

Aseptic Right Angle Valve 6051

with EHEDG-Certification

DN 15 up to DN 50

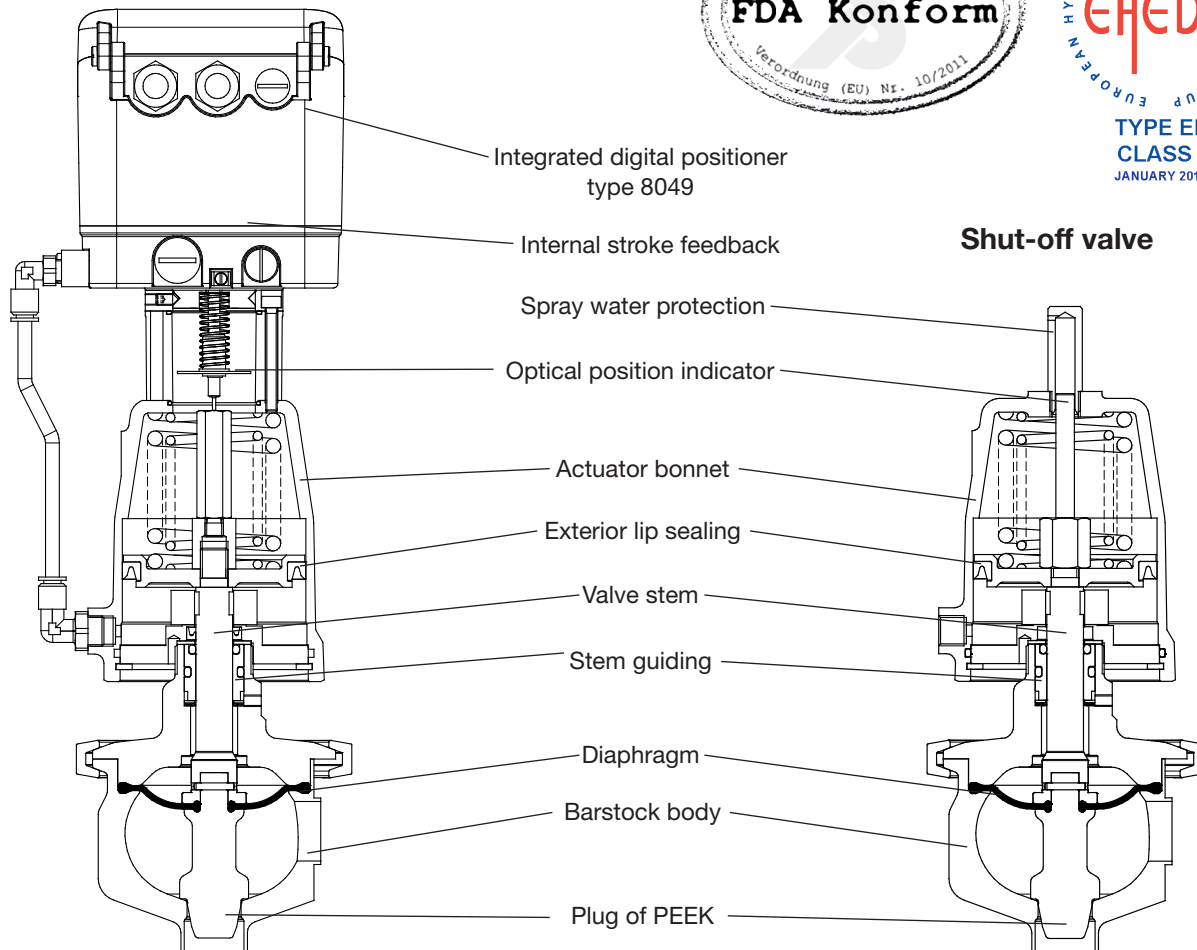


Pneumatic control valve in right angle design with integrated micro-processor positioner type 8049 or as a shut-off valve for applications in pharmaceutical and food industry.

- Perfect cleanability by optimised flow condition in relation to constant high wall shear stress
- EHEDG certified design for easy cleaning in place
- Body made from non-porous barstock material
- Medium is sealed by the diaphragm
- Solid design of the diaphragm for extreme variations in temperature
- High chemical resistance by a composite diaphragm made of PTFE and reinforced EPDM
- Simple and intelligent design
- Easy maintenance
- Parts are FDA conformant, comply with the USP class VI and Regulations (EG) 1935/2004 and (EU) 10/2011



Control valve with positioner type 8049



Aseptic Right Angle Control Valve 6051



with EHEDG-Certification

Technical information valve

| | |
|------------------------|--|
| Body material | Stainless steel 1.4435 |
| Nominal sizes | DN 15 up to DN 50 |
| Connections | Welding ends DIN 11850 series 2 Welding ends ASME BPE Welding ends ISO 1127 Tri-clamp acc. Inch (DIN 32676-C) |
| Nominal pressure | PN 16 |
| Diaphragm | Reinforced EPDM diaphragm with PTFE-foil (fluidside) |
| Fluid temperature | -20°C up to +140°C |
| Rangeability | 50 : 1 |
| Hysteresis | < 0,5 % |
| Surface finish inside | Ra < 0,6 µm electropolished, Ra < 0,4 µm (optional for body) electropolished, Ra < 0,25 µm (optional for body) |
| Surface finish outside | Ra < 1,2 µm |

