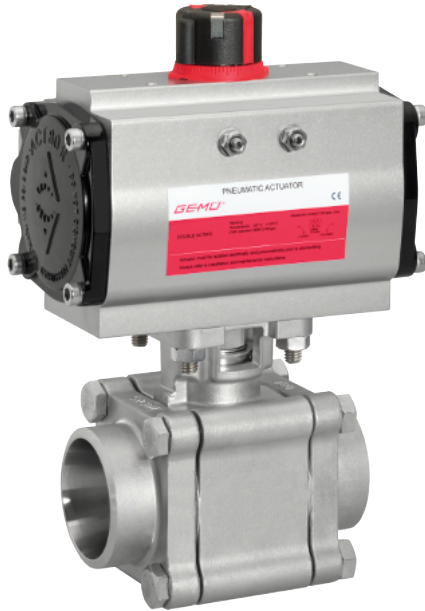


GEMÜ 791

Pneumatically operated high-pressure ball valve



Features

- Low maintenance and reliable spindle sealing
- TA-Luft compliant
- Broad range of operating temperatures and pressures
- Additionally encapsulated body seal
- Suitable for vacuum applications
- Fire-safe design according to API 607 optionally available

Description

The GEMÜ 791 3-piece 2/2-way metal ball valve has a metal actuator and is pneumatically operated. The seat seal is made of PTFE. Due to a graphite reinforced body seal, the GEMÜ 791 ball valve is optionally also available as FireSafe version.

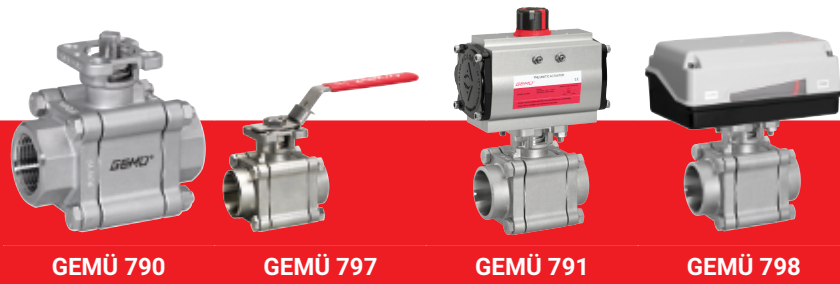
Technical specifications

- Media temperature: -20 to 180 °C
- Ambient temperature: -20 to 60 °C
- Operating pressure*: 0 to 137 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 | SMS
- Body materials: 1.4408, investment casting material
- Seal materials: PTFE
- Conformities: | ATEX | FDA | TA Luft (German Clean Air Act)

* depending on version and/or operating parameters



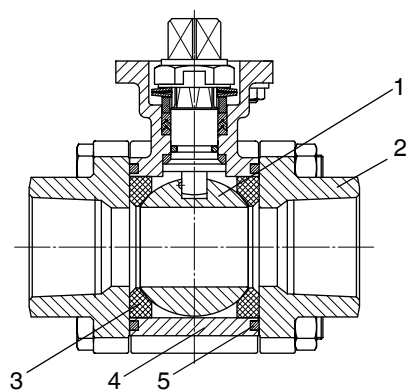
Product line



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	-20 to 180 °C	-20 to 180 °C	-20 to 180 °C	-20 to 180 °C
Operating pressure	0 to 137 bar	0 to 137 bar	0 to 137 bar	0 to 137 bar
Connection types				
Flange	●	●	●	●
Spigot	●	●	●	●
Threaded connection	●	●	●	●

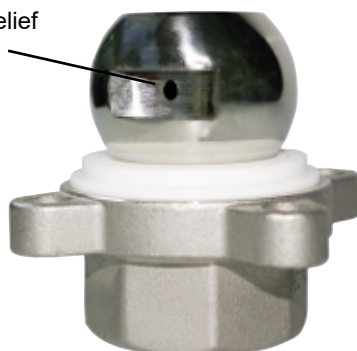
* depending on version and/or operating parameters

Product description



Item	Name	Materials
1	Ball	DN 8–15: SS316 DN 20–100: CF8M
2	Pipe connections	1.4408, investment casting material
3	Seal material	PTFE
4	Ball valve body	1.4408, investment casting material
5	Body seal material	PTFE, for fire-safe option PTFE carbon-filled

Pressure-relief
hole

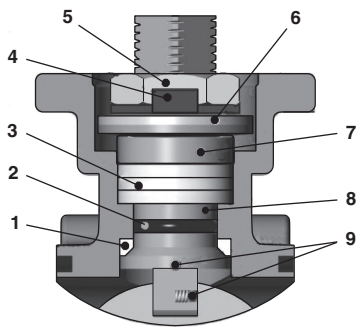


Control ball only for body configuration – full flow bore (code V)

Control ball	Code U	Code V	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
1	Conical spindle seal	PTFE
2	O-ring	FPM
3	V-rings	PTFE
4	Lock washer secures the nut, thereby holding the valve spindle in position	1.4301
5	Spindle nut	1.4301
6	Spring washer	1.4310
7	Stainless steel sleeve	1.4301
8	Valve spindle The machined spindle surface reduces the friction at the spindle, reduces the actuation forces (torque) and minimizes wear.	1.4401
9	Antistatic device (spindle ball)	1.4401

Long service life due to triple spindle seal, TA-Luft compliant

- Conical spindle seal:

The seal 1 arranged at an angle of 45° effectively prevents the leakage of media when operating the spindle

- O-ring:

Stabilising spindle seal 2 with low wear and long service life

- Pretensioned self-adjusting spindle seal:

The spindle packing consists of several V-rings 3, a spring washer 6 and a stainless steel sleeve 7. The spring washer 6 is pretensioned via the spindle nut 5. The pretension force is distributed to the V-rings 3 via the stainless steel sleeve 7, 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:

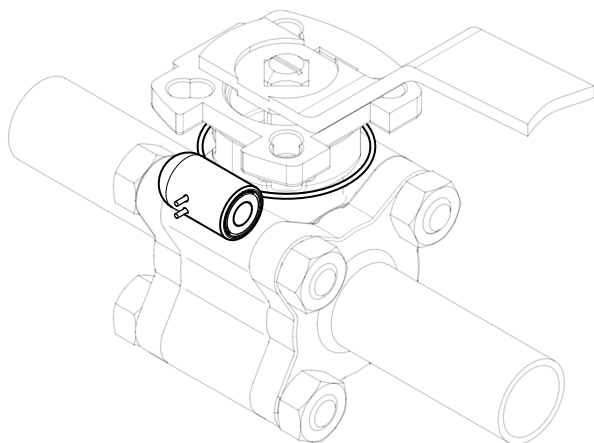
www.gemu-group.com/conexo

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.



