

# Industrial ball valves



# Industrial ball valves

Legris provides a wide range of ball valves, adapted to many applications, and suited to a variety of customer requirements in terms of performance.

## Ball valves Industrial series



- suitable for pressures up to **300 bar**
- excellent sealing at low and high pressure
- secure non removable inlet and outlet ports
- handle replaceable by a wheel

## Ball valves Semi-standard series



- to satisfy specific customer requirements
- 6 versions cover virtually all requirements for different types of fluids and applications

## Needle valves



- compact and designed for use where a combination of fluid control and **perfect sealing** is required
- various configurations, connection types and dimensions

## Needle valves: accessories



- needle drain valves
- venting pressure gauge valves
- pressure relief valve

## Axial valves



- overcome the limitations of traditional actuators
- **excellent** performance
- compatible with numerous industrial fluids
- straightforward reliable installation

On pages R24 to R27, an application table enables correct choice of valve depending on the fluid used.

# Industrial ball valves

The variety of this range provides an answer to many specific requirements. Select the model required for your application.

## Ball valves Standard range, 2 and 3 way



- for all industrial applications
- long life
- in-line, with right angled flow and screw fixing versions

## Ball valves Standard range, lockable



- for **safety** of personnel and equipment
- valves are lockable:
  - in both open and closed position
  - only in the closed position

## Ball valves Standard range, vented



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

## Ball valves Light series



- allow the passage of many fluids
- suited to medium pressures and temperatures
- models with standard handle and with a square stem

## Ball valves Fluoropolymer series



- suitable for many applications requiring **PTFE seals**
- both high quality and good value
- **H.R.** range, guaranteed silicone free
- **economy** range with standard handle and butterfly handle

## Ball valves Stainless steel series



- designed for use with **corrosive fluids**
- resistance to **aggressive environments**
- with ball, one piece, "3-piece" and needle types

# the complete range of ball valves



**in-line ball valves**

<b>0402</b> Page R7	<b>0401</b> Page R7	<b>0400</b> Page R7	<b>0411</b> Page R7	<b>0414</b> Page R7
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**in-line with fixing holes and panel mounting**

<b>0446</b> Page R8	<b>6402</b> Page R8	<b>6401</b> Page R8
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**right-angled ball valves**

<b>0472</b> Page R9	<b>0471</b> Page R9
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**in-line ball valves – 3 way**

<b>0482</b> Page R10	<b>0483</b> Page R10	<b>0448</b> Page R10	<b>0452</b> Page R10
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**light series**

<b>0492</b> Page R11	<b>0491</b> Page R11	<b>0490</b> Page R11	<b>0494</b> Page R11
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**light series with square stem**

<b>0497</b> Page R12	<b>0496</b> Page R12
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**lenticular valves**

**4602**  
Page R12

**in-line fluoropolymer series**

<b>4902</b> Page R13	<b>4905</b> Page R14	<b>4906</b> Page R14	<b>4900</b> Page R15	<b>4903</b> Page R15	<b>4901</b> Page R15	<b>4904</b> Page R15
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**lockable ball valves**

<b>0432</b> Page R16	<b>0438</b> Page R16	<b>0437</b> Page R17	<b>0439</b> Page R17
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**venting ball valves**

<b>0489</b> Page R18	<b>0449</b> Page R18	<b>0469</b> Page R18
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**standard vented, with right angled flow**

<b>0462</b> Page R19	<b>0461</b> Page R19
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**high pressure ball valves**

**4402**  
Page R20

# the complete range of ball valves

## stainless steel ball valves

**4832**  
Page R21



**4812**  
Page R21



**4810**  
Page R21



## stainless steel ball valves

**0465**  
Page R22



## needle valves

**0502**  
Page R28



**0501**  
Page R28



**0510**  
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**0532**  
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**0531**  
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## accessories

**0562**  
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**0563**  
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**0627**  
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**0630**  
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## axial valves

**4202**  
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**4212**  
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**4222**  
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## accessories

**4298**  
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**4298**  
Page R33



**4299**  
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## Identification

Part numbers have been chosen by a method of mnemonics. Each valve is identified by :

- its series
- the diameter of passage through the valve
- the thread code

Example

**4902 20 27**

type of ball valve

diameter of passage

thread code



# principle of ball valves

## Standard range



The standard **Legris ball valve** provides a reliable means of opening and closing fluid systems. It requires a simple quarter turn of the handle to operate the two-way version, or a 180° turn for the three way version.

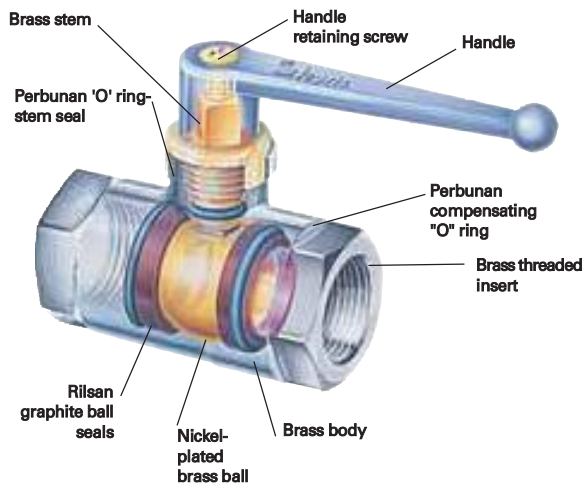
### Principal advantages:

- optimum sealing due to compensating "O" rings
- smooth operation due to low friction coefficient of chemically nickel-plated brass
- excellent resistance to scaling due to ball seal configuration
- **Legris ball valves** provide many thousands of trouble free operations due to the "O" rings compensating for seal wear

### Reliability :

- the **ball** is sealed on both sides by graphite impregnated rilsan seals which are supported by perbunan compensating "O" rings. This ensures that the seal remains in contact with the ball at all times thus extending the life of the ball valve by preventing leakage should seal wear occur.
- the stem is firmly secured within a square insert on the ball and is sealed by an "O" ring.

## technical specifications



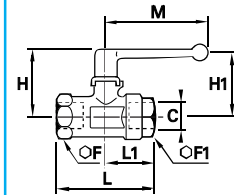
<b>working fluids</b>	see application table on pages R24 to R27					
<b>working pressure</b>	20 to 40 bar depending on the model					
<b>working temperature</b>	- 20° to + 80°C					
<b>constituent materials</b>	body : sand blasted nickel-plated brass ball : polished brass stem : brass retaining nut : brass ball seal : graphite impregnated rilsan stem seal : nitrile compensating "O" rings : nitrile					
<b>maximum tightening torques of ball valves, standard range</b>	thread	G1/8	G1/4	G3/8	G1/2	G3/4
	m.daN	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
	thread	G1"	G1"1/4	G1"1/2	G2"	
	m.daN	0,50 to 0,70	0,40 to 0,60	0,80 to 1,20	0,80 to 1,20	

# standard in-line ball valves

## 0402 double female



sand blasted nickel-plated brass body



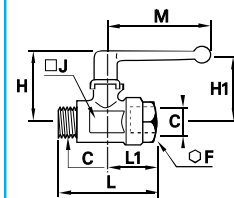
C	DN		F	F1	H	H1	L	L1	M	kg
G1/8	4	0402 04 10	-	14	35	29	44	25	48	0,091
G1/8	7	0402 07 10	19	19	38	31	51	27	48	0,167
G1/4	7	0402 07 13	19	19	38	31	53	28	48	0,157
G3/8	10	0402 10 17	24	24	45	43	59	31	69	0,230
G1/2	13	0402 13 21	27	27	47	44	67	34	69	0,291
G3/4	20	0402 20 27	32	38	63	54	80	39	108	0,690
G1"	23	0402 23 34	41	46	67	57	94	47	108	1,030
G1"1/4	32	0402 32 42*	55	60	97	105	112	59	180	2,433
G1"1/2	32	0402 32 49*	55	60	97	105	120	62	180	2,278
G1"1/2	40	0402 40 49*	55	55	104	105	111	55	190	2,558
G2"	40	0402 40 48*	70	70	104	105	122	61	190	2,754