Materials

| | |
|-------------------------|--|
| Valve body | Stainless steel 1.4435 |
| Actuator | Stainless steel 1.4408 (optional: polished) |
| Diaphragm actuator | Stainless steel 1.4301 |
| Actuator springs | Stainless steel 1.4310 |
| Valve stem | Stainless steel 1.4571 |
| Control plug | PEEK |
| Clamp-connection | Stainless steel 1.4435 |
| Body positioner | Aluminium, filled PA, optional: stainless steel 1.4305 |
| Body position indicator | PA Polyamid (clear) |

Positioner

For technical information of our positioners, type 8049 or 8047, refer to the corresponding data sheets.

Kvs- Values with EHEDG Certification

| characteristic | linear | | | | | equal percentage | | | | |
|-----------------|--------|------|------|------|----|------------------|-----|-----|------|------|
| | 15 | 20 | 25 | 40 | 50 | 15 | 20 | 25 | 40 | 50 |
| DN | 15 | 20 | 25 | 40 | 50 | 15 | 20 | 25 | 40 | 50 |
| 100% | 3,5 | 3,5 | 8,8 | 21,9 | 35 | 2,6 | 2,6 | 6,8 | 14,5 | 24,5 |
| reduced (63 %) | 2,2 | 2,2 | 5,5 | 14 | - | 1,6 | 1,6 | 4,4 | 9,9 | - |
| reduced (40 %) | 1,4 | 1,4 | 3,5 | 8,8 | - | 1,1 | 1,1 | 2,6 | - | - |
| reduced (25 %) | 0,88 | 0,88 | 2,2 | - | - | - | - | 1,6 | - | - |
| reduced (16 %) | 0,55 | 0,55 | 1,4 | - | - | - | - | 1,1 | - | - |
| reduced (10 %) | 0,35 | 0,35 | 0,88 | - | - | - | - | - | - | - |
| reduced (6,3 %) | 0,22 | - | 0,55 | - | - | - | - | - | - | - |
| reduced (4 %) | - | - | 0,35 | - | - | - | - | - | - | - |
| reduced (2,5 %) | 0,09 | 0,09 | - | - | - | - | - | - | - | - |
| stroke (mm) | 14 | | | | | 14 | | | | |

Kvs- Values without EHEDG Certification

| characteristic | linear | | | | | equal percentage | | | | |
|-----------------|--------|------|------|----|----|------------------|-----|-----|----|----|
| | 15 | 20 | 25 | 40 | 50 | 15 | 20 | 25 | 40 | 50 |
| DN | 15 | 20 | 25 | 40 | 50 | 15 | 20 | 25 | 40 | 50 |
| 100% | 4 | 4 | 10 | 25 | 40 | 4 | 4 | 10 | 20 | 32 |
| reduced (63 %) | 2,5 | 2,5 | 6,3 | 16 | - | 2,5 | 2,5 | 6,3 | 15 | - |
| reduced (40 %) | 1,6 | 1,6 | 4 | 10 | - | 1,6 | 1,6 | 4 | - | - |
| reduced (25 %) | 1 | 1 | 2,5 | - | - | - | - | 2,5 | - | - |
| reduced (16 %) | 0,63 | 0,63 | 1,6 | - | - | - | - | 1,6 | - | - |
| reduced (10 %) | 0,4 | 0,4 | 1 | - | - | - | - | - | - | - |
| reduced (6,3 %) | 0,25 | - | 0,63 | - | - | - | - | - | - | - |
| reduced (4 %) | - | - | 0,4 | - | - | - | - | - | - | - |
| reduced (2,5 %) | 0,1 | 0,1 | - | - | - | - | - | - | - | - |
| stroke (mm) | 16 | | | | | 16 | | | | |

Aseptic Right Angle Control Valve 6051



with EHEDG-Certification

Admissible differential pressures for control valves with positioner type 8049

| DN | Max. admissible diff. pressure in bar | Supply bar | Actuator size | Springs | Max. admissible back pressure in bar |
|----|---------------------------------------|------------|---------------|---------|--------------------------------------|
| 15 | 6 | 4,5 to 6 | 80 mm | 2 | 4,5 |
| 15 | 10 | 3,2 to 6 | 125 mm | 3 | 8,5 |
| 20 | 6 | 4,5 to 6 | 80 mm | 2 | 4,5 |
| 20 | 10 | 3,2 to 6 | 125 mm | 3 | 8,5 |
| 25 | 3 | 4,5 to 6 | 80 mm | 2 | 4,5 |
| 25 | 8,5 | 3,2 to 6 | 125 mm | 3 | 8,5 |
| 25 | 10 | 1,6 to 6 | 250 mm | 4 | 7 |
| 40 | 7,5 | 3,2 to 6 | 125 mm | 3 | 8,5 |
| 40 | 10 | 2,3 to 6 | 250 mm | 6 | 11 |
| 50 | 5 | 3,2 to 6 | 125 mm | 3 | 8,5 |
| 50 | 7,5 | 2,3 to 6 | 250 mm | 6 | 11 |

Admissible differential pressures for shut-off valves (spring to close*)

