

Pilot Solenoid Valve, Plastic

Construction

The directly controlled GEMÜ 3/2-way pilot solenoid valve consists of an epoxy encapsulated detachable coil and a plastic body. The electrical connection is made via a plug complying with DIN EN 175301-803 form A or a M12 plug.

GEMÜ 0322: Designed for single mounting (straight through design) or for modular battery mounting of up to 12 valves (by using clips).

GEMÜ 0324: Designed for direct mounting (hollow bolt) to pneumatically operated valves or other devices.

GEMÜ 0326: Designed for mounting to a compact aluminium rail as a valve battery for mounting in control cabinets or as a valve manifold near the pneumatic components to be controlled. Battery rail for up to 10 valves.

Features

- Suitable for the control of chemically inert gases
- Normally closed and Normally open control functions are available
- Options
 - ATEX version: ATEX-marking (control function 1):
 - Ex II 2 G Ex mb II T4
 - Ex II 2 D Ex tD A21 IP65 T130°C
 - Lockable manual override (control function 1)
 - Integrated LED (M12 version)

Advantages

- Robust design
- Coil easy to replace
- Option: integrated LED (M12 version)
- Multi-functional application possibilities due to various designs
- Modular battery mounting



GEMÜ 0322

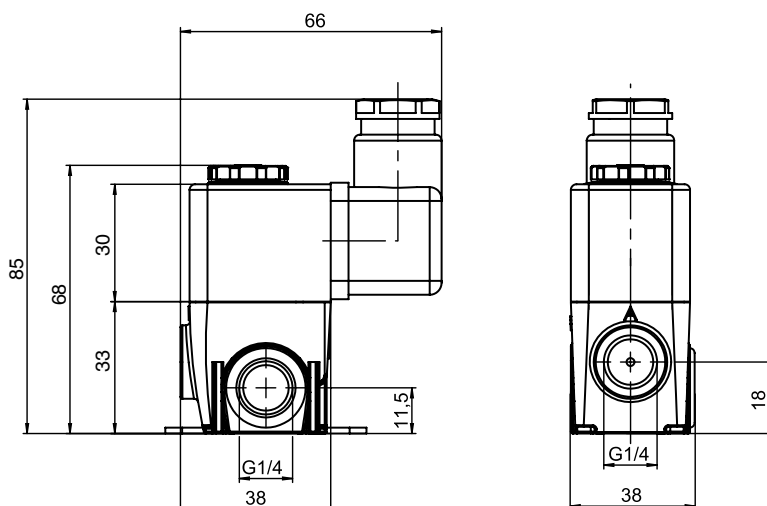


GEMÜ 0324



GEMÜ 0326

Dimensions - GEMÜ 0322 [mm]



For dimensions for GEMÜ 0322 battery, 0324 and 0326 see pages 5 and 6.

Technical data



Operating conditions

Working medium	Quality classes to DIN ISO 8573-1
Dust content	Class 4 (max. particle size 15 µm) (max. particle density 8 mg/m ³)
Pressure dew point	Class 4 (max. pressure dew point 3 °C)
Oil concentration	Class 4 (max. oil concentration 5 mg/m ³)
Ambient temperature	-10 to +50 °C
Medium temperature	-10 to +50 °C
Operating pressure	0 - 10 bar

General information

Max. switching frequency	5 Hz
Switching time	On 11 ms Off 20 ms
Flow rate value	Normally closed 70 l/min Normally open 40 l/min
Nominal size	1.8 mm
Pneum. connections	Air supply (1) G1/4 Outlet (2) G1/4 Exhaust air (3) M5
Protection class	IP65
Isolation class	F
Weight	150 g
Corrosion resistance class	KBK 2

