

GEMÜ R488 Victoria

Motorized butterfly valve



Features

- Low torques thanks to coated bushings
- Bubble tight sealing acc. to EN 12266-1/P12, leakage rate A
- Liner material is easy to read when installed
- Sleek disc design for higher Kv values
- Robust body coating comparable to ISO 12944-6 C5
- Various actuator types can be selected
- Optional accessories are installed, set and tested so they are ready for operation

Description

The GEMÜ R488 Victoria soft seated metal butterfly valve is motorized. Various metal or plastic open/closed or control versions are available. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer, lug and U section body versions.

Technical specifications

- **Media temperature :** -10 to 160 °C
- **Ambient temperature:** -10 to 70 °C
- **Operating pressure :** 0 to 16 bar
- **Nominal sizes:** DN 25 to 600
- **Housing configurations:** Lug | U section | Wafer
- **Connection standards :** ANSI | AS | BS | DIN | EN | ISO | JIS
- **Body materials:** EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT (GGG 40.3)
- **Body coating:** Epoxy
- **Liner materials:** EPDM | FKM | NBR | SBR, abrasion resistant | Silicone
- **Disc materials:** 1.4408, investment casting material | 1.4408, polished investment casting material | 1.4469, Duplex cast steel material | EN-GJS-400-15, SG iron material
- **Disc coating:** Epoxy | Halar® | Rilsan®
- **Supply voltage:** 100 - 120 V AC, 50/60 Hz | 12 - 24 V AC/DC | 220 - 240 V AC, 50/60 Hz | 380 - 480 V AC, 50/60 Hz
- **90° operating time:** 4 Up to 100 s
- **Protection class :** IP 65. 66. 67. 68
- **Conformities:** ACS | ASME GEMÜ B31.3 | ATEX | Belgaqua | DNV GL | DVGW Drinking water | DVGW Gas | FDA | FMEDA | NSF | Oxygen | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | WRAS

Technical data depends on the respective configuration



webcode: GW-R488



Product line

				
	GEMÜ R480 Victoria	GEMÜ R481 Victoria	GEMÜ R487 Victoria	GEMÜ R488 Victoria
Operation				
With bare shaft	●	-	-	-
manually	-	-	●	-
Pneumatic	-	●	-	-
Motorized	-	-	-	●
Nominal sizes	DN 25 to 600	DN 25 to 600	DN 25 to 600	DN 25 to 600
Media temperature	-10 to 160 °C	-10 to 160 °C	-10 to 160 °C	-10 to 160 °C
Operating pressure	0 to 16 bar	0 to 16 bar	0 to 16 bar	0 to 16 bar
Connection types				
Flange (lug)	●	●	●	●
Flange (U section)	●	●	●	●
Flange (wafer)	●	●	●	●
Conformities				
ACS	●	●	●	●
ASME GEMÜ B31.3	●	●	●	●
ATEX	-	●	-	●
Belgaqua	●	●	●	●
DNV GL	●	●	●	●
DVGW Drinking water	●	●	●	●
DVGW Gas	●	●	●	●
FDA	●	●	●	●
FMEDA	●	●	●	●
Functional safety	●	-	●	-
NSF	●	●	●	●
Oxygen	●	●	●	●
Regulation (EC) No. 1935/2004	●	●	●	●
TA Luft (German Clean Air Act)	●	●	●	●
WRAS	●	●	●	●

Comparison of actuator applications

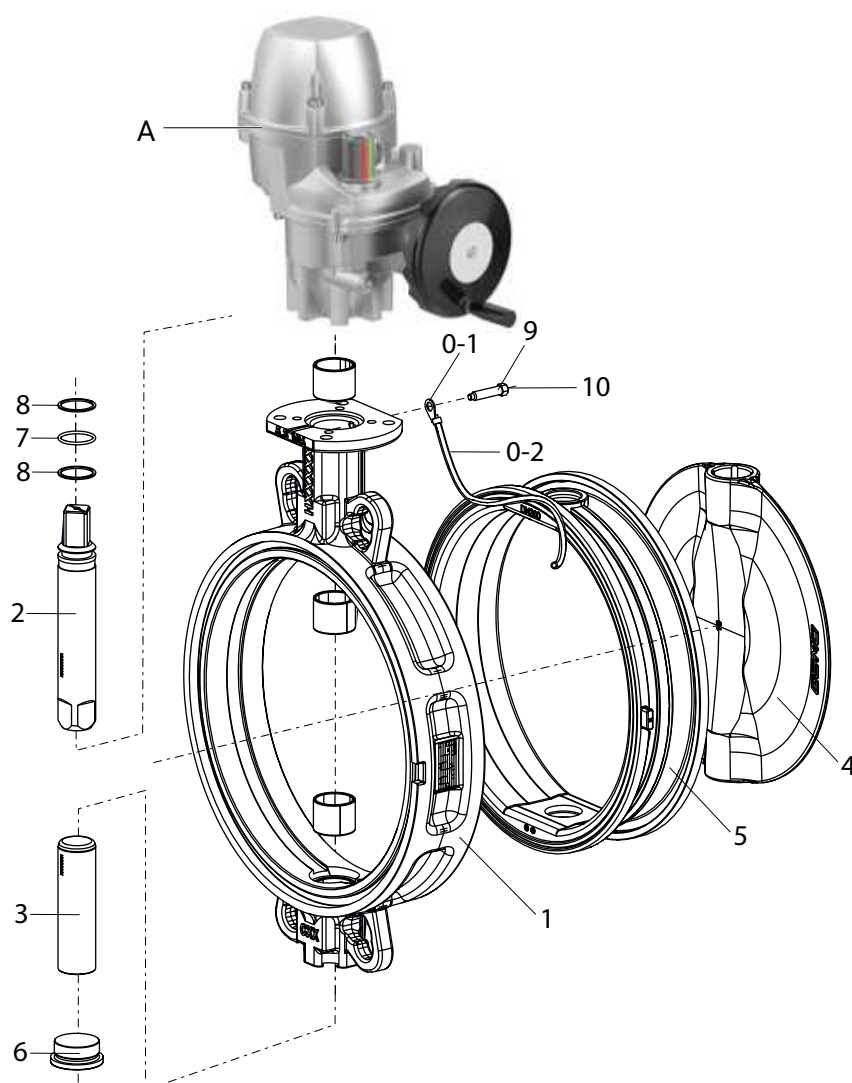
					
	GEMÜ 9428	GEMÜ J4C	GEMÜ RP	GEMÜ PF	GEMÜ AQ
Range of functions					
Use in non-aggressive environment (up to C3)	●	●	●	●	●
Use in aggressive environment (C5)	●	●	●	●	●
Use in protected outdoor areas	●	●	●	●	●
Use in unprotected outdoor areas	●	●	●	●	●
Applications with many/frequent cycle duties	●	●	●	●	●
Fail-safe option	●	●	●	●	●
Positioning application	●	●	●	●	●
Industrial sectors					
Chemical processes	●	●	●	●	●
Surface finishing	●	●	●	●	●
Water treatment	●	●	●	●	●
Mechanical engineering	●	●	●	●	●
Power generation and environmental systems	●	●	●	●	●
Food processing technology	●	●	●	●	●
Semiconductor	●	●	●	●	●
Medical systems	●	●	●	●	●
Pharmaceutical industry	●	●	●	●	●

Comparison of technical data of actuators

					
	GEMÜ 9428	GEMÜ J4C	GEMÜ RP	GEMÜ PF	GEMÜ AQ
Manufacturer	GEMÜ	J+J	AUMA	AUMA	AUMA
Manufacturer type	9428	J4C	RP	PROFOX	AM, AC, SQ, SQR
Torques	6 to 55 Nm	20 to 300 Nm	32 to 100 Nm	80 to 600 Nm	150 to 2400 Nm
Duty cycle	100 %	75 %	25 % (control actuator) S2 - 15min (ON/OFF actuator)	50 % (control actuator) S2 - 15min (ON/OFF actuator)	20 % (ON/OFF actuator) 25 % (control actuator)
Heating	No	Yes	Yes	Yes	Yes
Voltage					
100 - 240 V, 50/60 Hz	-	-	●	●	-
110 V AC, 60 Hz	-	-	●	-	-
12 V AC, 50/60 Hz	●	-	-	-	-
12 V DC	●	●	-	-	-
230 V AC, 50 Hz	-	-	●	-	●
24 - 240 V AC/DC	-	●	-	-	-
24 V AC, 50/60 Hz	●	-	-	-	-
24 V DC	●	-	●	●	-
400 V AC, 50 Hz	-	-	-	-	●
Protection class	IP 65, IP 67	IP 67	IP 67	IP 68	IP 68
Ambient temperature	-10 to 60 °C	-20 to 70 °C	-20 to 60 °C	-30 to 70 °C	-60 to 120 °C
Housing materials					
Aluminium	-	-	-	●	●
PA66 GF25	-	-	●	-	-
Polyamide (PA6)	-	●	-	-	-
PP	●	-	-	-	-
X518CrNi18-10 - 1.4301	-	-	●	-	-
Versions					
Limit switches	●	●	●	●	●
ON/OFF actuator	●	-	●	●	●
Optional battery pack	-	●	-	-	-
Optional on-site control	-	-	-	●	●
Optional positioner	-	●	-	●	●
Optional positioning actuator	-	●	●	●	●
Optionally 3 positions	-	●	-	-	-
Torque switch	-	-	●	●	●

Product description

Construction



Item	Name	Materials
1	Body	SG iron 5.3106, epoxy coated (RAL 5021)
2	Shaft	1.4021
3	Axis	1.4021
4	Disc	Various materials (see order data)
5	Liner	Various materials (see order data)
6	Threaded plug	1.4408
7	O-ring	NBR
8	Support rings	PTFE
9	Hexagon head bolts	Stainless steel A2-70
0	Earthing kit for ATEX version	
0-1	Cable lug (ATEX version)	
0-2	Stranded wire (ATEX version)	
10	CONEXO RFID chip	
A	Motorized actuator	

Actuator assignment

GEMÜ 9428 actuator

GEMÜ 9428 – standard version

DN	Torque	PS	Actuator version (code)				
			3015, 3035	3055	2070	4100	4200
25	4	16 bar	-	-	-	-	-
40	7		-	-	-	-	-
50	7		X	-	-	-	-
65	15		X	-	-	-	-
80	28		-	X	-	-	-
100	55		-	X	X	-	-
125	77		-	-	-	X	-
150	118		-	-	-	-	X
200	145	3 bar	-	-	-	-	X
250	152		-	-	-	-	X

Torques in Nm

Design for EPDM sleeve, medium water, medium temperature +20 °C

GEMÜ type	Actuator version (code)	Control module (code) ¹⁾	Voltage/frequency			
			12 V DC (code B1)	12 V AC (code B4)	24 V DC (code C1)	24 V AC (code C4)
9428	3015	A0, AE	X	-	X	-
	2015		-	X	-	X
	3035		-	-	X	-
	3055		-	-	X	-

1) Control module

Code 00: ON/OFF actuator, relay, not reversible

Code 0E: ON/OFF actuator, two additional potential-free limit switches, relay, not reversible

Code 0P: ON/OFF actuator, potentiometer output, relay, not reversible

Code A0: ON/OFF actuator

Code AE: ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)

J+J actuator**J+J - Voltage/Frequency**

Voltage/Frequency	Code	Actuator version (code)					
		J4C20	J4C35	J4C55	J4C85	J4C14	J4C30
12 V DV	B1	X	X	X	X	X	X
24 – 240 V AC/DC	U5	X	X	X	X	X	X

J+J - Control module

Control module	Code ¹⁾	Actuator version (code)					
		J4C20	J4C35	J4C55	J4C85	J4C14	J4C30
Open/close	A3	X	X	X	X	X	X
	AE	X	X	X	X	X	X
	AE1	X	X	X	X	X	X
	AE2	X	X	X	X	X	X
	AP	X	X	X	X	X	X
	AP1	X	X	X	X	-	-
Positioner	E1	X	X	X	X	X	X
	E11	X	X	X	X	-	-
	E2	X	X	X	X	X	X
	E22	X	X	X	X	-	-

1) Control module

Code A3: Open/Close control with 2 additional, potential-free limit switches, 3-position actuator

Code AE: Open/Close control with 2 additional, potential-free limit switches

Code AE1: Open/Close control with 2 additional, potential-free limit switches, with BSR accupack (NC)

Code AE2: Open/Close control with 2 additional, potential-free limit switches, with BSR accupack (NO)

Code AP: Open/Close control, with 5 kOhm potentiometer output

Code AP1: Open/Close control, with 5 kOhm potentiometer output, with BSR accupack (NC)

Code E1: Positioner DPS, 0 - 10 V

Code E11: Positioner DPS, 0 - 10 V, with BSR accupack (NC)

Code E2: Positioner DPS 4 - 20 mA

Code E21: Positioner DPS 4 - 20 mA with BSR accupack (NC)

Code E22: Positioner DPS 4 - 20 mA with BSR battery pack (NO)

J+J - standard design

DN	Torque	PS	Actuator version (code)					
			J4C20	J4C35	J4C55	J4C85	J4C14	J4C30
25	4	16 bar	X	-	-	-	-	-
40	7		X	-	-	-	-	-
50	7		X	-	-	-	-	-
65	15		X	-	-	-	-	-
80	28		-	X	X	-	-	-
100	55		-	-	-	X	-	-
125	77		-	-	-	X	-	-
150	118		-	-	-	-	X	-
200	242		-	-	-	-	-	X
200	145	3 bar	-	-	-	-	-	X
250	152		-	-	-	-	-	X
300	245		-	-	-	-	-	X
350	255		-	-	-	-	-	X

Torques in Nm

Design for EPDM sleeve, medium water, medium temperature +20 °C

Actuator RP

RP – voltage/frequency

Voltage/frequency	Code	Actuator version (code)		
		RP32	RP64	RP100
12 V DC	C1	X	X	X
100 - 240 V	T4	X	X	X
50 - 60 Hz				

RP – control module

Control module	Code ¹⁾	Actuator version (code)		
		RP32	RP64	RP100
ON/OFF	A0	X	X	X
	AE	X	X	X
Positioner	E1	X	X	X
	E2	X	X	X

1) Control module

Code A0: ON/OFF actuator

Code AE: ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)

Code E1: Control actuator, external set value 0–10 VDC

Code E2: Control actuator, external set value 0/4–20 mA

RP – standard version

DN	Torque	PS	Actuator version (code)		
			RP32	RP64	RP100
25	4	16 bar	X	-	-
40	7		X	-	-
50	7		X	-	-
65	15		X	-	-
80	28		X	X	-
100	55		-	X	X
125	77		-	-	X

Torques in Nm

Design for EPDM sleeve, medium water, medium temperature +20 °C

AUMA AQ actuator

AUMA AQ - Standard design

DN	Torque	PS	Actuator version (code)				
			AQ05	AQ07	AQ10	AQ12	AQ14
25	4	16 bar	X	-	-	-	-
40	7		X	-	-	-	-
50	7		X	-	-	-	-
65	15		X	-	-	-	-
80	28		X	-	-	-	-
100	55		X	-	-	-	-
125	77		X	-	-	-	-
150	118		X	-	-	-	-
200	242		-	X	-	-	-
250	310	10 bar	-	-	X	-	-
300	330		-	-	X	-	-
200	145	3 bar	-	x	-	-	-
250	152		-	X	-	-	-
300	245		-	X	-	-	-
350	255		-	-	X	-	-
400	580		-	-	-	X	-
450	600		-	-	-	X	-
500	860		-	-	-	X	-
600	1440		-	-	-	-	X