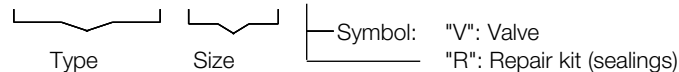
| DN | Max. admissible diff. pressure in bar | Supply bar | Actuator size | Springs | Max. admissible back pressure in bar |
|--------------|---------------------------------------|------------|---------------|---------|--------------------------------------|
| DN15 to DN25 | 7 | 4,5 to 10 | 80 mm | 2 | 4,5 |
| DN15 to DN25 | 14 | 3,2 to 10 | 125 mm | 3 | 8,5 |
| DN40 | 8 | 3,2 to 10 | 125 mm | 3 | 8,5 |
| DN40 | 11 | 2,3 to 6 | 250 mm | 6 | 11 |
| DN50 | 5,5 | 3,2 to 10 | 125 mm | 3 | 8,5 |
| DN50 | 9 | 2,3 to 6 | 250 mm | 6 | 11 |

*Pressure values for 'spring to open' on demand

Ordering number system

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|----|----|----|
| 6 | 0 | 5 | 1 | / | | | | V | | | S |

1 - 6 : Please note all 6 sections.
7 - 12: Quote only if required.



| 1. | Design | 2. | Connections | 3. | Body material | 4. | Control plug- / Dia- phragmmaterial | 5. | Positioner | 6. | Actuator |
|----|---|----|---------------------------------------|----|---|----|--|----|--|----|---|
| A | Aseptic control valve with EHEDG-Certification | D | Welding ends acc. DIN 11850, series 2 | 7 | stainless steel 1.4435 Ra <0,6 µm | P | Control plug of PEEK Ra <0,6 µm | - | without (stut-off valve) | 1 | piston Ø 80mm with stainless steel bonnest |
| B | Aseptic control valve without EHEDG-Certification | E | Welding ends acc. ASME BPE | 9 | stainless steel 1.4435 surface roughness inside Ra <0,4 µm electropolished | | diaphragm of EPDM with PTFE-foil (fluid-side) Ra <0,6 µm | 6 | p/p-positioner type 8047 | 2 | piston Ø 125mm with stainless steel bonnest |
| | | F | Welding ends acc. ISO 1127 | A | stainless steel 1.4435 surface roughness inside Ra <0,25 µm electropolished | | | 8 | i/p-positioner type 8047 | M | piston Ø 80mm with plastic bonnest |
| | | Z | Tri-clamp acc. Inch (DIN 32676-C) | | | | | C | digital positioner type 8049, 4-wire | C | diaphragm A250 |
| | | | | | | | | R | digital positioner type 8049, 2-wire | | |
| | | | | | | | | W | digital positioner type 8049, 2-wire, ex-version | | |

