

# **GEMÜ R481 Victoria**

## *Pneumatically operated butterfly valve*



### **Features**

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

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### **Description**

The GEMÜ R481 Victoria soft seated metal butterfly valve has a metal actuator and is pneumatically operated. The "Normally Closed", "Normally Open" and "Double Acting" control functions are available. Various pneumatic actuators are available. The butterfly valve is available in nominal sizes DN 50 to 300 and in standardized installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer and lug body versions.

### **Technical specifications**

- **Media temperature:** -10 to 150 °C
- **Ambient temperature:** -10 to 70 °C
- **Operating pressure :** 0 to 16 bar
- **Nominal sizes:** DN 50 to 300
- **Body configurations:** Lug | Wafer
- **Connection standards:** AS | ASME | BS | DIN | EN | ISO | JIS
- **Body materials:** EN-GJS-400-15 | EN-GJS-400-18-LT
- **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 | EN-GJS-400-15, SG iron material
- **Disc coating:** Epoxy | Halar® | Rilsan®
- **Conformities:** ACS | ATEX | Belgaqua | EAC | FDA | WRAS

Technical data depends on the respective configuration



## Product line



**GEMÜ R480**  
Victoria

**GEMÜ R481**  
Victoria

**GEMÜ R487**  
Victoria

**GEMÜ R488**  
Victoria

<b>Operation</b>				
With bare shaft	●	-	-	-
Manual	-	-	●	-
Pneumatic	-	●	-	-
Motorized	-	-	-	●
<b>Nominal sizes</b>	DN 50 to 300	DN 50 to 300	DN 50 to 300	DN 50 to 300
<b>Media temperature</b>	-10 to 150 °C	-10 to 150 °C	-10 to 150 °C	-10 to 150 °C
<b>Operating pressure</b>	0 to 16 bar	0 to 16 bar	0 to 16 bar	0 to 16 bar
<b>Connection types</b>				
Flange (lug)	●	●	●	●
Flange (wafer)	●	●	●	●
<b>Conformities</b>				
ACS	●	●	●	●
ATEX	●	●	●	●
Belgaqua	●	●	●	●
EAC	●	●	●	●
FDA	●	●	●	●
WRAS	●	●	●	●

## Comparison of actuator applications



GEMÜ ADA/ASR

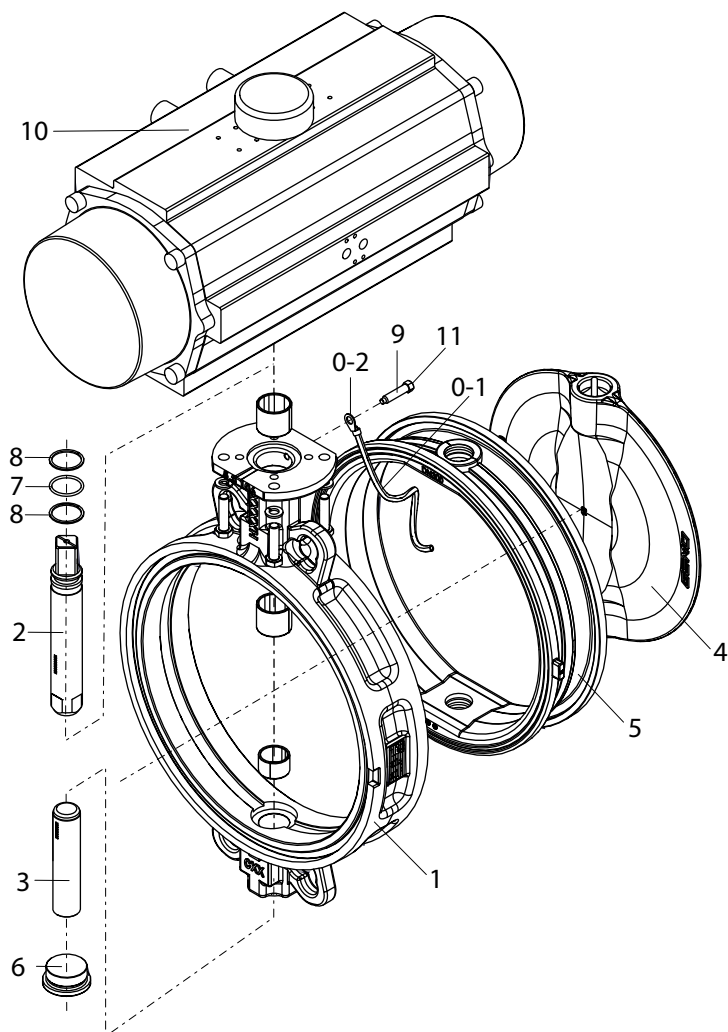
GEMÜ DR/SC

GEMÜ GDR/GSR

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

## 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	Pneumatic actuator	Aluminium
11	CONEXO RFID chip (see "GEMÜ CONEXO", page 28)	

## Actuator assignment

Design: Liquids +20 °C and control pressure 6 bar

### Operating pressure 3 bar (code 0)

#### GEMÜ type ADA/ASR

DN	Double acting ADA	Code	Single acting ASR	Code
200	ADA0200U F07F10 Y S17/S14A	BU20AE0	ASR0500U S14 F10 Y S22A	AU50KF0
250	ADA0200U F07F10 Y S17/S14A	BU20AE0	ASR0500U S14 F10 Y S22A	AU50KF0
300	ADA0300U F07F10 Y S22A	BU30AD0	ASR0850U S14 F10F12 Y S27A	AU85KG0

#### GEMÜ type DR/SC

DN	Double acting DR	Code	Single acting SC	Code
200	DR0150U F07F10NS22A	DU15AD0	SC0450U 6 F10F12NS27A	SU45KG0
250	DR0150U F07F10NS22A	DU15AD0	SC0450U 6 F10F12NS27A	SU45KG0
300	DR0220U F07F10NS22A	DU22AD0	SC0600U 6 F10F12NS27A	SU60KG0

#### GEMÜ type GDR/GSR

DN	Double acting GDR	Code	Single acting GSR	Code
200	GDR0100 F07/10 S17A	HR10AE0	GSR0140 SC5F10/12 S22A	GR14SA0
250	GDR0100 F07/10 S17A	HR10AE0	GSR0160 SC5F10/12 S22A	GR16SA0
300	GDR0115 F07/10 S17A	HR11AE0	GSR0180 S14F10/14 S27A	GR18KB0

### Operating pressure 10 bar (code 2)

#### GEMÜ type ADA/ASR

DN	Double acting ADA	Code	Single acting ASR	Code
250	ADA0500U F10 Y S22A	BU50AF0	ASR1200U S14 F10F14 Y S36A	A12UKH0
300	ADA0500U F10 Y S22A	BU50AF0	ASR1200U S14 F10F14 Y S36A	A12UKH0

#### GEMÜ type DR/SC

DN	Double acting DR	Code	Single acting SC	Code
250	DR0300U F07F10NS22A	DU30AD0	SC0900U 6 F10F12NS27A	SU90KG0
300	DR0300U F07F10NS22A	DU30AD0	SC0900U 6 F10F12NS27A	SU90KG0

