

Manual Control Valve 8050/51

GS 1 series DN 15 up to DN 150

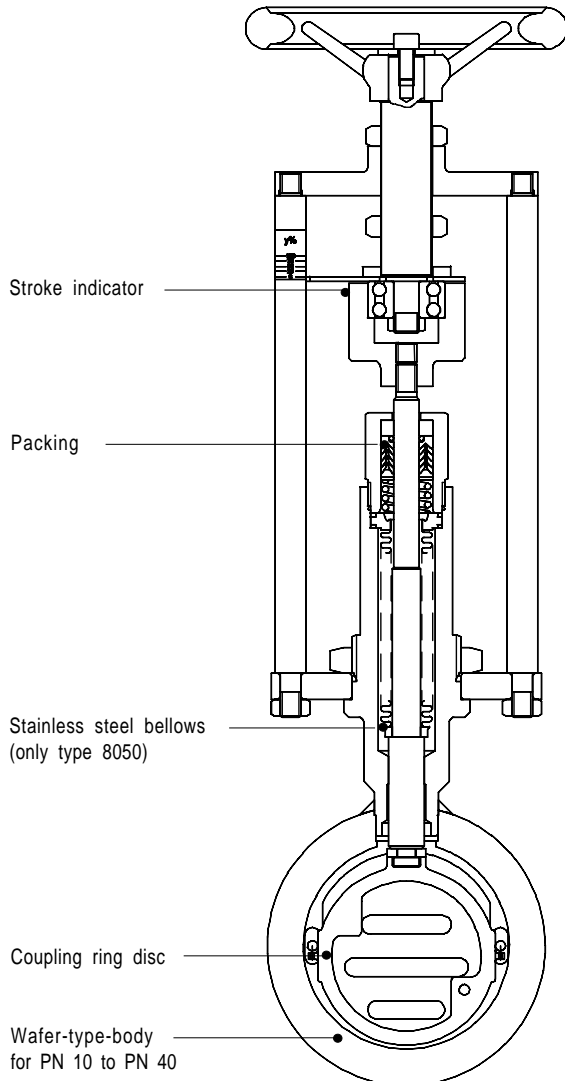


Manual control valve for neutral through to highly aggressive media.

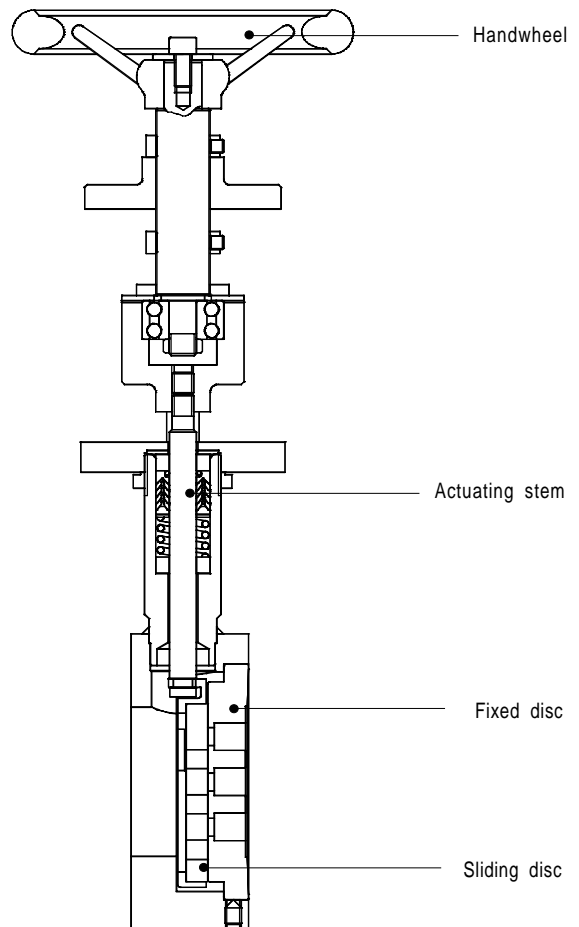
- Precise control by hand
- Lowest possible weight (especially in larger sizes)
- High Kvs-values
- Low leakage rate
- Simple handling of high pressure differences



