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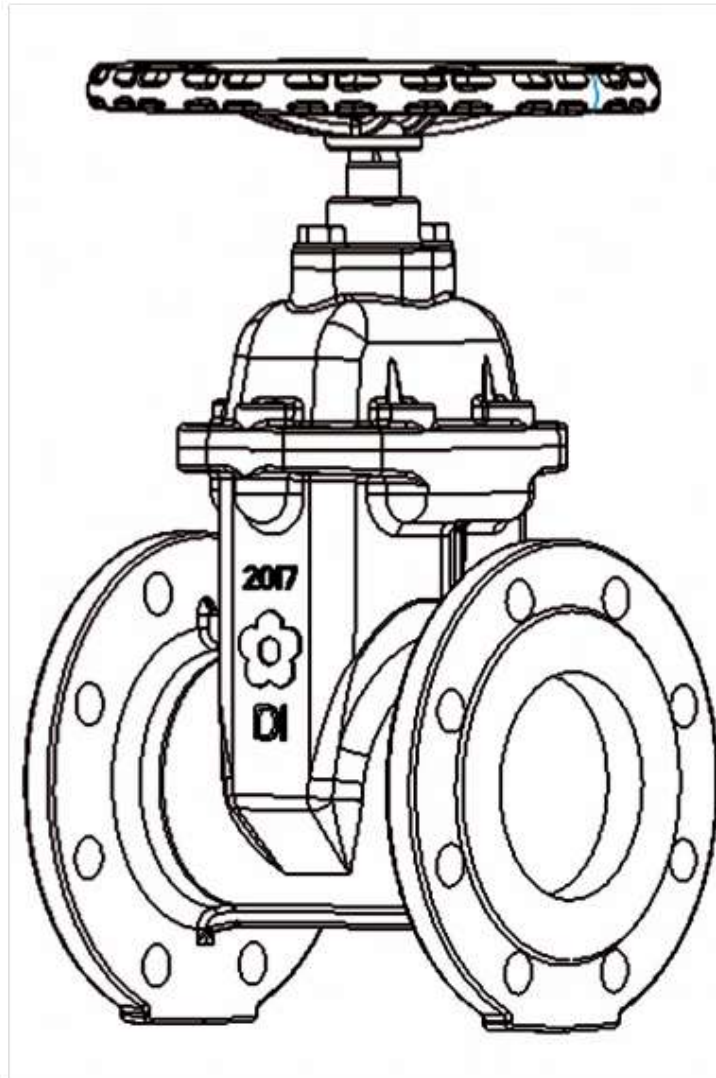
info@santvalves.com

Note: - UL / FM Approvals will be in the name of OEM

Valves

Fire Protection/Water/HVAC/Irrigation...

BS & DIN Standard



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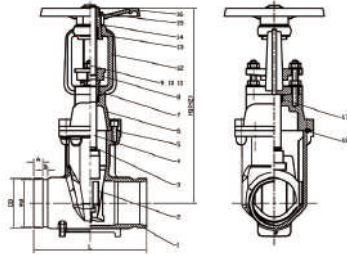
Grooved Resilient OS&Y Gate Valve (XZ81X), PN10/16, UL/FM Approved



XZ81X



- Connection Ends: Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	O-Ring	NBR	EPDM
4	Stem	Stainless Steel	SS304, SS316, SS420, SS431
5	Nut	Carbon Steel Zinc Plated	SS304, SS316
6	Bonnet	EN-GJS-450-10	
7	Stem Bushing	Brass Hpb59-1	
8	Gland	EN-GJS-450-10	
9	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
10	Stud	Carbon Steel Zinc Plated	SS304, SS316
11	Nut	Carbon Steel Zinc Plated	SS304, SS316
12	Yoke	EN-GJS-450-10	
13	Stem Nut	Brass Hpb59-1	Bronze ZQSn5-5-5
14	Washer	Brass Hpb59-1	
15	Locknut	Carbon Steel Zinc Plated	
16	Handwheel	EN-GJS-450-10	Pressed Steel
17	Stem Packing	EPDM	NBR
18	Bonnet Gasket	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)						
Inch	mm	L	H1(Close)	H2(Open)	OD	d	A	B
2"	50	178	323	373	60.3	57.15	15.88	7.92
2.5"	65	190	343	408	73	69.09	15.88	7.92
2.5"	65	190	343	408	76.1	72.26	15.88	7.92
3"	80	203	370	450	88.9	84.94	15.88	7.92
4"	100	229	442	542	114.3	110.08	15.88	9.52
5"	125	254	541	665	139.7	135.48	15.88	9.52
5"	125	254	541	665	141.3	137.03	15.88	9.52
6"	150	267	608	758	159.0	154.50	15.88	9.52
6"	150	267	608	758	165.1	160.90	15.88	9.52
6"	150	267	608	758	168.3	163.96	15.88	9.52
8"	200	292	720	920	219.1	214.40	19.05	11.13
10"	250	330	939	1193	273.0	268.28	19.05	12.70
12"	300	356	1065	1370	323.9	318.29	19.05	12.70

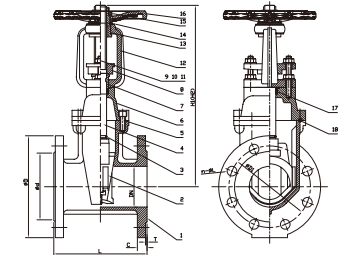
BS 5163 Flanged Resilient OS&Y Gate Valve, (XZ41X), PN10/16, UL/FM Approved



XZ41X



- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	O-Ring	NBR	EPDM
4	Stem	Stainless Steel	SS304, SS316, SS420, SS431
5	Bolt	Carbon Steel Zinc Plated	SS304, SS316
6	Bonnet	EN-GJS-450-10	
7	Stem Bushing	Brass Hpb59-1	
8	Gland	EN-GJS-450-10	
9	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
10	Stud	Carbon Steel Zinc Plated	SS304, SS316
11	Nut	Carbon Steel Zinc Plated	SS304, SS316
12	Yoke	EN-GJS-450-10	
13	Stem Nut	Brass Hpb59-1	
14	Washer	Brass Hpb59-1	
15	Locknut	Carbon Steel Zinc Plated (Type A) Not available (Type B)	
16	Handwheel	EN-GJS-450-10	Pressed Steel
17	Stem Packing	EPDM	NBR
18	Bonnet Gasket	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)										
Inch	mm		L	TypeA		TypeB		D	D1	d	C	T	n-φL
				H1 (Close)	H2 (Open)	H1 (Close)	H2 (Open)						
2"	50	10/16	178	323	373	348	400	165	125	99	19	3	4-Ø19
2.5"	65	10/16	190	343	408	373	440	185	145	118	19	3	4-Ø19
3"	80	10/16	203	370	450	408	490	200	160	132	19	3	8-Ø19
4"	100	10/16	229	442	542	471	573	200	180	156	19	3	8-Ø19
5"	125	10/16	254	541	665	541	665	250	210	184	19	3	8-Ø19
6"	150	10/16	267	608	758	593	743	285	240	211	19	3	8-Ø23
8"	200	10	292	720	920	774	975	340	295	266	20	3	8-Ø23
		16											
10"	250	10	330	940	1190	940	1190	405	350	319	22	3	12-Ø23
		16							355	305			
12"	300	10	356	1065	1370	1065	1370	460	400	370	24.5	4	12-Ø28
		16							410	370			
14"	350	10						460	400	370	24.5	4	16-Ø23
		16	381	1403	1817	1403	1817	520	470	429	26.5	4	16-Ø28
16"	400	10	406	1403	1817	1403	1817	580	515	480	28	4	16-Ø28
		16							525	480			
18"	450	10	432	1788	2308	1788	2308	640	565	530	30	4	20-Ø28
		16							585	548			
20"	500	10	457	1809	2329	1809	2329	715	620	582	31.5	4	20-Ø28
		16							650	609			
24"	600	10						725	682				20-Ø31
		16	508	2025	2649	2025	2649	840	770	720	36	5	20-Ø37



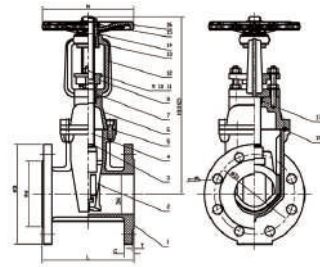
DIN F4 Flanged Resilient OS&Y Gate Valve (XZ41X), PN10/16, UL/FM Approved



XZ41X



- Connection Ends: Flange to DIN EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	O-Ring	NBR	EPDM
4	Stem	Stainless Steel	SS304, SS316, SS420, SS431
5	Nut	Carbon Steel Zinc Plated	SS304, SS316
6	Bonnet	EN-GJS-450-10	
7	Stem Bushing	Brass HPb59-1	
8	Gland	EN-GJS-450-10	
9	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
10	Stud	Carbon Steel Zinc Plated	SS304, SS316
11	Nut	Carbon Steel Zinc Plated	SS304, SS316
12	Yoke	EN-GJS-450-10	
13	Stem Nut	Brass HPb59-1	
14	Washer	Brass HPb59-1	SS304, SS316
15	Locknut	Carbon Steel Zinc Plated	
16	Handwheel	EN-GJS-450-10	Pressed Steel
17	Stem Packing	NBR	EPDM
18	Bonnet Gasket	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)										
Inch	mm		L (F4)	L (F5)	H1 (Close)	H2 (Open)	D	D1	d	C	T	M	n-ΦL
2"	50	10/16	150	250	323	373	165	125	99	19	3	180	4-Φ19
2.5"	65	10/16	170	270	343	408	185	145	118	19	3	180	4-Φ19
3"	80	10/16	180	280	370	450	200	160	132	19	3	200	8-Φ19
4"	100	10/16	190	300	442	542	220	180	156	19	3	254	8-Φ19
5"	125	10/16	200	325	540	665	250	210	184	19	3	280	8-Φ19
6"	150	10/16	210	350	608	758	285	240	211	19	3	305	8-Φ23
8"	200	10	230	400	720	920	340	295	266	20	3	350	8-Φ23
		16											12-Φ23
10"	250	10	250	450	940	1190	405	350	319	22	3	450	12-Φ23
		16											12-Φ28
12"	300	10	270	500	1065	1365	460	400	370	24.5	4	450	12-Φ23
		16											12-Φ28