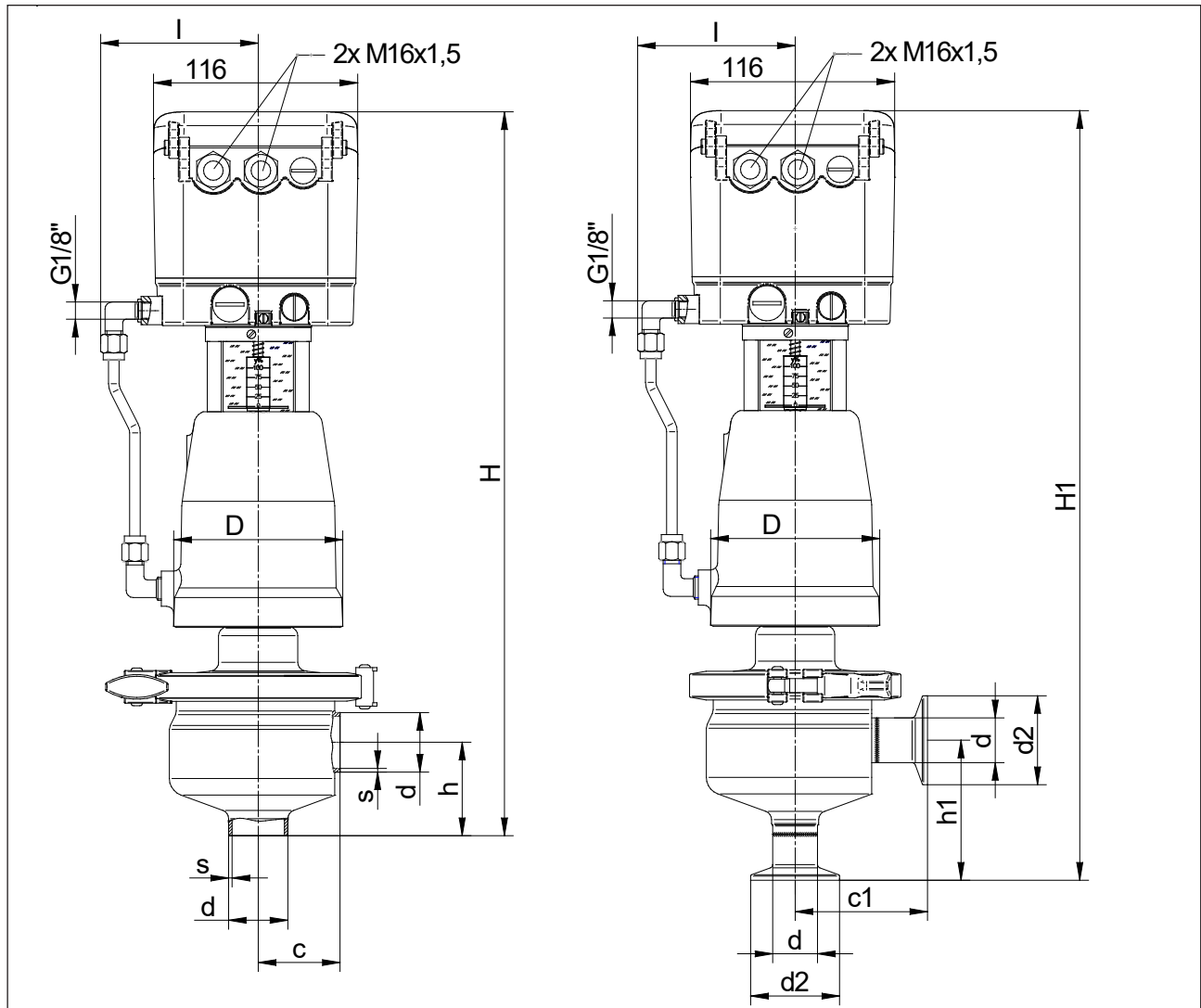
| 7. | Special version | 8. | Springs | 9. | Flow characteristic | 10. | Kvs-value | 11. | Accessories | 12. | Special versions |
|----|-------------------------|----|---|----|---------------------|-----|-------------|-----|---------------------------------|-----|--|
| M | see following positions | - | Standard spring configuration | - | linear | - | full (100%) | S | without | S | in case further specials are required |
| | | 1 | Spring opens (for digital positioner or shut-off valve) | 1 | equal percentage | 1 | red. 40 % | 1 | 1 limit switch (micro switch) | B | digital position indicator with bluetooth |
| | | R | 4 springs | | | 2 | red. 25 % | 2 | 2 limit switches (micro switch) | C | digital position indicator |
| | | W | 8 springs | | | 3 | red. 16 % | K | 1 limit switch compact | D | AS-I control head |
| | | | | | | 4 | red. 10 % | M | 2 inductive limit switches | M | el. Position indicator with cable bushing |
| | | | | | | 5 | red. 6,3 % | P | 1 inductive limit switch | N | el. Position indicator with plug connetion |
| | | | | | | 6 | red. 4 % | | | | |
| | | | | | | 7 | red. 2,5 % | | | | |
| | | | | | | A | red. 63 % | | | | |

Aseptic Right Angle Control Valve 6051



with integrated digital positioner type 8049

Dimensions and weights



| DN | Actuator ø | D | DIN | | | | ISO | | | | ASME BPE | | | | l | H | Weight (~kg) |
|----|---------------|-----|-----|----|------|------|-----|------|------|----|----------|-------|------|------|-----|-----|-----------------|
| | | | s | d | c | h | s | d | c | h | s | d | c | h | | | |
| 15 | 80 | 96 | 1,5 | 19 | 46,5 | 53,5 | 1,6 | 21,3 | 46,5 | 53 | 1,65 | 12,7 | 46,5 | 61,5 | 90 | 414 | 7 |
| 20 | 80 | 96 | 1,5 | 23 | 46,5 | 53,5 | 1,6 | 26,9 | 46,5 | 53 | 1,65 | 19,05 | 46,5 | 53,5 | 90 | 409 | 7 |
| 25 | 80 | 96 | 1,5 | 29 | 46,5 | 53,5 | 2 | 33,7 | 46,5 | 53 | 1,65 | 25,4 | 46,5 | 53,5 | 90 | 412 | 7,1 |
| 25 | 125 | 146 | 1,5 | 29 | 46,5 | 53,5 | 2 | 33,7 | 46,5 | 53 | 1,65 | 25,4 | 46,5 | 53,5 | 105 | 432 | 9,8 |
| 40 | 80 | 96 | 1,5 | 41 | 49,5 | 48 | 2 | 48,3 | 49,5 | 47 | 1,65 | 38,1 | 49,5 | 54,5 | 90 | 417 | 7,6 |
| 40 | 125 | 146 | 1,5 | 41 | 49,5 | 48 | 2 | 48,3 | 49,5 | 47 | 1,65 | 38,1 | 49,5 | 54,5 | 105 | 437 | 10,3 |
| 50 | 80 | 96 | 1,5 | 53 | 51 | 52 | 2 | 60,3 | 51 | 52 | 1,65 | 50,8 | 51 | 59 | 90 | 427 | 8 |
| 50 | 125 | 146 | 1,5 | 53 | 51 | 52 | 2 | 60,3 | 51 | 52 | 1,65 | 50,8 | 51 | 59 | 105 | 447 | 10,7 |

