

Features

- Two switch model
- Independent switch adjustment, no tools needed
- Two 1/2" conduit / cable entrances
- Separate isolated wiring chambers
- Non-corrosive pressure connection
- Non-Conductive Enclosure
- VdS version available



NOTICE

This document contains important information on the installation and operation of PS15 pressure switches. Please read all instructions carefully before beginning installation. A copy of this document is required by NFPA 72 to be maintained on site.

Installation

The Potter PS15 Series Supervisory Pressure Actuated Switches are designed primarily to detect an increase and/or decrease from normal system pressure in automatic fire sprinkler systems. Typical applications are: air/nitrogen supervision in Dry pipe and pre-action systems, pressure tanks, air supplies, and water supplies. The PS15 has two switches. The Low switch is factory set to activate at approximately 10 psi (0,35 bar) on a decrease in pressure. The High switch is factory set to activate at approximately 20 psi (1,4 bar) on an increase in pressure. See section heading Adjustments and Testing if other than factory set point is required.

1. Connect the PS15 to the system side of any shutoff or check valve.
2. Apply Teflon tape to the threaded male connection on the device. (Do not use pipe dope)
3. Device should be mounted in the upright position. (Threaded connection down)
4. Tighten the device using a wrench on the flats on the device.

Wiring Instructions

1. Remove the tamper resistant screw with the special key provided.
2. Carefully place a screwdriver on the edge of the knockout and sharply apply a force sufficient to dislodge the knockout plug. See Fig. 9.
3. Run wires through an approved conduit connector and affix the connector to the device. A NEMA-4 rated conduit fitting is required for outdoor use.
4. Connect the wires to the appropriate terminal connections for the service intended. See Figures 2,4,5 and 6. See Fig. 7 for two switch one conduit wiring.

Technical Specifications

Conduit Entrances	Two knockouts provided for 1/2" conduit. Individual switch compartments and ground screw suitable for dissimilar voltages
Contact Ratings	SPDT (Form C) 10.1 Amps at 125/250VAC, 2.0 Amps at 30VDC
Cover Tamper	Cover incorporates tamper resistant fastener that requires a special key for removal. One key is supplied with each device.
Differential	Typical 1 lb. at 5 psi (,07 at 0,34 bar) 3 lbs at 30 psi (,21 at 2,1 bar)
Dimensions	3.78"(9,6cm)Wx3.20"(8,1cm)Dx4.22"(10,7cm)H
Enclosure	Cover: Weather/UV/Flame Resistant High Impact Composite Base: Die Cast All parts have corrosion resistant finishes
Environmental Limitations	NEMA 4/IP66 Rated Enclosure - indoor or outdoor when used with NEMA 4 conduit fittings. Temperature range: -40°F to 140°F (-40°C to 60°C)
Factory Adjustment	LOW switch operates at approximately 10 psi (0,7 bar) on decreasing pressure. HIGH switch operates at approximately 20 psi (1,4 bar) on increasing pressure
Maximum System Pressure	300 psi (20,68 bar)
Pressure Connection	Nylon 1/2" NPT male
Pressure Range	5-30 psi (0,35 - 2,07 bar)
Service Use	NFPA 13, 13D, 13R, 72

*Specifications subject to change without notice.

Adjustment and Testing

The operation of the pressure supervisory switch should be tested upon completion of installation and periodically thereafter in accordance with the applicable NFPA codes and standards and/or the authority having jurisdiction (manufacturer recommends quarterly or more frequently).