**Type 8050
(long design)**



**Type 8051
(short design)**



Manual Control Valve 8050/51-GS1

Technical Information

| | | |
|-----------------------|---|-------------------------------|
| Body design | Flangeless, wafer-type construction dimensions to DIN EN 558-1 series 20 | |
| Nominal sizes | DN 15 up to DN 150 Type 8050 DN 15 up to DN 125 Type 8051 | |
| Nominal pressure | PN 40 acc. DIN 2401 also for flanges PN 10 up to PN 25 | |
| Media temperature | Body 1.0570 -10°C up to +300°C Body 1.4571 -60°C up to +350°C Body (short) up to +230°C | |
| Leakage (% of Kvs) | Disc pair Carbon-stainless steel < 0,0001 | Disc pair STN 2 < 0,001 |

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

| DN | carbon-stainless steel | STN2 |
|-----|-----------------------------|------|
| | max. differential pressures | |
| | bar | bar |
| 15 | 40 | 40 |
| 20 | 40 | 40 |
| 25 | 40 | 40 |
| 32 | 40 | 40 |
| 40 | 40 | 27 |
| 50 | 40 | 40 |
| 65 | 40 | 38 |
| 80 | 40 | 22 |
| 100 | 25 | 13 |
| 125 | 16 | 9 |
| 150 | 16 | 11 |

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

Applications limits for GS1-Valves made of stainless steel PN 40

| DN | Sliding unit: carbon - stainless steel, coated | | | | | | Sliding unit: carbon - STN2 | | | | | |
|---------|--|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|-------|
| | max. admissible diff. pressures for GS1-valves | | | | | | max. admissible diff. pressures for GS1-valves | | | | | |
| | 100°C | 150°C | 200°C | 250°C | 300°C | 350°C | 100°C | 150°C | 200°C | 250°C | 300°C | 350°C |
| 15 - 25 | 40 | 38 | 34 | 33 | 31 | 29 | 40 | 38 | 34 | 33 | 31 | 29 |
| 32 | 40 | 38 | 34 | 33 | 31 | 29 | 40 | 38 | 34 | 31 | 25 | 22 |
| 40 | 40 | 38 | 34 | 33 | 31 | 29 | 27 | 25 | 24 | 19 | 16 | 14 |
| 50 | 40 | 38 | 34 | 33 | 31 | 29 | 40 | 38 | 34 | 33 | 28 | 24 |
| 65 | 40 | 38 | 34 | 33 | 31 | 29 | 37 | 35 | 33 | 27 | 22 | 19 |
| 80 | 40 | 38 | 34 | 31 | 26 | 23 | 22 | 21 | 20 | 16 | 13 | 11 |
| 100 | 24 | 23 | 22 | 19 | 16 | 14 | 13 | 12 | 12 | 10 | 8,0 | 7,0 |
| 125 | 16 | 15 | 14 | 12 | 10 | 9,0 | 8,8 | 8,4 | 8,0 | 6,5 | 5,3 | 4,6 |
| 150 | 16 | 15 | 14 | 13 | 12 | 12 | 11 | 10 | 9,8 | 7,9 | 6,5 | 5,6 |

Limitation for valves in carbon steel: 300°C

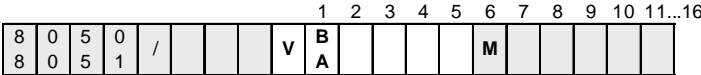
Manual Control Valve 8050/51-GS1



Materials

| | | |
|------------------------|--|--------------------------------|
| Body | Carbon steel 1.0570 /1.0619 | Stainless steel 1.4571 /1.4581 |
| Packing | PTFE (Carbon filled), spring 1.4310 | |
| Actuating stem | Stainless steel 1.4571, roller burnished | |
| Bellows | Stainless steel 1.4571 | |
| Fixed disc | Stainless steel 1.4581, coated | STN2-disc |
| Sliding disc | Special carbon material | STN2-disc |
| Coupling ring for disc | Stainless steel 1.4581 | |
| Handwheel | Aluminium | |

Ordering Number System



1 - 5 : Please quote all 5 sections.
 6 - 16: Quote only if required.

