

GEMÜ 8253

Electrically operated solenoid valve



Features

- Valve operates without minimum pressure differential
- High flow rate
- Soft closing action
- Suitable for vacuum applications
- Simple coil replacement without tools (Click-on®)
- NPT thread available
- Explosion protected solenoids acc. to ATEX available as an option
- CSA approval available

Description

The GEMÜ 8253 2/2-way solenoid valve with a positive lift diaphragm has a brass or stainless steel valve body. All media wetted parts are made of NBR, FPM, EPDM, brass, PVDF or stainless steel. The valve is suitable for inert medium such as air, water and oil.





Technical specifications

- **Media temperature:** -10 to 110 °C
- **Ambient temperature:** -10 to 50 °C
- **Operating pressure:** 0 to 16 bar
- **Nominal sizes:** DN 8 to 50
- **Connection type:** Threaded connection
- **Connection standards:** DIN | ISO | NPT
- **Body materials:** 1.4408, investment casting material | CW617N, brass
- **Supply voltages:** 110 V AC, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
- **Conformities:** EAC

Technical data depends on the respective configuration

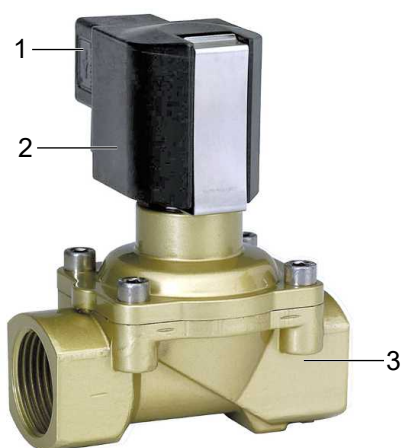


Product line

				
	GEMÜ 8253	GEMÜ 8257	GEMÜ 8258	GEMÜ 8259
Nominal sizes	DN 8 to 50	DN 10	DN 8 to 50	DN 2 to 5
Voltage				
110 V AC, 50 Hz	-	-	-	●
110 V AC, 50/60 Hz	●	-	●	-
230 V AC, 50 Hz	-	●	-	●
230 V AC, 50/60 Hz	●	-	●	-
230 V AC, 60 Hz	-	●	-	-
24 V AC, 50 Hz	-	●	-	-
24 V AC, 50/60 Hz	●	-	●	-
24 V AC, 60 Hz	-	●	-	-
24 V DC	●	●	●	●
Media temperature *	-10 to 110 °C	-10 to 150 °C	-10 to 110 °C	-10 to 110 °C
Operating pressure *	0 to 16 bar	0 to 10 bar	0,1 to 16 bar	0 to 20 bar
Connection types				
Threaded connection	●	●	●	●
Body material				
1.4408, investment casting material	●	●	●	●
CW617N, brass	●	●	●	●

* depending on version and/or operating parameters

Product description



Item	Name	Materials
1	Plug	PA
2	Coil	Duresco NU 463V
3	Valve body	CW617N (brass) 1.4408, stainless steel
	Seal material	EPDM, NBR, FKM

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, with positive lift diaphragm	8253

2 DN	Code
DN 8	8
DN 10	10
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50

3 Body configuration	Code
2/2-way body	D

4 Connection type	Code
Threaded socket DIN ISO 228	1
Threaded socket NPT	31

5 Valve body material	Code
CW617N (brass)	12
1.4408, stainless steel	37

6 Seal material	Code
NBR	2
FKM	4
EPDM	14

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

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

9 Frequency	Code
DC	DC
50 - 60 Hz	50/60

10 Special version	Code
Without	
ATEX version	X

Order example

Ordering option	Code	Description
1 Type	8253	Solenoid valve, with positive lift diaphragm
2 DN	25	DN 25
3 Body configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Valve body material	12	CW617N (brass)
6 Seal material	2	NBR
7 Control function	1	Normally closed (NC)
8 Voltage	230	230 V
9 Frequency	50/60	50 - 60 Hz
10 Special version		Without

Technical data

Medium

Working medium: Inert gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and seal material.

Max. permissible viscosity: 25 mm²/s (cSt)
 Note: When used with contaminated media we recommend installing a strainer in front of the valve (on request)

Temperature

Media temperature:

Seal material NBR (code 2):	-10 to 90 °C
Seal material EPDM (code 14):	0 to 110 °C
Seal material FKM (code 4):	-5 to 110 °C

Ambient temperature: -10 – 50 °C

Storage temperature: 0 – 40 °C



Product compliance

Machinery Directive: 2006/42/EC

EMC Directive: 2014/30/EU

Approvals: KTW (contact with drinking water) approval (≤ DN 25, gasket EPDM) (not for ATEX version)
 CSA approval (not for ATEX version)

Explosion protection: ATEX (2014/34/EU) and IECEx, order code Special version X

ATEX marking: Gas:  II 2G Ex eb mb IIC T3 Gb
 Dust:  II 2D Ex mb tb IIIB T135°C-150°C Db

Type examination certificate: PTZ 16 ATEX 0011 X

Mechanical data

Installation position: Optional

Weight:

Material code ¹⁾	DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
12	0.7	0.7	0.8	0.9	1.3	4.3	4.1	5.1
37	0.8	0.8	0.8	1.0	1.3	4.3	4.3	5.4

