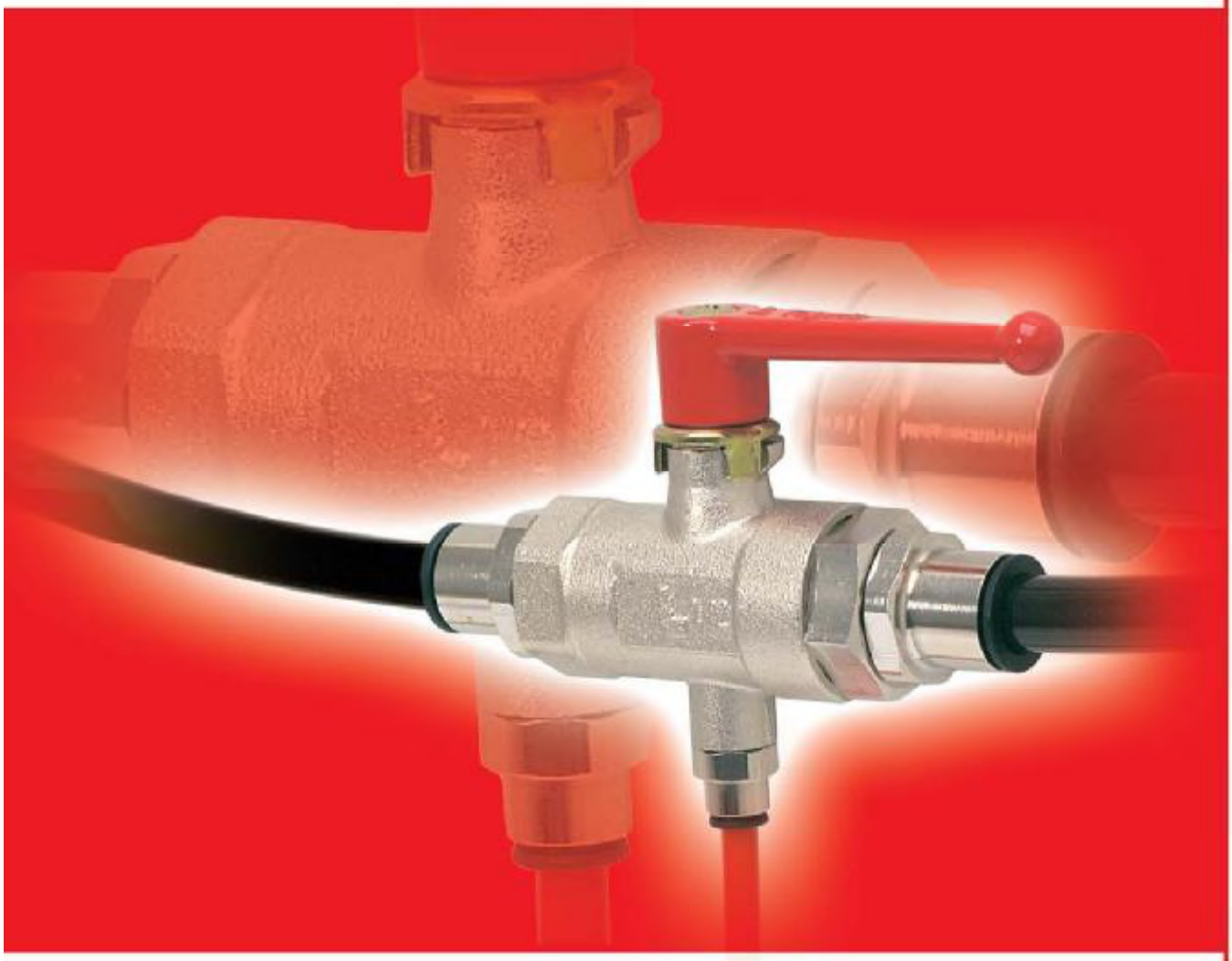
ball valves



legris connectic

principle of industrial 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.
In the closed position the pressure of the fluid presses the ball against the seal, further ensuring the integrity of the seal.
In principle, the higher the pressure, the better the seal.

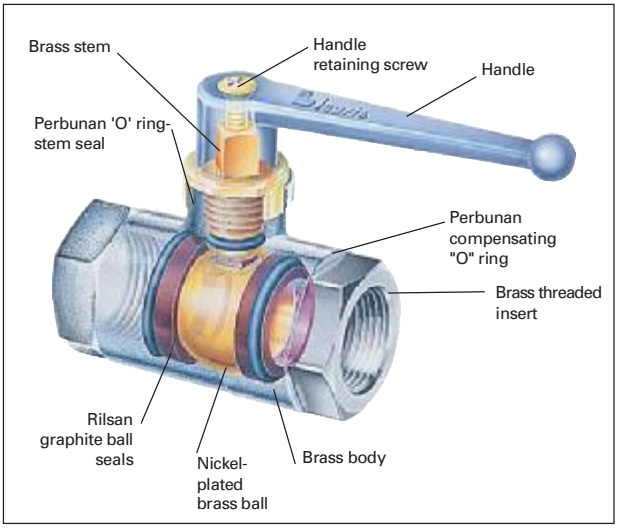
Reliability :

- 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.

In order to meet industry's requirements, Legris offers 3 other series of ball valves in addition to its standard range :

- **light series**, for low pressure applications
- **fluoropolymer series**, for maximum working temperature
- **stainless steel series**, for use with corrosive fluids and aggressive environments

technical specifications

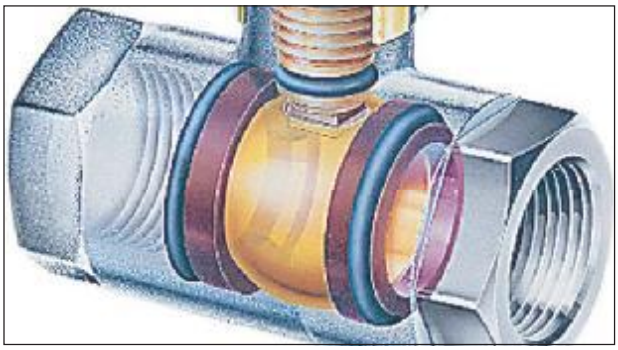


working fluids	see application table on pages R21 to R24					
working pressure	20 to 40 bar depending on the model					
working temperature	- 20° to + 80°C					
constituent materials	body : sand blasted nickel-plated brass ball : polished brass stem : brass retaining nut : brass ball seal : graphite impregnated rilsan stem seal : nitrile compensating "O" rings : nitrile					
maximum tightening torques of ball valves, standard range	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	

principal advantages
standard ball valves

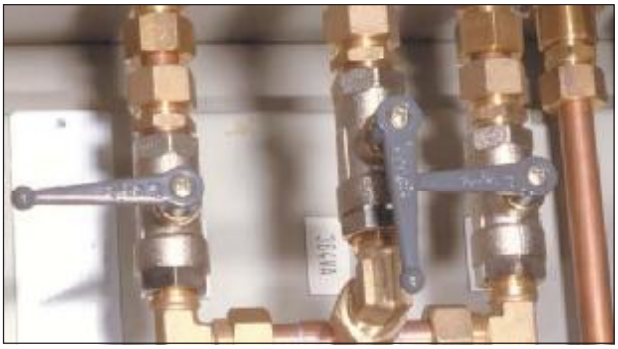
wide range

- various porting configurations : in-line, right angled, 2- way, 3-way
- additional features : vented, panel mounting, lockable, compression connection...
- large range of bore sizes from 4 to 50 mm
- threaded connections from G1/8 to G2



high performance

- full 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



long life

- **Legris ball valves** provide many thousands of trouble free operations due to the "O" rings compensating for seal wear

additional models to meet industry's requirements

- **semi-standard** ball valves, for special applications
- **light series** ball valves, for low pressure applications
- **fluoropolymer series** ball valves, for maximum working temperature
- **stainless steel series** ball valves, for corrosive fluids and aggressive environments

the complete range of ball valves

in-line ball valves

0402 Page R7

0446 Page R7

0401 Page R7

0400 Page R7

light series

0492 Page R8

0491 Page R8

0490 Page R8

0494 Page R8

fluoropolymer, in-line

4902 Page R9

lockable ball valves

0432 Page R10

0439 Page R10

0437 Page R11

0438 Page R11

venting ball valves

0489 Page R12

0449 Page R12

0469 Page R12

in-line with fixing holes

6402 Page R13

6401 Page R13

right-angled ball valves

0472 Page R14

0462 Page R14

0471 Page R14

0461 Page R14

in-line ball valves – 3 way

0482 Page R15

0448 Page R15

0452 Page R15

0483 Page R15

in-line with connectors

0411 Page R16

0414 Page R16

lenticular valves

4602 Page R17

light series with square stem

0497 Page R17

0496 Page R17

stainless steel ball valves

4832 Page R18

0465 Page R18

4812 Page R19

4810 Page R19

non-return ball valves

4890 Page R20

4891 Page R20

4892 Page R20

4895 Page R20

industrial ball valves

4402 Page R21

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 R21 to R24, 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.

séries semi-standards

identification		body		handle			ball		stem seal and compensating "O" ring			ball seal			examples of applications (refer to the usage table for working conditions)
Part number suffix	colour band 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 impre-gnated 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

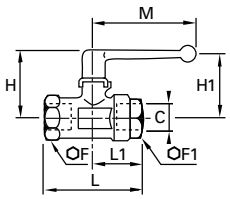
example of numbering systems for semi-standard ball valves

0402 13 21 22

- 0402 — type of ball valve
- 13 — diameter of passage
- 21 — thread code
- 22 — reference number of semi-standard valve

0402 double female

sand blasted nickel-plated brass body

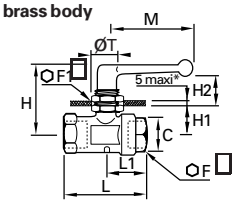


C	DN		F	F1	H	H1	L	L1	M	kg
G1/8	4	0402 04 10	-	14	35	29	44	25	48	0,091
G1/8	7	0402 07 10	19	19	38	31	51	27	48	0,167
G1/4	7	0402 07 13	19	19	38	31	53	28	48	0,157
G3/8	10	0402 10 17	24	24	45	43	59	31	69	0,230
G1/2	13	0402 13 21	27	27	47	44	67	34	69	0,291
G3/4	20	0402 20 27	32	38	63	54	80	39	108	0,690
G1"	23	0402 23 34	41	46	67	57	94	47	108	1,030
G1"1/4	32	0402 32 42*	55	60	97	115	112	59	180	2,433
G1"1/2	32	0402 32 49*	55	60	97	115	120	62	180	2,278
G1"1/2	40	0402 40 49*	55	55	104	-	111	55	190	2,558
G2"	40	0402 40 48*	70	70	104	-	122	61	190	2,754

