EXPLOSION PROOF (HIGH / LOW) PRESSURE SWITCH
05 PS10-EX

FEATURES

- Designed for Detection of a Water Flow condition in Automatic Fire Sprinkler Systems in Hazardous Locations
- Both Switch Operates on Pressure Decrease at 6 PSI +/- 1 PSI and Pressure Increase at 5 PSI +/- 1 PSI
- Maximum Differential : 1 PSI
- Cast Aluminium, NEMA 4 and 7 Rated Enclosure
- Switch Contacts are Two Sets SDPT (Form C). Rated 15.0 amps at 125/250 VAC and 2.0 amps at 30 vdc
- Connection : 1/2" NPT Male
  Dimensions : 6” diameter x 7” Height
- UL / CSFM Listed and FM Approved

Typical Applications include wet systems with alarm check or dry pipe systems. The pressure switch may also be used to provide a low pressure supervisory signal. Suitable for hazardous locations classified as Class 1, Division 1, Groups B, C & D; Class II, Division 1, Groups E, F & G and Class III, Division 1,

Installation and Test Procedure
WET SYSTEM:

Method 1 : When using the pressure switch and control unit with a retard, connect the switch into alarm port piping and the input side of the retard chamber and electrically connect the switch to control unit that provides a retard to compensate for surges. Ensure that no shutoff valves are present between the alarm check valve and the pressure switch.

Method 2 : When using the pressure switch for local bell application or with a control that does not provide a retard feature, the switch must be installed on the alarm outlet side of the retard chamber of the sprinkler system.

Testing : Accomplished by opening the inspector's end-of-the test valve. Allow time to compensate for system or control retard.

CAUTION : Method 2 is not applicable for remote station service use.

WET SYSTEM WITH EXCESS PRESSURE:

Connect the pressure switch into alarm port piping extending from alarm check valve. Retard provisions are not required. Ensure that no shutoff valves are present between the alarm and check valve and the switch.

Testing : Accomplished by opening the water bypass test valve or the inspector's end-of-the test valve. When using end-of-line, allow time for excess pressure to bleed off.

DRY SYSTEM:
Connect the pressure switch into the piping that extends from the intermediate chamber of the dry sprinkler valve. Install on the outlet side of the inline check valve of the piping. Ensure that no shutoff valves are present between the dry sprinkler valve and the pressure switch.

Testing : Accomplished by opening the water bypass test valve.

CAUTION: The above tests may also activate other circuit closer or water motor gongs that are present on the system.

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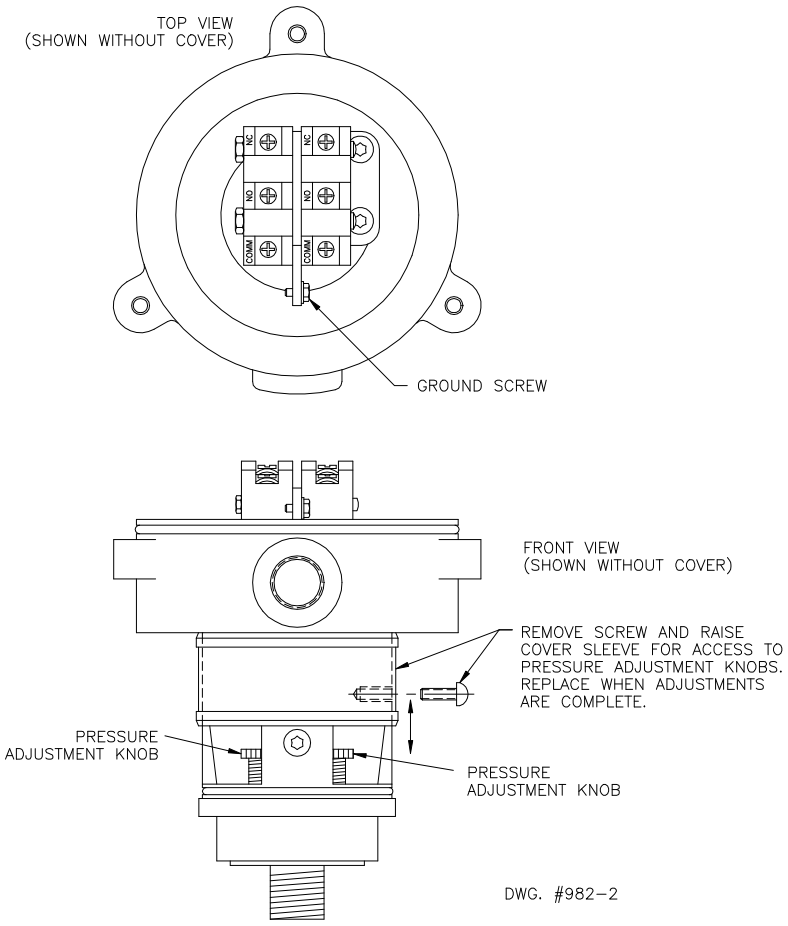

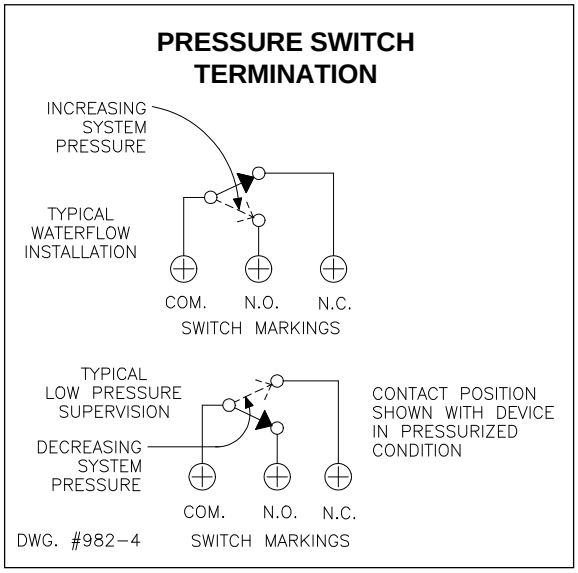

NOTE: To prevent leakage, apply teflon tape sealant to male threads only.

