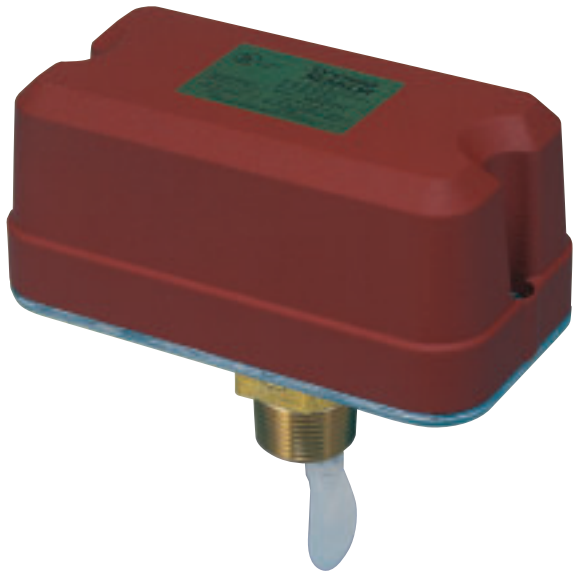
WFDTH
Waterflow Detector



The System Sensor WFDTH Retard T-Tap Waterflow Detector is designed for primary signaling in residential systems and fits within 2×4 stud wall construction.

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

The WFDTH fits any tee that has a 1˝ NPT branch, including: 1˝, 1¼˝, 1½˝, and 2˝ NPT threaded ferrous and brass tees; 1˝, 1¼˝, 1½˝ and 2˝ copper sweat tees; Central, Spears®, and Victaulic® brand 1˝ CPVC tees; and 1½˝ polybutylene tees.

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 field-replaceable.

Features. Twelve different flexible paddles fit 1˝, 1¼˝, 1½˝, 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.

Agency Listings

UL LISTED S739

ULC CS169

7770-1653:114

MEA approved 167-93-E

WFDTH Specifications

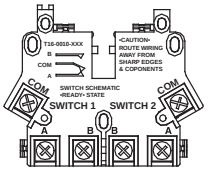
Architectural/Engineering Specifications

Model shall be a WFDTH as manufactured by System Sensor. T-tap waterflow detectors shall be installed on a tee that has a 1˝ NPT branch including: 1˝, 1¼˝, 1½˝, or 2˝ threaded ferrous or brass tee; 1–2˝ copper sweat tees; Central, Spears®, and Victaulic® brand 1˝ CPVC tees; or 1½˝ polybutylene tee as designated on the drawings and/or as specified herein. Detectors shall mount on any clear pipe span of the appropriate size, either a vertical or horizontal run at least 6˝ from any fittings or valves 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 250 psi. The retard t-tap detector shall be a sealed mechanical pneumatic unit with visual indication of actuation. The actuation mechanism shall include a polyethylene vane inserted through the tee fitting 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. WFDTH is listed by Underwriters Laboratories for indoor use.

Physical/Operating Specifications

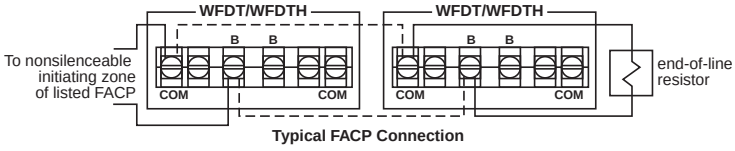
Static Pressure Rating	250 PSI (max.)	**Operating Temperature Range**	32°F to 120°F (0°C to 49°C)
Maximum Surge	18 FPS	**Enclosure Rating**	UL listed for indoor use
Triggering Threshold Bandwidth (Flow Rate)	4–10 GPM	**Cover Tamper Switch**	Canadian models only, factory installed
Overall Dimensions, Installed	4.5˝ H × 3.55˝ W × 6.7˝ L (11.4cm H × 9cm W × 17cm L)	**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
Contact Ratings	Two sets of SPDT (Form C) 10.0 A @ 125/250 VAC 2.5 A @ 24 VDC	**Shipping Weight**	2.6 lbs. (1.2 kg.)
Compatible Tee Fittings	Threaded ferrous and brass tees, copper sweat tees, CPVC tees, and polybutylene tees	**Warranty**	3 years
Conduit Entrances	Two openings for ½˝ conduit.	**U.S. Patent Numbers**	3,845,259; 4,782,333; 5,213,205

Electrical Connections

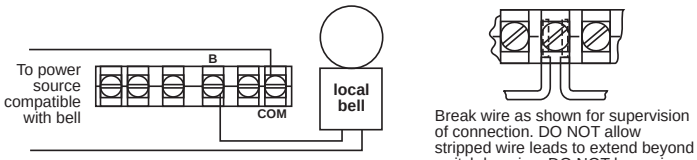


NOTE:
Common and B connections will close when vane is deflected, i.e., when water is flowing. Dual switches permit applications to be combined on a single detector.

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



Typical FACP Connection

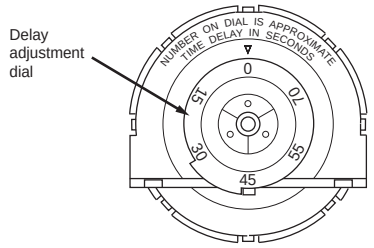


Typical Local Bell Connection

Break wire as shown for supervision of connection. DO NOT allow stripped wire leads to extend beyond switch housing. DO NOT loop wires.

WFDT, WFDTH switch assembly

Delay Adjustment Dial



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

Ordering Information

UL Model No.	ULC/Canadian Model No.	Description
WFDTH	WFDTHA	Waterflow Detector, Fits 1˝, 1¼˝, 1½˝, 2˝ ferrous and brass threaded tees; 1˝, 1¼˝, 1½˝, 2˝ copper sweat tees; 1˝ CPVC tees; and 1½˝ polybutylene tees

Accessories

A77-01-02	Replacement terminal block for WFDTH	S07-66002	Replacement tamper screws for covers of WFDTH
PRK9	Replacement paddle kit – 12 paddles for WFDTH (see WFDTH for sizes included)	WFDW	Replacement tamper proof wrench for cover of WFDTH
A3008-00	Replacement retard mechanism	C58-0009-000	Replacement metal cover

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