

# GEMÜ B42

## Pneumatically operated 2/2-way ball valve



### Features

- Suitable for vacuum applications
- Low maintenance and reliable spindle sealing
- Antistatic device

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### Description

The GEMÜ B42 3-piece 2/2-way metal ball valve is pneumatically operated. The seat seal is made of PTFE.

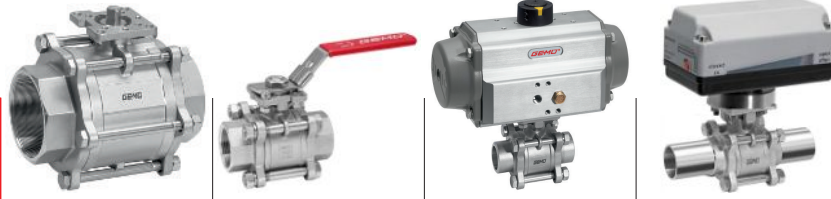
### Technical specifications

- **Media temperature:** -20 to 180 °C
- **Ambient temperature:** -20 to 60 °C
- **Operating pressure :** 0 to 63 bar
- **Nominal sizes:** DN 8 to 100
- **Body configurations:** 2/2-way body
- **Connection types:** Flange | Spigot | Threaded connection
- **Connection standards:** ASME | DIN | EN | ISO | NPT
- **Body materials:** 1.4408, investment casting material
- **Seal materials:** PTFE
- **Conformities:** ATEX

Technical data depends on the respective configuration



## Product line



GEMÜ BB02

GEMÜ B22

GEMÜ B42

GEMÜ B52

### Operation

With bare shaft	●	-	-	-
Manual	-	●	-	-
Pneumatic	-	-	●	-
Motorized	-	-	-	●
<b>Nominal sizes</b>	DN 8 to 100	DN 8 to 100	DN 8 to 100	DN 8 to 100
<b>Media temperature</b>	-20 to 180 °C	-20 to 180 °C	-20 to 180 °C	-20 to 180 °C
<b>Operating pressure *</b>	0 to 63 bar	0 to 63 bar	0 to 63 bar	0 to 63 bar
<b>Connection types</b>				
Flange	●	●	●	●
Spigot	●	●	●	●
Threaded connection	●	●	●	●

\* depending on version and/or operating parameters

## Comparison of actuator applications



GEMÜ ADA/ASR

GEMÜ DR/SC

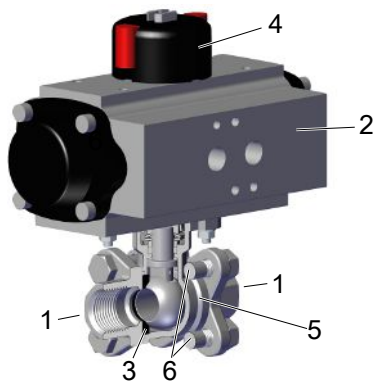
GEMÜ GDR/GSR

### 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	●	●	●

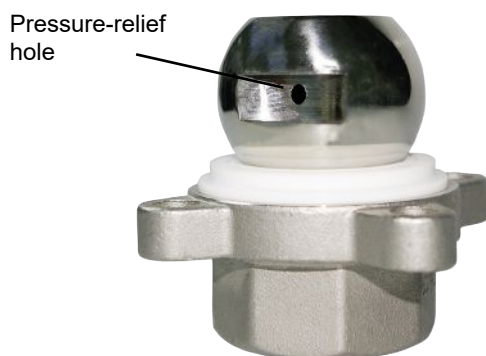
## Product description

### Construction



Item	Name	Materials
5	Ball valve body	1.4408 / CF8M
1	Pipe connections	1.4408 / CF8M, 1.4409 / CF3M butt weld connections
2	Pneumatic actuator	Aluminium
4	Position indicator	
6	Bolt	A2 70
3	Seal	PTFE

### Pressure-relief hole

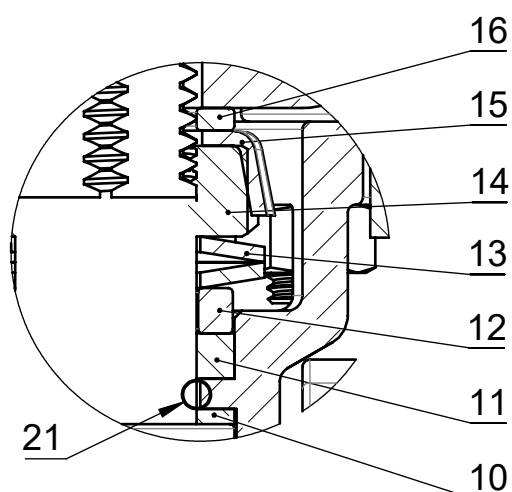


### Control ball

Control ball	Code U	Code Y	Code W

Note: The control ball cannot be retrofitted to standard 2/2-way bodies at a later date.

## The spindle seal system



Item	Name	Material
10	Seal	PTFE
11	V-ring	PTFE
12	Stainless steel sleeve	SS304-1.4301
13	Spring washer	SS304-1.4301
14	Spindle nut	A2 70
15	Cap	SS304-1.4301
16	Washer	SS304-1.4301
21	O-ring (spindle seal)	Viton

### Long service life due to triple spindle seal

#### - Conical spindle seal:

The seal **10** arranged at an angle of 45° effectively prevents the leakage of media when operating the spindle

#### - O-ring:

Stabilising spindle seal **21** with low wear and long service life

#### - Pretensioned self-adjusting spindle seal:

The spindle packing consists of several V-rings **11**, a spring washer **13** and a stainless steel sleeve **12**. The spring washer **13** is pretensioned via the spindle nut **14**. The pretension force is distributed to the V-rings **11** via the stainless steel sleeve **12**, thereby preventing the leakage of media. The pretension provides low maintenance and reliable spindle sealing even after a long service life.

## 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:**

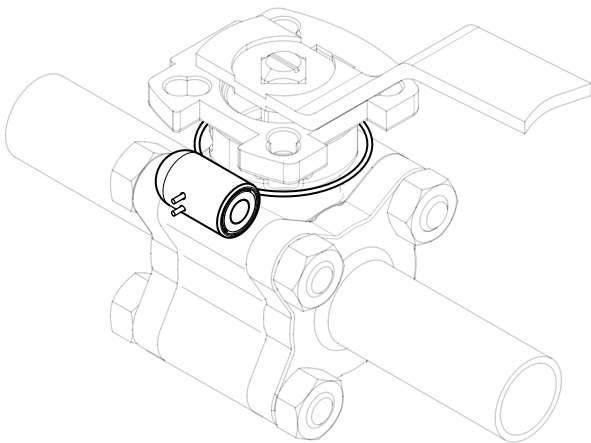
[www.gemu-group.com/conexo](http://www.gemu-group.com/conexo)

### Ordering

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

### Installing the RFID chip

In the corresponding design with CONEXO, this product has an RFID chip (1) for electronic recognition. The position of the RFID chip can be seen below.



