



Range DN: 15 ~ 1000



Range PN: 10 ~ 100



PED 97/23/EC
PED 2014/68/EU



TR TS 10/11,
12/11, 32/11



EN 12 569
CERTIFICATE

Operating temperature: -196 °C ~ 550 °C

Connection into piping: Flanged, welded ends, threaded ends, combined execution



DESCRIPTION

L10 swing check valves are automatic check valves. They automatically prevent the reverse flow of the medium. The medium can flow in one direction only. These swing check valves are designed and manufactured to ensure maximum service life and reliability.

MATERIAL SPECIFICATION

L10 swing check valves are made from carbon, alloy and stainless steels. The material type can be adjusted according to the customer's request to optimally suit the operating conditions.

APPLICATION

L10 swing check valves are suitable for various liquids, gases and steam.

BASIC STANDARDS FOR DESIGN

Basic design

EN 14 341

Pressure-temperature rating

EN 12 516 - 1

Testing

EN 12 266 - 1, 2

Face-to-face dimensions

EN 558, EN 12 982

Dimensions of the welded ends

EN 12 627

Top Flange dimensions

None

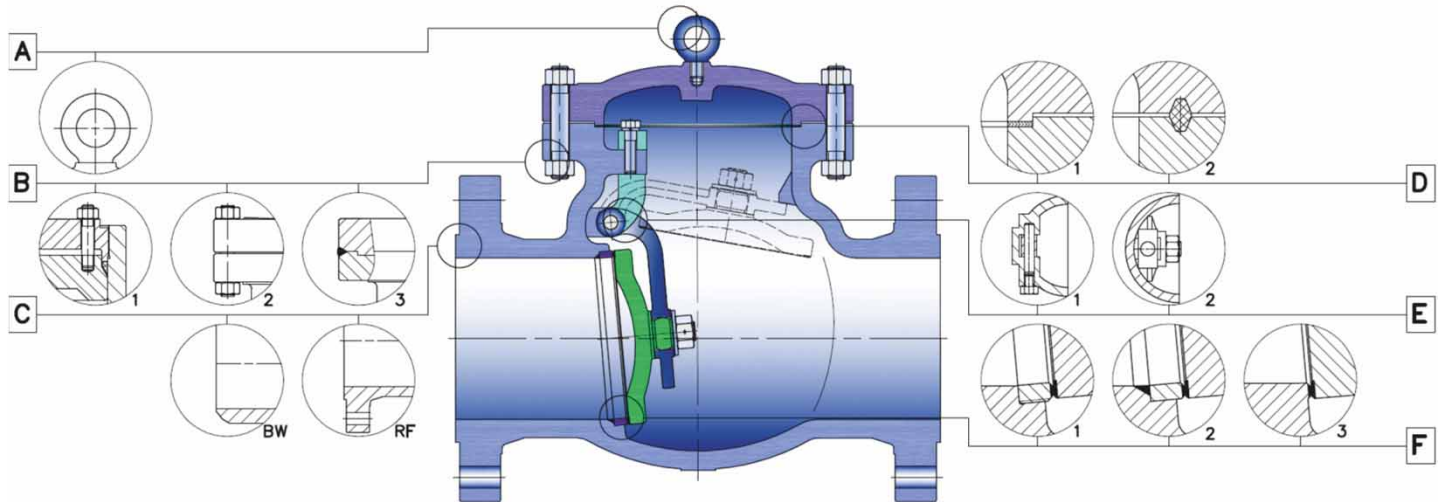
Flange dimensions

EN 1092 - 1

Special

NACE MR-0175

STRUCTURAL DESIGN



A – The handling eye bolt

- To PN 63 from DN 200
- PN 100 from DN 150

B - Bonnet execution

- the bonnet bolted to the body
- the bonnet welded to the body

C - Connection to piping

- flanged- FLG
- welded – BW
- with welded ends according to the customer's requirements

