

Universal Series



The seal wear compensating technology offers reliable and durable sealing, whether under pressure or vacuum.

Technical Characteristics

- **Compatible Fluids:** Compressed air
Other fluids: see compatibility chart at the end of this chapter
- **Working Pressure:** Vacuum up to 40 bar, depending on the model
- **Working Temperature:** -40°C to + 80°C

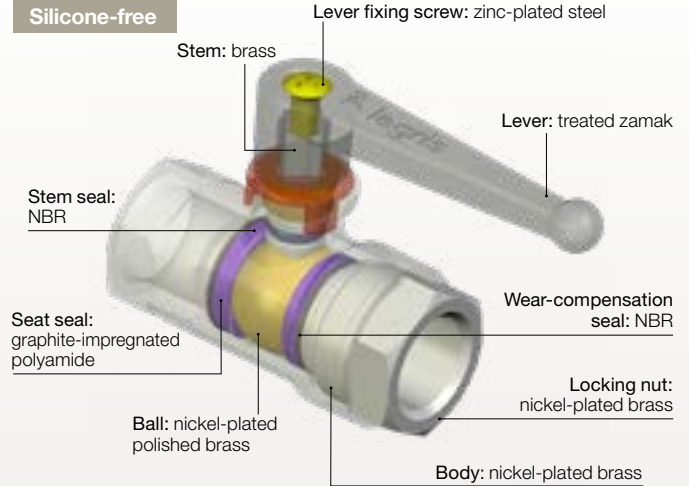
Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.

Guaranteed for use with a vacuum of 755 mm Hg (99 % vacuum).

Advantages

- Automatic seal wear compensation
- Vacuum resistance
- Ease of operation
- Short, repositionable and exchangeable handles

Component Materials



Regulations

- PED
- REACH
- RoHS

Installation Options

Lockable Valves

Our lockable ball valves have been developed in order to prevent potentially dangerous consequences caused by unintended operation. Lockable in different positions, this range meets international safety requirements, such as ISO 4414.

The valves are lockable:

- at one point: models 0432 and 0439
- at three points: models 0436, 0437 and 0438

Vented Valves

To stop fluid circulation and vent the circuit, 2 venting systems are provided:

- with threaded exhaust, to allow discharge of downstream media
- with pin-hole vent, for applications with no special discharge requirement

Fluid flow direction is indicated by an arrow on the valve body.

Mountable Valves

On steel plate:

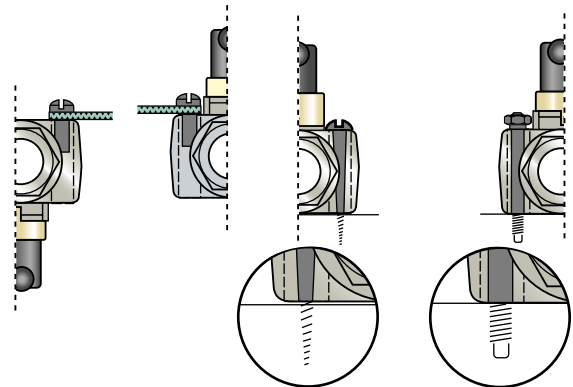
- bulkhead fixing
- complete valve below bulkhead

On frame:

- assemble with bolts

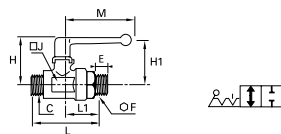
On wooden panel:

- assemble with woodscrews



0400 2/2 In-Line Ball Valve, Male BSPP Thread

Nickel-plated brass, NBR

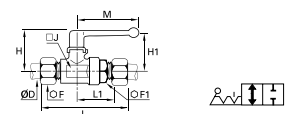


DN	C	Part No.	E	F	H	H1	J	L	L1	M	Kg
4	G1/8	0400 04 10	7	14	35	29	14	45	25	48	0.094
7	G1/4	0400 07 13	9	19	38	31	19	60	36	48	0.166
10	G3/8	0400 10 17	11	24	45	43	24	70	43	69	0.252
13	G1/2	0400 13 21	12	27	47	44	27	78	45	69	0.324
18	G3/4	0400 18 27	12	38	63	54	39	90	50	108	0.714

