Solenoid Valves, Plastic

Construction

These directly controlled 2/2 way solenoid valves have a completely plastic encapsulated DC solenoid which drives the armature. The displacement of the armature takes place within a bellows made of PTFE backed by a safety diaphragm which provides additional sealing protection. The valve seat is directly mounted to the bellows. The valve body can be supplied either for straight through flow or with inlet and outlet at right angles. The electrical connection is a socket complying with DIN 43 650. It has a rectifier for use with an AC supply.

Features

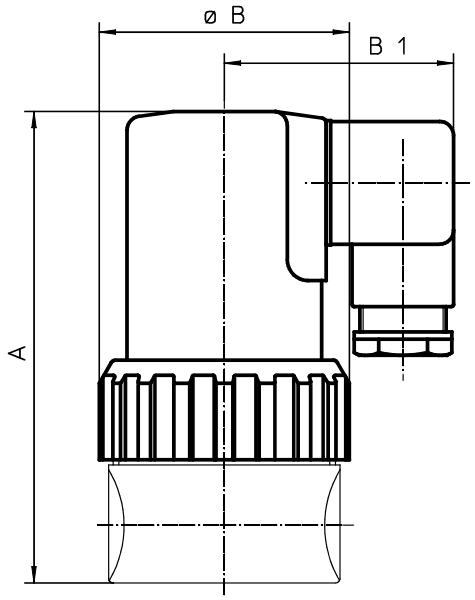
- Suitable for inert and corrosive* liquids and gaseous media
- Corrosion-resistant, therefore suitable for water treatment plants, washing and cleaning installations, the food and foodstuffs industries, the chemical industry, electroplating, decontamination plants, titration equipment, for the photographic industry and for laboratory, analytical and medical apparatus.

Advantages

- Easy to clean; the valve can be dismantled without tools by unscrewing the union nut
- The solenoid can be replaced without removing the valve body from the pipeline
- Hermetic separation between medium and actuator
- Compact construction

* see information on working medium on page 2

Dimensions - GEMÜ 52, 102, 202 (mm)



Type	A		ø B	B1
Body configuration	D	E		
52	83	91	38	45
102	101	109	54	50
202	123	123	68	60

GEMÜ 52

GEMÜ 102

GEMÜ 202

GEMÜ® 52, 102, 202

Technical specifications

Working medium

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

Max. perm. temperature of working medium:
see data sheet “Technical Information on Plastic Materials”

Max. perm. ambient temperature 40° C

Permissible voltage tolerance to VDE 0580

GEMÜ 52	-10%/+6%
GEMÜ 102	-10%/+6%
GEMÜ 202	-10%/+6%

Rating

100% continuously rated

Protection class

IP 65

Max. switching frequency

GEMÜ 52:	2000-3000 times per hour depending on viscosity of working medium
GEMÜ 102:	2000-3000 times per hour depending on viscosity of working medium
GEMÜ 202:	1000-3000 times per hour depending on viscosity of working medium

Cable gland

PG 11

Approvals

Approved according to UL

24, 42, 48, 110, 220, 240 V	50 Hz
24, 120, 220, 240 V	60 Hz
12, 24, 48, 110, 120 V	DC

Note

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

Order specifications

Type	Nom. size	Working press.*	K_v value	Weight
	Valve seat	(bar)	(m³/h)	(kg)
52	2	0-6	0.15	0.21
52	4	0-3	0.30	0.21
52	6	0-1.5	0.60	0.21
102	6	0-4	0.75	0.48
102	8	0-2	0.90	0.58
102	10	0-1	1.10	0.48
202	10	0-2	1.70	1.2
202	15	0-1	2.30	1.2

* Working pressure applies for free outlet. For closed systems the pressure drop between inlet and outlet must be at least 1 bar. All pressures are given as gauge values.

Body configuration

	Ref. no.
Straight through body	D
Angled body (outlet downwards)	E

Connection

	Ref. no.
Threaded sockets	1
Solvent cement sockets - DIN (only with PVC)	2

Valve body material

	Ref. no.
PVC-U, grey	1
PVDF	20

Seal material

	Ref. no.
FPM	4
PTFE	5
EPDM	14

Control function

	Ref. no.
Normally closed	1

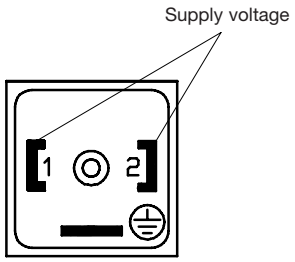
Supply voltage / Mains frequency

	Volt / Hz
AC voltage	
24, 42, 48, 110, 120, 220, 230, 240 V 50/60 Hz	50/60
DC voltage	
12, 24, 48, 110, 120 V	DC

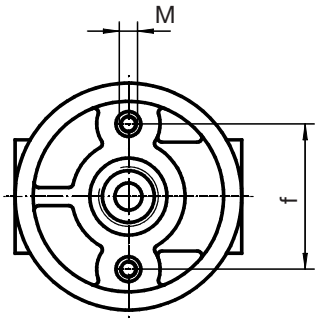
Other voltages and frequencies upon request.

