

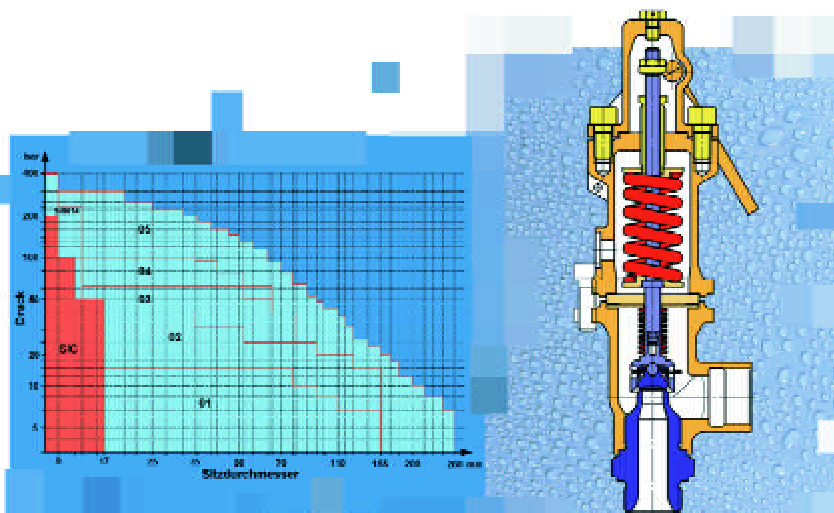
Spring - Loaded Safety Valve

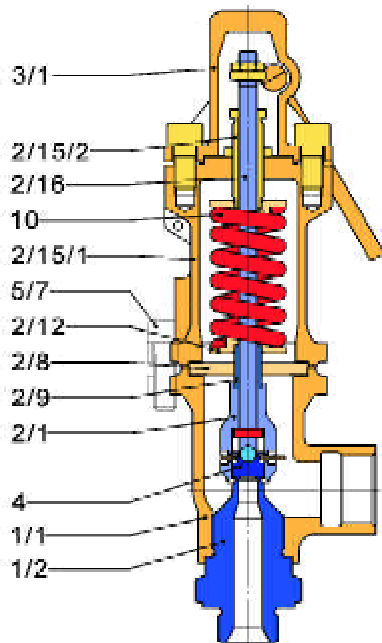
SiC 11 Open Bonnet

SiC 13 Conventional

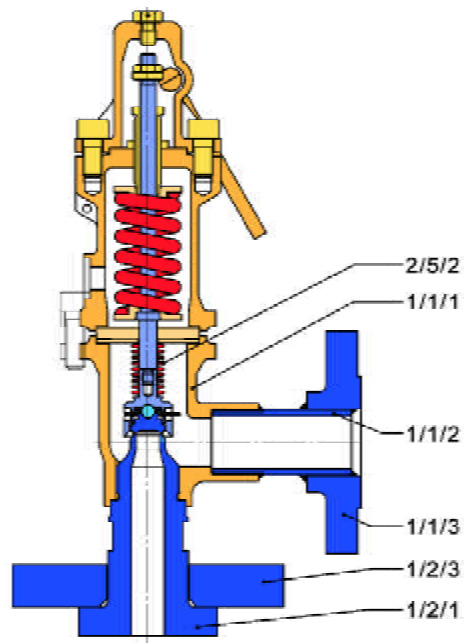
SiC 14 Balanced Bellow

UV-Stamp, TÜV-Approval





**SiC 13 Conventional
SiC 11 Open Bonnet**



SiC 14 Balanced Bellow

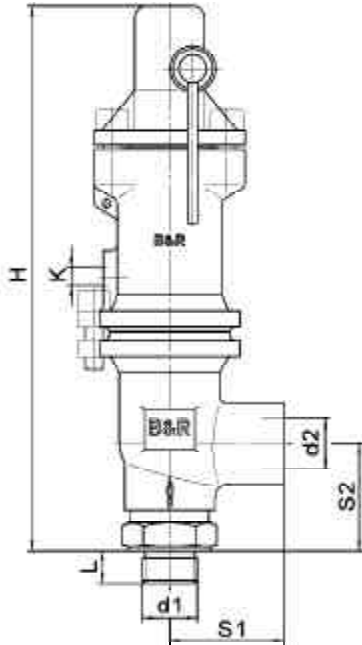
Materials

| Part No. | Material Code | 00 | | 04 | |
|---------------|-------------------|------------------------|--|-------------------------|---|
| | Standard | DIN | ASTM | DIN | ASTM |
| | Temperature Range | - 10 °C to + 400 °C | - 29 °C to + 427 °C (- 20 °F to + 800 °F) | - 270 °C to + 400 °C | - 268 °C to + 427 °C * (- 450 °F to + 800 °F*) |
| 1/1 and 1/1/1 | Body | 1.0619 | SA-216 WCB | 1.4408 | SA-351 CF8M |
| 1/2 and 1/2/1 | Nozzle | 1.4571 | SA479/316 Ti | 1.4571 | SA 479/316 Ti |
| 1/2/3 | Flange | 1.0460 | SA 105 | 1.4571 | SA 479/316 Ti |
| 1/1/2 | Outlet | 1.0305 | A 106 | 1.4571 | 316 Ti |
| 1/1/3 | Flange | 1.0460 | A 105 | 1.4571 | 316 Ti |
| 2/1 | Disc holder | 1.4571 | 316 Ti | 1.4571 | 316 Ti |
| 2/5/2 | Bellow | 1.4571 | 316 Ti | 1.4571 | 316 Ti |
| 2/8 | Cover | 1.4571 | 316 Ti | 1.4571 | 316 Ti |
| 2/9 | Guide bush | 1.4571 | 316 Ti | 1.4571 | 316 Ti |
