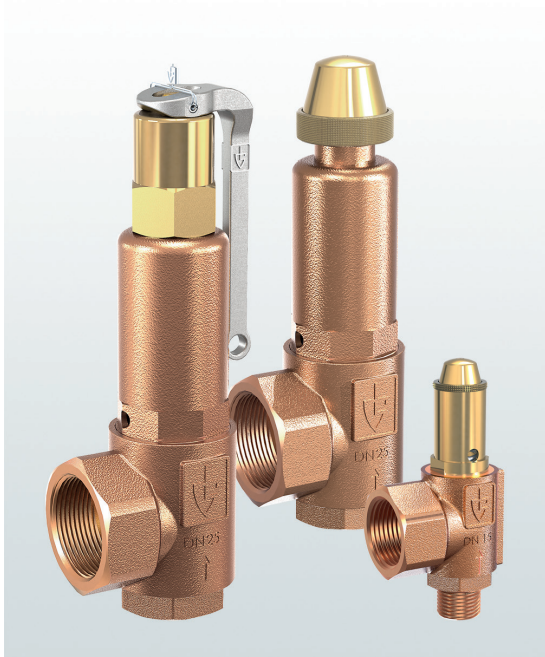


→ Series 851bG

851bG

Safety valves made of gunmetal, angle-type with threaded connections



■ SUITABLE FOR

| | | |
|------------------------|-------------------------|--|
| Air, gases and vapours | neutral and non-neutral | |
| Steam | | |
| Solar heating systems | | |

■ EXAMPLES OF USE

For the protection of:

- pressure tanks/-systems for neutral / non-neutral vapours and gases
- boilers
- Closed-circuit solar systems with temperatures > 120°C and for all static heights.
- district heating systems with temperatures >120°C
- district heating systems primary side
- solar plants in building and industrial technology
- steam- and industrial boiler plants

Safety valves are set and sealed at the factory.



■ MATERIAL



SPECIFICATION



1/2" – 2"



– 60°C to + 225°C
depending on version



0,5 – 50 bar

■ APPROVALS

| | |
|---------------------------------|-----------------------|
| TÜV Type test approval 666 | D/G |
| EU type examination | S/G |
| TR ZU 032/2013 - TR ZU 010/2011 | D/G (S/G) |
| Requirements | |
| AD 2000 Data sheet A2 | DIN EN 12976 |
| TRD 421 | DIN EN 12977 |
| AGFW 505 | DIN EN ISO 4126-1 |
| DIN 4747 Part 1 | PED 2014/68/EU |
| DIN 4757 Part 1 and Part 2 | 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 |

■ MATERIALS

| Component | Material | DIN EN | ASME |
|----------------|-----------------|--------|--------|
| Inlet body | Gunmetal | CC499K | CC499K |
| Outlet body | Gunmetal | CC499K | CC499K |
| Internal parts | Brass | CW617N | CW617N |
| Spring | Stainless steel | 1.4310 | 302 |
| Bellows | Bronze | CW452K | C51900 |

| | | |
|----------|--------------|---|
| 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. |
|----------|--------------|---|

■ MEDIUM

| | | |
|----------|---------|-------------------------------|
| G | gaseous | Air, vapours, gases and steam |
|----------|---------|-------------------------------|

■ TYPE OF LIFTING MECHANISM

| | |
|----------|--|
| K | Standard with twist-type lifting mechanism |
|----------|--|

| | |
|----------|---------------|
| L | Lifting lever |
|----------|---------------|

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

| Nominal diameter DN | | 15 | 20 | 25 | 32 | | |
|---------------------|-------------|-----------|-----------|---------|-------------|-------------|---------|
| Inlet | | 1/2" (15) | 3/4" (20) | 1" (25) | 1 1/4" (32) | 1 1/2" (40) | 2" (50) |
| Outlet | 1/2" (15) | | | | | | |
| | 3/4" (20) | | | | | | |
| | 1" (25) | ■ | | | | | |
| | 1 1/4" (32) | | ■ | | | | |
| | 1 1/2" (40) | | | ■ | | | |
| | 2" (50) | | | | ■ | ■ | ■ |