Torques in Nm

Design for EPDM sleeve, medium water, medium temperature +20 °C

AUMA AQ - Voltage/Frequency

Voltage/Frequency	Code	Actuator version (code)				
		AQ05H	AQ05L	AQ07H	AQ07L	AQ10L
120V 50Hz	G2	X	X	X	X	X
120V 60Hz	G3	X	X	X	X	X
380V 50Hz	J2	X	X	X	X	X
230V 50Hz	L2	X	X	X	X	X
230V 60Hz	L3	X	X	X	X	X
400V 50Hz	N2	X	X	X	X	X
480V 60Hz	P3	X	X	X	X	X
440V 60Hz	V3	X	X	X	X	X
460V 60Hz	W3	X	X	X	X	X

AUMA PROFOX actuator**AUMA PROFOX - Voltage/Frequency**

Voltage/Fre- quency	Code	Actuator version (code)				
		40	80	150	300	600
24 V DC	C1	X	X	X	X	X
100 - 240 V / 50 - 60 Hz	T4	X	X	X	X	X

AUMA PROFOX - Control module

Control module	Code ¹⁾	Actuator version (code)				
		40	80	150	300	600
Open/close	AB	X	X	X	X	X
Positioner	E2	X	X	X	X	X
	EDP	X	X	X	X	X
	EMB	X	X	X	X	X
	EPN	X	X	X	X	X

1) Control module

Code AB: ON/OFF actuator, 2 additional potential-free limit switches, 2 additional potential-free torque switches

Code E2: Control actuator with positioner, 4 -20 mA input and output, 2 additional potential-free limit switches, 2 additional potential-free torque switches

Code EDP: Control actuator with positioner, fieldbus interface Profibus DP

Code EMB: Control actuator with positioner, fieldbus interface Modbus RTU

Code EPN: Control actuator with positioner, fieldbus interface ProfiNet

AUMA PROFOX - Standard design

DN	Torque	PS	Actuator version (code)				
			40	80	150	300	600
25	4	16 bar	X	X	X	-	-
40	7		X	X	X	-	-
50	7		X	X	X	-	-
65	15		X	X	X	-	-
80	28		-	X	X	-	-
100	55		-	X	X	-	-
125	77		-	X	X	-	-
150	118		-	-	X	X	-
200	242		-	-	-	X	-
200	145	3 bar	-	-	-	X	X
250	152		-	-	-	X	X
300	245		-	-	-	X	X
350	255		-	-	-	X	X

Torques in Nm

Design for EPDM sleeve, medium water, medium temperature +20 °C

Product conformities

	Approved designs			Special function (code)
	Disc material	Liner material	Liner fixing	
Drinking water				
ACS	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D) EN-GJS-400-15 (GGG-40), epoxy coated (code E) EN-GJS-400-15, GGG40 Rilsan® PA11 coated (code R)	EPDM (code W)	All versions	A
Belgaqua	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D)	EPDM (code W)	Loose (code L)	B
DVGW Water	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D)	EPDM (code W)	Loose (code L)	D
NSF	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D)	EPDM (code W)	All versions	N
WRAS	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D)	EPDM (code W)	All versions	W
Food				
FDA	CF8M, 1.4408, (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D)	EPDM-AB/W (code I) EPDM, white (code M) NBR, white (code U) EPDM-HT (code Z)	Loose (code L)	no order code required
Regulation 1935/2004	CF8M, 1.4408 polished (code B)	EPDM, white (code M) NBR, white (code U) NR, white (code I) EPDM-HT (code Z)	Loose (code L)	no order code required
Gas				
DVGW Gas	CF8M, 1.4408, (code A) CF8M, 1.4408 polished (code B)	NBR (code J)	Loose (code L)	G
Oxygen				
Oxygen	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B)	EPDM (code E)	All versions	O
Air				
TA Luft (German Clean Air Act)	All materials	All materials	All versions	no order code required
Ship approval				
DNV GL	All materials	All materials	All versions	S

	Approved designs			Special function (code)
	Disc material	Liner material	Liner fixing	
Explosion protection				
ATEX internal and ex- ternal	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D) 2.0975/CC333G (code G) 1.4435/ASTM A351/CF3M/AISI 316L (code I)	EPDM (code E) SBR (code F) NBR (code N) ECO (code C) EPDM-HT (code Z)	All versions	Y
ATEX external	All materials	All materials	All versions	X
Functional safety				
Functional safety	All materials	All materials	All versions	no order code required
Pressure equipment standards				
ASME GEMÜ B31.3 (DN 25–350)	All materials	All materials	All versions	P, N
2014/68/EU	All materials	All materials	All versions	no order code required

Other features are not relevant for the product conformity

Availabilities - Type of design

Type of design (code) ¹⁾	
0101	All except liner code V, EPDM-HT code Z and silicone code S
1782	Only disc material code B

All other types of design can be freely combined.

1) Type of design

Code 0101: Media-wetted area cleaned to ensure suitability for paint applications, parts sealed in plastic bag

Code 1782: Stainless steel valve disc, without lettering, mechanically polished to 1.6 µm and electropolished, spigot internally polished to 1.6 µm, no polishing of internal threads

Order data

Butterfly valve with GEMÜ 9428 actuator

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, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed	R488

2 DN	Code
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100
DN 125	125
DN 150	150
DN 200	200
DN 250	250
DN 300	300
DN 350	350
DN 400	400
DN 450	450
DN 500	500
DN 600	600

3 Body configuration	Code
Flange-mounted design (lug), face-to-face dimension FTF EN 558 series 20	L
Double flange design (U section), face-to-face dimension FTF EN 558, series 20	U
Wafer-type flange design, face-to-face dimension FTF EN 558 series 20	W

4 Operating pressure	Code
3 bar	0
6 bar	1
10 bar	2
16 bar	3

5 Connection type	Code
PN 6/flange EN 1092, face-to-face dimension FTF EN 558 series 20	1
PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20	2

5 Connection type	Code
PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20	3
ANSI B16.5, class 150, face-to-face dimension FTF EN 558 series 20	D
Flange BS 10 Tab E, face-to-face dimension FTF EN 558, series 20	S
Flange AS 2129 Tab D, face-to-face dimension FTF EN 558, series 20	T
Flange AS 2129 Tab E, face-to-face dimension FTF EN 558, series 20	U
Flange BS 10 Tab D, face-to-face dimension FTF EN 558, series 20	H
JIS 10 K, face-to-face dimension FTF EN 558, series 20	G
JIS 16 K, face-to-face dimension FTF EN 558, series 20	J

6 Body material	Code
EN-GJS-400-15 (GGG-40), epoxy coated 250 µm	2
EN-GJS-400-18-LT (GGG-40.3), epoxy coated 250 µm	3

7 Disc material	Code
1.4408/ASTM A351 CF8M	A
1.4408, polished, roughness Ra 0.6–3.2, except disc marking	B
1.4408, HALAR coated	C
1.4469/ASTM GR5A	D
EN-GJS-400-15 (GGG-40), epoxy coated	E
EN-GJS-400-15 (GGG-40), HALAR coated	P
EN-GJS-400-15 (GGG-40), RILSAN PA11 coated	R
2.0975/CC333G	G
1.4435/ASTM A351/CF3M/AISI 316L	I

8 Shaft material	Code
1.4021/AISI 420	1

9 Shut-off seal material	Code
EPDM	E
SBR-AB/P (abrasion resistant)	F
CSM	H
NR (FDA/1935-2004 certification), white AB/W	I
NBR (DVGW Gas certification)	J
EPDM (FDA/1935-2004 certification), white	M
NBR	N
FKM +	O
EPDM-SHT (steam)	T

9 Shut-off seal material	Code
NBR (FDA/1935-2004 certification), white	U
FKM	V
EPDM (drinking water compliant)	W
EPDM-HT (FDA/1935-2004 certification)	Z

10 Liner fixing	Code
Liner bonded into body	B
Loose liner	L

11 Voltage/Frequency	Code
12 VDC	B1
12 V 50/60 Hz	B4
24 VDC	C1
24 V 50/60 Hz	C4

12 Control module	Code
ON/OFF actuator, relay, not reversible	00
ON/OFF actuator, 2 additional potential-free limit switches, relay, not reversible	0E
ON/OFF actuator, potentiometer output, relay, not reversible	0P
ON/OFF actuator	A0
ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)	AE

13 Actuator version	Code
Actuator, motorized, operating time 11s, torque 15Nm, GEMUE, size 2 supply voltage B4, C4	2015
Actuator, motorized, operating time 15 s, torque 70 Nm, GEMUE, size 2 supply voltage C1	2070
Actuator, motorized, operating time 15s, torque 35Nm, GEMUE, size 3 supply voltage C1	3035
Actuator, motorized, operating time 15s, torque 55Nm, GEMUE, size 3 supply voltage C1	3055
Actuator, motorized, operating time 20s, torque 100Nm, GEMUE, size 4 supply voltage C1	4100
Actuator, motorized, operating time 16s, torque 200Nm, GEMUE, size 4 supply voltage C1	4200

14 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
Stainless steel valve disc, without lettering, mechanically polished to 1.6 µm and electropolished, spigot internally polished to 1.6 µm, no polishing of internal threads	1782
Butterfly valve body powder coated, RAL 5015, sky blue	1892

14 Type of design	Code
Butterfly valve body powder coated, RAL 1023, traffic yellow	1925
Mounting parts in A4 quality. Caution! Danger of galling! Customer must take the necessary precautions for this!	5143
Thermal separation between actuator and valve body via mounting kit	5222
Thermal separation between actuator and valve body via dew point barrier	5226
Aluminium product label, black anodized, lasered marking, riveted to the body	6061

15 Special version	Code
Without	
ACS certification	A
BELGAQUA certification	B
DVGW Water certification	D
Country of origin Germany	E
DVGW Gas certification	G
NSF 61 Water certification	N
Special version for oxygen Maximum temperature for medium: 100 °C, Operating pressure limited in accordance with product label data Media-wetted materials cleaned, and grease and seal tested in accordance with DIN EN 1797/ISO 21010	O
ASME B31.3	P
DNV GL certification	S
WRAS certification	W
ATEX certification	X
ATEX certification (in the piping system)	Y

16 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example - standard version

Ordering option	Code	Description
1 Type	R488	Butterfly valve, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed
2 DN	100	DN 100
3 Body configuration	W	Wafer-type flange design, face-to-face dimension FTF EN 558 series 20
4 Operating pressure	3	16 bar
5 Connection type	3	PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20
6 Body material	2	EN-GJS-400-15 (GGG-40), epoxy coated 250 µm
7 Disc material	A	1.4408/ASTM A351 CF8M
8 Shaft material	1	1.4021/AISI 420
9 Shut-off seal material	E	EPDM
10 Liner fixing	L	Loose liner
11 Voltage/Frequency	C1	24 VDC
12 Control module	00	ON/OFF actuator, relay, not reversible
13 Actuator version	2070	Actuator, motorized, operating time 15 s, torque 70 Nm, GEMUE, size 2 supply voltage C1
14 Type of design		Without
15 Special version		Without
16 CONEXO		Without

Butterfly valve with J+J actuator

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, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed	R488

2 DN	Code
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100
DN 125	125
DN 150	150
DN 200	200
DN 250	250
DN 300	300
DN 350	350
DN 400	400
DN 450	450
DN 500	500
DN 600	600

3 Body configuration	Code
Flange-mounted design (lug), face-to-face dimension FTF EN 558 series 20	L
Double flange design (U section), face-to-face dimension FTF EN 558, series 20	U
Wafer-type flange design, face-to-face dimension FTF EN 558 series 20	W

4 Operating pressure	Code
3 bar	0
6 bar	1
10 bar	2
16 bar	3

5 Connection type	Code
PN 6/flange EN 1092, face-to-face dimension FTF EN 558 series 20	1
PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20	2
PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20	3

5 Connection type	Code
ANSI B16.5, class 150, face-to-face dimension FTF EN 558 series 20	D
Flange BS 10 Tab E, face-to-face dimension FTF EN 558, series 20	S
Flange AS 2129 Tab D, face-to-face dimension FTF EN 558, series 20	T
Flange AS 2129 Tab E, face-to-face dimension FTF EN 558, series 20	U
Flange BS 10 Tab D, face-to-face dimension FTF EN 558, series 20	H
JIS 10 K, face-to-face dimension FTF EN 558, series 20	G
JIS 16 K, face-to-face dimension FTF EN 558, series 20	J

6 Body material	Code
EN-GJS-400-15 (GGG-40), epoxy coated 250 µm	2
EN-GJS-400-18-LT (GGG-40.3), epoxy coated 250 µm	3

7 Disc material	Code
1.4408/ASTM A351 CF8M	A
1.4408, polished, roughness Ra 0.6–3.2, except disc marking	B
1.4408, HALAR coated	C
1.4469/ASTM GR5A	D
EN-GJS-400-15 (GGG-40), epoxy coated	E
EN-GJS-400-15 (GGG-40), HALAR coated	P
EN-GJS-400-15 (GGG-40), RILSAN PA11 coated	R
2.0975/CC333G	G
1.4435/ASTM A351/CF3M/AISI 316L	I

8 Shaft material	Code
1.4021/AISI 420	1

9 Shut-off seal material	Code
EPDM	E
SBR-AB/P (abrasion resistant)	F
CSM	H
NR (FDA/1935-2004 certification), white AB/W	I
NBR (DVGW Gas certification)	J
EPDM (FDA/1935-2004 certification), white	M
NBR	N
FKM +	O
EPDM-SHT (steam)	T
NBR (FDA/1935-2004 certification), white	U
FKM	V
EPDM (drinking water compliant)	W
EPDM-HT (FDA/1935-2004 certification)	Z

Butterfly valve with J+J actuator

10 Liner fixing	Code
Liner bonded into body	B
Loose liner	L

11 Voltage/Frequency	Code
12 VDC	B1
24 V–240 V AC/DC for model 20, 35, 55, 85, 140, 300	U5

12 Control module	Code
ON/OFF actuator, three-position actuator, additional potential-free limit switches	A3
ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)	AE
ON/OFF actuator, two additional potential-free limit switches, BSR battery pack (NC)	AE1
ON/OFF actuator, two additional potential-free limit switches, BSR battery pack (NO)	AE2
ON/OFF actuator, potentiometer output, Class A (EN15714-2)	AP
ON/OFF actuator, two additional potential-free limit switches, potentiometer output 5 kOhm, FailSafe battery pack (NC), preferred direction is adjustable	AP1
Control actuator, external set value 0–10 VDC	E1
DPS positioner, external set value 0–10 V, BSR battery pack (NC)	E11
Control actuator, external set value 0/4–20 mA	E2
Positioner, external set value 4–20 mA, battery pack (NC)	E21
Positioner, external set value 4–20 mA, battery pack (NO)	E22

13 Actuator version	Code
Actuator, motorized, operating time 9 s, torque 20 Nm, J+J, type J4, heating, IP67	J4C20
Actuator, motorized, operating time 9 s, torque 35 Nm, J+J, type J4, heating, IP67	J4C35
Actuator, motorized, operating time 13 s, torque 55 Nm, J+J, type J4, heating, IP67	J4C55
Actuator, motorized, operating time 29 s, torque 85 Nm, J+J, type J4, heating, IP67	J4C85
Actuator, motorized, operating time 34 s, torque 140 Nm, J+J, type J4, heating, IP67	J4C14
Actuator, motorized, operating time 58 s, torque 300 Nm, J+J, type J4, heating, IP67	J4C30