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

0446 double female panel mounted

sand blasted nickel-plated brass body

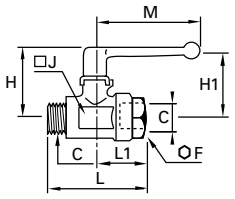


C	DN		F	F1	H	H1	H2	L	L1	M	T	kg
G1/8	4	0446 04 10	14	22	37	14	12	44	25	48	16,5	0,101
G1/4	7	0446 07 13	19	24	45	19	14	53	28	48	20,5	0,189
G3/8	10	0446 10 17	24	27	50	21	21	59	31	69	20,5	0,291
G1/2	13	0446 13 21	27	27	51	23	21	67	34	69	20,5	0,335

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

0401 male female

sand blasted nickel-plated brass body

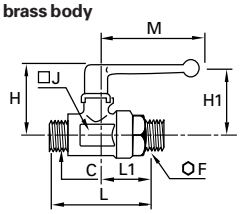


C	DN		F	H	H1	J	L	L1	M	kg
G1/8	4	0401 04 10	14	35	29	14	45	25	48	0,091
G1/8	5	0401 05 10	19	38	31	19	51	27	48	0,158
G1/4	7	0401 07 13	19	38	31	19	52	28	48	0,151
G3/8	10	0401 10 17	24	45	43	24	58	31	69	0,227
G1/2	13	0401 13 21	27	47	44	27	66	34	69	0,290
G3/4	18	0401 18 27	38	63	54	39	79	39	108	0,714
G1"	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 CE
maximum working pressure : 40 bar

0400 double male

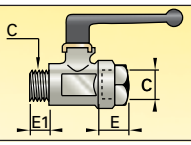
sand blasted nickel-plated brass body



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

length of female threads (E) and male BSPP threads (E1) 0402 – 0446 – 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		

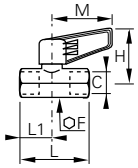
light series ball valves

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

technical specifications
- **maximum working pressure** : 12 bar
- **maximum temperature** : +80°C

0492 double female

nickel-plated brass body
polymer HR handle

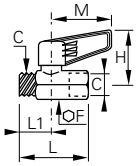


C	DN		F	H	L	L1	M	kg
G1/4	4	0492 04 13	17	34	39,5	17	35	0,071
G1/4	4	0492 04 13 64*	17	36	39,5	17	25	0,069
G3/8	7	0492 07 17	22	38	45	20	43	0,121
G1/2	10	0492 10 21	24	44	54	25	50	0,155
G3/4	13	0492 13 27	30	46	62	28	50	0,237

* Zamac short handle

0491 male and female

nickel-plated brass body
polymer HR handle

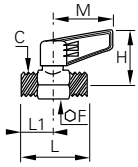


C	DN		F	H	L	L1	M	kg
G1/4	4	0491 04 13	17	34	39,5	17	35	0,071
G1/4	4	0491 04 13 64*	17	36	39,5	17	25	0,069
G3/8	7	0491 07 17	22	38	45	20	43	0,118
G1/2	10	0491 10 21	24	44	53	24	50	0,154
G3/4	13	0491 13 27	30	46	59	25	50	0,228

* Zamac short handle

0490 double male

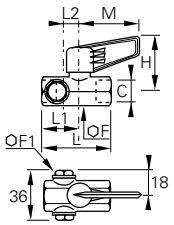
nickel-plated brass body
polymer HR handle



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

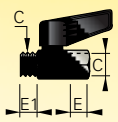
nickel-plated brass body
polymer HR handle



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 R17.*

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



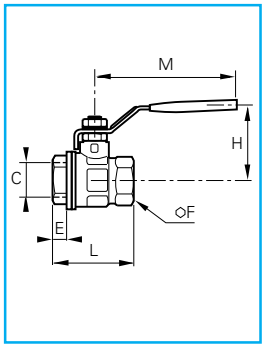
C	G1/4	G3/8	G1/2	G3/4
E	9	11	12	14
E1	7	8	10	12

in-line economy ball valve

This valve is designed for use where there is a requirement for medium pressure and when the fluid carried requires **fluoropolymer seals**. It is full-bore and is suitable for many applications, being both high quality and economical.

technical specifications
- working temperature : -20° to + 130°C
- constituent materials :
- body : sand blasted and nickel plated
- ball : nickel plated and chromed brass
- stem : nickel-plated brass
- handle : blue plastic coated steel
- ball seals and stem seals : fluoropolymer 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

*models with CE marking CE

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

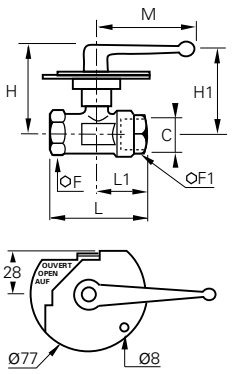
lockable ball valves

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



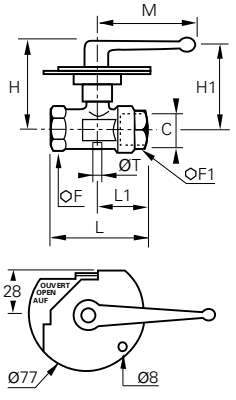
both fixed and moveable plates are zinc plated steel

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-removeable

0439 double female with vent

sand blasted nickel plated brass



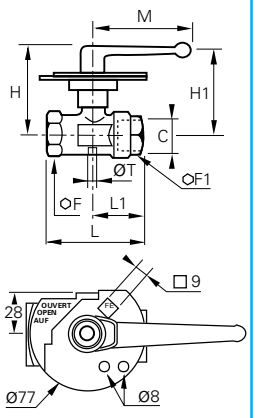
both fixed and moveable plates are zinc plated steel

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-removeable

0437 in-line double female vented lockable ball valve

sand blasted nickel-plated body



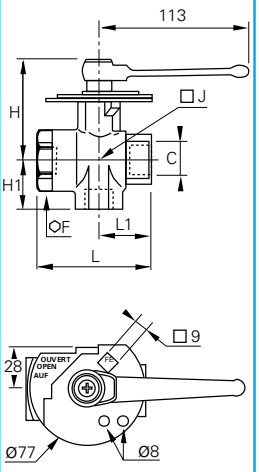
locking plates are zinc plated steel

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

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

nickel plated brass

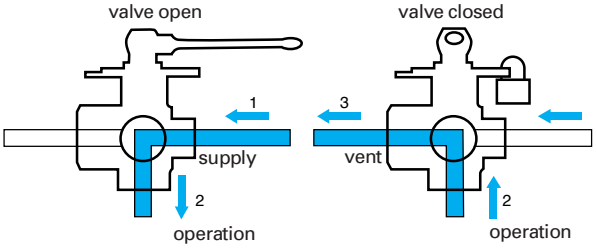


fixed plate : zinc plated steel
moveable plate : steel, grey epoxy coated

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

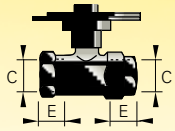
maximum working pressure : 20 bar

These valves are lockable in the closed position only.
Right angle ported ball allows flow :
Port **1** to port **2** of from port **2** to port **3**



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

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

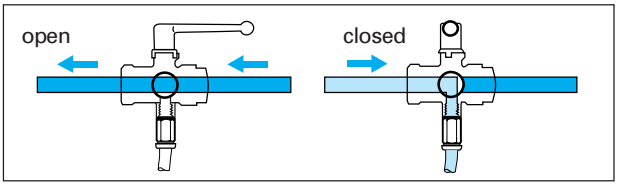
standard, in-line vented ball valves

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 :

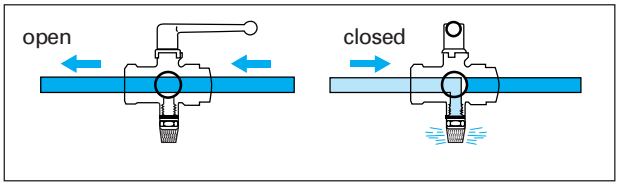
- **with threaded exhaust,** to allow discharge of downstream medium.
- **with pin-hole vent,** for applications with no special discharge requirement

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

with threaded exhaust = collection of purged media

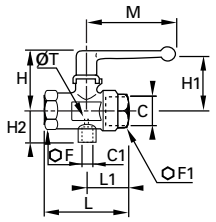


with silencer noiseless discharge to atmosphere



0489 double female BSPP valve with threaded exhaust

sand blasted nickel-plated body

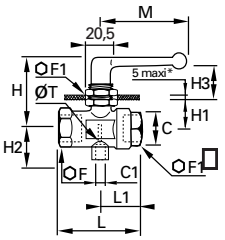


C	DN		C1	F	F1	H	H1	H2	L	L1	M	T	kg
G1/4	7	0489 07 13	M5x0,8	24	24	46	43	17	59	31	69	2	0,269
G3/8	10	0489 10 17	M5x0,8	24	24	46	43	17	59	31	69	2	0,294
G1/2	13	0489 13 21	G1/8	27	27	47	44	24	67	34	69	2	0,312
G3/4	18	0489 18 27	G1/4	32	38	63	54	33	80	39	108	2,5	0,754
G1"	23	0489 23 34	G1/4	41	46	67	57	37	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

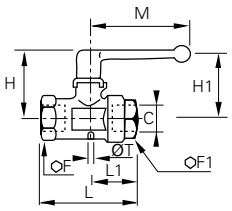


C	DN		C1	F	F1	H	H1	H2	H3	L	L1	M	T	kg
G1/4	7	0449 07 13	M5x0,8	24	27	50	20	17	21	59	31	69	2,5	0,316
G3/8	10	0449 10 17	M5x0,8	24	27	50	20	17	21	59	31	69	2,5	0,298
G1/2	13	0449 13 21	G1/8	27	27	52	23	24	21	67	34	69	4	0,354

maximum working pressure : 20 bar

0469 double female vented BSPP valve

sand blasted nickel-plated body

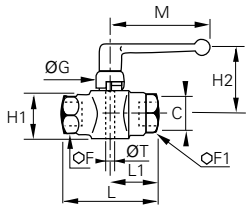


C	DN		F	F1	H	H1	L	L1	M	T	kg
G1/8	4	0469 04 10	-	14	35	29	44	25	48	1,5	0,100
G1/4	7	0469 07 13	24	24	46	43	59	31	70	2	0,258
G3/8	10	0469 10 17	24	24	46	43	59	31	70	2	0,246
G1/2	13	0469 13 21	27	27	47	44	67	34	70	2	0,292
G3/4	18	0469 18 27	32	38	63	54	80	39	108	2,5	0,700
G1"	23	0469 23 34	41	46	67	57	94	47	108	3	1,020

maximum working pressure : 40 bar

6402 double female

sand-blasted body nickel plated-brass

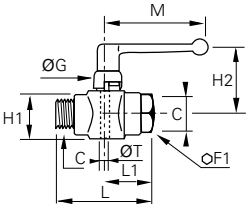


C	DN		F	F1	G	H1	H2	L	L1	M	T	kg
G1/8	4	6402 04 10	14	14	18	18	30	44	25	48	4x70	0,126
G1/4	7	6402 07 13	19	19	19	24	31	53	28	48	5x80	0,215
G3/8	10	6402 10 17	24	24	20	30	45	59	31	69	5x80	0,319
G1/2	13	6402 13 21	27	27	20	34	47	67	34	69	6x100	0,391
G3/4	20	6402 20 27	32	38	27	44	52	80	39	108	8x125	0,823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

