

Valves for Cryogenic Service

Type 08412 - Strainer

Cryogenic-Strainer, PN50

Bronze body and cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08412.X.0001

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

Available options - on request only:

- Socket end for stainless steel stubs acc. to DIN EN ISO 1127
- other mesh sizes for strainer screen
- strainer screen item 2 in bronze

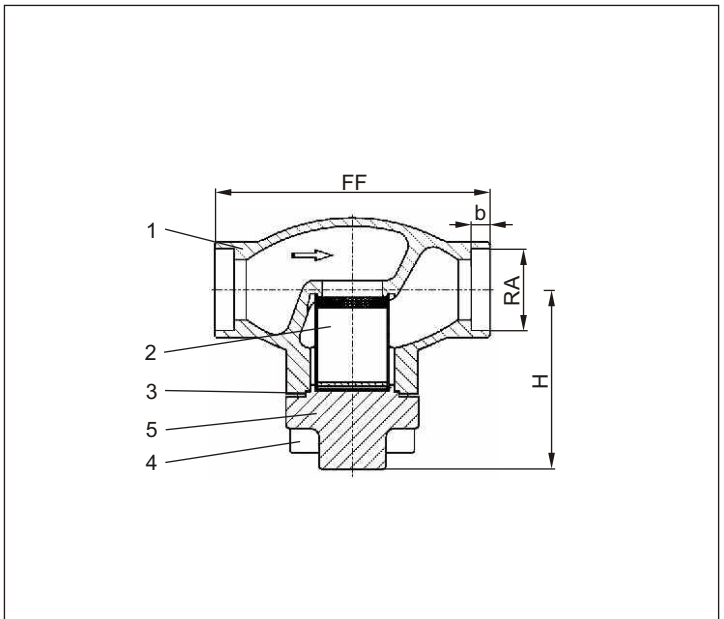


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluormethan, carbon oxide, methane, ethane and ethylene.

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 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08412 – Standard design	Technical data								
	DN	10	15	20	25	32	40	50	
Nominal size	.X.	X=DNRA, Example: valve DN10 for copper pipe RAø12mm, X=1012							
Dimension code	FF	60	85	85	115	115	140	160	
Face-to-face dimension	H	70	70	72	75	85	95	95	
Height	RA	dependent on order							
Outside pipe-Ø	b	6	6	8	8	10	13	20	
Socket depth	ca. kg	0.6	0.8	0.9	1.2	1.8	3.1	4.7	
Weight	m ³ /h	1.6	4.3	6.7	11.5	12.1	22.6	37.1	
Kvs – Value	gal /min	1.9	5.0	7.8	13.4	14.1	26.3	43.2	
Cv – Value									

Dimensions in mm.

Valves for Cryogenic Service

Type 08412 - Strainer



Cryogenic-Strainer, PN50

Bronze body and cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08412.X.0008

Complete with brazed copper stubs acc. to DIN EN 12449

Available options - on request only:

- other mesh sizes for strainer screen
- strainer screen item 2 in bronze

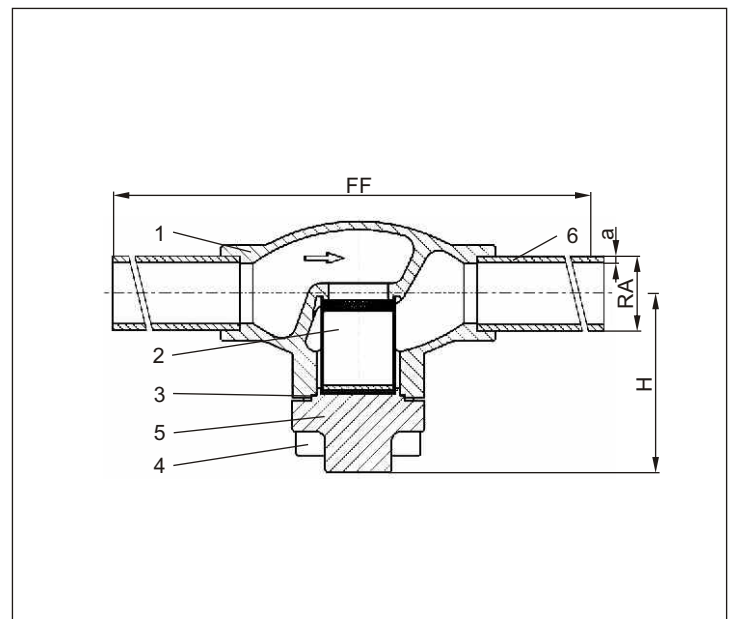


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200
6 Copper stubs	CW024A	B 152



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08412 – 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	70	70	70	72	75	85	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	0.75	1.0	1.0	1.2	1.8	2.5	4.1	6.0	
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.

Valves for Cryogenic Service

Type 08412 - Strainer

Cryogenic-Strainer, PN50

Bronze body and cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08412.X.0007

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

Available options - on request only:

- other mesh sizes for strainer screen
- strainer screen item 2 in bronze

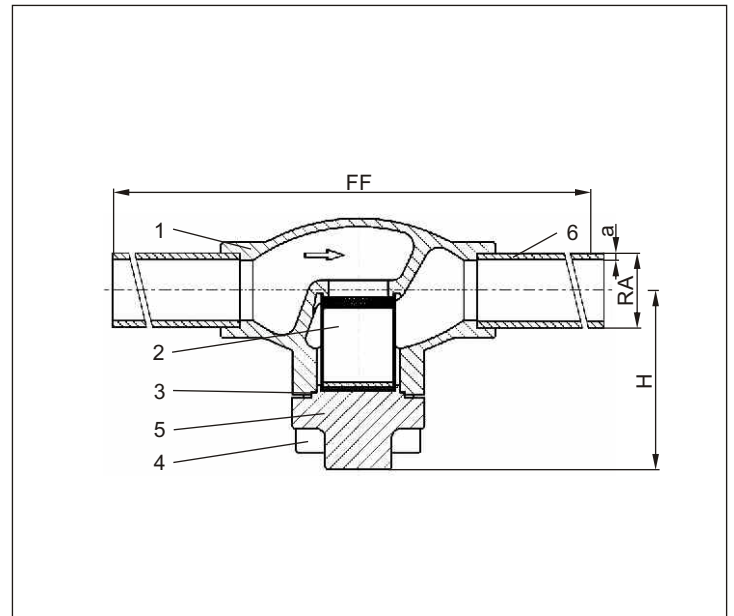


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200
6 Stainless steel stubs	1.4306	A 312 TP304L



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08412 – Standard design	Technical data								
	DN	10	10	15	20	25	32	40	50
Nominal size	.X.	1012	1017	1521	2027	2533	3242	4048	5060
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	70	70	70	72	75	85	95	95
Outside pipe-Ø DIN EN ISO 1127	RA	12.0	17.2	21.3	26.9	33.7	42.4	48.3	60.3
Wall thickness pipe DIN EN 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	33.4	42.16	48.26	60.33
Wall thickness pipe ASTM A312	a	-	S40	S10	S10	S10	S10	S10	S10
Weight	ca. kg	0.75	0.75	1.0	1.2	1.8	2.5	4.1	6.0
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.

Valves for Cryogenic Service

Type 08413 - Strainer

Cryogenic-Strainer, PN50

Bronze body and cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08413.X.0001

Female thread connection (G) acc. to ISO 7-Rp

Part No. 08413.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
- other mesh sizes for strainer screen
- strainer screen item 2 in bronze