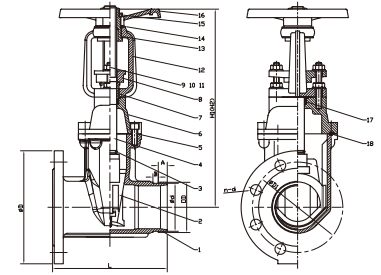
Flanged x Grooved Resilient OS&Y Gate Valve (XZ51X), PN10/16, UL/FM Approved



XZ51X



- Connection Ends: Flange to EN 1092-2:1997, Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	O-Ring	NBR	EPDM
4	Stem	Stainless Steel	SS304, SS316, SS420, SS431
5	Bolt	Carbon Steel Zinc Plated	SS304, SS316
6	Bonnet	EN-GJS-450-10	
7	Stem Bushing	Brass HPb59-1	
8	Gland	EN-GJS-450-10	
9	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
10	Stud	Carbon Steel Zinc Plated	SS304, SS316
11	Nut	Carbon Steel Zinc Plated	SS304, SS316
12	Yoke	EN-GJS-450-10	
13	Nut	Brass HPb59-1	
14	Washer	Brass HPb59-1	
15	Locknut	Carbon Steel Zinc Plated	
16	Handwheel	EN-GJS-450-10	Pressed Steel
17	Stem Packing	EPDM	NBR
18	Bonnet Gasket	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)										
Inch	mm	L	H1(Close)	H2(Open)	D	D1	n-d	OD	d	A	B	
2"	50	178	323	373	165	125	4-Φ19	60.3	57.15	15.88	7.92	
2.5"	65	190	343	408	185	145	4-Φ19	76.1	72.26	15.88	7.92	
3"	80	203	370	450	200	160	8-Φ19	88.9	84.94	15.88	7.92	
4"	100	229	442	542	220	180	8-Φ19	114.3	110.08	15.88	9.52	
5"	125	254	541	665	250	210	8-Φ19	139.7	135.48	15.88	9.52	
6"	150	267	608	758	285	240	8-Φ23	168.3	160.90	15.88	9.52	
6"	150	267	608	758	285	240	8-Φ23	168.3	163.96	15.88	9.52	
8"	200	292	720	920	340	295	12-Φ23	219.1	214.40	19.05	11.13	
10"	250	330	939	1193	405	355	12-Φ28	273.0	268.28	19.05	12.70	
12"	300	356	1065	1370	460	410	12-Φ28	323.9	318.29	19.05	12.70	



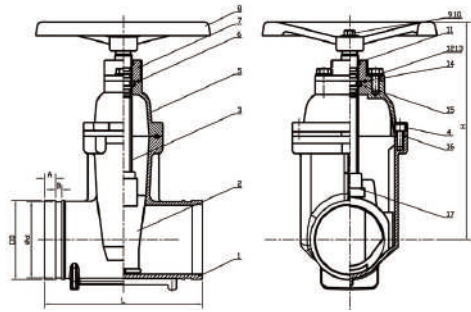
Grooved Resilient NRS Gate Valve (Z85X), PN10/16, UL/FM Approved



Z85X



- Connection Ends: Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	Stem	Stainless Steel	SS304, SS316, SS420, SS431
4	Nut	Carbon Steel Zinc Plated	SS304, SS316
5	Bonnet	EN-GJS-450-10	
6	O-Ring	NBR	EPDM
7	Gland	EN-GJS-450-10	
8	Handwheel	EN-GJS-450-10	Pressed Steel
9	Bolt	Carbon Steel Zinc Plated	SS304, SS316
10	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
11	Ring Wiper	EPDM	NBR
12	Bolt	Carbon Steel Zinc Plated	SS304, SS316
13	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
14	O-Ring	NBR	EPDM
15	Washer	Brass HPb59-1	
16	Bonnet Gasket	EPDM	NBR
17	Wedge Nut	Brass HPb59-1	Bronze ZQSn5-5-5

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)					
Inch	mm	L	H	OD	d	A	B
2"	50	178	218	60.3	57.15	15.88	7.92
2.5"	65	190	230	73	69.09	15.88	7.92
2.5"	65	190	230	76.1	72.26	15.88	7.92
3"	80	203	281	88.9	84.94	15.88	7.92
4"	100	229	316	114.3	110.08	15.88	9.52
5"	125	254	393	139.7	135.48	15.88	9.52
5"	125	254	393	141.3	137.03	15.88	9.52
6"	150	267	420	159.0	154.50	15.88	9.52
6"	150	267	420	165.1	160.90	15.88	9.52
6"	150	267	420	168.3	163.96	15.88	9.52
8"	200	292	490	219.1	214.40	19.05	11.13
10"	250	330	626	273.0	268.28	19.05	12.70
12"	300	356	722	323.9	318.29	19.05	12.70

BS Flanged Resilient NRS Gate Valve (Z45XC), PN10/16, UL/FM Approved

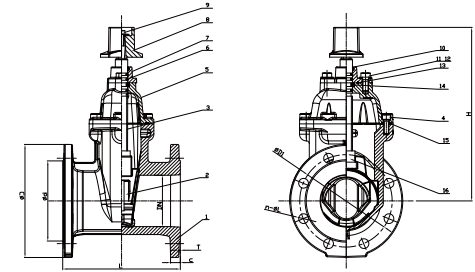


Z45XC



NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	Stem	Stainless Steel	SS304, SS316, SS420, SS431
4	Bolt	Carbon Steel Zinc Plated	SS304, SS316
5	Bonnet	EN-GJS-450-10	
6	O-Ring	NBR	
7	Gland	EN-GJS-450-10	
8	Stem Cap	EN-GJS-450-10	
9	Bolt	Carbon Steel Zinc Plated	SS304, SS316
10	Ring Wiper	EPDM	NBR
11	Bolt	Carbon Steel Zinc Plated	SS304, SS316
12	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
13	O-Ring	NBR	EPDM
14	Washer(Type A) Axis Guide (Type B)	Brass HPb59-1	
15	Bonnet Gasket	EPDM	NBR
16	Wedge Nut	Brass HPb59-1	Bronze ZQSn5-5-5

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)								
Inch	mm		L	H		D	D1	d	C	T	n-d
				TypeA	TypeB						
2"	50	10/16	178	241	279	165	125	99	19	3	4-Ø19
2.5"	65	10/16	190	255	297	185	145	118	19	3	4-Ø19
3"	80	10/16	203	304	323	200	160	132	19	3	8-Ø19
4"	100	10/16	229	337	376	200	180	156	19	3	8-Ø19
5"	125	10/16	254	404	404	250	210	184	19	3	8-Ø19
6"	150	10/16	267	436	457	285	240	211	19	3	8-Ø23
8"	200	10	292	443	557	340	295	266	20	3	8-Ø23
		16									12-Ø23
10"	250	10	330	641	641	405	350	319	22	3	12-Ø23
		16					355				12-Ø28
12"	300	10	356	743	743	460	400	370	24.5	4	12-Ø23
		16					410				12-Ø28
14"	350	10	381	1364	928	520	460	429	26.5	4	16-Ø23
		16					470				16-Ø28
16"	400	10	406	1364	928	580	515	480	28	4	16-Ø28
		16					525				16-Ø31
18"	450	10	432	1364	1165	640	565	530	30	4	20-Ø28
		16					585	548			20-Ø31
20"	500	10	457	1364	1188	715	620	582	31.5	4	20-Ø28
		16					650	609			20-Ø34
24"	600	10	508	1364	1364	840	725	682	36	5	20-Ø31
		16					770	720			20-Ø37



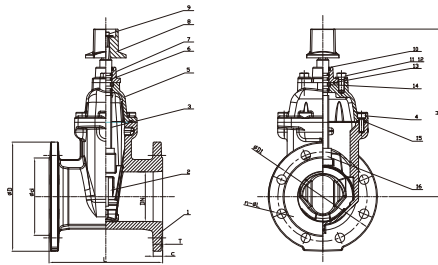
DIN F4 Flanged Resilient NRS Gate Valve (Z45XC), PN10/16, UL/FM Approved



Z45XC

Vds UL FM NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Flange to DIN EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	Stem	Stainless Steel	SS304, SS316, SS420, SS431
4	Nut	Carbon Steel Zinc Plated	SS304, SS16
5	Bonnet	EN-GJS-450-10	
6	O-Ring	NBR	EPDM
7	Gland	EN-GJS-450-10	
8	Stem Cap	EN-GJS-450-10	
9	Bolt	Carbon Steel Zinc Plated	SS304, SS16
10	Ring Wiper	EPDM	NBR
11	Bolt	Carbon Steel Zinc Plated	SS304, SS316
12	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
13	O-Ring	NBR	EPDM
14	Thrust Washer	Brass HPb59-1	
15	Bonnet Gasket	EPDM	NBR
16	Wedge Nut	Brass HPb59-1	Bronze ZQSn5-5-5

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)								
Inch	mm		L	H	D	D1	d	C	T	n-ΦL	
2"	50	10/16	150	241	165	125	99	19	3	4-Φ19	
2.5"	65	10/16	170	255	185	145	118	19	3	4-Φ19	
3"	80	10/16	180	304	200	160	132	19	3	8-Φ19	
4"	100	10/16	190	337	220	180	156	19	3	8-Φ19	
5"	125	10/16	200	414	250	210	184	19	3	8-Φ19	
6"	150	10/16	210	436	285	240	211	19	3	8-Φ23	
		16	230	506	340	295	266	20	3	8-Φ23	
8"	200	10/16	230	506	340	295	266	20	3	12-Φ23	
		16	250	644	405	350	319	22	3	12-Φ23	
10"	250	10/16	250	644	405	355	319	22	3	12-Φ28	
		16	270	739	460	400	370	24.5	4	12-Φ23	
12"	300	10/16	270	739	460	410	370	24.5	4	12-Φ28	

