

# Industrial Valves

## **Ball Valves**

LIQUIfit®

## **Needle and Butterfly Valves**

## **Axial Valves**



# Industrial Valves

## Ball Valves, Universal Series

(P. 6-8)



**Fluids:** compressed air, slightly corrosive fluids

**Materials:** nickel-plated forged brass

**Pressure:** 40 bar

**Temperature:** -20°C to +80°C

**DN:** 4 mm to 40 mm

## Ball Valves, Universal Series, Vented

(P. 6-13)



**Fluids:** compressed air, slightly corrosive fluids

**Materials:** nickel-plated forged brass

**Pressure:** 40 bar

**Temperature:** -20°C to +80°C

**DN:** 4 mm to 23 mm

## Ball Valves, Universal Series, Lockable

(P. 6-15)



**Fluids:** compressed air, slightly corrosive fluids

**Materials:** nickel-plated forged brass, galvanised steel and epoxy locking system

**Pressure:** 40 bar

**Temperature:** -20°C to +80°C

**DN:** 4 mm to 23 mm

## Ball Valves, Universal Customised Series

(P. 6-9)



**Fluids:** compressed air, many fluids

**Materials:** nickel-plated forged brass, choice of seal material (NBR, EPDM, FKM, PTFE...)

**Pressure:** 40 bar

**Temperature:** -20°C to +100°C

**DN:** 4 mm to 40 mm

## Ball Valves, Universal Light Series

(P. 6-16)



**Fluids:** compressed air, slightly corrosive fluids

**Materials:** forged brass or nickel-plated forged brass

**Pressure:** 12 bar

**Temperature:** -20°C to +80°C

**DN:** 4 mm to 13 mm

## Ball Valves, DVGW Series

(P. 6-20)



**Fluids:** compressed air, water, gas

**Materials:** nickel-plated forged brass

**Pressure:** 40 bar

**Temperature:** -40°C to +170°C

**DN:** 8 mm to 50 mm

## Ball Valves, Standard Series

(P. 6-22)



**Fluids:** compatible fluids

**Materials:** nickel or chromium-plated brass with PTFE seal

**Pressure:** 35 bar

**Temperature:** -20°C to +130°C

**DN:** 8 mm to 100 mm

## Ball Valves, Stainless Steel Series

(P. 6-28)



**Fluids:** all fluids

**Materials:** 316L stainless steel

**Pressure:** 65 bar

**Temperature:** -20°C to +150°C

**DN:** 8 mm to 50 mm

## Ball Valves, Stainless Steel Light Series

(P. 6-28)



**Fluids:** all fluids

**Materials:** 316L stainless steel

**Pressure:** 65 bar

**Temperature:** -20°C to +120°C

**DN:** 4 mm to 10 mm

# Industrial Valves

## Ball Valves, High Pressure Series

[P. 6-30]



**Fluids:** lubricants, gases  
**Materials:** zinc-plated brass  
**Pressure:** 300 bar  
**Temperature:** -15°C to +80°C  
**DN** : 7 mm to 13 mm

## Ball Valves, Mini Series

[P. 6-32]



**Fluids:** compressed air  
**Materials:** technical polymer  
**Pressure:** 10 bar  
**Temperature:** -20°C to +80°C  
**DN** : 4 mm to 12 mm

## Ball Valves, LIQUIfit®

[P. 6-34]



**Fluids:** water, beverages, CO<sub>2</sub>, inert gases  
**Materials:** polypropylene, EPDM seal  
**Pressure:** 10 bar  
**Temperature:** -15°C to +100°C  
**Tube Ø:** 1/4" and 3/8"

## Needle Valves, Brass

[P. 6-37]



**Fluids:** compressed air, industrial fluids  
**Materials:** shot-blasted forged brass, nickel-plated  
**Pressure:** 120 bar  
**Temperature:** -20°C to +100°C  
**DN** : 4 mm to 10 mm

## Needle Valves, Stainless Steel

[P. 6-41]



**Fluids:** all fluids  
**Materials:** 316L stainless steel  
**Pressure:** 400 bar  
**Temperature:** -20°C to +180°C  
**DN** : 3 mm to 6 mm

## Butterfly Valves

[P. 6-42]



**Fluids:** compressed air, abrasive fluids  
**Materials:** shot-blasted forged brass, nickel-plated  
**Pressure:** 16 bar  
**Temperature:** -20°C to +80°C  
**DN** : 6 mm to 18 mm

## Axial Valves

[P. 6-45]



**Fluids:** compressed air, industrial fluids  
**Materials:** nickel-plated brass  
**Pressure:** 10 bar  
**Temperature:** -20°C to +135°C  
**Threads :** 3/8" to 2"

# Ball Valve Range

## Universal and Universal Customised Series

### In-Line

**0402** 2/2 Page 6-10  
**0401** 2/2 Page 6-10  
**0400** 2/2 Page 6-10  
**0411** 2/2 Page 6-10  
**0414** 2/2 Page 6-10



### In-Line with Fixing Holes and Panel Mounting

**0446** 2/2 Page 6-11  
**6402** 2/2 Page 6-11  
**6401** 2/2 Page 6-11



### Right-Angled

**0472** 2/2 Page 6-11  
**0471** 2/2 Page 6-11



### In-Line, 3-Way

**0482** 3/3 Page 6-12  
**0483** 3/3 Page 6-12



### In-Line, 3-Way with Fixing Holes and Panel Mounting

**0448** 3/3 Page 6-12  
**0452** 3/2 Page 6-12



## Universal Series, Vented

### In-Line

**0489** 3/2 Page 6-13  
**0449** 3/2 Page 6-13  
**0469** 3/2 Page 6-13



### Right-Angled

**0462** 3/2 Page 6-14  
**0461** 3/2 Page 6-14



## Universal Lockable Series

### In-Line

**0432** 2/2 Page 6-15



### In-Line, Vented

**0439** 3/2 Page 6-15  
**0436** 3/2 Page 6-15  
**0437** 3/2 Page 6-15



### In-Line, 3-Way

**0438** 3/2 Page 6-15



## Universal Light Series

### In-Line

**0492** 2/2 Page 6-17  
**0491** 2/2 Page 6-17  
**0490** 2/2 Page 6-17



### In-Line, Vented

**0494** 2/2 Page 6-18



### In-Line with Square Stem

**0497** 2/2 Page 6-18  
**0496** 2/2 Page 6-18



# Ball Valve Range

## DVGW Series

### In-Line

#### BVG4-L

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#### BVGT4-L

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Page 6-21



## Standard Series

### In-Line

#### 4902

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#### BVGT4-C

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Page 6-23



### Compact

#### 4991

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#### 4992

2/2  
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### In-Line, Lockable

#### BVG4-LOCK

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### In-Line, Lockable, Vented

#### BVG4P-LOCK

3/2  
Page 6-24



## Stainless Steel Series

### In-Line

#### 4832

Mountable and dismountable  
2/2  
Page 6-29



#### 4812

Mountable  
2/2  
Page 6-29



#### 4810

One-Piece Construction  
2/2  
Page 6-29



#### 0465

Light Series  
2/2  
Page 6-29



## High Pressure Series

### In-Line

#### 4402

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## Mini Series

### In-Line

#### 7910

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#### 7911

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Page 6-33



### In-Line, Vented and Accessories

#### 7913

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#### 7914

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Page 6-33



#### 7000

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## LIQUIfit®

### In-Line

#### 4020

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#### 4021

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#### 4023

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### Right-Angled

#### 4022

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### Accessories

#### 3130

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# Ball Valves, Universal Series

This range of valves has patented **seal wear compensating** technology for **reliable** and **durable** sealing, **protecting** any system whether under pressure or **vacuum**.

## Product Advantages

### Durability & Reliability

Automatic seal wear compensation for long-term reliability  
Robust, corrosion-resistant materials  
100% leak-tested in production  
Date coding to guarantee quality and traceability

### Versatility & Performance

Ideal for ensuring the performance of pneumatic circuits  
Customised valves for all special applications  
Unequalled performance under vacuum  
Smooth operation thanks to self-lubricating seals  
Large range of working pressures and temperatures  
Lever can be repositioned and replaced  
Many configurations to satisfy all system requirements



Pneumatics  
Vacuum  
Transportation  
Packaging  
Textile  
Sawmill  
Rubber & Plastics

Applications

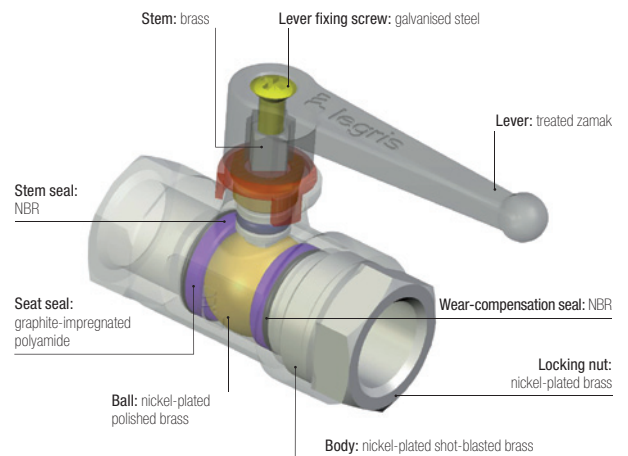
## Technical Characteristics

<b>Compatible Fluids</b>	Industrial fluids
<b>Working Pressure</b>	Vacuum to 40 bar
<b>Working Temperature</b>	-20°C to + 80°C

<b>Tightening Torques</b>	Threads	G1/8	G1/4	G3/8	G1/2	G3/4	G1	
	daN.m	0.10 to 0.20	0.10 to 0.20	0.15 to 0.25	0.20 to 0.35	0.50 to 0.70	0.50 to 0.70	
	Threads	G1¼	G1½	G2				
	daN.m	0.40 to 0.60	0.80 to 1.20	0.80 to 1.20				

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).

