

OPERATION & MAINTENANCE INSTRUCTION MANUAL

SUPERVISORY SWITCH FOR INDICATOR POST AND STOP VALVES

General Description

This 811-SS-IP Series Supervisory Switch is a weather proof and tamper resistant switch for monitoring the open position of fire sprinkler control valves of the wall and yard post indicator. Two SPDT contacts are provided which will operate when the valve position is altered from an open state.

The unit mounts in a 1/2" NPT tapped hole in the post indicator housing. The device is engaged by the indicating assembly of the post indicator, actuating switches when the valve is fully open. The unit should be installed where it is accessible for service. The cover is held in place by two tamper resistant screws that require a special tool to remove. The tool is furnished with each device.

Features

- All parts have corrosion resistant finishes
- Two Conduit Entrances
- Adjustable Length Trip Rod
- Three Position Switch Detects Tampering and Valve Closure
- Fine adjustment feature for fast, easy installation
- One or two SPDT Contact Models (-1, -2, -3)
- UL Listed, FM Approved

Technical Specifications

Model	811-SS-IP-1SPDT, 811-SS-IP-2SPDT, 811-SS-IP-3SPDT
Enclosure	Cover: Die Cast Finish: Red Powder Coat Base: Die Cast All parts have corrosion resistant finishes
Cover Tamper	Tamper Resistant Screws Cover Tamper Switch Available 3Amps / 5 Amps at 125/250VAC Cover tamper switch with two leads and Insulating Plate 5KV
Contact Ratings	811-SS-IP-1SPDT: One Sets of SPDT 811-SS-IP-2SPDT: Two Sets of SPDT 811-SS-IP-3SPDT: Two Sets of SPDT and Cover Tamper Switch 10 Amps at 125/250 VAC 2.5 Amps at 30VDC Resistive
Environmental Limitations	-40°C to 60°C Operating Temperature Range Indoor or Outdoor Use
Conduit Entrances	One Knockouts and one hole for 1/2" conduit provided
Service Use	NFPA 13, 13D, 13R, 72

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Testing

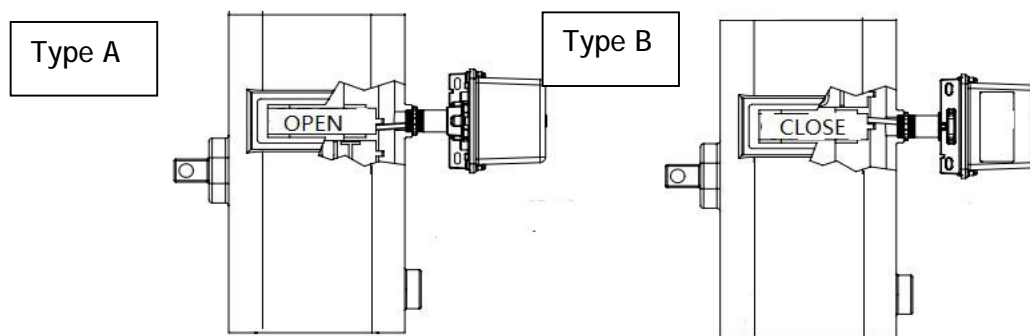
The operation of the Supervisory Switch and its associated protective monitoring system shall be tested upon completion of the installation and inspected, tested and maintained in accordance with all applicable local and national codes and standards and/or the Authority Having Jurisdiction (manufacturer recommends quarterly or more frequently). A minimum test shall consist of turning the valve operating mechanism towards the closed position. The Supervisory Switch shall operate within the first two revolutions of the operating mechanism. Fully close the valve and ensure the Supervisory Switch does not restore. Fully open the valve and ensure that the Supervisory Switch restores to normal.

Theory of Operation

The Supervisory Switch is a spring loaded switch. It is in normal position when the trip rod is pulling against the spring force. Normal is when the switch is installed on the indicator post and the valve is fully open. As the valve closes, the valve actuator moves away from the trip rod of the Supervisory Switch and the spring on it pulls the trip rod over and trips the switch.

Installation

Typical Installations On Post Indicator Valve Housings



a. Position the valve to fully open ("OPEN" should appear in the window of the housing). Partially close the valve while observing the direction that the target assembly moves. Reopen the valve. If the valve housing is predrilled with a 1/2" NPT for installation of a monitoring switch, remove the 1/2" plug and fully open the valve. Make sure that "OPEN" appears in the window of the housing.

b. Loosen the locking screw that holds the trip rod in place and adjust the rod length. When adjusted properly, the rod should extend past the valve screw, but not so far that it contacts the clamp bar. Tighten the locking screw to 5 in-lbs minimum to hold the trip rod in place and properly seal the enclosure.

