

## DESCRIPTION

### WFDT, WFDTNR T-Tap Waterflow Detectors

The System Sensor WFD (with retard) and WFDTNR (less retard) waterflow detectors are housed in durable, tamper resistant enclosures and are designed for primary signaling in residential and branch line signaling in larger systems.

The units contain a polyethylene vane which is inserted through the tee fitting and connected by a mechanical linkage to the trip mechanism. The detectors have a sensitivity in the range of 4 to 30 gpm and a static pressure rating of 250 psi.

The units fit in any tee that has a 1" NPT branch including: 1", 1 1/4", or 1 1/2" threaded ferrous or brass tee; 1-2" copper sweat tees; 1" CPVC tee; or 1 1/2" polybutylene tee. The detectors come with nine different flexible paddles that fit the specified tees.

The detectors are UL Listed for indoor/outdoor use.

Dual SPDT switches accommodate up to 12 AWG wire.



### WFD Series Vane Type Waterflow Detectors

The System Sensor WFD Series waterflow detectors are equipped with a computer designed paddle or vane which fits Schedule 20 through Schedule 40 steel pipe sizes 2" through 8". They are equipped with a pneumatic retard, can be mounted in a vertical or horizontal position and are suitable for UL Listed outdoor wet pipe sprinkler installations. The detectors have a sensitivity in the range of 4 to 30 gpm and a static pressure rating of 250 psi.

Housed in a durable, enclosure with red epoxy painted metal cover secured by self-guiding security screws, the detectors are resistant to tampering.

The WFD Series is UL Listed for indoor/outdoor use.

Dual SPDT switches accommodate up to 12 AWG wire.



### EPS10-1, EPS10-2 Alarm Pressure Switches

The System Sensor EPS10-1 and EPS10-2 Alarm Pressure Switches are designed for use in wet, dry, deluge, and pre-action automatic sprinkler systems to indicate a discharge from a sprinkler. The switches feature field adjustable pressure sensitivity to provide an alarm response between 4 and 20 psi. It is factory set to respond at 4-8 psi on rising pressure. The pressure adjustment wheel requires no special tools and does not affect switch synchronization on the EPS10-2.

The EPS10 switches are UL Listed for weatherproof use with a NEMA 4 rating.

A single SPDT switch on the EPS10-1 and dual SPDT switches on the EPS10-2 accommodate up to 12 AWG wire.



### OSY2 Supervisory Switch

The System Sensor OSY2 is used to monitor the open position of an OS&Y (outside screw and yoke) type gate valve. The switch is designed to mount easily on most OS&Y valves ranging in size from 1" to 12". The OSY2, without its gate valve bracket, can be used to monitor side-bracket style pressure reducing valves. Its three-position switch gives vandal and valve closed signals.

The OSY2 is UL Listed for indoor/outdoor use.

Dual SPDT switches accommodate up to 12 AWG wire.



### PIBV2 Supervisory Switch

The System Sensor PIBV2 Supervisory Switch monitors the open position of fire sprinkler control valves of the post indicator, butterfly, or other valves. The PIBV2 is designed to operate when the valve position is altered from an open state. The switch can be used for butterfly valves, post indicator valves, wall post mount (with restrictions) recessed wall post valves and many types of pressure reducing valves.

The PIBV2 is UL Listed for indoor/outdoor use.

Dual SPDT switches accommodate up to 12 AWG wire.

### EPS40-1 Low Pressure Supervisory Switch

The System Sensor EPS40-1 Low Pressure Supervisory Switch is designed to detect a 10 psi decrease from normal system pressure in automatic fire protection systems. It is typically used to supervise system air pressure in dry pipe systems or pressure tanks and water pressure supplies of automatic water control valves. It features field adjustable pressure sensitivity between 10 and 100 psi. It is factory set to be used in a nominal 40 psi system with a switch transfer occurring at 30 psi. The pressure adjustment wheel requires no special tools and can be used to adjust the point at which the low switch activates.

The EPS40-1 switch is UL Listed for weatherproof use with a NEMA 4 rating.

The SPDT switch accommodates up to 12 AWG wire.



