

GEMÜ R471 Tugela

Pneumatically operated butterfly valve



Features

- High-performance butterfly valve with double eccentric construction in order to separate the disc directly from the seat (gasket), thereby reducing friction and extending the service life
- Continuous shaft with temperature resistant graphite bearing and PTFE gland packing for readjustment in operation for minimized leakage, even at low pressures
- Antistatic fixture for ATEX area
- Various actuator types can be selected

Description

The GEMÜ R471 Tugela double eccentric metal butterfly valve is operated by a pneumatic actuator. The butterfly valve is available in nominal sizes DN 50 to 400 and in standardized installation lengths API 609 category A (DIN 3202 K1).

Technical specifications

- **Media temperature :** -60 to 230 °C
- **Ambient temperature:** -20 to 70 °C
- **Operating pressure :** 0 to 40 bar
- **Nominal sizes:** DN 50 to 400
- **Body configurations:** Wafer
- **Connection standards:** ASME | ISO
- **Body materials:** 1.0619 (WCB), cast steel material with CDP coating | 1.4408
- **Liner materials:** PTFE TFM™
- **Disc materials:** 1.4408
- **Conformities:** ATEX | EAC | FDA

Technical data depends on the respective configuration



Product line



GEMÜ R470
Tugela

GEMÜ R471
Tugela

GEMÜ R477
Tugela

GEMÜ R478
Tugela

Operation

With bare shaft	●	-	-	-
Manual	-	-	●	-
Pneumatic	-	●	-	-
Motorized	-	-	-	●
Nominal sizes	DN 50 to 600	DN 50 to 400	DN 50 to 400	DN 50 to 300
Media temperature	-60 to 230 °C	-60 to 230 °C	-60 to 230 °C	-60 to 230 °C
Max. operating pressure ¹⁾	40 bar	40 bar	40 bar	40 bar

Connection types

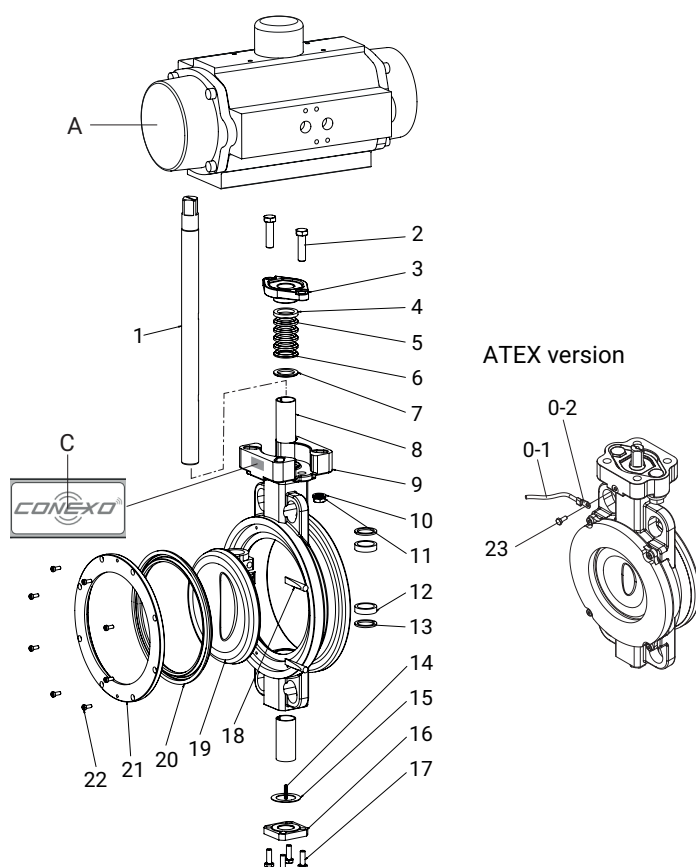
Flange (wafer)	●	●	●	●
----------------	---	---	---	---

Conformities

ATEX	●	●	●	●
EAC	●	●	●	●
FDA	●	●	●	●

1) Reduced pressures when used as end-of-line valve

Product description



Item	Designation	Material
1	Shaft	see order code (order data)
2	Hexagon screw	Stainless steel
3	Packing washer	1.4408
4	Upper packing	PTFE
5	Medium packing	PTFE
6	Lower packing	PTFE
7	Packing washer	PTFE
8	Bush	Copper alloy
9	Body	see order code (order data)
10	Spring washer	Stainless steel
11	Hexagon nut	Stainless steel
12	Shaft bearing	PTFE coated steel
13	Shaft bearing	PTFE coated steel
14	Static spring	Stainless steel
15	Sealing washer	Stainless steel
16	Lower cap	same as body
17	Hexagon screw	Stainless steel
18	Disc pin	Steel
19	Disc	see order code (order data)
20*	Seat	see order code (order data)
21	Seat retainer	

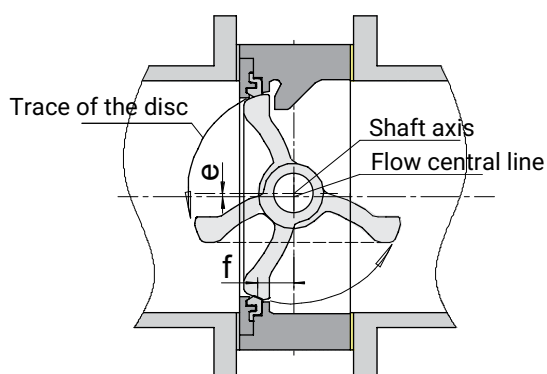
Product description

Item	Designation	Material
22	Hexagon screw	Stainless steel
A	Pneumatic actuator	Aluminium
C	GEMÜ CONEXO	
0	Earthing kit for ATEX version	
0-1	Stranded wire (ATEX version)	
0-2	Cable lug (ATEX version)	
23	Hexagon nut	Stainless steel

* available as spare part

Additional design features

Double-eccentric design



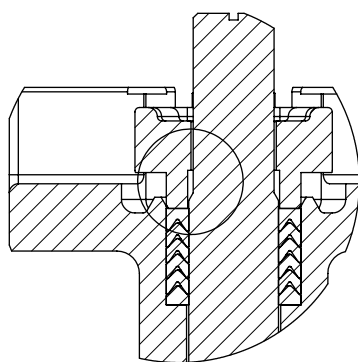
During operation, the disc directly disconnects from the seat, thereby reducing friction between the seat and disc, as well as the torque.

