

GEMU



**Butterfly valves
in metal and plastic**



GEMÜ 481 with special painting

The correct valve selection creates security

Within the various areas of application, valves are subject to widely different requirements. Chemical and physical properties of the working media have a direct influence on material selection of the components. Moreover, both mechanical and process-specific requirements have an immediate effect on the valve. To do justice to the given operating conditions on an individual basis, GEMÜ offers its customers a wide range of valve types as well as many material, connection and actuation options. Basically, the manufacturer's information and the interaction between the operating pressure / temperature must be taken into account.

GEMÜ is your valve and instrumentation partner. State-of-the-art factory equipment and machinery plus a motivated team ensure the best service. A world-wide network of distributors and sales subsidiaries guarantee that products and services reach you quickly and directly. We are constantly making investments in order to optimise our existing products and to develop new products. Thus we can provide technical solutions for individual applications.

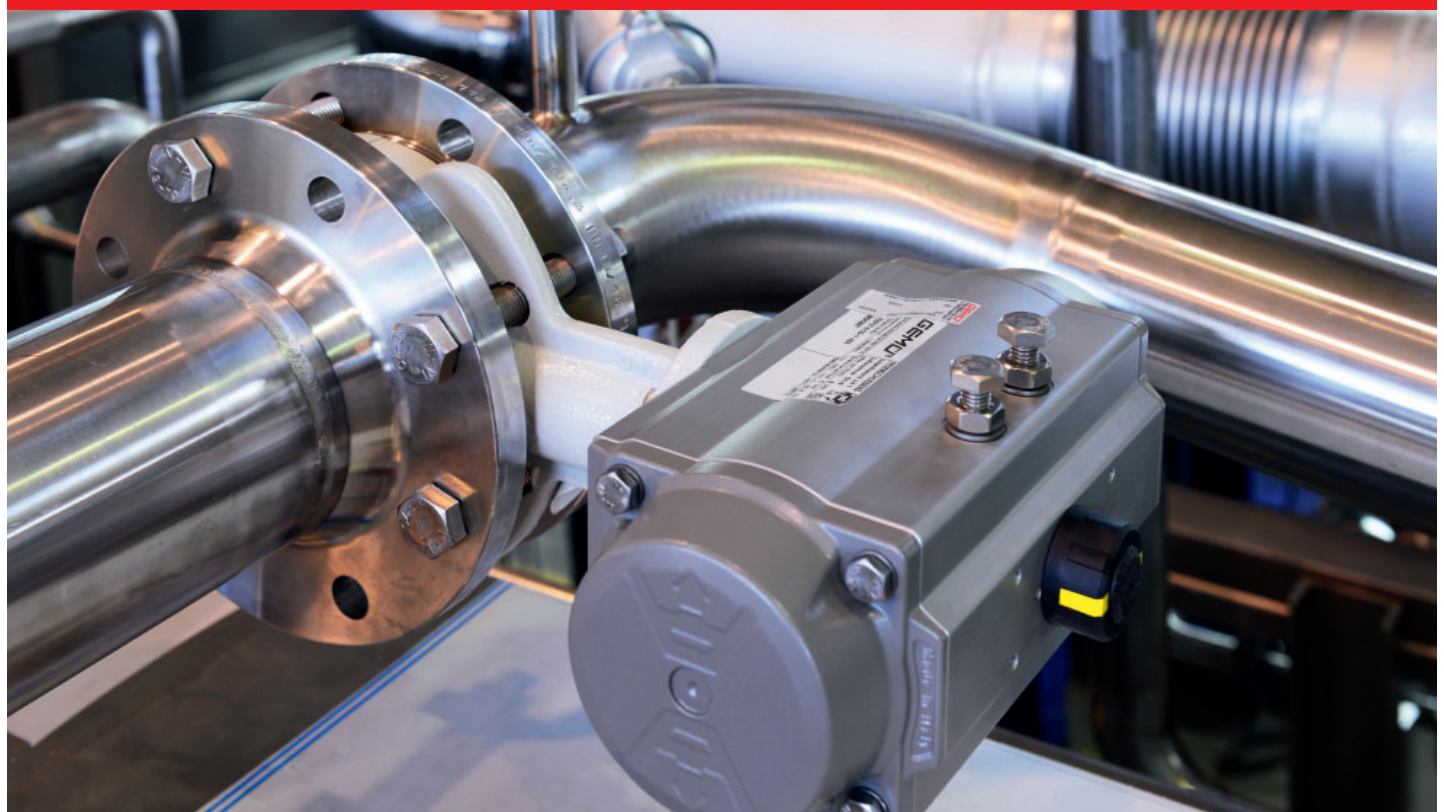


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Great variety

GEMÜ product range

GEMÜ has a vast range of valves and operators for numerous applications:

- Plastic butterfly valves DN 15 to 300
- Metal butterfly valves DN 15 to 1600
- Plastic and metal check valves
- Operators: manual, pneumatic and motorized
- Extensive range of accessories:
 - Pilot valves and valve manifolds
 - Electrical position indicators
 - Optical position indicators
 - Electro-pneumatic positioners and process controllers