#### GEMÜ type GDR/GSR

DN	Double acting GDR	Code	Single acting GSR	Code
250	GDR0125 F07/10 S22A	HR12AD0	GSR0180 S14F10/14 S27A	GR18KB
300	GDR0125 F07/10 S22A	HR14AA 0	GSR0180 S14F10/14 S27A	GR18KB

**Operating pressure 16 bar (code 3)****GEMÜ type ADA/ASR**

DN	Double acting ADA	Code	Single acting ASR	Code
50	ADA0020U F05 Y S14/S11A	BU02AB0	ASR0020U S08 F03F05 Y S09A	AU02FN0
65	ADA0020U F05 Y S14/S11A	BU02AB0	ASR0040U S14 F05 Y S14/S11A	AU04KB0
80	ADA0040U F05 Y S14/S11A	BU04AB0	ASR0080U S14 F05F07 Y S17/S14A	AU08KC0
100	ADA0080U F05F07 Y S17/S14A	BU08AC0	ASR0200U S14 F07F10 Y S17/S14A	AU20KE0
125	ADA0080U F05F07 Y S17/S14A	BU08AC0	ASR0200U S14 F07F10 Y S17/S14A	AU20KE0
150	ADA0130U F05F07 Y S17/S14A	BU13AC0	ASR0300U S14 F07F10 Y S22A	AU30KD0
200	ADA0300U F07F10 Y S22A	BU30AD0	ASR0850U S14 F10F12 Y S27A	AU85KG0

**GEMÜ type DR/SC**

DN	Double acting DR	Code	Single acting SC	Code
50	DR0015U F03F05NS11A	DU01AW0	SC0015U 8 F03F05NS11A	SU01KW0
65	DR0015U F03F05NS11A	DU01AW0	SC0060U 6 F05F07NS14A	SU06KP0
80	DR0030U F05F07NS14A	DU03AP0	SC0100U 6 F05F07NS17A	SU10KC0
100	DR0060U F05F07NS14A	DU06AP0	SC0150U 6 F05F07NS17A	SU15KC0
125	DR0060U F05F07NS14A	DU06AP0	SC0220U 6 F07F10NS22A	SU22KD0
150	DR0150U F07F10NS22A	DU15AD0	SC0300U 6 F07F10NS22A	SU30KD0
200	DR0220U F07F10NS22A	DU22AD0	SC0600U 6 F10F12NS27A	SU60KG0

**GEMÜ type GDR/GSR**

DN	Double acting GDR	Code	Single acting GSR	Code
25	GDR0050 F03/05 S11A	HR05AW0	GSR0050 SC5F03/05 S11A	GR05SW0
32	GDR0050 F03/05 S11A	HR05AW0	GSR0065 SC5F05/07 S14A	GR06SP0
40	GDR0050 F03/05 S11A	HR05AW0	GSR0065 SC5F05/07 S14A	GR06SP0
50	GDR0050 F03/05 S11A	HR05AW0	GSR0065 SC5F05/07 S14A	GR06SP0
65	GDR0050 F03/05 S11A	HR05AW0	GSR0075 SC5F05/07 S14A	GR07SP0
80	GDR0065 F05/07 S14A	HR06AP0	GSR0085 SC5F05/07 S14A	GR08SP0
100	GDR0075 F05/07 S14A	HR07AP0	GSR0115 SC5F07/10 S17A	GR11SE0
125	GDR0085 F05/07 S17A	HR08AC0	GSR0125 SC5F07/10 S17A	GR12SE0
150	GDR0100 F07/10 S17A	HR10AE0	GSR0140 SC5F10/12 S22A	GR14SA0
200	GDR0125 F07/10 S22A	HR12AD0	GSR0180 S14F10/14 S27A	GR18KB0

## Product conformities

	Approved designs			Special function (code)
	Disc material	Liner material	Liner fixing	
<b>Drinking water</b>				
ACS	CF8M, 1.4408, (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D) EN-GJS-400-15, GGG40 Rilsan® PA11 coated (code R)	EPDM (code W)	All versions	A
WRAS	CF8M, 1.4408 (code A) CF8M, 1.4408 polished (code B)	EPDM (code W)	All versions	W
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
<b>Food</b>				
FDA	CF8M, 1.4408, (code A) CF8M, 1.4408 polished (code B) Super Duplex, 1.4469 (code D)	EPDM, white (code M), EPDM HT (code Z)	Loose (code L)	no order code required
<b>Explosion protection</b>				
ATEX internal and external	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) EPDM (code W) EPDM-HT (code Z)	All versions	Y
ATEX external	All materials	All materials	All versions	X

Other features are not relevant for the product conformities

## Order data

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

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

## Order codes

1 Type	Code
Butterfly valve, pneumatically operated	R481

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

3 Body configuration	Code
Flange-mounted design (lug), face-to-face dimension FTF EN 558 series 20	L
Intermediate flange design (wafer), 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
ANSI B16.5, Class 150, face-to-face dimension FTF EN 558 series 20	D
Flange BS 10 Table "D", face-to-face dimension FTF EN 558, series 20	H
Flange BS 10 Table "E", face-to-face dimension FTF EN 558, series 20	S
Flange AS 2129 Table "D", face-to-face dimension FTF EN 558, series 20	T
Flange AS 2129 Table "E", face-to-face dimension FTF EN 558, series 20	U

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

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

7 Disc material	Code
<b>1.4408</b>	<b>A</b>
1.4408, polished, roughness Ra 0.6-3.2, except disc marking	B
<b>1.4408, Halar coated</b>	<b>C</b>
<b>1.4469, super duplex</b>	<b>D</b>
<b>EN-GJS-400-15 (GGG-40), epoxy coated</b>	<b>E</b>
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	1

9 Shut-off seal material	Code
<b>EPDM</b>	<b>E</b>
SBR-AB/P (abrasion resistant)	F
NBR (DVGW gas certification)	J
EPDM (FDA certification), white	M
<b>NBR</b>	<b>N</b>
<b>FPM (FKM)</b>	<b>V</b>
<b>EPDM (drinking water compliant)</b>	<b>W</b>
<b>EPDM-HT (FDA certification)</b>	<b>Z</b>
ECO	C
CSM	H
Silicone (MVQ-S, steam)	R
Silicone (MVQ)	S
NBR (FDA certification), white	U

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

11 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



11 Continuation of Type of design	Code
Butterfly valve body powder coated, RAL 5015, sky blue	1892
Thermal separation between actuator and valve body via dew point barrier	5226

12 Special version	Code
Without	
ACS certification	A
BELGAQUA certification	B
WRAS certification	W
ATEX certification	X
ATEX certification (in the piping system)	Y

13 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3

14 Actuator version	Code
Actuator version (see "Actuator assignment", page 5)	

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

### Order example - standard version

Order option	Code	Description
1 Type	R481	Butterfly valve, pneumatically operated
2 DN	80	DN 80
3 Body configuration	W	Intermediate flange design (wafer), 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
8 Shaft material	1	1.4021
9 Shut-off seal material	E	EPDM
10 Liner fixing	L	Loose liner
11 Type of design		Without
12 Special version		Without
13 Control function	1	Normally closed (NC)
14 Actuator version	SU10KC	Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0100U 6F05/07S17D11
15 CONEXO		without

