

Bronze Lift Check Valves

Data Sheet



Type	Connection	Size	Links to data below
05413	Threaded	10mm - 50mm / 1/4" - 2"	VIEW HERE →
05412	Socket end	10mm - 50mm / 3/8" - 2"	VIEW HERE →
05412	Copper stubbed	10mm - 50mm / 3/8" - 2"	VIEW HERE →
05412	Stainless stubbed	10mm - 50mm / 3/8" - 2"	VIEW HERE →
05411	Male threaded	10mm - 50mm / 3/8" - 2"	VIEW HERE →

Check Valves

Type 05413 - Check Valve



Cryogenic-Check Valves, PN50

Bronze body and cap
with spring, opening pressure ca. 0.1 bar
"cleaned and degreased for oxygen service"

Part No. 05413.X.0001

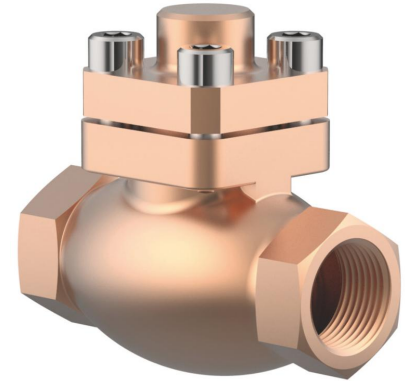
Female thread connection (G) acc. to ISO 228/1

Part No. 05413.X.0006

Female thread connection NPT acc. to ANSI B 1.20.1

Available options - on request only:

· Female thread connection (R) acc. to ISO 7-Rc

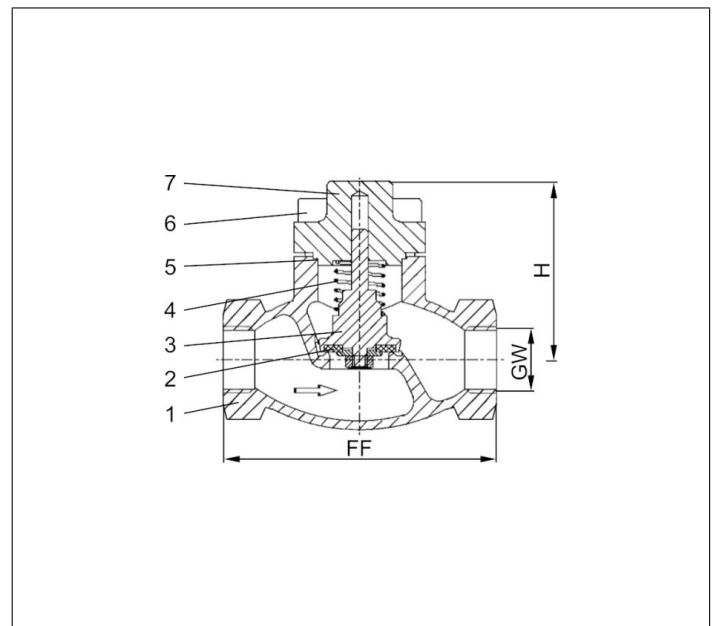


Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	CW452K	B 159 UNS C51900
5 Bonnet gasket	PTFE	
6 Bolts	1.4301/A2 A 194 B8	
7 Cap	CC493K	B 505 UNS C93200



Type 05413 - Standard design	Technical data								
Nominal size	DN	10	10	15	20	25	32	40	50
Thread size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000
Face-to-face dimension	FF	60	60	85	85	115	115	140	160
Height	H	71	71	71	72	75	87	95	95
Weight	ca. kg	0.7	0.7	1.0	1.3	1.6	2.4	3.9	5.7
Kvs-Value	m ³ /h	1.6	2.2	4.3	6.7	11.5	20.6	22.6	37.1
Cv-Value	gal/min	1.9	2.6	5.0	7.8	13.4	23.9	26.3	43.2

Dimensions in mm. Leakage rates will be provided on request

Check Valves

Type 05412 - Check Valve



Cryogenic-Check Valves, PN50

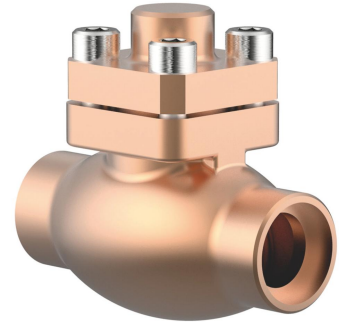
Bronze body and cap
with spring, opening pressure ca. 0.1 bar
"cleaned and degreased for oxygen service"

Part No. 05412.X.0001

Socket end for copper pipes acc. to DIN EN 12449 or ASTM B88

Available options - on request only:

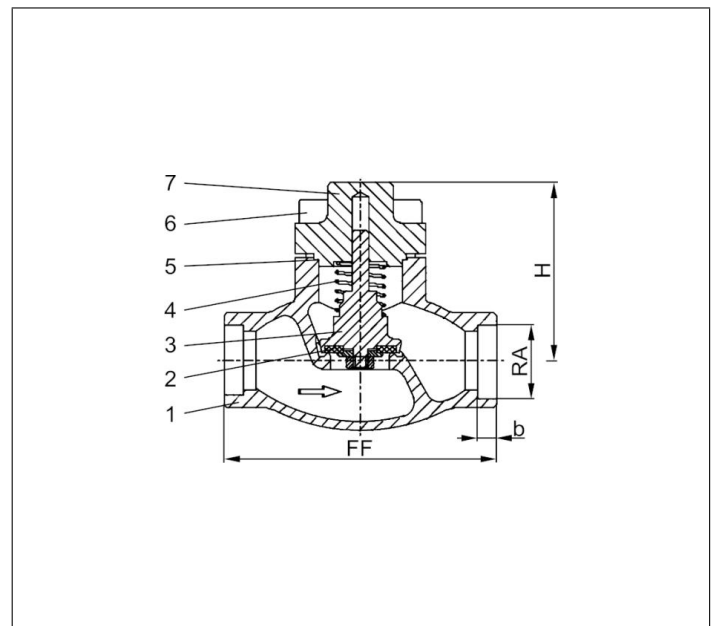
- Socket end for stainless steel pipes acc. to ISO 1127



Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.
Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	CW452K	B 159 UNS C51900
5 Bonnet gasket	PTFE	
6 Bolts	1.4301/A2 A 194 B8	
7 Cap	CC493K	B 505 UNS C93200



Type 05412 - Standard design	Technical data							
Nominal size	DN	10	15	20	25	32	40	50
Dimension code	.X.	X=DNRA, Example: valve DN10 for copper pipe RAØ12mm. X=1012						
Face-to-face dimension	FF	60	85	85	115	115	140	160
Height	H	71	71	72	75	87	95	95
Outside pipe-Ø	RA	dependent on order						
Socket depth	b	6	6	8	8	10	13	20
Weight	ca. kg	0.7	1.0	1.3	1.6	2.4	3.9	5.7
Kvs-Value	m ³ /h	1.6	4.3	6.7	11.5	12.1	22.6	37.1
Cv-Value	gal/min	1.9	5.0	7.8	13.4	14.1	26.3	43.2

Dimensions in mm. Leakage rates will be provided on request

Check Valves

Type 05412 - Check Valve

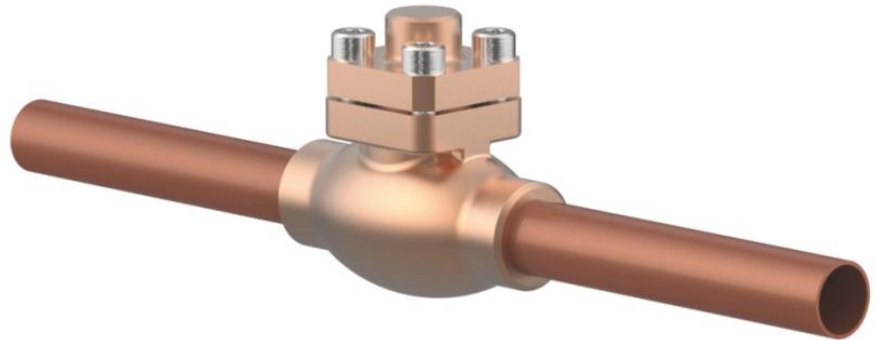


Cryogenic-Check Valves, PN50 (DN10-25), PN40 (DN32), PN35 (DN40-50)

Bronze body and cap
with spring, opening pressure ca. 0.1 bar
"cleaned and degreased for oxygen service"

