

Solenoid Valve Plastic

Construction

The GEMÜ 105 directly controlled 2/2-way plastic solenoid valve has a high performance AC coil which is hermetically separated from the medium by means of a flexible PTFE bush. The valve seal is carried in a pendulum bearing. The electrical connection is made via a plug complying with DIN EN 175301-803 Form A. The valve has a manual override and an optical position indicator as standard.

Features

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

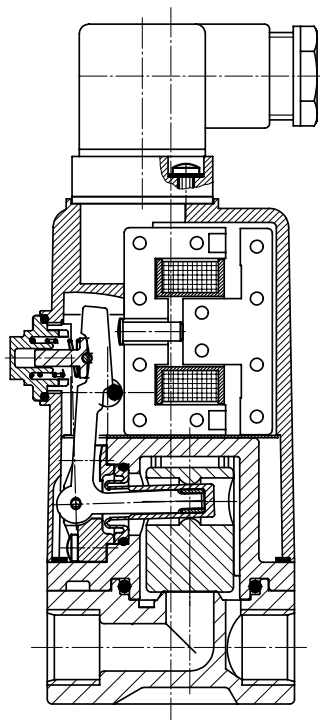
Advantages

- Hermetic separation of medium and actuator
- Manual override allows the valve to be opened and closed during a power failure
- Optical position indicator
- UL approval available

* See information on working medium on page 2



Sectional drawing - GEMÜ 105



Technical data

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 of working medium:

PVC-U (Code 1)	10 ... 60 °C
PVDF (Code 20)	-20 ... 80 °C

Rating

100 % continuous

Approvals

UL approval

Ambient conditions

Max. permissible ambient temperature 40 °C

Protection class to EN 60529

IP 65

Max. switching frequency

1200 times per hour

Electrical data

Power supply*

Supply voltage (±10%)

24 V AC

120 V AC

230 V AC

Mains frequency

50 Hz

50/60 Hz

50/60 Hz

Electrical power consumption

Pull in/Hold in power

14 VA

*permissible voltage tolerance to VDE 0580

Pressure / temperature correlation for plastic

Temperature in °C (plastic body)		-20	-10	±0	5	10	20	25	30	40	50	60
Valve body material		permissible operating pressure in bar										
PVC-U	Code 1	-	-	-	-	6.0	6.0	6.0	4.8	3.6	2.1	0.9
PVDF	Code 20	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.8	4.3	3.8

Data for extended temperature ranges on request. Please note that the ambient temperature and medium temperature generate a combined temperature at the valve body which must not exceed the above values.

Nominal size*	Operating pressure	K _V -value	Weight
DN	[bar]	[m ³ /h]	[kg]
6	0 - 6	0.9	0.35
10	0 - 1.5	1.5	0.35

*Nominal size corresponds to valve seat diameter.

All pressures are given as gauge values.

Wiring note:

Special wiring on request. When using electronic switches and additional wiring avoid inadmissible residual currents by proper design.

Order data

Body configuration	Code
2/2-way body	D

Control function	Code
Normally closed	1

Connection	Code
Threaded sockets DIN ISO 228	1
Solvent cement sockets, DIN	2
Union ends with DIN insert (socket)	7
Threaded sockets NPT	31
Union ends with inch insert (socket)	33

