

## **GEMÜ 410**

### *Pneumatically operated butterfly valve*



#### **Features**

- Low weight
- Corrosion resistant plastic body
- Simple installation with union nut
- Space-saving piston actuator made of plastic

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#### **Description**

The GEMÜ 410 butterfly valve is pneumatically operated. Normally Closed and Normally Open control functions are available. The valve body is available in a plastic design.

#### **Technical specifications**

- **Media temperature :** 0 to 60 °C
- **Ambient temperature:** -10 to 60 °C
- **Operating pressure :** 0 to 6 bar
- **Nominal sizes:** DN 15 to 50
- **Connection types:** Union end
- **Connection standards:** BS I DIN
- **Housing materials:** PVC-U, grey
- **Liner materials:** EPDM I FKM
- **Disc materials:** PP-H
- **Conformities:** EAC

Technical data depends on the respective configuration



## Product line



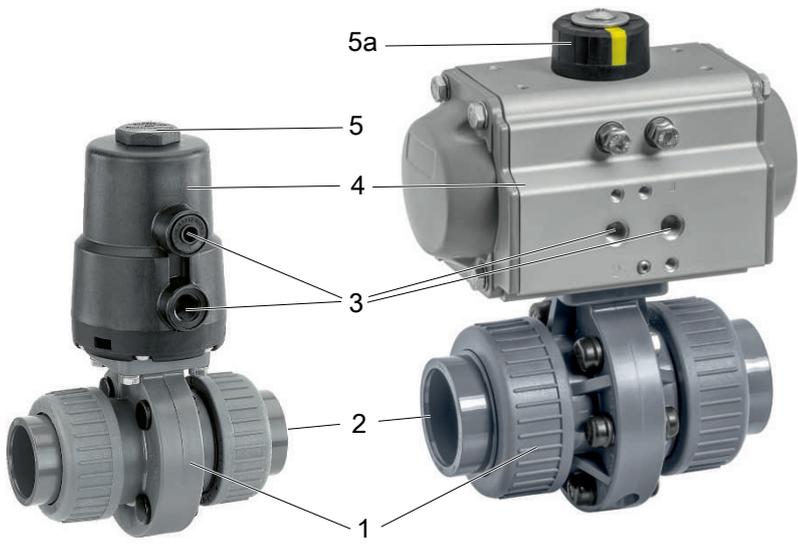
	GEMÜ K410	GEMÜ 417	GEMÜ 410	GEMÜ 423
<b>Operation</b>				
With bare shaft	●	-	-	-
Manual	-	●	-	-
Pneumatic	-	-	●	-
Motorized	-	-	-	●
<b>Nominal sizes</b>	DN 15 to 50			
<b>Media temperature</b>	0 to 60 °C			
<b>Operating pressure</b>	0 to 6 bar			
<b>Connection types</b>				
Union end	●	●	●	●
<b>Conformities</b>				
CSA	-	-	-	●
EAC	●	●	●	●

## Comparison of actuator applications

				
	GEMÜ ADA/ASR	GEMÜ DR/SC	GEMÜ GDR/GSR	GEMÜ 9415
<b>Industrial sectors</b>				
Chemical processes	●	●	●	●
Surface finishing	●	●	●	●
Water treatment	●	●	●	●
Mechanical engineering	●	●	●	●
Power generation and environmental systems	●	●	●	●
Food processing technology	●	●	●	●
Semiconductor	●	●	●	●
Medical systems	●	●	●	●
Pharmaceutical industry	●	●	●	●

## Product description

### Design



GEMÜ 9415 actuator

DR/SC, ADA/ASR, GDR/GSR actuator

Item	Name	Material
1	Butterfly valve body	PVC-U, grey
2	Pipe connections	PVC-U, grey
<b>GEMÜ 9415 actuator</b>		
3	Control air connectors	PP, glass fibre reinforced
4	Actuator housing	PP, glass fibre reinforced
5	Connection facility for position indicator	PP, glass fibre reinforced
<b>DR/SC, ADA/ASR, GDR/GSR actuators</b>		

## Actuator assignment

Item	Name	Material
3	Control air connectors	Aluminium
4	Actuator housing	Aluminium
5a	Position indicator	Polypropylene

