

BUTTERFLY VALVES, WAFER END

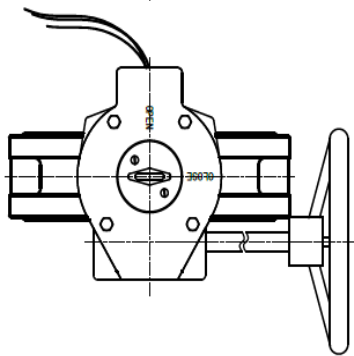
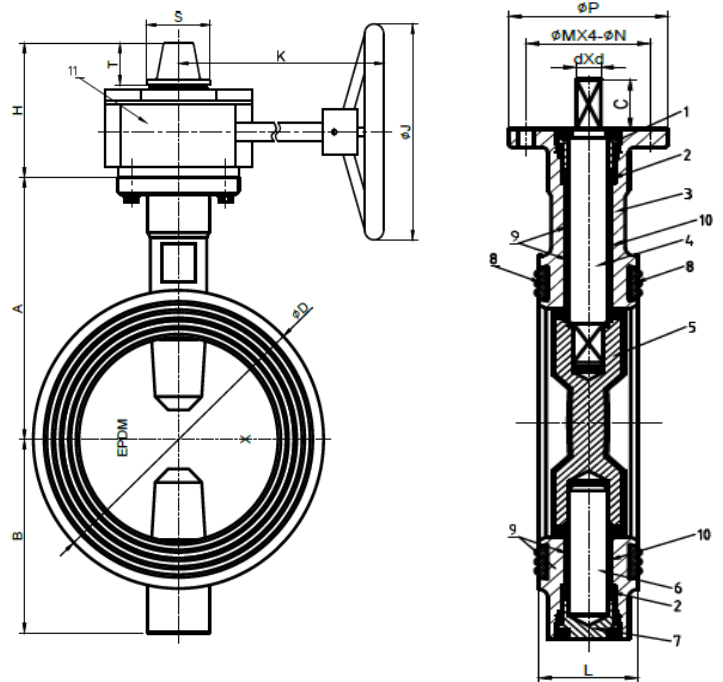
MODEL: SD-300W-BV

SPECIFICATION

- Working pressure: 300psi
- Connection end: ASME B16.1 CL 125, ASME B16.5 CL 150
- Temperature: 0°C to 80°C
- Coating: Fusion Bonded Epoxy Coating complies with ANSI/AWWA C550



Part No.	Part Name	Material
1	Upper Shaft Sealing Nut	WCB
2	Shaft Seal	EPDM
3	Body	ASTM A536
4	Upper Shaft	SS416
5	Disc + Rubber Seat	Ductile Iron + EPDM
6	Lower Shaft	SS416
7	Lower Shaft Sealing Nut	WCB
8	End Face Seal	EPDM
9	Stem Bush	PTFE/C5400
10	O-Ring	EPDM
11	Gear Box	Ductile Iron



Size	A	B	C	D	H	K		J	P	M	N	d	L	S	T
2"*	110	85	32	100	111	153	218	152	90	70	9	10	42	58	46
2.5"	125	95	32	112	111	153	218	152	90	70	9	10	44.2	58	46
3"	140	100	32	120	111	153	218	152	90	70	9	11	45.3	58	46
4"	160	100	32	161	111	153	218	152	90	70	9	14	52	58	46
5"	170	125	32	182	111	153	218	152	90	70	9	14	54.4	58	46
6"	190	140	32	216	111	153	218	200	90	70	9	16	55.8	58	46
8"	230	175	32	260	126	210	232	300	125	102	12	19	60.5	65	45
10"*	260	200	45	320	126	210	232	300	125	102	12	24	66.5	65	45
12"*	300	240	45	375	161	249		350	150	125	14	26	76.9	107	45

