

## → Series 852



## ■ SUITABLE FOR

|                        |                         |  |
|------------------------|-------------------------|--|
| Liquids                | neutral and non-neutral |  |
| Air, gases and vapours | neutral and non-neutral |  |
| Steam                  |                         |  |

## ■ EXAMPLES OF USE

For the protection of:

- pressure tanks and -systems for neutral / non-neutral vapours, gases and liquids
  - steam boilers and steam plants
  - bulk transport vehicles for liquid, granular and dusty goods<sup>1</sup>
- Please observe plant-specific regulations and use of appropriate valve version and sealing material.

- pressure booster plants (water/air-side)
- fire-fighting equipment
- industrial- and commercial boiler plants
- shipbuilding industry and marine equipment
- pump protection

**Safety valves are set and sealed at the factory.**

## ■ APPROVALS

|  |                                      |
|--|--------------------------------------|
| TÜV-Type test approval 2007            | D/G, F, F/K/S <sup>1</sup>           |
| EU type examination                    | S/G, L, F/K/S <sup>1</sup>           |
| KGS                                    | G                                    |
| TR ZU 032/2013 - TR ZU 010/2011        | D/G (S/G), F (L), F/K/S <sup>1</sup> |
| <b>Requirements</b>                    |                                      |
| AD 2000 Data sheet A2                  | DIN EN ISO 4126-1                    |
| TRD 421                                | PED 2014/68/EU                       |
| TRB 801 No. 22 and No. 23 <sup>1</sup> | KGS AA 319                           |
| UK PESR 2016 No. 1105                  |                                      |

**Classification society**

|                                       |         |
|---------------------------------------|---------|
| DNV                                   | DNV     |
| Lloyd's Register EMEA                 | LR EMEA |
| American Bureau of Shipping           | ABS     |
| Bureau Veritas                        | BV      |
| Russian Maritime Register of Shipping | RS      |
| Registro Italiano Navale              | RINA    |



## ■ MATERIAL



## ■ SPECIFICATION



DN 40 and DN 50 – 60°C to + 225°C  
depending on version      0,5 – 25 bar

## ■ MATERIALS

| Component          | Material        | DIN EN | ASME   |
|--------------------|-----------------|--------|--------|
| Inlet body         | Gunmetal        | CC499K | CC499K |
| Outlet body        | Gunmetal        | CC499K | CC499K |
| Internal parts     | Stainless steel | 1.4404 | 316 L  |
| Spring             | Stainless steel | 1.4310 | 302    |
| Bellows (optional) | Stainless steel | 1.4571 | 316 Ti |

<sup>1</sup>only for versions with bellows

Series 852 ■ VALVE VERSION

|           |  |   |
|-----------|--|---|
| <b>s</b>  | non-gastight version of spring housing | for neutral media without counter pressure.   |
| <b>b</b>  | with bellows                           | for neutral and non-neutral media and/or counter pressure up to 4 bar. Spring, moving parts and the environment are protected from being affected by the medium.  |
| <b>t</b>  | gastight version of spring housing     | for neutral and non-neutral media without counter pressure. The environment is protected from being affected by the medium.   |
| <b>tb</b> | gastight version with bellows          | for neutral and non-neutral an particularly for flammable, toxic and environmentally hazardous media and/or counter pressure up to 4 bar. Spring, moving parts and the environment are protected from being affected by the medium. <b>Double gastight.</b> |

■ MEDIUM

|           |                    |   |
|-----------|--------------------|---|
| <b>G</b>  | gaseous            | Air, vapours, gases and - depending on safety valve version and seal - also for steam |
| <b>F</b>  | liquid             | The temperature of the medium under atmospheric pressure must not reach boiling point |
| <b>GF</b> | gaseous and liquid | Air, vapours, gases, steam and liquids  |

■ TYPE OF LIFTING MECHANISM

|          |                             |
|----------|-----------------------------|
| <b>L</b> | Standard with lifting lever |
| <b>O</b> | without lifting device      |

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

| Nominal diameter DN |    | 40 | 50 |
|---------------------|----|----|----|
| Inlet               |    | 40 | 50 |
| Outlet              | 65 | ■  |    |
|                     | 80 |    | ■  |