## Actuator assignment

### GEMÜ 9415 - plastic

DN	Size 0	Size 1
	Code <sup>1)</sup>	
15	0	-
20	0	-
25	0	-
32	-	1
40	-	1
50	-	1

#### 1) Actuator version

Code 0: GEMÜ actuator, pneumatic, size 0, piston diameter 50 mm

Code 1: GEMÜ actuator, pneumatic, size 1, piston diameter 70 mm

### GEMÜ ADA/ASR - metal

DN	Double acting ADA	Code	Single acting ASR	Code
15	ADA0020U F05YS14A	BU02AB	ASR0020U S08 F05YS14/S11A	AU02FB
20	ADA0020U F05YS14A	BU02AB	ASR0020U S08 F05YS14/S11A	AU02FB
25	ADA0020U F05YS14A	BU02AB	ASR0020U S08 F05YS14/S11A	AU02FB
32	ADA0020U F05YS14A	BU02AB	ASR0040U S14 F05YS14/S11A	AU04KB
	ADA0040U F05YS14A	BU04AB		
40	ADA0040U F05YS14A	BU04AB	ASR0040U S14 F05YS14/S11A	AU04KB
50	ADA0040U F05YS14A	BU04AB	ASR0040U S14 F05YS14/S11A	AU04KB

### GEMÜ DR/SC - metal

DN	Double acting DR	Code	Single acting SC	Code
15	DR0015U F03F05NS11A	DU01AW	SC0015U 6 F03F05NS11A	SU01KW
			SC0030U 6 F05F07NS14A	SU03KP
20	DR0015U F03F05NS11A	DU01AW	SC0015U 6 F03F05NS11A	SU01KW
			SC0030U 6 F05F07NS14A	SU03KP
25	DR0015U F03F05NS11A	DU01AW	SC0015U 6 F03F05NS11A	SU01KW
			SC0030U 6 F05F07NS14A	SU03KP
32	DR0015U F03F05NS11A	DU01AW	SC0030U 6 F05F07NS14A	SU03KP
	DR0030U F05F07NS14A		SC0060U 6 F05F07NS14A	SU06KP
40	DR0030U F05F07NS14A	DU03AP	SC0060U 6 F05F07NS14A	SU06KP
50	DR0030U F05F07NS14A	DU03AP	SC0060U 6 F05F07NS14A	SU06KP

### GEMÜ GDR/GSR - metal

DN	Double acting GDR	Code	Single acting GSR	Code
15	GDR0050 F03/05 S11A	HR05AW	GSR0050 SC5F03/05 S11	GR05SW
20	GDR0050 F03/05 S11A	HR05AW	GSR0050 SC5F03/05 S11	GR05SW
25	GDR0050 F03/05 S11A	HR05AW	GSR0050 SC5F03/05 S11	GR05SW

DN	Double acting GDR	Code	Single acting GSR	Code
32	GDR0050 F03/05 S11A	HR05AW	GSR0065 SC5F05/07 S14A	GR06SP
40	GDR0050 F03/05 S11A	HR05AW	GSR0065 SC5F05/07 S14A	GR06SP
50	GDR0050 F03/05 S11A	HR05AW	GSR0065 SC5F05/07 S14A	GR06SP

## Order data

The order data provide an overview of standard configurations.

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

Products ordered with **bold marked ordering options** are so-called preferred series. Depending on the nominal size, these are available more quickly.

## Order codes

1 Type	Code
Butterfly valve, pneumatically operated	410

2 DN	Code
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
Union end with insert (socket) – DIN	7
Union end with inch insert – BS (socket)	33

5 Body material	Code
PVC-U, grey	1

6 Shut-off seal material	Code
FKM	4
EPDM	14

7 Control function	Code
<b>Actuator GEMÜ 9415</b>	
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3
<b>GEMÜ ADA/ASR, DR/SC, GDR/GSR actuators</b>	
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3
Normally closed (NC), actuator mounted across the piping	Q
Double acting (DA), actuator mounted across the piping	T
Normally open (NO), actuator mounted across the piping	U

8 Actuator version	Code
<b>Actuator GEMÜ 9415</b>	
GEMÜ actuator, pneumatic, size 0, piston diameter 50 mm	0
GEMÜ actuator, pneumatic, size 1, piston diameter 70 mm	1
<b>Actuator GEMÜ DR and SC</b>	
Actuator, pneumatic, double acting, clockwise rotation, DR0015U F03/05 S11	DU01AW
Actuator, pneumatic, double acting, clockwise rotation, DR0030U F05/07 S14	DU03AP
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0015U 6F03/05 S11	SU01KW
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0030U 6F05/07 S14	SU03KP
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0060U 6F05/07 S14	SU06KP
<b>Actuator GEMÜ ADA and ASR</b>	
Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F05 S14S11	BU02AB
Actuator, pneumatic, double acting, clockwise rotation, ADA0040U F05 S14S11	BU04AB
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0020US08F05 S14S11	AU02FB
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0040US14F05 S14S11	AU04KB
<b>Actuator GEMÜ GDR and GSR</b>	
Actuator, pneumatic, double acting, clockwise rotation, GDR0050 F03/05 S11	HR05AW
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0065 SC5F05/07 S14	GR06SP