GEMÜ 415



GEMÜ 423



GEMÜ 411



GEMÜ 497



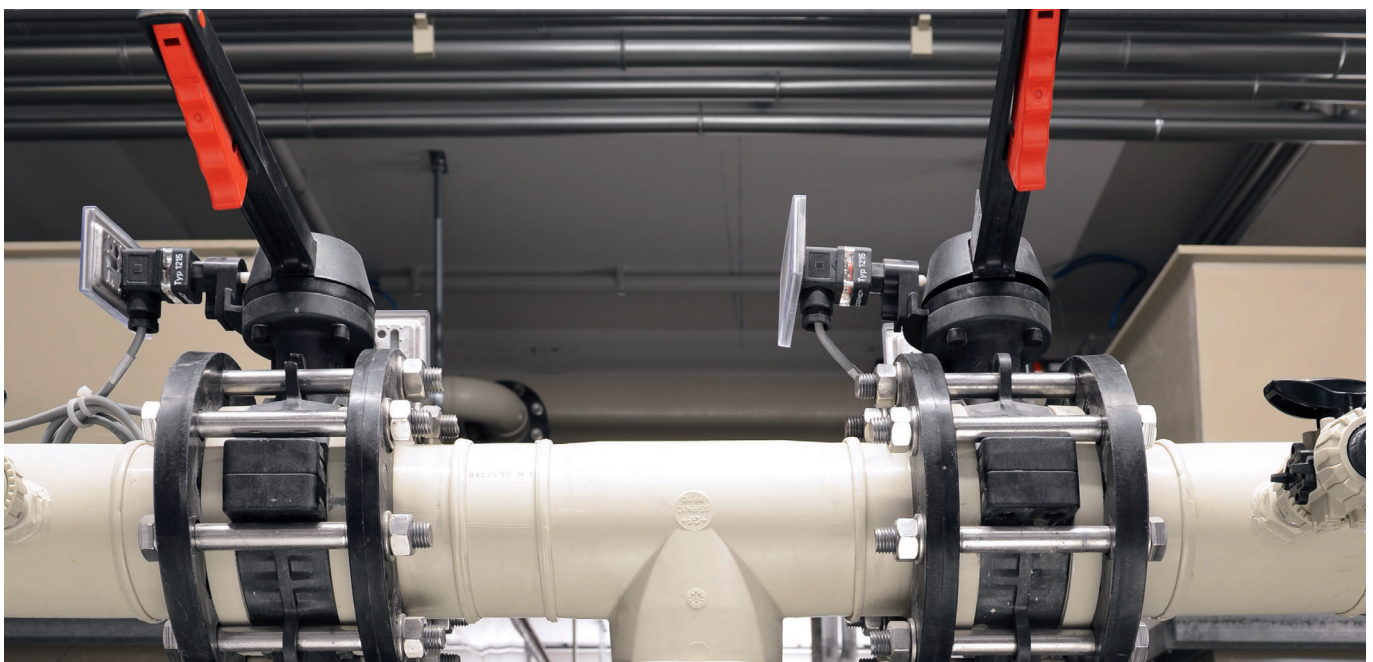
GEMÜ D458



GEMÜ 481



GEMÜ ZRSK



Application specific mounting Series

Victoria

Butterfly valve, soft seated

Areas of application

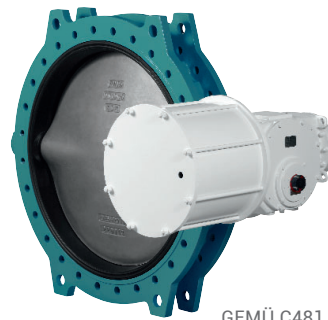
- Industrial water treatment
- Mechanical engineering and processing industry
- Power generation and environmental engineering



GEMÜ 480



GEMÜ 487



GEMÜ C481



GEMÜ D488

Edessa

Butterfly valve, PTFE seat

Areas of application

- Chemical engineering
- Pharmaceutical and foodstuffs industries
- Microelectronics and semiconductor industries



GEMÜ 490



GEMÜ 491

GEMÜ Victoria

GEMÜ 480 series

GEMÜ 480 Victoria is a soft seated butterfly valve. It is available in nominal sizes DN 25 to 600 and in various body versions such as Wafer, Lug and U section. The butterfly valve can be supplied with various operators:

- GEMÜ 487 with hand lever or gearbox
- GEMÜ 481 with pneumatic actuator
- GEMÜ 488 with motorized on/off or control actuator



	GEMÜ 480 Victoria	GEMÜ 481 Victoria	GEMÜ 487 Victoria	GEMÜ 488 Victoria
Operator	Bare shaft	Pneumatic	Manual	Motorized
Nominal size	DN 25 to 600	DN 25 to 600	DN 25 to 600	DN 25 to 600
Voltage	-	-	-	24 V DC / 3-phase 400V 50/60Hz 230V 50/60Hz
Media temperature *	-10 to 150 °C	-10 to 150 °C	-10 to 150 °C	-10 to 150 °C
Operating pressure *	0 to 16 bar	0 to 16 bar	0 to 16 bar	0 to 16 bar

* dependent on nominal size and design

Body configuration	Connection type	Valve body material	Disc material	Seal material
Wafer DN 25 to 600 Lug DN 50 to 400 U section DN 400 to 600	DIN EN 1092 (PN 6, 10, 16), ASME B16.5 cl. 150, AS 2129 D/E, JIS 10 K, BS 10 D/E	EN-GJS-400-15 (GGG 40), epoxy coated (250µm)	CF8M 1.4408, EN-GJS-400-15- GGG40 epoxy coated, CF8M 1.4408 Halar coated, Super Duplex 1.4469, EN-GJS-400-15, GGG40 Rilsan® PA11 coated, EN-GJS-400-15- GGG40 HALAR®	NBR, FPM, EPDM, Flucast, EPDM white, EPDM HT