■ CONNECTION TYPE INLET / OUTLET FLANGE CONNECTIONS

|                |          |                                       |                           |
|----------------|----------|---------------------------------------|---------------------------|
| <b>FL / FL</b> | Standard | Flange connection / flange connection | DIN EN 1092 / DIN EN 1092 |
|----------------|----------|---------------------------------------|---------------------------|

■ SEALS

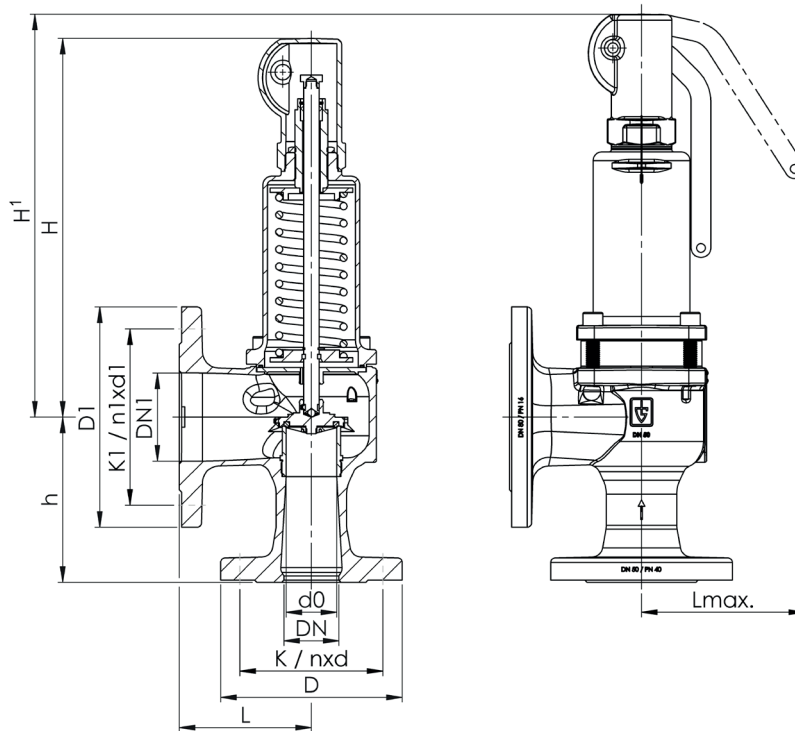
|             |                          |   |                 |
|-------------|--------------------------|---|-----------------|
| <b>NBR</b>  | Nitrile rubber           | Elastomere moulded seal with metallic support | -30°C to +130°C |
| <b>EPDM</b> | Ethylene propylene diene | Elastomere moulded seal with metallic support | -40°C to +170°C |
| <b>FKM</b>  | Fluorocarbon             | Elastomere moulded seal with metallic support | -20°C to +200°C |
| <b>PTFE</b> | Polytetrafluoroethylene  | Flat seal                                     | -60°C to +225°C |
| <b>FFKM</b> | Perfluorinated rubber    | Elastomere moulded seal with metallic support | -10°C to +225°C |
| <b>MD</b>   | Metal-to-metal sealing   | Flat seal                                     | -60°C to +225°C |

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

| Series 852: Connection, installation dimensions, ranges of adjustment |                      |            |            |
|---|----------------------|------------|------------|
| Nominal diameter  | DN                   | 40         | 50         |
| Connection DIN EN 1092  | DN / PN              | 40 / 40    | 50 / 40    |
| Outlet DIN EN 1092  | DN / PN              | 65 / 16    | 80 / 16    |
| Installation dimensions in mm   | L                    | 115        | 120        |
|   | Lmax                 | 150        | 150        |
|   | H / H <sup>1</sup>   | 345 / 362  | 345 / 362  |
|   | h                    | 140        | 150        |
|   | D                    | 150        | 165        |
|   | D1                   | 185        | 200        |
|   | K / nxd              | 110 / 4x18 | 125 / 4x18 |
|   | K1 / n1xd1           | 145 / 4x18 | 160 / 8x18 |
|   | do                   | 37         | 46         |
| Weight  | kg / kg <sup>1</sup> | 17 / 18    | 19 / 20    |
| Range of adjustment   | bar                  | 0,5-25     | 0,5-25     |