■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

| | | | |
|--------------|----------|---|-------------------------------------|
| f / f | Standard | Female thread BSP-P / Female thread BSP-P | DIN EN ISO 228-1 / DIN EN ISO 228-1 |
|--------------|----------|---|-------------------------------------|

| | | | |
|--------------|------------|---|-------------------------------------|
| m / f | On request | Male thread BSP-P / Female thread BSP-P | DIN EN ISO 228-1 / DIN EN ISO 228-1 |
|--------------|------------|---|-------------------------------------|

Against surcharge

| | | |
|-------------------|---|--|
| BSP-Tf / f | Female thread BSP-T / Female thread BSP-P | DIN EN 10226, ISO 7-1 / DIN EN ISO 228-1 |
|-------------------|---|--|

| | | |
|-------------------|---|--|
| BSP-Tm / f | Male thread BSP-T / Female thread BSP-P | DIN EN 10226, ISO 7-1 / DIN EN ISO 228-1 |
|-------------------|---|--|

Further connection types available on request.

■ SEALS

| | | | |
|-------------|--------------------------|--|-----------------|
| EPDM | Ethylene propylene diene | Elastomere moulded seal with metallic support up to 25 bar | -40°C to +170°C |
|-------------|--------------------------|--|-----------------|

| | | | |
|-------------|-------------------------|------------------------|-----------------|
| PTFE | Polytetrafluoroethylene | Flat seal up to 25 bar | -60°C to +225°C |
|-------------|-------------------------|------------------------|-----------------|

| | | | |
|-------------------|----------------------------------|-----------------------|-----------------|
| PTFE+Kohle | Polytetrafluoroethylene + carbon | Flat seal from 25 bar | -60°C to +225°C |
|-------------------|----------------------------------|-----------------------|-----------------|

Against surcharge

| | | | |
|-------------|-----------------------|--|-----------------|
| FFKM | Perfluorinated rubber | Elastomere moulded seal with metallic support up to 25 bar | -10°C to +225°C |
|-------------|-----------------------|--|-----------------|

| | | | |
|-----------|------------------------|-----------|-----------------|
| MD | Metal-to-metal sealing | Flat seal | -60°C to +225°C |
|-----------|------------------------|-----------|-----------------|

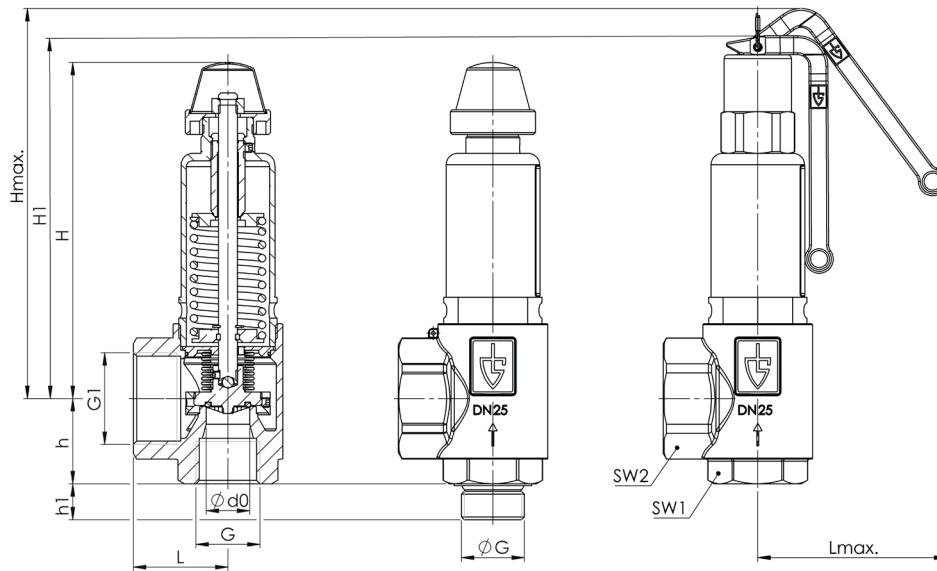
■ OPTIONS

Special versions on request.