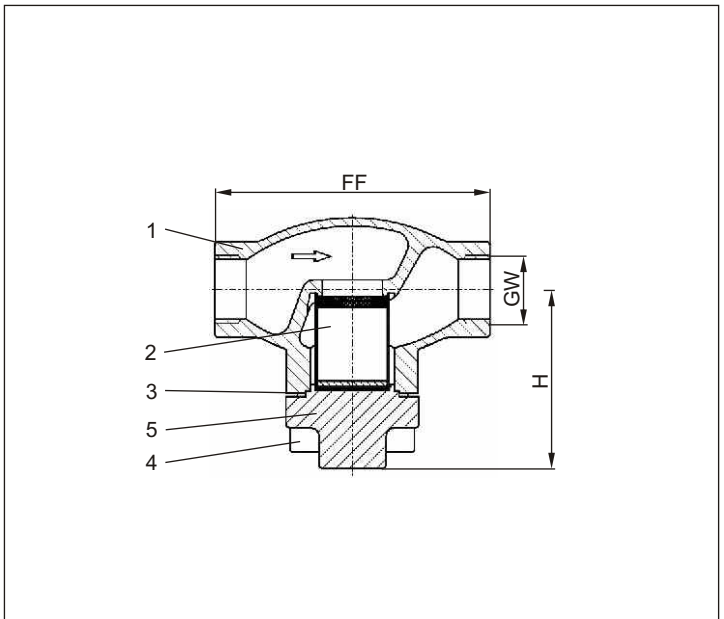


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08413 – 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	70	70	70	72	75	85	95	95
Weight	ca. kg	0.6	0.6	0.8	0.9	1.2	1.8	3.1	4.7
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	26.3	26.3	43.2

Dimensions in mm.

Valves for Cryogenic Service

Type 08414 - Strainer



Cryogenic-Strainer, PN50

Stainless steel body and bronze cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08414.X.000*

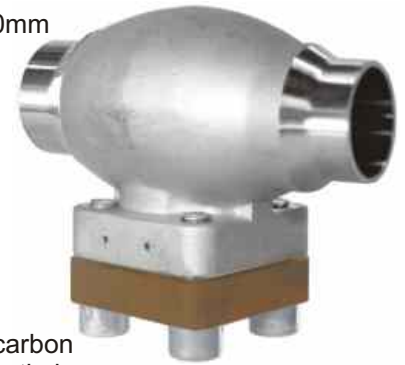
*Butt weld connection for stainless steel pipes acc. to DIN EN ISO 1127 or ASTM A312

Part No. 08414.X.0004

Socket weld connection for stainless steel pipes acc. to DIN EN ISO 1127 and ASTM A312

Available options - on request only:

- Welded stainless steel stubs acc. to DIN EN ISO 1127 or ASTM A312 - length FF + 150mm
- other mesh sizes for strainer screen
- strainer screen item 2 in bronze

