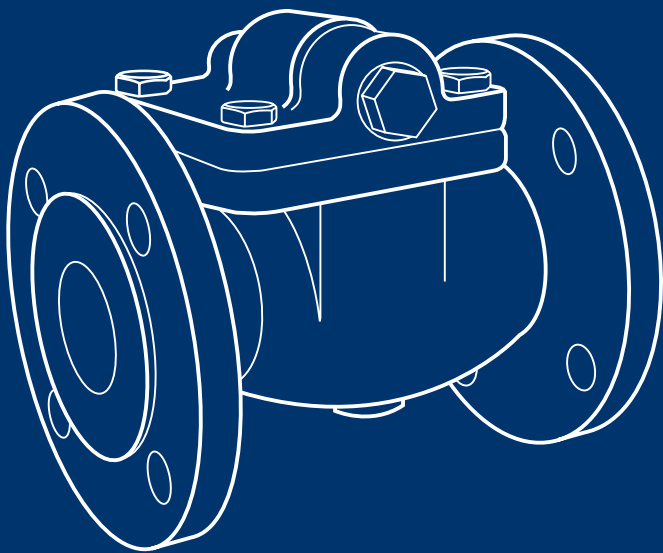




Check Valves

Counterweight Check Valve/EN558 Series 14/ PN10 PN16 PN25

Tilting Type

Model: CHV-CW(HD)-D

Features

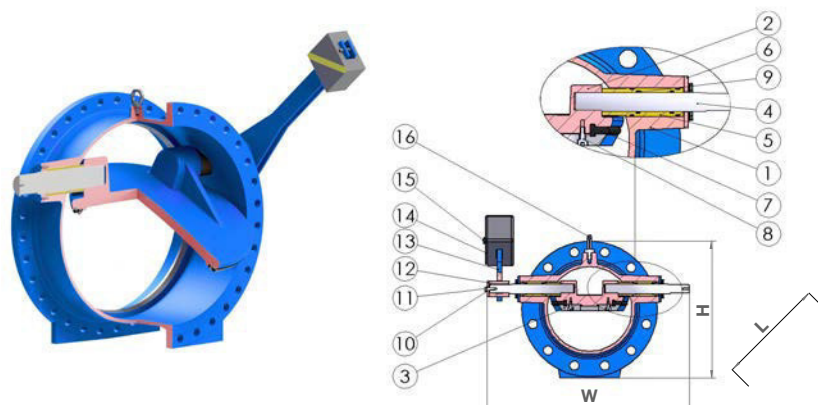
- Suitable for both horizontal and vertical installation
- Flow driven double eccentric disc design
- Very fast respond of the disc, opening even in very low flows
- Opening and closing speed of the check valve setting by the operator by means with hydraulic damper accessory
- Polished stainless steel weld overlay body seat matched with the disc
- Guiding disc shaft, supported on two open-ended bearings
- For DI valve- fusion bonded epoxy coated inside and outside for the coating units, used to produce heavy-duty corrosion protection for valves and fittings according to DIN 30677-2, DIN 3476
- Product color: Blue RAL 5005

Technical Specifications

- Design: EN 1074-1 and 3; EN 16767
- Nominal pressure designation PN10/16/25
- Face to face: EN558 Series 14
- Inspection test: EN12266-1
- Flanges from DI according to EN1092-2 PN10/16/25
- Flanges from CS,SS, according to EN1092-1 PN10/16/25
- Flanges from NAB, according to EN1092-3 PN10/16/25
- Temperature range 0°C...60°C

Optional Extras

- Hydraulic Damper accessory for non-slam operation upon request
- Limit switch accessory for scada comms and alarms upon request
- Single or double sided lever and counterweight upon request