D - Bonnet sealing

- male / female
- RTJ ring

E - Pin placing

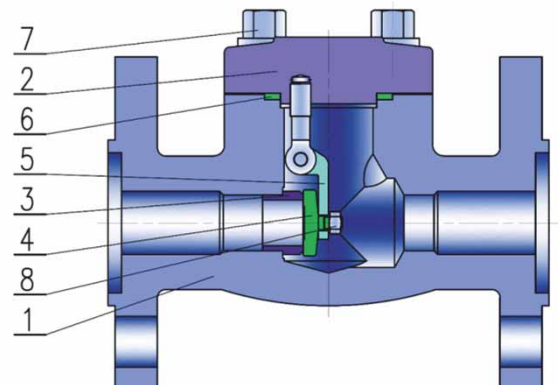
- the pin can be embedded in the special yoke, which is inserted into the body and fixed by a bolt
- the pin can be inserted directly into the body. This option allows for lever connection with counterweight or damper

F - Seat execution

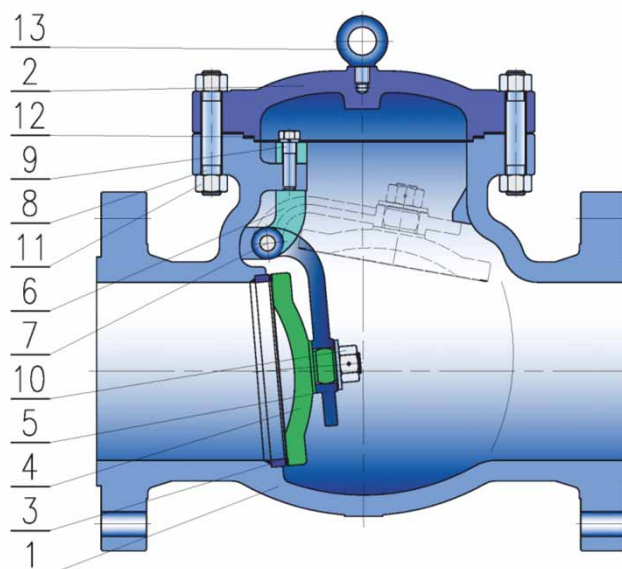
- the seat is screwed into the body
- the seat is inserted in the body and welded on
- the seat consists of a weld deposit on the body

MATERIAL SPECIFICATION - FORGED

Pos.	Designation	A350 LF2	A105	A182 F5	A182 F9	A182 F304	A182 F316
1	Body	A350 LF2	A105	A182 F5	A182 F9	A182 F304	A182 F316
2	Bonnet	A350 LF2	A105	A182 F5	A182 F9	A182 F304	A182 F316
3	Seat	A350 LF2 + overlay	A105 + overlay	A182 F5 + overlay	A182 F9 + overlay	A182 F304 + overlay	A182 F316 + overlay
4	Disc	A350 LF2 + overlay	A105 + overlay	A182 F5 + overlay	A182 F9 + overlay	A182 F304 + overlay	A182 F316 + overlay
5	Yoke	A350 LF2	A105	A182 F5	A182 F9	A182 F304	A182 F316
6	Gasket	graphite, 304 + graphite, 316 + graphite					
7	Bolt	A320 L7	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8M
8	Nut	A194 4	A194 2H	A194 2H	A194 2H	A194 8	A194 8M