Maximum working pressure: 40 bar

0411 2/2 In-Line Ball Valve with Connections for Use with Steel Tubing

Nickel-plated brass, NBR

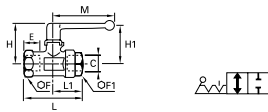


DN	ØD	Part No.	F	F1	H	H1	J	L	L1	M	Kg
4	6	0411 04 06	14	19	38	31	19	76	30	48	0.173
6	8	0411 06 08	17	19	38	31	19	77	30	48	0.195
7	10	0411 07 10	19	19	38	31	19	78	31	48	0.210
10	12	0411 10 12	22	24	45	43	24	85	36	69	0.310

Maximum working pressure: 40 bar

0402 2/2 In-Line Ball Valve, Female BSPP Thread

Nickel-plated brass, NBR

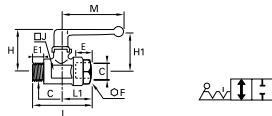


DN	C		E	F	F1	H	H1	L	L1	M	Kg
4	G1/8	0402 04 10	8	14	35	29	44	25	48	0.094	
7	G1/8	0402 07 10	8	19	19	38	31	51	27	48	0.165
	G1/4	0402 07 13	12	19	19	38	31	53	28	48	0.156
10	G3/8	0402 10 17	12	24	24	45	43	59	31	69	0.244
13	G1/2	0402 13 21	15	27	27	47	44	67	34	69	0.292
20	G3/4	0402 20 27	16.5	32	38	63	54	80	39	108	0.655
23	G1	0402 23 34	19	41	46	67	57	94	47	108	1.036
32	G1 1/4	0402 32 42*	21.5	55	60	97	115	112	59	180	2.467
	G1 1/2	0402 32 49*	22	55	60	97	115	120	62	180	2.340
40	G1 1/2	0402 40 49*	22	55	55	104		111	55	190	2.445
	G2	0402 40 48*	26	70	70	104		122	61	190	2.614

*Models with EC marking
Maximum working pressure: 40 bar

0401 2/2 In-Line Ball Valve, Male/Female BSPP Thread

Nickel-plated brass, NBR

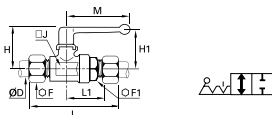


DN	C		E	E1	F	H	H1	J	L	L1	M	Kg
4	G1/8	0401 04 10	8	7	14	35	29	14	45	25	48	0.094
5	G1/8	0401 05 10	8	7	19	38	31	19	51	27	48	0.160
7	G1/4	0401 07 13	12	9	19	38	31	19	52	28	48	0.150
10	G3/8	0401 10 17	12	11	24	45	43	24	58	31	69	0.234
13	G1/2	0401 13 21	15	12	27	47	44	27	66	34	69	0.286
18	G3/4	0401 18 27	16.5	12	38	63	54	39	79	39	108	0.652
23	G1	0401 23 34	19	15	46	67	57	48	91	47	108	0.952
32	G1 1/4	0401 32 42*	21.5	18	60	97	115	55	113	59	108	2.385

*Models with EC marking
Maximum working pressure: 40 bar

0414 2/2 In-Line Ball Valve with Compression Connections

Nickel-plated brass, NBR

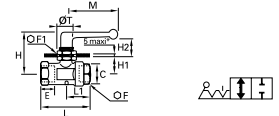


DN	ØD		F	F1	H	H1	J	L	L1	M	Kg
4	6	0414 04 06	13	19	38	31	19	72	31	48	0.177
6	8	0414 06 08	14	19	38	31	19	74	30	48	0.180
7	10	0414 07 10	19	19	38	31	19	78	31	48	0.210
10	12	0414 10 12	22	24	45	43	24	86	36	69	0.308

Maximum working pressure: 40 bar

0446 2/2 In-Line Panel-Mountable Ball Valve, Female BSPP Thread

Nickel-plated brass, NBR

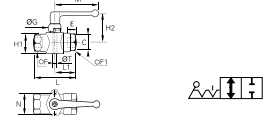


DN	C		E	F	F1	H	H1	H2	L	L1	M	T	Kg
4	G1/8	0446 04 10*	8	14	22	37	14	12	44	25	48	16.5	0.112
7	G1/4	0446 07 13	12	19	24	45	19	14	53	28	48	20.5	0.188
10	G3/8	0446 10 17	12	24	27	50	21	21	59	31	69	20.5	0.294
13	G1/2	0446 13 21	15	27	27	51	23	21	67	34	69	20.5	0.338

