



**Fire-Lite<sup>®</sup> Alarms**  
INCORPORATED

April 8, 1998

F-951

## PIBV2 and OSY2 Supervisory Switches

Section: Conventional Initiating Devices

### GENERAL

The System Sensor **OSY2** and **PIBV2** are designed for supervising abnormal conditions of water valves. Model PIBV2 is a Post Indicator/Butterfly Valve Supervisory Switch. Model OSY2 is an Outside Screw-and-Yoke Supervisory Switch.



S739



CS169



California  
State Fire  
Marshal

7770-1209:149



OR9A8.AY

**BSA**

750-76-SA

**MEA**

427-91-E

### FEATURES

- Durable metal enclosure.
- Weather resistance.
- Easy installation.
- OSY2 suitable for 1" through 12" valves.
- PIBV2 for use on butterfly, post-indicator, and recessed wall-post valves.
- Switches locked in synchronized position.
- Rugged terminal block accommodates up to 12 AWG (3.25 mm<sup>2</sup>).
- Two SPDT switches.
- Single side conduit entry, easier to install. No unnecessary plugs! Less expensive fittings!
- Adjustable actuator (OSY2).
- Security screws.
- Tamper indicator option and key removal tools.
- 1/2" NPT adjustable nipple (PIBV2).

### OPERATION

Both models will give a TAMPER INDICATION if removed from their mountings, or if the covers are removed (order 544-7000 Switch Kit).

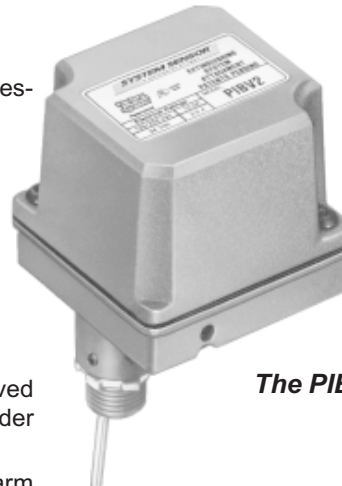
Model PIBV2 mounted on a valve with the actuator arm normally resting against the movable target indicator assembly. If the normal position of the valve is altered, the valve stem moves, forcing the actuator arm to operate the switch. The switch will operate between the first and second revolution of the valve control wheel, when properly installed.

Model OSY2 mounts on an outside screw-and-yoke-type gate valve. The actuator normally rests in a recess drilled in the valve stem. If the normal position of the valve is altered, the valve stem moves forcing the actuator arm out of the recess, and causing the switch to operate. The switch will operate between the first and second revolution of the valve control wheel, when properly installed.

*The OSY2*



*The PIBV2*



### CONSTRUCTION

**Housing** is die-cast metal, with a 1/2" tapped conduit entrance. Model OSY2 includes a mounting bracket.

**Overall dimensions:** 8-1/4" (20.955 cm) high x 3-1/2" (8.890 cm) wide x 3-1/4" (8.255 cm) deep.

**Contact ratings:** 10 A @ 125/250 VAC; 2.5 A @ 24 VDC (TBD).

**Operating temperature ranges:** Ambient Air: 32°F to 120°F (0°C to 49°C).

**Shipping weight:** PIBV2: 2 lbs. (0.907 kg). OSY2: 2.8 lbs. (1.270 kg).

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **Fire-Lite**. Phone: (203) 484-7161 FAX: (203) 484-7118

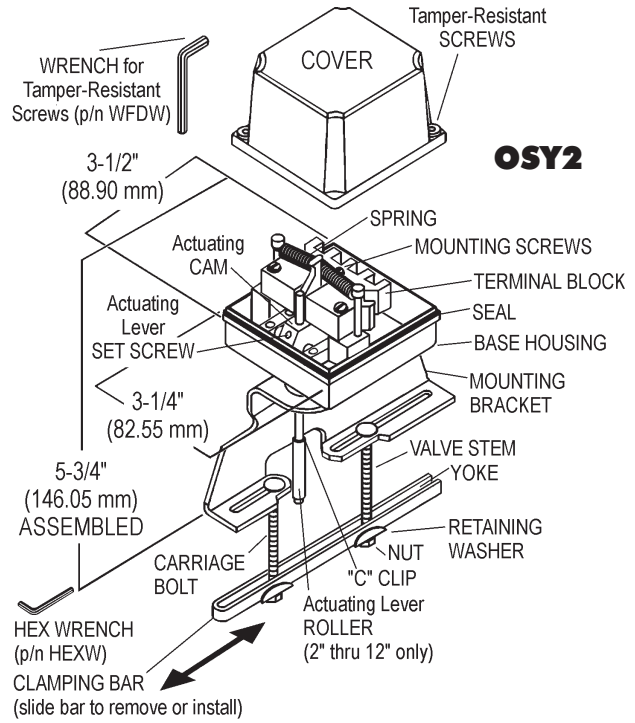
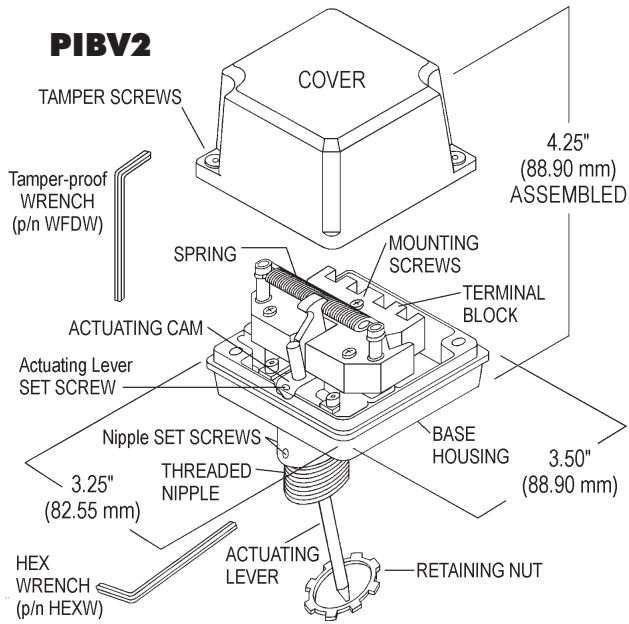


