

GEMÜ B44

Pneumatically operated ball valve



Features

- Checked delta ferrite material < 3% (1.4435)
- Material certificates for media wetted components
- Media wetted surfaces according to ASME SF5 (Ra 0.51 µm)
- Butt weld spigots in extended orbital welding design
- Option with cavity filled seat
- Suitable for vacuum applications
- Option: ATEX version

Description

The GEMÜ BB44 3-piece 2/2-way metal ball valve has a metal actuator and is pneumatically operated. It is particularly suitable for requirements in the pharmaceutical, food processing and biotechnology industries, such as water treatment or sterile steam generation. Only those plastics which are compliant with FDA, USP Class VI and EC10/2011 are used for the seals.

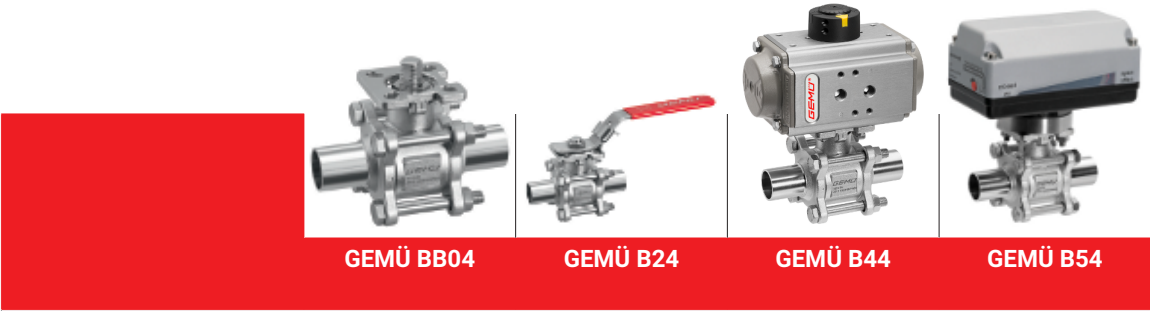
Technical specifications

- Media temperature: -10 to 220 °C
- Ambient temperature: 0 to 60 °C
- Operating pressure : 0 to 63 bar
- Nominal sizes: DN 8 to 100
- Body configurations: 2/2-way body
- Connection types: Clamp | Spigot
- Connection standards: ASME | DIN | ISO
- Body materials: 1.4435 (316L), investment casting material
- Seal materials: PTFE TFM™
- Conformities: ATEX | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | USP

Technical data depends on the respective configuration



Product line

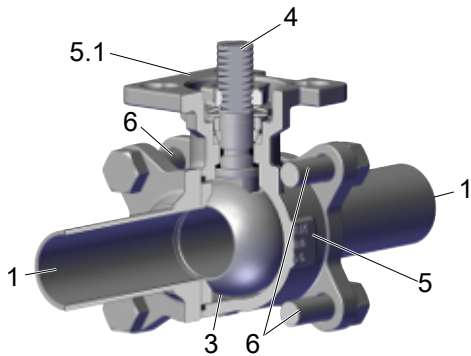


Operation				
With bare shaft	●	-	-	-
Manual	-	●	-	-
Pneumatic	-	-	●	-
Motorized	-	-	-	●
Nominal sizes	DN 8 to 100	DN 8 to 100	DN 8 to 100	DN 8 to 100
Media temperature	-10 to 220 °C	-10 to 220 °C	-10 to 220 °C	-10 to 220 °C
Operating pressure	0 to 63 bar	0 to 63 bar	0 to 63 bar	0 to 63 bar
Connection types				
Clamp	●	●	●	●
Spigot	●	●	●	●

* depending on version and/or operating parameters

Product description

Construction



Item	Name	Materials
5	Ball valve body	ASTM A351 / 1.4435 (316L)
1	Pipe connections	ASTM A351 / 1.4435 (316L)
5.1	Mounting flange ISO 5211	ASTM A351 / 1.4435 (316L)
4	Ball valve shaft	1.4409 (SS316L)
6	Bolts	A2 70
3	Seal	TFM 1600

Application

- Water treatment
- Steam processing
- CIP/SIP
- Waste water treatment
- Storage and distribution
- Drying

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:

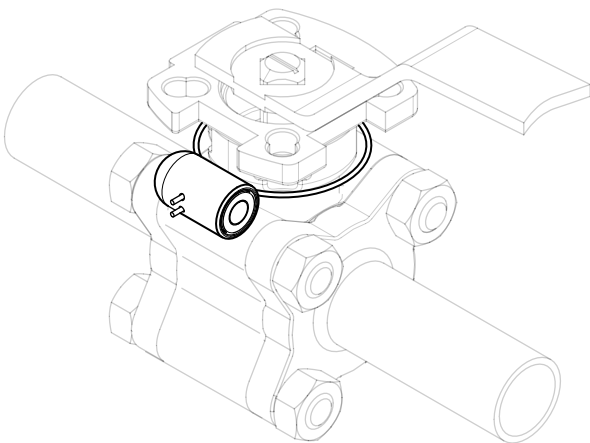
www.gemu-group.com/conexo

Ordering

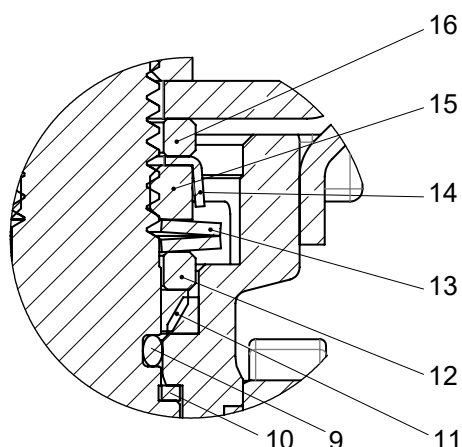
GEMÜ Conexo must be ordered separately with the ordering option "CONEXO" (see order data).

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.



The spindle seal system



Item	Name	Material
9	O-ring	Viton
10	Seal	TFM
11	V-ring	TFM
12	Stainless steel sleeve	SS304 – 1.4301
13	Spring washer	SS304 – 1.4301
14	Cap	SS304 – 1.4301
15	Spindle nut	A2 70
16	Washer	SS304 – 1.4301

Long service life due to double spindle seal

- Conical spindle seal:

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

- 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.

Availability

DN	NPS	Connection type code ¹⁾			
		17	59	60	80
8	1/4"	-	-	X	-
10	3/8"	X	-	X	-
15	1/2"	X	X	X	X
20	3/4"	X	X	X	X
25	1"	X	X	X	X
32	1¼"	X	-	X	-
40	1½"	X	X	X	X
50	2"	X	X	X	X
65	2½"	X	X	X	X
80	3"	X	X	X	X
100	4"	X	X	X	X

1) **Connection type**

Code 17: Spigot EN 10357, series A

Code 59: Spigot ASME BPE

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

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

Actuator assignment

GEMÜ type DR/SC

Seal material TFM 1600, FDA compliant, cavity filled seat seal (code 5H)

DN	NPS	Double acting DR	Code	Single acting SC	Code
8	1/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
10	3/8"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
15	1/2"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
20	3/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
25	1"	DR0015U F04NS11 A	DU01A00	SC0060U 6F05F07NS14 A	SU06KP0
32	1 1/4"	DR0015U F04NS11 A	DU01A00	SC0060U 6F05F07NS14 A	SU06KP0
40	1 1/2"	DR0060U F05F07NS17 A	DU06AC0	SC0150U 6F05F07NS17 A	SU15KC0
50	2"	DR0060U F05F07NS17 A	DU06AC0	SC0150U 6F05F07NS17 A	SU15KC0
65	2 1/2"	DR0150U F07F10NS17 A	DU15AE0	SC0300U 6F07F10NS22 A	SU30KD0
80	3"	DR0150U F07F10NS17 A	DU15AE0	SC0300U 6F07F10NS22 A	SU30KD0
100	4"	DR0220U F07F10NS22 A	DU22AD0	SC0450U 6F10F12NS27 A	SU45KG0

GEMÜ type DR/SC

Seal material TFM 1600, FDA compliant (code 5T)

DN	NPS	Double acting DR	Code	Single acting SC	Code
8	1/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
10	3/8"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
15	1/2"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
20	3/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
25	1"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
32	1 1/4"	DR0015U F04NS11 A	DU01A00	SC0060U 6F05F07NS14 A	SU06KP0
40	1 1/2"	DR0030U F05F07NS14 A	DU03AP0	SC0150U 6F05F07NS17 A	SU15KC0
50	2"	DR0030U F05F07NS14 A	DU03AP0	SC0150U 6F05F07NS17 A	SU15KC0
65	2 1/2"	DR0100U F05F07NS17 A	DU10AC0	SC0220U 6F07F10NS22 A	SU22KD0
80	3"	DR0100U F05F07NS17 A	DU10AC0	SC0220U 6F07F10NS22 A	SU22KD0
100	4"	DR0150U F07F10NS22 A	DU15AD0	SC0300U 6F07F10NS22 A	SU30KD0

GEMÜ type ADA/ASR

Seal material TFM 1600, FDA compliant, cavity filled seat seal (code 5H)

DN	NPS	Double acting ADA	Code	Single acting ASR	Code
8	1/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
10	3/8"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
15	1/2"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
20	3/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
25	1"	ADA0040U F05YS14/S11A	BU04AB0	ASR0040US14 F05YS14/S11A	AU04KB0
32	1 1/4"	ADA0040U F05YS14/S11A	BU04AB0	ASR0040US14 F05YS14/S11A	AU04KB0
40	1 1/2"	ADA0080U F05F07YS17/S14A	BU08AC0	ASR0130US14F05F07YS17/S14A	AU13KC0
50	2"	ADA0080U F05F07YS17/S14A	BU08AC0	ASR0130US14F05F07YS17/S14A	AU13KC0
65	2 1/2"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
80	3"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
100	4"	ADA0300U F07F10Y/S22 A	BU30AD0	ASR0850US14F10F12YS27 A	AU85KG0

