

## WATERFLOW DETECTOR

### Waterflow Detector Threaded / Model WFDTH



#### Features

- Residential sprinkler systems
- Sealed retard mechanism
- Visual switch activation
- Rugged, dual SPDT switches enclosed in a durable terminal block
- Easy to install and maintain design
- Vertical or horizontal mount
- Field replaceable retard mechanism and switch assembly
- Twelve different flexible paddles
- Durable, tamper resistant enclosure
- Two conduit openings
- Handy depth gauge
- Accommodates up to 12 AWG wire
- 100% synchronization fires alarm panel and local bell simultaneously

**Design.** The design of the WFDTH makes it easy to install and simple to maintain. It can be mounted in the vertical or horizontal position. Two conduit openings permit easy attachment to the local alarm system. The retard mechanism and switch assembly are fieldreplaceable.

**Features.** Twelve different flexible paddles fit 1", 1.1", 1.2", and 2" tees. Sizes are marked clearly on the paddle for ease of installation. Plastic paddles slip over the actuating lever and are securely fastened with one screw. The handy depth gauge insures the proper installation depth and clearance of the detector to the tee.

**Construction.** The WFDTH includes a durable and tamper resistant enclosure. Its sealed retard assures that the delay mechanism is not contaminated by dust and dirt when the cover is removed. The long lasting cover completely encloses the electrical components to further keep out dust and dirt. Improved self-guiding security screws and removal tools make detectors resistant to tampering and simplify field maintenance.

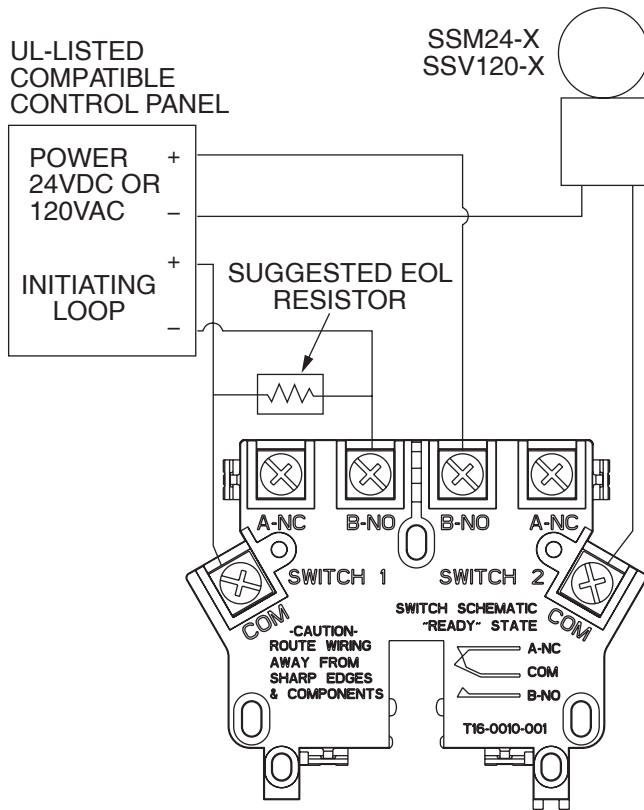
#### Specifications

<b>Static Pressure Rating</b>	: 250 PSI (max.)
<b>Maximum Surge</b>	: 18 FPS
<b>Triggering Threshold Bandwidth (Flow Rate)</b>	: 4–10 GPM
<b>Overall Dimensions, Installed</b>	: 11.4cm H × 9cm W × 17cm L
<b>Contact Ratings</b>	: Two sets of SPDT (Form C) — 10.0 A @ 125/250 VAC — 2.5 A @ 24 VDC
<b>Compatible Tee Fittings</b>	: Threaded ferrous and brass tees, copper Sweat tees, CPVC tees, and polybutylene tees
<b>Conduit Entrances</b>	: Two openings for ½" conduit
<b>Operating Temperature Range</b>	: 32°F to 120°F (0°C to 49°C)
<b>Enclosure Rating</b>	: UL listed for indoor use
<b>Cover Tamper Switch</b>	: Canadian models only, factory installed
<b>Service Use</b>	: 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
<b>Shipping Weight</b>	: 1.2 kg



# WATERFLOW DETECTOR

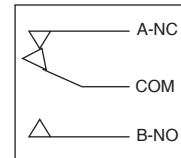
## Wiring Diagram



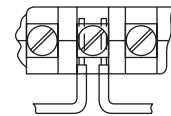
**NOTE:** COMMON AND B-NO CONNECTIONS WILL CLOSE WHEN VANE IS DEFLECTED, I.E., WHEN WATER IS FLOWING. DUAL SWITCHES PERMIT APPLICATIONS TO BE COMBINED ON A SINGLE DETECTOR.

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

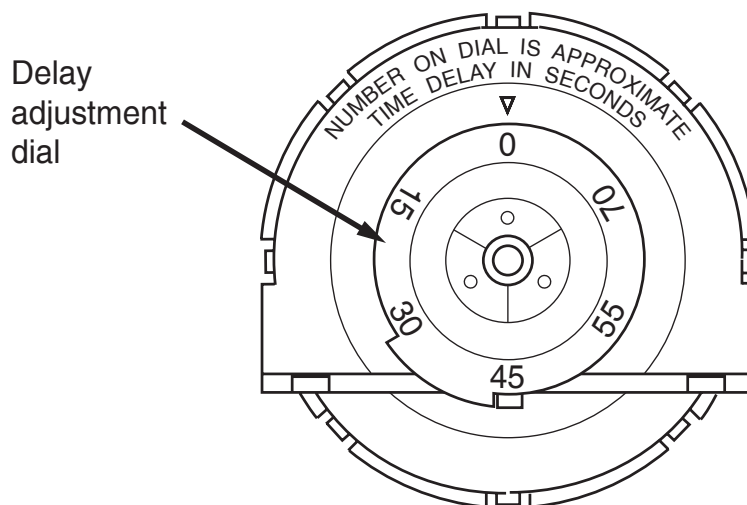
SCHEMATIC OF INDIVIDUAL SWITCH IN "NO WATERFLOW" CONDITION



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



## Delay Adjustment Dial



**NOTE:** Retard time may exceed 90 seconds.  
Adjust and verify that time does not exceed 90 seconds.

## WATERFLOW DETECTOR

### Waterflow Detector U Bolted / Model WFD



#### Features

- UL-listed models are NEMA 4 rated
- The 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.
- 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

