

Sliding Gate Valve 8041

GS 1 series - DN 15 up to DN 125

Pneumatic sliding gate valve for shutting off liquid and gaseous media for industrial applications

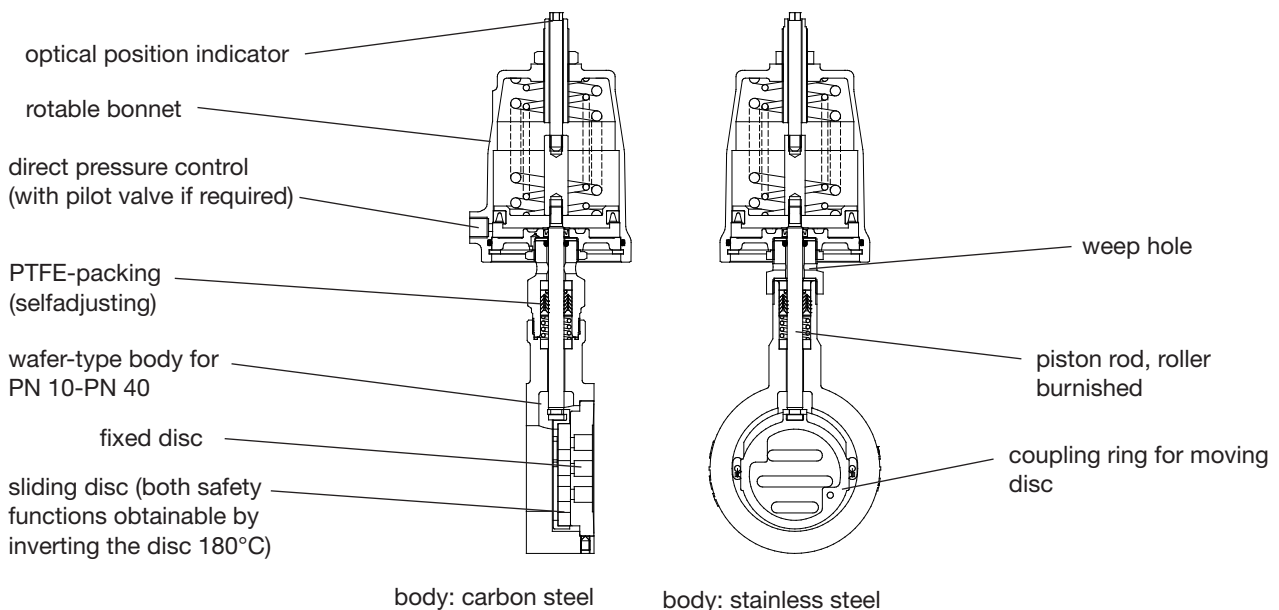
- Space saving wafer-type construction
- Lowest possible weight (especially in larger sizes)
- Low operation noise level
- Control of high differential pressures with small actuators
- Greatly reduced energy consumption rates due to short strokes and low actuating force
- High Kvs-values
- Meets the requirements of TA-Luft 2021



Technical Information

| | | | |
|--------------------------------------|--|---|-----------|
| Body design | flangeless, wafer-type construction dimensions acc. DIN EN 558-1 series 20 for flanges acc. DIN EN 1092-1 form B | | |
| Nominal sizes | DN 15 up to DN 125 | | |
| Nominal pressure | PN 40 according DIN 2401 also for flanges PN 10 to PN 25 | | |
| Media temperature with metall bonnet | body carbonsteel | -10°C bis +230°C | |
| | body stainless steel | -20°C up to +230°C optional -60°C up to +230°C | |
| Ambient temperature* | -15°C up to +60°C (sepcial versions from -40°C up to +100°C) | | |
| Flange gaskets (customer side) | DIN EN 1514-1 or ANSI B16.21 in the respective nominal pressure rating | | |
| Pilot pressure | maximum 10 bar (higher on demand) | | |
| Leakage | disc pair | disc pair | disc pair |
| | carbon-stainless steel | SFC | STN 2 |
| (% of Kvs) | < 0,0001 | < 0,0005 | < 0,001 |
| IEC 60534-4 | IV-S1 | IV-S1 | IV |
| EN 12266-1 | E | F | F |
| Marking ATEX non electric | II 2G Ex h IIC T6...T1 X Gb II 2D Ex h IIIC 85°C...350°C X Db | | |
| Packing leakage | ISO FE - BH - CC3 - SSA0 - t (-40°C / +350 °C) - PN40 - ISO 15848-1 | | |

* With DN15 with reduction of less than 25%, different leakage rates possible.
K_{vs}-values see data sheet 8001.