14 Type of design	Code
Without	

14 Type of design	Code
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
Stainless steel valve disc, without lettering, mechanically polished to 1.6 µm and electropolished, spigot internally polished to 1.6 µm, no polishing of internal threads	1782
Butterfly valve body powder coated, RAL 5015, sky blue	1892
Butterfly valve body powder coated, RAL 1023, traffic yellow	1925
Mounting parts in A4 quality. Caution! Danger of galling! Customer must take the necessary precautions for this!	5143
Thermal separation between actuator and valve body via mounting kit	5222
Thermal separation between actuator and valve body via dew point barrier	5226
Aluminium product label, black anodized, lasered marking, riveted to the body	6061

15 Special version	Code
Without	
ACS certification	A
BELGAQUA certification	B
DVGW Water certification	D
Country of origin Germany	E
DVGW Gas certification	G
NSF 61 Water certification	N
Special version for oxygen Maximum temperature for medium: 100 °C, Operating pressure limited in accordance with product label data Media-wetted materials cleaned, and grease and seal tested in accordance with DIN EN 1797/ISO 21010	O
ASME B31.3	P
DNV GL certification	S
WRAS certification	W
ATEX certification	X
ATEX certification (in the piping system)	Y

16 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example - standard version

Ordering option	Code	Description
1 Type	R488	Butterfly valve, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed
2 DN	100	DN 100
3 Body configuration	W	Wafer-type flange design, face-to-face dimension FTF EN 558 series 20
4 Operating pressure	3	16 bar
5 Connection type	3	PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20
6 Body material	2	EN-GJS-400-15 (GGG-40), epoxy coated 250 µm
7 Disc material	A	1.4408/ASTM A351 CF8M
8 Shaft material	1	1.4021/AISI 420
9 Shut-off seal material	E	EPDM
10 Liner fixing	L	Loose liner
11 Voltage/Frequency	U5	24 V–240 V AC/DC for model 20, 35, 55, 85, 140, 300
12 Control module	AE	ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)
13 Actuator version	J4C85	Actuator, motorized, operating time 29 s, torque 85 Nm, J+J, type J4, heating, IP67
14 Type of design		Without
15 Special version		Without
16 CONEXO		Without

Butterfly valve with actuator GEMÜ RP

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, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed	R488

2 DN	Code
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100
DN 125	125
DN 150	150
DN 200	200
DN 250	250
DN 300	300
DN 350	350
DN 400	400
DN 450	450
DN 500	500
DN 600	600

3 Body configuration	Code
Flange-mounted design (lug), face-to-face dimension FTF EN 558 series 20	L
Double flange design (U section), face-to-face dimension FTF EN 558, series 20	U
Wafer-type flange design, face-to-face dimension FTF EN 558 series 20	W

4 Operating pressure	Code
3 bar	0
6 bar	1
10 bar	2
16 bar	3

5 Connection type	Code
PN 6/flange EN 1092, face-to-face dimension FTF EN 558 series 20	1
PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20	2
PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20	3

5 Connection type	Code
ANSI B16.5, class 150, face-to-face dimension FTF EN 558 series 20	D
Flange BS 10 Tab E, face-to-face dimension FTF EN 558, series 20	S
Flange AS 2129 Tab D, face-to-face dimension FTF EN 558, series 20	T
Flange AS 2129 Tab E, face-to-face dimension FTF EN 558, series 20	U
Flange BS 10 Tab D, face-to-face dimension FTF EN 558, series 20	H
JIS 10 K, face-to-face dimension FTF EN 558, series 20	G
JIS 16 K, face-to-face dimension FTF EN 558, series 20	J

6 Body material	Code
EN-GJS-400-15 (GGG-40), epoxy coated 250 µm	2
EN-GJS-400-18-LT (GGG-40.3), epoxy coated 250 µm	3

7 Disc material	Code
1.4408/ASTM A351 CF8M	A
1.4408, polished, roughness Ra 0.6–3.2, except disc marking	B
1.4408, HALAR coated	C
1.4469/ASTM GR5A	D
EN-GJS-400-15 (GGG-40), epoxy coated	E
EN-GJS-400-15 (GGG-40), HALAR coated	P
EN-GJS-400-15 (GGG-40), RILSAN PA11 coated	R
2.0975/CC333G	G
1.4435/ASTM A351/CF3M/AISI 316L	I

8 Shaft material	Code
1.4021/AISI 420	1

9 Shut-off seal material	Code
EPDM	E
SBR-AB/P (abrasion resistant)	F
CSM	H
NR (FDA/1935-2004 certification), white AB/W	I
NBR (DVGW Gas certification)	J
EPDM (FDA/1935-2004 certification), white	M
NBR	N
FKM +	O
EPDM-SHT (steam)	T
NBR (FDA/1935-2004 certification), white	U
FKM	V
EPDM (drinking water compliant)	W
EPDM-HT (FDA/1935-2004 certification)	Z

10 Liner fixing	Code
Liner bonded into body	B
Loose liner	L

11 Voltage/Frequency	Code
24 VDC	C1

12 Control module	Code
ON/OFF actuator	A0
ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)	AE
Control actuator, external set value 0–10 VDC	E1

13 Actuator version	Code
Actuator AUMA RP With detachable hand crank, insulation class B mechanical position indicator, heating protection class IP67 acc. to EN 60529, C2 acc. to EN ISO 12944-2, standard ambient temperature -20 °C to +60 °C torque measurement and torque limits,	RP32
Actuator AUMA RP With detachable hand crank, insulation class B mechanical position indicator, heating protection class IP67 acc. to EN 60529, C2 acc. to EN ISO 12944-2, standard ambient temperature -20 °C to +60 °C torque measurement and torque limits,	RP64
Actuator AUMA RP With detachable hand crank, insulation class B mechanical position indicator, heating protection class IP67 acc. to EN 60529, C2 acc. to EN ISO 12944-2, standard ambient temperature -20 °C to +60 °C torque measurement and torque limits,	RP100

14 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
Stainless steel valve disc, without lettering, mechanically polished to 1.6 µm and electropolished, spigot internally polished to 1.6 µm, no polishing of internal threads	1782
Butterfly valve body powder coated, RAL 5015, sky blue	1892
Butterfly valve body powder coated, RAL 1023, traffic yellow	1925
Mounting parts in A4 quality. Caution! Danger of galling! Customer must take the necessary precautions for this!	5143
Thermal separation between actuator and valve body via mounting kit	5222
Thermal separation between actuator and valve body via dew point barrier	5226
Aluminium product label, black anodized, lasered marking, riveted to the body	6061

15 Special version	Code
Without	
ACS certification	A
BELGAQUA certification	B
DVGW Water certification	D
Country of origin Germany	E
DVGW Gas certification	G
NSF 61 Water certification	N
Special version for oxygen Maximum temperature for medium: 100 °C, Operating pressure limited in accordance with product label data Media-wetted materials cleaned, and grease and seal tested in accordance with DIN EN 1797/ISO 21010	O
ASME B31.3	P
DNV GL certification	S
WRAS certification	W
ATEX certification	X
ATEX certification (in the piping system)	Y

16 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example - standard version

Ordering option	Code	Description
1 Type	R488	Butterfly valve, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed
2 DN	100	DN 100
3 Body configuration	W	Wafer-type flange design, face-to-face dimension FTF EN 558 series 20
4 Operating pressure	3	16 bar
5 Connection type	3	PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20
6 Body material	2	EN-GJS-400-15 (GGG-40), epoxy coated 250 µm
7 Disc material	A	1.4408/ASTM A351 CF8M
8 Shaft material	1	1.4021/AISI 420
9 Shut-off seal material	E	EPDM
10 Liner fixing	L	Loose liner
11 Voltage/Frequency		
12 Control module	A0	ON/OFF actuator
13 Actuator version	RP64	Actuator AUMA RP With detachable hand crank, insulation class B mechanical position indicator, heating protection class IP67 acc. to EN 60529, C2 acc. to EN ISO 12944-2, standard ambient temperature -20 °C to +60 °C torque measurement and torque limits,
14 Type of design		Without
15 Special version		Without
16 CONEXO		Without

Butterfly valve with AUMA AQ actuator

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, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed	R488

2 DN	Code
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100
DN 125	125
DN 150	150
DN 200	200
DN 250	250
DN 300	300
DN 350	350
DN 400	400
DN 450	450
DN 500	500
DN 600	600

3 Body configuration	Code
Flange-mounted design (lug), face-to-face dimension FTF EN 558 series 20	L
Double flange design (U section), face-to-face dimension FTF EN 558, series 20	U
Wafer-type flange design, face-to-face dimension FTF EN 558 series 20	W

4 Operating pressure	Code
3 bar	0
6 bar	1
10 bar	2
16 bar	3

5 Connection type	Code
PN 6/flange EN 1092, face-to-face dimension FTF EN 558 series 20	1
PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20	2
PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20	3

5 Connection type	Code
ANSI B16.5, class 150, face-to-face dimension FTF EN 558 series 20	D
Flange BS 10 Tab E, face-to-face dimension FTF EN 558, series 20	S
Flange AS 2129 Tab D, face-to-face dimension FTF EN 558, series 20	T
Flange AS 2129 Tab E, face-to-face dimension FTF EN 558, series 20	U
Flange BS 10 Tab D, face-to-face dimension FTF EN 558, series 20	H
JIS 10 K, face-to-face dimension FTF EN 558, series 20	G
JIS 16 K, face-to-face dimension FTF EN 558, series 20	J

6 Body material	Code
EN-GJS-400-15 (GGG-40), epoxy coated 250 µm	2
EN-GJS-400-18-LT (GGG-40.3), epoxy coated 250 µm	3

7 Disc material	Code
1.4408/ASTM A351 CF8M	A
1.4408, polished, roughness Ra 0.6–3.2, except disc marking	B
1.4408, HALAR coated	C
1.4469/ASTM GR5A	D
EN-GJS-400-15 (GGG-40), epoxy coated	E
EN-GJS-400-15 (GGG-40), HALAR coated	P
EN-GJS-400-15 (GGG-40), RILSAN PA11 coated	R
2.0975/CC333G	G
1.4435/ASTM A351/CF3M/AISI 316L	I

8 Shaft material	Code
1.4021/AISI 420	1

9 Shut-off seal material	Code
EPDM	E
SBR-AB/P (abrasion resistant)	F
CSM	H
NR (FDA/1935-2004 certification), white AB/W	I
NBR (DVGW Gas certification)	J
EPDM (FDA/1935-2004 certification), white	M
NBR	N
FKM +	O
EPDM-SHT (steam)	T
NBR (FDA/1935-2004 certification), white	U
FKM	V
EPDM (drinking water compliant)	W
EPDM-HT (FDA/1935-2004 certification)	Z

10 Liner fixing	Code
Liner bonded into body	B
Loose liner	L

11 Voltage/Frequency	Code
120V 50Hz	G2
120V 60Hz	G3
380V 50Hz	J2
230V 50Hz	L2
230V 60Hz	L3
400V 50Hz	N2
480V 60Hz	P3
440V 60 Hz	V3
460V 60Hz	W3

12 Control module	Code
ON/OFF actuator	A0
ON/OFF actuator, 2 additional potential-free limit switches, additional potential-free torque switches, Class A (EN15714-2)	AB
ON/OFF actuator, positioner AUMATIC (AC 01.2), fieldbus interface Profibus DP-V0, Basic AUMA standard SQ (S2 15 minutes, actuator class A/B), TPC AA000-1A1-A000, TPA xxR100-011-000	ADP
ON/OFF actuator, two additional potential-free limit switches, Class A (EN15714-2)	AE
ON/OFF actuator, positioner AUMATIC (AC 01.2), fieldbus interface Modbus RTU, Basic AUMA standard SQ (S2 15 minutes, actuator class A/B), TPC AC000-1A1-A000, TPA xxR100-011-000	AMB
ON/OFF actuator, positioner AUMATIC (AC 01.2), fieldbus interface Modbus TCP/IP, Basic AUMA standard SQ (S2 15 minutes, actuator class A/B), TPC AC000-1A1-A5E0, TPA xxR100-011-000	AMI
ON/OFF actuator, positioner AUMATIC (AC 01.2), fieldbus interface ProfiNet, Basic AUMA standard SQ (S2 15 minutes, actuator class A/B), TPC AN000N1A2-A000, TPA xxR100-011-000	APN
ON/OFF actuator, positioner AUMATIC (AC 01.2), Basic AUMA standard SQ (S2 15 minutes, actuator class A/B), TPC A-1B1-1C1-A000, TPA xxR100-011-000	ASC
ON/OFF actuator, remote and on-site control, AUMA MATIC (AM 01.1), Basic AUMA standard SQ (S2 15 minutes, actuator class A/B), MSP 1110KC3-F18E1, TPA xxR1AA-101-000	ASM
Control actuator, positioner AUMATIC (AC 01.2), fieldbus interface Profibus DP, Basic AUMA standard SQR (S4 25% duty, actuator class C), only for 400V 50Hz and 230V 50/60Hz, TPC AA000-1A1-A000, TPA xxR100-011-000	EDP

12 Control module	Code
Control actuator, remote and on-site control, AUMATIC (AC 01.2), fieldbus interface Modbus RTU, Basic AUMA standard SQR (S4 25% duty actuator class C), only for 400V 50Hz und 230V 50Hz/60Hz, TPC AC000-1A1-A000, TPA xxR100-011-000	EMB
Control actuator, remote and on-site control, AUMATIC (AC 01.2), fieldbus interface Modbus TCP/IP, Basic AUMA standard SQR (S4 25% duty actuator class C), only for 400V 50Hz und 230V 50Hz/60Hz, TPC AC000-1A1-A5E0, TPA xxR100-011-000	EMI
Control actuator, remote and on-site control, AUMATIC (AC 01.2), fieldbus interface ProfiNet, Basic AUMA standard SQR (S4 25% duty actuator class C), only for 400V 50Hz und 230V 50Hz/60Hz, TPC AN000N1A2-A000, TPA xxR100-011-000	EPN
Control actuator, positioner AUMATIC (AC 01.2), Basic AUMA standard SQR (S4 25% duty, actuator class C), only for 400V 50Hz und 230V 50Hz/60Hz, TPC A-1B1-1C1-A000, TPA xxR100-011-000	ESC

13 Actuator version	Code
Actuator, motorized, operating time 16s, torque 150Nm, AUMA, type SQ Class A (EN15714-2), Open/Close control, 75° to 105°, continuously adjustable, flasher unit for travel indication, heating, mechanical position indicator, KS, layer thickness 0, 140mm, RAL7037, manual override, IP68	AQ05H
Actuator, motorized, operating time 32s, torque 150Nm, AUMA, type SQ Class A (EN15714-2), Open/Close control, 75° to 105°, continuously adjustable, flasher unit for travel indication, heating, mechanical position indicator, KS, layer thickness 0, 140mm, RAL7037, manual override, IP68	AQ05L
Actuator, motorized, operating time 16s, torque 300Nm, AUMA, type SQ Class A (EN15714-2), Open/Close control, 75° to 105°, continuously adjustable, flasher unit for travel indication, heating, mechanical position indicator, KS, layer thickness 0, 140mm, RAL7037, manual override, IP68	AQ07H
Actuator, motorized, operating time 32s, torque 300Nm, AUMA, type SQ Class A (EN15714-2), Open/Close control, 75° to 105°, continuously adjustable, flasher unit for travel indication, heating, mechanical position indicator, KS, layer thickness 0, 140mm, RAL7037, manual override, IP68	AQ07L
Actuator, motorized, operating time 32s, torque 600Nm, AUMA, type SQ Class A (EN15714-2), Open/Close control, 75° to 105°, continuously adjustable,	AQ10L

