

Diaphragm Valve, Metal

Construction

The GEMÜ 695 pneumatically operated 2/2-way diaphragm valve has a low maintenance membrane actuator which can be controlled by inert gaseous media. Normally Closed, Normally Open and Double Acting control functions are available.

Features

- Suitable for inert and corrosive* liquid and gaseous media
- Insensitive to particulate media
- Valve body and diaphragm available in various materials and designs
- Surface finishes down to 0.25 µm, electropolished
- Versions according to ATEX on request
- Optical position indicator integrated as standard

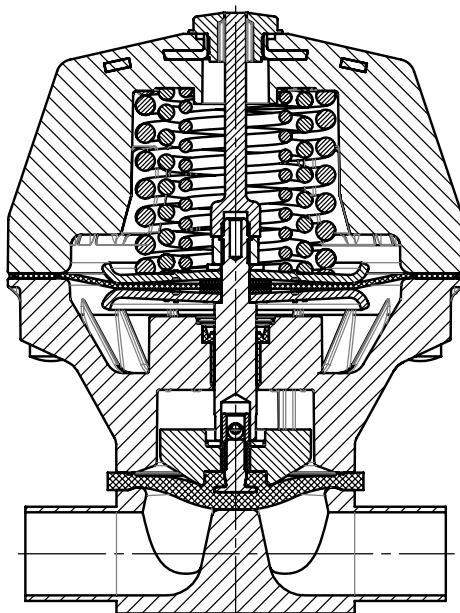
Advantages

- Optional flow direction
- Installation for an optimized draining is possible
- Weight-saving design
- Optional accessories:
 - Stroke limiter
 - Manual override (GEMÜ 1002)
 - Pilot valve with manual override (GEMÜ 0322 - 0326)
 - Electrical position indicator

*see information on working medium on page 2



Sectional drawing



Technical data

Working medium

Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and diaphragm material.

The valve will seal in both flow directions up to full operating pressure. (All pressures are gauge pressures.)

Temperatures

Medium temperature -10 ... 80 °C

Ambient temperature 0 ... 60 °C

Control medium

Max. perm. temperature of control medium 40 °C

Filling volume

| Actuator size | Control function 1 | Control function 2 |
|---------------|----------------------|----------------------|
| FDM | 0.19 dm ³ | - |
| FDN | 0.19 dm ³ | 0.16 dm ³ |
| HDM | 0.52 dm ³ | - |
| HDN | 0.52 dm ³ | 0.40 dm ³ |
| JDM | 1.06 dm ³ | - |
| JDN | 1.06 dm ³ | 0.67 dm ³ |

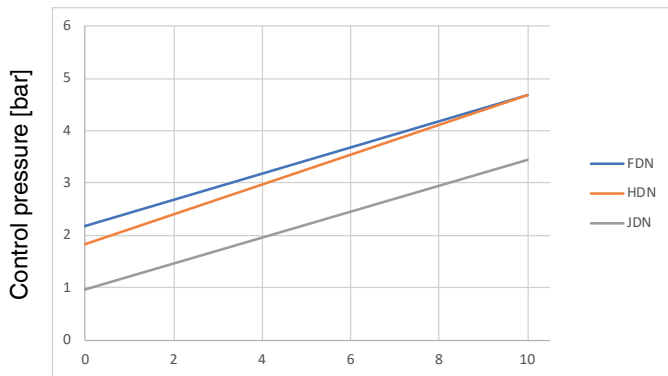
C.f. 3 = for filling volume in open position see c.f. 1, for filling volume in closed position see c.f. 2

| MG | DN | Actuator size | Operating pressure [bar] | | | | Control pressure [bar] | | |
|----|------------|---------------|--------------------------|--------|------------------------|--------|------------------------|--------------------|--------------------|
| | | | Control function 1 | | Control function 2 + 3 | | Control function 1 | Control function 2 | Control function 3 |
| | | | EPDM / FKM | PTFE | EPDM / FKM | PTFE | | | |
| 25 | 15, 20, 25 | FDM | 0 - 6 | 0 - 6 | - | - | 3.8 - 6.0 | - | - |
| | | FDN | 0 - 10 | 0 - 10 | 0 - 10 | 0 - 10 | 5.5 - 7.0 | max. 5.5 | max. 5.5 |
| 40 | 32, 40 | HDM | 0 - 6 | 0 - 6 | - | - | 3.8 - 6.0 | - | - |
| | | HDN | 0 - 10 | 0 - 10 | 0 - 10 | 0 - 10 | 5.5 - 7.0 | max. 5.5 | max. 5.5 |
| 50 | 50, 65 | JDM | 0 - 6 | 0 - 6 | - | - | 3.8 - 6.0 | - | - |
| | | JDN | 0 - 10 | 0 - 10 | 0 - 10 | 0 - 10 | 5.5 - 7.0 | max. 5.0 | max. 5.0 |

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

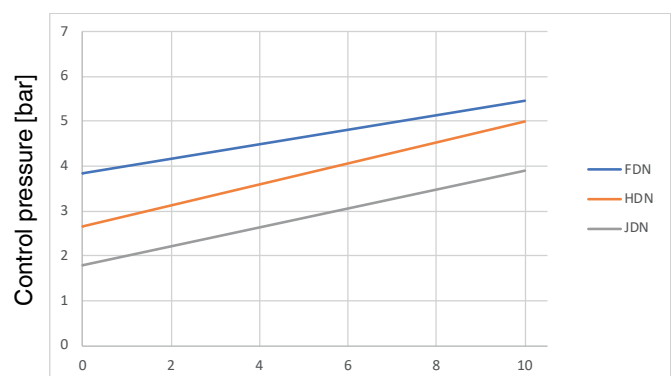
Information on operating pressures applied on both sides and for high purity media on request.

