

GEMÜ®

Solenoid Valve, Metal

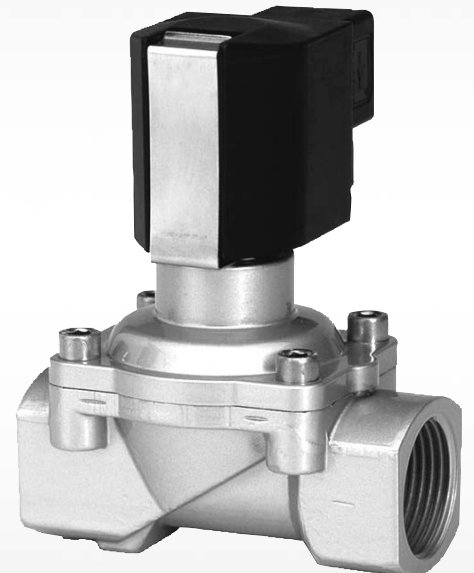
Construction

The GEMÜ 8253 2/2-way solenoid valve with a positive lift diaphragm has a brass or stainless steel valve body. All medium wetted parts are made of NBR, FPM, EPDM, PVDF, brass or stainless steel.

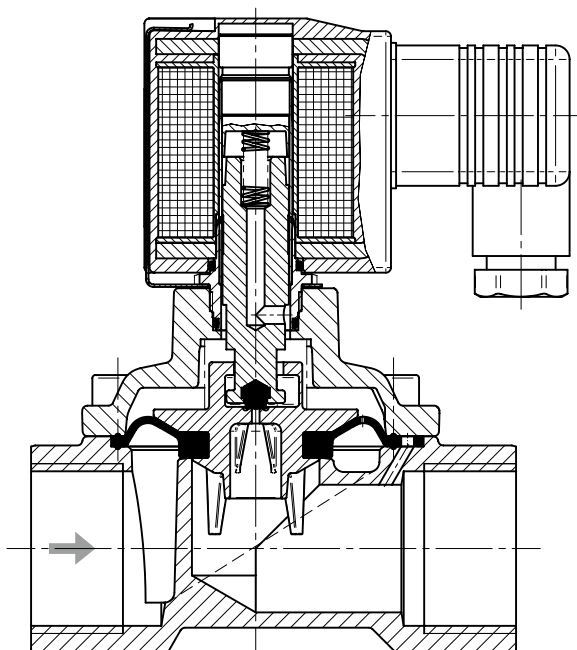
The electrical connection is made via a plug to DIN EN 175301-803 form A. The coil has isolation class F as standard. The valve is suitable for inert media such as air, water and oil.

Advantages

- Valve operates without minimum pressure differential (Δp)
- Excellent flow capability
- Soft closing action
- Suitable for vacuum applications
- Simple coil replacement without tools (**Click-on®**)
- NPT thread available
- Explosion protected solenoids acc. to ATEX available as an option
- UL and CSA approvals available



Sectional drawing GEMÜ 8253



GEMÜ® 8253

Technical data

Working medium

Inert gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and seal material.

Max. perm. viscosity of working medium

25 mm²/s (cSt)

Note: When used with contaminated media we recommend installing a strainer in front of the valve (on request)

Perm. temperature of working medium

-10° to +90° C

Higher temperatures on request

Ambient temperature

-10° to +50° C

Mounting position

Optional, preferably coil vertically upwards

Power consumption

AC operation:

| | | |
|-------------------|--------------------|-------|
| Pull in / hold in | | |
| DN 8 - 25 | Control function 1 | 20 VA |
| DN 32 - 50 | Control function 2 | 45 VA |
| DN 32 - 50 | Control function 1 | 42 VA |

DC operation:

| | | |
|-------------------|--------------------|------|
| Pull in / hold in | | |
| DN 8 - 25 | Control function 1 | 18 W |
| DN 8 - 25 | Control function 2 | 38 W |
| DN 32 - 50 | Control function 1 | 38 W |

Protection class

IP 65 (with plug)