### Component Materials



### Silicone-free

### Regulations

DI: 97/23/EC (module PED A - diameters greater than 25 mm)  
DI: 2006/42/EC (Machinery Directive)  
DI: 2002/95/EC (RoHS)  
RG: 1907/2006 (REACH)



# Universal Series

## 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 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:

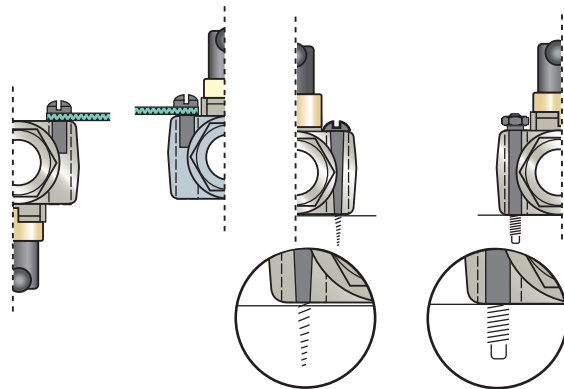
- bulkhead fixing
- complete valve below bulkhead

On frame:

- assemble with bolts

On wooden panel:

- assemble with woodscrews



### Universal Customised Valve Series

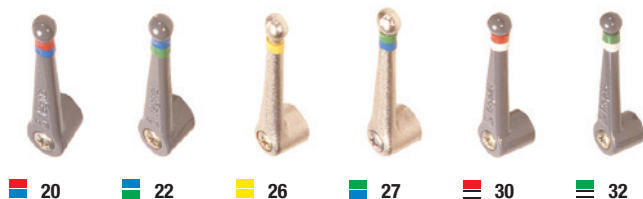
Based on the standard components of the universal series, this range allows the valve to be adapted to specific needs. There are 6 product versions available on request.

#### Product Codes

Valve type	0402 04 10 22		
0400	DN	Thread	Suffix
0401			
0402	04 = 4 mm	10 = 1/8"	20 = blue/red
...	05 = 5 mm	13 = 1/4"	22 = green/blue
	...	...	26 = yellow/yellow
	40 = 40 mm	48 = 2"	27 = blue/green
			30 = white/red
			32 = white/green

#### Identification

Each series may be easily identified by a colour marking on the lever.



#### Suffix Specification

Identification		Body		Lever			Ball		Stem and Wear-Compensation Seals			Seat Seals			Application Examples
Suffix on the body	Colour bands on the lever	Nickel-plated brass	Chemical nickel-plated brass	Standard	Nickel-plated brass	Chemical nickel-plated brass	Nickel-plated polished brass	Chemical nickel-plated brass	EPDM	FKM	PTFE white	Rilsan: graphite-impregnated	Filled PTFE	PTFE white	
20	Blue, Red	•		•			•			•		•			Hydrocarbons
22	Green, Blue	•		•				•		•			•		Industrial fluids and high temperature
26*	Yellow, Yellow	•			•			•			•	olive		•	Corrosive liquids or high temperature
27	Blue, Green		•			•		•		•			•		Industrial fluids and/or harsh environments
30**	White, Red	•		•			•		•			•			Gaseous oxygen circuits
32	White, Green	•		•			•		•				•		Water and steam circuits

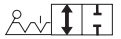
\*degreased \*\*oxygen-compatible grease


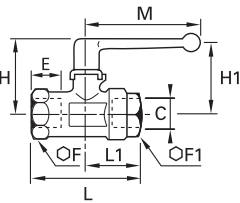


A usage chart in this chapter shows which type of valve to use according to the fluid being conveyed.



# Universal and Universal Customised Series

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


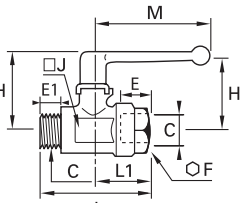




	Nickel-plated brass, NBR 	<b>C</b>  	<b>E</b>	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8 4 0402 04 10	8	-	14	35	29	44	25	48	0.094
		G1/8 7 0402 07 10	8	19	19	38	31	51	27	48	0.166
		G1/4 7 0402 07 13	12	19	19	38	31	53	28	48	0.156
		G3/8 10 0402 10 17	12	24	24	45	43	59	31	69	0.244
		G1/2 13 0402 13 21	15	27	27	47	44	67	34	69	0.292
		G3/4 20 0402 20 27	16.5	32	38	63	54	80	39	108	0.655
		G1 23 0402 23 34	19	41	46	67	57	94	47	108	1.036
		G1¼ 32 0402 32 42*	21.5	55	60	97	115	112	59	180	2.467
		G1½ 32 0402 32 49*	22	55	60	97	115	120	62	180	2.340
		G1½ 40 0402 40 49*	22	55	55	104	-	111	55	190	2.445
		G2 40 0402 40 48*	26	70	70	104	-	122	61	190	2.614

\*Models with CE marking  
Maximum working pressure: 40 bar

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


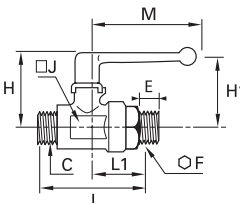




	Nickel-plated brass, NBR 	<b>C</b>  	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8 4 0401 04 10	8	7	14	35	29	14	45	25	48	0.094
		G1/8 5 0401 05 10	8	7	19	38	31	19	51	27	48	0.160
		G1/4 7 0401 07 13	12	9	19	38	31	19	52	28	48	0.150
		G3/8 10 0401 10 17	12	11	24	45	43	24	58	31	69	0.234
		G1/2 13 0401 13 21	15	12	27	47	44	27	66	34	69	0.286
		G3/4 18 0401 18 27	16.5	12	38	63	54	39	79	39	108	0.652
		G1 23 0401 23 34	19	15	46	67	57	48	91	47	108	0.952
		G1¼ 32 0401 32 42*	21.5	18	60	97	115	55	113	59	108	2.385

\*Models with CE marking  
Maximum working pressure: 40 bar

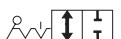
## 0400 2/2 In-Line Ball Valve, Male BSPP Thread


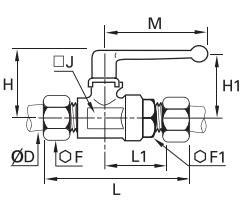




	Nickel-plated brass, NBR 	<b>C</b>  	<b>E</b>	<b>F</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8 4 0400 04 10	7	14	35	29	14	45	25	48	0.094
		G1/4 7 0400 07 13	9	19	38	31	19	60	36	48	0.166
		G3/8 10 0400 10 17	11	24	45	43	24	70	43	69	0.252
		G1/2 13 0400 13 21	12	27	47	44	27	78	45	69	0.324
		G3/4 18 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 Tube


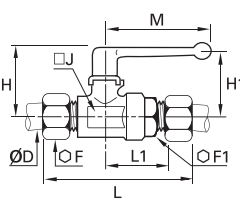




	Nickel-plated brass, NBR 	<b>ØD</b>  	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		6 4 0411 04 06	14	19	38	31	19	76	30	48	0.073
		8 6 0411 06 08	17	19	38	31	19	77	30	48	0.095
		10 7 0411 07 10	19	19	38	31	19	78	31	48	0.100
		12 10 0411 10 12	22	24	45	43	24	85	36	69	0.110

Maximum working pressure: 40 bar

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



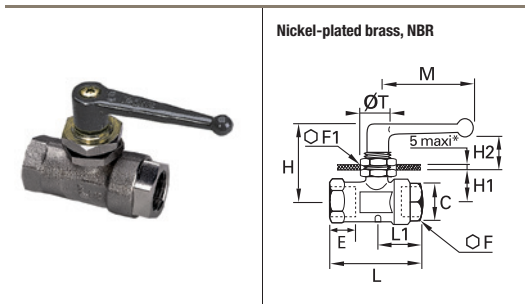
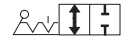
	Nickel-plated brass, NBR 	<b>ØD</b>  	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		6 4 0414 04 06	13	19	38	31	19	72	31	48	0.177
		8 6 0414 06 08	14	19	38	31	19	74	30	48	0.180
		10 7 0414 07 10	19	19	38	31	19	78	31	48	0.210
		12 10 0414 10 12	22	24	45	43	24	86	36	69	0.308

Maximum working pressure: 40 bar

# Universal and Universal Customised Series

**0446**

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

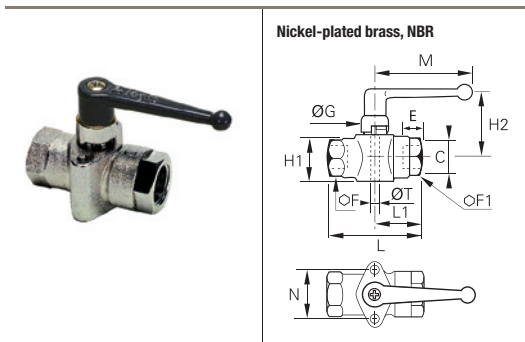


C	DN		E	F	F1	H	H1	H2	L	L1	M	ØT	kg
G1/8	4	<a href="#">0446 04 10</a>	8	14	22	37	14	12	44	25	48	16.5	0.112
G1/4	7	<a href="#">0446 07 13</a>	12	19	24	45	19	14	53	28	48	20.5	0.188
G3/8	10	<a href="#">0446 10 17</a>	12	24	27	50	21	21	59	31	69	20.5	0.294
G1/2	13	<a href="#">0446 13 21</a>	15	27	27	51	23	21	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