Symbol: "V": Valve
 "R": Repair kit (sealings)

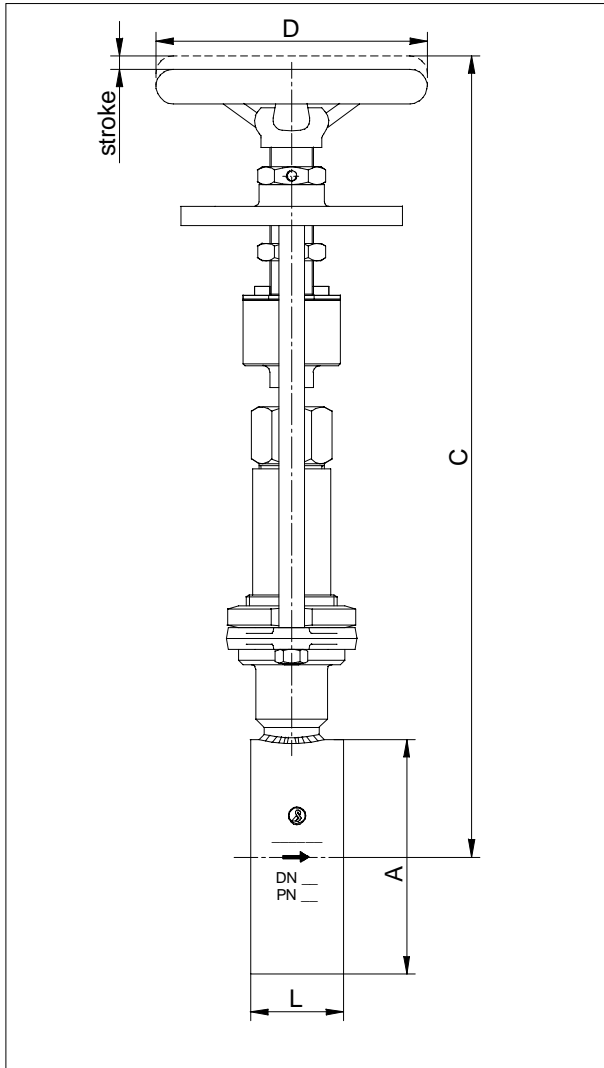
| 1. Type | 2. Connection | 3. Body material | 4. | 5. Actuator | 6. Special versions |
|---|--|--|--------------------------|---------------------|---------------------|
| A GS manual valve type 8051 (short design) B GS manual valve type 8050 (long design) | 0 Flangeless design acc. DIN 2632-2635 (PN10-PN40) | 0 Carbon steel 1.0570 /1.0619 1 stainless steel 1.4571/1.4581 | - w without significance | 5 manually operated | M Special versions |

| 7. | 8 Stem sealing | 9. Moving disc | 10. Fixed plate | 11. Kvs-values | 12 Characte-ristic |
|--------------------------|--|--|--|--|--------------------------------|
| - w without significance | - PTFE-packing self adjusting 1 additional bellows 1.4571 | - Carbon material 9 STN2-disc B Carbon, fibre fibre reinforced | - Stainless steel 1.4571, coated 1 STN2-plate | - 100% (Stand.) A red. to 63% 1 red. to 40% B red. to 25% 2 red. to 16% C red. to 10% 3 red. to 6,3% 4 red. to 2,5% 5 red. to 1% 6 red. to 20% 7 red. to 12% 8 red. to 2% 9 red. to 0,4% | - linear 1 equal percentage |