| 2/12 | Spring plate | 1.0038 | Steel | 1.4571 | 316 Ti |
| 2/15/1 | Bonnet | 1.0619 | SA-216 WCB | 1.4408 | SA-351 CF8M |
| 2/15/2 | Adjusting screw | 1.4021 | 420 | 1.4571 | 316 Ti |
| 2/16 | Standard spindle | 1.4571 | 316 Ti | 1.4571 | 316 Ti |
| | Bellows spindle | 1.4021 | 420 | 1.4571 | 316 Ti |
| 3/1 | Cap | 1.0619 | SA-216 WCB | 1.4408 | SA-351 CF8M |
| 4 | Disc | 1.4571 | 316 Ti | 1.4571 | 316 Ti |
| 5/7 | Screw | A4 - 70 | | | |
| 10 | Spring | 1.4310 | 302 | 1.4310 | 302 |

other materials upon request

* if used for noncorrosive medium

Spares: commissioning: set of gaskets
 2-years operation: set of gaskets, disc
 several years operation: set of gaskets, disc, bellow



Inlet/Outlet Connections:

- flanged acc. to ASME, DIN
- screwed connection NPT, metric, other upon request
- Swagelok
- welded connection
- other types upon request

Cap Designs:

- G : gastight
- A : gastight with lifting lever
- B : test gag

Features and Benefits:

- high coefficients of discharge
- one trim-design for gas/vapour, steam and liquid
- full capacity at 10% overpressure
- blowdown 10% for gas/vapour, 20% for liquid
- full balanced bellows type SiC 14 for variable back pressure and corrosive or toxic applications
- open bonnet type SiC 11 for steam application

