



WFDE Series Waterflow Detector

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.

Features

- 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



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 68°C (32°F to 155°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.

Agency Listings



Waterflow Detector Specifications

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: PN16 (16 BAR, 232 PSI)
Triggering Threshold Bandwidth (Flow Rate)	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 68°C (32°F to 155°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

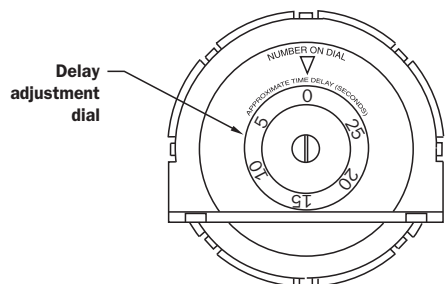
Compatible Pipe

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

Shipping Weight

Model	WFD20E WFD25E	WFD30-2E	WFD40E	WFD60E	WFD80E
	1.85 kg (4.08 lbs.)	2.05 kg (4.53 lbs.)	2.36 kg (5.20 lbs.)	3.03 kg (6.68 lbs.)	3.45 kg (7.70 lbs.)

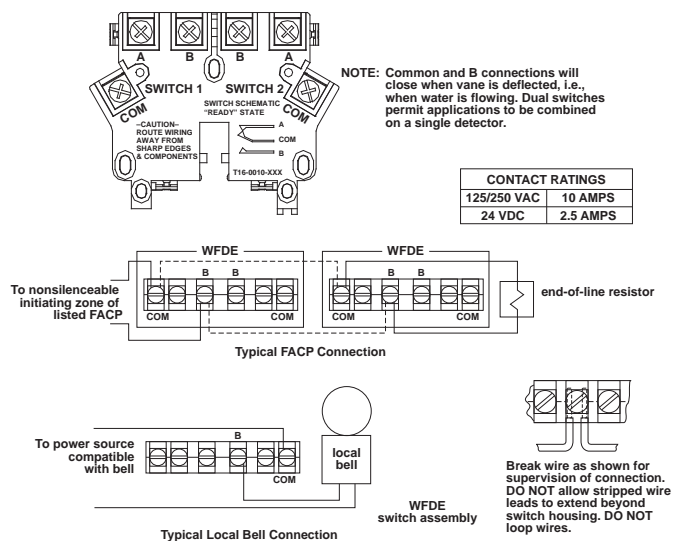
Delay Adjustment Dial



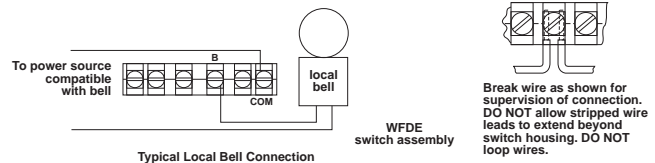
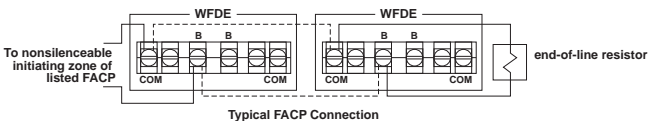
Dial setting	0	5	10	15	20	25
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Dial setting equals delay in seconds. Reference only.

WFDE Field Wiring Diagram



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



Ordering Information

Model	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")