### EPS120-2 High/Low Pressure Supervisory Switch

The System Sensor EPS120-2 High/Low Pressure Supervisory Switch is designed to detect a 10 psi decrease or increase from normal system pressure in automatic fire protection systems. It is typically used to supervise system air pressure in pipes or pressure tanks and water or air pressure supplies of automatic water control valves. It features field adjustable pressure sensitivity between 10 and 200 psi. It is factory set to be used in a nominal 115 psi system with a switch transfer occurring before 105 psi and a second transfer occurring before 125 psi. The pressure adjustment wheel requires no special tools and can be used to adjust the nominal value of the "window" at which the low and high switches activate.

The EPS120-2 switch is UL Listed for weatherproof use with a NEMA 4 rating.

Dual SPDT switches accommodate up to 12 AWG wire.



## SPECIFICATIONS

### WFD, WFDT, WFDTH, OSY2, PIBV2 Series:

Operating temperature range: 32° F to 120° F (0° C to 49° C)  
 Contact ratings: 10 A @ 125/250 VA, 2.5 A @ 24 VDC  
 Overall dimensions:

WFDT	4.5" H x 3.75" W x 6.7" L	(11.4 cm x 9.5 cm x 17 cm)
WFDTNR	3.75" H x 3.25" W x 4.25" L	(9.5 cm x 8.2 cm x 10.8 cm )
PIBV2	4.25" H x 3.5" W x 3.25" D	(10.8 cm x 8.9 cm x 8.2 cm)
OSY2	5.25" H x 3.5" W x 3.25" D	(14.6 cm x 8.9 cm x 8.2 cm)
WFD (switch body)	3" H x 3.75" W x 6.7" L	(8 cm x 9.5 cm x 17 cm)
Over all width:	WFD20, 25	4.6" (11.7 cm)
	WFD30	5.2" (13.2 cm)
	WFD35	5.7" (14.5 cm)
	WFD40	6.8" (17.3 cm)
	WFD50	7.8" (19.8 cm)
	WFD60	9.0" (22.9 cm)
	WFD80	10.8" (27.4 cm)

### EPS Series:

Contact ratings: 10.0 A, 1/2 HP @ 125/250 VAC, 2.5 A @ 6/12/24 VDC  
 Operating temperature range: -40° F to 160° F (-40° C to 71° C)  
 Dimensions: 5.12" H x 3.325" W x 4.250" L (13.0 cm x 8.4 cm x 10.8 cm)

### PSP-1 Plug-in type switch:

Operating temperature range: -4° F to 149° F (-20° C to 65° C)  
 Dimensions: 4.73" L x 2.94" W x 2.21" D (12 cm x 7.5 cm x 5.6 cm)

## ORDERING INFORMATION

Part No.	Model	Description
117-90000	WFDT	Waterflow Switch, Vane Type, w/retard, for 1, 1 1/4, 1/12" pipe
117-90001	WFDTNR	Waterflow Switch, Vane Type, less retard, for 1, 1/4, 1 1/2" pipe
117-90003	WFD20	Waterflow Switch, Vane Type, w/retard, DPDT, for 2" pipe
117-90004	WFD25	Waterflow Switch, Vane Type, w/retard, DPDT, for 2 1/2" pipe
117-90005	WFD30	Waterflow Switch, Vane Type, w/retard, DPDT, for 3" pipe
117-90006	WFD35	Waterflow Switch, Vane Type, w/retard, DPDT, for 3 1/2" pipe
117-90007	WFD40	Waterflow Switch, Vane Type, w/retard, DPDT, for 4" pipe
117-90008	WFD50	Waterflow Switch, Vane Type, w/retard, DPDT, for 5" pipe
117-90009	WFD60	Waterflow Switch, Vane Type, w/retard, DPDT, for 6" pipe
117-90010	WFD80	Waterflow Switch, Vane Type, w/retard, DPDT, for 8" pipe
117-90011	OSY2	Supervisory Switch, Outside Screw and Yoke
117-90012	PIBV2	Supervisory Switch, Post Indicator/Butterfly valve
117-90013	PSP1	Supervisory Switch, Plug-in (wire leads)
117-90014	EPS10-1	Waterflow Pressure Switch, SPDT, (4-20 psi)
117-90015	EPS10-2	Waterflow Pressure Switch, DPDT, (4-20 psi)
117-90016	EPS40-1	Waterflow Pressure Switch, SPDT, (10-100 psi)
117-90017	EPS40-2	Waterflow Pressure Switch, DPDT, (10-100 psi)
117-90018	EPS120-1	Waterflow Pressure Switch, SPDT, (10-200 psi)
117-90019	EPS120-2	Waterflow Pressure Switch, DPDT, (10-200 psi)