## Application

- Heating systems
- Beverage industry
- Foodstuff industry
- Chemical industry
- Drinking water installations
- Processing industry
- HVAC

## Availability

Connection types <sup>1)</sup>	Body materials <sup>2)</sup>		Control functions <sup>3)</sup>	
	Code 37	Code C7	Code 1, 2, 3	Code Q, T, U
<b>Spigot (code 19, 59, 60)</b>	-	X	X	-
<b>Threaded socket (code 1, 31)</b>	X	-	X	-
<b>Flange (code 8, 11)</b>	X	-	-	X

### 1) Connection type

Code 1: Threaded socket DIN ISO 228

Code 31: Threaded socket NPT

Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 19: Spigot DIN EN 12627

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127 / EN 10357, series C

### 2) Ball valve material

Code 37: 1.4408 / CF8M (body, connection), 1.4401 / SS316 (ball, shaft)

Code C7: 1.4408 / CF8M (body), 1.4409 / CF3M (connection), 1.4401 / SS316 (ball, shaft)

### 3) Control function

Code 1: Normally closed (NC)

Code 2: Normally open (NO)

Code 3: Double acting (DA)

Code Q: Normally closed (NC), actuator mounted across the piping

Code T: Double acting (DA), actuator mounted across the piping

Code U: Normally open (NO), actuator mounted across the piping

**Actuator assignment****GEMÜ type GDR/GSR**

DN	Double acting GDR	Code	Single acting GSR	Code
8	GDR0032 F03 S09	HR03AT	GSR0050 SC5F03/05 S11	GR05SW
10	GDR0032 F03 S09	HR03AT	GSR0050 SC5F03/05 S11	GR05SW
15	GDR0032 F03 S09	HR03AT	GSR0050 SC5F03/05 S11	GR05SW
20	GDR0050 F03/05 S11	HR05AW	GSR0065 SC5F05/07 S14	GR06SP
25	GDR0050 F03/05 S11	HR05AW	GSR0075 SC5F05/07 S14	GR07SP
32	GDR0050 F03/05 S11	HR05AW	GSR0075 SC5F05/07 S14	GR07SP
40	GDR0065 F05/07 S14	HR06AP	GSR0085 SC5F05/07 S14	GR08SP
50	GDR0085 F05/07 S17	HR08AC	GSR0115 SC5F07/10 S17	GR11SE
65	GDR0085 F05/07 S17	HR08AC	GSR0125 SC5F07/10 S17	GR12SE
80	GDR0085 F05/07 S17	HR08AC	GSR0125 SC5F07/10 S17	GR12SE
100	GDR0100 F07/10 S17	HR10AE	GSR0140 SC5F10/12 S22	GR14SA

**GEMÜ type ADA/ASR**

DN	Double acting	Code	Single acting	Code
8	ADA0020U F04 S14S11	BU02AA	ASR0020US08 F04 S14S11	AU02FA
10	ADA0020U F04 S14S11	BU02AA	ASR0020US08 F04 S14S11	AU02FA
15	ADA0020U F04 S14S11	BU02AA	ASR0020US08 F04 S14S11	AU02FA
20	ADA0020U F04 S14S11	BU02AA	ASR0020US08 F04 S14S11	AU02FA
25	ADA0040U F05 S14S11	BU04AB	ASR0040US14 F05 S14 S11	AU04KB
32	ADA0040U F05 S14S11	BU04AB	ASR0040US14 F05 S14S11	AU04KB
40	ADA0040U F05 S14S11	BU04AB	ASR0080US14 F05/07 S17S14	AU08KC
50	ADA0080U F05/F07 S17S14	BU08AC	ASR0130US14F05/07S17S14	AU20KE
65	ADA0080U F05/F07 S17S14	BU08AC	ASR0300US14F07/10 S22	AU30KD
80	ADA0130U F05/F07 S17S14	BU13AC	ASR0300US14F07/10 S22	AU30KD
100	ADA0200U F07/F10 S17S14	BU20AC	ASR0500US14F07/10 S22	AU50KD

**GEMÜ type DR/SC**

DN	Double acting DR	Code	Single acting SC	Code
8	DR0015U F04 S11	DU01AO	SC0015USC8F04 S11	SU01VO
10	DR0015U F04 S11	DU01AO	SC0015USC8F04 S11	SU01VO
15	DR0015U F04 S11	DU01AO	SC0015USC8F04 S11	SU01VO
20	DR0015U F04 S11	DU01AO	SC0030U 6F04 S11	SU03KO
25	DR0030U F05/07 S14	DU03AP	SC0060U 6F05/07 S14	SU06KP
32	DR0030U F05/07 S14	DU03AP	SC0060U 6F05/07 S14	SU06KP
40	DR0030U F05/07 S14	DU03AP	SC0100U 6F05/07S17D11	SU10KC
50	DR0060U F05/07 S17	DU06AC	SC0220U 6F07/10 S22	SU22KD
65	DR0060U F05/07 S17	DU06AC	SC0220U 6F07/10 S22	SU22KD
80	DR0100U F05/07 S17	DU10AC	SC0220U 6F07/10 S22	SU22KD
100	DR0150U F07/10 S22	DU15AD	SC0450U 6F10/12 S27	SU45KG



## Order data

The order data provide an overview of standard configurations.

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

## Order codes

1 Type	Code
Ball valve, metal, pneumatically operated, 3-piece body, aluminium double piston actuator	B42

2 DN	Code
DN 8	8
DN 10	10
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100

3 Body/ball configuration	Code
2/2-way body	D
2/2-way body, V-ball 30° (for Kv value see datasheet)	U
2/2-way body, V-ball 60° (for Kv value see datasheet)	Y
2/2-way body, V-ball 90° (for Kv value see datasheet)	W

4 Connection type	Code
<b>Spigot</b>	
Spigot DIN EN 12627	19
Spigot ASME BPE	59
Spigot ISO 1127 / EN 10357, series C	60
<b>Threaded socket</b>	
Threaded socket DIN ISO 228	1
Threaded socket NPT	31
<b>Flange</b>	
Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	8
Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	11

5 Ball valve material	Code
1.4408 / CF8M (body, connection), 1.4401 / SS316 (ball, shaft)	37

5 Continuation of Ball valve material	Code
1.4408 / CF8M (body), 1.4409 / CF3M (connection), 1.4401 / SS316 (ball, shaft)	C7

6 Seal material	Code
PTFE	5

7 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

8 Actuator version	Code
<b>Actuator GEMÜ GDR</b>	
Actuator, pneumatic, double acting, clockwise rotation, GDR0032 F03 S09	HR03AT
Actuator, pneumatic, double acting, clockwise rotation, GDR0050 F03/05 S11	HR05AW
Actuator, pneumatic, double acting, clockwise rotation, GDR0065 F05/07 S14	HR06AP
Actuator, pneumatic, double acting, clockwise rotation, GDR0085 F05/07 S17	HR08AC
Actuator, pneumatic, double acting, clockwise rotation, GDR0100 F07/10 S17	HR10AE
<b>Actuator GEMÜ GSR</b>	
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0050 SC5F03/05 S11	GR05SW
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0065 SC5F05/07 S14	GR06SP
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0075 SC5F05/07 S14	GR07SP

## Order data

8 Continuation of Actuator version	Code	8 Continuation of Actuator version	Code
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0085 SC5F05/07 S14	GR08SP	Actuator, pneumatic, double acting, clockwise rotation, DR0060U F05/07 S17	DU06AC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0115 SC5F07/10 S17	GR11SE	Actuator, pneumatic, double acting, clockwise rotation, DR0100U F05/07 S17	DU10AC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0125 SC5F07/10 S17	GR12SE	Actuator, pneumatic, double acting, clockwise rotation, DR0150U F07/10 S22	DU15AD
Actuator, pneumatic, single acting, clockwise rotation, spring closing, GSR0140 SC5F10/12 S22	GR14SA	<b>Actuator GEMÜ SC</b>	
<b>Actuator GEMÜ ADA</b>		Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0015USC8F04 S11	SU01VO
Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F04 S14S11	BU02AA	Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0030U 6F04 S11	SU03KO
Actuator, pneumatic, double acting, clockwise rotation, ADA0040U F05 S14S11	BU04AB	Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0030U 6F05/07 S14	SU03KP
Actuator, pneumatic, double acting, clockwise rotation, ADA0080U F05/07S17S14	BU08AC	Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0060U 6F05/07 S14	SU06KP
Actuator, pneumatic, double acting, clockwise rotation, ADA0130U F05/07S17S14	BU13AC	Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0100U 6F05/07S17D11	SU10KC
Actuator, pneumatic, double acting, clockwise rotation, ADA0200U F07/10S17S14	BU20AE	Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0220U 6F07/10 S22	SU22KD
<b>Actuator GEMÜ ASR</b>		Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0450U 6F10/12 S27	SU45KG
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0020US08F04 S14S11	AU02FA	<b>9 Actuator particulars</b>	<b>Code</b>
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0040US14F05 S14S11	AU04KB	Gen. industrial version, body alu, anodising layer 25-35µm, end caps alu, powder coated, shaft C steel + ENP, bolt A2	0
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0080US14F05/07S17S14	AU08KC	<b>10 CONEXO</b>	<b>Code</b>
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0130US14F05/07S17S14	AU13KC	without	
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0300US14F07/10 S22	AU30KD	Integrated RFID chip for electronic identification and traceability	C
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0500US14F07/10 S22	AU50KD		
<b>Actuator GEMÜ DR</b>			
Actuator, pneumatic, double acting, clockwise rotation, DR0015U F04 S11	DU01AO		
Actuator, pneumatic, double acting, clockwise rotation, DR0030U F05/07 S14	DU03AP		