## Order example

Ordering option	Code	Description
1 Type	410	Butterfly valve, pneumatically operated
2 DN	25	DN 25
3 Body configuration	D	2/2-way body
4 Connection type	7	Union end with insert (socket) – DIN
5 Body material	1	PVC-U, grey

Ordering option	Code	Description
6 Shut-off seal material	14	EPDM
7 Control function	1	Normally closed (NC)
8 Actuator version	0	GEMÜ actuator, pneumatic, size 0, piston diameter 50 mm

## 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, disc and seal material. The product is only suitable for use with fluids of group 2 according to the Pressure Equipment Directive.

**Control medium:** Inert gases

### Temperature

**Media temperature:** 0 – 60 °C

**Ambient temperature:** -10 – 60 °C

**Storage temperature:** 0 – 40 °C

**Control medium temperature:** max. 60 °C

### Pressure

**Operating pressure:** 0 – 6 bar

**Cv values:**

DN	Cv values
15	7.0
20	13.0
25	17.0
32	33.0
40	53.0
50	74.0

Cv values in m³/h

**Pressure/temperature correlation:**

Material	Code	Temperature	Permissible operating pressure
PVC-U	1	10	10.0
		20	10.0
		25	10.0
		30	8.0
		40	6.0
		50	3.5
		60	1.5

Temperatures in °C

Pressures in bar

All pressures are gauge pressures.

The permissible operating pressure depends on the working medium temperature.

