

26. INDUSTRIAL VALVES

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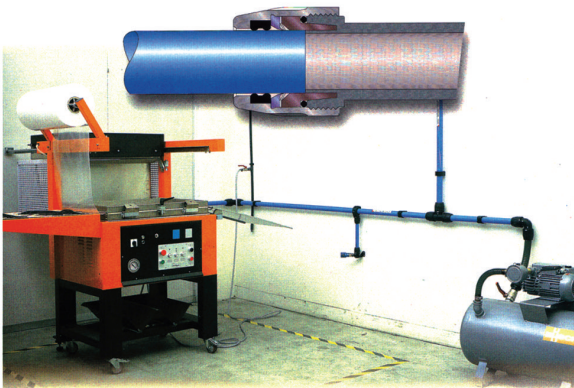


>>> Compressed air equipment



Transair® for vacuum networks

At www.rodavigo.net Family: Pneumatics
Product: Transair Material



Flow rates adapted to the industrial vacuum level

Taking into account the specific behavior of vacuum networks (criticality of leaks and pressure drops), Transair offers the necessary sealing and flow performance for installations that use industrial vacuum.

Clean nets, maintenance savings

Transair aluminum tube guarantees clean air in the facilities, maintaining its level of purity over time.

The lateral disassembly of the tube allows regular monitoring of the cleanliness.

Easy and fast installation

All Transair components are instant connection: a single gesture is enough and your network is installed.

A fully evolutionary network

Thanks to the system for removing the tube and its components, Transair networks automatically adapt to your needs in vacuum applications.

The Transair program is available at:

- ∅ 60 mm
- ∅ 40 mm
- ∅ 0 25 mm
- ∅ 16.5 mm

- Instantaneous connection components, bypass flanges " fast installation ", valves, pilot valves, accessories.
- aluminium tube.

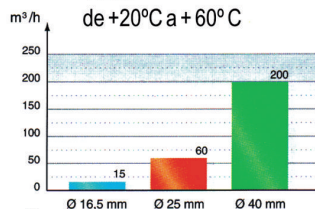
Application examples:

- packaging: packaging in vacuum foil
- plastic industry: plastic injection, degassing, moulding.
- agro-food: kneading, filling.
- logistics: picking, handling, lifting, transport.
- medicine, laboratory, electronics, printing.

Technical characteristics:

- maximum permissible vacuum level 13 mbar = 750 mm Hg
= 98.7% of vacuum
= 9,99 Torr = 13,33 hPa
- maximum service pressure 13 bar
- operating temperature de +20°C a +60° C

- flow performance:



All components of the Transair range, are guaranteed free of silicone.

Product 216



>>> Pressure gauges

Manometer with shock absorber liquid and stainless steel case

Serie 22

Models: 2263 and 22100
Pressure gauges filled with buffer fluid (glycerin 99.7% USP-EP or silicone) for assemblies in applications where the instrument is subject to vibration or small blows that could destabilize the instrument. Are made with stainless steel case (AISI 340) for ensure durability in highly corrosive environments.

Options and accessories

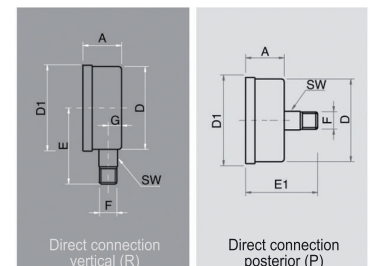
- Tempered glass visor or security stratified
- Chrome or nickel plated connections
- Compensation valve of internal pressure in brass

Constructive characteristics

Nominal diameters in mm	63 -100
Precision class	1,6 > 1,6 or the entire scale, according to EN 837-1
Box	AISI 304 stainless steel
Connection thread	BSP gas thread, conical gas BSPT o NPT (EN 837-1) Special threads on request
Elastic element	Copper alloy
Movement	Copper alloy
Viewfinder	> Polycarbonate
Buffer liquid	> 99.7% pure glycerin USP-EP or silicone
Degree of protection	IP65

2263 22100

A	30	33
D	62	100
D ₁	68	107
E	60	89
E ₁	61	66
F	1/4	1/2
G	10	12
SW	14	22
R	0.19	0.60
P	0.22	0.55



Technical characteristics

- Ambient temperature: +5 - +60 C°**
- Working temperature of the fluid:**
Maximum +60 °
- Storage temperature:**
-10 a + 70 C°

VALVE AND INSTRUMENTATION

>>> Pressure gauges

At www.rodavigo.net Family: Valves and instrumentation
Product: Pressure gauges

Standard gas pressurization capsules

Glycerin pressure gauges dorsal connection inox 100

Code	Thread connection	Bar scale
12420112G	DORSAL 1/2'	0-1 bar
124201012G	DORSAL 1/2'	0-10 bar
1242010012G	DORSAL 1/2'	0-100 bar
124201612G	DORSAL 1/2'	0-16 bar
1242016012G	DORSAL 1/2'	0-160 bar
1242002512G	DORSAL 1/2'	0-2,5 bar
124202512G	DORSAL 1/2'	0-25 bar
1242025012G	DORSAL 1/2'	0-250 bar
1242031512G	DORSAL 1/2'	0-315 bar
12420412G	DORSAL 1/2'	0-4 bar
124204012G	DORSAL 1/2'	0-40 bar
1242040012G	DORSAL 1/2'	0-400 bar
12420612G	DORSAL 1/2'	0-6 bar
124206012G	DORSAL 1/2'	0-60 bar

Glycerin pressure gauges vertical connection stainless steel 100

Code	Thread connection	Bar scale
12410112G	VERTICAL 1/2'	0-1 bar
124101012G	VERTICAL 1/2'	0-10 bar
1241010012G	VERTICAL 1/2'	0-100 bar
124101212G	VERTICAL 1/2'	0-12 bar
124101612G	VERTICAL 1/2'	0-16 bar
1241016012G	VERTICAL 1/2'	0-160 bar
1241002512G	VERTICAL 1/2'	0-2,5 bar
124102012G	VERTICAL 1/2'	0-20 bar
124102512G	VERTICAL 1/2'	0-25 bar
1241025012G	VERTICAL 1/2'	0-250 bar
1241031512G	VERTICAL 1/2'	0-315 bar
12410412G	VERTICAL 1/2'	0-4 bar
124104012G	VERTICAL 1/2'	0-40 bar
1241040012G	VERTICAL 1/2'	0-400 bar
12410612G	VERTICAL 1/2'	0-6 bar
124106012G	VERTICAL 1/2'	0-60 bar
1241060012G	VERTICAL 1/2'	0-600 bar

Stainless steel glycerin pressure gauges 63

Code	Thread connection	Bar scale
12420114G	DORSAL 1/4'	0-1 bar
124201014G	DORSAL 1/4'	0-10 bar
1242010014G	DORSAL 1/4'	0-100 bar
124201214G	DORSAL 1/4'	0-12 bar
124201614G	DORSAL 1/4'	0-16 bar
1242016014G	DORSAL 1/4'	0-160 bar
1242002514G	DORSAL 1/4'	0-2,5 bar
124202014G	DORSAL 1/4'	0-20 bar
124202514G	DORSAL 1/4'	0-25 bar
1242025014G	DORSAL 1/4'	0-250 bar
1242031514G	DORSAL 1/4'	0-315 bar
12420414G	DORSAL 1/4'	0-4 bar
124204014G	DORSAL 1/4'	0-40 bar
1242040014G	DORSAL 1/4'	0-400 bar
12420614G	DORSAL 1/4'	0-6 bar
124206014G	DORSAL 1/4'	0-60 bar
1242060014G	DORSAL 1/4'	0-600 bar

