

## GEMÜ BB02

### Ball valve with bare shaft



### Features

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

### Description

The GEMÜ BB02 stainless steel 3-piece 2/2-way ball valve has a bare shaft. Thanks to the top flange according to ISO 5211, easy actuator mounting is possible.

### Technical specifications

- **Media temperature:** -4 to 356 °F
- **Ambient temperature:** -4 to 140 °F
- **Operating pressure:** 0 to 914 psi
- **Nominal sizes:** 1/4" (DN 8) to 4" (DN 100)
- **Body configurations:** 2/2-way body
- **Ball configurations:** Control ball
- **Connection types:** Flange | Spigot | Threaded connection
- **Connection standards:** ASME | DIN | EN | ISO | NPT
- **Body materials:** 1.4408, investment casting material
- **Seal materials:** PTFE
- **Conformities:** ASME GEMÜ B31.3 | ATEX | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act)

Technical data depends on the respective configuration



further information  
webcode: GW-BB02



## Product line



GEMÜ BB02

GEMÜ B22

GEMÜ B42

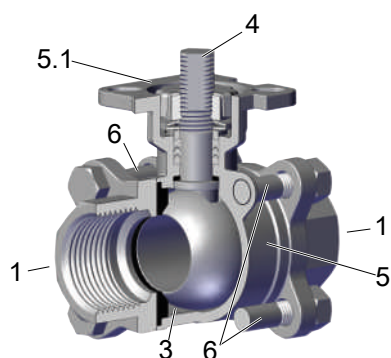
GEMÜ B52

### Operation

With bare shaft	●	-	-	-
Manual	-	●	-	-
pneumatic	-	-	●	-
Motorized	-	-	-	●
<b>Nominal sizes</b>	1/4" (DN 8) to 4" (DN 100)	1/4" (DN 8) to 4" (DN 100)	1/4" (DN 8) to 4" (DN 100)	1/4" (DN 8) to 4" (DN 100)
<b>Media temperature</b>	-4 to 356 °F	-4 to 356 °F	-4 to 356 °F	-4 to 356 °F
<b>Operating pressure</b>	0 to 914 psi	0 to 914 psi	0 to 914 psi	0 to 914 psi
<b>Connection types</b>				
Flange	●	●	●	●
Spigot	●	●	●	●
Threaded connection	●	●	●	●
<b>Conformities</b>				
ASME GEMÜ B31.3	●	●	●	●
ATEX	●	●	●	●
EAC	●	●	●	●
FDA	●	●	●	●
Functional safety	●	-	-	-
Oxygen	●	●	●	●
Reg. (EU) No. 10/2011	●	●	●	●
Regulation (EC) No. 1935/2004	●	●	●	●
Regulation (EC) No. 2023/2006	●	●	●	●
TA Luft (German Clean Air Act)	●	●	●	●

## Product description

### Construction

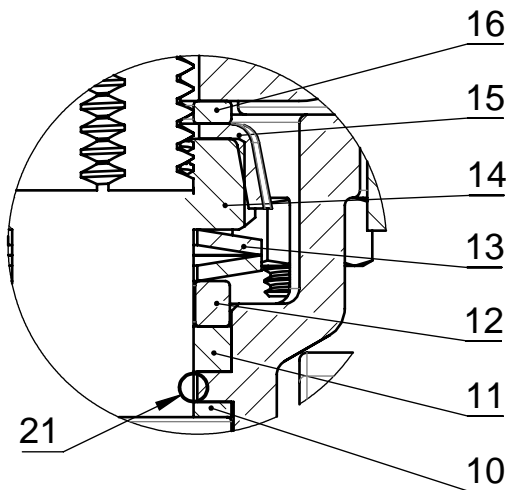


Item	Name	Materials
5	Ball valve body	1.4408 / CF8M
1	Pipe connections	1.4408 / CF8M , 1.4409 / CF3M butt weld connections
5.1	Mounting flange ISO 5211	1.4408 / CF8M
4	Ball valve shaft	1.4401 / SS316
6	Bolts	A2 70
3	Seal	PTFE

### Pressure-relief hole



## 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.

## 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>	
	Code 37	Code C7
<b>Spigot (code 17, 19, 59, 60)</b>	-	X
<b>Threaded socket (code 1, 31)</b>	X	-
<b>Flange (code 8, 11)</b>	X	-

### 1) Connection type

Code 1: Threaded socket DIN ISO 228

Code 31: NPT female thread

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 17: Spigot EN 10357 series A/DIN 11866 series A formerly DIN 11850 series 2

Code 19: Spigot DIN EN 12627

Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C

Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B

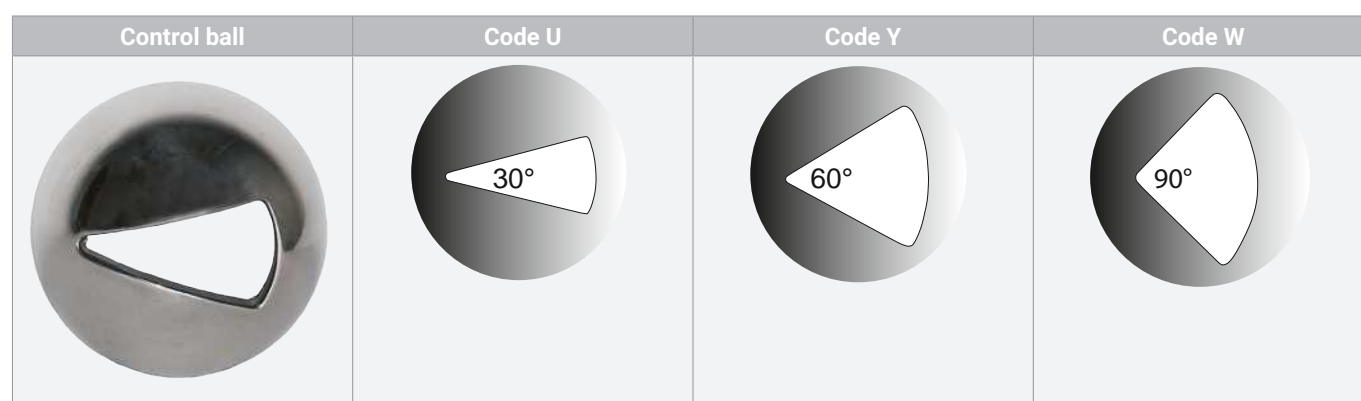
### 2) Ball valve material

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)

## Control ball

DN 15 to DN 100



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

## Order data

The order data provide an overview of standard configurations.