**Order example**

Order option	Code	Description
1 Type	B42	Ball valve, metal, pneumatically operated, 3-piece body, aluminium double piston actuator
2 DN	15	DN 15
3 Body/ball configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Ball valve material	37	1.4408 / CF8M (body, connection), 1.4401 / SS316 (ball, shaft)
6 Seal material	5	PTFE
7 Control function	3	Double acting (DA)
8 Actuator version	BU02AA	Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F04 S14S11
9 Actuator particulars	0	Gen. industrial version, body alu, anodising layer 25-35µm, end caps alu, powder coated, shaft C steel + ENP, bolt A2
10 CONEXO		without

## Technical data

### Medium

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

### Temperature

**Media temperature:** -20 to 180 °C

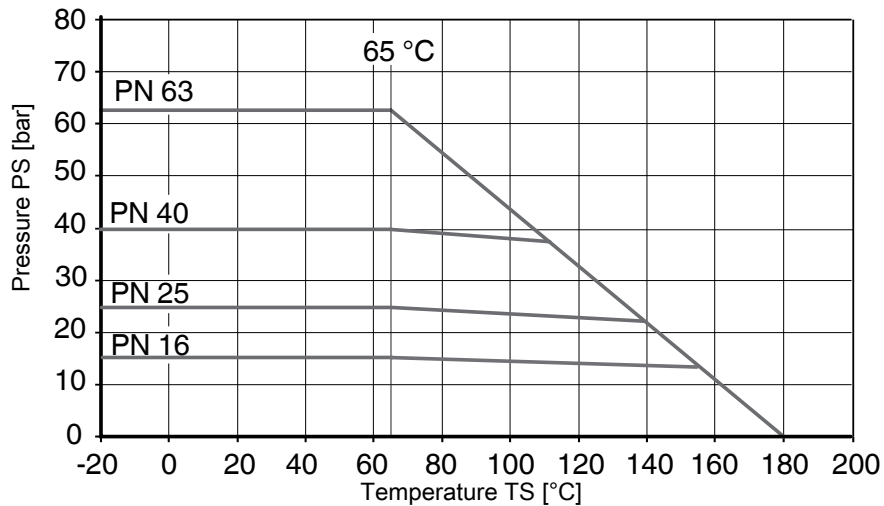
**Ambient temperature:** -20 to 60 °C

**Storage temperature:** 0 to 40 °C

### Pressure

**Operating pressure:** 0 to 63 bar

**Pressure/temperature diagram:**



Note media temperature

**Leakage rate:** Leakage rate according to ANSI FCI70 – B16.104  
 Leakage rate according to EN12266, 6 bar air, leakage rate A

**Kv values:**

DN	NPS	Kv values
8	1/4"	8
10	3/8"	8
15	1/2"	17
20	3/4"	34
25	1"	60
32	1¼"	94
40	1½"	213
50	2"	366
65	2½"	595
80	3"	935
100	4"	1700

Kv values in m³/h

**Kv values:**

**V-ball 30° (code U)**

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
8	1/4"	0	0.019	0.044	0.088	0.151	0.232	0.327	0.446	0.576	0.727	0.885
10	3/8"	0	0.021	0.05	0.1	0.172	0.265	0.374	0.51	0.659	0.83	1.012
15	1/2"	0	0.085	0.085	0.17	0.255	0.425	0.68	0.935	1.36	1.87	2.21
20	3/4"	0	0.085	0.17	0.425	0.595	0.935	1.53	2.04	2.805	3.825	4.59
25	1"	0	0.085	0.255	0.68	1.105	1.955	2.975	4.335	8.33	7.225	8.5
32	1 1/4"	0	0.17	0.34	0.935	1.7	3.145	4.675	6.8	8.5	11.05	12.75
40	1 1/2"	0	0.255	0.51	1.36	2.55	4.25	6.375	9.35	11.9	14.45	17
50	2"	0	0.34	1.02	3.23	5.1	8.5	12.75	19.55	26.35	36.55	51
65	2 1/2"	0	0.34	0.85	3.4	6.8	10.2	15.3	23.8	31.45	52.7	63.75
80	3"	0	0.425	1.02	3.4	6.8	11.9	19.55	28.05	39.1	55.25	69.7
100	4"	0	0.51	1.7	5.1	12.75	24.65	40.8	60.35	85	110.5	135.2

Kv values in m³/h

**V-ball 60° (code V)**

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
8	1/4"	0	0.026	0.06	0.141	0.249	0.372	0.539	0.762	1.034	1.38	1.845
10	3/8"	0	0.03	0.068	0.161	0.285	0.425	0.616	0.871	1.182	1.577	2.108
15	1/2"	0	0.085	0.085	0.255	0.425	0.765	1.19	1.7	2.805	3.74	5.1
20	3/4"	0	0.085	0.17	0.595	0.85	1.445	2.38	3.4	5.525	7.65	10.2
25	1"	0	0.17	0.34	0.935	1.53	2.89	4.505	6.715	10.46	13.01	17.85
32	1 1/4"	0	0.17	0.51	1.53	2.55	4.675	8.075	10.88	16.15	22.1	33.15
40	1 1/2"	0	0.34	0.68	2.125	3.4	6.8	11.05	16.15	22.95	34	44.2
50	2"	0	0.34	1.275	3.91	7.65	14.03	22.95	33.15	46.75	70.55	93.5
65	2 1/2"	0	0.34	1.275	4.25	8.5	17.85	28.9	45.05	63.75	87.55	127.5
80	3"	0	0.425	2.125	5.1	11.9	21.25	34	55.25	77.35	108.8	140.3
100	4"	0	0.595	2.55	9.35	21.25	34	50.15	76.5	119.9	180.2	302.6

Kv values in m³/h

**V-ball 90° (code W)**

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
8	1/4"	0	0.037	0.086	0.212	0.39	0.658	1.008	1.391	1.837	2.332	3.012
10	3/8"	0	0.043	0.098	0.242	0.446	0.752	1.152	1.59	2.1	2.665	3.443
15	1/2"	0	0.085	0.17	0.34	0.51	0.765	1.275	1.87	3.23	4.59	5.865
20	3/4"	0	0.17	0.34	0.68	1.02	1.7	2.635	3.91	6.8	9.605	11.9
25	1"	0	0.17	0.51	1.53	2.89	4.335	6.885	9.69	13.6	17.85	24.65
32	1 1/4"	0	0.255	0.68	1.7	4.25	6.8	11.9	16.15	23.8	33.15	46.75
40	1 1/2"	0	0.425	0.765	2.975	5.95	11.05	17	26.35	35.7	53.55	66.3
50	2"	0	0.595	1.7	5.1	10.2	18.7	29.75	38.25	59.5	89.25	114.8
65	2 1/2"	0	0.425	1.445	5.95	11.9	23.8	40.8	59.5	90.1	136	185.3
80	3"	0	0.595	2.975	6.8	15.3	29.75	51	76.5	114.8	174.3	263.5
100	4"	0	0.85	2.975	13.6	34	63.75	106.3	161.5	250.8	375.7	569.5

Kv values in m³/h

## Technical data

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<b>Pressure rating:</b>	PN 16 PN 25 PN 40 PN 63
<b>Control pressure:</b>	6 to 8 bar

## Product conformities

<b>Machinery Directive:</b>	2006/42/EC
<b>Pressure Equipment Directive:</b>	2014/68/EU
<b>Explosion protection:</b>	ATEX (2014/34/EU), order code Special version X

## Mechanical data

<b>90° travel:</b>	GEMÜ GDR/GSR: $\pm 5^\circ$ adjustable (85° - 95°) GEMÜ ADA /ASR: $\pm 5^\circ$ adjustable (85° - 95°) GEMÜ DR /SC: 20° adjustable (75° - 95°)
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## Weight:

### Ball valve

DN	NPS	Threaded connection, spigot	Flange
8	1/4"	0.55	1.15
10	3/8"	0.55	1.15
15	1/2"	0.6	1.35
20	3/4"	0.7	1.45
25	1"	0.8	1.8
32	1¼"	1.2	2.4
40	1½"	2.3	3.5
50	2"	3.5	4.9
65	2½"	6.9	9.3
80	3"	11.7	14.7
100	4"	19.3	22.3

Weights in kg

**Weight:**

**Actuator type GDR/GSR**

Type	GDR Double act- ing	GSR Single act- ing
<b>0032</b>	0.5	-
<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

Weights in kg

**Actuator type ADA/ASR**

Type	ADA double act- ing	ASR single acting
<b>0020U</b>	1.4	1.5
<b>0040U</b>	2.1	2.3
<b>0080U</b>	3	3.7
<b>0130U</b>	3.8	4.8
<b>0200U</b>	5.6	7.3
<b>0300U</b>	8.5	10.8

Weights in kg

**Actuator DR/SC**

Type	DR double act- ing	SC single acting
<b>0015U</b>	1.0	1.1
<b>0030U</b>	1.6	1.7
<b>0060U</b>	2.7	3.1
<b>0100U</b>	3.7	4.3
<b>0150U</b>	5.2	6.1
<b>0220U</b>	8.0	9.3
<b>0300U</b>	9.8	12.0

Weights in kg

**Torques:**

DN	NPS	Breakaway torque
8	1/4"	6
10	3/8"	6
15	1/2"	6
20	3/4"	10
25	1"	11
32	1¼"	17
40	1½"	28
50	2"	53
65	2½"	76
80	3"	89
100	4"	138

Torques in Nm

A safety factor of 1.2 is included

With dry, non-lubricating media the breakaway torque may be increased.

Valid for clean, non-particulate and oil-free media (water, alcohol, etc.), gas or saturated steam (clean and wet).  
PTFE seal.



## Dimensions

### Actuator dimensions

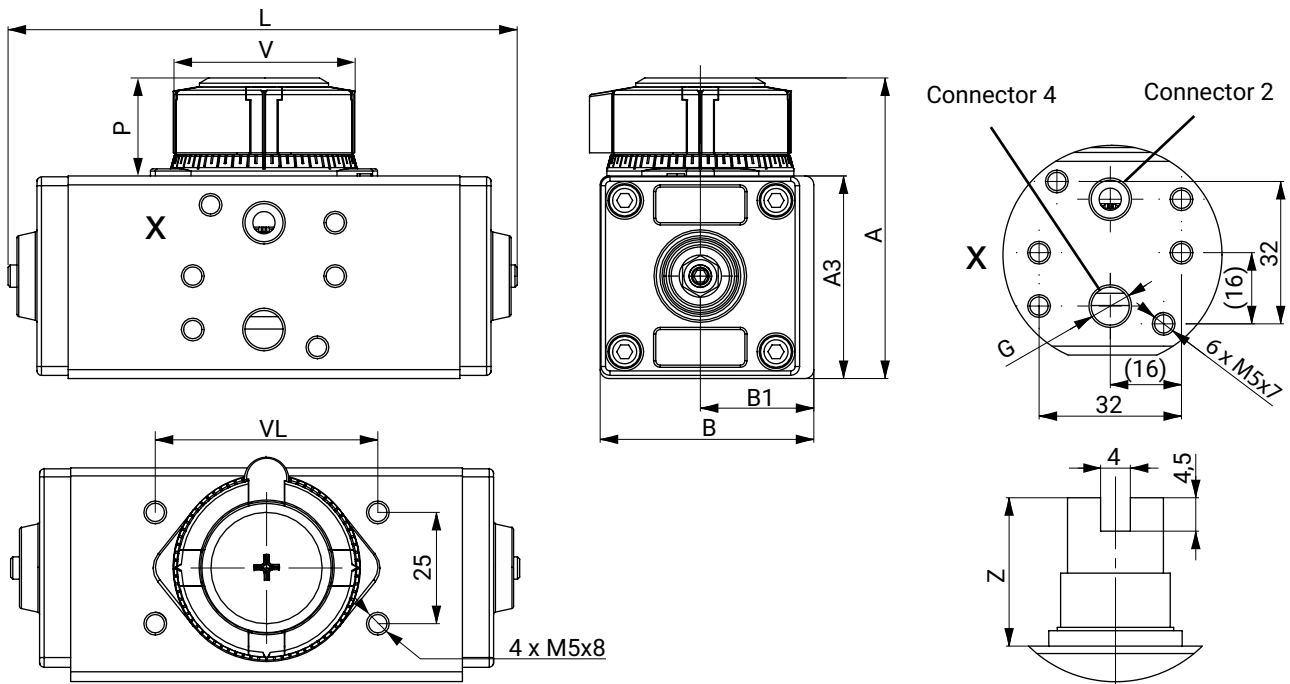
Note on actuator mounting:

Standard mounting orientation – actuator positioned in-line with piping

Only with flanged connections the actuator is mounted across the piping

### Actuator type GDR/GSR

#### Type G0032

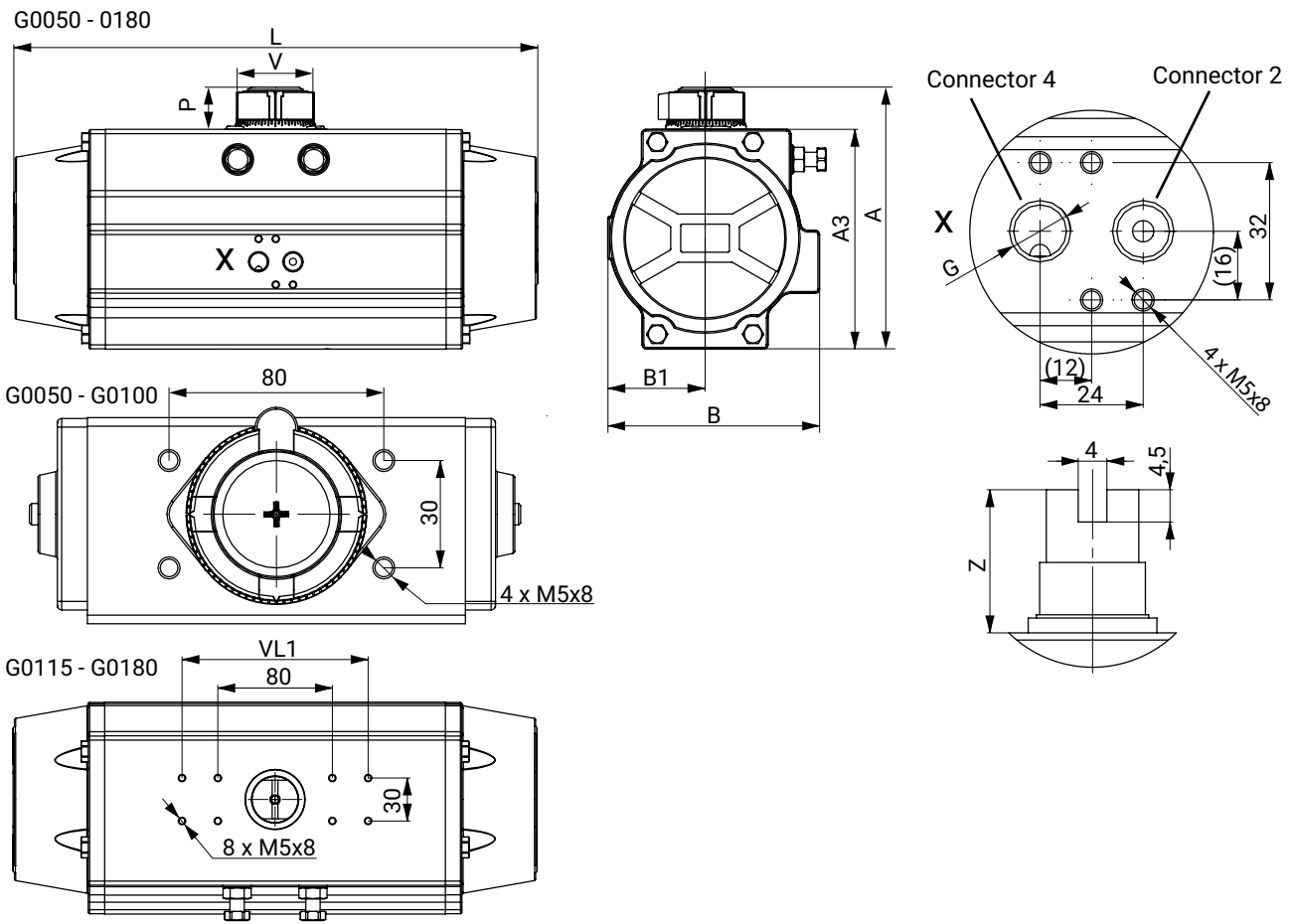


Typ	A	A3	B	B1	V	G	P	VL	Z	L
<b>G0032</b>	67.5	45.5	49.0	26.5	40.0	G1/8"	22.0	50.0	20.0	115.0