Stainless steel vertical connection glycerine pressure gauges 63

Code	Thread connection	Bar scale
12410114G	VERTICAL 1/4'	0-1 bar
124101014G	VERTICAL 1/4'	0-10 bar
1241010014G	VERTICAL 1/4'	0-100 bar
124101214G	VERTICAL 1/4'	0-12 bar
124101614G	VERTICAL 1/4'	0-16 bar
1241016014G	VERTICAL 1/4'	0-160 bar
1241002514G	VERTICAL 1/4'	0-2,5 bar
124102014G	VERTICAL 1/4'	0-20 bar
124102514G	VERTICAL 1/4'	0-25 bar
1241025014G	VERTICAL 1/4'	0-250 bar
1241031514G	VERTICAL 1/4'	0-315 bar
12410414G	VERTICAL 1/4'	0-4 bar
124104014G	VERTICAL 1/4'	0-40 bar
1241040014G	VERTICAL 1/4'	0-400 bar
12410614G	VERTICAL 1/4'	0-6 bar
124106014G	VERTICAL 1/4'	0-60 bar



>>> Pressure switches

Pressure switches. F3 and K4 series

Serie K4



Execution with closed electrical contact



Execution with open electrical contact

Serie F3

F3...P2

F3...M3



Execution for high pressures

F3S...P2

F3S...M3



Execution for low pressures



>>> Pressure switches

Pressure switches. F3 and K4 series

At www.rodavigo.net Family: Pneumatics
Product: Pneumatic material

Adjustable F3 pressure switches

Code	Pressure	Regulation	Weight
066F31	25 Bars	1 - 10 Bars	0,08 kg
066F33P	200 Bars	5 - 50 Bars	
066F35P	300 Bars	10 - 100 Bars	
066F37		30 - 250 Bars	

Technical characteristics

Body: 27mm hexagonal

Maximum dimensions (L long, H wide): P2 (30 x 65 mm),
M3 (48 x 78 mm).

Intervention precision: +/- 4% of the pressure at 20 °C

Fixed value of hysteresis: to the membrane ~10 %, to the piston ~15 %.

Weight: 0.08 Kg

K4 adjustable pressure switches

Code	Type	Pressure maximum	Regulation
066K4RAF1	N.A	25 Bars	0,2 - 2,5 Bars
066K4SAF1			1 - 12 Bars
066K4TAF1		200 Bars	5 - 50 Bars
066K4SPAF1		300 Bars	1 - 12 Bars
066K4VAF1			10 - 100 Bars
066K4ZAF1	N.C		20 - 200 Bars
066K4TPAF1			5 - 50 Bars
066K4RCF1		25 Bars	0,2 - 2,5 Bars
066K4SCF1			1 - 12 Bars
066K4TCF1		200 Bars	5 - 50 Bars
066K4SPCF1		300 Bars	1 - 12 Bars
066K4VCF1			10 - 100 Bars
066K4ZCF1			20 - 200 Bars

Technical characteristics

Body: 24mm hex

Maximum dimensions (L long, H wide): NC version (26 x 55 mm).

NA version (26 x 45 mm.)

Use temperature: -20 to 80 °C

Communication frequency: 200 revolutions / minute

Intervention precision: +/- 5% of the pressure at 20 °C

Intervention point: adjustable by external screw

Fixed value of hysteresis: to the membrane ~10 %, to the piston ~15 %.

>>> Flow regulators



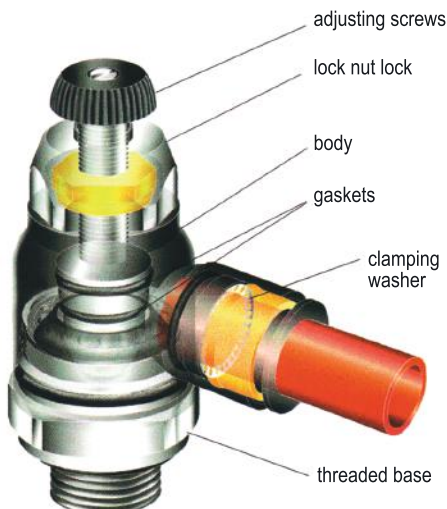
Principle of flow regulating fittings



Legris flow regulating fittings guarantee the speed control of a pneumatic cylinder. Unidirectional, these fittings regulate the air flow in the exhaust / supply direction by means of an adjustable restrictive element and allow the flow bore of air in the opposite direction. According to the model, Legris flow regulators are either cylinder or circuit mounted. However, the most stable and most precise flow regulation (and consequently speed) is obtained by mounting them on the cylinder or as close as possible. This avoids the elastic effect of compressed air in the pipes between the distributor and the cylinder. The installation of flow regulating fittings on the cylinder is therefore the optimal solution. The wide range of Legris flow regulators provides an answer for each specific need of automated installations.

Technical conditions of use

Depend basically on the nature and thickness of the tube, the ambient temperature and that of the vehicle fluid, as well as the quality of the materials that make up the fitting.



Usable fluid	compressed air
Service pressure	1 to 10 bar
Operating temperature	0°C to + 70°C
Nature of constituent materials	Body: according to models - HR polymer - brass Washer: stainless steel. Nut: nickel plated brass Locknut: nickel plated brass Threaded base: nickel plated brass Gaskets: nitrile
Max tightening torque of flow regulators, BSP and cylindrical metrics	Thread M3 (x0,5); M5 (x0,8); G1/8"; G1/4"; G3/8"; G1/2" m.da N 0,06 0,16 0,8 1,2 3 3,5

Cylindrical threads according to NFE3-005 - ISO228-1 standards

VALVE AND INSTRUMENTATION



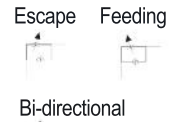
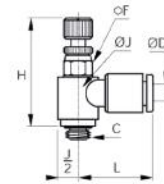
>>> Flow regulators

At www.rodavigo.net Family: Pneumatics
Product: Legris pneumatic fittings

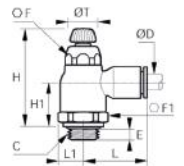
Flow control fittings

Code Escape	Code Feeding	Code Bi-directional	ØD	C	F	H mm	H Min. mm	J Máx. mm	L mm	Weight Kg
20576600309	20576690309		3	M3x0,5	6	23,5	26	9	17	0,01
20576600319	20576690319		3	M5x0,8	6	23,5	26	9	17	0,01
20576600409			4	M3x0,5	6	23,5	26	9	16,5	0,01
20576600410	20576690410	20576620410	4	G1/8	7	27	29,5	11,5	18	0,01
20576600419	20576690419	20576620419	4	M5x0,8	6	23,5	26	9	17	0,01
20576600610	20576690610	20576620610	6	G1/8	7	27	29,5	11,5	18,5	0,01
20576600613	20576690613	20576620613	6	G1/4	8	30	32,5	12	19	0,02
20576600619	20576690619	20576620619	6	M5x0,8	6	23,5	26	9	18	0,01
20576600810	20576690810		8	G1/8	13	26,5	31	14	26	0,02
20576600813	20576690813		8	G1/4	16	29	34	19	27,5	0,03
20576600817	20576690817		8	G3/8	20	36	42	23	29	0,06