This design is particularly low-wear and this, together with the temperature-resistant carbon bushing, increases the service life.

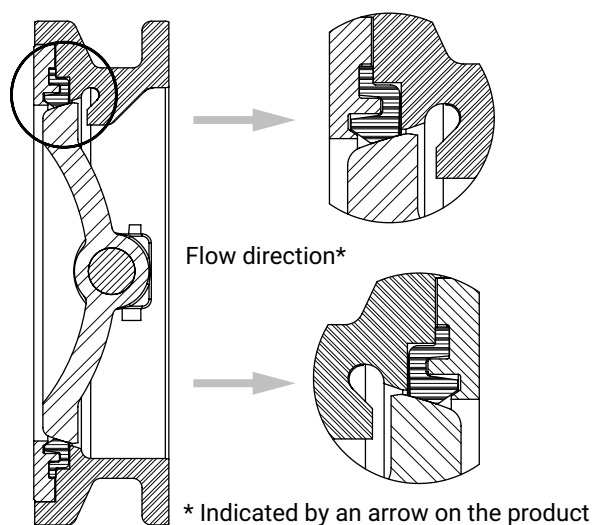
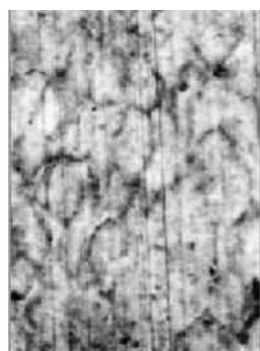
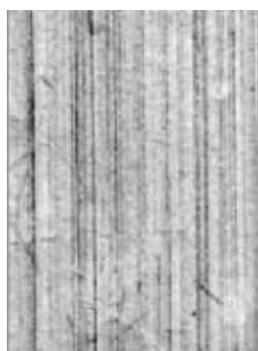
Spherical surface

The disc is designed with a spherical surface for improved mechanical behaviour under pressure and temperature fluctuations.

Shaft blow-out protection



There is a chamfer at the upper end of the shaft which acts as an additional safety measure in case the shaft breaks.

Flow direction**Shut-off seal material****PTFE****TFM**

TFM™ is made from conventional PTFE and a 1% proportion of perfluoropropyl vinyl ether (PPVE). While the properties of conventional PTFE (excellent chemical resistance, application in a wide temperature range and resistance to embrittlement or ageing, etc.) are maintained, the PPVE additive leads to a better distribution of the PTFE particles and thus to a higher density of the polymer structure.

This leads to the following additional advantages:

- Significantly improved cold flow properties (measured as deformation under load):
The same cold flow properties as PTFE with 25% glass fibres.
- Reduced gas permeability and increased blocking properties
- The smooth surface results in less abrasion of the shut-off seal and fewer abraded particles in the medium.

Actuator assignment

GEMÜ type ASR – Single acting

DN	Anticlockwise rotation, spring opening (code 2, U)	Code	Clockwise rotation, spring closing (code 1, Q)	Code
50	ASL0130US14F05/07S17S14	LU13KC	ASR0130US14F05/07S17S14	AU13KC
65	ASL0200US14F07/10S17S14	LU20KE	ASR0200US14F07/10S17S14	AU20KE
80	ASL0200US14F07/10S17S14	LU20KE	ASR0200US14F07/10S17S14	AU20KE
100	ASL0300US14F07/10 S22	LU30KD	ASR0300US14F07/10 S22	AU30KD
125	ASL0500US14F07/10 S22	LU50KD	ASR0500US14F07/10 S22	AU50KD
150	ASL0850US14F10/12 S27	LU85KG	ASR0850US14F10/12 S27	AU85KG
200	ASL1200US14F10/12 S27	L12UKG	ASR1200US14F10/12 S27	A12UKG
250	ASL1750US14F14 S36	L17UKK	ASR1750US14F14 S36	A17UKK
300	ASL2100US14F14 S36	L21UKK	ASR2100US14F16 S46	A21UKL
350	ASL2500US14F14 S36	L25UKK	ASR2500US14F16 S46	A25UKL
400	ASL4000US14F16/25 S55	L40UKM	ASR4000US14F16/25 S55	A40UKM

GEMÜ type ADA – Double acting

DN	Double acting (code 3, T)	Code
50	ADA0040U F05 S14S11	BU04AB
65	ADA0080U F05/07S17S14	BU08AC
80	ADA0080U F05/07S17S14	BU08AC
100	ADA0130U F05/07S17S14	BU13AC
125	ADA0200U F07/10S17S14	BU20AE
150	ADA0300U F07/10 S22	BU30AD
200	ADA0500U F10 S22	BU50AF
250	ADA0850U F10/12 S27	BU85AG
300	ADA1200U F10/12 S27	B12UAG
350	ADA1750U F14 S36	B17UAK

Order data

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

Order codes

1 Type	Code
Butterfly valve, pneumatically operated (double-eccentric), Tugela	R471

2 DN	Code
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
Wafer design, face-to-face dimension FTF API609 table 3, EN 558 series 108, EN 558 series 109	W

4 Operating pressure	Code
10 bar	2
16 bar	3
20 bar	4
25 bar	5
40 bar	6

5 Connection type	Code
PN 10 / flange EN 1092, face-to-face dimension FTF EN 558 series 108	2
PN 16 / flange EN 1092, face-to-face dimension FTF EN 558 series 108	3
PN 25 / flange EN 1092, face-to-face dimension FTF EN 558 series 20	5
PN 40 / flange EN 1092, face-to-face dimension FTF EN 558 series 109	6
ANSI B16.5, Class 150, face-to-face dimension FTF EN 558 series 108	D
ANSI B16.5, Class 300, dimension FTF EN 558 series 109	M

6 Body material	Code
1.4408 / ASTM A351 / CF8M	4

6 Body material	Code
1.0619 / ASTM A216 WCB, CDP coated 20 µm, for non-European countries, 1.0619 is not a material for pressure equipment according to 2014/68/EU	5