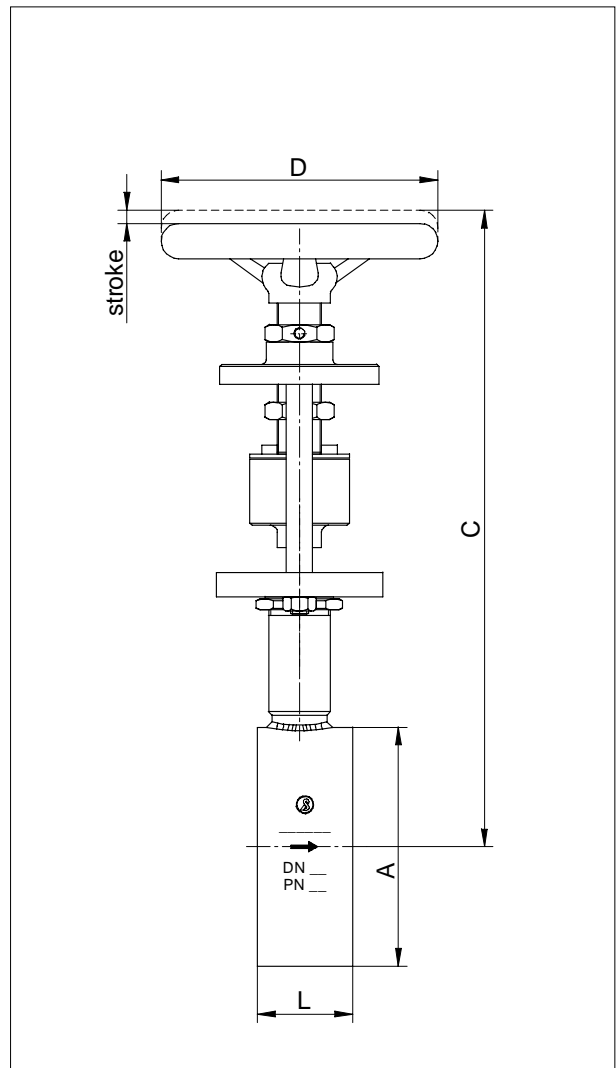
Ordering Example: 8050/125VB00 - 5M - 1:
 GS manual control valve (long design), DN 125, PN 10/40, C-steel 1.0570, Actuator manual operating, additional stainless steel bellows 1.4571

Manual Control Valve 8050/51-GS1

Dimensions and Weights



Type 8050



Type 8051

| DN | A | C max | | D | L | Weight in kg | | Stroke |
|-----|-----|-------|------|-----|----|--------------|------|--------|
| | | 8050 | 8051 | | | 8050 | 8051 | |
| 15 | 53 | 332 | 240 | 125 | 33 | 3,5 | 2,8 | 6 |
| 20 | 62 | 337 | 245 | 125 | 33 | 3,6 | 2,9 | 6 |
| 25 | 72 | 342 | 250 | 125 | 33 | 3,7 | 3 | 6 |
| 32 | 82 | 344 | 255 | 125 | 33 | 3,8 | 3,1 | 6 |
| 40 | 92 | 347 | 260 | 125 | 33 | 3,9 | 3,2 | 6 |
| 50 | 108 | 362 | 285 | 125 | 43 | 5 | 4,3 | 8 |
| 65 | 127 | 372 | 295 | 125 | 46 | 5,5 | 4,8 | 8 |
| 80 | 142 | 377 | 300 | 125 | 46 | 6,2 | 5,5 | 8 |
| 100 | 164 | 392 | 315 | 125 | 52 | 7,4 | 6,7 | 8,5 |
| 125 | 194 | 407 | 330 | 125 | 56 | 9,4 | 8,7 | 8,5 |
| 150 | 219 | 422 | - | 125 | 56 | 11,2 | - | 8,5 |

Dimensions in mm

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

Datasheet 8050/51e/Version: 06.08.2009