Maximum working pressure: 20 bar
*For G1/8 version, maximum panel thickness = 3 mm

6402 2/2 In-Line Ball Valve for Screw Fixing, Female BSPP Thread

Nickel-plated brass, NBR

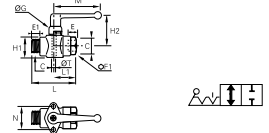


DN	C		E	F	F1	G	H1	H2	L	L1	M	N	T	Kg
4	G1/8	6402 04 10	8	14	14	18	18	30	44	25	48	25	470	0.132
7	G1/4	6402 07 13	12	19	19	19	24	31	53	28	48	31	580	0.216
10	G3/8	6402 10 17	12	24	24	20	30	45	59	31	69	31	580	0.324
13	G1/2	6402 13 21	15	27	27	20	34	47	67	34	69	34	6100	0.404
20	G3/4	6402 20 27	16.5	32	38	27	44	52	80	39	108	43	8125	0.830
23	G1	6402 23 34	19	41	46	27	53	56	94	47	108	51	8125	1.290

Maximum working pressure: 40 bar

6401 2/2 In-Line Ball Valve for Screw Fixing, Male/Female BSPP Thread

Nickel-plated brass, NBR

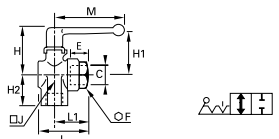


DN	C		E	E1	F	G	H1	H2	L	L1	M	N	T	Kg
4	G1/8	6401 04 10	8	7	14	18	18	30	45	25	48	25	470	0.127
7	G1/4	6401 07 13	12	9	19	19	24	31	52	28	48	31	580	0.212
10	G3/8	6401 10 17	12	11	24	20	30	45	58	31	69	31	580	0.306
13	G1/2	6401 13 21	15	12	27	20	34	47	67	34	69	34	6100	0.394

Maximum working pressure: 40 bar

0472 2/2 Right-Angled Ball Valve, Female BSPP Thread

Nickel-plated brass, NBR

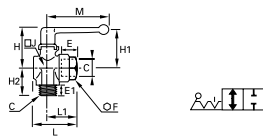


DN	C		E	F	H	H1	H2	J	L	L1	M	Kg
4	G1/8	0472 04 10	8	14	35	29	18	14	34	25	48	0.096
6	G1/4	0472 06 13	12	19	38	31	24	22	38	28	48	0.191
9	G3/8	0472 09 17	12	24	45	43	27	25	46	31	69	0.260
12	G1/2	0472 12 21	15	27	47	44	33	29	49	34	69	0.312
18	G3/4	0472 18 27	16.5	38	59	51	40	39	60	39	108	0.704
23	G1	0472 23 34	19	46	63	55	47	48	72	47	108	1.062

Maximum working pressure: 20 bar

0471 2/2 Right-Angled Ball Valve, Male/Female BSPP Thread

Nickel-plated brass, NBR

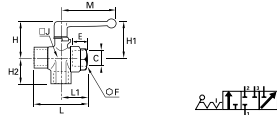


DN	C	E	E1	F	H	H1	H2	J	L	L1	M	Kg	
4	G1/8	0471 04 10	8	7	14	35	29	19	14	34	25	48	0.096
6	G1/8	0471 06 10	8	7	19	38	31	22	22	37	27	48	0.182
	G1/4	0471 06 13	12	9	19	38	31	25	22	38	28	48	0.187
9	G3/8	0471 09 17	12	11	24	45	43	28	25	46	31	69	0.256
12	G1/2	0471 12 21	15	12	27	47	44	32	29	49	34	69	0.303
18	G3/4	0471 18 27	16.5	12	38	59	51	37	39	60	39	108	0.682
23	G1	0471 23 34	19	15	46	63	55	44	48	72	47	108	1.020