Material Specifications

Item	Part name	Material	Grade
1	Body	DI CS* SS* NAB*	EN-GJS-400-15 (5.3106) EN 1563 GP240GH (1.0619) EN 10213 X5CrNi18-10 (1.4301) EN 10088-3 CuAl10Ni5Fe4 (CW307G) EN 12165
2	Disc	DI CS* SS* NAB*	EN-GJS-400-15 (5.3106) EN 1563 GP240GH (1.0619) EN 10213 X5CrNi18-10 (1.4301) EN 10088-3 CuAl10Ni5Fe4 (CW307G) EN 12165
3	Retaining Ring	SS SS* CS*	X5CrNi18-10 (1.4301) EN 10088-3 X5CrNiMo17-12-2 (1.4401) EN 10088-3 S235JR (1.0038) EN 10025-2
4	Stem	SS SS* NAB*	X20Cr13 (1.4021) EN 10088-3 X5CrNi18-10 (1.4301) / X5CrNi17-12-2 (1.4401) EN 10088-3 CuAl10Ni5Fe4 (CW307G) EN 12165
5	Bearing	Bronze Brass* SS* NAB*	CuSn5Zn5Pb5-C (CC491K) EN 1982 CuZn36Pb2As (CV602N) EN 12164 X5CrNi18-10 (1.4301) / X5CrNi17-12-2 (1.4401) EN 10088-3 CuAl10Ni5Fe4 (CW307G) EN 12165
6	Shaft Cover	DI CS* SS* NAB*	EN-GJS-400-15 (5.3106) EN 1563 GP240GH (1.0619) EN 10213 X5CrNi18-10 (1.4301) / EN 10088-3 CuAl10Ni5Fe4 (CW307G) EN 12165
7	Sealing Ring	Rubber	EPDM / NBR* EN 681-1
8	Screw	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4014 8.8 (DIN 931 A2/A4)
9	O-ring	Rubber	EPDM / NBR* EN 681-1
10	Washer	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 7089 (DIN 125 A2/A4)
11	Screw	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4014 8.8 (DIN 931 A2/A4)
12	Counterweight Cover	DI	EN-GJS-400-15 (5.3106) EN 1563
13	Counterweight Lever	CS	S235JR (1.0038) EN 10025-2
14	Counterweight	GCI DI*	EN-GJL-250 (EN-JL1040) EN 1561 EN-GJS-400-15 (5.3106) EN 1563
15	Screw	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4014 8.8 (DIN 931 A2/A4)
16	Eyebolt	Non alloy special steel SS*	C15E (1.1141) EN 10084 Zink coated EN ISO 3266 (DIN 580 C 15E) X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 UNI 6058 (DIN 444)

* Optional material upon request.

Dimensions

Size	L	D			D1			D2			b			n-Ød			H	W
		PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25		
DN100	190	220	220	235	180	180	190	156	156	156	19	19	19	8-Ø19	8-Ø19	8-Ø23	225	380
DN125	200	250	250	270	210	210	220	184	184	184	19	19	19	8-Ø19	8-Ø19	8-Ø28	255	415
DN150	210	285	285	300	240	240	250	211	211	211	19	19	20	8-Ø23	8-Ø23	8-Ø28	290	465
DN200	230	340	340	360	295	295	310	266	266	274	20	20	22	8-Ø23	12-Ø23	12-Ø28	345	515
DN250	250	395	405	425	350	355	370	319	319	330	22	22	24.5	12-Ø23	12-Ø28	12-Ø31	410	630
DN300	270	445	460	485	400	410	430	370	370	389	24.5	24.5	27.5	12-Ø23	12-Ø28	16-Ø31	465	650
DN350	290	505	520	555	460	470	490	429	429	448	24.5	26.5	28	16-Ø23	16-Ø28	16-Ø34	525	795
DN400	310	565	580	620	515	525	550	480	480	503	24.5	28	30	16-Ø28	16-Ø31	16-Ø37	585	840
DN450	330	615	640	670	565	585	600	530	548	548	25.5	30	34.5	20-Ø28	20-Ø31	20-Ø37	645	910
DN500	350	670	715	730	620	650	660	562	609	609	26.5	31.5	36.5	20-Ø28	20-Ø34	20-Ø37	720	1000
DN600	390	780	840	845	725	770	770	682	720	720	30	36	42	20-Ø31	20-Ø37	20-Ø41	845	1150
DN700	430	895	910	960	840	840	875	794	794	820	32.5	39.5	46.5	24-Ø31	24-Ø37	24-Ø44	915	1350
DN800	470	1015	1025	1085	950	950	990	901	901	928	35	43	51	24-Ø34	24-Ø41	24-Ø50	1030	1440
DN900	510	1115	1125	1185	1050	1050	1090	1001	1001	1028	37.5	46.5	55.5	28-Ø34	28-Ø41	28-Ø50	1130	1580
DN1000	550	1230	1255	1320	1160	1170	1210	1112	1112	1140	40	50	60	28-Ø37	28-Ø44	28-Ø57	1260	1730
DN1200	630	1455	1485	1530	1380	1390	1420	1328	1328	1350	45	57	69	32-Ø41	32-Ø50	32-Ø57	1490	1912

