

GEMÜ 8506

Electrically operated pilot solenoid valve



Features

- Optional installation position
- The solenoid can be replaced without removing the valve body from the piping
- The coil can be rotated by 90°
- Simple conversion from 3/2-way valve to 5/2-way valve

Description

The GEMÜ 8506 servo assisted 3/2 or 5/2-way pilot solenoid valve is indirectly controlled. The body is made of aluminium. The plastic encapsulated coil is detachable.

Technical specifications

- **Media temperature** : -10 to 50 °C
- **Ambient temperature**: -10 to 50 °C
- **Operating pressure** : 2 to 8 bar
- **Nominal size**: DN 6
- **Electrical connection types**: Plug, design A
- **Supply voltages**: 110 V AC, 50 Hz | 230 V AC, 50 Hz | 24 V AC, 50 Hz | 24 V DC
- **Connection types**: Threaded connection
- **Body materials**: Aluminium
- **Conformities**: EAC

Technical data depends on the respective configuration



Product line

								
	GEMÜ 0322	GEMÜ 0324	GEMÜ 0326	GEMÜ 8303	GEMÜ 8357	GEMÜ 8458	GEMÜ 8500	GEMÜ 8506
Media temperature	-10 to 50 °C	-10 to 50 °C	-10 to 50 °C	-10 to 60 °C	-10 to 60 °C	-10 to 50 °C	-10 to 60 °C	-10 to 50 °C
Ambient temperature	-10 to 50 °C	-10 to 50 °C	-10 to 50 °C	-10 to 60 °C	-10 to 60 °C	-10 to 50 °C	-10 to 60 °C	-10 to 50 °C
Operating pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar	1 to 10 bar	1 to 10 bar	1 to 10 bar	2,5 to 10 bar	2 to 8 bar
Nominal sizes	DN 2	DN 2	DN 2	DN 2	DN 6	DN 6	DN 7	DN 6
Electrical connection type								
M12 connector	-	●	-	-	-	-	-	-
Plug, design A	●	●	●	●	●	●	-	●
Plug, design B	-	-	-	-	-	-	●	-
M12 plug	●	-	●	-	-	-	-	-
Voltage								
110 V AC, 50 Hz	-	-	-	●	-	-	-	●
110 V AC, 50/60 Hz	-	-	-	-	-	-	●	-
12 V DC	-	-	-	-	-	-	●	-
120 V AC, 50/60 Hz	●	●	●	-	-	-	-	-
230 V AC, 50 Hz	-	-	-	●	●	●	-	●
230 V AC, 50/60 Hz	●	●	●	-	-	-	●	-
24 V AC, 50 Hz	-	-	-	●	●	●	-	●
24 V AC, 50/60 Hz	●	●	●	-	-	-	●	-
24 V DC	●	●	●	●	●	●	●	●
Connection types								
Threaded connection	●	●	●	●	●	●	●	●
Body material								
1.4581	-	-	-	●	-	-	-	-
Aluminium	-	-	-	●	●	●	●	●
PA	●	●	●	-	-	-	-	-
Conformities								
ATEX	●	●	●	●	-	-	●	-
EAC	●	●	●	●	●	●	-	●
Functional safety	●	●	●	-	-	-	●	-

Order data

Order codes

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

An unconnected mating connector is supplied with the valve as standard.

1 Type	Code
Pilot solenoid valve, servo assisted, manual override	8506

2 DN	Code
DN 6	6

3 Body configuration	Code
Multi-port version	M

4 Connection type	Code
Threaded socket DIN ISO 228	1

5 Valve body material	Code
3.0615, AlMgSiPb	14

6 Seal material	Code
NBR	2

7 Switch position	Code
Closed neutral position	1

8 Voltage	Code
24 V	24
110 V	110
230 V	230

9 Frequency	Code
50 Hz	50
DC	DC

10 Special version	Code
ATEX version, encapsulation (Ex mb)	X
ATEX version, intrinsic safety(EX ia)	Y

Order example

Ordering option	Code	Description
1 Type	8506	Pilot solenoid valve, servo assisted, manual override
2 DN	6	DN 6
3 Body configuration	M	Multi-port version
4 Connection type	1	Threaded socket DIN ISO 228
5 Valve body material	14	3.0615, AlMgSiPb
6 Seal material	2	NBR
7 Switch position	1	Closed neutral position
8 Voltage	230	230 V
9 Frequency	50	50 Hz DC
10 Special version		Without

