

# Safety Valves

## Type 06478



### Cryogenic Safety Valves, angle type, bronze, PN63, type tested TÜV-SV.836. S/G

Standard safety valve,  
with carbon filled PTFE valve seal, closed bonnet, with lifting device

Outlet: female thread G 1/2 acc. to ISO 228/1

"cleaned and degreased for oxygen service"

**Part No. 06478.X.0000**

**Part No. 06478.0600.9000**

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

**Part No. 06478.X.5000**

Inlet: male thread NPT acc. to ANSI B 1.20.1

**Part No. 06478.0600.0000**

Inlet: union type weld/braze fitting for pipe outside diameter 12mm

Available options - on request only:

- external parts nickel plated
- with installed elbow at the outlet



### Applications:

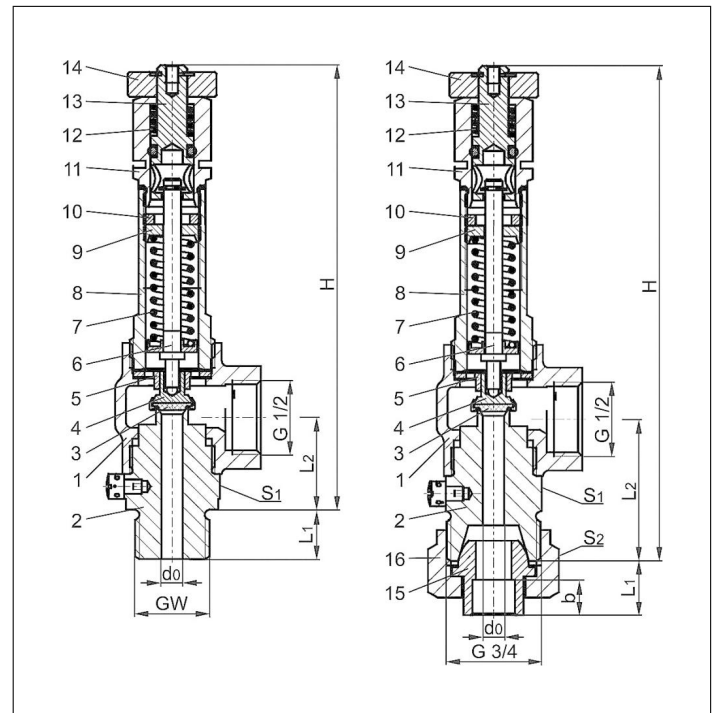
Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -196°C / -321°F (77K) up to +150°C / +302°F (423K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Outlet body	CC491K	B 62 UNS C83600
2 Inlet body	1.4301	A 276 Grade 304
3 Valve seal	PTFE / Carbon filled (25%)	
4 Disc	CW452K	B 159 UNS C51900
5 Guide plate	CC493K	B 505 UNS C93200
6 Stem	CW614N	B 283 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Bonnet	1.4301	A 276 Grade 304
9 Spring clamp	CW614N	B 283 UNS C38500
10 Thread ring	CW614N	B 283 UNS C38500
11 Lifting cap	CW614N	B 283 UNS C38500
12 Lifting spring	1.4571	A 276 Grade 316Ti
13 Lifting stem	CW614N	B 283 UNS C38500
14 Lifting device	CW614N	B 283 UNS C38500
15 Weld/Braze fitting	1.4301	A 276 Grade 304
16 Union nut	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 2014/68/EU (PED).



Type 06478	Technical data				
Nominal size	GW	1/4	3/8	1/2	3/4
Orifice	d <sub>0</sub>	6.0	6.0	6.0	6.0
Dimension code	.X.	0200	0300	0400	0600
Set pressure range	bar	0.4-55.0	0.4-55.0	0.4-55.0	0.4-55.0
Height	H	126	126	126	140
Length	L <sub>1</sub>	12	13	14	15.5
Length	L <sub>2</sub>	26	26	26	40
Socket depth	b	-	-	-	10
Wrench size across flats	S <sub>1</sub>	27	27	27	27
Wrench size across flats	S <sub>2</sub>	-	-	-	32
Weight	ca. kg	0.40	0.42	0.44	0.47
Coefficient of discharge	α <sub>w</sub>	0.66	0.66	0.66	0.66

Dimensions in mm.

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### Discharge capacities

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

Medium:

Air in m<sup>3</sup>/h at 0°C and 1013.25 mbar

**The capacity indicated below is for a fully opened valve.**

d<sub>0</sub> - orifice

A<sub>0</sub> - flow area

Set pressure in bar (g)	GW	1/4	3/8	1/2	3/4
	d <sub>0</sub> (mm)	6.0	6.0	6.0	6.0
	A <sub>0</sub> (mm <sup>2</sup> )	28.3	28.3	28.3	28.3
	Medium	Air			
0.4		14	14	14	14
0.5		16	16	16	16
0.6		18	18	18	18
0.7		19	19	19	19
0.8		21	21	21	21
0.9		22	22	22	22
1.0		23	23	23	23
1.5		31	31	31	31
2.0		39	39	39	39
2.5		47	47	47	47
3.0		54	54	54	54
4.0		69	69	69	69
5.0		83	83	83	83
6.0		97	97	97	97
7.0		111	111	111	111
8.0		126	126	126	126
9.0		140	140	140	140
10.0		154	154	154	154
12.0		182	182	182	182
14.0		211	211	211	211
16.0		239	239	239	239
18.0		267	267	267	267
20.0		298	298	298	298
22.0		327	327	327	327
24.0		355	355	355	355
26.0		384	384	384	384
28.0		412	412	412	412
30.0		445	445	445	445
32.0		474	474	474	474
34.0		502	502	502	502
36.0		531	531	531	531
38.0		560	560	560	560
40.0		594	594	594	594
42.0		623	623	623	623
44.0		652	652	652	652
46.0		681	681	681	681
48.0		710	710	710	710
50.0		745	745	745	745
55.0		818	818	818	818