Part No. 05412.X.0008

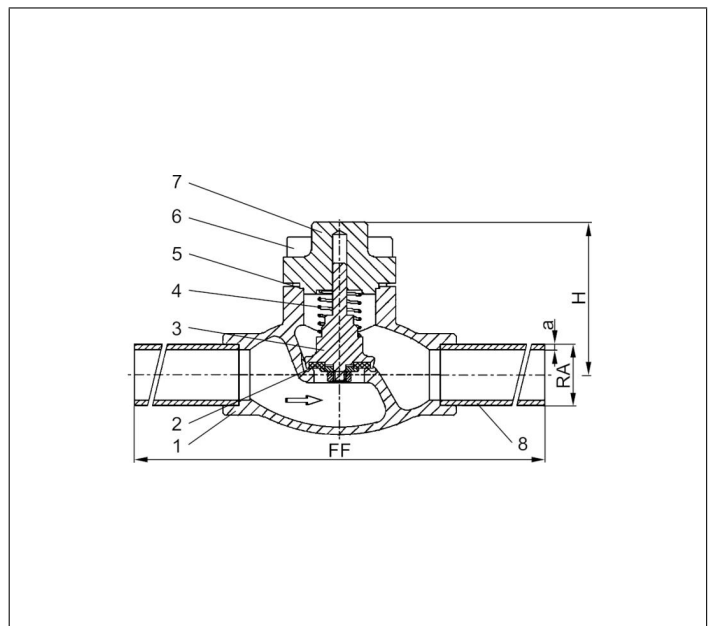
Complete with brazed copper stubs acc. to DIN EN 12449



Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.
Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	CW452K	B 159 UNS C51900
5 Bonnet gasket	PTFE	
6 Bolts	1.4301/A2 A 194 B8	
7 Cap	CC493K	B 505 UNS C93200
8 Copper stubs	CW024A	B 152 UNS C12200



Type 05412 - Standard design	Technical data								
Nominal size	DN	10	15	15	20	25	32	40	50
Dimension code	.X.	1012	1515	1518	2022	2528	3235	4042	5054
Face-to-face dimension	FF	360	385	385	385	415	415	420	460
Height	H	71	71	71	72	75	87	95	95
Outside pipe-Ø	RA	12.0	15.0	18.0	22.0	28.0	35.0	42.0	54.0
Wall thickness pipe	a	1.0	1.5	1.5	1.5	1.5	1.5	1.5	2.0
Weight	ca. kg	0.8	1.1	1.1	1.4	2.0	2.8	4.5	6.5
Kvs-Value	m ³ /h	2.2	4.3	4.3	6.7	11.5	12.1	22.6	37.1
Cv-Value	gal/min	2.6	5.0	5.0	7.8	13.4	14.1	26.3	43.2

Dimensions in mm. Leakage rates will be provided on request

Check Valves

Type 05412 - Check Valve



Cryogenic-Check Valves, PN50

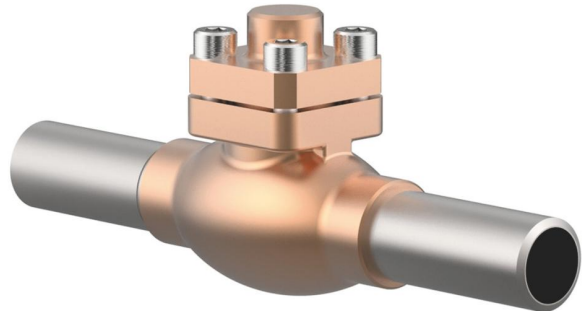
Bronze body and cap
with spring, opening pressure ca. 0.1 bar
"cleaned and degreased for oxygen service"

Part No. 05412.X.0007

Complete with brazed stainless steel stubs acc. to DIN EN 10216-5 or ASTM A312

Available options - on request only:

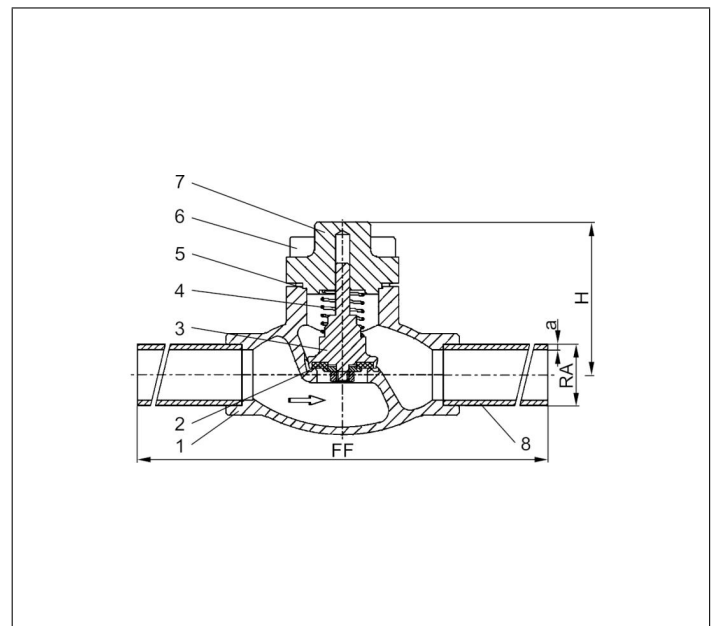
- Further pipe wall thicknesses



Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.
Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	CW452K	B 159 UNS C51900
5 Bonnet gasket	PTFE	
6 Bolts	1.4301/A2	A 194 B8
7 Cap	CC493K	B 505 UNS C93200
8 Stainless steel stubs	1.4306	A 312 TP304L