Admissible Differential Pressure (For temperatures of up to 120°C)

For temperatures of 120°C and above:
obey application limits !

| | | Disc pair carbon/SFC-stainless steel | |
|-----|----------|--------------------------------------|-------------------------------|
| DN | actuator | max. working pressure (bar) | required pilot pressure (bar) |
| 15 | 50 | 33 | 3,8 |
| 20 | 50 | 28 | 3,8 |
| 25 | 50 | 24 | 3,8 |
| 32 | 50 | 19 | 3,9 |
| 40 | 50 | 15 | 4,2 |
| 50 | 50 | 9 | 4,8 |
| 65 | 50 | 8 | 5 |
| 80 | 50 | 5 | 5,3 |
| 100 | 50 | 3 | 5,5 |
| 125 | 50 | 2 | 5,6 |
| 15 | 80 | 40 | 3,1 |
| 20 | 80 | 40 | 3,1 |
| 25 | 80 | 40 | 3,1 |
| 32 | 80 | 40 | 3,2 |
| 40 | 80 | 40 | 3,6 |
| 50 | 80 | 26 | 4,1 |
| 65 | 80 | 22 | 4,3 |
| 80 | 80 | 14 | 4,5 |
| 100 | 80 | 9 | 4,7 |
| 125 | 80 | 6 | 4,8 |
| 15 | 125 | 40 | 1,8 |
| 20 | 125 | 40 | 1,8 |
| 25 | 125 | 40 | 1,8 |
| 32 | 125 | 40 | 1,8 |
| 40 | 125 | 40 | 2,1 |
| 50 | 125 | 38 | 2,4 |
| 65 | 125 | 32 | 2,5 |
| 80 | 125 | 20 | 2,6 |
| 100 | 125 | 13 | 2,7 |
| 125 | 125 | 8,5 | 2,8 |

| | | STN2-disc pair | |
|-----|----------|-----------------------------|-------------------------------|
| DN | actuator | max. working pressure (bar) | required pilot pressure (bar) |
| 15 | 50 | 23 | 3,8 |
| 20 | 50 | 18 | 4 |
| 25 | 50 | 13 | 4,4 |
| 32 | 50 | 10 | 4,7 |
| 40 | 50 | 6,5 | 4,9 |
| 50 | 50 | 4 | 5,4 |
| 65 | 50 | 3 | 5,4 |
| 80 | 50 | 2 | 5,5 |
| 100 | 50 | 1 | 5,6 |
| 125 | 50 | -- | -- |
| 15 | 80 | 40 | 3,1 |
| 20 | 80 | 40 | 3,3 |
| 25 | 80 | 36 | 3,7 |
| 32 | 80 | 27 | 4 |
| 40 | 80 | 18 | 4,3 |
| 50 | 80 | 11 | 4,6 |
| 65 | 80 | 9 | 4,7 |
| 80 | 80 | 5 | 4,8 |
| 100 | 80 | 3 | 4,9 |
| 125 | 80 | 2 | 4,9 |
| 15 | 125 | 40 | 1,8 |
| 20 | 125 | 40 | 1,9 |
| 25 | 125 | 40 | 2,1 |
| 32 | 125 | 39 | 2,3 |
| 40 | 125 | 27 | 2,5 |
| 50 | 125 | 16 | 2,7 |
| 65 | 125 | 13 | 2,7 |
| 80 | 125 | 8 | 2,8 |
| 100 | 125 | 5 | 2,8 |
| 125 | 125 | 3 | 2,8 |

Special versions for very low pilot pressures or higher working pressures on request.

