

## Check valve - straight through with flanges (Grey cast iron, SG iron, Cast steel)

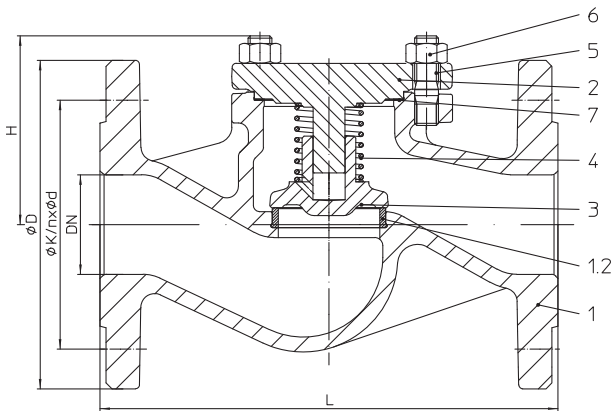


Figure	Nominal pressure	Material	Nominal diameter
10.003	PN6	EN-JL1040	DN15-200
12.003 / 12.303	PN16	EN-JL1040	DN15-300
22.003 / 22.003	PN16	EN-JS1049	DN15-350
23.003 / 23.303	PN25	EN-JS1049	DN15-150
34.003 / 34.303	PN25	1.0619+N	DN15-500
35.003 / 35.303	PN40	1.0619+N	DN15-500

Set pressure 0,1 bar

The operating point of the valve cannot be chosen in the unstable region!

Fig. 303: Trim made of RG/MS:  
 CuZn35Ni3Mn2AlPb, CW710R code number 02  
 CuSn10-Cu, CC480K code number 03  
 (max. operating temperature: 180°C, code number acc. to DIN 86251)

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 09 2016 C04

 Considered standards: • EN 14341 (1.0619+N)  
 • EN 12334 (EN-JL1040, EN-JS1049)

Parts		Fig. 10./12.003	Fig. 10./12.303	Fig. 22./23.003	Fig. 22./23.303	Fig. 34./35.003	Fig. 34./35.303
1	Body	EN-JL1040, EN-GJL-250		EN-JS1049, EN-GJS-400-18U-LT		GP240GH+N, 1.0619+N	
1.2	Seat ring	DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551	CuSn10-Cu, CC480K code number 03	DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551	CuSn10-Cu, CC480K code number 03	DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551	CuSn10-Cu, CC480K code number 03
2	Cover	DN ≤20: EN-JS1049, EN-GJS-400-18U-LT DN >20 EN-JL1040, EN-GJL-250		EN-JS1049, EN-GJS-400-18U-LT		GP240GH+N, 1.0619+N	
3	x Plug	DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551	CuZn35Ni3Mn 2AlPb, CW710R code nr. 02 CuSn10-Cu, CC480K code nr. 03	DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551	CuZn35Ni3Mn 2AlPb, CW710R code nr. 02 CuSn10-Cu, CC480K code nr. 03	DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551	CuZn35Ni3Mn 2AlPb, CW710R code nr. 02 CuSn10-Cu, CC480K code nr. 03
4	Spring	X10CrNi18-8, 1.4310		X10CrNi18-8, 1.4310			
5	Hexagon bolt	5.6		--			
5	Stud	--		25CrMo4, 1.7218			
6	Hexagon nut	--		C35E, 1.1181			
7	x Gasket	Pure graphite (CrNi laminated with graphite)					
L Spare parts							

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500
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 Face-to-face dimension FTF series 1 according to DIN EN 558 Standard-flange dimensions refer to page 11

L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	1350*
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Dimensions		70	80	85	95	110	130	155	165	215	285	325	365	420	430	530		
H (mm)		70	80	85	95	110	130	155	165	215	285	325	365	420	430	530		
Kvs-value (m³/h)		5,7	7,8	11,8	17,9	27,5	48,0	77,6	109	168	251	389	664	1017	1446	2042	2725	4167
Zeta-value	--	2,5	4,2	4,5	5,2	5,4	4,3	4,7	5,5	5,7	6,2	5,3	5,8	6,0	6,2	5,7	5,5	5,7

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights		2,4	2,9	3,5	4,8	6,4	8,2	12,2	18,6	27	42	67	112	--	--	--	--	--
10.003 / 303 (kg)		2,4	2,9	3,5	4,8	6,4	8,2	12,2	18,6	27	42	67	112	--	--	--	--	--
12.003 / 303 (kg)		2,4	3	3,8	5,7	7,4	10,3	15,2	20,4	31	49	69	132	198	278	--	--	--
22.003 / 303 (kg)		3,5	4	5	6	8	11	16	21	31	49	69	132	198	278	383	--	--
23.003 / 303 (kg)		3,5	4	5	6	8	11	16	21	32	51	70	--	--	--	--	--	--
34.003 / 303 (kg)		3,8	4,9	5,9	7,1	10,4	12,3	22,7	28,5	40	64	90	160	222	337	461	709	989
35.003 / 303 (kg)		3,8	4,9	5,9	7,1	10,4	12,3	22,7	28,5	40	64	90	170	240	374	508	786	1044

Information / restriction of technical rules need to be observed!

 Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

A production permission acc. to TRB 801 No. 45 is available (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

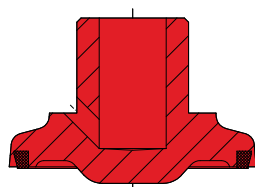
Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

DN		15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	
<b>Standard-flange dimensions</b>		Flanges acc. to DIN EN 1092-1/-2 (Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545)																	
PN6	ØD (mm)	80	90	100	120	130	140	160	190	210	240	265	320	--	--	--	--	--	
	ØK (mm)	55	65	75	90	100	110	130	150	170	200	225	280	--	--	--	--	--	
	n x Ød (mm)	4x11	4x11	4x11	4x14	4x14	4x14	4x14	4x14	4x18	4x18	8x18	8x18	8x18	--	--	--	--	
PN16	ØD (mm)	95	105	115	140	150	165	185	200	220	250	285	340	405	460	520	580	715	
	ØK (mm)	65	75	85	100	110	125	145	160	180	210	240	295	355	410	470	525	650	
	n x Ød (mm)	4x14	4x14	4x14	4x18	4x18	4x18	4x18 <sup>1)</sup>	8x18	8x18	8x18	8x22	12x22	12x26	12x26	16x26	16x30	20x33	
PN25	ØD (mm)	95	105	115	140	150	165	185	200	235	270	300	360	425	485	555	620	730	
	ØK (mm)	65	75	85	100	110	125	145	160	190	220	250	310	370	430	490	550	660	
	n x Ød (mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x26	12x30	16x30	16x33	16x36	20x36	
PN40	ØD (mm)	95	105	115	140	150	165	185	200	235	270	300	375	450	515	580	660	755	
	ØK (mm)	65	75	85	100	110	125	145	160	190	220	250	320	385	450	510	585	670	
	n x Ød (mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33	16x33	16x36	16x39	20x42	

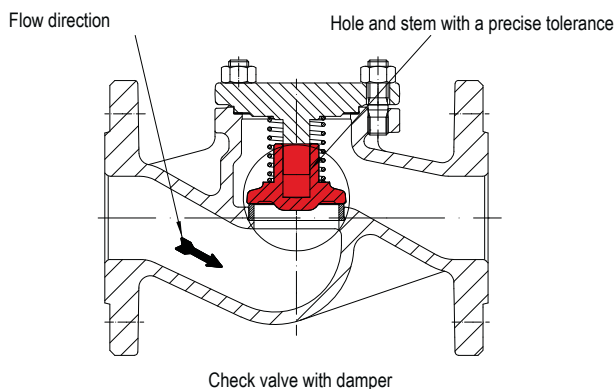
<sup>1)</sup> also with 8 bore holes acc. to DIN EN 1092-1/-2 possible.

Pressure-temperature-ratings			Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.								
acc. to DIN EN 1092-2			-60°C to <-10°C <sup>1)</sup>	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
EN-JL1040	6	(bar)	--	6	5,4	4,8	4,2	3,6	--	--	--
EN-JL1040	16	(bar)	--	16	14,4	12,8	11,2	9,6	--	--	--
EN-JS1049	16	(bar)	on request	16	15,5	14,7	13,9	12,8	11,2	--	--
EN-JS1049	25	(bar)	on request	25	24,3	23	21,8	20	17,5	--	--
acc. to manufacturers standard			-60°C to <-10°C <sup>1)</sup>	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2
1.0619+N	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	13,1
1.0460	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	10
1.0460	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	16
acc. to DIN EN 1092-1			-60°C to <-10°C <sup>1)</sup>	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.4408	16	(bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9	--
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1	--
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4	--

<sup>1)</sup> Studs and nuts made of A4-70 (at temperatures below -10°C)

**CHECKO®-V: Plug design**


Soft sealing plug  
Max. operating temperature 200°C at PTFE + 25% carbon



In special applications, like high flow turbulences, check valves with damper should be used:

- if check valves are mounted directly by centrifuged pumps;
- behind pressure reduction stations;
- behind pipe elbows;
- in compact plants;
- if expansion joints are missing;
- if the pump is not mounted on a damper;
- if there is no flow stabilizing pipe dimension;
- if there is no start-up bypass line;
- when choosen valve diameter to large.

**Working principle**

The precise tolerance between shaft and plug hole prevents an abrupt displacement of medium out of the plug.