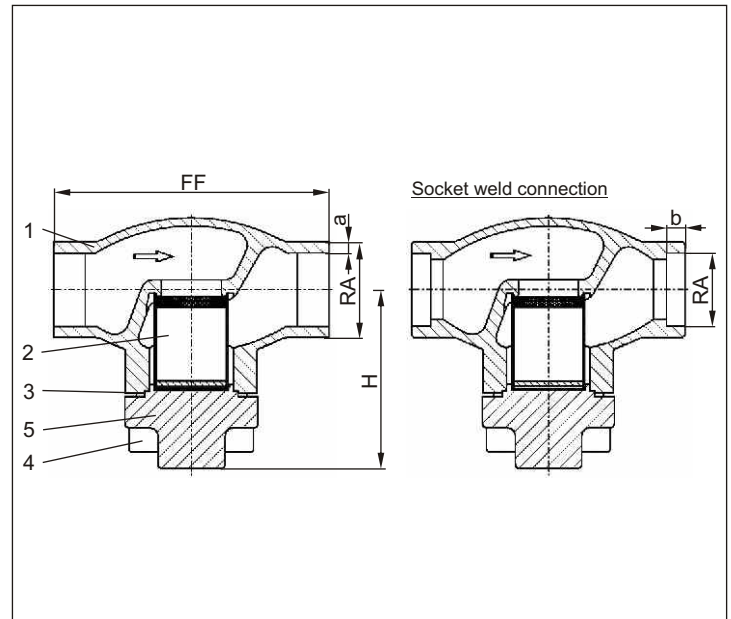


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08414 – Standard design	Technical data												
	DN	10	15	15	20	25	32	40	40	50	65	80	100
Dimension code	.X.	1012	1517	1521	2026	2533	3238	4042	4048	5060	6570	8088	0114
Face-to-face dimension	FF	70	85	85	100	115	115	130	130	155	205	245	280
Height	H	70	70	70	72	75	85	95	95	95	125	150	185
Outside pipe-Ø DIN EN ISO 1127	RA	12.0	17.2	21.3	26.9	33.7	38.0	42.4	48.3	60.3	76.1	88.9	114.3
Wall thickness pipe DIN EN ISO 1127	a	1.0	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.2	6.0
Outside pipe -Ø ASTM A312	RA	13.72	17.15	21.34	26.67	33.40	-	42.16	48.26	60.33	73.03	88.90	114.3
Wall thickness pipe ASTM A312	a	S10	S40	S10	S10	S10	-	S10	S10	S10	S40	S10	S40
Socket depth	b	6	10	10	13	13	-	13	13	16	16	16	20
Weight	ca. kg	0.6	0.75	0.8	0.9	1.2	1.8	3.1	3.1	4.7	8.9	13.6	18.0
Kvs – Value	m ³ /h	1.6	3.8	4.3	6.7	11.5	14.0	20.6	22.6	37.1	71.1	104.0	t.b.c.
Cv – Value	gal /min	1.9	4.4	5.0	7.8	13.4	16.2	26.3	26.3	43.2	82.7	120.9	t.b.c.

Dimensions in mm.

Valves for Cryogenic Service

Type 08415 - Strainer

Cryogenic-Strainer, PN50

Stainless steel body and bronze cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08415.X.0001

Female thread connection (G) acc. to ISO 7-Rp

Part No. 08415.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
- other mesh sizes for strainer screen
- strainer screen item 2 in bronze

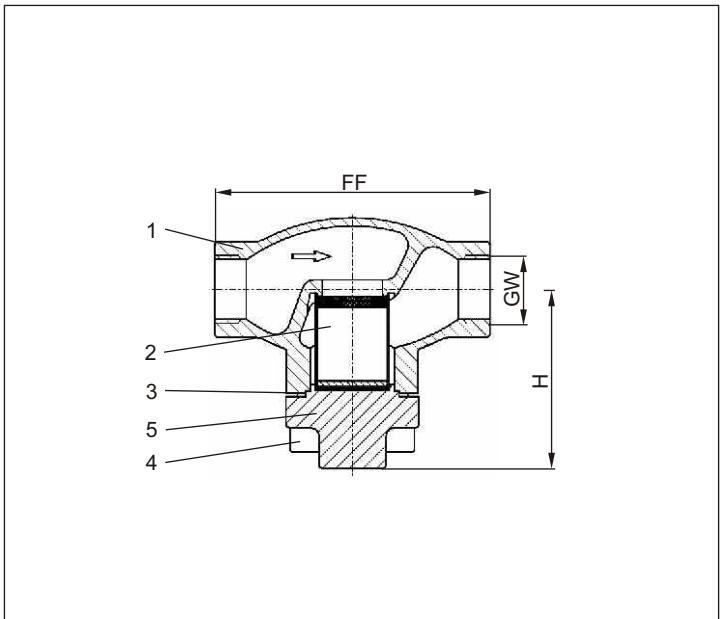


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08415 – Standard design	Technical data								
Nominal size	DN	10	10	15	20	25	40	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	70	70	85	100	115	130	130	155
Height	H	70	70	70	72	75	95	95	95
Weight	ca. kg	0.6	0.6	0.8	0.9	1.2	3.1	3.1	4.7
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	26.3	26.3	43.2

Dimensions in mm.

