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for Local Industrial Fluid Applications**



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**Connection solutions  
for industrial fluids**

**2003 – 2005  
Low Pressure catalog**

Legris Connectic also offers a complete range of hydraulic connections. You will find these products in our high pressure catalog and on our web-site [www.legris.com](http://www.legris.com)



Legris has a policy of continual product development and therefore reserves the right to modify products shown in this catalog without prior notification. Please treat all dimensions therefore, as indicative.

# introduction

As an introduction to this catalog, we include a section containing basic technical guidelines, practical information and recommendations.

We hope that this section will be a useful quick reference for designers and installers, as well as end users.

## index

### • technical guidelines

*flow and pressure drop of compressed air*

*pressure*

*vacuum and vacuum levels*

*threaded connections*

### • practical information

*threaded connections and profiles*

*conversion tables*

### • recommendations

*installation of Legris fittings*

*food applications*

*safety*

*medical applications*

*packaging applications*

*compatibility of Legris fittings and tubing*

*identification of Legris part numbers*

*Legris ensures that its extensive knowledge of both product design and manufacture meets end user requirements.*

*In addition, our production process includes individual unit quality control and dating, for all push-to-connect fittings, in order to guarantee their quality and traceability.*

*Regarding safety regulations, Legris follows the requirements of European machinery safety directive 89/392 EEC (97/23/EC) and international safety standard ISO 4414: 1998 (E).*



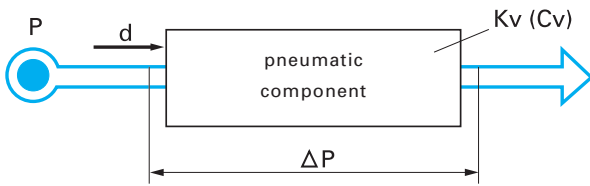
Legris SA & Legris Inc. are ISO 9001 certified.

# technical guidelines

## • flow and pressure drop of compressed air

Flow represents the quantity of compressed air that passes through a section over a unit of time. It is represented in cfm, scfm, l/min, m<sup>3</sup>/min or m<sup>3</sup>/h, at the equivalent value in free air, in conditions of standard reference atmosphere (SRA), i.e. : + 68°F, 65% of relative humidity, 14.65 psi, in accordance with norms NFE 48100 and ISO R554, R558.

When opened and submitted to inlet pressure (P), the pneumatic component insures a flow rate (d) generating pressure drop at the outlet. The difference of pressure measured, between the inlet (pressure upstream) and the outlet (pressure downstream), is called pressure drop represented by Δp (differential pressure).



To quickly define the values of pressure drop according to flow and pressure, the user must remember that air is a compressible fluid. In this case, many parameters are taken into account in a sometimes complex way.

In order to obtain simple and useful values which enable calculations and comparison of the performance of pneumatic components, in practice, we use a flow coefficient called **Kv**. This coefficient characterizes the flow capacity of a component and corresponds to the precise value of water flow in l/min, under a Δp of 1 bar, with completely unimpeded flow.

Flow coefficient Kv corresponds to a conductance coefficient; indeed the higher its value, the better the flow assured by the component.

Kv and pressure loss are linked by the following relation:

$$Q_v = 26.7 \text{ Kv} \sqrt{\Delta p \times P \text{ upstream}}$$

- Q<sub>v</sub>** = flow in l/min
- K<sub>v</sub>** = flow coefficient
- Δp** = in bar
- P upstream**: in absolute bar

**C<sub>v</sub>** is a flow coefficient equivalent to Kv but based as US gallons per minute under a Δp of 1 PSI.

Kv and Cv are in the following ratios:

$$K_v = 14.3 C_v \quad - \quad C_v = 0.07 K_v.$$

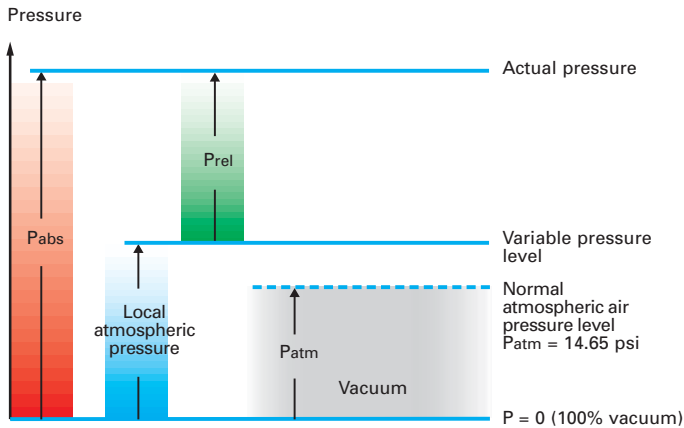
## • conversion table units of flow

l/min	→	Cfm	→	m <sup>3</sup> /h
600		21		36
1200		43		72
1800		64		108
2400		85		144
3000		106		180
3600		128		216
4200		149		252
4800		170		288
5400		191		324
6000		213		360
6600		234		396
7200		255		432
7800		277		468

# technical guidelines

## • pressure

Normal atmospheric air pressure represents 14.65 psi at sea level. Generally used as a reference for pressure measurement, it is, however, variable according to altitude. For tests and measures, it is advisable to use absolute bar corresponding to absolute pressure.



$$P_{abs} = P_{atm} + P_{rel}$$

$P_{abs}$  : absolute pressure

$P_{rel}$  : relative gauge pressure

$P_{atm}$  : normal atmospheric pressure

## • vacuum and vacuum level

Vacuum appears when the pressure is less than atmospheric pressure. By evacuating the air in a closed space, partial vacuum is generated.

Therefore vacuum corresponds to the decrease in pressure below the normal value of atmospheric pressure.

Vacuum level can be represented as:

- **depression level** = relative pressure value compared to atmospheric pressure

- **vacuum level** in absolute value (defined in comparison with absolute zero)

The common unit of vacuum is millimeters of mercury (**mm Hg**) and inches of mercury (**in Hg**) as referred to existing atmospheric pressure.

In the U.S. it is represented in pounds per square inch, gauge (psig) and absolute (psia). The measure of pressure corrected for atmospheric pressure that is

'zero' psig = 14.65 psia

'zero' psia = absolute zero vacuum

The acceptable **maximum pressure** of a component is the effective pressure to which this item can be submitted in a given installation.

**Upstream pressure** is the compressed air pressure at the component inlet.

**Downstream pressure** is the component outlet pressure.

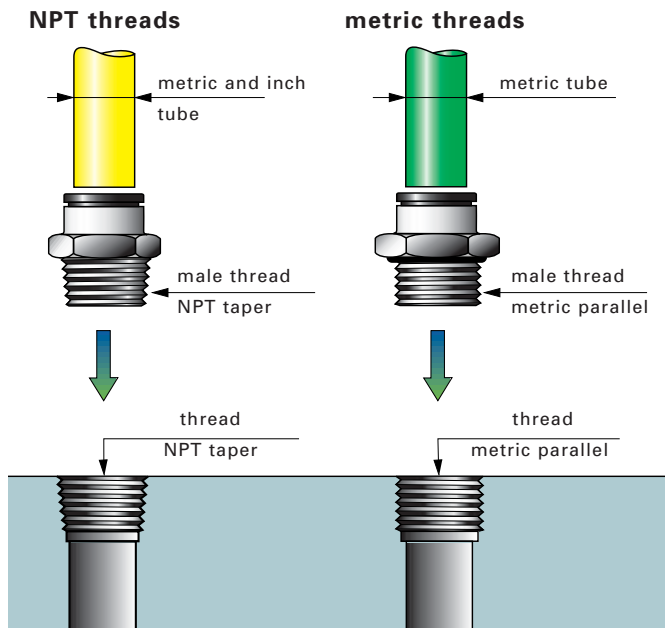
**Differential pressure** ( $\Delta p$ ) is the difference between upstream pressure and downstream pressure.

## Classification of vacuum

- **medium vacuum** 29.9 to 0.3 in Hg (1013 to 10 absolute mbar)
- **primary vacuum** 0.3 to .0003 in Hg (10 to  $10^{-3}$  absolute mbar)
- **secondary vacuum** .0003 to .0000003 in Hg ( $10^{-3}$  to  $10^{-6}$  absolute mbar)
- **molecular vacuum** .0000003 to .000000003 in Hg ( $10^{-6}$  to  $10^{-9}$  absolute mbar)
- **ultra-vacuum** < .000000003 in Hg (<  $10^{-9}$  absolute mbar)