## Technical data

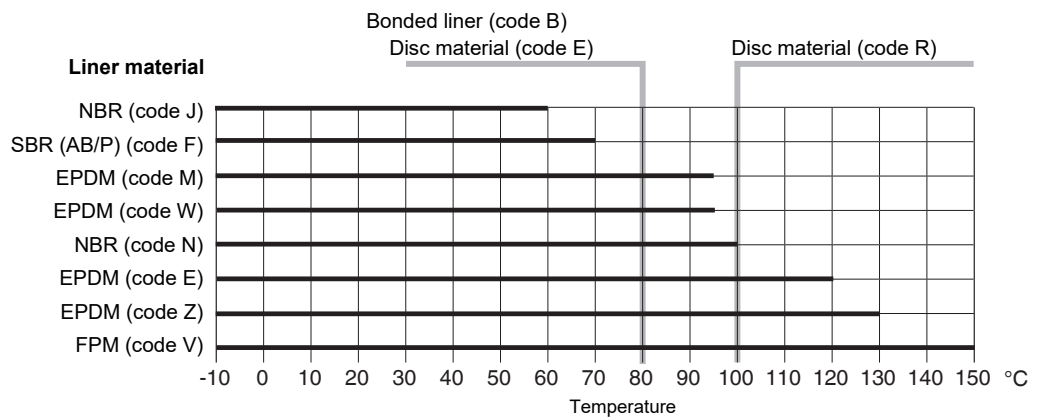
### Medium

**Working medium:** Gaseous and liquid media which have no negative impact on the physical and chemical properties of the disc and seat material.

### Temperature

**Ambient temperature:** -10 – 70 °C

**Media temperature:** -10 – 150 °C  
Depending on the liner and disc material or the type of liner fixing



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

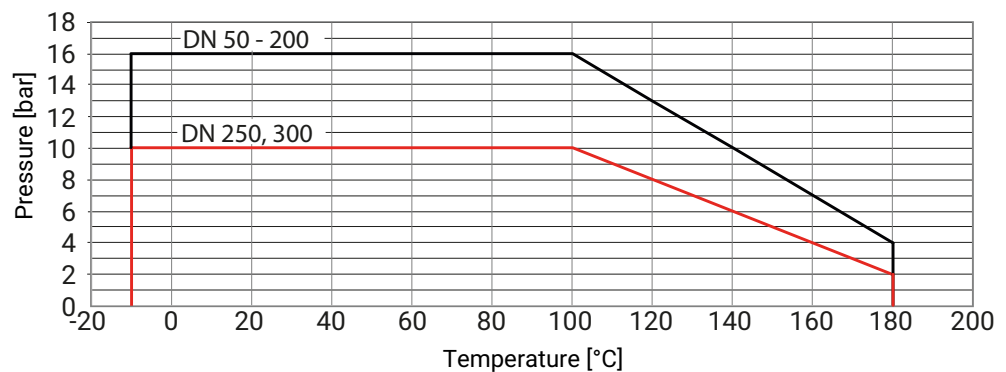
**Storage temperature:** -20 – 40 °C

### Pressure

**Control pressure:** 6 to 8 bar

**Operating pressure:** 0 to 16 bar  
Use (installation) as end-of-line valve  
DN 50 – 200: 10 bar  
DN 250, 300: 6 bar

**Pressure/temperature diagram:**



**Pressure rating:** PN 6  
PN 10  
PN 16

**Kv values:**

DN	Kv values at opening angle							
	20°	30°	40°	50°	60°	70°	80°	90°
<b>50</b>	3.0	9.0	20.0	33.0	65.0	110.0	124.0	125.0
<b>65</b>	9.0	15.0	30.0	64.0	118.0	195.0	214.0	222.0
<b>80</b>	19.0	40.0	66.0	117.0	196.0	321.0	353.0	363.0
<b>100</b>	29.0	75.0	137.0	213.0	316.0	487.0	584.0	618.0
<b>125</b>	48.0	100.0	185.0	315.0	550.0	895.0	1060.0	1120.0
<b>150</b>	60.0	150.0	281.0	450.0	789.0	1280.0	1630.0	1730.0
<b>200</b>	110.0	281.0	472.0	759.0	1480.0	2880.0	3710.0	3900.0
<b>250</b>	200.0	444.0	738.0	1190.0	2110.0	3880.0	5180.0	5410.0
<b>300</b>	250.0	682.0	1060.0	1670.0	3120.0	6360.0	8620.0	8930.0

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

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

## Product conformity



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



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

**Food:** FDA

**Drinking water:** ACS  
WRAS  
Belgaqua

**Explosion protection:** ATEX (2014/34/EU), order code Special version X and 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 T6...T3 Gb X  
Dust:  II 2D Ex h /IIIC T150°C Db X

## **Mechanical data**

### **Torques:**

DN	PS		
	3 bar	10 bar	16 bar
<b>50</b>	-	-	9.0
<b>65</b>	-	-	15.0
<b>80</b>	-	-	25.0
<b>100</b>	-	-	40.0
<b>125</b>	-	-	60.0
<b>150</b>	-	-	100.0
<b>200</b>	145.0	-	242.0
<b>250</b>	152.0	310.0	-
<b>300</b>	245.0	330.0	-

Torques in Nm

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

Butterfly valves with bonded liner: the torques must be multiplied by the factor 1.3

**Weight:**

**Butterfly valve**

DN	Wafer	Lug
50	1.70	2.22
65	2.47	2.91
80	3.18	4.40
100	4.36	6.20
125	5.87	8.10
150	7.73	10.13
200	13.9	18.35
250	19.64	28.74
300	27.26	36.75

Weights in kg

**Actuator type ADA/ASR**

Type	ADA	ASR
0020U	1.4	1.5
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

Weights in kg

**Actuator DR/SC**

Type	DR	SC
0015U	1.0	1.1
0030U	1.6	1.7
0060U	2.7	3.1
0100U	3.7	4.3
0150U	5.2	6.1
0220U	8.0	9.3
0300U	9.8	12.0
0450U	-	17.0
0600U	-	22.0
0900U	-	33.0

Weights in kg

**Weight:**

**Actuator type GDR/GSR**

Type	GDR	GSR
<b>0050</b>	1.1	1.2
<b>0065</b>	1.5	1.8
<b>0075</b>	2.6	3.2
<b>0085</b>	3.4	4.3
<b>0100</b>	5.1	6.6
<b>0115</b>	8	10.6
<b>0125</b>	10	13.4
<b>0140</b>	11	17.2
<b>0160</b>	19.5	24.4
<b>0180</b>	26	37.5