Maximum working pressure: 20 bar

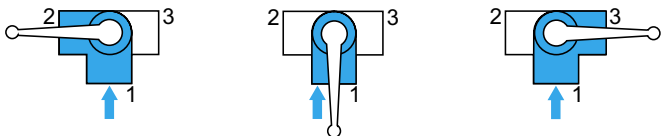
0482 3/3 Right-Angle Ported Ball Valve, Female BSPP Thread

Nickel-plated brass, NBR



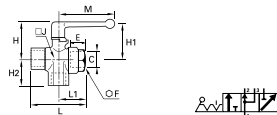
DN	C	E	F	H	H1	H2	J	L	L1	M	Kg	
4	G1/8	0482 04 10	8	14	35	29	18	14	44	25	48	0.102
6	G1/4	0482 06 13	12	19	38	31	24	22	53	28	48	0.200
9	G3/8	0482 09 17	12	24	45	43	27	25	59	31	69	0.284
12	G1/2	0482 12 21	15	27	47	44	33	29	67	34	69	0.346
18	G3/4	0482 18 27	16.5	38	59	51	40	39	80	39	108	0.742
23	G1	0482 23 34	19	46	63	55	47	48	94	47	108	1.160

Maximum working pressure: 20 bar



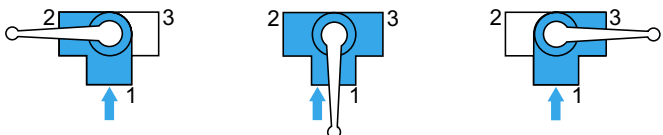
0483 3/3 Right-Angle Ported Ball Valve Without Closed Position, Female BSPP Thread

Nickel-plated brass, NBR



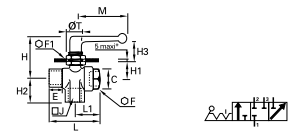
DN	C	E	F	H	H1	H2	J	L	L1	M	Kg	
4	G1/8	0483 04 10	8	14	35	29	18	14	44	25	48	0.102
6	G1/4	0483 06 13	12	19	38	31	24	22	53	28	48	0.196
9	G3/8	0483 09 17	12	24	45	43	27	25	59	31	69	0.278
12	G1/2	0483 12 21	15	27	47	44	33	29	67	34	69	0.340
18	G3/4	0483 18 27	16.5	38	59	51	40	39	80	39	108	0.716
23	G1	0483 23 34	19	46	63	55	47	48	94	47	108	1.066

Maximum working pressure: 20 bar



0448 3/3 Panel-Mountable Right-Angled Ball Valve, Female BSPP Thread

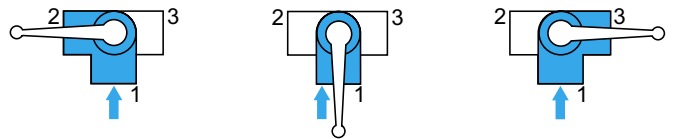
Nickel-plated brass, NBR



DN	C	E	F	F1	H	H1	H2	H3	J	L	L1	M	T	Kg	
4	G1/8	0448 04 10*	8	14	22	37	14	18	12	14	44	25	48	16.5	0.126
6	G1/4	0448 06 13	12	19	24	45	19	24	14	22	53	28	48	20.5	0.230
9	G3/8	0448 09 17	12	24	27	50	21	27	21	25	59	31	69	20.5	0.328
12	G1/2	0448 12 21	15	27	27	51	23	33	21	29	67	34	69	20.5	0.392

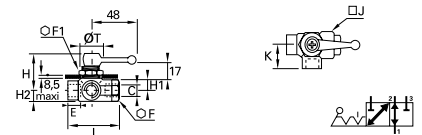
Maximum working pressure: 20 bar

*For G1/8 version: maximum panel thickness = 3 mm



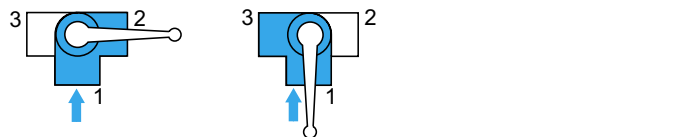
0452 3/2 Panel-Mountable Equal Plane Ball Valve, Female BSPP Thread