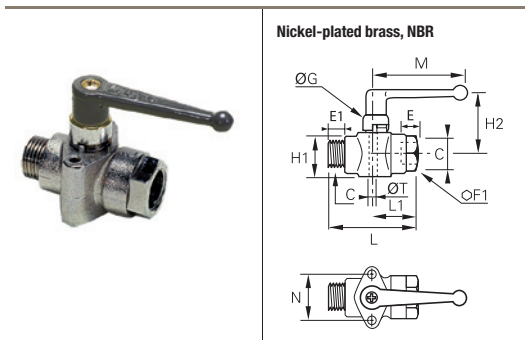


C	DN		E	F	F1	G	H1	H2	L	L1	M	N	ØT	kg
G1/8	4	<a href="#">6402 04 10</a>	8	14	14	18	18	30	44	25	48	25	4x70	0.132
G1/4	7	<a href="#">6402 07 13</a>	12	19	19	19	24	31	53	28	48	31	5x80	0.216
G3/8	10	<a href="#">6402 10 17</a>	12	24	24	20	30	45	59	31	69	31	5x80	0.324
G1/2	13	<a href="#">6402 13 21</a>	15	27	27	20	34	47	67	34	69	34	6x100	0.404
G3/4	20	<a href="#">6402 20 27</a>	16.5	32	38	27	44	52	80	39	108	43	8x125	0.830
G1	23	<a href="#">6402 23 34</a>	19	41	46	27	53	56	94	47	108	51	8x125	1.290

Maximum working pressure: 40 bar

**6401**

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

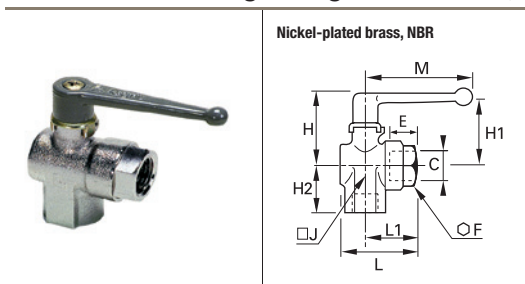


C	DN		E	E1	F	G	H1	H2	L	L1	M	N	ØT	kg
G1/8	4	<a href="#">6401 04 10</a>	8	7	14	18	18	30	45	25	48	25	4x70	0.127
G1/4	7	<a href="#">6401 07 13</a>	12	9	19	19	24	31	52	28	48	31	5x80	0.212
G3/8	10	<a href="#">6401 10 17</a>	12	11	24	20	30	45	58	31	69	31	5x80	0.306
G1/2	13	<a href="#">6401 13 21</a>	15	12	27	20	34	47	67	34	69	34	6x100	0.394

Maximum working pressure: 40 bar

**0472**

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

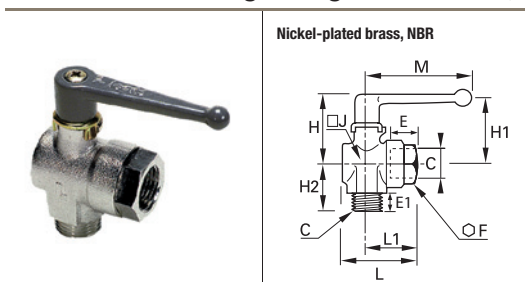


C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	4	<a href="#">0472 04 10</a>	8	14	35	29	18	14	34	25	48	0.096
	6	<a href="#">0472 06 10</a>	8	19	38	31	20	22	37	27	48	0.183
G1/4	6	<a href="#">0472 06 13</a>	12	19	38	31	24	22	38	28	48	0.191
G3/8	9	<a href="#">0472 09 17</a>	12	24	45	43	27	25	46	31	69	0.260
G1/2	12	<a href="#">0472 12 21</a>	15	27	47	44	33	29	49	34	69	0.312
G3/4	18	<a href="#">0472 18 27</a>	16.5	38	59	51	40	39	60	39	108	0.704
G1	23	<a href="#">0472 23 34</a>	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



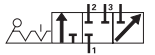
C	DN		E	E1	F	H	H1	H2	J	L	L1	M	kg
G1/8	4	<a href="#">0471 04 10</a>	8	7	14	35	29	19	14	34	25	48	0.096
	6	<a href="#">0471 06 10</a>	8	7	19	38	31	22	22	37	27	48	0.182
G1/4	6	<a href="#">0471 06 13</a>	12	9	19	38	31	25	22	38	28	48	0.187
G3/8	9	<a href="#">0471 09 17</a>	12	11	24	45	43	28	25	46	31	69	0.256
G1/2	12	<a href="#">0471 12 21</a>	15	12	27	47	44	32	29	49	34	69	0.300
G3/4	18	<a href="#">0471 18 27</a>	16.5	12	38	59	51	37	39	60	39	108	0.682
G1	23	<a href="#">0471 23 34</a>	19	15	46	63	55	44	48	72	47	108	1.020


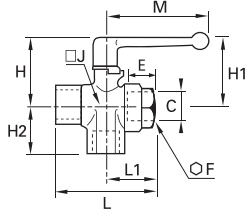

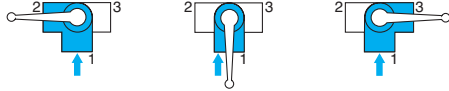
Maximum working pressure: 20 bar

Ball Valves  
Industrial Valves

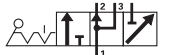
# Universal and Universal Customised Series


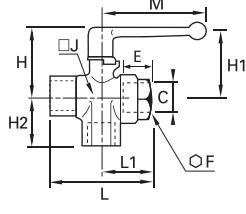

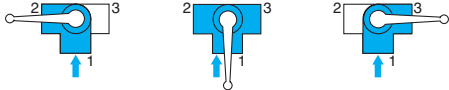
## 0482 3/3 Right-Angle Ported Ball Valve, Female BSPP Thread



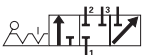
	Nickel-plated brass, NBR 	<b>C</b>	<b>DN</b>		<b>E</b>	<b>F</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8	4	<a href="#">0482 04 10</a>	8	14	35	29	18	14	44	25	48	0.103
		G1/4	6	<a href="#">0482 06 13</a>	12	19	38	31	24	22	53	28	48	0.200
		G3/8	9	<a href="#">0482 09 17</a>	12	24	45	43	27	25	59	31	69	0.284
		G1/2	12	<a href="#">0482 12 21</a>	15	27	47	44	33	29	67	34	69	0.346
		G3/4	18	<a href="#">0482 18 27</a>	16.5	38	59	51	40	39	80	39	108	0.742
		G1	23	<a href="#">0482 23 34</a>	19	46	63	55	47	48	94	47	108	1.160
Maximum working pressure: 20 bar  <p style="text-align: center;"><b>Closed</b></p>														


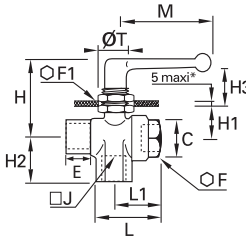

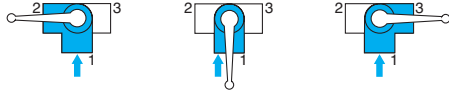
## 0483 3/3 Right-Angle Ported Ball Valve without Closed Position, Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b>	<b>DN</b>		<b>E</b>	<b>F</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8	4	<a href="#">0483 04 10</a>	8	14	35	29	18	14	44	25	48	0.102
		G1/4	6	<a href="#">0483 06 13</a>	12	19	38	31	24	22	53	28	48	0.196
		G3/8	9	<a href="#">0483 09 17</a>	12	24	45	43	27	25	59	31	69	0.278
		G1/2	12	<a href="#">0483 12 21</a>	15	27	47	44	33	29	67	34	69	0.340
		G3/4	18	<a href="#">0483 18 27</a>	16.5	38	59	51	40	39	80	39	108	0.716
		G1	23	<a href="#">0483 23 34</a>	19	46	63	55	47	48	94	47	108	1.066
Maximum working pressure: 20 bar 														


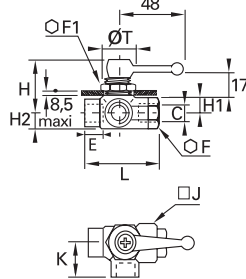

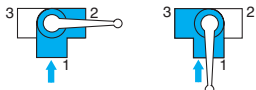
## 0448 3/2 Panel-Mountable Right-Angled Ball Valve, Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b>	<b>DN</b>		<b>E</b>	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>OT</b>	<b>kg</b>		
		G1/8	4	<a href="#">0448 04 10</a>	8	14	22	37	14	18	12	14	44	25	48	16.5	0.126		
		G1/4	6	<a href="#">0448 06 13</a>	12	19	24	45	19	24	14	22	53	28	48	20.5	0.230		
		G3/8	9	<a href="#">0448 09 17</a>	12	24	27	50	21	27	21	25	59	31	69	20.5	0.328		
		G1/2	12	<a href="#">0448 12 21</a>	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																	
		 <p style="text-align: center;"><b>Closed</b></p>																	

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

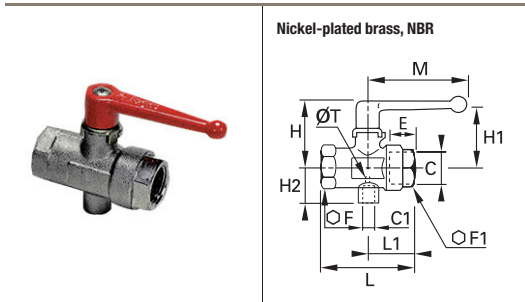


	Nickel-plated brass, NBR 	<b>C</b>	<b>DN</b>		<b>E</b>	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>OT</b>	<b>kg</b>	
		G1/8	4	<a href="#">0452 04 10</a>	8	14	22	39	10	8	16	18	25	19	0.130	
		G1/4	6	<a href="#">0452 06 13</a>	12	19	24	40	11	11	23	24	28	20	0.206	
Maximum working pressure: 20 bar 																