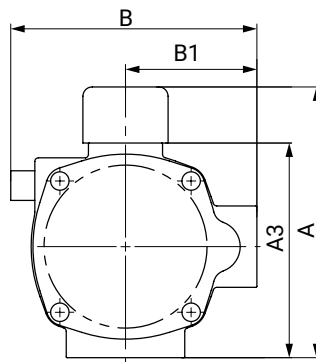
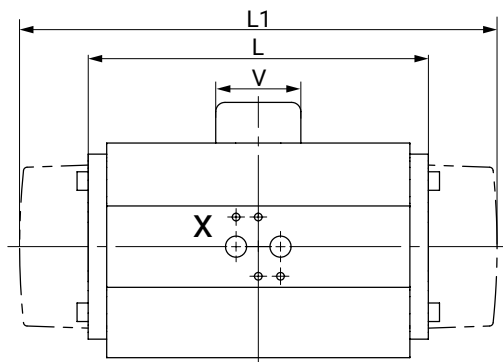
Weights in kg

## Dimensions

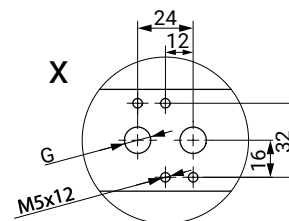
### Actuator dimensions

#### ADA/ASR

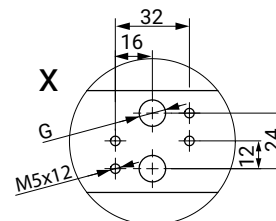
Type 00010 - 4000U



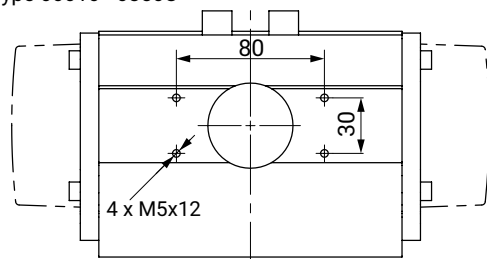
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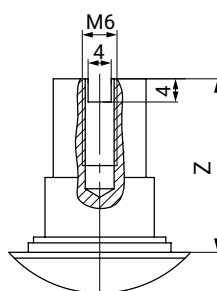
Type 02100 - 4000U



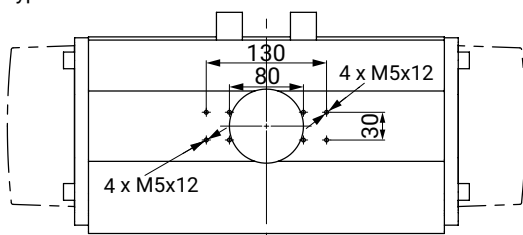
Type 00010 - 0850U



Type 00010 - 4000U



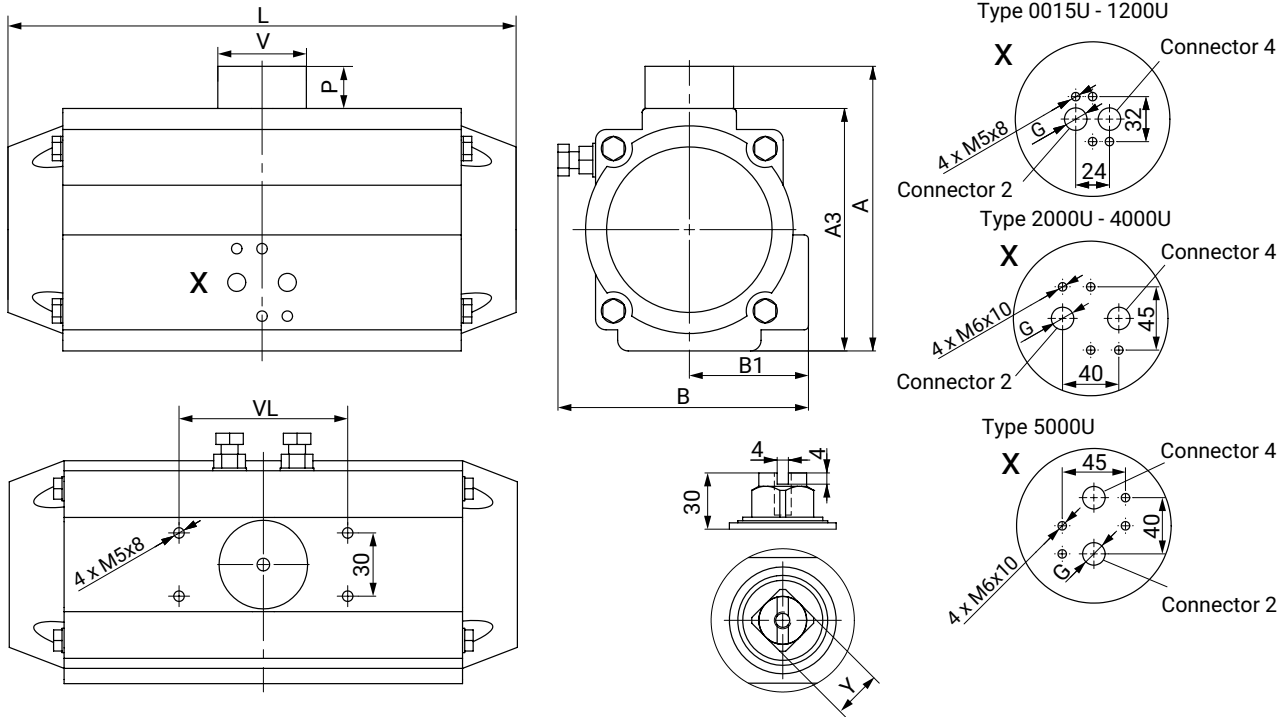
Type 01200 - 4000U



Type	A	A3	B	B1	V	G	Z	L	L1
0020U	96.0	66.0	76.0	48.0	40.0	G1/4"	30.0	145.0	163.0
0040U	115.0	85.0	91.0	56.0	40.0	G1/4"	30.0	158.0	195.0
0200U	165.0	135.0	135.5	78.0	40.0	G1/4"	30.0	225.0	299.0
0500U	199.0	169.0	173.0	96.0	40.0	G1/4"	30.0	304.0	397.0
0850U	221.0	191.0	191.5	106.0	40.0	G1/4"	30.0	372.0	473.0
1200U	249.0	219.0	212.5	116.0	65.0	G1/4"	30.0	439.0	560.0

