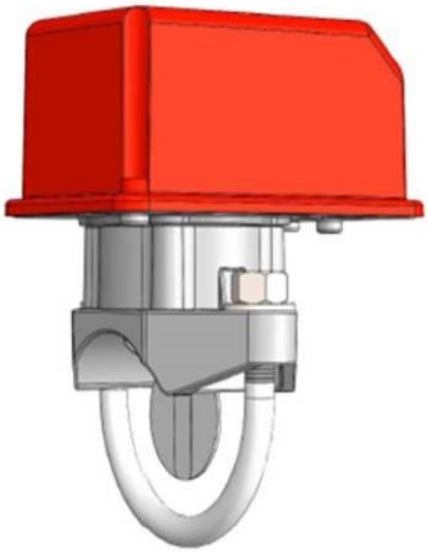
KSFCO SPRINKLER®

KSWFD Series

UL/FM Water Flow Detector with Retard

Features

- **UL Listed, FM Approved.**
- Rating Working Pressure: UL-Max 300PSI (2.1MPa)/ FM-Max 450PSI(3.1MPa)
- Flow Sensitivity Range for Signal: 4-10GPM (15.0-37.5L/min)
- Maximum Surge: 18FPS (5.5m/s)
- Contact Ratings: Two sets of SPDT (Form C)
  10.1Amps at 125/250 VAC
  2.0Amps at 24 VDC
- Operating Temperature Range: 40º F to 120ºF (4.5ºC to 49ºC)
- Enclosure Rating: NEMA 4- suitable for indoor/outdoor use
- Conduit Entrances: Two opening for 1/2" conduit
  One open, one knock-out type
- Compatible Pipe: Steel water pipe, schedule 10 through 40
- Service Use: Automatic Sprinkler: NFPA-13
  One or Two Family Dwelling: NFPA-13D
  Residential Occupancies up to 4 stories: NFPA-13R
  National Fire Alarm Code: NFPA-72
- Warranty: 3 Years
- COVER Material: Plastic. Alternative Material aluminum Die-casting



FM APPROVED

UL S36631 LISTED

⚠ 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.
- Risk of explosion. Not for use in hazardous locations. Serious injury or death could result.

Important: This document contains important information on the installation and operation of KSWFD series water flow detector. Please read all instructions carefully before beginning installation. A copy of this document is required by NFPA 72 to be maintained on site.

Engineering Specifications

The KSWFD water flow detectors shall be installed on system piping as designated on the drawing and/or as specifiec shall mount on any clear pipe span of the appropriate nominal size, either a horizontal or vertical pipe. The detectors range of 4-10 gallons per minute and a static pressure rating up to 450psi for 2"-8" (50mm thru 200mm) pipes. The d flow in the specified direction after a preset time delay that is field adjustable. The retard structure shall be a sealed m visual time delay adjustment.

Installation

The KSWFD water flow detectors may be mounted on horizontal or vertical pipe. On horizontal pipe they should be installed on the top side of the pipe where they will be accessible. The devices should not be installed within 6"(150mm) of a fitting which changes the direction of the waterflow or within 24"(600mm) of a valve or drain.

Drain the system and drill a hole in the pipe using a circular saw in a slow speed drill. The 2"(50mm) and 2 1/2"(65mm) devices require a hole with a diameter of 1-1/4"±0.08"(31.8mm±2mm). All other sizes require a hole with a diameter of 2" ±0.08" (50.8mm±2mm).

Clean the inside pipe of all growth or other material for a distance equal to the pipe diameter on either side of the hole.

Roll the vane so that it may be inserted into the hole; do not bend or crease it. Insert the vane so that the arrow on the saddle points in the direction of the waterflow.

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

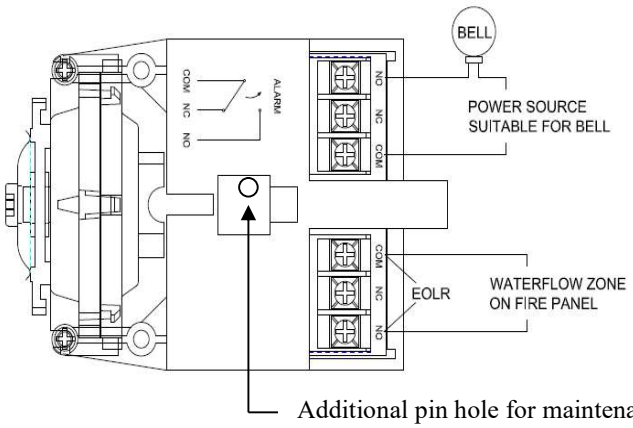
Retard Adjustment: The delay can be adjusted by rotating the retard adjustment knob from 0~Max position (0~90 secs). Factory setting is position 2 (Delay time is approximate 30 seconds). The time delay should be set at the minimum required to prevent false alarms.

