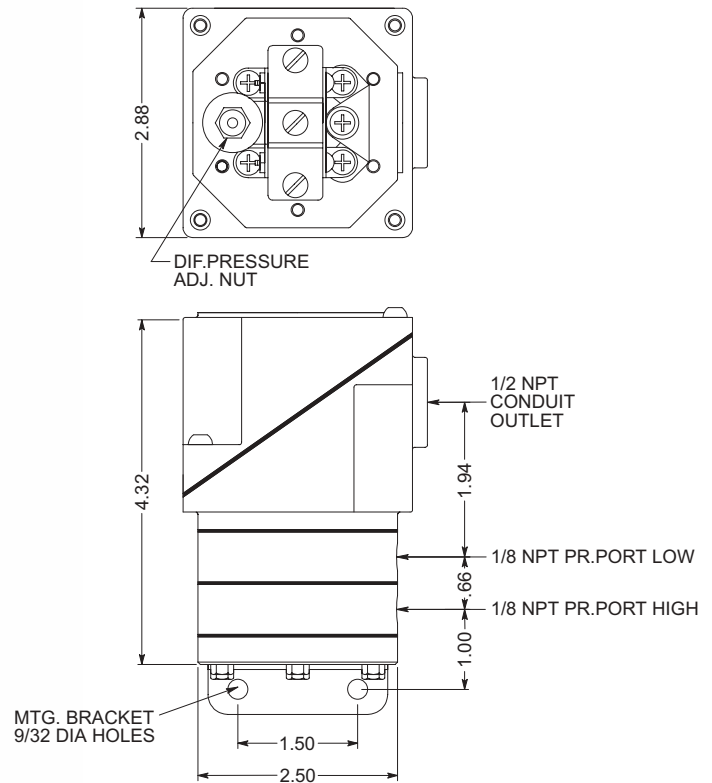
- Ranges from 10 to 100 PSID
- Rugged NEMA 4X, 12 & 13 Housing
- One or Two SPDT Contacts
- Various Wetted Materials Available



GENERAL DESCRIPTION

The 2PS employs Solon's unique, rugged, and sensitive switching mechanism. Unlike most "inline" pressure switch designs, the Solon mechanism is frictionless and amplifies the movement of the sensing element. This results in improved life, repeatability, and lower deadbands. The 2PS mechanism can be supplied with one S.P.D.T. electric switch or two S.P.D.T. electric switches that are independently adjustable. The device is available either with no housing, or enclosed in a rugged die cast NEMA 4X, 12 and 13 housing. With the cover of the enclosure removed, the terminals of the electric switch/s, and the pressure adjustment/s are exposed for easy wiring and adjustment of the differential pressure setting. The die cast cover is equipped with captive stainless steel screws that retain the cover gasket when the cover is removed. Other useful options can easily be specified with this model including the "O" option for applications requiring higher working pressures. See the Special Features section on page 2 for special wetted materials and options for particular applications.

MODEL SERIES 2PSD Differential Pressure Switch Diaphragm Sensing Element



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, CSA Certified

Solon Manufacturing Company

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www.solonmfg.com

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
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 - DECREASES MAX. WORKING PRESSURE TO 50 PSI
SY - PVC WETTED TRIM MATERIAL
T - TEFLON PROTECTED DIAPHRAGM
U - ADDITIONAL PAINTING AFTER ASSEMBLY
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
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	MAXIMUM DEADBAND		MAX. WORKING PRESSURE
	TYPE "2"	TYPE "5"	
0-10 PSID	.67 PSID	1.0 PSID	100 PSI
0-20 PSID	.88 PSID	2.3 PSID	100 PSI
0-50 PSID	1.50 PSID	1.5 PSID	100 PSI
0-100 PSID	2.2 PSID	N/A	100 PSI

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 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 "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

