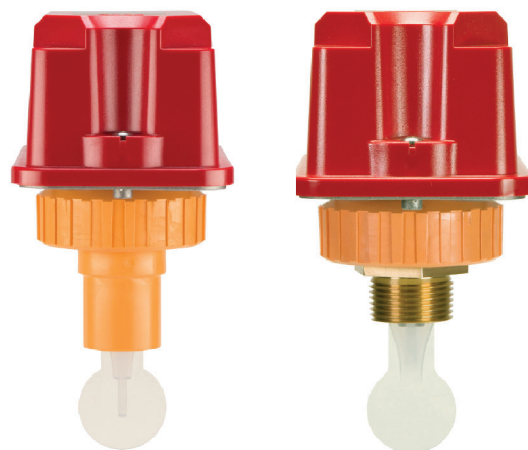




National Fire Equipment Ltd.

WFDNFA Series Waterflow Detector

The System Sensor WFDNA series is compatible with schedule 7 through 40 steel pipe, for sizes 2 in. through 4 in. and compatible with schedule 10 through 40 steel pipe, sizes 6 in. through 8 in., and can be mounted in a vertical or horizontal position.



Features

- WFDNFSA has a glue-in adapter for connection to 1", 1¼", 1½" and 2" CPVC tees
- WFDNFTA has a NPT threaded adapter for connection to 1", 1¼", 1½" and 2" metal tees and 1" and 1½" CPVC tees
- Directional cover allows installers and inspectors to easily see the direction of flow
- ULC-listed models are NEMA 4 / IP 54 rated
- Cover is lightweight, unpainted and corrosion resistant
- Sealed retard mechanism immune to dust and other contaminants
- Less exposed metal reduces shock hazard, plastic cover acts as insulator and is resistant to arcing
- Visual switch activation
- Audible switch activation (73 dBA)
- 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
- Wire-ready terminals
- Improved wiring with new terminal block layout
- Snap-in optional cover tamper switch

The new WFDNFA 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 32°F to 150°F (0°C to 60°C).

The WFDNFSA with glue-in tee adapter fits 1", 1¼", 1½", and 2" CPVC tees manufactured by Tyco, Spears, NIBCO, and IPEX. The WFDNFTA with a threaded tee adapter fits 1", 1¼", 1½", and 2" brass and copper threaded tees, in addition to 1" and 1½" CPVC

tees. Clearly marked plastic paddles are included to fit the 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 an layout designed to make wiring easy. The wire-ready COM terminals are on a different elevation with a large barrier between switches and easy-to-read, raised, textured lettering. An optional cover tamper switch securely snaps into place, no tools required.

The WFDNFSA and WFDNFTA incorporate a mechanical time delay feature that minimizes the risk of false alarms due to pressure surges or air trapped in the fire sprinkler system. The large 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: the largest tab is located on the dial position for approximately 60 seconds and a notch in the dial indicates approximately 30 seconds, making the detector easy to set in dimly lit locations.

The WFDNFA series is designed for accuracy and repeatability. Detectors also offer improved performance during vibration in riser applications where detectors are exposed to a large in-rush 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

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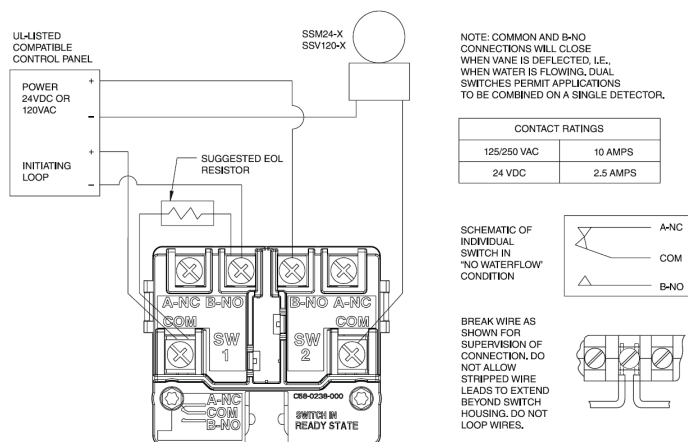
Waterflow Detector Specifications

Engineering Specifications

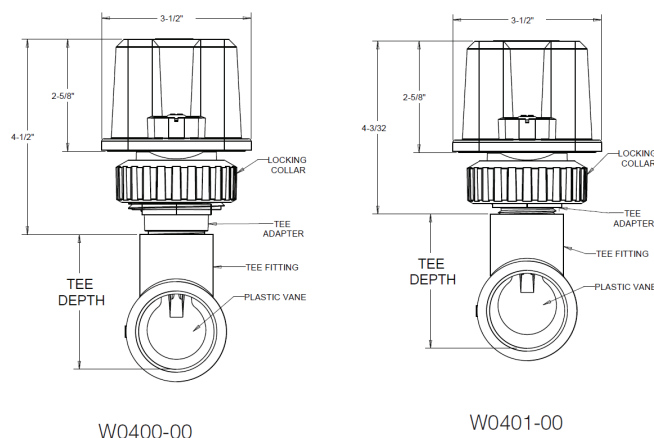
Model shall be WFDNFSA or WFDNFTA as manufactured by System Sensor. Waterflow detectors shall be installed on a 1", 1¼", 1½" or 2". CPVC tee manufactured by Tyco, Spears, NIBCO, or IPEX as designated on the drawing and /or as specified herein. Detectors shall mount on any clear pipe span of the appropriate nominal size, either a vertical upflow or horizontal run at least 6" from any fittings 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 175 psi. The WFDNFSA or WFDNFTA 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 Inc. for indoor or outdoor use.

| Standard Specifications | | | |
|--|--|-----------------------------|--|
| Static Pressure Rating | 175 PSI | Operating Temperature Range | 32°F to 150°F (0°C to 60°C) |
| 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, part no. CTS |
| Conduit Entrances | Two openings for ½ in. conduit. NEMA 4 rated plugs | 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 | | |
| Compatible Tee Fittings | 1" | Warranty | 3 Years |

WFDNFSA / WFDNFTA Field Wiring Diagram



Overall Dimensions, Installed WFDNFSA, WFDNFTA



Ordering Information

| Model | Description |
|-------------|---|
| WFDNFSA | Waterflow Detector with Glue In CPVC adapter , Fits 1in., 1¼in., 1½in., 2in. CPVC tees |
| WFDNFTA | Waterflow Detector with Threaded CPVC adapter , Fits 1in., 1¼in., 1½in., 2in. brass threaded and copper sweat tees; 1in., 1½in. CPVC tees |
| Accessories | |
| FS-RT | Delay mechanism and switch assembly |
| CTS | Tamper-proof switch kit |
| WFDW | Tamper-proof wrench for cover |



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