Data Sheet 2.36
Issue A

Pressure Switch
Model: PS100-2

063-UWB-0374

General Description

The Potter PS100-2 Pressure Actuated Switches are designed primarily to detect a decrease from normal system pressure in automatic fire sprinkler systems. Typical applications is for an alarm initiating device that is used on a wet system with excess pressure. The PS100-2 has two SPDT switches factory set to operate on a pressure drop at 6.2 bar (90 psi). See section heading **Adjustments and Testing** if other then factory set point is required.

Installation

1. Connect the PS100-2 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, 6 and 8

Adjustment And Testing

The operation of the supervisory pressure 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 PS100-2 may activate other system connected devices.

The operation point of the PS100-2 Pressure Switch can be adjusted to any point between 1.7 - 12.1 bar (25 - 175 psi) by turning the adjustment knob(s) clockwise to raise the actuation point and counter clockwise to lower the actuation point. Both switches operate independent of each other. Each switch may be independently adjusted to actuate at any point acrosss 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.

Technical Details

Working Pressure	UL & FM - 20.7 bar (300 psi) LPCB - 17.2 bar (250psi)
Adjustment Range	1.7 - 12.1 bar (25 - 175 psi)
Factory Adjustment	6.2 bar (90 psi)
Differential	Typical 0.14 bar at 1.7 bar (1 psi at 25 psi) 0.55 bar at 12.1 bar (8 psi at 175 psi)
Dimensions	9,6cm x 8,1cm x 10,7cm (W x D x H) 3.78" x 3.20" x 4.22" (W x D x H)
Connection	Nylon 1/2" NPT Male
Contact Ratings	Two SPDT (Form C) 10.1 Amps at 125/250VAC, 2.0 Amps at 30VDC
Conduit Entrances	Two knockouts provided for 1/2" conduit.
Enclosure	Cover: Weather/UV/Flame Resistant High Impact Composite Base: Die Cast All parts have corrosion resistant finishes
Environmental Specification	• NEMA 4/IP66 Rated Enclosure - indoor or outdoor when used with NEMA 4 conduit fittings. • Temperature range: -40°C to 60°C (-40° - 140°F)
Service Use	Automatic Sprinkler - NFPA-13 One or two family dwelling - NFPA-13D Residential occupancy up to four stories - NFPA-13R National Fire Alarm Code - NFPA-72

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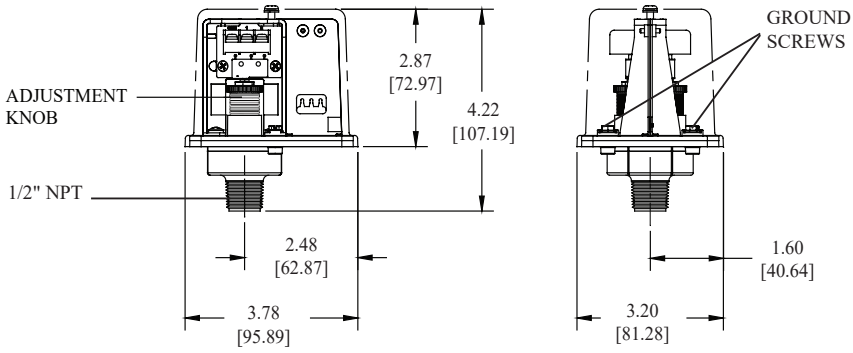
Pressure Switch
Model: PS100-2

063-UWB-0374

Dimensions



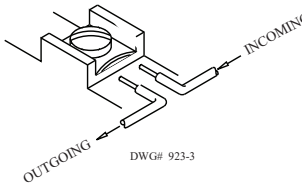
NOTE: To prevent leakage, apply Teflon tape sealant to male threads only.

⚠ WARNING

Use of pipe joint cement may result in obstruction of the aperture and loss of signal.

Fig.1

Switch Clamping Plate Terminal



⚠ 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.