Control functions 2 + 3 EPDM



Operating pressure [bar]

Control functions 2 + 3 PTFE



Operating pressure [bar]

The values shown relate to control function 2 (with opening spring).

For control function 3 (without opening spring) control pressure is approx. 1 bar lower.

The control pressure depending on the prevailing operating pressure, as shown in the diagram, is intended as a guide for operating the system with low wear on the diaphragm.

Technical data

Kv values [m³/h]

| Pipe standard | DIN | EN 10357 series B (formerly DIN 11850 series 1) | EN 10357 series A (formerly DIN 11850 series 2) / DIN 11866 series A | DIN 11850 series 3 | SMS 3008 | ASME BPE / DIN 11866 series C | ISO 1127 / EN 10357 series C / DIN 11866 series B | DIN ISO 228 | NPT | |
|-----------------|-----------|---|--|--------------------|----------|-------------------------------|---|-------------|------|------|
| Connection code | 0 | 16 | 17 | 18 | 37 | 59 | 60 | 1 | 31 | |
| MG | DN | | | | | | | | | |
| 25 | 15 | 4.1 | 4.7 | 4.7 | 4.7 | - | - | 7.4 | 6.5 | 6.5 |
| | 20 | 6.3 | 7.0 | 7.0 | 7.0 | - | 4.4 | 13.2 | 10.0 | 10.0 |
| | 25 | 13.9 | 15.0 | 15.0 | 15.0 | 12.6 | 12.2 | 16.2 | 14.0 | 14.0 |
| 40 | 32 | 25.3 | 27.0 | 27.0 | 27.0 | 26.2 | - | 30.0 | 26.0 | 26.0 |
| | 40 | 29.3 | 30.9 | 30.9 | 30.9 | 30.2 | 29.5 | 32.8 | 33.0 | 33.0 |
| 50 | 50 | 46.5 | 48.4 | 48.4 | 48.4 | 51.7 | 50.6 | 55.2 | 60.0 | 60.0 |
| | 65 | - | - | - | - | 62.2 | 61.8 | - | - | - |

MG = diaphragm size

Kv values determined acc. to DIN EN 60534, inlet pressure 5 bar, Δp 1 bar, stainless steel valve body (forged body) and soft elastomer diaphragm.

The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and duration of use.

Kv values [m³/h]

| MG | DN | GGG 40.3 | GG 25 | PFA / PP | Hard rubber |
|----|----|----------|-------|----------|-------------|
| 25 | 15 | 8.0 | 7.0 | 5.0 | 6.0 |
| | 20 | 11.5 | 14.0 | 9.0 | 11.0 |
| | 25 | 11.5 | 20.0 | 13.0 | 15.0 |
| 40 | 32 | 28.0 | 36.0 | 23.0 | 29.0 |
| | 40 | 28.0 | 40.0 | 26.0 | 32.0 |
| 50 | 50 | 60.0 | 80.0 | 47.0 | 64.0 |

MG = diaphragm size

Kv values determined in accordance with DIN EN 60534, inlet pressure 5 bar, Δp 1 bar, with connection flange EN 1092 length EN 558 series 1 (or threaded socket DIN ISO 228 for body material GGG40.3) and soft elastomer diaphragm.

The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and duration of use.

Order data

| Body configuration | Code |
|--------------------|------|
| 2/2-way body | D |

| Connection | Code |
|---|------|
| Butt weld spigots | |
| Spigots DIN | 0 |
| Spigots EN 10357 series B (formerly DIN 11850 series 1) | 16 |
| Spigot EN 10357 series A (formerly DIN 11850 series 2) / DIN 11866 series A | 17 |
| Spigots DIN 11850 series 3 | 18 |
| Spigots JIS-G 3447 | 35 |
| Spigots JIS-G 3459 | 36 |
| Spigots SMS 3008 | 37 |
| Spigots BS 4825 Part 1 | 55 |
| Spigot ASME BPE / DIN 11866 series C | 59 |
| Spigot ISO 1127 / EN 10357 series C / DIN 11866 series B | 60 |
| Spigots ANSI/ASME B36.19M Schedule 10s | 63 |
| Spigots ANSI/ASME B36.19M Schedule 15s | 64 |
| Spigots ANSI/ASME B36.19M Schedule 40s | 65 |

| | |
|-------------------------------------|----|
| Threaded connections | |
| Threaded sockets DIN ISO 228 | 1 |
| Threaded spigots DIN 11851 | 6 |
| Cone spigot and union nut DIN 11851 | 6K |
| Aseptic unions on request | |

| | |
|--|----|
| Flanges | |
| Flanges EN 1092 / PN16 / form B, length EN 558, series 1, ISO 5752, basic series 1 | 8 |
| Flanges ANSI Class 150 RF, length MSS SP-88 | 38 |
| Flanges ANSI Class 125/150 RF, length EN 558, series 1, ISO 5752, basic series 1 | 39 |

| | |
|---|----|
| Clamp connections | |
| Clamps ASME BPE for pipe ASME BPE, length ASME BPE | 80 |
| Clamps DIN 32676 series B for pipe EN ISO 1127, length EN 558, series 7 | 82 |
| Clamps ASME BPE for pipe ASME BPE, length EN 558, series 7 | 88 |
| Clamps DIN 32676 series A for pipe DIN 11850, length EN 558, series 7 | 8A |
| Clamps SMS 3017 for pipe SMS 3008, length EN 558, series 7 | 8E |
| Clamps DIN 32676 series C, length FTF ASME BPE | 8P |
| Clamps DIN 32676 series C, length FTF EN 558 series 7 | 8T |
| Aseptic clamps on request | |