Order example	102	10	D	2	1	4	1	230	50/60
Type	102								
Nominal size		10							
Body configuration (ref. no.)			D						
Connection (ref. no.)				2					
Valve body material (ref. no.)					1				
Seal material (ref. no.)						4			
Control function (ref. no.)							1		
Supply voltage (Volt)								230	
Mains frequency (Hz)									50/60

Connection diagram

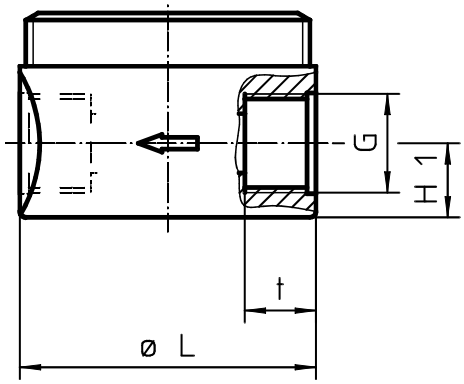


Mounting dimensions GEMÜ 52, 102, 202 (mm)



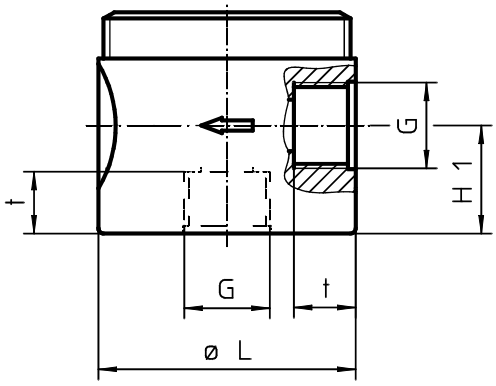
Type	f	M
52	22.5	M3 - 5 mm deep
102	32	M4 - 7 mm deep
202	40	M5 - 9 mm deep

Body dimensions - Threaded sockets ref. no. 1 Body configuration D (mm)



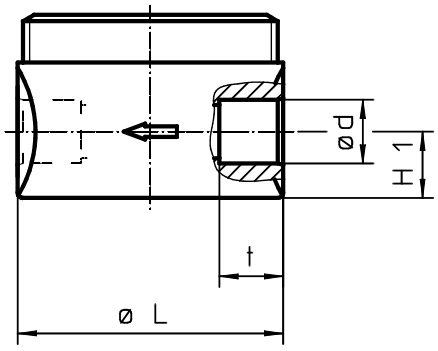
Type	DN	G	H1	t	L
52	2	G 1/4	11	11	38
52	4	G 1/4	11	11	38
52	6	G 1/4	11	11	38
102	6	G 1/4	13	12	50
102	8	G 1/4	13	12	50
102	10	G 3/8	13	12	50
202	10	G 3/8	15	16	68
202	15	G 1/2	15	16	68

Body dimensions - Threaded sockets ref. no. 1 Body configuration E (mm)



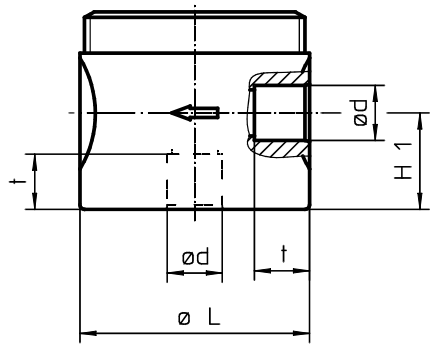
Type	DN	G	H1	t	L
52	2	G 1/4	19	11	38
52	4	G 1/4	19	11	38
52	6	G 1/4	19	11	38
102	6	G 1/4	21	12	50
102	8	G 1/4	21	12	50
102	10	G 3/8	21	12	50
202	10	G 3/8	15	16	68
202	15	G 1/2	15	16	68

Body dimensions - Solvent cement sockets ref. no. 2 Body configuration D (mm)



Type	DN	ø d	H1	t	L
52	2	10	11	11	38
52	4	10	11	11	38
52	6	10	11	11	38
102	6	12	13	12	50
102	8	12	13	12	50
102	10	16	13	12	50
202	10	16	15	16	68
202	15	20	15	16	68

Body dimensions - Solvent cement sockets ref. no. 2 Body configuration E (mm)



Type	DN	ø d	H1	t	L
52	2	10	19	11	38
52	4	10	19	11	38
52	6	10	19	11	38
102	6	12	21	12	50
102	8	12	21	12	50
102	10	16	21	12	50
202	10	16	15	16	68
202	15	20	15	16	68

Overview of valve bodies for GEMÜ 52, 102, 202

Material ref. no.		PVC-U (ref. no. 1)		PVDF (ref. no. 20)
Connection ref. no.		1	2	1
Type	DN			
52	2	X	X	X
52	4	X	X	X
52	6	X	X	X
102	6	X	X	X
102	8	X	X	X
102	10	X	X	X
202	10	X	X	X
202	15	X	X	X

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

TÜV CERT DIN EN ISO 9001 Zertifikat: 09 100 4136

GEMÜ® VALVES, ACTUATORS AND CONTROL SYSTEMS

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