

# Flow switch

## For fire sprinkler wet riser systems

### Model FSFD, with field adjustable time retard

Preliminary WIKA data sheet FV 30.20

#### Applications

- Detecting waterflow between 4-10 GPM and more, with a pneumatic time retard which delays the output signal for a predefined time in wet sprinkler straight riser systems. It sends an alarm signal to the panel upon sprinkler activation for that particular fire zone in a building.

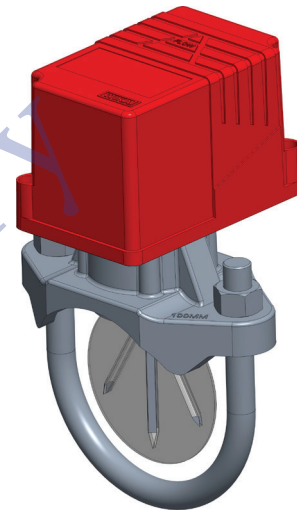
#### Special features

- Field adjustable time retard mechanism avoiding false alarm upon water surges
- Tamper resistant cover preventing unauthorised access of switch point setting
- Directional cover permits fail proof installation on field
- IP 54/NEMA 4 rating fits the instrument for indoor and outdoor use
- Two sets of microswitches activates both control panel and local hooters
- Two conduit openings permits trouble free connections with terminal blocks

#### Description

The model FSFD, Fire sprinkler flow detector has been designed to detect the water flow in straight pipe riser, wet sprinkler systems upon sprinkler activation. The model FSFD is equipped with a pneumatic time retard feature that has a field adjustment dial from 0 - 70 seconds, avoiding false alarms during water surge.

The tamper resistant screws on the cover hinders unauthorised access of the switch point setting. The robust design fits for Indoor and outdoor use with IP54/NEMA 4 rating. The model FSFD incorporates a fail proof installation with the flow direction on the cover and on the saddle.



Flow switch, model FSFD

The model FSFD maintains two conduit entries for two sets of SPDT (Form C) switches within a secured terminal block enabling direct electrical connections to control panels and local hooters. The model FSFD is available with line sizes from 2"...8" for various schedule thickness, providing complete solution for building projects.

The model FSFD is a water flow detector designed for enhanced sensitivity and repeatability of the switch point, that comes with UL and FM certifications.

## Specifications

Version in accordance with standard / basic information	
Standard	UL 346, FM 1042
Case	Die cast aluminium base (EN AC-46000) housing
Environment sealing	EPDM
Environmental protection	IP54 / NEMA 4 suitable for indoor & outdoor applications
Flow rate / Sensitivity	4 ... 10 GPM (15 ... 38 LPM)
Service pressure	450 psi (31 bar)
Maximum surge	18 FPS (5.5 m/s)
Operating temperature	0°C ... 66°C [32°F ... 150°F]
Switching function	2 × SPDT (Form C)
Electrical rating	10A, 125/250 VAC; 6A, 30 VDC Res.
Electrical connection	Two entries for 1/2" conduit
Mounting	<ul style="list-style-type: none"> <li>■ Horizontal pipe</li> <li>■ Vertical pipe</li> </ul> Flow should be along the direction of arrow mark on the cover and saddle.
Service use	Automatic sprinkler: NFPA-13 One or two family dwelling: NFPA-13D Residential occupancy up to four stories: NFPA-13R National Fire Alarm Code: NFPA-72
Weight	Approx. 2 ... 3.5 Kg. depending on line size

