

Type K08

DN 50 - 1000
PN 16 - 100

Swing Check Valve

Butt-Welded, Flanged

Data Sheet

Edition: EN 9 / 2015

© MPOWER Engineering, a.s.
Pod vinicí 2028/20, Modřany, 143 00 Praha 4, CZ
T: +420 225 371 300, F: +420 225 371 325
E: info@mpowergroup.eu, W: www.mpowergroup.eu

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Contact

MPOWER Engineering, a.s.
Pod vinicí 2028 / 20
143 00 Praha 4 – Modřany, CZ

T: +420 225 371 300
F: + 420 225 371 325
E: info@mpowergroup.eu
W: www.mpowergroup.eu



Application

- Self-acting check valve, used to stop reverse flow of working medium or shocks in the pipeline
- **Operating agents**
Water, steam, oil and oil products, natural gas, gas condensate, saturated and overheated steam, technological solutions, liquefied gases and other neutral and aggressive gases and liquids
- Swing check valve is not a shut-off valve. If it is necessary to conclude a pipeline with a higher class of tightness, the shut-off valve must also be installed on the pipeline

Technical description

- Swing check valve has full bored flow
- The disc is articulated fixed to arm swung on stud
- Direction of flow on disc pushes it up
- Opposite direction of flow push the disc to sealing surface
- Material of sealing surface can be 13Cr or Stellite 6

Operation

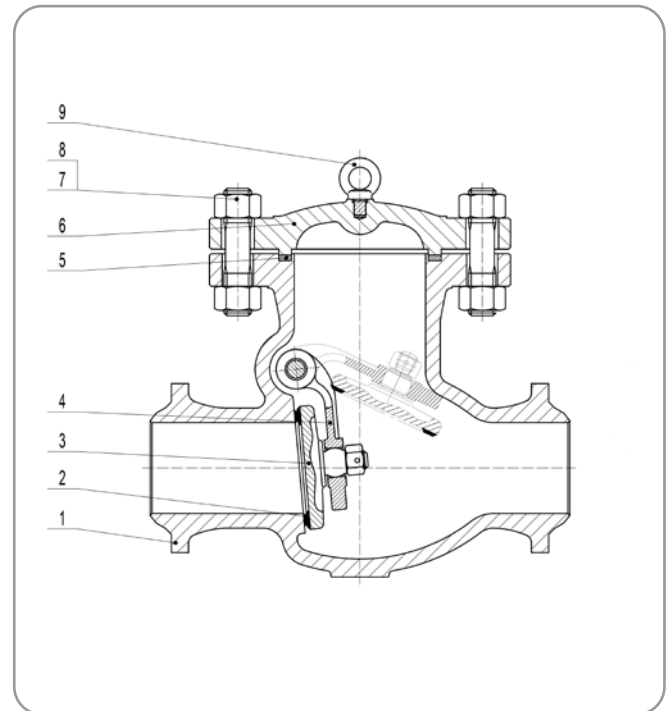
- Self-acting, by pressure of medium

Testing

- Valves are pressure tested with water for strength and tightness in accordance with working parameters and material of body according to EN-12266
- Minimum pressure for the strength testing is 1,5 x PN
- Minimum pressure for the leakage test 1.1 x PN

Installation

- Swing check valve can be installed to horizontal and vertical pipeline
- Direction of flow in vertical position will be under the disc



Connection

- Butt-welded according to EN-12627, flanged according to EN-1092-1 or according to customer request
- Face to face dimension according to EN-558-1