"Miniature" series:
7660 - 7669 - 7662



"Compact" series:
7060 - 7061 - 7062



Code Escape	Code Feeding	Code Bi-directional	ØD	C	E mm	F mm	F1 mm	H Min. mm	H Máx. mm	H1 mm	L mm	L1 mm	T mm	Weight Kg
20570600410	20570610410	20570620410	4	G1/8	5	10	16	38	44	16	22	9	10	0,02
20570600610	20570610610	20570620610	6	G1/8	5	10	16	38	44	16	22	9	10	0,02
20570600613	20570610613	20570620613	6	G1/4	5,5	10	16	36,5	42,5	15	22	9	10	0,02
20570600810	20570610810	20570620810	8	G1/8	4,5	14	19	41,5	48	18	28	10,5	14	0,03
20570600813	20570610813	20570620813	8	G1/4	5,5	14	19	41,5	48	18,5	28	10,5	14	0,03
20570600817	20570610817	20570620817	8	G3/8	5,5	14	19	41,5	48	17	28	11	14	0,03
20570601013	20570611013		10	G1/4	5,5	17	23	45,5	53,5	20	31,5	12,5	17	0,05
20570601017	20570611017		10	G3/8	5,5	17	23	45,5	54	20	31,5	12,5	17	0,06
20570601217			12	G3/8	5,5	17	23	45,5	54	20	35	12,5	17	0,06
20570601221	20570611221		12	G1/2	7,5	17	24	45,5	54	20	35	13	17	0,06



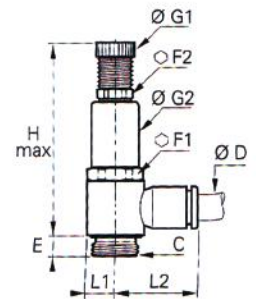
>>> Pressure regulators

Pressure regulating fittings

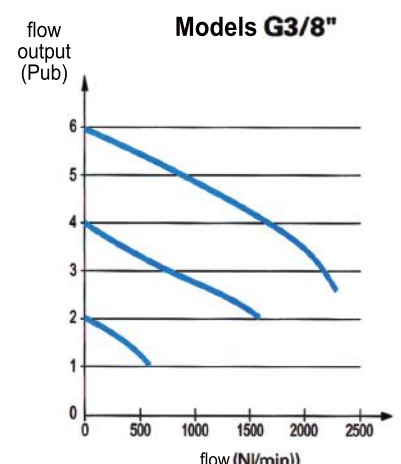
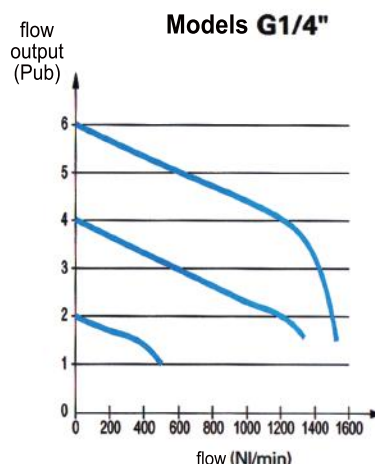
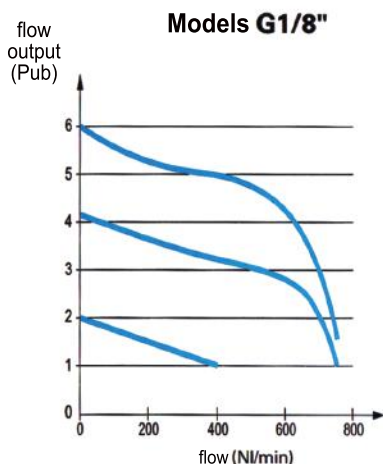
H.R. Polymer body
Brass screw with sealing gasket

7300 male BSP cylindrical, with instant connection

Code	D	C	E	F1	F2	G1	G2	H max	L1	L2	Weight kg
20573000410	4	G1/8	4,5	17	13	14	18,5	60,5	7	18,5	0,038
20573000610	6	G1/8	4,5	17	13	14	18,5	60,5	7	20	0,045
20573000613	6	G1/4	7,5	17	13	14	18,5	68,5	9,5	22	0,049
20573000810	8	G1/8	4,5	17	13	14	18,5	60,5	7	25	0,057
20573000813	8	G1/4	7,5	17	13	14	18,5	68,5	9,5	27	0,060
20573000817	8	G3/8	8,5	22	17	18,5	23,5	77,5	11,5	28,5	0,064
20573001013	10	G1/4	7,5	17	13	14	18,5	68,5	9,5	29	0,070
20573001017	10	G3/8	8,5	22	17	18,5	23,5	77,5	11,5	30,5	0,073



Flow characteristics - inlet flow = 7 bar



>>> Industrial Thermometers

Monobloc thermometer

At www.rodavigo.net

Family: Valves and instrumentation
Product: Valves and taps

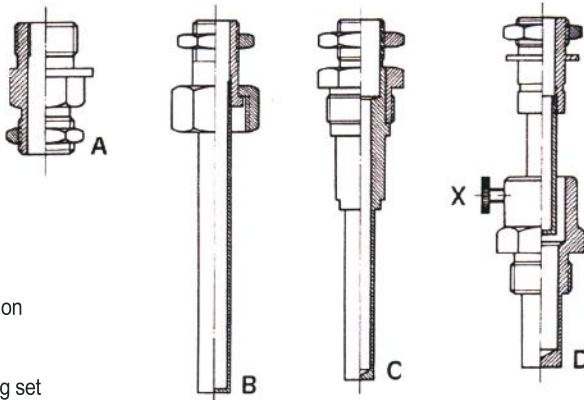


ROBUSTNESS AND PRECISION

- All elements are interchangeable according to DIN 16181 and 16193 standards
- A precision instrument according to your needs
- The V-shaped box protects the thermometer against breakage
- Model reinforced and secured against shocks and vibrations by means of a support

- 1 Perfectly legible for its great visual angle.
- 2 Gold colored aluminum case.
- 3 Adjustable thanks to its locknut.
- 4 All connection types according to DIN or construction special, in brass, or stainless steel.
- 5 Brass, or stainless steel for all pressures.

Normal Connections for Hood Thermometers



- A** Normal threaded connection
- B** Mobile nut connection
- C** Mobile male connection
- D** Double protection and plug set diesel (The diesel plug is fixed by screw X)

The length of the immersion tube (T =) is calculated, unless otherwise specified, including the thread as indicated in the drawings. Ø d1 is normally 10mm (can be varied upon request).

When placing an order we need to know:

- The model: straight, 90° angular and 135° oblong
- The scale or graduation of the thermometer.
- Length of the immensor (T =).
- The pitch of the connection thread.

