

Size range: 2" - 12"



The SWOSY/2 supervisory switch is used to monitor the open position of an OS&Y gate valve. The switch can be installed easily on gate valves in the range 2" up to 12".

Characteristics

- All parts have corrosion resistant finishes.
- Indoor and outdoor use.
- Two conduit entrances.
- Adjustable length trip rod.
- Three position switch detects tampering and valve closure.
- Fine adjustment feature for fast, easy installation.
- SWOSY/2 is a two SPDT contacts model (single pole, double throw).
- When correctly installed, the switches will be activated.
- Tamper resistant cover screws (tool included).
- Protection class: IP67.
- UL listed and FM approved.

Working temperature

-40°C to +60°C.



Approvals

- FM approved to FM standard 3135.
- UL 346 listed.
- CE certified.

Material specifications

- Aluminum die cast cover, red painted.
- Aluminum die cast base.
- 2 sets of SPDT with the following ratings:
 - 10 Amps at 125/250 V AC.
 - 2.5 Amps at 30 V DC resistive.

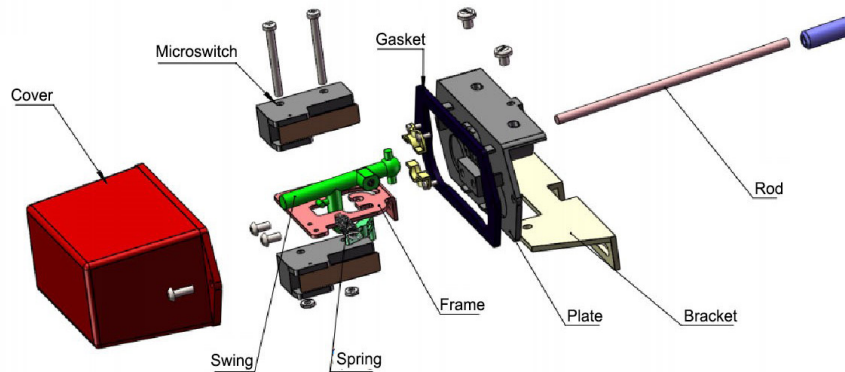


Fig. 1

Dimensions

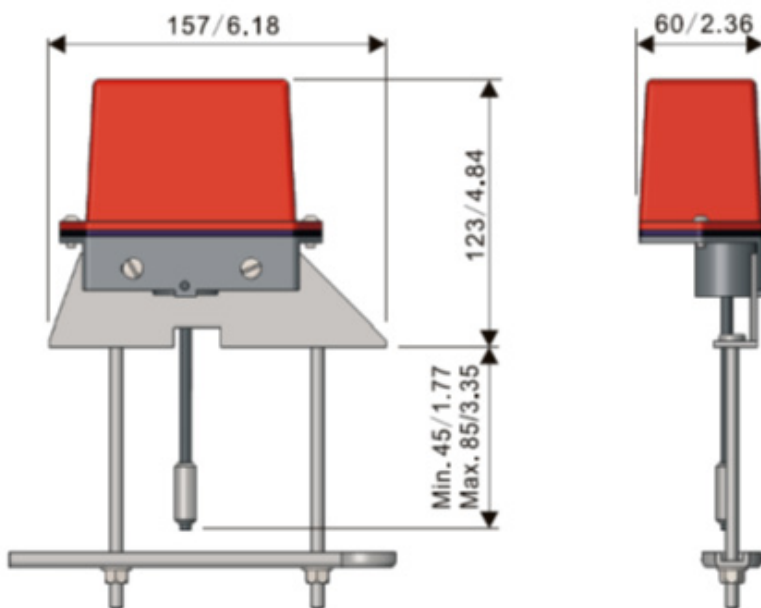


Fig. 2

Operation principle

SWOSY/2 is a switch with 3 switch positions: left, right and center.

The center position is the installation position with trip-rod positioned in the groove of the valve stem when the gate valve is fully in open position.

Closing the valve will cause the trip rod to ride out of the groove and activate the switches.

Removing the SWOSY/2 from the gate valve will cause the trip rod to spring back in the opposite direction activating the switches.

