

GEMÜ 102

Electrically operated solenoid valve



Features

- Good cleanability
- Hermetic separation between medium and actuator
- The solenoid can be replaced without removing the valve body from the piping

Description

The GEMÜ 102 directly controlled 2/2-way solenoid valve has a completely plastic encapsulated coil. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The valve body is available in various materials and with a straight through or angle valve body design.

Technical specifications

- **Media temperature :** -20 to 100 °C
- **Ambient temperature:** 10 to 40 °C
- **Operating pressure :** 0 to 4 bar
- **Nominal sizes:** DN 6 to 10
- **Connection types:** Solvent cement socket | Threaded connection
- **Connection standards:** DIN | ISO
- **Body materials:** PVC-U, grey | PVDF
- **Supply voltages:** 120 V AC, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
- **Protection class:** IP 65
- **Conformities:** EAC | UL Recognized US

Technical data depends on the respective configuration



Product line

					
	GEMÜ 52	GEMÜ 102	GEMÜ 202	GEMÜ 205	GEMÜ 225
Nominal sizes	DN 2 to 6	DN 6 to 10	DN 10 to 15	DN 10 to 50	DN 15 to 50
Voltage					
120 V AC, 50/60 Hz	●	●	●	●	●
230 V AC, 50/60 Hz	●	●	●	●	●
24 V AC, 50/60 Hz	●	●	●	●	●
24 V DC	●	●	●	●	●
Media temperature *	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C	-20 to 60 °C	-20 to 60 °C
Operating pressure *	0 to 6 bar	0 to 4 bar	0 to 2 bar	0 to 6 bar	0 to 6 bar
Connection types					
Solvent cement socket	-	●	●	●	-
Spigot	-	-	-	●	●
Threaded connection	●	●	●	●	-
Union end	-	-	-	●	●
Body material					
PVC-U	-	-	-	-	●
PVC-U, grey	●	●	●	●	-
PVDF	●	●	●	●	-

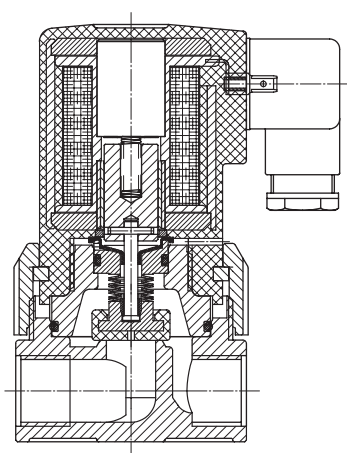
* depending on version and/or operating parameters

Product description



Item	Name	Materials
1	Plug	PA
2	Coil housing	PP
3	Union of valve housing	PVC-U, grey or PVDF
4	Valve body	PVC-U, grey or PVDF
	Seal materials	FKM, PTFE or EPDM

Sectional view



GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:

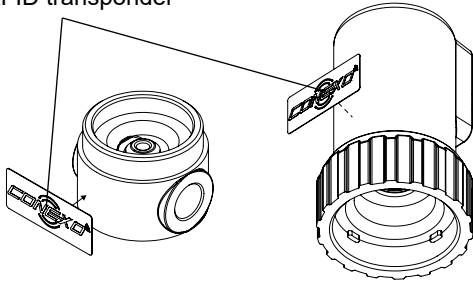
www.gemu-group.com/conexo

Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

Installing the RFID chip

RFID transponder



Availability

Voltage/Frequency

	Standard	UL approval
24 V 50/60 Hz	X	X
120 V 50/60 Hz	X	-
230 V 50/60 Hz	X	-
24 V DC	X	X

Valve body material

	PVC-U	PVDF
Threaded socket	X	X
Solvent cement socket	X	-

Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

Order codes

1 Type	Code
Solenoid valve, directly controlled	102

2 DN	Code
DN 6	6
DN 8	8
DN 10	10

3 Body configuration	Code
2/2-way body	D
Angle valve body	E

4 Connection type	Code
Threaded socket DIN ISO 228	1
Solvent cement socket DIN	2

5 Valve body material	Code
PVC-U, grey	1
PVDF	20

6 Seal material	Code
FKM	4

6 Seal material	Code
PTFE	5
EPDM	14

7 Control function	Code
Normally closed (NC)	1

8 Voltage	Code
24 V	24
120 V	120
230 V	230

9 Frequency	Code
DC	DC
50 - 60 Hz	50/60

10 Special specification	Code
UL approval	U
Without	

11 CONEXO	Code
Integrated RFID chip for electronic identification and traceability	C

Order example

Ordering option	Code	Description
1 Type	102	Solenoid valve, directly controlled
2 DN	6	DN 6
3 Body configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Valve body material	1	PVC-U, grey
6 Seal material	4	FKM
7 Control function	1	Normally closed (NC)
8 Voltage	230	230 V
9 Frequency	50/60	50 - 60 Hz
10 Special specification		Without
11 CONEXO	C	Integrated RFID chip for electronic identification and traceability

