

Pressure Switch Instructions



ISO 9001 Document: D73320.26

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MODEL SERIES 5PS VACUUM INSTALLATION OPERATION CALIBRATION

INSTALLATION

MOUNTING:

The 5PS 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.

OPERATION:

The switch must be supplied with vacuum and electricity before operation. Periodic testing will insure the 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 switch is in operation.

SET POINT ADJUSTMENT:

Set point adjustments are made by turning the 3/8" hex nut on

the spring stud. Use a 3/8" nut driver to reach the adjustment nut. Turn the nut counter clock-wise to increase the vacuum setting. See illustrations on reverse for more detailed calibration instructions.

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.

MANUAL RESET MODELS:

When the Micro Switch is snapped over, it remains in that position until the pressure returns to normal and the Reset Button is manually pushed. The common terminal has a white wire lead, and the solder terminals are marked 1 and 2. With the switch at normal operating vacuum and the switch reset: (by pushing reset button) terminal 1 is normally closed; terminal 2 is normally open.

INDICATOR LIGHTS:

75-125V 1/3W Leecraft Neon Lamp

TESTING:

TEST EQUIPMENT:

Reliable testing will require the following:

1. An accurate gauge suitable for the range of switch being tested.
2. A sensitive vacuum 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.

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