Wato Products specifications in this catalogue are provided for reference only. For precise measurements, please contact Wato Technical Service. Wato reserve the right to or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Wato products previously or subsequently sold. All materials that are in this catalogue are owned by Wato and can not be used without permission. Wato reserves the right to take legal action against such an act.

Check Valve/EN558 Series 48/ PN10 PN16

Swing Type

Model: CHV-SW-H

Features

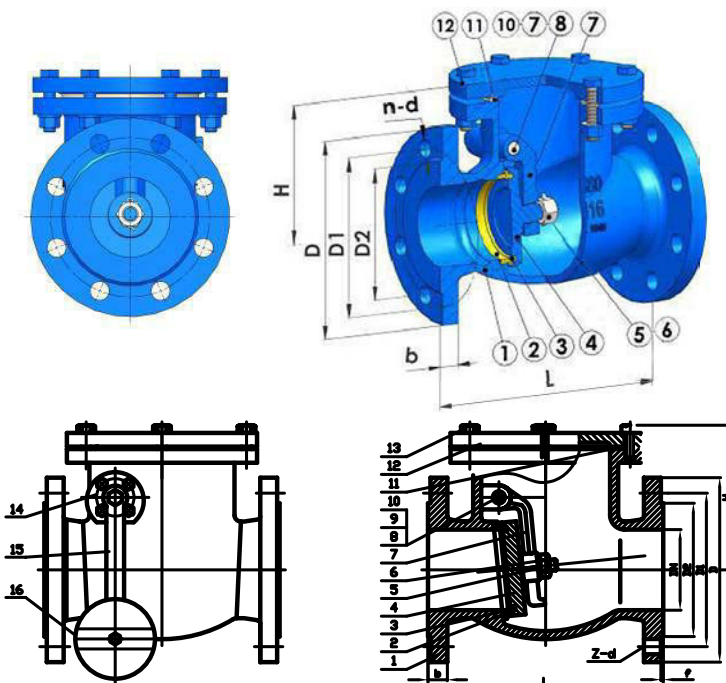
- Suitable for both horizontal and vertical installation
- Full port
- Bolted cover
- Easy replaceable disc and seat
- Pressed on or seal-welded disc ring
- Pressed into the body ring
- In-line service
- Fusion bonded epoxy coated inside and outside for the coating units, used to produce heavy-duty corrosion protection for valves and fittings according to DIN 30677-2, DIN 3476
- Product color: Blue RAL 5005
- Non-alloy steel fasteners made from non-alloy structural steels are with non-electrolytically applied zinc coating according to EN ISO 10683. On request they may be made from electrolytically applied zinc coating according to EN ISO 2081 or EN ISO 4042

