The Model VS-SP is a vane type water flow switch for use on wet sprinkler systems. These devices may be used as sectional flow indicators on large sprinkler systems and on smaller sprinkler systems such as mobile homes and residential dwellings. The VS-SP does not have a retard to prevent false alarms due to water surges. Therefore it should NOT be used on systems with variable water pressure supplies except in the case of elevator recall.

Installation
These devices may be mounted in horizontal or vertical pipe. On horizontal pipe they should be installed on the top side of the pipe where they will be accessible. The units should not be installed within 6" (15cm) of a valve, drain or fitting which changes the direction of the water flow. Select the proper paddle for the pipe size and type of TEE used. See Fig. 1 for instructions on how to change the paddle. The unit has a 1" NPT bushing for threading into a non-corrosive TEE.

See Fig. 2 for proper TEE size, type and installation. Use no more than three wraps of teflon tape as thread lubricant. Screw the device into the TEE fitting as shown in Fig. 2. Care must be taken to properly orient the device for the direction of waterflow. The vane must not rub the inside of the TEE or bind in any way. The stem should move freely when operated by hand.

Testing
Check the operation of the unit by opening the inspector’s test valve at the end of the sprinkler line, or the drain and test connection if a test valve is not provided. If there are no provisions for testing the operation of the flow detection device on the system, application of the VS-SP is not recommended or advisable.

WARNING
Install VS-SP in systems that are not subject to variable water pressure. Failure to do so will result in false alarms.

CAUTION
This device is not intended for applications in explosive environments.
Testing
The frequency of inspection and testing for the Model VS-SP and its associated protective monitoring system should be in accordance with applicable NFPA Codes and Standards and/or the authority having jurisdiction (manufacturer recommends quarterly or more frequently).

An uninsulated section of a single conductor should not be looped around the terminal and serve as two separate connections. The wire must be severed, thereby providing supervision of the connection in the event that the wire becomes dislodged from the terminal.

Note: The Model VS-SP has one SPDT switch. An optional second switch is available if required. For example, one switch would connect to an annunciator panel, and the optional switch could be used to operate a local bell. Order Switch Kit No. 0090013.

WARNING
Due to the possibility of unintended discharges caused by pressure surges, trapped air, or short retard times, workflow switches that are monitoring wet pipe sprinkler systems shall not be used as the sole initiating device to discharge AFFF, deluge, or chemical suppression systems.