

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



Applications

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

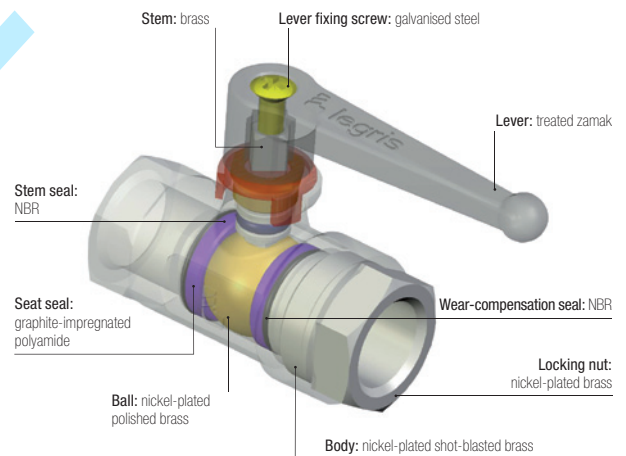
Technical Characteristics

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

Tightening Torques	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:

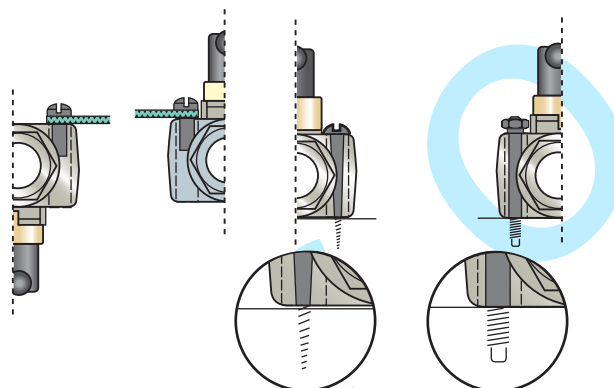
- bulkhead fixing
- complete valve below bulkhead

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				
0401				
0402				
...				
	04 = 4 mm	10 = 1/8"		
	05 = 5 mm	13 = 1/4"		
		
	40 = 40 mm	48 = 2"		

Suffix

20 = blue/red
22 = green/blue
26 = yellow/yellow
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


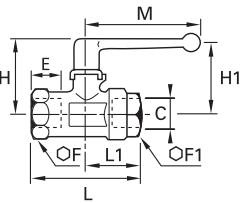
*degreased **oxygen-compatible grease

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


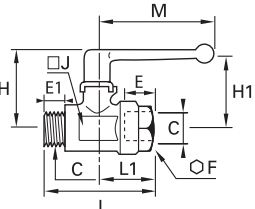




		Nickel-plated brass, NBR																			
		C	DN			E	F	F1	H	H1	L	L1	M								
		G1/8	4	0402 04 10		8	-	14	35	29	44	25	48	0.094							
			7	0402 07 10		8	19	19	38	31	51	27	48	0.166							
		G1/4	7	0402 07 13		12	19	19	38	31	53	28	48	0.156							
		G3/8	10	0402 10 17		12	24	24	45	43	59	31	69	0.244							
		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							
			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



		C			E	E1	F	H	H1	J	L	L1	M	kg
		G1/8	4	0401 04 10	8	7	14	35	29	14	45	25	48	0.094
			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


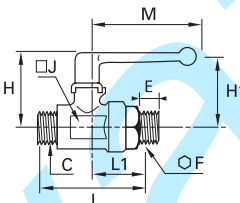
*Models with CE marking

Maximum working pressure: 40 bar

*Models with CE marking
Maximum working pressure: 40 bar

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


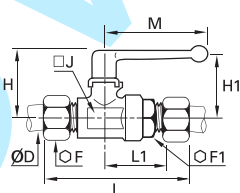


		Nickel-plated brass, NBR																			
		C	DN			E	F	H	H1	J	L	L1	M								
		G1/8	4	0400 04 10		7	14	35	29	14	45	25	48	0.094							
		G1/4	7	0400 07 13		9	19	38	31	19	60	36	48	0.166							
		G3/8	10	0400 10 17		11	24	45	43	24	70	43	69	0.252							
		G1/2	13	0400 13 21		12	27	47	44	27	78	45	69	0.324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


