

## **GEMÜ J70**

*Electrically operated solenoid valve, PD technology*



### **Features**

- Precise dosing possible
- Good cleanability
- Hermetic separation between medium and actuator
- The solenoid can be replaced without removing the valve body from the piping
- Suitable for vacuum applications

---

### **Description**

The compact GEMÜ J70 2/2-way solenoid valve is electrically operated and is ideal for dosing and analysis applications. The hermetic sealing between the medium and the actuator is ensured via a highly resistant plug diaphragm (PD) made of PTFE. The metal actuator is also optionally available with a plastic housing.

### **Technical specifications**

- **Media temperature:** -10 to 90 °C
- **Ambient temperature:** -10 to 40 °C
- **Operating pressure:** 0 to 6 bar
- **Nominal size:** DN 8
- **Body materials:** 1.4404
- **Supply voltage:** 24 V DC

Technical data depends on the respective configuration



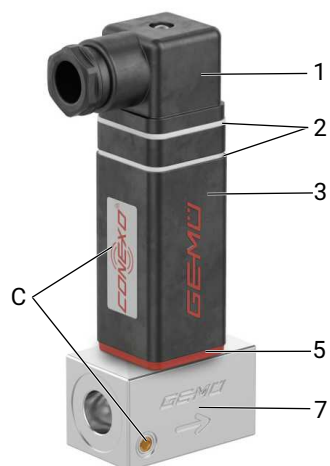
## Contents

<b>1</b>	<b>Product description</b> .....	<b>3</b>
1.1	Construction .....	3
1.2	PD technology.....	4
<b>2</b>	<b>Availabilities</b> .....	<b>5</b>
<b>3</b>	<b>Order data</b> .....	<b>6</b>
<b>4</b>	<b>Technical data</b> .....	<b>7</b>
<b>5</b>	<b>Dimensions</b> .....	<b>9</b>
5.1	Solenoid valve with housing without plug (electrical connection code 00) .....	9
5.2	Solenoid valve with housing and plug (electrical connection code 01).....	9
5.3	Solenoid valve with housing and M12 plug (electrical connection code 02) .....	10
5.4	Solenoid valve without housing (electrical connection code 00M2) .....	10
<b>6</b>	<b>Electrical connection</b> .....	<b>11</b>
6.1	Solenoid valve with housing and plug (electrical connection code 01) .....	11
6.2	Solenoid valve with housing and M12 plug (electrical connection code 03) .....	11
<b>7</b>	<b>GEMÜ CONEXO</b> .....	<b>12</b>

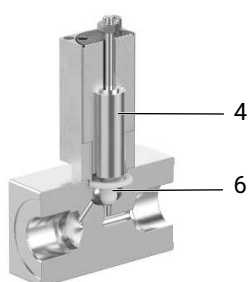
## Product description

### Construction

J70 with housing and Conexo

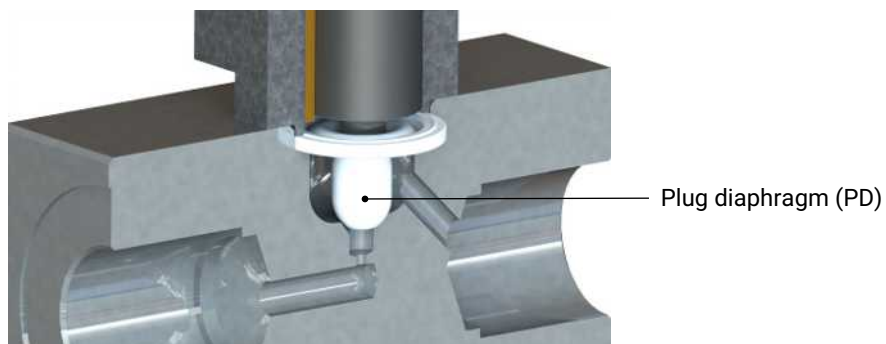


J70 without housing



Item	Name	Materials
1	Plug design A	PA 6 GF
2	Seal	NBR (punched)
3	Housing	PA 66 30 glass fibre reinforced (machined)
4	Solenoid	
5	Moulded seal	FKM (injected)
6	PD	PTFE
7	Valve body	1.4404
C	CONEXO tag with RFID chip	

## **PD technology**



With the PD (plug diaphragm) technology, the media wetted area is separated from the actuator by a plug diaphragm made from modified PTFE.

PTFE is composed of linear, extremely long carbon chains which are surrounded exclusively by fluorine atoms. They spatially shield the carbon atoms, thereby protecting the molecule from chemical attack – even at higher temperatures.