Technical data

Medium

Working medium: Filtered, lubricated or unlubricated compressed air which has no negative impact on the physical and chemical properties of the valve body and seal material.
Lubricated compressed air: Lubricants with DVI values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519)

Temperature

Media temperature: -10 – 50 °C

Ambient temperature: -10 – 50 °C

Pressure

Operating pressure: 2 – 8 bar

Flow rate: 1200 NI/min

Mechanical data

Protection class: IP 65 (with plug)

Weight: 0.4 kg

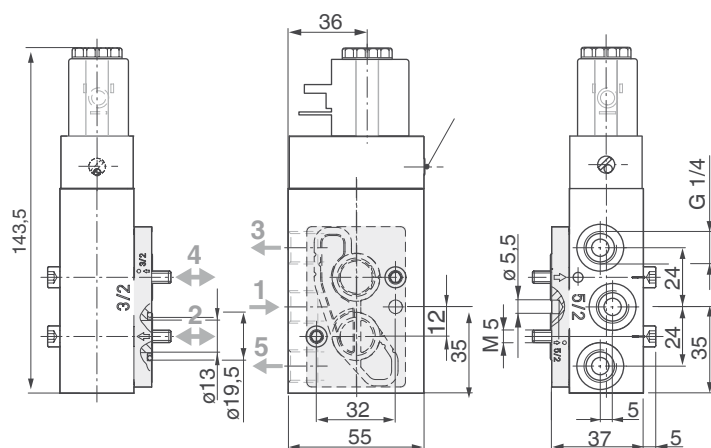
Installation position: Optional

Electrical data

Power consumption:	AC operation:	4.9 VA
	DC operation:	2.7 W
Switching times:	Approx. 27 ms	
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.	

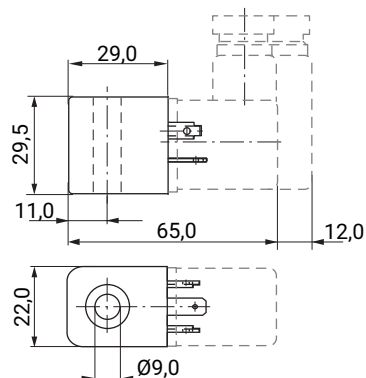
Dimensions

GEMÜ 8506 solenoid valve



Dimensions in mm

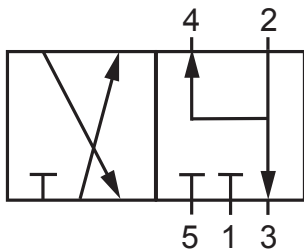
GEMÜ 3033 solenoid



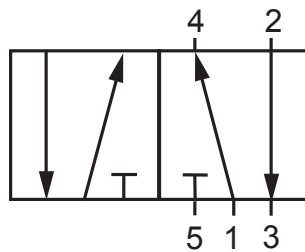
Dimensions in mm

Circuit diagram

3/2-way version



5/2-way version



Accessories



GEMÜ 2026

Plug

GEMÜ 2026 are plugs with lights, with or without interference suppression. Various versions available. The DC voltage version with a bridge rectifier has a plug with reverse battery protection. The scope of supply comprises a gasket made from NBR and a M3x35 central screw