Dimensions in mm

Dimensions

Type G0050 – G0180

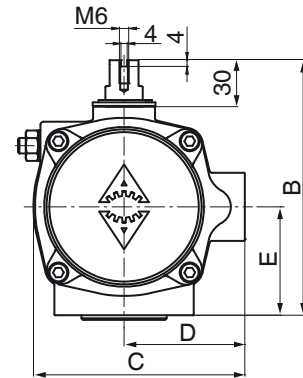
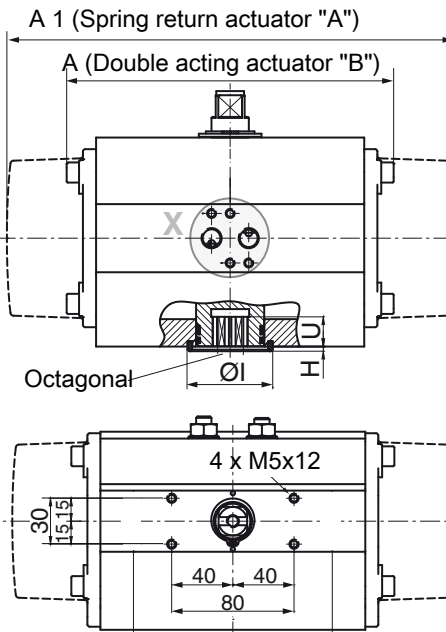
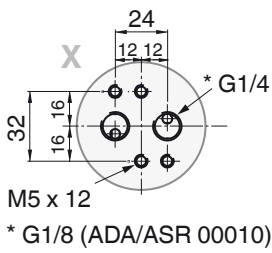


Type	A	A3	B	B1	V	G	P	VL	Z	L	VL1
G0032	67.5	45.5	49.0	26.5	40.0	G1/8"	22.0	50.0	20.0	115.0	-
G0050	92.0	70.0	71.0	30.0	40.0	G1/8"	22.0	80.0	20.0	141.0	-
G0065	102.5	80.5	80.5	35.5	40.0	G1/8"	22.0	80.0	20.0	162.0	-
G0075	119.0	97.0	94.5	42.0	40.0	G1/8"	22.0	80.0	20.0	208.0	-
G0085	130.5	108.5	106.0	47.5	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

**Actuator type ADA/ASR**

ADA/ASR 00010-1750U

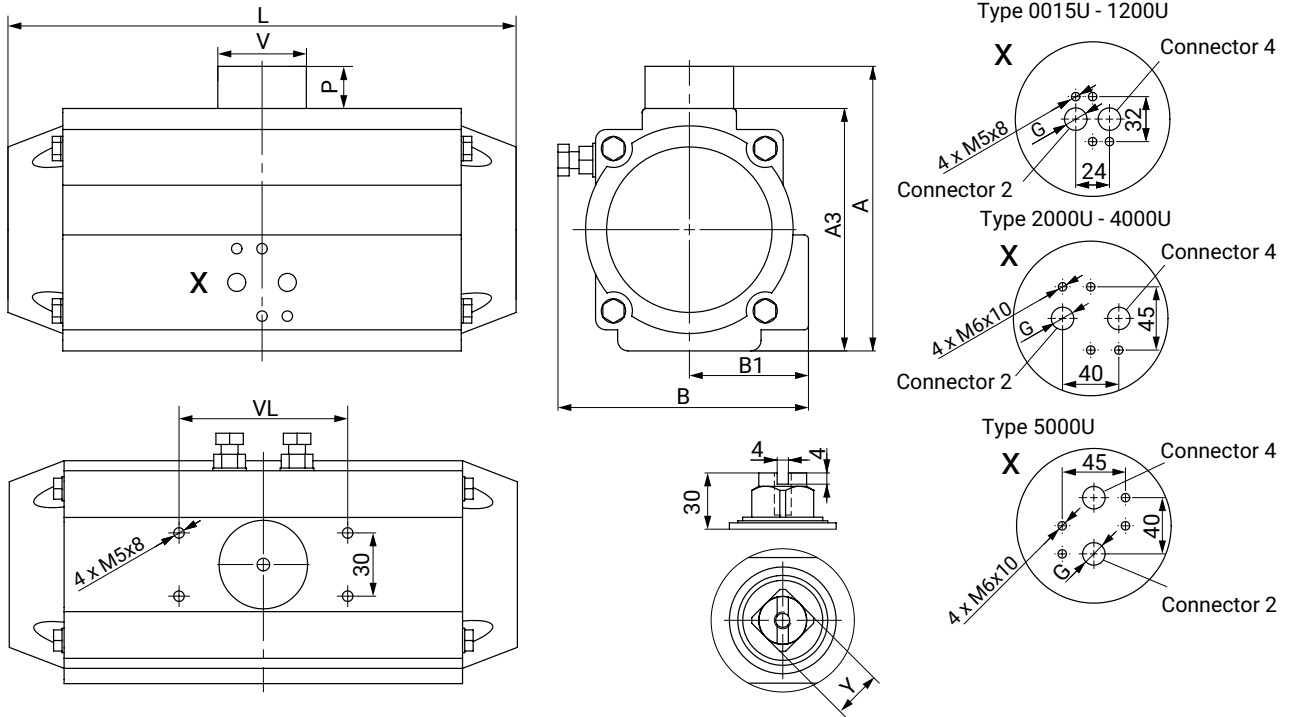


Type	ISO 5211	Type		B	C	D	E	SW	ØT	U	n
		ADA	ASR								
00010	F03	-	100.0	76	56.0	33.0	23.0	9	-	12	4
00010	F04	-	100.0	76	56.0	33.0	23.0	9	-	12	4
0020U	F03/F05	145	163.0	96	76.0	48.0	34.0	9	25	10	4
0020U	F04	145	163.0	96	76.0	48.0	34.0	14	35	12	4
0020U	F05	145	163.0	96	76.0	48.0	34.0	14	35	12	4
0040U	F04	158	195.0	115	91.0	56.0	45.0	14	35	12	4
0040U	F05	177	217.0	137	111.0	66.0	55.0	14	35	12	4
0080U	F05/F07	196	258.0	147	122.0	71.0	60.0	17 (14*)	55	19	4
0130U	F05/F07	225	299.0	165	135.5	78.0	70.0	17 (14*)	55	22	4
0200U	F07/F10	273	348.5	182	152.5	86.0	80.0	17 (14*)	55	23	4
0300U	F07/F10	304	397.0	199	173.0	96.0	85.0	22	70	24	4
0500U	F10	372	473.0	221	191.5	106.0	98.0	22	70	32	4