\*models with CE marking   
 maximum working pressure : 40 bar

## 0401 male female



sand blasted nickel-plated brass body



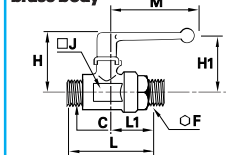
C	DN		F	H	H1	J	L	L1	M	kg
G1/8	4	0401 04 10	14	35	29	14	45	25	48	0,091
G1/8	5	0401 05 10	19	38	31	19	51	27	48	0,158
G1/4	7	0401 07 13	19	38	31	19	52	28	48	0,151
G3/8	10	0401 10 17	24	45	43	24	58	31	69	0,227
G1/2	13	0401 13 21	27	47	44	27	66	34	69	0,290
G3/4	18	0401 18 27	38	63	54	39	79	39	108	0,714
G1"	23	0401 23 34	46	67	57	48	91	47	108	1,028
G1"1/4	32	0401 32 42*	60	97	115	55	113	59	180	2,374

\*models with CE marking   
 maximum working pressure : 40 bar

## 0400 double male



sand blasted nickel-plated brass body



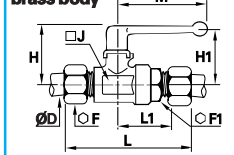
C	DN		F	H	H1	J	L	L1	M	kg
G1/8	4	0400 04 10	14	35	29	14	45	25	48	0,091
G1/4	7	0400 07 13	19	38	31	19	60	36	48	0,163
G3/8	10	0400 10 17	24	45	43	24	70	43	69	0,251
G1/2	13	0400 13 21	27	47	44	27	78	45	69	0,327
G3/4	18	0400 18 27	38	63	54	39	90	50	108	0,770

maximum working pressure : 40 bar

## 0411 with two couplings fitted for use with steel tube



sand blasted nickel-plated brass body



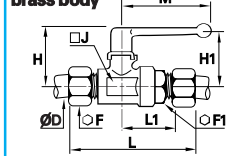
ØD	DN		F	F1	H	H1	J	L	L1	M	kg
6	4	0411 04 06	14	19	38	31	19	76	30	48	0,183
8	6	0411 06 08	17	19	38	31	19	77	30	48	0,182
10	7	0411 07 10	19	19	38	31	19	78	31	48	0,207
12	10	0411 10 12	22	24	45	43	24	85	36	69	0,312

maximum working pressure : 40 bar

## 0414 with two couplings fitted with double taper rings



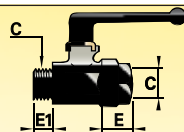
sand blasted nickel-plated brass body



ØD	DN		F	F1	H	H1	J	L	L1	M	kg
6	4	0414 04 06	13	19	38	31	19	72	31	48	0,179
8	6	0414 06 08	14	19	38	31	19	74	30	48	0,181
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	0,305

maximum working pressure : 40 bar

length of female threads (E) and male BSPP threads (E1) 0402 – 0401 and 0400



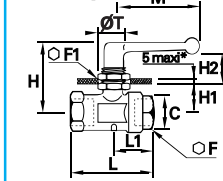
C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"	G1"1/4	G1"1/2	G2"
E	8	12	12	15	16,5	19	21,5	22	26
E1	7	9	11	12	12	15	18		

# standard ball valves for screw fixing and panel mounting

## 0446 double female - panel mounted



sand blasted nickel-plated brass body



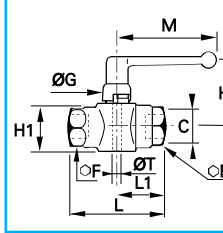
C	DN		F	F1	H	H1	H2	L	L1	M	T	kg
G1/8	4	0446 04 10	14	22	37	14	12	44	25	48	16,5	0,101
G1/4	7	0446 07 13	19	24	45	19	14	53	28	48	20,5	0,189
G3/8	10	0446 10 17	24	27	50	21	21	59	31	69	20,5	0,291
G1/2	13	0446 13 21	27	27	51	23	21	67	34	69	20,5	0,335

maximum working pressure : 20 bar  
for model G 1/8, maximum panel thickness = 3 mm

## 6402 double female - screw fixing



sand-blasted body nickel plated-brass



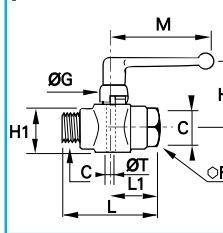
C	DN		F	F1	G	H1	H2	L	L1	M	T	kg
G1/8	4	6402 04 10	14	14	18	18	30	44	25	48	4x70	0,126
G1/4	7	6402 07 13	19	19	19	24	31	53	28	48	5x80	0,215
G3/8	10	6402 10 17	24	24	20	30	45	59	31	69	5x80	0,319
G1/2	13	6402 13 21	27	27	20	34	47	67	34	69	6x100	0,391
G3/4	20	6402 20 27	32	38	27	44	52	80	39	108	8x125	0,823
G1"	23	6402 23 34	41	46	27	53	56	94	47	108	8x125	1,246

maximum working pressure : 40 bar

## 6401 male and female



sand-blasted body nickel plated-brass



C	DN		F	G	H1	H2	L	L1	M	T	kg
G1/8	4	6401 04 10	14	18	18	30	45	25	48	4x70	0,126
G1/4	7	6401 07 13	19	19	24	31	52	28	48	5x80	0,215
G3/8	10	6401 10 17	24	20	30	45	58	31	69	5x80	0,319
G1/2	13	6401 13 21	27	20	34	47	67	34	69	6x100	0,391

maximum working pressure : 40 bar

## different methods of mounting

screw fixed mounting on a metal bulkhead with handle above the bulkhead	screw fixed mounting on a metal bulkhead with the complete valve below the bulkhead	tapped fixing mounting onto a metal plate	wood screw fixed mounting onto a wooden panel

dimensions between fixing hole centres	C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
N		25	31	31	34	43	51

Thread length (E) and BSP parallel male thread (E1) for 0446 - 6401 and 6402 ball valves	C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E		8	12	12	15	16,5	19
E1		7	9	11	12		

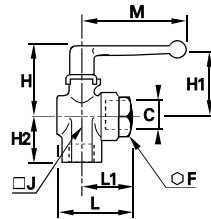


# ball valves with right angled flow

## 0472 double female



sand blasted nickel-plated brass body



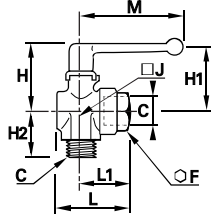
C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0472 04 10	14	35	29	18	14	34	25	48	0,095
G1/8	6	0472 06 10	19	38	31	20	22	37	27	48	0,178
G1/4	6	0472 06 13	19	38	31	24	22	38	28	48	0,177
G3/8	9	0472 09 17	24	45	43	27	25	46	31	69	0,262
G1/2	12	0472 12 21	27	47	44	33	29	49	34	69	0,315
G3/4	18	0472 18 27	38	59	51	40	39	60	39	108	0,724
G1"	23	0472 23 34	46	63	55	47	48	72	47	108	1,080

maximum working pressure : 20 bar

## 0471 male and female



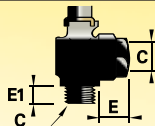
sand blasted nickel-plated brass body



C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0471 04 10	14	35	29	19	14	34	25	48	0,095
G1/8	6	0471 06 10	19	38	31	22	22	37	27	48	0,168
G1/4	6	0471 06 13	19	38	31	25	22	38	28	48	0,171
G3/8	9	0471 09 17	24	45	43	28	25	46	31	69	0,259
G1/2	12	0471 12 21	27	47	44	32	29	49	34	69	0,308
G3/4	18	0471 18 27	38	59	51	37	39	60	39	108	0,718
G1"	23	0471 23 34	46	63	55	44	48	72	47	108	1,020

maximum working pressure : 20 bar

Thread length (E) and BSP parallel male thread (E1) for 0472 and 0471



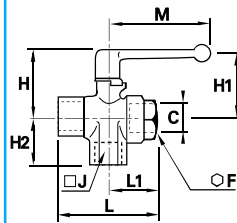
C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E	8	12	12	15	16,5	19
E1	7	9	11	12	12	15