Technical data

Medium

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

Temperature

Media temperature: PVC-U, grey (code 1): 10 to 60 °C
PVDF (code 20): -20 to 100 °C

Ambient temperature: 10 – 40 °C

Storage temperature: 0 – 40 °C

Pressure

Operating pressure: DN 6: 0 to 4.0 bar
DN 8: 0 to 2.0 bar
DN 10: 0 to 1.0 bar
0 – 4 bar
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.

Kv values: DN 6: 0.75 m³/h
DN 8: 0.90 m³/h
DN 10: 1.10 m³/h

Leakage rate:	Seat seal	Standard	Test procedure	Leakage rate	Test medium
	EPDM, FKM, PTFE	DIN EN 12266-1	P12	A	Air

Product compliance

Machinery Directive: 2006/42/EC

Pressure Equipment Directive: 2014/68/EU

Low Voltage Directive: 2014/35/EU
Technical standards used:

Approvals: UL approval, UR (recognized) Y10Z2
Only for 24 V 50/60 Hz, 230 V 50/60 Hz and 24 V DC

Mechanical data

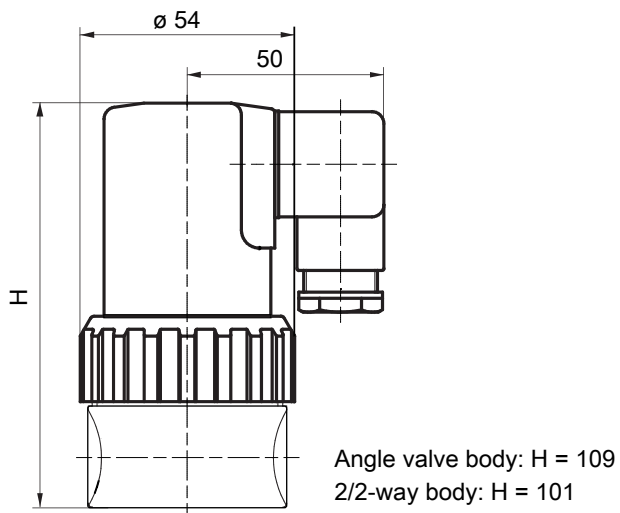
Protection class:	IP 65
Weight:	0.21 kg
Cable gland:	PG 11

Electrical data

Power consumption:	Pull in / Hold in AC and DC voltage: 9.0 W / 8.45 W (with UL approval)
Permissible voltage tolerance:	±10 % to VDE 0580
Duty cycle:	Continuous duty
Wiring note:	Special wiring on request. When using electronic switches and additional wiring, carefully design out any potential residual currents upon installation.
Installation note:	Please note: A plug with an integrated bridge rectifier must be used for the AC design (provided in the scope of delivery).

Dimensions

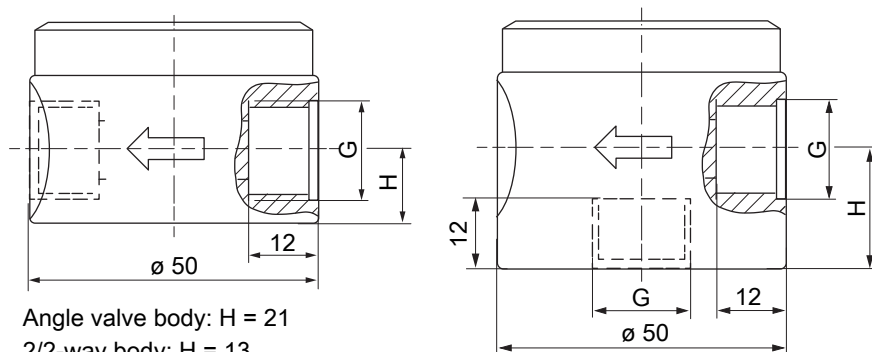
Actuator dimensions



Dimensions in mm

Body dimensions

Threaded socket (code 1)