Availability

DN	NPS	Connection code ¹⁾												
		1	31	2A	19	59	60	8	11	1	31	2A	19	37
		Body configuration code ²⁾												
V										R				
8	1/4"	X	X	X	X	-	-	-	-	-	-	-	-	-
10	3/8"	X	X	X	X	-	X	-	-	-	-	-	-	-
15	1/2"	X	X	X	X	X	X	X	X	X	X	X	X	X
20	3/4"	X	X	X	X	X	X	X	X	X	X	X	X	X
25	1"	X	X	X	X	X	X	X	X	X	X	X	X	X
32	1¼"	X	X	X	X	X	X	X	X	X	X	X	X	X
40	1½"	X	X	X	X	X	X	X	X	X	X	X	X	X
50	2"	X	X	X	X	X	X	X	X	X	X	X	X	X
65	2½"	X	X	X	X	X	X	X	X	X	X	X	X	X
80	3"	X	X	-	X	X	X	X	X	X	X	-	X	X
100	4"	X	X	-	X	X	X	X	X	X	X	-	X	X

Assignment pressure rating

DN	NPS	Full flow bore (code V)	Reduced flow bore (code R)
8	1/4"	PN 125	-
10	3/8"	PN 125	-
15	1/2"	PN 125	PN 125
20	3/4"	PN 125	PN 125
25	1"	PN 125	PN 125
32	1¼"	PN 100	PN 125
40	1½"	PN 100	PN 100
50	2"	PN 100	PN 100
65	2½"	PN 63	PN 100
80	3"	PN 63	PN 63
100	4"	PN 63	PN 63

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 37: Spigot SMS 3008

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127 / EN 10357 series C

Code 2 A: Socket weld DIN EN 12760

2) Body configuration

Code V: 2/2-way body, full flow bore

Code R: 2/2-way body, reduced flow bore

Application

Full flow bore:

- Reduction of pressure losses

Reduced flow bore:

- Reduction of frictional resistances
- Increase of flow velocity in and after the ball valve
- Increase of thorough mixing in the ball valve
- Reduction of torques by approx. 20%
- Higher pressure rating per nominal size possible

Actuator assignment

2/2-way body, full flow bore (code V)

DN	Double acting DR	Code	Single acting SC	Code
8	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
10	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
15	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
20	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
25	DR0015U F03F05NS11A	DU01AW0	SC0060U 6 F05F07NS14A**	SU06KP0
32	DR0030U F05F07NS14A**	DU03AP0	SC0060U 6 F05F07NS14A**	SU06KP0
40	DR0030U F05F07NS14A	DU03AP0	SC0100U 6 F05F07NS17A**	SU10KC0
50	DR0030U F05F07NS14A	DU03AP0	SC0100U 6 F05F07NS17A**	SU10KC0
65	DR0150U F07F10NS17A	DU15AE0	SC0150U 6 F07F10NS17A	SU15KE0
80	DR0150U F07F10NS17A	DU15AE0	SC0220U 6 F07F10NS22A**	SU22KD0
100	DR0150U F07F10NS17A	DU15AE0	SC0450U 6 F10F12NS27A**	SU45KG0

* including mounting kit

** including mounting sleeve

DN	Double acting ADA	Code	Single acting ASR	Code
8	ADA0020U F04YS14/S11A**	BU02AA0	ASR0020US08 F04YS14/S11A**	AU02FA0
10	ADA0020U F04YS14/S11A**	BU02AA0	ASR0020US08 F04YS14/S11A**	AU02FA0
15	ADA0020U F04YS14/S11A**	BU02AA0	ASR0020US08 F04YS14/S11A**	AU02FA0
20	ADA0020U F04YS14/S11A**	BU02AA0	ASR0020US08 F04YS14/S11A**	AU02FA0
25	ADA0020U F05YS14/S11A**	BU02AB0	ASR0040US14 F05YS14/S11A	AU04KB0
32	ADA0040U F05YS14/S11A	BU04AB0	ASR0080US14F05F07YS17/S14A**	AU08KC0
40	ADA0080U F05F07YS17/S14A	BU08AC0	ASR0080US14F05F07YS17/S14A	AU08KC0
50	ADA0080U F05F07YS17/S14A	BU08AC0	ASR0130US14F05F07YS17/S14A	AU13KC0
65	ADA0200U F07F10YS17/S14A	BU20AE0	ASR0200US14F07F10YS17/S14A	AU20KE0
80	ADA0200U F07F10YS17/S14A	BU20AE0	ASR0300US14F07F10Y S22A**	AU30KD0
100	ADA0200U F07F10YS17/S14A	BU20AE0	ASR0300US14F07F10Y S22A**	AU30KD0

* including mounting kit

** including mounting sleeve

2/2-way body, reduced flow bore (code R)

DN	Double acting DR	Code	Single acting SC	Code
15	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
20	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
25	DR0015U F04NS11A**	DU01A00	SC0030U 6 F05F07NS14A*	SU03KP0
32	DR0015U F03F05NS11A	DU01AW0	SC0060U 6 F05F07NS14A**	SU06KP0
40	DR0030U F05F07NS14A**	DU03AP0	SC0060U 6 F05F07NS14A**	SU06KP0
50	DR0030U F05F07NS14A	DU03AP0	SC0100U 6 F05F07NS17A**	SU10KC0
65	DR0030U F05F07NS14A	DU03AP0	SC0100U 6 F05F07NS17A**	SU10KC0
80	DR0150U F07F10NS17A	DU15AE0	SC0150U 6 F07F10NS17A	SU15KE0
100	DR0150U F07F10NS17A	DU15AE0	SC0220U 6 F10F10NS22A**	SU22KG0

* including mounting kit

** including mounting sleeve

DN	Double acting ADA	Code	Single acting ASR	Code
15	ADA0020U F04YS14S11A**	BU02AA0	ASR0020US08 F04YS14S11A**	AU02FA0
20	ADA0020U F04YS14S11A**	BU02AA0	ASR0020US08 F04YS14S11A**	AU02FA0
25	ADA0020U F04YS14S11A**	BU02AA0	ASR0020US08 F04YS14S11A**	AU02FA0
32	ADA0020U F05YS14S11A**	BU02AB0	ASR0040US14 F05YS14S11A	AU04KB0
40	ADA0040U F05YS14S11A	BU04AB0	ASR0080US14 F05F07YS17S14A**	AU08KC0
50	ADA0080U F05F07YS17S14A	BU08AC0	ASR0080US14 F05F07YS17S14A	AU08KC0
65	ADA0080U F05F07YS17S14A	BU08AC0	ASR0130US14 F05F07YS17S14A	AU13KC0
80	ADA0200U F07F10YS17S14A	BU20AE0	ASR0200US14 F07F10YS17S14A	AU20KE0
100	ADA0200U F07F10YS17S14A	BU20AE0	ASR0300US14 F07F10YS22A**	AU30KD0