For overview of available valve bodies see page 13

| Valve body material | Code |
|--|------|
| EN-GJL-250, (GG 25) | 8 |
| EN-GJS-400-18-LT (S.G. Iron 40.3), PFA lined | 17 |
| EN-GJS-400-18-LT (S.G. Iron 40.3), PP lined | 18 |
| 1.4435, investment casting | C3 |
| 1.4408, investment casting | 37 |
| 1.4408, PFA lined | 39 |
| 1.4435 (316L), forged body | 40 |
| 1.4435 (BN2), forged body $\Delta Fe < 0.5\%$ | 42 |
| EN-GJS-400-18-LT (S.G. Iron 40.3), hard rubber lined | 83 |
| EN-GJS-400-18-LT (GGG 40.3) | 90 |
| 1.4539, forged body | F4 |

| Diaphragm material | Code |
|--|------|
| NBR | 2 |
| FKM | 4 |
| EPDM | 13 |
| EPDM | 17 |
| EPDM | 19 |
| EPDM | 29 |
| EPDM | 36 |
| PTFE/EPDM, one-piece | 54 |
| PTFE/EPDM, two-piece | 5M |
| PTFE/FKM, two-piece | 5T |
| PTFE/PVDF/EPDM, three-piece | 71** |
| ** Code 71 only available for bodies with PFA lining (code 17 and code 39) | |
| Material complies with FDA requirements, except codes 2, 4 and 29 | |

| Control function | Code |
|----------------------|------|
| Normally closed (NC) | 1 |
| Normally open (NO) | 2 |
| Double acting (DA) | 3 |

| Actuator size | Code |
|-------------------|------|
| Diaphragm size 25 | FDM |
| Diaphragm size 25 | FDN |
| Diaphragm size 40 | HDM |
| Diaphragm size 40 | HDN |
| Diaphragm size 50 | JDM |
| Diaphragm size 50 | JDN |

Order data

Internal surface finishes for forged and block material bodies ¹

| Readings for Process Contact Surfaces | Mechanically polished ² | | Electropolished | |
|---------------------------------------|------------------------------------|------|--------------------------|------|
| | Hygienic class DIN 11866 | Code | Hygienic class DIN 11866 | Code |
| Ra ≤ 0.80 μm | H3 | 1502 | HE3 | 1503 |
| Ra ≤ 0.60 μm | - | 1507 | - | 1508 |
| Ra ≤ 0.40 μm | H4 | 1536 | HE4 | 1537 |
| Ra ≤ 0.25 μm ³ | H5 | 1527 | HE5 | 1516 |

| Readings for Process Contact Surfaces acc. to ASME BPE 2016 ⁴ | Mechanically polished ² | | Electropolished | |
|--|------------------------------------|------|------------------------------|------|
| | ASME BPE Surface Designation | Code | ASME BPE Surface Designation | Code |
| Ra Max. = 0.76 μm (30 μinch) | SF3 | SF3 | - | - |
| Ra Max. = 0.64 μm (25 μinch) | SF2 | SF2 | SF6 | SF6 |
| Ra Max. = 0.51 μm (20 μinch) | SF1 | SF1 | SF5 | SF5 |
| Ra Max. = 0.38 μm (15 μinch) | - | - | SF4 | SF4 |

Internal surface finishes for investment cast bodies

| Readings for Process Contact Surfaces | Mechanically polished ² | |
|---------------------------------------|------------------------------------|------|
| | Hygienic class DIN 11866 | Code |
| Ra ≤ 6.30 μm | - | 1500 |
| Ra ≤ 0.80 μm | H3 | 1502 |
| Ra ≤ 0.60 μm ⁵ | - | 1507 |

¹ Surface finishes of customized valve bodies may be limited in special cases.

² Or any other finishing method that meets the Ra value (acc. to ASME BPE).

³ The smallest possible Ra finish for pipe connections with an internal pipe diameter < 6 mm is 0.38 μm.

⁴ When using these surfaces, the bodies are marked according to the specifications of ASME BPE.

The surfaces are only available for valve bodies which are made of materials (e.g. GEMÜ material codes 40, 41, F4, 44) and use connections (e.g. GEMÜ connection codes 59, 80, 88) according to ASME BPE.

⁵ Not possible for GEMÜ connection code 59, DN 8 and GEMÜ connection code 0, DN 4.

Ra acc. to DIN EN ISO 4288 and ASME B46.1

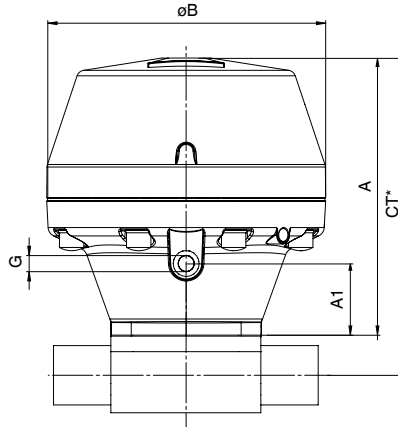
| Order example | 695 | 25 | D | 60 | C3 | 17 | 1 | FDN | 1500 |
|----------------------------|-----|----|---|----|----|----|---|-----|------|
| Type | 695 | | | | | | | | |
| Nominal size | | 25 | | | | | | | |
| Body configuration (code) | | | D | | | | | | |
| Connection (code) | | | | 60 | | | | | |
| Valve body material (code) | | | | | C3 | | | | |
| Diaphragm material (code) | | | | | | 17 | | | |
| Control function (code) | | | | | | | 1 | | |
| Actuator size (code) | | | | | | | | FDN | |
| Surface finish (code) | | | | | | | | | 1500 |

Dimensions [mm]