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

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
Ball valve body, metal, three-piece, ISO 5211, top flange, low-maintenance spindle seal and blow-out proof shaft, with anti-static unit	BB02

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
<b>2/2-way body</b>	<b>D</b>
2/2-way body, V-ball, 30° (Kv value, see datasheet)	U
2/2-way body, V-ball, 90° (Kv value, see datasheet)	W
2/2-way body, V-ball, 60° (Kv value, see datasheet)	Y

4 Connection type	Code
<b>Spigot</b>	
Spigot EN 10357 series A/DIN 11866 series A formerly DIN 11850 series 2	17
<b>Spigot DIN EN 12627</b>	<b>19</b>
Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C	59
<b>Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B</b>	<b>60</b>
<b>Threaded socket</b>	
<b>Threaded socket DIN ISO 228</b>	<b>1</b>
NPT female thread	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
<b>Flange EN 1092, PN40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752 basic series 1</b>	<b>11</b>

5 Ball valve material	Code
<b>1.4408/CF8M (body, connection), 1.4401/SS316 (ball, shaft)</b>	<b>37</b>
1.4408 / CF8M (body), 1.4409 / CF3M (connection), 1.4401 / SS316 (ball, shaft)	C7

6 Seal material	Code
<b>PTFE</b>	<b>5</b>

7 Type of design	Code
Standard	
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
Thermal separation between actuator and valve body by mounting kit, mounting kit and mounting parts in stainless steel	5227
K-no. 5227, K-no. 7056, 5227 – thermal separation by mounting kit, 7056 – drilled shaft, shortened hand lever	5237
K-no. 0101, K-no. 5227, 0101 – media-wetted area cleaned to ensure suitability for paint applications, 5227 – thermal separation by mounting kit	5238
K-no. 0107, K-no. 5227, 0107 – media-wetted area cleaned to ensure suitability for paint applications, 5227 – thermal separation by mounting kit	5239
K-no. 0101, K-no. 5227, K-no. 7056, 0101 – media-wetted area cleaned to ensure suitability for paint applications, 5227 – thermal separation by mounting kit, 7056 – drilled shaft, shortened hand lever	5240
K-no. 0107, K-no. 5227, K-no. 7056, 0107 – media-wetted area cleaned to ensure suitability for paint applications, 5227 – thermal separation by mounting kit, 7056 – drilled shaft, shortened hand lever	5241
Hand lever cropped for construction of feedback units. Shaft face drilled for mounting kit: DN8–DN20 M5 x 12.5/depth of thread 9.0 mm, DN25–DN100 M6 x 15/depth of thread 10.0 mm	7056
K-no. 0101, K-no. 7056, 0101 – media-wetted area cleaned to ensure suitability for paint applications, 7056 – drilled shaft, shortened hand lever	7097

8 Special version	Code
Without	

8 Special version	Code
Special version for oxygen maximum medium temperature: 60 °C, Media-wetted materials cleaned, and grease and seal with BAM testing	O
ASME B31.3	P

8 Special version	Code
ATEX version	X

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

### Order example

Order option	Code	Description
1 Type	BB02	Ball valve body, metal, three-piece, ISO 5211, top flange, low-maintenance spindle seal and blow-out proof shaft, with anti-static unit
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 Type of design		Standard
8 Special version		Without
9 CONEXO	C	Integrated RFID chip for electronic identification and traceability

## 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:** Connection code 19, 59, 60: 14 – 356 °F  
Connection code 1, 31, 8, 11: -4 – 356 °F  
For media temperatures > 212 °F, we recommend using a mounting kit with adapter between the ball valve and the actuator.

**Ambient temperature:** -4 – 140 °F

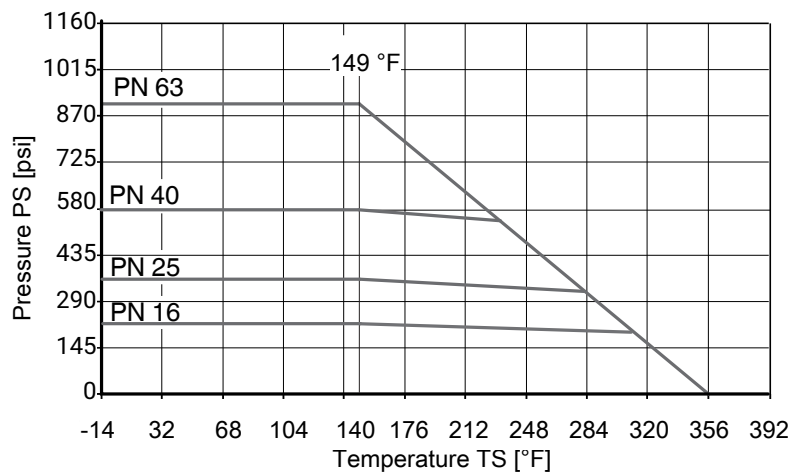
**Storage temperature:** -76 – 140 °F

### Pressure

**Operating pressure:** 0 – 914 psi

**Vacuum:** Can be used up to a vacuum of 1.5 inhg (absolute)  
These values apply to room temperature and air. The values may deviate for other media and other temperatures.

