

WFD Series Waterflow Detector



The System Sensor WFD Series vane-type waterflow detector, with a computer designed paddle, fits Schedule 10 through Schedule 40 steel pipe sizes 2" through 8" . The design of this unit makes it easy to install and simple to maintain. It can be mounted in a vertical or horizontal position and is suitable for indoor and UL-listed outdoor wte-pipe sprinkler installations. **Switch assembly and delay mechanism assembly are field replaceable.** Advanced features include:

Sealed Retard

Assures that the adjustable retard is not contaminated by dust and dirt when the cover is removed.

Visual Switch Activation

Permits installer to accurately set the retard even under extremely noisy conditions.

Mechanical Delay

Adjustment

The pneumatic delay is preset at dial setting 2 in the factory. To adjust the delay, move the adjustment dial to the desired number.

Rugged Switch

Assembly

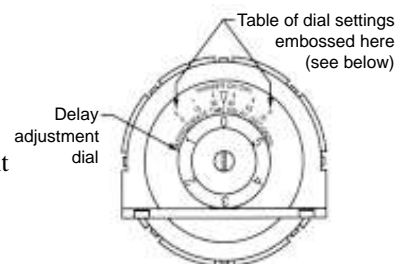
Switches are enclosed in a durable terminal block for added strength. Accommodates up to 12 AWG wire.

100% Synchronization

Activates both alarm panel and local bell at the same time.

Durable Tamper Resistant Enclosure

Red epoxy painted metal cover completely encloses the electrical components to keep out dust and dirt. Improved self-guiding security screws and removal tool make detector resistant to tampering; wiring diagram inside cover simplifies field maintenance.



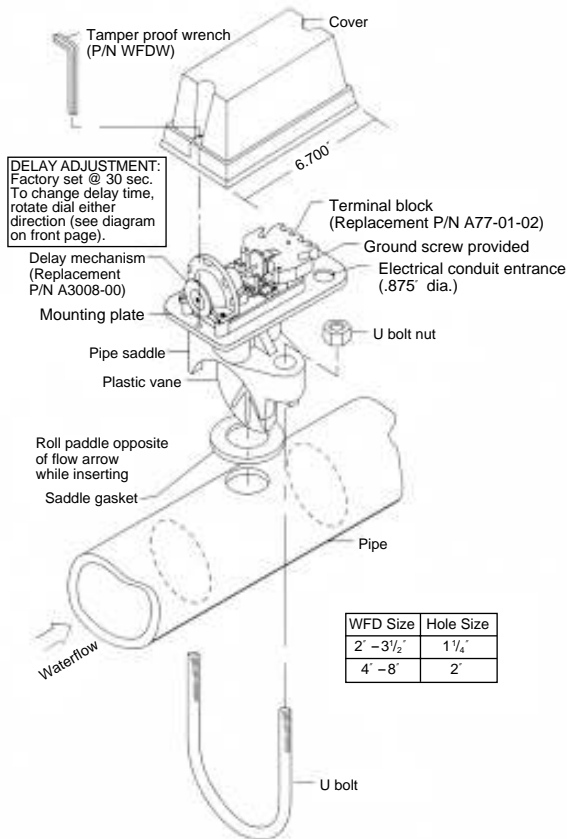
Dial setting	0	1	2	3	4	5
Delay (seconds)	0	15	30	45	55	70

Specifications

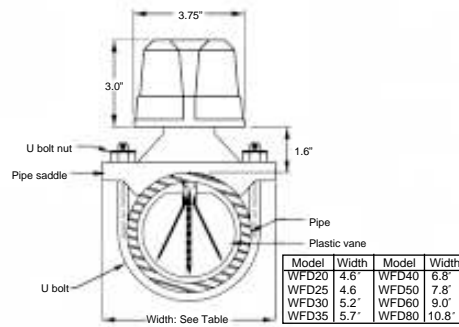
Static Pressure Rating: 250 PSI (Max.)
 Triggering Threshold
 Bandwidth (Flow Rate): 4-10 GPM
 Maximum Surge: 18 FPS
 Compatible Pipe: Steel water pipe, schedule 10 through 40
 Contact Ratings: Two sets of S.P.D.T. (Form C) 10.0 A @ 125/250 VAC 2.5 A @ 24 VDC
 Overall Dimensions: See figure on back
 Conduit Entrances: Two openings for 1/2" conduit
 Operating Temperature Range: 32] to 120] (0 荳 to 49 荳)
 Sizes Available: For schedules 10 through 40, sizes 2 through 8"

Cover Tamper Switch: Optional model 546-7000
 Shipping Weight: Varies, 3-7 lbs., according to size
 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