# Universal Series, Vented

**0489**

**3/2 In-Line Vented Ball Valve, Female BSPP and Metric Thread**

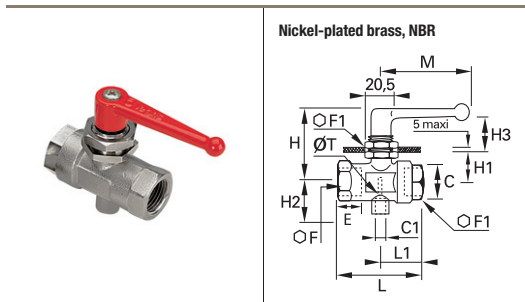


C	C1	DN		E	F	F1	H	H1	H2	L	L1	M	ØT	kg
G1/4	M5x0.8	7	<a href="#">0489 07 13</a>	12	24	24	46	43	17	59	31	69	2	0.270
G3/8	M5x0.8	10	<a href="#">0489 10 17</a>	12	24	24	46	43	17	59	31	69	2	0.243
G1/2	G1/8	13	<a href="#">0489 13 21</a>	15	27	27	47	44	24	67	34	69	2	0.310
G3/4	G1/4	18	<a href="#">0489 18 27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

Maximum working pressure: 40 bar

**0449**

**3/2 Panel-Mountable In-Line Ball Valve, Female BSPP and Metric Thread**

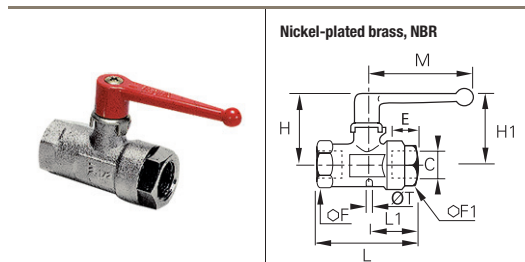
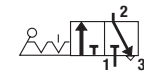


C	C1	DN		E	F	F1	H	H1	H2	H3	L	L1	M	ØT	kg
G1/4	M5x0.8	7	<a href="#">0449 07 13</a>	12	24	27	50	20	17	21	59	31	69	2.5	0.313
G3/8	M5x0.8	10	<a href="#">0449 10 17</a>	12	24	27	50	20	17	21	59	31	69	2.5	0.291
G1/2	G1/8	13	<a href="#">0449 13 21</a>	15	27	27	52	23	24	21	67	34	69	4	0.352

Maximum working pressure: 20 bar

**0469**

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



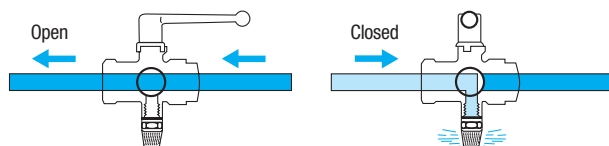
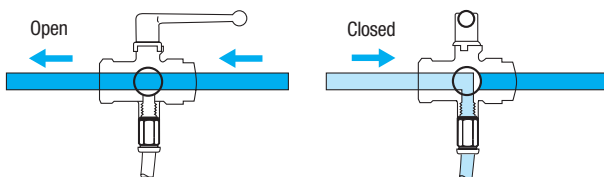
C	DN		E	F	F1	H	H1	L	L1	M	ØT	kg
G1/8	4	<a href="#">0469 04 10</a>	8	14	14	35	29	44	25	48	1.5	0.092
G1/4	7	<a href="#">0469 07 13</a>	12	24	24	46	43	59	31	70	2	0.268
G3/8	10	<a href="#">0469 10 17</a>	12	24	24	46	43	59	31	70	2	0.246
G1/2	13	<a href="#">0469 13 21</a>	15	27	27	47	44	67	34	70	2	0.294
G3/4	18	<a href="#">0469 18 27</a>	16.5	32	38	63	54	80	39	108	2.5	0.668
G1	23	<a href="#">0469 23 34</a>	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



You will find our ranges of fittings, tubing and silencers in Chapters 1, 3 and 9.







# Ball Valves, Universal Light Series

Using the Universal Series technology, the Parker Legris light series valves offer the advantages of **compactness**, **ease of operation** and **long-term reliability**.

## Product Advantages

<b>Easy-to-Use</b>	<ul style="list-style-type: none"> <li>Ease of operation due to the low friction design</li> <li>The short levers may be repositioned and exchanged</li> <li>Extremely compact</li> <li>Wide range of configurations</li> </ul>
<b>Maximum Efficiency</b>	<ul style="list-style-type: none"> <li>Excellent performance under vacuum</li> <li>Full flow</li> <li>Chemical nickel-plated brass with high phosphorous content for outstanding corrosion resistance</li> <li>Automatic seal wear compensation system</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>Tried-and-tested technology</li> <li>Forged brass provides mechanical strength and long service life</li> <li>100% leak-tested in production</li> <li>Date coding to guarantee quality and traceability</li> </ul>



**Applications**

- Vacuum
- Transportation
- Packaging
- Textile
- Pneumatics
- Sawmills
- Rubber & Plastics

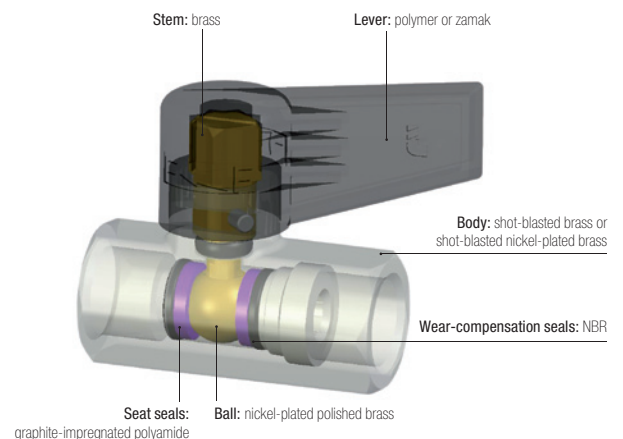
## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air Other fluids: see compatibility chart at the end of this chapter
<b>Working Pressure</b>	Vacuum to 12 bar
<b>Working Temperature</b>	-20°C to +80°C

<b>Tightening Torques</b>	<b>Threads</b>	G1/8	G1/4	G3/8	G1/2	G3/4
	<b>daN.m</b>	0.10 to 0.20	0.10 to 0.20	0.15 to 0.25	0.20 to 0.35	0.50 to 0.70

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).

### Component Materials



### Silicone-free

### Regulations

- DI: 97/23/EC (module PED A - diameters greater than 25 mm)
- DI: 2006/42/EC (Machinery Directive)
- DI: 2002/95/EC (RoHS)
- RG: 1907/2006 (REACH)



# Universal Light Series

## 0492 2/2 In-Line Ball Valve, Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b> <b>DN</b>	<b>E</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4	4	<a href="#">0492 04 13</a>	9	17	34	39.5	17	35	0.073
		G3/8	7	<a href="#">0492 07 17</a>	11	22	38	45	20	43	0.128
		G1/2	10	<a href="#">0492 10 21</a>	12	24	44	54	25	50	0.162
		G3/4	13	<a href="#">0492 13 27</a>	14	30	46	62	28	50	0.240
Technical polymer handle											

## 0492..64 2/2 In-Line Ball Valve, Short Handle, Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b> <b>DN</b>	<b>E</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4	4	<a href="#">0492 04 13 64</a>	9	17	36	39.5	17	25	0.090
		Short handle in zamak									

## 0491 2/2 In-Line Ball Valve, Male/Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b> <b>DN</b>	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4	4	<a href="#">0491 04 13</a>	9	7	17	34	39.5	17	35	0.070
		G3/8	7	<a href="#">0491 07 17</a>	11	8	22	38	45	20	43	0.124
		G1/2	10	<a href="#">0491 10 21</a>	12	10	24	44	53	24	50	0.160
		G3/4	13	<a href="#">0491 13 27</a>	14	12	30	46	59	25	50	0.238
Technical polymer handle												

## 0491..64 2/2 In-Line Ball Valve, Short Handle, Male/Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b> <b>DN</b>	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4	4	<a href="#">0491 04 13 64</a>	9	7	17	36	39.5	17	25	0.092
		Short handle in zamak										

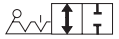
## 0490 2/2 In-Line Ball Valve, Male BSPP Thread


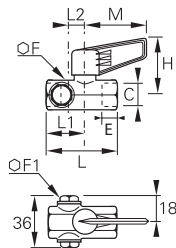




	Nickel-plated brass, NBR 	<b>C</b> <b>DN</b>	<b>E</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4	4	<a href="#">0490 04 13</a>	7	17	34	39	17	35	0.070
		G3/8	7	<a href="#">0490 07 17</a>	8	22	38	44	20	43	0.109
		G1/2	10	<a href="#">0490 10 21</a>	10	24	44	53	24	50	0.160
		G3/4	13	<a href="#">0490 13 27</a>	12	30	46	59	25	50	0.233
Technical polymer handle											

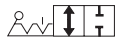
# Universal Light Series


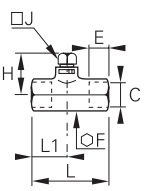


## 0494 2/2 In-Line Ball Valve, 2 Vent Plugs, Female BSPP Thread



	<p>Nickel-plated brass, NBR</p> 	<p><b>C</b>  </p>	<b>E</b>	<b>F</b>	<b>F1</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>L2</b>	<b>M</b>	<b>kg</b>
		<p>G3/8 7 <a href="#">0494 07 17</a></p> <p>Technical polymer handle</p>	11	22	16	38	60	20	15	43	0.178


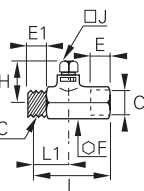


## 0497 2/2 Ball Valve, Square Stem, Female BSPP Thread



	<p>Brass, NBR</p> 	<p><b>C</b>  </p>	<b>E</b>	<b>F</b>	<b>H</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>kg</b>
		<p>G1/4 4 <a href="#">0497 04 13</a></p> <p>G3/8 7 <a href="#">0497 07 17</a></p> <p>G1/2 10 <a href="#">0497 10 21</a></p> <p>G3/4 13 <a href="#">0497 13 27</a></p>	9	17	25	7	39	17	0.066
			11	22	26	7	45	20	0.122
			12	24	29	10	54	25	0.148
			14	30	30	10	62	28	0.230

## 0496 2/2 Ball Valve, Square Stem, Male/Female BSPP Thread



	<p>Brass, NBR</p> 	<p><b>C</b>  </p>	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>kg</b>
		<p>G1/4 4 <a href="#">0496 04 13</a></p> <p>G3/8 7 <a href="#">0496 07 17</a></p> <p>G1/2 10 <a href="#">0496 10 21</a></p> <p>G3/4 13 <a href="#">0496 13 27</a></p>	7	9	17	25	7	39	17	0.065
			8	11	22	26	7	45	20	0.118
			10	12	24	29	10	53	24	0.150
			12	14	30	30	10	59	28	0.222



# Ball Valves, DVGW Series

The combination of long threads, a reinforced sealing system and **DVGW** certification makes this valve perfect for the **transmission of gas and water**.