# standard 3 way ball valves

## 0482 female right angled porting



sand blasted nickel-plated brass body



C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0482 04 10	14	35	29	18	14	44	25	48	0,110
G1/4	6	0482 06 13	19	38	31	24	22	53	28	48	0,187
G3/8	9	0482 09 17	24	45	43	27	25	59	31	69	0,285
G1/2	12	0482 12 21	27	47	44	33	29	67	34	69	0,351
G3/4	18	0482 18 27	38	59	51	40	39	80	39	108	0,386
G1"	23	0482 23 34	46	63	55	47	48	94	47	108	1,172

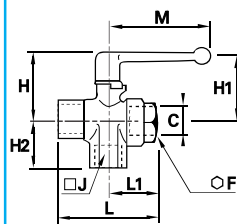
maximum working pressure : 20 bar



## 0483 female right angled porting without closed position

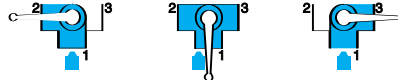


sand blasted nickel-plated brass body



C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0483 04 10	14	35	29	18	14	44	25	48	0,102
G1/4	6	0483 06 13	19	38	31	24	22	53	28	48	0,187
G3/8	9	0483 09 17	24	45	43	27	25	59	31	69	0,283
G1/2	12	0483 12 21	27	47	44	33	29	67	34	69	0,352
G3/4	18	0483 18 27	38	59	51	40	39	80	39	108	0,712
G1"	23	0483 23 34	46	63	55	47	48	94	47	108	1,090

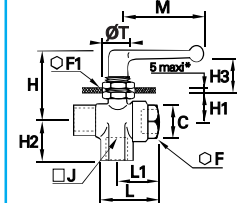
maximum working pressure : 20 bar



## 0448 panel mountable female right angled porting



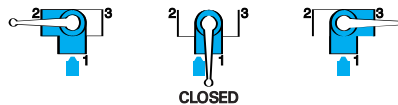
sand blasted nickel-plated brass body



C	DN		F	F1	H	H1	H2	H3	J	L	L1	M	T	kg
G1/8	4	0448 04 10	14	22	37	14	18	12	14	44	25	48	16,5	0,122
G1/4	6	0448 06 13	19	24	45	19	24	14	22	53	28	48	20,5	0,224
G3/8	9	0448 09 17	24	27	50	21	27	21	25	59	31	69	20,5	0,324
G1/2	12	0448 12 21	27	27	51	23	33	21	29	67	34	69	20,5	0,398

maximum working pressure : 20 bar

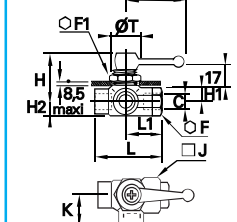
\*G1/8 version : maximum panel thickness = 3 mm



## 0452 panel mountable female equal plane porting - 3 port 2way

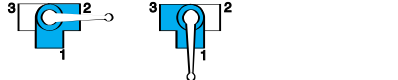


sand blasted nickel-plated brass body

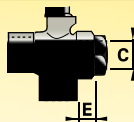


C	DN		F	F1	H	H1	H2	J	K	L	T	kg	
G1/8	4	0452 04 10	14	22	39	10	8	16	18	44	25	19	0,316
G1/4	6	0452 06 13	19	24	40	11	11	23	24	53	28	20	0,298

maximum working pressure : 20 bar



length of internal BSPP thread (E)  
for 0482 - 0448 - 0452 and 0483



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E	8	12	12	15	16,5	19

# light series ball valves

Light series ball valves allow the passage of many fluids and are suited to high pressures and temperatures. Their constituent materials are the same as for the standard range.

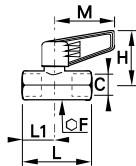
## technical specifications

- maximum working pressure : 12 bar
- working temperature : -20° to +80°C

### 0492 double female



nickel-plated brass body  
polymer HR handle



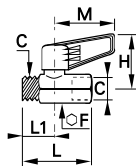
C	DN		F	H	L	L1	M	kg
G1/4	4	0492 04 13	17	34	39,5	17	35	0,071
G1/4	4	0492 04 13 64*	17	36	39,5	17	25	0,069
G3/8	7	0492 07 17	22	38	45	20	43	0,121
G1/2	10	0492 10 21	24	44	54	25	50	0,155
G3/4	13	0492 13 27	30	46	62	28	50	0,237

\* Zamac short handle

### 0491 male and female



nickel-plated brass body  
polymer HR handle



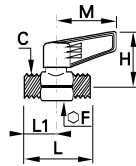
C	DN		F	H	L	L1	M	kg
G1/4	4	0491 04 13	17	34	39,5	17	35	0,071
G1/4	4	0491 04 13 64*	17	36	39,5	17	25	0,069
G3/8	7	0491 07 17	22	38	45	20	43	0,118
G1/2	10	0491 10 21	24	44	53	24	50	0,154
G3/4	13	0491 13 27	30	46	59	25	50	0,228

\* Zamac short handle

### 0490 double male



nickel-plated brass body  
polymer HR handle

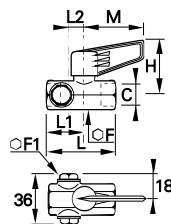


C	DN		F	H	L	L1	M	kg
G1/4	4	0490 04 13	17	34	39	17	35	0,070
G3/8	7	0490 07 17	22	38	44	20	43	0,108
G1/2	10	0490 10 21	24	44	53	24	50	0,152
G3/4	13	0490 13 27	30	46	59	25	50	0,218

### 0494 double female with two vent plugs



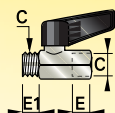
nickel-plated brass body  
polymer HR handle



C	DN		F	F1	H	L	L1	L2	M	kg
G3/8	7	0494 07 17	22	16	38	60	20	15	43	0,180

Light series ball valves are also available with a square stem and without handle . Please refer to page R12.

BSPP thread length E and E1  
for valves references  
0492 - 0491 - 0490 and 0494



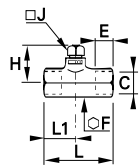
C	G1/4	G3/8	G1/2	G3/4
E	9	11	12	14
E1	7	8	10	12

# light series ball valves with square stem

## 0497 double female with square stem



sand blasted brass body

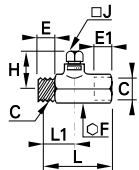


C	DN		E	F	H	J	L	L1	ΔkgΔ
G1/4	4	0497 04 13	9	17	25	7	39	17	0,067
G3/8	7	0497 07 17	11	22	26	7	45	20	0,114
G1/2	10	0497 10 21	12	24	29	10	54	25	0,144
G3/4	13	0497 13 27	14	30	30	10	62	28	0,227

## 0496 male and female with square stem



sand blasted brass body



C	DN		E	E1	F	H	J	L	L1	ΔkgΔ
G1/4	4	0496 04 13	9	7	17	25	7	39	17	0,065
G3/8	7	0496 07 17	11	8	22	26	7	45	20	0,099
G1/2	10	0496 10 21	12	10	24	29	10	53	24	0,144
G3/4	13	0496 13 27	14	12	30	30	10	59	25	0,222

## lenticular shut-off valves

The internal component used to shut-off the flow of Legris **lenticular shut-off valves** is a segment of a sphere. Therefore, these valves are usable with abrasive fluids (including solid particles). Lenticular valves can only accommodate fluid flow in one direction. The fluid direction is shown by an arrow on the valve body. The main advantages of this range are **low operating torque**, even with high fluid pressure, due to small friction coefficient of lenticule on the ball seal, **perfect sealing**, **small overall dimensions** and long life.

