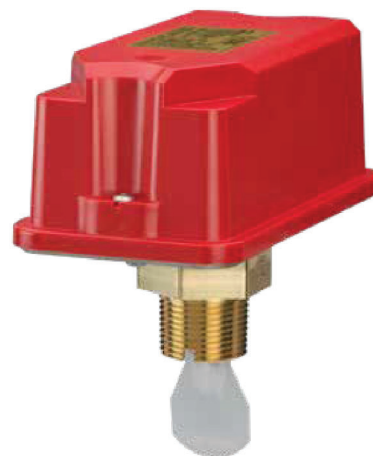




National Fire Equipment Ltd.

WFDTNA Series Waterflow Detector

System Sensor WFDTNA T-Tap Waterflow detectors are designed for primary signaling in residential systems and branch line signaling.



Features

- Directional cover allows installers and inspectors to easily see the direction of flow
- ULC-listed models are NEMA 4 rated
- Sealed retard mechanism immune to dust and other contaminants
- Non-metallic, corrosion resistant cover reduces shock hazards
- Audible and visual switch activation
- Field-replaceable timer/switch assembly
- Accommodates up to 12 AWG wire
- Switch Synchronization activates both alarm panel and local bell or horn strobe
- Tamper-resistant cover screws
- Ergonomic terminal block layout with wire-ready terminals
- Snap-in optional cover tamper switch
- Improved timer repeatability and accuracy

The new WFDTNA Series waterflow detectors from System Sensor consists of a rugged, NEMA 4-rated enclosure that is more damage resistant than previous metal designs. The waterflow detector is designed for both indoor and outdoor use, with the widest available temperature range, from 0°C to 66°C (32°F to 150°F).

The WFDTNA with incorporated timer fit any tee that has a 1in. NPT branch, including: 1in., 1¼in., 1½ in. and 2in. NPT threaded ferrous and brass tees; 1in., 1¼in., 1½ in. and 2in. copper sweat tees; Tyco, Spears, NIBBCO brand 1 in. CPVC tees. Twelve different clearly marked plastic paddles are available to fit different installation configurations.

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 with new layout designed to make wiring easy with wire ready terminals, COM terminals are on a different elevation, large barrier between switches and easy to read raised textured lettering all make wiring easy. An optional cover tamper switch is available, securely snaps into place, no tools required.

The WFDTNA incorporates a mechanical time delay feature, which minimizes the risk of false alarm due to pressure surges or air trapped in the fire sprinkler system. The larger and easy to turn timer dial makes setting the waterflow detector easy with high contrast pad printed markings. The dial offers three tabs to help with turning, with one larger tab located on the dial position for approximately 60 seconds, a notch is also indicated on the dial to locate approximately 30 seconds making setting the detector in dimly lit locations easy.

The WFDTNA series is designed for accuracy and repeatability. The detector also offers improved performance during vibration in riser applications where detectors are exposed to a large inrush of water.

Agency Listings



**National Fire
Equipment Ltd.**

TORONTO: (905) 761-6355
Toll Free: (800) 267-8508
OTTAWA: (613) 723-6071

VANCOUVER: (604) 420-1131
Toll Free: (800)-667-2138
BURNABY: (604)-299-4498

EDMONTON: (780) 455-3870
Toll Free: (888)-891-1008
CALGARY: (403) 236-5661

MONCTON: (506) 859-7277
Toll Free: (877) 816-3473
MISSISSAUGA: (905) 565-1385

www.nationalfire.com



National Fire Equipment Ltd.

