



GEMU type 324 is an external pilot solenoid valve that is designed specifically for ease of installation and compactness.

Offered normally closed and with a 3/2 function. The inlet connection (Banjo) is screwed directly into the inlet port of the spring return pneumatic quarter turn actuator, angled seat or diaphragm valve.

Connections are available in both 1/8" and 1/4"BSP male, with the inlet to the pilot valve in G 1/4" BSP Female. The pilot valve has a pressure range of 0-10 bar which is suitable for Pneumatic actuators. Supplied with DIN plug connector.

Various voltages are offered. The valve can be supplied with a manual override on request.



# 3/2 GEMU Polyamide Pilot **Solenoid Valve for Pneumatic Actuators**

- 3/2 Direct Banjo Bolt Mount
- Screws Directly into Inlet Port 1/4" & 1/8"
- Pressure Rating 0-10 Bar
- **FPM Seal Material**
- Supplied with Plug Connector
- Polyamide Housing and Bolt



An easy to fit 3/2 pilot solenoid valve that's compact, reliable and designed for quarter turn actuation specifically intended for use with angled seat and diaphragm valves. Various Voltages and connections. Supplied with Plug connector. Manufacturer GEMU



### **Beschreibung**

montierendes einfach zu Vorsteuermagnetventil, das kompakt, zuverlässig und für eine Vierteldrehungsbetätigung ausgelegt ist und speziell für die Verwendung mit Schrägsitz-Membranventilen vorgesehen Spannungen und Anschlüsse. Lieferung mit Steckverbinder. Hersteller GEMU



### Descripción

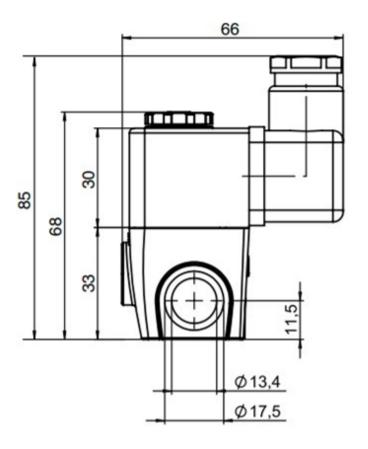
Una válvula solenoide piloto de 3/2 fácil de instalar que es compacta, confiable y diseñada para un accionamiento de cuarto de vuelta diseñada específicamente para su uso con válvulas de diafragma y de asiento en ángulo. Varios voltajes y conexiones. Se suministra con conector de enchufe. Referencia del fabricante

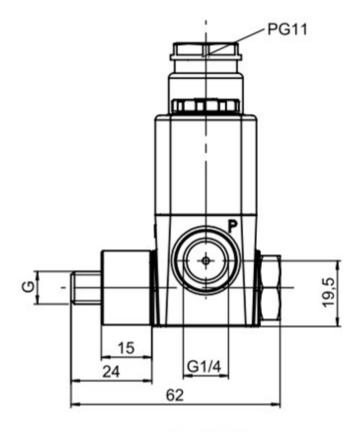


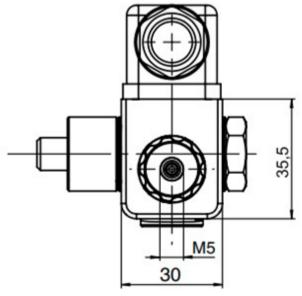
### **Description**

Une électrovanne pilote 3/2 facile à installer, compacte, fiable et conçue pour un actionnement quart de tour spécifiquement destinée à être utilisée avec des vannes à siège incliné et à membrane. Tensions et connexions diverses. Livré avec connecteur Plug. Fabricant GEMU











# Construction

The directly controlled GEMU 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.

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

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

**GEMU 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):



II 2 G Ex mb II T4

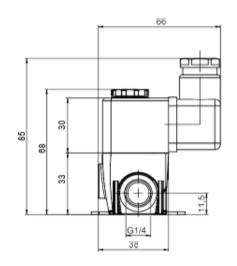


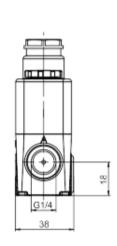
II 2 D Ex tD A21 IP65 T130°C

- Lockable manual override (control function 1)
- Integrated LED (M21 version)

# Advantages

- Robust design
- Coil easy to replace
- Option: integrated LED (M21 version)
- Multi-functional application possibilities due to various designs
- Modular battery mounting





For dimensions for GEMÜ 0322 battery, 0324 and 0326 see pages 3 and 4.