Screwed Connection Table

| | Size DN | Seat area | | Max. Pressure | Inlet | Outlet | Dimensions | | Height | Weight | Dimension |
|----|-------------|------------|--------------------------|---------------|-----------|---------------|------------|-------|--------|--------|-----------|
| | | d_0 [mm] | A_0 [mm ²] | | | | p [bar] | d_1 | | | |
| 1) | 15 x 25 | 9 | 63,6 | 200 | G1/2A | G1 | 57 | 48 | 265 | 3 | 14 |
| | 20 x 25 | 9 | 63,6 | 200 | G3/4A | G1 | 57 | 48 | 265 | 3 | 16 |
| | 20 x 25 | 12,2 | 116,9 | 100 | G3/4A | G1 | 57 | 48 | 272 | 3 | 16 |
| | 25 x 25 | 12,2 | 116,9 | 100 | G1A | G1 | 57 | 48 | 272 | 3 | 18 |
| | 25 x 40 | 17 | 227 | 50 | G1A | G1 1/2 | 62 | 55 | 274 | 3,5 | 18 |
| 2) | 1/2" x 1" | 9 | 63,6 | 200 | NPT1/2-14 | NPT1-11,5 | 57 | 48 | 265 | 3 | 20 |
| | 3/4" x 1" | 9 | 63,6 | 200 | NPT3/4-14 | NPT1-11,5 | 57 | 48 | 265 | 3 | 20 |
| | 3/4" x 1" | 12,2 | 116,9 | 100 | NPT3/4-14 | NPT1-11,5 | 57 | 48 | 272 | 3 | 20 |
| | 1" x 1" | 12,2 | 116,9 | 100 | NPT1-11,5 | NPT1-11,5 | 57 | 48 | 272 | 3 | 25 |
| | 1" x 1 1/2" | 17 | 227 | 50 | NPT1-11,5 | NPT1 1/2-11,5 | 62 | 55 | 274 | 3,5 | 25 |

1) acc. DIN 3852

2) acc. ASME/ANSI B 1.20.1

SiC 14 bonnet with test connection K = G 1/4

SiC 11 / 13

- max. set pressure: 200 bar (depending on temperature and material)
- seat diameters: 9; 12,2; 17 mm
- options: government ring
soft seat (DIN valves only)
stellite disc and seat
further options upon request

SiC 14

- max. set pressure : 100 bar (depending on temperature and material)
- seat diameters: 12,2; 17 mm
- options: government ring
soft seat (DIN valves only)
stellite disc and seat
further options upon request

Approvals: ASME: UV-Stamp
TÜV: BKZ approval mark (No. 1068)