*UL listed only

Unit : mm

SWING CHECK VALVE

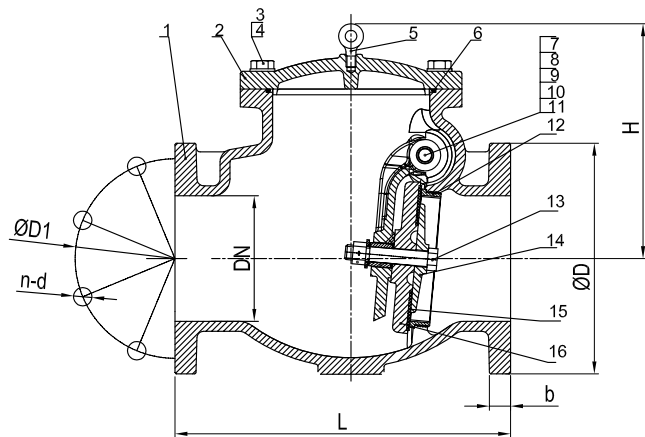


MODEL: SD-NRV300FF-D

- Working pressure: 300 psi
- Connection ends: Flange to ASME B16.1 Class 125
- Temperature range: 0°C to 80°C
- Coating: Fusion bonded epoxy coating internally and externally in accordance with ANSI/AWWA C550



PART NO.	PART NAME	ASTM SPEC.
1	Valve Body	Ductile Iron 65-45-12
2	Bonnet	Ductile Iron 65-45-12
3	Bolts	Stainless Steel 316
4	Washer	Stainless Steel 316
5	Sling Ring	Carbon Steel Zinc Plated
6	O Ring	NBR
7	Washer	PTFE
8	Plug	Stainless Steel 304
9	Hinge Bushing	CW617N
10	Hinge Pin	Stainless Steel 316
11	Seat Ring	HPb57-3
12	Seal	EPDM
13	Disc	Ductile Iron 65-45-12
14	Plate	Ductile Iron 65-45-12 / SS304
15	Nut	Stainless Steel 316
16	Bolt	Stainless Steel 316
17	Spring Washer	Ductile Iron 65-45-12
18	Plug	HPb57-3



Size	L	D	D1	b	n x d	H
2"	203	152	120.5	16	4 x19.1	133
2.5"	254	178	139.5	17.5	4 x19.1	150
3"	278	191	152.5	19	4 x19.1	150
4"	330	229	190.5	24	8 x19.1	218
6"	406	279	241.5	25.5	8 x 22.2	290
8"	495	343	298.5	28.5	8 x 22.2	355
10"	622	406	362	30.5	12 x 25.4	420
12"	660	483	432	32	12 x 25.4	465

Unit : mm



WATER FLOW SWITCH

MODEL: SD-WFD SERIES

FEATURES

- Equipped with tamper resistant screws to prevent unauthorized entry.
- Two synchronized switches are enclosed in a durable terminal block. Terminals are easy to read and wire.
- Built-In mechanical time delay feature; minimizing the risk of false alarms due to pressure surges or air trapped in the system.
- Offers excellent performance during riser vibrations caused by large in-rushes of water.
- Designed and built for accuracy and repeatability.
- Sealed retard mechanism immune to dust and other contaminants
- Field-replaceable retard mechanism and SPDT switches
- Rugged, dual SPDT switches enclosed in a durable terminal block
- 100 percent synchronization activates both alarm panel and local bell
- Tamper-resistant cover screws



TECHNICAL DATA

Flow Sensitivity Range	4-10 GPM (15-38LPM)
Contact Rating	Two sets of SPDT 8A@250VAC; 3A@24VDC; 2.5A@ 30VDC.
Working Pressure	450PSI.
Working Temperature	0°C to 68°C
Corrosion Protection	Fusion Bonded Epoxy Coated Interior and Exterior or Enamel Spray Paint, Interior and Exterior
Working Pressure	450psi.
Maximum Surge	18 FPS (5.5 m/s)
Corrosion Protection	Fusion Bonded Epoxy Coated Interior and Exterior or Enamel Spray Paint, Interior and Exterior.
Compatible Pipe	Steel water pipe, schedule 10 through 40
Conduit Entrances	Two openings for ½" conduit.
IP Rating	IP 55
Service Use	<ul style="list-style-type: none"> • 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