Explosion protection marking* acc. to ATEX

 II 2 G Ex mb II T4
 II 2 D Ex tD A21 IP65 T130°C

* Control function 1

Electrical data

Power supply	
Power supply U _v	
DC version	24 V
AC version	24 V, 120 V, 230 V
Perm. voltage tolerances	± 10 %
Max. perm. ripple	20 %
Power consumption	
Normally closed (NC)	
DC version	4.5 W
AC version	Pull in current 11.5 W Hold in current 8.5 W
Normally open (NO)	
DC version	6.8 W
AC version	6.8 W
Rating	Continuously rated
Electrical connection	
Standard	Plug to DIN EN 175301-803 form A M12 plug, cable socket
Option	
ATEX version	3 m cable (H05V2V2-F 3G1, 7 mm outer diameter)
DC coils are used for the AC version of normally open (NO) solenoid valves.	
For these AC applications with normally open (NO) valves a plug with an integrated bridge rectifier must be used (e.g. GEMÜ 1221 000 Z 0012 230 50/60).	

Material

Valve body	PA 6, Polyamide
Solenoid, plug	PA 6, Polyamide
Solenoid, M12	Thermoset (Epoxyde NU463)
Solenoid, ATEX	PPS
Seal material	FPM

Installation note

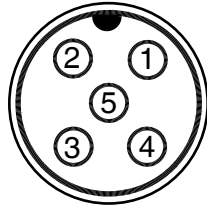
If installed in control cabinets adequate ventilation must be provided.

Type examination certificate

PTB 03 ATEX 2018 X

Electrical connection

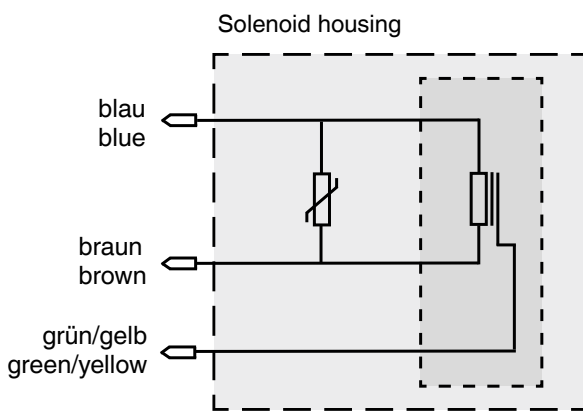
Connection diagram for M12 plug



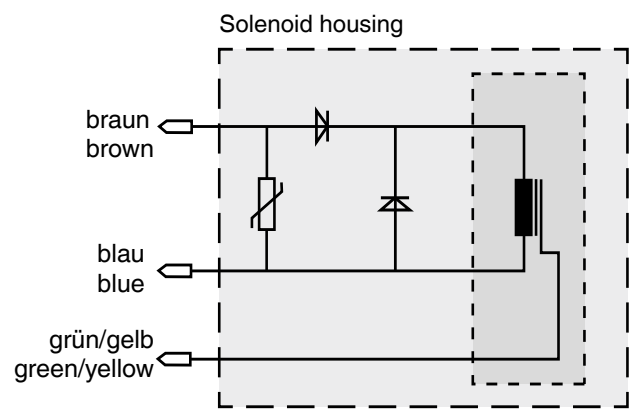
Connection	Pin	Signal name
X1 A-coded M12 plug	1	n.c.
	2	n.c.
	3	Uv, GND
	4	Uv, 24V DC supply voltage
	5	n.c.

