

## Flanged valve pneumatically actuated Series SE23, SE24, SE25, SE33



|                         |                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design type             | 2/2-way poppet valve, pneumatically actuated                                                                                                                                                                                                                                                                                                                                                       |
| Connection              | Flanges DN15...DN80 according to DIN EN1092-1 PN40                                                                                                                                                                                                                                                                                                                                                 |
| Overall length          | according to EN558-1R1                                                                                                                                                                                                                                                                                                                                                                             |
| Materials               | Housing Stainless steel 1.4408<br>Seat seal FKM, EPDM, NBR and PTFE                                                                                                                                                                                                                                                                                                                                |
| Application range       | gaseous and liquid media that do not attack the materials used<br>Control function Spring return closed (closing against media flow): Application for liquids to prevent pressure surges<br>Control function Spring closing (closing with media flow): Application for gases and vapours<br>Control function Spring opens (closing against media flow): Application for liquids, gases and vapours |
| Viscosity of the medium | max. 600mm <sup>2</sup> /s (600cSt)                                                                                                                                                                                                                                                                                                                                                                |
| Medium temperature      | Piston actuator Metal cover: -30...+170°C<br>Low-temperature version down to -100°C, High-temperature version up to 200°C and High-temperature version up to 220°C on request                                                                                                                                                                                                                      |
| Ambient temperature     | -30...+60°C                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating pressure      | Vacuum up to 0,001 bar absolute<br>see tables and Selection charts,<br>Operating limit for gases of group 1: P[bar] x DN <1000                                                                                                                                                                                                                                                                     |
| Tightness Package       | TA-Luft test according to DIN EN ISO15848-1 and VDI 2440                                                                                                                                                                                                                                                                                                                                           |
| Control medium          | Compressed air and neutral gases (Liquids on request)                                                                                                                                                                                                                                                                                                                                              |
| Control pressure        | see table                                                                                                                                                                                                                                                                                                                                                                                          |
| Approvals               | ATEX II 2G Ex h IIC T6...T2 X Gb / II 2D Ex h IIIC 85°C...220°C X Db                                                                                                                                                                                                                                                                                                                               |
| Special versions        | oil- and grease-free version, AS-i bus, Flanges according to ANSI 150 (DN15...DN50), higher operating pressures (reinforced version), dead space-free on request                                                                                                                                                                                                                                   |
| Accessories             | Limit switch, Pilot valve, Manual override actuation, Manual emergency override                                                                                                                                                                                                                                                                                                                    |