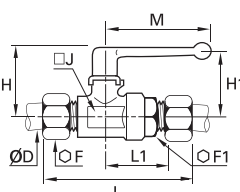


		Nickel-plated brass, NBR																			
		ØD	DN			F	F1	H	H1	J	L	L1	M								
		6	4	0411 04 06		14	19	38	31	19	76	30	48	0.073							
		8	6	0411 06 08		17	19	38	31	19	77	30	48	0.095							
		10	7	0411 07 10		19	19	38	31	19	78	31	48	0.100							
		12	10	0411 10 12		22	24	45	43	24	85	36	69	0.110							

Maximum working pressure: 40 bar

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



		Nickel-plated brass, NBR																			
		ØD	DN			F	F1	H	H1	J	L	L1	M								
		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

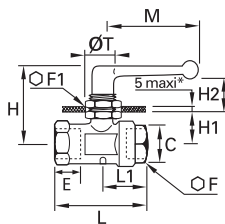
Universal and Universal Customised Series

0446

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



Nickel-plated brass, NBR



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

Maximum working pressure: 20 bar

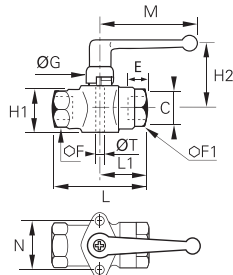
*For G1/8 version, maximum panel thickness = 3 mm

6402

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



Nickel-plated brass, NBR



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

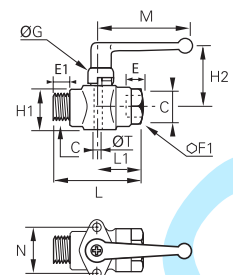
Maximum working pressure: 40 bar

6401

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



Nickel-plated brass, NBR



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

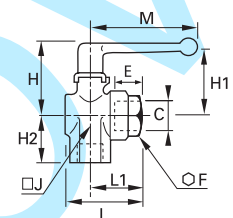
Maximum working pressure: 40 bar

0472

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



Nickel-plated brass, NBR



C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0472 04 10	8	14	35	29	18	14	34	25	48	0.096
	6	0472 06 10	8	19	38	31	20	22	37	27	48	0.183
G1/4	6	0472 06 13	12	19	38	31	24	22	38	28	48	0.191
G3/8	9	0472 09 17	12	24	45	43	27	25	46	31	69	0.260
G1/2	12	0472 12 21	15	27	47	44	33	29	49	34	69	0.312
G3/4	18	0472 18 27	16.5	38	59	51	40	39	60	39	108	0.704
G1	23	0472 23 34	19	46	63	55	47	48	72	47	108	1.062

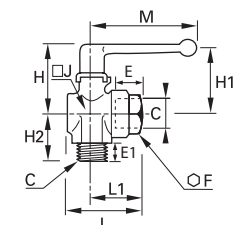
Maximum working pressure: 20 bar

0471

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



Nickel-plated brass, NBR



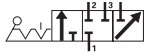
C	DN		E	E1	F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0471 04 10	8	7	14	35	29	19	14	34	25	48	0.096
	6	0471 06 10	8	7	19	38	31	22	22	37	27	48	0.182
G1/4	6	0471 06 13	12	9	19	38	31	25	22	38	28	48	0.187
G3/8	9	0471 09 17	12	11	24	45	43	28	25	46	31	69	0.256
G1/2	12	0471 12 21	15	12	27	47	44	32	29	49	34	69	0.300
G3/4	18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

Maximum working pressure: 20 bar

Universal and Universal Customised Series

0482

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



Nickel-plated brass, NBR		C	DN		E	F	H	H1	H2	J	L	L1	M	kg
		G1/8	4	0482 04 10	8	14	35	29	18	14	44	25	48	0.103
		G1/4	6	0482 06 13	12	19	38	31	24	22	53	28	48	0.200
		G3/8	9	0482 09 17	12	24	45	43	27	25	59	31	69	0.284
		G1/2	12	0482 12 21	15	27	47	44	33	29	67	34	69	0.346
		G3/4	18	0482 18 27	16.5	38	59	51	40	39	80	39	108	0.742
		G1	23	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

