



# Waterflow Alarm Switch

## VSR-SFT

### Technical Features

- **Service pressure** : Up to 12 bar (175 psi)
- **Minimum Flow Rate for Alarm** : 30-38 lpm / 8-10 gpm
- **Maximum Surge** : 5.5 m/s, 18 ft/s
- **Switch Contacts** : Two sets of Single Pole Double Throw (SPDT) Form C switch contacts.  
15.0 A @ 125/250 VAC and 2.0 A @ 30 VDC on resistive load.
- **Enclosure** : Cover - Die cast with red powdercoat finish
- **Connection** : 1" NPT Male Fitting for screwing into a CPVC female threaded plastic TEE, copper threaded TEE or schedule 40 threaded TEE.
- **Conduit Entrance** : Requires NEMA Type 4 conduit hub for outdoor installations. Two conduit entrances provided for DN15/ 1/2".
- **Environmental Specifications** : Indoor or outdoor use ; Temperature Range : 4.5°C (40°F) to 49°C (120°F) ; NEMA 4/IP45 Rated Enclosure - when used with proper conduit fittings. (Not for use in hazardous locations)
- **Tamper Protection** : Cover held in place by two tamper resistant screws which require a special key for removal (reference : VSRFKEY). A cover tamper switch is available as an option, which may be used to indicate unauthorized removal of the cover.
- **Usage** : Listed plastic (CPVC), copper and schedule 40 iron pipe. Fits pipe sizes 1", 1 1/4", 1 1/2" and 2".



### VSR-SFT

### Physical Data

Reference	Tee Size	Approx. Depth Requirement			
		Thread	Sweat	Polybut.	CPVC
VSR-SFT	1" x 1" x 1"	2 1/16"	1 3/4"	N/A	2 7/16"
	1 1/4" x 1 1/4" x 1"	2 7/16"	2 7/16"	N/A	N/A
	1 1/2" x 1 1/2" x 1"	2 11/16"	2 1/4"	2 1/2"	N/A
	2" x 2" x 1"	3 3/16"	2 3/4"	N/A	N/A

### Retard Adjustment :

To change time, turn knob (either direction) for desired time delay. Use the minimum amount of retard necessary to prevent false alarms.  
A "B" setting is usually adequate for this. Factory set at "B".

Approx. retard settings (sec)					
0	A	B	C	D	E
0	10-25	20-40	35-55	50-70	60-90

### Installation

This device can be mounted in a horizontal or vertical position. Do not install the device within 15cm (6") of a valve, drain, or fitting which changes the direction of the water flow. The unit has a 1" NPT male fitting for threading into a non corrosive TEE. See Figure 1 for proper TEE size, type an installation. There are 7 paddles furnished with each device. The paddles have raised lettering that shows the pipe size and the TEE manufacturer they are to be used with. Select the appropriate paddle according to the pipe TEE used. The proper paddle must be used. Attach the paddle to the device as shown in Figure 3 and securely tighten the screw. Loosen the union nut and separate the 1" NPT fitting from the VSR-SFT. Apply Teflon tale to the 1" NPT male threads and screw the 1" male fitting into the female threaded TEE as shown in Figure 1. Re attach the VSR-SFT to the 1" NPT fitting first verifying that the O-ring is properly positioned in its groove. Hand tighten the nut on the union after orienting the device in the appropriate direction of flow (See Fig. 2). DO NOT OVER TIGHTEN.

**Note:** The 1" male fitting must bottom out on the stop of the TEE for proper operation.  
**IMPORTANT:** The vane must not rub the inside of the TEE or bind in any way.

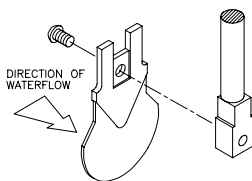
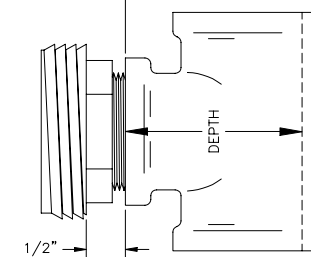


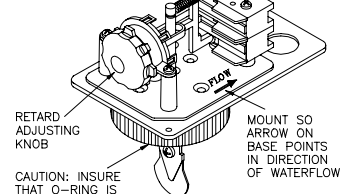
Figure 3

7-11/16"  
(MINIMUM CLEARANCE  
REQUIRED FOR  
INSTALLATION OR  
REMOVAL OF DEVICE)

Figure 1



DO NOT LEAVE COVER  
OFF FOR EXTENDED  
PERIOD OF TIME



CAUTION: INSURE  
THAT O-RING IS  
IN O-RING GROOVE  
BEFORE INSTALLING  
SWITCH.

RUN OF THE  
TEE MAY BE  
THREADED OR  
SWEAT TYPE

DIRECTION OF  
WATERFLOW

RETARD  
ADJUSTING  
KNOB

MOUNT SO  
ARROW ON  
BASE POINTS  
IN DIRECTION  
OF WATERFLOW

1" NPT  
THREADED  
FITTING ON  
ALL SIZES

Figure 2

Waterflow Switches for CPVC Pipe