## Product Advantages

### Reliability & Sealing

Stem prevented from being ejected in the event of overpressure  
Two stem seals to prevent leakage  
Date coding to guarantee quality and traceability

### Optimum Performance

Full flow minimises pressure drop  
Nickel-plated brass provides improved corrosion resistance and increased chemical compatibility  
Can be operated at very low temperatures

### Long Threads

Excellent fitting compatibility:

- dimensions compliant with DIN 3357
- BSP threads compliant with DIN 2999/ISO 228



Robotics  
Pneumatics  
Water & Gas Handling  
Machine Tools  
Textile  
Wood Industry

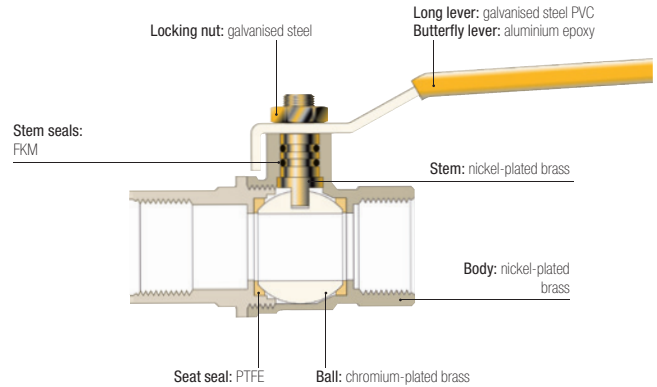
Applications

## Technical Characteristics

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

Reliable performance is dependent upon the type of fluid conveyed.

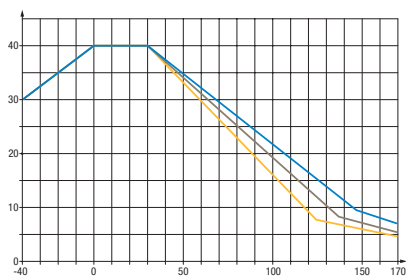
### Component Materials



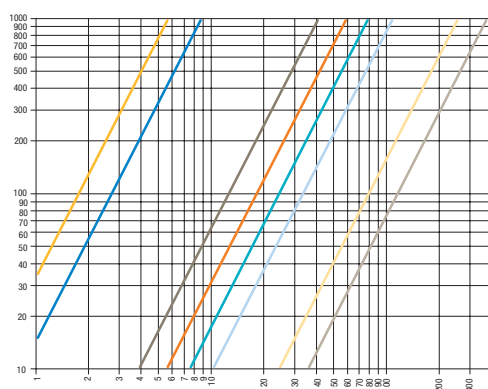
Silicone-free

### Working Pressure and Temperature

#### Pressure - Temperature



#### Pressure Drop



### Regulations

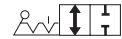
**Industrial**  
DI: 97/23/EC  
(PED B+D module EC 1115)

**Water**  
DVGW: W 570-1  
DIN EN 13228  
BGA KTW  
DVGW: W270

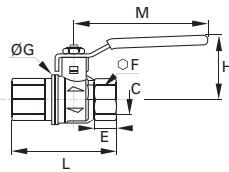
**Gas**  
DIN EN 33

# DVGW Series

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

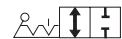


Nickel-plated brass, PTFE

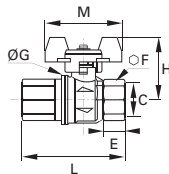


C	DN		E	F	ØG	H	L	M	kg
G1/4	8	<a href="#">BVG4-1/4L</a>	12	20	25	38	50	82	0.150
G3/8	10	<a href="#">BVG4-3/8L</a>	12	20	25	38	60	82	0.150
G1/2	15	<a href="#">BVG4-1/2L</a>	15.5	25	32.5	43	75	100	0.255
G3/4	20	<a href="#">BVG4-3/4L</a>	17	32	39	50	80	120	0.390
G1	25	<a href="#">BVG4-1L</a>	21	41	47.5	54	90	120	0.590
G1¼	32	<a href="#">BVG4-1,1/4L</a>	23	50	59	73	110	158	0.980
G1½	40	<a href="#">BVG4-1,1/2/4L</a>	23	55	71.5	79	120	158	1.205
G2	50	<a href="#">BVG4-2L</a>	26.5	70	86	86	140	158	1.960

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



Nickel-plated brass, PTFE



C	DN		E	F	ØG	H	L	M	kg
G1/4	8	<a href="#">BVGT4-1/4L</a>	12	20	25	39	50	50	0.150
G3/8	10	<a href="#">BVGT4-3/8L</a>	12	20	25	39	60	50	0.150
G1/2	15	<a href="#">BVGT4-1/2L</a>	15.5	25	32.5	43	75	50	0.230
G3/4	20	<a href="#">BVGT4-3/4L</a>	17	32	39	47	80	60	0.350
G1	25	<a href="#">BVGT4-1L</a>	21	41	47.5	51	90	60	0.550

Compact lever



# Ball Valves, Standard Series

This range of valves with **fluoropolymer seals**, available in compact, standard and lockable series, covers many **industrial applications** for which the fluids conveyed and working temperatures require this seal material.

## Product Advantages

**Optimised Installation**

- Full fluid flow
- Long or butterfly lever
- Corrosion resistance
- A lockable version for operational safety
- Good value/performance ratio

**Wide Compatibility**

- Numerous compatible fluids
- Can be used for low and medium pressure applications
- Surface treatment for corrosion protection



Machine Tool  
Agricultural Machinery  
Textile  
Pneumatics  
Plumbing  
Air Conditioning  
Heating

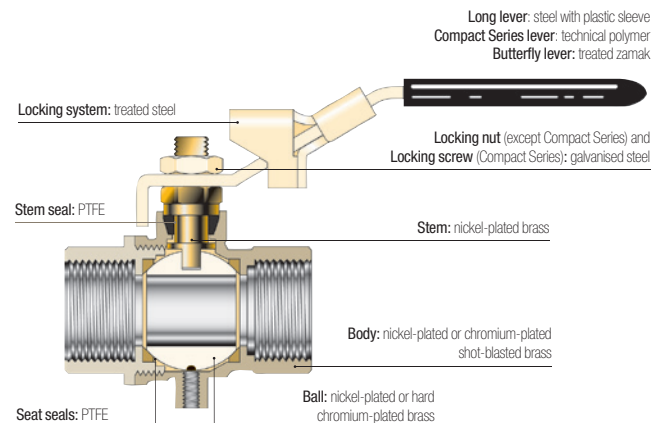
Applications

## Technical Characteristics

Model	Standard and Lockable Series	Compact Series
Compatible Fluids	Compressed air, gas, water, water vapour, oil and all fluids compatible with the component materials	
Working Pressure	0 to 30 bar	0 to 35 bar
Working Temperature	-20°C to +130°C	-10°C to +90°C

Reliable performance is dependent upon the type of fluid conveyed.

### Component Materials



### Silicone-free

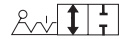
### Regulations

**Industrial**  
**DI:** 97/23/EC (module PED A - EC diameters greater than 25 mm)  
**DI:** Machinery Directive 2006/42/EC  
**DI:** 2002/95/EC (RoHS)  
**RG:** 1907/2006 (REACH)  
**DI:** 89/392/EC

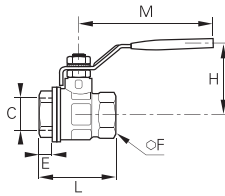
# Standard Series

**4902**

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



Nickel-plated brass, PTFE

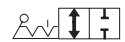


C	DN		PN	E	F	H	L	M	kg
G1/4	10	<a href="#">4902 10 13</a>	30	11	20	43	51.5	98	0.154
G3/8	10	<a href="#">4902 10 17</a>	30	11.4	20	43	51.5	98	0.138
G1/2	15	<a href="#">4902 15 21</a>	30	13.5	25	47	55	98	0.202
G3/4	20	<a href="#">4902 20 27</a>	30	12.5	31	58	57.5	122	0.322
G1	25	<a href="#">4902 25 34</a>	30	15	38	60	69.5	122	0.468
G1¼	32	<a href="#">4902 32 42*</a>	25	17	48	77	81.5	153	0.794
G1½	40	<a href="#">4902 40 49*</a>	25	18	54	83	95	153	1.082
G2	50	<a href="#">4902 50 48*</a>	25	22	66	95	113	162	1.787
G2½	65	<a href="#">4902 65 47*</a>	30	22	85	132	136	255	4.500
G3	80	<a href="#">4902 80 46*</a>	30	25	99	140	157	255	5.840
G4	100	<a href="#">4902 01 45*</a>	30	29	125	154	191	255	9.040

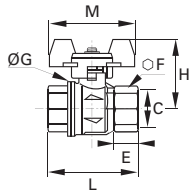
\*Models with CE marking  
Model from 2½": double stem seal in FPM  
Working temperature: -40°C to +170°C