### Pressure/temperature diagram:



Note media temperature

Pressure/temperature data in accordance with diagram refers to static operating conditions. Strongly fluctuating or fast-changing parameters can lead to a reduction of the service life. Special applications must be talked through with your technical contact person in advance.

**Leakage rate:** Leakage rate according to ANSI FCI70 – B16.104  
Leakage rate according to EN 12266, 90 psi air, leakage rate A



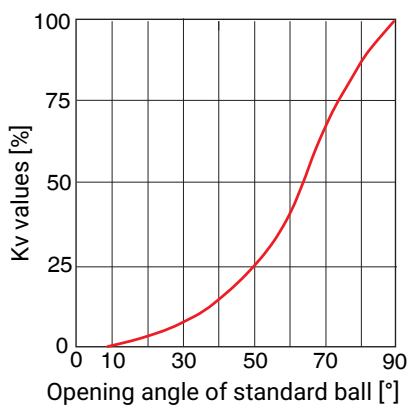
**Cv-values:**

**Standard ball (code D)**

DN	NPS	Kv values
8	1/4"	9.36
10	3/8"	9.36
15	1/2"	19.89
20	3/4"	39.78
25	1"	70.20
32	1¼"	109.98
40	1½"	249.21
50	2"	428.22
65	2½"	696.15
80	3"	1093.95
100	4"	1989.00

Cv values in gpm

**Diagrammatic view**



**V-ball 30° (code U)**

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
15	1/2"	0	0.100	0.100	0.200	0.300	0.500	0.800	1.090	1.590	2.190	2.590
20	3/4"	0	0.100	0.200	0.500	0.700	1.090	1.790	2.390	3.280	4.480	5.370
25	1"	0	0.100	0.300	0.800	1.290	2.290	3.480	5.070	6.970	9.510	9.950
32	1¼"	0	0.200	0.400	1.090	1.990	3.680	5.470	7.960	9.950	12.930	14.920
40	1½"	0	0.300	0.600	1.590	2.980	4.970	7.460	10.940	13.920	16.910	19.890
50	2"	0	0.400	1.190	3.780	5.970	9.950	14.920	22.870	30.830	42.760	59.670
65	2½"	0	0.400	0.990	3.980	7.960	11.930	17.900	27.850	36.800	61.660	74.590
80	3"	0	0.500	1.190	3.980	7.960	13.920	22.870	32.820	45.750	64.640	81.550
100	4"	0	0.600	1.990	5.970	14.920	28.840	47.740	70.610	99.450	129.290	158.180

Cv values in gpm

**Cv-values:**

**V-ball 60° (code Y)**

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
15	1/2"	0	0.100	0.100	0.300	0.500	0.900	1.390	1.990	3.280	4.380	5.970
20	3/4"	0	0.100	0.200	0.700	0.990	1.690	2.780	3.980	6.460	8.950	11.930
25	1"	0	0.200	0.400	1.090	1.790	3.380	5.270	7.860	12.240	15.220	20.880
32	1¼"	0	0.200	0.600	1.790	2.980	5.470	9.450	12.730	18.900	25.860	38.790
40	1½"	0	0.400	0.800	2.490	3.980	7.960	12.930	18.900	26.850	39.780	51.710
50	2"	0	0.400	1.490	4.570	8.950	16.420	26.850	38.790	54.700	82.540	109.400
65	2½"	0	0.400	1.490	4.970	9.950	20.880	33.810	52.710	74.590	102.430	149.180
80	3"	0	0.500	2.490	5.970	13.920	24.860	39.780	64.640	90.500	127.300	164.150
100	4"	0	0.700	2.980	10.940	24.860	39.780	58.680	89.510	140.280	210.830	354.040

Cv values in gpm

**V-ball 90° (code W)**

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
15	1/2"	0	0.100	0.200	0.400	0.600	0.900	1.490	2.190	3.780	5.370	6.860
20	3/4"	0	0.200	0.400	0.800	1.190	1.990	3.080	4.570	7.960	11.240	13.920
25	1"	0	0.200	0.600	1.790	3.380	5.070	8.060	11.340	15.910	20.880	28.840
32	1¼"	0	0.300	0.800	1.990	4.970	7.960	13.920	18.900	27.850	38.790	54.700
40	1½"	0	0.500	0.900	3.480	6.960	12.930	19.890	30.830	41.770	62.650	77.570
50	2"	0	0.700	1.990	5.970	11.930	21.880	34.810	44.750	69.620	104.420	134.320
65	2½"	0	0.500	1.690	6.960	13.920	27.850	47.740	69.620	105.420	159.120	216.800
80	3"	0	0.700	3.480	7.960	17.900	34.810	59.670	89.510	134.320	203.930	308.300
100	4"	0	0.990	3.480	15.910	39.780	74.590	124.370	188.960	293.440	439.570	666.320

Cv values in gpm

**Pressure rating:**

DN	Spigot				Threaded socket		Flange	
	Connection type code <sup>1)</sup>							
	17	19	59	60	1	31	8	11
<b>8</b>	-	PN63	-	PN63	PN63	PN63	-	-
<b>10</b>	PN63	PN63	-	PN63	PN63	PN63	-	-
<b>15</b>	PN63	PN63	PN63	PN63	PN63	PN63	-	PN40
<b>20</b>	PN63	PN63	PN63	PN63	PN63	PN63	-	PN40
<b>25</b>	PN63	PN63	PN63	PN63	PN63	PN63	-	PN40
<b>32</b>	PN63	PN63	-	PN63	PN63	PN63	-	PN40
<b>40</b>	PN63	PN63	PN63	PN63	PN63	PN63	-	PN40
<b>50</b>	PN63	PN63	PN63	PN63	PN63	PN63	-	PN40
<b>65</b>	PN40	PN40	PN40	PN40	PN40	PN40	PN16	PN40*
<b>80</b>	PN40	PN40	PN40	PN40	PN40	PN40	PN16	-
<b>100</b>	PN25	PN25	PN25	PN25	PN25	PN25	PN16	-