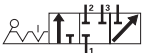


Nickel-plated brass, NBR		C	DN		E	F	H	H1	H2	J	L	L1	M	kg
		G1/8	4	0483 04 10	8	14	35	29	18	14	44	25	48	0.102
		G1/4	6	0483 06 13	12	19	38	31	24	22	53	28	48	0.196
		G3/8	9	0483 09 17	12	24	45	43	27	25	59	31	69	0.278
		G1/2	12	0483 12 21	15	27	47	44	33	29	67	34	69	0.340
		G3/4	18	0483 18 27	16.5	38	59	51	40	39	80	39	108	0.716
		G1	23	0483 23 34	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		C	DN		E	F	F1	H	H1	H2	H3	J	L	L1	M	ØT	kg
		G1/8	4	0448 04 10	8	14	22	37	14	18	12	14	44	25	48	16.5	0.126
		G1/4	6	0448 06 13	12	19	24	45	19	24	14	22	53	28	48	20.5	0.230
		G3/8	9	0448 09 17	12	24	27	50	21	27	21	25	59	31	69	20.5	0.328
		G1/2	12	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		C	DN		E	F	F1	H	H1	H2	J	K	L	ØT	kg
		G1/8	4	0452 04 10	8	14	22	39	10	8	16	18	25	19	0.130
		G1/4	6	0452 06 13	12	19	24	40	11	11	23	24	28	20	0.206

Maximum working pressure: 20 bar

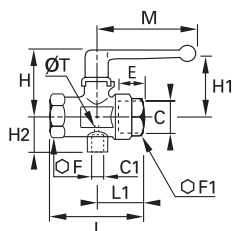
Universal Series, Vented

0489

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



Nickel-plated brass, NBR



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

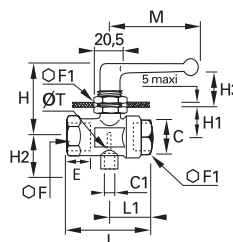
Maximum working pressure: 40 bar

0449

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



Nickel-plated brass, NBR



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

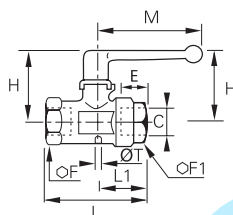
Maximum working pressure: 20 bar

0469

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



Nickel-plated brass, NBR



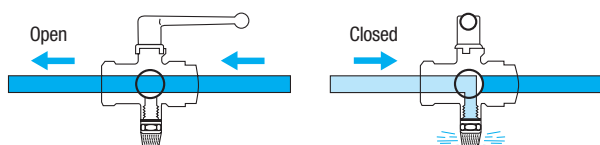
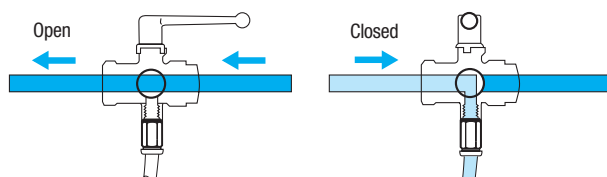
C	DN		E	F	F1	H	H1	L	L1	M	ØT	kg
G1/8	4	0469 04 10	8	14	14	35	29	44	25	48	1.5	0.092
G1/4	7	0469 07 13	12	24	24	46	43	59	31	70	2	0.268
G3/8	10	0469 10 17	12	24	24	46	43	59	31	70	2	0.246
G1/2	13	0469 13 21	15	27	27	47	44	67	34	70	2	0.294
G3/4	18	0469 18 27	16.5	32	38	63	54	80	39	108	2.5	0.668
G1	23	0469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