Technical Specifications

- Design: EN 1074-1 and 3; EN 16767
- Nominal pressure designation PN10/PN16
- Face to face: EN558 Series 48
- Inspection test: EN12266-1
- Flanges according to EN1092-2 PN10/PN16
- Temperature range 0°C...60°C

Options

- External lever arm and counterweight



Material Specifications

Item	Part name	Material	Grade
1	Body	DI GCI	EN-GJS-500-7 (5.3200) EN 1563 EN-GJL-250 (EN-JL1040) EN 1561
2	Seat Ring	Brass	CuZn36Pb2As (CW602N) EN 12164
3	Retaining Disc Ring	Brass Rubber	CuZn36Pb2As (CW602N) EN 12164 EPDM / NBR EN 681-1
4	Disc	DI	EN-GJS-500-7 (5.3200) EN 1563
5	Washer	CS Zink coated	S235JR Zink coated (1.0038) EN 10025-2 EN ISO 7089 (DIN 125)
6	Locking Nut	CS Zink coated	S235JR Zink coated (1.0038) EN 10025-2 EN ISO 4032 8.8 (DIN 934)
7	Arm	DI GCI	EN-GJS-500-7 (5.3200) EN 1563 EN-GJL-250 (EN-JL1040) EN 1561
8	Arm Hinge Pin	SS	X20Cr13 (1.4021) EN 10088-3
9	Splint Pin	CS Zink coated	S235JR Zink coated (1.0038) EN 10025-2 EN ISO 1234 (DIN 94)
10	Hinge Pin Gasket	Plastic	PA(Nylon) EN ISO 1874
11	Bonnet Gasket	Rubber SS+ Graphite	EPDM / NBR EN 681-1 GX5CrNi19-11-2 (1.4408) EN 10088-3
12	Bonnet	DI GCI	EN-GJS-500-7 (5.3200) EN 1563 EN-GJL-250 (EN-JL1040) EN 1561
13	Bolt	CS Zink coated	S235JR (1.0038) EN 10025-2 EN ISO 4762 8.8 (DIN 912)
14	Gland	DI	EN-GJS-500-7 (5.3200) EN 1563
15	External Lever Arm	DI GCI	EN-GJS-500-7 (5.3200) EN 1563 EN-GJL-250 (EN-JL1040) EN 1561
16	Counterweight	DI GCI	EN-GJS-500-7 (5.3200) EN 1563 EN-GJL-250 (EN-JL1040) EN 1561

Dimensions

Size	L	D		D1		D2		b		n-ød		H
		PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16	
DN40	180	150	150	110	110	84	84	19	19	4-Ø19	4-Ø19	120
DN50	200	165	165	125	125	99	99	19	19	4-Ø19	4-Ø19	127
DN65	240	185	185	145	145	118	118	19	19	4-Ø19	4-Ø19	147
DN80	260	200	200	160	160	132	132	19	19	8-Ø19	8-Ø19	159
DN100	300	220	220	180	180	156	156	19	19	8-Ø19	8-Ø19	180
DN125	350	250	250	210	210	184	184	19	19	8-Ø19	8-Ø19	203
DN150	400	285	285	240	240	211	211	19	19	8-Ø23	8-Ø23	223
DN200	500	340	340	295	295	266	266	20	20	8-Ø23	12-Ø23	258
DN250	600	395	405	350	355	319	319	22	22	12-Ø23	12-Ø28	290
DN300	700	445	460	400	410	370	370	24.5	24.5	12-Ø23	12-Ø28	325
DN350	800	505	520	460	470	429	429	24.5	26.5	16-Ø23	16-Ø28	361
DN400	900	565	580	515	525	480	480	24.5	28	16-Ø28	16-Ø31	388
DN450	1000	615	640	565	585	530	548	25.5	30	20-Ø28	20-Ø31	470
DN500	1100	670	715	620	650	562	609	26.5	31.5	20-Ø28	20-Ø34	670
DN600	1300	780	840	725	770	682	720	30	36	20-Ø31	20-Ø37	750

Wato Products specifications in this catalogue are provided for reference only. For precise measurements, please contact Wato Technical Service. Wato reserve the right to or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Wato products previously or subsequently sold. All materials that are in this catalogue are owned by Wato and can not be used without permission. Wato reserves the right to take legal action against such an act.