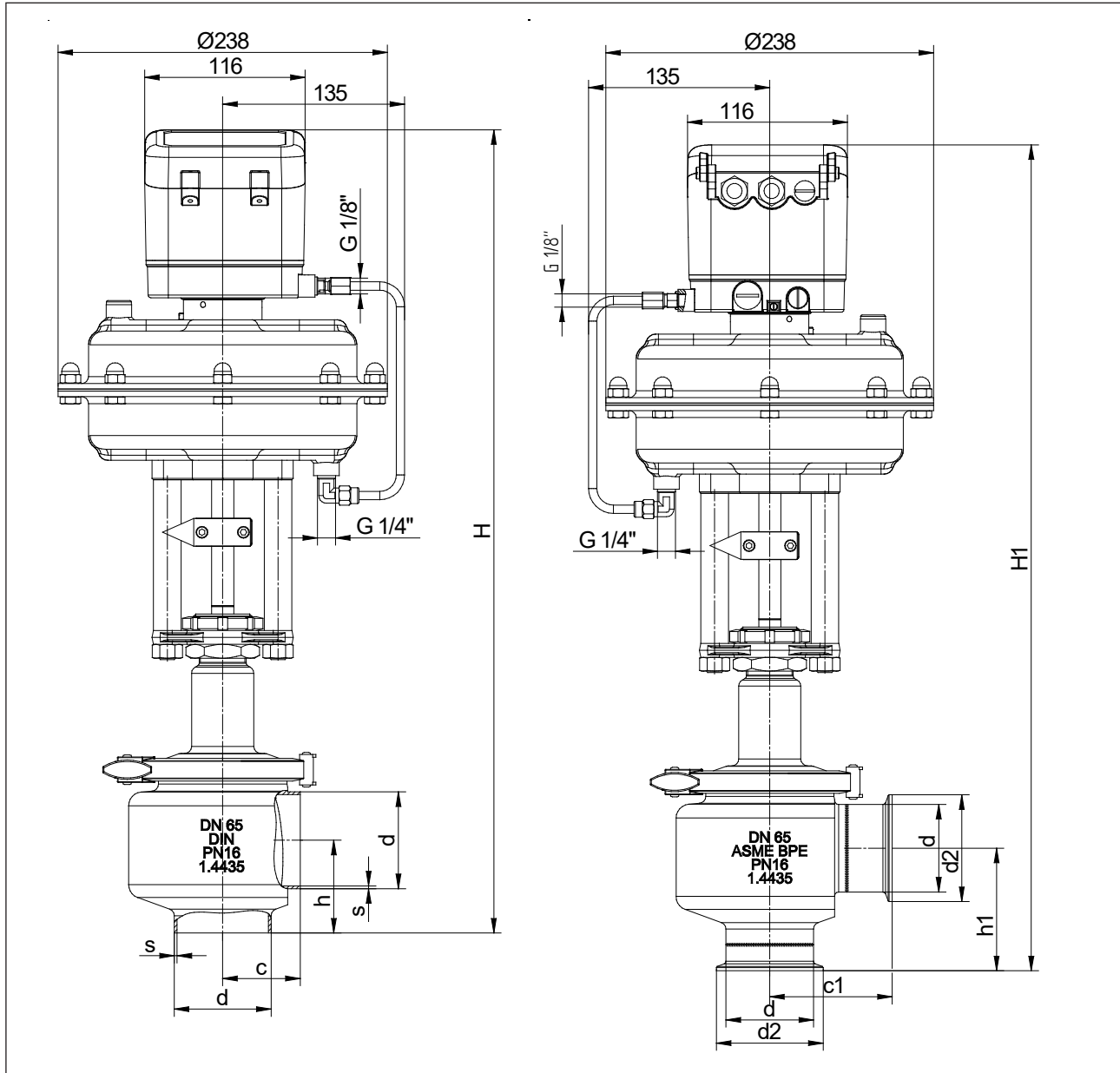
| DN | Actuator ø | D | Tri-clamp ASME BPE | | | | l | H1 | Weight (~kg) |
|----|---------------|-----|--------------------|------|------|------|-----|-----|-----------------|
| | | | d | d2 | c1 | h1 | | | |
| 15 | 80 | 96 | 12,7 | 25 | 71,5 | 85,5 | 90 | 438 | 7 |
| 20 | 80 | 96 | 19,05 | 25 | 71,5 | 83 | 90 | 438 | 7 |
| 25 | 80 | 96 | 25,4 | 50,5 | 75,2 | 79,5 | 90 | 438 | 7,2 |
| 25 | 125 | 146 | 25,4 | 50,5 | 75,2 | 79,5 | 105 | 458 | 9,9 |
| 40 | 80 | 96 | 38,1 | 50,5 | 87 | 99 | 90 | 462 | 8 |
| 40 | 125 | 146 | 38,1 | 50,5 | 87 | 99 | 105 | 482 | 10,7 |
| 50 | 80 | 96 | 50,8 | 64 | 88,9 | 88,9 | 90 | 458 | 8,2 |
| 50 | 125 | 146 | 50,8 | 64 | 88,9 | 88,9 | 105 | 478 | 11,3 |