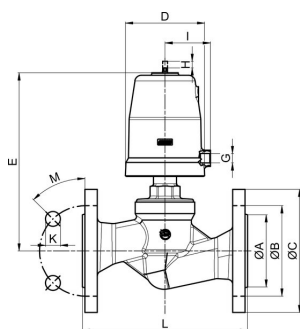


## Type code

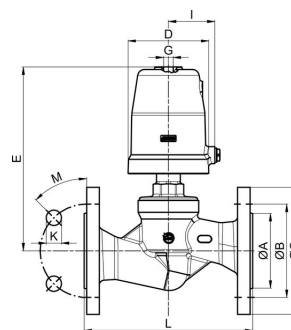
|                        |                                                                       | SE 23 - 25 - S T 50 - 01 |  |  |  |  |   |       |  |              |  |
|------------------------|-----------------------------------------------------------------------|--------------------------|--|--|--|--|---|-------|--|--------------|--|
|                        | Spring closes (closing with media flow)                               | 25                       |  |  |  |  |   |       |  |              |  |
|                        | Spring closes (closing against the media flow)                        | 24                       |  |  |  |  |   |       |  |              |  |
|                        | Spring opens (closing against media flow)                             | 23                       |  |  |  |  |   |       |  |              |  |
| <b>Type</b>            | Spring closes (closing with media flow) with pressure-relieved poppet | 33                       |  |  |  |  |   |       |  |              |  |
|                        |                                                                       |                          |  |  |  |  |   |       |  |              |  |
| <b>Connection</b>      | DN15                                                                  | 15                       |  |  |  |  |   |       |  |              |  |
|                        | DN20                                                                  | 20                       |  |  |  |  |   |       |  |              |  |
|                        | DN25                                                                  | 25                       |  |  |  |  |   |       |  |              |  |
|                        | DN32                                                                  | 32                       |  |  |  |  |   |       |  |              |  |
|                        | DN40                                                                  | 40                       |  |  |  |  |   |       |  |              |  |
|                        | DN50                                                                  | 50                       |  |  |  |  |   |       |  |              |  |
|                        | DN65                                                                  | 65                       |  |  |  |  |   |       |  |              |  |
|                        | DN80                                                                  | 80                       |  |  |  |  |   |       |  |              |  |
|                        |                                                                       |                          |  |  |  |  |   |       |  |              |  |
| <b>Materials</b>       | Housing Stainless steel 1.4408                                        |                          |  |  |  |  | S |       |  |              |  |
| <b>Seat seal</b>       | EPDM - Medium temperature -30...+140°C                                |                          |  |  |  |  | E |       |  |              |  |
|                        | NBR - Medium temperature -30...+80°C                                  |                          |  |  |  |  | N |       |  |              |  |
|                        | PTFE - Medium temperature -30...+200°C                                |                          |  |  |  |  | T |       |  |              |  |
|                        | FKM - Medium temperature -15...+200°C                                 |                          |  |  |  |  | V |       |  |              |  |
| <b>Actuator</b>        | Piston Ø50mm, double-acting                                           |                          |  |  |  |  |   | 50    |  |              |  |
|                        | Piston Ø50mm, 1 Spring                                                |                          |  |  |  |  |   | 51    |  |              |  |
|                        | Piston Ø50mm, 2 Springs                                               |                          |  |  |  |  |   | 52    |  |              |  |
|                        | Piston Ø50mm, 3 Springs                                               |                          |  |  |  |  |   | 53    |  |              |  |
|                        | Piston Ø80mm, double-acting                                           |                          |  |  |  |  |   | 80    |  |              |  |
|                        | Piston Ø80mm, 1 Spring                                                |                          |  |  |  |  |   | 81    |  |              |  |
|                        | Piston Ø80mm, 2 Springs                                               |                          |  |  |  |  |   | 82    |  |              |  |
|                        | Piston Ø80mm, 3 Springs                                               |                          |  |  |  |  |   | 83    |  |              |  |
|                        | Piston Ø125mm, double-acting                                          |                          |  |  |  |  |   | 125   |  |              |  |
|                        | Piston Ø125mm, 1 Spring                                               |                          |  |  |  |  |   | 1251  |  |              |  |
|                        | Piston Ø125mm, 2 Springs                                              |                          |  |  |  |  |   | 1252  |  |              |  |
|                        | Piston Ø125mm, 3 Springs                                              |                          |  |  |  |  |   | 1253  |  |              |  |
|                        | Diaphragm actuator 250cm², 4 Springs                                  |                          |  |  |  |  |   | 2504  |  |              |  |
|                        | Diaphragm actuator 250cm², 6 Springs                                  |                          |  |  |  |  |   | 2506  |  |              |  |
|                        | Diaphragm actuator 250cm², 8 Springs                                  |                          |  |  |  |  |   | 2508  |  |              |  |
|                        | Diaphragm actuator 250cm², 10 Springs                                 |                          |  |  |  |  |   | 25010 |  |              |  |
|                        | Diaphragm actuator 250cm², 12 Springs                                 |                          |  |  |  |  |   | 25012 |  |              |  |
|                        |                                                                       |                          |  |  |  |  |   |       |  |              |  |
| <b>Special version</b> | described in the item text                                            |                          |  |  |  |  |   |       |  | 01,02,03.... |  |