* including mounting kit

** including mounting sleeve

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	791

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 configuration	Code
2/2-way body, full flow bore	V
2/2-way body, reduced flow bore	R

4 Connection type	Code
Threaded socket DIN ISO 228	1
Threaded socket NPT	31
Socket weld DIN EN 12760	2 A
Spigot DIN EN 12627	19
Spigot SMS 3008	37
Spigot ASME BPE	59
Spigot ISO 1127 / EN 10357 series C	60
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
Body 1.4408 (CF8M), ball SS316 for DN 8 - DN 15, ball CF8M for DN 20 - DN 100	37
ASTM A216 WCB, cast steel	31

6 Seal material	Code
PTFE, maximum -20 °C to +180 °C	5
PTFE, FIRE SAFE, maximum -20 °C to +180 °C	TI

7 Ball configur./port position	Code
Without	
V ball 30°	U
V ball 60°	V
V ball 90°	W

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

9 Actuator version	Code
Actuator type SC	
Actuator, pneumatic, single acting, spring closing, clockwise rotation, SC0030U 6 F04NS11A	SU03KO
Actuator, pneumatic, single acting, spring closing, clockwise rotation, SC0060U 6 F05F07NS14A	SU06KP
Actuator, pneumatic, single acting, spring closing, clockwise rotation, SC0100U 6 F05F07NS17A	SU10KC
Actuator, pneumatic, single acting, spring closing, clockwise rotation, SC0150U 6 F05F07NS17A	SU15KC
Actuator, pneumatic, single acting, spring closing, clockwise rotation, SC0220U 6 F07F10NS22A	SU22KD
Actuator type DR	
Actuator, pneumatic, double acting, clockwise rotation, DR0015U F04NS11A	DU01AO
Actuator, pneumatic, double acting, clockwise rotation, DR0015U F03F05NS11A	DU01AW
Actuator, pneumatic, double acting, clockwise rotation, DR0030U F05F07NS14A	DU03AP
Actuator, pneumatic, double acting, clockwise rotation, DR0150U F07F10NS17A	DU15AE
Actuator type ASR	
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR0020U S08 F04YS14/S11A	AU02FA
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR0040U S14 F05YS14/S11A	AU04KB
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR0080U S14 F05F07YS17/S14A	AU08KC
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR0130U S14 F05F07YS17/S14A	AU13KC
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR0200U S14 F07F10YS17/S14A	AU20KE

Order data

9 Actuator version	Code
Actuator, pneumatic, single acting, spring closing, clockwise rotation, ASR0300U S14 F07F10YS22A	AU30KD
Actuator type ADA	
Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F04YS14A	BU02AA
Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F05YS14A	BU02AB
Actuator, pneumatic, double acting, clockwise rotation, ADA0040U F05YS14A	BU04AB
Actuator, pneumatic, double acting, clockwise rotation, ADA0080U F05F07YS17A	BU08AC
Actuator, pneumatic, double acting, clockwise rotation, ADA0200U F07F10YS17A	BU20AE

10 Actuator particulars	Code
Anodized aluminium	0

11 Type of design	Code
Standard	
Thermal separation between actuator and valve body via mounting kit	5222
Thermal separation by mounting kit, mounting kit and mounting parts in stainless steel	5227

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

Order example

Order option	Code	Description
1 Type	790	Ball valve, metal, bare shaft
2 DN	50	DN 50
3 Body configuration	R	2/2-way body, reduced flow bore
4 Connection type	1	Threaded socket DIN ISO 228
5 Ball valve material	37	Body 1.4408 (CF8M), ball SS316 for DN 8 - DN 15, ball CF8M for DN 20 - DN 100
6 Seal material	5	PTFE, maximum -20 °C to +180 °C
7 Ball configur./port position		Without
8 Control function	1	Normally closed (NC)
9 Actuator version	DU03AP	Actuator, pneumatic, double acting, clockwise rotation, DR0030U F05F07NS14A
10 Actuator particulars	0	Anodized aluminium
11 Type of design		Standard
12 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.

Control medium: Filtered, dry compressed air, non-corrosive medium

Temperature

Media temperature: -20 to 180 °C

Ambient temperature: -20 to 60 °C
Higher temperatures on request

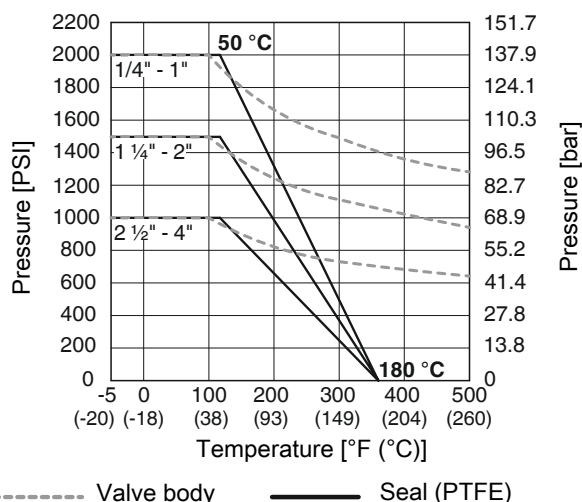
Storage temperature: 0 to 40 °C

Pressure

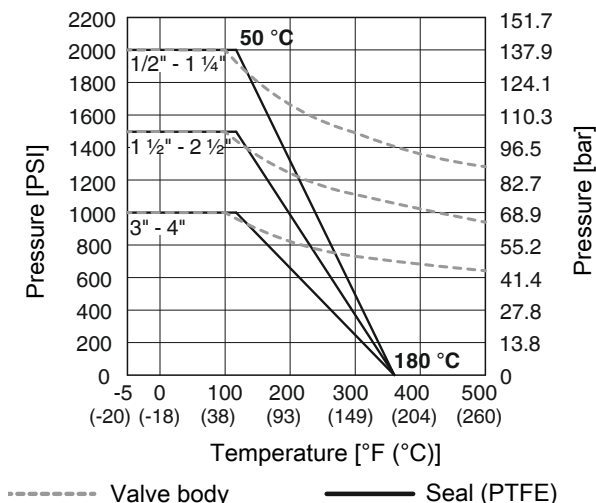
Operating pressure: 0 to 137 bar
The product must not be exposed to pressure fluctuations. If the product is to be used with pressure fluctuations, please contact GEMÜ.