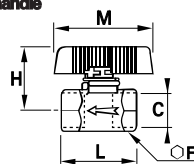
### technical specifications :

- maximum working pressure : 16 bar
- working temperature : - 20° to + 80°C
- compatible fluids : compressed air, industrial gas, water, cutting oil, mineral oil, fuel, inert gases, solid particles...
- lenticule : stainless steel
- seals : nitrile

## 4602 double female



sand blasted nickel-plated brass body black epoxy coated zamac handle



C		E	F	H	L	M	ΔkgΔ
G1/4	4602 06 13	9	17	35	34	54	0,101
G3/8	4602 07 17	11	22	35	39	54	0,137
G1/2	4602 10 21	12	24	37	42	54	0,142
G3/4	4602 13 27	14	30	40	49	54	0,209
G1"	4602 18 34	15	41	46	55	54	0,408



# in-line ball valves, fluoropolymer series

This range of ball valves is suitable for many industrial applications, when the fluid carried and working temperatures require PTFE seals. The range is available in two versions.

## H.R. range

- excellent resistance to high pressure and temperature constraints
- full flow fluid passage
- silicone free, in order to meet specific application requirements – e.g. automotive process industry.
- both high quality and good value.

## Specifications

**Fluids :** compressed air, gas, water, water steam, oil and all fluids suitable with constituent materials.

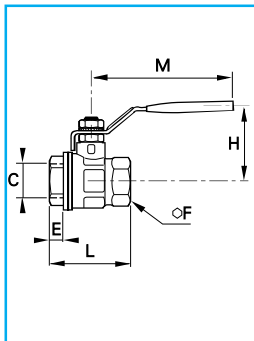
**Working temperature :** -20° to + 130°C

**Working pressure :** 25 to 30 bar, depending on the model

## Materials :

- body: sand blasted nickel-plated brass
- ball: nickel-plated chromed brass
- handle: blue plastic coated steel
- stem : nickel-plated brass
- ball seals: PTFE
- stem seals: PTFE

## 4902 double female



C	DN	PN		E	F	H	L	M	kg
G1/4	10	30	4902 10 13	11	20	43	51,5	98	0,140
G3/8	10	30	4902 10 17	11,4	20	43	51,5	98	0,130
G1/2	15	30	4902 15 21	13,5	25	47	55	98	0,200
G3/4	20	30	4902 20 27	12,5	31	58	57,5	122	0,320
G1"	25	30	4902 25 34	15	38	60	69,5	122	0,490
G1"1/4	32	25	4902 32 42*	17	48	77	81,5	153	0,900
G1"1/2	40	25	4902 40 49*	18	54	83	95	153	1,350
G2"	50	25	4902 50 48*	22	66	95	113	162	1,800
G2"1/2	65	30	4902 65 47*	22	85	132	136	255	4,300
G3"	80	30	4902 80 46*	25	99	140	157	255	5,840
G4"	100	30	4902 01 45*	29	125	154	191	255	9,040

\*models with CE marking

# in-line ball valves, fluoropolymer series

## Economy range

- economical solution, for many industrial applications.
- full flow fluid passage
- each model is available in 2 designs:
  - with a **standard handle**
  - with a **butterfly handle**, to overcome the constraints of reduced spaces.

## Specifications

**Fluids :** compressed air, inert gases, water and all fluids suitable with constituent materials.

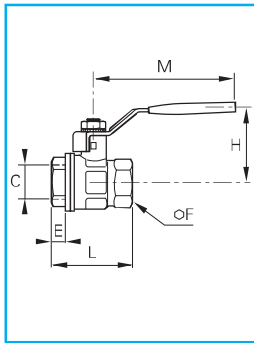
**Working temperature:** -20° to + 90°C

**Working pressure:** 16 to 25 bar, depending on the model

### Materials :

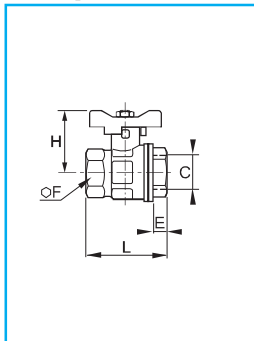
- body: sand blasted nickel-plated brass
- ball: nickel-plated chromed brass
- handle: black plastic coated steel
- stem : nickel-plated brass
- ball seals: PTFE
- stem seals: NBR

## 4905 double female with standard handle, BSP parallel



C	DN	PN		E	F	H	L	M	$\Delta$ kg
G1/4	10	25	4905 00 13	10	21	37	44	70	0,145
G3/8	10	25	4905 00 17	10	21	37	44	70	0,130
G1/2	15	25	4905 00 21	12	25	40	51	85	0,180
G3/4	20	25	4905 00 27	13	31	47	57	104	0,270
G1"	25	25	4905 00 34	15	38	51	67	104	0,420
G1 1/4"	32	16	4905 00 42	15	47	61	80	122	0,670
G1 1/2"	40	16	4905 00 49	16	54	75,5	90,5	152	0,960
G2"	50	16	4905 00 48	16	67	79	101	136	1,380

## 4906 double female with butterfly handle, BSP parallel

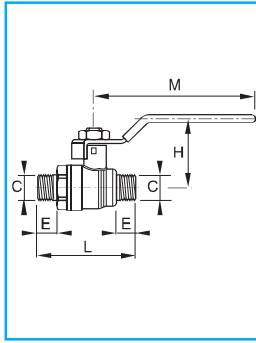


C	DN	PN		E	F	H	L	$\Delta$ kg
G1/4	10	25	4906 00 13	10	21	35,5	44	0,125
G3/8	10	25	4906 00 17	10	21	35,5	44	0,110
G1/2	15	25	4906 00 21	12	25	38	51	0,165
G3/4	20	25	4906 00 27	13	31	43	57	0,235
G1"	25	25	4906 00 34	15	38	50	67	0,400

Dimensions given are provided for guidance only.

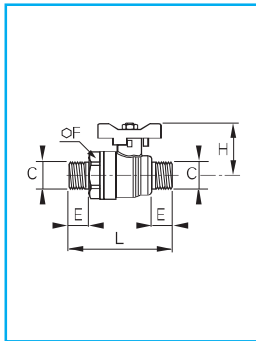
# in-line ball valves, fluoropolymer series

## 4900 double male with standard handle, BSP parallel



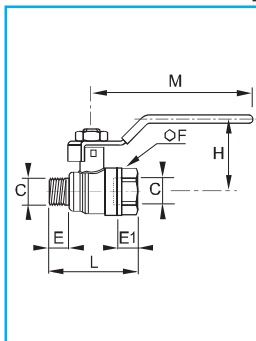
C	DN	PN		E	H	L	M	$\Delta_{kg\Delta}$
G 1/4	10	25	4900 00 13	9	37	51	70	0,150
G 3/8	10	25	4900 00 17	10	37	51	70	0,150
G 1/2	15	25	4900 00 21	12	40	60	85	0,200
G 3/4	20	25	4900 00 27	13	47	67	104	0,300
G 1"	25	25	4900 00 34	15	51	77,5	104	0,470
G 1 1/4"	32	16	4900 00 42	15	61	90	122	0,785
G 1 1/2"	40	16	4900 00 49	16	75,5	102,5	152	1,080
G 2"	50	16	4900 00 48	16	79	114	136	1,500

