

# GEMÜ K415

## Butterfly valve with bare shaft



### Features

- High-quality butterfly valve made from stainless steel or brass
- Available in small nominal sizes
- Compact and robust body
- Suitable for vacuum applications and low temperatures

### Description

The GEMÜ K415 soft seated butterfly valve made from stainless steel or brass has a bare shaft with standardized actuator flange in accordance with ISO 5211. With its rounded and polished disc edges, the butterfly valve is optimized for frequent cycle duties. The surface of the butterfly valve can still be further finished. The butterfly valve is optionally available with FDA or in an ATEX version. Thanks to its modular construction, it is also available with a manual, pneumatic or motorized actuator.

### Technical specifications

- **Media temperature:** -20 to 160 °C
- **Ambient temperature:** -10 to 60 °C
- **Operating pressure:** 0 to 10 bar
- **Nominal sizes:** DN 15 to 50
- **Connection types:** Clamp | Spigot | Threaded connection
- **Connection standards:** ASME | DIN | EN | ISO | SMS
- **Housing materials:** 1.4408 (CF8M), investment casting material | CW614N, brass | CW617N, brass
- **Liner materials:** EPDM | FKM | Silicone
- **Disc materials:** 1.4408, investment casting material | CW614N, brass | CW617N, brass
- **Conformities:** ATEX | EAC | FDA

Technical data depends on the respective configuration



## Product line



GEMÜ K415

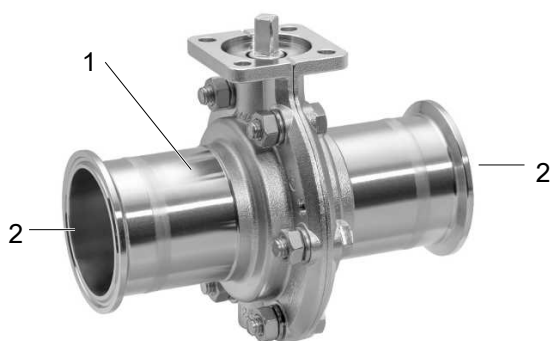
GEMÜ 411

GEMÜ 415

GEMÜ 428

Operation				
With bare shaft	●	-	-	-
Manual	-	●	-	-
Pneumatic	-	-	●	-
Motorized	-	-	-	●
<b>Nominal sizes</b>	DN 15 to 50	DN 15 to 50	DN 15 to 50	DN 15 to 50
<b>Media temperature</b>	-20 to 160 °C	-20 to 120 °C	-20 to 120 °C	-20 to 120 °C
<b>Operating pressure</b>	0 to 10 bar	0 to 10 bar	0 to 10 bar	0 to 10 bar
Connection types				
Clamp	●	●	●	●
Spigot	●	●	●	●
Threaded connection	●	●	●	●
Conformities				
ATEX	●	●	●	●
CSA	-	-	-	●
EAC	●	●	●	●
FDA	●	●	●	●

## Product description



Item	Name	Material
1	Valve body	CW614N, CW617N (brass), investment casting (1.4408)
2	Pipe connections	CW614N, CW617N (brass), investment casting (1.4408)
	Disc	CW614N, CW617N (brass), investment casting (1.4408)

## Availability

### Body

DN	NPS	Body material code <sup>1)</sup>									
		Brass code 12		Investment casting code 37							
		Connection type code <sup>2)</sup>									
		Threaded socket		Spigot						Clamp	
1	31	0	16	17	37	59	60	86	88		
15	1/2"	X	X	X	X	X	-	X	X	X	X
20	3/4"	X	X	X	X	X	-	X	X	X	X
25	1"	X	X	X	X	X	X	X	X	X	X
32	1 1/4"	X	X	X	X	X	X	-	X	X	-
40	1 1/2"	X	X	X	X	X	X	X	X	X	X
50	2"	X	X	X	X	X	X	X	X	X	X

1) **Body material**

Code 12: CW614N, CW617N (brass)

Code 37: 1.4408, investment casting

2) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 31: Threaded socket NPT

Code 0: Spigot DIN

Code 16: Spigot EN 10357 series B (formerly DIN 11850 series 1)

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)