3 models:

- Large: H = 200x30mm
- Medium: H150x30mm
- Small: Hx110x30mm

Product 122

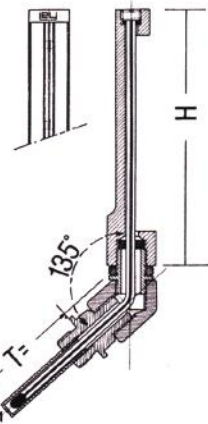
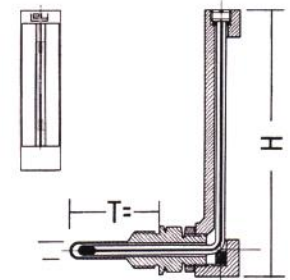
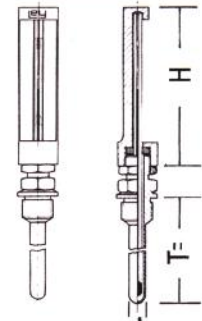
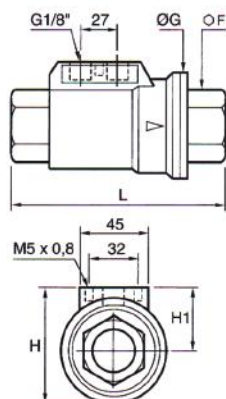


Fig. 85 86 87
mm
H= 110 150 200

Fig. 95 96 97
mm
H= 110 150 200

Fig. 106
mm
H= 150

4202 normally closed, double female thread, cylindrical BSP

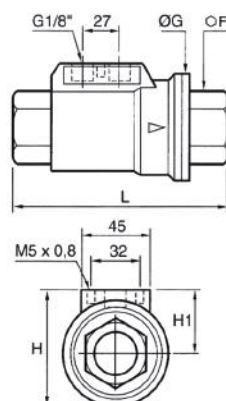


Nickel-plated shot-blasted brass body
Control connection: thread 1/8" BSP cylindrical
Supplied with a silencer

Code	C	DN	F	G	H	HI	L	Weight kg
2054202101720	G3/8	10	22	46	54	31	98	0,814
2054202152120	G1/2	15	27	52	60	35	112	1,085
2054202202720	G3/4	20	33	64	70	38	135	1,634
2054202253420	G1"	25	41	69	76	41,5	143	2,024
2054202324220*	G1"1/4	32	50	86	91	48	165	3,301
2054202404920*	G1"1/2	40	60	96	102	54	180	4,180
2054202504820*	G2"	50	75	109	115	60,5	207	6,360

Code	C	DN	F	G	H	H1	L	Weight kg
2054202101730	G3/8	10	22	46	54	31	98	0,814
2054202152130	G1/2	15	27	52	60	35	112	1,085
2054202202730	G3/4	20	33	64	70	38	135	1,634
2054202253430	G1"	25	41	69	76	41,5	143	2,024
2054202324230*	G1"1/4	32	50	86	91	48	165	3,301
2054202404930*	G1"1/2	40	60	96	102	54	180	4,180
2054202504830*	G2"	50	75	109	115	60,5	207	6,360

4212 normally open, double female thread, cylindrical BSP

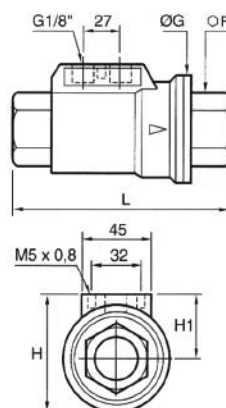


Nickel-plated shot-blasted brass body
Control connection: thread 1/8" BSP cylindrical
Supplied with a silencer

Code	C	DN	F	G	H	HI	L	Weight kg
2054212101720	G3/8	10	22	46	54	31	98	0,814
2054212152120	G1/2	15	27	52	60	35	112	1,085
2054212202720	G3/4	20	33	64	70	38	135	1,634
2054212253420	G1"	25	41	69	76	41,5	143	2,024
2054212324220*	G1"1/4	32	50	86	91	48	165	3,301
2054212404920*	G1"1/2	40	60	96	102	54	180	4,180
2054212504820*	G2"	50	75	109	115	60,5	207	6,360

Code	C	DN	F	G	H	H1	L	Weight kg
2054212101730	G3/8	10	22	46	54	31	98	0,814
2054212152130	G1/2	15	27	52	60	35	112	1,085
2054212202730	G3/4	20	33	64	70	38	135	1,634
2054212253430	G1"	25	41	69	76	41,5	143	2,024
2054212324230*	G1"1/4	32	50	86	91	48	165	3,301
2054212404930*	G1"1/2	40	60	96	102	54	180	4,180
2054212504830*	G2"	50	75	109	115	60,5	207	6,360

4222 double acting, double female thread, cylindrical BSP



Nickel-plated shot-blasted brass body
Control connection: thread 1/8" BSP cylindrical

Code	C	DN	F	G	H	HI	L	Weight kg
2054222101720	G3/8	10	22	46	54	31	98	0,814
2054222152120	G1/2	15	27	52	60	35	112	1,085
2054222202720	G3/4	20	33	64	70	38	135	1,634
2054222253420	G1"	25	41	69	76	41,5	143	2,024
2054222324220*	G1"1/4	32	50	86	91	48	165	3,301
2054222404920*	G1"1/2	40	60	96	102	54	180	4,180
2054222504820*	G2"	50	75	109	115	60,5	207	6,360

Code	C	DN	F	G	H	H1	L	Weight kg
2054222101730	G3/8	10	22	46	54	31	98	0,814
2054222152130	G1/2	15	27	52	60	35	112	1,085
2054222202730	G3/4	20	33	64	70	38	135	1,634
2054222253430	G1"	25	41	69	76	41,5	143	2,024
2054222324230*	G1"1/4	32	50	86	91	48	165	3,301
2054222404930*	G1"1/2	40	60	96	102	54	180	4,180
2054222504830*	G2"	50	75	109	115	60,5	207	6,360



>>> Ball Valves

At www.rodavigo.net Family: Valves and instrumentation
Product: Valves and taps

The high quality of FIP products allows them to be used in the most diverse service conditions. There is no risk of contamination, since the plastics used by FIP in the molding of valves and accessories, ensure absolute chemical inertness. Indeed: no react with the liquids transported, perfect safety when used with liquid foods, resist corrosive products and withstand the most diverse physicals conditions.

The FIP range allows the selection of materials that meet your specifications: valves and accessories in PVC, PP, ABS, PVDF, and gaskets and packers in FPM EPM, PTFE, Neoprene and NBR.

FIP is open to the new methodologies of Chemical Engineering and its techniques are therefore always at the forefront in plastics processing. New materials are being investigated today, tomorrow we can supply them to you.

FOR EVERY APPLICATION

FIP valves and accessories are used worldwide in the most diverse application sectors. As an indication, we mention the main ones:
- General Chemical Industry. - Electroplating. - Food sector. - Industrial Textile. - Preparation of metals. - Water depuration. - Farming. - Transport and liquid transportation. - General Industry.-Etc.