## 4903 double male with butterfly handle, BSP parallel



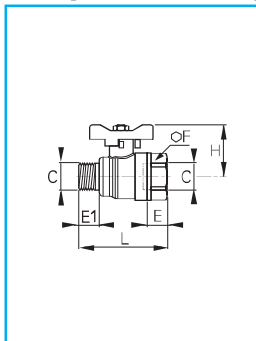
C	DN	PN		E	F	H	L	$\Delta_{kg\Delta}$
G 1/4	10	25	4903 00 13	9	21	35,5	44	0,130
G 3/8	10	25	4903 00 17	10	21	35,5	44	0,130
G 1/2	15	25	4903 00 21	12	25	38	51	0,185
G 3/4	20	25	4903 00 27	13	31	43	57	0,265
G 1"	25	25	4903 00 34	15	38	50	67	0,450

## 4901 male - female with standard handle, BSP parallel



C	DN	PN		E1	E	F	H	L	M	$\Delta_{kg\Delta}$
G 1/4	10	25	4901 00 13	9	10	21	37	44	70	0,150
G 3/8	10	25	4901 00 17	10	10	21	37	44	70	0,140
G 1/2	15	25	4901 00 21	12	12	25	40	51	85	0,175
G 3/4	20	25	4901 00 27	13	13	31	47	57	104	0,260
G 1"	25	25	4901 00 34	15	15	38	51	67	104	0,415
G 1 1/4"	32	16	4901 00 42	15	15	47	61	80	122	0,755
G 1 1/2"	40	16	4901 00 49	16	16	54	75,5	90,5	152	0,940
G 2"	50	16	4901 00 48	16	16	67	79	101	136	1,270

## 4904 male - female with butterfly handle, BSP parallel



C	DN	PN		E1	E	F	H	L	$\Delta_{kg\Delta}$
G 1/4	10	25	4904 00 13	9	10	21	35,5	44	0,130
G 3/8	10	25	4904 00 17	10	10	21	35,5	44	0,120
G 1/2	15	25	4904 00 21	12	12	25	38	51	0,160
G 3/4	20	25	4904 00 27	13	13	31	43	57	0,225
G 1"	25	25	4904 00 34	15	15	38	50	67	0,395

Dimensions given are provided for guidance only.

# lockable ball valves



Legris 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.

Lockable ball valves feature a plate fixed to the valve body and a plate attached to the valve stem. When the plates are padlocked together, the valve handle cannot be moved.

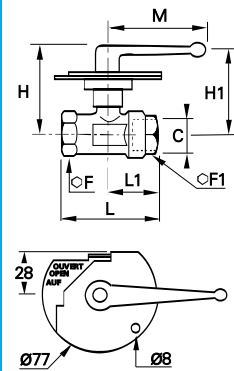
The valves are lockable :

- in both open and closed position, by one padlock : models 0432 and 0439
- only in the closed position by up to three padlocks : models 0437 and 0438.

## 0432 in-line double female



sand blasted nickel plated brass



both fixed and moveable plates are zinc plated steel

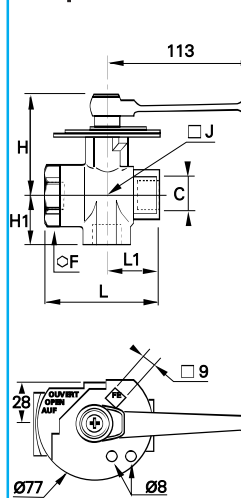
C	DN		F	F1	H	H1	L	L1	M	kg
G1/8	4	0432 04 10	19	19	59	54	51	27	69	0,413
G1/4	7	0432 07 13	19	19	59	54	59	28	69	0,397
G3/8	10	0432 10 17	24	24	60	55	59	31	69	0,463
G1/2	13	0432 13 21	27	27	62	57	67	34	69	0,515
G3/4	20	0432 20 27	32	38	66	56	80	39	108	0,846
G1"	23	0432 23 34	41	46	70	59	94	47	108	1,174

maximum service pressure : 40 bar  
handle is non-removable

## 0438 female 3 port 2way lockable ball valve sand blasted nickel-plated body



nickel plated brass

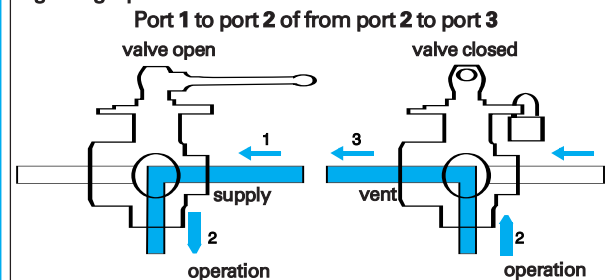


fixed plate : zinc plated steel  
moveable plate : steel, grey epoxy coated

C	DN		F	H	H1	J	L	L1	kg
G3/8	9	0438 09 17	38	76	34	39	73	35	0,905
G1/2	12	0438 12 21	38	76	37	39	78	38	0,896
G3/4	18	0438 18 27	38	76	40	39	80	40	0,845
G1"	23	0438 23 34	46	80	47	48	94	47	1,268

maximum working pressure : 20 bar

These valves are lockable in the closed position only. Right angle ported ball allows flow :

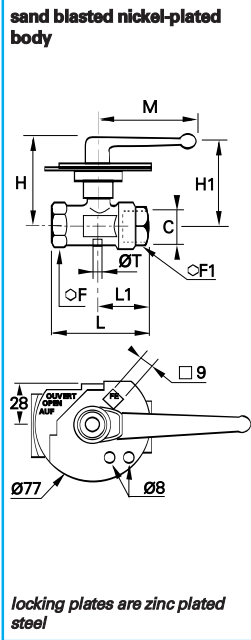


removable handle : where the handle is obstructed in its movement it can be refitted opposite the original position.



# lockable ball valves

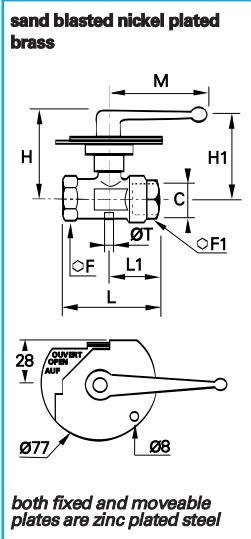
## 0437 in-line double female vented lockable ball valve



C	DN		F	F1	H	L	L1	M	T	kg
G1/4	7	0437 07 13	24	24	60	59	32	69,5	2	0,397
G3/8	10	0437 10 17	24	24	60	60	32	69,5	2	0,463
G1/2	13	0437 13 21	27	27	60	67,5	34,5	69,5	2	0,515
G3/4	18	0437 18 27	32	38	69,5	80	39,5	108,5	2,5	0,846
G1"	23	0437 23 34	41	46	73	94,5	47,5	108,5	3	1,174

maximum working pressure : 40 bar  
handle is non-removable

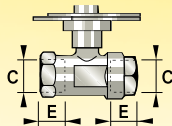
## 0439 double female with vent



C	DN		F	F1	H	H1	L	L1	M	T	kg
G1/8	4	0439 04 10	19	19	59	54	51	27	69	2	0,420
G1/4	7	0439 07 13	24	24	60	55	59	31	69	2	0,480
G3/8	10	0439 10 17	24	24	60	55	59	31	69	2	0,459
G1/2	13	0439 13 21	27	27	62	57	67	34	69	2	0,511
G3/4	18	0439 18 27	32	38	66	56	80	39	108	2,5	0,834
G1"	23	0439 23 34	41	46	70	59	94	47	108	3	1,166

maximum service pressure : 40 bar  
handle is non-removable

Length of BSPP threads (E) for 0432  
- 0439 - 0437 and 0438



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E	8	12	12	15	16,5	19

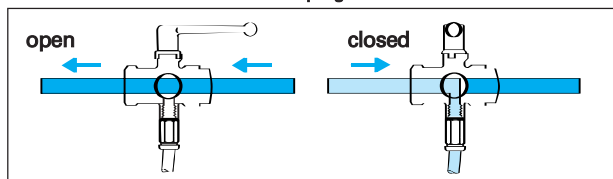
# standard, in-line vented ball valves



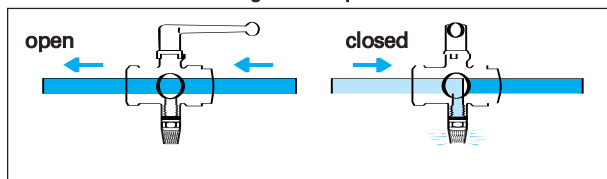
In certain situations, there is a requirement for stopping fluid circulation and venting the circuit. Therefore Legris offers 2 types of in-line vented ball valves :