Size		Model Number
inch	mm	
1	25	SD-WFD10T
1.25	32	SD-WFD12T
1.5	40	SD-WFD15T
2	50	SD-WFD20T
2	50	SD-WFD20
2.5	65	SD-WFD25
3	80	SD-WFD30
4	100	SD-WFD40
5	125	SD-WFD50
6	150	SD-WFD60
8	200	SD-WFD80
10	250	SD-WFD100

DESCRIPTION

The Model SD-WFD is a vane type waterflow switch for use on wet sprinkler systems. The water flow contains two single pole, double throw, snap action switches and an adjustable, instantly recycling pneumatic retard. Vane-type waterflow detectors shall be installed on system piping as designated on the drawing and/or as specified herein. Detectors shall have sensitivity in the range of 4 to 10 gallons per minute and a static pressure rating of 450 psi for 2"–8" pipes. The flow condition must exist for a period of time necessary to overcome the selected retard period that 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. Two conduit entrances for standard fittings of commonly used electrical conduit shall be provided on the detectors.

INSTALLATION

These devices may be mounted on horizontal or vertical pipe. On horizontal pipe they shall be installed on the top side of the pipe where they will be accessible. The device should not be installed within 6" (15 cm) of a fitting which changes the direction of the waterflow or within 24" (60 cm) of a valve or drain.

Note: Do not leave cover off for an extended period of time.

Drain the system and drill a hole in the pipe using a hole saw in a slow speed drill. Clean the inside pipe of all growth or other material for a distance equal to the pipe diameter on either side of the hole. Roll the vane so that it may be inserted into the hole; do not bend or crease it. Insert the vane so that the arrow on the saddle points in the direction of the waterflow. Take care not to damage the non-corrosive bushing in the saddle. The bushing should fit inside the hole in the pipe. Install the saddle strap and tighten nuts alternately to required torque. The vane must not rub the inside of the pipe or bind in any way.

Caution : Do not trim the paddle. Failure to follow these instructions may prevent the device from operating and will void the warranty. Do not obstruct or otherwise prevent the trip stem of the flow switch from moving when water flows as this could damage the flow switch and prevent an alarm. If an alarm is not desired, a qualified technician should disable the alarm system.

TESTING

The frequency of inspection and testing for the Model VSR and its associated protective monitoring system shall be in accordance with applicable NFPA Codes and Standards and/or the authority having jurisdiction (manufacturer recommends quarterly or more frequently).

If provided, the inspector's test valve shall always be used for test purposes. If there are no provisions for testing the operation of the flow detection device on the system, application of the VSR is not recommended or advisable.

A minimum flow of 10 GPM (38 LPM) is required to activate this device.

Note: Advise the person responsible for testing of the fire protection system that this system must be tested in accordance with the testing instructions.