**BVGT4-C**

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



Sand-blasted nickel-plated brass, PTFE



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

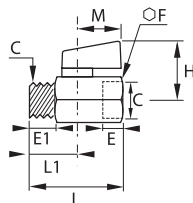
Compact lever

**4991**

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



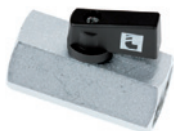
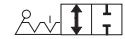
Chromium-plated brass, PTFE



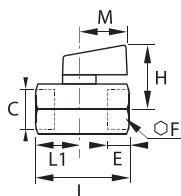
C	DN		E	E1	F	H	L	L1	M	kg
G1/8	6	<a href="#">4991 00 10</a>	10	10	21	30	41.5	10	24	0.091
G1/4	8	<a href="#">4991 00 13</a>	11	11	21	30	41.5	11	24	0.087
G3/8	8	<a href="#">4991 00 17</a>	11	11	21	30	41.5	10.5	24	0.087
G1/2	10	<a href="#">4991 00 21</a>	13	13	25	32	49	12.5	24	0.134

**4992**

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



Chromium-plated brass, PTFE



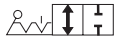
C	DN		E	F	H	L	L1	M	kg
G1/8	6	<a href="#">4992 00 10</a>	10	21	30	41.5	10	24	0.110
G1/4	8	<a href="#">4992 00 13</a>	11	21	30	41.5	11	24	0.106
G3/8	8	<a href="#">4992 00 17</a>	11	21	30	41.5	10.5	24	0.094
G1/2	10	<a href="#">4992 00 21</a>	13	25	32	49	12.5	24	0.142



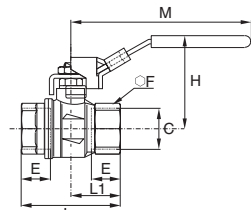
# Standard Series

## BVG4-LOCK

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



Sand-blasted nickel-plated brass,  
PTFE



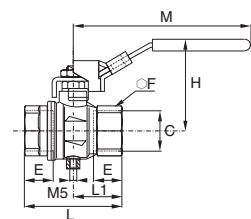
C	DN		E	F	H	L	L1	M	kg
G1/4	8	BVG4-1/4LOCK	12	20	47.5	45	22.5	96	0.154
G3/8	10	BVG4-3/8LOCK	12	20	47.5	45	22.5	96	0.171
G1/2	15	BVG4-1/2LOCK	15.5	25	52	59	29.5	96	0.238
G3/4	20	BVG4-3/4LOCK	17	31	59.5	64	32	117	0.370
G1	25	BVG4-1LOCK	21	40	63.5	81	40.5	117	0.580

## BVG4P-LOCK

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



Sand-blasted nickel-plated brass,  
PTFE



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

# Ball Valves: Usage Chart

The chart below shows the compatibility between valves and fluids along with their pressure and temperature characteristics.

Certain models have a maximum working pressure which differs from that given in this table. In this case, the pressure is shown in the heading for the model number in question.

N.B.: Above 32 mm or 1¼" diameters, divide the maximum pressure by 2.

If the fluid you are using is not shown in this chart, please contact us.

Chemical Description	Maximum Pressure (bar)	Temperature °C		Universal and Light Series	Standard Series	DVGW series	Customised Series							
		Min.	Max.				20	22	26	27	30	32		
"Aromatic" hydrocarbons	20	-20	+60					●						
Acetone and other ketones	20	-20	+60											●
Acetophenone	20	-20	+60											●
Acetylene - Acetone	20	-20	+60											●
Acetylene (gas)	20	-20	+60	●	●	●								
Alcohol (100%)	20	-20	Boiling											●
Aluminium (liquid suspension, thick)	40	-20	+90	●	●	●								
Amyl alcohol	20	-20	Boiling											●
Animal fats, greases	20	+5	+200		●	●			●					
Antifreeze or glycol (diluted)	40	-20	+40	●	●	●								
Argon (gas) Ar	20	-20	+60	●	●	●								
Barium - Hydroxide	20	-20	+40											●
Benzaldehyde	20	-20	+60											●
Benzene	20	-20	+60					●						
Benzyl alcohol	20	-20	Boiling					●						
Borax (pastes or solutions)	20	-20	+60											●
Brake fluids (automobile)	20	-20	+90											●
Bromochlorotrifluorethane	20	-20	+60		●	●			●					
Butadiene (hydrocarbon)	20	-20	+60									●		
Butane	20	-20	+60	●	●	●								
Butanol	20	-20	Boiling					●						
Butyl alcohol	20	-20	Boiling					●						
Butylene (hydrocarbon)	20	-20	+60					●						
Carbon dioxide gas CO <sub>2</sub>	40	-20	+60	●	●									
Castor oil	40	-20	+90	●	●									
Compressed air	20	-25	+180					●						
Creosotes	20	-20	+60									●		
Cresols	20	-20	+60									●		
Crude oil	20	-20	+40					●						
Cutting oil	40	-20	+90	●	●									
Decalin (hydrocarbon, solvent)	20	-20	+60									●		
Detergents (solutions)	20	-20	+100											●
Diacetone alcohol	20	-20	Boiling											●
Diesel oils	40	-20	+90	●	●									
Di-Esters	20	-20	+90					●						
Di-Isobutylene	20	-20	+60									●		
Di-Pentane	20	-20	+60					●						

The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.

# Ball Valves: Usage Chart

Chemical Description	Max. Pressure (bar)	Temperature °C		Universal and Light Series	Standard Series	DVGW Series	Customised Series						
		Min.	Max.				20	22	26	27	30	32	
Di-Pentene (solvents, varnish)	20	-20	+60					●					
Di-Phenyl-Oxide (thin detergents)	20	-20	+60								●		
Distilled water	40		+90	●	●	●							
Edible fats	20	+5	+200		●					●			
Edible oils	20	+5	+200		●					●			
Erytrene (see Butadiene)	20	-20	+60								●		
Ethane (gas) CH <sub>2</sub> CH <sub>3</sub>	20	-20	+60	●	●								
Ethane (hydrocarbon gas)	20	-20	+60								●		
Ethyl alcohol	20	-20	+60										●
Ethylene glycol (antifreeze) - see Glycols	20	-20	+120										●
Fatty alcohols	20	-20	Boiling					●					
Fuel oils	40	-20	+40	●	●	●							
Fuels-Diesels	40	-20	+40	●	●								
Gaseous oxygen (ambient air)	20	-20	+40										●
Glycerine	20	-20	+40	●	●								
Glycol (for antifreeze, lubricants)	40	-20	+40	●	●								
Graphite in suspension in water, oils and greases	40	-20	+90	●	●								
Greases (from petroleum)	40	-20	+90	●	●								
Helium (gas)	20	-20	+60										●
Heptanal	20	-20	+50	●	●								
Hexane (solvent)	20	-20	+60										●
Hydraulic oils (petroleum-based)	40	-20	+90	●	●								
Hydrogen (gas)	20	-20	+60										●
Inks	20	-20	+60									●	
Insecticides	20	0	+40	●	●	●							
Iso-Butane (aliphatic hydrocarbon)	20	-20	+60									●	
Iso-Octane	20	-20	+60									●	
Isopropyl alcohol	20	-20	Boiling										●
Krypton (gas) Kr	20	-20	+60	●	●	●							
Light water	40		+80	●	●	●							
Lighting gas	20	-20	+40			●							
Methane (gas) CH <sub>4</sub>	20	-20	+60	●	●	●							
Methanol	20	-20	Boiling										●
Methyl alcohol	20	-20	Boiling										●
Methylated spirit	40	-20	+40	●	●	●							
Mineral oils	40	-20	+90	●	●								
Natural gas	20	-20	+40			●							
Natural waxes (vegetable, beeswax, carnauba, Chinese, lignite)	40	-20	+90									●	
Neatsfoot oil	40	-20	+90	●	●	●							
Neon (Gas) Ne	20	-20	+60	●	●	●							
Nitrogen (gas) N <sup>2</sup>	40	-20	+90	●	●	●							
Oil (petroleum-based) and water emulsions	40	-20	+90	●	●	●							

The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.



# Ball Valves, Stainless Steel Series

**Stainless steel** series ball valves can withstand **corrosive fluids** and **environments**.

With full flow, high pressure and temperature capabilities, these valves are suitable for many applications.

## Product Advantages

**Reliability** | Full flow  
Excellent chemical compatibility  
High resistance to pressure/temperature  
Light series version: 100% leak-tested in production, date coding to guarantee quality and traceability

**Versatility** | Three in-line versions:  

- One-piece: cannot be disassembled
- 3-piece: easily disassembled for maintenance and cleaning
- Light Series: for maximum compactness

 Fixing plate: 4812 and 4832  

- Through-bulkhead fitting
- Pneumatic or electronic actuation (ISO 5211 standard)



**Applications**

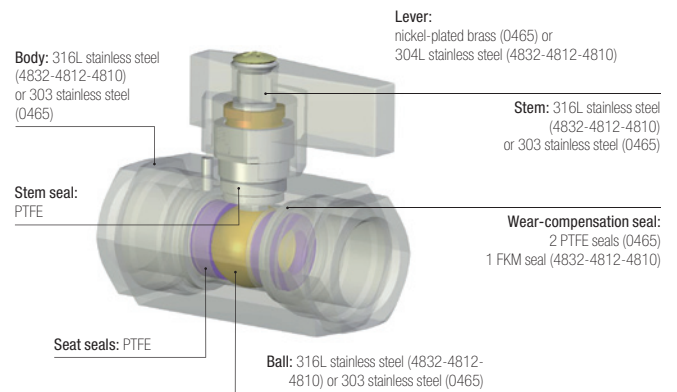
Food Process  
Aviation  
Chemical  
Semi-Conductors  
Medical  
Petrochemical  
Laboratories  
Pharmaceutical

## Technical Characteristics

Compatible Fluids	Type 4810, 4812 and 4832	Type 0465
	All fluids	All fluids
Working Pressure	0 to 65 bar	Vacuum to 20 bar
Working Temperature	-20°C to +150°C	-20°C to +120°C

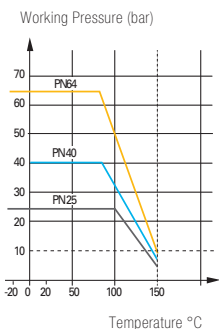
Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.  
Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum).