Features

- Advanced seal design – even for larger diameters
- Extensive applications using a variety of materials
- Modular construction
- Simple installation
- Low torques
- Drinking water approval (DVGW, ACS, WRAS)
- Gas approval (DVGW Gas)
- Top flange acc. to EN ISO 5211
- Body coating in accordance with ISO 12944-6 C5-M
- Suitable for coastal and offshore areas as well as in buildings with ongoing condensation problems and contamination
- Other approvals: ATEX, DNV GL, EAC



GEMÜ 487 Victoria
manually operated



GEMÜ 481 Victoria
pneumatically operated

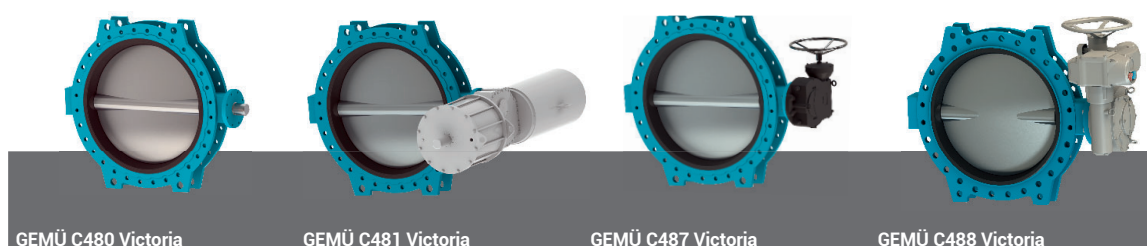


GEMÜ 488 Victoria
motorized

GEMÜ Victoria

GEMÜ C480 series

GEMÜ C480 is a soft seated butterfly valve with various designs. It is available in nominal sizes DN 700 to 1600, various body versions (Wafer, Lug and U section) and in a large number of seat seal and body materials. The butterfly valve can be supplied with various operators: manual operator with gearbox, pneumatic actuator, motorized on/off or control actuator.



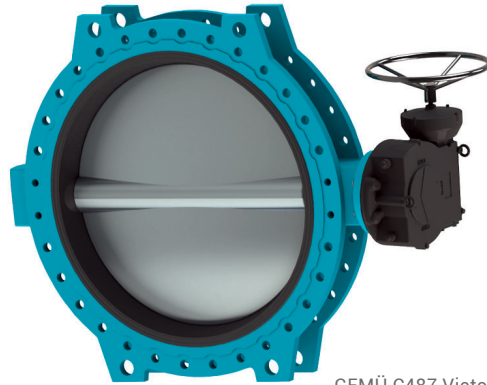
	GEMÜ C480 Victoria	GEMÜ C481 Victoria	GEMÜ C487 Victoria	GEMÜ C488 Victoria
Operator	Bare shaft	Pneumatic	Manual	Motorized
Nominal size	DN 700 to 1600	DN 700 to 1600	DN 700 to 1600	DN 700 to 1600
Media temperature *	-10 to 95 °C	-10 to 95 °C	-10 to 95 °C	-10 to 95 °C
Operating pressure *	3 to 16 bar	3 to 16 bar	3 to 16 bar	3 to 16 bar

* dependent on nominal size and design

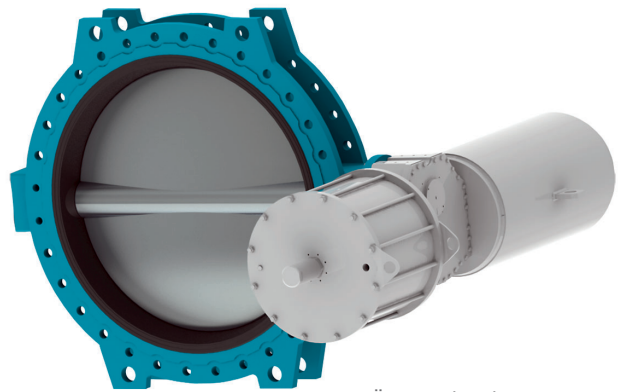
Body configuration	Connection type	Valve body material	Disc material	Shaft material	Seal material
Wafer DN 700 to 1000 Lug DN 700 to 1000 U section DN 700 to 1600	DIN EN 1092 (PN 6, 10, 16, 25), ASME B16.47 A Class 150, AWWA C207	EN-GJS-400-15 (GGG 40), epoxy coated (250 µm)	1.4408 investment cast- ing CF8M, 1.4469 Super Duplex, EN-GJS-400-15 (GGG40), epoxy Resi- coat® coated (250µm), Halar® coated (600µm), Rilsan® coated (200µm)	1.4028 stainless steel AISI 420	EPDM, NBR, EPDM (WRAS), EPDM ACS