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

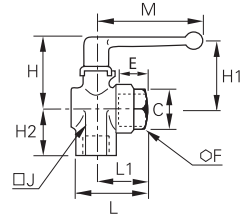
Universal Series, Vented

0462

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



Nickel-plated brass, NBR



C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0462 06 10	8	19	38	31	20	22	37	27	48	0.192
G1/4	6	0462 06 13	12	19	38	31	24	22	38	28	48	0.185
G3/8	9	0462 09 17	12	24	45	43	27	25	46	31	69	0.261
G1/2	12	0462 12 21	15	27	47	44	33	29	49	34	69	0.312
G3/4	18	0462 18 27	16.5	38	59	51	40	39	60	39	108	0.698
G1	23	0462 23 34	19	46	63	55	47	48	72	47	108	1.066

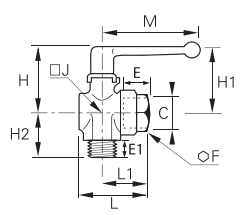
Maximum working pressure: 20 bar

0461

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



Nickel-plated brass, NBR

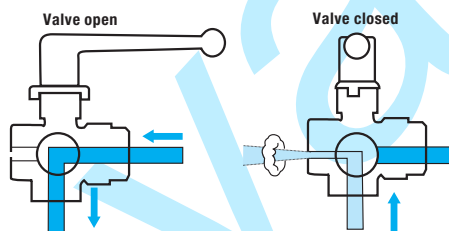


C	DN		E	E1	F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0461 06 10	8	7	19	38	31	20	22	37	27	48	0.182
G1/4	6	0461 06 13	12	9	19	38	31	24	22	38	28	48	0.186
G3/8	9	0461 09 17	12	11	24	45	43	27	25	46	31	69	0.257
G1/2	12	0461 12 21	15	12	27	47	44	33	29	49	34	69	0.304
G3/4	18	0461 18 27	16.5	12	38	59	51	40	39	60	39	108	0.648

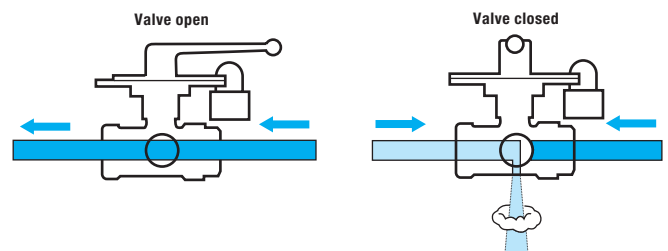
Maximum working pressure: 20 bar

Operation of Right-Angled Vented Ball Valves

With pin-hole vent = purge to atmosphere without silencer



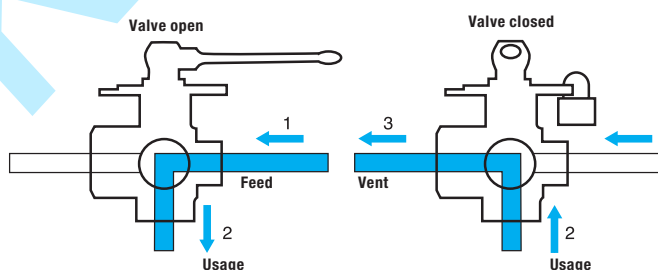
Operation of Lockable Vented Ball Valves



Removable lever: where the lever is obstructed in its movement, it can be refitted the opposite way.

Operation of 3/2 Lockable Valves

Drilled below and square in the horizontal plane, these valves provide a connection between: either port 1 and port 2, or port 2 and port 3.



Removable lever: where the lever is obstructed in its movement, it can be refitted the opposite way.

Universal Series, Lockable

0432

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



Nickel-plated brass, NBR

C	DN		E	F	F1	H	H1	L	L1	M	kg
G1/8	4	0432 04 10	8	19	19	59	54	51	27	69	0.415
G1/4	7	0432 07 13	12	19	19	59	54	59	28	69	0.396
G3/8	10	0432 10 17	12	24	24	60	55	59	31	69	0.460
G1/2	13	0432 13 21	15	27	27	62	57	67	34	69	0.522
G3/4	20	0432 20 27	16.5	32	38	66	56	80	39	108	0.800
G1	23	0432 23 34	19	41	46	70	59	94	47	108	1.186

Maximum working pressure: 40 bar

Handle is not removable.