<sup>1</sup>Details for the version with bellows

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 852 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

| Series | Valve version | Medium | Lifting device | Nominal diameter DN | Connection type |        | Connection size |        | Seal | Options | Set pressure | Quantity |
|--------|---------------|--------|----------------|---------------------|-----------------|--------|-----------------|--------|------|---------|--------------|----------|
|        |               |        |                |                     | Inlet           | Outlet | Inlet           | Outlet |      |         |              |          |
| 852    | s             | G      | L              | 50                  | FL              | FL     | 50              | 80     | PTFE | AKL     | 7,5          | 2        |
| 852    | b             | F      | L              | 40                  | FL              | FL     | 40              | 65     | EPDM |         | 5,0          | 4        |
| 852    |               |        |                |                     | FL              | FL     |                 |        |      |         |              |          |
| 852    |               |        |                |                     | FL              | FL     |                 |        |      |         |              |          |

■ TECHNICAL FINISHES, VARIANTS, ACCESSORIES

|     |   |                          |
|-----|---|--------------------------|
| AKL | Connection for condensate in the outlet body G 1/4" | <input type="checkbox"/> |
|     |   | <input type="checkbox"/> |
|     |   | <input type="checkbox"/> |

■ PROPERTIES

|     |  |                          |     |                                   |                          |
|-----|--|--------------------------|-----|-----------------------------------|--------------------------|
| GOX | Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process | <input type="checkbox"/> | P03 | Galvanically nickel-plated finish | <input type="checkbox"/> |
| P01 | Oil- and grease-free production  | <input type="checkbox"/> | P04 | Chrome-plated finish              | <input type="checkbox"/> |
| P02 | Chemically nickel-plated finish  | <input type="checkbox"/> |     |                                   | <input type="checkbox"/> |

■ CERTIFICATES / APPROVALS

|     |   |                          |     |   |                          |
|-----|---|--------------------------|-----|---|--------------------------|
| C01 | Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)                                 | <input type="checkbox"/> | C07 | SIL evaluation relating to IEC 61508-2  | <input type="checkbox"/> |
| C02 | Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)                                    | <input type="checkbox"/> | C09 | Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204 | <input type="checkbox"/> |
| C03 | Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part) | <input type="checkbox"/> | C10 | Certificate of oil- and grease free production  | <input type="checkbox"/> |
| C04 | TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)                   | <input type="checkbox"/> | C11 | Certification of the production process especially for gaseous oxygen applications by employment of specific materials            | <input type="checkbox"/> |
| C06 | ATEX evaluation acc. to 2014/34/EU  | <input type="checkbox"/> |     |   | <input type="checkbox"/> |

■ ADMISSIONS / ACCREDITATIONS

|      |  |                          |     |  |                          |
|------|--|--------------------------|-----|--|--------------------------|
| AA1  | EC Type examination acc. to Directive 2014/68/EU   | <input type="checkbox"/> | AK1 | Det Norske Veritas (DNV) type approval                                     | <input type="checkbox"/> |
| AA2  | TÜV component test acc. to VdTÜV specification sheet SV 100                              | <input type="checkbox"/> | AK2 | Lloyd's Register (LR) type approval  | <input type="checkbox"/> |
| AA4  | EAC - certificate/declaration with passport for the valve and laser marking of the valve | <input type="checkbox"/> | AK3 | American Bureau of Shipping (ABS) type approval                            | <input type="checkbox"/> |
| AA11 | UK Type examination acc. to Directive UK PESR 2016 No. 1105                              | <input type="checkbox"/> | AK4 | Bureau Veritas (BV) type approval  | <input type="checkbox"/> |
|      |  | <input type="checkbox"/> | AK5 | Russian Maritime Register of Shipping (RMRS) type approval                 | <input type="checkbox"/> |
|      |  | <input type="checkbox"/> | AK6 | Registro Italiano Navale (RINA) type approval                              | <input type="checkbox"/> |
|      |  | <input type="checkbox"/> | AL  | Individual inspection by notified body inspector – (body to be indicated): | <input type="checkbox"/> |

