

Safety Valves

Type 06012 - gastight



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

Standard Safety Valve,
gastight, closed bonnet

with carbon filled PTFE valve seal

Outlet: female thread Rc 3/8 acc. to ISO 7/1

"cleaned and degreased for oxygen service"

Part No. 06012.X.0020

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

Part No. 06012.X.2020

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

Part No. 06012.X.5020

Inlet: male thread NPT acc. to ANSI B 1.20.1

Available options - on request only:

- with installed elbow at the outlet



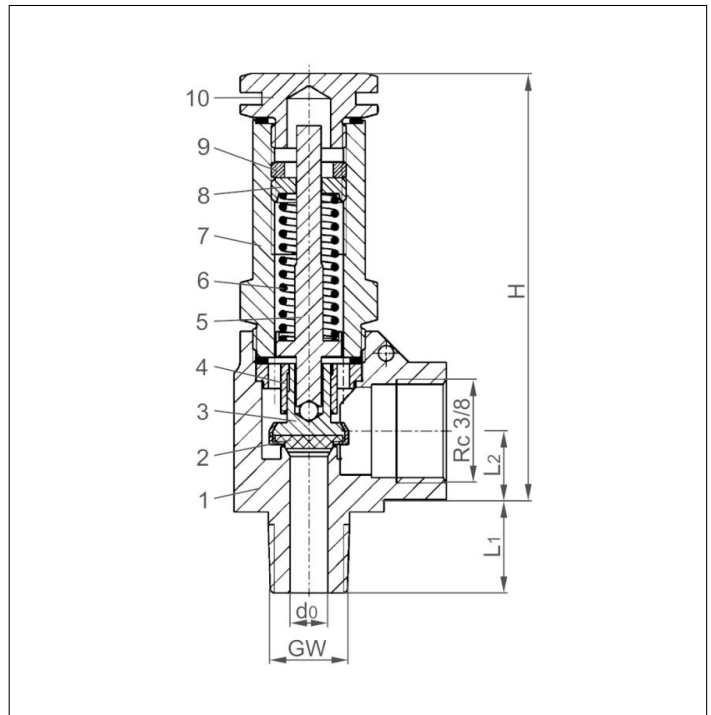
Applications:

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 and Hydrogen.

Working temperature: -255°C / -427°F (18K) 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 |



| Type 06012 | Technical data | | | |
|--------------------------|----------------|----------|----------|----------|
| Nominal size | GW | 1/4 | 3/8 | 1/2 |
| Orifice | d ₀ | 6.0 | 6.0 | 6.0 |
| Dimension code | .X. | 0200 | 0300 | 0400 |
| Set pressure range | bar | 1.0-55.0 | 1.0-55.0 | 1.0-55.0 |
| Height | H | 70 | 70 | 70 |
| Length | L ₁ | 13 | 15 | 17 |
| Length | L ₂ | 13 | 13 | 13 |
| Weight | ca. kg | 0.18 | 0.20 | 0.22 |
| Coefficient of discharge | α _w | 0.34 | 0.34 | 0.34 |

Dimensions in mm.

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Discharge capacities

Medium:

Air in m³/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.

d₀ - orifice

A₀ - 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 ₀ (mm) | 6.0 |
| | A ₀ (mm ²) | 28.3 |
| | Medium | Air in m ³ /h |
| 1.0 | | 13 |
| 2.0 | | 20 |
| 3.0 | | 28 |
| 4.0 | | 36 |
| 5.0 | | 43 |
| 6.0 | | 50 |
| 7.0 | | 57 |
| 8.0 | | 65 |
| 9.0 | | 72 |
| 10.0 | | 79 |
| 12.0 | | 94 |
| 14.0 | | 108 |
| 16.0 | | 123 |
| 18.0 | | 138 |
| 20.0 | | 154 |
| 22.0 | | 168 |
| 24.0 | | 183 |
| 26.0 | | 198 |
| 28.0 | | 212 |
| 30.0 | | 229 |
| 32.0 | | 244 |
| 34.0 | | 259 |
| 36.0 | | 274 |
| 38.0 | | 288 |
| 40.0 | | 306 |
| 42.0 | | 321 |
| 44.0 | | 336 |
| 46.0 | | 351 |
| 48.0 | | 366 |
| 50.0 | | 384 |
| 52.0 | | 399 |
| 54.0 | | 414 |
| 55.0 | | 421 |

| Set pressure in psig | GW | 1/4, 3/8 & 1/2 |
|----------------------|-----------------------------------|----------------|
| | d ₀ (inch) | 0.236 |
| | A ₀ (in ²) | 0.044 |
| | Medium | Air in SCFM |
| 74 | | 29 |
| 80 | | 31 |
| 90 | | 34 |
| 100 | | 38 |
| 110 | | 41 |
| 120 | | 44 |
| 130 | | 48 |
| 140 | | 51 |
| 150 | | 54 |
| 160 | | 58 |
| 170 | | 61 |
| 180 | | 64 |
| 190 | | 68 |
| 200 | | 71 |
| 225 | | 79 |
| 250 | | 87 |
| 275 | | 96 |
| 300 | | 104 |
| 325 | | 112 |
| 350 | | 121 |
| 375 | | 129 |
| 400 | | 137 |
| 425 | | 146 |
| 450 | | 154 |
| 475 | | 162 |
| 500 | | 171 |
| 525 | | 179 |
| 550 | | 187 |
| 575 | | 195 |
| 600 | | 204 |
| 625 | | 212 |
| 650 | | 220 |
| 675 | | 229 |
| 700 | | 237 |
| 725 | | 245 |
| 750 | | 254 |
| 775 | | 262 |
| 798 | | 270 |