

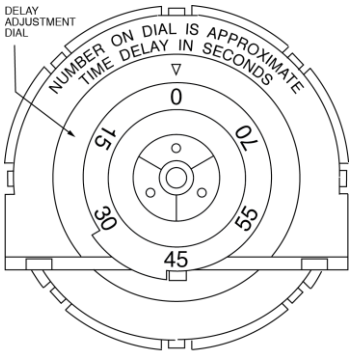
The System Sensor WFD series is compatible with schedule 10 through 40 steel pipe, sizes 2˝ through 8˝, and can be mounted in a vertical or horizontal position.

Robust Construction.
The WFD series consists of a rugged, NEMA 4-rated enclosure. Designed for both indoor and outdoor Use, the WFD series operates across a wide temperature range, from 32 ℉ to 120 ℉.

Reliable Performance.
UL-listed models are equipped with Tamper-Resistant cover screws to Prevent unauthorized entry. Inside, two sets of SPDT (Form C) Synchronized Switches are enclosed in a durable Terminal block to assure reliable performance.

False Alarm Immunity.
The WFD series incorporates a mechanical retard feature, which minimizes the risk of False alarm due to pressure surges or air Trapped in the sprinkler system. In addition, The mechanical retard's unique sealed design Is immune to dust and other contaminants.

Simplified Operation.
The WFD series is designed to simplify installation. Two conduit openings permit easy attachment to the Local alarm system. The retard mechanism and dual SPDT switches are field-replaceable.



NOTE: RETARD TIME MAY EXCEED 90 SECONDS. ADJUST AND VERIFY THAT TIME DOES NOT EXCEED 90 SECONDS. NUMBER ON DIAL IS APPROXIMATE TIME DELAY IN SECONDS WITH AN ACCURACY OF +/– 50%.

Features

- Two-inch mounting hole provided in new WFD30-2 models
- UL-listed models are NEMA 4 rated
- Sealed retard mechanism immune to dust and other contaminants
- Visual switch activation
- Field-replaceable retard mechanism and SPDT switches
- Rugged, dual SPDT switches enclosed in a durable terminal block
- Accommodates up to 12 AWG wire
- Designed for both indoor and outdoor use
- 100 percent synchronization activates both alarm panel and local bell
- Tamper-resistant cover screws

Standard Specifications

Static Pressure Rating:	UL: 450 PSI (Max.) FM: 450 PSI (Max.) (WFD20/25/30-2/40/50) 400 PSI (Max.) (WFD60/80)
Triggering Threshold Bandwidth (Flow Rate):	4-10 GPM
Maximum Surge:	18 FPS
Compatible Pipe:	Steel water pipe, schedule10 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 ½ Conduit
Operating Temperature Range:	32 ℉ to 120 ℉ (0 ℃ to 49 ℃)
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