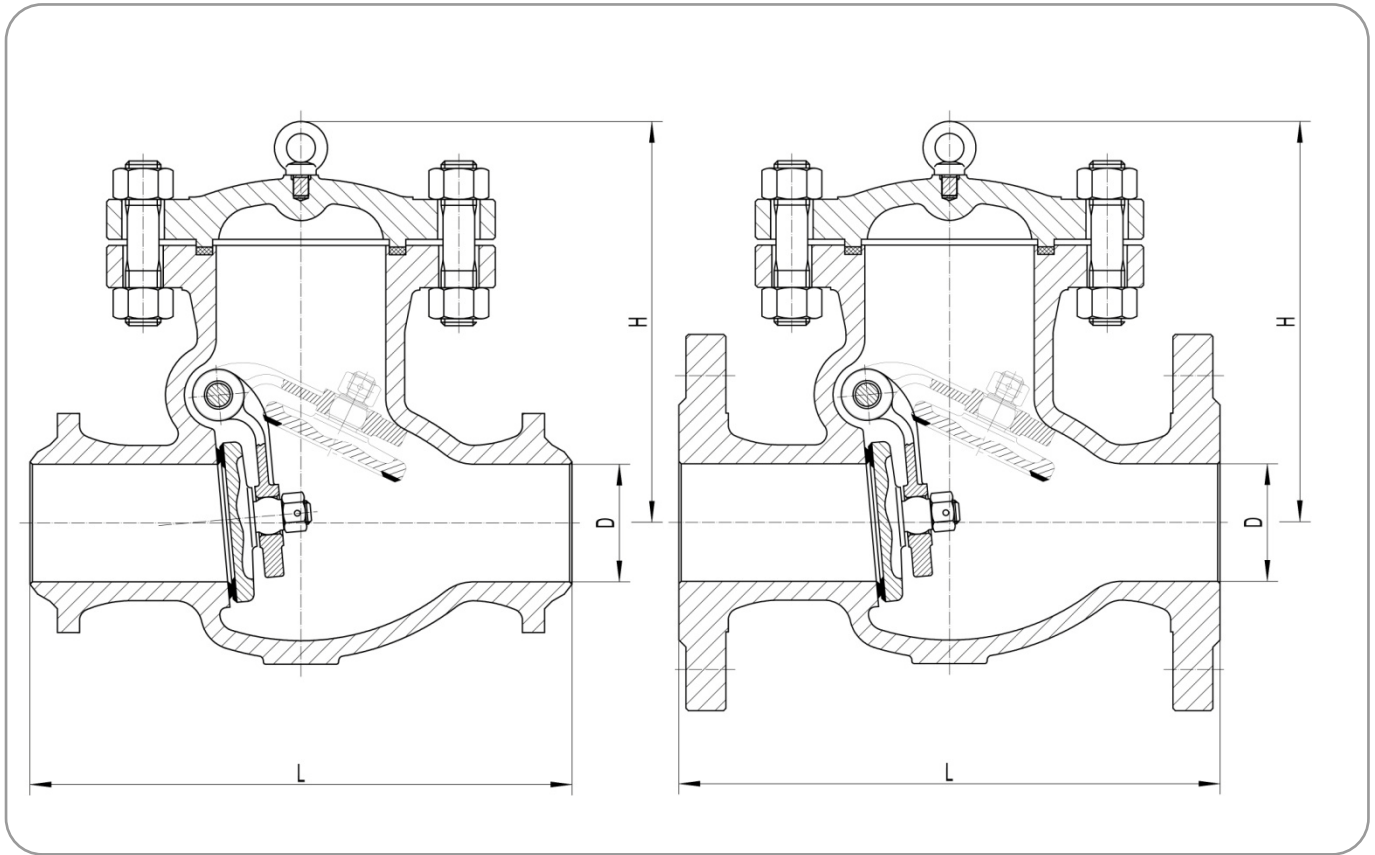
Materials of main parts

Pos.	Name	Materials					
1	Body	1.0619 (A216 WCB)	A352 LC1	1.7357 (A217 WC6)	1.4408 (A351 CF8M)	1.7390 (A217 WC9)	1.7386 (A217 C12A)
2	Seat	13Cr/Stellite	13Cr/Stellite	13Cr/Stellite	13Cr/Stellite	Stellite	Stellite
3	Disk	1.0619 (A216 WCB)	A352 LC1	1.7357 (A217 WC6)	1.4408 (A351 CF8M)	1.7390 (A217 WC9)	1.7386 (A217 C12A)
4	Hinge disc	1.0619 (A216 WCB)	A352 LC1	1.7357 (A217 WC6)	1.4408 (A351 CF8M)	1.7390 (A217 WC9)	1.7386 (A217 C12A)
5	Těsnění víka	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
6	Bonnet	1.0619 (A216 WCB)	A352 LC1	1.7357 (A217 WC6)	1.4408 (A351 CF8M)	1.7390 (A217 WC9)	1.7386 (A217 C12A)
7	Hexagon nut	A194 2H	A194 7	A194 4	A194 8M	A194 4	A194 4
8	Bolt	A193 B7	A193 B7	A193 B16	A193 B8M	A193 B16	A193 B16
9	Yey bolt	C.S	C.S	C.S	S.S	C.S	C.S