Features

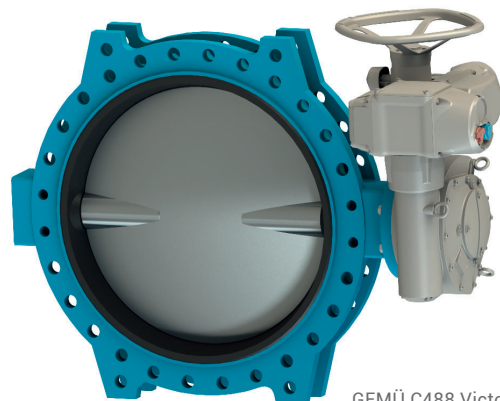
- Suitable for liquid and gaseous media in industrial applications as well as in water treatment
- Standardized top flange acc. to EN ISO 5211
- Due to the special seal contour of the liner in the flange area no separate gasket is required
- Self-lubricating shaft bearings made of PTFE coated metal bushes
- The shaft mounted in bearings provides a stable shaft guide
- Body material: EN-GJS-400-15 (GGG 40), epoxy coated (250 µm)
- Leak test acc. to EN 12266-1/P12 leakage rate A
- Replaceable liner for isolating the working medium from body and shaft
- Lenticular shaped disc for good flow capability
- Reduced leakage and corrosion risk as the spindle is not fixed in the disc by grub screws
- Concentric disc allows bi-directional shut-off
- High stability and low weight even for larger diameters



GEMÜ C487 Victoria
manually operated



GEMÜ C481 Victoria
pneumatically operated



GEMÜ C488 Victoria
motorized

GEMÜ Victoria

GEMÜ D480 series

GEMÜ D480 is a butterfly valve with various designs. It is available in nominal sizes DN 25 - 1600, various body versions (Wafer, Lug and U section) and in a large number of seat seal and body materials. The butterfly valve can be supplied with various operators: with hand lever or gearbox, pneumatic actuator or motorized on/off or control actuator.



	GEMÜ D480 Victoria	GEMÜ D481 Victoria	GEMÜ D487 Victoria	GEMÜ D488 Victoria
Operator	Bare shaft	Pneumatic	Manual	Motorized
Nominal size	DN 25 to 1600	DN 25 to 1600	DN 25 to 1600	DN 25 to 1600
Voltage	-	-	-	24 V DC / 24 V, 120 V, 230 V AC 50/60Hz, 3-phase 400V 50/60Hz
Media temperature *	-60 to 210 °C	-60 to 210 °C	-60 to 210 °C	-60 to 210 °C
Operating pressure *	0 to 16 bar	0 to 16 bar	0 to 16 bar	0 to 16 bar

* dependent on nominal size and design

Body configuration	Connection type	Valve body material	Disc material	Seal material
Wafer DN 25 to 1200 Lug DN 25 to 600 U section DN 150 to 1600	DIN EN 1092(PN 6, 10, 16), ASME B16.5 cl. 150, JIS 5k/10k/16k, BS 10 D/E, AS 2129 Tab E	EN-GJS-400-15 (GGG 40) epoxy coated, EN-GJL-250 (GG 25), ASTM A351, CF8M cast stainless steel 1.4408, ASTM A216 WCB cast steel, S 275 JR + epoxy coated, EN-AC-46100 / EN-AC-47100 cast aluminium	CF8M, 1.4408, CF8M, 1.4408 polished, CF8M, 1.4408 Halar coated, 1.4469 Super Duplex, EN-GJS-400-15, GGG40 epoxy coated (Resicoat), EN-GJS-400-15, GGG40 rubber lined EPDM, EN-GJS-400-15, GGG40 Rilsan® PA11 coated, DIN 1705 (Rg 10), cast bronze, URANUS B6, 1.4539 (similar 904L)	FPM, HNBR, epichlorhydrine, FPM GF, Flucast AB/P, Flucast AB/E, Hypalon, Flucast AB/N, neoprene, silicone (steam), silicone

Features

- Suitable for gaseous and liquid media in industrial applications as well as in water treatment
- Installation length acc. to ISO 5752/20, EN 558-1/20, API 609 category A
- Top flange acc. to EN ISO 5211
- Max. operating pressure 10/16/25 bar
- Various connection standards available
- Leak test acc. to EN 12266-1/P12 leakage rate A
- Approvals: ATEX; ACS; Bureau Veritas; DNV, Lloyd's Register, DVGW, EAC



GEMÜ D487 Victoria
manually operated



GEMÜ D481 Victoria
pneumatically operated



GEMÜ D488 Victoria
motorized

GEMÜ Edessa

GEMÜ 490 series

The GEMÜ 490 butterfly valve is lined with TFM™ (PTFE)/ PFA to suit aggressive chemical applications. It is based on the design of concentric soft seated valves. The construction enables many possible combinations of disc, seat and body. Disc and shaft are one-piece, different designs of body and seat are available. The wafer and lugged body versions are available in sizes DN 40 to 900 (1½" to 36").