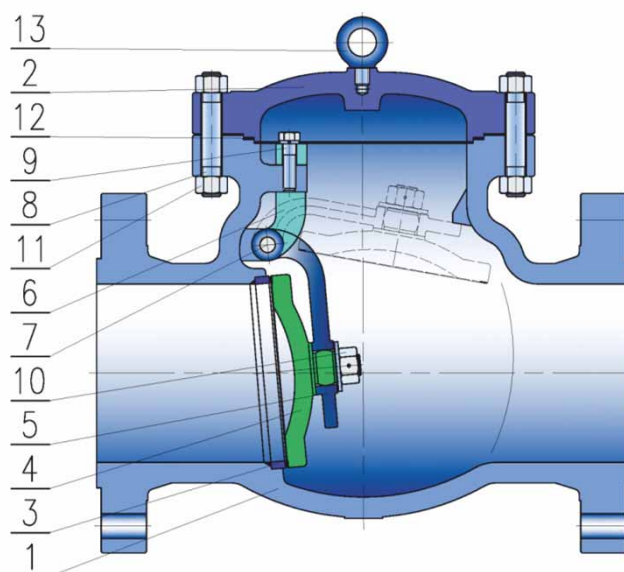


MATERIAL SPECIFICATION - CAST



Pos.	Designation	GP240GH (1.0619)	G17CrMo5-5 (1.7357)	GS12CrMo 19-5 (1.7363)	GX12CrMo 10-1 (1.7389)	G17Mn5 (1.1131)	G20Mn5 (1.6220)	GX5CrNi19-10 (1.4308)	GX5CrNiMo19-11-2 (1.4408)	
1	Body	GP240GH	G17CrMo5-5	GS12CrMo 19-5	GX12CrMo 10-1	G17Mn5	G20Mn5	GX5CrNi19-10	GX5CrNiMo19-11-2	
2	Bonnet	GP240GH	G17CrMo5-5	GS12CrMo 19-5	GX12CrMo 10-1	G17Mn5	G20Mn5	GX5CrNi19-10	GX5CrNiMo19-11-2	
3	Seat	St 45.8 + overlay	13CrMo4-5 + overlay	X11CrMo5 + overlay	X11CrMo 9-1 + overlay	P355NH + overlay	P355 NL1 + overlay	X5CrNi18-10 + overlay	X5CrNiMo17-12-2 + overlay	
4	Disc	GP240GH + overlay	G17CrMo5-5 + overlay	GS12CrMo 19-5 + overlay	GX12CrMo 10-1 + overlay	G17Mn5 + overlay	G20Mn5 + overlay	GX5CrNi19-10 + overlay	GX5CrNiMo19-11-2 + overlay	
5	Hinge	GP240GH	G17CrMo5-5	GS12CrMo 19-5	GX12CrMo 10-1	GX12CrMo 10-1	G20Mn5	GX5CrNi19-10	GX5CrNiMo19-11-2	
6	Yoke	GP240GH	G17CrMo5-5	GS12CrMo 19-5	GX12CrMo 10-1	GX12CrMo 10-1	G20Mn5	GX5CrNi19-10	GX5CrNiMo19-11-2	
7	Pin	X12Cr13	X12Cr13	X12Cr13	X12Cr13	X12Cr13	X12Cr13	X5CrNi18-10	X5CrNiMo17-12-2	
8	Bolt	42CrMo4	A193 B16	A193 B16	A193 B16	42CrMo4	26CrMo4	A193 B8, A4-70	A193 B8M, A4-70	
9	Bolt	42CrMo4	A193 B16	A193 B16	A193 B16	42CrMo4	26CrMo4	A193 B8, A4-70	A193 B8M, A4-70	
10	Nut	25CrMo4	A194 7	A194 7	A194 7	25CrMo4	26CrMo4	A194 8, A4-70	A194 8M, A4-70	
11	Nut	25CrMo4	A194 7	A194 7	A194 7	25CrMo4	26CrMo4	A194 8, A4-70	A194 8M, A4-70	
12	Gasket	graphite, 304 + graphite, 316 + graphite								
13	Eye bolt	carbon steel						stainless steel		