# >

### **Technical Data**

Operating conditions		
Working medium	Quality classes to DIN ISO 8753-1	
Dust content	Class 4	
	(max. particle size 15 μm)	
	(max. particle density 8mg/m³)	
Pressure dew point	Class 4	
	(max. pressure dew point 3°C)	
Oil concentration	Class 4	
	(max. oil concentration 5mg/m <sup>3</sup> )	
Ambient temperature	-10°C to +50°C	
Medium temperature	-10°C to +50°C	
Operating pressure	0 - 10 bar	

General Information			
Max. switching frequency	Max. switching frequency 5 Hz		
Switching time	On 11 ms		
	Off 20 ms		
Flow rate value	Normally closed 70 I/min		
	Normally open 40 I/min		
Nominal size	1.8 mm		
Pneum. Connections	Air Supply (1) G 1/4		
	Outlet (2) G 1/4		
	Exhaust air (3) M5		
Protection class	IP65		
Isolation class	F		
Weight	150g		
Corrosion resistance class	KBK2		

Explosion protection marking* acc. to ATEX	
II 2 G Ex mb II T4	
II 2 D Ex tD A21 IP65 T130°C	

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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. GEMU 1221 article no. 88256107

Material
PA 6, Polyamide
PA 6, Polyamide
Thermoset (Epoxyde NU463)
PPS
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**



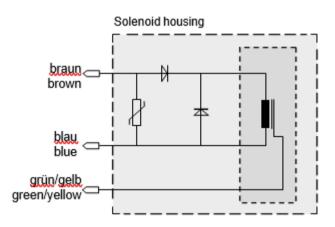
Connection	Pin	Signal name	
	1	D.C.	
X1	2	D.C.	
A-coded M12	3	Uχ, GND	
plug	4	Ux, 24V DC supply voltage	
piug	5	D.C.	

# ATEX version

### **DC** version

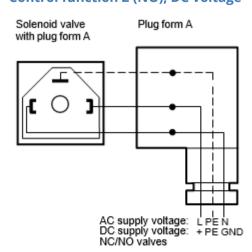
# Solenoid housing blau blue braun brown grün/gelb green/yellow

### **AC version**

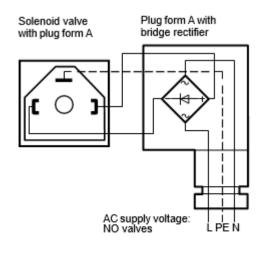


# Connection diagram for plug Form A (DIN EN 175301-803)

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



### Control function 2 (NO), AC voltage





# 2

## Order data

Code
0322
0324
0326

Nominal size	Code
	2
Body configuration	Code
Multi-port version	M

Connection	Code
Threaded sockets DIN ISO 228 (GEMU 0322)	1
Threaded sockets DIN ISO 228 (GEMU 0324) Hollow bolt G 1/4	14
Threaded sockets DIN ISO 228 (GEMU 0324) Hollow bolt G 1/8	18
Threaded sockets DIN ISO 228 (GEMU 0324) Hollow bolt M5	M5
Connection for GEMU battery rail (GEMU 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 50/60Hz	G4
230V 50/60 Hz	L4
Other voltages on request	

Electrical connection	Code
	00*
Plug type A without cable socket	00.
Plug type 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 type A with cable socket and 3m encapsulated cable (only ATEX version)	05

<sup>\*</sup> not available in control function normally open (NO) for voltage/frequency C4, G4 and L4

Option	Code
Without	00
ATEX version	01*
Manual override (only control function normal	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*

<sup>\*</sup> only control function normally closed code 1 and electric connection code 05

	Max. operating pressure	Code
10 bar		10

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

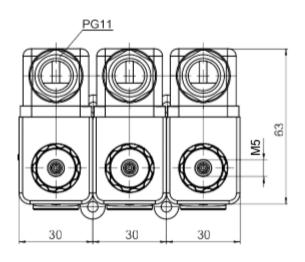
Order example	0322	2	М	1	74	4	1	C1	01	00	10	
Type (code)	0322											
Nominal size (code)		2										
Body configuration (code)			M									
Connection (code)				1								
Valve body material (code)					74							
Seal material (code)						4						
Control function (code)							1					
Voltage/frequency (code)								C1				
Electrical connection (code)									01			
Option (code)										00		
Max. operating pressure (code)												
Design (code)											10	

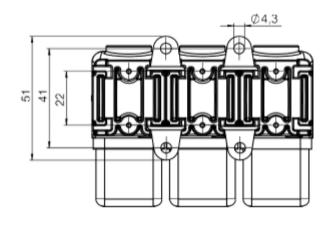
Ordering note: Please order battery rail for GEMU 0326 and blanking plate separately (see page 8).



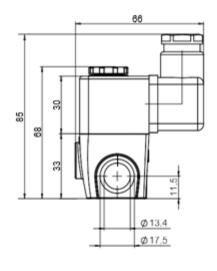
# Dimensions [mm]

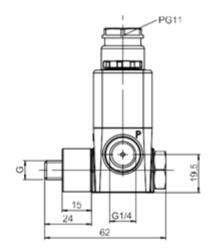
### **GEMU 0322**

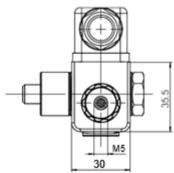




### **GEMU 0324**





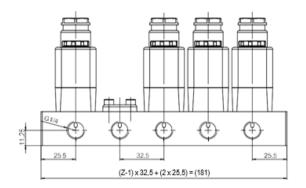


Connection	Code
G 1/4	14
G 1/8	18
M5	M5



# **Dimensions** [mm]

### **GEMU 0326 with aluminium battery rail**







GEMU 1050 Mounting plate for DIN rail mounting



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

Battery rail



Blanking plate

Туре	Accessories	Version	Article designation									
0322	Mounting plate for DI	N rail mounting	1050	000	Z	01						
	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			
0326		6-fold	0326	000	Z	BR	14		06			
0320		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				