	GEMÜ 490	GEMÜ 491	GEMÜ 497	GEMÜ 498
Operator	Bare shaft	Pneumatic	Manual	Motorized
Nominal size	DN 40 to 900	DN 40 to 900	DN 40 to 900	DN 40 to 900
Voltage	-	-	-	24 V DC / 24 V, 120 V, 230 V AC 50/60Hz 3-phase 400V 50/60Hz
Media temperature *	-20 to 200 °C	-20 to 200 °C	-20 to 200 °C	-20 to 200 °C
Operating pressure *	0 to 10 bar	0 to 10 bar	0 to 10 bar	0 to 10 bar

* dependent on nominal size and design

Body configuration	Connection type	Valve body material	Disc material	Seal material
Wafer DN 40 to 300 Lug DN 40 to 900	DIN EN 1092 (PN 10, 16), ASME B16.5 cl. 150, JIS 10K, AS-2129 Table D, AS-2129 Table E SANS 1123- 1000/3	EN-GJS-400-18-LT (GGG 40.3) epoxy coated 120µm, stainless steel 316L, Duroplast (VE-CF), steel S355J2G3	Stainless steel 1.4469, stainless steel 1.4404/316L, stainless steel 1.4462 pol- ished, stainless steel 1.4404/316L polished, PFA encapsulated (min. 3mm), Titanium Grade 2, Hastelloy C22	TFM™ / silicone, TFM™ / EPDM, TFM™ / FPM, PTFE / silicone, PTFE/EPDM, PTFE/FPM

Features

- Suitable for inert and corrosive gaseous and liquid media in the chemical industry and in water treatment
- Seal material TFM™ (FDA 21CFR 177.1550)
- Installation length acc. to ISO 5752/20, EN 558-1/20, EN 558-1/20, API 609 category A
- Top flange acc. to EN ISO 5211
- Connection standards PN 10, PN 16, ASME B16.5 cl. 150, JIS 10K
- Leak test acc. to EN 12266-1/P12 leakage rate A
- The butterfly valve complies with the safety requirements of Annex I of the European Pressure Equipment Directive 2014/68/EU for fluids of group 1 and 2
- ATEX compliant version for explosion endangered areas of group II, zones 0, 1, 2 (or 20, 21 and 22) available
- TA Luft (German Clean Air Act) approval available



TA-LUFT



GEMÜ 497 Edessa
manually operated



GEMÜ 491 Edessa
pneumatically operated



GEMÜ 498 Edessa
motorized

Metal butterfly valves

DN 15 to 50

The GEMÜ 411, 415 and 428 butterfly valves are available in nominal sizes DN 15 to 50. The butterfly valve body and butterfly disc are available in brass or stainless steel 1.4581. The available seal materials are EPDM, FPM and PSI (silicone rubber).

Features:

- GEMÜ 411 is equipped with an ergonomically designed, corrosion resistant manual operator with an integrated locking device.
- GEMÜ 415 has a low maintenance, corrosion resistant plastic piston actuator. Normally Closed, Normally Open and Double Acting control functions are available.
- GEMÜ 428 has a low maintenance electric actuator with a powerful reversible DC motor. The actuator has an optical position indicator and a manual override as standard.
- Suitable for inert, corrosive, liquid and gaseous media



	GEMÜ 411	GEMÜ 415	GEMÜ 428
Operator	Manual	Pneumatic	Motorized
Nominal size	DN 15 to 50	DN 15 to 50	DN 15 to 50
Connection type	Threaded socket DIN ISO 228, butt weld spigot. Different standards and designs available	Threaded socket DIN ISO 228, butt weld spigot. Different standards and designs available	Threaded socket DIN ISO 228, butt weld spigot. Different standards and designs available
Voltage	-	-	24 VDC, 120 VAC, 230 VAC 50/60Hz
Valve body material	Brass, stainless steel 1.4581	Brass, stainless steel 1.4581	Brass, stainless steel 1.4581
Media temperature	-10 to 100 °C	-10 to 100 °C	-10 to 100 °C
Operating pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar
Disc material	Brass, stainless steel 1.4581	Brass, stainless steel 1.4581	Brass, stainless steel 1.4581
Seal material	FPM, PSI, EPDM	FPM, PSI, EPDM	FPM, PSI, EPDM

Plastic butterfly valves

DN 15 to 50

The GEMÜ 410, 417 and 423 butterfly valves are available in nominal sizes DN 15 to 50. The butterfly valve body is made of PVC-U, the butterfly disc is made of PVDF or PP. The available seal materials are EPDM and FPM.

Features:

- GEMÜ 417 has an ergonomically designed manual operator with integrated locking device.
- GEMÜ 410 is equipped with a low maintenance corrosion resistant plastic piston actuator. Normally Closed, Normally Open and Double Acting control functions are available.
- GEMÜ 423 has a low maintenance electric actuator with a powerful reversible DC motor. The actuator has an optical position indicator and a manual override as standard.
- Suitable for inert, corrosive, liquid and gaseous media
- All media wetted parts of the butterfly valve are made of plastic



	GEMÜ 417	GEMÜ 410	GEMÜ 423
Operator	Manual	Pneumatic	Motorized
Nominal size	DN 15 to 50	DN 15 to 50	DN 15 to 50
Connection type	Union end with DIN insert (socket), union end with inch insert (socket)	Union end with DIN insert (socket), union end with inch insert (socket)	Union end with DIN insert (socket), union end with inch insert (socket)
Voltage	-	-	24 VDC, 120 VAC, 230 VAC 50/60Hz
Valve body material	PVC-U grey	PVC-U grey	PVC-U grey
Media temperature	-10 to 60 °C	-10 to 60 °C	-10 to 60 °C
Operating pressure	0 to 6 bar	0 to 6 bar	0 to 6 bar
Disc material	PVDF, PP	PVDF, PP	PVDF, PP
Seal material	FPM, EPDM	FPM, EPDM	FPM, EPDM

Plastic butterfly valves

DN 50 to 300

The GEMÜ D450, D451, D457 and D458 butterfly valves are available in nominal sizes DN 50 to 300. They are designed to provide the best possible flow rates and offer excellent corrosion protection.