Actuator dimensions - control function 1

| MG | Actuator size | ø B | A | A1 | G | Weight [kg] |
|----|---------------|-----|-----|----|-------|-------------|
| 25 | FDM, FDN | 130 | 146 | 28 | G 1/4 | 1.6 |
| 40 | HDM, HDN | 171 | 197 | 52 | G 1/4 | 3.5 |
| 50 | JDM, JDN | 211 | 245 | 90 | G 1/4 | 5.7 |

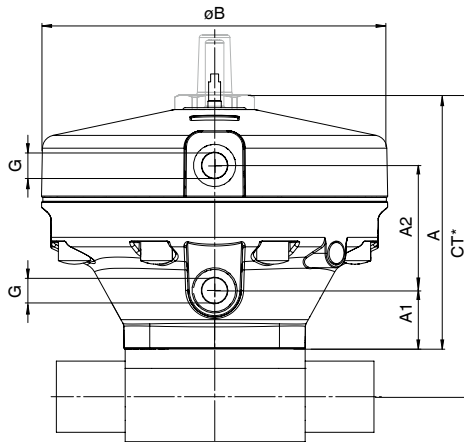
Control function 1 -
Actuator size FDM, FDN, HDM, HDN, JDM, JDN



Actuator dimensions - control function 2 + 3

| MG | Actuator size | ø B | A | A1 | A2 | G | Weight [kg] |
|----|---------------|-----|-----|----|----|-------|-------------|
| 25 | FDM, FDN | 130 | 123 | 28 | 47 | G 1/4 | 1.0 |
| 40 | HDM, HDN | 171 | 162 | 52 | 55 | G 1/4 | 2.2 |
| 50 | JDM, JDN | 211 | 206 | 90 | 48 | G 1/4 | 3.8 |

Control function 2 + 3 -
Actuator size FDM, FDN, HDM, HDN, JDM, JDN



* CT = A + H1 (see body dimensions)

Body dimensions [mm]

Butt weld spigots, connection code 0, 16, 17, 18 Valve body material: Investment casting (code C3), forged body (code 40, F4)

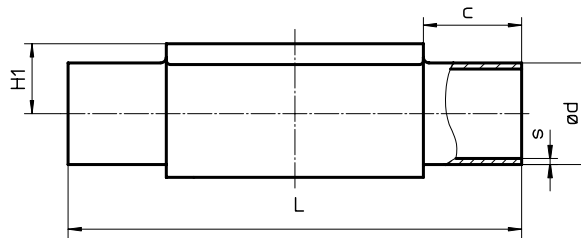
| Pipe standard | | | | | | | DIN | | EN 10357 series B (formerly DIN 11850 series 1) | | EN 10357 series A (formerly DIN 11850 series 2) / DIN 11866 series A | | DIN 11850 Series 3 | | Weight [kg] |
|-----------------|----|--------|-----|----|------|------|-----|-----|--|-----|--|-----|--------------------|-----|-------------|
| Connection code | | | | | | | 0 | | 16 | | 17 | | 18 | | |
| MG | DN | NPS | L | c | H1* | H1** | ød | s | ød | s | ød | s | ød | s | |
| 25 | 15 | 1/2" | 120 | 25 | 13.0 | 19.0 | 18 | 1.5 | 18 | 1.0 | 19 | 1.5 | 20 | 2.0 | 0.62 |
| | 20 | 3/4" | 120 | 25 | 16.0 | 19.0 | 22 | 1.5 | 22 | 1.0 | 23 | 1.5 | 24 | 2.0 | 0.58 |
| | 25 | 1" | 120 | 25 | 19.0 | 19.0 | 28 | 1.5 | 28 | 1.0 | 29 | 1.5 | 30 | 2.0 | 0.55 |
| 40 | 32 | 1 1/4" | 153 | 25 | 24.0 | 26.0 | 34 | 1.5 | 34 | 1.0 | 35 | 1.5 | 36 | 2.0 | 1.45 |
| | 40 | 1 1/2" | 153 | 25 | 26.0 | 26.0 | 40 | 1.5 | 40 | 1.0 | 41 | 1.5 | 42 | 2.0 | 1.32 |
| 50 | 50 | 2" | 173 | 30 | 32.0 | 32.0 | 52 | 1.5 | 52 | 1.0 | 53 | 1.5 | 54 | 2.0 | 2.25 |

* only for investment cast design ** only for forged design MG = diaphragm size
For materials see overview on page 13

Butt weld spigots, connection code 60 Valve body material: Investment casting (code C3), forged body (code 40, F4)

| Pipe standard | | | | | | | ISO 1127 / EN 10357 series C / DIN 11866 series B | | Weight [kg] |
|-----------------|----|--------|-----|----|------|------|---|-----|-------------|
| Connection code | | | | | | | 60 | | |
| MG | DN | NPS | L | c | H1* | H1** | ød | s | |
| 25 | 15 | 1/2" | 120 | 25 | 13.0 | 19.0 | 21.3 | 1.6 | 0.62 |
| | 20 | 3/4" | 120 | 25 | 16.0 | 19.0 | 26.9 | 1.6 | 0.58 |
| | 25 | 1" | 120 | 25 | 19.0 | 19.0 | 33.7 | 2.0 | 0.55 |
| 40 | 32 | 1 1/4" | 153 | 25 | 24.0 | 26.0 | 42.4 | 2.0 | 1.45 |
| | 40 | 1 1/2" | 153 | 25 | 26.0 | 26.0 | 48.3 | 2.0 | 1.32 |
| 50 | 50 | 2" | 173 | 30 | 32.0 | 32.0 | 60.3 | 2.0 | 2.25 |

* only for investment cast design ** only for forged design MG = diaphragm size
For materials see overview on page 13



Body dimensions [mm]

