

# Pressure Control Valves

## Safety Valves SV 29

Normal or Full Lift Threaded Valve



### Technical Data

|                     |                          |
|---------------------|--------------------------|
| Connection G        | 1/2A x 1/2<br>3/4A x 1/2 |
| Nominal Pressure PN | 40 - 400                 |
| Set Pressure        | 0.3 - 330                |
| Temperature         | 200 °C                   |
| Medium              | liquids, gases and 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.

SV 29 is a spring-loaded normal safety valve with threaded connection and closed spring cap. Component testing for connection sizes G 1/2 and G 3/4 for steam and gases up to 150 bar and liquids up to 40 bar.

Normal safety valves initially open proportionally up to a pressure rise of 10 %. This initial phase is followed by the full opening of the valve, allowing a large flow of medium.

Especially in the case of liquids, the wide proportional range results in a continuous operation.

Pressure rise:

above 1 bar set pressure: .....10 % up to required valve lift;  
below 1 bar set pressure: .....0.1 bar.

### Options

» special version up to 300 °C

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.



Flow Rqate see Sheet no. SV 29/2.1.121.2

### Available Versions

|    |                                      |
|----|--------------------------------------|
| H2 | without lifting device, gastight cap |
| H4 | with lifting device, gastight cap    |

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### Materials

|                    |        |        |
|--------------------|--------|--------|
| 1 Body (Base)      | 1.4104 | 1.4404 |
| 9 Bonnet           | 0.7043 | 1.4404 |
| 12 Spindle         | 1.4021 | 1.4404 |
| 17 Spring Plate    | 1.4104 | 1.4404 |
| 18 Adjusting Screw | 1.4104 | 1.4404 |
| 54 Spring          | 1.4310 | 1.4310 |

### Dimensions [mm] and Weights [kg]

|          |       |       |
|----------|-------|-------|
| G inlet  | 1/2 A | 3/4 A |
| G outlet | 1/2   | 1/2   |
| do       | 10    | 12,5  |
| A        | 33    | 33    |
| B        | 33    | 33    |
| C (H2) * | 132   | 132   |
| C (H4) * | 147   | 147   |
| E        | 150   | 150   |
| F        | 15    | 16    |
| weight   | 0.8   | 0.8   |

\*H2 = without lifting device / gastight cap

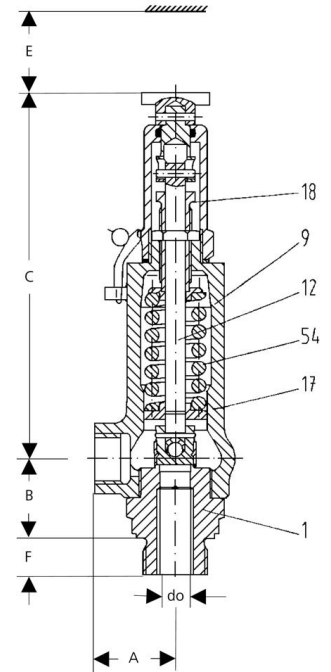
\*H4 = with lifting device / gastight cap

Special designs on request.

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### Dimensional Drawing



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| Flow Rate |                    |             |       |       |             |       |       |
|-----------|--------------------|-------------|-------|-------|-------------|-------|-------|
| seat [mm] | set pressure [bar] | G 1/2 - 1/2 |       |       | G 3/4 - 1/2 |       |       |
|           |                    | D           | L     | W     | D           | L     | W     |
| do = 10   | 0,5                | 28          | 35    | 1100  | 28          | 35    | 1100  |
|           | 1                  | 41          | 52    | 1500  | 41          | 52    | 1500  |
|           | 2                  | 67          | 85    | 2100  | 67          | 85    | 2100  |
|           | 3                  | 90          | 115   | 2500  | 990         | 115   | 2500  |
|           | 4                  | 112         | 145   | 2900  | 112         | 145   | 2900  |
|           | 5                  | 134         | 174   | 3300  | 134         | 174   | 3300  |
|           | 6                  | 156         | 203   | 3600  | 156         | 203   | 3600  |
|           | 8                  | 200         | 262   | 4200  | 200         | 262   | 4200  |
|           | 10                 | 243         | 321   | 4600  | 243         | 321   | 4600  |
|           | 15                 | 353         | 468   | 5700  | 353         | 468   | 5700  |
|           | 20                 | 462         | 615   | 6600  | 462         | 615   | 6600  |
|           | 25                 | 572         | 762   | 7300  | 572         | 762   | 7300  |
|           | 30                 | 683         | 909   | 8000  | 683         | 909   | 8000  |
|           | 40                 | 907         | 1203  | 9300  | 907         | 1203  | 9300  |
|           | 50                 | 1137        | 1497  | 10000 | 1137        | 1497  | 10000 |
|           | 60                 | 1372        | 1791  | 11000 | 1372        | 1791  | 11000 |
|           | 70                 | 1612        | 2084  | 12000 | 1612        | 2084  | 12000 |
| 80        | 1859               | 2378        | 13000 | 1859  | 2378        | 13000 |       |
| 100       | 2373               | 2966        | 15000 | 2373  | 2966        | 15000 |       |
| 150       | 3788               | 4436        | 18000 | 3788  | 4436        | 18000 |       |
| do = 6    | 180                | -           | 2757  | -     | -           | 2757  | -     |
|           | 200                | -           | 3061  | -     | -           | 3061  | -     |
|           | 250                | -           | 3823  | -     | -           | 3823  | -     |
|           | 300                | -           | 4585  | -     | -           | 4585  | -     |
|           | 330                | -           | 5042  | -     | -           | 5042  | -     |

D = saturated steam [kg/h]      L = air [m³/h]      W = water [kg/h]

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