13 Actuator version	Code
flasher unit for travel indication, heating, mechanical position indicator, KS, layer thickness 0, 140mm, RAL7037, manual override, IP68	

14 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
Stainless steel valve disc, without lettering, mechanically polished to 1.6 µm and electropolished, spigot internally polished to 1.6 µm, no polishing of internal threads	1782
Butterfly valve body powder coated, RAL 5015, sky blue	1892
Butterfly valve body powder coated, RAL 1023, traffic yellow	1925
Mounting parts in A4 quality. Caution! Danger of galling! Customer must take the necessary precautions for this!	5143
Thermal separation between actuator and valve body via mounting kit	5222
Thermal separation between actuator and valve body via dew point barrier	5226
Aluminium product label, black anodized, lasered marking, riveted to the body	6061

15 Special version	Code
Without	
ACS certification	A
BELGAQUA certification	B
DVGW Water certification	D
Country of origin Germany	E
DVGW Gas certification	G
NSF 61 Water certification	N
Special version for oxygen Maximum temperature for medium: 100 °C, Operating pressure limited in accordance with product label data Media-wetted materials cleaned, and grease and seal tested in accordance with DIN EN 1797/ISO 21010	O
ASME B31.3	P
DNV GL certification	S
WRAS certification	W
ATEX certification	X
ATEX certification (in the piping system)	Y

16 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example - standard version

Ordering option	Code	Description
1 Type	R488	Butterfly valve, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed
2 DN	100	DN 100
3 Body configuration	W	Wafer-type flange design, face-to-face dimension FTF EN 558 series 20
4 Operating pressure	3	16 bar
5 Connection type	3	PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20
6 Body material	2	EN-GJS-400-15 (GGG-40), epoxy coated 250 µm
7 Disc material	A	1.4408/ASTM A351 CF8M
8 Shaft material	1	1.4021/AISI 420
9 Shut-off seal material	E	EPDM
10 Liner fixing	L	Loose liner
11 Voltage/Frequency	N2	400V 50Hz
12 Control module	A0	ON/OFF actuator
13 Actuator version	AQ05H	Actuator, motorized, operating time 16s, torque 150Nm, AUMA, type SQ Class A (EN15714-2), Open/Close control, 75° to 105°, continuously adjustable, flasher unit for travel indication, heating, mechanical position indicator, KS, layer thickness 0, 140mm, RAL7037, manual override, IP68
14 Type of design		Without
15 Special version		Without
16 CONEXO		Without

Butterfly valve with AUMA PROFOX actuator

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, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed	R488

2 DN	Code
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100
DN 125	125
DN 150	150
DN 200	200
DN 250	250
DN 300	300
DN 350	350
DN 400	400
DN 450	450
DN 500	500
DN 600	600

3 Body configuration	Code
Flange-mounted design (lug), face-to-face dimension FTF EN 558 series 20	L
Double flange design (U section), face-to-face dimension FTF EN 558, series 20	U
Wafer-type flange design, face-to-face dimension FTF EN 558 series 20	W

4 Operating pressure	Code
3 bar	0
6 bar	1
10 bar	2
16 bar	3

5 Connection type	Code
PN 6/flange EN 1092, face-to-face dimension FTF EN 558 series 20	1
PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20	2
PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20	3

5 Connection type	Code
ANSI B16.5, class 150, face-to-face dimension FTF EN 558 series 20	D
Flange BS 10 Tab E, face-to-face dimension FTF EN 558, series 20	S
Flange AS 2129 Tab D, face-to-face dimension FTF EN 558, series 20	T
Flange AS 2129 Tab E, face-to-face dimension FTF EN 558, series 20	U
Flange BS 10 Tab D, face-to-face dimension FTF EN 558, series 20	H
JIS 10 K, face-to-face dimension FTF EN 558, series 20	G
JIS 16 K, face-to-face dimension FTF EN 558, series 20	J

6 Body material	Code
EN-GJS-400-15 (GGG-40), epoxy coated 250 µm	2
EN-GJS-400-18-LT (GGG-40.3), epoxy coated 250 µm	3

7 Disc material	Code
1.4408/ASTM A351 CF8M	A
1.4408, polished, roughness Ra 0.6–3.2, except disc marking	B
1.4408, HALAR coated	C
1.4469/ASTM GR5A	D
EN-GJS-400-15 (GGG-40), epoxy coated	E
EN-GJS-400-15 (GGG-40), HALAR coated	P
EN-GJS-400-15 (GGG-40), RILSAN PA11 coated	R
2.0975/CC333G	G
1.4435/ASTM A351/CF3M/AISI 316L	I

8 Shaft material	Code
1.4021/AISI 420	1

9 Shut-off seal material	Code
EPDM	E
SBR-AB/P (abrasion resistant)	F
CSM	H
NR (FDA/1935-2004 certification), white AB/W	I
NBR (DVGW Gas certification)	J
EPDM (FDA/1935-2004 certification), white	M
NBR	N
FKM +	O
EPDM-SHT (steam)	T
NBR (FDA/1935-2004 certification), white	U
FKM	V
EPDM (drinking water compliant)	W
EPDM-HT (FDA/1935-2004 certification)	Z

Butterfly valve with AUMA PROFOX actuator

10 Liner fixing	Code
Liner bonded into body	B
Loose liner	L

11 Voltage/Frequency	Code
24 V DC	C1
100 - 240 V/50 - 60 Hz	T4

12 Control module	Code
ON/OFF actuator, 2 additional potential-free limit switches, 2 additional potential-free torque switches	AB
Control actuator with positioner, 4 - 20 mA input and output, 2 additional potential-free limit switches, 2 additional potential-free torque switches	E2
Control actuator with positioner, fieldbus interface Profibus DP	EDP
Control actuator with positioner, fieldbus interface Modbus RTU	EMB
Control actuator with positioner, fieldbus interface ProfiNet	EPN

13 Actuator version	Code
AUMA PROFOX PF-Q40	40
AUMA PROFOX PF-Q80	80
AUMA PROFOX PF-Q150	150
AUMA PROFOX PF-Q300	300
AUMA PROFOX PF-Q600	600

14 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
Stainless steel valve disc, without lettering, mechanically polished to 1.6 µm and electropolished, spigot internally polished to 1.6 µm, no polishing of internal threads	1782
Butterfly valve body powder coated, RAL 5015, sky blue	1892
Butterfly valve body powder coated, RAL 1023, traffic yellow	1925
Mounting parts in A4 quality. Caution! Danger of galling! Customer must take the necessary precautions for this!	5143
Thermal separation between actuator and valve body via mounting kit	5222
Thermal separation between actuator and valve body via dew point barrier	5226
Aluminium product label, black anodized, lasered marking, riveted to the body	6061

15 Special version	Code
Without	
ACS certification	A
BELGAQUA certification	B
DVGW Water certification	D

15 Special version	Code
Country of origin Germany	E
DVGW Gas certification	G
NSF 61 Water certification	N
Special version for oxygen Maximum temperature for medium: 100 °C, Operating pressure limited in accordance with product label data Media-wetted materials cleaned, and grease and seal tested in accordance with DIN EN 1797/ISO 21010	O
ASME B31.3	P
DNV GL certification	S
WRAS certification	W

16 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example - standard version

Ordering option	Code	Description
1 Type	R488	Butterfly valve, motorized, body with C5-M coating (min. 250 µm) and integrated leakage groove, blow-out proof shaft with dust protection, multiple bearings through PTFE bushing, multiple sealing system with insertion slope, material easy to read when installed
2 DN	100	DN 100
3 Body configuration	W	Wafer-type flange design, face-to-face dimension FTF EN 558 series 20
4 Operating pressure	3	16 bar
5 Connection type	3	PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20
6 Body material	2	EN-GJS-400-15 (GGG-40), epoxy coated 250 µm
7 Disc material	A	1.4408/ASTM A351 CF8M
8 Shaft material	1	1.4021/AISI 420
9 Shut-off seal material	E	EPDM
10 Liner fixing	L	Loose liner
11 Voltage/Frequency	C1	24 V DC
12 Control module	AB	ON/OFF actuator, 2 additional potential-free limit switches, 2 additional potential-free torque switches
13 Actuator version	40	AUMA PROFOX PF-Q40
14 Type of design		Without
15 Special version		Without
16 CONEXO		Without

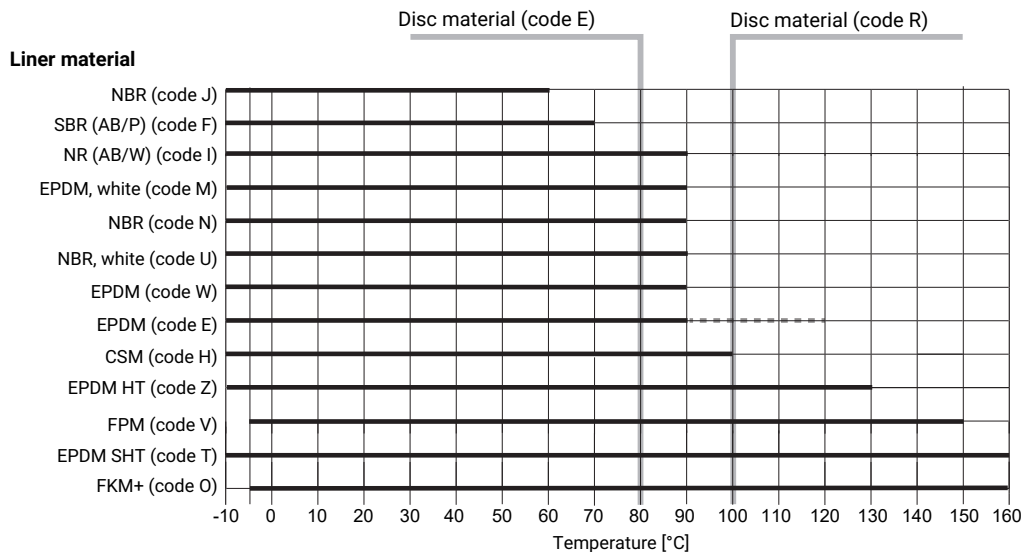
Butterfly valve technical data

Medium

Working medium: Gaseous and liquid media which have no negative impact on the physical and chemical properties of the disc and seat material.
For special version for oxygen (code O): Only gaseous oxygen.

Temperature

Media temperature: -10 – 160 °C
Depending on the liner and disc material or the type of liner fixing



..... Not recommended for permanent temperature

FKM material not suitable for water/steam applications above 100 °C,
Observe Pressure/Temperature diagram.

FKM material not suitable for water/steam applications above 100 °C,
Observe Pressure/Temperature diagram.

For the medium gaseous oxygen (special version code O): Media temperature max. 100 °C.

Ambient temperature: -10 – 70 °C

Storage temperature: -20 – 40 °C

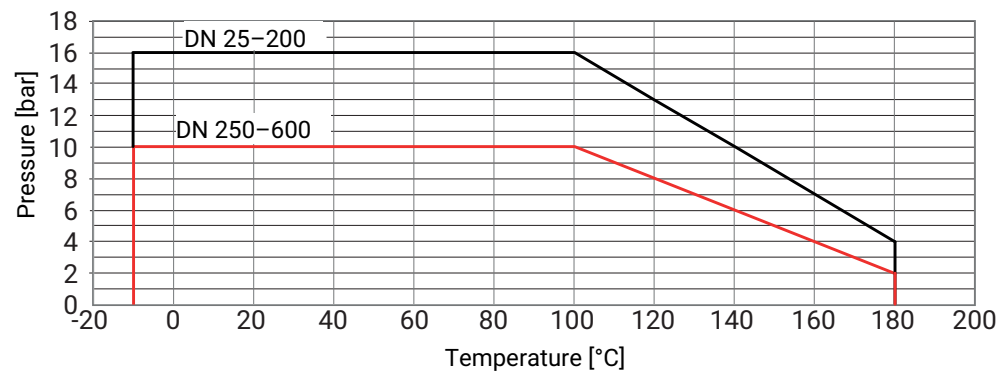
Pressure

Operating pressure: DN 25–200: 0–16 bar
DN 250–600: 0–10 bar
Observe pressure/temperature diagram
Use as an end-of-line valve:
DN 25–200: 10 bar
DN 250–600: 6 bar

For the medium gaseous oxygen (special version code O): Operating pressure limited in accordance with product label data.

Vacuum: Can be used up to a vacuum of 800 mbar (abs) with replaceable liner or with bonded liner up to a vacuum of 2 mbar (abs) through a leakage rate at 10^{-3} [mbar l/sec]
These values apply to room temperature and air. The values may deviate for other media and other temperatures.

Pressure/temperature diagram:



Pressure rating:

PN 3
PN 6
PN 10
PN 16

Kv values:

DN	PS [bar]	Cv values at opening angle							
		20°	30°	40°	50°	60°	70°	80°	90°
25	16	0.7	2.0	4.1	7.2	11.0	14.5	16.6	17.2
40	16	2.5	7.0	14.4	25.1	38.3	50.6	57.8	60.0
50	16	3.0	9.0	20.0	33.0	65.0	110.0	124.0	125.0
65	16	9.0	15.0	30.0	64.0	118.0	195.0	214.0	222.0
80	16	19.0	40.0	66.0	117.0	196.0	321.0	353.0	363.0
100	16	29.0	75.0	137.0	213.0	316.0	487.0	584.0	618.0
125	16	48.0	100.0	185.0	315.0	550.0	895.0	1060.0	1120.0
150	16	60.0	150.0	281.0	450.0	789.0	1280.0	1630.0	1730.0
200	3 / 16	110.0	281.0	472.0	759.0	1480.0	2880.0	3710.0	3900.0
250	3 / 10	200.0	444.0	738.0	1190.0	2110.0	3880.0	5180.0	5410.0
300	3 / 10	250.0	682.0	1060.0	1670.0	3120.0	6360.0	8620.0	8930.0
350	3 / 10	322.0	672.0	1180.0	1960.0	3230.0	5230.0	7980.0	9490.0
400	3 / 10	360.0	823.0	1510.0	2560.0	4180.0	6820.0	10700.0	12800.0
450	3 / 10	459.0	1040.0	1900.0	3220.0	5280.0	8680.0	14100.0	17500.0
500	3 / 10	530.0	1230.0	2290.0	3890.0	6430.0	10600.0	17200.0	21800.0
600	3 / 10	767.0	1770.0	3290.0	5610.0	9330.0	15600.0	25800.0	31600.0

Kv values in m³/h

When the opening angle is below 30° no regulation should be made!

Product conformity

Machinery Directive: 2006/42/EC

EMC Directive: 2014/30/EU

Low Voltage Directive: 2014/35/EU

RoHS Directive: 2011/65/EU (GEMÜ 9428)

Pressure equipment standards:

ASME GEMÜ B31.3
2014/68/EU

The butterfly valve fulfils the technical requirements of pressure equipment categories I and II and can be used under the following conditions.