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

| Series 851bG: Connection, installation dimensions, ranges of adjustment | | | | | | | | |
|---|------|-----------|-----------|-------------|-------------|-------------|---------|-------------|
| Nominal diameter | DN | 15 | 20 | 25 | 32 | 40 | 50 | 60 |
| Connection DIN EN ISO 228 | G | 1/2" (15) | 3/4" (20) | 1" (25) | 1 1/4" (32) | 1 1/2" (40) | 2" (50) | 2 1/2" (60) |
| Outlet DIN EN ISO 228 | G1 | 1" (25) | 1" (25) | 1 1/4" (32) | 1 1/2" (40) | 2" (50) | 2" (50) | 2" (50) |
| Installation dimensions in mm | L | 40 | 40 | 43 | 50 | 61 | 61 | 61 |
| | Lmax | 65 | 65 | 91 | 92 | 92 | 92 | 92 |
| | H | 77 | 131 | 138 | 178 | 241 | 241 | 241 |
| | H1 | 91 | 149 | 158 | 192 | 264 | 264 | 264 |
| | Hmax | 103 | 164 | 173 | 207 | 277 | 277 | 277 |
| | h | 30 | 30 | 39 | 45 | 55 | 69 | 74 |
| | h1 | 15 | 15 | 16 | 18 | 20 | 23 | 25 |
| | SW1 | 30 | 30 | 36 | 46 | 55 | 55 | 70 |
| | SW2 | 40 | 40 | 50 | 58 | 70 | 70 | 70 |
| | do | 15,8 | 15,8 | 18 | 23 | 30,3 | 30,3 | 30,3 |
| Weight | kg | 0,4 | 0,8 | 1,0 | 1,8 | 4,0 | 4,0 | 4,0 |
| Range of adjustment | bar | 0,5-25 | 25,1-50 | 0,5-50 | 0,5-50 | 0,5-50 | 0,5-50 | 0,5-50 |

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



■ 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 | | | | |
| 851 | b | G | K | 20 | m | f | 20 | 32 | PTFE | | 4,5 | 2 |
| 851 | b | G | L | 32 | f | f | 40 | 50 | MD | | 10,0 | 1 |
| 851 | b | G | | | | | | | | | | |
| 851 | b | G | | | | | | | | | | |

■ ENQUIRY

Copy and send to: order@goetze-armaturen.de.