### **Advantages**

- Unique sealing concept with highly resistant plug diaphragm (PD) made from PTFE (TFM™)
- Hermetic separation of the actuator from the media flow
- Significantly reduced dead spaces
- Effective cleanability

## Availabilities

### Electrical connection

DN	J70 with plastic housing					J70 without plastic housing
	Electrical connection (code) <sup>1)</sup>					
	00	01	02	03	03M0	00M2
<b>8</b>	X	X	X*	X*	X*	X

\* on request

1) **Electrical connection**

Code 00: Plug design A

Code 01: Plug design A, with cable socket, without cable

Code 02: M12 plug, (only NC and 24V DC version)

Code 03: M12 plug, with cable socket, without cable, (only NC and 24V DC version)

Code 00M2: Fitted with 0.2 m cable

Code 03M0: Fitted with 3 m cable

## 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, PD technology	J70
2 DN	Code
DN 8	8
3 Body configuration	Code
2/2-way body	D
4 Connection type	Code
Threaded socket DIN ISO 228	1
5 Valve body material	Code
J70 without plastic housing	
1.4404	E4
J70 with plastic housing	
1.4404 / with black PA housing	K7
6 Seal material	Code
PTFE	5
7 Control function	Code
Normally closed (NC)	1
8 Voltage/Frequency	Code
24 V DC	C1

9 Electrical connection	Code
J70 with plastic housing	
Plug design A	00
Plug design A, with cable socket, without cable	01
M12 plug, (only NC and 24V DC version)	02
M12 plug, with cable socket, without cable, (only NC and 24V DC version)	03
Fitted with 3 m cable	03M0
J70 without plastic housing	
Fitted with 0.2 m cable	00M2
10 Through hole	Code
Through hole 1.0 mm	1
11 Type of design	Code
Without	
12 CONEXO	Code
Without	00
Integrated RFID chip for electronic identification and traceability	C

## Order example

Ordering option	Code	Description
1 Type	J70	Solenoid valve, PD technology
2 DN	8	DN 8
3 Body configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Valve body material	E4	1.4404
6 Seal material	5	PTFE
7 Control function	1	Normally closed (NC)
8 Voltage/Frequency	C1	24 V DC
9 Electrical connection	00	Plug design A
10 Through hole	1	Through hole 1.0 mm
11 Type of design		Without
12 CONEXO	00	Without

## 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:** -10 – 90 °C

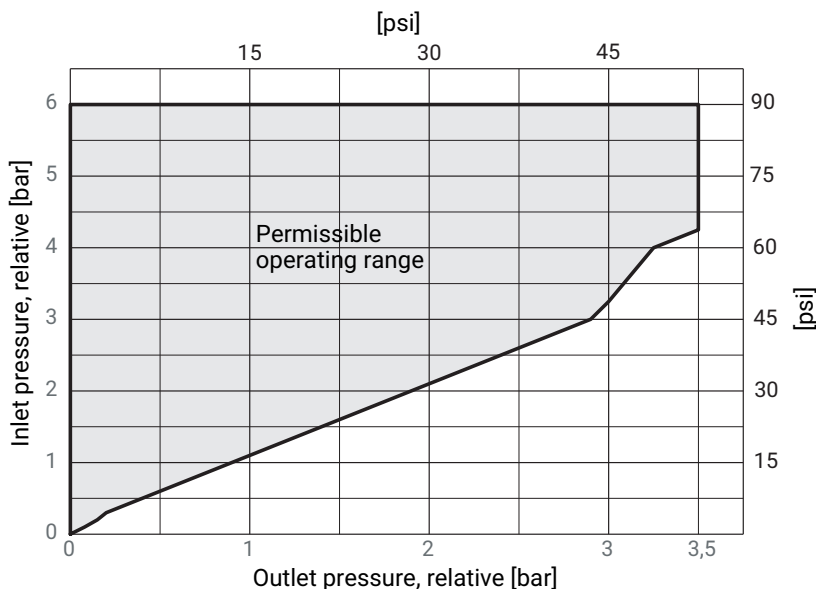
**Ambient temperature:** -10 – 40 °C

**Storage temperature:** 0 – 40 °C

### Pressure

**Operating pressure:** max. 6 bar

The operating pressures apply at room temperature. In case of deviating temperatures, observe the pressure / temperature correlation.