Ball Check Valves/EN ISO 228-1 BSP Female Threaded/ PN10 PN16

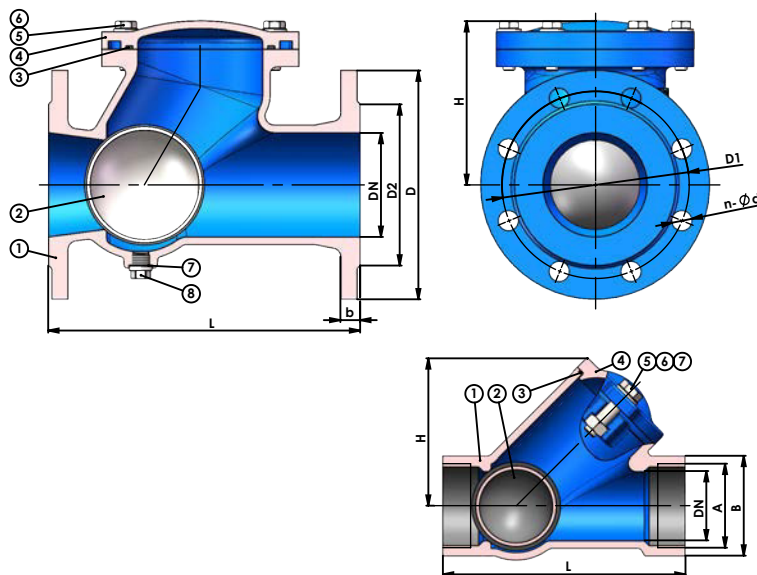
Ball Check Valves/EN558 Series 48/ PN10 PN16

Model: CHV-BL-T-I , CHV-BL-F-I

Ball Check Valves/EN ISO 228-1 BSP Female Threaded/ PN10 PN16

Features

- Suitable for both horizontal and vertical installation
- Full port
- Bolted cover
- Easy replaceable ball
- Ball from non-alloy structural steel precision cast in combination with reinforced elastomer
- In-line service
- Fusion bonded epoxy coated inside and outside for the coating units, used to produce heavy-duty corrosion protection for valves and fittings according to DIN 30677-2, DIN 3476
- Product color: Blue RAL 5005
- Temperature range 0°C...60°C



Technical Specifications

- Design: EN 1074-1 and 3; EN 16767
- Nominal pressure designation PN10/16
- For flanged model: Face to face: EN558 Series 48
- Inspection test: EN12266-1
- For threaded model: British Standard Pipe Parallel thread
BSP internal (female) thread according to EN ISO 228-1
- For flanged model: Flanges according to EN1092-2 PN10/16
- Temperature range 0°C...60°C

Material Specifications

Item	Part name	Material	Grade
1	Body	DI	EN-GJS-500-7 (5.3200) EN 1563
2	Ball	CS +Rubber	S235JR (1.0038) EN 10025-2 + NBR EN 681-1
3	Bonnet Gasket	Rubber	EPDM / NBR EN 681-1
4	Bonnet	DI	EN-GJS-500-7 (5.3200) EN 1563
5	Bolt	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4014 8.8 (DIN 931 A2/A4)
6	Nut	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4032 8.8 (DIN 934 A2/A4)
7	Washer	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 7089 (DIN 125 A2/A4)

Dimensions

Size	L	B	D	H
DN25	137	50	G 1"	75
DN32	137	50	G 1 1/4"	75
DN40	145	60	G 1 1/2"	93
DN50	175	72	G 2"	106
DN65	200	90	G 2 1/2"	131

