

2100 clamp



2/2-way Angle-Seat Valve with stainless steel design for medium up to +185 °C, DN 15-50

- High flow rates
- High cycle life
- Flow optimised body in stainless steel
- Deliverable with flow direction below or above seat
- Clean design for optimal use in hygienic environment
- Suitable for steam up to 10 bar(g)

Type 2100 clamp can be combined with...



Type 8691
Control Head



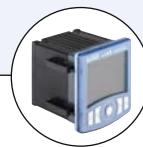
Type 8695
Control Head



Type 8690
Pneumatic Control Unit



Type 8697
Pneumatic Control Unit



Type 8619
MultiCELL Transmitter/Controller



Type 8222
Conductivity transmitter

In line with Bürkert's philosophy for modular valves and sensors the construction of the 2100 angle-seat valve fulfils tough criteria for process environments. Unrivalled cycle life and sealing integrity is guaranteed by the proven self adjusting spindle packing with V-seals.

The design enables the easy integration of automation modules whether they are electrical/optical position feedback, pneumatic control units, an integrated fieldbus interface.

The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67 protection class and superior chemical resistance.

Optionally, an explosion-proof version is also available.

| Technical data | |
|---------------------------------|--|
| Orifice | DN15 to DN50 |
| Port connections | ISO 2852, ASME BPE Clamp acc. to Weld and threaded see separate data sheet |
| Body material | Stainless steel 316L |
| Nominal pressure | PN25 (Body) |
| Actuator material | Actuator: PPS Cover: Stainless steel 1.4561 (316Ti) |
| Sealing material | PTFE |
| Medium | Water, alcohol, oils, fuels, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam, optional fuel gas (EC Gas Appliances Directive 2009/142/EG) |
| Viscosity | max. 600 mm ² /s |
| Spindle packing | PTFE V-rings with spring compensation |
| Medium temperature | -10 to +185°C |
| Ambient temperature | 0 to +55 °C (integrated control head) 0 to +60 °C (push-in air ports) 0 to +100 °C (threaded air ports) |
| Control medium | Neutral gases, air |
| Max. pilot pressure | max. 10 bar; actuator size 130 mm, 7 bar |
| Pilot air ports | Push-in connector for external ø 6 mm or 1/4" tube, thread G1/8 (on request) |
| Installation | As required, preferably with actuator in upright position |
| Surface Finish, standard | in internal connection area Ra ≤ 0.6 µm electropolished (external cast surface) |

Content



Valve specifications
Type 2100

Technical data & ordering info. p. 1-6



System spec. On/Off ELEMENT
Type 8801-YE

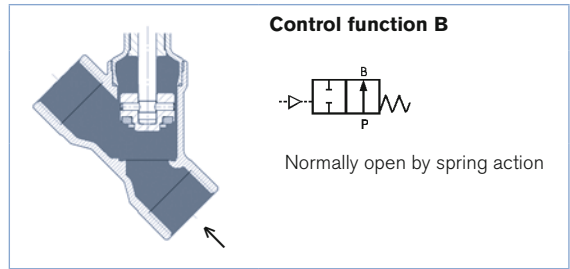
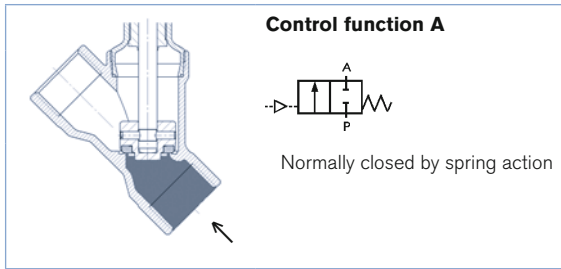
Technical data & ordering info.