Dimensions in mm

**DR/SC**



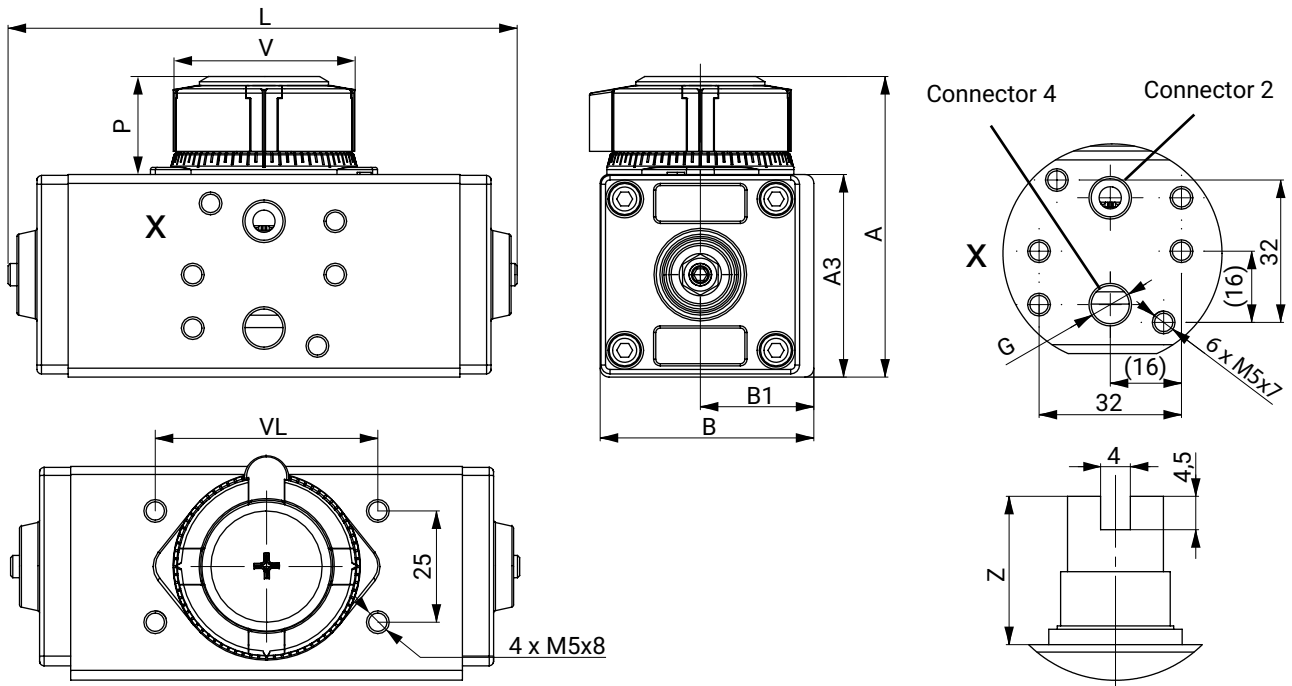
Type	A	A3	B	B1	V	G	P	L	Y
0015U	89.0	69.0	72.0	43.0	42.0	G1/8"	20.0	136.0	11.0
0030U	105.0	85.0	84.5	48.5	42.0	G1/8"	20.0	153.5	11.0
0060U	122.0	102.0	93.0	50.5	42.0	G1/8"	20.0	203.5	17.0
0100U	135.0	115.0	106.0	56.5	42.0	G1/8"	20.0	241.0	17.0
0150U	147.0	127.0	118.5	63.0	42.0	G1/4"	20.0	259.0	17.0
0220U	175.0	145.0	136.0	72.0	58.0	G1/4"	30.0	304.0	27.0
0300U	187.0	157.0	146.5	77.0	58.0	G1/4"	30.0	333.0	27.0
0450U	207.0	177.0	166.0	86.0	67.5	G1/4"	30.0	394.5	27.0
0600U	226.0	196.0	181.0	93.0	67.5	G1/4"	30.0	422.5	27.0
0900U	270.5	220.5	200.0	101.0	80.0	G1/4"	50.0	474.0	36.0

Dimensions in mm



**GDR/GSR**

**Type G0032**

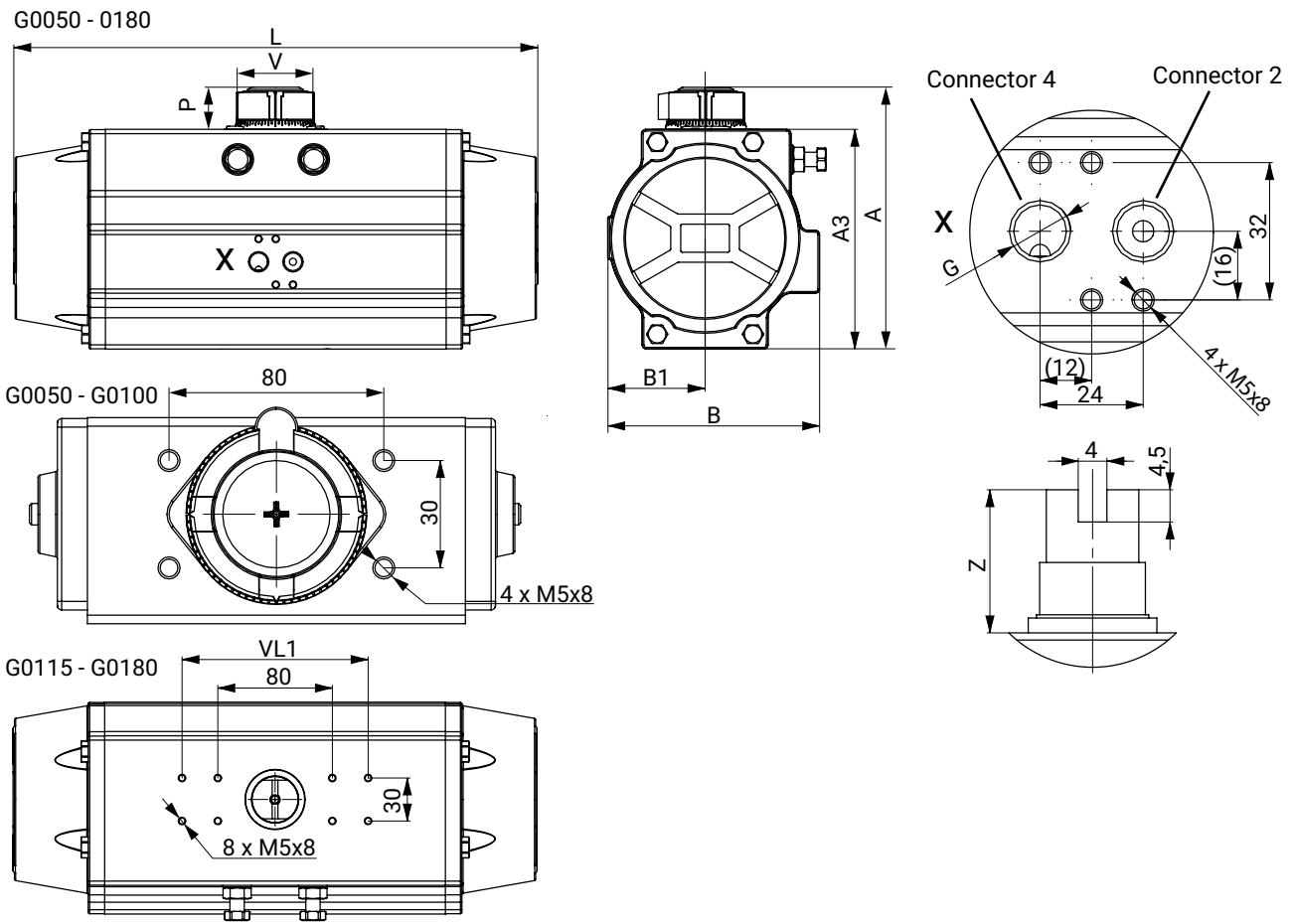


Type	A	A3	B	B1	V	G	P	VL	Z	L
<b>G0032</b>	67.5	45.5	49.0	26.5	40.0	G1/8"	22.0	50.0	20.0	115.0