7 Disc material	Code
1.4408 / ASTM A351 / CF8M	A

8 Shaft material	Code
1.4542, ASTM 564 630	6

9 Shut-off seal material	Code
TFM 1600 (FDA certification)	T

10 Liner fixing	Code
Loose liner	L

11 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3
Normally closed (NC), actuator mounted across the piping	Q
Double acting (DA), actuator mounted across the piping	T
Normally open (NO), actuator mounted across the piping	U

12 Actuator version	Code
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0130US14F05/07S17S14	AU13KC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0200US14F07/10S17S14	AU20KE
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0300US14F07/10 S22	AU30KD
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0500US14F07/10 S22	AU50KD
Actuator, pneumatic, double acting, clockwise rotation, ADA0080U F05/07S17S14	BU08AC
Actuator, pneumatic, double acting, clockwise rotation, ADA0130U F05/07S17S14	BU13AC
Actuator, pneumatic, double acting, clockwise rotation, ADA0200U F07/10S17S14	BU20AE

Order data

12 Actuator version	Code	12 Actuator version	Code
Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL0130US14F05/07S17S14	LU13KC	Actuator, pneumatic, double acting, clockwise rotation, ADA0500U F10 S22	BU50AF
Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL0200US14F07/10S17S14	LU20KE	Actuator, pneumatic, double acting, clockwise rotation, ADA0850U F10/12 S27	BU85AG
Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL0300US14F07/10 S22	LU30KD	Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL1200US14F10/12 S27	L12UKG
Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL0500US14F07/10 S22	LU50KD	Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL1750US14F14 S36	L17UUK
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR1200U S14 F10F12YS27A	A12UKG	Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL2100US14F14 S36	L21UUK
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR1750US14F14 S36	A17UUK	Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL2500US14F14 S36	L25UUK
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR2100US14F16 S46	A21UUK	Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL4000US14F16/25 S55	L40UUK
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR2500US14F16 S46	A25UUK	Actuator, pneumatic, single acting, anticlockwise rotation, spring opening, ASL0850US14F10/12 S27	LU85KG
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR4000US14F16/25 S55	A40UUK		
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0850US14F10/12 S27	AU85KG		
Actuator, pneumatic, double acting, clockwise rotation, ADA1200U F10/12 S27	B12UAG		
Actuator, pneumatic, double acting, clockwise rotation, ADA1750U F14 S36	B17UAK		
Actuator, pneumatic, double acting, clockwise rotation, ADA2100U F16 S46	B21UAL		
Actuator, pneumatic, double acting, clockwise rotation, ADA0300U F07/10 S22	BU30AD		

13 Type of design	Code
Without	
Valve free of oil and grease, media wetted area cleaned and packed in PE bag	0107
Thermal separation between actuator and valve body via mounting kit, mounting parts made from stainless steel	5227

14 Special version	Code
Without	
ATEX certification	X

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

Order example

Ordering option	Code	Description
1 Type	R471	Butterfly valve, pneumatically operated (double-eccentric), Tugela
2 DN	300	DN 300
3 Body configuration	W	Wafer design, face-to-face dimension FTF API609 table 3, EN 558 series 108, EN 558 series 109
4 Operating pressure	4	20 bar

Ordering option	Code	Description
5 Connection type	6	PN 40 / flange EN 1092, face-to-face dimension FTF EN 558 series 109
6 Body material	4	1.4408 / ASTM A351 / CF8M
7 Disc material	A	1.4408 / ASTM A351 / CF8M
8 Shaft material	6	1.4542, ASTM 564 630
9 Shut-off seal material	T	TFM 1600 (FDA certification)
10 Liner fixing	L	Loose liner
11 Control function	2	Normally open (NO)
12 Actuator version		
13 Type of design		Without
14 Special version		Without
15 CONEXO		Without

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.

Temperature

Media temperature: -60 – 230 °C

Ambient temperature: -20 – 70 °C

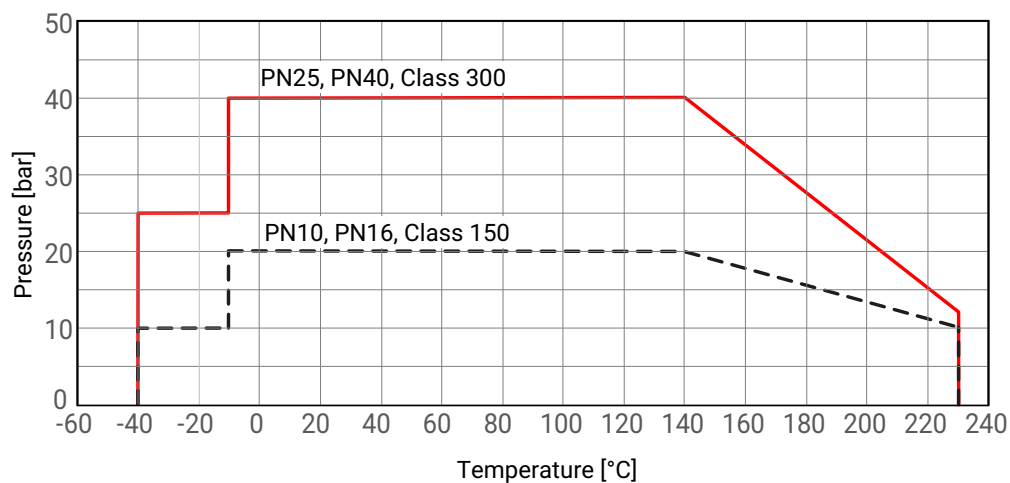
Storage temperature: 0 – 40 °C

Pressure

Operating pressure: Max. permissible pressure of working medium

PS [bar]	Media of fluid group 1				
	Category I		Category II		Category III
	Liquid	Gas	Liquid	Gas	Gas
10	DN 200 - 600	DN 50 - 100	DN 50 - 600	DN 125 - 350	DN 400 - 600
16	-	DN 50		DN 65 - 200	DN 250 - 600
20	-	DN 50		DN 65 - 150	DN 200 - 600
25	-	-		DN 50 - 125	DN 150 - 600
40	-	-		DN 50 - 100	DN 125 - 600

Pressure/temperature diagram:



Kv values:

DN	NPS	Connection type code ¹⁾	
		D, 2, 3	M, 5, 6
50	2"	45.0	45.0
65	2½"	78.0	78.0
80	3"	165.0	165.0
100	4"	400.0	400.0
125	5"	650.0	650.0
150	6"	1050.0	1050.0
200	8"	2200.0	1800.0
250	10"	3300.0	3150.0
300	12"	5100.0	4750.0
350	14"	5800.0	5200.0
400	16"	8000.0	6900.0
450	18"	10500.0	9300.0
500	20"	14000.0	11300.0
600	24"	21600.0	18500.0

Kv values in m³/h

1) **Connection type**

Code 2: PN 10 / flange EN 1092, face-to-face dimension FTF EN 558 series 108

Code 3: PN 16 / flange EN 1092, face-to-face dimension FTF EN 558 series 108

Code 5: PN 25 / flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code 6: PN 40 / flange EN 1092, face-to-face dimension FTF EN 558 series 109

Code D: ANSI B16.5, Class 150, face-to-face dimension FTF EN 558 series 108

Code M: ANSI B16.5, Class 300, dimension FTF EN 558 series 109

Product conformity**Machinery Directive:** 2006/42/EC**Pressure Equipment Directive:** 2014/68/EU**Food:** FDA**EAC:** The product is certified according to EAC.**Explosion protection:** 2014/34/EU (ATEX)**ATEX marking:****Assessment of the body**

Special function code X

Gas:  II -/2 G Ex h -/IIC T6...T3 -/Gb XDust:  II -/2D Ex h -/IIIC T150°C -/Db X**Actuator type ADA/ASR**Gas:  II 2 G Ex h IIC T6 GbDust:  II 2 D Ex h IIIC T60°C Db

Mechanical data**Torques:**

DN	NPS	Connection type code ¹⁾									
		D, 2, 3					M, 5, 6				
		Maximum pressure differential [bar]									
		0.0	6.0	10.0	16.0	20.0	0.0	20.0	25.0	40.0	50.0
50	2"	33.0	33.0	34.0	35.0	37.0	33.0	37.0	38.0	40.0	42.0
65	2½"	43.0	44.0	45.0	46.0	50.0	43.0	50.0	52.0	57.0	60.0
80	3"	54.0	56.0	57.0	58.0	64.0	54.0	64.0	67.0	74.0	79.0
100	4"	68.0	71.0	72.0	74.0	84.0	68.0	84.0	88.0	99.0	107.0
125	5"	90.0	94.0	96.0	100.0	115.0	90.0	115.0	121.0	139.0	151.0
150	6"	114.0	120.0	123.0	128.0	149.0	123.0	158.0	167.0	193.0	211.0
200	8"	181.0	192.0	200.0	211.0	258.0	202.0	280.0	299.0	358.0	397.0
250	10"	250.0	268.0	280.0	297.0	372.0	287.0	409.0	439.0	530.0	591.0
300	12"	357.0	387.0	408.0	438.0	567.0	393.0	603.0	655.0	813.0	918.0
350	14"	559.0	607.0	640.0	688.0	721.0	699.0	861.0	901.0	1023.0	1104.0
400	16"	950.0	1027.0	1079.0	1156.0	1207.0	1188.0	1445.0	1509.0	1701.0	1830.0
450	18"	1420.0	1534.0	1611.0	1725.0	1802.0	1629.0	2011.0	2107.0	2394.0	2585.0
500	20"	1967.0	2144.0	2262.0	2439.0	2557.0	2499.0	3089.0	3237.0	3679.0	3974.0
600	24"	3324.0	3579.0	3748.0	4003.0	4173.0	3579.0	4429.0	4641.0	5278.0	5703.0

Torques in Nm

1) **Connection type**

Code 2: PN 10 / flange EN 1092, face-to-face dimension FTF EN 558 series 108

Code 3: PN 16 / flange EN 1092, face-to-face dimension FTF EN 558 series 108

Code 5: PN 25 / flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code 6: PN 40 / flange EN 1092, face-to-face dimension FTF EN 558 series 109

Code D: ANSI B16.5, Class 150, face-to-face dimension FTF EN 558 series 108

Code M: ANSI B16.5, Class 300, dimension FTF EN 558 series 109

Weight:**Butterfly valve**

DN	NPS	Connection type code ¹⁾	
		D, 2, 3	M, 5, 6
50	2"	3.2	3.2
65	2½"	3.6	3.6
80	3"	4.9	4.9
100	4"	7.5	7.5
125	5"	8.0	8.0
150	6"	12.0	14.0
200	8"	18.0	23.0
250	10"	31.0	40.0
300	12"	47.0	66.0
350	14"	77.0	114.0
400	16"	96.0	146.0
450	18"	133.0	212.0
500	20"	156.0	261.0
600	24"	268.0	385.0

Weights in kg

1) Connection type

Code 2: PN 10 / flange EN 1092, face-to-face dimension FTF EN 558 series 108

Code 3: PN 16 / flange EN 1092, face-to-face dimension FTF EN 558 series 108

Code 5: PN 25 / flange EN 1092, face-to-face dimension FTF EN 558 series 20

Code 6: PN 40 / flange EN 1092, face-to-face dimension FTF EN 558 series 109

Code D: ANSI B16.5, Class 150, face-to-face dimension FTF EN 558 series 108

Code M: ANSI B16.5, Class 300, dimension FTF EN 558 series 109

Actuator type ADA/ASR

Type	ADA	ASR
0040U	2.1	2.3
0080U	3.0	3.7
0130U	3.8	4.8
0200U	5.6	7.3
0300U	8.5	10.8
0500U	11.2	15.4
0850U	16.9	22.2
1200U	25.8	34.3
1750U	32.5	46.0
2100U	49.0	68.0
2500U	69.6	99.9
4000U	129.4	182.9

Weights in kg

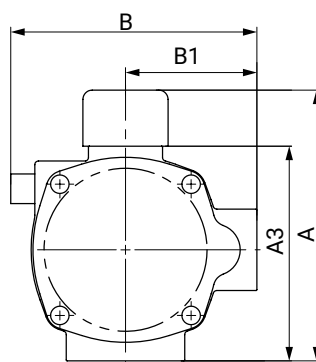
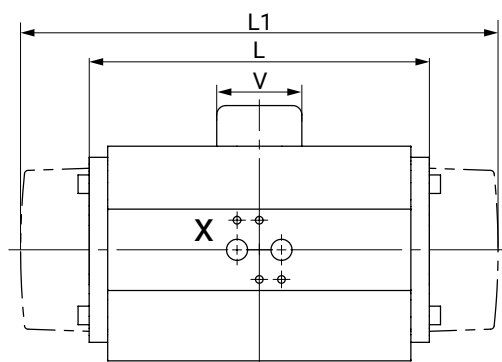
Flow direction:

Indicated by an arrow on the product

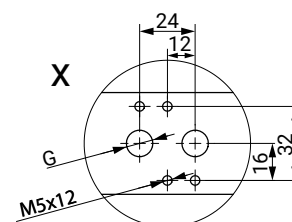
Dimensions

Actuator dimensions

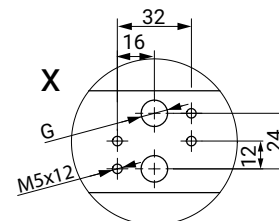
Type 00010 - 4000U



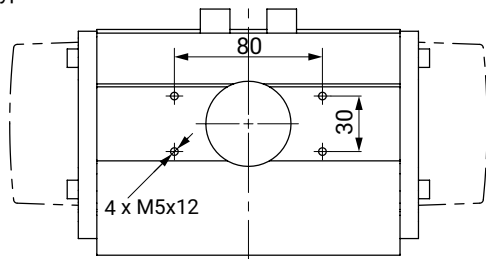
Type 00010 - 1750U



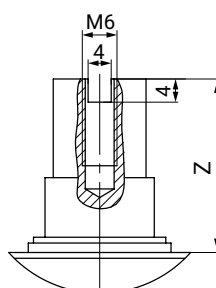
Type 02100 - 4000U



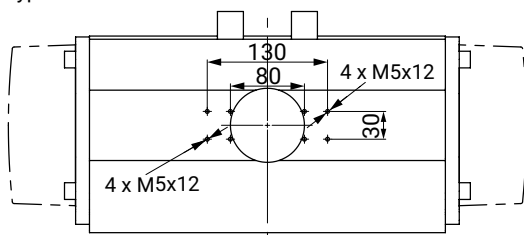
Type 00010 - 0850U



Type 00010 - 4000U



Type 01200 - 4000U



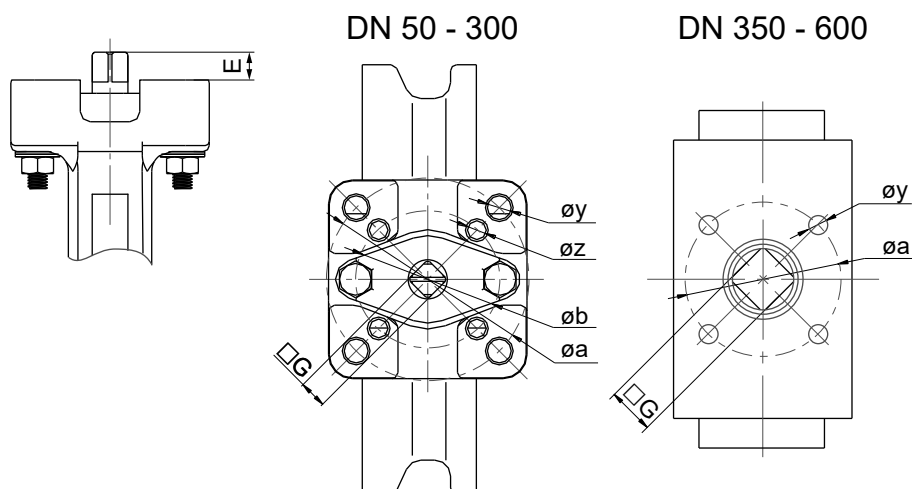
Typ	A	A3	B	B1	G	L	L1	V	Z
0040U	115.0	85.0	91.0	56.0	G1/4"	158.0	195.0	40.0	30.0
0080U	137.0	107.0	111.0	66.0	G1/4"	177.0	217.0	40.0	30.0
0130U	147.0	117.0	122.0	71.0	G1/4"	196.0	258.0	40.0	30.0
0200U	165.0	135.0	135.5	78.0	G1/4"	225.0	299.0	40.0	30.0
0300U	182.0	152.0	152.5	86.0	G1/4"	273.0	348.5	40.0	30.0
0500U	199.0	169.0	173.0	96.0	G1/4"	304.0	397.0	40.0	30.0
0850U	221.0	191.0	191.5	106.0	G1/4"	372.0	473.0	40.0	30.0
1200U	249.0	219.0	212.5	116.0	G1/4"	439.0	560.0	65.0	30.0
1750U	280.0	250.0	242.5	131.0	G1/4"	461.0	601.0	65.0	30.0
2100U	313.0	283.0	276.5	148.0	G1/4"	510.0	702.0	65.0	30.0
2500U	383.0	353.0	356.0	177.5	G1/4"	518.0	738.0	65.0	30.0
4000U	434.0	404.0	415.0	213.0	G1/4"	630.0	940.0	65.0	30.0

Dimensions in mm

Body dimensions

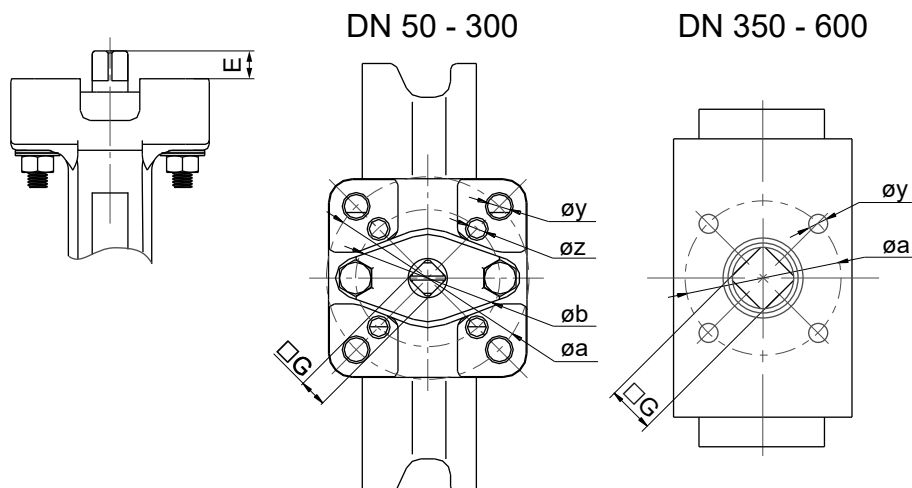
Actuator flange

Flange PN10 (code 2), PN16 (code 3), CLASS 150 (code D)