Other pressure ranges on request

**Vacuum:** -930 mbar (relative)/83.25 mbar (absolute)

**Pressure rating:** PN 10

**Leakage rate:** A (acc. to EN 12266-1)

**Kv value:** 25.3 l/h  
 Kv values determined based on standard DIN EN 1267, medium: water  
 Tolerance ± 5 %

### Product conformity

**Machinery Directive:** 2006/42/EC

### **Electrical data**

<b>Supply voltage:</b>	24 V DC
<b>Electrical connection type:</b>	M12 plug (A-coded), 3-pin Plug design A, DIN EN 175301-803 Stranded wire (0.2 m) Cable (3 m, shield IP 69K)
<b>Power consumption:</b>	Pull in: 9.12 W Hold in: 8.40 W
<b>Permissible voltage tolerance:</b>	±10 % to VDE 0580
<b>Duty cycle:</b>	50% duty

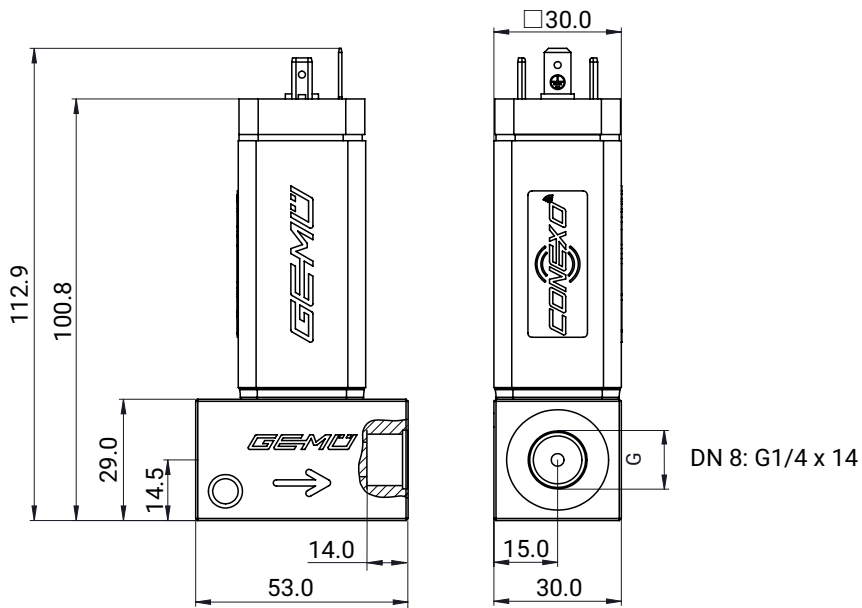
### **Mechanical data**

<b>Protection class:</b>	J70 with plastic housing: IP 65 J70 without plastic housing: IP 20 (device), IP 00 (connection)
<b>Weight:</b>	1.0 kg
<b>Operating time:</b>	Closing time: 13.5 ms Opening time: 8.5 ms
<b>Installation position:</b>	Optional