Pressure/temperature diagram:

Full flow bore (code V)



Reduced flow bore (code R)



Technical data

Control pressure: 6 to 8 bar

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	Body configuration	
		Full flow bore (code V)	Reduced flow bore (code R)
8	1/4"	7	-
10	3/8"	7	-
15	1/2"	13	7
20	3/4"	29	13
25	1"	48	29
32	1¼"	73	48
40	1½"	108	73
50	2"	215	108
65	2½"	275	215
80	3"	499	275
100	4"	877	499

Kv values in m³/h

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	1¼"	0	0.17	0.34	0.935	1.7	3.145	4.675	6.8	8.5	11.05	12.75
40	1½"	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	2½"	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	1¼"	0	0.17	0.51	1.53	2.55	4.675	8.075	10.88	16.15	22.1	33.15
40	1½"	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

Kv values:

DN	NPS	Opening angle										
		0	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
65	2½"	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	1¼"	0	0.255	0.68	1.7	4.25	6.8	11.9	16.15	23.8	33.15	46.75
40	1½"	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	2½"	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

Mechanical data

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

Weight:

Ball valve

DN	NPS	Connection type code ¹⁾				
		1, 19, 31, 37, 59, 60		2A		8, 11
		Body configuration code ²⁾				
		V	R	V	R	V
8	1/4"	0.89	-	0.89	-	-
10	3/8"	0.88	-	0.88	-	-
15	1/2"	0.82	0.83	0.82	0.83	1.39
20	3/4"	1.29	0.84	1.29	0.84	2.52
25	1"	2.01	1.50	2.01	1.50	4.47
32	1¼"	2.76	2.17	2.76	2.17	6.44
40	1½"	4.21	4.27	4.21	4.27	8.30
50	2"	6.90	5.30	6.90	5.30	11.80
65	2½"	12.0	6.51	12.0	6.51	20.11
80	3"	16.2	12.0	-	-	26.48
100	4"	25.8	16.2	-	-	38.95

Weights in kg

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 37: Spigot SMS 3008

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127 / EN 10357 series C

Code 2 A: Socket weld DIN EN 12760

2) **Body configuration**

Code V: 2/2-way body, full flow bore

Code R: 2/2-way body, reduced flow bore

Actuator type ADA/ASR

Type	ADA		ASR	
	Weight	Code	Weight	Code
0020U	1.4	BU02AN	1.5	AU02FN
0040U	2.1	BU04AB	2.3	AU04KB
0080U	3	BU08AC	3.7	AU08KC
0130U	3.8	BU13AC	4.8	AU13KC
0200U	5.6	BU20AE	7.3	AU20KE
0300U	8.5	BU30AD	10.8	AU30KD
0500U	11.2	BU50AF	15.4	AU50KF
0850U	16.9	BU85AG	22.2	AU85KG
1200U	25.8	B12UAH	34.3	A12UKH
1750U	32.5	B17UAK	46	A17UKK
2100U	49	B21UAL	68	A21UKK

Weight:

Type	ADA		ASR	
	Weight	Code	Weight	Code
2500U	69.6	B25UAL	99.9	A25UKK
4000U	129.4	B40UAL	182.9	A40UKM

Weights in kg

Actuator DR/SC

Type	DR		SC	
	Weight	Code	Weight	Code
0015U	1.0	DU01AW	1.1	SU01KW
0030U	1.6	DU03AP	1.7	SU03KP
0060U	2.7	DU06AP	3.1	SU06KP
0100U	3.7	DU10AC	4.3	SU10KC
0150U	5.2	DU15AE	6.1	SU15KC
0220U	8.0	DU22AD	9.3	SU22KD
0300U	9.8	DU30AD	12.0	SU30KD
0450U	14.0	DU45AG	17.0	SU45KG
0600U	18.0	DU60AG	22.0	SU60KG
0900U	24.0	DU90AK	33.0	SU90KG
1200U	34.0	D12UAG	42.0	S12UKG
2000U	53.0	D20UAL	67.0	S20UKK
3000U	74.0	D30UAL	93.0	S30UKK
4000U	123.0	-	155.0	S40UKL
5000U	127.0	-	169.0	S50UKS

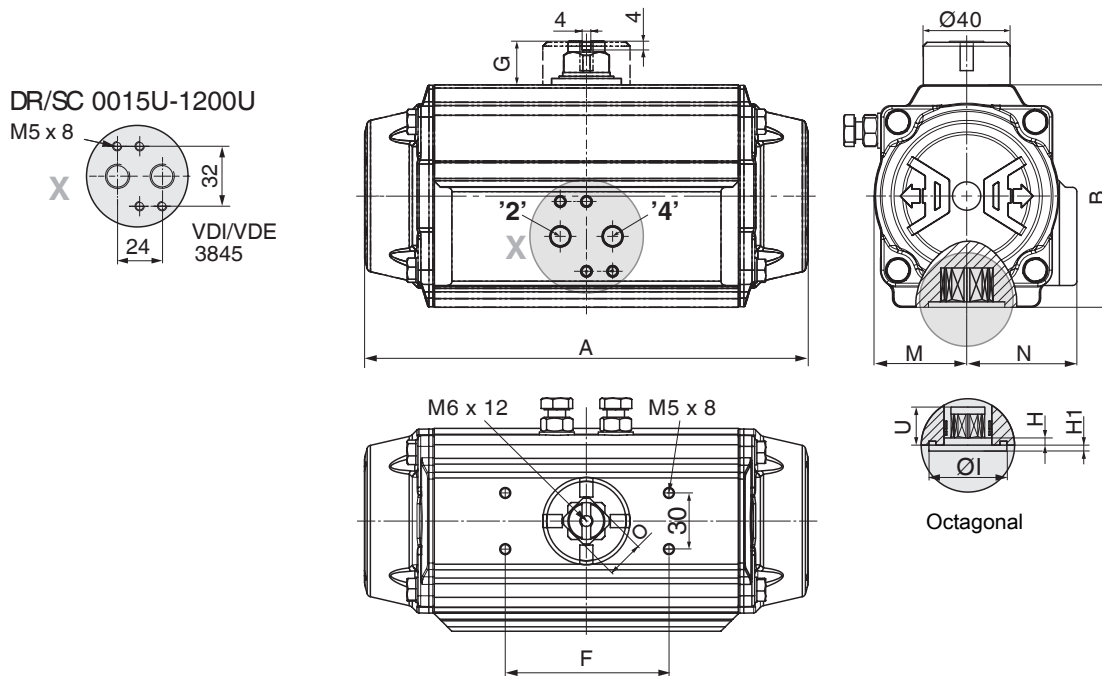
Weights in kg

Dimensions

Actuators

Note on actuator mounting:
 Standard mounting orientation – actuator positioned in-line with piping
 Only with flanged connections the actuator is mounted across the piping