Product 122

Ball Valves

Control valves



Diam. exterior	Inch.	mm.	Valve of sphere	3-way sphere valve	Sphere "NIKE" valve	Retention valve	Standing valve	Vent valve	Level indicator valve	T indicator level	Pressure Reducer	2-3- way solenoid valve
12	1/4	8										▲ (2)
16	3/8	10	▲				▲					▲ (2)
20	1/2	15	▲●■◆	▲		▲●	▲		▲	▲●		▲ (2)
25	3/4	20	▲●■◆	▲		▲●	▲	▲				
32	1	25	▲●■◆	▲	▲	▲●	▲					
40	1 1/4	32	▲●■◆	▲		▲●	▲	▲				
50	1 1/2	40	▲●■◆	▲	▲	▲●	▲				▲	
63	2	50	▲●■◆	▲	▲	▲●	▲	▲			▲	
75	2 1/2	65	▲ ◆			▲●						
90	3	80	▲ ◆			▲●						
110	4	100	▲			▲						
140	5	125										
160	6	150										
225	8	200										
280	10	250										
315	12	300										
Seat materials and diaphragms			● - ▲ ◆	◆	●	⊗ - ▲	⊗	⊗	⊗	⊗ - ▲		⊗
			# - ▲ ◆	#		⊗ - ▲●				⊗ - ●		
			■ - ◆									
			* - ▲●■◆	*								
Union types			▲ ● ■ ◆	◆	1	▲ ●	7	7	3	▲ ●	1	1
			1 1 6 1	1	1	1 1	7	7	3	3 3	1	1
			2 5 7	5	7	3	12	12	4	4		5
			3 7	6	13	4				5		6
			4	7		5				7		7
			5	8		6						8
			6			7						
			7			8						
			8									

(2) These diameters are coupling not the nominal ones

>>> Butterfly Valves

At www.rodavigo.net Family: Valves and instrumentation
Product: Valves and taps

KV and KT series butterfly valves

KV SERIES Product 122

Diameters from 50 to 500 mm. Hermetic closing pressure up to 10 Kg / cm². Normal working temperature, between -20°C and 90°C. Special seats for temperatures up to 250°C. Possibility of mounting between PN-10/16 and ASA-150 flanges. Interchangeable butterfly and seat. Self-cleaning. Minimal load loss. Easy to install no gaskets required. Wide range of actuators for quick and easy maneuvering.



MATERIALS

BODY: Foundry gray or nodular.
BUTTERFLY: Foundry gray, nodular, stainless steel.
AISI-304 or bronze
AXLE: Stainless steel. AISI-304

SEAT AND SEALS: Hycar, Neoprene, Silicone, Viton, Hypalon, etc.

APPLICATIONS

Due to its extreme robustness, the KV series butterfly valve has become irreplaceable in the pipes of fire fighting systems, pumping stations, seawater distillation plants, the naval industry, sewage treatment plants, potable water pipes, gas, etc. Moreover, and due to their easy installation, they have been used in sprinkler irrigation systems and filtration equipment in swimming pools.

The great versatility of construction materials means that the KV series valves are the closing or regulating element most used in any sector of the industry in general. Universal application.

KT SERIES Product 122

Diameters from 50 to 300 mm. Hermetic closing pressure up to 10 Kg / cm², according to the working temperature. Possibility of mounting between PN10 / 16 and ASA-150 flanges. Interchangeable butterfly and seat. Self-cleaning. Minimal load loss. Easy to install no gaskets required. Wide range of actuators for quick and easy maneuvering.



MATERIALS

BODY: Gray cast iron GQ-22
Rilsanized
BUTTERFLY: Stainless steel.
AISI-316 or steel
PTFE coated.
AXLE: Stainless steel. AISI-316
SEAT: Rubber synthetic coated with PTFE.
BOARDS: Viton.

APPLICATIONS

Valves specially designed for industry chemistry in general. The construction materials of the KT series butterfly valve make it indispensable in any type of installation where corrosion is the greatest enemy, irreplaceable in petrochemical and process. Suitable as a quick closing valve in tank trucks and containers for the transport of chemical products. Likewise, they have been applied in food, cosmetics, pharmacy, etc.

TYPE

Manual lever type "T"
(All open, all closed)
Manual lever type "P"
(Interlocking every, 15°)

DESCRIPTION

ICO-MAR actuated butterfly valve
by means of a manual control lever positioner with fixing every 15°.

TYPE

"N" type double acting pneumatic actuator.
(All open, all closed.)

DESCRIPTION

ICO-MAR actuated butterfly valve
by means of a double-acting pneumatic cylinder.

TYPE

Manual gearbox with "R" steering wheel.
(Interlocking in any position.)

DESCRIPTION

ICO-MAR butterfly valve actuated by
manual control gearbox by vis-endless.

TYPE

"S" type electric servo motor.
(Interlocking in any position.)

DESCRIPTION

ICO-MAR butterfly valve actuated by
electric servo-motor.

>>> Membrane valves

ZUBI Membrane Shutoff Valves

GENERAL CHARACTERISTICS:

A membrane valve is made up of 3 parts:

- A valve body.
- A membrane that separates the fluid from the mechanical part of the valve.

A head that can either be manual or automatic and when its mechanism is activated, the pad rests on the membrane and this, in turn, on the body seat, thus reaching a total seal.

ADVANTAGE:

The diversity of materials that constitute the body, as well as the different qualities of the membranes, allow to cover a wide range of products to be transported. The advantage of membrane valves compared to seat or gate valves with metal closures resides in their tightness, which is ensured even with liquids containing suspended particles or light crystallizations. On the other hand, since the head is isolated from the liquid circulating through the membrane, it does not need a cable gland.

USE:

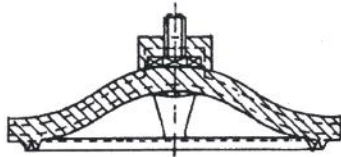
Can work at pressures up to 12 Kg/cm² according to the characteristics of the liquid and temperature, and its use is indicated for all kinds of neutral fluorides or corrosive, light or viscous. Each valve has its own plate containing the maximum limits of use.



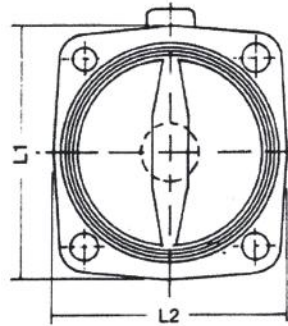
>>> **Membrane valves**

Membranes

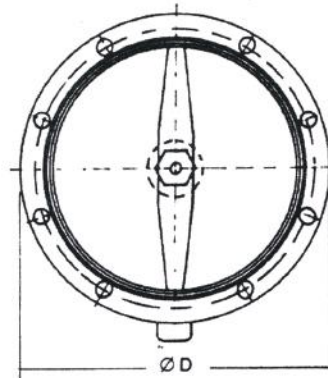
At www.rodavigo.net Family: Valves and instrumentation
Product: Valves and taps



Cutting of a membrane



Sketch dimensions membrane



Sketch dimensions membrane

Quality	
BL	Natural rubber
BU	Butyl rubber
PE	Perbunan
HY	Hypalon
NE	Neoprene
VI	Viton

OR65 membrane fabrication with special measures

Orifice	20/25	32/40	50	65/80
L2	70	100	126	180
L1	74	106	126	180
N° holes	4	4	4	4

Orifice	100/125	150	200/250
Diametro Ø D	230	315	416
N° holes	8	10	14

Orifice	65
L2	152
L1	152
N° holes	4

Tips for choosing membranes

Membrane shut-off valves are simple due to their operating system, and it seems that choosing a quality membrane suitable for the circulating fluid the problem of your choice is solved.

However, in practice, its choice is not so easy despite the progress that is being made every day in the manufacture of natural, synthetic and elastomeric rubbers in general.