\* on request

1) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 31: NPT female thread

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 17: Spigot EN 10357 series A/DIN 11866 series A formerly DIN 11850 series 2

Code 19: Spigot DIN EN 12627

Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C





Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B

## Product conformities

**Pressure equipment standards:** ASME GEMÜ B31.3 (DN 15 – 100)  
2014/68/EU

**Food:** FDA  
Regulation (EC) No. 10/2011  
Regulation (EC) No. 1935/2006

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

**ATEX marking:** **Up to DN 65**  
Gas:  II 2G Ex h IIC T6 ... T2 Gb X  
Dust:  II -/2D Ex h -/IIIC T180 °C -/Db X  
**DN 80 and 100**  
Gas:  II 2G Ex h IIB T6 ... T2 Gb X  
Dust:  II -/2D Ex h -/IIIC T180 °C -/Db X

**Oxygen:** BAM compliant, the product is suitable for application with oxygen

## Mechanical data

**Weight:**

**Ball valve**

DN	NPS	Threaded connection, spigot	Flange
8	1/4"	1.21	2.54
10	3/8"	1.21	2.54
15	1/2"	1.32	2.98
20	3/4"	1.54	3.20
25	1"	1.76	3.97
32	1¼"	2.65	5.29
40	1½"	5.07	7.72
50	2"	7.72	10.80
65	2½"	15.21	20.50
80	3"	25.79	32.41
100	4"	42.55	49.16

Weight in lb

**Torques:**

DN	NPS	Breakaway torque
8	1/4"	53.10
10	3/8"	53.10
15	1/2"	53.10
20	3/4"	88.51
25	1"	97.36
32	1¼"	150.46
40	1½"	247.82
50	2"	469.09
65	2½"	672.66
80	3"	787.72
100	4"	1221.40

Torques in lbf in

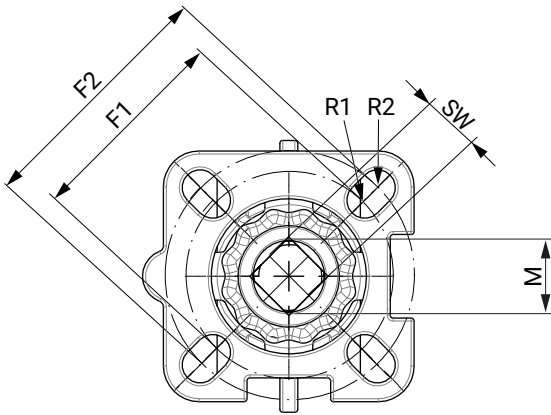
A safety factor of 1.2 is included

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 flange

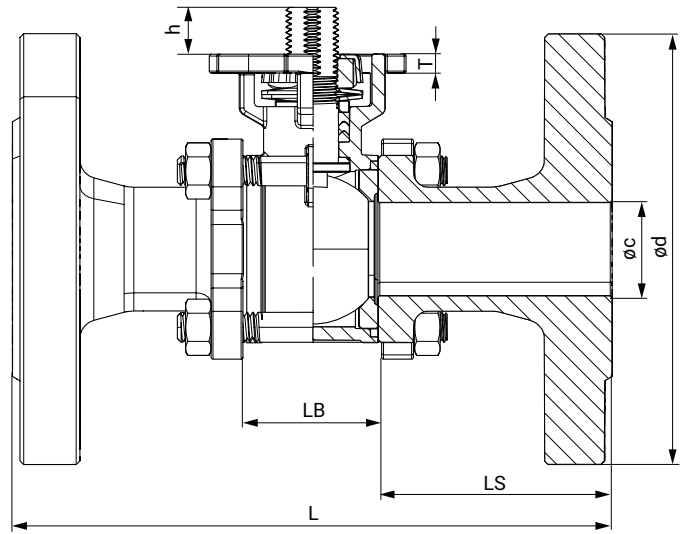
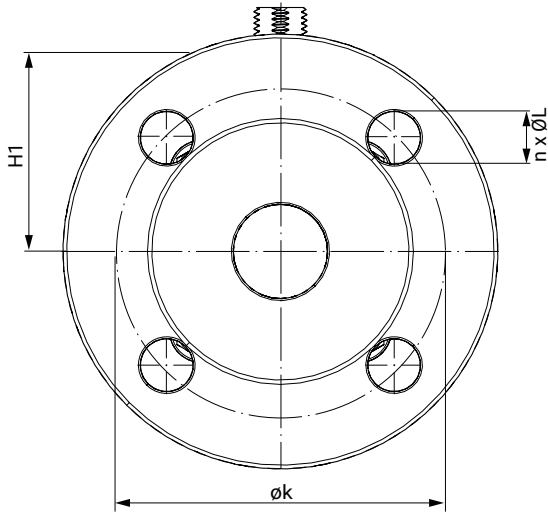