p. 7-11

Request for quotation
Type 8801-YE

p.12

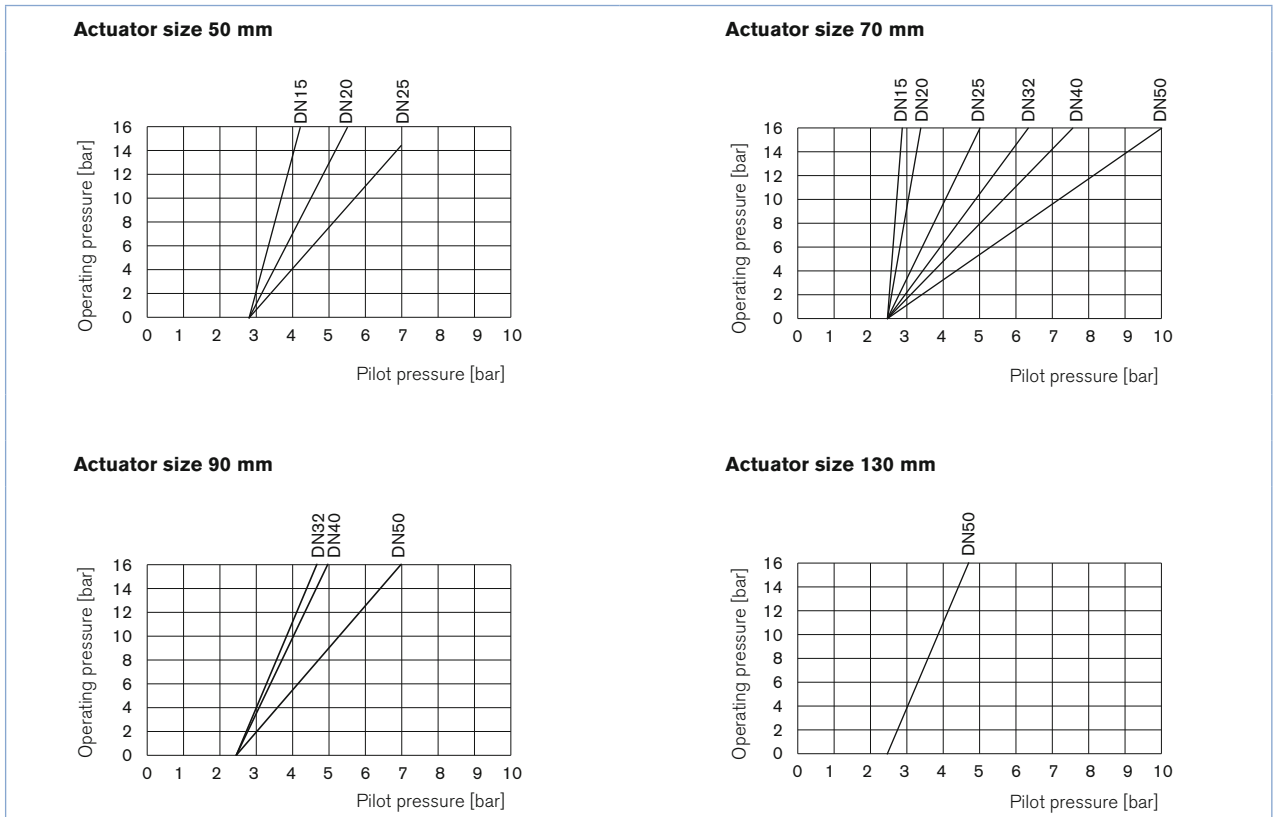
Technical data angle seat valve Type 2100 flow direction below the seat (for gases and liquids)



| Orifice [mm] | Actuator size [mm] | Kv value water (m ³ /h) | Minimum pilot pressure CFA [bar] | Operating pressure up to +185°C | |
|--------------|--------------------|------------------------------------|----------------------------------|---------------------------------|-----------|
| | | | | CFA [bar] | CFB [bar] |
| 15 | 50 | 5 | 5.2 | 25 | 16 |
| | 70 | 5 | 5.0 | 25 | 16 |
| 20 | 50 | 10 | 5.2 | 16 | 16 |
| | 70 | 11 | 5.0 | 20 | 16 |
| 25 | 50 | 15 | 5.2 | 9 | 14.5 |
| | 70 | 18 | 5.0 | 16 | 16 |
| 32 | 70 | 27 | 5.0 | 8.5 | 16 |
| | 90 | 28 | 5.0 | 16 | 16 |
| 40 | 70 | 38 | 5.0 | 6 | 16 |
| | 90 | 40 | 5.0 | 16 | 16 |
| 50 | 70 | 52 | - | - | 16 |
| | 90 | 55 | 5.0 | 10 | 16 |
| | 130 | 62 | 5.0 | 16 | 16 |

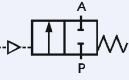
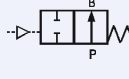
Flow rate: Kv value water [m³/h]: Measured at +20°C, 1 bar pressure at valve inlet and free outlet.
Pressure valves [bar]: Overpressure to the atmospheric pressure

Pressure charts with control function B and flow direction below the seat

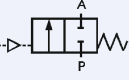
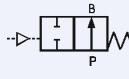


Ordering chart Type 2100, flow direction below the seat (for gases and liquids)

Clamp acc. to ISO 2852, flow direction below the seat

| Control function | Orifice (mm) | Actuator size \varnothing [mm] | Port connection clamp external \varnothing (mm) | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. | |
|---|---|----------------------------------|---|------------------------------|---------------------------------------|----------|---------|
| A 2/2-way valve, NC  | 15 | 50 | 34.0 | 5.2 | 25 | 187 097 | |
| | | 70 | 34.0 | 5.0 | 25 | 188 783 | |
| | 20 | 50 | 50.5 | 5.2 | 16 | 209 437 | |
| | | 70 | 50.5 | 5.0 | 20 | 188 784 | |
| | 25 | 50 | 50.0 | 5.2 | 9 | 227 613 | |
| | | 70 | 50.5 | 5.0 | 16 | 188 785 | |
| | 32 | 70 | 50.5 | 5.0 | 8.5 | 188 786 | |
| | | 90 | 50.5 | 5.0 | 16 | 188 787 | |
| | 40 | 70 | 64.0 | 5.0 | 6 | 188 788 | |
| | | 90 | 64.0 | 5.0 | 16 | 188 789 | |
| | 50 | 90 | 77.5 | 5.0 | 10 | 188 790 | |
| | | 130 | 77.5 | 5.0 | 16 | 188 791 | |
| | B 2/2-way valve, NO  | 15 | 50 | 34.0 | see chart on p. 2 | 16 | 187 101 |
| | | | 70 | 34.0 | | 16 | 188 800 |
| 20 | | 50 | 50.5 | 16 | | 187 102 | |
| | | 70 | 50.5 | 16 | | 188 801 | |
| 25 | | 70 | 50.5 | 16 | | 188 802 | |
| | | 32 | 70 | 50.5 | | 16 | 188 803 |
| 40 | | 70 | 64.0 | 16 | | 188 804 | |
| | | 50 | 70 | 77.5 | | 16 | 188 805 |