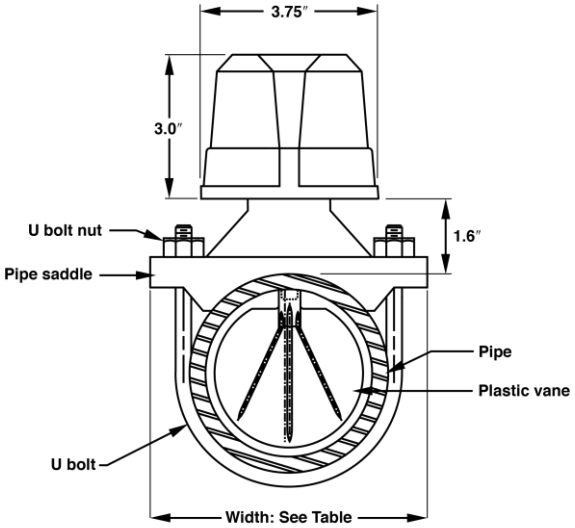
Agency Listing

FM APPROVED

UL

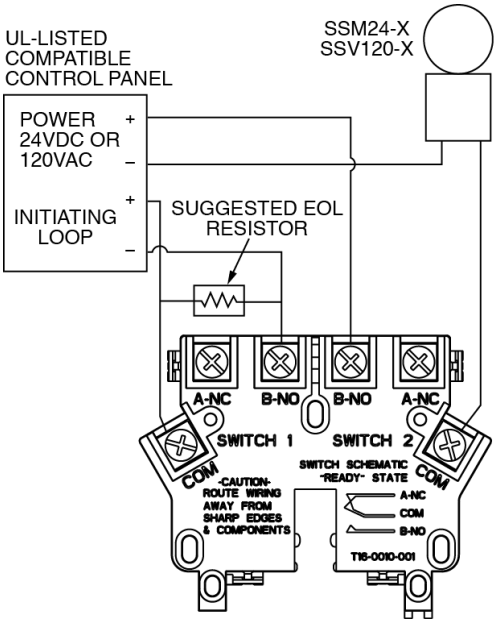
Dimensions & Wiring Diagram

WFD Dimensions



Model	Width	Model	Width
WFD20	4.6″	WFD50	7.8″
WFD25	4.6″	WFD60	9.0″
WFD30-2	5.2″	WFD80	10.8″
WFD40	6.8″		

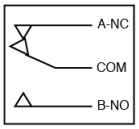
WFD Wiring



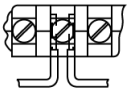
NOTE: COMMON AND B-NO CONNECTIONS WILL CLOSE WHEN VANE IS DEFLECTED, I.E., WHEN WATER IS FLOWING. DUAL SWITCHES PERMIT APPLICATIONS TO BE COMBINED ON A SINGLE DETECTOR.

CONTACT RATINGS	
125/250 VAC	10 AMPS
24 VDC	2.5 AMPS

SCHEMATIC OF INDIVIDUAL SWITCH IN "NO WATERFLOW" CONDITION



BREAK WIRE AS SHOWN FOR SUPERVISION OF CONNECTION. DO NOT ALLOW STRIPPED WIRE LEADS TO EXTEND BEYOND SWITCH HOUSING. DO NOT LOOP WIRES.



Engineering Specifications

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 450 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

Model	Product Description	Model	Product Description
WFD20	Waterflow Detector, Schedule 10/40, 2″ （50mm）	A3008-00	Replacement Delay Mechanism for WFD 2-8″ sizes
WFD25	Waterflow Detector, Schedule 10/40, 2½ （65mm）	A77-01-02	Replacement Terminal Block For WFD
WFD30-2	Waterflow Detector, Schedule 10/40, 3″ （80mm）	546-7000	Cover Tamper Switch Kit for WFD
WFD40	Waterflow Detector, Schedule 10/40, 4″ （100mm）	S07-66-02	Replacement Tamper Screws for Cover of WFD
WFD50	Waterflow Detector, Schedule 10/40, 5″	WFDW	Replacement Tamper Proof Wrench for Cover of WFD
WFD60	Waterflow Detector, Schedule 10/40, 6″ （150mm）	C58-164-01	Replacement Metal Cover
WFD80	Waterflow Detector, Schedule 10/40, 8″ （200mm）	WFDN4	NEMA4 Gasket Kit

SYSTEM SENSOR®

System Sensor Headquarters
3825 Ohio Avenue
St. Charles, IL 60174
Ph: 630-377-6580
Fx: 630-377-6495
Free Phone: 800-736-7672
Web: www.systemsensor.com

System Sensor China
28 Tuan Jie South Road,
Hi-Tech Development Zone
Xi'an, 710075, China
Ph: +86 29 88320119
Fx: +86 29 88325110
Web: www.systemsensor.com.cn

System Sensor Canada
Ph: 905-812-0767
Fx: 905-812-0771

System Sensor Europe
Ph: 44 (0) 1527 406700
Fx: 44 (0) 1527 406699

System Sensor Italy
Ph: 39 040 949 0111
Fx: 39 040 382 137

System Sensor Mexico
Ph: 54 11 4324-1909
Fx: 54 11 4324-5999

System Sensor Far East Ltd
Ph: 852 21919003
Fx: 852 27366580

System Sensor Singapore
Ph: 65 6273 2230

System Sensor India
Ph: 91 124 2371770-270
Fx: 91 124 2373118

System Sensor Australia
Ph: 61-3-5428 1142
Fx: 61-3-5428 1172

Copyright by Xi'an System Sensor Electronics LTD.