DN	G	F1	ISO 5211	R1	F2	ISO 5211	R2	SW [mm]	M
8	1/4"	1.42	F03	0.12	1.65	F04	0.12	9.0	M12
10	3/8"	1.42	F03	0.12	1.65	F04	0.12	9.0	M12
15	1/2"	1.42	F03	0.12	1.65	F04	0.12	9.0	M12
20	3/4"	1.42	F03	0.12	1.65	F04	0.12	9.0	M12
25	1"	1.65	F04	0.12	1.97	F05	0.14	11.0	M14
32	1 1/4"	1.65	F04	0.12	1.97	F05	0.14	11.0	M14
40	1 1/2"	1.97	F05	0.14	2.76	F07	0.18	14.0	M18
50	2"	1.97	F05	0.14	2.76	F07	0.18	14.0	M18
65	2 1/2"	1.97	F05	0.14	2.76	F07	0.18	14.0	M18
80	3"	2.76	F07	0.20	4.02	F10	0.24	17.0	M22
100	4"	2.76	F07	0.20	4.02	F10	0.24	17.0	M22

Dimensions in inch

**Body dimensions**

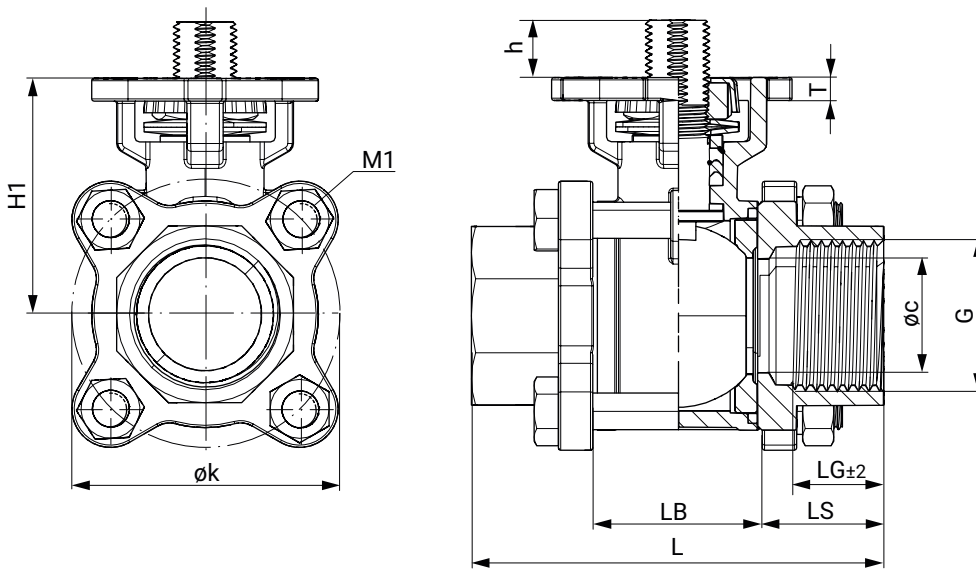
**Flange (connection code 8, 11)**



DN	Con- tion code	$\varnothing c$	$\varnothing d$	$\varnothing k$	h	L	LB	LS	H1	T	n x $\varnothing L$
15	11	0.59	3.74	2.56	0.35	5.12	0.94	2.09	1.59	0.22	4 x 0.55
20	11	0.79	4.13	2.95	0.41	5.91	1.14	2.38	1.77	0.22	4 x 0.55
25	11	0.98	4.53	3.35	0.49	6.30	1.38	2.46	2.05	0.20	4 x 0.55
32	11	1.26	5.51	3.94	0.49	7.09	1.73	2.68	2.24	0.26	4 x 0.71
40	11	1.50	5.91	4.33	0.63	7.87	2.09	2.89	2.72	0.30	4 x 0.71
50	11	1.93	6.50	4.92	0.63	9.06	2.56	3.25	3.03	0.33	4 x 0.71
65	8	2.56	7.28	5.71	0.59	11.42	3.19	4.11	3.54	0.33	4 x 0.71
80	8	2.99	7.87	6.30	0.71	12.20	3.78	4.21	4.25	0.39	8 x 0.71
100	8	3.94	8.66	7.09	0.71	13.78	4.88	4.45	4.84	0.39	8 x 0.71