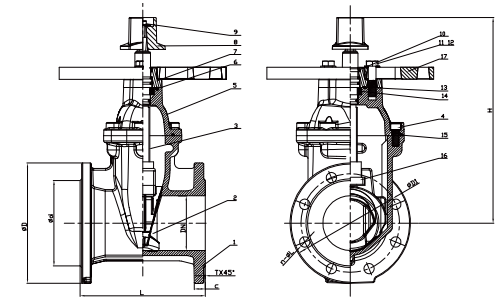
BS Flanged Resilient NRS Gate Valve, with Post Flange (Z45XC-2), PN10/16, UL/FM Approved



Z45XC-2

Vds UL FM

- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	Stem	Stainless Steel	SS304, SS316, SS420, SS431
4	Bolt	Carbon Steel Zinc Plated	SS304, SS316
5	Bonnet	EN-GJS-450-10	
6	O-Ring	NBR	EPDM
7	Gland	EN-GJS-450-10	
8	Stem Cap	EN-GJS-450-10	
9	Bolt	Carbon Steel Zinc Plated	SS304, SS316
10	Ring Wiper	NBR	
11	Bolt	Carbon Steel Zinc Plated	SS304, SS316
12	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
13	O-Ring	NBR	EPDM
14	Thrust Washer	Brass HPb59-1 (Type A) Not Available (Type B)	
15	Bonnet Gasket	EPDM	NBR
16	Wedge Nut	Brass HPb59-1	Bronze ZQSn5-5-5
17	Post Flange	EN-GJS-450-10	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)								
Inch	mm		L	H		D	D1	d	C	T	n-d
				TypeA	TypeB						
4"	100	10/16	229	347	395	220	180	156	19	3	8-Φ19
5"	125	10/16	254	432	432	250	210	184	19	3	8-Φ19
6"	150	10/16	267	443	475	285	240	211	19	3	8-Φ23
		16	292	518	585	340	295	266	20	3	8-Φ23 12-Φ23
8"	200	10/16	330	656	656	405	355	319	22	3	12-Φ23 12-Φ28
		16	356	751	751	460	410	370	25.4	4	12-Φ23 12-Φ28
10"	250	10/16	381	952	952	520	460	429	26.5	4	16-Φ23 16-Φ28
		16	406	952	952	580	515	480	28	4	16-Φ28 16-Φ31

Note: UL/FM approved from 4" to 12"



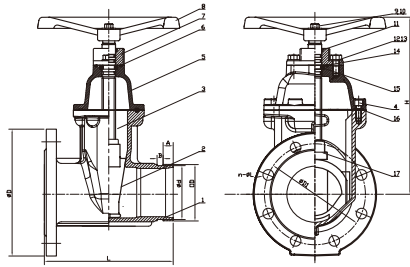
Flanged x Grooved Resilient NRS Gate Valve (Z55X), PN10/16, UL/FM Approved



Z55X



- Connection Ends: Flange to EN 1092-2:1997, Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM	
3	Stem	Stainless Steel	SS304, SS316, SS420, SS431
4	Bolt	Carbon Steel Zinc Plated	SS304, SS316
5	Bonnet	EN-GJS-450-10	
6	O-Ring	NBR	EPDM
7	Gland	EN-GJS-450-10	
8	Handwheel	EN-GJS-450-10	Pressed Steel
9	Bolt	Carbon Steel Zinc Plated	SS304, SS316
10	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
11	Ring Wiper	EPDM	NBR
12	Bolt	Carbon Steel Zinc Plated	SS304, SS316
13	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316
14	O-Ring	NBR	EPDM
15	Washer	Brass HPb59-1	
16	Bonnet Gasket	EPDM	NBR
17	Wedge Nut	Brass HPb59-1	Bronze ZQSn5-5-5

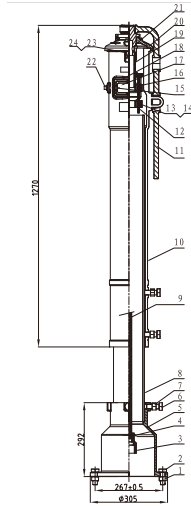
Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)									
Inch	mm	L	H	D	D1	n-d	OD	d	A	B	
2"	50	178	218	165	125	4-Φ19	60.3	57.15	15.88	7.92	
2.5"	65	190	230	185	145	4-Φ19	76.1	72.26	15.88	7.92	
3"	80	203	281	200	160	8-Φ19	88.9	84.94	15.88	7.92	
4"	100	229	316	220	180	8-Φ19	114.3	110.08	15.88	9.52	
5"	125	254	393	250	210	8-Φ19	139.7	135.48	15.88	9.52	
6"	150	267	420	285	240	8-Φ23	165.1	160.90	15.88	9.52	
6"	150	267	420	285	240	8-Φ23	168.3	163.96	15.88	9.52	
8"	200	292	490	340	295	12-Φ23	219.1	214.40	19.05	11.13	
10"	250	330	626	405	355	12-Φ28	273.0	268.28	19.05	12.70	
12"	300	356	722	460	410	12-Φ28	323.9	318.29	19.05	12.70	

Vertical Indicator Post (IP), UL/FM Approved



IP



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification
1	Hex Nut	Carbon Steel Zinc Plated
2	Hex Bolt	Carbon Steel Zinc Plated
3	Socket	EN-GJS-450-10
4	Cotter Pin	SS304
5	Base Flange	Cast Iron EN-GJL-200
6	Hex Bolt	Carbon Steel Zinc Plated
7	Hex Nut	Carbon Steel Zinc Plated
8	Standpipe	Carbon Steel
9	Stem 1" Square	Carbon Steel
10	Body	Cast Iron EN-GJL-200
11	Locking Wrench	EN-GJS-450-10
12	Target Carrier Nut	Cast Aluminum
13	Hex Bolt	Carbon Steel Zinc Plated
14	Hex Nut	Carbon Steel Zinc Plated
15	Hex Bolt	Carbon Steel Zinc Plated
16	Target	Cast Aluminum
17	Window Glass	Plexiglass
18	Gasket	EPDM
19	Operating Nut	SS304
20	Top Section	Cast Iron EN-GJL-200
21	Snap Ring	Spring Steel
22	Plug	Malleable Iron
23	Square Nut	Carbon Steel Zinc Plated
24	Hex Bolt	Carbon Steel Zinc Plated

Field Adjustment:

- 1.Remove the Top Section from the top of the Indicator Post assembly;
 - 2.Cut the required stem length and adjust the Standpipe to match up to the ground line;
 - 3.Set the "OPEN" and "SHUT" targets for the appropriate valve size;
 - 4.Reattach the Top Section to the top of the Indicator Post assembly.
- Statement:
Vertical indicator post provides a means to operate a buried or otherwise inaccessible valve and able to indicate the open or shut position of the valve.
 - Coating:
Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



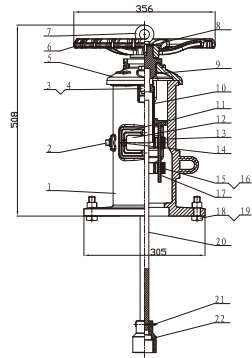
Wall Indicator Post (WP),
UL/FM Approved



WP



- **Statement:**
Wall indicator post provides a means to operate a valve installed behind a wall and able to indicate the open or shut position of the valve.
- **Coating:**
Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification
1	Body	Cast Iron EN-GJL-200
2	Plug	Malleable Iron
3	Square Nut	Carbon Steel Zinc Plated
4	Hex Bolt	Carbon Steel Zinc Plated
5	Cover	Cast Iron EN-GJL-200
6	Hand Wheel	EN-GJS-450-10
7	Eye Bolt	Carbon Steel Zinc Plated
8	Gasket	Carbon Steel Zinc Plated
9	Snap Ring	Spring Steel
10	Operating Nut	SS304
11	Gasket	EPDM
12	Window Class	Plexiglass
13	Target	Cast Aluminum
14	Hex Bolt	Carbon Steel Zinc Plated
15	Hex Bolt	Carbon Steel Zinc Plated
16	Hex Nut	Carbon Steel Zinc Plated
17	Target Carrier Nut	SS304
18	Hex Nut	Carbon Steel Zinc Plated
19	Hex Bolt	Carbon Steel Zinc Plated
20	Stem 1" Square	Carbon Steel
21	Cotter Pin	SS304
22	Socket	ASTM A536, 65-45-12

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list;

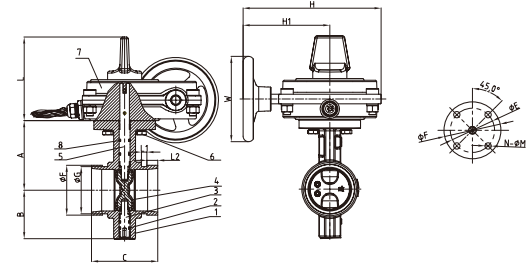
Grooved Butterfly Valve
with Tamper Switch (XD381X),
UL/FM/VdS Approved