Designation	Design	Item
2026000Z AM1600S2 2C1	24V DC, M16, suppressor diode, 2-pin	88668463
2026000Z AM16G0S2 2C1	24V DC, M16, green LED, suppressor diode, 2-pin	88668468
2026000Z AM16GBV2 2C1	24V DC, M16, green LED, bridge rectifier, varistor, 2-pin	88668469
2026000Z AM16GBS2 2C1	24V DC, M16, green LED, bridge rectifier, suppressor diode, 2-pin	88668470
2026000Z AM16G002 2C1	24V DC, M16, green LED, 2-pin	88668471
2026000Z AM16G0V2 2C1	24V DC, M16, varistor, green LED, 2-pin	88668473
2026000Z AM160BV2 2L4	230V 50/60Hz, M16, bridge rectifier, varistor, 2-pin	88668464
2026000Z AM160002 2L4	230V 50/60Hz, M16, 2-pin	88668465
2026000Z AM160003 2L4	230V 50/60Hz, M16, 3-pin	88668466
2026000Z AM160002 2L42M	230V 50/60Hz, M16, 2-pin, 2 m cable	88668474
2026000Z AM160002 2L45M	230V 50/60Hz, M16, 2-pin, 5 m cable	88668475
2026000Z AM16Y002 2L4	230V 50/60Hz, M16, yellow LED, 2-pin	88668476
2026000Z AM16Y0S2 2L4	230V 50/60Hz, M16, yellow LED, suppressor diode, 2-pin	88668477
2026000Z AM16GBV2 2L4	230V 50/60Hz, M16, green LED, bridge rectifier, varistor, 2-pin	88668478

**GEMÜ 3033****Solenoid**

GEMÜ 3033 solenoid: Form A connector without cable, standard version for direct current

Type	Item number	Order description
3033	88100480	8506 000 P 3033

**GEMÜ 3062****Solenoid**

GEMÜ 3062 Ex solenoid: Form B connector with 3 m cable, ATEX version for direct current

Protection class:

II 2G Ex mb IIC T4/T5 Gb

II 2D Ex mb tb IIIC T95°C, T130° Db

Type	Item number	Order description
3062	88100490	8506 000 P 3062

**GEMÜ 3063****Solenoid**

GEMÜ 3063 Ex solenoid: Form B connector with 3 m cable, ATEX version for AC current

Protection class:

II 2G Ex mb IIC T4/T5 Gb

II 2D Ex mb tb IIIC T95°C, T130° Db

Type	Voltage	Item number	Order description
3063	230 V 50 Hz	88100462	8506 000 P 3063 230 50 X
	110 V 50 Hz	88225689	8506 000 P 3063 110 50 X
	24 V 50 Hz	88100491	8506 000 P 3063 24 50 X

**GEMÜ 1750****Silencer**

The GEMÜ 1750 silencer can be used to reduce the noise caused by leaking compressed air. It is available either in brass or plastic.

Type	Item number	Order description
1750*	88387920	1750 000 ZA 214K0K1

* 2 x required for 5/2-way design

**GEMÜ 2022****Throttle valve**

The GEMÜ 2022 throttle valves are available as throttle valve, throttle check valve and dual throttle check valve. In pneumatic actuators they are used to regulate the compressed air depending on the function for the supply or exhaust air and can be set independently of each other in the case of dual throttle check valves.

Type	Item number	Order description
2022*	88011501	2022 000 ZA 214K000D100CG3

* 2 x required for 5/2-way design

**GEMÜ DP90****Mounting plates with throttle function**

Throttle plates can be used to continuously adjust the travel times of pneumatic quarter turn actuators in both the "OPEN" and "CLOSED" directions independently of one another. They are installed between the NAMUR valve and the quarter turn actuator.

Type	Item number	Application
DP90 000 268	88368689	3/2-way NAMUR throttle plate
DP90 000 064 + screw M	88368696	5/2-way NAMUR throttle plate

Spare parts

**GEMÜ FP****Function plate**

The function plate is required for mounting to the actuators via the NAMUR hole pattern.

Type	Item number	Application
8506 000 FP 3-2	99047193	for mounting to single acting actuator
8506 000 FP 5-2	99047194	for mounting to double acting actuator



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