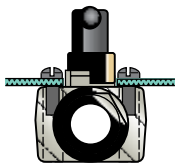
sand-blasted body nickel plated-brass



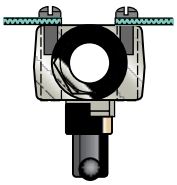
C	DN		F	G	H1	H2	L	L1	M	T	kg
G1/8	4	6401 04 10	14	18	18	30	45	25	48	4x70	0,126
G1/4	7	6401 07 13	19	19	24	31	52	28	48	5x80	0,215
G3/8	10	6401 10 17	24	20	30	45	58	31	69	5x80	0,319
G1/2	13	6401 13 21	27	20	34	47	67	34	69	6x100	0,391

maximum working pressure : 40 bar

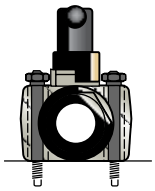
different methods of mounting



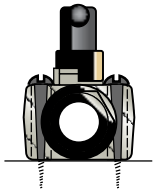
screw fixed mounting on a metal bulkhead with handle above the bulkhead



screw fixed mounting on a metal bulkhead with the complete valve below the bulkhead

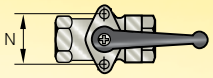


tapped fixing mounting onto a metal plate



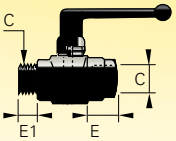
wood screw fixed mounting onto a wooden panel

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 6401 and 6402 ball valves

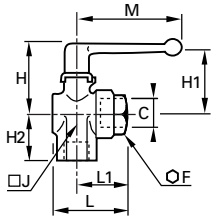


C	G1/8	G1/4	G3/8	G1/2	G3/4	G1“
E	8	12	12	15	16,5	19
E1	7	9	11	12		

ball valves with right angled flow

0472 double female

sand blasted nickel-plated brass body

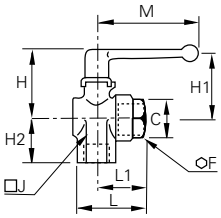


C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0472 04 10	14	35	29	18	14	34	25	48	0,095
G1/8	6	0472 06 10	19	38	31	20	22	37	27	48	0,178
G1/4	6	0472 06 13	19	38	31	24	22	38	28	48	0,177
G3/8	9	0472 09 17	24	45	43	27	25	46	31	69	0,262
G1/2	12	0472 12 21	27	47	44	33	29	49	34	69	0,315
G3/4	18	0472 18 27	38	59	51	40	39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

0462 double female with vent

sand blasted nickel-plated brass body + red handle

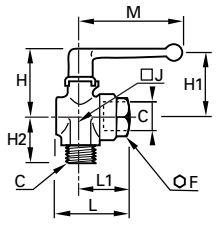


C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0462 06 10	19	38	31	20	22	37	27	48	0,175
G1/4	6	0462 06 13	19	38	31	24	22	38	28	48	0,175
G3/8	9	0462 09 17	24	45	43	27	25	46	31	69	0,265
G1/2	12	0462 12 21	27	47	44	33	29	49	34	69	0,310
G3/4	18	0462 18 27	38	59	51	40	39	60	39	108	0,730
G1"	23	0462 23 34	46	63	55	47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

maximum working pressure : 20 bar

0471 male and female

sand blasted nickel-plated brass body

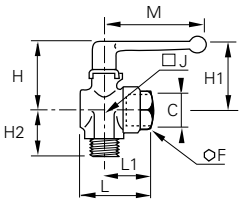


C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0471 04 10	14	35	29	19	14	34	25	48	0,095
G1/8	6	0471 06 10	19	38	31	22	22	37	27	48	0,168
G1/4	6	0471 06 13	19	38	31	25	22	38	28	48	0,171
G3/8	9	0471 09 17	24	45	43	28	25	46	31	69	0,259
G1/2	12	0471 12 21	27	47	44	32	29	49	34	69	0,308
G3/4	18	0471 18 27	38	59	51	37	39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

0461 male and female with vent

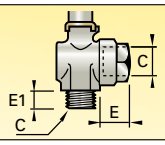
sand blasted nickel-plated brass body + red handle



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

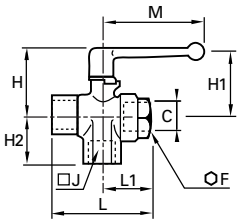
Thread length (E) and **BSP parallel** male thread (E1) for 0472 - 0462 - 0471 and 0461



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

0482 female right angled porting

sand blasted nickel-plated brass body

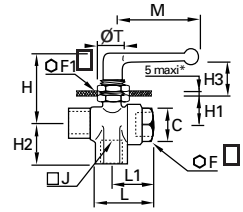


C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0482 04 10	14	35	29	18	14	44	25	48	0,110
G1/4	6	0482 06 13	19	38	31	24	22	53	28	48	0,187
G3/8	9	0482 09 17	24	45	43	27	25	59	31	69	0,285
G1/2	12	0482 12 21	27	47	44	33	29	67	34	69	0,351
G3/4	18	0482 18 27	38	59	51	40	39	80	39	108	0,386
G1"	23	0482 23 34	46	63	55	47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

maximum working pressure : 20 bar

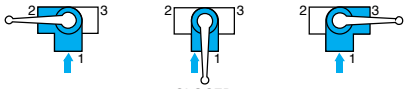
0448 panel mountable female right angled porting

sand blasted nickel-plated brass body



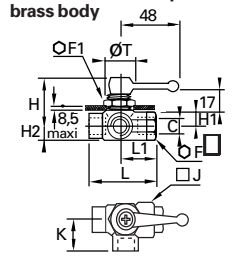
C	DN		F	F1	H	H1	H2	H3	J	L	L1	M	T	kg
G1/8	4	0448 04 10	14	22	37	14	18	12	14	44	25	48	16,5	0,122
G1/4	6	0448 06 13	19	24	45	19	24	14	22	53	28	48	20,5	0,224
G3/8	9	0448 09 17	24	27	50	21	27	21	25	59	31	69	20,5	0,324
G1/2	12	0448 12 21	27	27	51	23	33	21	29	67	34	69	20,5	0,398

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



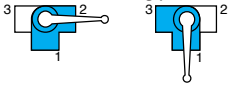
0452 panel mountable female equal plane porting

sand blasted nickel-plated brass body



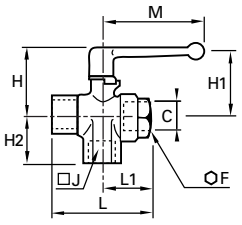
C	DN		F	F1	H	H1	H2	J	K	L	T	kg
G1/8	4	0452 04 10	14	22	39	10	8	16	18	44	25	19	0,316
G1/4	6	0452 06 13	19	24	40	11	11	23	24	53	28	20	0,298

maximum working pressure : 20 bar



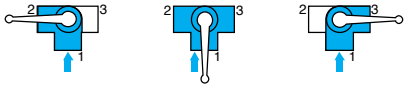
0483 female right angled porting without closed position

sand blasted nickel-plated brass body

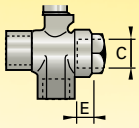


C	DN		F	H	H1	H2	J	L	L1	M	kg
G1/8	4	0483 04 10	14	35	29	18	14	44	25	48	0,102
G1/4	6	0483 06 13	19	38	31	24	22	53	28	48	0,187
G3/8	9	0483 09 17	24	45	43	27	25	59	31	69	0,283
G1/2	12	0483 12 21	27	47	44	33	29	67	34	69	0,352
G3/4	18	0483 18 27	38	59	51	40	39	80	39	108	0,712
G1"	23	0483 23 34	46	63	55	47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

maximum working pressure : 20 bar



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

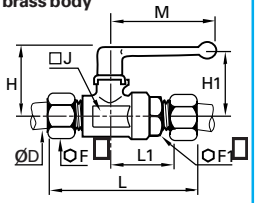


C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E	8	12	12	15	16,5	19

standard in-line valves with tube couplings

0411 with two couplings fitted for use with steel tube

sand blasted nickel-plated brass body

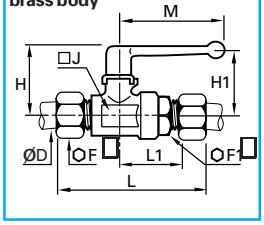


ØD	DN		F	F1	H	H1	J	L	L1	M	kg
6	4	0411 04 06	14	19	38	31	19	76	30	48	0,183
8	6	0411 06 08	17	19	38	31	19	77	30	48	0,182
10	7	0411 07 10	19	19	38	31	19	78	31	48	0,207
12	10	0411 10 12	22	24	45	43	24	85	36	69	0,312

maximum working pressure : 40 bar

0414 with two couplings fitted with double taper rings

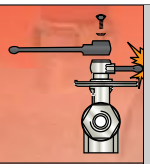
sand blasted nickel-plated brass body



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

If movement of the handle is obstructed, the handle may be re-fitted for use in the opposite direction.



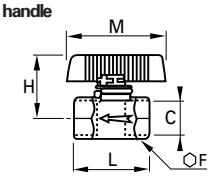
lenticular shut-off valves

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	kg
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

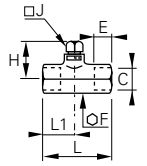
light series ball valves with square stem

Light series ball valves are usable for the passage of many fluids at low pressure and temperatures. Their constituent materials are the same as for the standard series.

technical specifications :
- maximum working pressure : 12 bar
- maximum working temperature : + 80°C

0497 double female with square stem

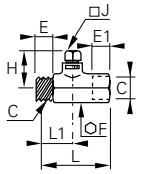
sand blasted brass body



C	DN		E	F	H	J	L	L1	kg
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

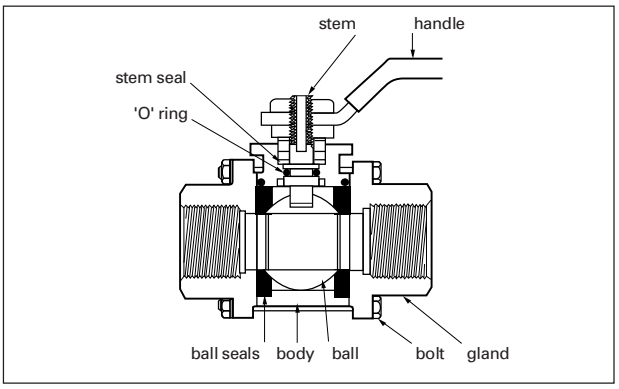
0496 male and female with square stem

sand blasted brass body



C	DN		E	E1	F	H	J	L	L1	kg
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

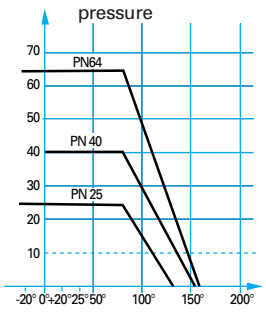
stainless steel series ball valves



Stainless steel series ball valves are designed for use with corrosive fluids and in aggressive environments.
Full bore, their 3-piece construction allows the valve to be disassembled in situ, to facilitate maintenance.
They are suitable for higher pressure and temperature applications.