GEMÜ type ADA/ASR

Seal material TFM 1600, FDA compliant (code 5T)

DN	NPS	Double acting ADA	Code	Single acting ASR	Code
8	1/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
10	3/8"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
15	1/2"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
20	3/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
25	1"	ADA0020U F04YS14/S11A	BU02AA0	ASR0040US14 F05YS14/S11A	AU04KB0
32	1¼"	ADA0020U F04YS14/S11A	BU02AA0	ASR0040US14 F05YS14/S11A	AU04KB0
40	1½"	ADA0040U F05YS14/S11A	BU04AB0	ASR0080US14F05F07YS17/S14A	AU08KC0
50	2"	ADA0040U F05YS14/S11A	BU04AB0	ASR0080US14F05F07YS17/S14A	AU08KC0
65	2½"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
80	3"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
100	4"	ADA0300U F07F10Y/S22 A	BU30AD0	ASR0500US14F07F10YS22 A	AU50KD0

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, Sanitary/Hygienic, aluminium double piston actuator	B44

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

4 Connection type	Code
Spigot EN 10357, series A	17
Spigot ASME BPE	59
Spigot ISO 1127 / EN 10357, series C	60
Clamp ASME BPE, face-to-face dimension FTF ASME BPE	80

5 Ball valve material	Code
1.4435 / ASTM A351, low ferrite <3% (equivalent to 316L Δ Fe<3%) (body, connection, ball), 1.4409 / SS316L (spindle)	C3

6 Seal material	Code
TFM 1600 (FDA certification)	5T
TFM 1600 (FDA certification), cavity filled	5H

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

8 Actuator version	Code
Actuator GEMÜ ADA	
Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F04 S14S11	BU02AA

8 Continuation of Actuator version	Code
Actuator, pneumatic, double acting, clockwise rotation, ADA0040U F05 S14S11	BU04AB
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, ADA0300U F07/10 S22	BU30AD
Actuator GEMÜ ASR	
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0020US08F04 S14S11	AU02FA
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0040US14F05 S14S11	AU04KB
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0080US14F05/07S17S14	AU08KC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0130US14F05/07S17S14	AU13KC
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, single acting, clockwise rotation, spring closing, ASR0850US14F10/12 S27	AU85KG
Actuator GEMÜ DR	
Actuator, pneumatic, double acting, clockwise rotation, DR0015U F04 S11	DU01AO
Actuator, pneumatic, double acting, clockwise rotation, DR0030U F05/07 S14	DU03AP
Actuator, pneumatic, double acting, clockwise rotation, DR0060U F05/07 S17	DU06AC
Actuator, pneumatic, double acting, clockwise rotation, DR0100U F05/07 S17	DU10AC

Order data

8 Continuation of Actuator version	Code
Actuator, pneumatic, double acting, clockwise rotation, DR0150U F07/10 S22	DU15AD
Actuator, pneumatic, double acting, clockwise rotation, DR0220U F07/10 S22	DU22AD
Actuator GEMÜ SC	
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0030U 6F04 S11	SU03KO
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0060U 6F05/07 S14	SU06KP
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0150U 6F05/07 S17	SU15KC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0220U 6F07/10 S22	SU22KD

8 Continuation of Actuator version	Code
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0300U 6F07/10 S22	SU30KD
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0450U 6F10/12 S27	SU45KG

9 Actuator particulars	Code
Gen. industrial version, body alu, anodising layer 25-35µm, end caps alu, powder coated, shaft C steel + ENP, bolt A2	0

10 Special version	Code
without	
ATEX certification	X

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

Order example

Order option	Code	Description
1 Type	B44	Ball valve, metal, pneumatically operated, 3-piece body, Sanitary/ Hygienic, aluminium double piston actuator
2 DN	15	DN 15
3 Body/ball configuration	D	2/2-way body
4 Connection type	60	Spigot ISO 1127 / EN 10357, series C
5 Ball valve material	C3	1.4435 / ASTM A351, low ferrite <3% (equivalent to 316L Δ Fe<3%) (body, connection, ball), 1.4409 / SS316L (spindle)
6 Seal material	5T	TFM 1600 (FDA certification)
7 Control function	1	Normally closed (NC)
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 Special version		without
11 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: -10 to 220 °C

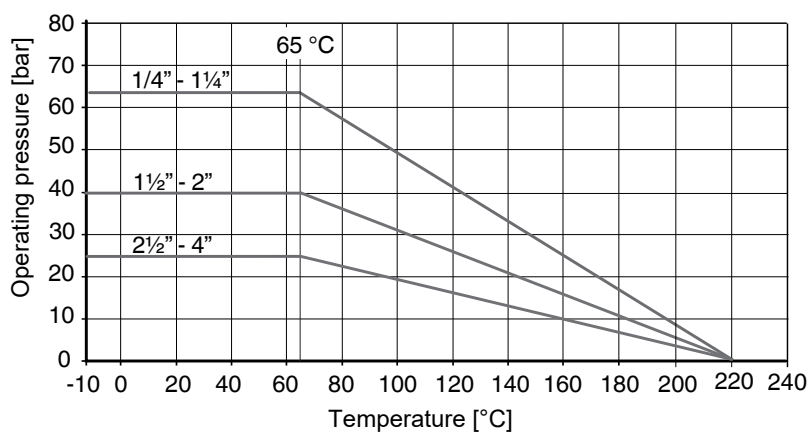
Ambient temperature: 0 to 60 °C

Storage temperature: 0 to 40 °C

Pressure

Operating pressure: 0 to 63 bar

Pressure/temperature diagram:



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	Connection code ¹⁾		
		59, 80	60	17
8	1/4"	-	7	7
10	3/8"	-	7	7
15	1/2"	9	18	18
20	3/4"	26	43	43
25	1"	56	77	77
32	1 1/4"	-	95	95
40	1 1/2"	172	206	206
50	2"	327	344	344
65	2 1/2"	516	602	602
80	3"	817	844	844
100	4"	1376	1462	1462

Kv values in m³/h

1) **Connection type**

Code 17: Spigot EN 10357, series A

Code 59: Spigot ASME BPE

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

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

Control pressure: 6 to 8 bar

Pressure rating:

DN	Connection type code ¹⁾			
	60	17	80	59
8	PN63	-	-	-
10	PN63	PN63	-	-
15	PN63	PN63	PN63	PN63
20	PN63	PN63	PN63	PN63
25	PN63	PN63	PN63	PN63
32	PN63	PN63	-	-
40	PN63	PN63	PN63	PN63
50	PN63	PN63	PN63	PN63
65	PN40	PN40	PN40	PN40
80	PN40	PN40	PN40	PN40
100	PN25	PN25	PN25	PN25

1) **Connection type**

Code 17: Spigot EN 10357, series A

Code 59: Spigot ASME BPE

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

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

Product conformities

Machinery Directive: 2006/42/EC

Pressure Equipment Directive: 2014/68/EU

Food: FDA*
Regulation (EC) No. 10/2011*
Regulation (EC) No. 1935/2004*

Explosion protection: ATEX (2014/34/EU), order code Special version X

ATEX marking: The ATEX marking of the product depends on the respective product configuration with valve body and actuator. It can be found in the product-specific ATEX documentation and the ATEX type plate.

Mechanical data

90° travel: GEMÜ ADA /ASR: ±5° adjustable (85° - 95°)
GEMÜ DR /SC: 20° adjustable (75° - 95°)

Torques:

DN	NPS	Seal material code ¹⁾	
		5T	5H
8	1/4"	4	4
10	3/8"	4	4
15	1/2"	8	12
20	3/4"	8	12
25	1"	13	19
32	1 1/4"	16	22
40	1 1/2"	32	47
50	2"	34	51
65	2 1/2"	56	83
80	3"	78	117
100	4"	140	209

Free of oil and grease incl. 25% safety

Torques in Nm

1) **Seal material**

Code 5H: TFM 1600 (FDA certification), cavity filled

Code 5T: TFM 1600 (FDA certification)

Weight:**Body**

DN	NPS	Connection code ¹⁾			
		59	80	60	17
8	1/4"	-	-	0.5	-
10	3/8"	-	-	0.5	-
15	1/2"	0.5	0.5	0.5	0.8
20	3/4"	0.5	0.5	0.8	0.8
25	1"	1	1.1	1.1	1.1
32	1 1/4"	-	-	1.6	1.6
40	1 1/2"	2.1	2.2	2.7	2.7
50	2"	3.5	3.5	4.2	4.2
65	2 1/2"	7	7.1	8.2	8.2
80	3"	11	11.8	11.6	11.6
100	4"	20	20.5	24	24

Weights in kg

1) **Connection type**

Code 17: Spigot EN 10357, series A

Code 59: Spigot ASME BPE

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

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

Weight:

Actuator type ADA/ASR

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

Weights in kg

Actuator DR/SC

Type	DR double act- ing	SC single acting
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