KSWFD Series

UL/FM Water Flow Detector with Retard

Field Typical Electrical Connections:

Notes:
KSWFD series Waterflow detector have two switches, one can be used to operate a central station, proprietary or remote signaling unit, while the other contact is used to operate a local device or visual annunciator.



This additional pin hole would allow the wrench (coming with the device) to insert into it and temporarily stop the device from functioning causing false alarm during the maintenance. When the wrench is in there, it also prevents the red device cover to be re-installed.

Testing:

The frequency of inspection and testing for the KSWFD waterflow detector and its associated protective monitoring system shall be in accordance with applicable NFPA Codes and Standards and/or the authority having jurisdiction (manufacturer recommends quarterly or more frequently).

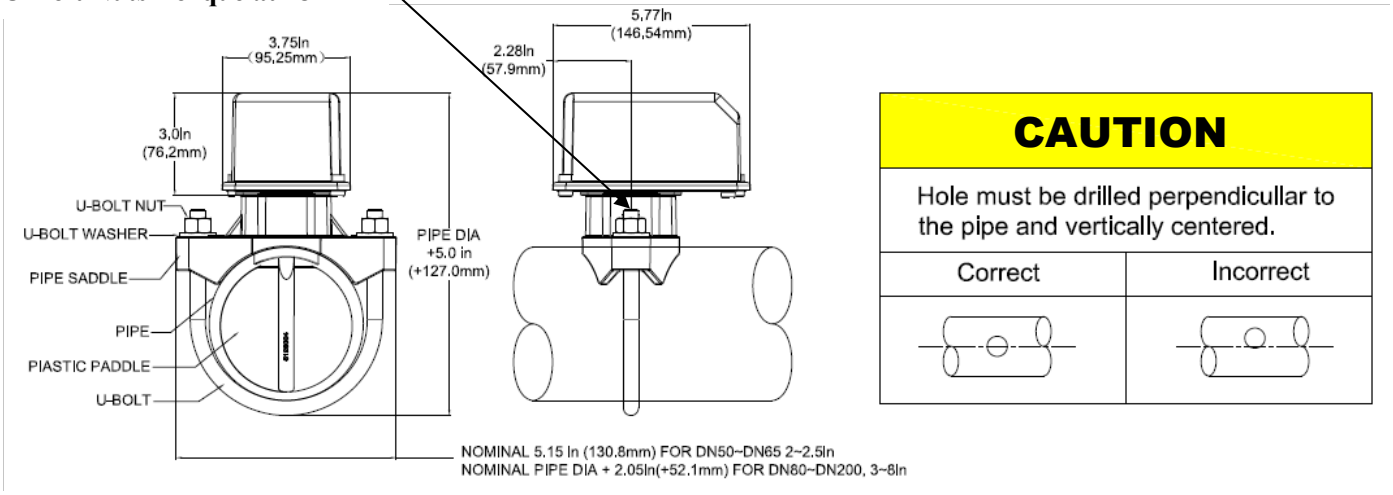
If provided, the inspector's test valve shall always be used for test purposes. If there are no provisions for testing the operation of the flow detection device in the system, application of the KSWFD is not recommended or advisable.

Ordering Information:

Model	Nominal Pipe Size		Weight (kg)
KSWFD 2	2"	DN50	1.35
KSWFD 2.5	2.5"	DN65	1.35
KSWFD 3	3"	DN80	1.40
KSWFD 4	4"	DN100	1.45
KSWFD 6	6"	DN150	1.85
KSWFD 8	8"	DN200	2.42

Mounting Dimensions:

U-Bolt Nuts Torque at 28 n-m



NOTE: Please make sure the SADDLE GASKET on the correction direction before installation.