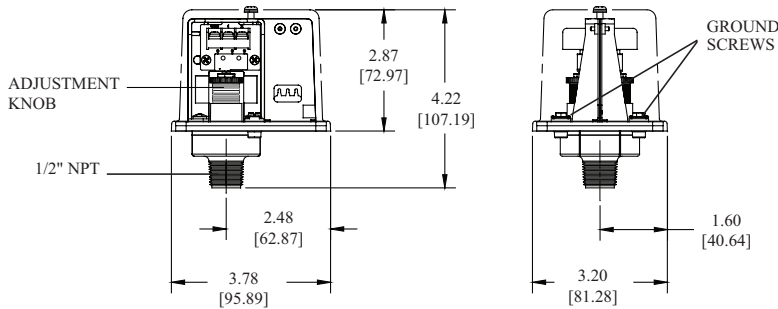
Note: Testing the PS15 may activate other system connected devices.

The use of a Potter BVL (see product bulletin 5400799 for details) is recommended to facilitate setting and testing of the PS15 pressure switch. When a BVL (bleeder valve) is used, the pressure to the switch can be isolated and bled from the exhaust port on the BVL without affecting the supervisory pressure of the entire system. See Fig. 3

The operation point of the PS15 Pressure Switch can be adjusted to any point between 5 and 30 psi (0,35 - 2,07 bar) by turning the adjustment knob(s) clockwise to raise the actuation point and counter clockwise to lower the actuation point. In the case of the PS15-2, both switches operate independently of each other. Each switch may be independently adjusted to actuate at any point across the switch adjustment range. Initial adjustment can be made with a visual reference from the top of the adjustment knob across to the printed scale on the switch bracket. Final adjustments should be verified with a pressure gauge.

Dimensions

Fig 1

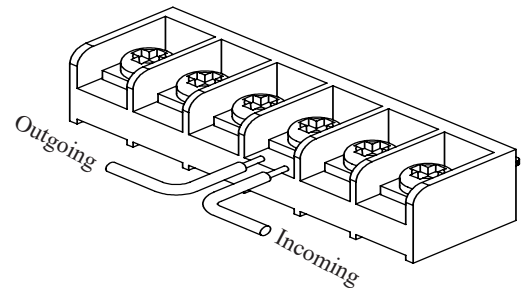


NOTE: To prevent leakage, apply Teflon tape sealant to male threads only.

DWG# 930-1

Switch Clamping Plate Terminal

Fig 2

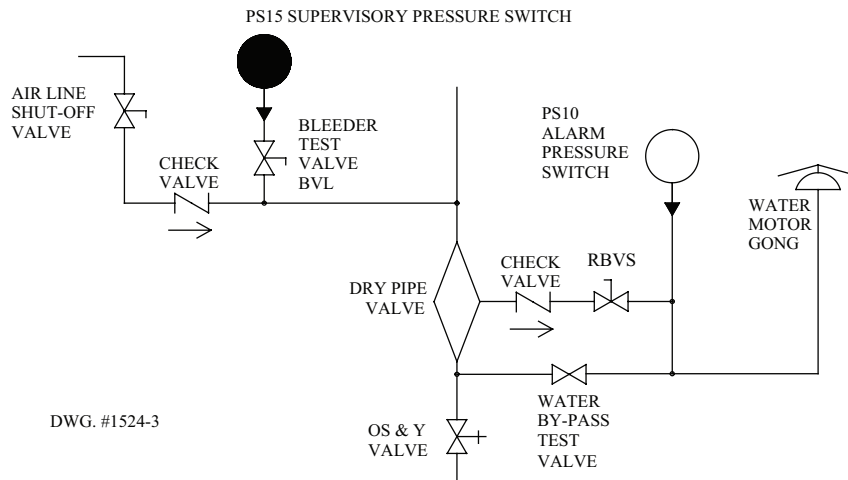


WARNING

An uninsulated section of a single conductor should not be looped around the terminal and serve as two separate connections. The wire must be severed, thereby providing supervision of the connection in the event that the wire becomes dislodged from under the terminal.

