

# WFDA Series Waterflow Detector



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## Available Models

WFD20A	WFD50A
WFD25A	WFD60A
WFD30-2A	WFD80A
WFD40A	

## Replacement Parts

A3008-00	Retard Mechanism
A77-01-02	Terminal Block
546-7000	Cover Tamper Switch Kit
WFDW	Cover Wrench
WFDN4	Replacement gasket kit

**NEW WFDA30-2 models install  
in 2" hole sizes**



## Features

**ULC models are NEMA 4 rated**

**Sealed retard mechanism assures that the retard is not contaminated by dust and dirt when the cover is removed**

**Visual switch activation permits installer to accurately set retard under noisy conditions**

**Rugged, dual SPDT switches are enclosed in a durable terminal block**

**Accommodates up to 12 AWG wire**

**100% synchronization activates both alarm panel and local bell simultaneously**

**System Sensor's WFDA 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 WFDA series consists of a rugged, NEMA 4 rated enclosure. Designed for both indoor and outdoor use, the WFDA series operates across a wide temperature range, from 32°F to 120°F.

**Reliable Performance.** ULC 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 WFDA 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 WFDA 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.



**National Fire Equipment Ltd.**

Head Office: (905) 761-6355  
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## Engineering Specifications

Vane-type waterflow detectors shall be installed on system piping as designated on the drawing 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 for standard fittings of commonly used electrical conduit shall be provided on the detectors. A grounding provision is provided. Unless noted, enclosures shall be NEMA 4 listed by Underwriters Laboratories Inc. All detectors shall be listed by Underwriters Laboratories Inc. for indoor or outdoor use.

## Standard Specifications

**Static Pressure Rating**  
450 PSI

**Triggering Threshold Bandwidth (Flow Rate)**  
4-10 GPM

**Maximum Surge**  
18 Feet Per Second (FPS)

**Compatible Pipe:**  
Steel water pipe, schedule 10 through 40

**Contact Ratings**  
Two sets of SPDT (Form C)  
10.0 A, 1/2 HP @ 125/250 VAC  
2.5 A @ 6/12/24 VDC

**Overall Dimensions Installed:**

**Conduit Entrances**

Two openings for 1/2" conduit. One open, one knock-out type

**Operating Temperature Range**

32°F to 120°F (0°C to 49°C)

**Enclosure Rating\***

NEMA 4 - suitable for indoor/outdoor use

**Cover Tamper Switch**

Standard with ULC models  
Optional for UL models, part no. 546-7000

**Shipping Weight**

WFD20A: 4.2 lbs.      WFD40A: 5.2 lbs.  
WFD25A: 4.3 lbs.      WFD50A: 6.3 lbs.  
WFD60A: 6.8 lbs.

WFD30-2A: 4.5 lbs.      WFD80A: 7.5 lbs.

**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

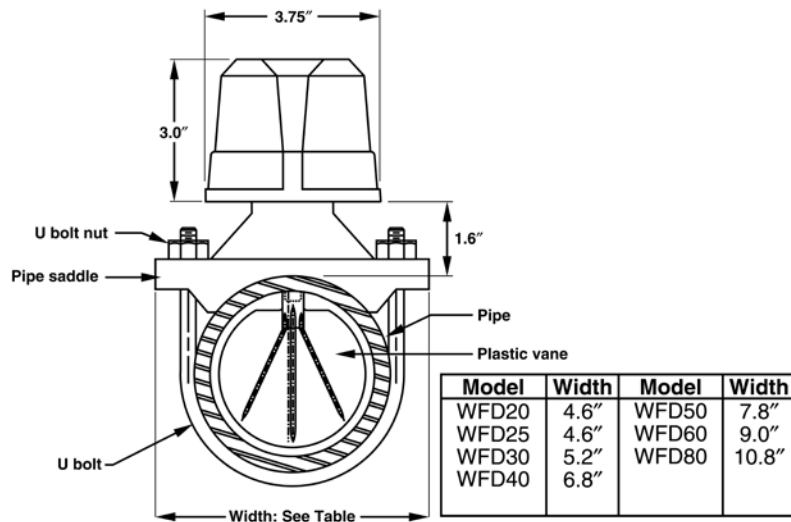
**U.S. Patent Numbers**

3,845,259  
4,782,333  
5,213,205

## Ordering Information

ULC/Canadian Model Numbers	Pipe Size	Hole Size
WFD20A	2"	1 1/4"
WFD25A	2 1/2"	1 1/4"
WFD30-2A	3"	2"
WFD40A	4"	2"
WFD50A	5"	2"
WFD60A	6"	2"
WFD80A	8"	2"

Part Number	Description
A3008-00	Retard mechanism
A77-01-02	Terminal block
546-7000	Tamper proof switch kit
WFDW	Tamer proof wrench for cover
WFDN4	Gasket kit



## System Sensor Sales and Service

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**System Sensor Headquarters USA**  
Ph: 630-377-6674  
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**System Sensor in China**  
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**System Sensor in Sing**  
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