Valves for Cryogenic Service

Type 08431 - Strainer

Cryogenic-Strainer, PN50

Stainless steel body and bronze cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08431.X.0002

Flanged connection acc. to DIN EN 1092-1 PN40

Part No. 08431.X.0003

Flanged connection acc. to ANSI B16.5 class 300

Available options - on request only:

- other mesh sizes for strainer screen
- strainer screen item 2 in bronze



Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

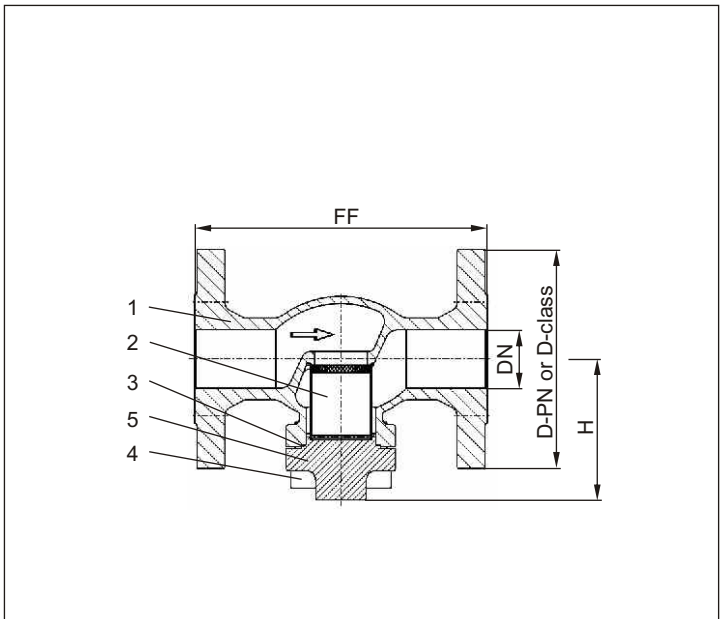
Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	CC493K	B 505 UNS C93200

Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08431 – Standard design	Technical data						
Nominal size	DN	25	40	50	65	80	100
Dimension code - Flange EN 1092-1 PN40	.X.	0250	0400	0500	0650	0800	1000
Flange-Ø	D-PN	115	150	165	185	200	235
Dimension code - Flange ANSI B16.5 class 300	.X.	1000	1400	2000	2400	3000	4000
Flange-Ø	D-class	123.9	155.4	165	190.5	209.5	254
Face-to-face dimension	FF	160	200	230	290	310	350
Height	H	75	95	90	125	150	165
Weight	ca. kg	4.0	5.6	10.6	17.7	23.2	36.8
Kvs – Value	m ³ /h	11.5	22.6	37.1	71.1	104.0	t.b.c.
Cv – Value	gal /min	13.4	26.3	43.2	82.7	120.9	t.b.c.

Dimensions in mm.

Valves for Cryogenic Service

Type 08417 - Strainer



Cryogenic-Strainer, PN50

Stainless steel body and cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08417.X.000*

*Butt weld connection for stainless steel pipes acc. to DIN EN ISO 1127 or ASTM A312

Part No. 08417.X.0004

Socket weld connection for stainless steel pipes acc. to DIN EN ISO 1127 and ASTM A312

Available options - on request only:

- Welded stainless steel stubs acc. to DIN EN ISO 1127 or ASTM A312 - length FF + 150mm
- other mesh sizes for strainer screen