Dimensions in mm

\* with adapter sleeve

**Actuator type DR/SC**

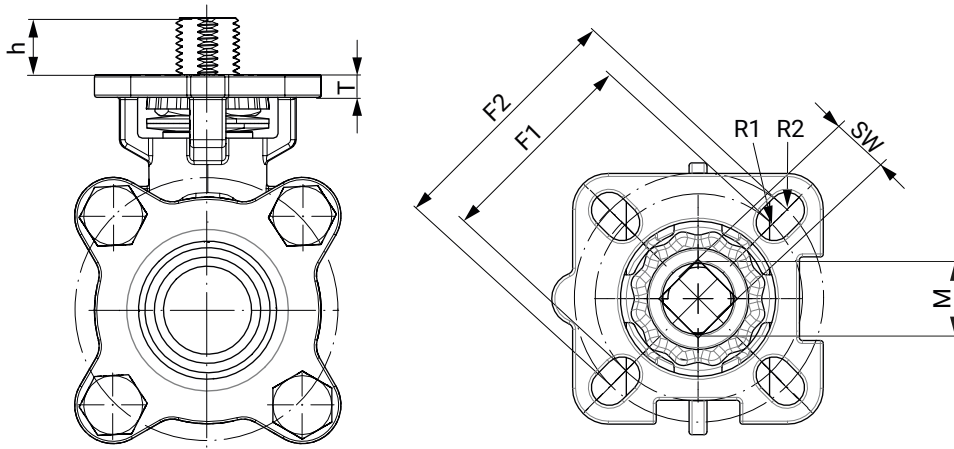


Type	A	A3	B	B1	V	VL	G	P	L	Y
0015U	89.0	69.0	72.0	43.0	42.0	80.0	G1/8"	20.0	136.0	11.0
0030U	105.0	85.0	84.5	48.5	42.0	80.0	G1/8"	20.0	153.5	11.0
0060U	122.0	102.0	93.0	50.5	42.0	80.0	G1/8"	20.0	203.5	17.0
0100U	135.0	115.0	106.0	56.5	42.0	80.0	G1/8"	20.0	241.0	17.0
0150U	147.0	127.0	118.5	63.0	42.0	80.0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

Dimensions in mm

**Ball valve**

**Actuator flange**

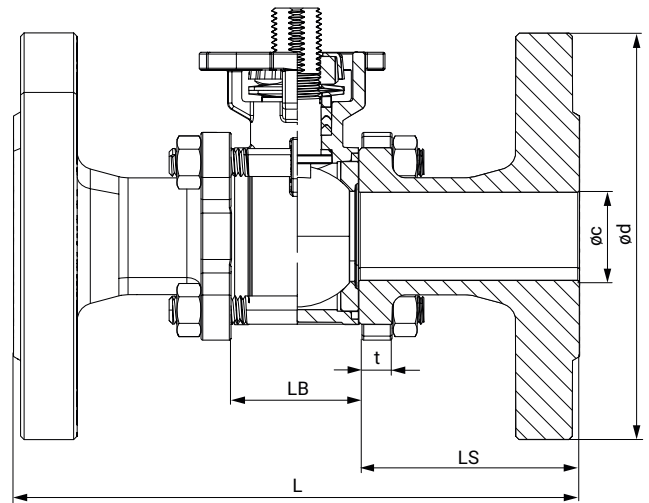
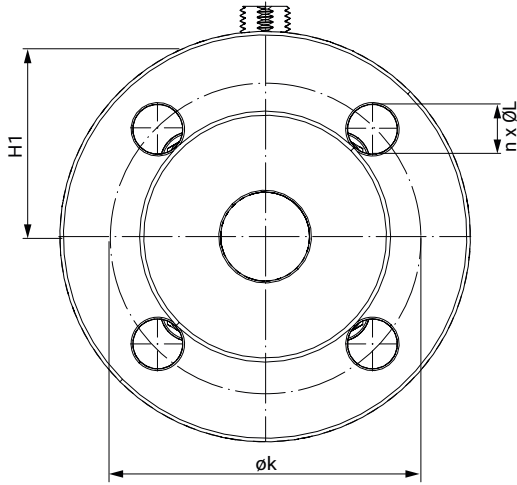


	G	F1	ISO 5211	R1	F2	ISO 5211	R2	SW	h	T	M
<b>8</b>	1/4"	36.0	F03	3.0	42.0	F04	3.0	9.0	9.5	5.5	M12
<b>10</b>	3/8"	36.0	F03	3.0	42.0	F04	3.0	9.0	9.5	5.5	M12
<b>15</b>	1/2"	36.0	F03	3.0	42.0	F04	3.0	9.0	9.5	5.5	M12
<b>20</b>	3/4"	36.0	F03	3.0	42.0	F04	3.0	9.0	7.5	5.5	M12
<b>25</b>	1"	42.0	F04	3.5	50.0	F05	3.5	11.0	13.0	7.0	M14
<b>32</b>	1 1/4"	42.0	F04	3.5	50.0	F05	3.5	11.0	13.0	6.5	M14
<b>40</b>	1 1/2"	50.0	F05	4.5	70.0	F07	3.5	14.0	15.0	7.5	M18
<b>50</b>	2"	50.0	F05	4.5	70.0	F07	3.5	14.0	16.0	8.5	M18
<b>65</b>	2 1/2"	50.0	F07	4.5	70.0	F10	3.5	17.0	18.0	8.5	M22
<b>80</b>	3"	70.0	F07	5.5	102.0	F10	4.5	17.0	18.0	10.5	M22
<b>100</b>	4"	102.0	F10	5.5	125.0	F12	4.5	17.0	18.0	10.5	M22

Dimensions in mm

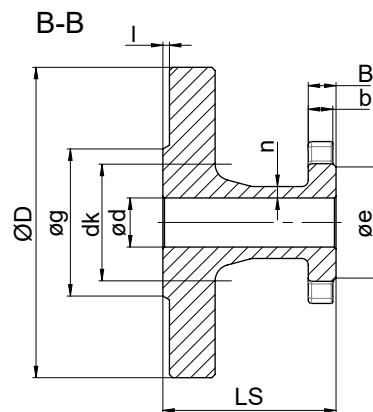
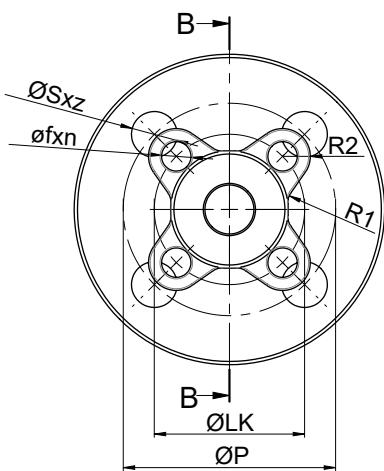
**Body dimensions**

**Flange (connection code 8, 11)**



DN	Connection code	øc	ød	øk	t	L	LB	LS	H1	n x øL
15	11	15.0	95.0	65.0	8.5	130.0	24.0	53.0	40.5	4 x 14.0
20	11	20.0	105.0	75.0	9.0	150.0	29.0	60.5	49.5	4 x 14.0
25	11	25.0	115.0	85.0	9.5	160.0	35.0	62.5	57.5	4 x 14.0
32	11	32.0	140.0	100.0	10.0	180.0	44.0	68.0	61.6	4 x 18.0
40	11	38.0	150.0	110.0	11.0	200.0	53.0	73.5	76.1	4 x 18.0
50	11	50.0	165.0	125.0	11.5	230.0	65.0	82.5	83.4	4 x 18.0
65	11	65.0	185.0	145.0	13.0	290.0	81.0	104.5	95.1	8 x 18.0
80	8	80.0	200.0	160.0	14.5	310.0	96.0	107.0	110.0	8 x 18.0
100	8	100.0	220.0/235.0	180.0	15.5	350.0	124.0	113.0	125.0	8 x 18.0

