

# Pressure Control Valves

## Safety Valves SV 29V

Full Lift Threaded Valve



### Technical Data

|                     |                       |
|---------------------|-----------------------|
| Connection G        | 1/2 - 1 1/2           |
| Nominal Pressure PN | 40 - 250              |
| Set Pressure        | 0.3 - 250 bar         |
| Temperature         | 400 °C                |
| Medium              | liquids, gases, steam |

### Description

Safety valves are the ultimate protection device for tanks and pipelines. They prevent pressure limits being exceeded once all automatic control and monitoring equipment has failed.

SV29V is a spring-loaded full-stroke safety valve with tested components provided with threaded connection and closed spring cap.

Full lift safety valves open instantly up to maximum lift within a pressure rise of 5 %. Because of their instant opening they are used where suddenly larger flow volumes or fast pressure rises may occur. They are mainly used for relieving pressure in vapours and gases.

Pressure rise:  
above 1 bar set pressure:.....5 % up to the max. valve lift;  
below 1 bar set pressure: .....0.1 bar.

### Options

- » Special connections: DIN or ANSI flanges, NPT, other connections on request
- » Special versions on request

Operating instructions, know how and safety instructions must be observed. All the pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice.



### Available Versions

|    |                                      |
|----|--------------------------------------|
| H2 | without lifting device, gastight cap |
| H3 | with lifting device, not gastight    |
| H4 | with lifting device, gastight cap    |

### Lieferbare Anschlussgrößen G

| d <sub>o</sub> [mm] | nominal diameter (inlet x outlet) G |             |           |               |               |
|---------------------|-------------------------------------|-------------|-----------|---------------|---------------|
| 9                   | 1/2 x 1                             | 3/4 x 1     | 1 x 1     | -             | -             |
| 13                  | 1/2 x 1                             | 3/4 x 1     | 1 x 1     | -             | -             |
| 17,5                | -                                   | 3/4 x 1 1/2 | 1 x 1 1/2 | 1 1/4 x 1 1/2 | 1 1/2 x 1 1/2 |

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### Materials

|                           | 300 °C           | 400 °C                   |
|---------------------------|------------------|--------------------------|
| Temperature               | 300 °C           | 400 °C                   |
| Body (Base)               | 1.4104           | 1.4404                   |
| Outlet Body               | 0.7043           | 1.4404                   |
| Guide                     | 1.4104 tenifer   | 1.4404                   |
| Bonnet                    | 0.7043           | 1.4404                   |
| Spindle                   | 1.4021           | 1.4404                   |
| Spring Plate              | 1.0718           | 1.4404                   |
| Adjusting Screw with Bush | 1.4104 with PTFE | 1.4404 tenifer with PTFE |
| Spring                    | spring steel C   | 1.4310                   |

### Dimensions A, B [mm] + Weights [kg]

|          | 1/2 - 1 A | 1/2 - 1 A | 3/4 - 1 1/2 A |
|----------|-----------|-----------|---------------|
| G inlet  | 1/2 - 1 A | 1/2 - 1 A | 3/4 - 1 1/2 A |
| G outlet | 1         | 1         | 1 1/2         |
| do       | 9         | 13        | 17,5          |
| A        | 75        | 75        | 75            |
| B        | 52        | 56        | 56            |
| weight   | 2.6       | 2.6       | 3             |

### Dimensions C, D [mm]

|         | 1/2 A | 3/4 A | 1 A | 1 1/4 A | 1 1/2 A |
|---------|-------|-------|-----|---------|---------|
| G inlet | 1/2 A | 3/4 A | 1 A | 1 1/4 A | 1 1/2 A |
| C max.  | 296   | 298   | 301 | 303     | 305     |
| D       | 14    | 16    | 18  | 20      | 22      |

### Customs Tariff Number

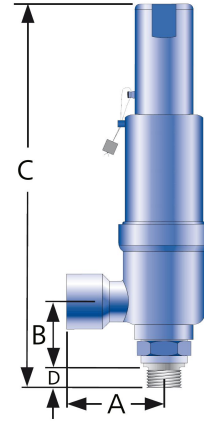
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Special designs on request.