Butt weld spigots, connection code 35, 36, 37 Valve body material: Investment casting (code C3), forged body (code 40, F4)

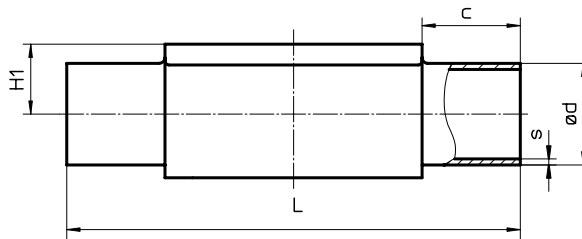
| Pipe standard | | | | | | | JIS-G 3447 | | JIS-G 3459 | | SMS 3008 | | Weight [kg] |
|-----------------|----|--------|-----|----|------|------|------------|-----|------------|------|----------|-----|-------------|
| Connection code | | | | | | | 35 | | 36 | | 37 | | |
| MG | DN | NPS | L | c | H1* | H1** | ød | s | ød | s | ød | s | |
| 25 | 15 | 1/2" | 120 | 25 | - | 19.0 | - | - | 21.7 | 2.10 | - | - | 0.62 |
| | 20 | 3/4" | 120 | 25 | - | 19.0 | - | - | 27.2 | 2.10 | - | - | 0.58 |
| | 25 | 1" | 120 | 25 | 19.0 | 19.0 | 25.4 | 1.2 | 34.0 | 2.80 | 25.0 | 1.2 | 0.55 |
| 40 | 32 | 1 1/4" | 153 | 25 | - | 26.0 | 31.8 | 1.2 | 42.7 | 2.80 | 33.7 | 1.2 | 1.45 |
| | 40 | 1 1/2" | 153 | 25 | 26.0 | 26.0 | 38.1 | 1.2 | 48.6 | 2.80 | 38.0 | 1.2 | 1.32 |
| 50 | 50 | 2" | 173 | 30 | 32.0 | 32.0 | 50.8 | 1.5 | 60.5 | 2.80 | 51.0 | 1.2 | 2.25 |
| | 65 | 2 1/2" | 173 | 30 | - | 34.0 | 63.5 | 2.0 | - | - | 63.5 | 1.6 | 2.20 |

* only for investment cast design ** only for forged design MG = diaphragm size
For materials see overview on page 13

Butt weld spigots, connection code 55, 59, 63, 64, 65 Valve body material: Investment casting (code C3), forged body (code 40, F4)

| Pipe standard | | | | | | | BS 4825 Part 1 | | ASME BPE / DIN 11866 series C | | ANSI/ASME B36.19M Schedule 10s | | ANSI/ASME B36.19M Schedule 5s | | ANSI/ASME B36.19M Schedule 40s | | Weight [kg] |
|-----------------|----|--------|-----|----|------|------|----------------|-----|-------------------------------|------|--------------------------------|------|-------------------------------|------|--------------------------------|------|-------------|
| Connection code | | | | | | | 55 | | 59 | | 63 | | 64 | | 65 | | |
| MG | DN | NPS | L | c | H1* | H1** | ød | s | ød | s | ød | s | ød | s | ød | s | |
| 25 | 15 | 1/2" | 120 | 25 | - | 19.0 | - | - | - | - | 21.3 | 2.11 | 21.3 | 1.65 | 21.3 | 2.77 | 0.62 |
| | 20 | 3/4" | 120 | 25 | 16.0 | 19.0 | 19.05 | 1.2 | 19.05 | 1.65 | 26.7 | 2.11 | 26.7 | 1.65 | 26.7 | 2.87 | 0.58 |
| | 25 | 1" | 120 | 25 | 19.0 | 19.0 | - | - | 25.40 | 1.65 | 33.4 | 2.77 | 33.4 | 1.65 | 33.4 | 3.38 | 0.55 |
| 40 | 32 | 1 1/4" | 153 | 25 | - | 26.0 | - | - | - | - | 42.2 | 2.77 | 42.2 | 1.65 | 42.2 | 3.56 | 1.45 |
| | 40 | 1 1/2" | 153 | 25 | 26.0 | 26.0 | - | - | 38.10 | 1.65 | 48.3 | 2.77 | 48.3 | 1.65 | 48.3 | 3.68 | 1.32 |
| 50 | 50 | 2" | 173 | 30 | 32.0 | 32.0 | - | - | 50.80 | 1.65 | 60.3 | 2.77 | 60.3 | 1.65 | 60.3 | 3.91 | 2.25 |
| | 65 | 2 1/2" | 173 | 30 | - | 34.0 | - | - | 63.50 | 1.65 | - | - | - | - | - | - | 2.10 |

* only for investment cast design ** only for forged design MG = diaphragm size
For materials see overview on page 18



Body dimensions [mm]

Threaded sockets, connection code 1 Valve body material: investment casting (code 37), GGG40.3 (code 90)

| MG | DN | R | Material code 37 | | | | | | Material code 90 | | | | | | Weight [kg] |
|----|----|---------|------------------|------|------|-----|-----|-----------------|------------------|------|------|-----|-----|-----------------|-------------|
| | | | H | H1 | t | L | SW2 | Number of flats | H | H1 | t | L | SW2 | Number of flats | |
| 25 | 15 | G 1/2 | 28.3 | 14.8 | 15.0 | 85 | 27 | 6 | 32.7 | 16.7 | 15.0 | 85 | 32 | 6 | 0.32 |
| | 20 | G 3/4 | 33.3 | 17.3 | 16.0 | 85 | 32 | 6 | 42.0 | 21.5 | 16.3 | 85 | 41 | 6 | 0.34 |
| | 25 | G 1 | 42.3 | 21.8 | 13.0 | 110 | 41 | 6 | 46.7 | 23.7 | 19.1 | 110 | 46 | 6 | 0.39 |
| 40 | 32 | G 1 1/4 | 51.3 | 26.3 | 20.0 | 120 | 50 | 8 | 56.0 | 28.5 | 21.4 | 120 | 55 | 6 | 0.88 |
| | 40 | G 1 1/2 | 56.3 | 28.8 | 18.0 | 140 | 55 | 8 | 66.0 | 33.5 | 21.4 | 140 | 65 | 6 | 0.93 |
| 50 | 50 | G 2 | 71.3 | 36.3 | 26.0 | 165 | 70 | 8 | 76.0 | 38.5 | 25.7 | 165 | 75 | 6 | 1.56 |