Weights in kg

Dimensions

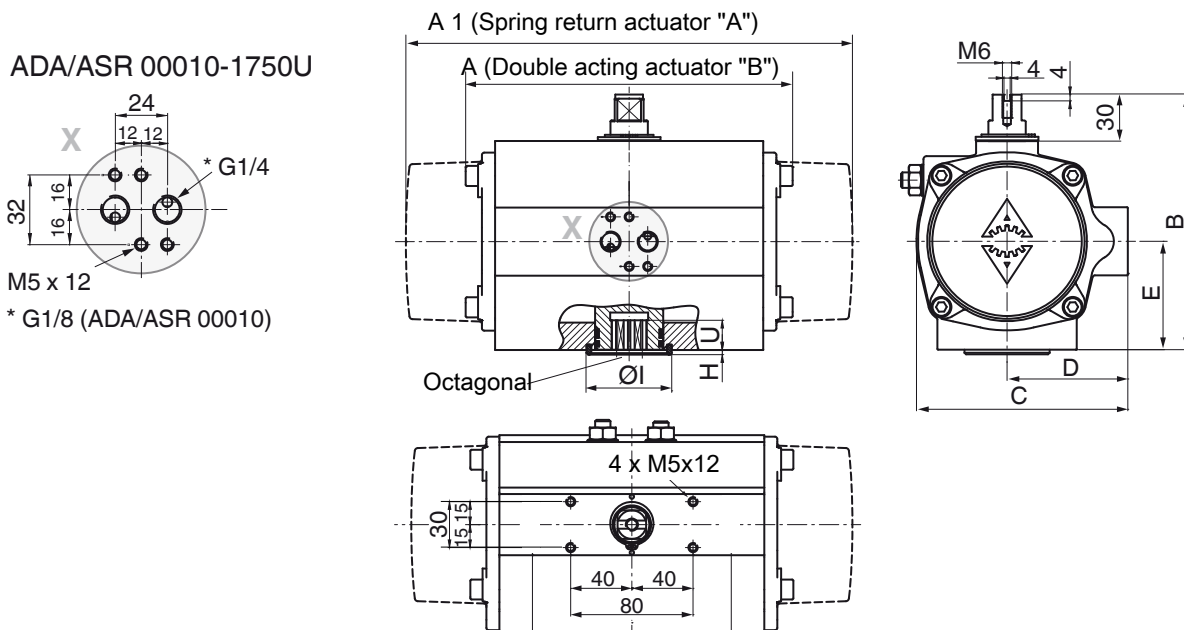
Actuator dimensions

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 ADA/ASR

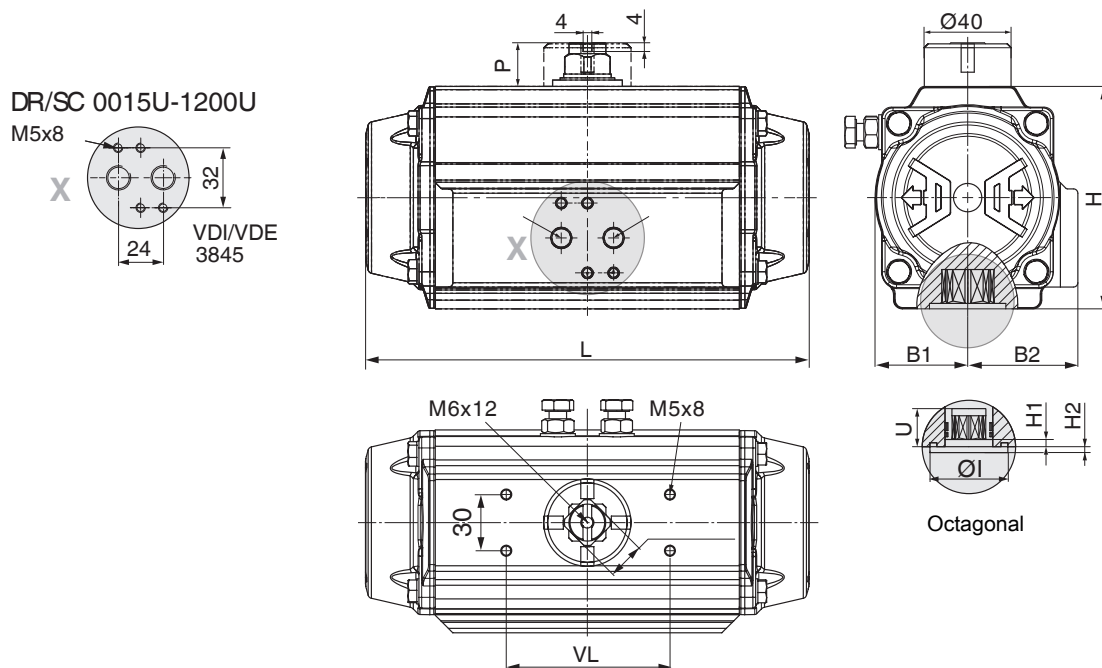


Type	ISO 5211	Type		B	C	D	E	SW	ØT	U	n
		ADA	ASR								
00010	F03	-	100.0	76	56.0	33.0	23.0	9	-	12	4
00010	F04	-	100.0	76	56.0	33.0	23.0	9	-	12	4
0020U	F03/F05	145	163.0	96	76.0	48.0	34.0	9	25	10	4
0020U	F04	145	163.0	96	76.0	48.0	34.0	14	35	12	4
0020U	F05	145	163.0	96	76.0	48.0	34.0	14	35	12	4
0040U	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