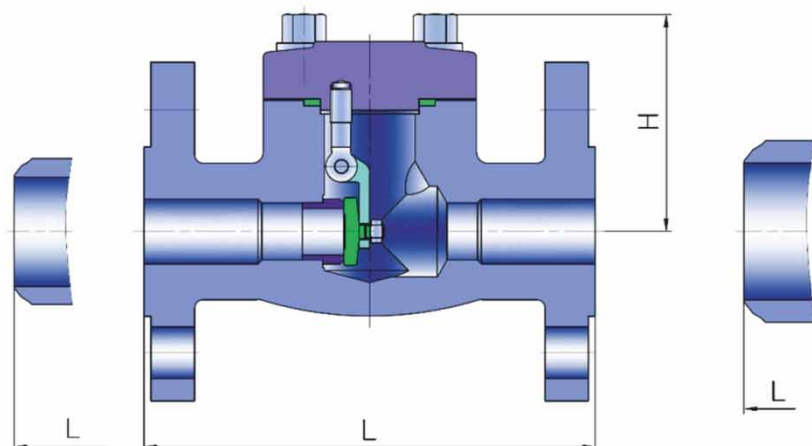
MATERIAL SPECIFICATION - CAST



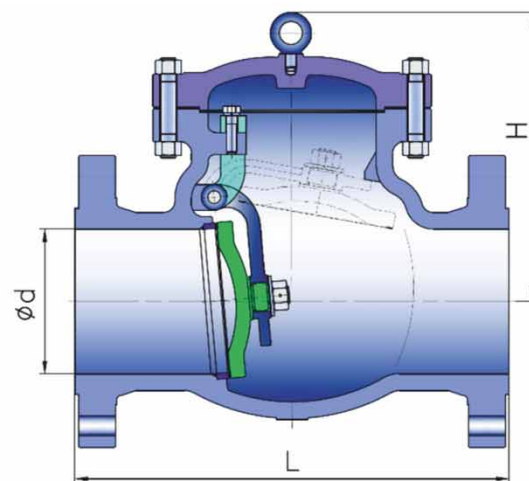
Pos.	Designation	WCB	LCC	LCB	WC6	WC9	C5	C12	CF8	CF8M	
1	Body	A216 WCB	A352 LCC	A352 LCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A351 CF8	A351 CF8M	
2	Bonnet	A216 WCB	A352 LCC	A352 LCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A351 CF8	A351 CF8M	
3	Seat	A105 +overlay	A350 LF2 + overlay	A350 LF2 + overlay	A182 F5 +overlay	A182 F5 +overlay	A182 F5 +overlay	A182 F5 +overlay	A182 F304 +overlay	A182 F316 +overlay	
4	Disc	A216 WCB + overlay	A352 LCC + overlay	A352 LCB + overlay	A217 WC6 + overlay	A217 WC9 + overlay	A217 C5 + overlay	A217 C5 + overlay	A351 CF8 + overlay	A351 CF8M + overlay	
5	Hinge	A216 WCB	A352 LCC	A352 LCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A351 CF8	A351 CF8M	
6	Yoke	A216 WCB	A352 LCC	A352 LCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A351 CF8	A351 CF8M	
7	Pin	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	
8	Bolt	A193 B7	A320 L7	A320 L7	A193 B16	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8M	
9	Bolt	A193 B7	A320 L7	A320 L7	A193 B16	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8M	
10	Nut	A194 2H	A194 4	A194 4	A194 2H	A194 2H	A194 2H	A194 2H	A194 8	A194 8M	
11	Nut	A194 2H	A194 4	A194 4	A194 2H	A194 2H	A194 2H	A194 2H	A194 8	A194 8M	
12	Gasket	graphite, 304 + graphite, 316 + graphite									
13	Eye bolt	carbon steel							stainless steel		