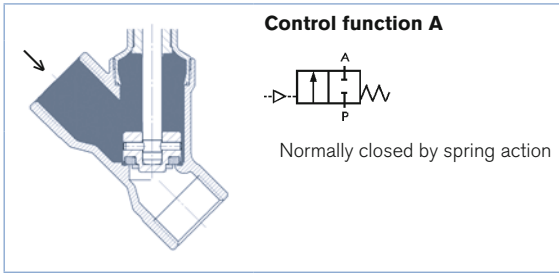
Clamp acc. to ASME BPE, flow direction below the seat

| Control function | Orifice (mm) | Actuator size \varnothing [mm] | Port connection clamp external \varnothing (mm) | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|---|--------------|----------------------------------|---|------------------------------|---------------------------------------|----------|
| A 2/2-way valve, NC  | 15 | 50 | 25.0 | 5.2 | 25 | 187 103 |
| | | 70 | 25.0 | 5.0 | 25 | 188 806 |
| | 20 | 50 | 25.5 | 5.2 | 16 | 227 614 |
| | | 70 | 25.5 | 5.0 | 20 | 188 807 |
| | 25 | 50 | 50.5 | 5.2 | 9 | 227 615 |
| | | 70 | 50.5 | 5.0 | 16 | 188 808 |
| | 40 | 70 | 50.5 | 5.0 | 6 | 188 809 |
| | | 90 | 50.5 | 5.0 | 16 | 188 810 |
| | 50 | 90 | 64.0 | 5.0 | 10 | 188 811 |
| | | 130 | 64.0 | 5.0 | 16 | 188 812 |
| B 2/2-way valve, NO  | 15 | 50 | 25.0 | see chart on p. 2 | 16 | 187 107 |
| | | 70 | 25.0 | | 16 | 188 820 |
| | 20 | 50 | 25.0 | | 16 | 187 108 |
| | | 70 | 50.5 | | 16 | 188 821 |
| | 25 | 70 | 50.5 | | 16 | 188 822 |
| | | 40 | 70 | | 50.5 | 16 |
| | 50 | 70 | 64.0 | | 16 | 188 824 |

 Further versions on request

 Control function
I (double-acting)

Technical data angle seat valve Type 2100 flow direction above the seat (for gases and steam)



Attention!

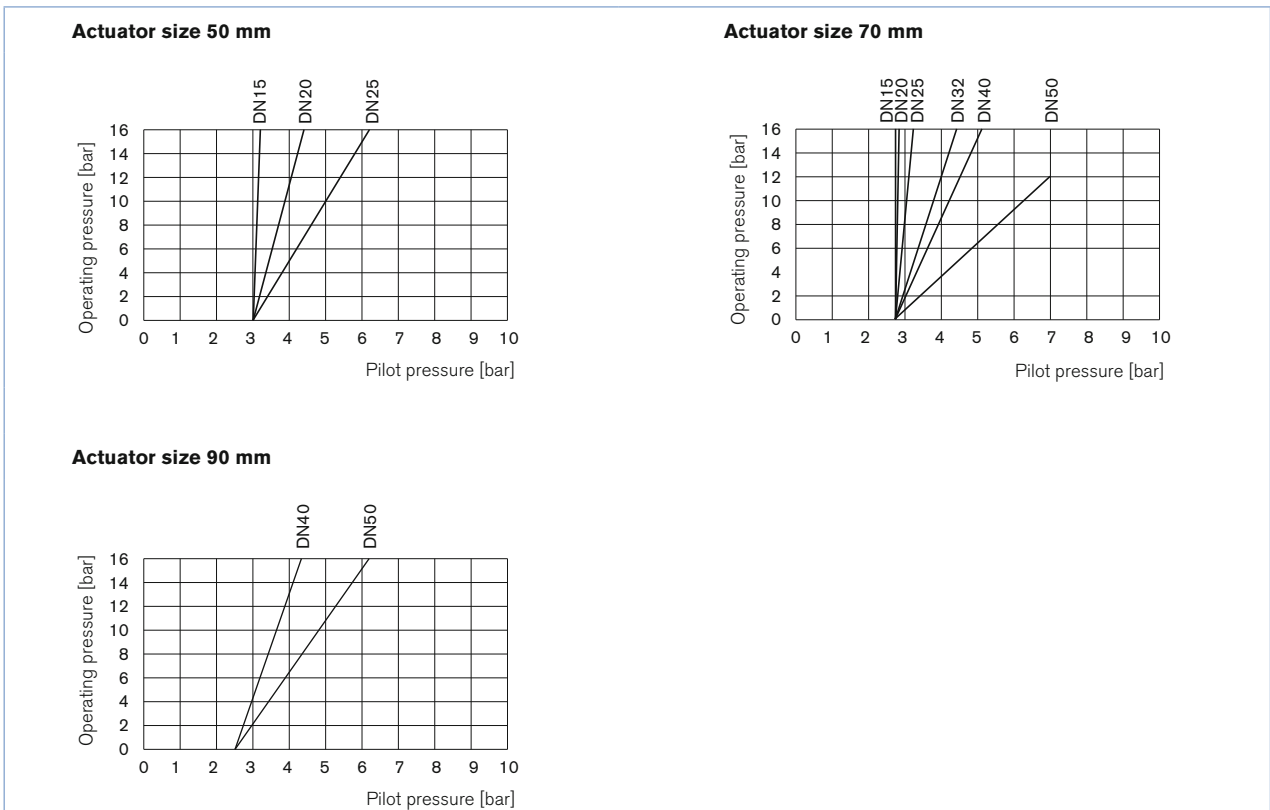
Valves with flow above the seat are only conditionally usable for liquid medium. There is a danger of waterhammer!