Operating data

Material of body	PN	Working pressure MPa / Working temperature °C												
		100	150	200	250	300	350	400	425	450	500	525	550	595
1.0619 (WCB)	16	1,46	1,43	1,38	1,32	1,22	1,17	1,09	0,91	-	-	-	-	-
	25	2,29	2,23	2,16	2,06	1,91	1,82	1,7	1,42	-	-	-	-	-
	40	3,66	3,57	3,46	3,29	3,06	2,92	2,72	2,27	-	-	-	-	-
	63	5,77	2,62	5,45	5,19	4,81	4,59	4,29	3,57	-	-	-	-	-
	100	9,15	8,92	8,65	8,23	7,64	7,29	6,81	5,67	-	-	-	-	-
LC1	16	1,47	1,42	1,4	1,36	1,33	1,27	1,15	-	-	-	-	-	-
	25	1,84	1,77	1,74	1,7	1,66	1,59	1,44	-	-	-	-	-	-
	40	3,68	3,55	3,49	3,4	3,32	3,18	2,89	-	-	-	-	-	-
	63	5,79	5,59	5,49	5,35	5,22	5,0	4,55	-	-	-	-	-	-
	100	9,19	8,87	8,72	8,5	8,29	7,94	7,22	-	-	-	-	-	-
1.7357 (WC6)	16	1,63	1,57	1,51	1,46	1,35	1,27	1,15	1,11	1,07	0,8	0,57	0,4	0,19
	25	2,54	2,45	2,37	2,28	2,11	1,98	1,8	1,73	1,67	1,24	0,9	0,63	0,31
	40	4,06	3,93	3,79	3,64	3,38	3,18	2,89	2,77	2,67	1,99	1,43	1,0	0,49
	63	6,4	6,19	5,96	5,74	5,33	5,0	4,55	4,36	4,2	3,14	2,26	1,58	0,76
	100	10,16	9,82	9,47	9,11	8,46	7,94	7,22	6,92	6,67	4,98	3,58	2,51	1,21
1.4408 (CF8M)	16	1,33	1,22	1,13	1,05	1,0	0,96	0,93	0,92	0,91	0,86	0,8	0,76	0,64
	25	2,08	1,9	1,76	1,65	1,56	1,5	1,45	1,44	1,42	1,35	1,25	1,12	0,99
	40	3,33	3,04	2,82	2,63	2,5	2,4	2,36	2,32	2,3	2,28	2,16	2,0	1,59
	63	5,25	4,79	4,43	4,15	3,93	3,79	3,66	3,62	3,59	3,4	3,14	2,97	2,5
	100	8,33	7,6	7,04	6,59	6,24	6,01	5,81	5,75	5,69	5,4	4,99	4,72	3,95
1.7390 (A217 WC9)	16	1,63	1,58	1,54	1,46	1,35	1,27	1,15	1,11	1,07	0,88	0,68	0,49	0,27
	25	2,54	2,48	2,41	2,29	2,11	1,98	1,8	1,73	1,67	1,37	1,07	0,76	0,38
	40	4,07	3,96	3,85	3,66	3,38	3,18	2,89	2,77	2,67	2,19	1,71	1,21	0,61
	63	6,41	6,24	6,06	5,76	5,33	5,0	4,55	4,36	4,2	3,46	2,69	1,91	0,92
	100	10,17	9,9	9,63	9,14	8,46	7,94	7,22	6,92	6,67	5,49	4,28	3,03	1,45
1.7386 (A217 C12A)	16	1,63	1,58	1,54	1,46	1,35	1,27	1,15	1,11	1,07	0,89	0,81	0,79	0,65
	25	2,54	2,48	2,41	2,29	2,11	1,98	1,8	1,73	1,67	1,39	1,27	1,23	0,99
	40	4,07	3,96	3,85	3,66	3,38	3,18	2,89	2,77	2,67	2,23	2,04	1,97	1,57
	63	6,41	6,24	6,06	5,76	5,33	5,0	4,55	4,36	4,2	3,51	3,21	3,1	2,46
	100	10,17	9,9	9,63	9,14	8,46	7,94	7,22	6,92	6,67	5,57	5,09	4,92	3,86