Dimensions in mm

Dimensions

Type G0050 – G0180

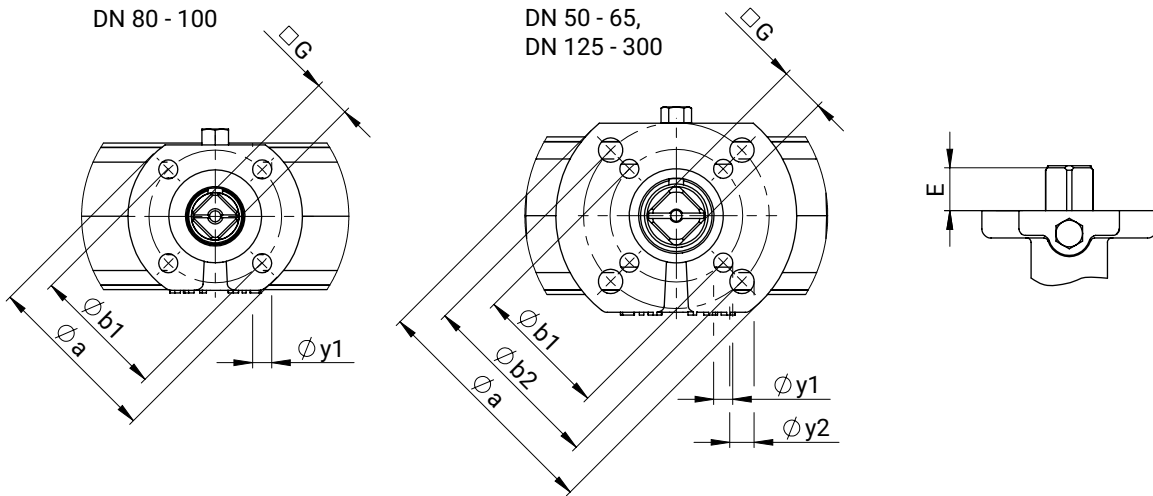


Type	A	A3	B	B1	V	G	P	VL	Z	L	VL1
G0032	67.5	45.5	49.0	26.5	40.0	G1/8"	22.0	50.0	20.0	115.0	-
G0050	92.0	70.0	71.0	30.0	40.0	G1/8"	22.0	80.0	20.0	141.0	-
G0065	102.5	80.5	80.5	35.5	40.0	G1/8"	22.0	80.0	20.0	162.0	-
G0075	119.0	97.0	94.5	42.0	40.0	G1/8"	22.0	80.0	20.0	208.0	-
G0085	130.5	108.5	106.0	47.5	40.0	G1/8"	22.0	80.0	20.0	237.0	-
G0100	143.5	121.5	123.0	55.0	40.0	G1/8"	22.0	80.0	20.0	271.5	-
G0115	174.0	142.0	137.0	64.0	65.0	G1/4"	32.0	80.0	30.0	337.0	130.0
G0125	185.5	153.5	148.0	68.0	65.0	G1/4"	32.0	80.0	30.0	366.0	130.0
G0140	207.9	175.9	164.0	76.5	65.0	G1/4"	32.0	80.0	30.0	428.5	130.0
G0160	225.0	193.0	188.0	88.0	65.0	G1/4"	32.0	80.0	30.0	512.0	130.0
G0180	251.0	219.0	212.5	96.5	65.0	G1/4"	32.0	80.0	30.0	573.0	130.0

Dimensions in mm

**Body dimensions**

**Actuator flange**

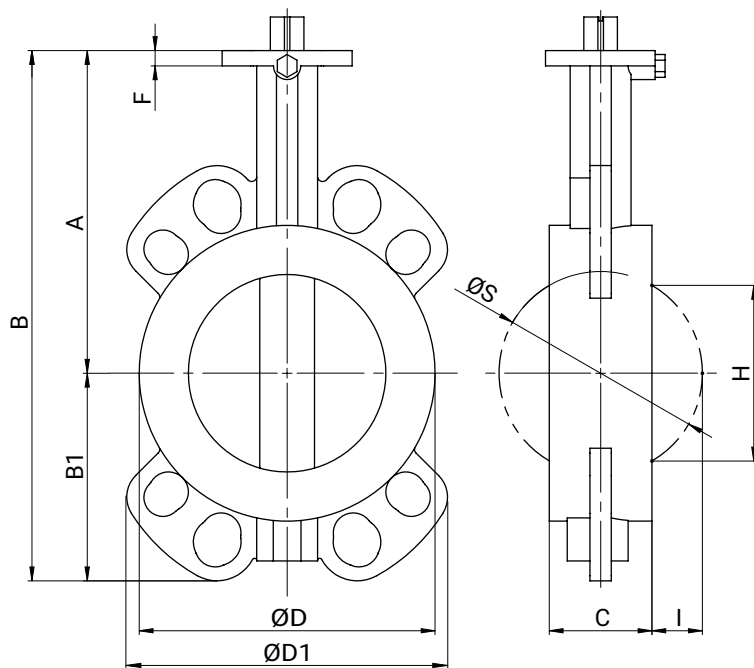


DN	$\square G$	$\phi a$	ISO 5211	$\phi b1$	$\phi y1$	$\phi b2$	$\phi y2$	E
50	9.0	65.0	F03   F05	36.0	6.0	50.0	7.0	17.0
65	11.0	65.0	F03   F05	36.0	6.0	50.0	7.0	17.0
80	11.0	65.0	F05	36.0	7.0	-	-	17.0
100	14.0	65.0	F05	50.0	7.0	-	-	17.0
125	17.0	90.0	F05   F07	50.0	7.0	70.0	9.0	23.0
150	17.0	90.0	F05   F07	50.0	7.0	70.0	9.0	23.0
200	22.0	125.0	F07   F10	70.0	9.0	102.0	11.0	34.0
250	22.0	125.0	F07   F10	70.0	9.0	102.0	11.0	34.0
300	22.0	125.0	F07   F10	70.0	9.0	102.0	11.0	34.0

