



BLAZE



Supervisory Switch - Plug-in Type

Model : BT-PSP-01

Description:

The BT-PSP-01 Supervisory Switch is a specialized valve-monitoring device designed for situations where standard supervisory switches cannot be used, such as on non-rising stem (NRS) gate valves. Under normal conditions, the switch stays in its set position. When the valve handwheel is turned, the internal plug withdraws from the switch body, activating the contacts and sending a supervisory signal to the fire alarm system.

The device can only be reset once the valve has been returned to its normal position and the reset cover is removed using the supplied tamper-resistant hex key. In accordance with FM and UL requirements, the BT-PSP-01 is intended strictly for special applications where no other approved method of valve supervision is feasible. Because it does not automatically restore the supervisory signal when the valve is reopened, it does not meet NFPA criteria for standard supervisory devices.

The unit must be powered by a UL Listed Class 2 power-limited supply and is suitable only for resistive loads.

Specifications :

Enclosure Rating	NEMA 4- Suitable for Indoor/Outdoor Installation
Conduit Opening	1 x 1/2" Size
Contact Rating	BT-PSP-01: SPDT Plug-in Contacts: 100 mA at 24 VDC/AC 250 mA at 12 VDC/AC SPDT Cover Tamper Contacts: 250 mA VDC/AC
Standards	UL 346 Listed & FM 3135 Approved
Operating Temperature Range:	-40° F to 150°F (-44°C to 66°C)
Screws	Tamper Resistant Cover Screws



Testing :

The BT-PSP-01 Supervisory Switch and its associated monitoring system should be inspected, tested and maintained in accordance with all applicable local and national codes, standards, and the requirements of the Authority Having Jurisdiction (AHJ). The manufacturer recommends testing at least quarterly, or more frequently where required.

To perform a functional test, slowly turn the valve handwheel towards the closed position. The BT-PSP-01 switch should operate within the first two revolutions of the handwheel.

Caution: Ensure the valve is returned to the fully open position before restoring the BT-PSP-01 supervisory switch to normal service.

Wiring Check :

- With the plug connected to the P terminals and fully inserted into the socket, connect an ohmmeter across the C and NO terminals.
- The meter should indicate an open circuit.
- Remove the plug from the socket. The meter should then indicate continuity, confirming correct switch operation.

Note: The two P terminals will always show continuity when the cable is connected, regardless of whether the plug is inserted into the socket.

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.
- Before opening any closed valve, ensure that opening the valve will not cause any damage from water flow due to open or missing sprinklers, piping, etc.

BLAZETECH SYSTEMS LTD.

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Installation :

- Insert the plug into the switch housing.
- Route the free end of the cable through the valve handwheel and back into the housing.
- Adjust the cable length so that the plug is pulled from the housing as soon as the valve begins to close.
- Trim any excess cable and connect the conductors to the plug terminals on the printed circuit board (PCB).
- Do not leave more than 2 inches (50 mm) of excess cable inside the housing.
- Route the wiring around the outer edge of the housing to prevent interference with the tamper switch when the cover is fitted.

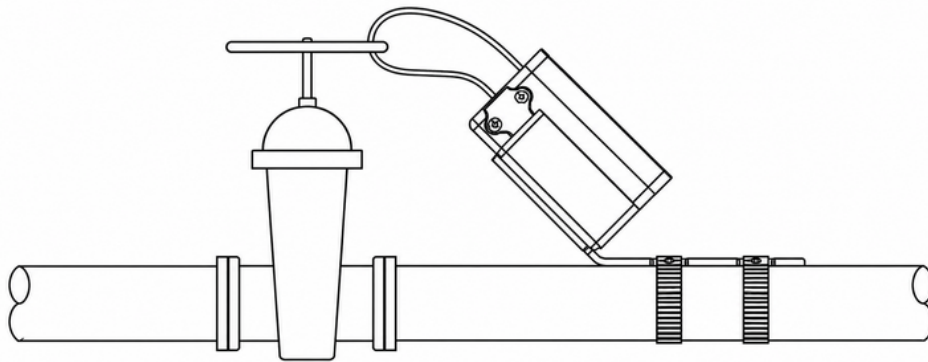
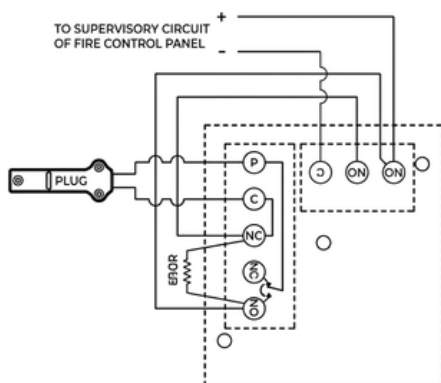


