

Safety Valves

Type 06216, Type 06217



Safety Valves, brass,
type tested TÜV-SV.1090 S/G

Standard safety valve
with FPM valve seal, open bonnet, with discharge holes
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06216.X.0000

Part No. 06217.X.0000

with lifting device

Available options - on request only:

- discharge holes with protection cap
- stainless steel spring - material 1.4571
- external parts nickel plated



Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.

Working temperature: -40°C / -40°F (233K) up to +200°C / +392°F (473K), suitable for horizontal installation

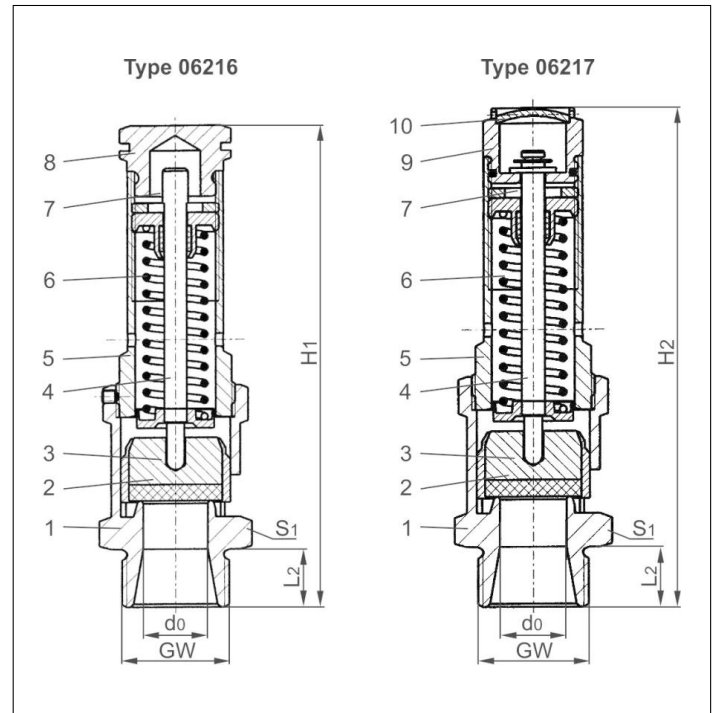
| Materials | DIN EN | ASME/ASTM |
|------------------|-----------------|------------------|
| 1 Body | CW617N | B 283 UNS C37700 |
| 2 Valve seal | FPM (Viton-GLT) | |
| 3 Disc | CW614N | B 455 UNS C38500 |
| 4 Stem | CW614N | B 455 UNS C38500 |
| 5 Bonnet | CW614N | B 455 UNS C38500 |
| 6 Spring | 1.1200 | A 227 |
| 7 Stem guide | PTFE | |
| 8 Cap | CW614N | B 455 UNS C38500 |
| 9 Lifting device | CW614N | B 455 UNS C38500 |
| 10 Closing cap | CW507L | B 36 UNS C26800 |

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).



Marking acc. to ASME Code Section VIII.



| Type 06216, Type 06217 | Technical data | | | | | | |
|----------------------------------|----------------|--------|--------|--------|--------|--------|--------|
| Nominal size | GW | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 |
| Orifice | d ₀ | 12 | 15 | 20 | 25 | 32 | 40 |
| Dimension code | .X. | 0400 | 0600 | 1000 | 1200 | 1400 | 2000 |
| Set pressure range | bar | 0.2-25 | 0.2-30 | 0.2-30 | 0.2-22 | 0.2-16 | 0.2-12 |
| Height | H ₁ | 103 | 122 | 149 | 169 | 198 | 224 |
| Height | H ₂ | 107 | 126 | 150 | 172 | 200 | 228 |
| Length | L ₂ | 14 | 16 | 18 | 20 | 22 | 25 |
| Wrench size across flats | S ₁ | 27 | 32 | 41 | 50 | 55 | 70 |
| Weight | ca. kg | 0.25 | 0.41 | 0.72 | 1.23 | 1.73 | 3.09 |
| Coeff. of discharge from 3.0 bar | α _w | 0.83 | 0.83 | 0.73 | 0.71 | 0.69 | 0.66 |
| Coeff. of discharge from 3.0 bar | rated slope | 2.59 | 4.10 | 6.79 | 10.15 | 16.50 | 24.80 |

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.
The safety valve is marked with the lower capacity of both calculations.