Ball Check Valves/EN558 Series 48/ PN10 PN16

Material Specifications

Item	Part name	Material	Grade
1	Body	DI	EN-GJS-500-7 (5.3200) EN 1563
2	Ball	CS +Rubber	S235JR (1.0038) EN 10025-2 + NBR EN 681-1
3	Bonnet Gasket	Rubber	EPDM / NBR EN 681-1
4	Bonnet	DI	EN-GJS-500-7 (5.3200) EN 1563
5	Bolt	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4014 8.8 (DIN 931 A2/A4)
6	Washer	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4032 8.8 (DIN 934 A2/A4)
7	Washer	Teflon	PTFE EN ISO 13000-1
8	Plug	SS	X5CrNi18-10 (1.4301) / EN 10088-3

Dimensions

Size	L	D		D1		D2		b		n-Ød		H
		PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16	
DN40	180	150	150	110	110	84	84	19	19	4-Ø19	4-Ø19	106
DN50	200	165	165	125	125	99	99	19	19	4-Ø19	4-Ø19	115
DN65	240	185	185	145	145	118	118	19	19	4-Ø19	4-Ø19	124
DN80	260	200	200	160	160	132	132	19	19	8-Ø19	8-Ø19	138
DN100	300	220	220	180	180	156	156	19	19	8-Ø19	8-Ø19	162
DN125	350	250	250	210	210	184	184	19	19	8-Ø19	8-Ø19	202
DN150	400	285	285	240	240	211	211	19	19	8-Ø23	8-Ø23	228
DN200	500	340	340	295	295	266	266	20	20	8-Ø23	12-Ø23	298
DN250	600	395	405	350	355	319	319	22	22	12-Ø23	12-Ø28	368
DN300	700	445	460	400	410	370	370	24.5	24.5	12-Ø23	12-Ø28	438
DN400	900	565	580	515	525	480	480	24.5	28	16-Ø28	16-Ø31	584
DN500	1100	670	715	620	650	562	609	26.5	31.5	20-Ø28	20-Ø34	740

Wato Products specifications in this catalogue are provided for reference only. For precise measurements, please contact Wato Technical Service. Wato reserve the right to or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Wato products previously or subsequently sold. All materials that are in this catalogue are owned by Wato and can not be used without permission. Wato reserves the right to take legal action against such an act.

Check Valve/EN558 Series 16/ PN 10 PN 16 PN 25

Dual Plate

Model: CHV-DP-J

Features

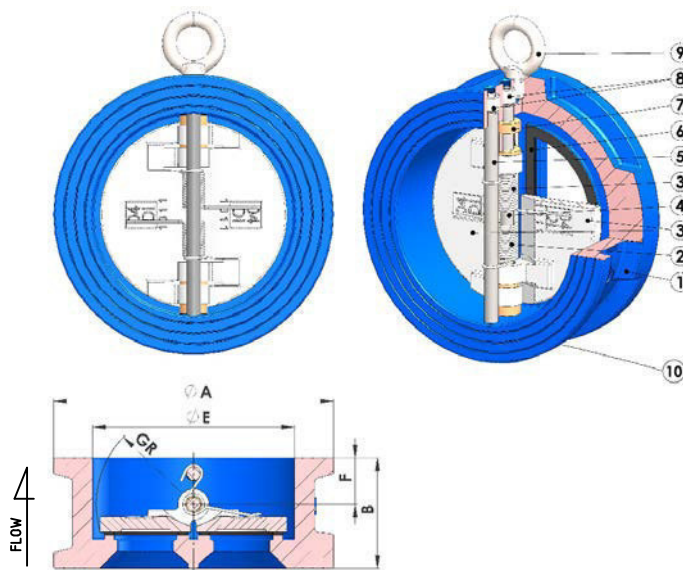
- Wafer body style fits between flanges type A (flat face) or B (raised face)
- Upper and lower PTFE thrust washers
- Resilient NBR/EPDM seat
- Dual Plate Valves give maximum strength with minimum opening time
- Torsion springs assist valve closure, preventing flow reversal
- Thrust washers reduce friction and wear of valve plate hinges
- Spring loaded disc for positive shut-off
- Without occur of water hammer at closing
- Slam free operation
- Lower tear and wear of the seat faces