Code 37: Spigot SMS 3008

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127 / EN 10357 series C

Code 86: Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 14

Code 88: Clamp ASME BPE, face-to-face dimension FTF EN 558 series 14

## 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
Butterfly valve body, metal	K415

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
<b>Spigot</b>	
Spigot DIN	0
Spigot EN 10357 series B (formerly DIN 11850 series 1)	16
Spigot EN 10357 series A (formerly DIN 11850 series 2)	17
Spigot SMS 3008	37
Spigot ASME BPE	59
Spigot ISO 1127 / EN 10357 series C	60
<b>Threaded socket</b>	
Threaded socket DIN ISO 228	1

4 Connection type	Code
Threaded socket NPT	31
<b>Clamp</b>	
Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 14	86
Clamp ASME BPE, face-to-face dimension FTF EN 558 series 14	88

5 Body material	Code
CW614N, CW617N (brass)	12
1.4408, investment casting	37

6 Liner	Code
FPM (FKM)	4
Silicone (MVQ)	9
EPDM	14

7 Type of design	Code
Without	
Media wetted area cleaned to ensure suitability for paint applications, parts sealed in plastic bag	0101
Valve free of oil and grease, media wetted area cleaned and packed in PE bag	0107

## Order example

Ordering option	Code	Description
1 Type	K415	Butterfly valve body, metal
2 DN	25	DN 25
3 Body configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Body material	12	CW614N, CW617N (brass)
6 Liner	14	EPDM
7 Type of design		Without

## Technical data

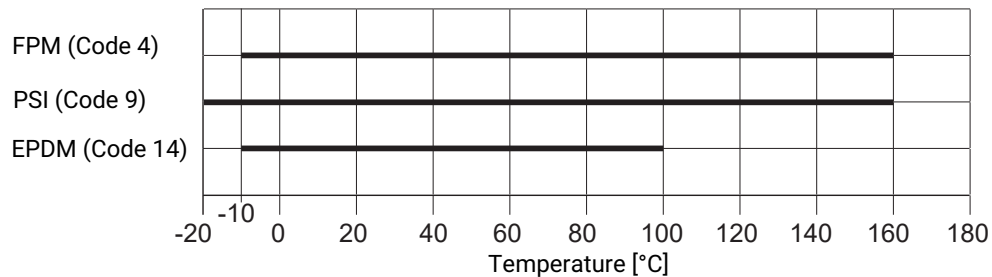
### Medium

**Working medium:** Corrosive, inert, gaseous, viscous and liquid media which have no negative impact on the physical and chemical properties of the body, disc and seal material.

### Temperature

**Media temperature:**

Liner material



**Ambient temperature:** -10 – 60 °C

**Storage temperature:** -20 – 40 °C

### Pressure

**Operating pressure:** 0 – 10 bar

**Pressure rating:** PN 10

**Kv values:**

DN	Threaded socket	Butt weld spigot
	Body material	
	Code 12	Code 37
15	7	7
20	12	15
25	17	20
32	40	55
40	60	90
50	100	140

Kv values in m<sup>3</sup>/h

### Product compliance

**Machinery Directive:** 2006/42/EC

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

**Explosion protection:** 2014/34/EU

**Approvals:** FDA

## 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:

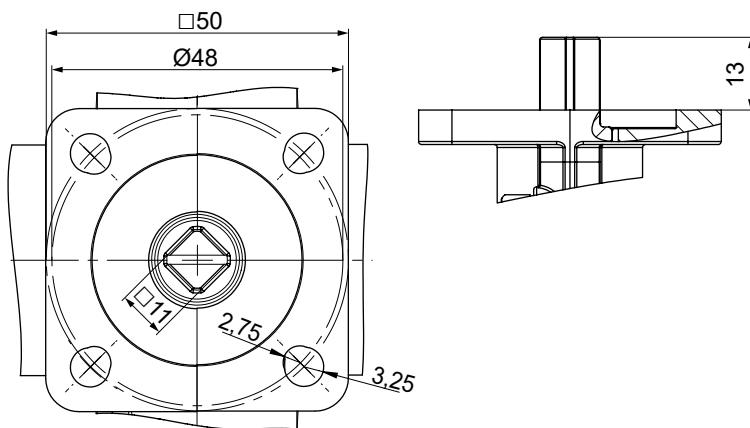
Body

DN	Body material	
	Code 12	Code 37
15	670	900
20	750	940
25	910	1020
32	930	1100
40	1410	1500
50	2020	1950

