

WFDE Series Waterflow Detector



Models Available

- WFD20E
- WFD25E
- WFD30-2E
- WFD40E
- WFD60E
- WFD80E



Product Overview

Compliant with Construction Products Directive

EC Certificate Number 0786-CPD-40151

WFD30-2E models install in 50.8mm (2") hole sizes

IP54 rated enclosure

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 the retard even under extremely noisy conditions

Rugged, dual SPDT switches are enclosed in a durable terminal block for added strength

100% synchronization activates both alarm panel and local bell simultaneously

System Sensor's WFDE series is compatible with pipe diameters ranging from 50mm through 200mm and can be mounted in a vertical or horizontal position.

Robust Construction. The WFDE series consists of a rugged, IP54 rated enclosure. Designed for both indoor and outdoor use, the WFDE series operates across a wide temperature range, from 0°C to 49°C (32°F to 120°F).

Reliable Performance. WFDE 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 ensure reliable performance.

False Alarm Immunity. The WFDE 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 WFDE 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.



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Engineering Specifications

Vane-type System Sensor WFDE series 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 15 cm (6 in.) from any fittings, which may change water direction, flow rate or pipe diameter, or no closer than 61 cm (24 in.) from a valve or drain. 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. WFDE waterflow detectors shall be approved by Factory Mutual, LPC, VdS and SSL.

Standard Specifications

Static Pressure Rating

LPC: 17.25 BAR (250 PSI)
VdS: PN10 (16 BAR, 145 PSI)

Triggering Threshold Bandwidth (Flow Rate)

LPC: 20–57 liters/minute
VdS: 30–57 liters/minute

Contact Ratings

Two sets of SPDT (Form C)
10.0 A @ 125/250 VAC
2.5 A @ 24 VDC

Conduit Entrances

Two openings 22.2mm (.875 in.) diameter. One open, one knock-out type

Operating Temperature Range

0°C to 49°C (32°F to 120°F)

Enclosure Rating

IP54

Shipping Weight

WFD20E: 1.85 kg (4.08 lb.)
WFD25E: 1.85 kg (4.08 lb.)

WFD30-2E: 2.05 kg (4.53 lb.)

WFD40E: 2.36 kg (5.20 lb.)

WFD60E: 3.03 kg (6.68 lb.)

WFD80E: 3.45 kg (7.70 lb.)

U.S. Patent Numbers

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

Warranty

3 Years

Compatible Pipe

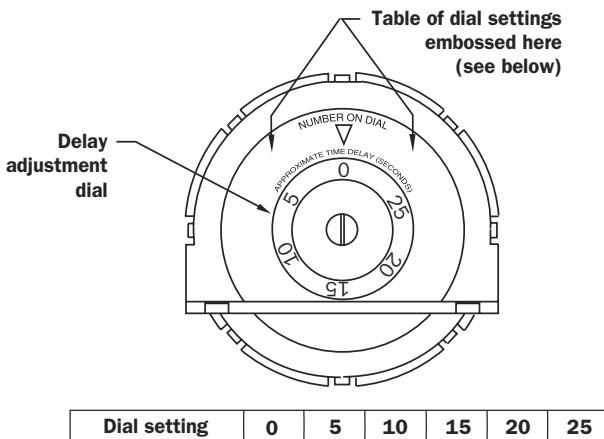
Model	Ref. Pipe Size mm (in.)	Nominal Pipe O.D. (mm)		Wall Thickness (mm)	
		LPC	VdS	LPC	VdS
WFD20E	50 (2)	60.3	60.3	3.6	2.3/2.9
WFD25E	65 (2½)	76.0	76.1	3.6	2.6/2.9
WFD30-2E	80 (3)	88.8	88.9	4.0	2.9/3.2
WFD40E	100 (4)	114.1	114.3	4.5	3.2/3.6
WFD60E	150 (6)	165.1	168.3	5.0	4.0/4.5
WFD80E	200 (8)	219.1	219.1	6.3	4.5/5.9

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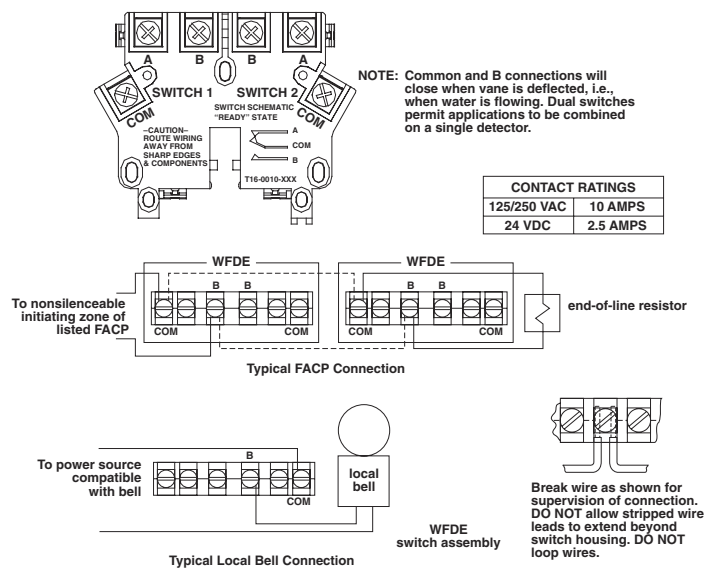
Ordering Information

Model Numbers	Pipe Size	Hole Size
WFD20E	50mm (2")	31.8mm (1¼")
WFD25E	65mm (2½")	31.8mm (1¼")
WFD30-2E	80mm (3")	50.8mm (2")
WFD40E	100mm (4")	50.8mm (2")
WFD60E	150mm (6")	50.8mm (2")
WFD80E	200mm (8")	50.8mm (2")

Delay Adjustment Dial



WFDE Field Wiring Diagram



System Sensor Sales and Service

System Sensor Headquarters

3825 Ohio Avenue
St. Charles, IL 60174
Ph: 800/SENSOR2
Fx: 630/377-6495
www.systemsensor.com

System Sensor Canada

Ph: 905.812.0767
Fx: 905.812.0771

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System Sensor – Australia

Ph: 613.54.281.142
Fx: 613.54.281.172

System Sensor – India

Ph: 91.124.237.1770 x.2700
Fx: 91.124.237.3118

System Sensor – Russia

Ph: 70.95.937.7982
Fx: 70.95.937.7983