Waterflow Detector Specifications

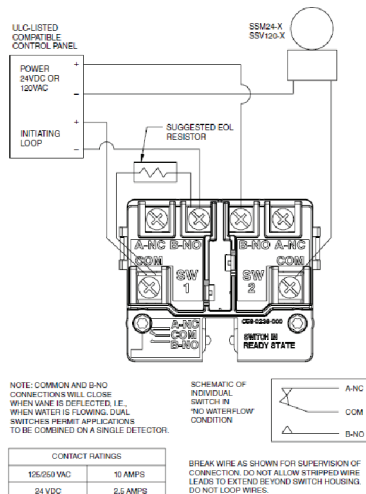
Engineering Specifications

Model shall be WFDNA as manufactured by System Sensor. T-Tap waterflow detectors shall be installed on a tee that has a 1in. NPT branch including: 1in., 1½in., 1½in. and 2in. NPT threaded ferrous and brass tee; 1in., 1½in., 1½in. and 2in. copper sweat tees; Tyco, Spears, NIBSCO brand 1in. CPVC tees as designed 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 or valves that may change water direction, flow rate, or pipe diameter or no closer than 24in. 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 375 psi. The WFDNA detector with incorporated time delay mechanism shall respond to waterflow in the specified direction after a preset time delay that is field adjustable. The delay mechanism shall be a sealed mechanical pneumatic unit with visual and audible indication of actuation. The actuation mechanism shall include a ethylene vinyl acetate 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 of Canada for indoor or outdoor use.

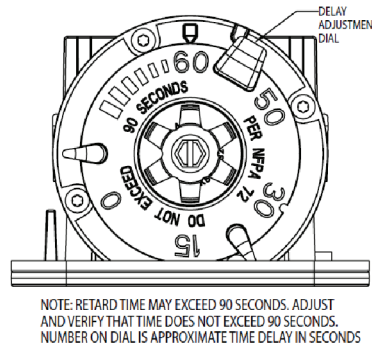
Standard Specifications

Static Pressure Rating	375 PSI	Operating Temperature Range	0°C to 66°C (32°F to 150°F)
Maximum Surge	18 Feet Per Second (FPS)	Enclosure Rating*	NEMA 4 – suitable for indoor/outdoor use
Triggering Threshold Bandwidth (Flow Rate)	4 – 10 GPM	Cover Tamper Switch	Optional for ULC and UL, part no. CTS
Conduit Entrances	Two openings for ½ in. conduit.	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, ½ HP @ 125/250 VAC 2.5 A @ 6/12/24 VDC	U.S. Patent Numbers	5,213,205
Compatible Tee Fittings	Threaded ferrous and brass tees, copper sweat tees, CPVC tees.	Warranty	3 Years

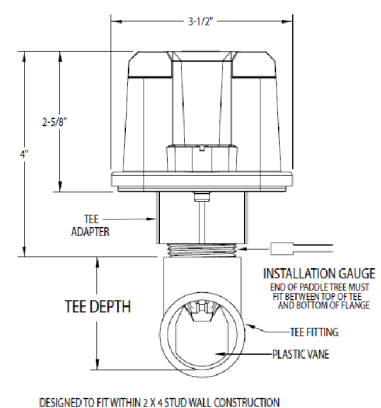
WFDNA Field Wiring Diagram



Delay Adjustment Dial



Overall Dimensions, Installed



Ordering Information

ULC Model	Description
WFDNA	Waterflow Detector, Fits 1in., 1½in., 1½in., 2in. ferrous and brass threaded tees; 1in., 1½in., 1½in., 2in. copper sweat tees; 1in. CPVC tees.
Accessories	
FS-RT	Delay mechanism and switch assembly
CTS	Tamper-proof switch kit
WFDW	Tamper-proof wrench for cover



National Fire
Equipment Ltd.

TORONTO: (905) 761-6355
Toll Free: (800) 267-8508
OTTAWA: (613) 723-6071

VANCOUVER: (604) 420-1131
Toll Free: (800)-667-2138
BURNABY: (604)-299-4498

EDMONTON: (780) 455-3870
Toll Free: (888)-891-1008
CALGARY: (403) 236-5661

MONCTON: (506) 859-7277
Toll Free: (877) 816-3473
MISSISSAUGA: (905) 565-1385

www.nationalfire.com