Installation instructions:

1. Installation on small FGOSY valves (2" & 2,5").

Installation - 1/2" Through 2 1/2" Sizes

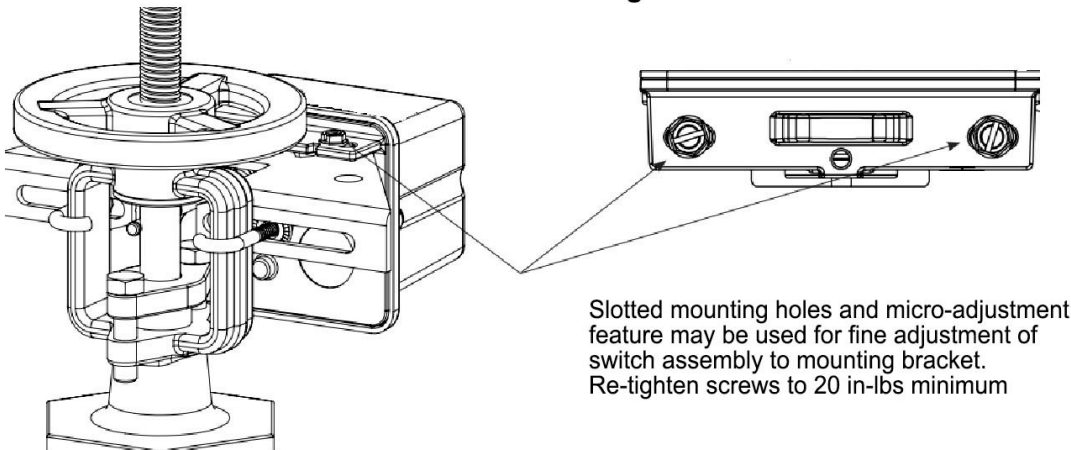


Fig. 3

a. Turn the gate valve in the FULL OPEN position, locate the SWOSY across the valve yoke as far as possible from the valve gland so that the spring loaded trip rod of the SWOSY is pulled against the non-threaded portion of the valve stem. Position the SWOSY with the bracket near the hand wheel as shown in figure 3.

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 0,6 Nm minimum to hold the trip rod in place and properly seal the enclosure.

NOTE : If trip rod length is excessive, it is possible to shorten it with a plier -> break off the one (1) inch long notched section.

c. Mount the SWOSY loosely with the carriage bolts and clamp bar supplied. On valves with limited clearance use the 2 J-hooks (supplied in the box) to mount the SWOSY.

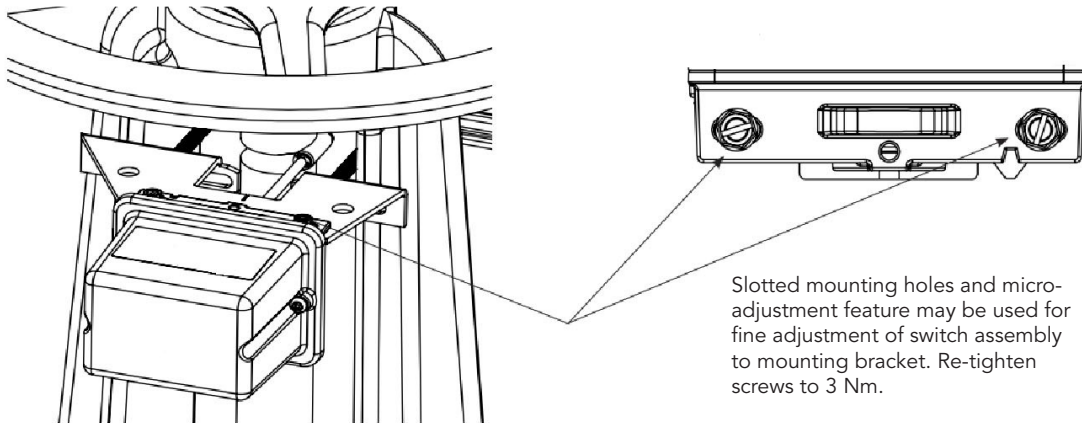
e. Final adjustment can be made by slightly loosening the two screws on the bracket and using the fine adjustment feature (see fig. 3). The adjustment is correct when the plungers on the switches are depressed by the actuator and there is no continuity between the COM and NO terminals on the switches.