Technical Specifications

- Design: EN 1074-1 and 3; EN 16767
- Nominal pressure designation PN10/16
- Face to face: EN558 Series 16
- Inspection test: EN12266-1
- Temperature range 0°C...60°C

Options

- Optional heavy spring for slam free operation in systems with high decelerations
- Optional light spring for systems with low line velocities



Material Specifications

Item	Part name	Material	Grade
1	Body	DI GCI	EN-GJS-400-15 (5.3106) EN 1563 EN-GJ-250 (EN-J1040) EN 1561
2	Spring	SS SS	X5CrNiMo17-12-2 (1.4401) EN 10088-3 X5CrNi18-10 (1.4301) EN 10088-3
3	Disc	DI Ni plated Aluminium Bronze SS SS SS Duplex SS Duplex	EN-GJS-400-15 (5.3106) EN 1563 + Ni CuAl10Fe2-C (CC331G) EN 1982 X5CrNiMo17-12-2 (1.4401) EN 10088-3 X5CrNi18-10 (1.4301) EN 10088-3 X2CrNiMoN22-5-3 (1.4462) EN 10088-3 X2CrNiMoN25-7-4 (1.4410) EN 10088-3
4	Hinge Pin	SS SS SS	X12Cr13 (1.4006) EN 10088-3 X5CrNiMo17-12-2 (1.4401) EN 10088-3 X5CrNi18-10 (1.4301) EN 10088-3
5	Stem Pin	SS SS SS	X12Cr13 (1.4006) EN 10088-3 X5CrNiMo17-12-2 (1.4401) EN 10088-3 X5CrNi18-10 (1.4301) EN 10088-3
6	Body Seat	Rubber Fluorocarbon rubber	EPDM / NBR EN 681-1 FKM Hardness 80 IRHD EN 2798 (Viton Type B ISO 1629)
7	Spring Bearing	Teflon	PTFE EN ISO 13000-1
8	Body Bearing	Teflon	PTFE EN ISO 13000-1
9	Eyebolt	Non alloy special steel	C15E (1.1141) EN 10084 Zink coated EN ISO 3266 (DIN 580 C 15E)
10	Plug	CS	C45 (1.0503) EN 10277-2

Dimensions

Size		Ø A			Ø E	B	GR	F
mm	inch	PN10	PN16	PN25				
DN50	2"	107	107	107	65	43	28.8	19
DN65	2 1/2"	127	127	127	80	46	36.1	20
DN80	3"	142	142	142	94	64	43.4	28
DN100	4"	162	162	168	117	64	52.8	27
DN125	5"	192	192	193	145	70	65.7	30
DN150	6"	218	218	223	170	76	78.6	31
DN200	8"	273	273	283	224	89	104.4	33
DN250	10"	328	328	340	265	114	127.0	50
DN300	12"	378	378	400	310	114	148.3	43
DN350	14"	438	438	448	360	127	172.4	45
DN400	16"	489	489	-	410	140	197.4	53
DN450	18"	539	555	-	450	152	217.8	58
DN500	20"	594	617	-	505	152	241.0	58
DN600	24"	695	700	-	624	178	295.4	73
DN700	28"	810	804	-	720	229	338.5	98
DN800	32"	915	911	-	825	241	385.5	100
DN900	36"	1015	1011	-	927	241	445.5	100