DR/SC

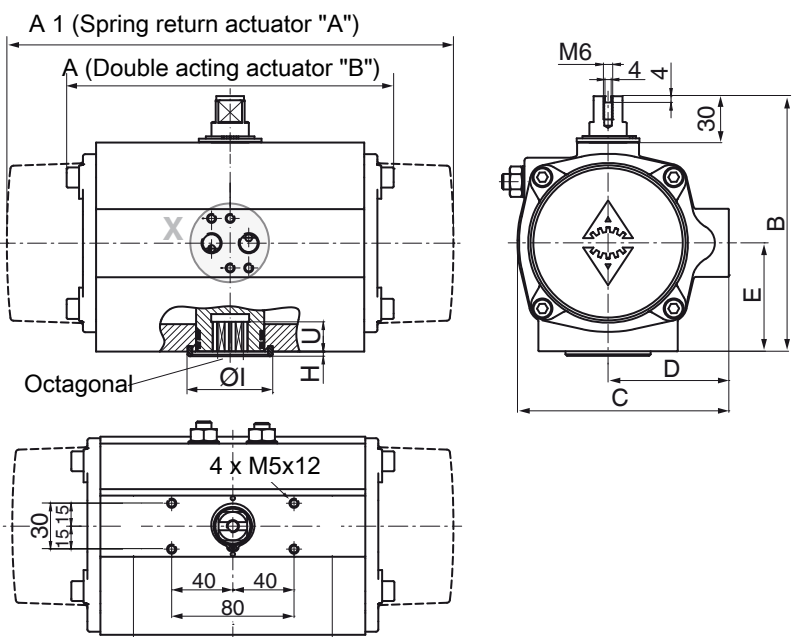
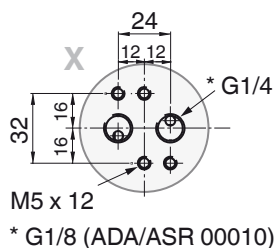


Type	ISO 5211	Octo-gonal	Air con-nection	A	B	F	G	Ø I	M	N	O	H	H1	U
0015U	F03/F05	11	G1/8	136.0	69.0	80	20	30	29.0	43.0	11	1.5	0.5	11
0030U	F04	14	G1/8	153.5	85.0	80	20	35	36.0	48.5	11	1.5	0.5	11
0030U	F05/07	14	G1/8	153.5	85.0	80	20	35	36.0	48.5	11	1.5	0.5	16
0060U	F05/07	14	G1/8	203.5	102.0	80	20	35	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

Dimensions in mm

ADA/ASR

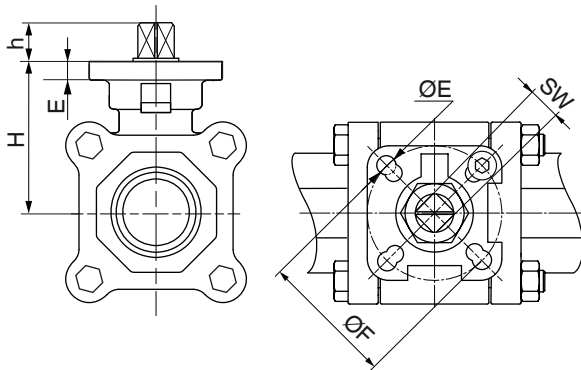
ADA/ASR 00010-1750U



Type	ISO 5211	A		B	C	D	E	L	SW	$\varnothing T$	U	n
		ADA	ASR									
00010	F03	-	100.0	76	56.0	33.0	23.0	50	9	-	12	4
00010	F04	-	100.0	76	56.0	33.0	23.0	50	9	-	12	4
0020U	F03/F05	145	163.0	96	76.0	48.0	34.0	80	9	25	10	4
0020U	F04	145	163.0	96	76.0	48.0	34.0	80	14	35	12	4
0020U	F05	145	163.0	96	76.0	48.0	34.0	80	14	35	12	4
0040U	F04	158	195.0	115	91.0	56.0	45.0	80	14	35	12	4
0040U	F05	177	217.0	137	111.0	66.0	55.0	80	14	35	12	4
0080U	F05/F07	196	258.0	147	122.0	71.0	60.0	80	17 (14*)	55	19	4
0130U	F05/F07	225	299.0	165	135.5	78.0	70.0	80	17 (14*)	55	22	4
0200U	F07/F10	273	348.5	182	152.5	86.0	80.0	80	17 (14*)	55	23	4
0300U	F07/F10	304	397.0	199	173.0	96.0	85.0	80	22	70	24	4
0500U	F10	372	473.0	221	191.5	106.0	98.0	80	22	70	32	4

Dimensions in mm

* with adapter sleeve

Ball valve body**Actuator flange ISO 5211****2/2-way body, full flow bore (code V)**

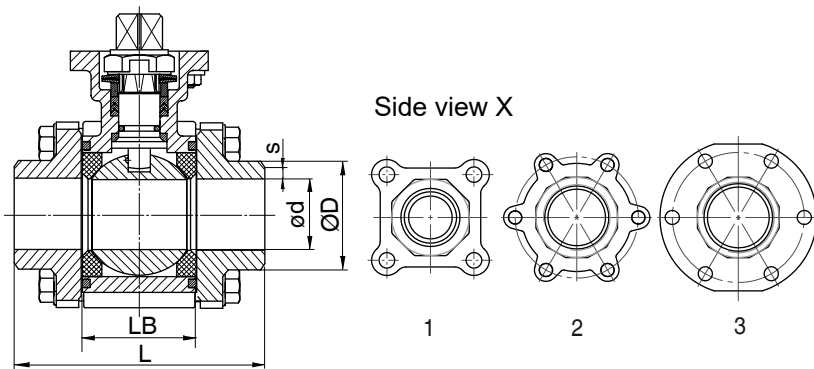
DN	NPS		E	ØE	ØF	H	h	SW
8	1/4"	F03/F04	5	6	42	42.6	7.6	9
10	3/8"	F03/F04	5	6	42	42.6	7.6	9
15	1/2"	F03/F04	5	6	42	42.6	7.6	9
20	3/4"	F03/F04	5	6	42	46.9	8.6	9
25	1"	F04/F05	7	7	50	59.3	10.4	11
32	1 1/4"	F04/F05	7	7	50	62.6	10.4	11
40	1 1/2"	F05/F07	9	9	70	79.0	13.4	14
50	2"	F05/F07	9	9	70	87.7	13.4	14
65	2 1/2"	F07/F10	10	12	102	108.7	16.8	17
80	3"	F07/F10	10	12	102	117.7	17.8	17
100	4"	F07/F10	10	12	102	133.7	16.8	17