Permissible voltage tolerance

±10 % to VDE 0580

Rating

Continuously rated

| Nominal size | Threaded socket connections | | Operating pressure | K _v value | Weight [kg] | | |
|--------------|-----------------------------|----------------------|--------------------|----------------------|---------------|-------|---------------------|
| | DN | DIN ISO 228 (code 1) | | | NPT (code 31) | [bar] | (m ³ /h) |
| 8 | | G 1/4 | 1/4" NPT | 0 - 10 | 1.9 | 0.7 | 0.8 |
| 10 | | G 3/8 | 3/8" NPT | 0 - 10 | 3.0 | 0.7 | 0.8 |
| 15 | | G 1/2 | 1/2" NPT | 0 - 10 | 3.4 | 0.8 | 0.8 |
| 20 | | G 3/4 | 3/4" NPT | 0 - 10 | 5.8 | 0.9 | 1.0 |
| 25 | | G 1 | 1" NPT | 0 - 10 | 8.0 | 1.3 | 1.3 |
| 32 | | G 1 1/4 | 1 1/4" NPT | 0 - 16 | 23.0 | 4.3 | 4.3 |
| 40 | | G 1 1/2 | 1 1/2" NPT | 0 - 16 | 25.0 | 4.1 | 4.3 |
| 50 | | G 2 | 2" NPT | 0 - 16 | 41.0 | 5.1 | 5.4 |

Notes

Installation note

Caution: DC solenoids are designed for unsmoothed voltages, e.g. as obtained from a bridge rectifier.

Wiring note:

Special wiring on request. When using electronic switches and additional wiring avoid inadmissible residual currents by proper design.

Order data

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

| Connection | Code |
|------------------------------|------|
| Threaded sockets DIN ISO 228 | 1 |
| Threaded sockets NPT | 31 |

| Valve body material | Code |
|-------------------------|------|
| CW617N, Brass | 12 |
| Stainless steel, 1.4408 | 37 |

| Seal material | Code |
|----------------------------------|------|
| NBR (Perbunan) | 2 |
| Other seal materials on request. | |

| Control function | Code |
|------------------|------|
| Normally closed | 1 |
| Normally open | 2 |

| Supply voltage | Code |
|----------------|------|
| 24 V AC | 24 |
| 110 V AC | 110 |
| 230 V AC | 230 |
| 24 V DC | 24 |

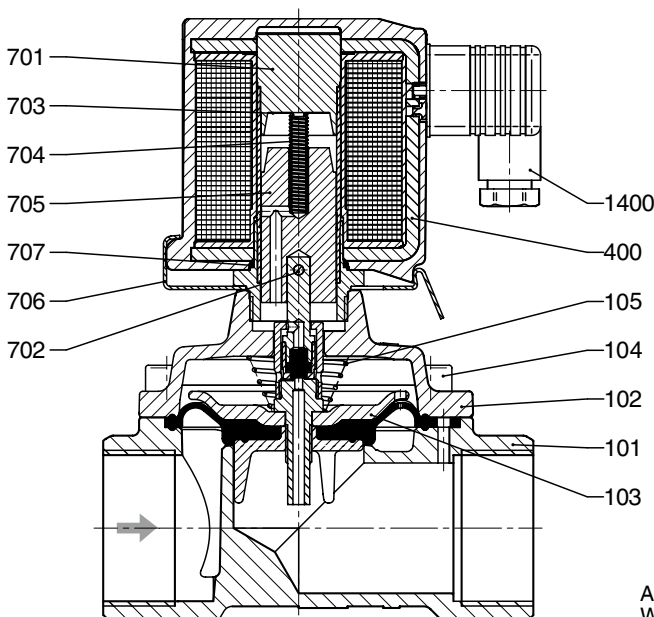
| Mains frequency | Code |
|-----------------|------|
| 50 Hz | 50 |
| DC | DC |

| Optional versions | K-Number |
|----------------------------------------------------------------------------|----------|
| Coil protection class EEx me II T3 ATEX marking $\text{II} 2 \text{GD}$ | 6419 |
| Other versions acc. to ATEX or US regulations on request | |

| Available voltages / Frequency | | |
|--------------------------------|----------|-------|
| AC | 24 V AC | 50 Hz |
| | 110 V AC | 50 Hz |
| | 230 V AC | 50 Hz |
| DC | 24 V DC | - |

| Order example | 8253 | 25 | D | 1 | 12 | 2 | 1 | 230 | 50/60 | 6419 |
|----------------------------|------|----|---|---|----|---|---|-----|-------|------|
| Type | 8253 | | | | | | | | | |
| Nominal size | | 25 | | | | | | | | |
| Body configuration (code) | | | D | | | | | | | |
| Connection (code) | | | | 1 | | | | | | |
| Valve body material (code) | | | | | 12 | | | | | |
| Seal material (code) | | | | | | 2 | | | | |
| Control function (code) | | | | | | | 1 | | | |
| Supply voltage (code) | | | | | | | | 230 | | |
| Mains frequency (code) | | | | | | | | | 50/60 | |
| Optional version (K-no.) | | | | | | | | | | 6419 |

