

# 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



Nominal sizes	DN 2 to 6	DN 6 to 10	DN 10 to 15	DN 10 to 50	DN 15 to 50
<b>Voltage</b>					
12 V DC	●	●	●	-	-
120 V, 50/60 Hz	●	●	●	●	●
230 V AC, 50/60 Hz	●	●	●	●	●
24 V AC, 50/60 Hz	●	●	●	●	●
24 V DC	●	●	●	●	●
<b>Media temperature</b>	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C	-20 to 60 °C	-20 to 60 °C
<b>Operating pressure</b>	0 to 6 bar	0 to 4 bar	0 to 2 bar	0 to 6 bar	0 to 6 bar
<b>Connection types</b>					
Solvent cement socket	●	●	●	●	-
Solvent cement spigot	-	-	-	●	●
Spigot	-	-	-	●	●
Threaded socket	●	●	●	●	-
Union end	-	-	-	●	●

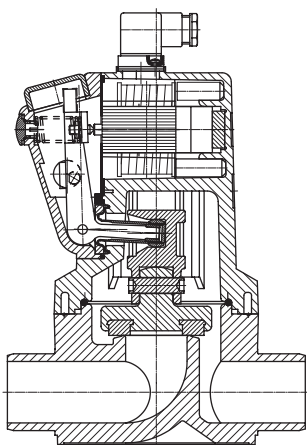
\* depending on version and/or operating parameters

## 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 <sup>1)</sup>	Con- nection Code <sup>2)</sup>	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
<b>1</b>	<b>0</b>	-	X	X	X	X	X	X
	<b>1</b>	X	-	-	-	-	-	-
	<b>2</b>	X	-	-	-	-	-	-
	<b>7</b>	X	X	X	-	-	-	-
	<b>30</b>	-	X	X	X	-	-	-
	<b>31</b>	X	-	-	-	-	-	-
<b>20</b>	<b>7</b>	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:** ±10 % to VDE 0580

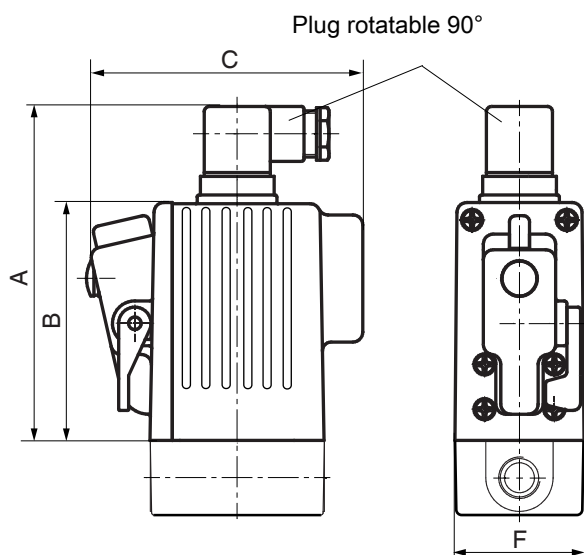
**Duty cycle:** Continuous duty

**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

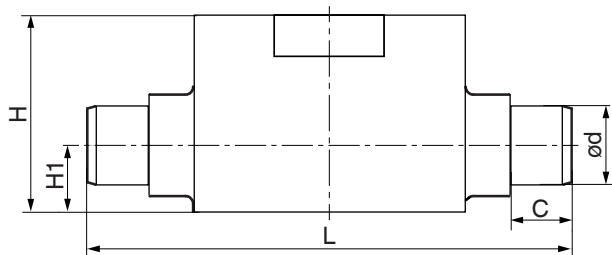


	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
<b>A</b>	134	134	134	167	167	196	196
<b>B</b>	100	100	100	128	128	157	157
<b>C</b>	110	110	110	144	144	158	158
<b>F</b>	52	52	52	88	88	110	110