2/2-way body, reduced flow bore (code R)

DN	NPS		E	ØE	ØF	H	h	SW
8	1/4"	F03/F04	-	-	-	-	-	-
10	3/8"	F03/F04	-	-	-	-	-	-
15	1/2"	F03/F04	5	6	42	42.6	7.6	9
20	3/4"	F03/F04	5	6	42	42.6	7.6	9
25	1"	F04/F05	7	6	42	46.9	8.6	9
32	1 1/4"	F04/F05	7	7	50	59.3	10.4	11
40	1 1/2"	F05/F07	9	7	50	62.6	10.4	11
50	2"	F05/F07	9	9	70	79.0	13.4	14
65	2 1/2"	F07/F10	10	9	70	87.7	13.4	14
80	3"	F07/F10	10	12	102	108.7	16.8	17
100	4"	F07/F10	10	12	102	117.7	17.8	17

Dimensions in mm

Spigot DIN EN 12627 (code 19)



2/2-way body, full flow bore (code V)

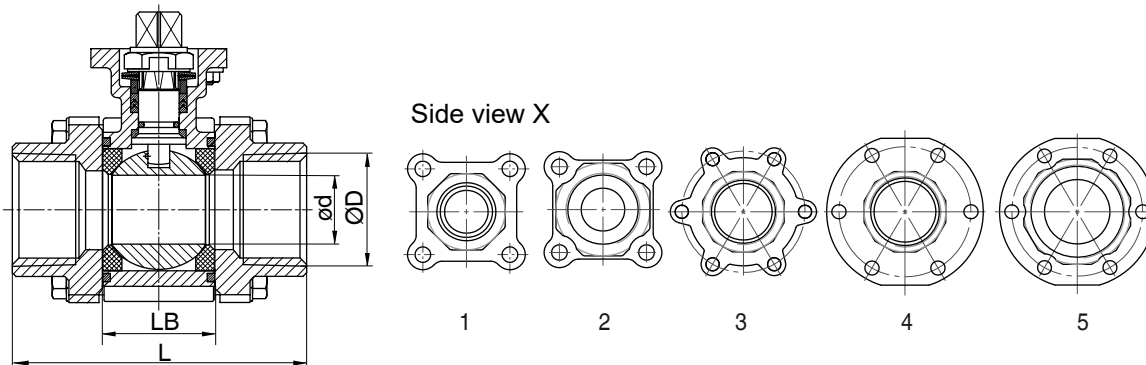
DN	NPS	L	LB	ød	øD	s	X
8	1/4"	75	24.5	11.5	21.7	1.6	1
10	3/8"	75	24.5	12.6	21.7	1.6	1
15	1/2"	75	24.5	15	21.7	1.6	1
20	3/4"	90	31.4	20	27.2	1.6	1
25	1"	110	41.3	25	34	1.6	1
32	1¼"	115	48.4	32	42.7	1.6	1
40	1½"	130	56.3	38	48.6	1.6	1
50	2"	143	71.4	50	60.5	1.6	2
65	2½"	185	86.6	65	76.3	2	2
80	3"	205	99	80	90	2	2
100	4"	240	127	100	116	2	2

2/2-way body, reduced flow bore (code R)

DN	NPS	L	LB	ød	øD	s	X
15	1/2"	75	24.5	12.6	21.7	1.6	1
20	3/4"	75	24.5	15	27.2	1.6	1
25	1"	90	31.4	20	34	1.6	1
32	1¼"	110	41.3	25	42.7	1.6	1
40	1½"	115	48.4	32	48.6	1.6	1
50	2"	130	56.3	38	60.5	1.6	1
65	2½"	145	71.4	50	76.3	2	3
80	3"	185	86.6	65	90	2	3
100	4"	205	99	80	116	2	3

Dimensions in mm

Threaded socket DIN ISO 228 (code 1) and NPT (code 31)



2/2-way body, full flow bore (code V)

DN	NPS	Connection code ¹⁾					
		1	31	1, 31			
		ØD		L	LB	ød	X
8	1/4"	G 1/4	1/4" NPT	75	24.5	11.5	1
10	3/8"	G 3/8	3/8" NPT	75	24.5	12.6	1
15	1/2"	G 1/2	1/2" NPT	72.5	24.5	15	1
20	3/4"	G 3/4	3/4" NPT	85.4	31.4	20	1
25	1"	G 1	1" NPT	105.3	41.3	25	1
32	1 1/4"	G 1 1/4	1 1/4" NPT	111	48.4	32	1
40	1 1/2"	G 1 1/2	1 1/2" NPT	127.3	56.3	38	1
50	2"	G 2	2" NPT	144	71.4	50	3
65	2 1/2"	G 2 1/2	2 1/2" NPT	185	86.6	65	3
80	3"	G 3	3" NPT	205	99	80	3
100	4"	G 4	4" NPT	240	127	100	3

2/2-way body, reduced flow bore (code R)

DN	NPS	Connection code ¹⁾					
		1	31	1, 31			
		ØD		L	LB	ød	X
15	1/2"	G 1/2	1/2" NPT	75	24.5	12.6	1
20	3/4"	G 3/4	3/4" NPT	72.5	24.5	15	1
25	1"	G 1	1" NPT	85.4	31.4	20	2
32	1 1/4"	G 1 1/4	1 1/4" NPT	105.3	41.3	25	2
40	1 1/2"	G 1 1/2	1 1/2" NPT	111	48.4	32	2
50	2"	G 2	2" NPT	127.3	56.3	38	2
65	2 1/2"	G 2 1/2	2 1/2" NPT	144	71.4	50	4
80	3"	G 3	3" NPT	185	86.6	65	4
100	4"	G 4	4" NPT	205	99	80	5