MG = diaphragm size

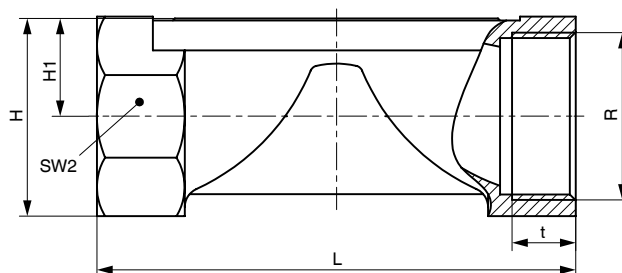
For materials see overview on page 13

Threaded sockets, connection code 31 Valve body material: investment casting (code 37), GGG40.3 (code 90)

| MG | DN | R | Material code 37 | | | | | | Material code 90 | | | | | | Weight [kg] |
|----|----|-----------|------------------|------|------|-----|-----|-----------------|------------------|------|------|-----|-----|-----------------|-------------|
| | | | H | H1 | t | L | SW2 | Number of flats | H | H1 | t | L | SW2 | Number of flats | |
| 25 | 15 | NPT 1/2 | 28.3 | 14.8 | 14.0 | 85 | 27 | 6 | 32.7 | 16.7 | 13.6 | 85 | 32 | 6 | 0.32 |
| | 20 | NPT 3/4 | 33.3 | 17.3 | 14.0 | 85 | 32 | 6 | 42.0 | 21.5 | 14.1 | 85 | 41 | 6 | 0.34 |
| | 25 | NPT 1 | 42.3 | 21.8 | 17.0 | 110 | 41 | 6 | 46.7 | 23.7 | 16.8 | 110 | 46 | 6 | 0.39 |
| 40 | 32 | NPT 1 1/4 | 51.3 | 26.3 | 17.0 | 120 | 50 | 8 | 56.0 | 28.5 | 17.3 | 120 | 55 | 6 | 0.88 |
| | 40 | NPT 1 1/2 | 56.3 | 28.8 | 17.0 | 140 | 55 | 8 | 66.0 | 33.5 | 17.3 | 140 | 65 | 6 | 0.93 |
| 50 | 50 | NPT 2 | 71.3 | 36.3 | 18.0 | 165 | 70 | 8 | 76.0 | 38.5 | 17.7 | 165 | 75 | 6 | 1.56 |

MG = diaphragm size

For materials see overview on page 13

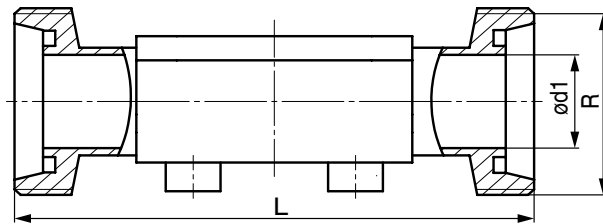


Body dimensions [mm]

Threaded connections, connection code 6 Valve body material: Forged body (code 40)

| MG | DN | H1 | ød1 | Thread to DIN 405 R | L | Weight [kg] |
|----|----|----|------|---------------------|-----|-------------|
| 25 | 15 | 19 | 16,0 | RD 34 x 1/8 | 118 | 0,71 |
| | 20 | 19 | 20,0 | RD 44 x 1/6 | 118 | 0,78 |
| | 25 | 19 | 26,0 | RD 52 x 1/6 | 128 | 0,79 |
| 40 | 32 | 26 | 32,0 | RD 58 x 1/6 | 147 | 1,66 |
| | 40 | 26 | 38,0 | RD 65 x 1/6 | 160 | 1,62 |
| 50 | 50 | 32 | 50,0 | RD 78 x 1/6 | 191 | 2,70 |

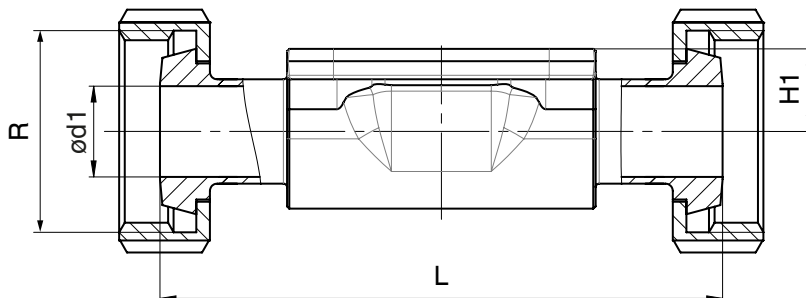
MG = diaphragm size



Threaded connections, connection code 6K Valve body material: Forged body (code 40)

| MG | DN | H1 | ød1 | Thread to DIN 405 R | L | Weight [kg] |
|----|----|----|------|---------------------|-----|-------------|
| 25 | 15 | 19 | 16,0 | RD 34 x 1/8 | 116 | 0,71 |
| | 20 | 19 | 20,0 | RD 44 x 1/6 | 114 | 0,78 |
| | 25 | 19 | 26,0 | RD 52 x 1/6 | 127 | 0,79 |
| 40 | 32 | 26 | 32,0 | RD 58 x 1/6 | 147 | 1,66 |
| | 40 | 26 | 38,0 | RD 65 x 1/6 | 160 | 1,62 |
| 50 | 50 | 32 | 50,0 | RD 78 x 1/6 | 191 | 2,70 |