Areas of use for R488 butterfly valve as in-line valve (classification as per Pressure Equipment Directive 2014/68/EC Article 4 and Annex II)				
	Media of fluid group 1 (dangerous)		Media of fluid group 2 (other)	
PS	Gases (Section 4 (1) c) i), diagram 6)	Liquids (Section 4 (1) c) ii), diagram 8)	Gases (Section 4 (1) c) i), diagram 7)	Liquids (Section 4 (1) c) ii), diagram 9)
16	DN25 – DN200	DN25 – DN200*	DN25 – DN200*	DN25 – DN200*
10	DN25 – DN350	DN25 – DN600	DN25 – DN500	DN25 – DN600
6	DN25 – DN350	DN25 – DN600	DN25 – DN600	DN25 – DN600
3	DN25 – DN350	DN25 – DN600	DN25 – DN600	DN25 – DN600

* Limit of the technical specification

When used as an end-of-line valve, a mating flange must be fitted.

Special conditions of use as an end-of-line valve: See section 7.3.

Food:

FDA
Regulation (EC) No. 1935/2004

Drinking water:

DVGW
ACS
WRAS
Belgaqua
NSF

Oxygen:

Testing of the seal material based on DIN EN 1797 and ISO 21010:2017 (special version code O)

Gas:

DVGW

Ship approval:

DNV GL

Explosion protection:

ATEX (2014/34/EU) and IECEx, order code Special version X
NEC 500 (ISA 12.12.01), order code Special version Y

ATEX marking:

Special function code X
Gas:  II -/2 G Ex h -/IIB T6...T3 -/Gb X
Dust:  II -/2D Ex h -/IIIC T150°C -/Db X

Special function code Y
Gas:  II 2 G Ex h IIC/IIB T6 ... T3 Gb X
Dust:  II 2 D Ex h IIIC T150 °C Db X

TA Luft (German Clean Air Act):

The product meets the following requirements under the max. permissible operating conditions:

- Tightness or compliance with the specific leak rate within the sense of TA-Luft as well as VDI 2440
- Compliance with the requirements in accordance with DIN EN ISO 15848-1, Table C.2, Class BH

Mechanical data**Torques:**

DN	PS			
	3 bar	6 bar	10 bar	16 bar*
25	-	-	-	4.0
40	-	-	-	7.0
50	3.0	5.0	7.0	9.0
65	8.0	10.0	13.0	15.0
80	10.0	15.0	20.0	25.0
100	15.0	20.0	30.0	40.0
125	25.0	35.0	45.0	60.0
150	40.0	50.0	80.0	100.0
200	100.0	-	-	160.0
250	140.0	-	200.0	-
300	200.0	-	330.0	-
350	255.0	-	430.0	-
400	580.0	-	1035.0	-
450	600.0	-	1150.0	-
500	860.0	-	1250.0	-
600	1441.0	-	2140.0	-

* Standard

Torques in Nm

Working medium water (20 °C) and optimal operating conditions

Weight:

DN	Wafer	Lug	U section
25	1.2	-	-
40	1.5	-	-
50	1.7	2.2	-
65	2.5	2.9	-
80	3.2	4.4	-
100	4.4	6.2	-
125	5.9	8.1	-
150	7.7	10.1	-
200	13.9	18.4	-
250	19.6	28.7	-
300	27.3	36.8	-
350	48.0	66.0	-
400	72.0	110.0	107.0
450	95.0	-	125.0
500	120.0	-	164.0
600	192.0	-	261.0

Weights in kg

Technical data of actuator

GEMÜ 9428 actuator

Mechanical data

Weight: GEMÜ 9428

Supply voltage 12 V / 24 V:	1.0 kg
Actuator version 3035:	2.4 kg

Protection class: IP 65 acc. to EN 60529

Nominal travel: 90°

Max. travel: 93°

Setting range: 0 to 20° (limit switch Min.)
70 to 93° (limit switch Max.)

Electrical data

Duty cycle: Continuous duty

Electrical protection: Motor protective system by customer

Electrical protection class: I (DIN EN 61140)

Electrical connection

Electrical connection type: Cable connection PG 13.5
Binder RD24 flange plug series 693, number of poles: 6+PE, IP67 (GEMÜ 3006, 3015)

Cable diameter: 7.5 – 12.5 mm

Max. cross section of wire: 1.5 mm²

Recommended motor protection:

Voltage	12 V DC	24 V DC
Motor protection switch type	Siemens 3RV 1011-1CA10	Siemens 3RV 1011-1BA10
Set current	2.20	1.70

Current data in A

Rated voltage: 12 V / 24 V AC or DC (± 10 %)

Rated frequency: 50/60 Hz (at AC rated voltage)

Power consumption:

Actuator version	12 V DC	12 V AC	24 V DC	24 V AC
	Code B1	Code B4	Code C1	Code C4
3006	30.0	30.0	30.0	30.0
3015	30.0	-	30.0	-
3035	-	-	30.0	-

Power consumption in W

Current consumption:

Actuator version	12 V DC	12 V AC	24 V DC	24 V AC
	Code B1	Code B4	Code C1	Code C4
3006	2.2	2.0	1.20	1.5
3015	2.2	-	1.20	-
3035	-	-	1.30	-

Current data in A

Max. current at start up:

Actuator version (code)	12 V DC	12 V AC	24 V DC	24 V AC
	Code B1	Code B4	Code C1	Code C4
3006	6.3	2.4	4.0	1.8
3015	9.2	-	3.8	-
3035	-	-	3.3	-

Current data in A

Actuator RP

See operating instructions for actuator AUMA RP.

AUMA, J+J actuators

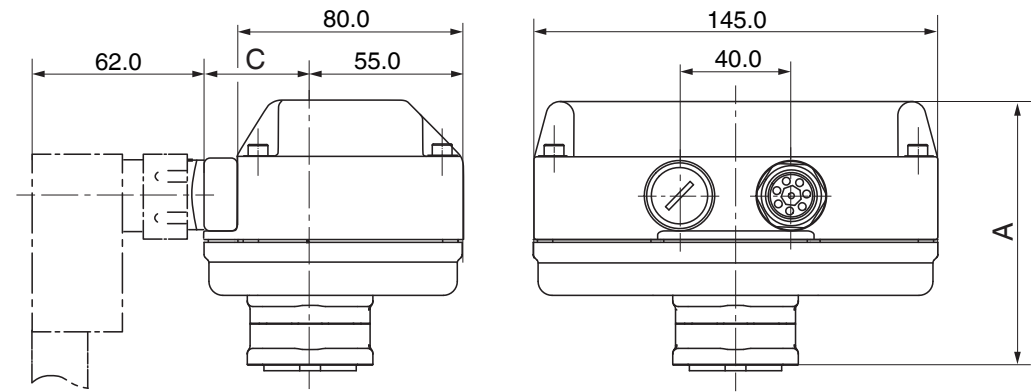
Note: For technical data see manufacturer's original datasheets

Dimensions

Actuator dimensions

GEMÜ 9428, 9468 actuators

Actuator version 1015, 2015

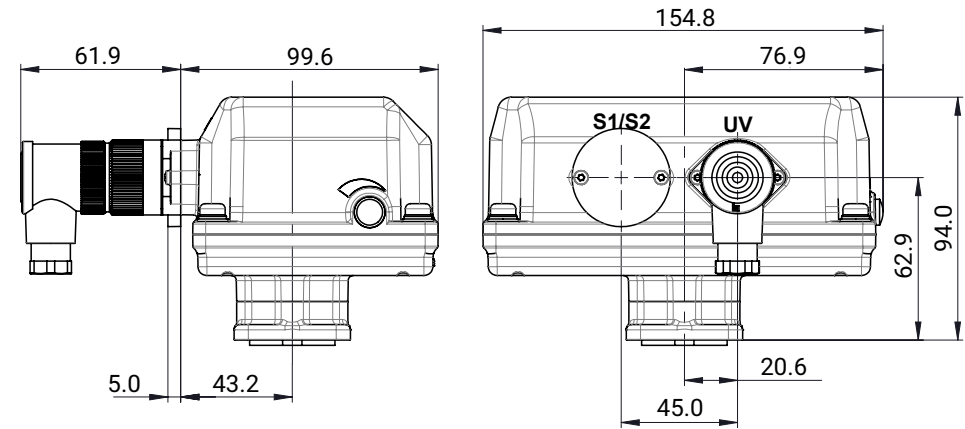


Actuator ver- sion	A	C
2015	122.0	53.0

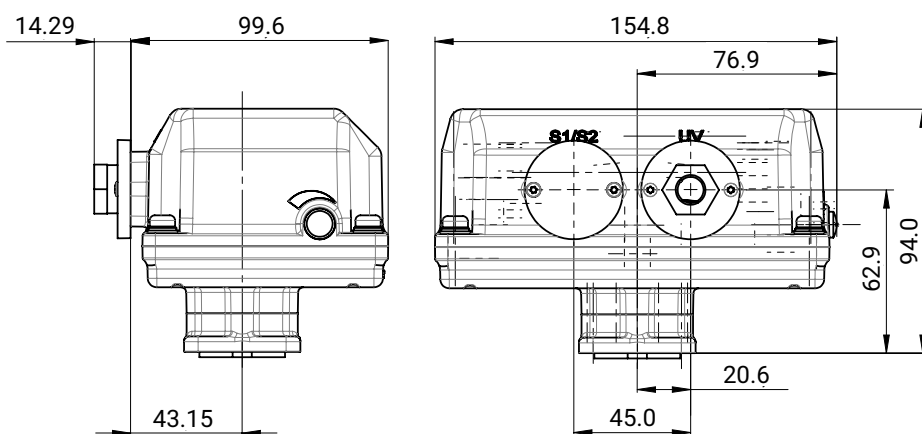
Dimensions in mm

Actuator version 3015

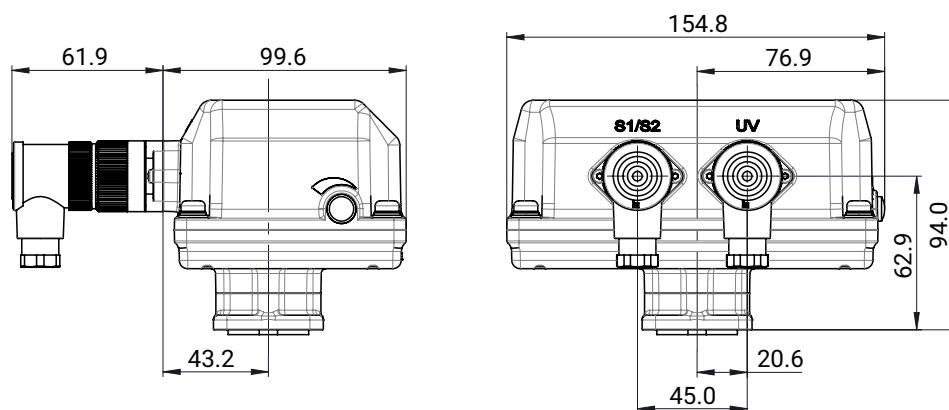
ON/OFF actuator (control module code A0)



ON/OFF actuator (control module code A0/K-no. 7158)

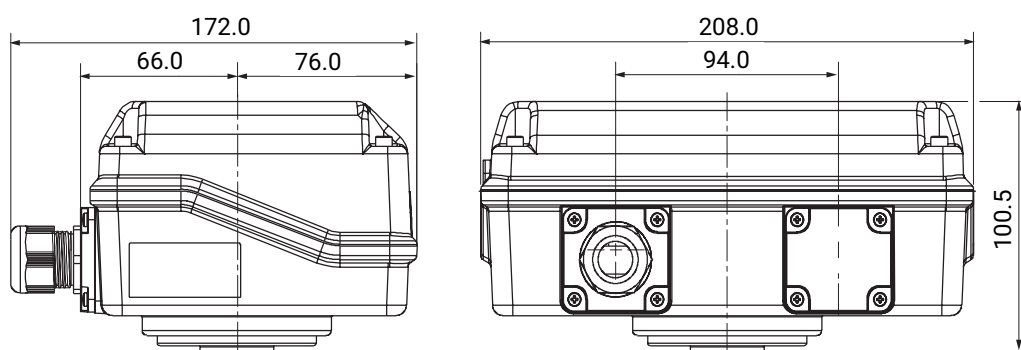


OPEN/CLOSE control, two additional potential-free limit switches (control module code AE)



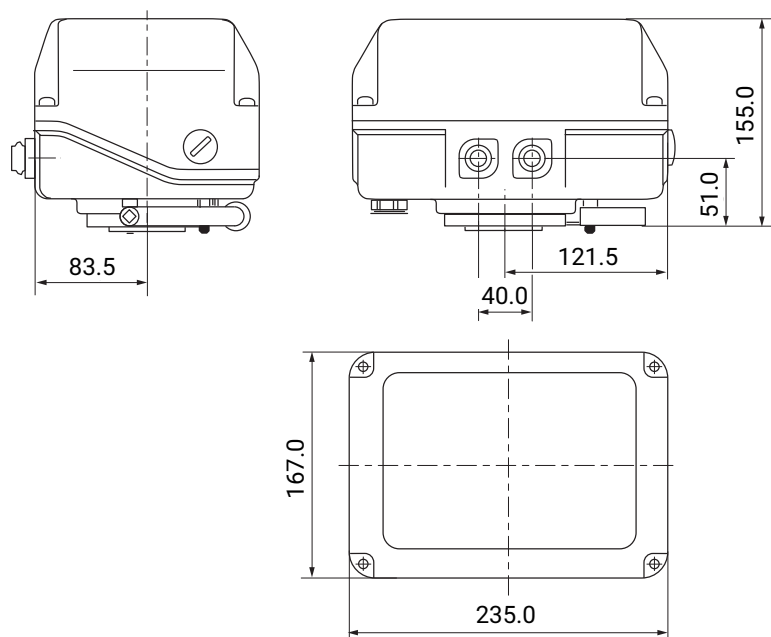
Dimensions in mm

Actuator version 3035, 3055



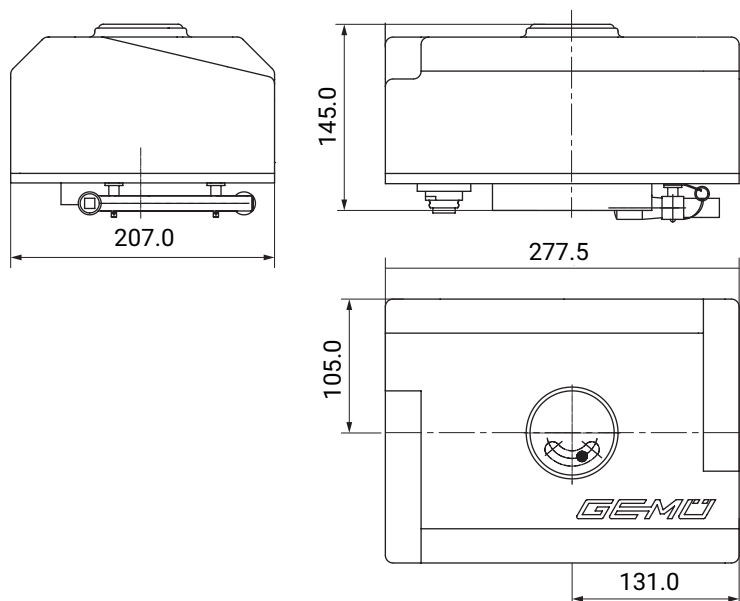
Dimensions in mm

Actuator version 2070



Dimensions in mm

Actuator version 4100, 4200



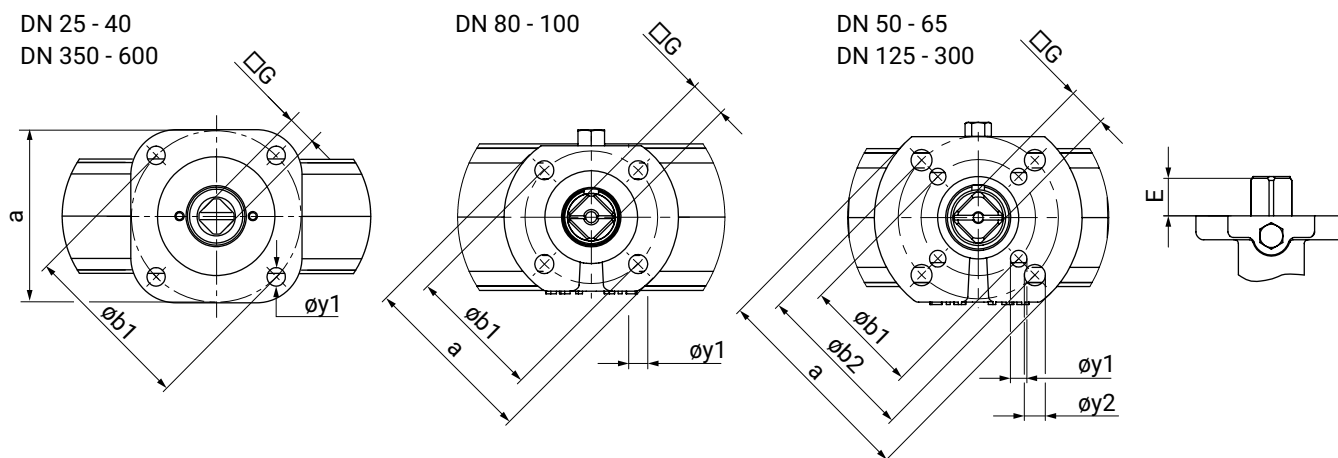
Dimensions in mm

AUMA, J+J actuators

For more detailed information on third-party actuators, refer to the manufacturers' documentation