Weights in kg

- 1) **Valve body material**
 Code 12: CW617N (brass)
 Code 37: 1.4408, stainless steel

Protection class: IP 65 (with plug)

Isolation class: F

Pressure

Operating pressure: DN 8 – 25: 0 to 10 bar
DN 32 – 50: 0 to 16 bar

Kv values:

DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
1.9	3.0	3.4	5.8	8.0	23.0	25.0	41.0

Kv values in m³/h

Electrical data

Power consumption:

AC operation			
Pull in / Hold in	DN 8 - 25	Normally closed (NC) Normally open (NO)	20 VA
	DN 32 - 50	Normally closed (NC)	42 VA
	DN 32 - 50	Normally open (NO)	45 VA
DC operation			
Pull in / Hold in	DN 8 - 25	Normally closed (NC) Normally open (NO)	18 W
	DN 32 - 50	Normally closed (NC)	40 W
	DN 32 - 50	Normally open (NO)	38 W

Permissible voltage tolerance: ±10 % to VDE 0580

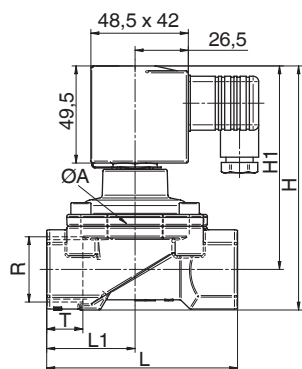
Duty cycle: Continuous duty

Wiring note: Special wiring on request. When using electronic switches and additional wiring, carefully design out any potential residual currents upon installation.

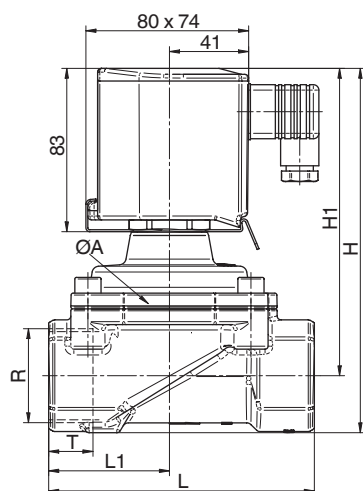
Installation note: Please note: A plug with an integrated bridge rectifier must be used for the AC design (provided in the scope of delivery).

Dimensions

DN 8 - 25



DN 32 - 50



DN	Connection type code ¹⁾								
	1, 31					1		31	
	A	H	H1	L	L1	R	T	R	T
8	44.0	104.0	92.5	60.0	27.5	G 1/4	12.0	1/4" NPT	10.0

Dimensions

DN	Connection type code ¹⁾								
	1, 31					1		31	
	A	H	H1	L	L1	R	T	R	T
10	44.0	104.0	92.5	60.0	27.5	G 3/8	12.0	3/8" NPT	10.5
15	44.0	108.0	94.5	67.0	31.0	G 1/2	14.0	1/2" NPT	13.5
20	50.0	115.0	99.0	80.0	36.5	G 3/4	16.0	3/4" NPT	14.0
25	62.0	124.0	103.5	95.0	44.0	G 1	18.0	1" NPT	17.0
32	92.0	186.0	157.0	132.0	60.0	G 1¼	20.0	1¼" NPT	17.0
40	92.0	186.0	157.0	132.0	60.0	G 1½	22.0	1½" NPT	17.0
50	109.0	201.5	167.0	160.0	74.0	G 2	24.0	2" NPT	17.5

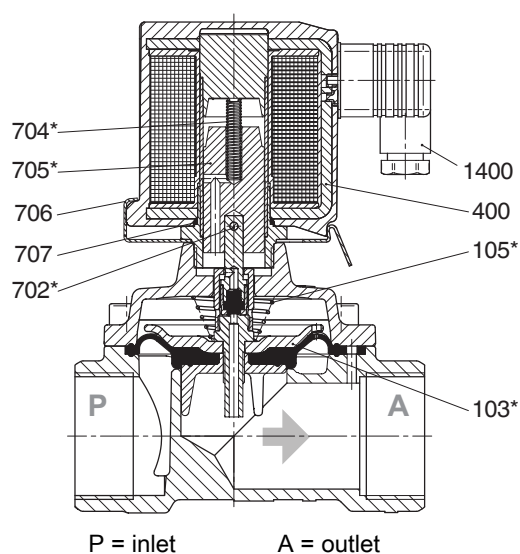
Dimensions in mm

1) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 31: Threaded socket NPT

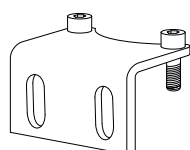
Spare parts



103*	Diaphragm
105*	Compression spring
400	Coil
702*	DN 8-25 O-ring DN 32-50 cylindrical pin
704*	Compression spring
705*	Armature
706	Spring clip
707*	O-ring
1400	Plug

All the parts marked * are included in the wearing parts kit.
When ordering spare parts, please state the complete valve order number.

Accessories



GEMÜ 8258 000 P

Mounting bracket including screws

Nominal size	Item designation	Order no.
DN 8 - 15	8258 000 P 12	88293212
DN 20	8258 000 P 20	88293213
DN 25	8258 000 P 25	88293214
DN 32 - 40	8258 000 P 40	88293215
DN 50	8258 000 P 50	88293216



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