| Orifice [mm] | Actuator size [mm] | Kv value water (m³/h) | Operating pressure up to +185°C CFA [bar] |
|--------------|--------------------|-----------------------|---|
| 15 | 50 | 5 | 16 |
| | 70 | 5.1 | 16 |
| 20 | 50 | 10 | 16 |
| | 70 | 12 | 16 |
| 25 | 50 | 15 | 16 |
| | 70 | 19 | 16 |
| 32 | 70 | 28 | 16 |
| 40 | 70 | 38 | 16 |
| | 90 | 40 | 16 |
| 50 | 70 | 50 | 12 |
| | 90 | 55 | 16 |

Flow rate: Kv value water [m³/h]: Measured at +20°C, 1 bar pressure at valve inlet and free outlet.

Pressure valves [bar]: Overpressure to the atmospheric pressure

Pressure charts with control function A and flow direction above the seat



Ordering chart Type 2100 flow direction above the seat (for gases and steam)

Clamp acc. to ISO 2852, flow direction above the seat

| Control function | Orifice (mm) | Actuator size \varnothing [mm] | Port connection clamp external \varnothing (mm) | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|-----------------------------------|--------------|----------------------------------|---|------------------------------|---------------------------------------|----------|
| A 2/2-way valve. NC | 15 | 50 | 34.0 | see chart on p. 4 | 16 | 187 098 |
| | 20 | 50 | 50.5 | | 16 | 187 099 |
| | 25 | 50 | 50.5 | | 16 | 187 100 |
| | 32 | 70 | 50.5 | | 16 | 188 795 |
| | 40 | 70 | 64.0 | | 16 | 188 796 |
| | 50 | 70 | 77.5 | | 12 | 188 798 |

Clamp acc. to ASME BPE, flow direction above the seat

| Control function | Orifice (mm) | Actuator size \varnothing [mm] | Port connection clamp external \varnothing (mm) | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|-----------------------------------|--------------|----------------------------------|---|------------------------------|---------------------------------------|----------|
| A 2/2-way valve. NC | 15 | 50 | 25.0 | see chart on p. 4 | 16 | 187 104 |
| | 20 | 50 | 25.0 | | 16 | 187 105 |
| | 25 | 50 | 50.5 | | 16 | 187 106 |
| | 40 | 70 | 50.5 | | 16 | 188 816 |
| | 50 | 70 | 64.0 | | 12 | 188 818 |

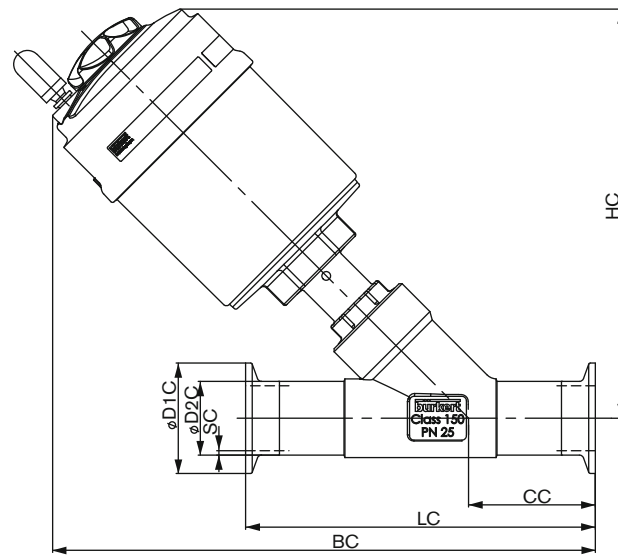
Materials angle seat valve Type 2100

| | | |
|-----------|-----------------------------------|--|
| A | Ground terminal | Stainless steel 1.4301/1.4305 <i>Only for the ATEX version</i> |
| 1 | Optical position indicator | Transparent cap polysulfone PSU |
| 2 | Pilot air ports | Push-in connector PP (standard) <i>On request:</i> Thread G1/8" stainless steel 1.4305 |
| 3 | Actuator | PPS |
| 4 | Cover | Stainless steel 1.4561 (316Ti) |
| 5 | Piston seal | FKM |
| 6 | Spring | Stainless steel 1.4310 |
| 7 | Pipe | Stainless steel 1.4401 (316)/1.4404 (316L) |
| 8 | Spindle packing | PTFE |
| 9 | Spindle | Stainless steel 1.4401 (316)/1.4404 (316L) |
| 10 | Spindle guide | PEEK |
| 11 | Swivel plate | Stainless steel 1.4401 (316)/1.4404 (316L) |
| 12 | Seals | PTFE |
| 13 | Valve body | Stainless steel 316L |