12 Clintonville Road, Northford, Connecticut 06472

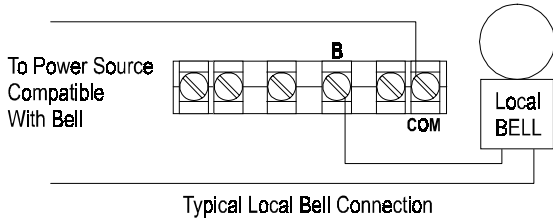
**ISO-9001**  
Engineering and Manufacturing  
Quality System Certified to  
International Standard ISO-9001



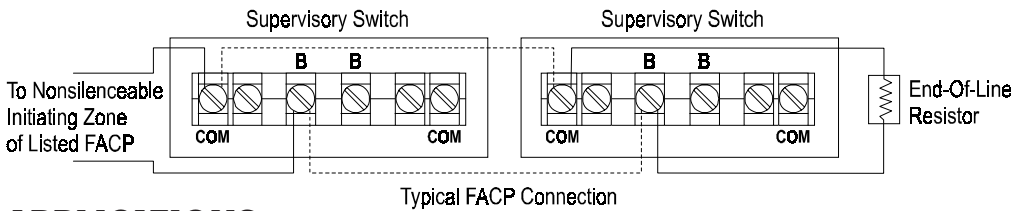
Made in the U.S.A.



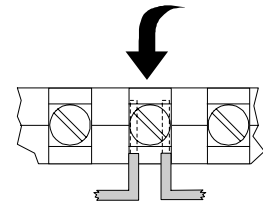
## WIRING DIAGRAMS



← Typical Local Bell Connection



↓ Typical FACP Connection



**BREAK WIRE** as shown for supervision of connection. **DO NOT** allow stripped wire leads to extend beyond switch housing. **DO NOT** loop wires.

## APPLICATIONS

System Sensor Sprinkler Products are specifically designed to meet the stringent performance requirements of sprinkler and fire detection/alarm systems.

## INSTALLATION

Both models are designed for ease of installation and field maintenance. Installation instructions are packaged with each switch. **PIBV2(A) and OSY2(A) may be mounted with the actuator pointing DOWN or HORIZONTAL — mounting the switch with the actuator pointing UP is NOT ACCEPTABLE.**

## ARCHITECTURAL/ENGINEERING SPECIFICATIONS

Post Indicator/Butterfly Valve Supervisory Switch (PIBV2) or Outside Screw-And-Yoke Supervisory Switch (OSY2) shall be installed on each valve as designated on the drawings and/or as specified herein. Switches shall be mounted so as not to interfere with the normal valve operation and shall be adjusted to operate within two revolutions of the valve control or when the stem/valve flag has moved no more than one-fifth of the distance from its normal position. The mechanism shall be contained in a weatherproof die-cast metal housing, which shall provide a 3/4" (1.905

cm) tapped conduit entrance and incorporate the necessary facilities for attachment to the valve. A grounding provision is provided. The switch assembly shall include two switches, each with a rated capacity of 10 Amp @ 125/250 VAC and 2.5 Amp @ 24 VDC. The entire installed assembly shall be tamper-resistant. PIBV2 or OSY2 shall be Underwriters' Laboratories Inc. listed for indoor and outdoor use, and Factory Mutual approved.

## PRODUCT LINE INFORMATION

Model	Description
PIBV2	Post Indicator/Butterfly Valve supervisory switch with two SPDT switches.
PIBV2A	Post Indicator/Butterfly Valve supervisory switch with two SPDT switches ( <i>available only in Canada</i> ).
OSY2	Outside Screw-And-Yoke supervisory switch with a mounting bracket and two SPDT switches.
OSY2A	Outside Screw-And-Yoke supervisory switch with a mounting bracket and two SPDT switches ( <i>available only in Canada</i> ).
544-7000	Tamper kit for OSY2 or PIBV2.