## Technical Specifications and Dimensions

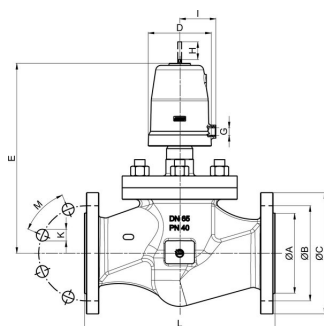


Spring closes, Type SE24, SE25, SE33

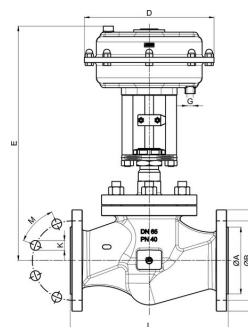


Spring opens, Type SE23

| Nominal size<br>DN [mm] | Actuator | ØA  | ØB  | ØC  | D   | E   | G    | H<br>(Stroke [mm]) | I    | K  | L   | M   | N<br>(Number of holes) | Kvs values<br>[m³/h] | Weight<br>[kg] |
|-------------------------|----------|-----|-----|-----|-----|-----|------|--------------------|------|----|-----|-----|------------------------|----------------------|----------------|
| 15                      | 50       | 45  | 65  | 95  | 62  | 147 | 1/8" | 12                 | 34,5 | 14 | 130 | 45° | 4                      | 3,1                  | 2,5            |
| 20                      | 50       | 58  | 75  | 105 | 62  | 152 | 1/8" | 15,5               | 34,5 | 14 | 150 | 45° | 4                      | 6,5                  | 3,3            |
| 25                      | 50       | 68  | 85  | 115 | 62  | 169 | 1/8" | 15,5               | 34,5 | 14 | 160 | 45° | 4                      | 12                   | 3,9            |
| 25                      | 80       | 68  | 85  | 115 | 96  | 208 | 1/4" | 20                 | 55   | 14 | 160 | 45° | 4                      | 12                   | 5,5            |
| 32                      | 50       | 78  | 100 | 140 | 62  | 173 | 1/8" | 15,5               | 34,5 | 18 | 180 | 45° | 4                      | 17                   | 5,5            |
| 32                      | 80       | 78  | 100 | 140 | 96  | 212 | 1/4" | 23                 | 55   | 18 | 180 | 45° | 4                      | 17,5                 | 7              |
| 32                      | 125      | 78  | 100 | 140 | 238 | 236 | 1/4" | 23                 | 80   | 18 | 180 | 45° | 4                      | 17,5                 | 9,2            |
| 40                      | 50       | 88  | 110 | 150 | 62  | 179 | 1/8" | 15,5               | 34,5 | 18 | 200 | 45° | 4                      | 25                   | 6,6            |
| 40                      | 80       | 88  | 110 | 150 | 96  | 218 | 1/4" | 28,5               | 55   | 18 | 200 | 45° | 4                      | 25                   | 8,1            |
| 40                      | 125      | 88  | 110 | 150 | 238 | 242 | 1/4" | 28,5               | 80   | 18 | 200 | 45° | 4                      | 25                   | 10,3           |
| 50                      | 80       | 102 | 125 | 165 | 96  | 241 | 1/4" | 30                 | 55   | 18 | 230 | 45° | 4                      | 40                   | 10,1           |
| 50                      | 125      | 102 | 125 | 165 | 238 | 266 | 1/4" | 30                 | 80   | 18 | 230 | 45° | 4                      | 40                   | 12,3           |



Spring closes, Type SE24, SE25, SE33



Actuator 250

| Nominal size<br>DN [mm] | Actuator | ØA  | ØB  | ØC  | D   | E   | G    | H<br>(Stroke [mm]) | I  | K  | L   | M   | N<br>(Number of holes) | Kvs values<br>[m³/h] | Weight<br>[kg] |
|-------------------------|----------|-----|-----|-----|-----|-----|------|--------------------|----|----|-----|-----|------------------------|----------------------|----------------|
| 65                      | 80       | 122 | 145 | 185 | 96  | 295 | 1/4" | 27                 | 55 | 18 | 290 | 45° | 8                      | 59                   | 23             |
| 65                      | 125      | 122 | 145 | 185 | 146 | 320 | 1/4" | 27                 | 80 | 18 | 290 | 45° | 8                      | 59                   | 25             |
| 65                      | 250      | 122 | 145 | 185 | 238 | 430 | 1/4" | 25                 | -  | 18 | 290 | 45° | 8                      | 59                   | 30             |
| 80                      | 80       | 138 | 160 | 200 | 96  | 295 | 1/4" | 27                 | 55 | 18 | 310 | 45° | 8                      | 84                   | 30             |
| 80                      | 125      | 138 | 160 | 200 | 146 | 320 | 1/4" | 27                 | 80 | 18 | 310 | 45° | 8                      | 84                   | 32             |
| 80                      | 250      | 138 | 160 | 200 | 238 | 430 | 1/4" | 25                 | -  | 18 | 310 | 45° | 8                      | 84                   | 36             |