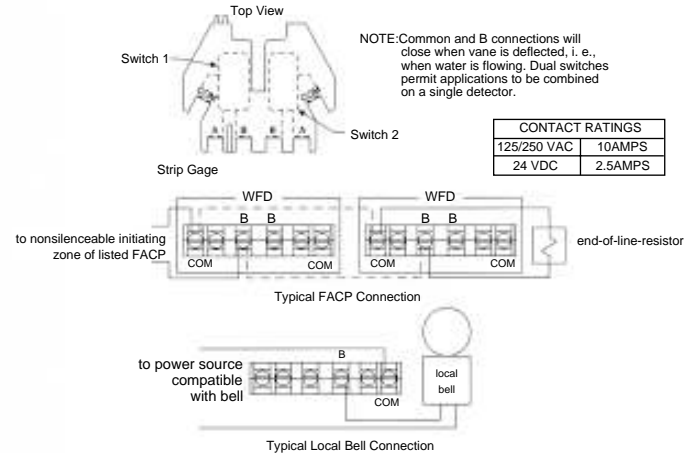




WFD Assembly Diagram



WFD Dimensions



WFD Field wiring Diagram

Engineer / Architect Specifications: WFD Waterflow Detectors

Vane-type waterflow detectors shall be installed on system piping as designated on the drawings and/or as specified herein. Detectors shall mount on any clear pipe span of the appropriate nominal size, either a vertical upflow or horizontal run, at least 6" from any fittings which may change water direction, flow rate, or pipe diameter or no closer than 24" from a valve or drain. Detectors shall have a sensitivity in the range of 4 to 10 gallons per minute and a static pressure rating of 250 psi for 2" - 8" pipes. The detector shall respond to waterflow in the specified direction after a preset time delay which is field adjustable. The delay

mechanism shall be a sealed mechanical pneumatic unit with visual indication of actuation. The actuation mechanism shall include a polyethylene vane inserted through a hole in the pipe and connected by a mechanical linkage to the delay mechanism. Outputs shall consist of dual SPDT switches (form C contacts). Two conduit entrances (one of which is a knockout type) for standard fittings of commonly used electrical conduit shall be provided on the detectors. A grounding provision is provided. All detectors shall be listed by Underwriters Laboratories for indoor or outdoor use.

Ordering Information

WFD20 Waterflow Detector, Schedule 10/40, 2" (50mm)
 WFD25 Waterflow Detector, Schedule 10/40, 2 1/2" (65mm)
 WFD30 Waterflow Detector, Schedule 10/40, 3" (80mm)
 WFD35 Waterflow Detector, Schedule 10/40, 3 1/2"
 WFD40 Waterflow Detector, Schedule 10/40, 4" (100mm)
 WFD50 Waterflow Detector, Schedule 10/40, 5"
 WFD60 Waterflow Detector, Schedule 10/40, 6" (150mm)
 WFD80 Waterflow Detector, Schedule 10/40, 8" (200mm)
 A3008-00 Replacement Dealy Mechanism for WFD 2" - 8" sizes

A77-01-02 Replacement Terminal Block for WFD
 546-7000 Cover Tamper Switch Kit for WFD
 S07-66-02 Replacement Tamper Screws for Cover of WFD
 WFDW Replacement Tamper Proof Wrench for Cover of WFD
 C58-164-01 Replacement Metal Cover
 WFDN4 NEMA4 Gasket Kit
 *ULC version designated with "A" following the model number and factory installed with cover tamper switch.

System Sensor Worldwide Manufacturing & Distribution

System Sensor Headquarters
 3825 Ohio Avenue
 St. Charles, IL 60174
 Ph: 800-SENSOR2
 Fx: 630/377-6495
 Documents on Demand:
 1-800-736-7672 x 3
 Web: www.systemsensor.com

System Sensor - China
 28 Tuan Jie South Road, Xi'an National
 Hi-tech Industrial Development Zone,
 Province of Shaanxi, 710075, CHINA
 Ph: ++ 86.29.8832.0119
 Sales Ph: ++ 86.29.8833.2810 8833.2827
 Fx: ++ 86.29.8832.5110 8833.2959
 Web: www.systemsensor.com.cn
 E-mail: sales@systemsensor.com.cn

System Sensor - Canada
 Ph: ++ 1.905.812.0767
 Fx: ++ 1.905.812.0771
System Sensor - Singapore
 Ph: ++ 65.273.2230
 Fx: ++ 65.273.2610
System Sensor - Australia
 Ph: ++ 613.54.281.142
 Fx: ++ 613.54.281.172

System Sensor - Far East
 Ph: ++ 852.2191.9003
 Fx: ++ 852.2736.6580
System Sensor - Europe
 Ph: ++ 44.1403.276500
 Fx: ++ 44.1403.276501
System Sensor - India
 Ph: ++ 91.124.637.1770 Extn 2700
 Fx: ++ 91.124.637.3118