Dimensions in inch  
n = number of bolts

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

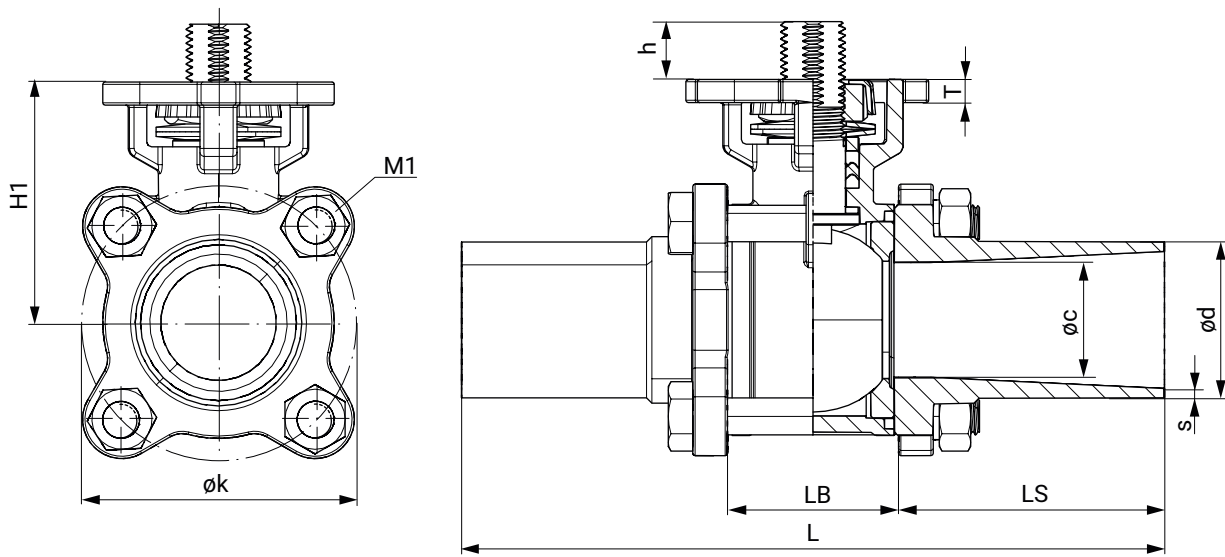


DN	G	øc	øk	h	LG	L	LB	LS	H1	M1	T
8	1/4"	0.39	1.81	0.35	0.47	2.17	0.94	0.61	1.59	M8	0.47
10	3/8"	0.47	1.81	0.35	0.47	2.36	0.94	0.71	1.59	M8	0.55
15	1/2"	0.59	1.81	0.35	0.63	2.95	0.94	1.00	1.59	M8	0.63
20	3/4"	0.79	2.01	0.41	0.63	3.15	1.14	1.00	1.77	M8	0.63
25	1"	0.98	2.40	0.49	0.67	3.54	1.38	1.08	2.05	M8	0.67
32	1¼"	1.26	2.87	0.49	0.79	4.33	1.73	1.30	2.24	M10	0.79
40	1½"	1.50	3.27	0.63	0.87	4.72	2.09	1.32	2.72	M10	0.87
50	2"	1.93	3.98	0.63	0.94	5.51	2.56	1.48	3.03	M12	0.94
65	2½"	2.52	5.12	0.59	1.10	7.28	3.19	2.05	3.54	M12	1.10
80	3"	2.99	6.10	0.71	1.26	8.07	3.78	2.15	4.25	M14	1.26
100	4"	3.94	7.36	0.71	1.57	9.45	4.88	2.28	4.84	M14	1.57

Dimensions in inch



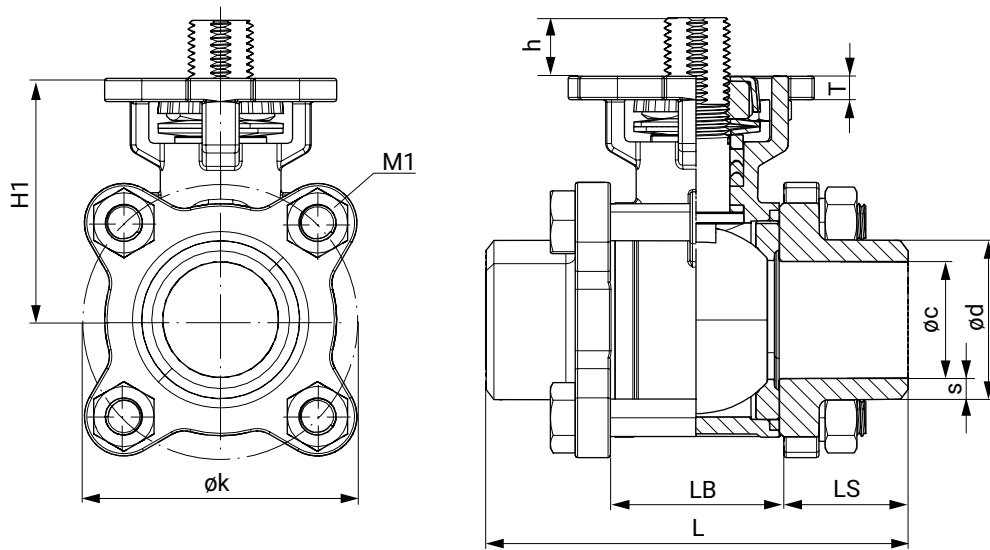
**Spigot EN 10357 series A (connection code 17)**



DN	øc	ød	h	øk	s	L	LB	LS	H1	M1	SW [mm]	T
10	0.39	0.51	0.35	1.81	0.06	4.72	0.94	1.89	1.59	M8	18.0	0.22
15	0.59	0.75	0.35	1.81	0.06	5.52	0.94	2.28	1.59	M8	18.0	0.22
20	0.79	0.91	0.41	2.01	0.06	5.51	1.14	2.19	1.77	M8	18.0	0.22
25	0.98	1.14	0.49	2.40	0.06	5.99	1.38	2.30	2.05	M8	21.0	0.20
32	1.26	1.38	0.49	2.87	0.06	6.50	1.73	2.38	2.24	M10	21.0	0.26
40	1.50	1.61	0.63	3.27	0.06	7.50	2.09	2.70	2.72	M10	27.0	0.30
50	1.97	2.09	0.63	3.98	0.06	7.99	2.56	2.72	3.03	M12	27.0	0.33
65	2.56	2.76	0.59	5.12	0.08	10.00	3.19	3.41	3.54	M12	27.0	0.33
80	3.15	3.35	0.71	6.10	0.08	11.03	3.78	3.62	4.25	M14	-	0.39
100	3.94	4.09	0.71	7.36	0.08	12.48	4.88	3.80	4.84	M14	-	0.39