A membrane valve resistance for a given fluid can vary for different reasons.

Undoubtedly, you can ask us for any details you want on the particular of each problem, and we will gladly try to solve your doubts with our experience in the matter. Well, with practical tests good yields can be successful, since the exact service conditions are those that influence the final result.

We would be grateful if you would indicate us in your inquiries and orders:

- Nature of the product transported and concentration. - Temperature. - Contact time. - Frequency of maneuvers. - Open operation, or flow regulation.
- Pressure, depression or aspiration. - Abrasion.

In the table below we offer a general indication of the different types of membranes that can be selected according to their mechanical characteristics and chemical resistance. There are many more qualities of membrane but we have indicated only the most usual ones, in order to simplify the choice.

	Colour	Nature	Hardness shore A	Load of break	Tearing	Abrasion	Flexion	Elasticity	Hot	Cold	Weak chemical products	Oxidizers	Acids	Bases	Alcohols	Oils	Solvents	Hydrocarbons
BL	white	natural rubber	55	1	1	2	2	1	95	40	1	4	4	4	2	7	7	7
BU	blue	butyl rubber	55	3	2	5	3	5	110	30	1	1	1	1	1	2	7	7
PE	yellow	perbun	60	3	4	4	4	3	100	20	1	4	3	3	2	1	3	3
HY	green	hypalon	60	3	4	5	3	4	125	30	1	1	1	1	1	3	5	5
NE	red	wetsuit	60	3	4	4	1	2	100	20	1	2	3	3	1	4	5	5
VI	orange	viton	65	3	4	4	3	2	200	20	1	1	3	3	1	2	4	4

The resistance has been predicted from 1 to 7 in decreasing value.

1.Excellent, 2.Very good, 3.Good, 4.Medium, 5.Weak, 6.Very weak, 7.Bad, not recommended

MANUAL HEAD

The movement is produced by a screw-nut system, with the pad being always oscillating. A manual or chain handwheel rotates the nut.

For holes greater than 65/80 included, the head has a grid that limits the expansion of the membrane under pressure in the open position.

The body is constituted of two soft elbows joined together, giving the shape of a circumflex accent. The fluid vein to pass through the valve deviates only slightly from its rectilinear direction, so it can be considered practically "direct flow".

CONSTRUCTION MATERIALS

The standard body material is cast iron and the symbols we use are as follows:

BODIES

- FT: Foundry*
- FEB: Ebonized cast iron.
- FHA: Vitrified cast iron (Halar).
- Al: Stainless steel.
- FBU: Butyl coated cast iron.
- FPT: Penton coated cast iron.

MEMBRANES

- 122.BL: Natural rubber.
- 122.BU: Butyl
- 122.AL: Food butyl
- 122.NEO: Wetsuit
- 122.HY: Hypalon
- 122.PE: Perbunan
- 122.VI: Viton

*Gray. nodular and carbon steel A-216 Fr. WCB.

VALVE AND INSTRUMENTATION



>>> Punch Valves

At www.rodavigo.net Family: Pneumatics
Product: Legris pneumatic fittings

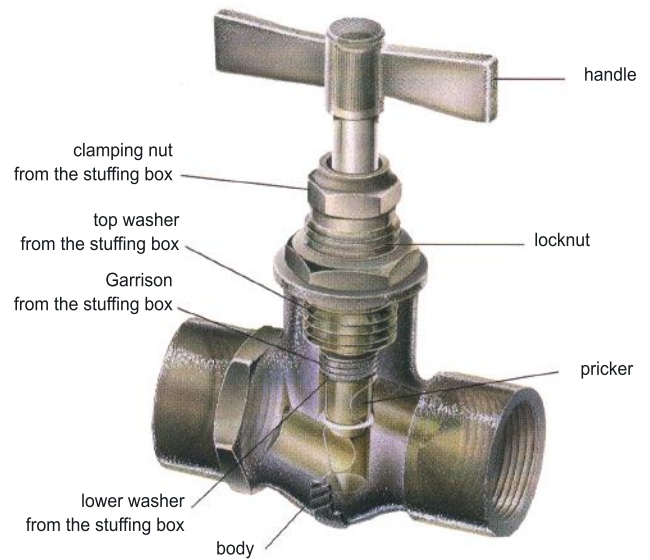
Principle of punch taps

They are used in cases where perfect tightness in fluid regulation is necessary; laboratory instrumentation facilities; regulation; irrigation cooling circuits; flow control in different industrial equipment; feeding, purging and emptying of oleo-hydraulic circuits, superheated water, compressed air, etc.

The Legris punch taps are very compact and can be connected very easily in any system thanks to the full range of different types of figures and dimensions:

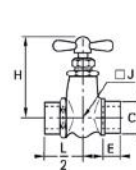
- straight or on the elbow,
- male or female threads, with universal ring.
- of passage 2 mm to 10 m.

Maximum working pressure: 120 bar
Operating temperature: de -20°C a +100°C
Components: Body: Nickel-plated shot blast brass
Handle: zamac or nickel plated brass
Punch rod: nickel plated brass
Clamping nut for stuffing box: brass nickel plated (except 0510)
Against nut: nickel plated brass
Upper and lower press washers-tow: brass (except 0510)
Stuffing box seal: graphite asbestos



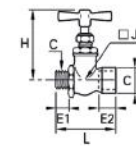
Straight double female, BSP cylindrical thread

Code	DN	C	E	H Máx.	H Min.	J	L/2	Weight (Kg)
20505020410	4	G1/8	9	56	50	17	23	0,11
20505020413	4	G1/4	11	56	50	17	23	0,11
20505020617	6	G3/8	12	67	60	-	26	0,16
20505020917	9	G3/8	12	82	70	-	33	0,41



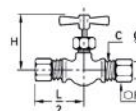
Straight male-female, cylindrical BSP thread

Code	DN	C	E ₁	E ₂	H Máx.	H Min.	J	L	Weight (Kg)
20505010410	4	G1/8	7	9	56	50	17	44	0,12
20505010413	4	G1/4	9,5	11	56	50	17	46	0,11
20505010617	6	G3/8	9,5	12	67	60	-	48	0,16



Straight economic series, universal ring connection

Code	DN	Ø	C	F	H Máx.	H Min.	L/2	Weight (Kg)
20505100406	4	6	10x100	13	46	42	29	0.08
20505100508	5	8	12x100	14	46	42	30	0.08
20505100510	5	10	16x150	19	46	42	31	0.11





>>> **Industrial valves**



Principle of industrial valves. Universal series

At www.rodavigo.net Family: Pneumatics
Product: Legris pneumatic fittings



Legris industrial valves are ball valves: the active part that interrupts the circuit is a perfect sphere. The closing-opening is done with a simple maneuver of the handle: "a quarter of turn" in the two-way valves, and "half turn" in the three-way valves.

Operation: the ball valve is a shut-off valve, in which, when closed, the oscillating ball is pressed on the gaskets on the sides of the outlet. Although the inlet pressure increases, the sealing is always absolute. Its limit is in the resistance of the materials used; although before it would be observed an alteration of the seals and a deformation of the valve body.

The ball or sphere: oscillating and balanced, is held on each side by a seat gasket; the self-sealing of the circuit in the valve is ensured by the action of two complementary wear compensation joints.

The towing device: The drag device: ends in a square axis that penetrates the sphere. The tightness of this assembly is ensured by an O-ring, also called a "O" drive ring.