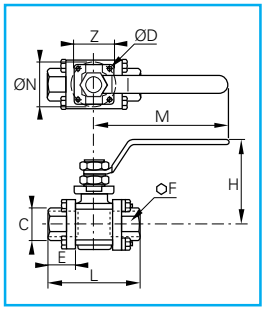
- **constituent materials** :
- body, ball, ports, stem : stainless steel AISI 316
- handle, lock washer, stop pin : stainless steel AISI 304
- nuts, packing washer : stainless steel AISI 303
- screw : stainless steel AISI 305
- ball seal, stem seal, anti-friction washer : PTFE
- "O" ring : FKM

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



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	36	0,370
3/4	20	4832 20 27	40	5,5	22,5	32	68	76	131,5	42	42	0,555
1"	25	4832 25 34	40	6	27	41	78,5	92	174,5	42	42	1,035
1"1/4	32	4832 32 42*	25	5,5	30	50	83,5	106,5	174,5	42	42	1,465
1"1/2	40	4832 40 49*	25	6,5	31	55	100	116	250,5	50	50	1,995
2"	50	4832 50 48*	25	6,5	36	70	107	136	250,5	50	50	3,140

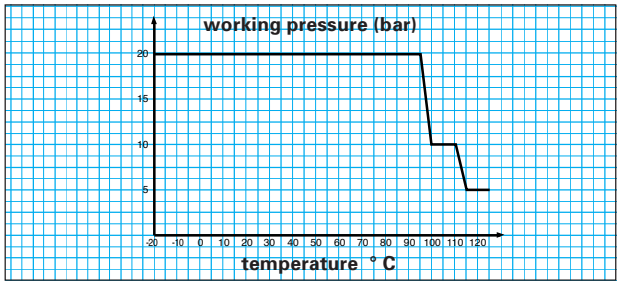
*models with CE marking CE

compact stainless steel ball valves AISI 303

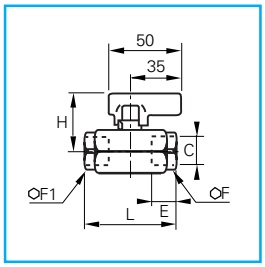
Designed for use with many aggressive and corrosive fluids at pressures not exceeding 20 bar.

- **constituent materials** :
- 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

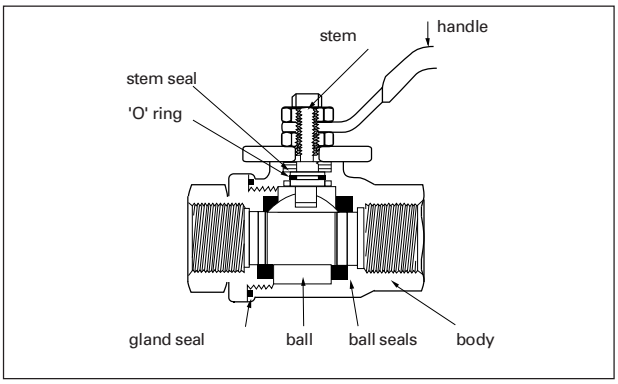


0465 double female



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

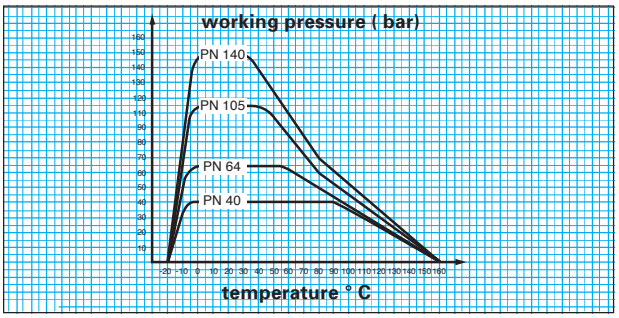
stainless steel series ball valves



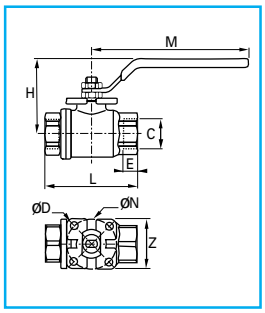
Stainless steel series ball valves are designed for use with corrosive fluids and in aggressive environments. Full bore and of one piece construction in stainless steel AISI 316, they are suited to higher pressure and high temperature applications. Therefore they can be used for a wide range of industrial applications.

● **constituent materials :**
- body, ball, ports, stem : stainless steel AISI 316
- handle, lock washer, stop pin : stainless steel AISI 304
- nuts, gland seal : stainless steel AISI 303
- ball seal, stem seal, anti-friction washer : PTFE
- "O" ring : FKM

pressure and temperature resistance of stainless steel series valves 4812 and 4810



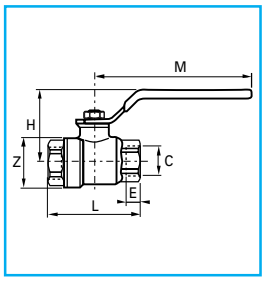
4812 double female, one piece



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

*models with CE marking CE

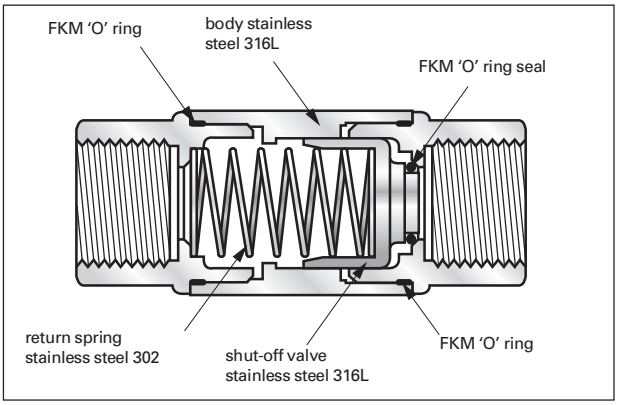
4810 double female, economy version



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

Models 4832 - 4812
This valve has 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).

non-return valves, all fluids and stainless steel



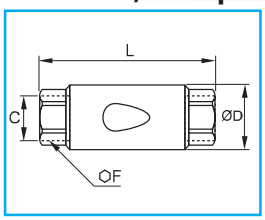
Legris stainless steel non-return valves allow air to pass in one direction whilst blocking flow in the other direction. Robust and extremely compact, they are suitable for use as a safety item in all fluids circuits. They are ideal for use in severe conditions and in aggressive environments.

Operation : a stainless steel valve blocks the fluid passage, when the pressure differential is lower than 0,25 bar. Connection is by use of an allen key, upstream of the circuit.

technical specifications
working pressure: 0,5 to 40 bar
working temperature: - 20° to + 180°C

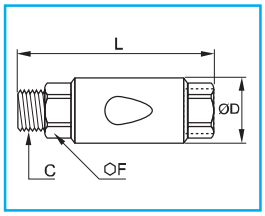
model	water flow at 6 bar	Kv
1/8	18,88 Nl/min	1,60
1/4	19,91 Nl/min	1,69
3/8	35,54 Nl/min	3,01
1/2	36,50 Nl/min	3,10
3/4	65,86 Nl/min	5,59
1"	92,60 Nl/min	7,86

4890 unidirectional, female-female, BSP parallel



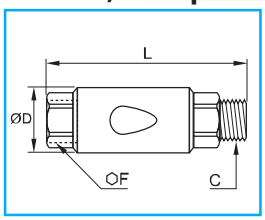
C	DN		ØD	F	L	kg
G1/8	10	4890 10 10	22	17	50	0,084
G1/4	10	4890 13 13	22	17	50	0,074
G3/8	15	4890 17 17	30	22	67	0,182
G1/2	15	4890 21 21	30	25	71	0,196
G3/4	20	4890 27 27	42	32	84	0,288
G1"	25	4890 34 34	42	38	90	0,416

4891 unidirectional, male-female, BSP parallel



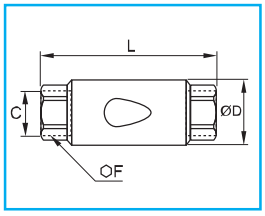
C	DN		ØD	F	L	kg
G1/8	10	4891 10 10	22	17	56	0,086
G1/4	10	4891 13 13	22	17	58	0,082
G3/8	15	4891 17 17	30	22	75	0,190
G1/2	15	4891 21 21	30	25	79	0,280
G3/4	20	4891 27 27	42	32	98	0,302
G1"	25	4891 34 34	42	38	104	0,424

4892 unidirectional, female-male, BSP parallel



C	DN		ØD	F	L	kg
G1/8	10	4892 10 10	22	17	56	0,086
G1/4	10	4892 13 13	22	17	58	0,082
G3/8	15	4892 17 17	30	22	75	0,190
G1/2	15	4892 21 21	30	25	79	0,280
G3/4	20	4892 27 27	42	32	98	0,302
G1"	25	4892 34 34	42	38	104	0,424

4895 unidirectional, female-female, NPT



C	DN		ØD	F	L	kg
1/8	10	4895 11 11	22	18	50	0,084
1/4	10	4895 14 14	22	18	54	0,080
3/8	15	4895 18 18	30	22	73	0,198
1/2	15	4895 22 22	30	25	77	0,213

On request, we can provide you with male/female models with NPT threads and other types of seal (nitrile, EPDM, FDA).