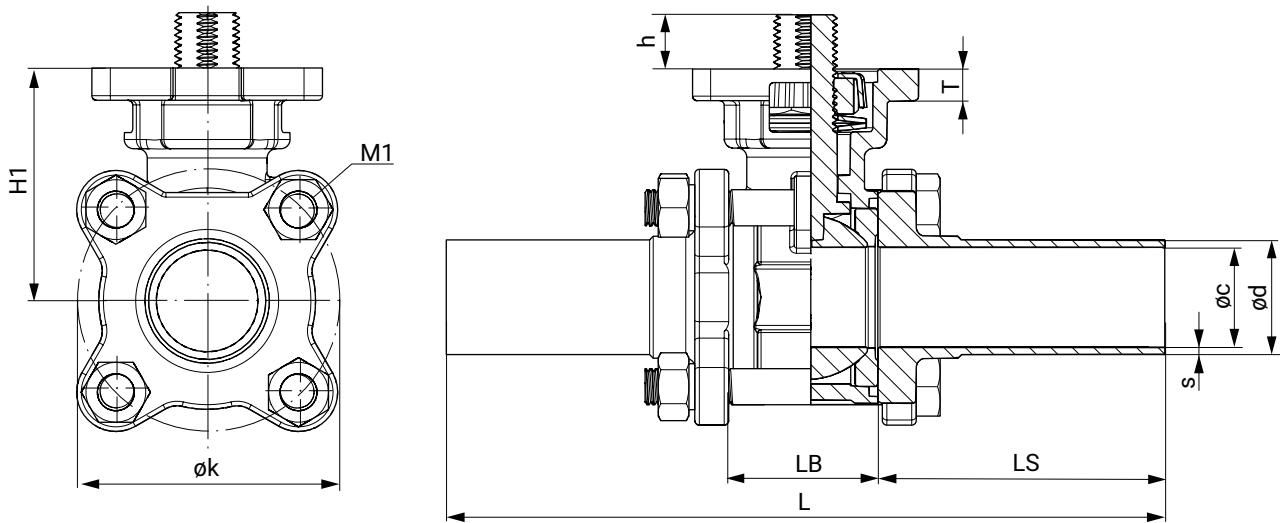
Dimensions in inch

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



DN	øc	ød	øk	h	s	L	LB	LS	H1	M1	T
8	0.46	0.64	1.81	0.35	0.09	2.36	0.94	0.71	1.59	M8	0.22
10	0.50	0.69	1.81	0.35	0.09	2.36	0.94	0.71	1.59	M8	0.22
15	0.59	0.85	1.81	0.35	0.13	2.95	0.94	1.00	1.59	M8	0.22
20	0.79	1.07	2.01	0.41	0.14	3.15	1.14	1.00	1.77	M8	0.22
25	0.98	1.34	2.40	0.49	0.18	3.54	1.38	1.08	2.05	M8	0.20
32	1.26	1.68	2.87	0.49	0.21	4.33	1.73	1.30	2.24	M10	0.26
40	1.50	1.91	3.27	0.63	0.21	4.72	2.09	1.32	2.72	M10	0.30
50	1.97	2.38	3.98	0.63	0.21	5.51	2.56	1.48	3.03	M12	0.33
65	2.48	3.00	5.12	0.59	0.26	7.30	3.19	2.06	3.54	M12	0.33
80	2.99	3.50	6.10	0.71	0.26	8.07	3.78	2.15	4.25	M14	0.39
100	3.94	4.57	7.36	0.71	0.31	9.45	4.88	2.28	4.84	M14	0.39

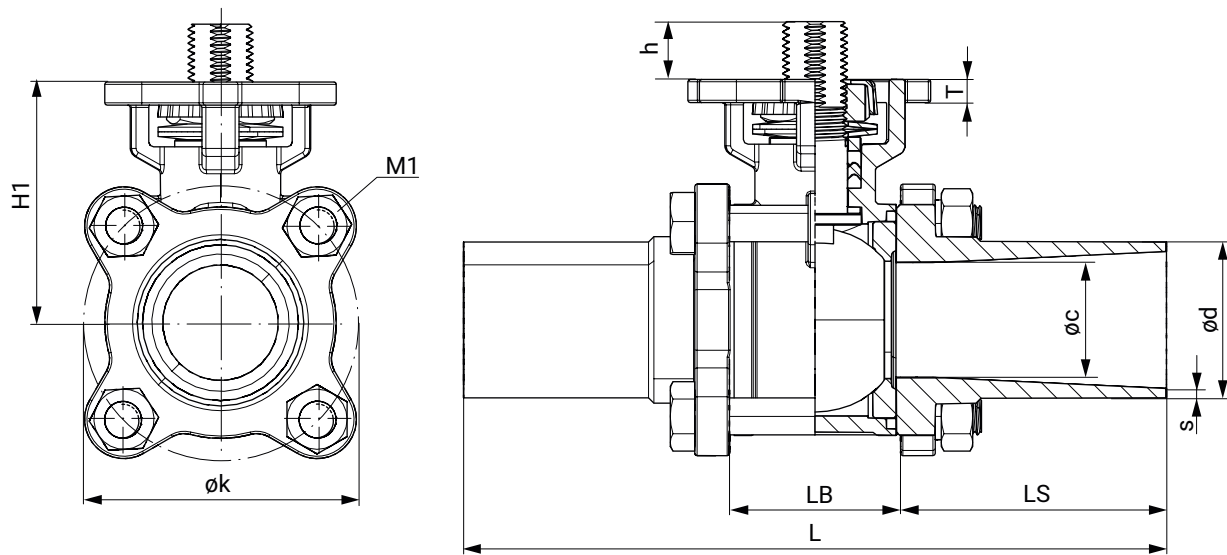
Dimensions in inch

**Spigot ASME (connection code 59)**

DN	$\phi c$	$\phi d$	h	$\phi k$	s	L	LB	LS	H1	M1	T
15	0.37	0.50	0.33	1.81	0.06	5.51	0.98	2.26	1.59	M8	0.20
20	0.62	0.75	0.41	1.85	0.06	5.75	1.10	2.32	1.71	M8	0.20
25	0.87	1.00	0.47	2.20	0.06	6.26	1.26	2.50	1.99	M8	0.28
40	1.37	1.50	0.57	3.11	0.06	7.52	1.89	2.81	2.66	M10	0.31
50	1.87	2.00	0.57	3.88	0.06	8.50	2.44	3.03	2.97	M12	0.31
65	2.37	2.50	0.57	4.96	0.06	9.76	3.15	3.31	3.46	M12	0.31
80	2.87	3.00	0.69	5.75	0.06	10.51	3.54	3.48	4.13	M14	0.39
100	3.83	4.00	0.69	7.09	0.08	12.52	4.65	3.94	4.72	M14	0.39