ATEX version

DC Version

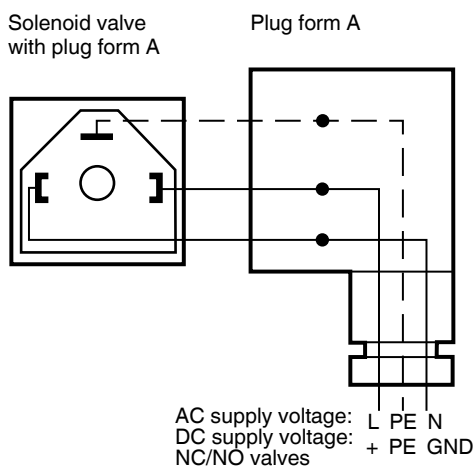


AC Version

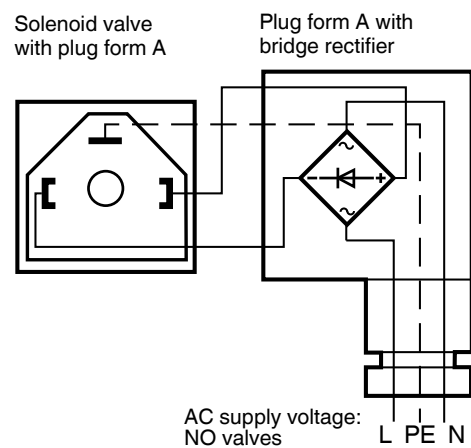


Connection diagram for plug form A (DIN EN 175301-803)

Control function 1 (NC), AC/DC voltage Control function 2 (NO), DC voltage



Control function 2 (NO), AC voltage



Order data

Type	Code
Solenoid valve for single mounting / battery mounting	0322
Solenoid valve for direct mounting	0324
Solenoid valve for mounting to battery rail	0326

Nominal size	Code
	2

Body configuration	Code
Multi-port version	M

Connection	Code
Threaded sockets DIN ISO 228 (GEMÜ 0322)	1
Threaded sockets DIN ISO 228 (GEMÜ 0324) Hollow bolt G 1/4	14
Threaded sockets DIN ISO 228 (GEMÜ 0324) Hollow bolt G 1/8	18
Threaded sockets DIN ISO 228 (GEMÜ 0324) Hollow bolt M5	M5
Connection for GEMÜ battery rail (GEMÜ 0326)	-

Valve body material	Code
PA 6, Polyamide	74

Seal material	Code
FPM	4

Control function	Code
Normally closed (NC)	1
Normally open (NO)	2

Voltage/Frequency	Code
24V DC	C1
24V 50/60 Hz	C4
120V 50/60 Hz	G4
230V 50/60 Hz	L4
Other voltages on request	

9 Electrical connection	Code
Plug design A without cable socket	00*
Plug design A with cable socket, without cable	01
M12 plug (only 24V DC version)	02
M12 plug with cable socket, without cable (only 24V DC version)	03
Plug design A with cable socket, 3 m cable	04
Plug design A with cable socket, 3 m encapsulated cable (only ATEX version)	05
Plug design A with cable socket, without cable, bridge rectifier and incandescent lamp (with reverse battery protection), (for ≤ 48 V)	06
Plug design A, with cable socket, without cable, glow lamp (for ≥ 120 V)	08
Plug design A, with cable socket, without cable, green LED, erasing diode (only voltage/frequency 24 V DC)	09
Plug design A with cable socket, without cable, bridge rectifier, glow lamp and varistor (for ≥ 120 V)	10
* not available in control function normally open (NO) for voltage/frequency C4, G4 and L4	

10 Option	Code
Without	00
ATEX version	01*
Manual override (only control function normally closed code 1)	02
Silencer	03
ATEX version + manual override	04*
ATEX version + silencer	05*
Manual override + silencer (only control function normally closed code 1)	06
ATEX version + manual override + silencer	07*
Manual override, silencer with exhaust air throttle (only control function normally closed code 1)	08
Silencer with exhaust air throttle	09
ATEX version + manual override, silencer with exhaust air throttle	11*
* only control function normally closed code 1 and electrical connection code 05	