| Set pressure in bar (g) | GW | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 |
|--------------------------|--|---------------|---------------|---------------|---------------|---------------|----------------|
| | d ₀ (mm) A ₀ (mm ²) Medium | 12.0 113.1 | 15.0 176.7 | 20.0 314.2 | 25.0 490.9 | 32.0 804.2 | 40.0 1256.6 |
| Air in m ³ /h | | | | | | | |
| 0.2 | | 49 | 78 | 128 | 194 | 317 | 436 |
| 0.5 | | 83 | 133 | 211 | 309 | 518 | 712 |
| 1.0 | | 124 | 196 | 308 | 459 | 776 | 1085 |
| 2.0 | | 201 | 317 | 495 | 752 | 1215 | 1760 |
| 3.0 | | 276 | 432 | 675 | 1026 | 1634 | 2442 |
| 4.0 | | 347 | 542 | 847 | 1288 | 2051 | 3065 |
| 5.0 | | 418 | 654 | 1022 | 1553 | 2473 | 3696 |
| 6.0 | | 489 | 764 | 1194 | 1815 | 2890 | 4320 |
| 7.0 | | 560 | 874 | 1367 | 2077 | 3308 | 4944 |
| 8.0 | | 632 | 988 | 1544 | 2347 | 3737 | 5585 |
| 9.0 | | 703 | 1098 | 1717 | 2610 | 4156 | 6211 |
| 10.0 | | 775 | 1212 | 1894 | 2879 | 4584 | 6851 |
| 11.0 | | 846 | 1322 | 2068 | 3142 | 5003 | 7478 |
| 12.0 | | 917 | 1433 | 2241 | 3406 | 5423 | 8105 |
| 14.0 | | 1059 | 1655 | 2588 | 3933 | 6263 | - |
| 16.0 | | 1201 | 1877 | 2935 | 4460 | 7102 | - |
| 18.0 | | 1343 | 2099 | 3282 | 4988 | - | - |
| 20.0 | | 1500 | 2343 | 3664 | 5567 | - | - |
| 22.0 | | 1643 | 2567 | 4014 | 6100 | - | - |
| 25.0 | | 1858 | 2903 | 4539 | - | - | - |
| 26.0 | | - | 3015 | 4714 | - | - | - |
| 28.0 | | - | 3239 | 5064 | - | - | - |
| 30.0 | | - | 3496 | 5466 | - | - | - |

| Set pressure in psig | GW | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 |
|----------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|
| | d ₀ (inch) A ₀ (in ²) Medium | 0.472 0.175 | 0.591 0.274 | 0.787 0.487 | 0.984 0.761 | 1.260 1.247 | 1.575 1.948 |
| Air in SCFM | | | | | | | |
| 15 | | 78 | 124 | 194 | 290 | 490 | 687 |
| 30 | | 127 | 195 | 315 | 479 | 773 | 1123 |
| 50 | | 191 | 285 | 466 | 710 | 1130 | 1688 |
| 60 | | 221 | 330 | 540 | 822 | 1308 | 1955 |
| 70 | | 251 | 375 | 614 | 933 | 1486 | 2222 |
| 80 | | 281 | 421 | 688 | 1045 | 1665 | 2488 |
| 90 | | 312 | 466 | 762 | 1157 | 1843 | 2755 |
| 100 | | 341 | 511 | 835 | 1269 | 2022 | 3022 |
| 120 | | 402 | 601 | 981 | 1492 | 2376 | 3551 |
| 130 | | 432 | 646 | 1055 | 1604 | 2554 | 3818 |
| 140 | | 462 | 691 | 1129 | 1716 | 2733 | 4084 |
| 150 | | 492 | 736 | 1203 | 1828 | 2911 | 4351 |
| 160 | | 522 | 781 | 1277 | 1940 | 3090 | 4618 |
| 174 | | 565 | 845 | 1380 | 2098 | 3340 | 4992 |
| 180 | | 583 | 872 | 1424 | 2164 | 3446 | - |
| 190 | | 613 | 917 | 1498 | 2276 | 3624 | - |
| 200 | | 643 | 962 | 1572 | 2388 | 3803 | - |
| 220 | | 703 | 1052 | 1719 | 2613 | 4160 | - |
| 232 | | 739 | 1106 | 1807 | 2747 | 4374 | - |
| 240 | | 764 | 1142 | 1866 | 2836 | - | - |
| 260 | | 824 | 1232 | 2014 | 3060 | - | - |
| 280 | | 884 | 1323 | 2161 | 3284 | - | - |
| 300 | | 945 | 1413 | 2308 | 3509 | - | - |
| 319 | | 1002 | 1498 | 2448 | 3721 | - | - |
| 340 | | 1065 | 1593 | 2603 | - | - | - |
| 363 | | 1134 | 1697 | 2772 | - | - | - |
| 380 | | - | 1774 | 2897 | - | - | - |
| 400 | | - | 1864 | 3045 | - | - | - |
| 420 | | - | 1954 | 3192 | - | - | - |
| 435 | | - | 2022 | 3302 | - | - | - |