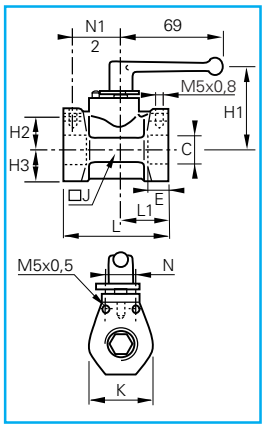
high pressure ball valves

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

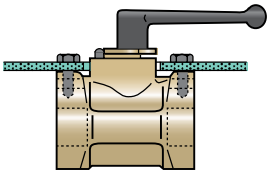
● **constituent materials**
- body : hot brass stamped
- ball : polished brass
- ports : steel threaded
- stem : stainless steel
- handle : zamak
- "O" ring, stem seal and compensating "O" ring : nitrile

4402 double female

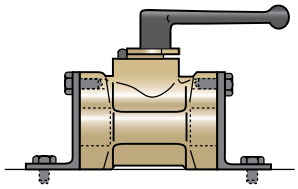


C	DN		E	H1	H2	H3	J	K	L	L1	N	N1/2	kg
G1/4	7	4402 07 13	12	50	13	15	30	30	58	25	15	20	0,374
G3/8	10	4402 10 17	12	54	23	19	36	39	72	36	20	30	0,756
G1/2	13	4402 13 21	15	56	23	21	40	42	79	36	20	30	0,839

different methods for fixing



suspended mounting,
fixed by two screws



surface mounting,
fixed by brackets and screws

Legris ball valves – application table

Standard and semi-standard ranges

The following table covers ranges 0400 – 0401 – 0402 – 0411 – 0414 – 0432 – 0439 – 0469 – 0489 – 6401 – 6402.

For others part numbers please refer to the corresponding page of the catalogue for working pressures. Fluids and temperatures are as shown below

To find the maximum pressure of the valves below, with a 32 mm passage, divide by 2.

How to find the fluid, look under :

1. First letter of the first word
2. First letter of the second word
3. In the synonym column

For the fluids, please consult us.

PRODUCT	SYNONYMS / USES	Maximum Pressure kg/cm²	Temperature in C°		Standard	semi-standard					
			min.	max.		20	22	26	27	30	32
ABSOLUTE ALCOHOL		20	-20	Boi. pt							●
ACETONE AND OTHER CETONES	Methylacetyl - Propnone,	20	-20	+60							●
	Dimethyllcetone -Ketopropane										●
ACETOPHENONE	Phenylmethylketone,	20	-20	+60							●
	Hypone Benzaylmethide	20	-20	+60							●
ACETYL - ACETONE											●
ACETYLENE (GAS)		20	-20	+60	●						
ALUMINA (LIQUID, PASTE OR SUSPENSION)	Aluminium Oxide, Al2o3	40	-20	+90	●						
AMYL ALCOHOL	Methyl Butanols And Pentanols	20	-20	Boi. pt							●
ANIMAL OIL		20	+5	+200				●			
ANTIFREEZE OR GLYCOL	Diluted Glycol Or Ethanediol	40	-20	+40	●						
ARGON GAS		20	-20	+60	●						
AUTOMOTIVE - BRAKE FLUID		20	-20	+90							●
BARIUM HYDROXIDE	Barium Hydrate	20	-20	+40							●
BENZALDEHYDE	Benzoicoldehyde, Benzol Hydride	20	-20	+60							●
BENZENE (OR BENZOL)	Benzene, Benzole, Benzine	20	-20	+60							●
BENZYL ALCOHOL	Hydroxytoluene Alphaphenyl,	20	-20	Boi. pt			●				
	Carbinol Pehnmethoyol										●
BORAX (PASTE OR LIQUID)		20	-20	+60							●
BROMOCHLOR TRIFLUOETHANE	Freon	20	-20	+60				●			
BUTADIENE (HYDROCARBON)	Erytrene Or Vinyl Ethylene	20	-20	+60					●		
BUTANE		20	-20	+60	●						
BUTANOL	Butyl-Alcohol	20	-20	Boi. pt			●				
BUTYL-ALCOHOL	Butanol 1	20	-20	Boi. pt			●				
BUTYLENE (HYDROCARBON)	Butene	20	-20	+60			●				
CARBON DIOXIDE		40	-20	+60	●						
CASTOR OIL		40	-20	+90	●						
COLZA OIL	Oil Seed Rape	40	-20	+90	●						
COMPRESSED AIR (GAS)		40	-20	+100	●						
COPPER SULPHATE, LIME, SODIUM CARBONATE	Insecticide	20	0	+40	●						
CREOSOTE OIL		20	-20	+60					●		
CRESOLS	Or Cresvsois	20	-20	+60					●		
CUTTING OIL		40	-20	+90	●						
DECALIN (HYDROCARBON, SOLVENT)	Decahydronaphtalene (Terpene)	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.

Legris ball valves – application table

Standard and semi-standard ranges

PRODUCT	SYNONYMS / USES	Maximum Pressure kg/cm²	Temperature in C°		Standard	semi-standard					
			min.	max.		20	22	26	27	30	32
DETERGENT SOLUTION	Cleaning Fluid	20	-20	+100							●
DIACETONE ALCOHOL		20	-20	Boi. pt							●
DIESEL OIL		40	-20	+90	●						
DI-ESTERS	Synthetic Lubricant	20	-20	+90			●				
DI-ISO-BUTYLENE	Solvent For Resin Preparation	20	-20	+60					●		
DI-PENTANE	Aliphatic Hydrocarbon	20	-20	+60			●				
DI-PENTENE	Solvent Varnish	20	-20	+60			●				
DI-PHENYL-OXIDE (MOULDING DETERGENT)	Coumarone Or Biphénylene Oxyde	20	-20	+60					●		
DISTILLED WATER		40		+90	●						
EDIBLE FAT	Liquid Or Paste Up To 200 °C	20	+5	+200				●			
EDIBLE OIL	Up To 200 °C	20	+5	+200				●			
ERYTRENE (SEE BUTADIENE)	Or Hydrocarbon Vinyl-Ethylene	20	-20	+60					●		
ETHANE (HYDROCARBON GAS)		20	-20	+60					●		
ETHANE GAS CH3 CH3		20	-20	+60	●						
ETHANEDIOL (SEE GLYCOL) ANTIFREEZE	Ordinary Glycol Or Ethylene-Glycol	20	-20	+120							●
ETHYL ALCOHOL		20	-20	Boi. pt							●
ETHYL ALCOHOL	Ethanol	20	-20	+60							●
ETHYLENE GLYCOL	Antifreeze Lubricant	20	-20	+120							●
FATTY ALCOHOL		20	-20			●					
FLAX OIL		40	-20	+90	●						
FUEL		40	-20	+40	●						
FUEL OIL		40	-20	+40	●						
GLYCERIN	Glycerol Or Propanetriol	20	-20	+40	●						
GLYCOL (FOR ANTIFREEZE, LUBRICANT)	Ethylene Glycol	40	-20	+40	●						
GRAPHITE (IN SUSPENSION WITH WATER, OIL, FAT)		40	-20	+90	●						
HELIUM (GAS)		20	-20	+60						●	
HEPTANAL		20	-20	+50	●						
HEXANE (SOLVENT)		20	-20	+60						●	
HIGH OCTANE PETROL	Automotive or Aerospace	20	-20	+40		●					
HYDRAULIC OIL	Petroleum Based	40	-20	+90	●						
HYDROCARBONS - AROMATIC		20	-20	+60			●				
HYDROGEN GAS - AMBIENT TEMPERATURE	Completely Degreased Valve	20	-20	+60						●	
HYDROGEN PEROXID		40	-20	+30		●					
INK	Printing	20	-20	+60					●		
ISO-BUTANE	Methyl, Propane	20	-20	+60					●		
ISO-OCTANE		20	-20	+60					●		
ISOPROPYL ALCOHOL	Propanol 2	20	-20	Boi. pt							●
KRYPTON GAS KR		20	-20	+60	●						
LIGHTING GAS		20	-20	+40	●						
LUBRICATING OIL	Petrol based	40	-20	+90	●						

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/cm²	Temperature in C°		Standard	semi-standard					
			min.	max.		20	22	26	27	30	32
METHANE GAS CH4		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 (VEGETABLE, BEES,		40	-20	+90				●			
CARNAUCA, CHINA, LIGNITE) WAXES									●		
NATURAL GAS		20	-20	+40	●						
NEON GAS NE		20	-20	+60	●						
NITROGEN GAS N2		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 (LQUID 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	Phenic Or Carbonic Acid	20	-20	+60				●			
OR AQUEOUS SOLUTION)											
PROPANE		20	-20	+60	●						
PROPANOLS 1 AND 2	Propyl Alcohol And Isopropyl	20	-20	Boi. pt	●						
PROPENE OR PROPILENE	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		40	+10	+40	●						
(GLUE, COSMETICS) C6H10O5											
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.

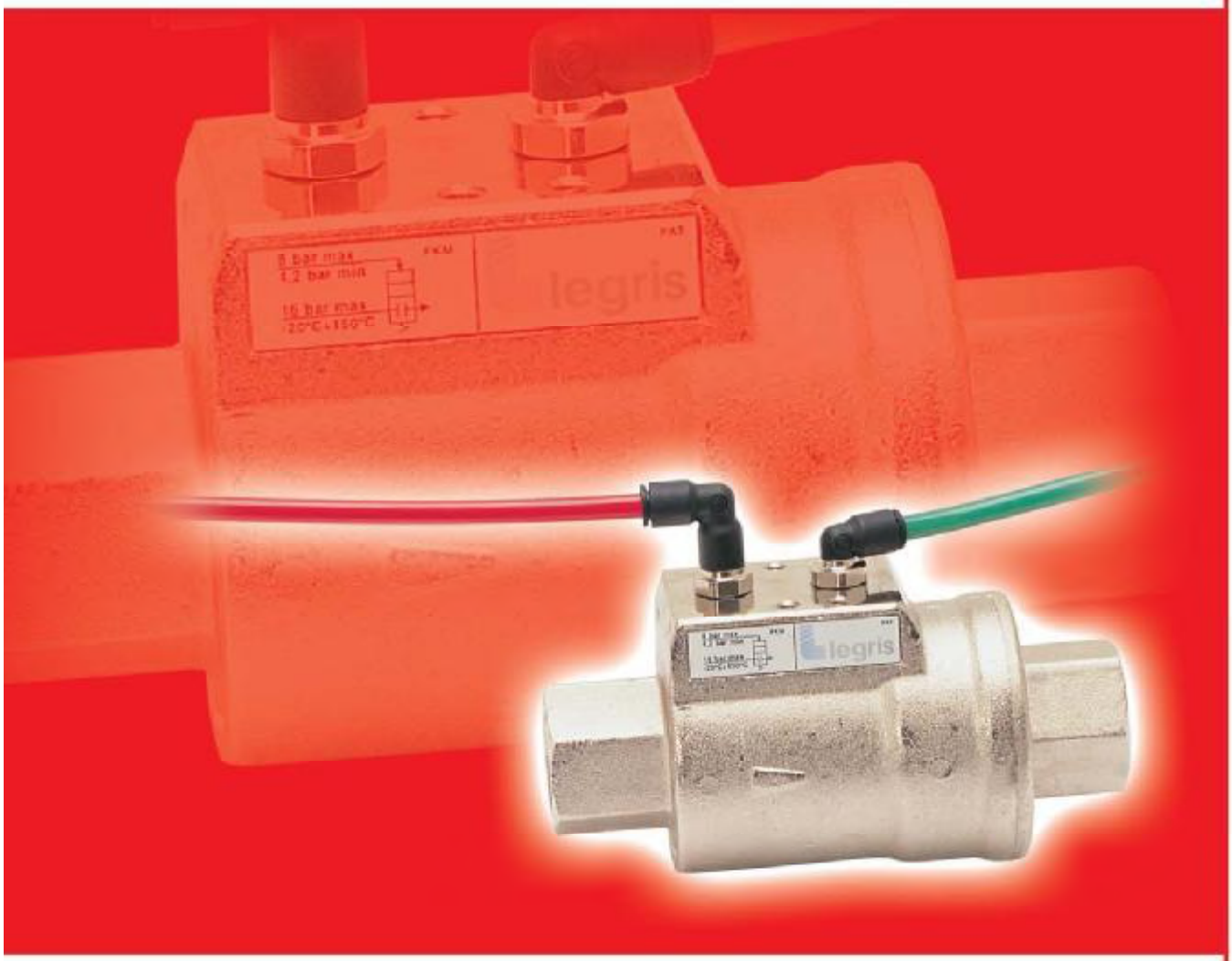
Legris ball valves – application table

Standard and semi-standard ranges

PRODUCT	SYNONYMS / USES	Maximum Pressure kg/cm²	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.