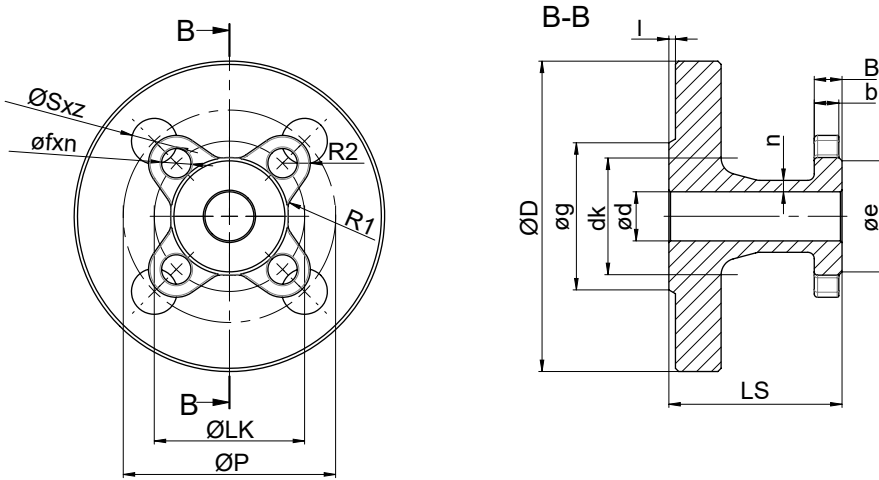
Dimensions in mm



DN	Connection code	LK	øf	n	R1	R2	B	b	øe	LS	ød	z	l	n
15	8,11	46.0	9.0	4.0	5.0	8.5	8.5	7.5	34.0	53.0	15.0	4.0	2.0	3.50
20	8,11	51.0	9.0	4.0	5.0	8.5	9.0	8.0	40.0	60.5	20.0	4.0	2.0	3.50

DN	Connection code	LK	$\phi f$	n	R1	R2	B	b	$\phi e$	LS	$\phi d$	z	l	n
25	8,11	59.0	9.0	4.0	5.0	8.5	9.5	8.5	48.0	62.5	25.0	4.0	2.0	4.00
32	8,11	73.0	11.0	4.0	5.0	10.0	10.0	9.0	59.0	68.0	32.0	4.0	2.0	4.50
40	8,11	83.0	11.0	4.0	5.0	10.0	11.0	10.0	72.0	73.5	38.0	4.0	3.0	4.50
50	8,11	90.0	11.0	4.0	6.0	10.0	11.5	10.5	87.0	82.5	50.0	4.0	3.0	5.00
65	8,11	130.0	13.5	4.0	15.0	11.5	13.0	12.0	113.0	104.5	65.0	4.0/8.0	3.0	6.00
80	8,11	155.0	15.5	4.0	20.0	13.5	14.5	13.5	136.0	107.0	80.0	8.0	3.0	6.25
100	8,11	187.0	15.5	8.0	20.0	13.5	15.5	14.5	168.0	113.0	100.0	8.0	3.0	6.50

Dimensions in mm

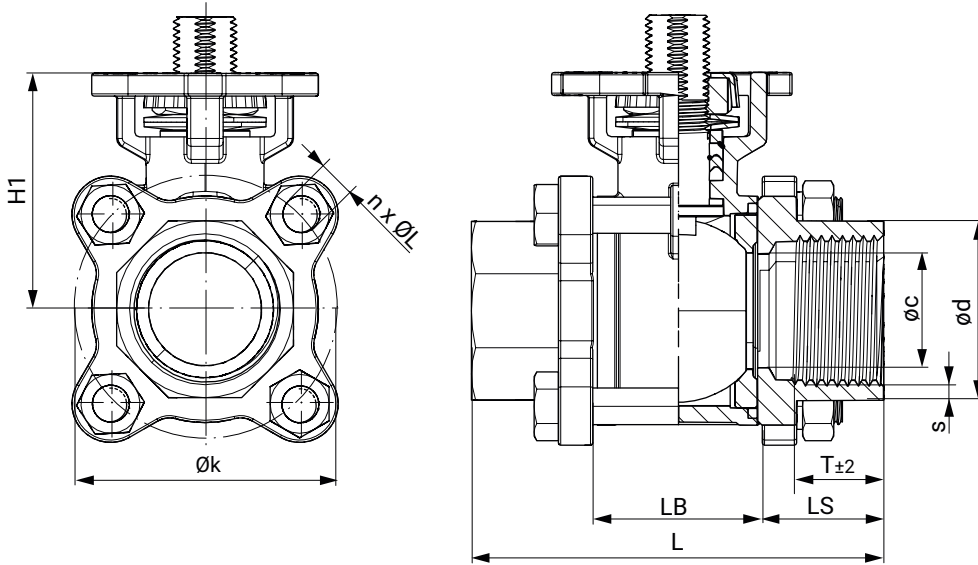


DN	Connection Code	ØS	ØD	øg	ØP
15	11	14.0	95.0	45.0	65.0
20	11	14.0	105.0	58.0	75.0
25	11	14.0	115.0	68.0	85.0
32	11	18.0	140.0	78.0	100.0
40	11	18.0	150.0	88.0	110.0
50	11	18.0	165.0	102.0	125.0
65	11	18.0	185.0	122.0	145.0
80	8	18.0	200.0	138.0	160.0
100	8	18.0	220.0	158.0	180.0

Dimensions in mm

Dimensions

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

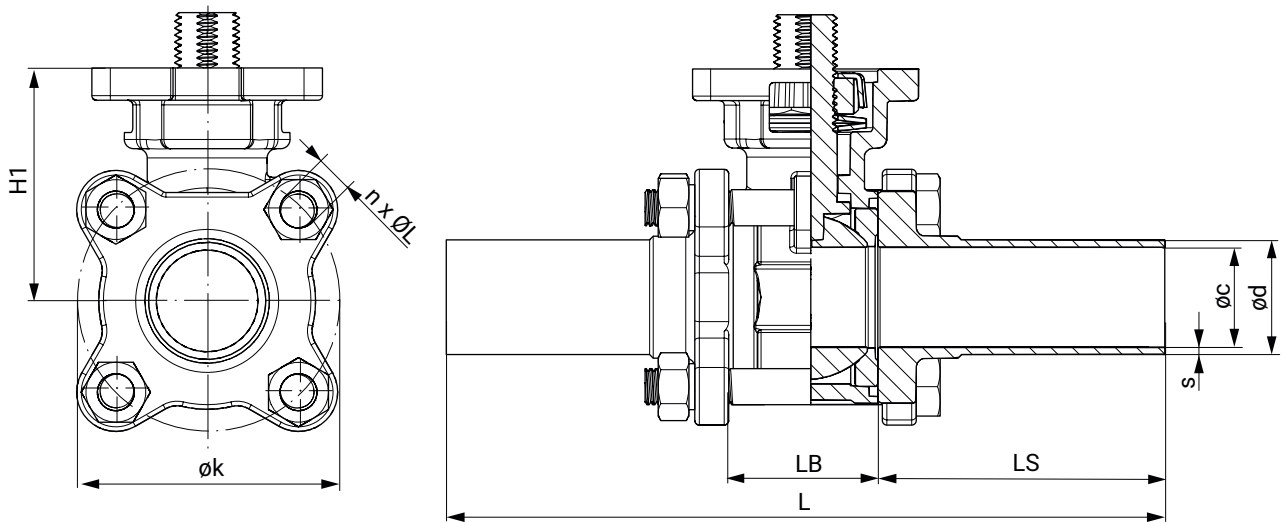


DN	G	øc	øk	T	L	LB	LS	H1	n x øL	s	SW
8	1/4"	10.0	46.0	12.0	55.0	4.0	25.5	45.5	4 x 9.0	2.50	26.0
10	3/8"	12.0	46.0	12.0	60.0	9.0	25.5	45.4	4 x 9.0	2.50	26.0
15	1/2"	15.0	46.0	16.0	75.0	24.0	25.5	40.5	4 x 9.0	2.50	26.0
20	3/4"	20.0	51.0	16.0	80.0	29.0	25.5	49.5	4 x 9.0	2.80	32.0
25	1"	25.0	61.0	17.0	90.0	35.0	27.5	57.5	4 x 11.0	2.90	39.0
32	1 1/4"	32.0	73.0	20.0	110.0	44.0	33.0	61.6	4 x 11.0	3.25	48.5
40	1 1/2"	38.0	83.0	22.0	120.0	53.0	33.5	76.1	4 x 11.0	3.35	54.5
50	2"	49.0	101.0	24.0	140.0	65.0	37.5	83.4	4 x 11.0	3.95	67.5
65	2 1/2"	64.0	130.0	28.0	185.0	81.0	52.0	95.6	4 x 13.5	4.40	84.0
80	3"	76.0	155.0	32.0	205.0	96.0	54.5	110.0	4 x 15.5	5.10	98.0
100	4"	100.0	187.0	40.0	240.0	124.0	58.0	125.0	6 x 15.5	7.70	124.0

Dimensions in mm



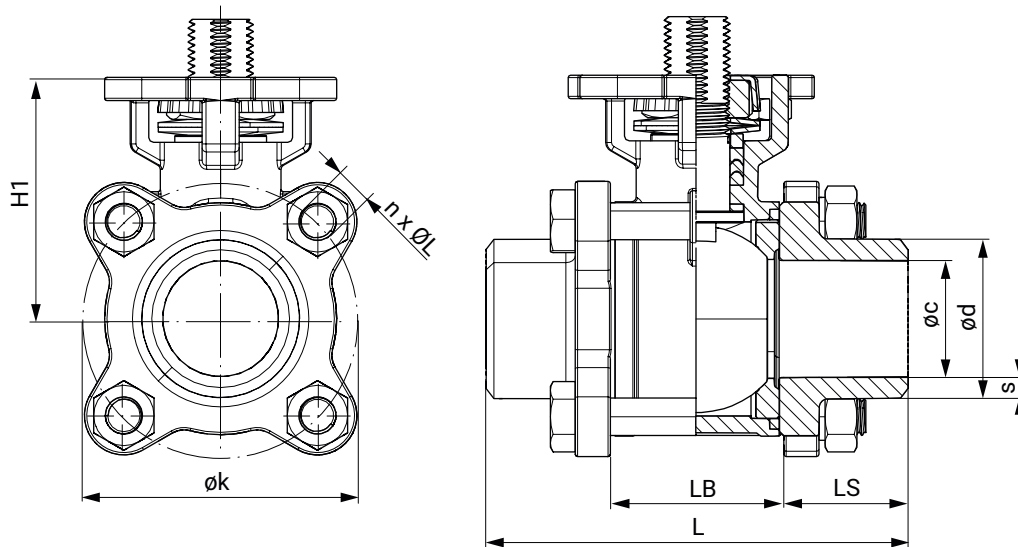
**Spigot ASME (connection code 59)**



DN	øc	ød	s	øk	L	LB	LS	H1	n x ØL
15	9.4	12.7	1.65	46.0	140.0	25.0	57.5	40.5	4 x 9.0
20	5.7	19.0	1.65	47.0	146.0	28.0	59.0	49.5	4 x 9.0
25	22.1	25.4	1.65	58.0	159.0	32.0	63.5	57.5	4 x 11.0
40	34.8	38.1	1.65	79.0	191.0	48.0	71.5	76.1	4 x 11.0
50	47.5	50.8	1.65	98.5	216.0	62.0	77.0	83.4	4 x 11.0
65	60.2	63.5	1.65	126.0	248.0	80.0	84.0	95.6	4 x 13.5
80	72.9	76.2	1.65	146.0	267.0	90.0	88.5	110.0	4 x 15.5
100	97.4	101.6	2.10	180.0	318.0	118.0	100.0	125.0	6 x 15.5

Dimensions in mm

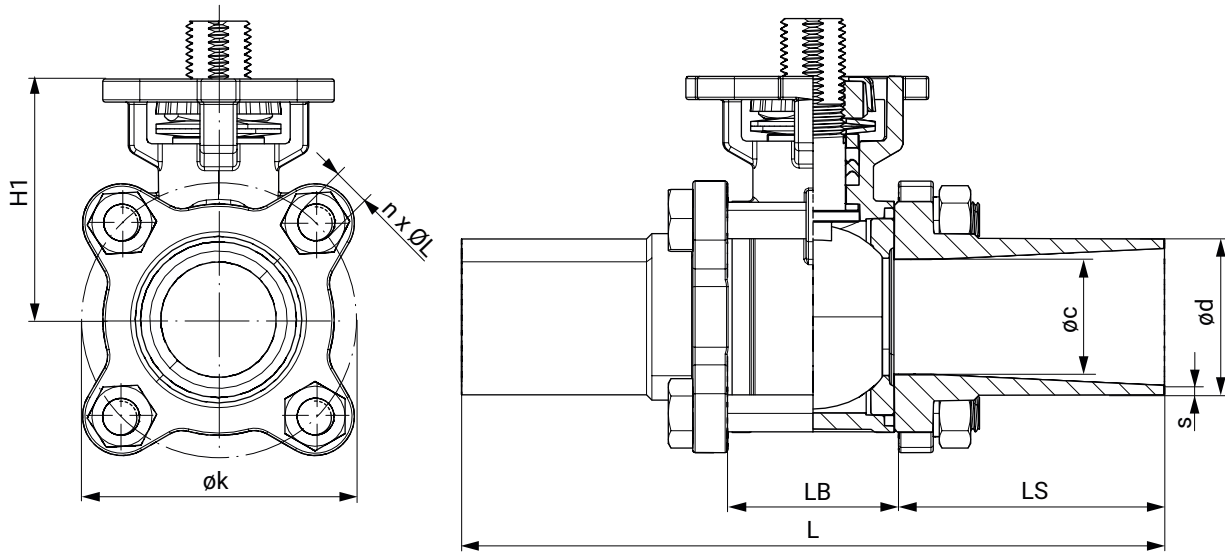
**Spigot DIN EN 12627 (connection code 19)**



DN	øc	ød	s	øk	L	LB	LS	H1	n x ØL
<b>8</b>	11.6	16.2	2.30	46.0	60.0	24.0	18.0	45.5	4 x 9.0
<b>10</b>	12.7	17.5	2.40	46.0	60.0	24.0	18.0	45.4	4 x 9.0
<b>15</b>	15.0	21.7	3.35	46.0	75.0	24.0	25.5	40.5	4 x 9.0
<b>20</b>	20.0	27.2	3.60	51.0	80.0	29.0	25.5	49.5	4 x 9.0
<b>25</b>	25.0	34.0	4.50	61.0	90.0	35.0	27.5	57.5	4 x 11.0
<b>32</b>	32.0	42.7	5.35	73.0	110.0	44.0	33.0	61.6	4 x 11.0
<b>40</b>	38.0	58.8	5.30	83.0	100.0	53.0	33.5	76.1	4 x 11.0
<b>50</b>	50.0	60.5	5.25	101.0	140.0	65.0	37.5	83.4	4 x 11.0
<b>65</b>	65.0	76.3	6.65	130.0	185.3	81.0	52.0	95.6	4 x 13.5
<b>80</b>	80.0	89.0	6.50	155.0	205.0	96.0	54.5	110.0	4 x 15.5
<b>100</b>	100.0	116.0	8.00	187.0	240.0	124.0	56.3	125.0	6 x 15.5

Dimensions in mm

**Spigot ISO (connection code 60)**



DN	$\phi c$	$\phi d$	s	$\phi k$	L	LB	LS	H1
<b>8</b>	10	13.5	1.6	46.0	120.0	24.0	48.0	45.5
<b>10</b>	12	17.2	1.6	46.0	120.0	24.0	48.0	45.4
<b>15</b>	15	21.3	1.6	46.0	140.2	24.0	58.0	40.5
<b>20</b>	20	26.9	1.6	51.0	140.0	29.0	55.5	49.5
<b>25</b>	25	33.7	2.0	61.0	152.2	35.0	58.5	57.5
<b>32</b>	32	42.4	2.0	73.0	165.1	44.0	60.5	61.6
<b>40</b>	38	48.3	2.0	83.0	190.4	53.0	68.5	76.1
<b>50</b>	49	60.3	2.0	101.0	203.0	65.0	59.0	83.4
<b>65</b>	64	76.1	2.0	130.0	254.0	81.0	86.5	95.6
<b>80</b>	76	88.9	2.3	155.0	280.2	96.0	92.0	110.0
<b>100</b>	100	114.3	2.3	187.0	317.0	124.0	96.5	125.0

Dimensions in mm

## 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 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.



### 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



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