The valve discs are available in various materials. The optimized geometry significantly minimizes pressure loss in the valve.

Features:

- Max. operating pressure: DN 50 to 200, 10 bar;
- UV resistance
- Wafer bodies for various standards: ISO/DIN, ANSI/ASTM, British Standard and JIS
- New butterfly disc design ensures low torque
- The hand lever can be adjusted in 7 positions (in 15° steps) and is equipped with a safety lock to avoid undesired operation



	GEMÜ D457	GEMÜ D450	GEMÜ D451	GEMÜ D458
Operator	Manual	Bare shaft	Pneumatic	Motorized
Nominal size	DN 50 to 300	DN 50 to 300	DN 50 to 300	DN 50 to 300
Connection type	EN 1092 PN 10 / ANSI B16.5, Class 150 / JIS 10K	EN 1092 PN 10 / ANSI B16.5, Class 150 / JIS 10K	EN 1092 PN 10 / ANSI B16.5, Class 150 / JIS 10K	EN 1092 PN 10 / ANSI B16.5, Class 150 / JIS 10K
Voltage	-	-	-	24 VDC, 120 VAC, 230 VAC 50/60Hz
Valve body material	PP (GF)	PP (GF)	PP (GF)	PP (GF)
Media temperature *	0 to 90 °C	0 to 90 °C	0 to 90 °C	0 to 90 °C
Operating pressure *	0 to 10 bar	0 to 10 bar	0 to 10 bar	0 to 10 bar
Disc material	PVC-U, PVC-C, PP-H	PVC-U, PVC-C, PP-H	PVC-U, PVC-C, PP-H	PVC-U, PVC-C, PP-H
Seal material	FPM, EPDM	FPM, EPDM	FPM, EPDM	FPM, EPDM

* dependent on nominal size and design

Check valves

The GEMÜ RSK check valve is available in plastic, the ZRSK check valve in metal. Body, disc and seal can be chosen from various materials. It is clamped between two flanges and has a flange seal. It self-centres in the flanges between the bolt circle.

Features:

- Inert and corrosive liquid and gaseous media
- The butterfly valve works according to the swing check principle
- Can be selected with or without spring return
- Can be installed in a horizontal or vertical position



	GEMÜ RSK	GEMÜ ZRSK
Nominal size	DN 32 to 600	DN 32 to 600
Connection type	PN 6, PN 10, ANSI 150	PN 6, PN 10, PN 16, ASME B16.5 Class 150
Valve body material	PVC-U grey, PP, PVDF	Stainless steel CF8M 1.4408, steel 1.04960, stainless steel AISI 316 Ti, 1.4571, aluminium bronze (CC333G)
Media temperature	0 to 200 °C	0 to 200 °C
Operating pressure	0 to 6 bar	0 to 16 bar
Disc material	PVC-U grey, PP, PVDF	Stainless steel CF8M 1.4408, steel 1.04960, stainless steel AISI 316 Ti, 1.4571, aluminium bronze (CC333G)
Seal material	NBR, FPM, PTFE, EPDM	NBR, FPM, PTFE, EPDM
Spring return	Stainless steel 1.4571, Hastelloy	Stainless steel 1.4571, Hastelloy

Pneumatic actuators

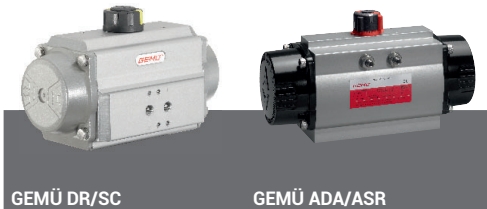
Pneumatic actuators for quarter turn valves

The GEMÜ 9415 pneumatically operated plastic quarter turn actuator has a stable plastic housing made of glass fibre reinforced PP. The actuator is designed for operating quarter turn valves such as butterfly valves and ball valves. The quarter turn movement (90 + 3°) is transmitted to the shaft by means of a control piston and a sloping thread.



	GEMÜ 9415
Actuator size	Size 0: 50 mm Size 1: 70 mm
Max. torque	Size 0: 6 Nm Size 1: 32 Nm
Operating pressure	Size 0: 0 to 6 bar Size 1: 0 to 6 bar
Control connenction	G ¼

GEMÜ ADA/ASR and DR/SC are pneumatic quarter turn actuators which work according to the double piston rack and pinion principle. They are available as a double acting (ADA, DR) or single acting (ASR, SC) version. The quarter turn actuators are ideal for mounting on butterfly valves and ball valves with standardised interfaces in accordance with ISO 5211 or DIN 3337 (F03-F25). To attach accessories, defined mounting facilities are also available in accordance with VDI/VDE 3845 and NAMUR (control air connector).