Nickel-plated brass, NBR



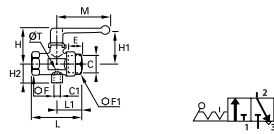
DN	C	E	F	F1	H	H1	H2	J	K	L	T	Kg	
4	G1/8	0452 04 10	8	14	22	39	10	8	16	18	25	19	0.130
6	G1/4	0452 06 13	12	19	24	40	11	11	23	24	28	20	0.206

Maximum working pressure: 20 bar



0489 3/2 In-Line Threaded Exhaust Port Ball Valve, Female BSPP and Metric Thread

Nickel-plated brass, NBR

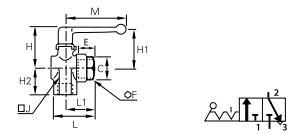


DN	C1	C	E	F	F1	H	H1	H2	L	L1	M	T	Kg	
7	M5x0.8	G1/4	0489 07 13	12	24	24	46	43	17	59	31	69	2	0.270
10	M5x0.8	G3/8	0489 10 17	12	24	24	46	43	17	59	31	69	2	0.243
13	G1/8	G1/2	0489 13 21	15	27	27	47	44	24	67	34	69	2	0.310
18	G1/4	G3/4	0489 18 27	16.5	32	38	63	54	33	80	39	108	2.5	0.670
23	G1/4	G1	0489 23 34	19	41	46	67	57	37	94	47	108	3	1.050

Maximum working pressure: 40 bar

0462 3/2 Right-Angled Ball Valve with Vent, Female BSPP Thread

Nickel-plated brass, NBR

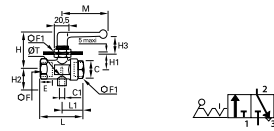


DN	C	E	F	H	H1	H2	J	L	L1	M	Kg	
6	G1/8	0462 06 10	8	19	38	31	20	22	37	27	48	0.192
	G1/4	0462 06 13	12	19	38	31	24	22	38	28	48	0.185
9	G3/8	0462 09 17	12	24	45	43	27	25	46	31	69	0.261
12	G1/2	0462 12 21	15	27	47	44	33	29	49	34	69	0.311
18	G3/4	0462 18 27	16.5	38	59	51	40	39	60	39	108	0.698
23	G1	0462 23 34	19	46	63	55	47	48	72	47	108	1.066

Maximum working pressure: 20 bar

0449 3/2 Panel-Mountable In-Line Threaded Exhaust Port Ball Valve, Female BSPP and Metric Thread

Nickel-plated brass, NBR

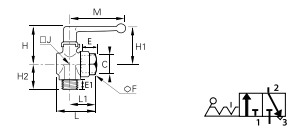


DN	C1	C	E	F	F1	H	H1	H2	H3	L	L1	M	T	Kg	
7	M5x0.8	G1/4	0449 07 13	12	24	27	50	20	17	21	59	31	69	2.5	0.313
10	M5x0.8	G3/8	0449 10 17	12	24	27	50	20	17	21	59	31	69	2.5	0.291
13	G1/8	G1/2	0449 13 21	15	27	27	52	23	24	21	67	34	69	4	0.352

Maximum working pressure: 20 bar

0461 3/2 Right-Angled Ball Valve with Vent, Male/Female BSPP Thread

Nickel-plated brass, NBR

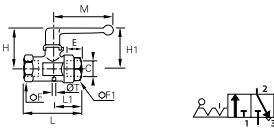


DN	C	E	E1	F	H	H1	H2	J	L	L1	M	Kg	
6	G1/8	0461 06 10	8	7	19	38	31	20	22	37	27	48	0.182
	G1/4	0461 06 13	12	9	19	38	31	24	22	38	28	48	0.186
9	G3/8	0461 09 17	12	11	24	45	43	27	25	46	31	69	0.257
12	G1/2	0461 12 21	15	12	27	47	44	33	29	49	34	69	0.304
18	G3/4	0461 18 27	16.5	12	38	59	51	40	39	60	39	108	0.648