Applications limits for GS1-Valves

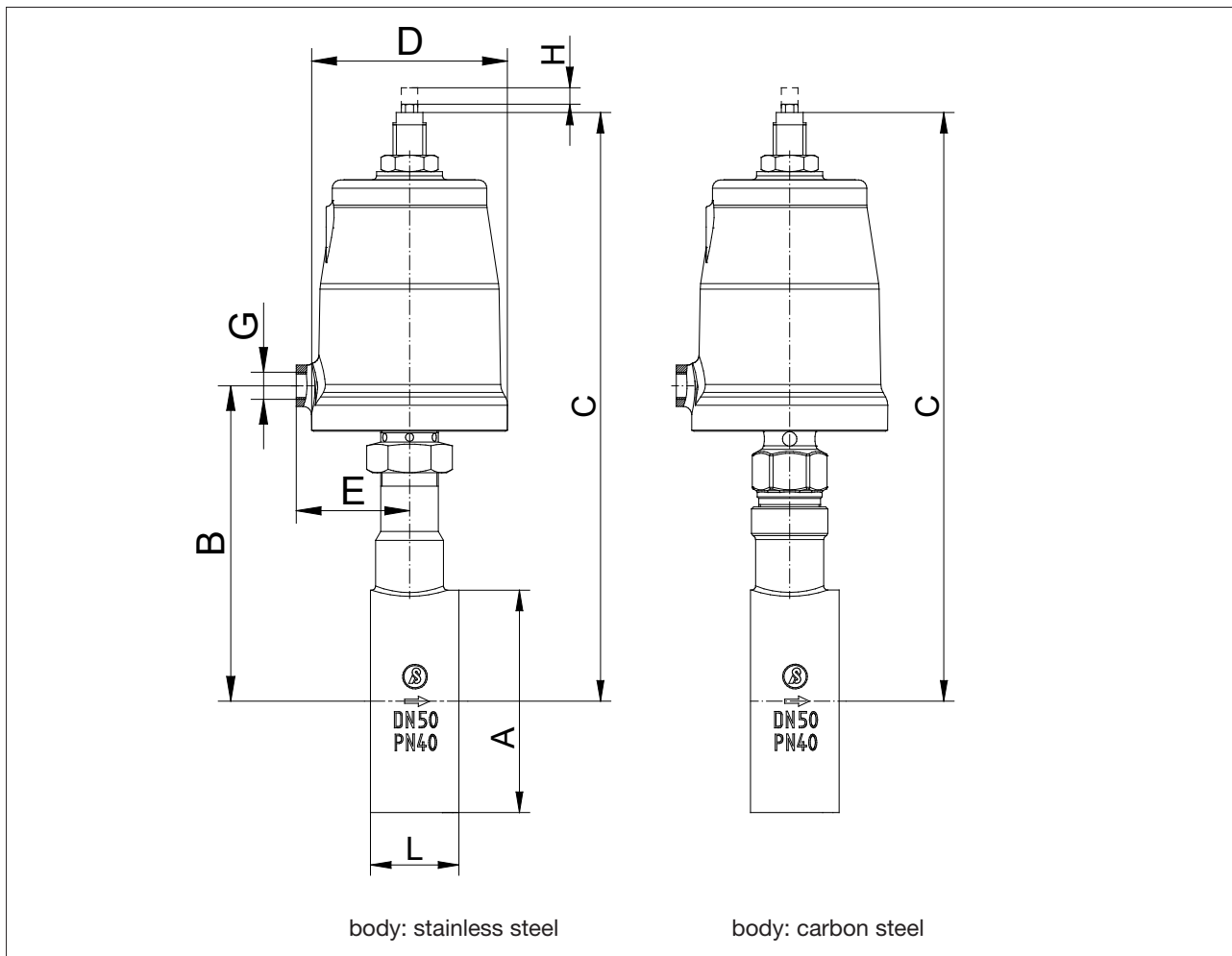
PN 40

| DN | Sliding unit: carbon/SFC - stainless steel, coated | | | | Sliding unit: STN2 | | | |
|---------|--|-------|-------|-------|--|-------|-------|-------|
| | max. adm. diff. pressures for GS1-valves | | | | max. adm. diff. pressures for GS1-valves | | | |
| | 100°C | 150°C | 200°C | 230°C | 100°C | 150°C | 200°C | 230°C |
| 15 - 25 | 40 | 36 | 31 | 30 | 40 | 36 | 31 | 30 |
| 32 | 40 | 36 | 31 | 30 | 40 | 36 | 31 | 30 |
| 40 | 40 | 36 | 31 | 30 | 27 | 26 | 24 | 21 |
| 50 | 40 | 36 | 31 | 30 | 40 | 36 | 31 | 30 |
| 65 | 40 | 36 | 31 | 30 | 38 | 36 | 31 | 30 |
| 80 | 40 | 36 | 31 | 30 | 22 | 21 | 20 | 17,5 |
| 100 | 25 | 24 | 22 | 20 | 13,5 | 12,5 | 12,0 | 10,5 |
| 125 | 16,5 | 15,5 | 15 | 13,5 | 8,9 | 8,4 | 8,0 | 7,0 |
| 150 | 16 | 16 | 16 | 16 | 11 | 10,5 | 9,8 | 8,6 |