piloted
axial valve

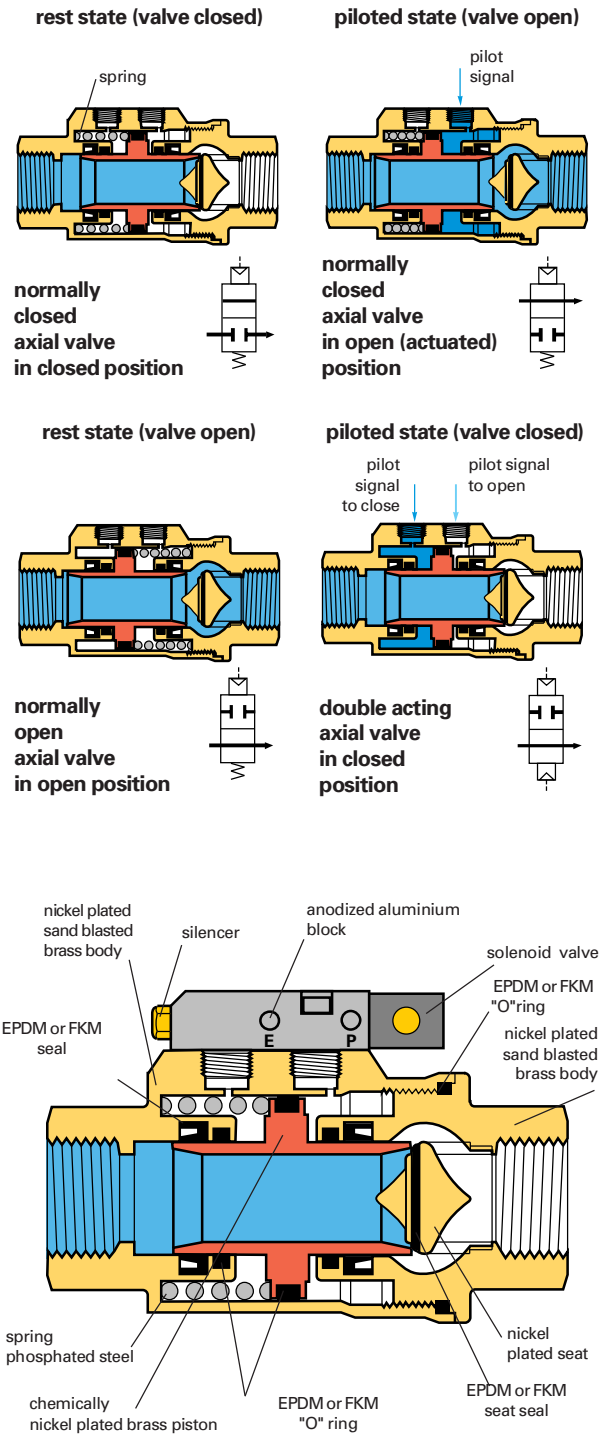


legris
connectic

principle of the Legris Axial Valve

operation

Depending upon the operational requirement, air is passed into the actuation chamber, as shown below, in order to open or close the valve.



Designed with a view to overcoming the limitations of traditional actuators, the **Legris** axial valve offers the functions of a valve fitted with an actuator.
A pneumatic automation device is fitted directly into the valve.

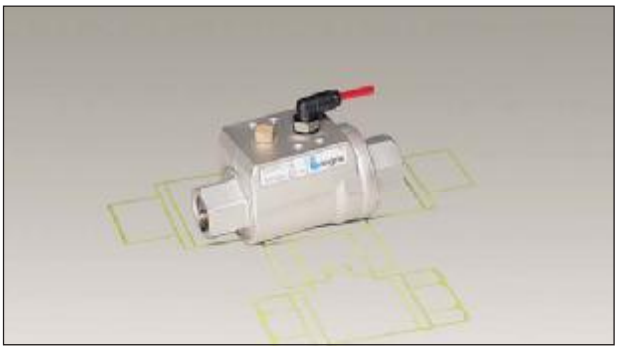
Its operation is not affected by the up/downstream pressures of the transported fluids, which guarantees the user total safety and a vastly simplified choice.
This innovative concept is a logical extension of the **Legris** hand actuated ball valve range.

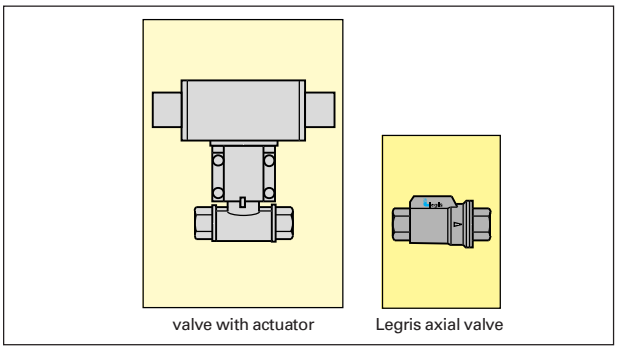
The range consists of the following models to suit different applications :
- normally closed axial valves.
- normally open axial valves.
- double acting axial valves
- all are available with EPDM or FKM seals.

technical characteristics

transported fluid	- all fluids compatible with : • **FKM** : water, air, oils, greases... • **EPDM** : hot water, air, steam...
maximum working pressure	10 bar
maximum temperature	with FKM seal + 135° C with EPDM seal + 120° C
minimum temperature	- 20°C
vacuum capability	740 mm Hg (97,4% vacuum).
pilot fluid	filtered compressed air
pilot pressure	NC and NO : 4,2 to 8 bar double acting : 3 to 8 bar

principal advantages of the axial valve



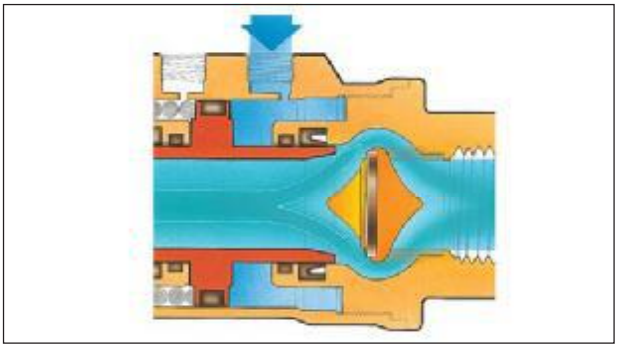


compactness

- the axial valve is **extremely compact** and needs up to 50% less space than an actuated valve.
- no external moving parts

costs less than an actuated valve

- a **single unit** wich controls the following two functions at the same time :
  - opening/closing of circuit.
  - actuation of this function.
- reduced air consumption



high performance

- full flow
- compatible with numerous industrial fluids
- **operates** independently of the up/ downstream pressures of the fluids transported.

staightforward reliable installation

- **ready to fit** and does away with the valve + connector + actuator fitting time
- easy to assemble, in any position
- designed for use with **Legris LF 3000** instant fittings when piping up

axial valve

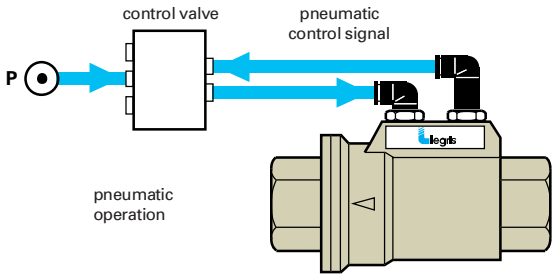
which control method ?

The **Legris** axial valve offers three different control methods dependant on the type of installation:

pneumatic control

example : 4222 axial valve, double acting

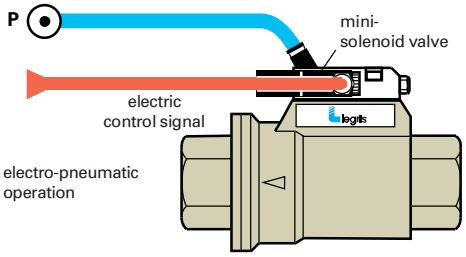
-on-site control.
-for repetitive on/off cycles.
-remote control in case of difficulty of access to the machine.



electro-pneumatic control

example :
4202 axial valve, normally closed
+ 4298 mini-solenoid valve and subbase

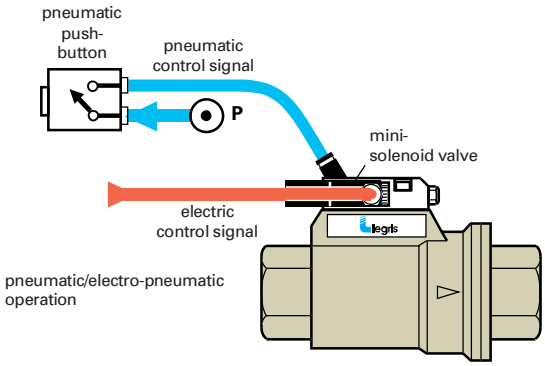
- for industrial automation requiring remote control.



pneumatic/electro-pneumatic dual control

example :
4212 axial valve, normally open
+ 4298 mini-solenoid valve and subbase
+ 4299 switch

-dual control structure
-for increased safety :
prevents all localized operating errors.