XD381X



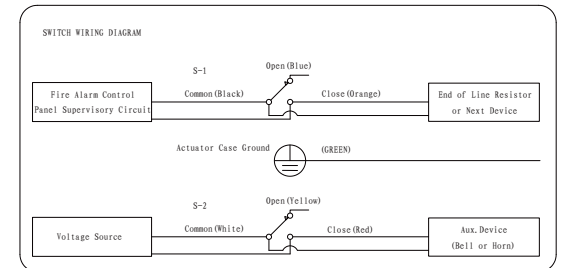
- Design Standard: BS EN 593
- Connection Ends: Groove to ISO 6182
- Top Flange Standard: ISO 5211
Stem drive by keys, parallel or diagonal square or flat head
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Body	EN-GJS-450-10	
2	O-Ring	NBR	EPDM
3	Stub Shaft	SS431	
4	Disc	EN-GJS-450-10+EPDM	EN-GJS-450-10+NBR
5	Drive Shaft	SS431	
6	Hex Nut	Carbon Steel Zinc plated	
7	Signal Gearbox	Body-EN-GJS-450-10	
8	O-Ring	NBR	EPDM

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



DN	Dimensions(mm)																
	Inch	mm	A	B	C	F	G	L	L1	L2	H1	H	W	ΦE	ΦF	N-ΦM	ISO5211
2"	50	89	65	81	60.3	57.15	122.5	7.93	15.88	127	202.2	125	70	90	90	4-Φ10	F07
2.5"	65	102	71	97	73.0	69.09	122.5	7.93	15.88	127	202.2	125	70	90	90	4-Φ10	F07
2.5"	65	102	71	97	76.1	72.26	122.5	7.93	15.88	127	202.2	125	70	90	90	4-Φ10	F07
3"	80	109	81	97	88.9	84.94	122.5	7.93	15.88	127	202.2	125	70	90	90	4-Φ10	F07
4"	100	128	95	116	114.3	110.08	122.5	9.53	15.88	127	202.2	125	70	90	90	4-Φ10	F07
5"	125	141	111	148	139.7	135.48	122.5	9.53	15.88	127	202.2	125	70	90	90	4-Φ10	F07
5"	125	141	111	148	141.3	137.03	122.5	9.53	15.88	127	202.2	125	70	90	90	4-Φ10	F07
6"	150	153	133	148	165.1	160.90	122.5	9.53	15.88	139.5	215	225	70	90	90	4-Φ10	F07
6"	150	153	133	148	168.3	163.96	122.5	9.53	15.88	139.5	215	225	70	90	90	4-Φ10	F07
8"	200	184	164	133	219.1	214.40	122.5	11.10	19.05	198.5	274	225	102	125	125	4-Φ12	F10
10"	250	216	196	159	273.1	268.28	122.5	12.70	19.05	198.5	274	225	102	125	125	4-Φ12	F10
12"	300	254	226	165	323.9	318.29	132.0	12.70	19.05	198.5	293.5	225	102	125	125	4-Φ12	F10

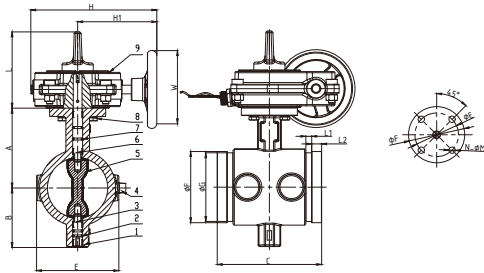
Note: Valve must not be installed with disc in full open position. Disc must be partly closed so that no part is protruding beyond end of valve body.



Grooved Butterfly Valve with Tamper Switch (XD381X71)



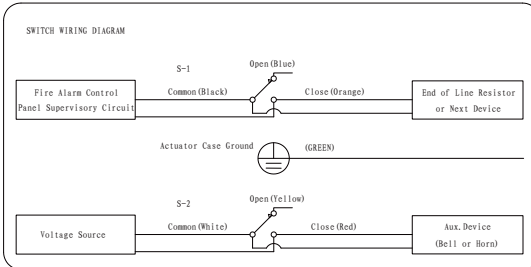
Tapped Body



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	O-Ring	NBR	EPDM
3	Stub Shaft	Stainless Steel,2Cr13	SS304, SS316, SS420, SS431
4	Plug	Bronze ASTM B584	Malleable Iron Galvanized
5	Disc	EN-GJS-450-10+EPDM	SS304, SS316
6	Drive Shaft	Stainless Steel,2Cr13	SS304, SS316, SS420, SS431
7	O-Ring	NBR	EPDM
8	Bolt and Nut	Carbon Steel Zinc Plated	SS304, SS316
9	Signal Gearbox	EN-GJS-450-10	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



- Design Standard: BS EN 593
- Connection Ends: Groove to ISO 6182
- Top Flange Standard: ISO 5211
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request

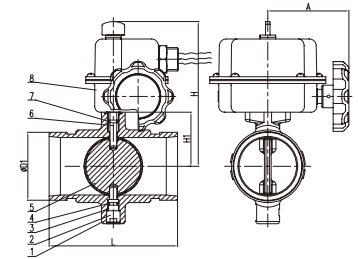
DN		Dimensions(mm)															
Inch	mm	A	B	C	E	F	G	L	L1	L2	H1	H	W	N-ΦM	ISO5211	P standard	optional
2.5	65	102	71	152.5	94±1.5	73	69.09	122.5	7.93	15.88	127	202	125	4-Φ10	F07	1/2	3/4
2.5	65	102	71	152.5	94±1.5	78.1	69.09	122.5	7.93	15.88	127	202	125	4-Φ10	F07	1/2	3/4
3	80	109	81	160.0	107±1.5	88.9	84.94	122.5	7.93	15.88	127	202	125	4-Φ10	F07	1/2	3/4
4	100	128	95	167.6	132±1.5	114.3	110.08	122.5	9.53	15.88	127	202	125	4-Φ10	F07	3/4	1/2
6	150	153	133	175.3	188±1.5	165.1	160.9	122.5	9.53	15.88	139.5	215	225	4-Φ10	F07	3/4	1/2
6	150	153	133	175.3	188±1.5	168.3	163.96	122.5	9.53	15.88	139.5	215	225	4-Φ10	F07	3/4	1/2
8	200	184	165	200.7	236±1.5	219.1	214.4	122.5	11.1	19.05	198.5	274	225	4-Φ12	F10	3/4	1/2



Grooved Butterfly Valve with Tamper Switch (XD381X4-C)



Compact Design

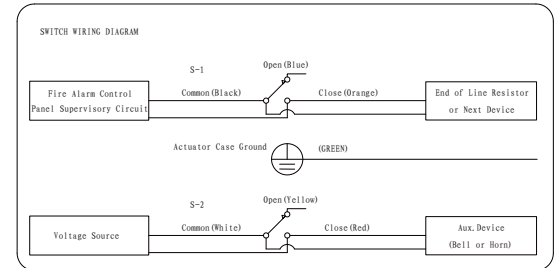


MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Screw Plug	Carbon Steel Zinc Plated	
3	Stub Shaft	Stainless Steel	SS304, SS316, SS420, SS431
4	O-Ring	NBR	EPDM
5	Disc	Carbon Steel+EPDM	
6	Drive Shaft	Stainless Steel	SS304, SS316, SS420, SS431
7	O-Ring	NBR	EPDM
8	Signal Gearbox	Carbon Steel	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

- Design Standard: BS EN 593
- Connection Ends: Groove to ISO 6182
- Top Flange Standard: ISO 5211
- Working Pressure: 1.2MPa
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



DN		Dimensions(mm)				
Inch	mm	A	ØD1	H	H1	L
2"	50	72	60.3	128.5	48	114.0
2.5"	65	72	73.0	132.5	52	114.0
2.5"	65	72	76.1	132.5	52	114.0





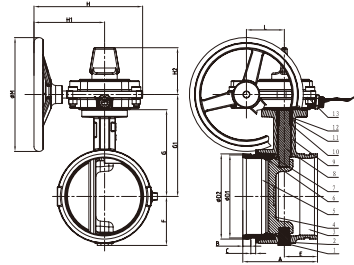
Double Eccentric Grooved Butterfly Valve with Tamper Switch (XD382X), PN10/16



XD382X



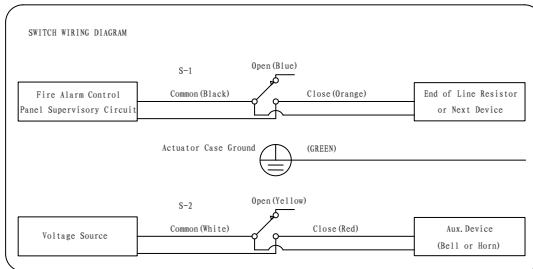
- Design Standard: BS EN 593
- Connection Ends: Groove to ISO 6182
- Top Flange Standard: ISO 5211
Stem drive by keys, parallel or diagonal square or flat head
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Upper Stem	Stainless Steel	SS304, SS316, SS420, SS431
2	O-Ring	NBR	EPDM
3	Right Body	EN-GJS-450-10	
4	Disc	SS316	
5	Left Body	EN-GJS-450-10	
6	O-Ring	NBR	EPDM
7	Sealing Ring	EPDM	NBR
8	Lower Stem	Stainless Steel	SS304, SS316, SS420, SS431
9	Shaft Sleeve	SS304+PTFE	
10	O-Ring	NBR	EPDM
11	Stuffing Box	ZouSn5pb5zn5	
12	O-Ring	NBR	EPDM
13	Signal Gearbox	EN-GJS-450-10	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