**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°F to 120°F.

**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.

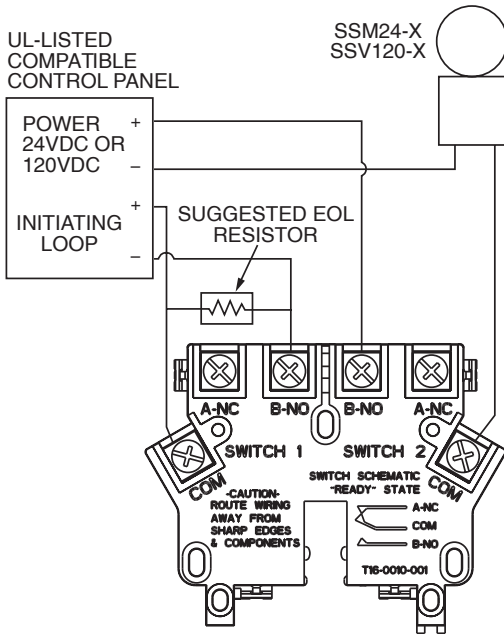
#### Specifications

<b>Static Pressure Rating</b>	: 450 PSI*
<b>Maximum Surge</b>	: 18 FPS
<b>Triggering Threshold Bandwidth (Flow Rate)</b>	: 4–10 GPM
<b>Conduit Entrances</b>	: Two openings for ½" conduit. One open, one knock-out type
<b>Contact Ratings</b>	: Two sets of SPDT (Form C) — 10.0 A @ 125/250 VAC — 2.5 A @ 24 VDC
<b>Compatible Pipe</b>	: Steel water pipe, schedule 10 through 40
<b>Operating Temperature Range</b>	: 32°F to 120°F (0°C to 49°C)
<b>Enclosure Rating*</b>	: NEMA4 - Suitable for indoor/outdoor use
<b>Cover Tamper Switch</b>	: Standart with ULC models, optional for UL models, part no. 546-7000
<b>Service Use</b>	: 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



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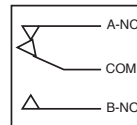
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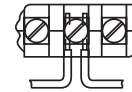
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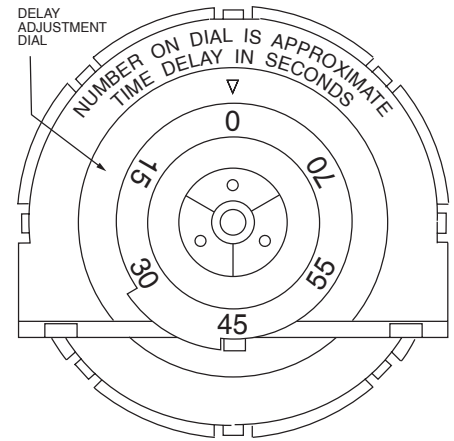
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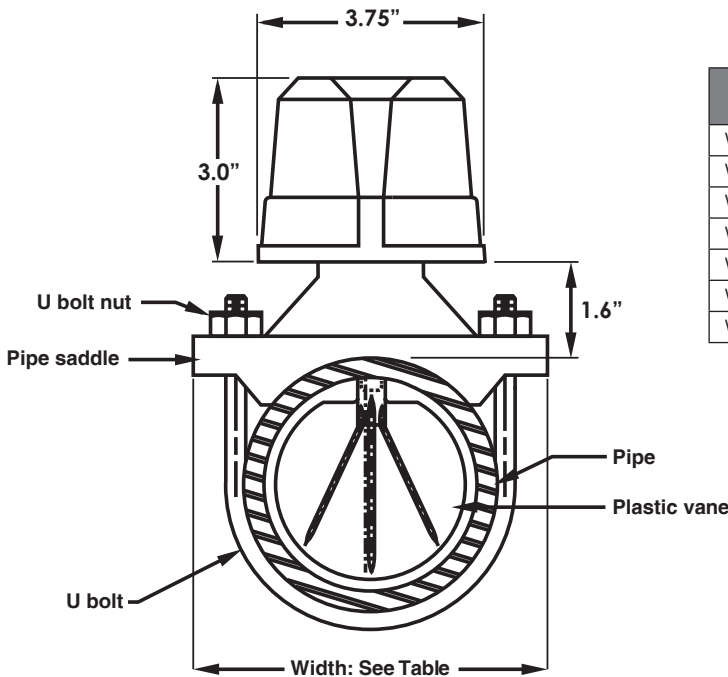


## Delay Adjustment Dial



**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%.

## Dimensions



Model	Pipe Size (inch)	Hole Size (inch)	Width (inch)	Weight (kg)
WFD20	2"	1 1/4"	4,6"	1,9
WFD25	2 1/2"	1 1/4"	4,6"	1,95
WFD30-2	3"	2"	5,2"	2,04
WFD40	4"	2"	5,7"	2,36
WFD50	5"	2"	6,8"	2,86
WFD60	6"	2"	9,0"	3,08
WFD80	8"	2"	10,8"	3,4