Fixed and mobile plates: zinc-plated steel.

0439

3/2 In-line Vented Lockable Ball Valve, Female BSPP Thread



Nickel-plated brass, NBR

C			E	F	F1	H	H1	L	L1	M	ØT	kg
G1/8	4	0439 04 10	8	19	19	59	54	51	27	69	2	0.410
G1/4	7	0439 07 13	12	19	24	60	55	59	31	69	2	0.480
G3/8	10	0439 10 17	12	24	24	60	55	59	31	69	2	0.460
G1/2	13	0439 13 21	15	27	27	62	57	67	34	69	2	0.514
G3/4	18	0439 18 27	16.5	32	38	66	56	80	39	108	2.5	0.810
G1	23	0439 23 34	19	41	46	70	59	94	47	108	3	1.185

Maximum working pressure: 40 bar

Handle is not removable.

Fixed and mobile plates: zinc-plated steel.

0436

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



Nickel-plated brass, NBR

C	C1	DN		E	F	F1	H	H1	L	L1	M	kg
G3/8	M5x0.8	10	0436 10 17	12	24	24	60	17	60	32	69	0.475
G1/2	G1/8	13	0436 13 21	15	27	27	60	24.5	67.5	34.5	69	0.500
G3/4	G1/4	18	0436 18 27	16.5	32	38	69.5	33	80	39.5	108	0.850
G1	G1/4	23	0436 23 34	19	32	38	69.5	33	80	39.5	108	1.215

Maximum working pressure: 40 bar


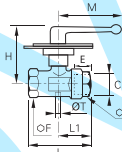
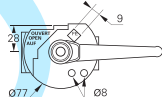


Handle is not removable.

Fixed and mobile plates: zinc-plated steel.

0437

3/2 In-line Vented 3-Point Lockable Ball Valve, Female BSPP Thread


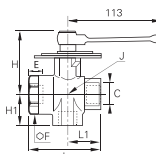
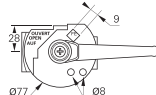




	Nickel-plated brass, NBR												
													
													
	C			E	F	F1	H	L	L1	M	ØT	kg	
	G1/4	7	0437 07 13	12	24	24	60	59	32	69.5	2	0.476	
	G3/8	10	0437 10 17	12	24	24	60	60	32	69.5	2	0.456	
	G1/2	13	0437 13 21	15	27	27	60	67.5	34.5	69.5	2	0.510	
G3/4	18	0437 18 27	16.5	32	38	69.5	80	39.5	108.5	2.5	0.820		
G1	23	0437 23 34	19	41	46	73	94.5	47.5	108.5	3	1.192		
Maximum working pressure: 40 bar Handle is not removable. Fixed and mobile plates: zinc-plated steel.													

0438

3/2 Right-Angled 3-Point Lockable Ball Valve, Female BSPP Thread



	Nickel-plated brass, NBR												
													
													
	C			E	F	H	H1	J	L	L1	kg		
	G3/8	9	0438 09 17	12	38	76	34	39	73	35	0.970		
	G1/2	12	0438 12 21	15	38	76	37	39	78	38	0.947		
G3/4	18	0438 18 27	16.5	38	76	40	39	80	40	0.905			
G1	23	0438 23 34	19	46	80	47	48	94	47	1.295			
Maximum working pressure: 20 bar Fixed plate: zinc-plated steel, mobile plate: steel, grey epoxy-coated. Removable handle: where the handle is obstructed in its movement, it can be refitted opposite the original position.													