Body dimensions

Actuator flange



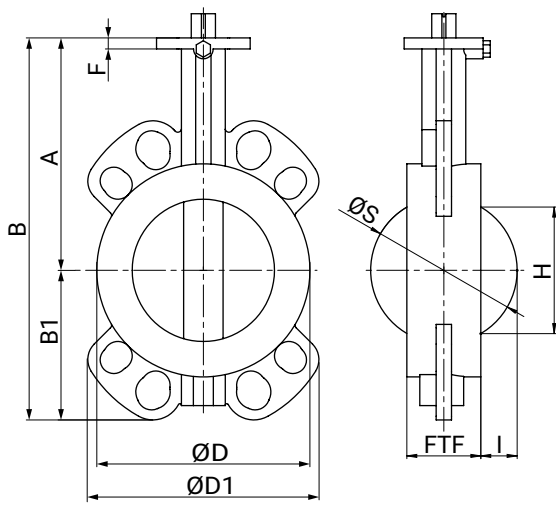
DN	ISO 5211	a	øb1	øy1	øb2	øy2	E		□G		Code
							PS3	PS10/ PS16	PS3	PS10/ PS16	
25	F05	□50.0	50.0	7.0	-	-	-	19.0	-	9.0	05 D09
32	F05	□50.0	50.0	7.0	-	-	-	19.0	-	9.0	05 D09
40	F05	□50.0	50.0	7.0	-	-	-	19.0	-	9.0	05 D09
50	F03 F05	ø65.0	36.0	6.0	50.0	7.0	-	19.0	-	9.0	05 D09
65	F03 F05	ø65.0	36.0	6.0	50.0	7.0	-	19.0	-	11.0	05 D11
80	F05	ø65.0	50.0	7.0	-	-	-	19.0	-	11.0	05 D11
100	F05	ø65.0	50.0	7.0	-	-	-	19.0	-	14.0	05 D14
125	F05 F07	ø90.0	50.0	7.0	70.0	9.0	-	25.0	-	17.0	07 D17
150	F05 F07	ø90.0	50.0	7.0	70.0	9.0	-	25.0	-	17.0	07 D17
200	F07 F10	ø125.0	70.0	9.0	102.0	11.0	17.0*	32.0	17.0*	22.0	10 D22
250	F07 F10	ø125.0	70.0	9.0	102.0	11.0	17.0*	32.0	17.0*	22.0	10 D22
300	F07 F10	ø125.0	70.0	9.0	102.0	11.0	17.0*	32.0	17.0*	22.0	10 D22
350	F12	□130.0	125.0	13.0	-	-	22.0*	28.0	22.0*	27.0	12 D27
400	F14	□160.0	140.0	17.0	-	-	27.0*	37.0	27.0*	36.0	14 D36
450	F14	□160.0	140.0	17.0	-	-	27.0*	37.0	27.0*	36.0	14 D36
500	F14	□160.0	140.0	17.0	-	-	27.0*	37.0	27.0*	36.0	14 D36
600	F16	□200.0	165.0	21.0	-	-	36.0*	47.0	36.0*	46.0	16 D46

Dimensions in mm

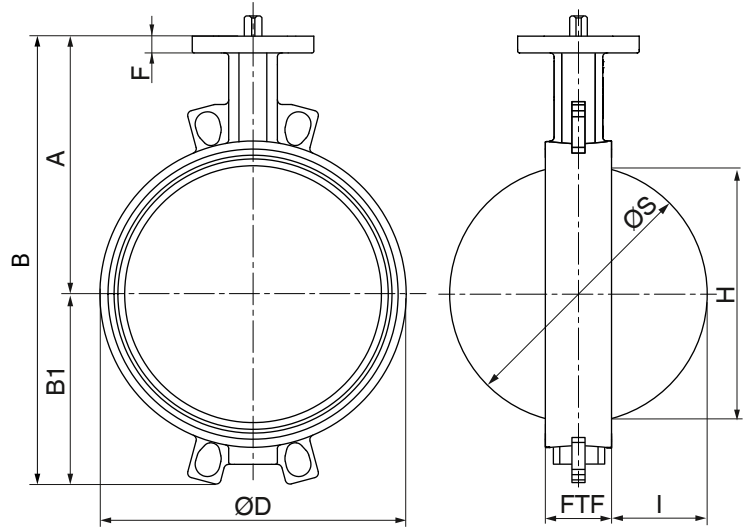
Body

Wafer body configuration

DN 25 - 100



DN 125 - 600



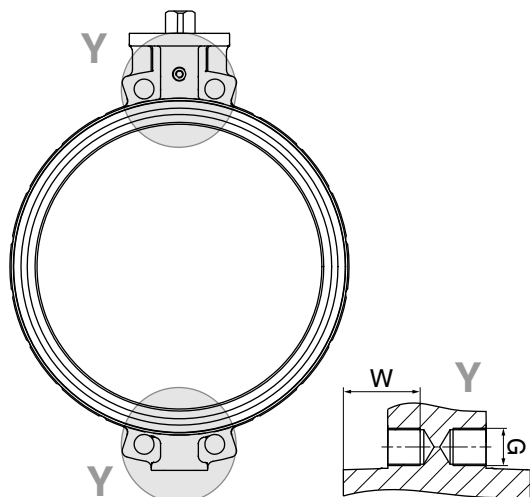
DN	A	B	B1	ØD	ØD1	F	FTF	H*	ØS	I
25	100.0	141.3	41.3	59.5	88.6	12.0	25.0	16.0	26.5	0.5
32	120.0	173.8	53.8	75.8	109.8	12.0	33.0	24.5	41.5	4.0
40	120.0	176.0	56.0	73.0	111.0	12.0	33.0	24.0	41.0	4.0
50	120.0	182.0	62.0	90.0	118.0	12.0	43.0	29.0	52.0	5.0
65	137.0	218.0	81.0	108.0	133.0	12.0	46.0	48.0	67.0	10.0
80	145.0	231.0	87.0	130.0	141.0	12.0	46.0	68.0	82.0	18.0
100	166.0	271.0	105.0	150.0	163.0	14.0	52.0	88.0	102.0	25.0
125	187.0	304.0	117.0	175.0	120.0	16.0	56.0	114.0	127.0	35.0
150	200.0	332.0	132.0	207.0	129.0	16.0	56.0	141.0	152.0	48.0
200	240.0	413.0	173.0	263.0	157.0	17.0	60.0	193.0	202.0	71.0
250	265.0	466.0	201.0	317.0	185.0	17.0	68.0	242.0	252.0	92.0
300	290.0	531.0	241.0	366.0	164.0	17.0	78.0	291.0	302.0	112.0
350	321.0	587.0	266.0	440.0	440.0	15.0	78.0	329.0	337.4	130.0
400	347.0	655.0	308.0	485.0	485.0	20.0	102.0	379.0	391.4	145.0
450	372.0	705.0	333.0	541.0	541.0	20.0	144.0	428.0	441.4	164.0
500	398.0	756.0	358.0	600.0	600.0	20.0	127.0	478.0	493.4	183.5
600	470.0	912.0	442.0	700.0	700.0	24.0	154.0	574.0	593.4	220.0

Dimensions in mm

* Please note dimension H to prevent disc binding on internal pipe

Please note: chamfer flanges for plastic pipelines if necessary

Threaded hole



Threaded hole (detail Y)

DN	Connection type code ¹⁾					
	2		3		D	
	G	W	G	W	G	W
450	M24	46	M27	46	Ø 31,7	-

Dimensions in mm

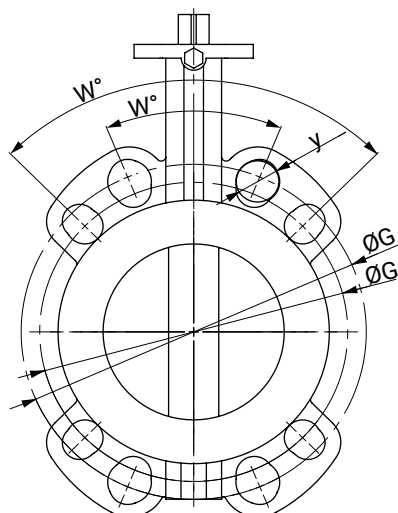
1) Connection type

Code 2: PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code 3: PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code D: ANSI B16.5, class 150, face-to-face dimension FTF EN 558, series 20, For lug bodies/threaded holes with UNC thread

Connections

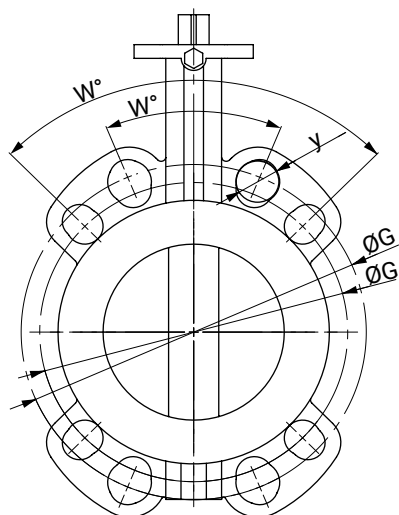


Connection EN1092, ANSI B16.5

DN	INCH	Connection (code)															
		EN1092-1 PN6 (code 1)				EN1092-1 PN10 (code 2)				EN1092-1 PN16 (code 3)				ANSI B16.5/CL150 (code D)			
DIN	ANSI	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
25	1"	90.0	4	75.0	M10	90.0	4	85.0	M12	90.0	4	85.0	M12	90.0	4	79.0	1/2"
32	1¼"	90.0	4	90.0	M12	90.0	4	100.0	M16	90.0	4	100.0	M16	90.0	4	89.0	1/2"
40	1½"	90.0	4	100.0	M12	90.0	4	110.0	M16	90.0	4	110.0	M16	90.0	4	98.0	1/2"
50	2"	90.0	4	110.0	M12	90.0	4	125.0	M16	90.0	4	125.0	M16	90.0	4	121.0	5/8"
65	2½"	90.0	4	130.0	M12	45.0	8	145.0	M16	90.0	8	145.0	M16	90.0	4	140.0	5/8"
80	3"	90.0	4	150.0	M16	45.0	8	160.0	M16	45.0	8	160.0	M16	90.0	4	152.0	5/8"
100	4"	90.0	4	170.0	M16	45.0	8	180.0	M16	45.0	8	180.0	M16	45.0	8	191.0	5/8"
125	5"	45.0	8	200.0	M16	45.0	8	210.0	M16	45.0	8	210.0	M16	45.0	8	216.0	3/4"
150	6"	45.0	8	225.0	M16	45.0	8	240.0	M20	45.0	8	240.0	M20	45.0	8	241.0	3/4"
200	8"	45.0	8	280.0	M16	45.0	8	295.0	M20	30.0	12	295.0	M20	45.0	8	298.0	3/4"
250	10"	30.0	12	335.0	M16	30.0	12	350.0	M20	30.0	12	355.0	M24	30.0	12	362.0	7/8"
300	12"	30.0	12	395.0	M20	30.0	12	400.0	M20	30.0	12	410.0	M24	30.0	12	432.0	7/8"
350	14"	-	-	-	-	22.5	16	460.0	M20	22.5	16	470.0	M24	30.0	12	476.0	1"
400	16"	-	-	-	-	22.5	16	515.0	M24	22.5	16	525.0	M27	22.5	16	540.0	1"
450	18"	-	-	-	-	18.0	20	565.0	M24	18.0	20	585.0	M27	22.5	16	578.0	1⅛"
500	20"	-	-	-	-	18.0	20	620.0	M24	18.0	20	650.0	M30	18.0	20	635.0	1⅛"
600	24"	-	-	-	-	18.0	20	725.0	M27	18.0	20	770.0	M33	18.0	20	749.0	1¼"

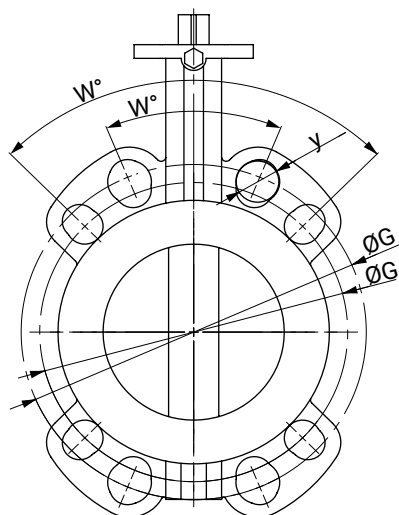
Dimensions in mm

n = number of bolts


Connection AS2129, BS10

DN	INCH	Connection (code)															
		AS 2129 D (code T)				AS 2129 E (code U)				BS10 D (code H)				BS10 E (code S)			
DIN	ANSI	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
25	1"	90.0	4	83.0	M12	90.0	4	83.0	M12	90.0	4	83.0	M12	90.0	4	83.0	M12
32	1¼"	90.0	4	87.0	M12	90.0	4	87.0	M12	90.0	4	87.0	M12	90.0	4	87.0	M12
40	1½"	90.0	4	98.0	M12	90.0	4	98.0	M12	90.0	4	98.0	M12	90.0	4	98.0	M12
50	2"	90.0	4	114.0	M16	90.0	4	114.0	M16	90.0	4	114.0	M16	90.0	4	114.0	M16
65	2½"	90.0	4	127.0	M16	90.0	4	127.0	M16	90.0	4	127.0	M16	90.0	4	127.0	M16
80	3"	90.0	4	146.0	M16	90.0	4	146.0	M16	90.0	4	146.0	M16	90.0	4	146.0	M16
100	4"	90.0	4	178.0	M16	45.0	8	178.0	M16	90.0	4	178.0	M16	45.0	8	178.0	M16
125	5"	45.0	8	210.0	M16	45.0	8	210.0	M16	45.0	8	210.0	M16	45.0	8	210.0	M16
150	6"	45.0	8	235.0	M16	45.0	8	235.0	M20	45.0	8	235.0	M16	45.0	8	235.0	M20
200	8"	45.0	8	292.0	M16	45.0	8	292.0	M20	45.0	8	292.0	M16	45.0	8	292.0	M20
250	10"	45.0	8	356.0	M20	30.0	12	356.0	M20	45.0	8	356.0	M20	30.0	12	356.0	M20
300	12"	30.0	12	406.0	M20	30.0	12	406.0	M22	30.0	12	406.0	M20	30.0	12	406.0	M22
350	14"	30.0	12	470.0	M22	30.0	12	470.0	M27	30.0	12	470.0	M22	30.0	12	470.0	M27
400	16"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
450	18"	-	-	-	-	22.5	16	584.0	M24	-	-	-	-	22.5	16	584.0	M24
500	20"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
600	24"	22.5	16	756.0	M27	22.5	16	756.0	M30	22.5	16	756.0	M27	22.5	16	756.0	M30