DIMENSIONS

DN 15 - 50



DN 50 - 1000



DN	PN 10, 16					PN 25					PN 40					PN 63					PN 100				
	L		D	H	(KG)	L		D	H	(KG)	L		D	H	(KG)	L		D	H	(KG)	L		D	H	(KG)
DN	1	2				1	2				1	2				1	2				1	2			
15	130	130	14	61	3,4	130	130	14	61	3,4	130	130	14	61	3,7	210	150	14	61	4,0	210	150	14	61	4,0
25	160	160	25	84	8,2	160	160	25	84	8,2	160	160	25	84	8,8	230	160	25	84	9,5	230	160	25	84	9,5
32	180	180	32	103	8,9	180	180	32	103	8,9	180	180	32	103	9,6	260	180	32	103	10,4	260	180	32	103	10,4
40	200	200	43.1	120	8	200	200	43.1	95	8	200	200	43.1	95	13	260	210	42.5	150	14	260	210	42	150	14
50	230	230	54.5	134	16	230	230	54.5	135	16	230	230	54.5	135	21	300	250	53.5	175	28	300	250	51	170	28
65	290	290	70.3	140	21	290	290	70.3	140	21	290	290	70.3	140	36	340	340	69.7	190	40	340	340	64	190	40
80	310	310	82.5	175	28	310	310	82.5	175	28	310	310	82.5	175	41	380	380	81.7	210	68	380	380	76	210	68
100	350	350	107.1	180	46	350	350	107.1	195	46	350	350	107.1	195	62	430	430	106.3	245	117	430	430	102	245	117
125	400	400	131.7	195	59	400	400	131.7	205	59	400	400	131.7	205	81	500	500	130.7	260	155	500	500	127	260	155
150	480	480	159.3	300	69	480	480	161.5	305	69	480	480	161.5	305	131	550	550	158.3	337	192	550	550	152	337	192
200	600	600	206.5	350	132	600	600	206.5	350	132	600	600	206.3	350	191	650	650	204.9	397	340	650	650	203	397	340
250	730	730	260.4	395	219	730	730	258.2	425	219	730	730	258.2	425	298	775	775	255.2	455	515	775	775	254	455	515
300	850	850	309.7	465	232	850	850	307.9	475	323	850	850	307.9	475	452	900	900	301.9	542	750	900	900	305	542	750
350	980	980	339.6	470	382	980	980	337.6	515	382	980	980	337.9	515	642	1025	1025	334.6	568	890	1025	1025	322	568	890
400	1100	1100	390	485	562	1100	1100	388.8	540	562	1100	1100	384.4	540	852	1150	1150	382.6	634	1303	1150	1150	373	643	1303
450	1200	1200	439	505	632	1200	1200	439.4	590	632	1200	1200	432.0	600	1032	1275	1275	423	680	1800	1275	1275	418	680	1800
500	1250	1250	492	565	772	1250	1250	488	640	772	1250	1250	479.6	640	1332	1400	1400	471	750	2150	1400	1400	471	750	2150
600	1450	1450	590	650	962	1450	1450	591	775	962	1450	1450	591	775	1952	1600	1600	586	852	3200	1600	1600	522	880	3200
700	1650	1650	691	700	1580	1650	1650	684	830	1580	1650	1650	684	830	2600	-	-	-	-	-	-	-	-	-	-
800	1850	1850	793	980	2540	1850	1850	785	980	2540	1850	1850	781	1270	3380	-	-	-	-	-	-	-	-	-	-
900	2050	2050	894	1377	3380	2050	2050	882	1377	3380	2050	2050	876	1510	5640	-	-	-	-	-	-	-	-	-	-
1000	2250	2250	996	1410	4815	2250	2250	981	1410	4815	2250	2250	978	1750	6150	-	-	-	-	-	-	-	-	-	-

TYPE DESIGNATION

L10 C/D E M1 PN/S

C

CONNECTION INTO PIPE

- 1 Flanged
- 2 Welded ends
- 8 Combined

M₁

BODY MATERIAL

- 0 Stainless steel
- 2 Cast alloy steel
- 3 Forged alloy steel
- 4 Forged carbon steel
- 5 Cast carbon steel
- LT Carbon steel for low temperatures

D

FLANGE FACING

EN 1092 - 1

- A Flat face
- B Raised face
- C Tongue face
- D Groove face
- E Spigot
- F Recess

E

CONTROL

- 7 Automatic

S

SPECIAL EXECUTION

- B With bypass
- L With lever and counterweight