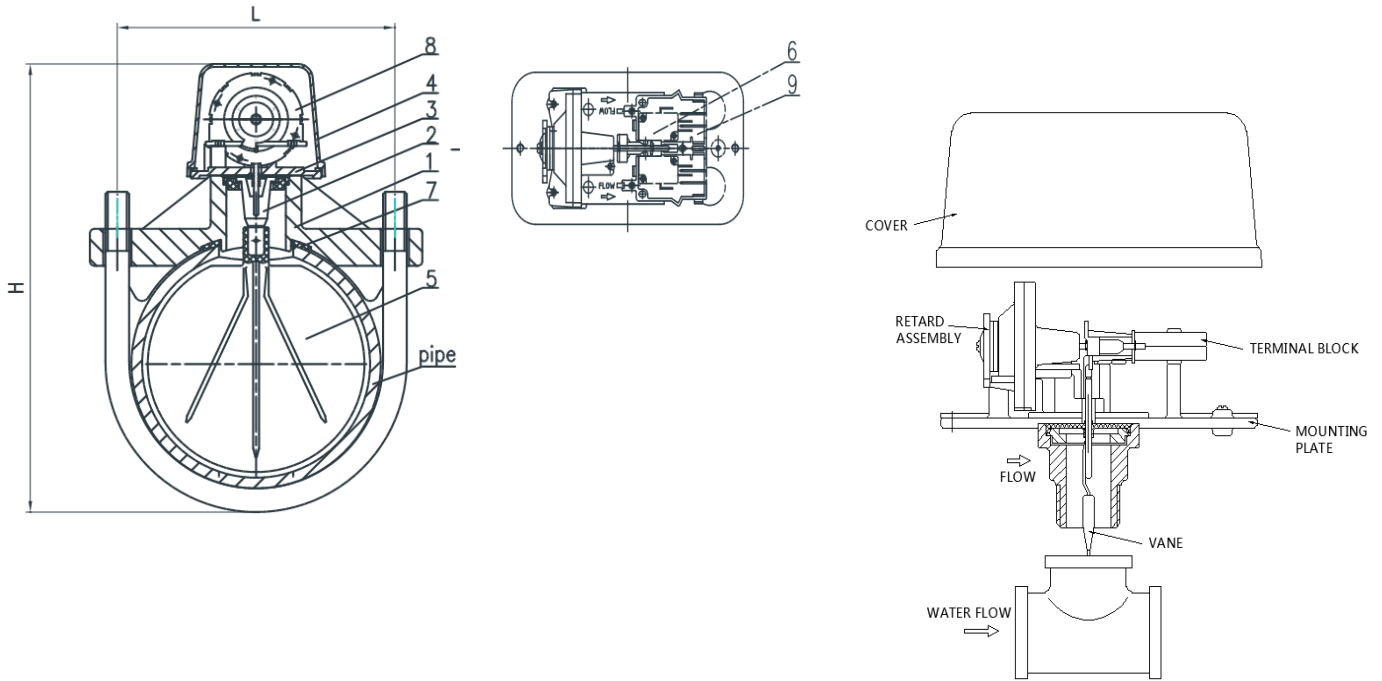
MAINTENANCE

Inspect detectors monthly. If leaks are found, replace the detector. The SD-WFD waterflow switch should provide years of trouble-free service. The retard and switch assembly are easily field replaceable. In the unlikely event that either component does not perform properly, please order replacement retard switch assembly. There is no maintenance required, only periodic testing and inspection.

REMOVAL OF WATERFLOW SWITCH

- To prevent accidental water damage, all control valves should be shut tight and the system completely drained before waterflow detectors are removed or replaced.
- Turn off electrical power to the detector, then disconnect wiring.
- Loosen nuts and remove U-bolts.
- Gently lift the saddle far enough to get your fingers under it. With your fingers, roll the vane so it will fit through the hole while continuing to lift the waterflow detector saddle.
- Lift detector clear of pipe.

SCHEMATIC DRAWINGS



PART LIST

Number	Part Name	Material
1	Saddle	Ductile Iron, ASTM A536 65-45-12
2	Holder	SS304 + EPDM
3	Plate	Aluminium Alloy
4	Cover	Aluminium Alloy
5	Paddle	Plastic
6	Microswitch	Plastic
7	Gasket	EPDM
8	Retarding Device	Plastic
9	Terminal Box	Plastic

DIMENSIONS

Size	DN25	DN32	DN40	DN50	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
L	93	93	93	93	84	92	104	133	160	187	239	294
H	164	173	179	192	190	100	220	245	270	300	350	405
OD, nominal Size	54	62.5	69	82	60.3	73	88.9	114.3	141.3	168.3	219.1	273.1
Pipe Wall Thickness	N/A	N/A	N/A	N/A	2.77 to 3.91	3.05 to 5.16	3.05 to 5.49	3.05 to 6.02	3.40 to 6.55	3.40 to 7.11	3.76 to 8.18	4.19 to 9.27
Tee Size/ Thread (mm)	1"x1"x1"/ 54mm	1 1/4"x1 1/4"x1"/ 62.5	1 1/4"x1 1/4"x1"/ 69	2" x 2" x 1"/ 82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L	164	172.5	179	192	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H	93	93	93	93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TEST AND DRAIN VALVE

MODEL: SD-TDV50T, SD-TDV50G



DESCRIPTION

Test and Drain valve for sprinkler systems combines the functions of test and drain for wet sprinkler systems.

