

EN

OPERATION & MAINTENANCE INSTRUCTIONS MANUAL

Vane-type Water Flow Detectors, Threaded Connection

Specifications (UL/FM):

Service Pressure: 450psi
 Flow Sensitivity Range for Signal: 15-37.8L/min (4-10GPM)
 Contact Ratings: 8A at 125/250VAC; 3A at 24VDC; 2.5A at 30VDC
 Operating Temperature Range: 0°C-68°C
 Compatible pipe: steel pipe, schedule 10 ~ 40
 Maximum Surge: 18FPS (5.5m/s)



Specifications (CE):

Service Pressure: 16bar
 Flow Sensitivity Range for Signal: 30-57L/min
 Contact Ratings: 8A at 125/250VAC; 3A at 24VDC;
 Operating Temperature Range: 0°C-68°C
 Maximum Surge: 18FPS (5.5m/s)

UL/ULC Listed, FM Approved, CE Certification

CAUTION!

Vane-type water flow detectors that are monitoring wet pipe systems shall not be used in dry pipe, deluge, or pre-action systems. The surges of water in such systems may break the vane or damage the mechanism. Do not use in potentially explosive atmospheres.

General Information

Water flow detectors are mounted to water-filled pipes in sprinkler systems. It is used on wet sprinkler systems that use 1" (25mm), 1¼" (32mm), 1½" (38mm) or 2"(50mm) pipe size. See Table 1.

Water flow in the pipe deflects a vane, which triggers a switch usually after a specified delay period. All water flow detectors have a pneumatically controlled mechanical delay mechanism. Delays reset if the flow of water stops before the entire delay has elapsed. All switches actuate when the water flow rate is 10 gallons per minute or greater, but will not actuate if the rate is less than 4gallons per minute.

The installation manual covers the following water flow detectors for sprinkler.

Table 1 Detectors sizes

Nominal Pipe Size		Model	Max. Pressure Rating (psig)
DN25	1"	F6001T	450
DN32	1.25"	F6001T	450
DN40	1.5"	F6001T	450
DN50	2"	F6001T	450

Installation Guidelines

NOTE: Do not leave cover off for an extended period of time

1. These devices may be mounted on horizontal or vertical pipes. On horizontal pipe they shall be installed on the top side of the pipe where they will be accessible. Be sure there is adequate clearance for installation and removal. See Fig.1 for mounting dimensions.
2. The device should not be installed within 15cm of a fitting which change the direction of the water flow or within 60cm of a valve or drain.

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3. Thread water flow detectors are designed to fit only the appropriate tee fitting as shown in Fig. 2. Carefully roll the vane opposite the direction of flow and screw the device into the TEE fitting. Care must be taken to properly orient the device for the direction of water flow.
4. The vane must not rub the inside of the TEE or bind in any way. The stem should move freely when operated by hand.

Fig.1 Mounting dimensions

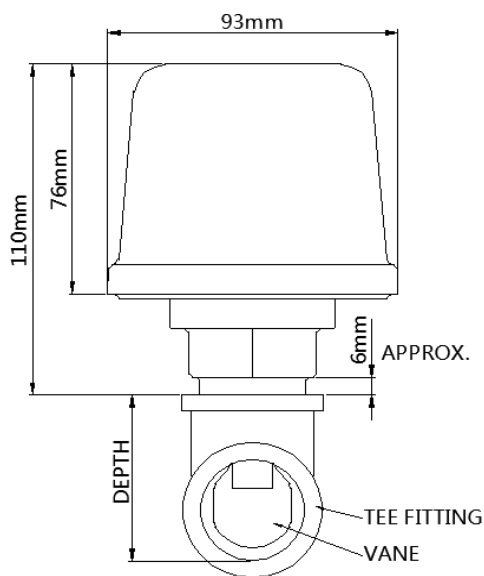
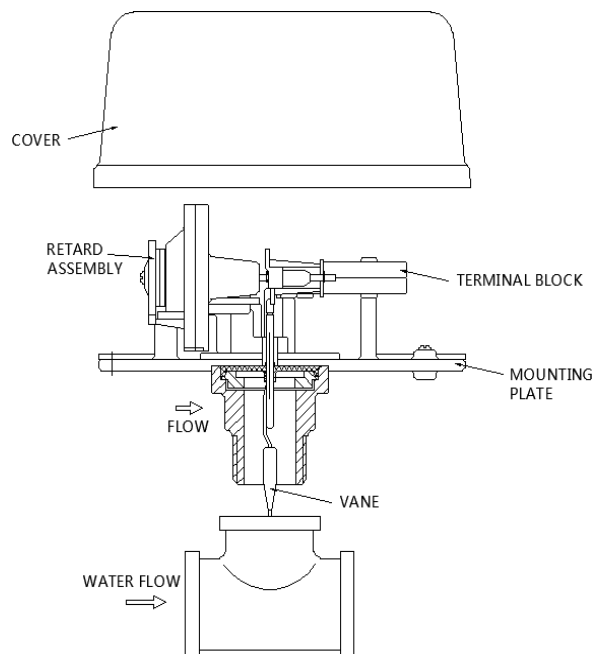