Weight in g

## Dimensions

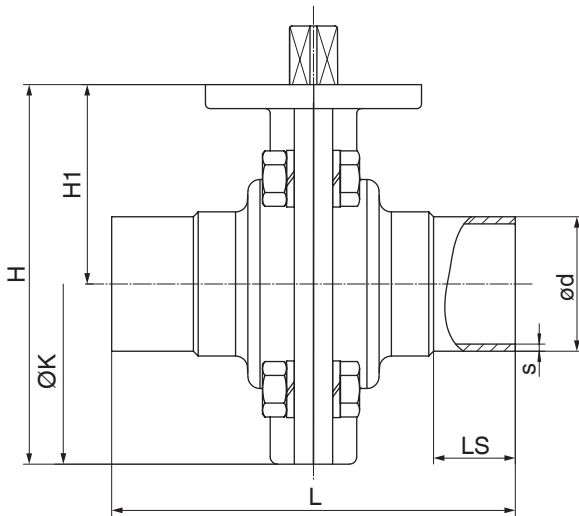
### Actuator flange F05/G05



Dimensions in mm

## Body

Butt weld spigot (connection type code 0, 16, 17, 37, 59, 60)

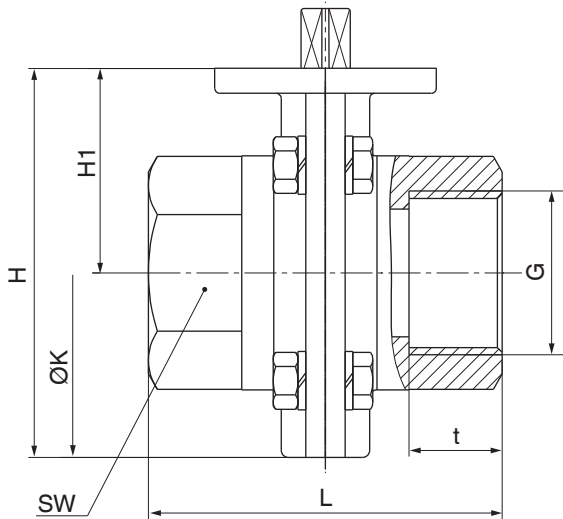


DN	NPS	L	H	H1	øK	LS	DIN		EN 10357			
							Code 0		Code 16		Code 17	
							ød	s	ød	s	ød	s
15	1/2"	80.0	79.0	41.5	75.0	20.0	18.0	1.5	18.0	1.0	19.0	1.5
20	3/4"	84.0	79.0	41.5	75.0	22.0	22.0	1.5	22.0	1.0	23.0	1.5
25	1"	84.0	79.0	41.5	75.0	22.0	28.0	1.5	28.0	1.0	29.0	1.5
32	1¼"	88.0	91.0	48.0	85.0	25.0	34.0	1.5	34.0	1.0	35.0	1.5
40	1½"	96.0	108.0	56.0	103.0	25.0	40.0	1.5	40.0	1.0	41.0	1.5
50	2"	110.0	123.0	65.0	116.0	30.0	52.0	1.5	52.0	1.0	53.0	1.5

DN	NPS	L	H	H1	øK	LS	SMS 3008		EN ISO 1127		ASME BPE	
							Code 37		Code 60		Code 59	
							ød	s	ød	s	ød	s
15	1/2"	80.0	79.0	41.5	75.0	20.0	-	-	21.3	1.6	12.7	1.65
20	3/4"	84.0	79.0	41.5	75.0	22.0	-	-	26.9	1.6	19.1	1.65
25	1"	84.0	79.0	41.5	75.0	22.0	25.0	1.2	33.7	2.0	25.4	1.65
32	1¼"	88.0	91.0	48.0	85.0	25.0	33.7	1.2	42.4	2.0	-	-
40	1½"	96.0	108.0	56.0	103.0	25.0	38.0	1.2	48.3	2.0	38.1	1.65
50	2"	110.0	123.0	65.0	116.0	30.0	51.0	1.2	60.3	2.0	50.8	1.65