- 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.

with threaded exhaust = collection of purged media



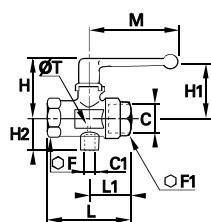
with silencer noiseless discharge to atmosphere



## 0489 double female BSPP valve with threaded exhaust



sand blasted nickel-plated body



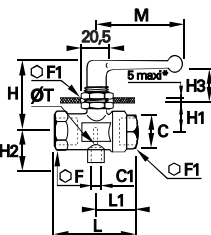
C	DN	Part No.	Material	F	F1	H	H1	H2	L	L1	M	T	kg
G1/4	7	0489 07 13	M5x0,8	24	24	46	43	17	59	31	69	2	0,269
G3/8	10	0489 10 17	M5x0,8	24	24	46	43	17	59	31	69	2	0,294
G1/2	13	0489 13 21	G1/8	27	27	47	44	24	67	34	69	2	0,312
G3/4	18	0489 18 27	G1/4	32	38	63	54	33	80	39	108	2,5	0,754
G1"	23	0489 23 34	G1/4	41	46	67	57	37	94	47	108	3	1,088

maximum working pressure : 40 bar

## 0449 double female BSPP valve, panel mountable with threaded exhaust



sand blasted nickel-plated body



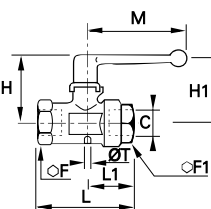
C	DN	Part No.	Material	F	F1	H	H1	H2	H3	L	L1	M	T	kg
G1/4	7	0449 07 13	M5x0,8	24	27	50	20	17	21	59	31	69	2,5	0,316
G3/8	10	0449 10 17	M5x0,8	24	27	50	20	17	21	59	31	69	2,5	0,298
G1/2	13	0449 13 21	G1/8	27	27	52	23	24	21	67	34	69	4	0,354

maximum working pressure : 20 bar

## 0469 double female vented BSPP valve



sand blasted nickel-plated body



C	DN	Part No.	F	F1	H	H1	L	L1	M	T	kg
G1/8	4	0469 04 10	-	14	35	29	44	25	48	1,5	0,100
G1/4	7	0469 07 13	24	24	46	43	59	31	70	2	0,258
G3/8	10	0469 10 17	24	24	46	43	59	31	70	2	0,246
G1/2	13	0469 13 21	27	27	47	44	67	34	70	2	0,292
G3/4	18	0469 18 27	32	38	63	54	80	39	108	2,5	0,700
G1"	23	0469 23 34	41	46	67	57	94	47	108	3	1,020

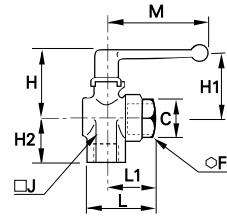
maximum working pressure : 40 bar

# standard vented ball valves with right angled flow

## 0462 double female with vent



sand blasted nickel-plated brass body + red handle



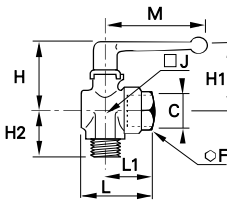
C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0462 06 10	19	38	31	20	22	37	27	48	0,175
G1/4	6	0462 06 13	19	38	31	24	22	38	28	48	0,175
G3/8	9	0462 09 17	24	45	43	27	25	46	31	69	0,265
G1/2	12	0462 12 21	27	47	44	33	29	49	34	69	0,310
G3/4	18	0462 18 27	38	59	51	40	39	60	39	108	0,730
G1"	23	0462 23 34	46	63	55	47	48	72	47	108	1,054

maximum working pressure : 20 bar

## 0461 male and female with vent



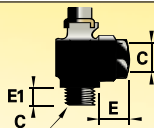
sand blasted nickel-plated brass body + red handle



C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0461 06 10	19	38	31	22	22	37	27	48	0,169
G1/4	6	0461 06 13	19	38	31	25	22	38	28	48	0,169
G3/8	9	0461 09 17	24	45	43	28	25	46	31	69	0,258
G1/2	12	0461 12 21	27	47	44	32	29	49	34	69	0,312
G3/4	18	0461 18 27	38	59	51	37	39	60	39	108	0,704

maximum working pressure : 20 bar

Thread length (E) and BSP parallel male thread (E1) for 0462 and 0461



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E	8	12	12	15	16,5	19
E1	7	9	11	12	12	15

# high pressure ball valves

Legris high pressure ball valves are suitable for pressures up to 300 bar.

● **advantages**

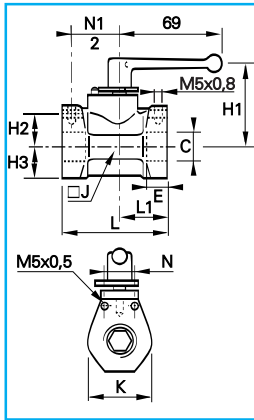
- secure non removable inlet and outlet ports
- fixing holes for mounting assembly
- handle replaceable by a wheel
- excellent sealing at high and low pressure

● **constituent materials**

- body : hot stamped brass
- ball : polished brass
- ports : steel threaded
- stem : stainless steel
- handle : zamak
- "O" ring, stem seal and compensating "O" ring : nitrile

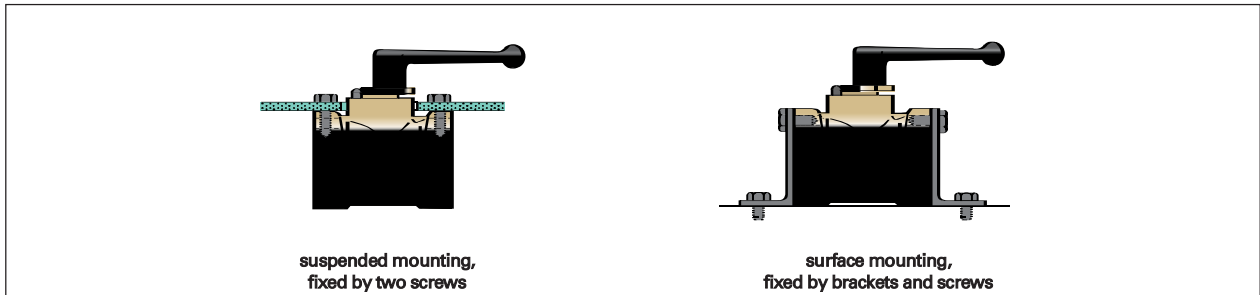
● **working temperature: -15° to +80°C**

## 4402 double female



C	DN		E	H1	H2	H3	J	K	L	L1	N	$\frac{N1}{2}$	$\Delta kg \Delta$
G1/4	7	4402 07 13	12	50	13	15	30	30	58	25	15	20	0,374
G3/8	10	4402 10 17	12	54	23	19	36	39	72	36	20	30	0,756
G1/2	13	4402 13 21	15	56	23	21	40	42	79	36	20	30	0,839

## different methods for fixing





# stainless steel ball valves

Stainless steel series ball valves are designed for use with corrosive fluids and in aggressive environments. Full bore, they are suited to higher pressure and high temperature applications. Therefore they can be used for a wide range of industrial applications.