11 Max. operating pressure	Code
10 bar	10

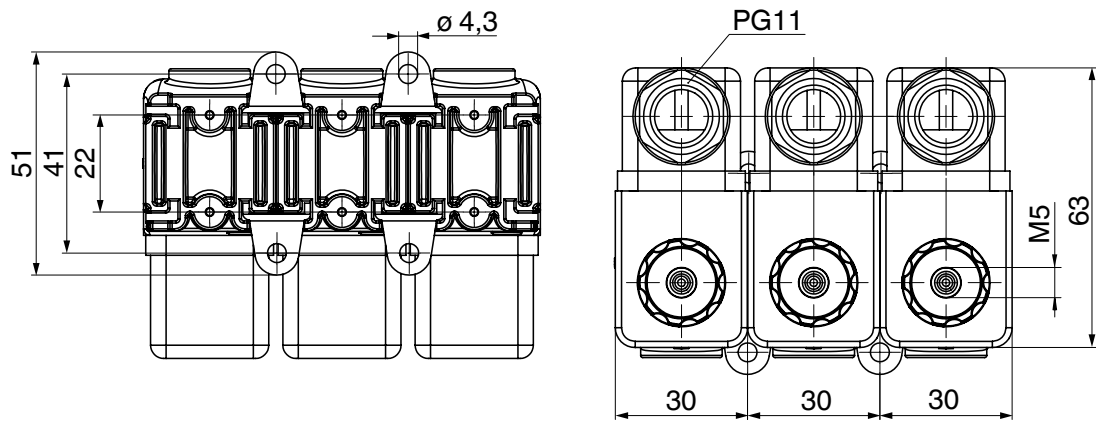
12 Design	Code
Standard	-
Without paint adhesion interfering substances such as silicone	0101

Order example	1	2	3	4	5	6	7	8	9	10	11	12
	0322	2	M	1	74	4	1	C1	01	00	10	-

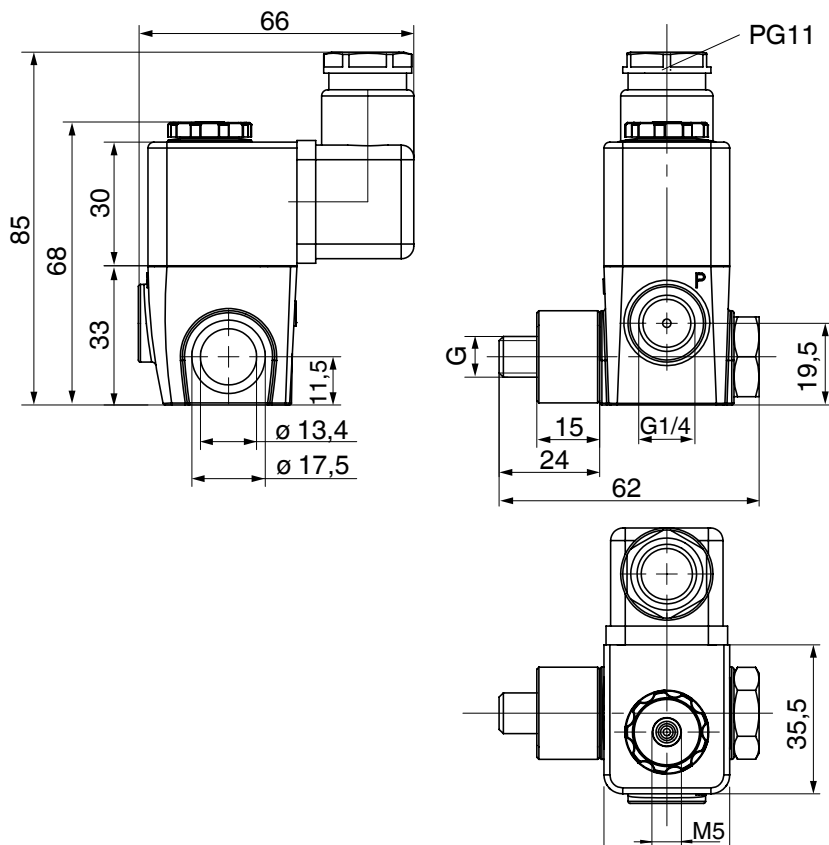
Ordering note: Please order battery rail for GEMÜ 0326 and blanking plate separately (see page 6).