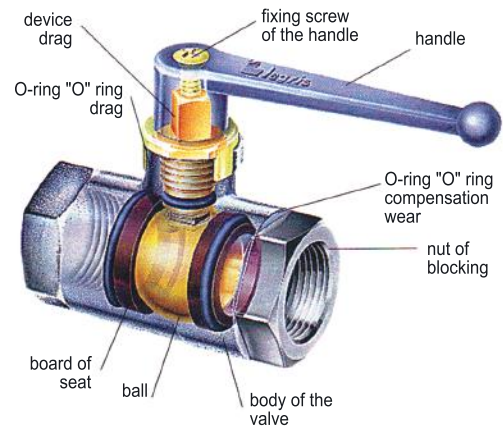
To meet the requirements of the industries, 3 series complete the universal series:

- **Lightweight series**, for low pressure applications
- **Fluoropolymer series**, for common applications and with limited maximum pressure
- **Stainless steel series**, for corrosive fluids and aggressive environments.

Technical conditions of use

Service pressure:	20 to 40 bar depending on model
Operating temperature:	from -20°C to + 80°C
Nature of materials constituents:	Body: brass Ball: mirror polished brass nickel plated Pulling device: brass Lock nut: brass Seat gasket: rilsan graphite Drive joint: nitrile Wear Compensation Gasket: Nitrile

Max. tightening torque of universal series valves:	Thread	G1/8	G1/4	G3/8	G1/2	G3/4
	m.daN	0,10	0,10	0,15	0,20	0,50
	Thread	a0,20	a0,20	a0,25	a0,35	a0,70
	m.daN	0,50	0,40	0,80	0,80	
	Thread	G1"	G1"1/4	G1"1/2	G2"	
	m.daN	a0,70	a0,60	a1,20	a1,20	

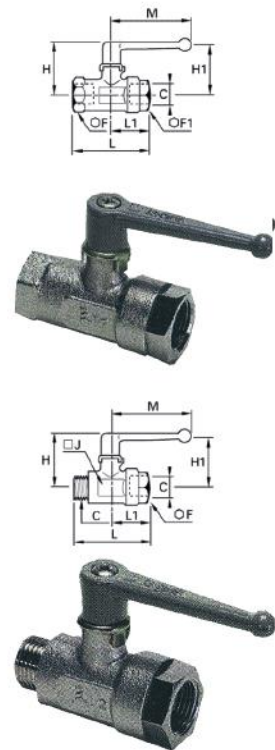


Double female thread

Code	DN	C	F	H	H1	J	L	L1	M	Weight Kg
20504020410	4	G1/8	-	14	35	29	44	25	48	0,09
20504020710	7	G1/8	19	19	38	31	51	27	48	0,17
20504020713	7	G1/4	19	19	38	31	53	28	48	0,16
20504021017	10	G3/8	24	24	45	43	59	31	69	0,24
20504021321	13	G1/2	27	27	47	44	67	34	69	0,29
20504022027	20	G3/4	32	38	63	54	80	39	108	0,66
20504022334	23	G1	41	46	67	57	94	47	108	1,03
20504023242	32	G1 1/4	55	60	97	115	112	59	180	2,47
20504023249	32	G1 1/2	55	60	97	115	120	62	180	2,34
20504024048	40	G2 1	-	70	104	122	-	61	190	2,61
20504024049	40	G1 1/2	55	55	104	-	111	55	190	2,44

Male and female thread

Code	DN	C	F	H	H1	J	L	L1	M	Weight kg
20504010410	4	G1/8	14	35	29	14	45	25	48	0,09
20504010510	5	G1/8	19	38	31	19	51	27	48	0,16
20504010713	7	G1/4	19	38	31	19	52	28	48	0,15
20504011017	10	G3/8	24	45	43	24	58	31	69	0,23
20504011321	13	G1/2	27	47	44	27	66	34	69	0,28
20504011827	18	G3/4	38	63	54	39	79	39	108	0,65
20504012334	23	G1	46	67	57	48	91	47	108	0,98
20504013242	32	G1 1/4	60	97	115	55	113	59	108	2,38



VALVE AND INSTRUMENTATION



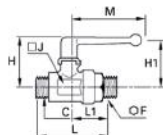
>>> Industrial valves

At www.rodavigo.net Family: Pneumatics
Product: Legris pneumatic fittings

Straight industrial valves

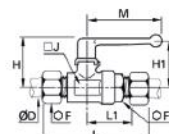
Male double thread

Code	DN	C	F	H	H1	J	L	L1	M	Weight (kg)
20504000410	4	G1/8	14	35	29	14	45	25	48	0,09
20504000713	7	G1/4	19	38	31	19	60	36	48	0,16
20504001017	10	G3/8	24	45	43	24	70	43	69	0,25
20504001321	13	G1/2	27	47	44	27	78	45	69	0,32
20504001827	18	G3/4	38	63	54	39	90	50	108	0,71



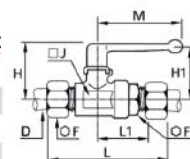
Steel locking rings and nuts

Code	DN	C	F	F1	H	H1	J	L	L1	M	Weight (kg)
20504110406	4	6	14	19	38	31	19	76	30	48	0,17
20504110608	6	8	17	19	38	31	19	77	30	48	0,2
20504110710	7	10	19	19	38	31	19	78	31	48	0,2
20504111012	10	12	22	24	45	43	24	85	36	69	0,31



Thread with two bicone fittings

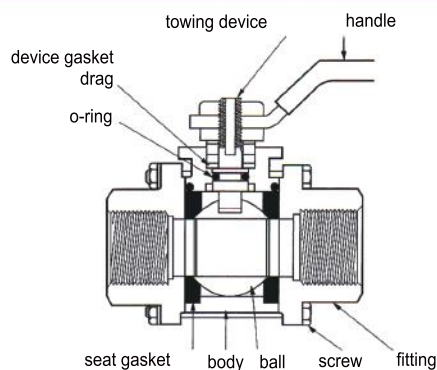
Code	DN	C	F	F1	H	H1	J	L	L1	M	Weight (kg)
20504140406	4	6	13	19	38	31	19	72	31	48	0,17
20504140608	6	8	14	19	38	31	19	74	30	48	0,18
20504140710	7	10	19	19	38	31	19	78	31	48	0,21
20504141012	10	12	22	24	45	43	24	86	36	69	0,3



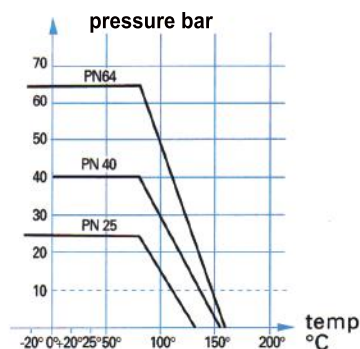
>>> Stainless steel industrial valves

Stainless steel series valves

Stainless steel series valves allow numerous corrosive fluids to be carried and resist aggressive environments. With full bore, due to their "3-piece" design, they offer the possibility of lateral dismantling that greatly facilitates all maintenance operations, while simultaneously allowing high pressures and temperatures, these valves adapt to different fields of application.



Pressure resistance and serial valve temperature
4832 stainless steel



Nature of the constituent materials:

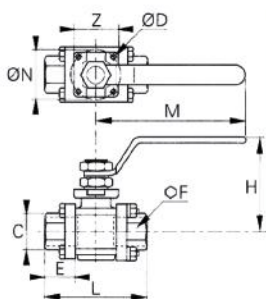
- body, ball, fittings, pulling device: steel AISI 316 stainless steel
- lever, notched washer, lever stop: stainless steel AS 304
- nuts, cable gland washer: AISI stainless steel 303
- screw: stainless steel AISI 305
- seat gaskets, drive gasket, anti-friction washer: FE
- O-ring: FKM

examples:

- at 100°C, PN 64 withstand 48 bar
- PN 40 withstand 30 bar
- PN 25 withstand 17 bar

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

4832 double female thread, 3 pieces of side removal



Code	C	DN	PN	ØD	E	F	H	L	M	N	Z	Weight (kg)
20548321013	1/4	10	64	-	18	22	50	57	110,5	-	-	0,425
20548321017	3/8	10	64	-	18	22	50	57	110,5	-	-	0,400
20548321521	1/2	15	64	6	20,5	27	64	65	131,5	36	36	0,370
20548322027	3/4	20	40	5,5	22,5	32	68	76	131,5	42	42	0,555
20548322534	1"	25	40	6	27	41	78,5	92	174,5	42	42	1,035
20548323242*	1 1/4	32	25	5,5	30	50	83,5	106,5	174,5	42	42	1,465
20548324049*	1 1/2	40	25	6,5	31	55	100	116	250,5	50	50	1,995
20548325048*	2"	50	25	6,5	36	70	107	136	250,5	50	50	3,140

* models with the CE inscription

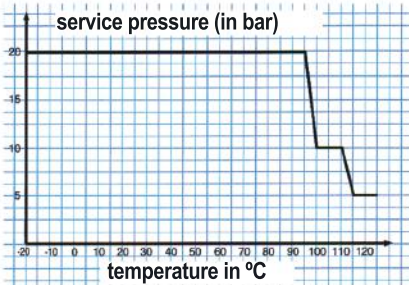
>>> Stainless steel industrial valves



AISI 303 stainless steel series valves

At www.rodavigo.net Family: Pneumatics
Product: Legris pneumatic fittings

Pressure and temperature resistance of the valves series stainless steel 18/10

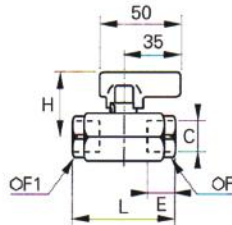


Very compact, this series of stainless steel valves allows to transport numerous aggressive fluids, at pressures not exceeding 20 bar.

nature of the constituent materials:

- body, ball, fittings, pulling device: AISI 303 stainless steel
- handle: nickel plated brass
- seat gaskets, drive gasket, O-ring: PTFE

0465 female double thread

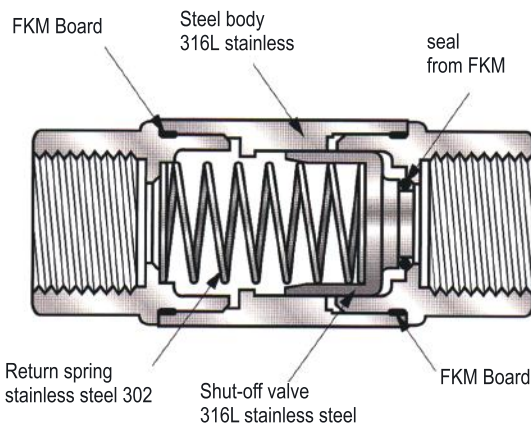


Code	C	DN	E	F	F1	H	L	Weight kg
20504650413	G1/4	4	13	19	24	36	50	0,224
20504650717	G3/8	7	13	24	27	39	55	0,278
20504651021	G1/2	10	16	27	30	40	62	0,323

>>> Pilot valves



Non-return valves, all fluids, stainless steel



The anti-return valve for all fluids, made of stainless steel ensures the flow in one direction and blocks the flow in the opposite direction. Reliable and small size, is a security element that is integrated into the perfect circuits for all fluids. It is perfectly adapted for be used in harsh conditions, in stressed environments important mechanical and chemical.

Operation: a stainless steel clapper closes the passage of the fluid leaning on a seat when the pressure differential is less than 0.25 bar, the threshold being determined by the internal spring setting. Its implementation is carried out with the help of a 6-sided flat wrench at the entrance of the circuit to be protected.

Technical characteristics:

operating pressure: 0.5 to 40 bar
operating temperature: -20°C to + 180°C

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

VALVE AND INSTRUMENTATION



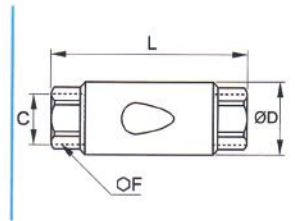
>>> Pilot valves

At www.rodavigo.net Family: Pneumatics
Product: Legris pneumatic fittings

Non-return valves, all fluids, stainless steel

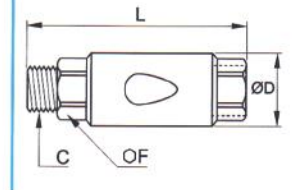
Code	C	DN	ØD	F	L	Weight kg
20548901010	G1/8	10	22	17	50	0,084
20548901313	G1/4	10	22	17	50	0,074
20548901717	G3/8	15	30	22	67	0,182
20548902121	G1/2	15	30	25	71	0,196
20548902727	G3/4	20	42	32	84	0,288
20548903434	G 1 "	25	42	38	90	0,416

4890 unidirectional, female-female, cylindrical BSP



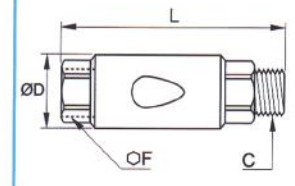
Code	C	DN	ØD	F	L	Weight kg
20548911010	G1/8	10	22	17	56	0,086
20548911313	G1/4	10	22	17	58	0,082
20548911717	G3/8	15	30	22	75	0,190
20548912121	G1/2	15	30	25	79	0,280
20548912727	G3/4	20	42	32	98	0,302
20548913434	G 1 "	25	42	38	104	0,424

4891 unidirectional, male-female, cylindrical BSP



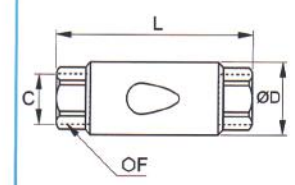
Code	C	DN	ØD	F	L	Weight kg
20548921010	G1/8	10	22	17	56	0,086
20548921313	G1/4	10	22	17	58	0,082
20548921717	G3/8	15	30	22	75	0,190
20548922121	G1/2	15	30	25	79	0,280
20548922727	G3/4	20	42	32	98	0,302
20548923434	G 1 "	25	42	38	104	0,424

4892 unidirectional, female - male, cylindrical BSP



Code	C	DN	ØD	F	L	Weight kg
20548951111	1/8	10	22	18	50	0,084
20548951414	1/4	10	22	18	54	0,080
20548951818	3/8	15	30	22	73	0,198
20548952222	1/2	15	30	25	77	0,213

4895 one-way, female - female, NPT



Male / female NPT models and other types of seals (nitrile, EPDM FDA) can be supplied on request.