### Component Materials



### Pressure and Temperature Resistance

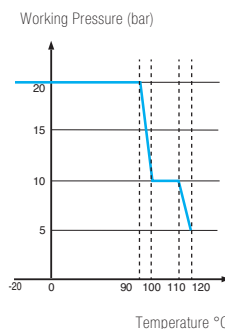
#### Version 4810, 4812 and 4832



Examples at +100°C:  
PN 64: 48 bar  
PN 40: 30 bar  
PN 42: 17 bar

For temperatures between +150°C and +200°C, please contact us.

#### Version 0465



### Regulations

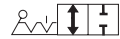
#### Industrial

**DI:** 97/23/EC (module PED A - EC diameters greater than 25 mm)  
**DI:** Machinery Directive 2006/42/EC  
**DI:** 2002/95/EC (RoHS)  
**RG:** 1907/2006 (REACH)  
**DI:** 89/392/EC

# Stainless Steel Series

**4832**

2/2 In-Line 3-Piece Ball Valve with Fixing Plate, Female BSPP Thread



Stainless steel 316L, PTFE		C	DN		E	F	G	H	K	L	M	ØT	kg
		G1/4	10	<a href="#">4832 10 13</a>	18	22	36	50	36	57	110.5	5.5	0.272
		G3/8	10	<a href="#">4832 10 17</a>	18	22	36	50	36	57	110.5	5.5	0.400
		G1/2	15	<a href="#">4832 15 21</a>	20.5	27	36	64	36	65	131.5	6	0.442
		G3/4	20	<a href="#">4832 20 27</a>	22.5	32	42	68	42	76	131.5	5.5	0.568
		G1	25	<a href="#">4832 25 34</a>	27	41	42	78.5	42	92	174.5	6	1.035
		G1¼	32	<a href="#">4832 32 42*</a>	30	50	42	83.5	42	106.5	174.5	5.5	1.530
		G1½	40	<a href="#">4832 40 49*</a>	31	55	50	100	50	116	250.5	6.5	2.146
		G2	50	<a href="#">4832 50 48*</a>	36	70	50	107	50	136	250.5	6.5	3.140

\*Models with CE marking

**4812**

2/2 In-Line Ball Valve with Fixing Plate, Female BSPP Thread



Stainless steel 316L, PTFE		C	DN		E	G	H	L	M	ØT	kg
		G1/4	10	<a href="#">4812 10 13</a>	10	36	50	55	110	5.5	0.263
		G3/8	10	<a href="#">4812 10 17</a>	11	36	50	55	110	5.5	0.254
		G1/2	15	<a href="#">4812 15 21</a>	15	36	53	66	110	5.5	0.336
		G3/4	20	<a href="#">4812 20 27</a>	16	42	67	79	130	5.5	0.574
		G1	25	<a href="#">4812 25 34</a>	19	42	79	93	175	5.5	1.000
		G1¼	32	<a href="#">4812 32 42*</a>	21	42	83	100	175	5.5	1.337
		G1½	40	<a href="#">4812 40 49*</a>	21	50	100	110	250	5.5	2.214
		G2	50	<a href="#">4812 50 48*</a>	26	70	107	131	250	8.5	3.262

\*Models with CE marking

**4810**

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



Stainless steel 316L, PTFE		C	DN		E	G	H	L	M	kg
		G1/4	8	<a href="#">4810 08 13</a>	10	30	44.5	53.5	110.5	0.205
		G3/8	10	<a href="#">4810 10 17</a>	10	30	44.5	53.5	110.5	0.194
		G1/2	15	<a href="#">4810 15 21</a>	13	32.5	47	60	110.5	0.245
		G3/4	20	<a href="#">4810 20 27</a>	14	40	54.5	70	131.5	0.420
		G1	25	<a href="#">4810 25 34</a>	17	49	58.5	79	131.5	0.648

Threads conform to ISO 228-1

**0465**

2/2 In-Line Light Series Ball Valve, Female BSPP Thread



Stainless steel 303, PTFE		C	DN		E	F	F1	H	L	kg
		G1/4	4	<a href="#">0465 04 13</a>	13	19	24	36	50	0.226
		G3/8	7	<a href="#">0465 07 17</a>	13	24	27	39	55	0.278
		G1/2	10	<a href="#">0465 10 21</a>	16	27	30	40	62	0.322

Silicone-free

# Ball Valves, High Pressure Series

These valves are suitable for **applications** with pressures **up to 300 bar**. High performance materials and quality manufacturing allow for a wide range of operating pressures and temperatures.

## Product Advantages

### High Pressure & Safety

Good sealing at low and high pressure  
Robust design with secure, non-removable inlet and outlet ports  
Forged brass providing excellent long-term strength under severe conditions of use  
100% leak-tested in production  
Date coding to guarantee quality and traceability

### Easy-to-Use

Fixing screws for through-bulkhead mounting  
The lever may be repositioned or replaced with a handwheel  
Low operating torque



Automotive Process  
Foundry  
Forming  
Machine Tools  
Textile  
Spectacle-Making Industry  
Turbines  
Deep-Sea Diving

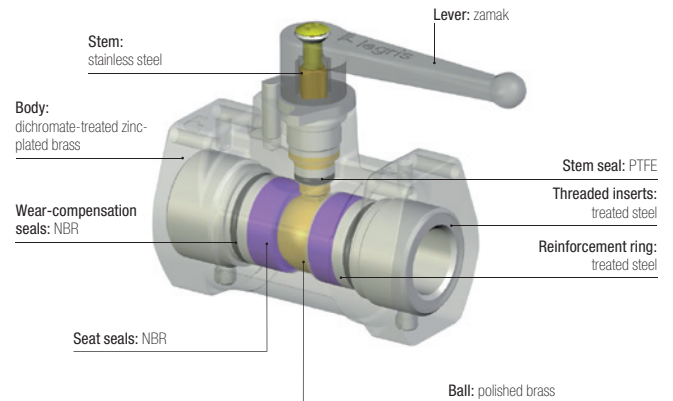
Applications

## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air
<b>Working Pressure</b>	Vacuum to 300 bar
<b>Working Temperature</b>	-15°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).

### Component Materials



### Silicone-free

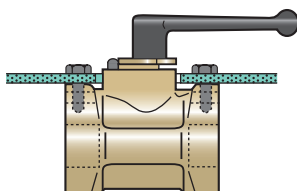
### Regulations

DI: 97/23/EC (module PED A - diameters greater than 25 mm)  
DI: 2006/42/EC (Machinery Directive)  
DI: 2002/95/EC (RoHS)  
RG: 1907/2006 (REACH)

## Installation Options

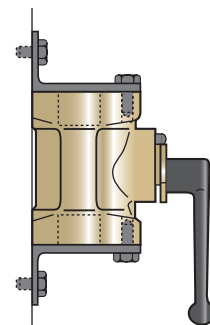
### Bulkhead Mounting

Through bulkhead with screws



### Surface Mounting

With brackets and screws





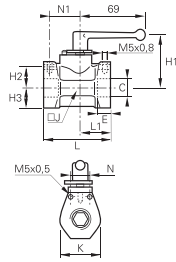
# High Pressure Series

**4402**

2/2 In-Line High Pressure Ball Valve, Female BSPP Thread



Treated brass, NBR



C	DN		E	H1	H2	H3	J	K	L	L1	N	N1	kg
G1/4	7	<b>4402 07 13</b>	12	50	13	15	30	30	58	25	15	20	0.402
G3/8	10	<b>4402 10 17</b>	12	54	23	19	36	39	72	36	20	30	0.722
G1/2	13	<b>4402 13 21</b>	15	56	23	21	40	42	79	36	20	30	0.870

# Ball Valves, Mini Series

With their **push-in connections**, these polymer lightweight ball valves allow for a significant reduction in installation time while offering **full flow capability** and **compact dimensions**.

## Product Advantages

### Optimum Solution

- Full flow
- Marked with the pneumatic symbol for identification of its function
- Lightweight and compact
- Extremely compact, easy-to-operate lever
- Lever with screwdriver slot to facilitate operation
- Designed for polymer tubing with no tube preparation
- Can be mounted on a wall or adjacent using staples



### Proven Technology

- LF 3000® push-in connection, excellent static and dynamic sealing
- High-strength polyamide
- Excellent long-term performance
- Automatic seal wear compensation for long-term reliability
- 100% leak-tested in production
- Date coding to guarantee quality and traceability

- Applications**
- Robotics
  - Vacuum
  - Semi-Conductors
  - Packaging
  - Textile
  - Pneumatics

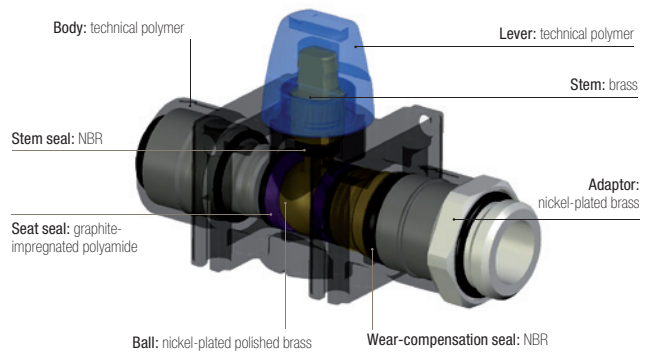
## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air			
<b>Working Pressure</b>	Vacuum to 10 bar			
<b>Working Temperature</b>	-20°C to +80°C			

<b>Tightening Torques</b>	Threads	G1/8	G1/4	G3/8	G1/2
	daN.m	0.8	1.2	3	3.5

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).