Dimensions in inch

**Spigot ISO (connection code 60)**



DN	øc	ød	h	øk	s	L	LB	LS	H1	M1	T
8	0.41	0.53	0.35	1.81	0.06	4.72	0.94	1.89	1.59	M8	0.22
10	0.47	0.68	0.35	1.81	0.06	4.72	0.94	1.89	1.59	M8	0.22
15	0.59	0.84	0.35	1.81	0.06	5.52	0.94	2.28	1.59	M8	0.22
20	0.79	1.06	0.41	2.01	0.06	5.51	1.14	2.19	1.77	M8	0.22
25	0.98	1.33	0.49	2.32	0.08	5.99	1.38	2.30	2.05	M8	0.20
32	1.26	1.67	0.49	2.87	0.08	6.50	1.73	2.38	2.24	M10	0.26
40	1.50	1.90	0.63	3.27	0.08	7.50	2.09	2.70	2.72	M10	0.30
50	1.93	2.37	0.63	4.06	0.08	7.99	2.56	2.72	3.03	M12	0.33
65	2.52	3.00	0.59	5.12	0.08	10.00	3.19	3.41	3.54	M12	0.33
80	2.99	3.50	0.71	6.10	0.09	11.03	3.78	3.62	4.25	M14	0.39
100	3.94	4.50	0.71	7.36	0.09	12.48	4.88	3.80	4.84	M14	0.39

Dimensions in inch

## Add-on components



### GEMÜ ADA

#### Pneumatic quarter turn actuator

GEMÜ ADA is a pneumatic double acting quarter turn actuator. It works according to the double piston rack and pinion principle and is suitable for mounting to butterfly valves or ball valves.



### GEMÜ ASR

#### Pneumatic quarter turn actuator

GEMÜ ASR is a pneumatic single acting quarter turn actuator. It works according to the double piston rack and pinion principle and is suitable for mounting to butterfly valves or ball valves.



### GEMÜ 9428

#### Motorized quarter turn actuator

The product is a motorized quarter turn actuator. The actuator is designed for DC or AC operating voltages. A manual override and an optical position indicator are integrated as standard. The torque in the end positions is increased. This enables a closing curve matched to the valves.



### GEMÜ 9468

#### Motorized quarter turn actuator

GEMÜ 9468 is a motorized quarter turn actuator. A manual override and an optical position indicator are integrated as standard. The torque in the end positions is increased. This enables a closing curve matched to the valves.



### GEMÜ J4C

#### Motorized quarter turn actuator

The J4C actuator is a motorized quarter turn actuator. The motor is designed for DC and AC operating voltages. A manual override and an optical position indicator are integrated as standard. The end positions are potential-free and adjustable.

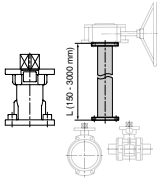


### GEMÜ AB22

#### Hand lever

Hand lever with standard flange according to EN ISO 5211 for the manual operation of quarter turn valves.

## Accessories



### GEMÜ RC0

#### Shaft extension

The RC0 shaft extension for quarter turn valves is a distance piece between manually, pneumatically or electrically operated valves. This means that valves can be protected from flooding or better access for operation of the valve can be ensured (also for manual override).

Nominal size	Shaft extension GEMÜ RC0		Hand lever GEMÜ AB22	
	Item no.	Designation	Item no.	Designation
DN 8 - 20	88742081	RC0VAF04 D09KF04 D09 60 M12	88658096	AB22 20D 0SET
DN 25 - 32	88742082	RC0VAF05 D11KF05 D11 65 M14	88658097	AB22 32D 0SET
DN 40 - 50	88742083	RC0VAF07 D14KF07 D14 80 M18	88658099	AB22 50D 0SET
DN 65	88742085	RC0VAF07 D17KF07 D17100 M22	88658101	AB22 65D 0SET
DN 80	88742085	RC0VAF07 D17KF07 D17100 M22	88658102	AB22 80D 0SET
DN 100	88742085	RC0VAF07 D17KF07 D17100 M22	88658103	AB22100D 0SET



### GEMÜ MSC

#### Mounting kit

The MSC mounting kit is an interface, for the same and different ends, to join flange designs according to ISO 5211. This mounting kit ensures thermal separation of actuator and valve body. It can also be used as height compensation for insulated pipelines. The mounting kit is available in steel, electrogalvanized and stainless steel in an open or closed design.

### 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.

## Certificates

Certificate	Standard	Item number
3.1 Material	EN 10204	88333336

## 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:**

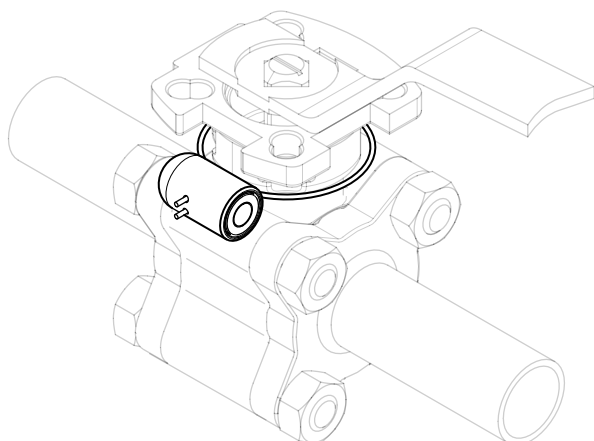
[www.gemu-group.com/conexo](http://www.gemu-group.com/conexo)

**Ordering**

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

**Installing the RFID chip**

In the corresponding design with CONEXO, this product has an RFID chip for electronic identification purposes. The position of the RFID chip can be seen below.





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