DN	NPS	ISO 5211	øa	øb	E	□G	øy	øz
50	2"	F05	-	50.0	22.0	11.0	-	4 x 7.0
65	2½"	F05/F07	70.0	50.0	15.0	11.0	4 x 7.0	4 x 7.0
80	3"	F05/F07	70.0	50.0	15.0	11.0	4 x 7.0	4 x 7.0
100	4"	F07	-	70.0	23.0	14.0	-	4 x 9.5
125	5"	F07	-	70.0	23.0	14.0	-	4 x 9.5
150	6"	F07/F10	102.0	70.0	32.5	14.0	4 x 12.0	4 x 9.5
200	8"	F10	-	102.0	34.5	17.0	-	4 x 12.0
250	10"	F10/F12	125.0	102.0	34.0	22.0	4 x 14.0	4 x 12.0
300	12"	F12/F14	140.0	125.0	29.5	27.0	4 x 18.0	4 x 14.0
350	14"	F14/F16	165.0	140.0	12.0	27.0	4 x 22.0	4 x 18.0
400	16"	F14/F16	165.0	140.0	12.0	36.0	4 x 22.0	4 x 18.0
450	18"	F14/F16	165.0	140.0	12.0	36.0	4 x 22.0	4 x 18.0
500	20"	F14/F16	165.0	140.0	12.0	46.0	4 x 22.0	4 x 18.0
600	24"	F14/F16	165.0	254.0	18.0	46.0	4 x 23.0	4 x 19.0

Dimensions in mm

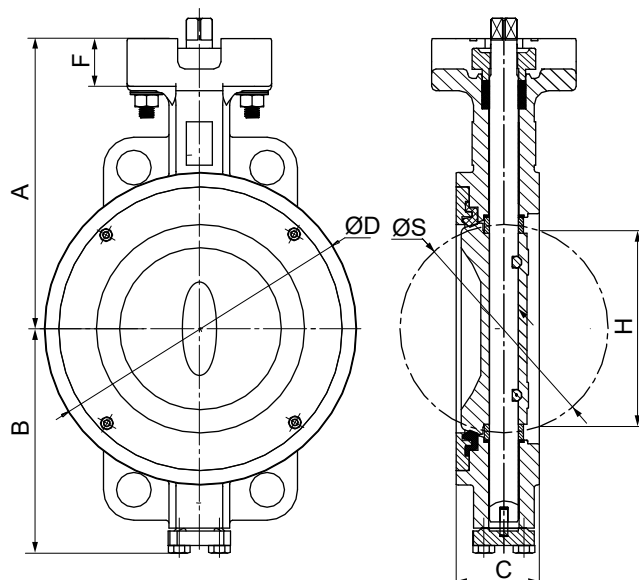
Flange PN25 (code 5), PN40 (code 6), CLASS 300 (code M)


DN	NPS	ISO 5211	øa	øb	E	G	øy	øz
50	2"	F05	-	50.0	22.0	11.0	4 x 7.0	-
65	2½"	F05/F07	70.0	50.0	15.0	11.0	4 x 9.5	4 x 7.0
80	3"	F05/F07	70.0	50.0	15.0	11.0	4 x 9.5	4 x 7.0
100	4"	F07	-	70.0	23.0	14.0	4 x 9.5	-
125	5"	F07	-	70.0	23.0	14.0	4 x 9.5	-
150	6"	F10	-	70.0	26.0	17.0	4 x 12.0	-
200	8"	F10/F12	125.0	102.0	34.5	22.0	4 x 14.0	4 x 12.0
250	10"	F12/F14	140.0	102.0	30.0	27.0	4 x 18.0	4 x 13.5
300	12"	F14	-	125.0	38.5	27.0	4 x 18.0	-
350	14"	F14/F16	165.0	140.0	12.0	36.0	4 x 22.0	4 x 18.0
400	16"	F14/F16	165.0	140.0	12.0	46.0	4 x 22.0	4 x 18.0
450	18"	F16/F25	254.0	140.0	18.0	46.0	4 x 19.0	4 x 22.0
500	20"	F16/F25	254.0	140.0	18.0	55.0	4 x 19.0	4 x 22.0
600	24"	F25	254.0	254.0	18.0	55.0	4 x 19.0	4 x 22.0