## Technical specifications Spring closing (closing against media flow), Type SE24

| Nominal size<br>DN [mm] | max. Operating pressure<br>[bar] | Control pressure<br>[bar] | Actuator<br>[mm] | Springs |
|-------------------------|----------------------------------|---------------------------|------------------|---------|
| 15                      | 15                               | 3,5...10                  | 50               | 1       |
| 15                      | 27                               | 4,5...10                  | 50               | 2       |
| 20                      | 5,1                              | 3,5...10                  | 50               | 1       |
| 20                      | 10                               | 4,5...10                  | 50               | 2       |
| 20                      | 16                               | 5,7...10                  | 50               | 3       |
| 25                      | 2,3                              | 3,5...10                  | 50               | 1       |
| 25                      | 5,6                              | 4,5...10                  | 50               | 2       |
| 25                      | 8,9                              | 5,7...10                  | 50               | 3       |
| 25                      | 20                               | 3,5...10                  | 50               | 1       |
| 32                      | 3,1                              | 4,5...10                  | 80               | 2       |
| 32                      | 5,1                              | 5,7...10                  | 50               | 3       |
| 32                      | 11                               | 3,5...10                  | 50               | 1       |
| 32                      | 16                               | 4,4...10                  | 80               | 2       |
| 32                      | 21                               | 5,6...10                  | 80               | 3       |
| 32                      | 10                               | 1,3...10                  | 125              | 1       |
| 32                      | 22                               | 2,2...10                  | 125              | 2       |
| 40                      | 1,9                              | 4,5...10                  | 50               | 2       |
| 40                      | 3,4                              | 5,7...10                  | 50               | 3       |
| 40                      | 6,8                              | 3,5...10                  | 80               | 1       |
| 40                      | 9,6                              | 4,4...10                  | 80               | 2       |
| 40                      | 12                               | 5,6...10                  | 80               | 3       |
| 40                      | 6,3                              | 1,3...10                  | 125              | 1       |
| 40                      | 14                               | 2,2...10                  | 125              | 2       |
| 40                      | 20                               | 3,1...10                  | 125              | 3       |
| 50                      | 4                                | 3,5...10                  | 80               | 1       |
| 50                      | 5,9                              | 4,4...10                  | 80               | 2       |
| 50                      | 7,7                              | 5,6...10                  | 80               | 3       |
| 50                      | 8,7                              | 2,2...10                  | 125              | 2       |
| 50                      | 12                               | 3,1...10                  | 125              | 3       |
| 65                      | 3                                | 4,6...10                  | 80               | 2       |
| 65                      | 4,1                              | 5,8...10                  | 80               | 3       |
| 65                      | 4,8                              | 2,3...10                  | 125              | 2       |
| 65                      | 7                                | 3,2...10                  | 125              | 3       |
| 65                      | 11                               | 2,7...10                  | 250              | 8       |
| 65                      | 15                               | 3,7...10                  | 250              | 12      |
| 80                      | 2                                | 4,6...10                  | 80               | 2       |
| 80                      | 2,7                              | 5,8...10                  | 80               | 3       |
| 80                      | 3,2                              | 2,3...10                  | 125              | 2       |
| 80                      | 4,7                              | 3,2...10                  | 125              | 3       |
| 80                      | 7,5                              | 2,7...10                  | 250              | 8       |
| 80                      | 10,5                             | 3,7...10                  | 250              | 12      |