This valves have forged brass body with chrome plate brass ball valve and PTFE seats. The valves complies with the requirements of NFPA-13, NFPA- 13R and NFPA-13D. This valves are single handle ball valves with three working positions. They include tamper resistant test orifice and sight glass for the visual control.

PRODUCT SPECIFICATIONS

Test and drain valve for sprinkler systems combines the functions of test and drain for wet sprinkler systems. complies with the requirements of NFPA-13, NFPA-13R and NFPA-13D.

Main feature as following:

- NPT threads 1" - 1½" - 1 1/4" - 2"
- Groove connections 1 1/4" - 1½" - 2"
- Forged brass body
- Chrome plate brass ball valve
- PTFE seats.
- Single handle ball valves with three working positions
- Tamper resistant test orifice and sight glass included



SD-TDV50T (Threaded)



SD-TDV50G (Grooved)

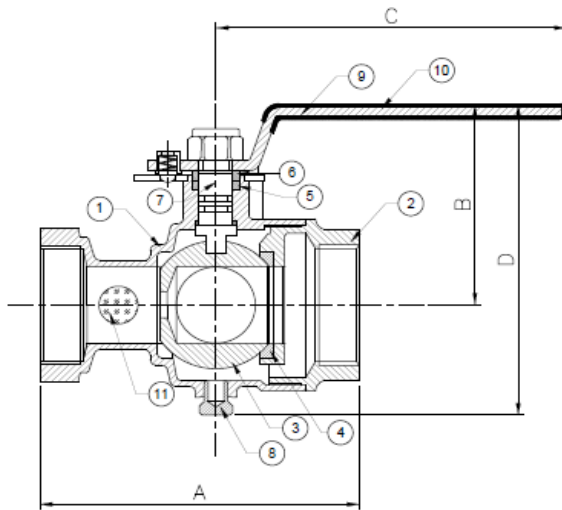
VERSIONS AND PRODUCT CODES

Series	Size	Type
SD-TDV50T	1"	NPT (F) x NPT (F)
	1¼"	
	1½"	
	2"	
SD-TDV50G	1¼"	Groove x Groove
	1½"	
	2"	

TECHNICAL DATA

- Rated pressure: 300 psi

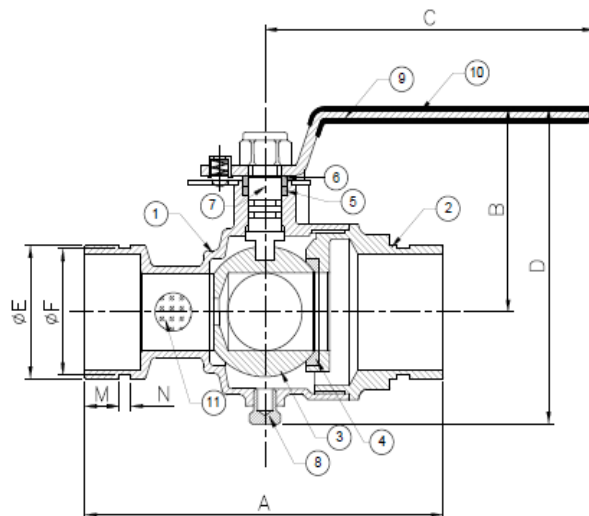
FEMALE NPT x FEMALE NPT



NO.	PART NAME	MATERIAL ASTM	QTY
1	BODY	BRASS C85700	1
2	END PIECE	BRASS C85700	1
3	BALL	BRASS	1
4	SEAT	TFM	2
5	GLAND PACKING	TFM	1
6	GLAND	BRASS	1
7	STEM	BRASS	1
8	DRAINPLUG	BRASS	1
9	LEVER	STEEL	1
10	LEVER GRIP	PVC VINYL	1
11	SIGHT GLASS	GLASS	1

SIZE	A±2	B±2	C±2	D±3	H
1"	128.2	68.5	130.5	112	K7/16"/ k1/2"
1¼"	128.2	68.5	130.5	112	K7/16"/ k1/2"
1½"	157.2	99.1	174	154	K7/16"/ k1/2"/ k3/4"/ k25
2"	157.2	99.1	174	154	K7/16"/ k1/2"/ k3/4"/ k25

