

# 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

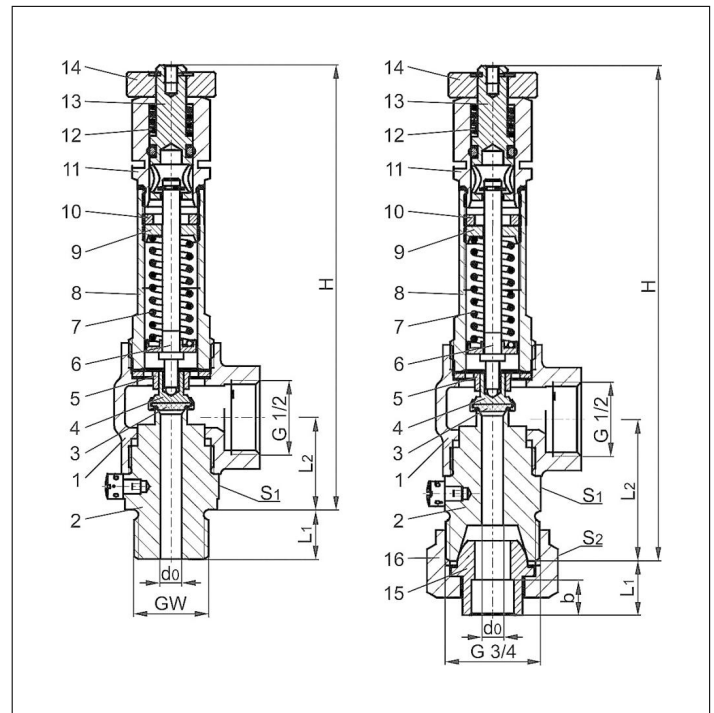


### Applications:

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



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
	A <sub>0</sub> (mm <sup>2</sup> )	28.3
	Medium	<b>Air</b>
0.4		14.7
0.5		16.5
0.6		18.1
0.7		19.6
0.8		21
0.9		22.3
1.0		23.6
1.5		31.3
2.0		39
2.5		47.1
3.0		54.9
4.0		69
5.0		83.1
6.0		97.2
7.0		111
8.0		126
9.0		140
10.0		154
12.0		182
14.0		211
16.0		239
18.0		267
20.0		298
22.0		327
24.0		355
26.0		384
28.0		412
30.0		445
32.0		474
34.0		502
36.0		531
38.0		560
40.0		594
42.0		623
44.0		652
46.0		681
48.0		710
50.0		745
55.0		818