

GEMÜ 205

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 205 directly controlled 2/2-way plastic solenoid valve has a high performance coil. It is hermetically separated from the medium by means of a flexible PTFE bush. 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 10 to 50
- Operating pressure*: 0 to 6 bar
- Supply voltages: 120 V, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
- Media temperature*: -20 to 60 °C
- Valve body materials: PVC-U | PVDF

* depending on version and/or operating parameters



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					
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	-	-	-	●	●

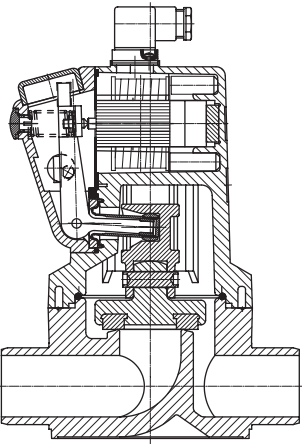
* depending on version and/or operating parameters

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 or PVDF
	Seal materials	FPM, PTFE or EPDM

Sectional view



Availability

Material Code ¹⁾	Con- nection Code ²⁾	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
1	0	-	X	X	X	X	X	X
	1	X	-	-	-	-	-	-
	2	X	-	-	-	-	-	-
	7	X	X	X	-	-	-	-
	30	-	X	X	X	-	-	-
	31	X	-	-	-	-	-	-
20	7	X	X	X	-	-	-	-

1) **Valve body material**

Code 1: PVC-U, grey

Code 20: PVDF

2) **Connection type**

Code 0: Spigot DIN

Code 1: Threaded socket DIN ISO 228

Code 2: Solvent cement socket DIN

Code 7: Union end with DIN insert (socket)

Code 30: Spigot - inch

Code 31: Threaded socket NPT

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, optical position indicator, manual override	205

2 DN	Code
DN 10	10
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
Threaded socket DIN ISO 228	1
Solvent cement socket DIN	2
Union end with DIN insert (socket)	7
Spigot - inch	30

4 Connection type	Code
Threaded socket NPT	31

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

6 Seal material	Code
FPM	4
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

Order example

Order option	Code	Description
1 Type	205	Solenoid valve, directly controlled, optical position indicator, manual override
2 DN	15	DN 15
3 Body configuration	D	2/2-way body
4 Connection type	0	Spigot DIN
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: PVC-U, grey (code 1): 10 to 60 °C
PVDF (code 20): -20 to 100 °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
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 10	DN 15	DN 20	DN 25	DN 32*	DN 40	DN 50
	0 - 6.0	0 - 2.0	0 - 1.0	0 - 1.0	0 - 1.0	0 - 0.2	0 - 0.2

* 24 V DC: 0 – 0.5 bar
All pressures are gauge pressures.
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 10 - 20	125 VA
	DN 25 - 50	400 VA
Hold in	DN 10 - 20	12 VA
	DN 25 - 50	30 VA
DC operation		
Pull in	DN 10 - 20	35 W

Power consumption:

	DN 25 - 50	70 W
Hold in	DN 10 - 20	7 W
	DN 25 - 50	18 W

Permissible voltage tolerance: $\pm 10\%$ to VDE 0580

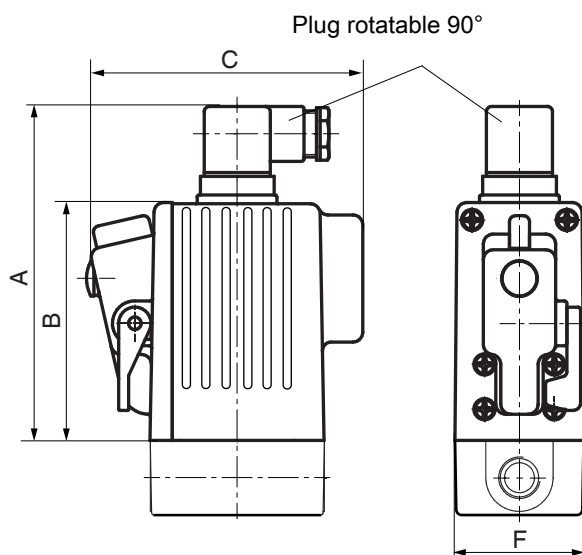
Duty cycle: Continuous duty

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

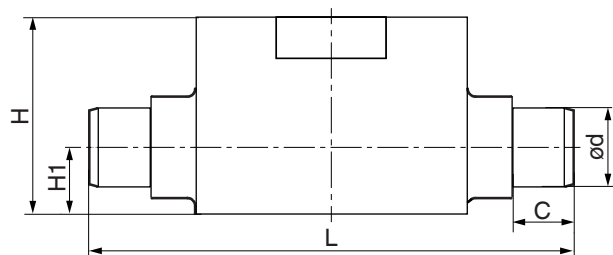


	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
A	134	134	134	167	167	196	196
B	100	100	100	128	128	157	157
C	110	110	110	144	144	158	158
F	52	52	52	88	88	110	110