GROOVE x GROOVE



NO.	PART NAME	MATERIAL ASTM	QTY
1	BODY	BRASS C85700	1
2	END PIECE	BRASS C85700	1
3	BALL	BRASS	1
4	SEAT	TFM	2
5	GLAND PACKING	TFM	1
6	GLAND	BRASS	1
7	STEM	BRASS	1
8	DRAINPLUG	BRASS	1
9	LEVER	STEEL	1
10	LEVER GRIP	PVC VINYL	1
11	SIGHT GLASS	GLASS	1

SIZE	A±2	B±2	C±2	D±3	øE	F ⁰ -0.38	M±0.76	N±0.76	K
1¼"	161.6	68.5	130.5	112	42.4±0.41	38.99	15.88	7.95	K7/16"/ k1/2"
1½"	190.9	99.1	174	154	48.3±0.48	45.09	15.88	7.95	K7/16"/ k1/2"/ k3/4"/ k25
2"	190.9	99.1	174	154	60.3±0.61	57.15	15.88	7.95	K7/16"/ k1/2"/ k3/4"/ k25

PRESSURE GAUGE



TECHNICAL SPECIFICATION

Model	SD-P1 (0-300 psi) SD-P3 (0-600 psi)
Type	W1005P-02L-X UL
Dial Size	90 MM (3.5")
Connection	1/4" NPT lower
Range	Single, dual or triple scale 0-300 psi (water) 0-600 psi (water/air)
Burdon Tube	"C" Shaped Bronze
Dial Type	Black figures on white back-ground
Case	ABS (Polycarbonate blend)
Window	Polycarbonate, push-in
Accuracy	ASME B 40.100 Grade B (\pm 3-2-3% of span)
Ring	None
Pointer	Black, aluminium
Movement	Power Flex with polyester segment
Socket	Brass
Restrictor	None
Operating Temperature	-40°F to 150°F; -40°C to 65°C



*UL 393 Listed, and FM approved. Equivalent (Single or dual scale) metric scales are available

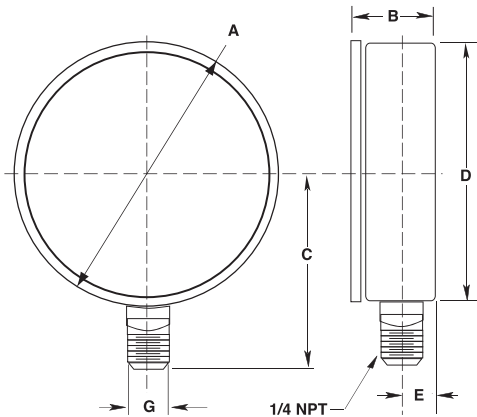
DESCRIPTION

Shield fire protection sprinkler gauges are Underwriters Laboratory listed and Factory Mutual approved for fire protection sprinkler service. The case material on Type 1005P, XUL gauges is ABS. The 0-300 psi pressure range is used on "wet" systems where water is available to the sprinkler heads. The 0-600 psi gauge is available for systems requiring higher pressures.

Due to global demands for fire protection sprinkler gauges, Shield offers UL listed, triple scale (bar, kPa, psi) dial gauges.

The PowerFlex™ movement with polyester segment is designed to provide unequalled shock and vibration resistance resulting in superior performance and extended gauge life. True Zero™ indication, a standard feature on these gauges, reduces the potential risk of installing a damaged gauge on your equipment.

DIMENSION



Size/Type	A	B	C	D	E	G	Weight
SD-P1 SD-P3 Type W1005P-02L-XUL	3.70 (94)	1.14 (29)	2.72 (69)	3.61 (92)	0.47 (11.9)	0.56 (14.2)	5.36oz 0.152kg

FEATURES

- Underwriters Laboratory listed and Factory Mutual approved.
- Corrosion-resistant ABS case.
- Heat-resistant polycarbonate push-in window.
- True Zero™ indication, a unique safety feature.

OPTIONAL FEATURES

- Customized Dial
- Black Rubber Gauge Boot