Breaking Excessive Rod Length

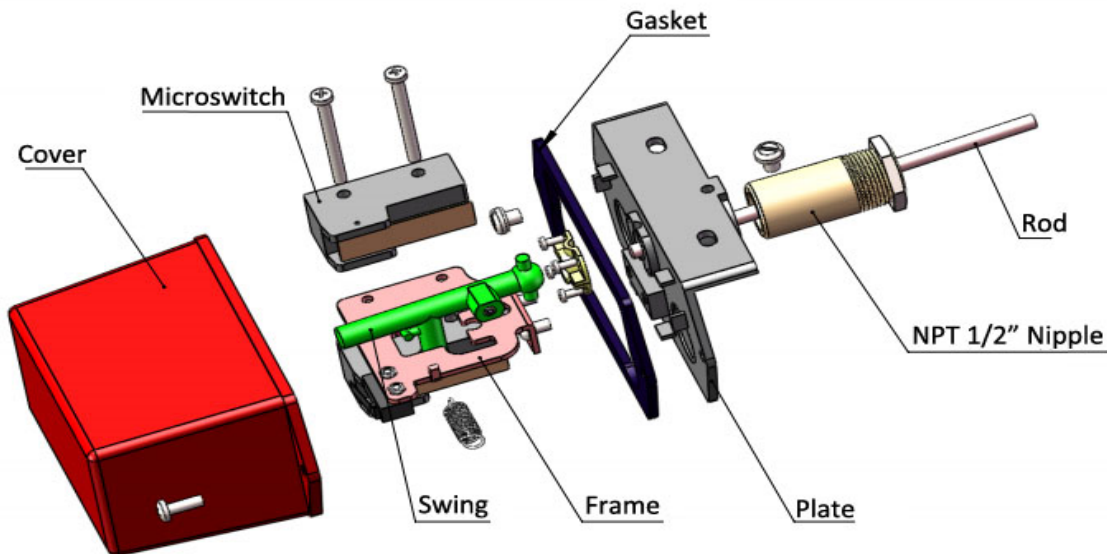


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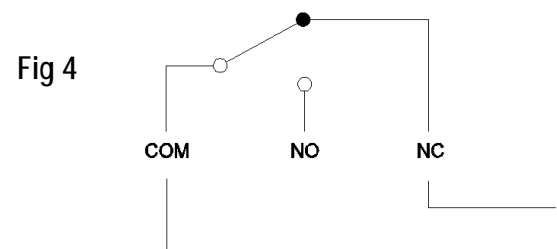
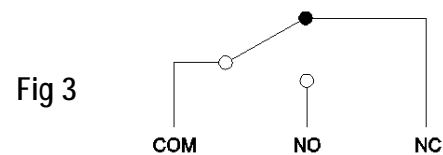
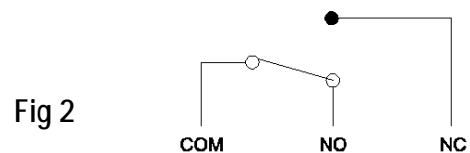
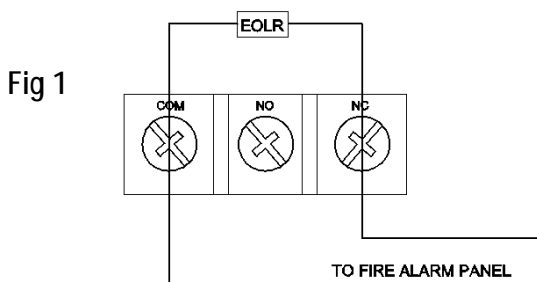
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NOTE: If trip rod length is excessive, loosen the locking screw and remove the trip rod from the trip lever. Using pliers, break off the 1 inch long notched section.

Structural Drawing



Typical Electrical Connections (See Fig 1)



WHEN INDICATOR POST NORMALLY OPEN (See Fig 2)

WHEN INDICATOR POST CLOSE OR REMOVE THE
SUPERVISORY SWITCH (See Fig 3)

COVER TAMPER SWITCH

WHEN REMOVE THE COVER COM TO NC (See Fig 4)

Cover tamper switch with two leads.