### Component Materials

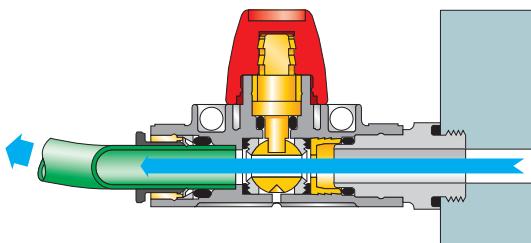


### Silicone-free

## Operation

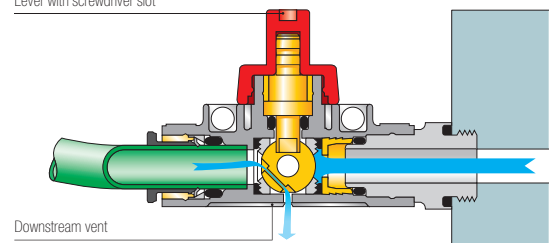
### Vented Valve, Open Position

3/2 model with vent



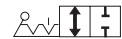
### Vented Valve, Closed Position

Lever with screwdriver slot

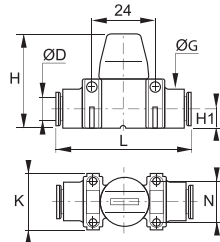


# Mini Series

## 7910 2/2 In-Line Mini-Ball Valve

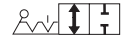


Technical polymer, NBR

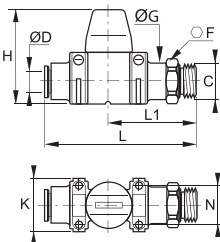


ØD		G	H	H1	K	L	N	kg
4	<a href="#">7910 04 00</a>	15	37	7.5	22	51	16	0.039
6	<a href="#">7910 06 00</a>	15	37	7.5	22	52	16	0.034
8	<a href="#">7910 08 00</a>	15	37	7.5	22	52	16	0.025
10	<a href="#">7910 10 00</a>	20	43	11	30	66	22	0.060
12	<a href="#">7910 12 00</a>	20	43	11	30	66	22	0.040

## 7911 2/2 In-Line Mini-Ball Valve, Male BSPP Thread



Technical polymer, nickel-plated brass, NBR

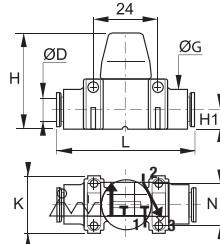


ØD	C		F	G	H	K	L	L1	N	kg
6	G1/8	<a href="#">7911 06 10</a>	13	14	37	22	62	37	16	0.045
8	G1/4	<a href="#">7911 08 13</a>	16	17.5	37	22	61	35	16	0.040
10	G3/8	<a href="#">7911 10 17</a>	20	22	43	30	74	41	22	0.075
12	G1/2	<a href="#">7911 12 21</a>	24	26	43	30	75	42	22	0.075

## 7913 3/2 In-Line Mini-Ball Valve with Vent



Technical polymer, NBR

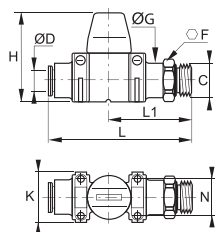


ØD		G	H	H1	K	L	N	kg
4	<a href="#">7913 04 00</a>	15	37	7.5	22	51	16	0.040
6	<a href="#">7913 06 00</a>	15	37	7.5	22	52	16	0.035
8	<a href="#">7913 08 00</a>	15	37	7.5	22	52	16	0.025
10	<a href="#">7913 10 00</a>	20	43	11	30	66	22	0.060
12	<a href="#">7913 12 00</a>	20	43	11	30	66	22	0.045

## 7914 3/2 In-Line Mini-Ball Valve with Vent, Male BSPP Thread



Technical polymer, nickel-plated brass, NBR



ØD	C		F	G	H	K	L	L1	N	kg
6	G1/8	<a href="#">7914 06 10</a>	13	14	37	22	62	37	16	0.045
8	G1/4	<a href="#">7914 08 13</a>	16	17.5	37	22	61	35	16	0.040
10	G3/8	<a href="#">7914 10 17</a>	20	22	43	30	74	41	22	0.058
12	G1/2	<a href="#">7914 12 21</a>	24	26	43	30	75	42	22	0.075

## 7000 Joining Clips

Technical polymer



ØD		kg
4	<a href="#">7000 00 05</a>	0.004
6	<a href="#">7000 00 05</a>	0.004
8	<a href="#">7000 00 05</a>	0.004
10	<a href="#">7000 00 06</a>	0.009
12	<a href="#">7000 00 06</a>	0.009

# LIQUIfit® Ball Valves

This range of valves offers an innovative solution in the treatment of **water and the handling of beverages** while protecting **health**. These **compact and reliable** valves offer perfect **sealing** and excellent **cleanliness**.

## Product Advantages

### Innovative Technology & Increased Reliability

- Full flow to limit turbulence
- Full-flow self-cleaning ball maintains the cleanliness of the circuit
- Tube retention with gripping ring prevents pumping effect
- Push-in connection and disconnection
- Sealing technology using patented EPDM seal

### High Performance

- Inert technical polymer providing the best mechanical strength, thermal and chemical resistance
- Carstick® connection providing resistance to water hammer
- Other configurations available on request



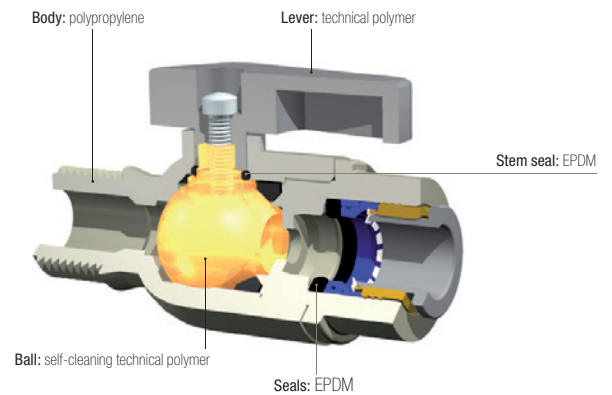
Beverage Dispensers  
Inert Gases  
Cooling  
Food Process  
Water Purification  
Water Coolers

Applications

## Technical Characteristics

<b>Compatible Fluids</b>	Water, drinks, beverages			
<b>Working Pressure</b>	0 to 10 bar at 20°C			
<b>Working Temperature</b>	-15°C to +100°C			
<b>Tightening Torques</b>	Threads	1/4" NPTF	3/8" NPTF	1/2" NPTF
	daN.m	1.5	3	3

### Component Materials



### Silicone-free

### Regulations

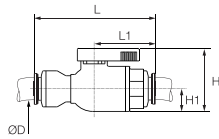
FDA: 21 CFR  
NSF: 51 and lead < 0.25%  
WQA: Water Quality Association

## 4020 2/2 In-Line Ball Valve

Inch



Polypropylene, glass fibre-reinforced, EPDM



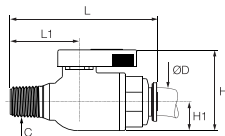
ØD		H	H1	L	L1	kg
1/4	<a href="#">4020 56 00WP2</a>	25	13	65	31	0.015
3/8	<a href="#">4020 60 00WP2</a>	36	13	68	30.5	0.028

## 4021 2/2 In-Line Ball Valve, Male NPTF Thread

Inch



Polypropylene, glass fibre-reinforced, EPDM



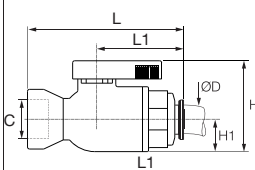
ØD	C		H	H1	L	L1	kg
1/4	NPT1/4	<a href="#">4021 56 14WP2</a>	36	13	61	31	0.029
3/8	NPT3/8	<a href="#">4021 60 18WP2</a>	36	13	64	33.5	0.028

## 4023 2/2 In-Line Ball Valve, Female NPTF Thread

Inch



Polypropylene, glass fibre-reinforced, EPDM



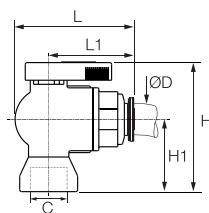
ØD	C		H	H1	L	L1	kg
1/4	NPT1/4	<a href="#">4023 56 14WP2</a>	36	13	58	31	0.000
3/8	NPT3/8	<a href="#">4023 60 18WP2</a>	36	13	64	33.5	0.000

## 4022 2/2 Right-Angled Ball Valve, Female NPTF Thread

Inch



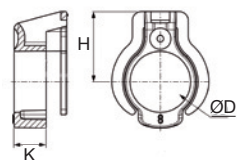
Polypropylene, glass fibre-reinforced, EPDM



ØD	C		H	H1	L	L1	kg
1/4	NPT1/4	<a href="#">4022 56 14WP2</a>	52	29	44	31	0.016
3/8	NPT3/8	<a href="#">4022 60 18WP2</a>	52	29	47	33.5	0.027

## 3130 Tamper-Proof Safety Clip

Technical polymer



ØD							H	K	kg
1/4	<a href="#">3130 56 01</a>	<a href="#">3130 56 02</a>	<a href="#">3130 56 03</a>	<a href="#">3130 56 04</a>	<a href="#">3130 56 05</a>	<a href="#">3130 56 10</a>	8	3.2	0.001
3/8	<a href="#">3130 60 01</a>	<a href="#">3130 60 02</a>	<a href="#">3130 60 03</a>	<a href="#">3130 60 04</a>	<a href="#">3130 60 05</a>	<a href="#">3130 60 10</a>	10.8	4.2	0.001