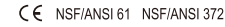


DN		Dimensions(mm)													
Inch	mm	A	B	C	ØD1	ØD2	E	F	G	ØM	H	H1	H2	L	
2"	50	81	15.88	7.93	60.3	57.15	36.5	46	96.8	125	202.2	127	122.5	75	
2.5"	65	96.8	15.88	7.93	73.0	69.09	45	53.3	108	125	202.2	127	122.5	75	
2.5"	65	96.8	15.88	7.93	76.1	69.09	45	53.3	108	125	202.2	127	122.5	75	
3"	80	115.8	15.88	7.93	88.9	84.94	45	59.7	114.3	125	202.2	127	122.5	75	
4"	100	147.6	15.88	9.53	114.3	110.08	55.4	73.2	133.4	125	202.2	127	122.5	75	
5"	125	147.6	15.88	9.53	139.7	135.48	65.5	84.8	158.8	125	202.2	127	122.5	75	
5"	125	147.6	15.88	9.53	141.3	137.03	65.5	84.8	158.8	125	202.2	127	122.5	75	
6"	150	147.6	15.88	9.53	165.1	160.9	65.5	97.3	171.5	225	215	139.5	122.5	75	
6"	150	147.6	15.88	9.53	168.3	163.96	65.5	97.3	171.5	225	215	139.5	122.5	75	
8"	200	133.4	19.05	11.10	219.1	214.4	59.2	127	203.2	225	274	198.5	122.5	75	
10"	250	158.8	19.05	12.70	273.1	268.28	76.2	155.7	247.7	225	274	198.5	122.5	75	
12"	300	165.1	19.05	12.70	323.9	318.29	76.2	181.1	273.1	225	293.5	132	87		

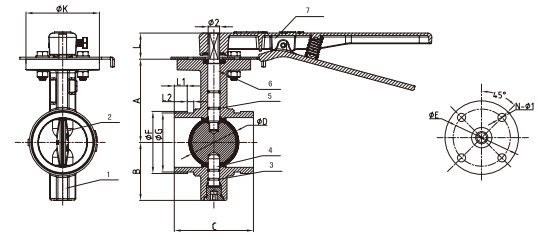
Grooved Butterfly Valve (D81X4, D381X4), PN10/16



D81X4



- Design Standard: BS EN 593
- Connection Ends: Groove to ISO 6182
- Top Flange Standard: ISO 5211
Stem drive by keys, parallel or diagonal square or flat head
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Disc	EN-GJS-450-10+EPDM	EN-GJS-450-10+NBR
3	O-Ring	NBR	EPDM
4	Stem	Stainless Steel	SS304, SS316, SS420, SS431
5	O-Ring	NBR	EPDM
6	Stem	Stainless Steel	SS304, SS316, SS420, SS431
7	Lever	EN-GJS-450-10	Aluminum
8	Signal Gearbox	EN-GJS-450-10	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)																		
Inch	mm	A	B	C	ØD	ØF	ØG	L1	L2	L	ØK	H	H1	H2	J	ØM	Ø2	ISO 5211	ØE	N-Ø1
2"	50	89	65	81	60.3	60.3	57.15	15.88	7.93	32	90	206	158	52	114	150	14	F07	70	4-Ø10
2.5"	65	102	71	97	60.8	73.0	69.09	15.88	7.93	32	90	206	158	52	114	150	14	F07	70	4-Ø10
2.5"	65	102	71	97	60.8	76.1	72.26	15.88	7.93	32	90	206	158	52	114	150	14	F07	70	4-Ø10
3"	80	109	81	97	76	88.9	84.94	15.88	7.93	32	90	206	158	52	114	150	14	F07	70	4-Ø10
4"	100	128	95	116	86.5	114.3	110.08	15.88	9.53	32	90	206	158	52	114	150	16	F07	70	4-Ø10
5"	125	141	111	148	122.6	139.7	135.48	15.88	9.53	32	90	206	158	52	114	150	16	F07	70	4-Ø10
5"	125	141	111	148	122.6	141.3	137.03	15.88	9.53	32	90	206	158	52	114	150	16	F07	70	4-Ø10
6"	150	153	133	148	148	159.0	154.50	15.88	9.53	32	90	206	158	52	114	150	20	F07	70	4-Ø10
6"	150	153	133	148	148	165.1	160.9	15.88	9.53	32	90	206	158	52	114	150	20	F07	70	4-Ø10
6"	150	153	133	148	148	168.3	163.96	15.88	9.53	32	90	206	158	52	114	150	20	F07	70	4-Ø10
8"	200	184	164	133	199	219.1	214.4	19.05	11.10	45	125	310	239	69	167	300	26	F10	102	4-Ø12
10"	250	216	196	159	252	273.0	268.28	19.05	12.70	45	125	310	239	69	167	300	26	F10	102	4-Ø12
12"	300	254	226	165	300.5	323.9	318.29	19.05	12.70	45	125	307	229	73	190	300	28	F10	102	4-Ø12
14"	377	290	241	178	324	377	371.4	23.8	12.7	45	150	307	229	73	190	300	31.7	F12	125	4-Ø14

Note: Valve must not be installed with disc in full open position. Disc must be partly closed so that no part is protruding beyond end of valve body.



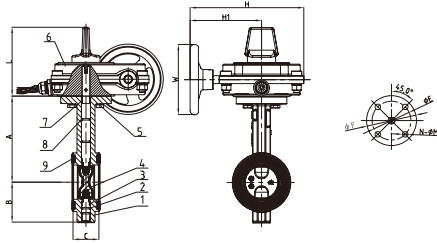
Wafer Butterfly Valve with Tamper Switch (XD371X), PN10/16, UL/FM/VdS Approved



XD371X



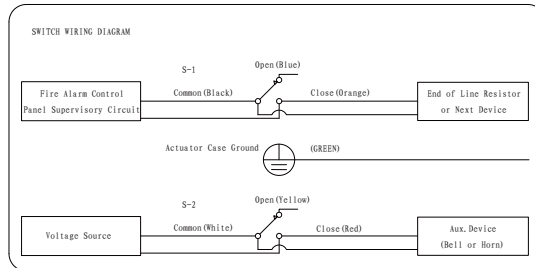
- Design Standard: BS EN 593
- Top Flange Standard: ISO 5211
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Flange Specification: BS EN 1092-2 PN10/PN16, ASME B16.1 CL125, ASME B16.5 CL150, JIS B2210 10K;



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Body	EN-GJS-450-10	
2	O-Ring	NBR	EPDM
3	Stub Shaft	SS431	
4	Disc	EN-GJS-450-10+EPDM	EN-GJS-450-10+NBR
5	Hex Nut	Carbon Steel Zinc plated	
6	Signal Gearbox	Body:EN-GJS-450-10	
7	Drive Shaft	SS431	
8	O-Ring	NBR	EPDM
9	End Face Seal	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



DN		Dimensions(mm)											
Inch	mm	A	B	C	L	H1	H	W	ISO5211	ΦE	ΦF	N-ΦM	
2"	50	140.5	65	43	122.5	127	202.2	125	F07	70	90	4-Φ10	
2.5"	65	153	71	46	122.5	127	202.2	125	F07	70	90	4-Φ10	
3"	80	157.5	81	46	122.5	127	202.2	125	F07	70	90	4-Φ10	
4"	100	176	95	52	122.5	127	202.2	125	F07	70	90	4-Φ10	
5"	125	191	111	56	122.5	127	202.2	125	F07	70	90	4-Φ10	
6"	150	202.5	133	56	122.5	139.5	215	225	F07	70	90	4-Φ10	
8"	200	243.5	164	60	122.5	198.5	274	225	F10	102	125	4-Φ12	
10"	250	273	196	68	122.5	198.5	274	225	F10	102	125	4-Φ12	
12"	300	311	226	78	132	198.5	293.5	225	F10	102	125	4-Φ12	

Note: Not designed for dead end service



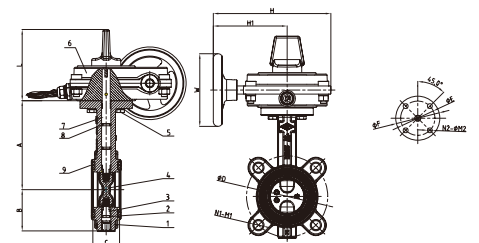
Lugged Wafer Butterfly Valve with Tamper Switch (XD371XL), PN10/16, UL/FM/VdS Approved



XD371XL



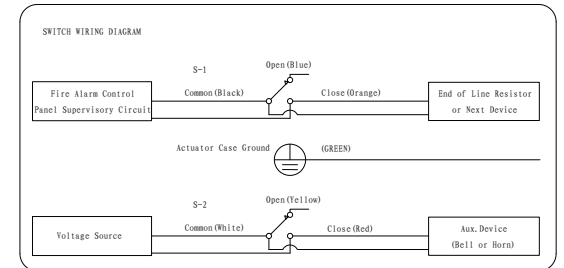
- Design Standard: BS EN 593
- Top Flange Standard: ISO 5211
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Flange Specification: BS EN 1092-2 PN10/PN16, ASME B16.1 CL125, ASME B16.5 CL150, JIS B2210 10K;



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Body	EN-GJS-450-10	
2	O-Ring	NBR	EPDM
3	Stub Shaft	SS431	
4	Disc	EN-GJS-450-10+EPDM	EN-GJS-450-10+NBR
5	Hex Nut	Carbon Steel Zinc plated	
6	Signal Gearbox	Body:EN-GJS-450-10	
7	Drive Shaft	SS431	
8	O-Ring	NBR	EPDM
9	End Face Seal	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



DN		Dimensions(mm)														
Inch	mm	A	B	C	L	H1	H	W	ØD		N1-M1		N2-M2	ISO5211	ΦE	ΦF
									PN10	PN16	PN10	PN16				
2"	50	140.5	65	43	122.5	127	202.2	125	125	125	4-M16	4-M16	4-Φ10	F07	70	90
2.5"	65	153	71	46	122.5	127	202.2	125	145	145	4-M16	4-M16	4-Φ10	F07	70	90
3"	80	157.5	81	46	122.5	127	202.2	125	160	160	8-M16	8-M16	4-Φ10	F07	70	90
4"	100	176	95	52	122.5	127	202.2	125	180	180	8-M16	8-M16	4-Φ10	F07	70	90
5"	125	191	111	56	122.5	127	202.2	125	210	210	8-M16	8-M16	4-Φ10	F07	70	90
6"	150	202.5	133	56	122.5	139.5	215	225	240	240	8-M20	8-M20	4-Φ10	F07	70	90
8"	200	243.5	164	60	122.5	198.5	274	225	295	295	8-M20	12-M20	4-Φ12	F10	102	125
10"	250	273	196	68	122.5	198.5	274	225	350	350	12-M20	12-M24	4-Φ12	F10	102	125
12"	300	311	226	78	132	198.5	293.5	225	400	410	12-M20	12-M24	4-Φ12	F10	102	125