	GEMÜ DR/SC	GEMÜ ADA/ASR
Max. torque	11674 Nm	6421 Nm
Max. control pressure	8 bar	8 bar
Control connection	0015 - 0100: G ⅛ 0150 - 1200: G ¼ 2000: G ⅜ 3000 - 10000: G ½	G ¼



GEMÜ 9415

Features

- Control medium: inert gaseous media
- By turning the positioning element 90° during assembly Normally Closed or Normally Open versions can be achieved
- Corrosion resistant plastic housing
- Low weight



GEMÜ 9415

GEMÜ DR/SC

Features

- Single or double acting
- Robust design
- Diverse accessories
- ATEX version (optional)
- Stroke limiter available (optional)
- Tried and tested actuator design
- Easy setting of switch points



GEMÜ DR/SC

GEMÜ ADA/ASR

Features

- Robust design
- Reliable and proven actuator design
- Easy setting of switch points
- ATEX version (optional)
- SIL 3 certified
- Single or double acting
- Diverse accessories



GEMÜ ADA/ASR

Motorized actuators

Motorized actuators for quarter turn valves

GEMÜ 9428

Features

- For nominal sizes DN 15 to 50
- Maximum travel: 93° (nominal travel: 90°)
- Electrical connection: Cable gland or connector
- With optical position indicator
- Option with additional potential-free limit switches
- Ambient temperature: -10 to 60 °C
- Continuous duty

Power supply	Torque [Nm]	Operating time approx. [s]
12/24 VDC, 12/24 VAC, 100-230 VAC	6	4
12/24 VDC, 12/24 VAC, 100-230 VAC	15	11
24 VDC, 24 VAC, 100-230 VAC	35	15

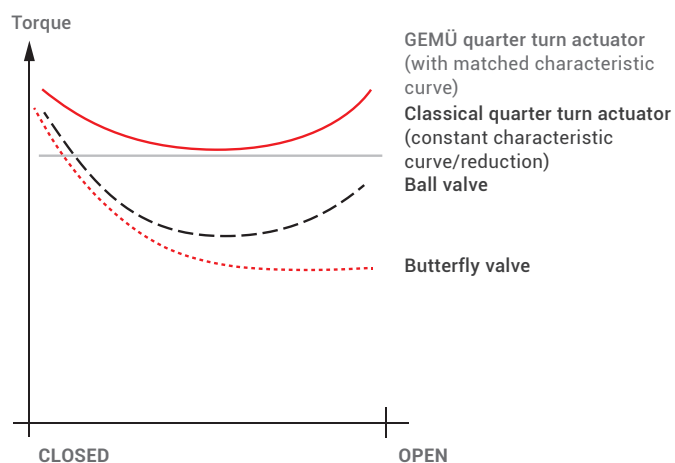


GEMÜ 9428
Actuator version 10XX



GEMÜ 9428
Actuator version 20XX

Characteristic curve - GEMÜ quarter turn actuators



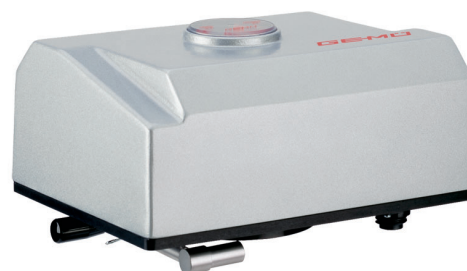
GEMÜ 9428
Actuator version 3035

GEMÜ 9468

Features

- For nominal sizes DN 65 to 250
- Maximum travel: 93° (nominal travel: 90°)
- Electrical connection: Connector
- With optical position indicator
- Option with additional potential-free limit switches
- Option with analogue position feedback via potentiometer
- Option with integrated positioner
- Ambient temperature: -10 to 60 °C
- Continuous duty*

* except in the version with 400 Nm = 70% duty cycle



Power supply	Torque [Nm]	Operating time approx. [s]
24 VDC, 24 VAC, 120 VAC, 230 VAC	0	15
	100	20
	200	16
	400	29



Motorized actuators

Motorized actuators for quarter turn valves

Bernard

90° compact actuator, motorized

EZ series

(15714-2 Class A,B) Open/Close and positioning applications

SQ series

(15714-2 Class A,B,C)
Open/Close, positioning and control applications



Features

- 2 limit switches for each of the OPEN and CLOSED end positions can be adjusted over the whole travel
- 1 torque switch (change-over contact) for each of the "Opening" and "Closing" directions
- Mechanical position indicator (except EZ4-EZ15 and SQ4-SQ15)
- Handwheel for emergency operation
- Self-locking gear
- Temperature controller in the motor, guided potential-free at the terminals
- Special wiring possible for SQ series
- Heating in the switch room
- ATEX on request

Technical specifications:

Protection class:	IP 67
Operating mode:	S4 30% (actuation), S4 50-100% (control class III)
Mech. limit switches:	± 2° adjustable
Ambient temperature:	-25 to 80 °C
Operating time/torque:	EZ series: 6-210 sec. / 45 - 10,000 Nm (depending on version) SQ series: 6-210 sec. / 45 - 10,000 Nm (depending on version)
Supply voltage/ Mains frequency:	230 V/50 Hz, 400 V/50 Hz
Housing material:	Cast aluminium, epoxy coated

AUMA

90° compact actuator, motorized

SA series + SQ series

Features

- Insulation class F, 3 thermal switches
- 1 limit switch for each of the OPEN and CLOSED end positions
- 1 torque switch for each of the "OPENING" and "CLOSING" directions
- Flasher unit for travel indication
- Heating in the switch room
- Handwheel for manual operation
- Valve connection to ISO 5210
- Corrosion protection KN
- ATEX on request



Technical specifications:

Protection class: IP 67 acc. to EN 60529

Operating mode: Short time operation S2 - 15 min., option : S2- 30 min.