Lubricants for spindle packing and actuator are classified according NSF H1

Dimensions angle seat valve Type 2100 [mm]

Clamp body



ISO 2852, DIN 32676

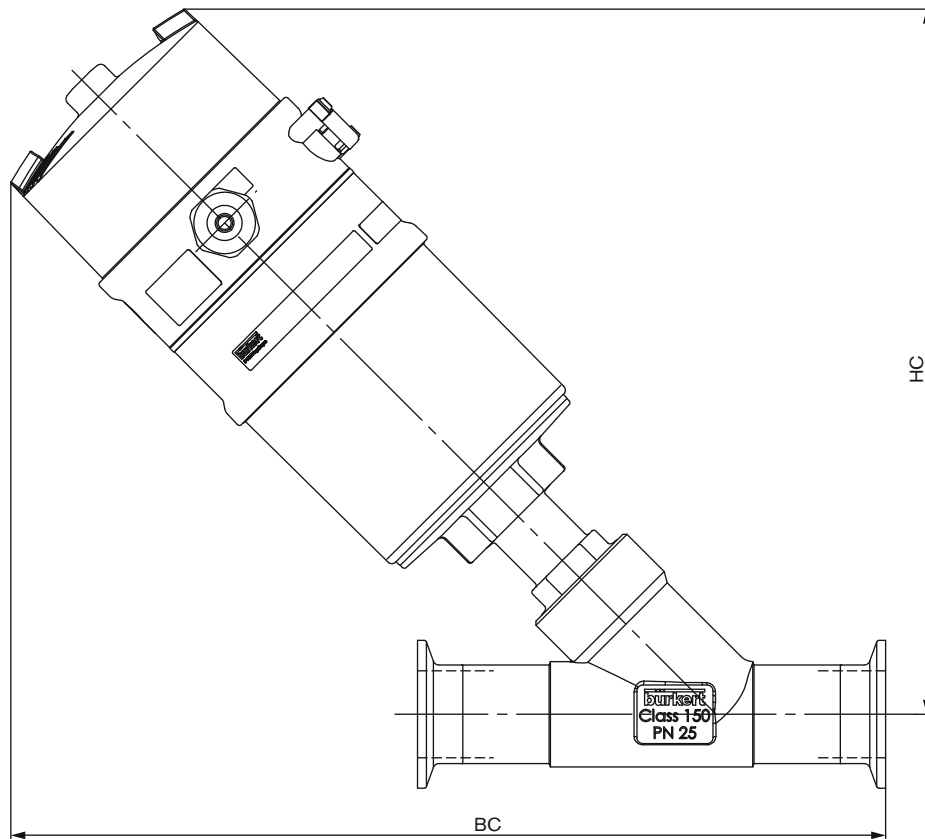
| All bodies | | | | Clamp body acc. to ISO 2852 | | | | | DIN 32676 | | | | |
|--------------|--------------------|-----|-----|-----------------------------|-----|------|------|-----|-----------|-----|------|------|-----|
| Orifice [mm] | Actuator size [mm] | HC | BC | CC | LC | øD1C | øD2C | SC | CC | LC | øD1C | øD2C | SC |
| 15 | 50 | 163 | 215 | 49 | 130 | 34 | 21.3 | 1.6 | 49.5 | 130 | 34 | 19 | 1.5 |
| | 70 | 178 | 231 | | | | | | | | | | |
| 20 | 50 | 171 | 230 | 56.5 | 150 | 50.5 | 26.9 | 1.6 | 57 | 150 | 34 | 23 | 1.5 |
| | 70 | 186 | 246 | | | | | | | | | | |
| 25 | 50 | 172 | 233 | 58 | 160 | 50.5 | 33.7 | 2 | 58.5 | 160 | 50.5 | 29 | 1.5 |
| | 70 | 188 | 249 | | | | | | | | | | |
| 32 | 70 | 197 | 258 | 57.5 | 180 | 50.5 | 42.4 | 2 | 58 | 180 | 50.5 | 35 | 1.5 |
| | 90 | 242 | 300 | | | | | | | | | | |
| 40 | 70 | 201 | 273 | 69 | 200 | 64 | 48.3 | 2 | 69.5 | 200 | 50.5 | 41 | 1.5 |
| | 90 | 245 | 316 | | | | | | | | | | |
| | 130 | 296 | 365 | | | | | | | | | | |
| 50 | 70 | 219 | 300 | 77.5 | 230 | 77.5 | 60.3 | 2.6 | 78 | 230 | 64 | 53 | 1.5 |
| | 90 | 261 | 340 | | | | | | | | | | |
| | 130 | 312 | 389 | | | | | | | | | | |