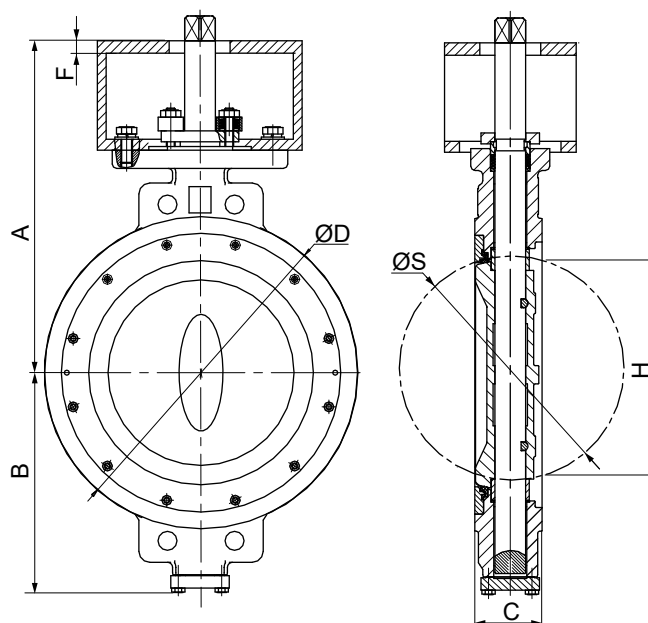
Dimensions in mm

Body**Flange PN10 (code 2), PN16 (code 3), CLASS 150 (code D)**

DN 50 - 300



DN 350 - 600

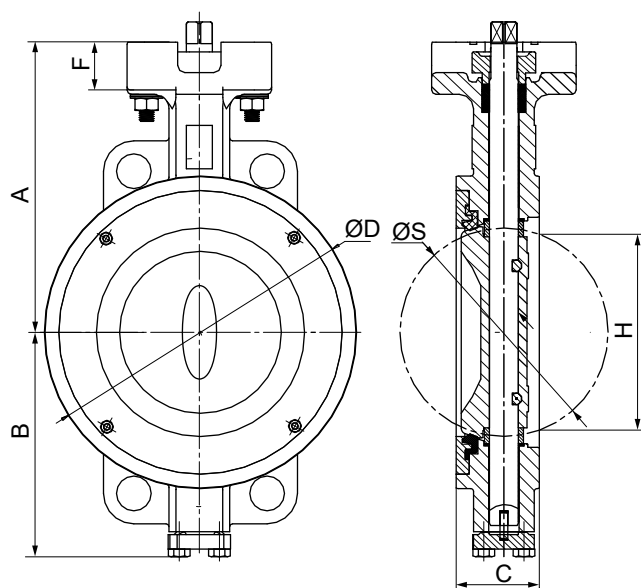


DN	NPS	A	B	øb	C	ØD	F	H	ØS
50	2"	124.0	96.4	50.0	50.0	100.0	-	15.0	38.6
65	2½"	122.0	101.0	50.0	51.5	105.0	-	49.0	57.0
80	3"	143.5	115.0	50.0	49.5	132.0	-	69.0	74.0
100	4"	160.0	128.0	70.0	56.5	158.0	-	91.0	96.0
125	5"	176.5	148.0	70.0	57.0	186.0	-	103.0	111.0
150	6"	198.0	157.0	70.0	57.5	216.0	33.0	140.0	144.0
200	8"	230.0	195.0	102.0	63.0	266.0	35.0	179.0	188.0
250	10"	273.0	236.0	102.0	71.0	324.0	34.0	231.0	237.0
300	12"	319.0	262.0	125.0	81.5	381.0	30.0	276.0	283.0
350	14"	455.0	303.0	140.0	92.0	429.0	17.0	300.0	307.0
400	16"	490.0	337.5	140.0	101.5	480.0	17.0	347.0	363.5
450	18"	502.0	353.5	140.0	114.0	533.0	17.0	394.0	414.0
500	20"	524.0	376.5	140.0	127.0	584.0	17.0	434.0	458.0
600	24"	625.0	453.5	165.0	154.0	692.0	22.0	524.0	550.0

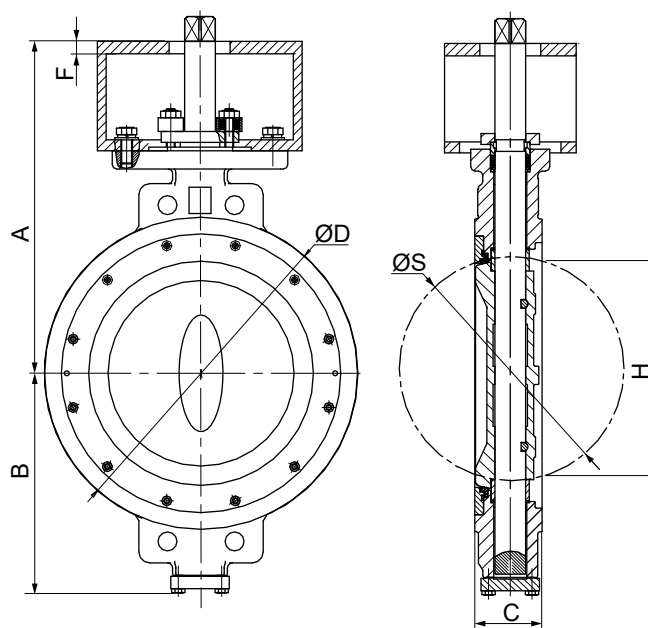
Dimensions in mm

Flange PN25 (code 5), PN40 (code 6), CLASS 300 (code M)

DN 50 - 300



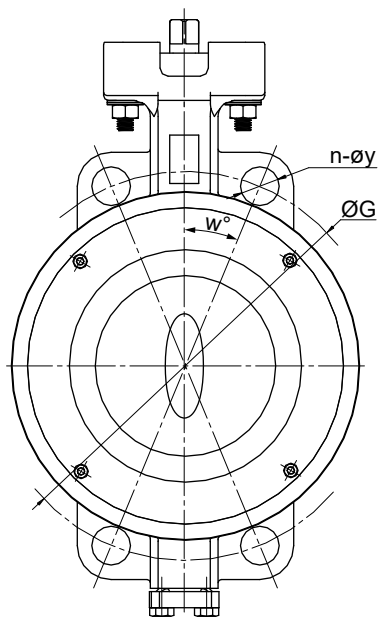
DN 350 - 600



DN	NPS	A	B	øb	C	ØD	F	H	ØS
50	2"	124.0	96.4	50.0	50.0	100.0	22.0	15.0	38.6
65	2½"	122.0	101.0	50.0	51.5	105.0	15.0	49.0	57.0
80	3"	143.5	115.0	50.0	49.5	132.0	18.0	69.0	74.0
100	4"	160.0	128.0	70.0	56.5	158.0	23.0	91.0	96.0
125	5"	176.5	148.0	70.0	57.0	186.0	23.0	103.0	111.0
150	6"	217.5	170.5	70.0	59.0	216.0	26.0	140.0	144.0
200	8"	250.0	206.5	102.0	73.0	266.0	35.0	179.0	188.0
250	10"	303.0	248.0	102.0	83.0	324.0	31.0	231.0	237.0
300	12"	335.5	291.0	125.0	92.0	381.0	39.0	276.0	283.0
350	14"	470.0	320.5	140.0	117.0	429.0	17.0	300.0	315.0
400	16"	500.5	365.5	140.0	133.5	480.0	17.0	347.0	363.5
450	18"	531.0	382.5	140.0	149.0	533.0	17.0	394.0	414.0
500	20"	593.0	426.5	140.0	162.0	584.0	22.0	434.0	456.5
600	24"	645.0	498.0	165.0	181.0	692.0	22.0	524.0	550.0