Dimensions in mm
n = number of bolts


Connection JIS K10, K16

DN	INCH	Connection (code)							
		JIS-K10 (code G)				JIS-K16 (code J)			
DIN	ANSI	w°	n	ØG	y	w°	n	ØG	y
25	1"	90	4	90.0	M16	90	4	90.0	M16
32	1¼"	90	4	100.0	M16	90	4	100.0	M16
40	1½"	90	4	105.0	M16	90	4	105.0	M16
50	2"	90.0	4	120.0	M16	45.0	8	120.0	M16
65	2½"	90.0	4	140.0	M16	45.0	8	140.0	M16
80	3"	45.0	8	150.0	M16	45.0	8	160.0	M20
100	4"	45.0	8	175.0	M16	45.0	8	185.0	M20
125	5"	45.0	8	210.0	M20	-	-	-	-
150	6"	45.0	8	240.0	M20	-	-	-	-
200	8"	30.0	12	290.0	M20	30.0	12	305.0	M24
250	10"	30.0	12	355.0	M24	-	-	-	-
300	12"	22.5	16	400.0	M24	-	-	-	-
350	14"	-	-	-	-	-	-	-	-
400	16"	22.5	16	510.0	M24	-	-	-	-
450	18"	18	20	565.0	M24	-	-	-	-
500	20"	18	20	620.0	M24	-	-	-	-
600	24"	15	24	730.0	M30	-	-	-	-

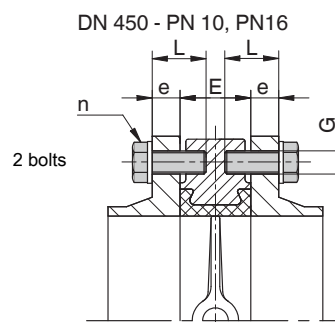
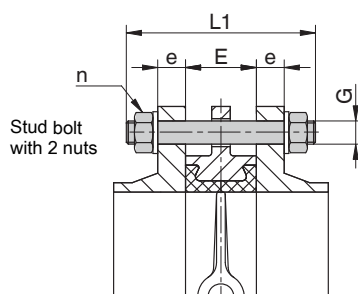
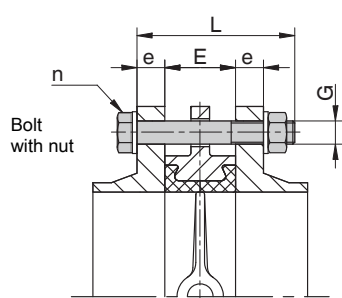
Dimensions in mm
n = number of bolts

Availabilities

Flange	Wafer																
	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
EN1092-1 PN6	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-
EN1092-1 PN10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EN1092-1 PN16	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
ANSI B16.5/CL150	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
AS 2129 D	T	T	T	T	T	T	T	T	T	T	T	T	T	T	-	-	T
AS 2129 E	U	U	U	U	U	U	U	U	U	U	U	U	U	U	-	U	U
JIS 5 K	K	K	K	-	K	K	-	K	K	K	K	-	-	-	-	-	-
JIS-K10	G	G	G	G	G	G	G	G	G	G	G	G	-	G	G	G	G
JIS-K16	J	J	J	J	J	J	J	-	-	J	-	-	-	-	-	-	-
BS10 D	H	H	H	H	H	H	H	H	H*	H*	H	H*	H	-	-	-	H
BS10 E	S	S	S	S	S	S	S	S	S	S*	S*	S	S	-	S	-	S

* Note: It is important to centrically align the butterfly valve during installation

Connection – screws, bolts

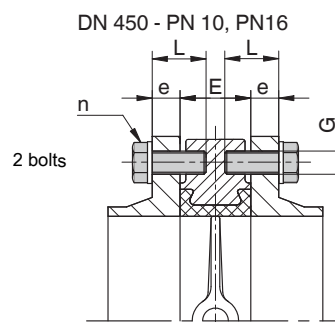
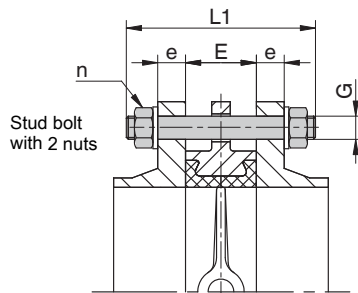
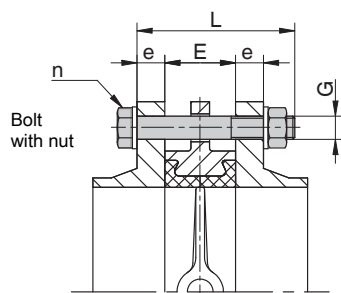


n = number of bolts

n/2 = number of eyes (flange eyes)

DN	E	Connection (code)									
		EN1092-1 PN10 (code 2)					EN1092-1 PN16 (code 3)				
		e	L	L1	n	G	e	L	L1	n	G
25	25	18	85	100	4	M12	18	85	100	4	M12
32	33	18	90	110	4	M12	18	90	110	4	M16
40	33	18	90	110	4	M12	18	90	110	4	M16
50	43	18	100	120	4	M16	18	100	120	4	M16
65	46	18	100	120	4	M16	18	100	120	4	M16
80	46	20	110	130	8	M16	20	110	130	8	M16
100	52	20	110	130	8	M16	20	110	130	8	M16
125	56	22	120	140	8	M16	22	120	140	8	M16
150	56	22	130	150	8	M20	22	130	150	8	M20
200	60	24	130	160	8	M20	24	130	160	12	M20
250	68	26	150	170	12	M20	26	150	170	12	M24
300	78	26	160	180	12	M20	28	160	180	12	M24
350	78	26	170	180	16	M20	30	170	190	16	M24
400	102	26	180	210	16	M24	32	200	220	16	M27
450	114	26	190	220	16	M24	32	210	240	16	M27
	114	26	60	-	8	M24	32	60	-	8	M27
500	127	28	210	230	20	M24	34	230	260	20	M30
600	154	28	240	270	20	M27	36	260	290	20	M33

Dimensions in mm



n = number of bolts

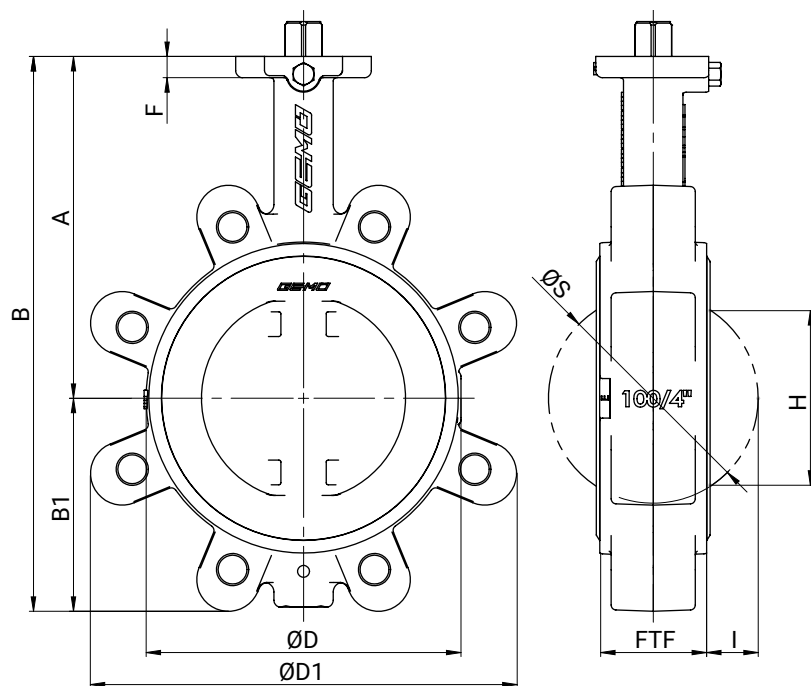
n/2 = number of eyes (flange eyes)

DN	E	ANSI B16.5/CL150 (code D)				
		e	L	L1	n	G ¹⁾
25	25	14.3	85	100	4	1/2"-13
32	33	17.5	90	110	4	1/2"-13
40	33	17.5	90	110	4	1/2"-13
50	43	19.0	100	120	4	5/8"-11
65	46	22.2	110	130	4	5/8"-11
80	46	23.8	110	130	4	5/8"-11
100	52	23.8	120	140	8	5/8"-11
125	56	23.8	130	150	8	3/4"-10
150	56	25.4	130	150	8	3/4"-10
200	60	28.6	140	160	8	3/4"-10
250	68	30.2	160	180	12	7/8"-9
300	78	31.7	170	190	12	7/8"-9
350	78	34.9	180	200	12	1"-8
400	102	36.5	210	230	16	1"-8
450	114	39.7	230	250	16	1 1/8"-7
450	114	39.7	230	250	16	1 1/8"-7
500	127	46.0	250	280	20	1 1/8"-7
600	154	47.6	280	310	20	1 1/4"-7

Dimensions in mm

1) Thread acc. to UNC

Lug body configuration



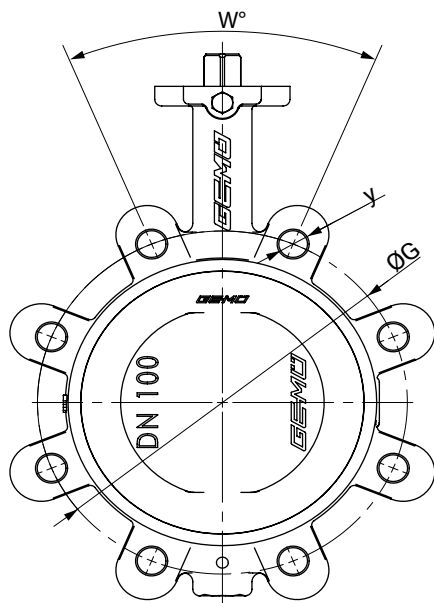
DN	A	B	B1	ØD	ØD1	F	FTF	H*	ØS	I
50	120.0	182.0	62.0	91.0	116.0	12.0	44.0	29.0	52.0	4.0
65	137.0	219.0	82.0	109.0	126.0	12.0	46.0	48.0	67.0	10.0
80	145.0	234.0	89.0	131.0	177.0	12.0	46.0	68.0	82.0	18.0
100	166.0	270.0	104.0	153.0	207.0	14.0	52.0	88.0	102.0	25.0
125	187.0	305.0	118.0	175.0	231.0	16.0	56.0	114.0	127.0	36.0
150	200.0	333.0	133.0	208.0	255.0	16.0	56.0	141.0	152.0	48.0
200	240.0	415.0	175.0	264.0	325.0	17.0	60.0	193.0	202.0	71.0
250	265.0	467.0	202.0	317.0	386.0	17.0	68.0	242.0	252.0	92.0
300	290.0	531.0	241.0	366.0	459.0	17.0	78.0	291.0	302.0	112.0
350	321.0	581.0	260.0	520.0	520.0	15.0	78.0	329.0	337.4	130.0
400	347.0	647.0	300.0	596.0	596.0	20.0	102.0	379.0	391.4	145.0

Dimensions in mm

* Please note dimension H to prevent disc binding on internal pipe

Please note: chamfer flanges for plastic pipelines if necessary

Connections



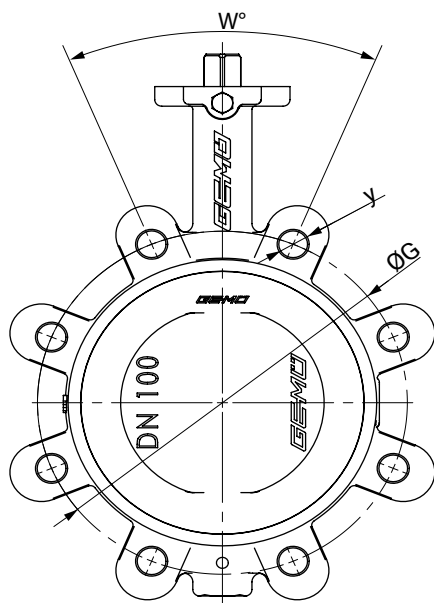
Connection EN1092, ANSI B16.5

DN	INCH	Connection (code)															
		EN1092-1 PN6 (code 1)				EN1092-1 PN10 (code 2)				EN1092-1 PN16 (code 3)				ANSI B16.5/CL150 (code D)			
DIN	ANSI	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
50	2"	90.0	4	110.0	M12	90.0	4	125.0	M16	90.0	4	125.0	M16	90.0	4	120.6	5/8"
65	2½"	90.0	4	130.0	M12	90.0	4*	145.0	M16	90.0	8*	145.0	M16	90.0	4	139.7	5/8"
80	3"	90.0	4	150.0	M16	45.0	8	160.0	M16	45.0	8	160.0	M16	90.0	4	152.4	5/8"
100	4"	90.0	4	170.0	M16	45.0	8	180.0	M16	45.0	8	180.0	M16	45.0	8	190.5	5/8"
125	5"	45.0	8	200.0	M16	45.0	8	210.0	M16	45.0	8	210.0	M16	45.0	8	215.9	3/4"
150	6"	45.0	8	225.0	M16	45.0	8	240.0	M20	45.0	8	240.0	M20	45.0	8	241.3	3/4"
200	8"	45.0	8	280.0	M16	45.0	8	295.0	M20	30.0	12	295.0	M20	45.0	8	298.5	3/4"
250	10"	30.0	12	335.0	M16	30.0	12	350.0	M20	30.0	12	355.0	M24	30.0	12	362.0	7/8"
300	12"	30.0	12	395.0	M20	30.0	12	400.0	M20	30.0	12	410.0	M24	30.0	12	431.8	7/8"
350	14"	30.0	12	445.0	M20	22.5	16	460.0	M20	22.5	16	470.0	M24	30.0	12	476.0	1"
400	16"	22.5	16	495.0	M20	22.5	16	515.0	M24	22.5	16	525.0	M27	22.5	16	540.0	1"