Fig.2

Typical Sprinkler Application

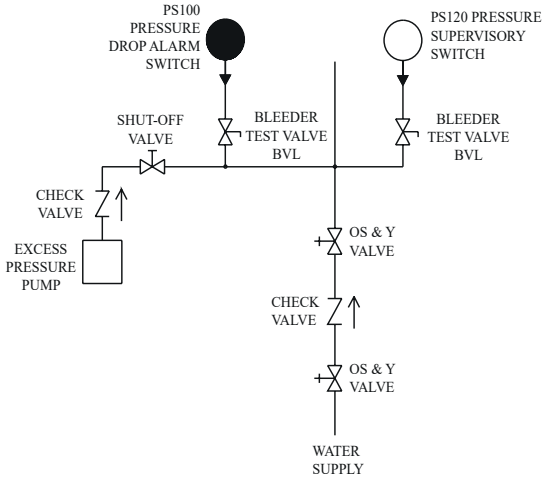


Fig.3

Typical Connections

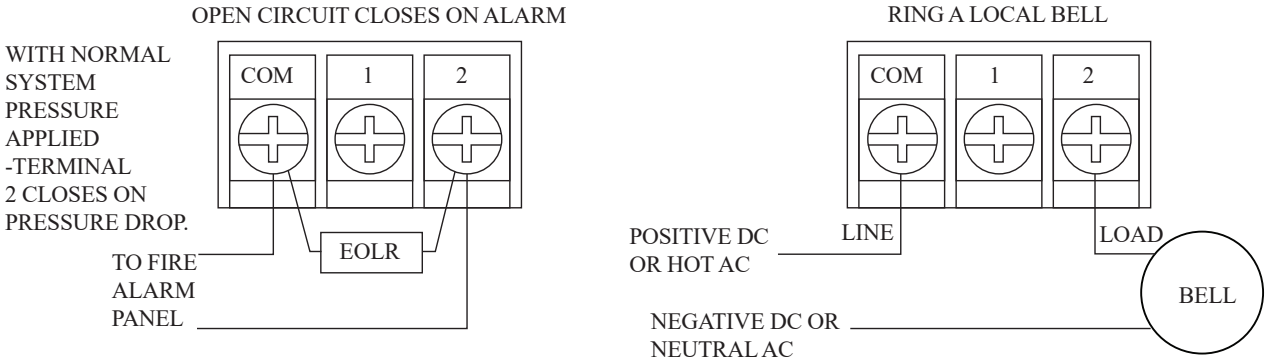


Fig.4

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Pressure Switch
Model: PS100-2

Low Pressure Signal Connection

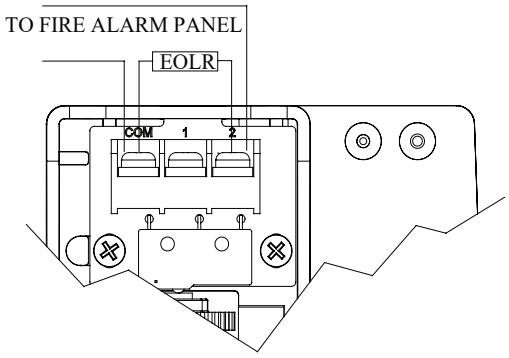


Fig.5

Local Bell For Waterflow Connection

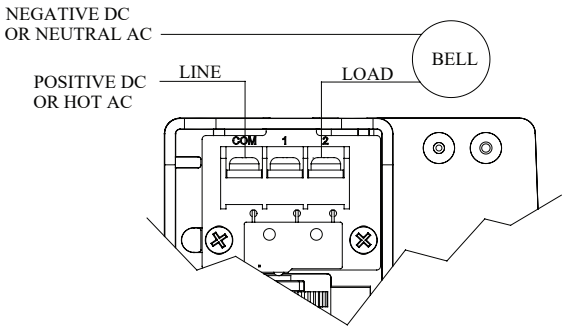


Fig.6

One Conduit Wiring

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

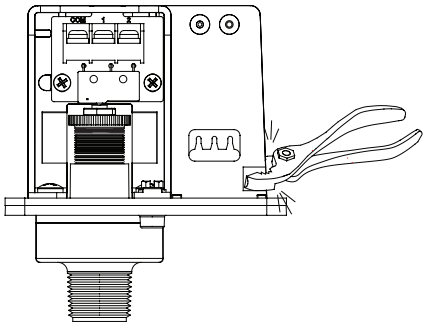
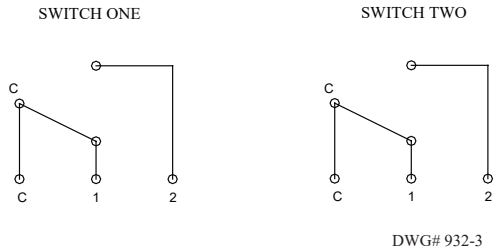


Fig.7

Changing Pressure (with normal system pressure)



1. Closed under normal system pressure.
2. Open under normal system pressure, closes on pressure drop. Use as waterflow detector.

Fig.8

Warning

- Installation must be performed by qualified personnel and in accordance with all national and local codes and ordinances.
- Shock hazard. Disconnect power source before servicing. Serious injury or death could result.
- Read all instructions carefully and understand them before starting installation. Save instructions for future use. Failure to read and understand instructions could result in improper operation of device resulting in serious injury or death.
- Risk of explosion. Not for use is hazardous locations. Serious injury or death could result.

Caution

- Do not tighten by grasping the switch enclosure. Use wrenching flats on the bushing only. Failure to install properly could damage the switch and cause improper operation resulting in damage to equipment and property.
- To seal threads, apply Teflon tape to male threads only. Using joint compounds or cement can obstruct the pressure port inlet and result in improper device operation and damage to equipment.
- Do not over tighten the device, standard piping practices apply.
- Do not apply any lubricant to any component of the pressure switch.

Removing Knockouts

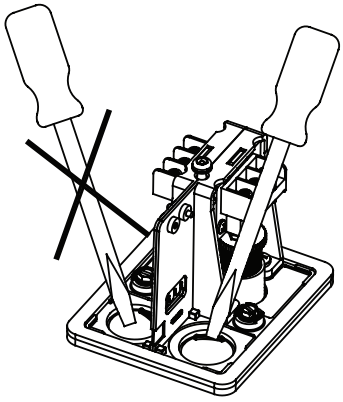


Fig.9

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