Maximum working pressure: 20 bar

0469 3/2 In-Line Vented Ball Valve, Female BSPP Thread

Nickel-plated brass, NBR

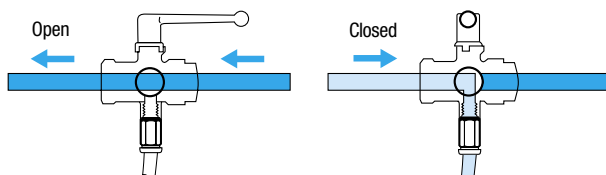


DN	C	E	F	F1	H	H1	L	L1	M	T	Kg	
4	G1/8	0469 04 10	8	14	14	35	29	44	25	48	1.5	0.092
7	G1/4	0469 07 13	12	24	24	46	43	59	31	70	2	0.268
10	G3/8	0469 10 17	12	24	24	46	43	59	31	70	2	0.246
13	G1/2	0469 13 21	15	27	27	47	44	67	34	70	2	0.294
18	G3/4	0469 18 27	16.5	32	38	63	54	80	39	108	2.5	0.668
23	G1	0469 23 34	19	41	46	67	57	94	47	108	3	1.026

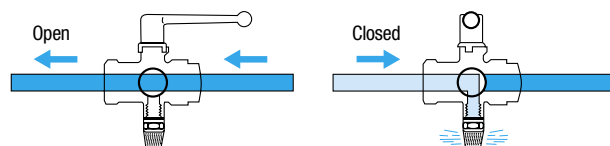
Maximum working pressure: 40 bar

Operation of Vented Ball Valves

With vent connected to a tube = collection of purged media



With vent connected to a silencer = noiseless discharge to atmosphere





Compliant with DVGW certification, standardized threads, these valves ensure the transport of gas and water.

Technical Characteristics

- **Compatible Fluids:** Compressed air, water, gas
- **Working Pressure:** 1/4" to 2": 0 to 40 bar
- **Working Temperature:** -50°C to +170°C

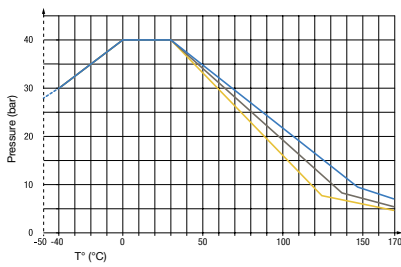
Reliable performance is dependent upon the type of fluid conveyed. Products have been tested at -50°C in static sealing and after 5 operations for a leak rate < 0,05NI/h.

Advantages

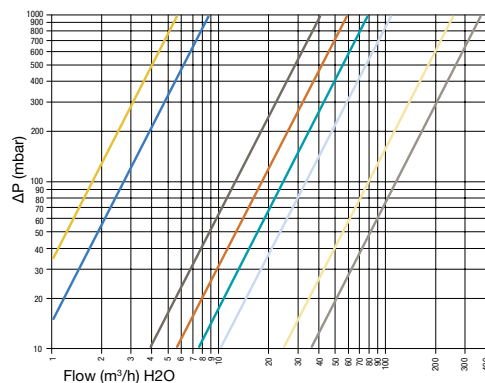
- Stem prevented from being ejected in the event of overpressure
- Two stem seal to prevent leakage
- Corrosion resistance, increased chemical compatibility thanks to chemical nickel plating
- Can be operated at very low temperatures: -50°C

Working Pressure and Temperature

Pressure - Temperature



Pressure Drop

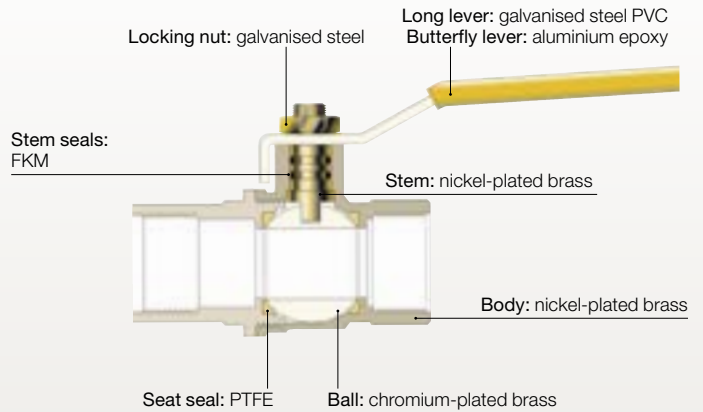


Regulations

Industrial
DI: 97/23/EC
(PED B+D module EC 1115)
Water
DVGW: W 570-1
DIN EN 13228
BGA KTW
DVGW: W270
Gas
DIN EN 33