Supply voltage	Code
24 V AC	24
120 V AC	120
230 V AC	230

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

Mains frequency	Code
50 Hz	50
50/60 Hz	50/60

Seal material	Code
FPM	4
PTFE	5
EPDM	14

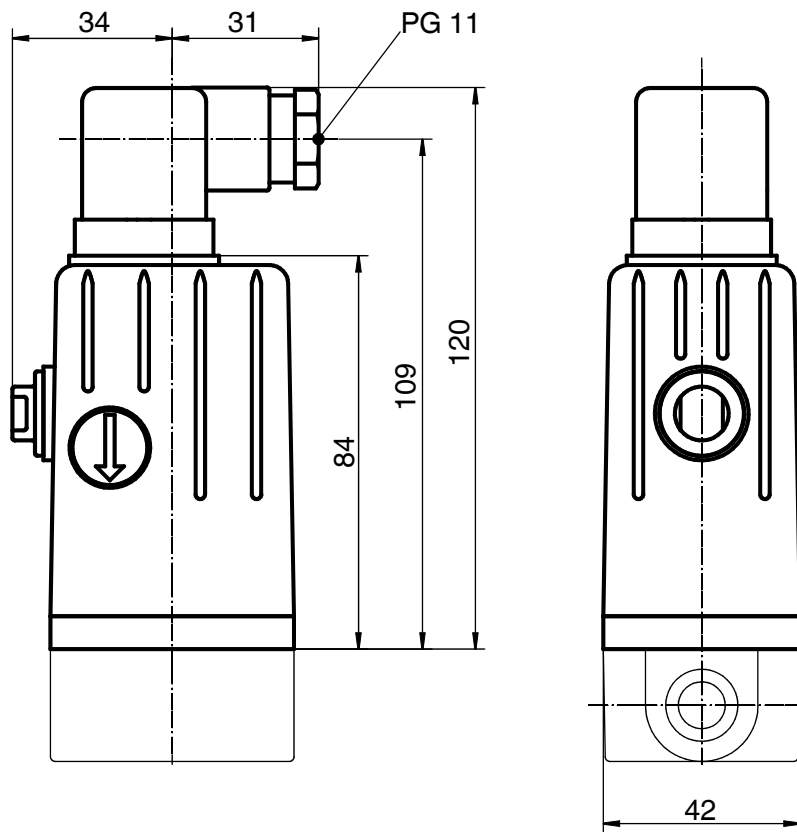
Order example	105	6	D	2	1	5	1	230	50/60
Type	105								
Nominal size		6							
Body configuration (code)			D						
Connection (code)				2					
Valve body material (code)					1				
Seal material (code)						5			
Control function (code)							1		
Supply voltage (code)								230	
Mains frequency (code)									50/60

Order information: Suitable plug acc. to DIN EN 175301-803 form A, loose plug: type GEMÜ 1220/1221

Voltage / Frequency availability

AC: 24 V (50 Hz), 120 V (50/60 Hz), 230 V (50/60 Hz)

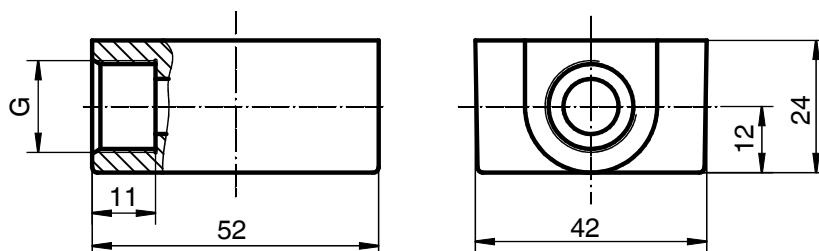
Actuator dimensions - GEMÜ 105 [mm]



Body dimensions [mm]

Threaded sockets, connection code 1, 31
Valve body material: PVC-U (code 1), PVDF (code 20)

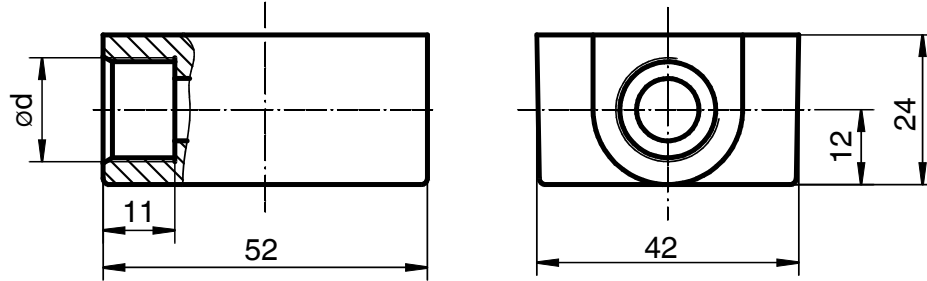
DN	G	
	Code 1	Code 31
6	G 1/4	1/4 NPT
10	G 3/8	3/8 NPT



Body dimensions [mm]