Spare parts

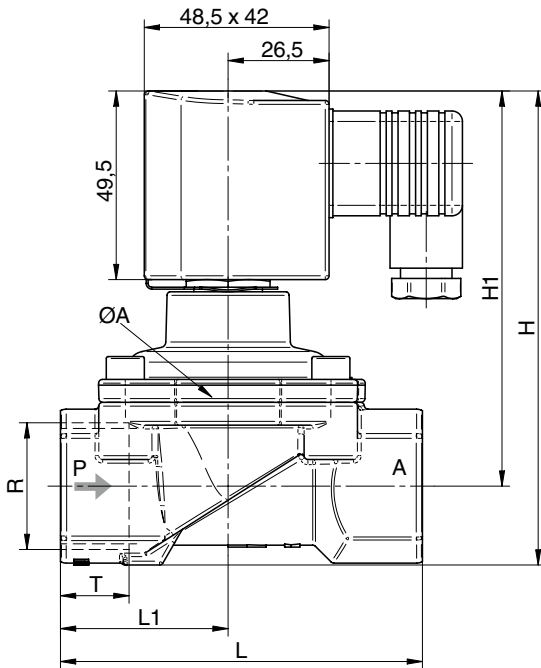


- 101 Valve body
- 102 Body cover
- *103 Diaphragm
- 104 Cylindrical screw
- *105 Compression spring
- 400 Solenoid
- 701 Bush
- *702 DN 8-25 O-ring
- *702 DN 32-50 cylindrical pin
- 703 Round plate
- *704 Compression spring
- *705 Armature
- 706 Spring clip
- *707 O-ring
- 1400 Plug (included)

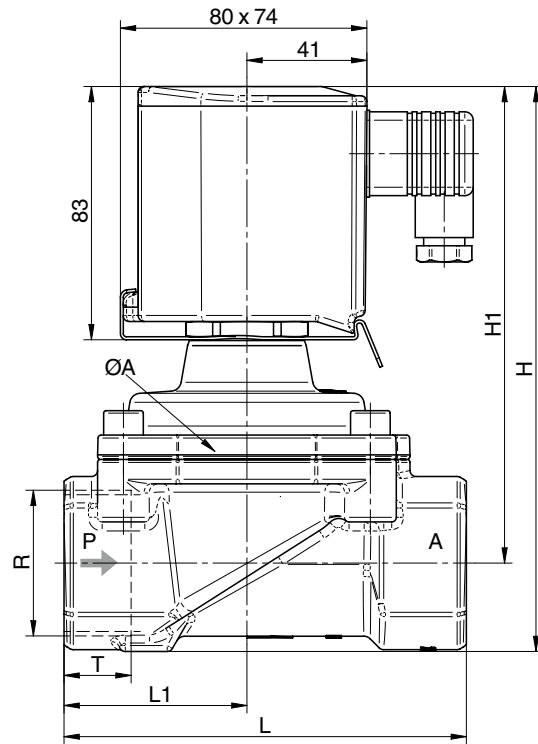
All the parts marked * are included in the wearing parts kit.
When ordering spare parts, please state the complete valve order number.

Dimensional drawings - GEMÜ 8253

DN 8 - DN 25



DN 32 - DN 50



Body dimensions GEMÜ 8253 [mm]

| DN | øA | H | H1 | L | L1 | Threaded sockets DIN ISO | | Threaded sockets NPT | |
|----|-----|-------|-------|-----|------|--------------------------|------|----------------------|------|
| | | | | | | Connection code 1 | | Connection code 31 | |
| | | | | | | R | T | R | T |
| 8 | 44 | 104.0 | 92.5 | 60 | 27.5 | G 1/4 | 12.0 | 1/4" NPT | 10.0 |
| 10 | 44 | 104.0 | 92.5 | 60 | 27.5 | G 3/8 | 12.0 | 3/8" NPT | 10.5 |
| 15 | 44 | 108.0 | 94.5 | 67 | 31.0 | G 1/2 | 14.0 | 1/2" NPT | 13.5 |
| 20 | 50 | 115.0 | 99.0 | 80 | 36.5 | G 3/4 | 16.0 | 3/4" NPT | 14.0 |
| 25 | 62 | 124.0 | 103.5 | 95 | 44.0 | G 1 | 18.0 | 1" NPT | 17.0 |
| 32 | 92 | 186.0 | 157.0 | 132 | 60.0 | G 1 1/4 | 20.0 | 1 1/4" NPT | 17.0 |
| 40 | 92 | 186.0 | 157.0 | 132 | 60.0 | G 1 1/2 | 22.0 | 1 1/2" NPT | 17.0 |
| 50 | 109 | 201.5 | 167.0 | 160 | 74.0 | G 2 | 24.0 | 2" NPT | 17.5 |

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

Technical data sheet

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

Subject to alteration · 06/2009 · 88269783