

Safety Valves

Type 06420

HEROSE



Cryogenic Safety Valves, angle type, bronze, PN40
do=7,0 & 10,5mm up to PN50
type tested TÜV-SV. 1111. S/G

Standard safety valve,
 with PCTFE valve seal, closed bonnet
 "cleaned and degreased for oxygen service"

Part No. 06420.X.0000

Inlet: male thread type G (BSPP) acc. to ISO 228/1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06420.X.2000

Inlet: male thread type R (BSPT) acc. to ISO 7/1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06420.X.5000

Inlet: male thread NPT acc. to ANSI B 1.20.1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06420.X.6000

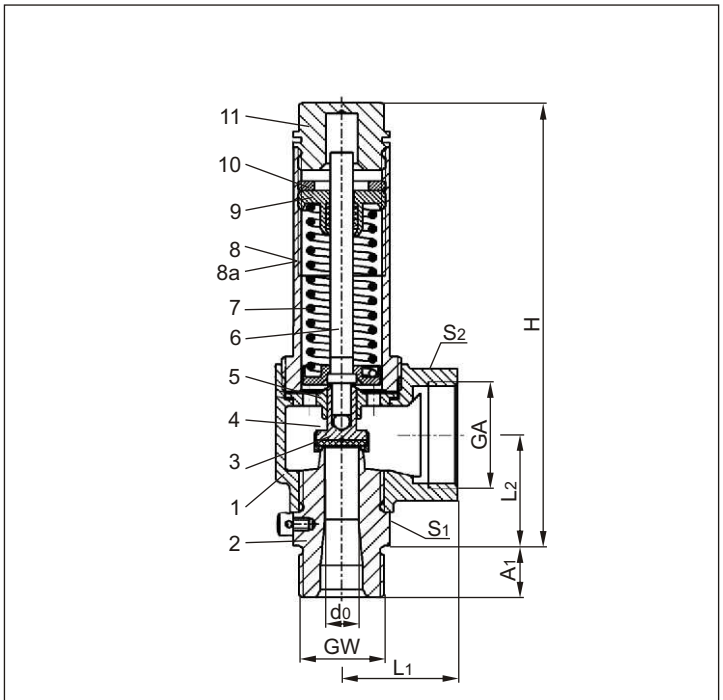
Inlet: male thread NPT acc. to ANSI B 1.20.1, Outlet: female thread NPT acc. to ANSI B 1.20.1



Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders.
 Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.
 Working temperature: -196°C / -321°F (77K) up to +185°C / +365°F (458K)

Materials	DIN EN	ASTM
1 Outlet body	CC491K	B 62 UNS C83600
2 Inlet body	1.4301	A 276 Grade 304
3 Valve seal	PCTFE	
4 Disc	CC493K	B 505 UNS C93200
5 Guide plate	CC493K	B 505 UNS C93200
6 Stem	CW453K	B 103 UNS C52100
7 Spring	1.4571	A 276 Grade 316Ti
8 Bonnet	1.4308	A 351 CF 8
8a Bonnet from GW 1-1/4	1.4305	A 314 Grade 303
9 Spring clamp	CW614N	B 283 UNS C38500
10 Thread ring	CW614N	B 283 UNS C38500
11 Cap	CW614N	B 283 UNS C38500



Essential: Valves are delivered at a set pressure, therefore when ordering please confirm set pressure, medium and temperature.

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



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

Type 06420	Technical data										
	Nominal size	GW	1/2	3/4	1/2	3/4	3/4	1	1	1-1/4	1-1/4
Orifice	d ₀	7.0	7.0	10.5	10.5	14.0	14.0	18.0	18.0	23.0	23.0
Dimension code	.X.	0704	0706	1004	1006	1406	1410	1810	1812	2312	2312
Set pressure range	bar	0.4-50.0	0.4-50.0	0.4-50.0	0.4-50.0	0.4-40.0	0.4-40.0	0.4-40.0	0.4-40.0	0.4-10.0	0.4-10.0
Outlet	GA	1	1	1	1	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2
Height	H	140	140	140	140	159	159	186	187	187	187
Length	A ₁	14	16	14	16	16	18	18	20	20	20
Length	L ₁	36	36	36	36	50	50	48	48	48	48
Length	L ₂	36.5	36.5	36.5	34.5	44	44	50.5	51.5	52	52
Wrench size across flats	S ₁	30	30	30	30	41	41	50	50	50	50
Wrench size across flats	S ₂	41	41	41	41	50	50	58	58	58	58
Weight	ca. kg	0.78	0.80	0.76	0.79	1.25	1.31	1.87	1.99	1.90	1.90
Coeff. of discharge from 3.0 bar	α _w	0.78	0.78	0.69	0.69	0.66	0.66	0.66	0.66	0.54	0.54

Dimensions in mm.

Discharge capacities

Calculation of mass flow acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (ü)	GW	1/2 & 3/4	1/2 & 3/4	3/4 & 1	1 & 1-1/4	1-1/4 & 1-1/2
	d ₀ (mm)	7.0	10.5	14.0	18.0	23.0
	A ₀ (mm ²)	38.48	86.6	153.9	254.5	415.3
Air						
0.4		25	45	81	128	164
0.5		28	50	88	141	181
1.0		41	77	131	212	287
1.5		54	100	179	286	384
2.0		66	127	219	356	472
3.0		88	175	298	493	646
4.0		111	220	374	619	811
5.0		133	265	451	745	976
6.0		156	310	527	871	1141
7.0		178	354	603	997	1306
8.0		201	399	679	1122	1471
9.0		223	444	755	1248	1636
10.0		246	489	831	1374	1801
12.0		291	578	983	1626	-
14.0		335	667	1135	1877	-
16.0		380	757	1287	2129	-
18.0		425	846	1440	2381	-
20.0		470	936	1592	2632	-
22.0		515	1025	1744	2884	-
24.0		560	1115	1896	3136	-
25.0		583	1159	1972	3262	-
26.0		605	1204	2048	3387	-
28.0		650	1294	2201	3639	-
30.0		695	1383	2353	3891	-
32.0		740	1474	2505	4142	-
34.0		785	1563	2657	4394	-
36.0		830	1653	2809	4646	-
38.0		875	1742	2961	4897	-
40.0		920	1832	3114	5149	-
42.0		965	1921	-	-	-
44.0		1010	2011	-	-	-
46.0		1055	2100	-	-	-
48.0		1100	2190	-	-	-
50.0		1145	2279	-	-	-