Dimensions in mm

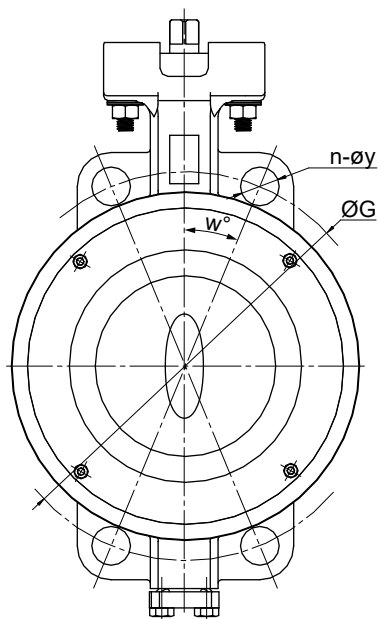
Connections



DN	NPS	PN10				PN16				PN25				PN40			
		n	ØG	w°	øy	n	ØG	w°	øy	n	ØG	w°	øy	n	ØG	w°	øy
50	2"	4	125.0	45.0	18.0	4	125.0	45.0	18.0	4	125.0	45.0	18.0	4	125.0	45.0	18.0
65	2½"	8	145.0	22.5	18.0	8	145.0	22.5	18.0	8	145.0	22.5	18.0	8	145.0	45.0	18.0
80	3"	8	160.0	22.5	19.0	8	160.0	22.5	19.0	8	160.0	22.5	19.0	8	160.0	22.5	19.0
100	4"	8	180.0	22.5	18.0	8	180.0	22.5	18.0	8	190.0	22.5	22.0	8	190.0	22.5	22.0
125	5"	8	210.0	22.5	18.0	8	210.0	22.5	18.0	8	220.0	22.5	26.0	8	220.0	22.5	26.0
150	6"	8	240.0	22.5	22.0	8	240.0	22.5	22.0	8	250.0	22.5	28.0	8	250.0	22.5	28.0
200	8"	8	295.0	22.5	24.0	12	295.0	15.0	24.0	12	310.0	15.0	28.0	12	320.0	15.0	30.0
250	10"	12	350.0	15.0	22.0	12	355.0	15.0	26.0	12	370.0	15.0	30.0	12	385.0	15.0	33.0
300	12"	12	400.0	15.0	22.0	12	410.0	15.0	26.0	16	430.0	11.25	M27	16	450.0	11.25	M30
350	14"	16	460.0	11.25	22.0	16	470.0	11.25	26.0	16	490.0	11.25	M30	16	510.0	11.25	M33
400	16"	16	515.0	11.25	28.0	16	525.0	11.25	30.0	16	550.0	11.25	M33	16	585.0	11.25	M36
450	18"	20	665.0	9.0	M24	20	585.0	9.0	M27	20	600.0	9.0	M33	20	610.0	9.0	M36
500	20"	20	620.0	9.0	M24	20	650.0	9.0	M30	20	660.0	9.0	M33	20	670.0	9.0	M39
600	24"	20	725.0	9.0	M27	20	770.0	9.0	M33	20	770.0	9.0	M36	20	795.0	9.0	M45

Dimensions in mm

n = number of bolt holes / bolts



DN	NPS	CLASS 150				CLASS 300			
		n	ØG	w°	øy	n	ØG	w°	øy
50	2"	4	120.5	45.0	19.0	8	127.0	22.5	18.0
65	2½"	4	139.5	45.0	18.0	8	149.0	22.5	22.0
80	3"	4	152.5	45.0	19.0	8	168.5	22.5	22.0
100	4"	8	190.5	22.5	19.0	8	200.0	22.5	22.0
125	5"	8	216.0	22.5	24.0	8	235.0	22.5	22.0
150	6"	8	241.0	22.5	24.0	12	270.0	15.0	24.0
200	8"	8	298.5	22.5	24.0	12	330.0	15.0	28.0
250	10"	12	362.0	15.0	26.0	16	387.5	11.25	1" x 8UN
300	12"	12	432.0	15.0	26.0	16	451.0	11.25	1⅝" x 8UN
350	14"	12	476.0	15.0	30.0	20	514.5	9.0	1⅝" x 8UN
400	16"	16	540.0	11.25	28.6	20	571.5	9.0	1¼" x 8UN
450	18"	16	578.0	11.25	1⅝" x 8UN	24	628.5	7.5	1¼" x 8UN
500	20"	20	635.0	9.0	1⅝" x 8UN	24	685.5	7.5	1¼" x 8UN
600	24"	20	749.5	9.0	1¼" x 8UN	24	812.8	7.5	1½" x 8UN

Dimensions in mm

n = number of bolt holes / bolts

Add-on components



GEMÜ LSF

Inductive dual sensor for quarter turn valves

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



GEMÜ LSC

Limit switch box for quarter turn actuators

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

Accessories



GEMÜ 2022 Dual throttle

Dual throttle

The GEMÜ 2022 throttle valves are available as throttle valve, throttle check valve and dual throttle check valve. In pneumatic actuators they are used to regulate the compressed air depending on the function for the supply or exhaust air. The operating time of the pneumatic actuator can be varied by reducing the compressed air. The throttle valves are used to adjust the compressed air, independent of the flow direction. When using throttle check valves, one direction of the supply or exhaust air is adjusted and the other direction remains unregulated. With the dual throttle check valves the compressed air of the supply and exhaust air can be adjusted independently of one another.



GEMÜ 8500

Electrically operated pilot solenoid valve

The GEMÜ 8500 servo assisted 3/2 or 5/2-way pilot solenoid valve is indirectly controlled. The body is made of aluminium. The plastic encapsulated coil is detachable. The piston valve has a soft elastomer seal.



GEMÜ 8500DRN

Throttle plate

Throttle plates can be used to continuously adjust the travel times of pneumatic quarter turn actuators in both the "OPEN" and "CLOSED" directions independently of one another. They are installed between the NAMUR valve and the quarter turn actuator.

GEMÜ 1751

Silencer

Damping of vent hole or suction noises, and coarse filtering of the suction air for pneumatic applications

GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:

www.gemu-group.com/conexo

Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO" (see order data).



GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG
Fritz-Müller-Straße 6-8, 74653 Ingelfingen-Criesbach, Germany
Phone +49 (0) 7940 1230 · info@gemue.de
www.gemu-group.com