MG = diaphragm size



Body dimensions [mm]

Flanges - DIN EN 1092, connection code 8
 Valve body material GG 25 (code 8), GGG 40.3 (code 17, 18, 83), investment casting (code C3),
 forged body (code 40), investment casting PFA lined (code 39)

| MG | DN | øD | øk | øL | Number of bolts | H1 | | | | FTF | Weight [kg] |
|----|----|-----|-----|----|-----------------|-----------------|------------------------------|------------------|------------------|------|-------------|
| | | | | | | Material code 8 | Material code 17, 18, 39, 83 | Material code C3 | Material code 40 | | |
| 25 | 15 | 95 | 65 | 14 | 4 | 19.0 | 18.0 | 13.0 | 19.0 | 130* | 1.85 |
| | 20 | 105 | 75 | 14 | 4 | 19.0 | 20.5 | 16.0 | 19.0 | 150 | 2.35 |
| | 25 | 115 | 85 | 14 | 4 | 19.0 | 23.0 | 19.0 | 19.0 | 160 | 2.85 |
| 40 | 32 | 140 | 100 | 19 | 4 | 28.0 | 28.7 | 24.0 | 26.0 | 180 | 4.90 |
| | 40 | 150 | 110 | 19 | 4 | 28.0 | 33.0 | 26.0 | 26.0 | 200 | 5.65 |
| 50 | 50 | 165 | 125 | 19 | 4 | 35.0 | 39.0 | 32.0 | 32.0 | 230 | 7.45 |

*Material code C3, 40 FTF = 150 (no DIN length)

MG = diaphragm size

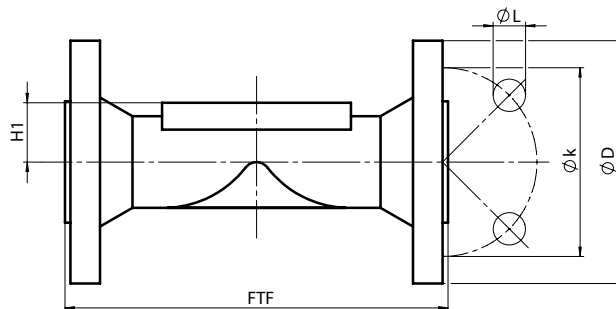
For materials see overview on page 13

Flanges - ANSI Class 125/150 RF, connection code 38, 39
 Valve body material GG 25 (code 8), GGG 40.3 (code 17, 18, 83), investment casting (code C3),
 forged body (code 40), investment casting PFA lined (code 39)

| MG | DN | øD | øk | øL | Number of bolts | H1 | | | | FTF | | Weight [kg] | |
|----|----|-----|-------|------|-----------------|------------------------|------------------------------|------------------|------------------|------------------------------|-------|-------------|---|
| | | | | | | Connection code 38, 39 | | | | MSS Sp-88 Connection code 38 | | | EN 558 Series 1 Connection code 39 |
| | | | | | | Material code 8 | Material code 17, 18, 39, 83 | Material code C3 | Material code 40 | Material code 17, 18, 39, 83 | | | Material code 8, 17, 18, C3, 39, 40, 83 |
| 25 | 15 | 90 | 60.3 | 15.9 | 4 | 19.0 | 18.0 | 13.0 | 19.0 | - | - | 130 | 1.85 |
| | 20 | 100 | 69.9 | 15.9 | 4 | 19.0 | 20.5 | 16.0 | 19.0 | 146 | 146.4 | 150 | 2.35 |
| | 25 | 110 | 79.4 | 15.9 | 4 | 19.0 | 23.0 | 19.0 | 19.0 | 146 | 146.4 | 160 | 2.85 |
| 40 | 32 | 115 | 88.9 | 15.9 | 4 | 28.0 | 28.7 | 24.0 | 26.0 | - | - | 180 | 4.90 |
| | 40 | 125 | 98.4 | 15.9 | 4 | 28.0 | 33.0 | 26.0 | 26.0 | 175 | 171.4 | 200 | 5.65 |
| 50 | 50 | 150 | 120.7 | 19.0 | 4 | 35.0 | 39.0 | 32.0 | 32.0 | 200 | 197.4 | 230 | 7.45 |

MG = diaphragm size

For materials see overview on page 13

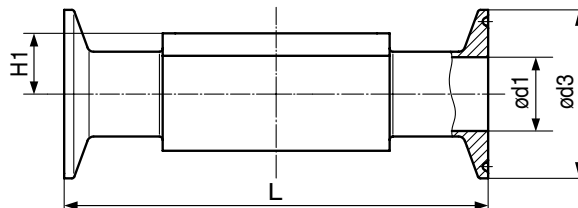


Body dimensions [mm]