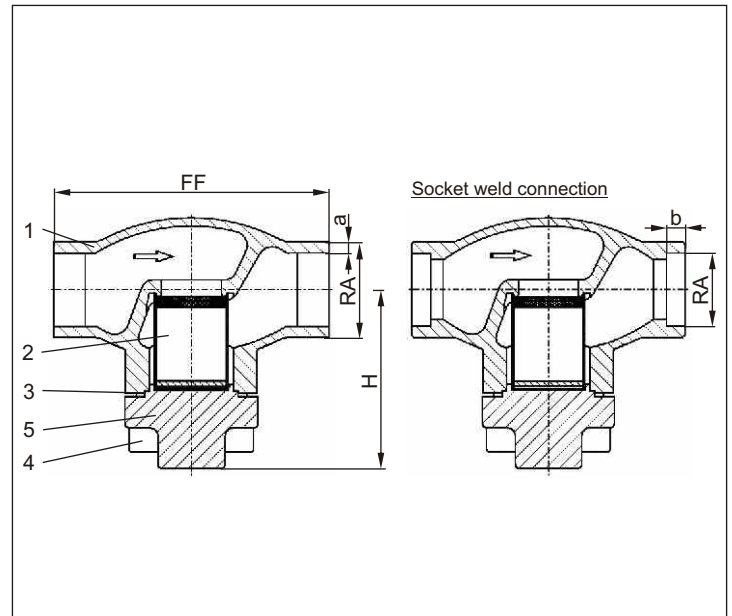


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	1.4301	A 276 Grade 304



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08417 – Standard design	Technical data												
	DN	10	15	15	20	25	32	40	40	50	65	80	100
Nominal size	.X.	1012	1517	1521	2026	2533	3238	4042	4048	5060	6570	8088	0114
Dimension code	.X.	1012	1517	1521	2026	2533	3238	4042	4048	5060	6570	8088	0114
Face-to-face dimension	FF	70	85	85	100	115	115	130	130	155	205	245	280
Height	H	70	70	70	72	75	85	95	95	95	125	150	185
Outside pipe-Ø DIN EN ISO 1127	RA	12.0	17.2	21.3	26.9	33.7	38.0	42.4	48.3	60.3	76.1	88.9	114.3
Wall thickness pipe DIN EN ISO 1127	a	1.0	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.2	6.0
Outside pipe -Ø ASTM A312	RA	13.72	17.15	21.34	26.67	33.40	-	42.16	48.26	60.33	73.03	88.90	114.3
Wall thickness pipe ASTM A312	a	S10	S40	S10	S10	S10	-	S10	S10	S10	S40	S10	S40
Socket depth	b	6	10	10	13	13	-	13	13	16	16	16	20
Weight	ca. kg	0.6	0.75	0.8	0.9	1.2	1.8	3.1	3.1	4.7	8.9	13.6	18.0
Kvs – Value	m ³ /h	1.6	3.8	4.3	6.7	11.5	14.0	20.6	22.6	37.1	71.1	104.0	t.b.c.
Cv – Value	gal /min	1.9	4.4	5.0	7.8	13.4	16.2	26.3	26.3	43.2	82.7	120.9	t.b.c.

Dimensions in mm.

Valves for Cryogenic Service

Type 08416 - Strainer

Cryogenic-Strainer, PN50

Stainless steel body and cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08416.X.0001

Female thread connection (G) acc. to ISO 7-Rp

Part No. 08416.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
- other mesh sizes for strainer screen

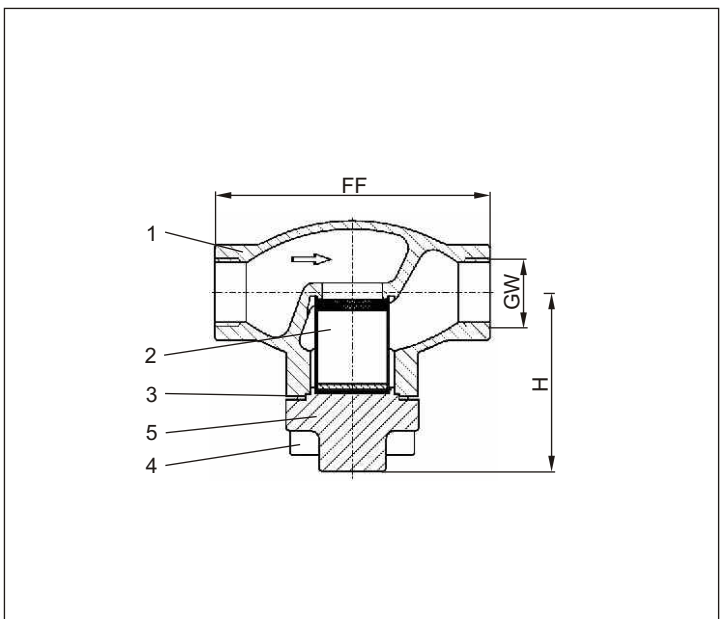


Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

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

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	1.4301	A 276 Grade 304



Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08416 – Standard design	Technical data									
Nominal size	DN	10	10	15	20	25	40	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	70	70	85	100	115	130	130	155	
Height	H	70	70	70	72	75	95	95	95	
Weight	ca. kg	0.6	0.6	0.8	0.9	1.2	3.1	3.1	4.7	
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	26.3	26.3	43.2	

Dimensions in mm.

