

GEMÜ 225

Electrically operated solenoid valve



Features

- Hermetic separation between medium and actuator
- In case of power failure operation possible by manual override
- Standard integral optical position indicator

Description

The GEMÜ 225 servo assisted 2/2-way plastic solenoid valve has a high performance coil. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The plug has a rectifier for use with an AC supply. A manual override and an optical position indicator are integrated as standard.

Technical specifications

- Nominal sizes*: DN 15 to 50
- Operating pressure*: 0 to 6 bar
- Media temperature: -20 to 60 °C
- Supply voltages: 120 V, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
- Valve body materials: PVC-U
- * depending on version and/or operating parameters
- Conformities: EAC | Machinery Directive | Pressure Equipment Directive | UL



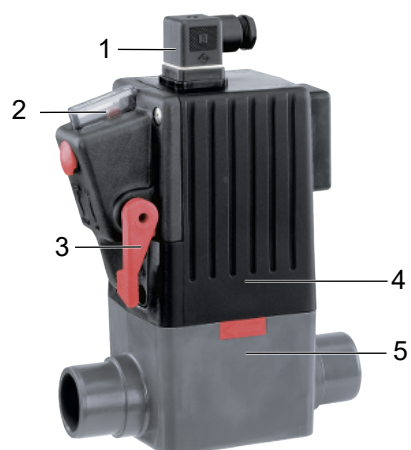
Product line



Nominal sizes	DN 2 to 6	DN 6 to 10	DN 10 to 15	DN 10 to 50	DN 15 to 50
Voltage					
12 V DC	●	●	●	-	-
120 V, 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	●	●	●	●	-
Solvent cement spigot	-	-	-	●	●
Spigot	-	-	-	●	●
Threaded socket	●	●	●	●	-
Union end	-	-	-	●	●

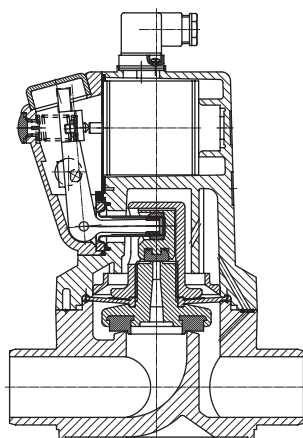
* depending on version and/or operating parameters

Product description



Item	Name	Materials
1	Plug	PA
2	Optical position indicator	PVC
3	Manual override	PBT
4	Valve housing	PBT
5	Valve body	PVC-U, grey
	Seal materials	FPM or EPDM

Sectional view



Availability

Con- nection Code ¹⁾	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
0	X	X	X	X	X	X
7	X	X	-	-	-	-
30	X	X	X	-	-	-

1) **Connection type**

Code 0: Spigot DIN

Code 7: Union end with DIN insert (socket)

Code 30: Spigot - inch

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, servo assisted	225

2 DN	Code
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50

3 Body configuration	Code
2/2-way body	D

4 Connection type	Code
Spigot DIN	0
Union end with DIN insert (socket)	7
Spigot - inch	30

5 Valve body material	Code
PVC-U, grey	1

6 Seal material	Code
FPM	4
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

Order example

Order option	Code	Description
1 Type	225	Solenoid valve, servo assisted
2 DN	15	DN 15
3 Body configuration	D	2/2-way body
4 Connection type	7	Union end with DIN insert (socket)
5 Valve body material	1	PVC-U, grey
6 Seal material	5	PTFE
7 Control function	1	Normally closed (NC)
8 Voltage	230	230 V
9 Frequency	50/60	50 - 60 Hz

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: -20 to 60 °C

Ambient temperature: 10 to 40 °C

Storage temperature: 0 to 40 °C

Product compliance

Machinery Directive: 2006/42/EC

Low Voltage Directive: 2014/35/EU

EMC Directive: 2014/30/EU

Pressure Equipment Directive: 2014/68/EU
 Technical standards used:
 EN 55011:1991 (150 kHz to 30 MHz)
 EN 55014:1993 (148.5 kHz to 30 MHz)

Mechanical data

Protection class: IP 65

Weight:	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
	0.85	0.9	0.9	2.8	2.8	3.6	3.6

Weights in kg

Pressure

Operating pressure:	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
	0.5 - 6.0	0.5 - 6.0	0 - 6.0	0 - 6.0	0 - 6.0	0 - 6.0

The operating pressure applies to free discharge conditions. In closed systems Δp between the inlet and outlet must be at least 0.1 bar.

Nominal size corresponds to valve seat diameter.