Clamp connections, connection code 80, 82, 88, 8A, 8E, 8P, 8T Valve body material: Forged body (code 40, F4)

| Pipe connection for clamp | | | ASME BPE | | | | | | ISO 1127 / EN 10357 series C / DIN 11866 series B | | | EN 10357 series A (formerly DIN 11850 series 2) / DIN 11866 series A | | | SMS 3008 | | | Weight [kg] | |
|---------------------------|----|--------|--|-------|------|--------|-------|------|---|------|------|--|-----|------|---------------------|------|------|-------------|------|
| Clamp connection | | | Code 80, 88 - ASME BPE Code 8P, 8T - DIN 32676 series C | | | | | | DIN 32676 series B | | | DIN 32676 series A | | | ISO 2852 / SMS 3017 | | | | |
| Clamp connection code | | | 80, 8P | | | 88, 8T | | | 82 | | | 8A | | | 8E | | | | |
| MG | DN | NPS | H1 | ød1 | ød3 | L | ød1 | ød3 | L | ød1 | ød3 | L | ød1 | ød3 | L | ød1 | ød3 | | L |
| 25 | 15 | 1/2" | 19.0 | - | - | - | - | - | - | 18.1 | 50.5 | 108.0 | 16 | 34.0 | 108.0 | - | - | - | 0.75 |
| | 20 | 3/4" | 19.0 | 15.75 | 25.0 | 101.6 | 15.75 | 25.0 | 117 | 23.7 | 50.5 | 117.0 | 20 | 34.0 | 117.0 | - | - | - | 0.71 |
| 40 | 25 | 1" | 19.0 | 22.10 | 50.5 | 114.3 | 22.10 | 50.5 | 127 | 29.7 | 50.5 | 127.0 | 26 | 50.5 | 127.0 | 22.6 | 50.5 | 127 | 0.63 |
| | 32 | 1 1/4" | 26.0 | - | - | - | - | - | - | 38.4 | 64.0 | 146.0 | 32 | 50.5 | 146.0 | 31.3 | 50.5 | 146 | 1.62 |
| 50 | 40 | 1 1/2" | 26.0 | 34.80 | 50.5 | 139.7 | 34.80 | 50.5 | 159 | 44.3 | 64.0 | 159.0 | 38 | 50.5 | 159.0 | 35.6 | 50.5 | 159 | 1.50 |
| | 50 | 2" | 32.0 | 47.50 | 64.0 | 158.8 | 47.50 | 64.0 | 190 | 56.3 | 77.5 | 190.0 | 50 | 64.0 | 190.0 | 48.6 | 64.0 | 190 | 2.50 |
| 50 | 65 | 2 1/2" | 34.0 | 60.20 | 77.5 | 193.8 | 60.20 | 77.5 | 216 | - | - | - | - | - | - | 60.3 | 77.5 | 216 | 2.30 |

MG = diaphragm size



| Overview of valve bodies for GEMÜ 695 | | | | | | | | | | | | | | | | | | |
|---------------------------------------|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | Spigots | | | | | | | | | | | | | | | | |
| Connection code | | 0 | 16 | 17 | | 18 | 35 | 36 | 37 | | 55 | 59 | | 60 | | 63 | 64 | 65 |
| Material code | | 40 | 40 | C3 | 40 | 40 | 40 | 40 | C3 | 40 | 40 | C3 | 40 | C3 | 40 | 40 | 40 | 40 |
| MG | DN | | | | | | | | | | | | | | | | | |
| 25 | 15 | X | X | X | X | X | - | X | - | - | - | - | - | X | X | X | X | X |
| | 20 | X | X | X | X | X | - | X | - | - | X | X | X | X | X | X | X | X |
| | 25 | X | X | X | X | X | X | X | X | X | - | X | X | X | X | X | X | X |
| 40 | 32 | X | X | X | X | X | X | X | X | - | X | - | - | - | X | X | X | X |
| | 40 | X | X | X | X | X | X | X | X | X | - | X | X | X | X | X | X | X |
| 50 | 50 | X | X | X | X | X | X | X | X | X | - | X | X | X | X | X | X | X |
| | 65 | - | - | - | - | - | - | X | - | - | X | - | - | X | - | - | - | - |

Availability of material code 42, F4: same as code 40
MG = diaphragm size

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| Overview of valve bodies for GEMÜ 695 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|----|----------------------|----|----|----|-------|--------|----|--------|--------|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| | | Threaded connections | | | | | | | | Clamps | | | | Flanges | | | | | | | | | | | | | | | |
| Connection code | | 1 | | 31 | | 6, 6K | 80, 8P | 82 | 88, 8T | 8A | 8E | 8 | | | | | | 38 | | | | 39 | | | | | | | |
| Material code | | 37 | 90 | 37 | 90 | 40 | 40 | 40 | 40 | 40 | 8 | 17 | 18 | C3 | 39 | 40 | 83 | 17 | 18 | 39 | 83 | 8 | 17 | 18 | C3 | 39 | 40 | 83 | |
| MG | DN | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 15 | X | X | X | X | W | - | W | - | K | - | X | X | X | W | X | W | X | - | - | - | - | X | X | X | W | X | W | X |
| | 20 | X | X | X | X | W | K | K | K | K | - | X | X | X | W | X | W | X | X | X* | X | X | X | X | X | W | X | W | X |
| | 25 | X | X | X | X | W | K | K | K | K | K | X | X | X | W | X | W | X | X | X* | X | X | X | X | X | W | X | W | X |
| 40 | 32 | X | X | X | X | W | - | W | - | K | K | X | X | X | W | X | W | X | - | - | - | - | X | X | X | W | X | W | X |
| | 40 | X | X | X | X | W | K | W | K | K | K | X | X | X | W | X | W | X | X | X* | X | X | X | X | W | X | W | X | |
| 50 | 50 | X | X | X | X | W | K | W | K | K | K | X | X | X | W | X | W | X | X | X* | X | X | X | X | W | X | W | X | |
| | 65 | - | - | - | - | - | W | - | W | - | W | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

* Connection code 38 / material code 18 on request
X = Standard
K = Connections completely machined (not welded)
W = Welded construction
Availability of material code 42, F4: same as code 40
MG = diaphragm size

Should there be any doubts or misunderstandings, the German version of this data sheet is the authoritative document!

For further metal diaphragm valves, accessories and other products, please see our Product Range catalogue and Price List.
Contact GEMÜ.