grey highlighted: standard



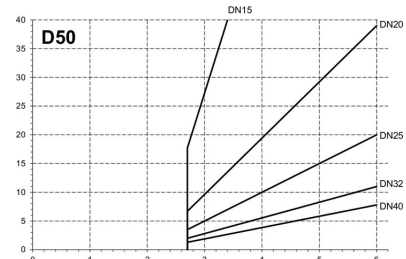
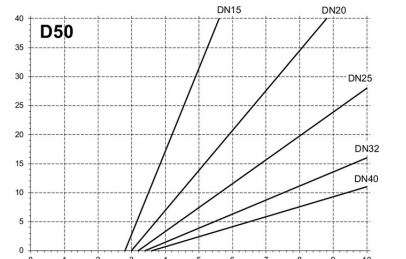
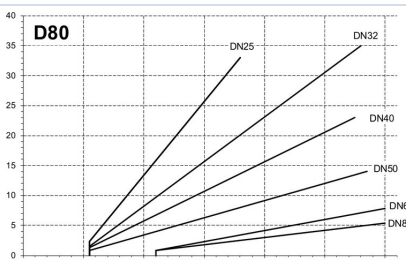
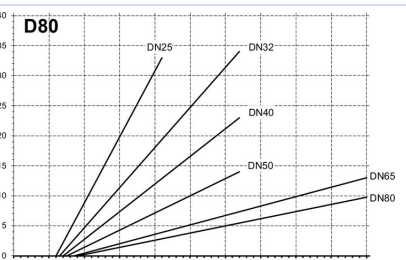
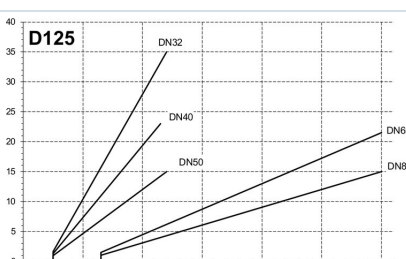
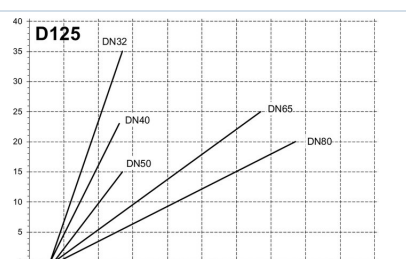
## Technical specifications with pressure-relieved poppet cone, Type SE33

| Nominal size<br>DN [mm] | max. Operating pressure<br>[bar] | Control pressure<br>[bar] | Actuator<br>[mm] | Springs |
|-------------------------|----------------------------------|---------------------------|------------------|---------|
| 65                      | 9,4                              | 3,7...10                  | 80               | 1       |
| 65                      | 14                               | 4,6...10                  | 80               | 2       |
| 65                      | 19                               | 5,8...10                  | 80               | 3       |
| 65                      | 9                                | 1,3...10                  | 125              | 1       |
| 65                      | 22,5                             | 2,3...10                  | 125              | 2       |
| 65                      | 25                               | 3,2...10                  | 125              | 3       |
| 65                      | 25                               | 1,5...10                  | 250              | 4       |
| 80                      | 19,5                             | 3,7...10                  | 80               | 1       |
| 80                      | 20                               | 4,6...10                  | 80               | 2       |
| 80                      | 18,5                             | 1,3...10                  | 125              | 1       |
| 80                      | 20                               | 2,3...10                  | 125              | 2       |
| 80                      | 20                               | 1,5...10                  | 250              | 4       |

grey highlighted: standard



Selection charts - Dependence of operating pressure/control pressure

| Spring closes (closing with media flow) NC, Type SE25                                                                                                                                                          | Spring opens (closing against the media flow) NO, Type SE23                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Actuator diameter 50 mm</p>  <p>horizontal Axis: pilot pressure in bar<br/>vertical axis: operating pressure in bar</p>    | <p>Actuator diameter 50 mm</p>  <p>horizontal Axis: pilot pressure in bar<br/>vertical axis: operating pressure in bar<br/>max. control pressure 1bar above the required pilot pressure</p>      |
| <p>Actuator diameter 80 mm</p>  <p>horizontal Axis: pilot pressure in bar<br/>vertical axis: operating pressure in bar</p>    | <p>Actuator diameter 80 mm</p>  <p>horizontal Axis: pilot pressure in bar<br/>vertical axis: operating pressure in bar<br/>max. control pressure 0,8bar above the required pilot pressure</p>    |
| <p>Actuator diameter 125 mm</p>  <p>horizontal Axis: pilot pressure in bar<br/>vertical axis: operating pressure in bar</p> | <p>Actuator diameter 125 mm</p>  <p>horizontal Axis: pilot pressure in bar<br/>vertical axis: operating pressure in bar<br/>max. control pressure 0,5bar above the required pilot pressure</p> |

Illustrations non-binding  
Design, dimensional and material changes reserved

Armatures / Valves, butterfly valves and gate valves - automatically operated / Seat valves - pneumatically operated / Pneumatically operated seat valve Series SE24-ST