Kv values:	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
	0.8	1.8	2.3	6.0	7.5	9.5	12.5

Kv values in m³/h

Electrical data

Power consumption:	AC operation	
	Pull in	DN 15 - 20
	DN 25 - 50	400 VA
Hold in	DN 15 - 20	12 VA
	DN 25 - 50	30 VA
DC operation		
Pull in	DN 15 - 20	35 W
	DN 25 - 50	70 W

Power consumption:	Hold in	DN 15 - 20	7 W
		DN 25 - 50	18 W

Permissible voltage tolerance: ±10 % to VDE 0580

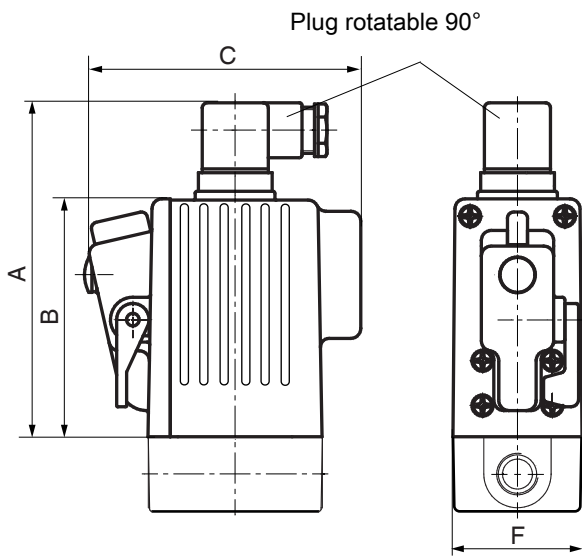
Duty cycle: Continuous duty

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: The DC solenoid is designed for unsmoothed voltages, e.g. as obtained from a bridge rectifier.

Dimensions

Actuator

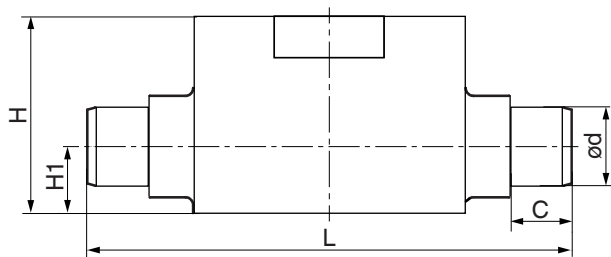


	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
A	134	134	167	167	196	196
B	100	100	128	128	157	157
C	110	110	144	144	158	158
F	52	52	88	88	110	110

Dimensions in mm

Body dimensions

Solvent cement spigot (code 0, 30)

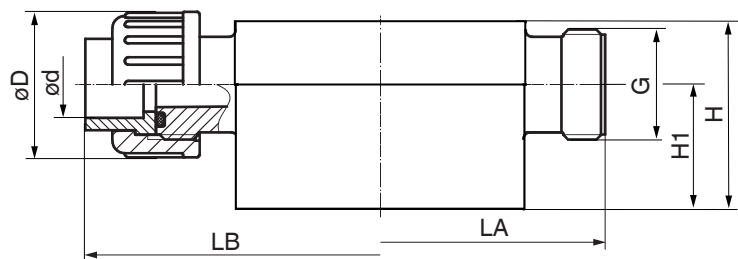


	Connection Code ¹⁾	DN 20	DN 25	DN 32	DN 40	DN 50
C		19	22	26	31	39
ød	0	25	32	40	50	63
	30	26.7	33.4	-	-	-
H		50	72	72	85	85
H1		17	24	24	34	34
L		144	154	174	194	224

Dimensions in mm

- 1) **Connection type**
 Code 0: Spigot DIN
 Code 30: Spigot - inch

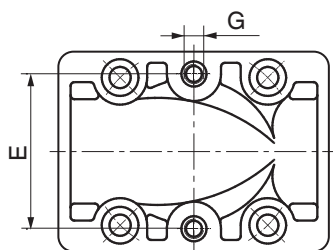
Union end with insert (code 7)



	DN 15	DN 20
$\varnothing d$	20	25
$\varnothing d$	G 1	G 1 1/4
H	63	63
H1	30	30
$\varnothing D$	43	53
LA	108	108
LB	146	152

Dimensions in mm

Mounting dimensions

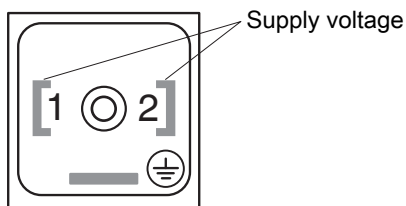


	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
E	40	40	44.5	44.5	44.5	44.5
G	M5	M5	M8	M8	M8	M8
	10 - 32 UNF	10 - 32 UNF	5/16" - 32 UNF	-	-	-

Dimensions in mm

Electrical connection

Connection diagram for plug



Accessories



GEMÜ 1220

Plug

GEMÜ 1220 is a plug complying with DIN EN 175301-803 design A with a light and with or without interference suppressor. Various versions available. The DC voltage version with a bridge rectifier has a plug with reverse battery protection.

Ordering information

For ordering information see datasheet GEMÜ 1220



GEMÜ 1221

Plug

GEMÜ 1221 is a plug complying with DIN EN 175301-803 design A without light and with or without interference suppressor. Various versions available. The DC voltage version with a bridge rectifier has a plug with reverse battery protection.

Ordering information

Type	Voltage/Frequency	Item number
1220	24 V DC	88397314
	230 V AC	88004447



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