Dimensions in mm

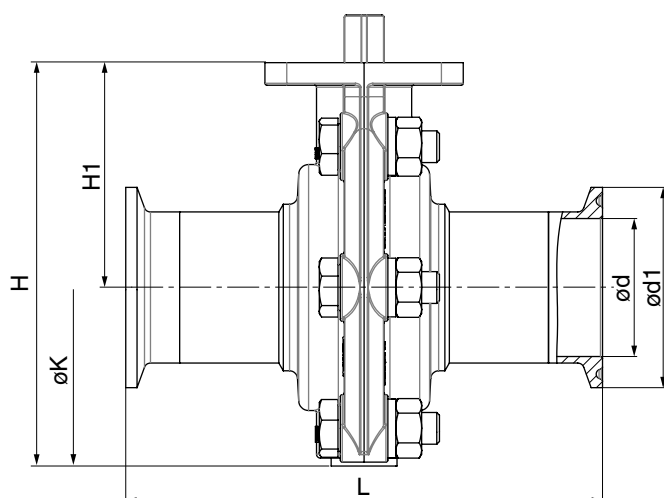
**Threaded socket (connection type code 1, 31)**



DN	G	L	H	H1	t	øK	SW	n
15	1/2"	72.0	79.0	41.5	15.0	75.0	27.0	6
20	3/4"	72.0	79.0	41.5	16.0	75.0	32.0	6
25	1"	72.0	79.0	41.5	19.0	75.0	41.0	6
32	1¼"	72.0	91.0	48.0	21.4	85.0	50.0	8
40	1½"	83.0	108.0	56.0	21.4	103.0	55.0	8
50	2"	88.0	123.0	65.0	25.7	116.0	70.0	8

Dimensions in mm  
n = number of flats



**Clamp (connection type code 86, 88)**

DN	NPS	L	H	H1	øK	DIN 32676 series A		ASME BPE	
						Code 86		Code 88	
						ød	ød1	ød	ød1
15	1/2"	115.0	79.0	41.5	75.0	16.0	34.0	9.4	25.0
20	3/4"	120.0	79.0	41.5	75.0	20.0	34.0	15.8	25.0
25	1"	125.0	79.0	41.5	75.0	26.0	50.5	22.1	50.5
32	1¼"	130.0	91.0	48.0	85.0	32.0	50.5	-	-
40	1½"	140.0	108.0	56.0	103.0	38.0	50.5	34.8	50.5
50	2"	150.0	123.0	65.0	116.0	50.0	50.5	47.5	64.0

Dimensions in mm

**Add-on components****GEMÜ 9415****Pneumatic quarter turn actuator**

The GEMÜ 9415 pneumatically operated plastic quarter turn actuator has a stable plastic housing made from glass fibre reinforced PP. The quarter turn movement (90 + 3°) is transmitted to the shaft by means of a control piston and a sloping thread. By turning the positioning element 90° during assembly Normally Closed or Normally Open versions can be achieved.

**GEMÜ 9428****Motorized quarter turn actuator**

The product is a motorized quarter turn actuator. The actuator is designed for DC or AC operating voltages. A manual override and an optical position indicator are integrated as standard. The torque in the end positions is increased. This enables a closing curve matched to the valves.

**GEMÜ 9411****Hand lever**

GEMÜ 9411 is an ergonomically designed, corrosion-resistant hand lever. It is protected against accidental operation by the integrated locking device.



**GEMÜ 1225**

**Electrical position indicator**

The GEMÜ 1225 electrical position indicator for GEMÜ butterfly valves 410, 411, 415, 417, 423 and 428 has two adjustable trip cams which are non-positively operated by the switching shaft.



**GEMÜ ADA/ASR**

**Pneumatic universal quarter turn actuators**

GEMÜ ADA is a pneumatic, double acting and GEMÜ ASR a pneumatic, single acting quarter turn actuator. Both work according to the double piston rack and pinion principle and are suitable for mounting to butterfly valves or ball valves.



**GEMÜ DR/SC**

**Pneumatic premium quarter turn actuators**

GEMÜ DR is a pneumatic, double acting and GEMÜ SC a pneumatic, single acting quarter turn actuator. Both work according to the double piston rack and pinion principle and are suitable for mounting to butterfly valves or ball valves.



**GEMÜ GDR/GSR**

**Pneumatic basic quarter turn actuators**

The pneumatic basic actuators GEMÜ GSR and GEMÜ GDR are quarter turn actuators with clockwise rotation for Open/Close applications. Single acting (GEMÜ GSR) or double acting versions (GEMÜ GDR) are available. With their standardized connection for pilot valves, position feedback and flanged connection according to ISO 5211, they are suitable for mounting on butterfly valves and ball valves.



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