Figure : Installation Illustration - Non Rising Stem Gate Valve

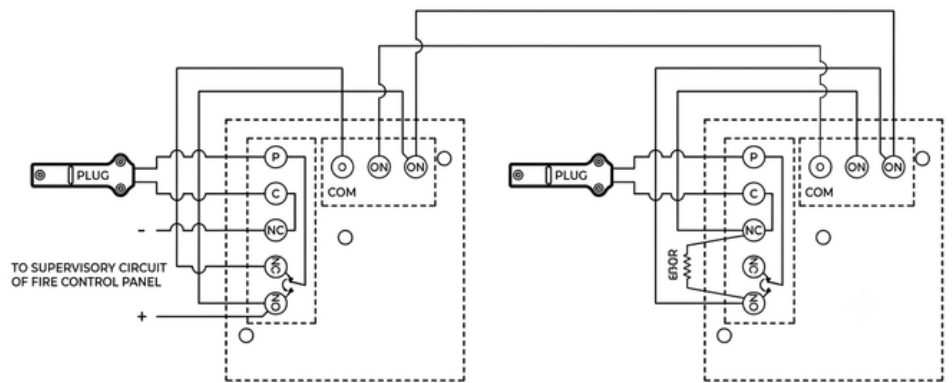
Wiring Diagrams - Plug and Cover Tamper Wired To Same Circuit :

Note: The two P terminals will always show continuity when the plug is connected regardless of whether the plug is inserted or not.

FOR SINGLE DEVICE



FOR MULTIPLE DEVICES



The cover tamper switch can be wired into the plug circuit or wired as a separate circuit. (See wiring diagrams.)

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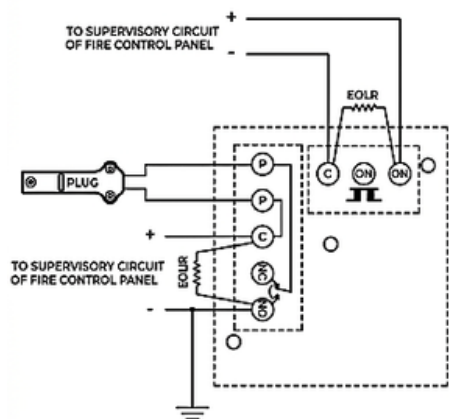


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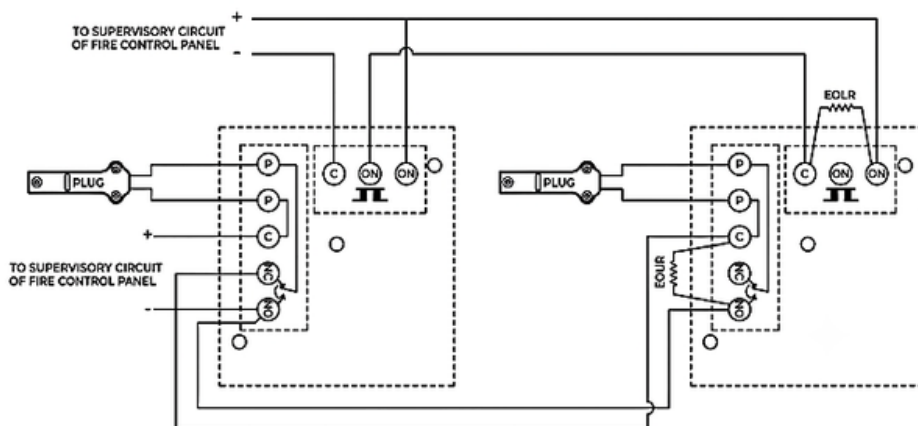
Model : BT-PSP-01

Wiring Diagrams - Plug And Cover Tamper Wired To Separate Circuits :

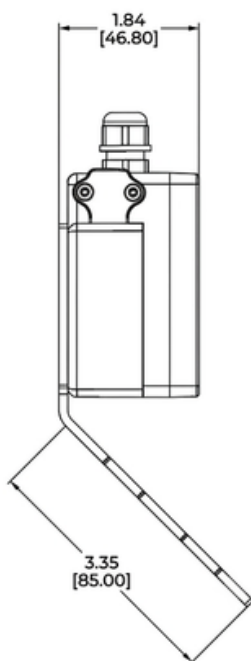
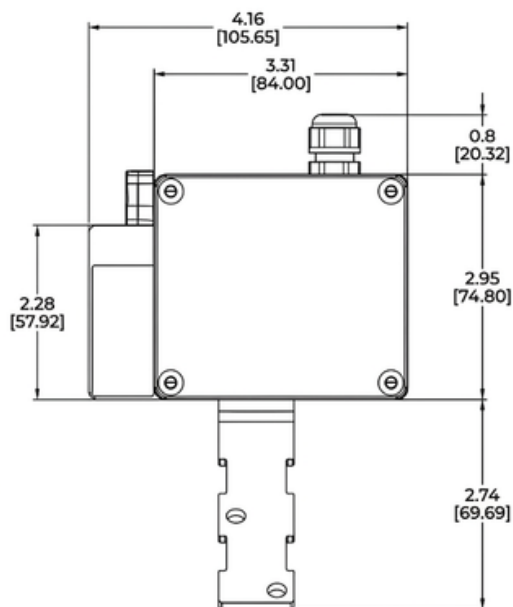
FOR SINGLE DEVICE



FOR MULTIPLE DEVICES



Dimensions :



The cover tamper switch can be wired into the plug circuit or wired as a separate circuit. (See wiring diagrams.)

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