Mech. limit switches: $\pm 2^\circ$ adjustable

Ambient temperature: -25 to 80 °C

Operating time/torque:

SA 07.1:	30 Nm
SA 07.5:	60 Nm
SA 10.1:	120 Nm
SA 14.1:	250 Nm
SA 14.5:	500 Nm
SA 16.1:	1000 Nm

SQ (R) 05.2:	4-32 sec. /150 Nm
SQ (R) 07.2:	4-32 sec. /300 Nm
SQ (R) 10.2:	11-63 sec. /600 Nm
SQ (R) 12.2:	22-63 sec. /1200 Nm
SQ (R) 14.2:	48-100 sec. / 2400 Nm

Supply voltage/
Mains frequency: 220, 230, 240, 380, 400, 415,
500V/50 Hz, 440, 460V/60 Hz

Positioners and process controllers

Electro-pneumatic positioners and process controllers for pneumatically operated quarter turn actuators

For control requirements all pneumatically operated GEMÜ ball valves and butterfly valves can be fitted with positioners and process controllers:

- GEMÜ 1435 ePos
- GEMÜ 1436 cPos
- GEMÜ 1436 cPos eco



Function / Features		GEMÜ 1435 ePos	GEMÜ 1436 cPos	GEMÜ 1436 cPos eco
Controller type	Positioner	•	•	•
	Process controller		•	
Operation	Local display / keypad	•	•	
	Status display	•	•	•
	Web browser user		•	
	Fieldbus option (Profibus DP, Device Net)		•	
Housing	Plastic		•	•
	Aluminium	•		
Functions	Automatic initialisation (speed ^{AP})	•	•	•
	Alarm / error outputs	•	•	
	Min/max positions adjustable	•	•	
Mounting	Direct mounting to quarter turn actuators	•	•	•
	Remote mounting to quarter turn actuators	•	•	•
Control function of valve actuator	Control function 1, normally closed (NC)	•	•	•
	Control function 2, normally open (NO)	•	•	•
	Control function 3, double acting (DA)	•	•	
Air output		50 NI/min. 90 NI/min.*	150 NI/min. 200 NI/min. 300 NI/min.*	150 NI/min. 200 NI/min.

* only control function 1 and 2 (NC, NO)

Electrical position indicators

Electrical position indicators for pneumatically operated quarter turn valves

Various electrical position indicators are available for ball valves and butterfly valves. These devices detect the valve position in any installation position without play and are tension-free. The position indicators can be quickly and easily assembled and are safe and uncomplicated to handle.

The special design of the GEMÜ 9415 quarter turn actuator enables its combination with electrical position indicators for linear actuators.

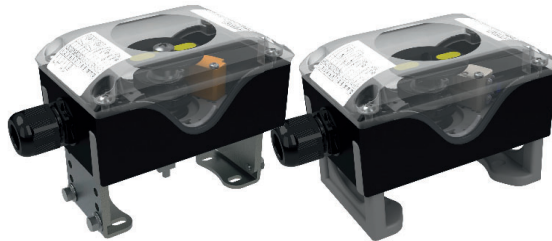
Using the GEMÜ pivot adapter, it is also possible to install any type of electrical position indicator and combi switchboxes for linear actuators from the company's range on pneumatically operated GEMÜ quarter turn actuators.



Butterfly valve GEMÜ 481 with GEMÜ 1235 electrical position indicator



GEMÜ LSF
with DR/SC actuator



GEMÜ LSC



GEMÜ LSC
with DR/SC actuator

Device type	4221* (end-of-series article)	LSF	LSC	1226	1225
Travel range	0 - 90°	0° / 90°	0 - 90°	0° / 90°	0 - 90°
Connection	M12 x 1 5-pin	M12 x 1 4-pin	M20 x 1.5	PG 13.5	PG 13.5
Programmable	•				
With integrated pilot valve	•				
Ex design		•	•		
IEC version			•		
Fieldbus interface	•		•		
Mechanically adjustable switches			•		•
UL version			•		•
SIL version			•		
Optical position indicator (mechanical)		•	•	•	•
Feedback (OPEN and CLOSED)	•	•	•	•	•

* Combi switchbox

Accessories

Accessories for pneumatically operated quarter turn actuators

Pilot valves and valve manifolds

Features

- GEMÜ 8500 5/2-way pilot solenoid valve with aluminium body and integrated manual override, the coil can be replaced
- GEMÜ 0322 pilot valves for single or battery mounting
- GEMÜ 0324 pilot valves for direct mounting to pneumatic butterfly valve actuators
- Valve batteries and valve manifolds
- GEMÜ 8500 N servo assisted 3/2 or 5/2-way pilot solenoid valve with aluminium body. The plastic encapsulated coil is detachable.



GEMÜ 8500



GEMÜ 0324



GEMÜ 8500 N



GEMÜ 0322

Electrical position indicators

Features

- GEMÜ 1225 position indicator for mounting between actuator and butterfly valve. Suitable for GEMÜ butterfly valves 410, 411, 413, 415, 417, 418, 423, 428
- GEMÜ 1201 position indicator for mounting to butterfly valve GEMÜ 415 and GEMÜ 410 incl. pneum. actuator



GEMÜ 1225



GEMÜ 1201



GEMÜ 1230

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 GEMÜ subsidiary