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### Dimensional Drawing



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| Seat Diameter |             |                 |
|---------------|-------------|-----------------|
| inlet         | G 1/2 - 1 A | G 3/4 - 1 1/2 A |
| outlet        | G 1         | G 1 1/2         |
| seat ø        | 9 mm, 13 mm | 17.5 mm         |

| Flow Rate          |                       |       |         |             |       |         |              |       |         |
|--------------------|-----------------------|-------|---------|-------------|-------|---------|--------------|-------|---------|
| set pressure [bar] | saturated steam[kg/h] |       |         | air [Nm³/h] |       |         | water [m³/h] |       |         |
|                    | 9 mm                  | 13 mm | 17.5 mm | 9 mm        | 13 mm | 17.5 mm | 9 mm         | 13 mm | 17.5 mm |
| 0,2                | -                     | 53    | 85      | -           | 61    | 98      | -            | 1.96  | 3.48    |
| 0,5                | -                     | 84    | 134     | -           | 98    | 157     | -            | 2.77  | 4.93    |
| 1                  | -                     | 120   | 200     | -           | 143   | 238     | -            | 3.75  | 6.67    |
| 2                  | 93                    | 190   | 331     | 113         | 229   | 400     | 2.93         | 5.31  | 9.44    |
| 3                  | 127                   | 258   | 456     | 155         | 316   | 558     | 3.59         | 6.50  | 11.60   |
| 4                  | 158                   | 322   | 569     | 195         | 396   | 700     | 4.14         | 7.51  | 13.30   |
| 5                  | 189                   | 386   | 681     | 234         | 477   | 842     | 4.63         | 8.39  | 14.90   |
| 6                  | 220                   | 449   | 793     | 247         | 557   | 985     | 5.07         | 9.19  | 16.30   |
| 8                  | 282                   | 573   | 1013    | 353         | 718   | 1269    | 5.86         | 10.60 | 18.90   |
| 10                 | 343                   | 699   | 1235    | 432         | 879   | 1554    | 6.55         | 11.90 | 21.10   |
| 16                 | 527                   | 1027  | 1895    | 669         | 1363  | 2408    | 8.28         | 15.00 | 26.70   |
| 20                 | 650                   | 1323  | 2338    | 827         | 1685  | 2977    | 9.26         | 16.80 | 29.80   |
| 26                 | 833                   | 1696  | 2997    | 1065        | 2168  | 3831    | 10.60        | 19.10 | 34.00   |
| 30                 | 957                   | 1949  | 3445    | 1223        | 2490  | 4401    | 11.30        | 20.60 | 36.50   |
| 40                 | 1268                  | 2582  | 4564    | 1618        | 3295  | 5824    | 13.10        | 23.70 | 42.20   |
| 50                 | 1588                  | 3234  | 5715    | 2014        | 4101  | 7247    | 14.60        | 26.50 | 47.20   |
| 60                 | 1910                  | 3889  | 8079    | 2409        | 4906  | 8671    | 16.00        | 29.10 | 51.70   |
| 80                 | 2583                  | 5259  | 9294    | 3201        | 6517  | 11518   | 18.50        | 33.60 | 59.70   |
| 100                | 3296                  | 6711  | 11862   | 3992        | 8127  | 14364   | 20.70        | 37.50 | 66.70   |
| 160                | 5977                  | 12171 | -       | 6365        | 23959 | -       | 26.20        | 47.5  | -       |
| 200                | 8989                  | 18303 | -       | 7947        | 16181 | -       | 29.30        | 53.10 | -       |
| 220                | -                     | -     | -       | 8738        | -     | -       | 30.70        | -     | -       |
| 240                | -                     | -     | -       | 9529        | -     | -       | 32.10        | -     | -       |
| 250                | -                     | -     | -       | 9924        | -     | -       | 32.70        | -     | -       |

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