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

Easy-to-Use	Ease of operation due to the low friction design The short levers may be repositioned and exchanged Extremely compact Wide range of configurations
Maximum Efficiency	Excellent performance under vacuum Full flow Chemical nickel-plated brass with high phosphorous content for outstanding corrosion resistance Automatic seal wear compensation system
Reliability	Tried-and-tested technology Forged brass provides mechanical strength and long service life 100% leak-tested in production Date coding to guarantee quality and traceability



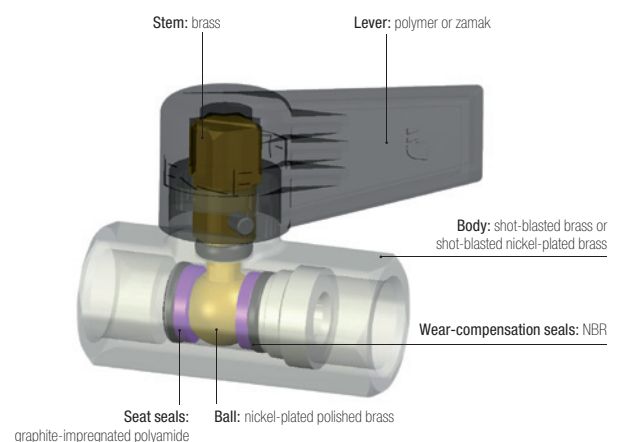
Technical Characteristics

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

Tightening Torques	Threads	G1/8	G1/4	G3/8	G1/2	G3/4
	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

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


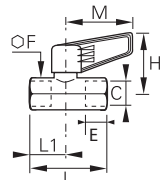


Regulations

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		C			E	F	H	L	L1	M	kg
			G1/4	4	0492 04 13	9	17	34	39.5	17	35	0.073
			G3/8	7	0492 07 17	11	22	38	45	20	43	0.128
			G1/2	10	0492 10 21	12	24	44	54	25	50	0.162
			G3/4	13	0492 13 27	14	30	46	62	28	50	0.240
Technical polymer handle												


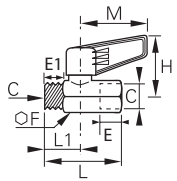


0492..64 2/2 In-Line Ball Valve, Short Handle, Female BSPP Thread



	<p>Nickel-plated brass, NBR</p> 	C			E	F	H	L	L1	M	kg
		G1/4	4	0492 04 13 64	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		C			E	E1	F	H	L	L1	M	kg
			G1/4	4	0491 04 13	9	7	17	34	39.5	17	35	0.070
			G3/8	7	0491 07 17	11	8	22	38	45	20	43	0.124
			G1/2	10	0491 10 21	12	10	24	44	53	24	50	0.160
			G3/4	13	0491 13 27	14	12	30	46	59	25	50	0.238
Technical polymer handle													


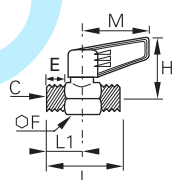


0491..64 2/2 In-Line Ball Valve, Short Handle, Male/Female BSPP Thread



														
		C			E	E1	F	H	L	L1	M	kg		
		G1/4	4	0491 04 13 64	9	7	17	36	39.5	17	25	0.092		
Short handle in zamak														

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

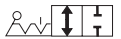




	Nickel-plated brass, NBR		C			E	F	H	L	L1	M	kg
			G1/4	4	0490 04 13	7	17	34	39	17	35	0.070
			G3/8	7	0490 07 17	8	22	38	44	20	43	0.109
			G1/2	10	0490 10 21	10	24	44	53	24	50	0.160
			G3/4	13	0490 13 27	12	30	46	59	25	50	0.233
Technical polymer handle												

Universal Light Series

0494

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


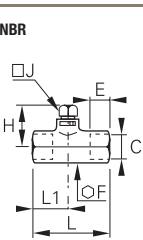




	Nickel-plated brass, NBR		C			E	F	F1	H	L	L1	L2	M	kg
			G3/8	7	0494 07 17	11	22	16	38	60	20	15	43	0.178
			Technical polymer handle											

0497

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


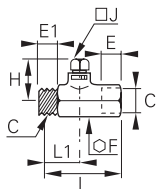




	Brass, NBR		C			E	F	H	J	L	L1	kg
			G1/4	4	0497 04 13	9	17	25	7	39	17	0.066
			G3/8	7	0497 07 17	11	22	26	7	45	20	0.122
			G1/2	10	0497 10 21	12	24	29	10	54	25	0.148
			G3/4	13	0497 13 27	14	30	30	10	62	28	0.230

0496

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



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