Angle valve body: $H = 21$

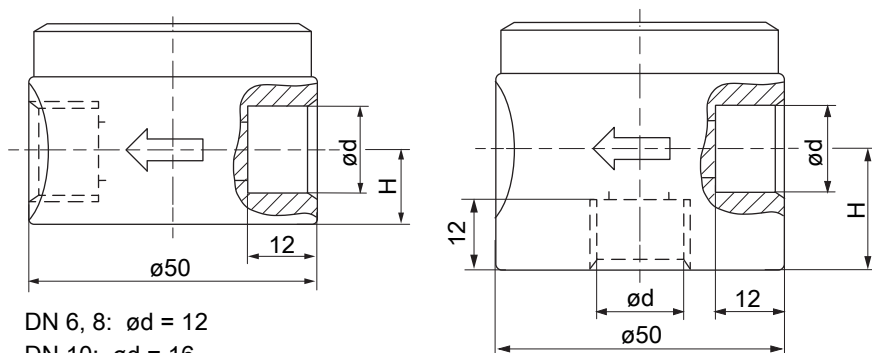
2/2-way body: $H = 13$

DN 6, 8: $G = G1/4$

DN 10: $G = G3/8$

Dimensions in mm

Solvent cement socket (code 2)



DN 6, 8: $\text{ød} = 12$

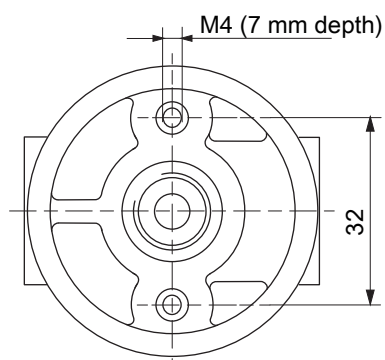
DN 10: $\text{ød} = 16$

Angle valve body $H = 21$

2/2-way body $H = 13$

Dimensions in mm

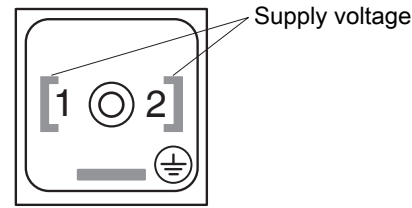
Mounting dimensions



Dimensions in mm

Electrical connection

Connection diagram for plug



Accessories



GEMÜ 2026

Plug

GEMÜ 2026 are plugs with lights, with or without interference suppression. Various versions available. The DC voltage version with a bridge rectifier has a plug with reverse battery protection. The scope of supply comprises a gasket made from NBR and a M3x35 central screw

Designation 1	Design	Item
2026000Z AM1600S2 2C1	24V DC, M16, suppressor diode, 2-pin	88668463
2026000Z AM16G0S2 2C1	24V DC, M16, green LED, suppressor diode, 2-pin	88668468
2026000Z AM16GBV2 2C1	24V DC, M16, green LED, bridge rectifier, varistor, 2-pin	88668469
2026000Z AM16GBS2 2C1	24V DC, M16, green LED, bridge rectifier, suppressor diode, 2-pin	88668470
2026000Z AM16G002 2C1	24V DC, M16, green LED, 2-pin	88668471
2026000Z AM16G0V2 2C1	24V DC, M16, varistor, green LED, 2-pin	88668473
2026000Z AM160BV2 2L4	230V 50/60Hz, M16, bridge rectifier, varistor, 2-pin	88668464
2026000Z AM160002 2L4	230V 50/60Hz, M16, 2-pin	88668465
2026000Z AM160003 2L4	230V 50/60Hz, M16, 3-pin	88668466
2026000Z AM160002 2L42M	230V 50/60Hz, M16, 2-pin, 2 m cable	88668474
2026000Z AM160002 2L45M	230V 50/60Hz, M16, 2-pin, 5 m cable	88668475
2026000Z AM16Y002 2L4	230V 50/60Hz, M16, yellow LED, 2-pin	88668476
2026000Z AM16Y0S2 2L4	230V 50/60Hz, M16, yellow LED, suppressor diode, 2-pin	88668477

Design dependent on selected product configuration. Contact GEMÜ.



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