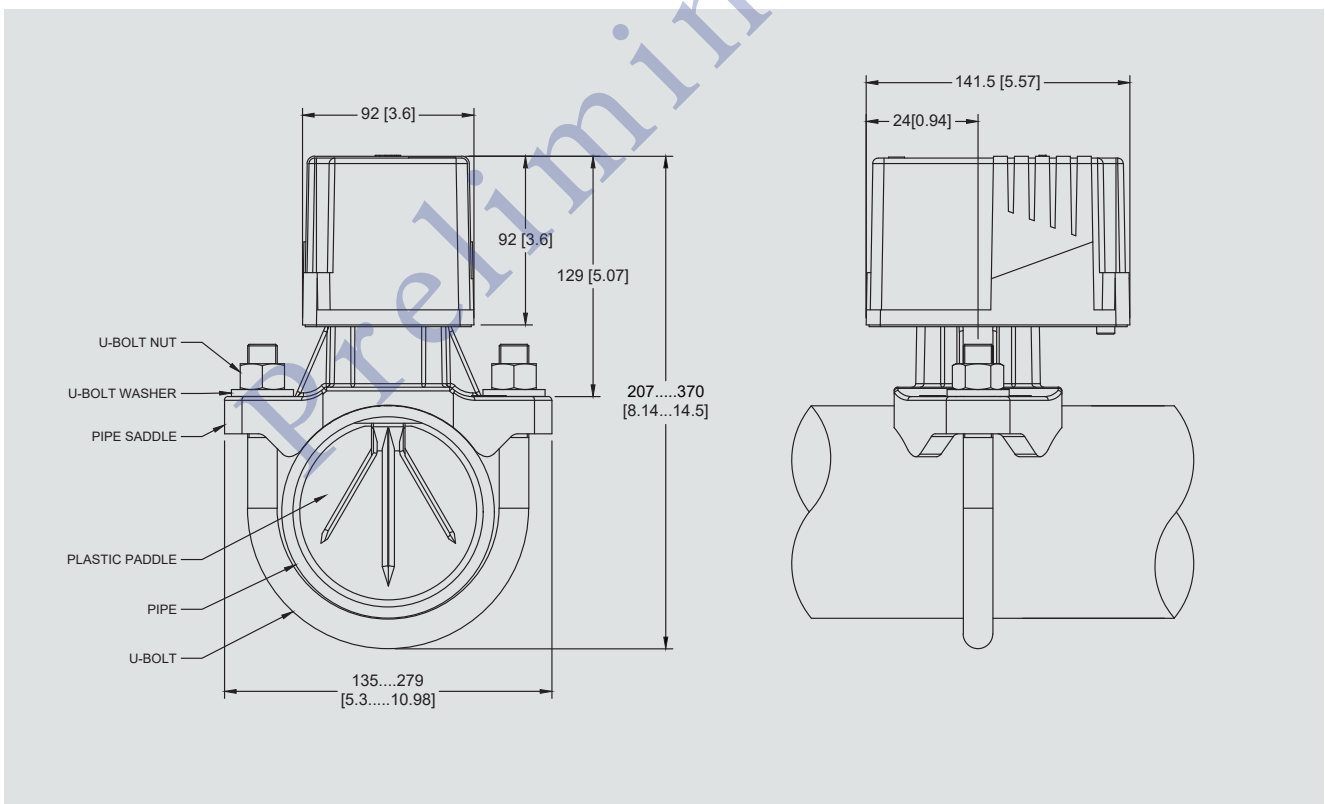
## Compatible pipes

Model	Nominal pipe size		Nominal pipe O.D.		Pipe wall thickness							
	inch	mm	inch	mm	Lightwall		Schedule 10		Schedule 40		BS-1387	
					inch	mm	inch	mm	inch	mm	inch	mm
FSFD 2	2	DN50	2.38	60.3	0.06	1.65	0.11	2.77	0.15	3.91	0.14	3.6
FSFD 2.5	2.5	DN65	3.00	76.1	–	–	–	–	–	–	0.14	3.6
FSFD 3	3	DN80	3.50	88.9	0.08	2.11	0.12	3.05	0.22	5.49	0.16	4.0
FSFD 3.5	3.5	–	4.00	101.6	–	–	0.12	3.05	0.23	5.74	–	–
FSFD 4	4	DN100	4.50	114.3	0.08	2.13	0.12	3.05	0.24	6.02	0.18	4.5
FSFD 5	5	–	5.57	141.3	–	–	0.13	3.40	0.26	6.55	–	–
FSFD 6	6	DN150	6.63	168.3	0.12	2.92	0.13	3.40	0.28	7.11	0.20	5.0
FSFD 8	8	DN200	8.63	219.1	–	–	0.19	3.76	0.32	8.18	0.25	6.3