Dimensions in mm

Aseptic Right Angle Control Valve 6051

with integrated digital positioner type 8049

Dimensions and weights



| DN | Actuator ø | DIN | | | | ISO | | | | ASME BPE | | | | H | Weight (~kg) |
|----|---------------|-----|----|------|------|-----|------|------|----|----------|-------|------|------|-----|-----------------|
| | | s | d | c | h | s | d | c | h | s | d | c | h | | |
| 15 | 250 | 1,5 | 19 | 46,5 | 53,5 | 1,6 | 21,3 | 46,5 | 53 | 1,65 | 12,7 | 46,5 | 61,5 | 510 | 15,5 |
| 20 | 250 | 1,5 | 23 | 46,5 | 53,5 | 1,6 | 26,9 | 46,5 | 53 | 1,65 | 19,05 | 46,5 | 53,5 | 505 | 15,5 |
| 25 | 250 | 1,5 | 29 | 46,5 | 53,5 | 2 | 33,7 | 46,5 | 53 | 1,65 | 25,4 | 46,5 | 53,5 | 508 | 15,7 |
| 40 | 250 | 1,5 | 41 | 49,5 | 48 | 2 | 48,3 | 49,5 | 47 | 1,65 | 38,1 | 49,5 | 54,5 | 513 | 16,5 |
| 50 | 250 | 1,5 | 53 | 51 | 52 | 2 | 60,3 | 51 | 52 | 1,65 | 50,8 | 51 | 59 | 523 | 16,7 |

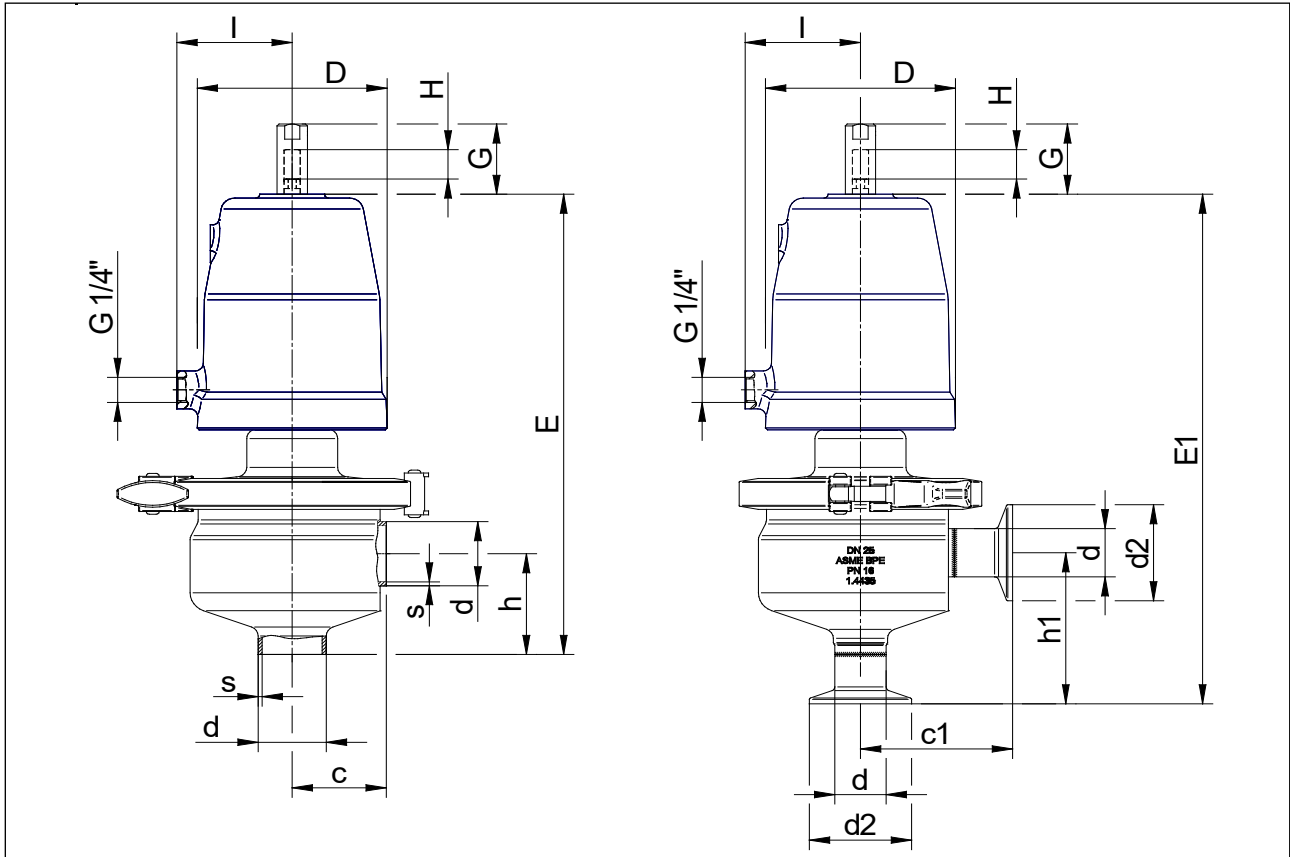
| DN | Actuator ø | Tri-Clamp ASME BPE | | | | H1 | Weight (~kg) |
|----|---------------|--------------------|------|------|------|-----|-----------------|
| | | d | d2 | c1 | h1 | | |
| 15 | 250 | 12,7 | 25 | 71,5 | 85,5 | 533 | 15,5 |
| 20 | 250 | 19,05 | 25 | 71,5 | 83 | 533 | 15,7 |
| 25 | 250 | 25,4 | 50,5 | 75,2 | 79,5 | 533 | 16 |
| 40 | 250 | 38,1 | 50,5 | 87 | 99 | 557 | 16,5 |
| 50 | 250 | 50,8 | 64 | 88,9 | 88,9 | 553 | 16,7 |