Typical Sprinkler Applications

Fig 3



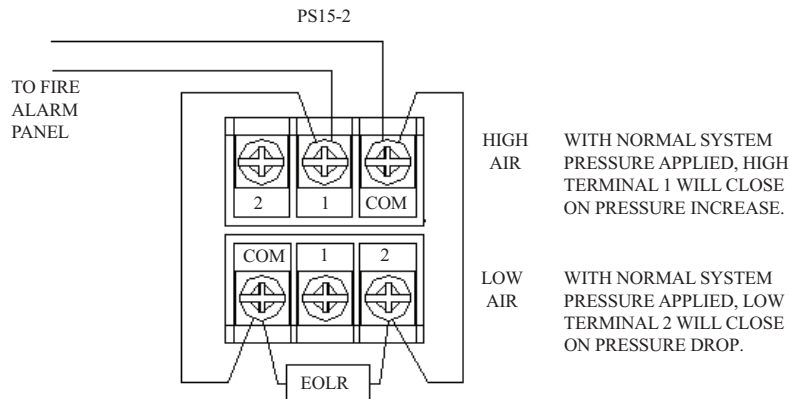
DWG. #1524-3

CAUTION

Closing of any shutoff valves between the alarm check valve and the PS10 will render the PS10 inoperative. To comply with IBC, IFC, and NFPA-13, any such valve shall be electrically supervised with a supervisory switch such as Potter Model RBVS.

Typical Connections

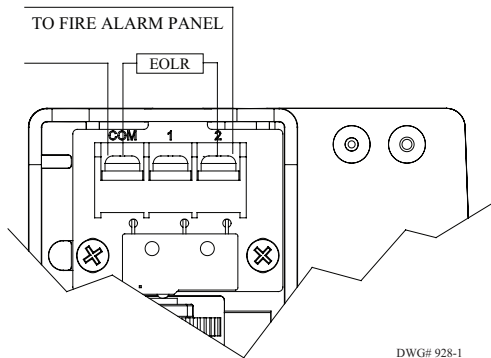
Fig 4



DWG# 1524-4

Low Pressure Signal Connection

Fig 5

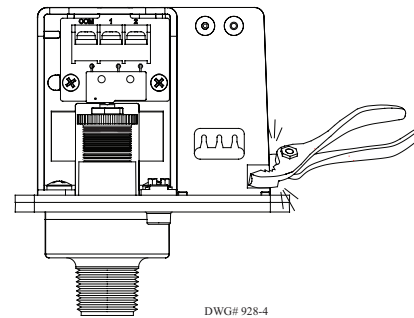


DWG# 928-1

One Conduit Wiring

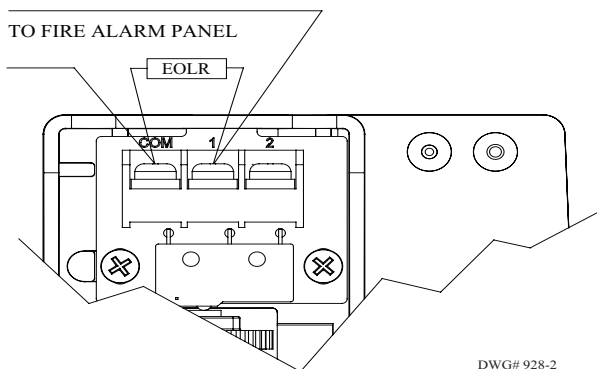
Fig 7

Break out thin section of divider to provide path for wires when wiring both switches from one conduit entrance.



High Pressure Signal Connection

Fig 6

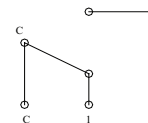


DWG# 928-2

Changing Pressure

Fig 8

Low Pressure Switch

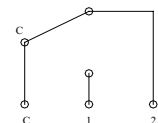


Terminal

C: Common

1. Closed when installed under normal system pressure.
2. Open when installed under normal system pressure. Closes on pressure drop. Use for low air signal.

High Pressure Switch



Terminal

1. Open when installed under normal system pressure. Closes on increase in pressure. Use for high air signal.
2. Closed under normal system pressure.