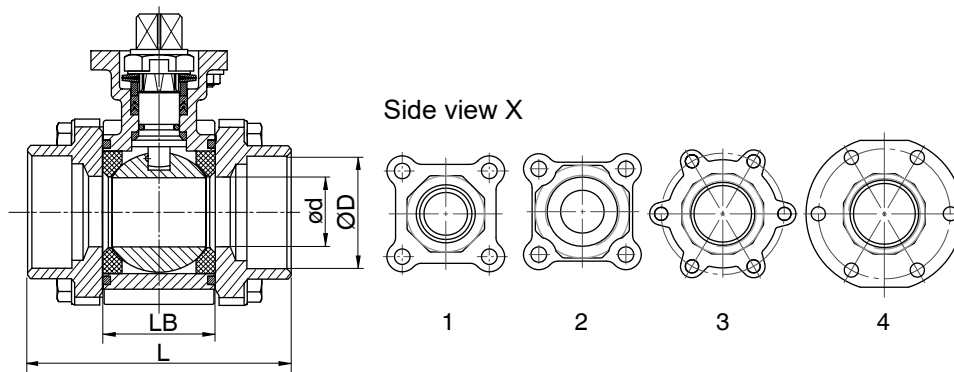
Dimensions in mm

1) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 31: Threaded socket NPT

Socket weld DIN 12760 (code 2A)



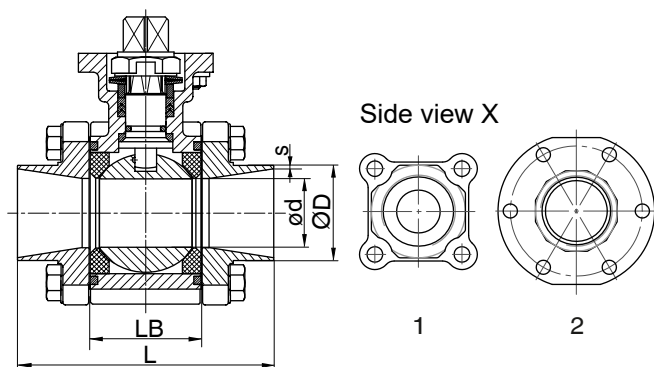
2/2-way body, full flow bore (code V)

DN	NPS	L	LB	ød	ØD	X
8	1/4"	75	24.5	11.5	14.3	1
10	3/8"	75	24.5	12.6	17.6	1
15	1/2"	72.5	24.5	15	21.9	1
20	3/4"	85.4	31.4	20	27.3	1
25	1"	105.3	41.3	25	33.9	1
32	1¼"	111	48.4	32	42.8	1
40	1½"	127.3	56.3	38	48.9	1
50	2"	144	71.4	50	61.3	3
65	2½"	185	86.6	65	72.7	3

2/2-way body, reduced flow bore (code R)

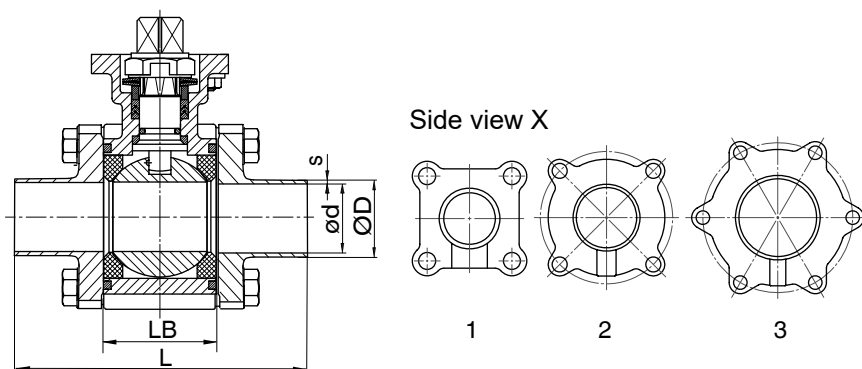
DN	NPS	L	LB	ød	ØD	X
15	1/2"	75	24.5	12.6	21.9	1
20	3/4"	72.5	24.5	15	27.3	1
25	1"	85.4	31.4	20	33.9	2
32	1¼"	105.3	41.3	25	42.8	2
40	1½"	111	48.4	32	48.9	2
50	2"	127.3	56.3	38	61.3	2
65	2½"	144	71.4	50	72.7	4

Dimensions in mm

Spigot SMS 3008 (code 37)**2/2-way body, reduced flow bore (code R)**

DN	NPS	LB	L	ød	øD	s	X
15	1/2"	24.5	75.0	12.6	18.0	1.0	1
20	3/4"	31.4	81.7	15	25.0	1.2	1
25	1"	41.3	99.7	20	32.0	1.2	1
32	1¼"	48.4	116.5	25	33.7	1.2	1
40	1½"	56.3	122.3	32	38.0	1.2	1
50	2"	71.4	145.1	38	51.0	1.2	2
65	2½"	86.6	160.2	50	63.5	1.6	2
80	3"	99.0	197.4	65	76.1	1.6	2
100	4"	127.0	233.0	80	101.6	2.0	2

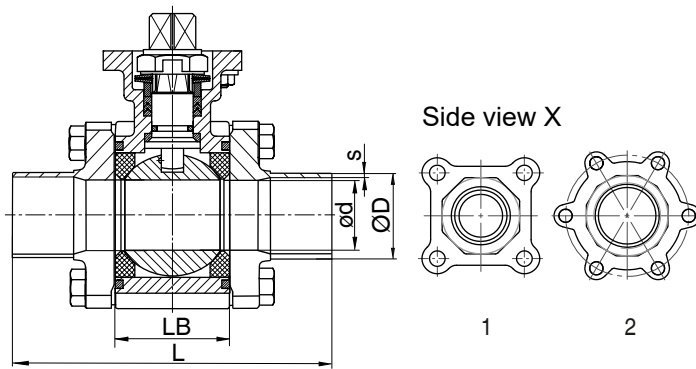
Dimensions in mm

Spigot ASME BPE (code 59)**2/2-way body, full flow bore (code V)**

DN	NPS	LB	L	ød	øD	s	X
15	1/2"	24.5	134.5	9.4	12.7	2.1	1
20	3/4"	31.4	140.9	15.8	19.0	2.1	1
25	1"	41.3	161.5	22.2	25.4	2.3	1
40	1½"	56.3	182.2	34.9	38.1	2.5	1
50	2"	71.4	191.7	47.5	50.8	3.0	1
65	2½"	86.6	247.6	60.3	63.5	3.5	2
80	3"	99.0	266.8	73.0	76.2	3.5	2
100	4"	127.0	317.6	97.4	101.6	3.5	3