Dimensions in mm

**Body**

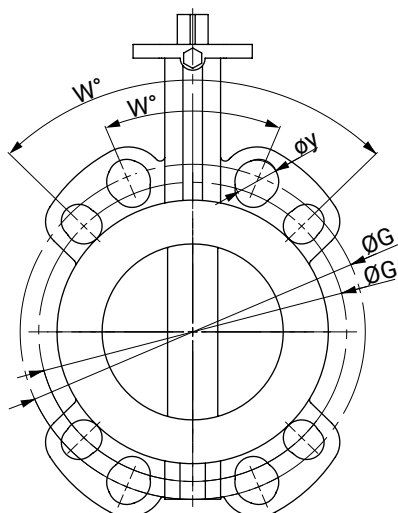
**Wafer body configuration**



DN	PS	A	B	B1	C	ØD	ØD1	F	H	ØS	I
50	16	120.0	182.0	62.0	43.0	90.0	118.0	7.0	29.0	52.0	5.0
65	16	137.0	218.0	81.0	46.0	108.0	133.0	7.0	48.0	67.0	10.0
80	16	145.0	231.0	87.0	46.0	130.0	141.0	7.0	68.0	82.0	18.0
100	16	166.0	271.0	105.0	52.0	150.0	163.0	7.0	88.0	102.0	25.0
125	16	187.0	304.0	117.0	56.0	175.0	120.0	9.0	114.0	127.0	35.0
150	16	200.0	332.0	132.0	56.0	207.0	129.0	9.0	141.0	152.0	48.0
200	16	240.0	413.0	173.0	60.0	263.0	157.0	11.0	193.0	202.0	71.0
250	10	265.0	466.0	201.0	68.0	317.0	185.0	11.0	242.0	252.0	92.0
300	10	290.0	531.0	241.0	78.0	366.0	164.0	11.0	291.0	302.0	112.0

Dimensions in mm

## Connections



## Connection EN1092, EN1759

DN	INCH	Connection (code)															
		EN1092-1 PN6 (code 1)				EN1092-1 PN10 (code 2)				EN1092-1 PN16 (code 3)				EN1759/CL150 (code D)			
DIN	ASME	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
50	2"	90	4	110.0	14.0	90	4	125.0	18.0	90	4	125.0	18.0	90	4	120.6	19.0
65	2½"	90	4	130.0	14.0	90	4	145.0	18.0	90	4	145.0	18.0	90	4	139.7	19.0
80	3"	90	4	150.0	18.0	45	8	160.0	18.0	45	8	160.0	18.0	90	4	152.4	19.0
100	4"	90	4	170.0	18.0	45	8	180.0	18.0	45	8	180.0	18.0	45	8	190.5	19.0
125	5"	45	8	200.0	18.0	45	8	210.0	18.0	45	8	210.0	18.0	45	8	215.9	22.2
150	6"	45	8	225.0	18.0	45	8	240.0	22.0	45	8	240.0	22.0	45	8	241.3	22.2
200	8"	45	8	280.0	18.0	45	8	295.0	22.0	30	12	295.0	22.0	45	8	298.5	22.2
250	10"	30	12	335.0	18.0	30	12	350.0	22.0	30	12	355.0	26.0	30	12	362.0	25.4
300	12"	30	12	395.0	22.0	30	12	400.0	22.0	30	12	410.0	26.0	30	12	431.8	25.4

Dimensions in mm

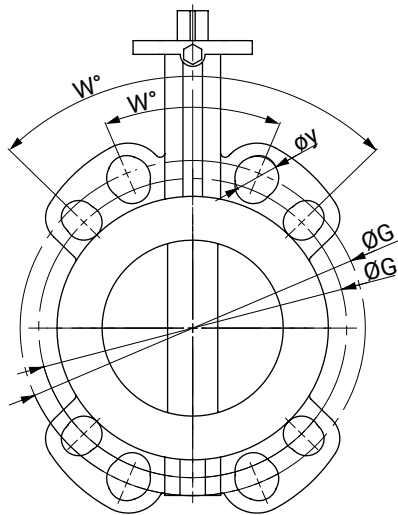
n = number of bolts

## 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	ASME	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
50	2"	90	4	114.0	18.0	90	4	114.0	18.0	90	4	114.3	17.5	90	4	114.3	17.5
65	2½"	90	4	127.0	18.0	90	4	127.0	18.0	90	4	127.0	17.5	90	4	127.0	17.5
80	3"	90	4	146.0	18.0	90	4	146.0	18.0	90	4	146.1	17.5	90	4	146.1	17.5
100	4"	90	4	178.0	18.0	45	8	178.0	18.0	90	4	177.8	17.5	45	8	177.8	17.5
125	5"	45	8	210.0	18.0	45	8	210.0	18.0	45	8	209.6	17.5	45	8	209.6	17.5
150	6"	45	8	235.0	18.0	45	8	235.0	22.0	45	8	235.0	17.5	45	8	235.0	20.6
200	8"	45	8	292.0	18.0	45	8	292.0	22.0	45	8	292.1	17.5	45	8	292.1	20.6
250	10"	45	8	356.0	22.0	30	12	356.0	22.0	45	8	355.6	22.2	30	12	355.6	22.2
300	12"	30	12	406.0	22.0	30	12	406.0	26.0	30	12	406.4	22.2	30	12	406.4	25.4

Dimensions in mm

n = number of bolts

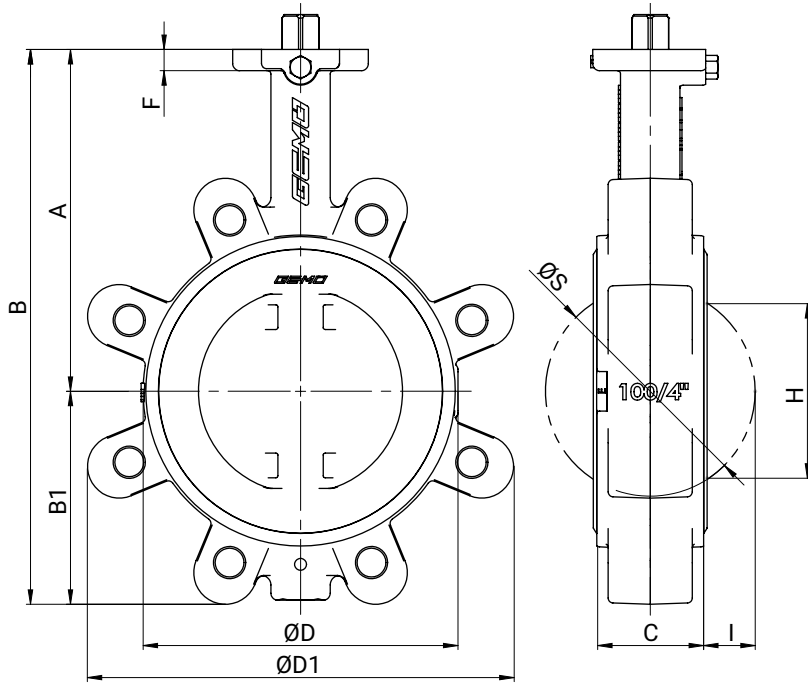


**Connection JIS K10, K16**

DN	INCH	Connection (code)							
		JIS-K10 (code G)				JIS-K16 (code J)			
DIN	ASME	$w^\circ$	n	$\varnothing G$	y	$w^\circ$	n	$\varnothing G$	y
50	2"	90	4	120.0	19.0	45	8	120.0	19.0
65	2½"	90	4	140.0	19.0	45	8	140.0	19.0
80	3"	45	8	150.0	19.0	45	8	160.0	23.0
100	4"	45	8	175.0	19.0	45	8	185.0	23.0
125	5"	45	8	210.0	23.0	45	8	225.0	25.0
150	6"	45	8	240.0	23.0	30	12	260.0	25.0
200	8"	30	12	290.0	23.0	30	12	305.0	25.0
250	10"	30	12	355.0	25.0	30	12	380.0	27.0
300	12"	22,5	16	400.0	25.0	22,5	16	430.0	27.0