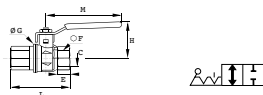
Component Materials

Silicone-free



BVG4-L 2/2 In-Line Ball Valve, Female BSPP Thread

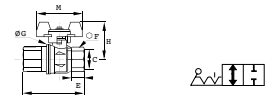
Nickel-plated brass



DN	C		E	F	G	H	L	M	Kg
8	G1/4	BVG4-1/4L	12	20	25	38	50	82	0.150
10	G3/8	BVG4-3/8L	12	20	25	38	60	82	0.161
15	G1/2	BVG4-1/2L	15.5	25	32.5	43	75	100	0.256
20	G3/4	BVG4-3/4L	17	32	39	50	80	120	0.397
25	G1	BVG4-1L	21	41	47.5	54	90	120	0.641
32	G1 1/4	BVG4-1.1/4L	23	50	59	73	110	158	0.980
40	G1 1/2	BVG4-1.1/2L	23	55	71.5	79	120	158	1.205
50	G2	BVG4-2L	26.5	70	86	86	140	158	1.960

BVGT4-L 2/2 In-Line Ball Valve, Female BSPP Thread, Butterfly Handle

Nickel-plated brass



DN	C		E	F	G	H	L	M	Kg
8	G1/4	BVGT4-1/4L	12	20	25	39	50	50	0.137
10	G3/8	BVGT4-3/8L	12	20	25	39	60	50	0.129
15	G1/2	BVGT4-1/2L	15.5	25	32.5	43	75	50	0.231
20	G3/4	BVGT4-3/4L	17	32	39	47	80	60	0.348
25	G1	BVGT4-1L	21	41	47.5	51	90	60	0.546

Compact lever

Standard Series



For common industrial applications, these ball valves are equipped with fluoropolymer seals and a lockable system.

Technical Characteristics		
Model	Standard and Lockable Series	Compact Series
Compatible Fluids	Compressed air Other fluids : see compatibility chart at the end of this chapter	
Working Pressure	0 to 40 bar up to 2" 0 to 30 bars over 2" excepted BVG4P-LOCK: 0 to 14 bar	0 to 30 bar
Working Temperature	-20°C to +170°C Excepted BVG4P-LOCK: -10°C to +100°C	-10°C to +90°C

Reliable performance is dependent upon the type of fluid conveyed.

Advantages	
• Long or butterfly handle	
• Full fluid flow	
• A lockable version for safety in use	
• Corrosion resistance thanks to chemical nickel plating	

Component Materials

Silicone-free

Long lever: Geomet® plated steel
Compact Series lever: technical polymer
Butterfly lever: Aluminium

Locking system: treated steel
Stem seal: FPM o-rings
Locking nut and Locking screw: Zinc plated steel

Stem: nickel-plated brass

Body: nickel-plated or chromium-plated shot-blasted brass

Seat seals: PTFE
Ball: chromium-plated brass

4902 (G2-G4), BVGT-C, BVG4-LOCK: Double stem seal: FPM

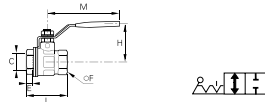
Regulations

Industrial:

- PED
- REACH
- RoHS

4902 2/2 Standard In-Line Ball Valve, Female BSPP Thread

Nickel-plated brass, PTFE

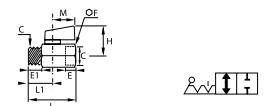


DN	C	Icon	E	F	H	L	M	PN	Kg
8	G1/4	4902 10 13	9	20	38	39	82	40	0.131
10	G3/8	4902 10 17	9	20	38	39	82	40	0.117
15	G1/2	4902 15 21	11	25	43	50	100	40	0.204
20	G3/4	4902 20 27	12	31	50	54	120	40	0.329
25	G1	4902 25 34	14	38	54	67	120	40	0.468
32	G1 1/4	4902 32 42*	15	48	73	77	158	30	0.770
40	G1 1/2	4902 40 49*	17	54	79	90	158	30	1.040
50	G2	4902 50 48*	19	66	86	106	158	30	1.760
65	G2 1/2	4902 65 47*	22	85	132	136	255	30	4.500
80	G3	4902 80 46*	25	99	140	157	255	30	5.840
100	G4	4902 01 45*	29	125	154	191	255	30	9.040