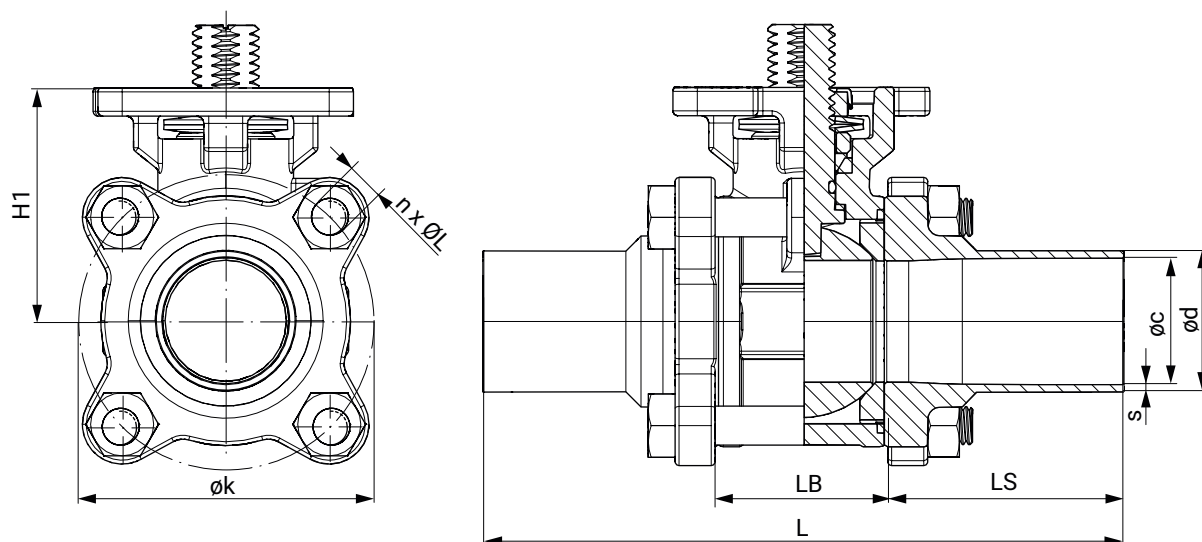


Type	ISO 5211	Octagonal	Air connector	A	B	F	G	Ø I	M	N	O	H	H1	U
0015U	F03/F05	11	G1/8	136.0	69.0	80	20	30	29.0	43.0	11	1.5	0.5	11
0030U	F04	14	G1/8	153.5	85.0	80	20	35	36.0	48.5	11	1.5	0.5	11
0030U	F05/07	14	G1/8	153.5	85.0	80	20	35	36.0	48.5	11	1.5	0.5	16
0060U	F05/07	14	G1/8	203.5	102.0	80	20	35	42.5	50.5	17	2.0	0.5	19
0100U	F05/07	17	G1/8	241.0	115.0	80	20	40	49.5	56.5	17	1.5	1.5	19
0150U	F07/10	17	G1/4	259.0	127.0	80	20	55	55.5	63.0	17	2.0	1.5	19
0220U	F07/10	22	G1/4	304.0	145.0	80	30	55	64.0	72.0	27	2.0	1.5	19
0300U	F07/10	22	G1/4	333.0	157.0	80	30	55	69.5	77.0	27	2.0	1.5	25
0450U	F10/12	27	G1/4	394.5	177.0	80	30	70	80.0	86.0	27	3.0	1.5	32

Dimensions in mm

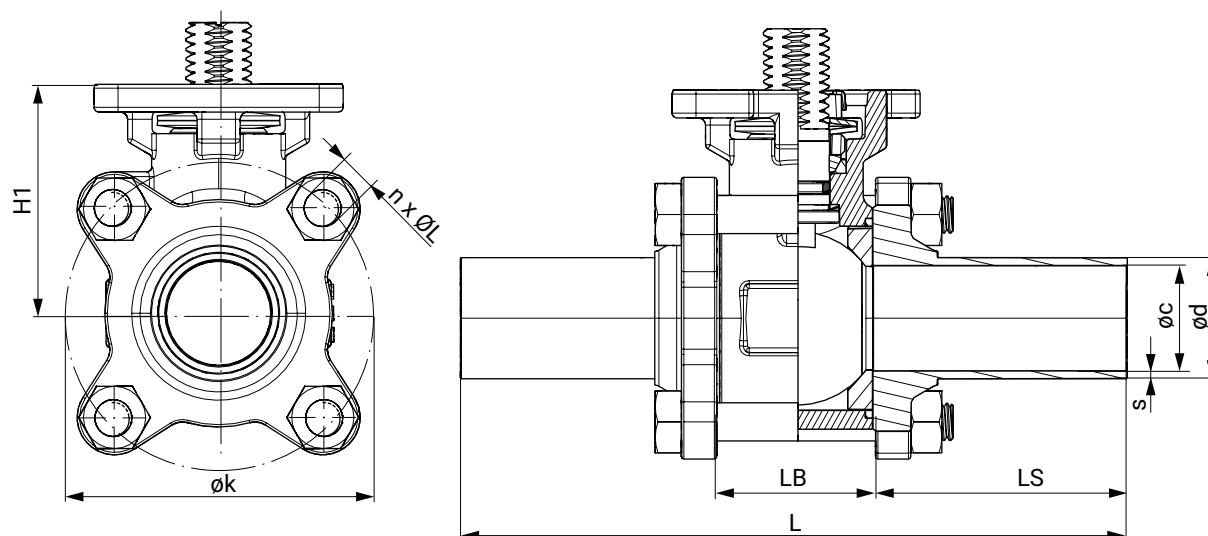
Body dimensions

Spigot DIN EN 10357 (connection code 17)