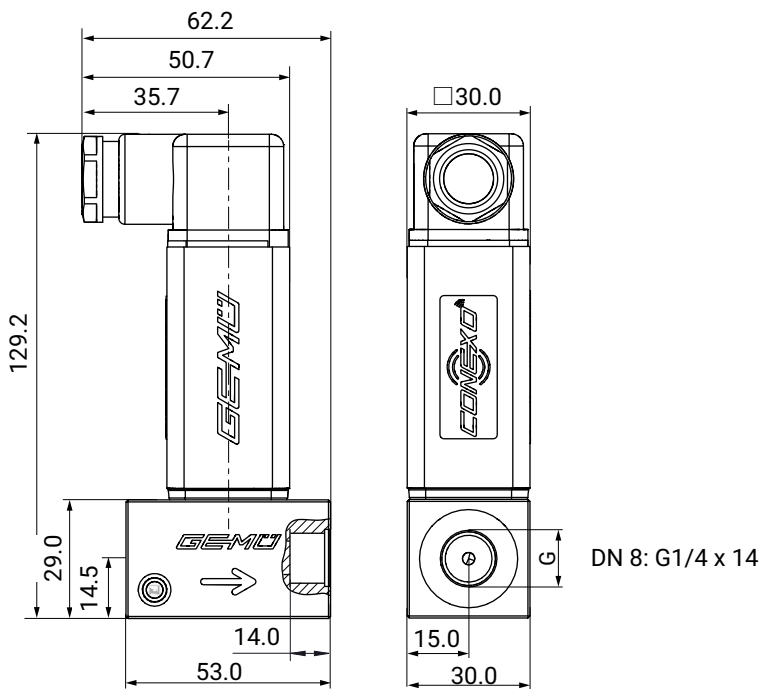
## Dimensions

### Solenoid valve with housing without plug (electrical connection code 00)



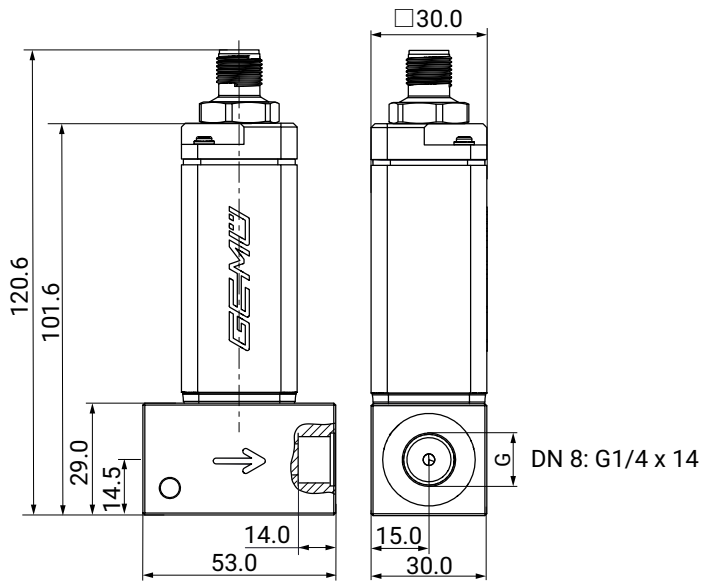
Dimensions in mm

### Solenoid valve with housing and plug (electrical connection code 01)



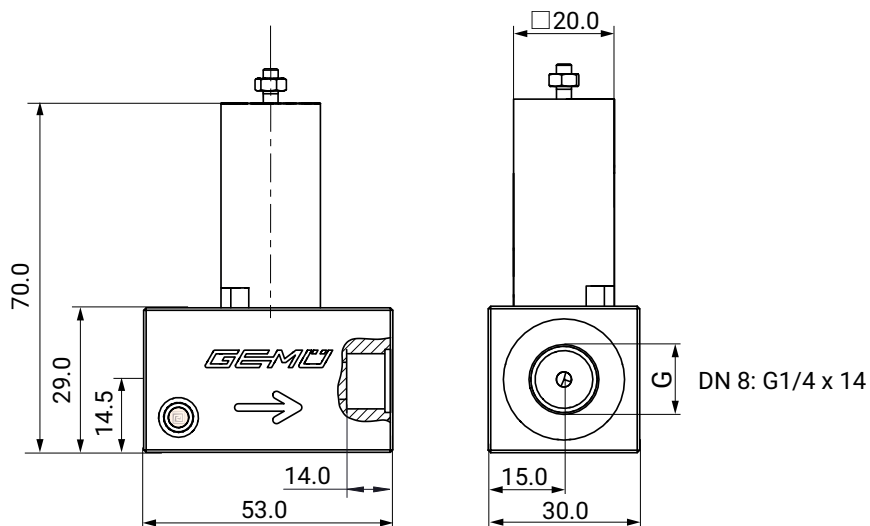
Dimensions in mm

**Solenoid valve with housing and M12 plug (electrical connection code 02)**



Dimensions in mm

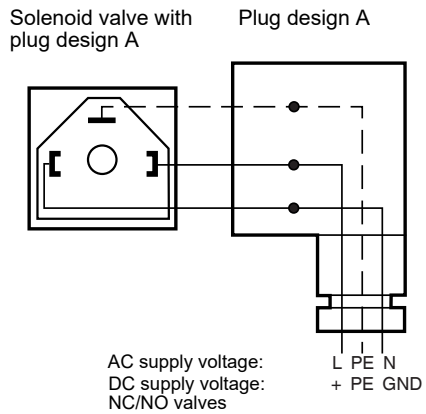
**Solenoid valve without housing (electrical connection code 00M2)**



Dimensions in mm

## Electrical connection

### Solenoid valve with housing and plug (electrical connection code 01)



### Solenoid valve with housing and M12 plug (electrical connection code 03)



3-pin M12 plug, A-coded

Pin	Signal name
1	Uv, 24 V DC supply voltage
2	-
3	Uv, GND
4	n.c.
5	-

## **GEMÜ CONEXO**

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

**For further information on GEMÜ CONEXO please visit:**

[www.gemu-group.com/conexo](http://www.gemu-group.com/conexo)

### **Ordering**

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".



GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG  
Fritz-Müller-Straße 6-8, 74653 Ingelfingen-Criesbach, Germany  
Phone +49 (0) 7940 1230 · info@gemue.de  
www.gemu-group.com