Dimensions in mm

Aseptic Right Angle Control Valve 6051

shut-off valve with piston actuator

Dimensions and weights



| DN | Actuator ø | D | DIN | | | | ISO | | | | ASME BPE | | | | l | H | E | G | Weight (~kg) |
|----|---------------|-----|-----|----|------|------|-----|------|------|----|----------|-------|------|------|----|----|-----|------|-----------------|
| | | | s | d | c | h | s | d | c | h | s | d | c | h | | | | | |
| 15 | 80 | 96 | 1,5 | 19 | 46,5 | 53,5 | 1,6 | 21,3 | 46,5 | 53 | 1,65 | 12,7 | 46,5 | 61,5 | 57 | 16 | 245 | 1,46 | 5,8 |
| 20 | 80 | 96 | 1,5 | 23 | 46,5 | 53,5 | 1,6 | 26,9 | 46,5 | 53 | 1,65 | 19,05 | 46,5 | 53,5 | 57 | 16 | 240 | 37 | 5,8 |
| 25 | 80 | 96 | 1,5 | 29 | 46,5 | 53,5 | 2 | 33,7 | 46,5 | 53 | 1,65 | 25,4 | 46,5 | 53,5 | 57 | 16 | 243 | 37 | 5,9 |
| 25 | 125 | 146 | 1,5 | 29 | 46,5 | 53,5 | 2 | 33,7 | 46,5 | 53 | 1,65 | 25,4 | 46,5 | 53,5 | 80 | 16 | 263 | 37 | 8,6 |
| 40 | 80 | 96 | 1,5 | 41 | 49,5 | 48 | 2 | 48,3 | 49,5 | 47 | 1,65 | 38,1 | 49,5 | 54,5 | 57 | 16 | 248 | 37 | 6,4 |
| 40 | 125 | 146 | 1,5 | 41 | 49,5 | 48 | 2 | 48,3 | 49,5 | 47 | 1,65 | 38,1 | 49,5 | 54,5 | 80 | 16 | 268 | 37 | 9,1 |
| 50 | 80 | 96 | 1,5 | 53 | 51 | 52 | 2 | 60,3 | 51 | 52 | 1,65 | 50,8 | 51 | 59 | 57 | 16 | 258 | 37 | 6,8 |
| 50 | 125 | 146 | 1,5 | 53 | 51 | 52 | 2 | 60,3 | 51 | 52 | 1,65 | 50,8 | 51 | 59 | 80 | 16 | 278 | 37 | 9,5 |

| DN | Actuator ø | D | Tri-Clamp ASME BPE | | | | l | H | E1 | G | Weight (~kg) |
|----|---------------|-----|--------------------|------|------|------|----|----|-----|----|-----------------|
| | | | d | d2 | c1 | h1 | | | | | |
| 15 | 80 | 96 | 12,7 | 25 | 71,5 | 85,5 | 57 | 16 | 269 | 37 | 5,8 |
| 20 | 80 | 96 | 19,05 | 25 | 71,5 | 83 | 57 | 16 | 269 | 37 | 5,8 |
| 25 | 80 | 96 | 25,4 | 50,5 | 75,2 | 79,5 | 57 | 16 | 269 | 37 | 6 |
| 25 | 125 | 146 | 25,4 | 50,5 | 75,2 | 79,5 | 80 | 16 | 289 | 37 | 8,7 |
| 40 | 80 | 96 | 38,1 | 50,5 | 87 | 99 | 57 | 16 | 293 | 37 | 6,8 |
| 40 | 125 | 146 | 38,1 | 50,5 | 87 | 99 | 80 | 16 | 313 | 37 | 9,5 |
| 50 | 80 | 96 | 50,8 | 64 | 88,9 | 88,9 | 57 | 16 | 289 | 37 | 7 |
| 50 | 125 | 146 | 50,8 | 64 | 88,9 | 88,9 | 80 | 16 | 309 | 37 | 10,2 |