| Series 851bG: Blowing-off rates at 10% above set pressure | | | | | | | | | |
|---|-----|------|-----|------|------|------|------|-------|------|
| Nominal diameter DN | | 15 | | 20 | | 25 | | 32 | |
| Set pressure bar | | I | II | I | II | I | II | I | II |
| Air I | 0,5 | 56 | 42 | 127 | 96 | 199 | 150 | 353 | 266 |
| | 1 | 88 | 70 | 189 | 151 | 291 | 232 | 515 | 411 |
| Nm³/h | 1,5 | 113 | 90 | 252 | 200 | 390 | 309 | 683 | 542 |
| | 2 | 141 | 111 | 316 | 249 | 489 | 385 | 832 | 656 |
| Steam II | 2,5 | 165 | 129 | 383 | 300 | 583 | 457 | 1012 | 793 |
| | 3 | 189 | 148 | 447 | 349 | 681 | 532 | 1182 | 924 |
| kg/h | 3,5 | 214 | 166 | 504 | 392 | 768 | 597 | 1333 | 1036 |
| | 4 | 238 | 184 | 561 | 435 | 855 | 663 | 1484 | 1151 |
| | 4,5 | 262 | 203 | 618 | 478 | 942 | 729 | 1635 | 1265 |
| | 5 | 286 | 221 | 675 | 521 | 1029 | 794 | 1786 | 1378 |
| | 5,5 | 310 | 239 | 732 | 564 | 1116 | 860 | 1937 | 1492 |
| | 6 | 335 | 257 | 790 | 608 | 1203 | 926 | 2088 | 1607 |
| | 6,5 | 359 | 275 | 847 | 650 | 1290 | 990 | 2239 | 1719 |
| | 7 | 383 | 293 | 904 | 692 | 1377 | 1054 | 2390 | 1830 |
| | 7,5 | 407 | 311 | 961 | 735 | 1464 | 1119 | 2542 | 1943 |
| | 8 | 431 | 329 | 1018 | 777 | 1552 | 1184 | 2693 | 2056 |
| | 8,5 | 456 | 347 | 1075 | 820 | 1639 | 1249 | 2844 | 2168 |
| | 9 | 480 | 365 | 1132 | 862 | 1726 | 1314 | 2995 | 2281 |
| | 9,5 | 504 | 383 | 1190 | 905 | 1813 | 1379 | 3146 | 2392 |
| | 10 | 528 | 401 | 1247 | 947 | 1900 | 1443 | 3297 | 2504 |
| | 11 | 577 | 437 | 1361 | 1031 | 2074 | 1571 | 3599 | 2727 |
| | 12 | 625 | 472 | 1475 | 1115 | 2248 | 1699 | 3902 | 2948 |
| | 13 | 674 | 508 | 1590 | 1199 | 2422 | 1827 | 4204 | 3172 |
| | 14 | 722 | 544 | 1704 | 1284 | 2596 | 1957 | 4506 | 3396 |
| | 15 | 770 | 580 | 1818 | 1368 | 2771 | 2085 | 4808 | 3618 |
| | 16 | 819 | 616 | 1932 | 1453 | 2945 | 2214 | 5111 | 3842 |
| | 17 | 867 | 650 | 2047 | 1535 | 3119 | 2339 | 5413 | 4059 |
| | 18 | 916 | 686 | 2161 | 1619 | 3293 | 2467 | 5715 | 4281 |
| | 19 | 964 | 721 | 2275 | 1703 | 3467 | 2594 | 6017 | 4503 |
| | 20 | 1013 | 757 | 2390 | 1787 | 3641 | 2723 | 6320 | 4726 |
| | 21 | 1061 | 793 | 2504 | 1872 | 3816 | 2852 | 6622 | 4950 |
| | 22 | 1109 | 829 | 2618 | 1956 | 3990 | 2981 | 6924 | 5173 |
| | 23 | 1158 | 865 | 2732 | 2040 | 4164 | 3109 | 7226 | 5396 |
| | 24 | 1206 | 900 | 2847 | 2125 | 4338 | 3238 | 7529 | 5619 |
| | 25 | 1255 | 936 | 2961 | 2209 | 4512 | 3366 | 7831 | 5842 |
| | 26 | 1303 | - | 3075 | - | 4686 | - | 8133 | - |
| | 27 | 1352 | - | 3190 | - | 4860 | - | 8435 | - |
| | 28 | 1400 | - | 3304 | - | 5035 | - | 8738 | - |
| | 29 | 1449 | - | 3418 | - | 5209 | - | 9040 | - |
| | 30 | 1497 | - | 3532 | - | 5383 | - | 9342 | - |
| | 32 | 1594 | - | 3761 | - | 5731 | - | 9947 | - |
| | 34 | 1691 | - | 3990 | - | 6080 | - | 10551 | - |
| | 36 | 1788 | - | 4218 | - | 6428 | - | 11156 | - |
| | 38 | 1884 | - | 4447 | - | 6776 | - | 11760 | - |
| | 40 | 1981 | - | 4675 | - | 7124 | - | 12365 | - |
| | 42 | 2078 | - | 4904 | - | 7473 | - | 12969 | - |
| | 44 | 2175 | - | 5132 | - | 7821 | - | 13574 | - |
| | 46 | 2272 | - | 5361 | - | 8169 | - | 14178 | - |
| | 48 | 2369 | - | 5589 | - | 8518 | - | 14783 | - |
| | 50 | 2466 | - | 5818 | - | 8866 | - | 15387 | - |