*Models with EC marking
Model from 2 1/2": double stem seal in FPM
Working temperature: -20°C to +170°C

4991 2/2 Standard Compact In-Line Ball Valve, Male/Female BSPP Thread

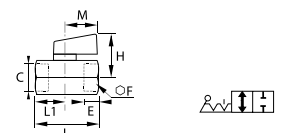
Chromium brass, PTFE



DN	C	Icon	E	E1	F	H	L	L1	M	Kg
6	G1/8	4991 00 10	10	10	21	30	41.5	10	24	0.089
8	G1/4	4991 00 13	11	11	21	30	41.5	11	24	0.082
	G3/8	4991 00 17	11	11	21	30	41.5	10.5	24	0.087
10	G1/2	4991 00 21	13	13	25	32	49	12.5	24	0.134

4992 2/2 Standard Compact In-Line Ball Valve, Female BSPP Thread

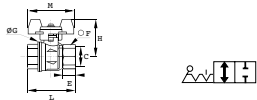
Chromium brass, PTFE



DN	C	Icon	E	F	H	L	L1	M	Kg
6	G1/8	4992 00 10	10	21	30	41.5	10	24	0.111
8	G1/4	4992 00 13	11	21	30	41.5	11	24	0.100
	G3/8	4992 00 17	11	21	30	41.5	10.5	24	0.094
10	G1/2	4992 00 21	13	25	32	49	12.5	24	0.142

BVGT4-C 2/2 Standard In-Line Ball Valve, Female BSPP Thread, Butterfly Handle

Nickel-plated brass

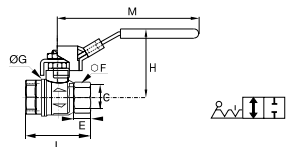


DN	C		E	F	G	H	L	M	Kg
8	G1/4	BVGT4-1/4C	9	20	25	40	39	50	0.130
10	G3/8	BVGT4-3/8C	9	20	25	40	39	50	0.120
15	G1/2	BVGT4-1/2C	11	25	32.5	44	50	50	0.180
20	G3/4	BVGT4-3/4C	12	31	39	49	54	50	0.265
25	G1	BVGT4-1C	14	38	47.5	53	67	50	0.390

Compact lever
Double stem seal in FPM
Working temperature: -40°C to +170°C

BVG4-LOCK 2/2 In-Line Lockable Ball Valve, Female BSPP Thread

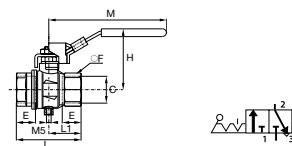
Nickel-plated brass



DN	C		E	F	H	L	M	Kg
8	G1/4	BVG4-1/4LOCK	9	20	46	39	96	0.150
10	G3/8	BVG4-3/8LOCK	9	20	46	39	96	0.150
15	G1/2	BVG4-1/2LOCK	11	25	51	50	96	0.255
19	G3/4	BVG4-3/4LOCK	12	31	59	54	117	0.390
25	G1	BVG4-1LOCK	14	38	63	67	117	0.590

BVG4P-LOCK 3/2 In-Line Lockable Vented Ball Valve, Female BSPP Thread

Nickel-plated brass



DN	C		E	F	H	L	L1	M	Kg
8	G1/4	BVG4P-1/4LOCK	12	20	47.5	45	22.5	96	0.155
10	G3/8	BVG4P-3/8LOCK	12	20	47.5	45	22.5	96	0.172
15	G1/2	BVG4P-1/2LOCK	15.5	25	52	59	29.5	96	0.239
20	G3/4	BVG4P-3/4LOCK	17	31	59.5	64	32	117	0.371
25	G1	BVG4P-1LOCK	21	40	63.5	81	40.5	117	0.581