Fig.2 Assembly diagram.



5. If the vane binds, remove the detector and correct the cause before proceeding.
6. Ensure that the direction of arrow on saddle should be consistent with the direction of the water flow.

Notes: The depth to the inside bottom of the tee should have the following dimensions in Table 2.

Table 2 Tee fitting depth

Approximate Depth Requirement	
Tee Size	Threaded/mm
1"×1"×1"	54
1 1/4"×1 1/4"×1"	62.5
1 1/2"×1 1/2"×1"	69
2"×2"×1"	82

Wiring

1. All model have two SPDT switches one can be used to operate a central station, while the other contact is used to operate a local audible or visual annunciator. Switch contacts COM and NO are closed when water is flowing and open when it is not. Connect the switches, as shown in Fig.3, depending on the application. The electrical contact resistance shall not exceed 0.2Ω. And the insulation resistance shall not less than 20MΩ.
2. A ground screw is provided with all water flow detectors. See Fig.4. When grounding is required, clamp wire with screw in hole located between conduit entrance holes.

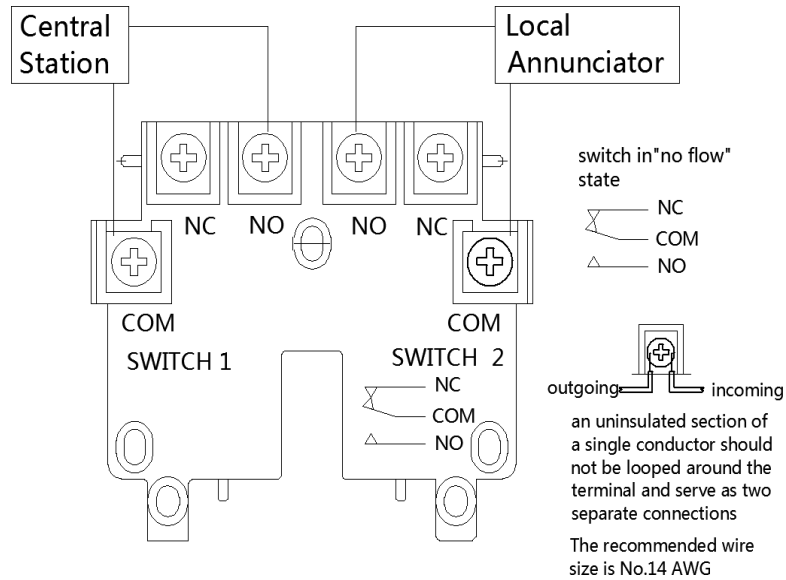
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3. If a second conduit entry is required, remove the knockout plug: Place screwdriver at inside edge of knockouts, not in the center.

Fig.3 Typical electrical connections



Retard Adjustment

The delay can be adjusted by rotating the retard adjustment knob from 0 to max setting. To adjust the setting, turn the adjustment knob clockwise to increase the delay, counterclockwise to decrease it. The time delay should be set at the minimum required to prevent false alarms.

Maintenance

Inspect detectors monthly. If leaks are found, replace the detector.

Fig.4 Ground screw