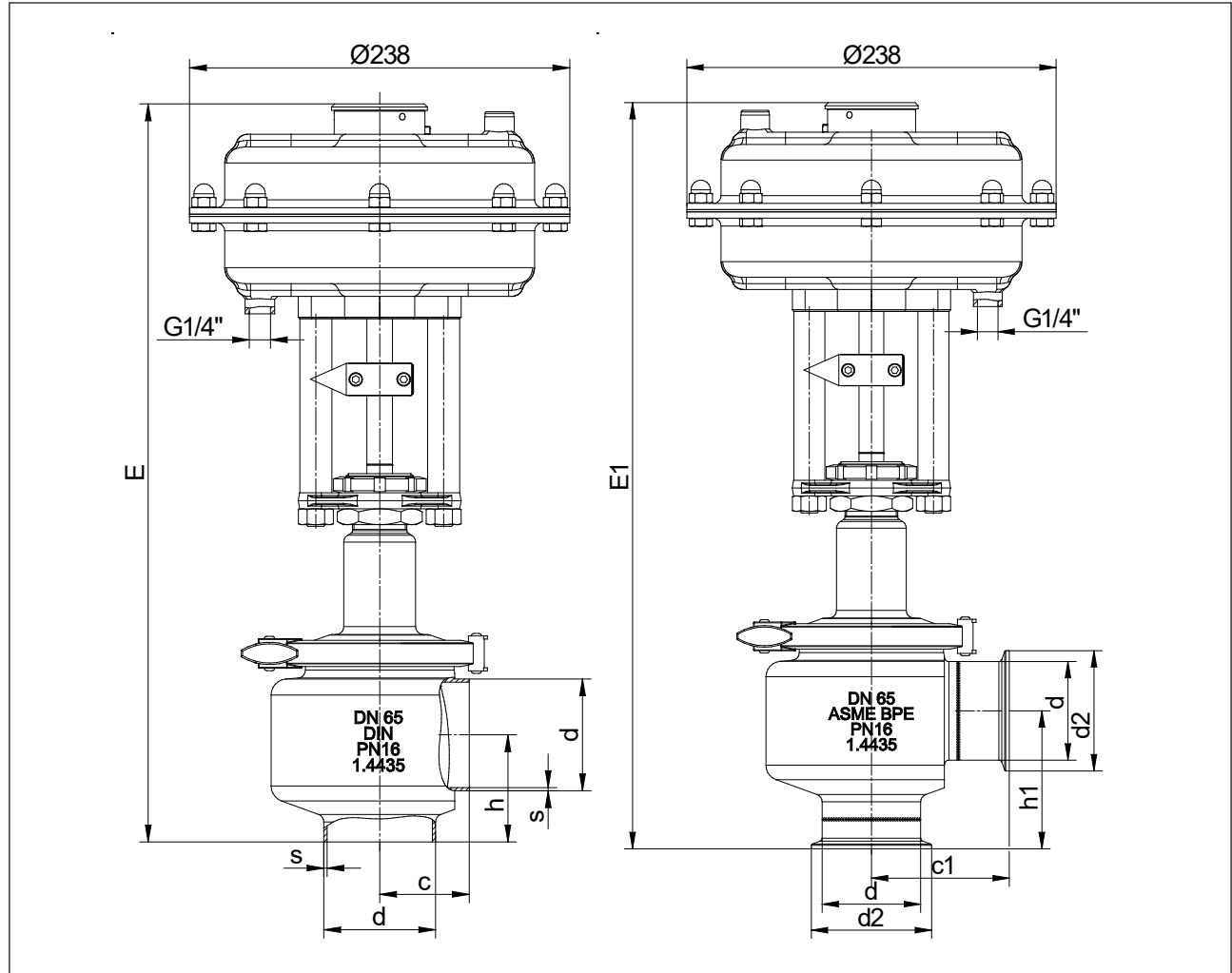
Dimensions in mm

Aseptic Right Angle Control Valve 6051



shut-off valve with diaphragm actuator

Dimensions and weights



| DN | Actuator ø | DIN | | | | ISO | | | | ASME BPE | | | | E | Weight (~kg) |
|----|---------------|-----|----|------|------|-----|------|------|----|----------|-------|------|------|-----|-----------------|
| | | s | d | c | h | s | d | c | h | s | d | c | h | | |
| 15 | 250 | 1,5 | 19 | 46,5 | 53,5 | 1,6 | 21,3 | 46,5 | 53 | 1,65 | 12,7 | 46,5 | 61,5 | 392 | 14,3 |
| 20 | 250 | 1,5 | 23 | 46,5 | 53,5 | 1,6 | 26,9 | 46,5 | 53 | 1,65 | 19,05 | 46,5 | 53,5 | 387 | 14,3 |
| 25 | 250 | 1,5 | 29 | 46,5 | 53,5 | 2 | 33,7 | 46,5 | 53 | 1,65 | 25,4 | 46,5 | 53,5 | 390 | 14,5 |
| 40 | 250 | 1,5 | 41 | 49,5 | 48 | 2 | 48,3 | 49,5 | 47 | 1,65 | 38,1 | 49,5 | 54,5 | 395 | 15,3 |
| 50 | 250 | 1,5 | 53 | 51 | 52 | 2 | 60,3 | 51 | 52 | 1,65 | 50,8 | 51 | 59 | 405 | 15,5 |

| DN | Actuator ø | Tri-Clamp ASME BPE | | | | E1 | Weight (~kg) |
|----|---------------|--------------------|------|------|------|-----|-----------------|
| | | d | d2 | c1 | h1 | | |
| 15 | 250 | 12,7 | 25 | 71,5 | 85,5 | 415 | 14,3 |
| 20 | 250 | 19,05 | 25 | 71,5 | 83 | 415 | 14,5 |
| 25 | 250 | 25,4 | 50,5 | 75,2 | 79,5 | 415 | 14,8 |
| 40 | 250 | 38,1 | 50,5 | 87 | 99 | 439 | 15,3 |
| 50 | 250 | 50,8 | 64 | 88,9 | 88,9 | 435 | 15,5 |

Dimensions in mm

Text and pictures are not binding. We reserve the right to alter the equipment.