Materials

| | | |
|-------------------------------------|--|------------------------|
| Body | carbon steel 1.0619 | stainless steel 1.4408 |
| Tube for packing intermediate piece | stainless steel 1.4408 | |
| Bonnet | brass, chrome coated (actuator Ø50 mm, Ø80 mm) aluminium anodised (actuator Ø125 mm) | |
| Actuating springs | stainless steel 1.4310 (actuator Ø50 mm, Ø80 mm), spring steel wire C, zinc coated (actuator Ø125 mm) | |
| Packing | PTFE carbon filled, spring 1.4310 | |
| Piston rod | stainless steel 1.4571, roller burnished | |
| Bellows | stainless steel 1.4571 | |
| Fixed disc | stainless steel 1.4571, coated | STN2-disc |
| Moving disc | standard: special carbon material | SFC-disc STN2-disc |
| Coupling ring for disc | stainless steel 1.4581 | |

Dimensions and Weights



| DN | A | L | Body: stainless steel | | | | | | | | | Body: carbon steel | | | | | | | | | Weight kg actuator | | | Stroke |
|-----|-----|----|-----------------------|-----|-----|---------------|-----|-----|-----------|-----|-----|--------------------|-----|-----|-----|-----|-----|-----|--|--|--------------------|--|--|--------|
| | | | B acuator | | | C max acuator | | | B acuator | | | C max acuator | | | | | | | | | | | | |
| | | | 50 | 80 | 125 | 50 | 80 | 125 | 50 | 80 | 125 | 50 | 80 | 125 | 50 | 80 | 125 | | | | | | | |
| 15 | 53 | 33 | 109 | 112 | 115 | 206 | 243 | 262 | 132 | 135 | 138 | 229 | 266 | 285 | 2,1 | 4,3 | 5,7 | 6 | | | | | | |
| 20 | 62 | 33 | 114 | 117 | 120 | 211 | 248 | 267 | 137 | 140 | 143 | 234 | 271 | 290 | 2,2 | 4,4 | 5,8 | 6 | | | | | | |
| 25 | 72 | 33 | 119 | 122 | 125 | 216 | 253 | 272 | 142 | 145 | 148 | 239 | 276 | 295 | 2,3 | 4,5 | 5,9 | 6 | | | | | | |
| 32 | 82 | 33 | 123 | 126 | 129 | 220 | 257 | 276 | 145 | 148 | 151 | 242 | 279 | 298 | 2,4 | 4,5 | 5,9 | 6 | | | | | | |
| 40 | 92 | 33 | 128 | 131 | 134 | 225 | 262 | 281 | 150 | 153 | 156 | 247 | 284 | 303 | 2,5 | 4,7 | 6,1 | 6 | | | | | | |
| 50 | 108 | 43 | 151 | 154 | 157 | 250 | 287 | 306 | 151 | 154 | 157 | 250 | 287 | 306 | 3,6 | 5,8 | 7,2 | 8 | | | | | | |
| 65 | 127 | 46 | 160 | 163 | 166 | 259 | 296 | 315 | 160 | 163 | 166 | 259 | 296 | 315 | 4,1 | 6,3 | 7,7 | 8 | | | | | | |
| 80 | 142 | 46 | 168 | 171 | 174 | 267 | 304 | 332 | 168 | 171 | 174 | 267 | 304 | 323 | 4,8 | 7 | 8,4 | 8 | | | | | | |
| 100 | 164 | 52 | 181 | 184 | 187 | 280 | 317 | 336 | 181 | 184 | 187 | 280 | 317 | 336 | 6 | 8,2 | 9,6 | 8,5 | | | | | | |
| 125 | 194 | 56 | 193 | 196 | 199 | 292 | 329 | 348 | 193 | 196 | 200 | 292 | 329 | 349 | 7,8 | 10 | 11 | 8,5 | | | | | | |

Dimension C „reduced design“ shortened by 25,4 mm

Dimensions in mm

| Actuator mm | D | G | E |
|-------------|-----|------|------|
| 50 | 62 | 1/8" | 34,5 |
| 80 | 96 | 1/4" | 55 |
| 125 | 146 | 1/4" | 80 |

Dimensions in mm