the complete range of axial valves

4202
N.C. version
Page T6

4212
N.O. version
Page T6

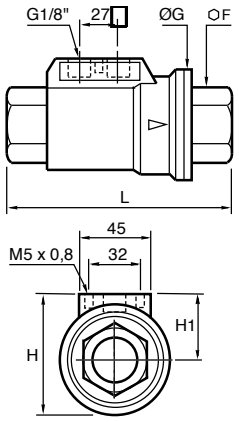
4222
D.A. version
Page T6

4298
subbase
Page T7

4299
Page T7

4202 normally closed, double female, BSP parallel

sand blasted nickel plated brass body



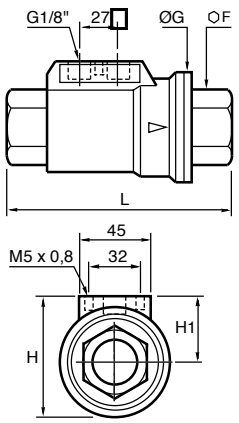
C	DN	FKM seal	F	G	H	H1	L	kg
G3/8	10	4202 10 17 20	22	46	54	31	98	0,814
G1/2	15	4202 15 21 20	27	52	60	35	112	1,085
G3/4	20	4202 20 27 20	33	64	70	38	135	1,634
G1"	25	4202 25 34 20	41	69	76	41,5	143	2,024
G1"1/4	32	4202 32 42 20*	50	86	91	48	165	3,301
G1"1/2	40	4202 40 49 20*	60	96	102	54	180	4,180
G2"	50	4202 50 48 20*	75	109	115	60,5	207	6,360

C	DN	EPDM seal	F	G	H	H1	L	kg
G3/8	10	4202 10 17 30	22	46	54	31	98	0,814
G1/2	15	4202 15 21 30	27	52	60	35	112	1,085
G3/4	20	4202 20 27 30	33	64	70	38	135	1,634
G1"	25	4202 25 34 30	41	69	76	41,5	143	2,024
G1"1/4	32	4202 32 42 30*	50	86	91	48	165	3,301
G1"1/2	40	4202 40 49 30*	60	96	102	54	180	4,180
G2"	50	4202 50 48 30*	75	109	115	60,5	207	6,360

Pilot port : 1/8" BSP parallel
Complete with M5 silencer

4212 normally open, double female, BSP parallel

sand blasted nickel plated brass body



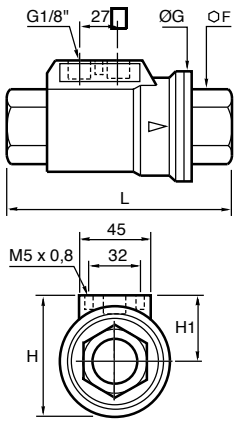
C	DN		F	G	H	H1	L	kg
G3/8	10	4212 10 17 20	22	46	54	31	98	0,814
G1/2	15	4212 15 21 20	27	52	60	35	112	1,085
G3/4	20	4212 20 27 20	33	64	70	38	135	1,634
G1"	25	4212 25 34 20	41	69	76	41,5	143	2,024
G1"1/4	32	4212 32 42 20*	50	86	91	48	165	3,301
G1"1/2	40	4212 40 49 20*	60	96	102	54	180	4,180
G2"	50	4212 50 48 20*	75	109	115	60,5	207	6,360

C	DN	EPDM seal	F	G	H	H1	L	kg
G3/8	10	4212 10 17 30	22	46	54	31	98	0,814
G1/2	15	4212 15 21 30	27	52	60	35	112	1,085
G3/4	20	4212 20 27 30	33	64	70	38	135	1,634
G1"	25	4212 25 34 30	41	69	76	41,5	143	2,024
G1"1/4	32	4212 32 42 30*	50	86	91	48	165	3,301
G1"1/2	40	4212 40 49 30*	60	96	102	54	180	4,180
G2"	50	4212 50 48 30*	75	109	115	60,5	207	6,360

Pilot port : 1/8" BSP parallel
Complete with M5 silencer

4222 double acting, double female, BSP parallel

sand blasted nickel plated brass body



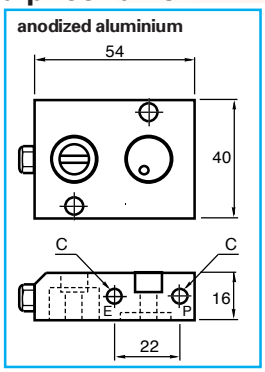
C	DN	FKM seal	F	G	H	H1	L	kg
G3/8	10	4222 10 17 20	22	46	54	31	98	0,814
G1/2	15	4222 15 21 20	27	52	60	35	112	1,085
G3/4	20	4222 20 27 20	33	64	70	38	135	1,634
G1"	25	4222 25 34 20	41	69	76	41,5	143	2,024
G1"1/4	32	4222 32 42 20*	50	86	91	48	165	3,301
G1"1/2	40	4222 40 49 20*	60	96	102	54	180	4,180
G2"	50	4222 50 48 20*	75	109	115	60,5	207	6,360

C	DN	EPDM seal	F	G	H	H1	L	kg
G3/8	10	4222 10 17 30	22	46	54	31	98	0,814
G1/2	15	4222 15 21 30	27	52	60	35	112	1,085
G3/4	20	4222 20 27 30	33	64	70	38	135	1,634
G1"	25	4222 25 34 30	41	69	76	41,5	143	2,024
G1"1/4	32	4222 32 42 30*	50	86	91	48	165	3,301
G1"1/2	40	4222 40 49 30*	60	96	102	54	180	4,180
G2"	50	4222 50 48 30*	75	109	115	60,5	207	6,360

Pilot port : 1/8" BSP parallel

Fixing plan in accordance with recommendations in force (NAMUR). *Models with CE marking CE

4298 subbase for solenoid pilot valve

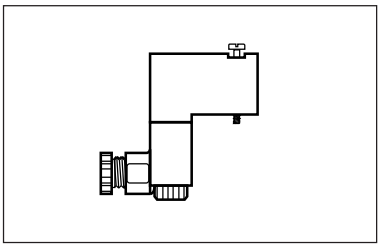


C		kg
M5x0,8	4298 00 01	0,094

The subbase is fitted directly to the axial valve and permits the mounting of a 15x15 solenoid valve.

Supplied with 2 fixing bolts and silencer

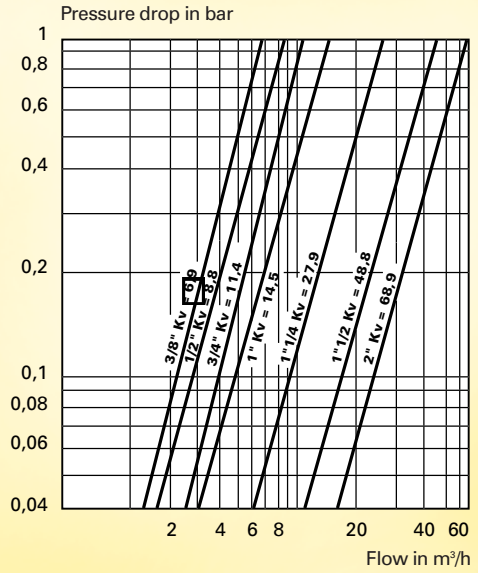
4298 mini-solenoid valve 1W/1,2VA



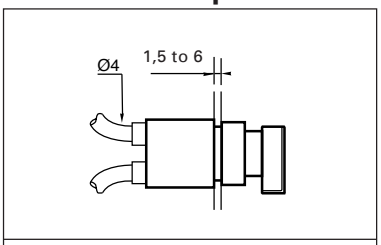
voltage	
24V ⎓	4298 01 01
24V ∿	4298 01 02
110V ∿	4298 02 01
220V ∿	4298 02 02

Flow curve / Pressure drop / Kv

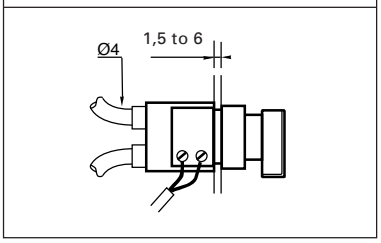
Kv in m³/h
(water at ambient temperature, under a differential pressure of one bar)