Type 05412 - Standard design	Technical data								
Nominal size	DN	10	10	15	20	25	32	40	50
Dimension code	.X.	1012	1017	1521	2027	2533	3242	4048	5060
Face-to-face dimension	FF	210	210	235	235	265	265	290	310
Height	H	71	71	71	72	75	87	95	95
Outside pipe-Ø ISO 1127	RA	12.0	17.2	21.3	26.9	33.7	42.4	48.3	60.3
Wall thickness pipe ISO 1127	a	1.0	2.3	2.6	2.9	3.2	3.2	3.6	3.6
Outside pipe-Ø ASTM A312	RA	-	17.15	21.34	26.67	33.40	42.16	48.26	60.33
Wall thickness pipe ASTM A312	a	dimensions acc. to S10 or S40							
Weight	ca. kg	0.8	0.8	1.1	1.4	2.0	2.8	4.5	6.5
Kvs-Value	m ³ /h	2.2	2.2	4.3	6.7	11.5	12.1	22.6	37.1
Cv-Value	gal/min	2.6	2.6	5.0	7.8	13.4	14.1	26.3	43.2

Dimensions in mm. Leakage rates will be provided on request

Check Valves

Type 05411 - Check Valve

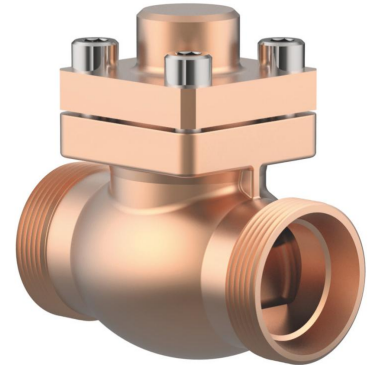


Cryogenic-Check Valves, PN50

Bronze body and cap
with spring, opening pressure ca. 0.1 bar
"cleaned and degreased for oxygen service"

Part No. 05411.X.0001

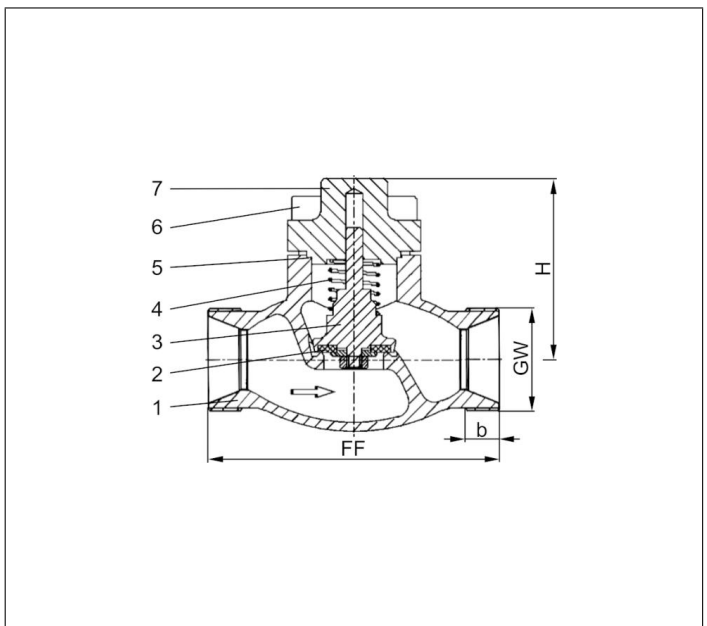
Male thread for union connection



Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.
Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	CW452K	B 159 UNS C51900
5 Bonnet gasket	PTFE	
6 Bolts	1.4301/A2 A 194 B8	
7 Cap	CC493K	B 505 UNS C93200



Type 05411 - Standard design	Technical data					
Nominal size	DN	10	20	32	40	50
Dimension code	.X.	0100	0200	0320	0400	0500
Face-to-face dimension	FF	60	85	115	140	160
Height	H	71	72	87	95	95
Union thread	GW	M26x1.5	M40x2.0	M55x2.0	M65x2.0	M78x2.0
Thread length	b	7	11	14	17	20
Weight	ca. kg	0.7	1.3	2.4	3.9	5.7
Kvs-Value	m ³ /h	2.2	6.7	12.1	22.6	37.1
Cv-Value	gal/min	2.6	7.8	14.1	26.3	43.2

Dimensions in mm. Leakage rates will be provided on request