Dimensions in mm

Body dimensions

Solvent cement spigot (code 0, 30)



	Connection Code ¹⁾	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
C		16	19	22	26	31	39
ød	0	20	25	32	40	50	63
	30	21.3	26.7	33.4	-	-	-
H		50	50	72	72	85	85
H1		17	17	24	24	34	34
L		124	144	154	174	194	224

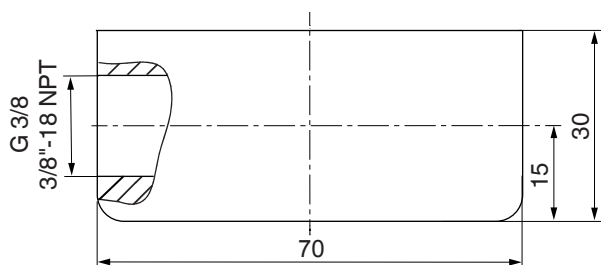
Dimensions in mm

1) Connection type

Code 0: Spigot DIN

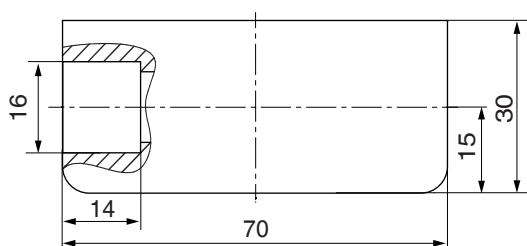
Code 30: Spigot - inch

Threaded socket (code 1, 31)



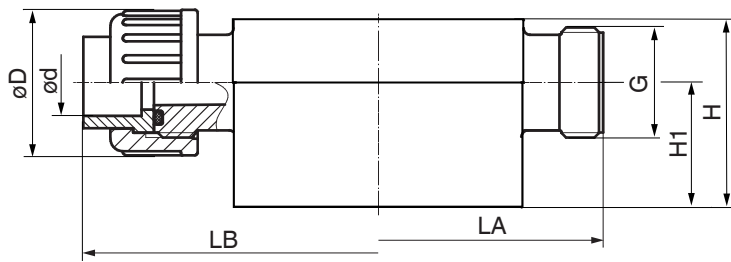
Dimensions in mm

Solvent cement socket (code 2)



Dimensions in mm

Union end with insert (code 7)



	Material Code ¹⁾	DN 10	DN 15	DN 20
$\varnothing d$		16	20	25
$\varnothing d$		G 3/4	G 1	G 1 1/4
H		45	63	63
H1		30	30	30
$\varnothing D$	1	35	43	53
LA		108	108	108
LB		142	146	152
$\varnothing D$	20	34	47	57
LA		106	106	106
LB		142	144	148

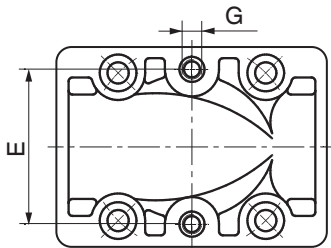
Dimensions in mm

1) Valve body material

Code 1: PVC-U, grey

Code 20: PVDF

Mounting dimensions



	Connection Code ¹⁾	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
E		40	40	40	44.5	44.5	44.5	44.5
G	0,1,2,7	M5	M5	M5	M8	M8	M8	M8
	30,31	8 - 36 UNF	10 - 32 UNF	10 - 32 UNF	5/16" - 32 UNF	-	-	-

Dimensions in mm

1) Connection type

Code 0: Spigot DIN

Code 1: Threaded socket DIN ISO 228

Code 2: Solvent cement socket DIN

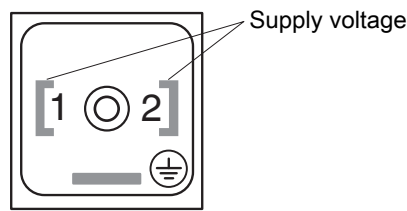
Code 7: Union end with DIN insert (socket)

Code 30: Spigot - inch

Code 31: Threaded socket NPT

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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