

Pressure Switch Instructions



MODEL SERIES 2PS AND 42PS PRESSURE- SINGLE CONTACT INSTALLATION OPERATION CALIBRATION

INSTALLATION

MOUNTING:

The 2PS and 42PS models will operate satisfactorily in any position; however, mounting the device vertically will allow the easiest adjustability and reduce sediment in the sensing chambers.

PIPING:

While we do not recommend any specific method of piping, provisions for isolating the device for testing should be provided in the pipe system during installation. Switches connected to steam lines should have a "Pig Tail" or condensate trap installed in the line to the switch.

WIRING:

The "Normally Open" (NO) and "Normally Closed" (NC) terminals of the MICRO SWITCH show the position of the contacts in the unactuated position.

CAUTION: When wiring Solon Pressure Switches, avoid large loops of wire between the terminals of the MICRO SWITCH/S and conduit outlet. Wires which contact the movable parts of the pressure switch mechanism will cause a shift in the settings of the pressure switch. Neatly done wiring will produce the desired results. Avoid large diameter wires which are difficult to manipulate in the housing. We recommend the use of No. 18 Machine Tool Wire. Avoid the use of a large screwdriver when tightening or loosening the terminal screws of the MICRO SWITCH. Do not push hard against the terminals with the screwdriver or over-torque the screws. Before operation we recommend the inspection of any pre-wired pressure switch, which may be part of an assembly, to insure the wires do not touch any of the movable parts of the mechanism. Further, any time the cover of the pressure switch is removed, the wiring should be inspected to insure that no wires are touching the movable parts of the mechanism. 42PSX Explosion proof models are prewired using #18 color coded wires 36" long. These wire leads are connected to circuits in a junction box adjacent to the pressure switch. The color coding is as follows:

<u>TERMINALS</u>	<u>WIRE COLOR</u>
COMMON	GRAY
NORM. OPEN	BLUE
NORM. CLOSED	BLACK

For models containing hermetically sealed microswitches, they will come prewired with the following configuration:

<u>TERMINALS</u>	<u>WIRE COLOR</u>
COMMON	WHITE
NORM. OPEN	BLUE
NORM. CLOSED	RED
GROUND	GREEN

To complete an explosion proof installation, it is necessary to seal the conduit near the connection to the pressure switch, according to most codes.

CAUTION: TO PREVENT EXPLOSION, DISCONNECT SWITCH FROM ELECTRICAL CIRCUIT BEFORE OPENING COVER. KEEP COVER TIGHTLY CLOSED WHEN SWITCH IS IN OPERATION.

OPERATION

The pressure switch must be supplied with pressure and electricity before operation. Periodic testing will insure the pressure switch maintains its intended function. Calibration and Test Procedures are addressed in another section of this manual. Solon recommends that the covers of all pressure switches be maintained in place while the pressure switch is in operation.

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Set point Adjustment:

Set point adjustments are made by turning the 11/32" hex nut on the spring stud. Use an 11/32" nut driver to reach the adjustment nut. Turn the nut clock-wise to increase the pressure setting.

If unit has been factory set, it will have a tag noting the set point. If no set point was specified by the customer, the set point will be adjusted to approximately 1/3 of the range.

TESTING

TEST EQUIPMENT:

Reliable testing will require the following:

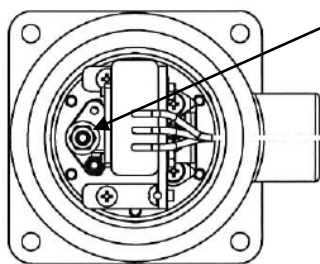
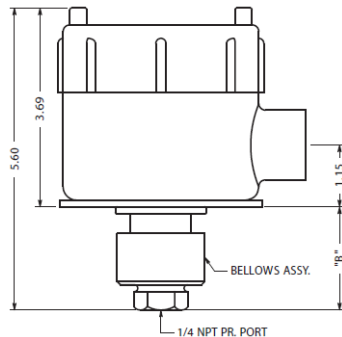
1. An accurate gauge suitable for the range of switch being tested.
2. A sensitive pressure source.
3. A light source to indicate switch action.

Use of Light Source:

Solon recommends that a test light be used to indicate the opening or closing of MICRO SWITCH contacts. These test lights can be battery operated; however, if testing proceeds with the circuits live, a suitable light must be used which is compatible with the voltage supplied to the pressure switch.

CAUTION: When testing with live circuits, an accidental short circuit across the MICRO SWITCH terminals will burn the contacts of the MICRO SWITCH rendering it useless. A Volt-Ohm-Milliammeter is not recommended for testing the opening or closing of MICRO SWITCH contacts.