Valves for Cryogenic Service

Type 08432 - Strainer

Cryogenic-Strainer, PN50

Stainless steel body and bronze cap
with strainer screen mesh size 0.25 mm
" cleaned and degreased for oxygen service "

Part No. 08432.X.0002

Flanged connection acc. to DIN EN 1092-1 PN40

Part No. 08432.X.0003

Flanged connection acc. to ANSI B16.5 class 300

Available options - on request only:

- other mesh sizes for strainer screen



Applications:

Suitable for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluoromethan, carbon oxide, methane, ethane and ethylene.

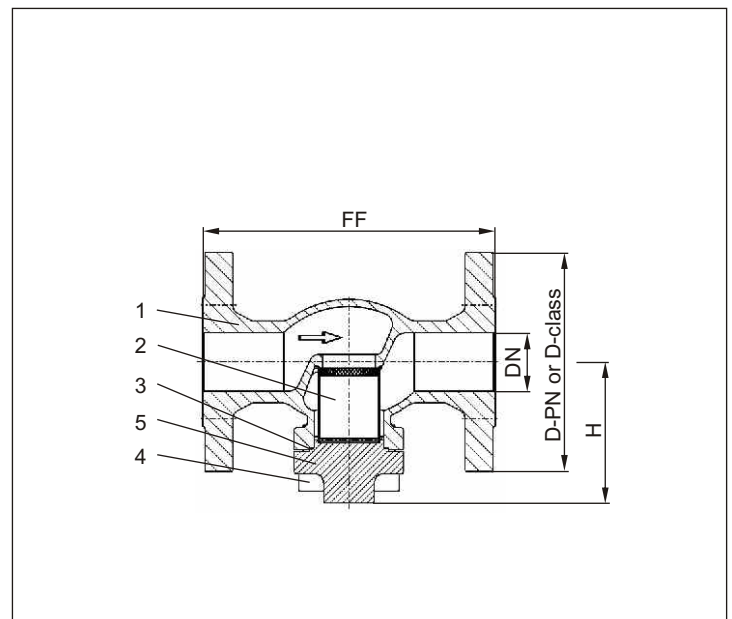
Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Strainer screen	1.4301	A 240 Grade 304
3 Bonnet gasket	PTFE	
4 Bolts	1.4301/A2	A 194 B8
5 Cap	1.4301	A 276 Grade 304

Standard marking acc. to Pressure Equipment Directive 97/23/EG (PED).



Marking acc. to Directive 99/36/EG (TPED) will only be carried out by written notice on purchase order.



Type 08432 – Standard design	Technical data						
Nominal size	DN	25	40	50	65	80	100
Dimension code - Flange EN 1092-1 PN40	.X.	0250	0400	0500	0650	0800	1000
Flange-Ø	D-PN	115	150	165	185	200	235
Dimension code - Flange ANSI B16.5 class 300	.X.	1000	1400	2000	2400	3000	4000
Flange-Ø	D-class	123.9	155.4	165	190.5	209.5	254
Face-to-face dimension	FF	160	200	230	290	310	350
Height	H	75	95	90	125	150	165
Weight	ca. kg	4.0	5.6	10.6	17.7	23.2	36.8
Kvs – Value	m ³ /h	11.5	22.6	37.1	71.1	104.0	t.b.c.
Cv – Value	gal /min	13.4	26.3	43.2	82.7	120.9	t.b.c.

Dimensions in mm.