

# Safety Valves

## Type 06012, Type 06016



**Cryogenic Safety Valves, angle type, stainless steel, PN63, type tested TÜV-SV.1048. S/G**

Standard safety valve, with carbon filled PTFE valve seal, open bonnet

Outlet: female thread Rc 3/8 acc. to ISO 7/1, "cleaned and degreased for oxygen service"

**Type 06012:** drainage hole in the locking screw

**Type 06016:** drainage hole in the bonnet

**Part No. 06012.X.0000:**

**Part No. 06016.X.0000 (with lifting device)**

Inlet: male thread type R (BSPT) acc. to ISO 7/1

**Part No. 06012.X.2000**

**Part No. 06016.X.2000 (with lifting device)**

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

**Part No. 06012.X.5000**

**Part No. 06016.X.5000 (with lifting device)**

Inlet: male thread NPT acc. to ANSI B 1.20.1

Available options - on request only:

- with installed elbow at the outlet



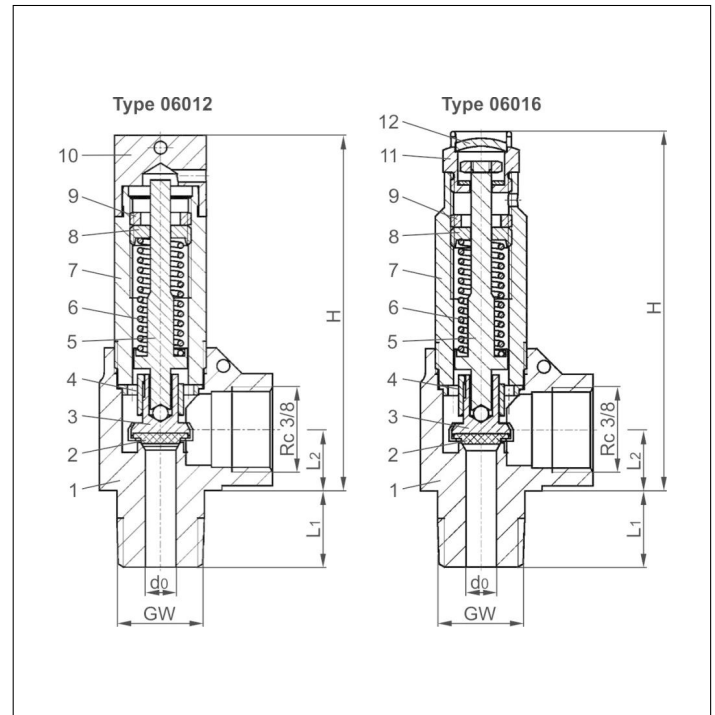
### Applications:

Provided as safety device for protection against thermal expansion in pipeworks and parts of facilities.

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 Body	1.4408	SA 351 CF8M
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	1.4301	SA 479 Grade 304
4 Guide plate	1.4301	SA 479 Grade 304
5 Stem	1.4301	SA 479 Grade 304
6 Spring	1.4571	SA 313 Grade 316Ti
7 Bonnet	1.4301	SA 479 Grade 304
8 Spring clamp	1.4305	SA 314 Grade 303
9 Thread ring	1.4305	SA 314 Grade 303
10 Cap	1.4301	SA 479 Grade 304
11 Lifting device	1.4305	SA 479 Grade 303
12 Closing cap	1.4305	SA 479 Grade 303



Technical data	Type 06012				Type 06016			
	GW	1/4	3/8	1/2	1/4	3/8	1/2	
Nominal size	d <sub>0</sub>	6.0	6.0	6.0	6.0	6.0	6.0	
Orifice	.X.	0200	0300	0400	0200	0300	0400	
Dimension code	bar	1.0-55.0	1.0-55.0	1.0-55.0	1.0-55.0	1.0-55.0	1.0-55.0	
Set pressure range	H	70	70	70	72	72	72	
Height	L <sub>1</sub>	13	15	17	13	15	17	
Length	L <sub>2</sub>	13	13	13	13	13	13	
Length	ca. kg	0.185	0.20	0.22	0.18	0.195	0.21	
Weight	α <sub>w</sub>	0.42	0.42	0.42	0.42	0.42	0.42	
Coeff. of discharge from 3.0 bar								

Dimensions in mm.

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### Discharge capacities

Medium:

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

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d<sub>0</sub> - orifice

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

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	GW	1/4, 3/8 & 1/2
	d <sub>0</sub> (mm)	6.0
	A <sub>0</sub> (mm <sup>2</sup> )	28.3
	Medium	Air in m <sup>3</sup> /h
1.0		15
2.0		26
3.0		35
4.0		44
5.0		53
6.0		62
7.0		71
8.0		80
9.0		89
10.0		98
12.0		116
14.0		134
16.0		152
18.0		170
20.0		190
22.0		208
24.0		226
26.0		244
28.0		262
30.0		283
32.0		301
34.0		320
36.0		338
38.0		356
40.0		378
42.0		396
44.0		415
46.0		433
48.0		452
50.0		474
52.0		493
54.0		511
55.0		521

Set pressure in psig	GW	1/4, 3/8 & 1/2
	d <sub>0</sub> (inch)	0.236
	A <sub>0</sub> (in <sup>2</sup> )	0.044
	Medium	Air in SCFM
72		32
80		35
90		38
100		42
110		46
120		49
130		53
140		57
150		61
160		64
170		68
180		72
190		75
200		79
225		88
250		98
275		107
300		116
325		125
350		135
375		144
400		153
425		163
450		172
475		181
500		190
525		200
550		209
575		218
600		227
625		237
650		246
675		255
700		264
725		274
750		283
775		292
798		301