4299 pneumatic button/ electro-pneumatic



1 pneumatic contact	
standard	4299 01 01
with key	4299 01 02

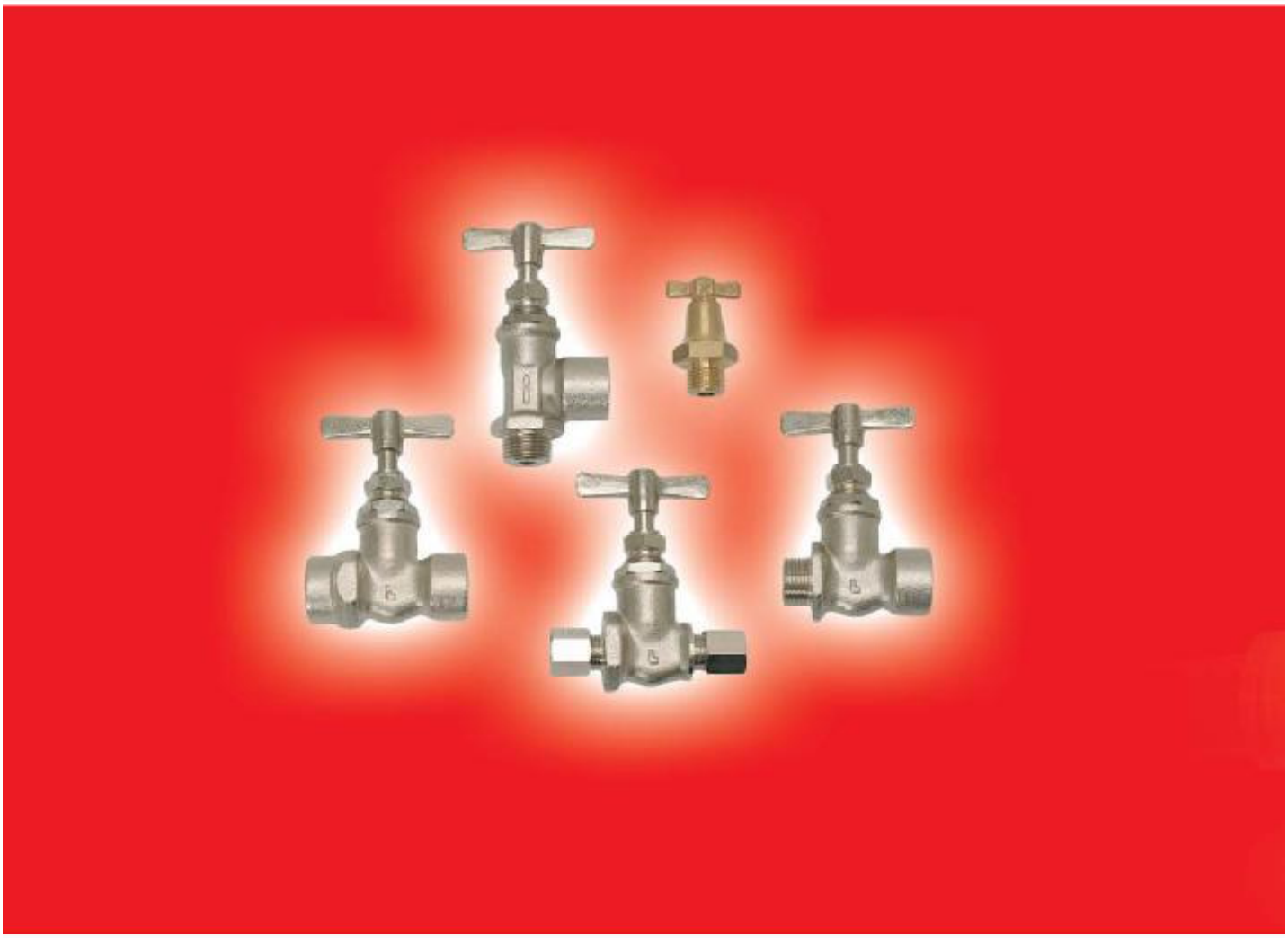


1 electro-pneumatic contact	
standard	4299 02 01
with key	4299 02 02

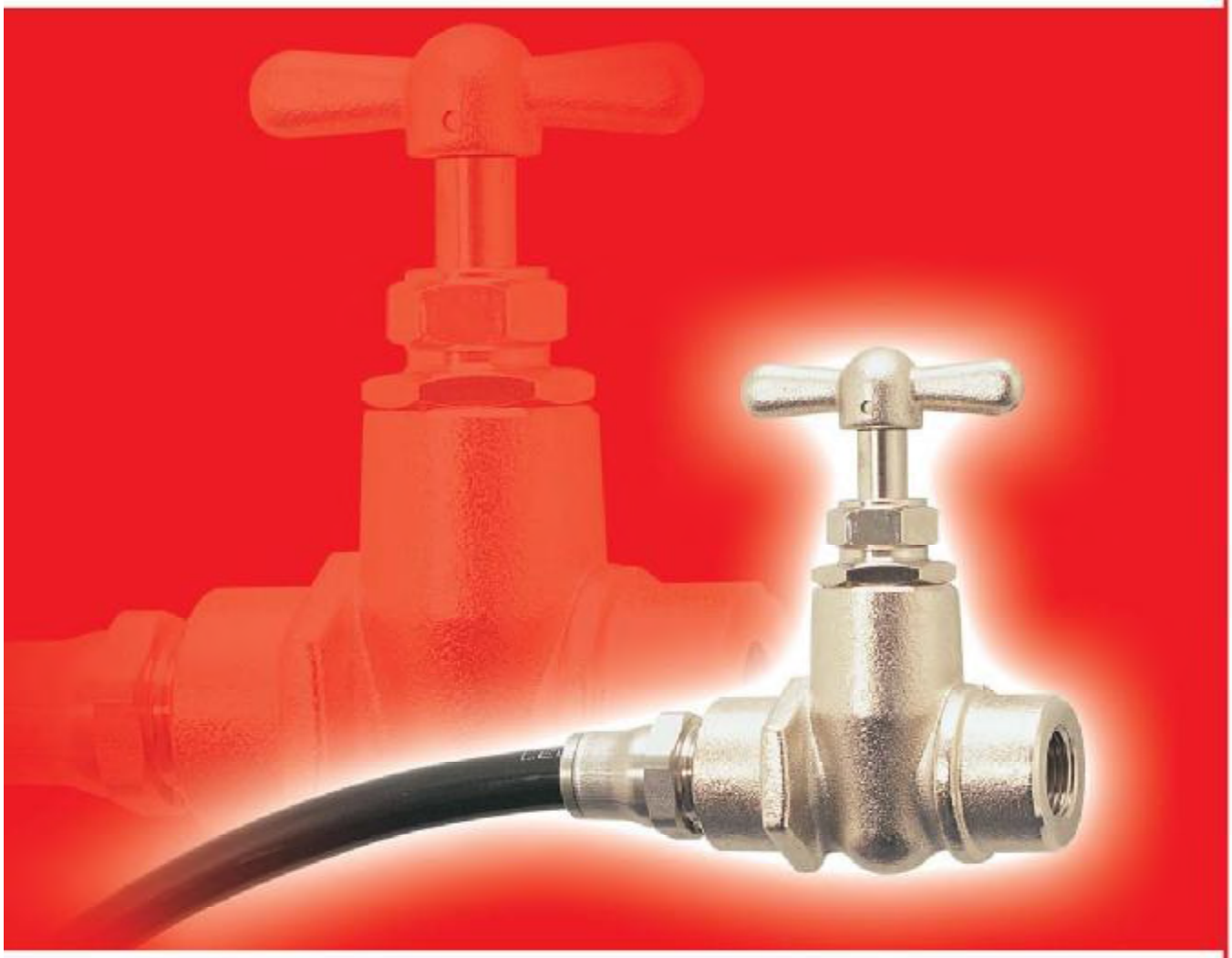
Bulkhead fixing hole diameter : 22 mm

Upon special request, we can supply
- replacement seal kits (all types i.e. FKM, EPDM, Nitrile)
- axial valves equipped with magnetic sensors to indicate their state (open and/or closed)
- chemically nickel-plated axial valves

Please, do not hesitate to consult us.



needle valves



legris connectic

principle of needle valves

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

- instrumentation or laboratories
- fluid control
- flow control
- control of supply, exhaust or cleaning operations on hydraulic circuits, compressed air etc.

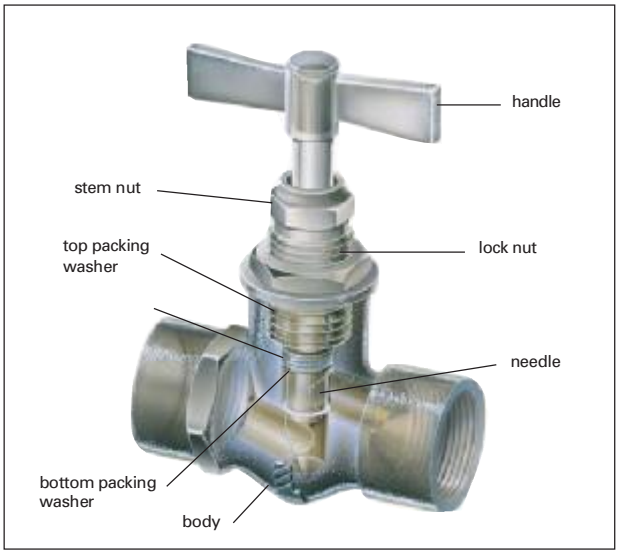
The Legris needle valve range incorporates a wide selection of port configurations to ensure simple assembly in any system.

The following configurations are available :

- in-line or right angled.
- male or female threaded ; with compression couplings.
- from 4 mm to 10 mm bore.

Please consult us regarding special applications.

technical specifications



Maximum working pressure	120 bar (except 0510 - page V4)
Working temperature	from - 20° C to + 100 ° C (except 0510 - page V4)
constituent materials	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) backing : graphite impregnated asbestos

the complete range of needle valves

in-line needle valve

0502
Page V4

0501
Page V4

0510
Page V4

right angled needle valve

0532
Page V4

0531
Page V4

accessories

0562
Page V5

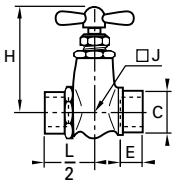
0563
Page V5

0627
Page V5

0630
Page V5

0502 in-line double female, BSP parallel

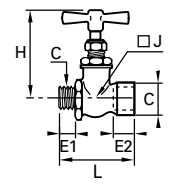
sand blasted nickel plated brass



C	DN		E	H maxi	H mini	J	L/2	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

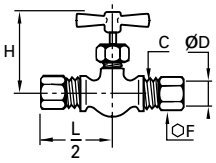
sand blasted nickel plated brass



C	DN		E1	E2	H maxi	H mini	J	L	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

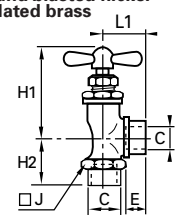


ØD	DN		C	F	H maxi	H mini	L/2	kg
6	4	0510 04 06	10x100	13	46	42	29	0,090
8	5	0510 05 08	12x100	14	46	42	30	0,090
10	5	0510 05 10	16x150	19	46	42	31	0,110

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

0532 right angled double female, BSP parallel

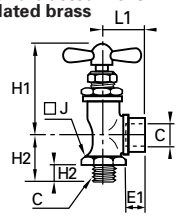
sand blasted nickel plated brass



C	DN		E	H maxi	H1 mini	H2	J	L1	kg
G1/8	4	0532 04 10	9	52	46	19	17	19	0,085
G1/4	4	0532 04 13	11	52	46	21	17	21	0,095
G1/4	6	0532 06 13	11	63	55	26	22	26	0,175

0531 right angled male/female, BSP parallel

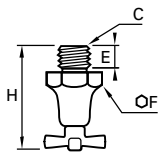
sand blasted nickel plated brass



C	DN		E1	E2	H maxi	H1 mini	H2	J	L1	kg
G1/8	4	0531 04 10	7	9	52	46	19	17	19	0,080
G1/4	4	0531 04 13	9,5	11	52	46	21	17	21	0,085
G1/4	6	0531 06 13	9,5	11	63	55	25	22	26	0,170
G3/8	6	0531 06 17	9,5	12	63	55	25	22	27	0,195
G1/2	10	0531 10 21	13	16	72	62	34	26	33	0,310

0562 needle drain valve, BSP parallel or metric

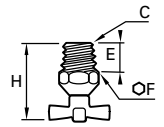
brass



C	DN		E	F	H maxi	H mini	kg
G1/8	5	0562 05 10	8	16	40	36	0,035
M10x1	5	0562 05 60	8	16	40	37,5	0,035
G1/4	5	0562 05 13	10	19	42,5	38,5	0,040

0563 needle drain valve, NPT

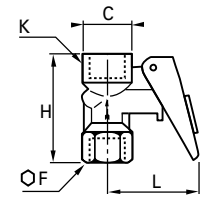
brass



C	DN		E	F	H maxi	H mini	kg
1/4	5	0563 05 14	10	14	32,5	28,5	0,060

0627 automatically venting double female pressure gauge valve

nickel plated brass



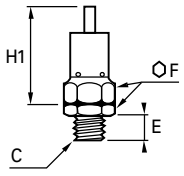
pressure = 10 bar

C		F	H	K	L maxi	L mini	kg
G1/4	0627 00 13	19	43,5	20	22	40	0,100

This isolating valve is used to connect a pressure gauge to a circuit. Resetting the lever isolates and vents the gauge. A locking pin can be used to enable the gauge to be fitted permanently.

0630 pressure relief valve BSP parallel

brass



C	DN		E	F	H1	kg
G1/4	6	0630 06 13	9	17	42,5	0,100

This valve is delivered without calibration, but can be adjusted by inserting metal washers into the hexagon (F).