Flange Connection Table

| | Size DN | Seat | | Max. Pressure p [bar] | Inlet PN/Class | Outlet PN/Class | Dimensions | | Height H [mm] | Weight m [kg] | Dimension x [mm] |
|----|------------|------------------------|--------------------------------------|------------------------------------|-----------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|----------------------------|
| | | d ₀ [mm] | A ₀ [mm ²] | | | | S ₁ [mm] | S ₂ [mm] | | | |
| 1) | 15 x 25 | 9,0 | 63,6 | 40 | 10-40 | 10-40 | 110 | 100 | 317 | 5,5 | 26 |
| | 15 x 25 | 9,0 | 63,6 | 160 | 64-160 | 10-40 | 110 | 100 | 317 | 6,5 | 33 |
| | 15 x 25 | 9,0 | 63,6 | 200 | 250/320 | 10-40 | 110 | 100 | 317 | 7,5 | 39 |
| | 20 x 25 | 9,0 | 63,6 | 40 | 10-40 | 10-40 | 110 | 100 | 317 | 6,0 | 33 |
| | 20 x 25 | 12,2 | 116,9 | 40 | 10-40 | 10-40 | 110 | 100 | 324 | 6,0 | 31 |
| | 25 x 25 | 12,2 | 116,9 | 40 | 10-40 | 10-40 | 110 | 100 | 324 | 6,5 | 31 |
| | 25 x 25 | 12,2 | 116,9 | 100 | 64-160 | 10-40 | 110 | 100 | 324 | 7,5 | 37 |
| | 25 x 40 | 17,0 | 227 | 40 | 10-40 | 10-40 | 125 | 100 | 319 | 8,0 | 31 |
| | 25 x 40 | 17,0 | 227 | 50 | 64-160 | 10-40 | 125 | 100 | 319 | 9,0 | 37 |
| 2) | 1/2" x 1" | 9,0 | 63,6 | 19,7 | 150 | 150 | 110 | 100 | 317 | 5,0 | 22 |
| | 1/2" x 1" | 9,0 | 63,6 | 102 | 300/600 | 150 | 110 | 100 | 317 | 5,0 | 27 |
| | 1/2" x 1" | 9,0 | 63,6 | 102 | 300/600 | 300 | 110 | 100 | 317 | 6,0 | 27 |
| | 1/2" x 1" | 9,0 | 63,6 | 200 | 900/1500 | 150 | 110 | 100 | 317 | 6,5 | 38 |
| | 1/2" x 1" | 9,0 | 63,6 | 200 | 900/1500 | 300 | 110 | 100 | 317 | 7,0 | 38 |
| | 3/4" x 1" | 9,0 | 63,6 | 19,7 | 150 | 150 | 110 | 100 | 317 | 5,5 | 27 |
| | 3/4" x 1" | 9,0 | 63,6 | 102 | 300/600 | 150 | 110 | 100 | 317 | 6,0 | 33 |
| | 3/4" x 1" | 9,0 | 63,6 | 102 | 300/600 | 300 | 110 | 100 | 317 | 6,5 | 33 |
| | 3/4" x 1" | 9,0 | 63,6 | 200 | 900/1500 | 150 | 110 | 100 | 317 | 7,0 | 41 |
| | 3/4" x 1" | 9,0 | 63,6 | 200 | 900/1500 | 300 | 110 | 100 | 317 | 7,5 | 41 |
| | 3/4" x 1" | 12,2 | 116,9 | 19,7 | 150 | 150 | 110 | 100 | 324 | 5,5 | 27 |
| | 3/4" x 1" | 12,2 | 116,9 | 100 | 300/600 | 150 | 110 | 100 | 324 | 6,0 | 33 |
| | 3/4" x 1" | 12,2 | 116,9 | 100 | 300/600 | 300 | 110 | 100 | 324 | 6,5 | 33 |
| | 3/4" x 1" | 12,2 | 116,9 | 100 | 900/1500 | 150 | 110 | 100 | 324 | 7,0 | 41 |
| | 3/4" x 1" | 12,2 | 116,9 | 100 | 900/1500 | 300 | 110 | 100 | 324 | 7,5 | 41 |
| | 1" x 1" | 12,2 | 116,9 | 19,7 | 150 | 150 | 110 | 100 | 324 | 6,0 | 33 |
| | 1" x 1" | 12,2 | 116,9 | 100 | 300/600 | 150 | 110 | 100 | 324 | 6,5 | 33 |
| | 1" x 1" | 12,2 | 116,9 | 100 | 300/600 | 300 | 110 | 100 | 324 | 7,0 | 33 |
| | 1" x 1" | 12,2 | 116,9 | 100 | 900/1500 | 150 | 110 | 100 | 324 | 8,0 | 44 |
| | 1" x 1" | 12,2 | 116,9 | 100 | 900/1500 | 300 | 110 | 100 | 324 | 9,0 | 44 |
| | 1" x 1½" | 17,0 | 227 | 19,7 | 150 | 150 | 125 | 100 | 319 | 6,5 | 33 |
| | 1" x 1½" | 17,0 | 227 | 50 | 300/600 | 150 | 125 | 100 | 319 | 7,5 | 33 |
| | 1" x 1½" | 17,0 | 227 | 50 | 300/600 | 300 | 125 | 100 | 319 | 8,0 | 33 |

1) acc. DIN

2) acc. ASME / ANSI B16.5

Bonnet SiC 14 with test-connection K = G 1/4

Technical subjects to change

Data in this catalogue is for information purpose only

Sizing software Si-Tech available

For further information please refer to Bopp & Reuther

Engineering Handbook

Note: Our installation and maintenance instruction do apply

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