

# 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

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 braze fitting for pipe outside diameter 12 mm

Available options - on request only:

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



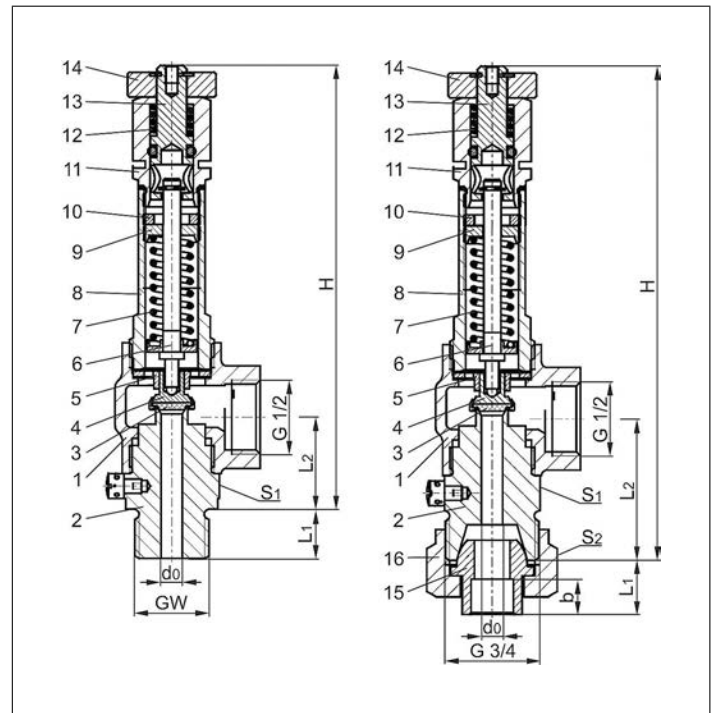
### Applications:

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	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 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 97/23/EC (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	4.5-45.0	4.5-45.0	4.5-45.0	4.5-45.0
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 mass flow 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	<b>Air</b>			
<b>4.5</b>		76	76	76	76
<b>5.0</b>		83	83	83	83
<b>6.0</b>		97	97	97	97
<b>7.0</b>		111	111	111	111
<b>8.0</b>		125	125	125	125
<b>9.0</b>		139	139	139	139
<b>10.0</b>		153	153	153	153
<b>12.0</b>		181	181	181	181
<b>14.0</b>		209	209	209	209
<b>16.0</b>		237	237	237	237
<b>18.0</b>		265	265	265	265
<b>20.0</b>		293	293	293	293
<b>22.0</b>		321	321	321	321
<b>24.0</b>		349	349	349	349
<b>26.0</b>		377	377	377	377
<b>28.0</b>		404	404	404	404
<b>30.0</b>		432	432	432	432
<b>32.0</b>		460	460	460	460
<b>34.0</b>		488	488	488	488
<b>36.0</b>		516	516	516	516
<b>38.0</b>		544	544	544	544
<b>40.0</b>		572	572	572	572
<b>42.0</b>		600	600	600	600
<b>44.0</b>		628	628	628	628
<b>45.0</b>		642	642	642	642