### Product compliance

**Pressure Equipment Directive:** 2014/68/EU

**Mechanical data**

**Torques:**

DN	Torques
15	6.0
20	6.0
25	6.0
32	8.0
40	20.0
50	21.0

Torques in Nm

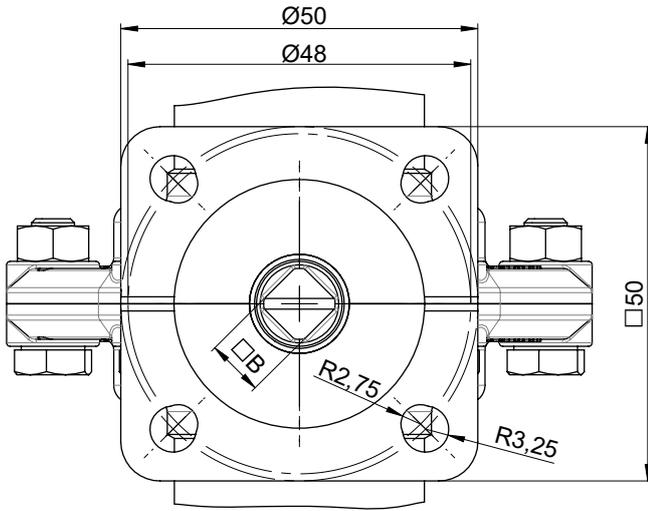
**Weight:**

DN	Weights
15	0.360
20	0.390
25	0.400
32	0.700
40	1.072
50	1.200

Weights in kg

## Dimensions

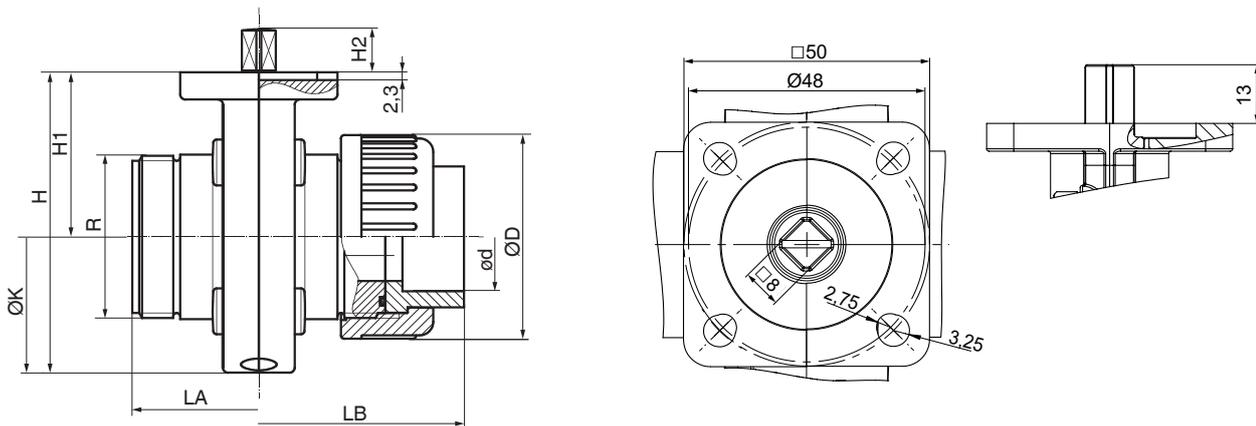
### Actuator flange F05/G05



DN	□B	ØE	ØR	L max	L min	H2
15	8.0	25.0	10.0	18.0	7.0	13.0
20	8.0	25.0	10.0	18.0	7.0	13.0
25	8.0	25.0	10.0	18.0	7.0	13.0
32	8.0	65.0	10.0	34.0	22.0	13.0
40	8.0	80.0	12.0	42.0	30.0	13.0
50	8.0	90.0	12.0	42.0	30.0	13.0

Dimensions in mm

### Body

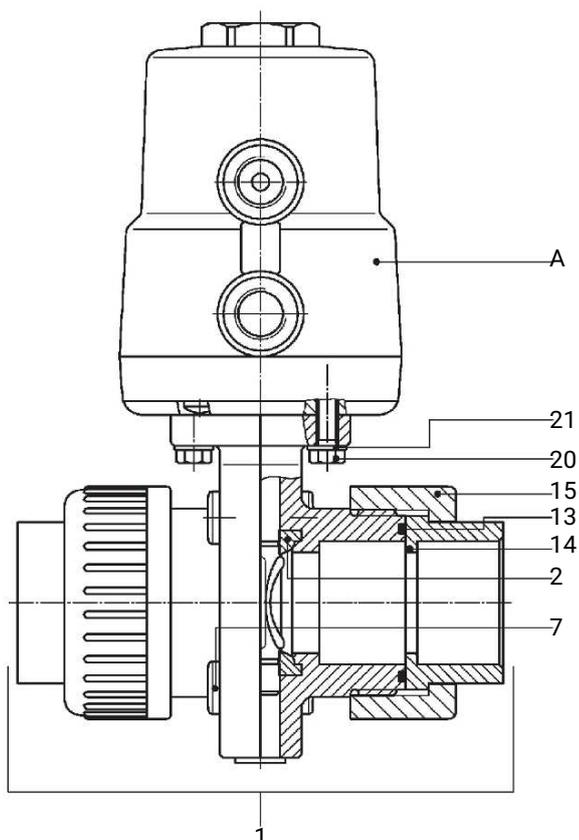


DN	LA	LB	H	H1	H2	øD	ød	R	øK
15	74.0	114.0	89.0	48.5	13.0	60.0	20.0	G 1 1/2	80.0
20	74.0	118.0	89.0	48.5	13.0	60.0	25.0	G 1 1/2	80.0
25	74.0	124.0	89.0	48.5	13.0	60.0	32.0	G 1 1/2	80.0
32	80.0	138.0	106.0	57.5	13.0	74.0	40.0	G 2	96.0
40	94.0	162.0	112.0	58.0	13.0	83.0	50.0	G 2 1/4	108.0
50	106.0	188.0	137.0	74.0	13.0	103.0	63.0	G 2 3/4	126.0

Dimensions in mm

## Spare parts

### Spare parts overview



Item	Name	Order designation
1	Valve body complete	K410
2	Shut-off seal	410 SLN
3	Butterfly disc PVDF	410 SDS
13	O-ring	410 SOR/410 SCK
14	Insert	410 SCK
15	Union nut	410 SCK
18	Screw	410 SVK
19	Disc	410 SVK
20	Nut	410 SVK
21	Protective cap	410 SVK
A	Actuator	9415

### Add-on components

#### GEMÜ LSF



#### Inductive dual sensor for quarter turn valves

The GEMÜ LSF inductive dual sensor is suitable for mounting to manually and pneumatically operated quarter turn valves. It is also fitted with an optical position indicator for visual confirmation of position.



### **GEMÜ LSC**

#### **Limit switch box for quarter turn actuators**

The GEMÜ LSC limit switch box is suitable for mounting to manually and pneumatically operated quarter turn valves. It is also fitted with an optical position indicator for visual confirmation of position.



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