Dimensions in mm

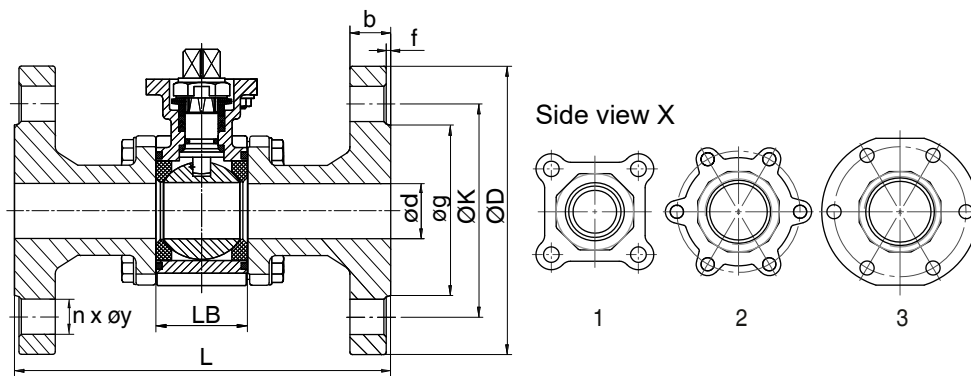
Spigot EN ISO 1127 (code 60)



2/2-way body, full flow bore (code V)

DN	NPS	LB	L	ød	øD	s	X
10	3/8"	24.5	120	12.7	17.2	2.1	1
15	1/2"	24.5	140	15.0	21.3	2.1	1
20	3/4"	31.4	140	20.0	26.9	2.1	1
25	1"	41.3	152	25.0	33.7	2.3	1
32	1¼"	48.4	165	32.0	42.4	2.5	1
40	1½"	56.3	190	38.0	48.3	2.5	1
50	2"	71.4	203	50.0	60.3	3.0	1
65	2½"	86.6	254	65.0	76.1	3.5	2
80	3"	99.0	280	80.0	88.9	3.5	2
100	4"	127.0	317	100.0	114.3	3.5	2

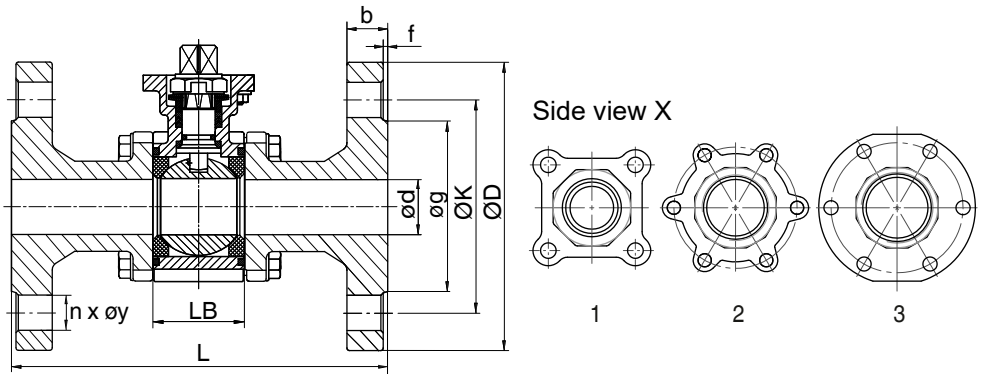
Dimensions in mm

Flange EN 1092 PN 16 (code 8)**2/2-way body, full flow bore (code V)**

DN	NPS	LB	L	ød	øD	øg	øK	f	b	øy	n	X
5	1/2"	24.5	130	15	95	45	65	2	16	14	4	3
20	3/4"	31.4	150	20	105	58	75	2	18	14	4	3
25	1"	41.3	160	25	115	68	85	2	18	14	4	3
32	1¼"	48.4	180	32	140	78	100	2	18	18	4	3
40	1½"	56.3	200	40	150	88	110	3	18	18	4	3
50	2"	71.4	230	50	165	102	125	3	20	18	4	3
65	2½"	86.6	290	65	185	122	145	3	18	18	4	3
80	3"	99	310	80	200	138	160	3	20	18	8	3
100	4"	127	350	100	220	158	180	3	20	18	8	3

Dimensions in mm

Flange EN 1092 PN 40 (code 11)



2/2-way body, full flow bore (code V)

DN	NPS	LB	L	ød	øD	øg	øK	f	b	øy	n	X
5	1/2"	24.5	130	15	95	45	65	2	16	14	4	1
20	3/4"	31.4	150	20	105	58	75	2	18	14	4	1
25	1"	41.3	160	25	115	68	85	2	18	14	4	1
32	1¼"	48.4	180	32	140	78	100	2	18	18	4	1
40	1½"	56.3	200	40	150	88	110	3	18	18	4	1
50	2"	71.4	230	50	165	102	125	3	20	18	4	2
65	2½"	86.6	290	65	185	122	145	3	22	18	8	3
80	3"	99	310	80	200	138	160	3	24	18	8	3
100	4"	127	350	100	235	162	190	3	24	22	8	3

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 LST



Electrical position indicators for quarter turn actuators

The GEMÜ LS series electrical position indicators are used to indicate and monitor the position of quarter turn valves. Depending on the version, they have either one or two mechanical microswitches or 2-wire or 3-wire proximity switches.

GEMÜ 1435 ePos**Intelligent electro-pneumatic positioner**

The GEMÜ 1435 ePos digital electro-pneumatic positioner is used to control pneumatically operated 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 housing with protected operating buttons and an easy-to-read, backlit LCD display. The operating times can be set using integrated throttles. Connection and mounting to NAMUR is also possible.

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

The GEMÜ 1436 cPos digital electro-pneumatic positioner is used with an optional integrated process controller to control pneumatically operated process valves with single acting or double acting linear or quarter turn actuators. When using the optional process controller, the signals from the process sensor (e.g. flow, level, pressure, temperature) are detected and the media adjusted according to the specified set value. The positioner has a robust housing with protected operating buttons and an easy-to-read, backlit LCD display.

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

The GEMÜ 1436 cPos eco digital electro-pneumatic positioner is used to control pneumatically operated process valves with single-acting linear or quarter turn actuators. The controller, travel sensor, switching valves and status LEDs are integrated into the robust and compact housing. The pneumatic and electrical connections are arranged in one mounting direction to save space and enable easy access. GEMÜ 1436 cPos eco supplements the smaller GEMÜ 1434 μ Pos with expanded valve stroke range and better flow capability with a comparable range of functions.



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