Dimensions in mm  
 n = number of bolts

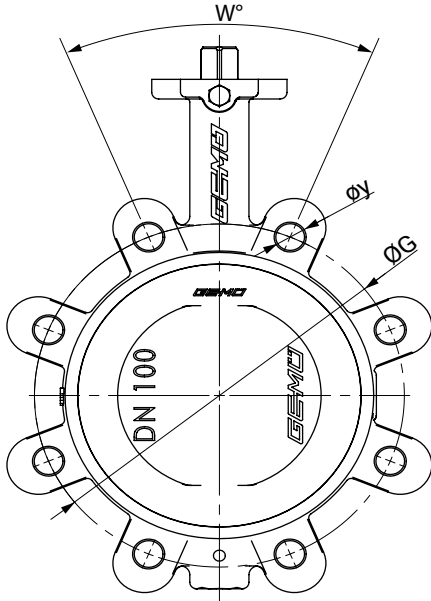
**Lug body configuration**



DN	PS	A	B	B1	C	ØD	ØD1	F	H	ØS	I
50	16	120.0	182.0	62.0	44.0	91.0	116.0	9.0	29.0	52.0	4.0
65	16	137.0	219.0	82.0	46.0	109.0	126.0	9.0	48.0	67.0	10.0
80	16	145.0	234.0	89.0	46.0	131.0	177.0	9.0	68.0	82.0	18.0
100	16	166.0	270.0	104.0	52.0	153.0	207.0	10.0	88.0	102.0	25.0
125	16	187.0	305.0	118.0	56.0	175.0	231.0	10.0	114.0	127.0	36.0
150	16	200.0	333.0	133.0	56.0	208.0	255.0	10.0	141.0	152.0	48.0
200	16	240.0	415.0	175.0	60.0	264.0	325.0	12.0	193.0	202.0	71.0
250	10	265.0	467.0	202.0	68.0	317.0	386.0	11.0	242.0	252.0	92.0
300	10	290.0	531.0	241.0	78.0	366.0	459.0	12.0	291.0	302.0	112.0

Dimensions in mm

**Connections**



**Connection EN1092, EN1759**

DN	INCH	Connection (code)															
		EN1092-1 PN6 (code 1)				EN1092-1 PN10 (code 2)				EN1092-1 PN16 (code 3)				EN1759/CL150 (code D)			
DIN	ASME	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
50	2"	90	4	110.0	M12	90	4	125.0	M16	90	4	125.0	M16	90	4	120.6	5/8"
65	2½"	90	4	130.0	M12	90	4	145.0	M16	90	4	145.0	M16	90	4	139.7	5/8"
80	3"	90	4	150.0	M16	45	8	160.0	M16	45	8	160.0	M16	90	4	152.4	5/8"
100	4"	90	4	170.0	M16	45	8	180.0	M16	45	8	180.0	M16	45	8	190.5	5/8"
125	5"	45	8	200.0	M16	45	8	210.0	M16	45	8	210.0	M16	45	8	215.9	3/4"
150	6"	45	8	225.0	M16	45	8	240.0	M20	45	8	240.0	M20	45	8	241.3	3/4"
200	8"	45	8	280.0	M16	45	8	295.0	M20	30	12	295.0	M20	45	8	298.5	3/4"
250	10"	30	12	335.0	M16	30	12	350.0	M20	30	12	355.0	M24	30	12	362.0	7/8"
300	12"	30	12	395.0	M20	30	12	400.0	M20	30	12	410.0	M24	30	12	431.8	7/8"

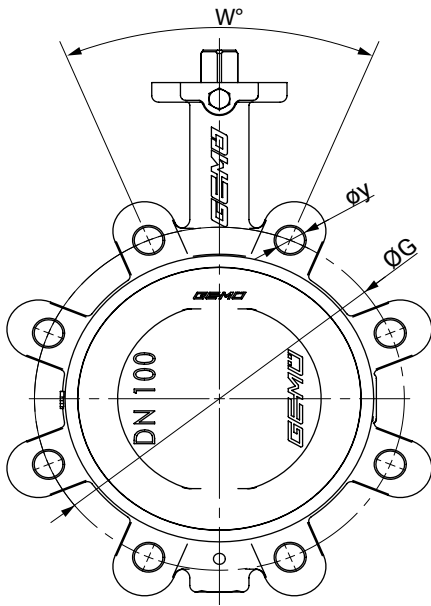
Dimensions in mm  
n = number of bolts

**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	ASME	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y	w°	n	ØG	y
50	2"	90	4	114.0	M16	90	4	114.0	M16	90	4	114.3	5/8"	90	4	114.3	5/8"
65	2½"	90	4	127.0	M16	90	4	127.0	M16	90	4	127.0	5/8"	90	4	127.0	5/8"
80	3"	90	4	146.0	M16	90	4	146.0	M16	90	4	146.1	5/8"	90	4	146.1	5/8"
100	4"	90	4	178.0	M16	45	8	178.0	M16	90	4	177.8	5/8"	45	8	177.8	5/8"
125	5"	45	8	210.0	M16	45	8	210.0	M16	45	8	209.6	5/8"	45	8	209.6	5/8"
150	6"	45	8	235.0	M16	45	8	235.0	M20	45	8	235.0	5/8"	45	8	235.0	3/4"
200	8"	45	8	292.0	M16	45	8	292.0	M20	45	8	292.1	5/8"	45	8	292.1	3/4"
250	10"	45	8	356.0	M20	30	12	356.0	M20	45	8	355.6	3/4"	30	12	355.6	3/4"
300	12"	30	12	406.0	M20	30	12	406.0	M24	30	12	406.4	3/4"	30	12	406.4	7/8"

Dimensions in mm  
n = number of bolts





Connection JIS K10, JIS K16

DN	INCH	Connection (code)							
		JIS-K10 (code G)				JIS-K16 (code J)			
DIN	ASME	w°	n	ØG	y	w°	n	ØG	y
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	45.0	8	225.0	M22
150	6"	45.0	8	240.0	M20	30.0	12	260.0	M22
200	8"	30.0	12	290.0	M20	30.0	12	305.0	M22
250	10"	30.0	12	355.0	M22	30.0	12	380.0	M24
300	12"	22.5	16	400.0	M22	22.5	16	430	M24

Dimensions in mm  
n = number of 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.

## Accessory



### 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

## Certificates

Certificate	Standard	Item number
2.1 Certificate of compliance with the order	EN 10204	88039442
2.2 Pressure test	EN 10204, DIN EN 12266 P10, P11, P12	88039443
3.1 Pressure test	EN 10204, DIN EN 12266 P10, P11, P12	88337125
3.1 Disc material	EN 10204	88314530
3.1 Body material	EN 10204	88314529

## **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](http://www.gemu-group.com/conexo)

### **Ordering**

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



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