Test Lights - For test bench or field testing, an ordinary flash light with test leads is acceptable. For accuracy in testing and calibration, the test lights must be located adjacent to the gauge so they can be seen out of the corner of the eyes while the main focus of the eyes is on the gauge.



PRESSURE ADJUSTMENT NUT

WIRING DIAGRAM

GREEN - GROUND
WHITE - COMMON
NORMALLY OPEN - BLUE
NORMALLY CLOSED - RED

2PSX1B4

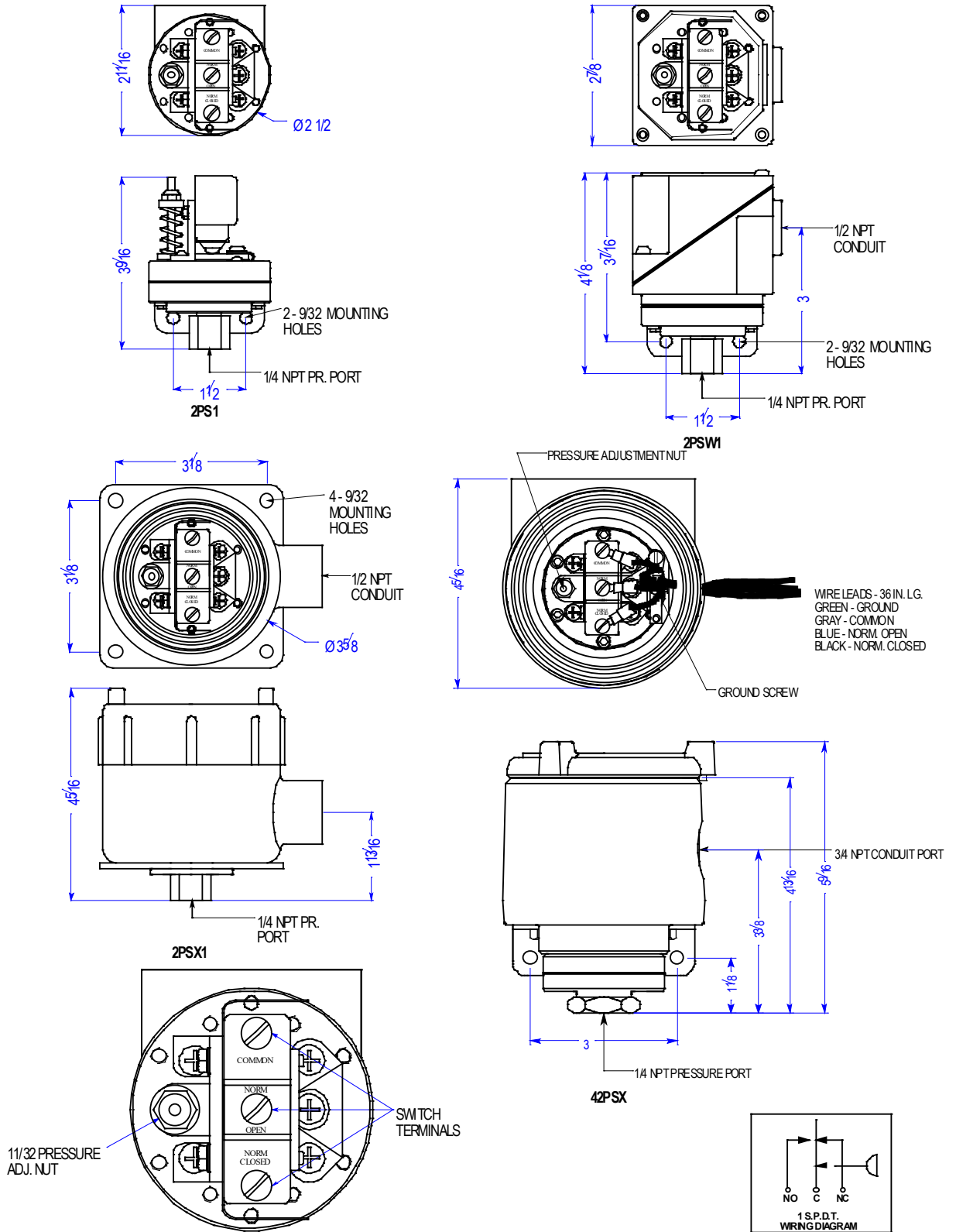
(Dimensions not listed same as 2PSX1)

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