f. Tighten the adjustment screws and all mounting hardware securely (3 Nm minimum). Check to insure that the rod moves out of the groove easily and that the switches activate within two turns when the valve is operated from the FULL OPEN towards the CLOSED position.

g. Reinstall the cover and tighten the cover screws to 1,7 Nm minimum to properly seal the enclosure.

2. Installation on larger FGOSY valves (3" up tot 12").

Installation - 3" Through 12" Sizes



- a.** Turn the gate valve in the FULL OPEN position, locate the SWOSY across the valve yoke as far as possible from the valve gland so that the spring loaded trip rod of the SWOSY is pulled against the non-threaded portion of the valve stem. Position the SWOSY with the bracket near the hand wheel as shown in figure 4.
- b.** Mount the SWOSY loosely with the carriage bolts and clamp bar supplied.
- c.** 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 0,6 Nm minimum to hold the trip rod in place and properly seal the enclosure.
- d.** The remaining steps to take (e to g) are identical as for the small gate valves.

TYPICAL ELECTRICAL CONNECTIONS (See fig. 5)

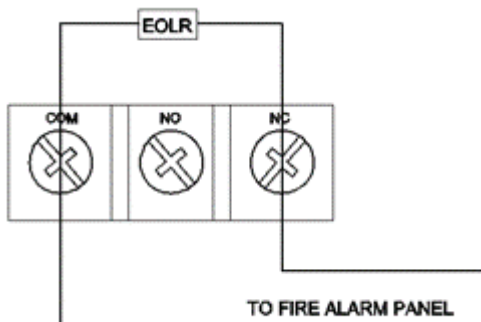


Fig. 5

WHEN OS&Y GATE VALVE CLOSES OR WHEN THE SUPERVISORY SWITCH IS REMOVED (See fig. 6)

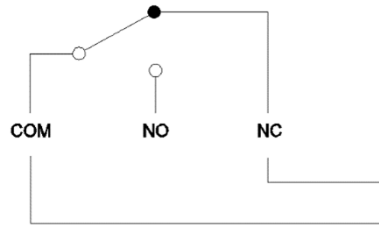
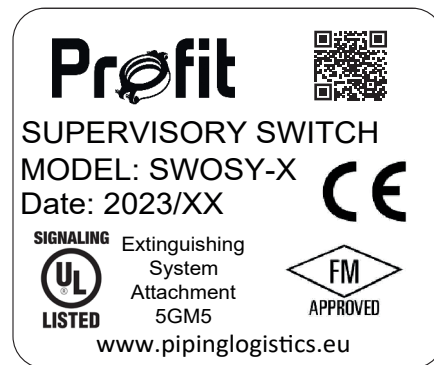


Fig. 6



Marking



GENERAL INFO

- Installers should be trained or experienced to install and understand the product.
- Before installation, carefully check the product on any damage during shipment or handling.
- Read and understand all technical datasheets and installation instructions before attempting to install, remove or adjust any Profit products.
- Check if the pressure rating of the product is compatible with the service conditions.
- Depressurise and drain the sprinkler installation system before attempting to install, remove or adjust any Profit products.
- Never work on piping systems that are pressurised and / or filled with water or pressurised air.
- Piping Logistics reserves the right to change specifications, designs and / or standard equipment without notice and without incurring in any obligations.
- Use the necessary Personal Protection Equipment (PPE) to avoid personal injury (helmet, safety shoes, goggles and gloves).



Failure to follow these instructions could result in property damage, serious injury or death.

Our product must always be stored in closed and dry environments. Once installed on an above ground sprinkler system, they require no specific maintenance.

REVISION TABLE

Date	△	Notes
10/06/2024		Page 1 - The approvals have been added.
17/09/2026	B	Page 1 - Adjustment of the approval standard.