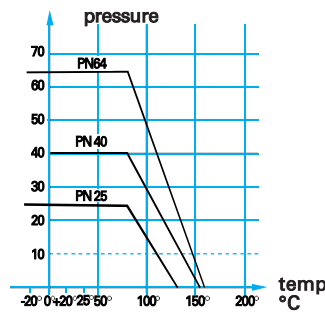
2 versions:

- "3-piece" construction: allows the valve to be disassembled in situ, to facilitate maintenance.
- one piece construction

● constituent materials :

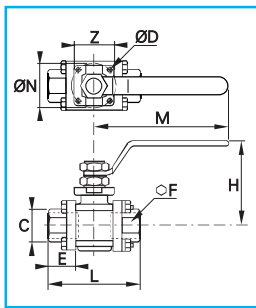
- body, ball, ports, stem : stainless steel 316 L
- handle, lock washer, stop pin : stainless steel 304 L
- nuts, gland seal : stainless steel 303 L
- screw: stainless steel 305 L
- ball seal, stem seal, anti-friction washer : PTFE
- "O" ring : FKM

## pressure and temperature resistance of stainless steel series ball valves 4832



example : at 100°C  
 PN 64 becomes 48 bar  
 PN 40 becomes 30 bar  
 PN 42 becomes 17 bar  
 For temperatures between 150° and 200°, please consult us

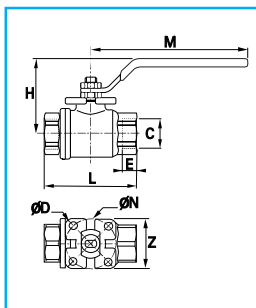
## 4832 3 piece double female with lateral dismantling, BSP parallel



C	DN	PN	ØD	E	F	H	L	M	N	Z	kg
1/4	10	4832 10 13	64	-	18	22	50	57	110,5	-	0,425
3/8	10	4832 10 17	64	-	18	22	50	57	110,5	-	0,400
1/2	15	4832 15 21	64	6	20,5	27	64	65	131,5	36	0,370
3/4	20	4832 20 27	40	5,5	22,5	32	68	76	131,5	42	0,555
1"	25	4832 25 34	40	6	27	41	78,5	92	174,5	42	1,035
1 1/4"	32	4832 32 42*	25	5,5	30	50	83,5	106,5	174,5	42	1,465
1 1/2"	40	4832 40 48*	25	6,5	31	55	100	116	250,5	50	1,995
2"	50	4832 50 48*	25	6,5	36	70	107	136	250,5	50	3,140

\*models with CE marking

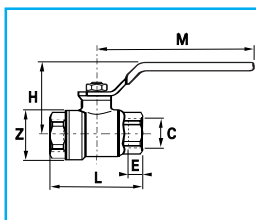
## 4812 double female, one piece, BSP parallel



C	DN	PN	ØD	E	H	L	M	ØN	Z	kg
1/4	10	4812 10 13	140	5,5	10	50	55	110	36	0,260
3/8	10	4812 10 17	140	5,5	11,4	50	55	110	36	0,240
1/2	15	4812 15 21	140	5,5	15	53	66	110	36	0,320
3/4	20	4812 20 27	105	5,5	16,3	67	79	130	42	0,540
1"	25	4812 25 34	105	5,5	19,1	79	93	175	42	0,990
1 1/4"	32	4812 32 42*	42	5,5	21,4	83	100	175	42	1,340
1 1/2"	40	4812 40 49*	42	5,5	21,4	100	110	250	50	2,140
2"	50	4812 50 48*	42	8,5	25,7	107	131	250	70	3,360

\*models with CE marking

## 4810 double female, economy version, BSP parallel



C	DN	PN	E	H	L	M	Z	kg	
G1/4	8	4810 08 13	64	10	44,5	53,5	110,5	30	0,220
G3/8	10	4810 10 17	64	10	44,5	53,5	110,5	30	0,200
G1/2	15	4810 15 21	64	13	47	60	110,5	32,5	0,250
G3/4	20	4810 20 27	40	14	54,5	70	131,5	40	0,450
G1"	25	4810 25 34	40	17	58,5	79	131,5	49	0,850

Threads conform to ISO 228-1.

### Models 4832 - 4812

These valves have a fixing plate for the mounting of pneumatic or electrical actuators. The dimension of this plate conforms to standard ISO 5211. Threads conform to ISO 7-1 (Rp).

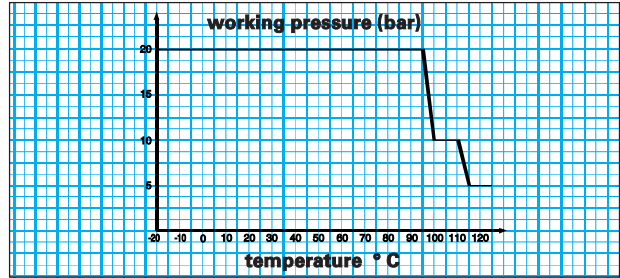
# compact stainless steel ball valves

Designed for use with many aggressive and corrosive fluids at pressures not exceeding 20 bar.

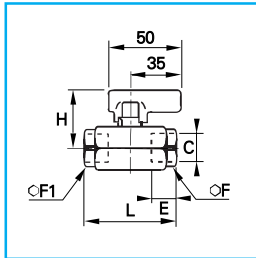
● **constituent materials of model 0465:**

- body, ball, ports, stem : stainless steel AISI 303
- handle : nickel-plated brass
- "O" ring, stem seal, ball seal : PTFE

**pressure and temperature resistance of compact stainless steel series ball valves 0465**



## 0465 double female



C	DN		PN	E	F	F1	H	L	kg
G1/4	4	0465 04 13	20	13	19	24	36	50	0,224
G3/8	7	0465 07 17	20	13	24	27	39	55	0,278
G1/2	10	0465 10 21	20	16	27	30	40	62	0,323

# Legris ball valves – quick reference table

Based on its successful standard range, Legris has developed a range of semi-standard ball valves in order to satisfy specific customer applications.

Six versions cover virtually all requirements for different types of fluids. Technical specifications are shown in the chart below.

To determine the minimum quantity of each model, please consult us.

On pages R24 to R27, an application table enables correct choice of valve depending on the fluid used.

suffixes :

20

22

26

27

30

32



A colour coded band on the handle identifies each semi-standard version.

identification		semi-standard series													examples of applications (refer to the usage tables overleaf for working conditions)
		body		handle			ball		stem seal and compensating "O" ring			ball seal			
Part number = band suffix	colour on handle	nickel- plated brass	chemically nickel- plated brass	stan- dard	nickel- plated brass	chemically nickel- plated brass	nickel plated polished brass	chemically nickel- plated brass	ethylene propy- lene	FKM	fluoro- polymer	Rilsan graphite	glass fibre impreg- nated fluoro- polymer	fluoro- polymer	
20		●		●			●			●		●			for hydrocarbons
22		●		●				●		●			●		for slightly aggressive fluids and high temperatures
26*		●			●			●			ring			●	for aggressive liquids or high temperatures
27			●			●		●		●			●		for slightly aggressive fluids and/or not very aggressive environments
30**		●		●			●		●			●			for oxygen gas circuits
32		●		●				●	●				●		for water and steam