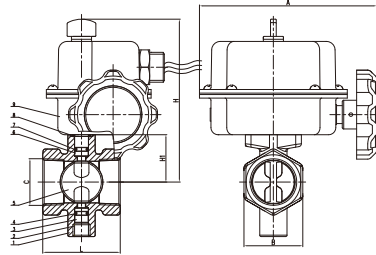
Threaded Butterfly Valve with Tamper Switch (XD311X), PN10, UL/FM Approved



XD311X



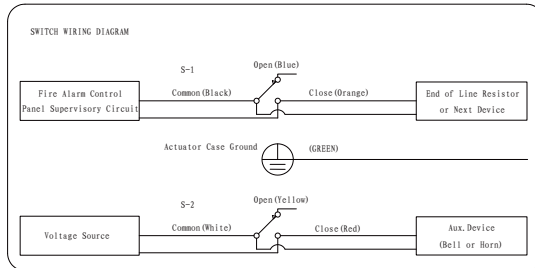
- Connection Ends: Thread to ISO 7-1
- Working Pressure: PN10
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or double coating of hot dipped galvanization plus electroplating



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Screw	Carbon Steel Zinc Plated	SS304, SS316
3	Stem	Stainless Steel	SS304, SS316, SS420, SS431
4	O-Ring	NBR	EPDM
5	Disc	Carbon Steel+EPDM	Carbon Steel+NBR
6	Stem	Stainless Steel	SS304, SS316, SS420, SS431
7	O-Ring	NBR	EPDM
8	O-Ring	NBR	EPDM
9	Signal Gearbox	Carbon Steel	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



DN		Dimensions(mm)					
Inch	mm	L	H	H1	A	B	C(Rc)
1"	25	54	115	33	125	41	1
1.25"	32	67	117.5	37	125	49	1 1/4
1.5"	40	73	121	40.5	125	55.5	1 1/2
2"	50	82.5	131	48	125	71	2

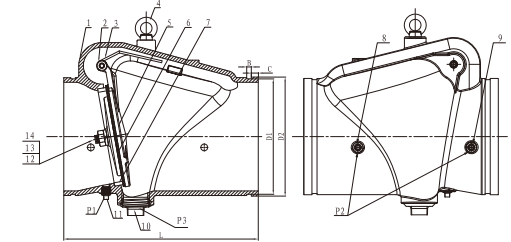
Grooved Resilient Swing Check Valve (H84X), PN10/16, UL/FM/LPCB Approved



H84X



- Connection Ends: Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Hinge Pin	SS420	
3	Spring	SS304	SS316
4	Eye Bolt	Carbon Steel Zinc Plated	
5	Disc	DN50-100 SS304 DN150-300 EN-GJS-450-10	SS304
6	Disc Sealing Ring	EPDM	NBR
7	Seat Ring	ASTM B62 C83600 (Pressed Fit)	SS304, SS316 Pressed Fit or Threaded
8	Plug	Malleable Iron Galvanized	Bronze ASTM B584
9	Plug	Malleable Iron Galvanized	Bronze ASTM B584
10	Plug	Malleable Iron Galvanized	Bronze ASTM B584
11	Plug	Malleable Iron Galvanized	Bronze ASTM B584
12	Bolt	SS304	SS316
13	Washer	SS304	SS316
14	Nut	SS304	SS316

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)								
Inch	mm	L	D1	D2	B	C	P1	P3		P2
								Standard	Optional	
2"	50	171	57.15	60.3	7.93	15.88	1/2	1/2	1	3/8
2.5"	65	184	69.09	73	7.93	15.88	1/2	1/2	1 1/4	3/8
2.5"	65	184	72.26	76.1	7.93	15.88	1/2	1/2	1 1/4	3/8
3"	80	197	84.94	88.9	7.93	15.88	1/2	1/2	1 1/4	3/8
4"	100	210	110.08	114.3	9.53	15.88	1/2	1/2	2	1/2
5"	125	248	135.48	139.7	9.53	15.88	1/2	1/2	2	1/2
5"	125	248	137.03	141.3	9.53	15.88	1/2	1/2	2	1/2
6"	150	324	160.9	165.1	9.53	15.88	1/2	1/2	2	1/2
6"	150	324	163.96	168.3	9.53	15.88	1/2	1/2	2	1/2
8"	200	371	214.4	219.1	11.13	19.05	1/2	1/2	2	1/2
10"	250	457	268.28	273	12.7	19.05	1/2	1/2	2	1/2
12"	300	535	318.29	323.9	12.7	19.05	1/2	1/2	2	1/2



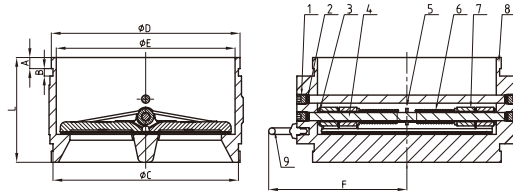
Double Door Grooved Check Valve (DH87X), PN10/16



DH87X



- Connection Ends: Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Countersunk Hex Head Screws	Carbon Steel Zinc Plated	
2	Seal Ring	EPDM	
3	Gasket	PTFE	
4	Shaft	SS420	SS304, SS316, SS431
5	Gasket	PTFE	
6	Spring	SS304	
7	Disc	SS304	SS316, QT450-10
8	Body	EN-GJS-450-10	
9	Eye Bolt	Carbon Steel Zinc Plated	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)						
Inch	mm	A	B	C	D	E	F	L
8"	219.1	19.1	11.1	214.4	219	200	165	160
10"	273.0	19.1	12.7	268.28	273	253	203	180
12"	323.9	19.1	12.7	318.29	324	307	228	180
14"	377.0	23.8	12.7	371.1	377	354	258	200

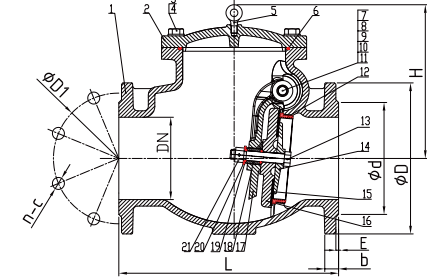
Flanged Resilient Swing Check Valve (H44X2), PN10/16, UL/FM/LPCB Approved



H44X2



- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Bonnet	EN-GJS-450-10	
3	Flat Washer	Carbon Steel Zinc Plated	
4	Bolts	Carbon Steel Zinc Plated	
5	Eye Bolt	Carbon Steel Zinc Plated	
6	O-Ring	EPDM	NBR
7	Plug	SS304	Bronze ASTM B584
8	O-Ring	EPDM	NBR
9	Hinge Pin	SS304	SS316
10	Washer	Brass ASTM B16 C36000/Hpb63-3	SS304
11	Hinge Bushing	Brass ASTM B16 C36000/Hpb63-3	SS304
12	Seat Ring	Bronze ASTM B62 C83600/ZQSn5-5-5(Pressed Fit)	SS304
13	Disc Seat Bolts	SS304	
14	Retainer Washer	Bronze ASTM B62 C83600/ZQSn5-5-5	
15	Disc Seat Ring	EPDM	NBR
16	Disc	EN-GJS-450-10	
17	Clapper Arm	EN-GJS-450-10	
18	Disc Bushing	Brass ASTM B16 C36000/Hpb63-3	
19	O-Ring	EPDM	NBR
20	Washer	Brass ASTM B16 C36000/Hpb63-3	SS304
21	Nut	Bronze ASTM B62 C83600/ZQSn5-5-5	SS304

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)							
Inch	mm		L	D	D1	d	b	E	H	n-Φd
2"	50	10/16	203	165	125	99	19	3	133	4-Φ19
2.5"	65	10/16	216	185	145	118	19	3	150	4-Φ19
3"	80	10/16	241	200	160	132	19	3	150	8-Φ19
4"	100	10/16	292	220	180	156	19	3	218	8-Φ19
6"	150	10	356	285	240	211	19	3	290	8-Φ23
		16								12-Φ23
8"	200	10	495	340	295	266	20	3	330	8-Φ23
		16								12-Φ23
10"	250	10	622	405	350	319	22	3	350	12-Φ23
		16			355					12-Φ28
12"	300	10	698	460	400	370	24.5	4	376	12-Φ23
		16			410					12-Φ28



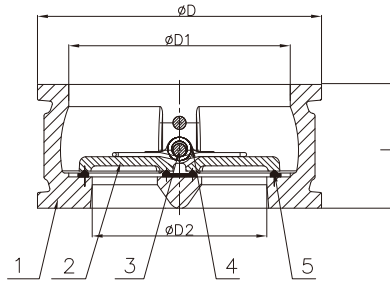
Double Door Wafer Check Valve (DH77X), PN10/16, UL Listed



DH77X

NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: BS EN 1092 PN10/PN16/PN25, AS 2129 TABLE E, JIS B2212 10K, BS 10 TABLE D/E
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Disc	SS316	EN-GJS-450-10, SS304, AL-Bronze UNC 95400
3	Stem	SS420	SS304, SS316, SS416
4	Spring	SS304	SS316
5	Rubber Seat	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)			
Inch	mm	L	D	D1	D2
2"	50	54	106	68	46
2.5"	65	60	127	78	60
3"	80	57	134	102	70
4"	100	67	162	117	84
5"	125	83	194	145	115
6"	150	95	218	170	134
8"	200	127	277	226	184
10"	250	140	336	265	220
12"	300	181	406	310	260
14"	350	184	447	360	302
16"	400	191	505	410	350