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

CAUTION: When this device is to be installed in an area that is classified as **"HAZARDOUS"**, the person responsible for safety in the area should be contacted to determine if the tools and operations required for the installation of the device and associated components are permitted in the area. To reduce the risk of ignition of hazardous atmospheres, disconnect supply circuits before opening cover. Keep cover tight while circuits are live. Cover screws must be torqued to 45-50 in. lbs.

ENGINEER/ARCHITECT SPECIFICATIONS

Pressure type waterflow switches shall be a Model PS10-EX as manufactured by Potter Electric Signal Co. of St. Louis, Mo. and shall be installed on the sprinkler systems as shown on the drawings and/or specified herein.

Switches shall be provided with a 1/2" NPT male pressure connection to be connected into the alarm check valve of a "wet" sprinkler system or into the intermediate chamber of a "dry" pipe system and shall be actuated by any flow of water to or in excess of the discharge from one sprinkler head.

Switches shall have a maximum service pressure rating of 250 PSI and shall be factory adjusted to operate on pressure increase at 6 ±1 PSI. There shall be two (2) SPDT contacts rated at 15.0 Amps at 125/250VAC and 2.5 Amps at 30VDC.

The switch housing shall be weather proof and oil resistant with a NEMA 4 rating. The cover shall incorporate tamper resistant screws.

The unit shall be listed by Underwriters Laboratories, Inc. and CSFM and approved by Factory Mutual. It shall be rated for use in hazardous locations classified as Class I, Groups B, C, D, Div. 1; Class II, Groups E, F, G, Div. 1; Class III, Div. 1.

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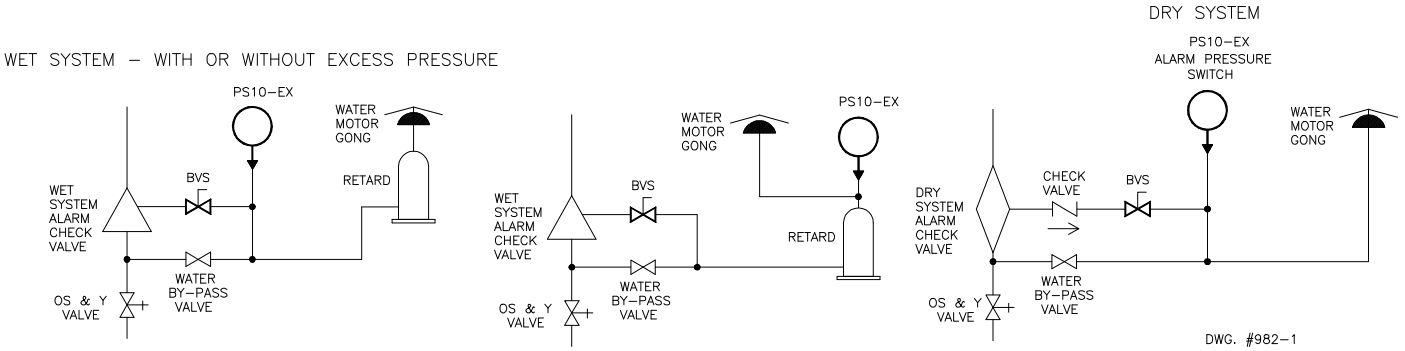
ORDERING INFORMATION

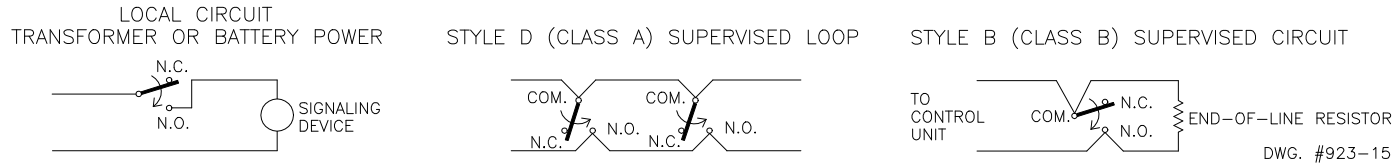
Mode	Descriptio	Stock No.
05 PS10-E	Pressure switch with two sets SPDT contact	1350102
	Hex Key	5250073

TYPICAL SPRINKLER APPLICATIONS

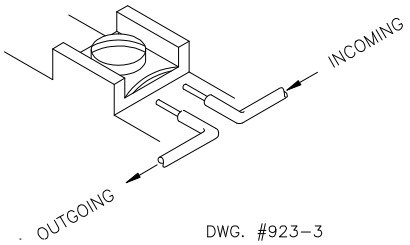


CAUTION: Closing of any shutoff valves between the alarm check valve and the PS10-EX will render the PS10-EX inoperative. To comply with NFPA-72 any such valve shall be electrically supervised with a supervisory switch such as Potter Model BVS.

TYPICAL ELECTRICAL CONNECTIONS



SWITCH TERMINAL CONNECTIONS
CLAMPING PLATE TERMINAL



DWG. #923–3

CAUTION:
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.