BS 4825, ASME BPE

| All bodies | | | | Clamp body acc. to BS 4825 | | | | | ASME BPE | | | | |
|--------------|--------------------|-----|-----|----------------------------|-----|------|-------|------|----------|-----|------|-------|------|
| Orifice [mm] | Actuator size [mm] | HC | BC | CC | LC | øD1C | øD2C | SC | CC | LC | øD1C | øD2C | SC |
| 15 | 50 | 163 | 215 | 49 | 130 | 25.2 | 12.7 | 1.2 | 49 | 130 | 25 | 12.7 | 1.65 |
| | 70 | 178 | 231 | | | | | | | | | | |
| 20 | 50 | 171 | 230 | 56.5 | 150 | 25.2 | 19.05 | 1.2 | 56.5 | 150 | 25 | 19.05 | 1.65 |
| | 70 | 186 | 246 | | | | | | | | | | |
| 25 | 50 | 172 | 233 | 58 | 160 | 50.5 | 25.4 | 1.65 | - | - | - | - | - |
| | 70 | 188 | 249 | | | | | | | | | | |
| 40 | 70 | 201 | 273 | 69 | 200 | 50.5 | 38.1 | 1.65 | - | - | - | - | - |
| | 90 | 245 | 316 | | | | | | | | | | |
| | 130 | 296 | 365 | | | | | | | | | | |
| 50 | 70 | 219 | 300 | 77.5 | 230 | 64 | 50.8 | 1.65 | - | - | - | - | - |
| | 90 | 261 | 340 | | | | | | | | | | |
| | 130 | 312 | 389 | | | | | | | | | | |

Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm]

Dimensions valve system On/Off ELEMENT Type 8801-YE-K (with pneumatic control unit Type 8690)



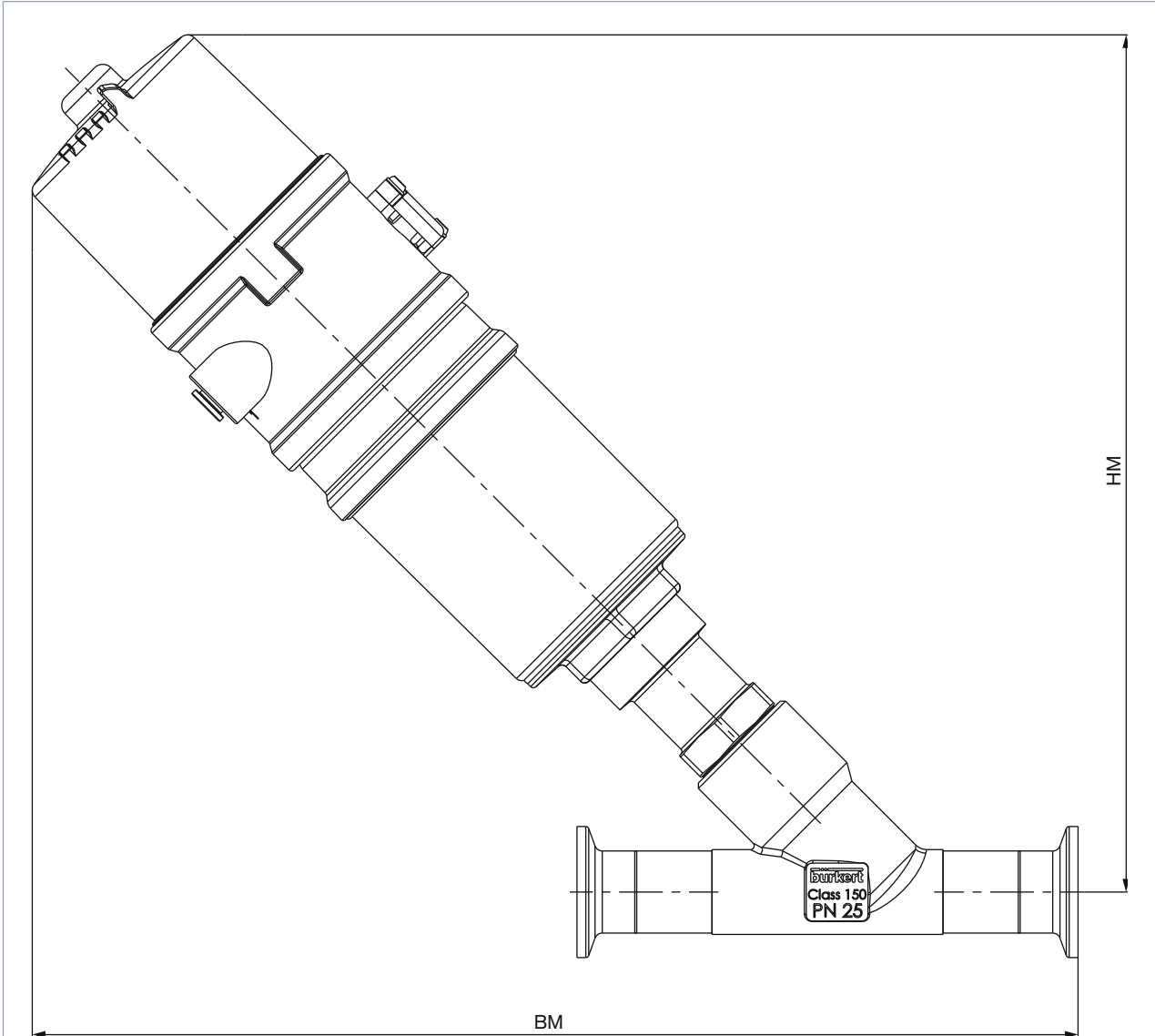
Clamp body acc. to ISO 2852, DIN 32676, BS 4825, ASME BPE