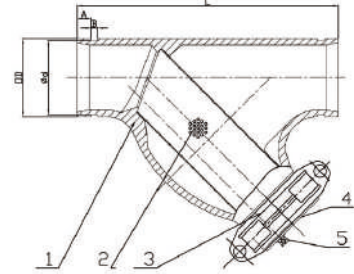
Grooved Y-Type Strainer (V8), PN10/16, UL Listed



V8

NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Screen	SS304	SS316
3	Rigid Coupling	EN-GJS-450-10	
4	Cap	EN-GJS-450-10	
5	Plug	Malleable Iron Galvanized	Bronze ASTM B584

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)				
Inch	mm	L	OD	d	A	B
2"	50	247.5	60.3	57.15	15.88	7.92
2.5"	65	273	73	69.09	15.88	7.92
2.5"	65	273.0	76.1	72.26	15.88	7.92
3"	80	298.5	88.9	84.94	15.88	7.92
4"	100	362.0	114.3	110.08	15.88	9.52
5"	125	419.0	139.7	135.48	15.88	9.52
5"	125	419	141.3	137.03	15.88	9.52
6"	150	470.0	159.0	154.50	15.88	9.52
6"	150	470.0	165.1	160.90	15.88	9.52
6"	150	470.0	168.3	163.96	15.88	9.52
8"	200	609.5	219.1	214.40	19.05	11.13
10"	250	686.0	273.0	268.28	19.05	12.70
12"	300	762.0	323.9	318.29	19.05	12.70



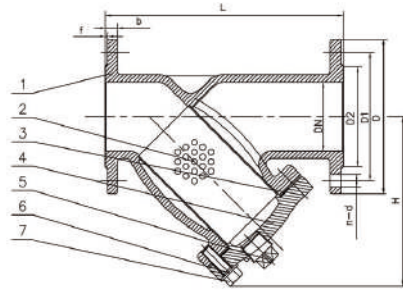
**Flanged Y-Type Strainer (V4),
PN10/16, UL Listed**



V4

UL LISTED NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: -10°C- 200°C graphite gasket
0°C- 100°C rubber gasket
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Screen	SS304 (Perforated)	SS304, SS316 (Perforated, Knitted, Double Screen)
3	Gasket	Graphite+Acarthopore Plate	EPDM
4	Bonnet	EN-GJS-450-10	
5	Plug	Malleable Iron Galvanized	Bronze ASTM B584
6	Bolt	Carbon Steel Zinc Plated	SS304, SS316
7	Flat Washer	Carbon Steel Zinc Plated	SS304, SS316

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		PN	Dimensions(mm)							
Inch	mm		L	D	D1	D2	b	n-Φd	f	H
2"	50	10/16	230	165	125	99	19	4-Φ19	3	140
2.5"	65	10/16	290	185	145	118	19	4-Φ19	3	175
3"	80	10/16	310	200	160	132	19	8-Φ19	3	198
4"	100	10/16	350	220	180	156	19	8-Φ19	3	229
5"	125	10/16	400	250	210	184	19	8-Φ19	3	287
6"	150	10/16	480	285	240	211	19	8-Φ23	3	304
8"	200	10	600	340	295	266	20	8-Φ23	3	370.5
		16						12-Φ23		
10"	250	10	730	405	350	319	22	12-Φ23	3	469
		16			355			12-Φ28		
12"	300	10	850	460	400	370	24.5	12-Φ23	4	540
		16			410			12-Φ28		
18"	450	10	1200	640	565	530	30	20-Φ28	4	862
		16			585			20-Φ31		
20"	500	10	1250	715	620	582	31.5	20-Φ28	4	926
		16			650			20-Φ34		
24"	600	10	1450	840	725	682	36	20-Φ31	5	1057
		16			770			20-Φ37		

Note: UL listed from 2" to 12"

SHORT STYLE

DN		PN	Dimensions(mm)							
Inch	mm		L	D	D1	D2	b	n-Φd	f	H
18"	450	10	850	640	565	530	30	20-Φ28	4	693
		16			585			548		
20"	500	10	1000	715	620	582	31.5	20-Φ28	4	774
		16			650			609		
24"	600	10	1100	840	725	682	36	20-Φ31	5	956
		16			770			720		

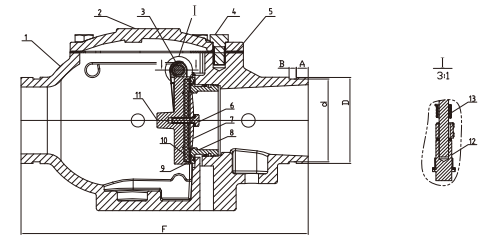
**Grooved Wet Alarm Check Valve (ZSFZ8X9),
PN10/16**



ZSFZ8X9

CE cUL LISTED

- Connection Ends: Groove to ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C- 100°C
- Coating: Painting or Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

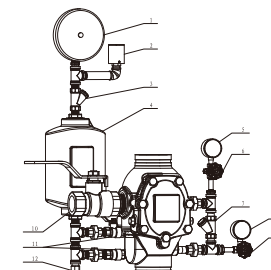


MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	EN-GJS-450-10	
2	Bonnet	EN-GJS-450-10	
3	Pin	SS304	SS316
4	Hex Bolt	Carbon Steel Zinc Plated	
5	Gasket	EPDM	NBR
6	Hex Bolt	SS304	SS316
7	Gland	SS304	
8	Seat	Bronze ZQSn5-5-5	
9	O-Ring	NBR	EPDM
10	Gasket	EPDM	
11	Disc	Brass H62	
12	Plug	SS304	SS316
13	Spring	SS304	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)					
Inch	mm	OD	A	B	Φ d	Φ D	F
3"	80	88.9	15.88	7.93	84.94	88.9	320.3
4"	100	114.3	15.88	9.53	110.08	114.3	382
6"	150	165.1	15.88	9.53	160.9	165.1	406.4
6"	150	168.3	15.88	9.53	163.96	168.3	406.4
8"	200	219.1	19.05	11.1	214.4	219.1	446



External Accessories			
Part No.	Part	Part No.	Part
1	Alarm	7	Check Valve
2	Pressure Switch	8	Pressure Gauge
3	Strainer	9	Ball Valve
4	Decelerator	10	Ball Valve
5	Pressure Gauge	11	Ball Valve
6	Ball Valve	12	Orifice



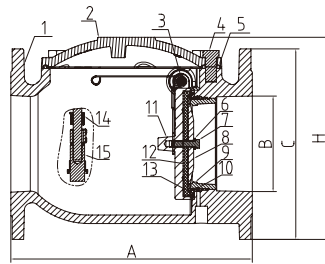
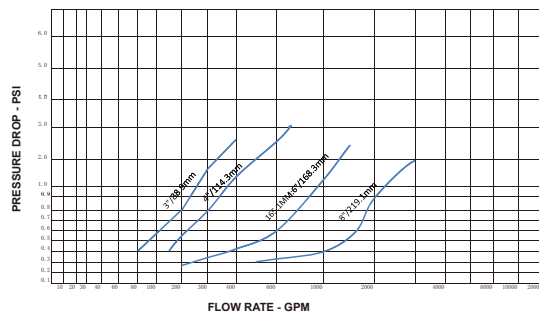
Flanged Wet Alarm Valve (ZSFZ4X)



ZSFZ4X

- Connection Ends: BS EN 1092-2:1997
- Working Pressure: 1.6MPa
- Temperature Range: 0°C - 100°C
- Coating: Painting or Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Statement: The alarm check valve works as a check valve by preventing the reverse flow of water from the system piping to the water supply. The valve is trimmed with a water bypass line, which has an in-line swing check valve. The bypass line allows pressure surges to enter the system and to be trapped above the alarm check valve's clapper without the clapper lifting and causing false alarms.

When a significant flow of water occurs, such as from an open sprinkler, the alarm valve's clapper lifts and allows water to enter the system. Simultaneously, water enters an intermediate chamber, which allows the water to activate an alarm either through a water motor alarm or through a water pressure alarm. These alarms continue to sound until the flow of water is stopped.

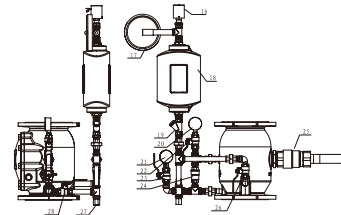


MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Valve Body	Ductile Iron EN-GJS-450-10	
2	Bonnet	Ductile Iron EN-GJS-450-10	
3	Pin	SS304	SS316
4	Hex Bolt	Carbon Steel Zinc Plated	
5	Gasket	EPDM	NBR
6	Spring Washer	SS304	
7	Hex Bolt	SS304	
8	Gland	Brass H62	
9	Seat	Bronze ZQSn5-5-5	
10	O-Ring	NBR	EPDM
11	Disc	Brass H62	
12	Gasket	EPDM	
13	O-Ring	NBR	
14	Spring	SS321	
15	Plug	SS304	

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)			
Inch	mm	A	∅ B	∅ c	H
3"	80	241	80	200	235
4"	100	292	100	220	230
6"	150	356	150	285	298
8"	200	495	200	340	352



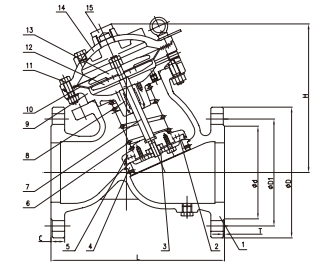
External Accessories			
Part No.	Part	Part No.	Part
16	Pressure Switch	23	Ball Valve
17	Alarm	24	Check Valve
18	Decelerator	25	Ball Valve
19	Strainer	26	Ball Valve
20	Pressure Gauge	27	Water Valve
21	Pressure Gauge	28	Ball Valve
22	Ball Valve		

Deluge Alarm Valve (SK790X), PN10/16



SK790X

- Connection Ends: BS EN 1092-2:1997
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Statement: SK790X Deluge Alarm Valve is a diaphragm type of hydraulic control valve driven by the hydraulic pressure within the piping system, functioning as flow control and alarming device in the sprinkler and pre-action system, i.e. to start the sprinkler system for quenching of the fire and send out fire alarm through the fire bell when there is fire detected.