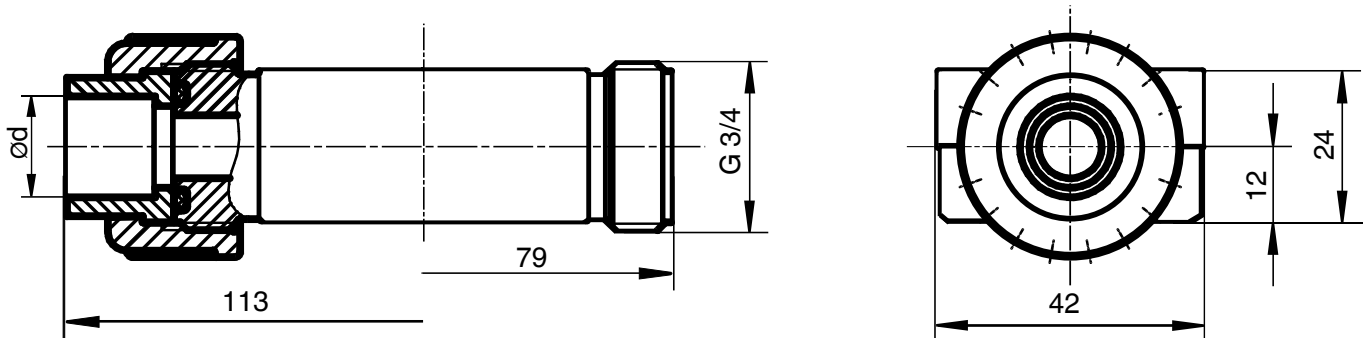
Solvent cement sockets, connection code 2
Valve body material: PVC-U (code 1)

DN	ø d
6	10
10	16

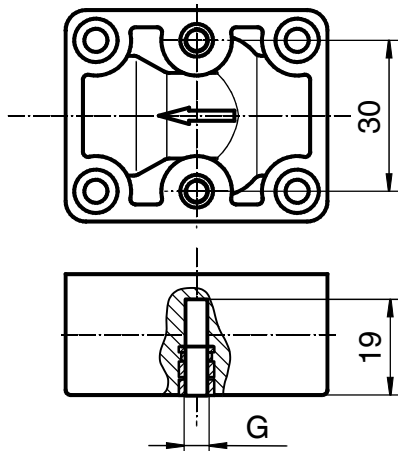


Union ends with insert, connection code 7, 33
Valve body material: PVC-U (code 1), PVDF (code 20)

DN	ø d	
	Code 7	Code 33
10	16	3/8"

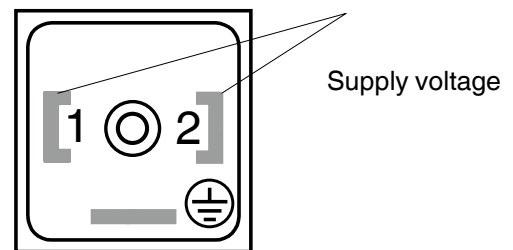


**Mounting dimensions [mm]
GEMÜ 105**



DN	G	
	Connection code 1, 2, 7	Connection code 30, 31
6, 10	M5	10 - 32 UNF

**Connection diagram for plug
form A (DIN EN 175301-803)**



The GEMÜ 1220 plug (with light) or GEMÜ 1221 (without light) is available as a spare part.

Overview of valve bodies for GEMÜ 105

Material code	PVC-U (Code 1)					PVDF (Code 20)		
Connection code	1	2	31	7	33	1	31	7
DN 6	X	X	X	-	-	X	X	-
DN 10	X	X	X	X	X	X	X	X

Other GEMÜ plastic solenoid valves



GEMÜ 52, 102, 202
DN 2 - 15 (0 - 6 bar)



GEMÜ 205
DN 10 - 50 (0 - 6 bar)



GEMÜ 225
DN 15 - 50 (0 - 6 bar)

Other GEMÜ brass or stainless steel solenoid valves



GEMÜ 8253
DN 8 - 50 (0 - 10 bar)



GEMÜ 8257
DN 10 (0 - 10 bar)



GEMÜ 8258
DN 8 - 50 (0.1 - 16 bar)



GEMÜ 8259
DN 2 - 5 (0 - 20 bar)

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



GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS