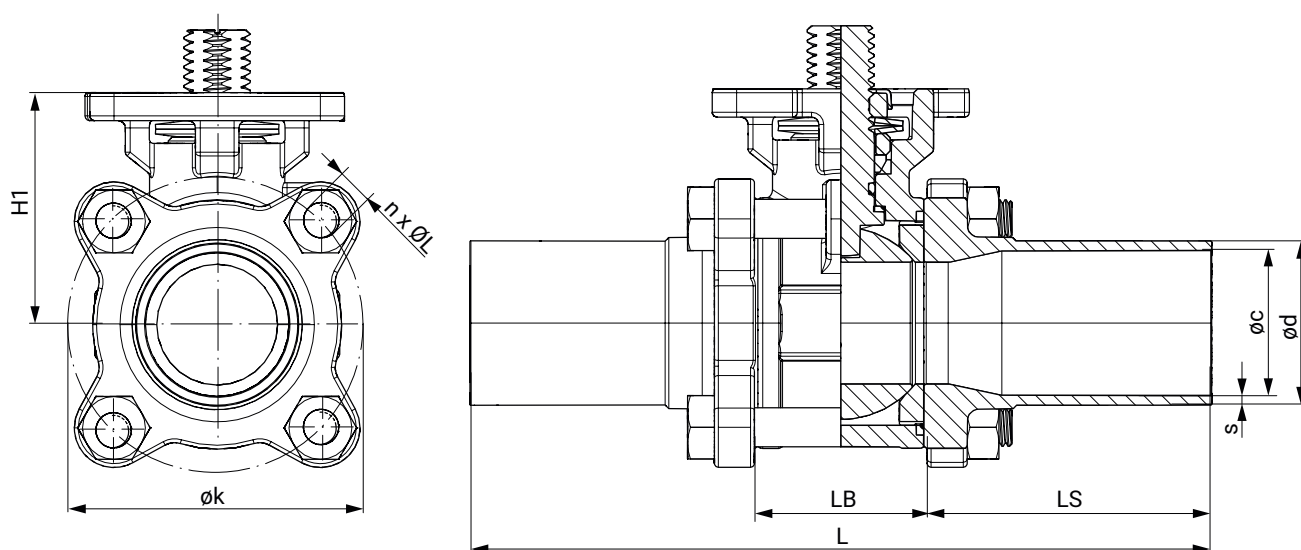
DN	ϕc	ϕd	ϕk	L	LB	LS	H1	$n \times \phi l$	s
10	10	13	42.5	120.1	24.3	47.9	37	4 x M6	1.5
15	16	19	42.5	140.1	24.3	57.9	37	4 x M6	1.5
20	20	23	54.5	140	31.2	54.4	40	4 x M8	1.5
25	26	29	60.4	152	34	59	48	4 x M8	1.5
32	32	35	75	165	44	60.5	53	4 x M10	1.5
40	38	41	86.5	190	55	67.5	63	4 x M12	1.5
50	50	53	107	203	68.9	67	72	4 x M14	1.5
65	66	70	131.5	254	82	86	92	4 x M14	2
80	81	85	158	280	96	92	102	4 x M16	2
100	100	104	198.5	308	122	93	132	6 x M20	2

Dimensions in mm

Spigot ASME BPE (connection code 59)


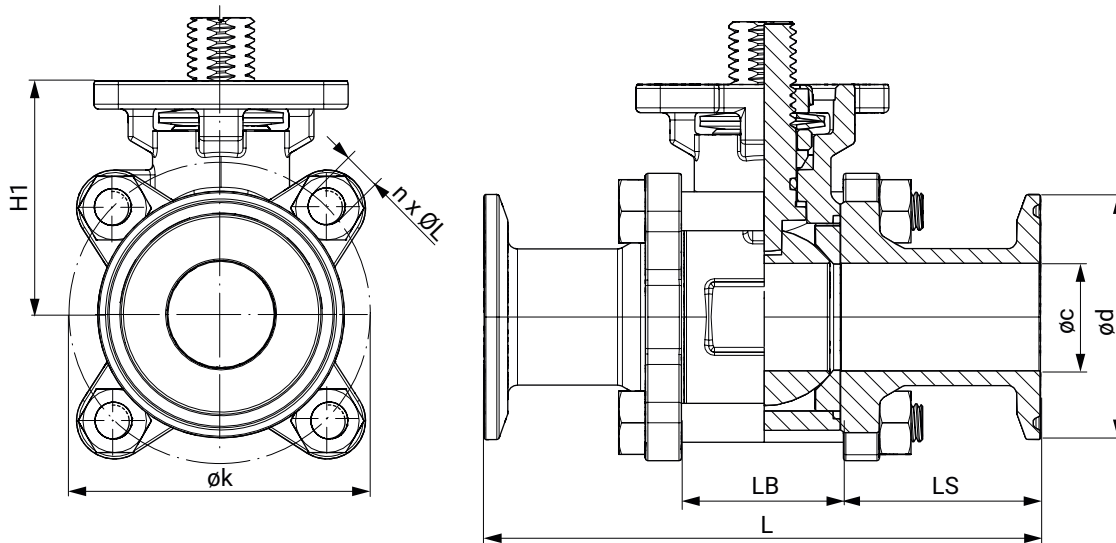
DN	ϕc	ϕd	s	ϕk	L	LB	LS	H1	$n \times \phi L$
15	9.4	12.7	1.65	44.6	124.4	25	49.7	38	4 x M6
20	15.7	19	1.65	44.6	142.2	28	58.6	38	4 x M6
25	22.1	25.4	1.65	61.5	162.3	32.1	65.1	48	4 x M8
40	34.8	38.1	1.65	78.5	182.2	46	68.1	60	4 x M12
50	47.5	50.8	1.65	100.4	193	59.6	66.7	69	4 x M14
65	60.2	63.5	1.65	126	254.1	77.1	88.5	89	4 x M14
80	72.9	76.2	1.65	150	276.9	91.7	92.6	98	4 x M16
100	97.4	101.6	2.1	187.5	304.9	118.3	93.3	130	6 x M16

Dimensions in mm

Spigot ISO 1127 / EN 10357 (connection code 60)

DN	ϕc	ϕd	s	ϕk	L	LB	LS	H1	$n \times \phi l$
8	10.3	13.5	1.6	42.5	120.1	24.3	47.9	37	4 x M6
10	14	17.2	1.6	42.5	120.1	24.3	47.9	37	4 x M6
15	18.1	21.3	1.6	42.5	140.1	24.3	57.9	37	4 x M6
20	23.7	26.9	1.6	54.5	140	31.2	54.4	40	4 x M8
25	29.7	33.7	2	60.4	152	34	59	48	4 x M8
32	38.4	42.4	2	75	165	44	60.5	53	4 x M10
40	44.3	48.3	2	86.5	190	55	67.5	63	4 x M12
50	56.3	60.3	2	107	203	68.9	67	72	4 x M14
65	72.1	76.1	2	131.5	254	82	86	92	4 x M14
80	84.3	88.9	2.3	158	280	96	92	102	4 x M16
100	109.7	114.3	2.3	198.5	308	122	93	132	6 x M20

Dimensions in mm

Clamp ASME BPE (connection code 80)

DN	øc	ød	s	øk	L	LB	LS	H1	n x ØL
15	9.4	25	1.65	44.6	88.8	25	31.9	38	4 x M6
20	15.8	25	1.65	44.6	101.6	25	38.3	38	4 x M6
25	22.1	50.4	1.65	61.5	114.3	32.1	41.1	48	4 x M8
40	34.8	50.4	1.65	78.5	139.8	46	46.9	60	4 x M12
50	47.5	63.9	1.65	100.4	158.8	59.6	49.6	69	4 x M14
65	60.2	77.4	1.65	126	171.5	77.1	47.2	89	4 x M14
80	72.9	90.9	1.65	150	196.3	91.7	52.3	98	4 x M16
100	97.4	118.9	2.1	187.5	241.3	118.3	61.5	130	6 x M16

Dimensions in mm

Add-on components**GEMÜ 4221****Combi switchbox with integrated 3/2-way pilot valve**

The GEMÜ 4221 combi switchbox with integrated 3/2-way pilot valve for pneumatically operated quarter turn actuators uses a microprocessor controlled intelligent position sensor and an analogue travel sensor system. Electrical activation and position feedback is provided via 24 V DC signals or via fieldbus (AS-Interface, DeviceNet).

**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.

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 1435 ePos**Intelligent electro-pneumatic positioner**

The GEMÜ 1435 ePos digital electro-pneumatic positioner is used to control process valves with single acting or double acting linear or quarter turn actuators, and detects the position of the valve using an external travel sensor. It has a robust aluminium housing with protected operating buttons and an LCD display which allows the product to be individually adapted to the control task. The operating times can be adjusted by integrated throttles. Connection and mounting to NAMUR is also possible. Therefore, the GEMÜ 1435 ePos is an optimal solution for control tasks with high requirements, especially in applications with harsh environmental conditions.

**GEMÜ 1436 cPos****Intelligent positioner and integrated process controller**

The GEMÜ 1436 cPos digital electro-pneumatic positioner has an optional integrated process controller to control process valves with single acting or double acting linear or quarter turn actuators. When using the optional process controller, the signals from the sensors (e.g. flow, level, pressure, temperature) are detected and the media adjusted according to the specified set value. GEMÜ 1436 cPos has a robust aluminium housing with protected operating buttons and an LCD display which allows the product to be individually adapted to complex control tasks. With additional equipment, the positioner can be used directly in field-bus environments.

**GEMÜ 1436 eco cPos****Intelligent electro-pneumatic positioner**

The GEMÜ 1436 eco cPos digital electro-pneumatic positioner is used to control process valves with single acting linear or quarter turn actuators. The positioner, travel sensor, switching valves and status LEDs are integrated into the robust and compact housing. Due to factory preconfiguration, this product does not require a display with operating keys. The pneumatic and electrical connections are arranged in one mounting direction to save space and enable easy access. All these features make this positioner a cost-effective solution for control valves with basic requirements.



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