Dimensions in mm

## Body dimensions

### Solvent cement spigot (code 0, 30)

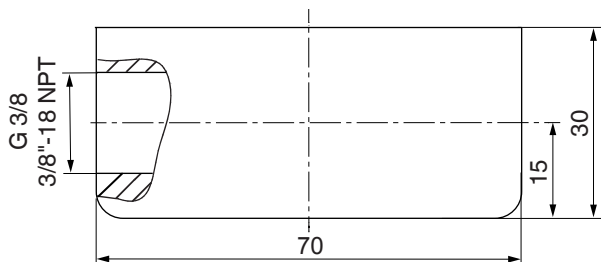


	Connection Code <sup>1)</sup>	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
<b>C</b>		16	19	22	26	31	39
<b>ød</b>	<b>0</b>	20	25	32	40	50	63
	<b>30</b>	21.3	26.7	33.4	-	-	-
<b>H</b>		50	50	72	72	85	85
<b>H1</b>		17	17	24	24	34	34
<b>L</b>		124	144	154	174	194	224

Dimensions in mm

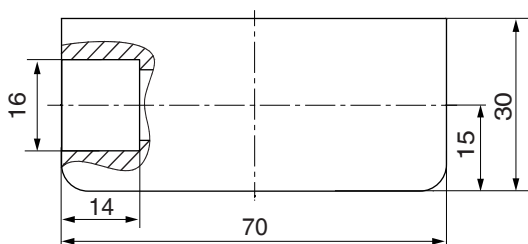
- 1) **Connection type**  
 Code 0: Spigot DIN  
 Code 30: Spigot - inch

### Threaded socket (code 1, 31)



Dimensions in mm

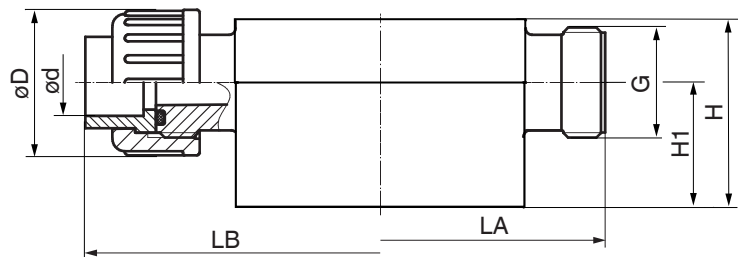
### Solvent cement socket (code 2)



Dimensions in mm



**Union end with insert (code 7)**

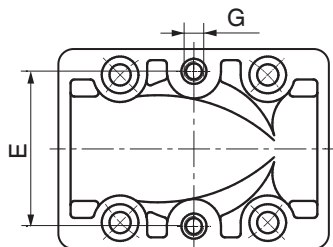


	Material Code <sup>1)</sup>	DN 10	DN 15	DN 20
$\varnothing d$		16	20	25
$\varnothing d$		G 3/4	G 1	G 1 1/4
H		45	63	63
H1		30	30	30
$\varnothing D$	1	35	43	53
LA		108	108	108
LB		142	146	152
$\varnothing D$	20	34	47	57
LA		106	106	106
LB		142	144	148

Dimensions in mm

- 1) **Valve body material**  
 Code 1: PVC-U, grey  
 Code 20: PVDF

**Mounting dimensions**



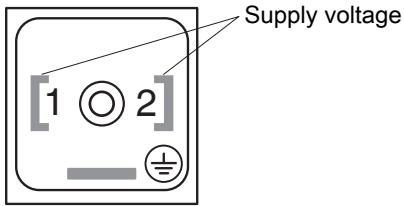
	Connection Code <sup>1)</sup>	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
E		40	40	40	44.5	44.5	44.5	44.5
G	0,1,2,7	M5	M5	M5	M8	M8	M8	M8
	30,31	8 - 36 UNF	10 - 32 UNF	10 - 32 UNF	5/16" - 32 UNF	-	-	-

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



GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG  
Fritz-Müller-Straße 6-8, 74653 Ingelfingen-Criesbach,  
Germany  
Tel. +49 (0)7940 123-0 · info@gemue.de  
www.gemu-group.com

Subject to alteration | 06.2019 | 88048731