■ ENQUIRY

Copy and send to: [order@goetze-armaturen.de](mailto:order@goetze-armaturen.de).

| Series 852: Blowing-off rates at 10% above set pressure |       |       |      |       |       |       |     |     |
|---|-------|-------|------|-------|-------|-------|-----|-----|
| Nominal diameter DN                                     |       | 40    |      |       | 50    |       |     |     |
| Set pressure bar  |       | I     | II   | III   | I     | II    | III | III |
| Air I   | 0,5   | 667   | 503  | 23    | 995   | 750   | 36  |     |
|   | 1     | 983   | 785  | 32    | 1472  | 1176  | 49  |     |
|   | 1,5   | 1299  | 1032 | 39    | 1948  | 1547  | 60  |     |
| Steam II  | 2     | 1615  | 1273 | 45    | 2461  | 1939  | 69  |     |
|   | 2,5   | 1926  | 1510 | 50    | 2926  | 2294  | 77  |     |
|   | 3     | 2208  | 1726 | 55    | 3404  | 2661  | 85  |     |
| Water III   | 3,5   | 2491  | 1937 | 59    | 3839  | 2985  | 91  |     |
|   | 4     | 2773  | 2151 | 63    | 4275  | 3315  | 98  |     |
|   | 4,5   | 3056  | 2364 | 67    | 4710  | 3643  | 104 |     |
|   | 5     | 3338  | 2575 | 71    | 5146  | 3970  | 109 |     |
|   | 5,5   | 3621  | 2789 | 74    | 5581  | 4299  | 114 |     |
|   | 6     | 3903  | 3003 | 77    | 6016  | 4629  | 120 |     |
|   | 6,5   | 4186  | 3212 | 81    | 6452  | 4951  | 124 |     |
|   | 7     | 4468  | 3420 | 84    | 6887  | 5272  | 129 |     |
|   | 7,5   | 4751  | 3632 | 86    | 7323  | 5598  | 134 |     |
|   | 8     | 5033  | 3843 | 89    | 7758  | 5923  | 138 |     |
|   | 8,5   | 5316  | 4053 | 92    | 8194  | 6247  | 142 |     |
|   | 9     | 5598  | 4263 | 95    | 8629  | 6570  | 146 |     |
|   | 9,5   | 5881  | 4472 | 97    | 9064  | 6893  | 150 |     |
|   | 10    | 6163  | 4681 | 100   | 9500  | 7215  | 154 |     |
|   | 11    | 6728  | 5097 | 105   | 10371 | 7856  | 162 |     |
|   | 12    | 7293  | 5511 | 109   | 11241 | 8494  | 169 |     |
|   | 13    | 7858  | 5928 | 114   | 12112 | 9138  | 176 |     |
|   | 14    | 8423  | 6348 | 118   | 12983 | 9784  | 183 |     |
|   | 15    | 8988  | 6763 | 122   | 13854 | 10425 | 189 |     |
|   | 16    | 9553  | 7181 | 126   | 14725 | 11069 | 195 |     |
| 17  | 10118 | 7586  | 130  | 15595 | 11693 | 201   |     |     |
| 18  | 10683 | 8002  | 134  | 16466 | 12334 | 207   |     |     |
| 19  | 11248 | 8416  | 138  | 17337 | 12973 | 213   |     |     |
| 20  | 11813 | 8835  | 141  | 18208 | 13617 | 218   |     |     |
| 21  | 12378 | 9253  | 145  | 19079 | 14261 | 224   |     |     |
| 22  | 12943 | 9670  | 148  | 19949 | 14905 | 229   |     |     |
| 23  | 13508 | 10087 | 151  | 20820 | 15547 | 234   |     |     |
| 24  | 14073 | 10503 | 155  | 21691 | 16190 | 239   |     |     |
| 25  | 14638 | 10920 | 158  | 22562 | 16831 | 244   |     |     |