Wafer Check Valve/EN558 Series 97/ PN 10 PN 16

Swing Type

Model: CHV-W-J

Features

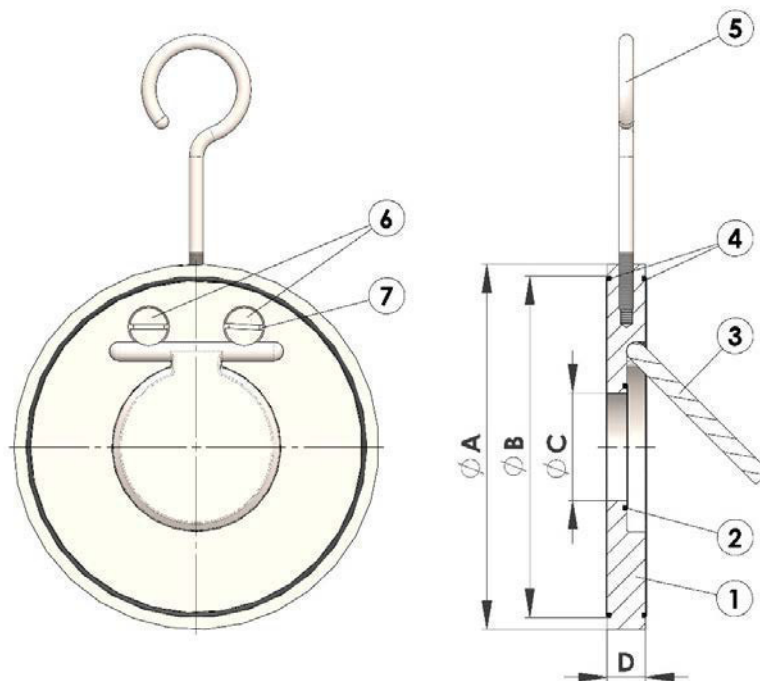
- Lightweight, wafer type check valve suitable to install in pipeline system that is lack of space two flanges
- Design with short body length for easy installation between two flanges
- Field replaceable O-ring elements on the valve body used as sealing gasket, thus, no gasket is required for the installation
- Hinged disc on the body, placed within the flow section with using of disk bearing and retaining screw
- No need from spring return facility, slam free operation
- Extremely wide angle of opening of the disk.
- Excellent low pressure shut-off. The standard low pressure shut-off is less than 0.1 bar
- Combined low line velocity and low pressure tightness
- High capacity/low pressure drop to ensure economical use
- Not suitable for pulsating applications
- Stainless steel fasteners
- In-line service, no maintenance needed

Technical Specifications

- Design: EN 1074-1 and 3; EN 16767
- Nominal pressure designation PN10/16
- Face to face: EN558 Series 97
- Inspection test: EN12266-1
- Temperature range 0°C...60°C

Options

- Internal travel stop to prevents the disc from slamming against the pipe



Material Specifications

Item	Part name	Material	Grade
1	Body	CS SS	GP240GH (1.0619) EN 10213 X5CrNiMo17-12-2 (1.4401) EN 10088-3
2	O-ring	Rubber	EPDM / NBR EN 681-1
3	Disc	CS SS	GP240GH (1.0619) EN 10213 X5CrNiMo17-12-2 (1.4401) EN 10088-3
4	O-ring	Rubber	EPDM / NBR EN 681-1
5	Eye Bolt	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 UNI 6058 (DIN 444)
6	Retaining Screw	SS	X5CrNi18-10 A2 (1.4301) EN ISO 3506-1 EN ISO 4014 8.8 (DIN 931 A2/A4)
7	Disc Bearing	SS	X5CrNiMo17-12-2 (1.4401) EN 10088-3

Dimensions

Size	A	B	C	D
DN50	109	91	32	14
DN65	129	112	40	14
DN80	144	119	54	14
DN100	164	147	70	18
DN125	194	171	92	18
DN150	220	200	112	20
DN200	275	256	154	22
DN250	330	302	192	26
DN300	380	352	227	32
DN350	440	403	270	38
DN400	491	453	315	44