\* degreased

\*\* grease compatible with oxygen

example of numbering systems for semi-standard ball valves

0402 13 21 22

↑

type of ball  
valve

↑

diameter of  
passage

↑

thread  
code

↑

reference number  
of semi-standard  
valve







# Legris ball valves – application table

## Standard and semi-standard ranges

PRODUCT	SYNONYMS / USES	Maximum Pressure kg/cm <sup>2</sup>	Temperature in C°		Standard	semi-standard					
			min.	max.		20	22	26	27	30	32
METHANE GAS CH <sub>4</sub>		20	-20	+60	●						
METHANOL	Methyl Alcohol	20	-20	Boi. pt							●
METHYL ALCOHOL	Methanol 1	20	-20	Boi. pt							●
METHYL ALCOHOL (SOLVENT)	Methanol	20	-20	Boi. pt							●
MINERAL OIL		40	-20	+90	●						
MINERAL PETROLEUM OIL	Up To 160 °C	20	-20	+160			●				
NATURAL WAXES (VEGETABLE, BEES, CARNAUCA, CHINA, LIGNITE)		40	-20	+90				●			
NATURAL GAS		20	-20	+40	●						
NEON GAS NE		20	-20	+60	●						
NITROGEN GAS N <sub>2</sub>		40	-20	+90	●						
ORDINARY PETROL		20	-20	+40	●						
ORDINARY WATER		40		+80	●						
OXYGEN (AMBIENT TEMPERATURE)	Degreased	20	-20	+40							●
PAINT AND RELEVANT SOLVENTS		20	-20	+60				●			
PARAFFIN	Ozokerite	20	-20	+60	●						
PARAFFIN OIL		40	-20	+90	●						
PENTANE (LIQUID HYDROCARBON)		20	-20	+60	●						
PENTANOLS 1 AND 2	Amylic Alcohol Or Methyl Butanol	20	-20	Boi. pt							●
PETROLEUM		20	-20	+40			●				
PETROLEUM FAT		40	-20	+90	●						
PETROLEUM OIL AND EMULSION WATER		40	-20	+90	●						
PHENOL (ALCOHOLIC OR AQUEOUS SOLUTION)	Phenic Or Carbonic Acid	20	-20	+60				●			
PROPANE		20	-20	+60	●						
PROPANOLS 1 AND 2	Propyl Alcohol And Isopropyl	20	-20	Boi. pt	●						
PROPENE OR PROPYLENE	Various Preparations - Synthetic	20	-20	+60				●			
PROPYL ALCOHOL	Propanol	20	-20	Boi. pt							●
SAPONIFYING LIQUIDS		20		+30	●						
SEA WATER		40		+80	●						
SEA WATER - HIGH TEMPERATURE		20		+150						●	
SOAP	Liquid, Paste, Solutions	20	-20	+40							●
SOAP (LIQUID OR PASTE)		40	-20	+100	●						
SODIUM CARBONATE (WITH WATER)	Carbonated Water	20	0	+40	●						
STARCH - GELS OR PASTE (GLUE, COSMETICS) C <sub>6</sub> H <sub>10</sub> O <sub>5</sub>		40	+10	+40	●						
STEAM AT 150 °C MAXI		20		+150							●
SYNTHETIC OIL		20	-20	+100							●
TOLUENE	Methyl-Benzene (Solvent,Synthetic)	20	-20	+60				●			
TRICHLOROETHYLENE	Fatting Solvent	20	-20	+65				●			

Note : because of the many specific environmental factors which might affect corrosion rate such as temperature and concentration, we would suggest that the chart be used as a rough guide to material selection and final acceptability be established by actual test under specific conditions.

# Legris ball valves – application table

## Standard and semi-standard ranges

PRODUCT	SYNONYMS / USES	Maximum Pressure kg/cm <sup>2</sup>	Temperature in C°		Standard	semi-standard					
			min.	max.		20	22	26	27	30	32
TURPENTINE	Turps	20	-20	+50	●						
VARNISH AND PAINT	And Relevant Solvent	20	-20	+60				●			
VASELINE		40	-20	+60	●						
VASELINE OIL		40	-20	+90	●						
WATER - HIGH TEMPERATURE		20		+150							●
WATER WITH CARBONATED GAS		40		+90	●						
WHITE SPIRIT	Mix Of Methyl, And Ethyl Alcohol And Acetone	40	-20	-40	●						
XENON (GAS) XE		20	-20	+60	●						
XYLENE		20	-20	+60				●			

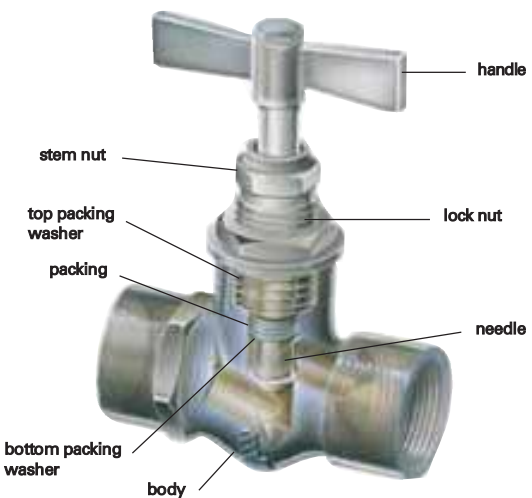
Note : because of the many specific environmental factors which might affect corrosion rate such as temperature and concentration, we would suggest that the chart be used as a rough guide to material selection and final acceptability be established by actual test under specific conditions.

# principle of needle valves

Legris needle valves are designed for use where a combination of fluid control and perfect sealing is required.

They incorporate a wide selection of port configurations to ensure simple assembly in any system.

## technical specifications

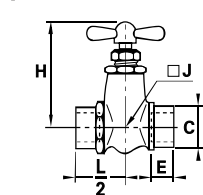


<b>Maximum working pressure</b>	120 bar
<b>Working temperature</b>	from -20° C to +100 ° C (except 0510)
<b>constituent materials</b>	body : sandblasted nickel plated brass handle : zamac or nickel plated brass needle : nickel plated brass stem nut : nickel plated brass (except 0510) lock nut : nickel plated brass washers : brass (except 0510) packing : graphite impregnated asbestos

## 0502 in-line double female, BSP parallel



sand blasted nickel plated brass

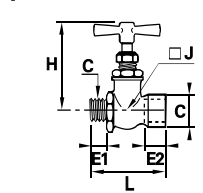


C	DN		E	H maxi	H mini	J	$\frac{L}{2}$	$\Delta$ kg
G1/8	4	0502 04 10	9	56	50	17	23	0,110
G1/4	4	0502 04 13	11	56	50	17	23	0,110
G3/8	6	0502 06 17	12	67	60	-	26	0,160
G3/8	9	0502 09 17	12	82	70	-	33	0,410

## 0501 in-line male/female, BSP parallel



sand blasted nickel plated brass

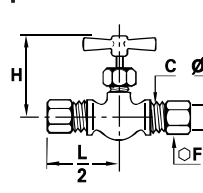


C	DN		E1	E2	H maxi	H mini	J	L	$\Delta$ kg
G1/8	4	0501 04 10	7	9	56	50	17	44	0,105
G1/4	4	0501 04 13	9,5	11	56	50	17	46	0,110
G3/8	6	0501 06 17	9,5	12	67	60	-	48	0,155

## 0510 in-line economy valve with compression couplings



sand blasted nickel plated brass



ØD	DN		C	F	H maxi	H mini	$\frac{L}{2}$	$\Delta$ kg
6	4	0510 04 06	10x100	13	46	42	29	0,090
8	5	0510 05 08	12x100	14	46	42	30	0,090
10	5	0510 05 10	16x150	19	46	42	31	0,110

The needle is sealed by an "O" ring  
Maximum operating pressure Ø4 : 100 bar  
Ø5 : 60 bar  
Working temperature : -15°C to +70°C