| Orifice [mm] | Actuator size [mm] | HC | BC |
|--------------|--------------------|-----|-----|
| 15 | 70 | 232 | 285 |
| 20 | 70 | 240 | 300 |
| 25 | 70 | 242 | 303 |
| 32 | 70 | 251 | 312 |
| | 90 | 294 | 352 |
| 40 | 70 | 255 | 327 |
| | 90 | 297 | 368 |
| | 130 | 334 | 403 |
| 50 | 70 | 273 | 354 |
| | 90 | 313 | 392 |
| | 130 | 350 | 427 |

Further dimensions see p. 6

Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm]

Dimensions valve system On/Off ELEMENT Type 8801-YE-K (with pneumatic control unit Type 8697)

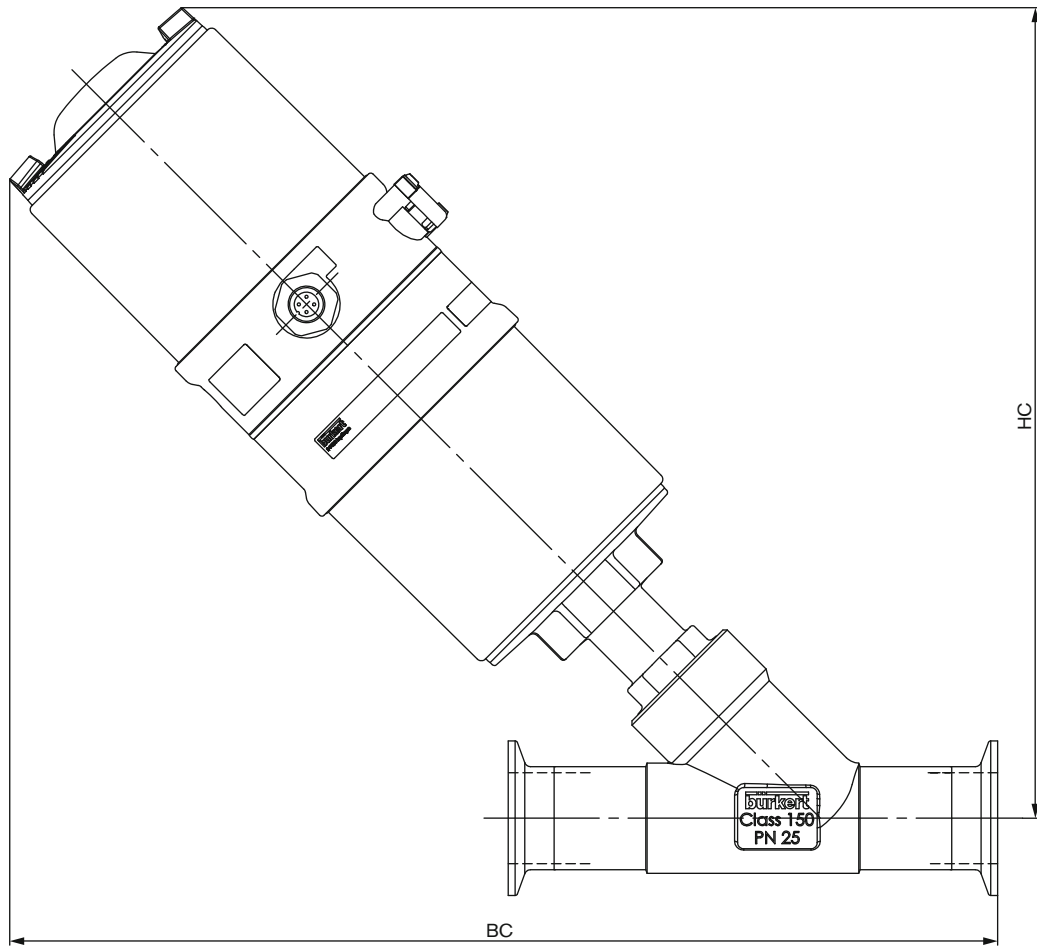


| DN [mm] | Actuator size [mm] | HC [mm] | BC [mm] |
|---------|--------------------|---------|---------|
| 15 | 50 | 223 | 272 |
| 20 | | 230 | 287 |
| 25 | | 232 | 290 |

Further dimensions see p. 6

Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm], *continued*

Dimensions valve system On/Off ELEMENT Type 8801-YE-H (with pneumatic control unit Type 8691)