Dimensions [mm]

GEMÜ 0322



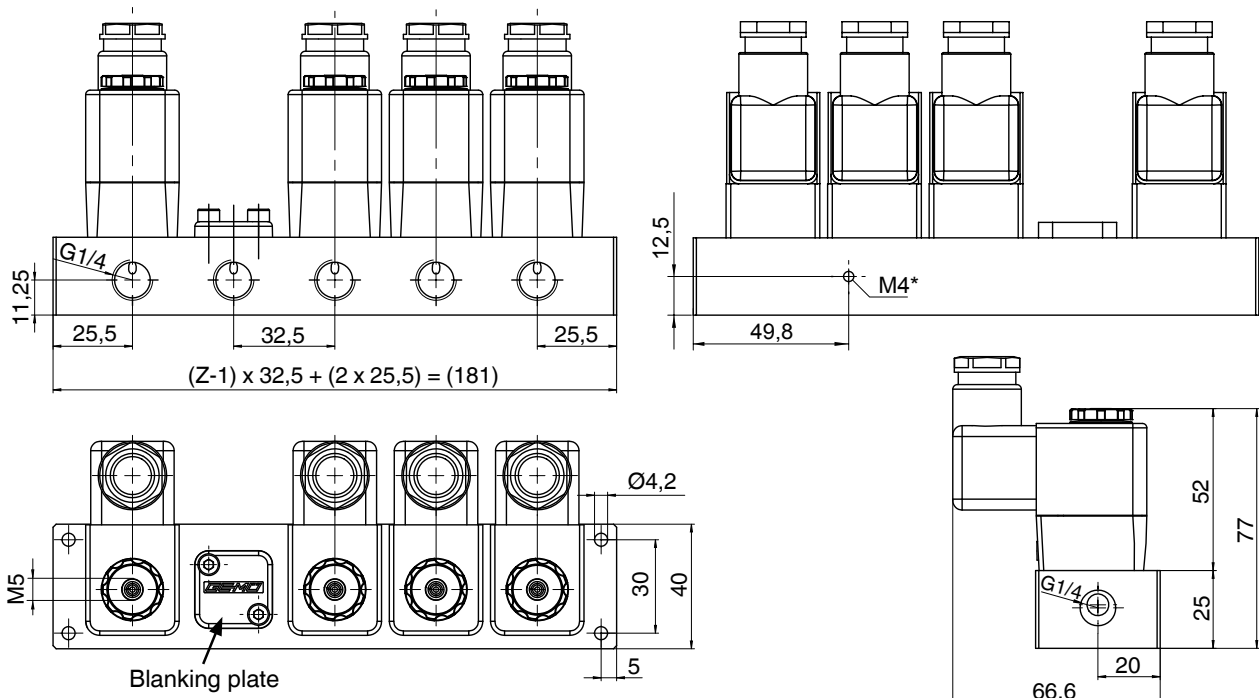
GEMÜ 0324



Connection	Code
G 1/4	14
G 1/8	18
M5	M5

Dimensions [mm]

GEMÜ 0326 with aluminium battery rail

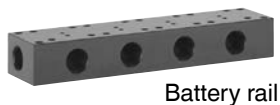


Z: Number of valve seats/valves, maximum 10 valves possible

Female thread M4 for the connection of the potential equalisation acc. to ATEX.

Accessories

Type	Accessories	Version	Article designation						
0322	Mounting plate for DIN rail mounting	1050	000	Z	01				
0326	Battery rail	2-fold	0326	000	Z	BR	14	02	
		3-fold	0326	000	Z	BR	14	03	
		4-fold	0326	000	Z	BR	14	04	
		5-fold	0326	000	Z	BR	14	05	
		6-fold	0326	000	Z	BR	14	06	
		7-fold	0326	000	Z	BR	14	07	
		8-fold	0326	000	Z	BR	14	08	
		9-fold	0326	000	Z	BR	14	09	
		10-fold	0326	000	Z	BR	14	10	
	Blanking plate	0326	000	Z	BL	74	4		



GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS