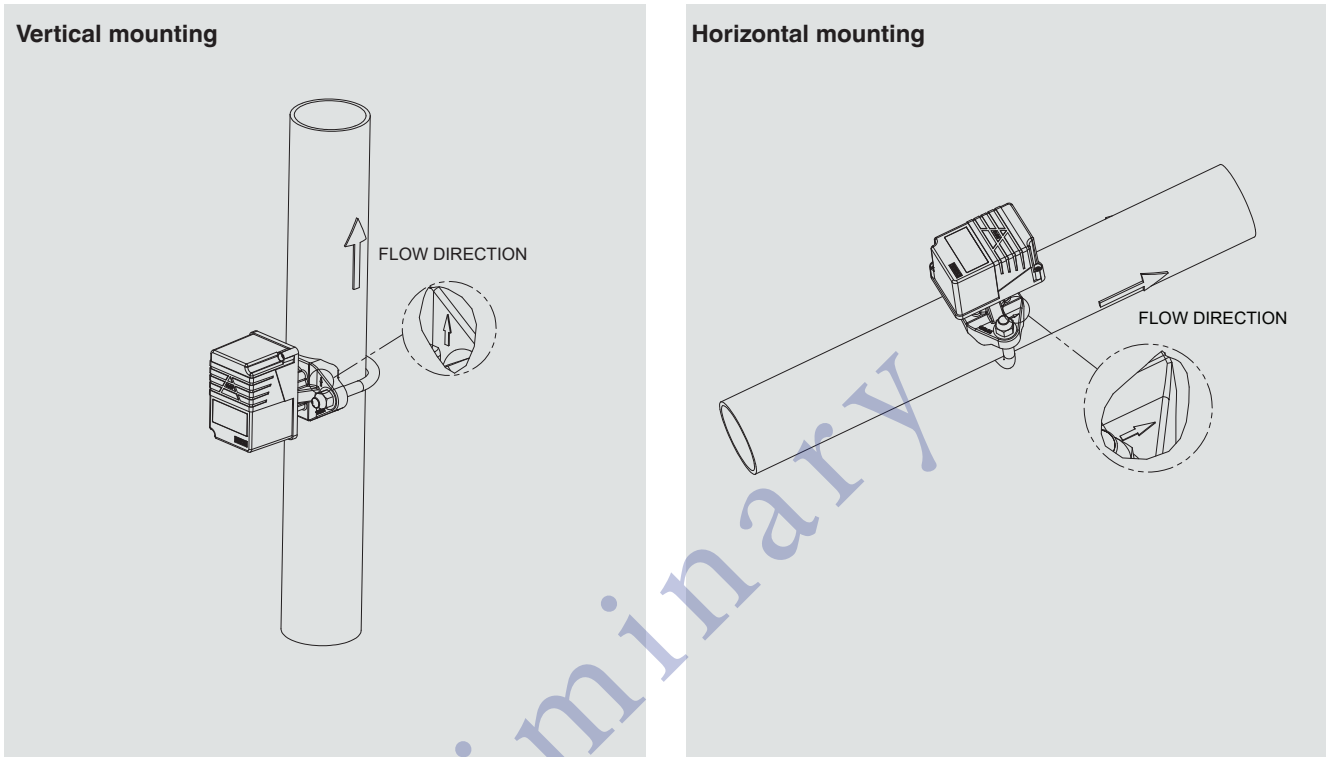
## Approvals (pending)

Description	Country
<b>UL</b> Fire protective signalling systems	USA
<b>FM</b> Water flow alarm indicators	USA

## Dimensions in mm [in]



## Mounting



## Ordering information

Nominal pipe size		Model	Item number
inch	mm		
2	DN50	FSFD 2	83792488
2.5	DN65	FSFD 2.5	83792489
3	DN80	FSFD 3	83792490
3.5	–	FSFD 3.5	83792491
4	DN100	FSFD 4	83792492
5	–	FSFD 5	83792493
6	DN150	FSFD 6	83792494
8	DN200	FSFD 8	83792495

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