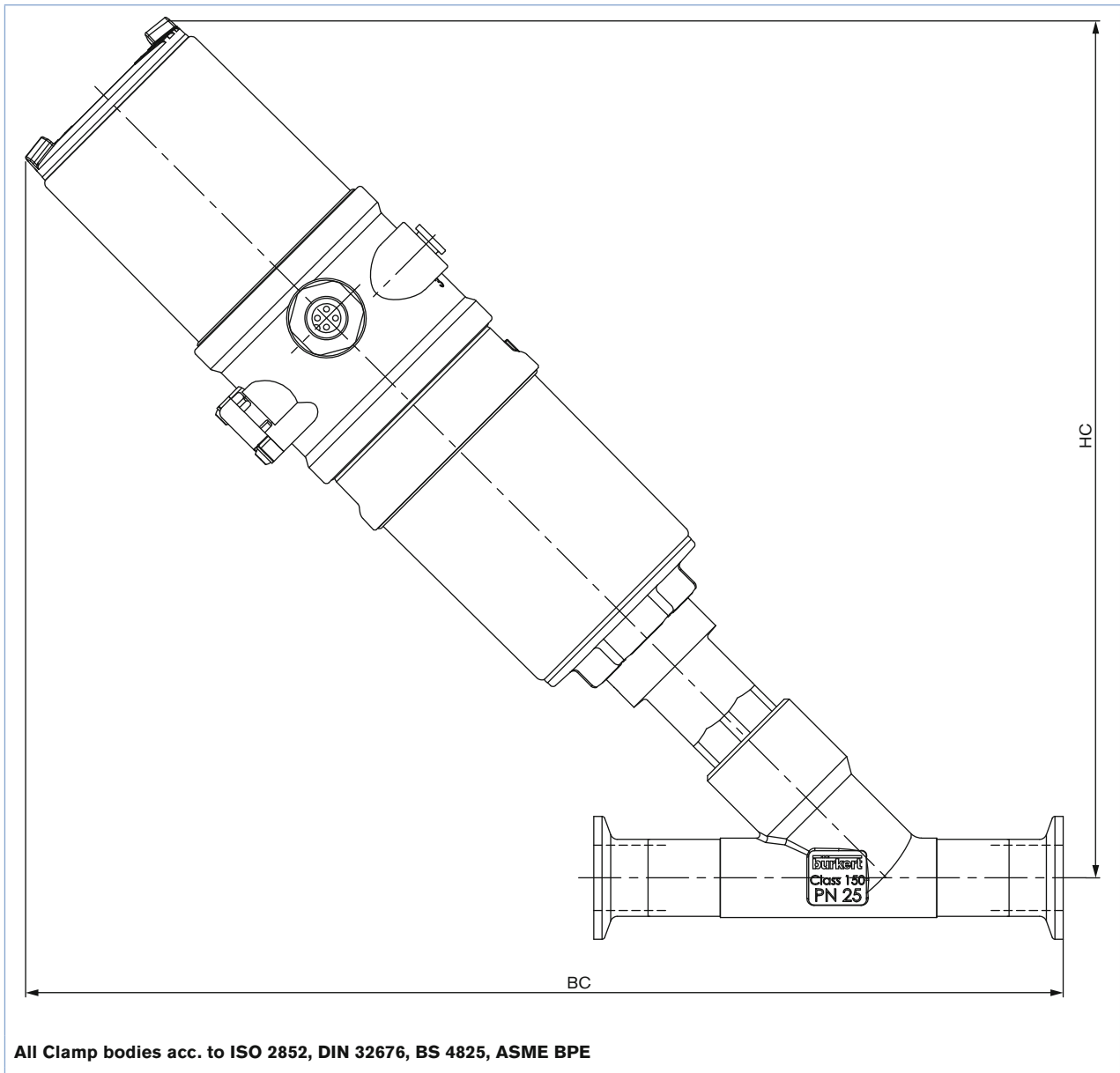
Clamp body acc. to ISO 2852, DIN 32676, BS 4825, ASME BPE

| Orifice [mm] | Actuator size [mm] | HC | BC |
|--------------|--------------------|-----|-----|
| 15 | 70 | 256 | 309 |
| 20 | 70 | 264 | 324 |
| 25 | 70 | 266 | 327 |
| 32 | 70 | 275 | 336 |
| | 90 | 318 | 376 |
| 40 | 70 | 279 | 351 |
| | 90 | 321 | 392 |
| | 130 | 358 | 427 |
| 50 | 70 | 297 | 378 |
| | 90 | 337 | 416 |
| | 130 | 374 | 451 |

Further dimensions see p. 6

Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm], *continued*

Dimensions valve system On/Off ELEMENT Type 8801-YE-M (with pneumatic control unit Type 8695)



All Clamp bodies acc. to ISO 2852, DIN 32676, BS 4825, ASME BPE

| Orifice [mm] | Actuator size [mm] | HC | BC |
|--------------|--------------------|-----|-----|
| 15 | 50 | 239 | 291 |
| 20 | 50 | 247 | 306 |
| 30 | 50 | 248 | 309 |

Further dimensions see p. 6