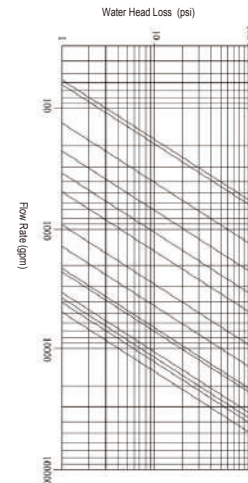


MATERIAL SPECIFICATION

Part No.	Part	Standard Specification
1	Valve Body	EN-GJS-450-10
2	Main Gasket	EPDM
3	Gland of Main Disc	EN-GJS-450-10
4	Seat	SS304
5	Main Disc	EN-GJS-450-10
6	Spring	Stainless Steel 4Cr13
7	Stem	SS304
8	Bushing	Brass H62
9	Middle Bonnet	EN-GJS-450-10
10	Diaphragm	EPDM
11	Bolt	SS304
12	Up Gland	EN-GJS-450-10
13	Bottom Gland	EN-GJS-450-10
14	Up Bonnet	EN-GJS-450-10
15	Cap Plug	Brass H62

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Kv	41	53	105	175	285	402	730	1160	1400	1770	3010	3225	3395	4272



DN		PN		Dimensions(mm)						
Inch	mm	L	H	D	D1	d	C	T	n-∅L	
2"	50	10/16	203	170	165	125	99	19	3	4-∅19
2.5"	65	10/16	216	195	185	145	118	19	3	4-∅19
3"	80	10/16	241	215	200	160	132	19	3	8-∅19
4"	100	10/16	292	255	220	180	156	19	3	8-∅19
5"	125	10/16	330	290	250	210	184	19	3	8-∅19
6"	150	10/16	356	360	285	240	211	19	3	8-∅23
8"	200	10	495	450	340	295	266	20	3	8-∅23
		16	495		340	295	266	20	3	12-∅23
10"	250	10	622	550	405	350	319	22	3	12-∅23
		16	622		405	355	319	22	3	12-∅28
12"	300	10	698	645	460	400	370	24.5	4	12-∅23
		16	698		460	410	370	24.5	4	12-∅28
14"	350	10	787	700	505	460	429	24.5	4	16-∅23
		16	787		520	470	429	26.5	4	16-∅28
16"	400	10	914	790	565	515	480	24.5	4	16-∅28
		16	914		580	525	480	28	4	16-∅31
18"	450	10	978	850	615	565	530	25.5	4	20-∅28
		16	978		640	580	548	30	4	20-∅31
20"	500	10	978	900	670	620	582	26.5	4	20-∅28
		16	978		715	625	609	31.5	4	20-∅34
24"	600	10	1295	1030	780	725	682	30	5	20-∅31
		16	1295		840	770	720	36	5	20-∅37



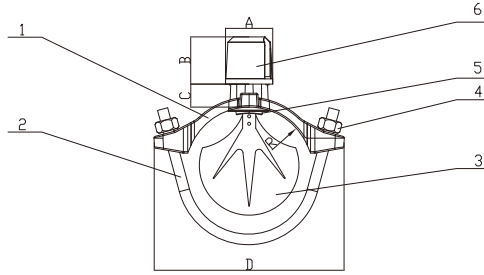
**Water Flow Indicator (ZSJZ),
PN10/16**



ZSJZ



- Connection Ends: ISO 6182
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

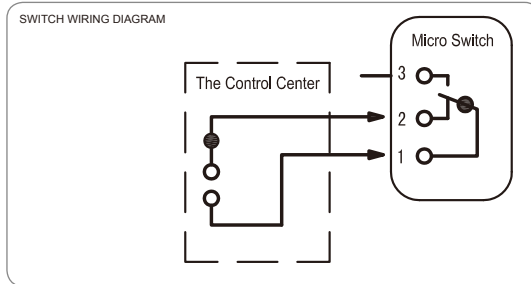


MATERIAL SPECIFICATION

Part No.	Part	Standard Specification	Options
1	Body	EN-GJS-450-10	
2	Bolt	Carbon Steel Zinc Plated	SS304, SS316
3	Lodicule	Plastic	
4	Nut	Carbon Steel Zinc Plated	SS304, SS316
5	Gasket	EPDM	NBR

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

SWITCH WIRING DIAGRAM



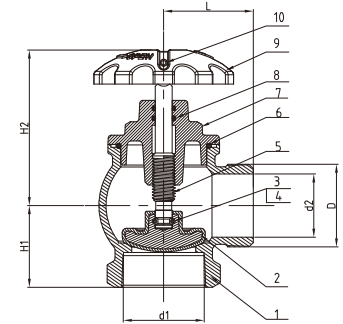
DN		Dimensions(mm)						
Inch	mm	R	A	B	C	D	Hole Dia.	
2"	50	60.3	62	48	36	120	32	
2.5"	65	73	62	48	31	130	32	
2.5"	65	76.1	62	48	31	130	32	
3"	80	88.9	62	48	36.5	145	51	
4"	100	114.3	62	48	30.5	185	51	
5"	125	139.7	62	48	36.5	221.5	51	
5"	125	141.3	62	48	36.5	221.5	51	
6"	150	165.1	62	48	33	254	51	
6"	150	168.3	62	48	33	254	51	
8"	200	219.1	62	48	36.5	300	51	

**Indoor Fire Hydrant(SN),
PN10/16**



SN

- Thread: ISO 7-1
- Working Pressure: PN10/16
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification
1	Body	EN-GJS-450-10
2	Disc	EN-GJS-450-10+EPDM
3	Steel Ball	SS304
4	Inner Hex Screw	SS304
5	Stem	SS420
6	O-Ring	NBR
7	Bonnet	EN-GJS-450-10
8	O-Ring	NBR
9	Handwheel	ABS
10	Screw	SS304

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

DN		Dimensions(mm)						
Inch	mm	H1	H2	L	d1(Rc)	d2	D(R)	
2"	50	57.5	109.5	63	2	44.5	2	
2.5"	65	71	109.3	71	2 ^{1/2}	58	2 ^{1/2}	



Dry Riser Landing Valve



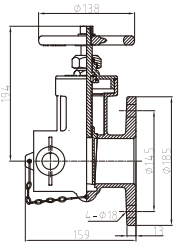
XZ45W



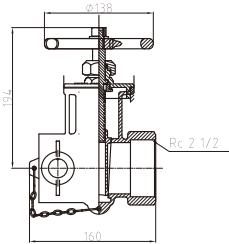
XZ15W



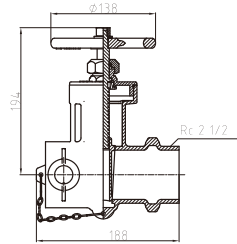
XZ25W



XZ45W



XZ15W



XZ25W

Description

- Dry Riser Landing Valve Flanged (XZ45W), DN65
- Dry Riser Landing Valve Threaded (XZ15W / XZ25W), DN65
- Valve Standard: Manufactured in accordance with BS 5041 : Part 2 : 1987 and to BS 5154 : 1991 standards
- Working Pressure: PN16

Features

- Compact design with excellent flow characteristics
- High quality casting finishes
- Precise machining for metal to metal leak proof seating
- Corrosion resistant
- Maintenance free
- Leather strap and padlock available

MATERIAL SPECIFICATION

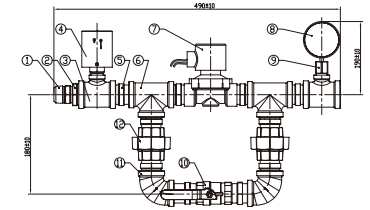
Part No.	Part	Standard Specification
1	Lock	HPb59-1
2	Disc	HPb59-1
3	Valve Body	Gunmetal
4	Bonnet	HPb59-1
5	Stem	HPb59-1
6	Handwheel	EN-GJS-450-10



Electric Inspector's Test Connection (ZSPM-80-DX)



ZSPM-80-DX



MATERIAL SPECIFICATION

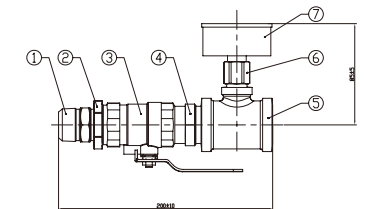
Part No.	Part	Standard Specification
1	Test Nozzle	SS304
2	Outside Hex Bushing	Malleable Iron Galvanized
3	Reducing Tee	Malleable Iron Galvanized
4	Pressure Switch	
5	Nexagon Nipple,Equal	Malleable Iron Galvanized
6	Reducing Tee	Malleable Iron Galvanized
7	Solenoid Valves	Brass
8	Pressure Gauge	
9	Connector	Brass
10	Ball Valve	SS304
11	90° Elbow	Malleable Iron Galvanized
12	Union With Brass Seat	Malleable Iron Galvanized

Note: 1.For special material request other than standard specification, please indicate clearly on the inquiry or order list.
2.Threads connection options available includes: ASME B1.20.1, ISO 7-1

Manual Inspector's Test Connection (ZSPM-80-SA)



ZSPM-80-SA



MATERIAL SPECIFICATION

Part No.	Part	Standard Specification
1	Test Nozzle	SS304
2	Outside Hex Bushing	Malleable Iron Galvanized
3	Ball Valve	SS304
4	Nexagon Nipple,Equal	Malleable Iron Galvanized
5	Reducing Tee	Malleable Iron Galvanized
6	Connector	Brass
7	Pressure Gauge	

Note: 1.For special material request other than standard specification, please indicate clearly on the inquiry or order list.
2.Threads connection options available includes: ASME B1.20.1, ISO 7-1