Dimensions



DN	PN	L mm	H mm	m kg	
				FL	BW
50	16	230	152	22	17
65		290	178	26	19
80		310	185	38	30
100		350	210	45	35
125		400	290	60	46
150		480	310	80	61
200		600	365	150	120
250		730	445	280	220
300		850	480	320	260
350		980	510	420	340
400		1100	545	640	510
450		1200	495	950	760
500		1250	655	1050	840
600		1450	860	1300	950
700		1650	920	1600	1300
800		1850	1080	1900	1700
900	2050	1200	2600	2400	
1000	2250	1300	3000	2800	

DN	PN	L mm	H mm	m kg	
				FL	BW
50	25	230	147	22	17
65		290	161	28	19
80		310	178	40	30
100		350	190	45	35
125		400	265	60	46
150		480	285	80	61
200		600	332	135	120
250		730	395	260	220
300		850	420	310	260
350		980	460	545	340
400		1100	522	730	510
450		1200	572	1050	760
500		1250	622	1180	840
600		1450	622	1400	1000
700		1650	920	1600	1300
800		1850	1080	1900	1700
900	2050	1200	2600	2400	
1000	2250	1300	3000	2800	
50	40	230	160	22	17
65		290	175	28	19
80		310	185	40	30
100		350	220	45	35
125		400	248	60	46
150		480	276	80	61
200		600	350	150	120
250		730	410	280	220
300		850	430	350	260
350		980	518	595	340
400		1100	545	785	510
450		1200	655	1100	760
500		1250	655	1250	840
600		1450	860	1500	1050
700		1650	920	1750	1450
800		1850	1080	2100	1900
900	2050	1200	2900	2680	
1000	2250	1300	3300	3100	
50	63	300	175	30	21
65		340	192	41	29
80		380	225	48	35
100		430	280	72	53
125		500	310	108	79
150		550	335	155	113
200		650	390	217	149
250		775	450	341	252
300		900	520	472	351
350		1025	570	627	465
400		1150	626	882	670
450		1400	770	-	-
500		1400	770	-	-
600		1600	920	-	-

DN	PN	L mm	H mm	m kg	
				FL	BW
50	100	340	192	41	29
65		380	225	48	35
80		430	280	72	53
100		500	310	108	79
125		550	335	155	113
150		650	390	217	149
200		775	450	341	252
250		900	520	472	351
300		1025	570	627	465
350		1150	626	882	670
400		1400	770	-	-
500		1400	780	-	-
600		1600	920	-	-

Surfacing of the wedge and seats sealing surfaces

Seats in the body and sealing surfaces of the wedge are hardalloyed according to the body material and the valves dimensions:

PN	DN	Body material	Surfacing type	Surfacing on the wedge	Surfacing on the seat
16-40	50-150	1.0619, A352	TRIM 1	13Cr	13Cr
	200-1000	1.0619, A352	TRIM 8	13Cr	Stellite 6
	50-600	1.4408	TRIM 8	13Cr	Stellite 6
	50-600	1.7357	TRIM 5	Stellite 6	Stellite 6
63-100	50-600	1.0619, 1.7357	TRIM 5	Stellite 6	Stellite 6

MYYNTI / SALES:

**FINKOVA OY
SINIKELLONTIE 10 B
FI-01300 VANTAA**

TEL: +358 10 229 1570

EMAIL: finkova@finkova.fi

WWW: www.finkova.fi



HUOLTO / SERVICE:

**FINKOVA SERVICE OY
RAUDOITTAJANTIE 7 A
FI-06450 PORVOO**

TEL: +358 10 229 1570

EMAIL: info@finkovaservice.fi

WWW: www.finkovaservice.fi