Dimensions in mm

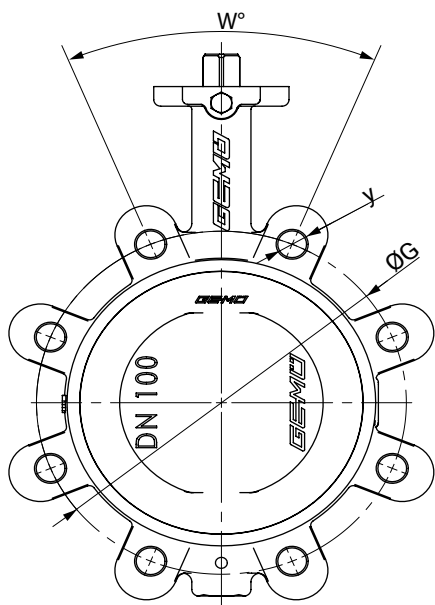
n = number of bolts

* Standard: 8 holes code 3 (PN16); if 4 holes are required, select code 2 (PN10);


Connection AS 2129, BS10

DN	INCH	Connection (code)															
		AS 2129 D (code T)				AS 2129 E (code U)				BS10 D (code H)				BS10 E (code S)			
DIN	ANSI	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
50	2"	90.0	4	114.0	M16	90.0	4	114.0	M16	90.0	4	114.3	M16	90.0	4	114.3	M16
65	2½"	90.0	4	127.0	M16	90.0	4	127.0	M16	90.0	4	127.0	M16	90.0	4	127.0	M16
80	3"	90.0	4	146.0	M16	90.0	4	146.0	M16	90.0	4	146.1	M16	90.0	4	146.1	M16
100	4"	90.0	4	178.0	M16	45.0	8	178.0	M16	90.0	4	177.8	M16	45.0	8	177.8	M16
125	5"	45.0	8	210.0	M16	45.0	8	210.0	M16	45.0	8	209.6	M16	45.0	8	209.6	M16
150	6"	45.0	8	235.0	M16	45.0	8	235.0	M20	45.0	8	235.0	M16	45.0	8	235.0	M20
200	8"	45.0	8	292.0	M16	45.0	8	292.0	M20	45.0	8	292.1	M16	45.0	8	292.1	M20
250	10"	45.0	8	356.0	M20	30.0	12	356.0	M20	45.0	8	355.6	M20	30.0	12	355.6	M20
300	12"	30.0	12	406.0	M20	30.0	12	406.0	M22	30.0	12	406.4	M20	30.0	12	406.4	M22
350	14"	30.0	12	470.0	M22	30.0	12	470.0	M27	30.0	12	470.0	M22	30.0	12	470.0	M27

Dimensions in mm
n = number of bolts



Connection JIS-K10

DN	INCH	Connection (code)			
		JIS-K10 (code G)			
DIN	ANSI	w°	n	ØG	y
50	2"	90.0	4	120.0	M16
65	2½"	90.0	4	140.0	M16
80	3"	45.0	8	150.0	M16
100	4"	45.0	8	175.0	M16
125	5"	45.0	8	210.0	M20
150	6"	45.0	8	240.0	M20
200	8"	30.0	12	290.0	M20
250	10"	30.0	12	355.0	M24
300	12"	22.5	16	400.0	M24
350	14"	22.5	16	445.0	M22
400	16"	22.5	16	510.0	M24

Dimensions in mm

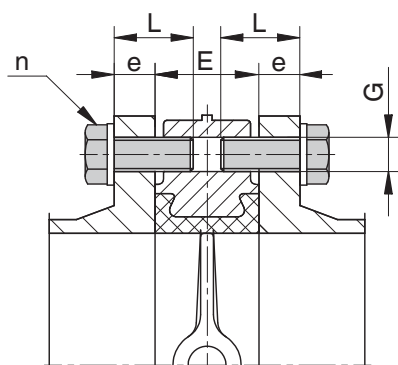
n = number of bolts

Availabilities

Flange	Lug										
	50	65	80	100	125	150	200	250	300	350	400
EN1092-1 PN6	1	1	1	1	1	1	1	1	1	-	-
EN1092-1 PN10	3	3*	3	3	3	3	2	2	2	2	2
EN1092-1 PN16	3	3*	3	3	3	3	3	3	3	3	3
ANSI B16.5/CL150	D	D	D	D	D	D	D	D	D	D	D
AS 2129 D	T	-	T	T	T	T	T	-	T	-	-
AS 2129 E	U	-	U	U	U	U	U	U	U	-	-
JIS-K10	G	G	G	G	G	G	G	G	-	G	G
BS10 D	H	-	H	H	H	H	H	-	H	-	-
BS10 E	S	-	S	S	S	S	S	S	S	-	-

* drilled, with four threaded holes

Connection – screws, bolts

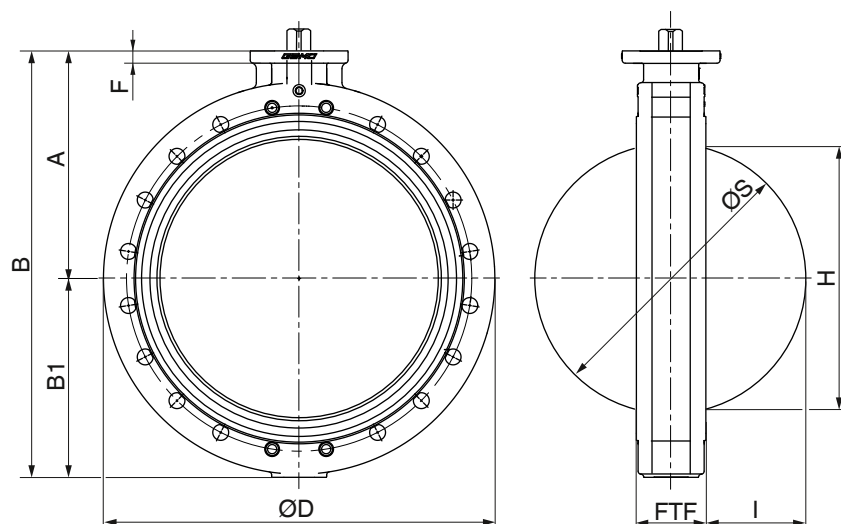


n = number of bolts (thread)

DN	E	Connection (code)											
		EN1092-1 PN10 (code 2)				EN1092-1 PN16 (code 3)				ANSI B16.5/CL150 (code D)			
		e	L	n	G	e	L	n	G	e	L	n	G ¹⁾
50	43	18	35	8	M16	18	40	8	M16	19	40	8	5/8"-11
65	46	18	40	8	M16	18	40	8	M16	22.2	45	8	5/8"-11
80	46	20	40	16	M16	20	40	16	M16	23.8	45	8	5/8"-11
100	52	20	45	16	M16	20	45	16	M16	23.8	50	16	5/8"-11
125	56	22	45	16	M16	22	45	16	M16	23.8	55	16	3/4"-10
150	56	22	45	16	M20	22	45	16	M20	25.4	55	16	3/4"-10
200	60	24	50	16	M20	24	50	24	M20	28.6	65	16	3/4"-10
250	68	26	55	24	M20	26	55	24	M24	30.2	70	24	7/8"- 9
300	78	26	60	24	M20	28	65	24	M24	31.7	80	24	7/8"- 9
350	78	26	60	32	M20	30	60	32	M24	34.9	75	24	1"- 8
400	102	26	65	32	M24	32	65	32	M27	36.5	85	32	1"- 8

Dimensions in mm

1) Thread acc. to UNC

U section body configuration

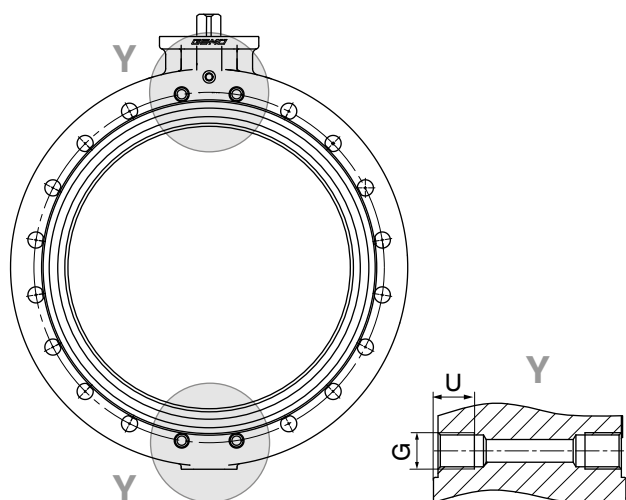
DN	A	B	B1	ØD	F	FTF	H*	I	ØS
400	347.0	662.0	315.0	596.0	20.0	102.0	379.0	145.0	391.4
450	372.0	712.0	340.0	640.0	20.0	114.0	428.0	164.0	441.4
500	398.0	763.0	365.0	715.0	20.0	127.0	478.0	183.5	493.4
600	470.0	917.0	447.0	840.0	24.0	154.0	574.0	220.0	593.4

Dimensions in mm

* Please note dimension H to prevent disc binding on internal pipe

Please note: chamfer flanges for plastic pipelines if necessary

Threaded hole



Threaded hole (detail Y)

DN	Connection type code ¹⁾					
	2		3		D	
	G	U	G	U	G ²⁾	U
400	M24	24	M27	27	1"-8	-
450	M24	24	M27	27	1 1/8"-7	30
500	M24	24	M30	30	1 1/8"-7	30
600	M27	27	M33	33	1 1/4"-7	33

Dimensions in mm

1) Connection type

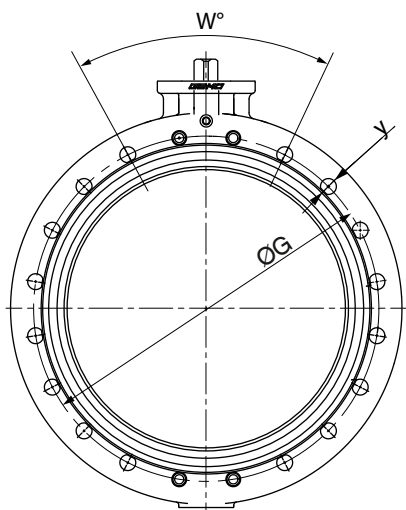
Code 2: PN 10/flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code 3: PN 16/flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code D: ANSI B16.5, class 150, face-to-face dimension FTF EN 558, series 20, For lug bodies/threaded holes with UNC thread

2) Thread acc. to UNC

Connections



DN	INCH	Connection (code)											
		EN1092-1 PN10 (code 2)				EN1092-1 PN16 (code 3)				ANSI B16.5/CL150 (code D)			
DIN	ANSI	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
400	16"	22.5	16.0	515.0	M24	22.5	16.0	525.0	M27	22.5	16.0	540.0	1"
450	18"	18.0	20.0	565.0	M24	18.0	20.0	585.0	M27	22.5	16.0	578.0	1½"
500	20"	18.0	20.0	620.0	M24	18.0	20.0	650.0	M30	18.0	20.0	635.0	1½"
600	24"	18.0	20.0	725.0	M27	18.0	20.0	770.0	M33	18.0	20.0	749.0	1¼"

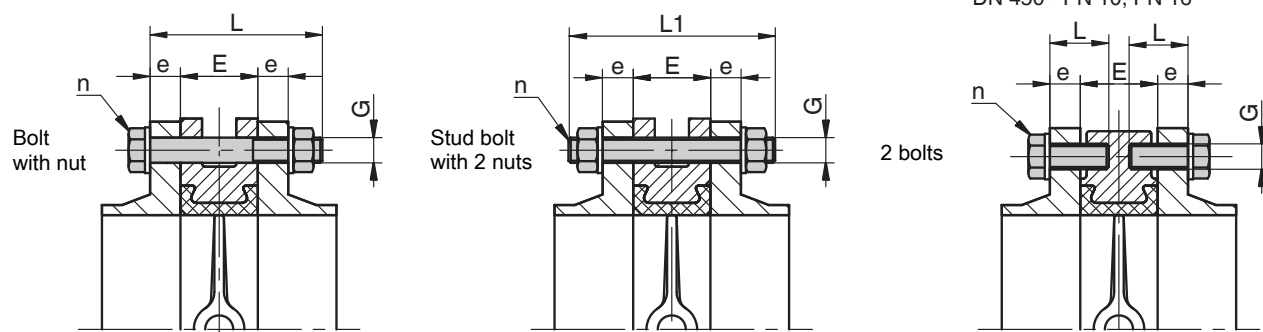
Dimensions in mm

Availabilities

U section				
Flange	400	450	500	600
EN1092-1 PN6	1*	1*	1*	1*
EN1092-1 PN10	2	2	2	2
EN1092-1 PN16	3	3	3	3
ANSI B16.5/CL150	D	D	D	D
AS 2129 E	-	U	-	-
BS10 D	-	-	-	H
BS10 E	-	S	-	-

* only available with threaded holes

Connection – screws, bolts



n = number of bolts

DN	E	Connection (code)									
		EN1092-1 PN10 (code 2)					EN1092-1 PN16 (code 3)				
		e	L	L1	n	G	e	L	L1	n	G
400	102	26	180	210	12	M24	32	200	220	12	M27
	102	26	50	210	8	M24	32	55	220	8	M27
450	114	26	190	220	16	M24	32	210	240	16	M27
	114	26	50	220	8	M24	32	55	240	8	M27
500	127	28	210	230	16	M24	34	230	260	16	M30
	127	28	50	230	8	M24	34	60	260	8	M30
600	154	28	240	270	16	M27	36	260	290	16	M33
	154	28	50	270	8	M27	36	60	290	8	M33

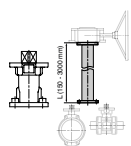
Dimensions in mm

DN	E	ANSI B16.5/CL150 (code D)				
		e	L	L1	n	G ¹⁾
400	102	36.5	210	230	12	1"-8
	102	36.5	210	230	8	1"-8
450	114	39.7	230	250	16	1 1/8"-7
	114	39.7	65	250	8	1 1/8"-7
500	127	46.0	250	280	16	1 1/8"-7
	127	46.0	70	280	8	1 1/8"-7
600	154	47.6	280	310	16	1 1/4"-7
	154	47.6	70	310	8	1 1/4"-7

Dimensions in mm

1) Thread acc. to UNC

Accessories



GEMÜ RC0

Shaft extension

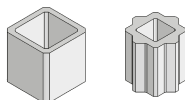
The RC0 shaft extension for quarter turn valves is a distance piece between manually, pneumatically or electrically operated valves. This means that valves can be protected from flooding or better access for operation of the valve can be ensured (also for manual override).



GEMÜ MSC

Mounting kit

The MSC mounting kit is an interface, for the same and different ends, to join flange designs according to ISO 5211. This mounting kit ensures thermal separation of actuator and valve body. It can also be used as height compensation for insulated pipelines. The mounting kit is available in steel, electrogalvanized and stainless steel in an open or closed design.



GEMÜ ADH

Mounting sleeve

The mounting sleeve accessories are available in the square and star geometry designs. These are used for the shaft and hub support for quarter turn actuators. Both sleeves have an internal square drive (please observe stated measurement dimensions here). The sleeve material is sintered metal and they are chemically nickel plated with a surface of 25 µm.

Certificates

Certificate	Standard	Item number
2.1 Certificate of compliance with the order	EN 10204	88039442
2.2 Functionality	EN 10204/EN 12266-2 F20	88439527
2.2 Pressure test	EN 10204, DIN EN 12266 P10, P11, P12	88039443
3.1 Body material	EN 10204	88314529
3.1 Disc material	EN 10204	88314530
3.1 Shaft material		88734227
3.1 Pressure test	EN 10204, DIN EN 12266 P10, P11, P12	88337125
3.1 Layer thickness measurement		88460229
3.1 Surface roughness measurement (only disc code B)		88094384



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