# technical guidelines

## • threaded connections



### NPT threads (National Pipe Thread)

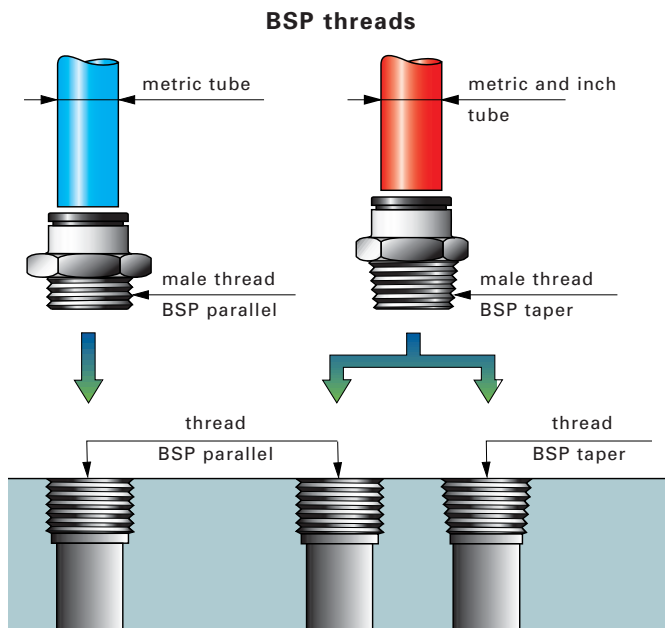
NPT is an American taper thread standard ASME B1.20.1-1983. They can be assembled on the same taper thread. Sealing is ensured by thread sealant.

### metric threads

These ISO profile threads are parallel type threads which can be assembled with the compatible parallel thread. Sealing is ensured by a face seal at the base.

### thread designation

- M followed by diameter x pitch in mm, according to standards ISO 68-1 and ISO 965-1  
example: **M7x1**



### BSP threads (British Standard Pipe)

Two common types of profiles are:

- parallel: which can be assembled with the compatible parallel thread. Sealing is ensured by face seal at the base.
- taper: which can be assembled in the same parallel or taper thread. Sealing is ensured by thread sealant.

### thread designation

- exterior threads (male)
- **BSP parallel:** G followed by the description, according to standard ISO 228-1  
example: 1/8 thread BSP parallel → **G1/8**
- **BSP taper:** R followed by the description, according to standard ISO 7-1  
example: 1/8 thread BSP taper → **R1/8**

Legris fittings can be used for any installation conforming to international standards DIN 3852 (1, 2, 3) – NF F 49051 – NF E48051 – JIS B202/JIS B203 – ISO7-1 – ISO 228-1 - DIN 259 - BS 21 - BS 2779

# practical information

## • threaded connections

### national pipe thread

nominal thread size (in)	threads per inch	max. torque (inch pounds)	handtight engagement	thread O.D. at small end
10-32UNF	32	13	Seals Flush	0.187" (4.75mm)
1/16	27	—	0.28" (7.1mm)	0.271" (6.8mm)
1/8	27	70	0.37" (9.4mm)	0.363" (9.2mm)
1/4	18	100	0.49" (12.4mm)	0.477" (12.1mm)
3/8	18	250	0.627" (15.9mm)	0.612" (15.5mm)
1/2	14	308	0.778" (19.7mm)	0.758" (19.2mm)

### metric thread

metric thread size	male thread O.D. (mm)	metric thread size	male thread O.D. (mm)	metric thread size	male thread O.D. (mm)
M5 x 0.75	5	M14 x 1	14	M27 x 1.50	27
M6 x 0.75	6	M14 x 1.25	14	M27 x 2	27
M6 x 1	6	M14 x 1.50	14	M30 x 1.50	30
M7 x 0.75	7	M15 x 1.25	15	M30 x 2	30
M7 x 1	7	M15 x 1.50	15	M33 x 1.50	33
M8 x 1	8	M16 x 1.25	16	M33 x 2	33
M8 x 1.50	8	M16 x 1.50	16	M24 x 2	24
M9 x 0.75	9	M17 x 1.25	17	M36 x 2	36
M9 x 1	9	M18 x 1.25	18	M39 x 2	39
M10 x 1	10	M18 x 1.50	18	M52 x 2	52
M10 x 1.25	10	M20 x 1.50	20	M42 x 2	42
M10 x 1.50	10	M21 x 1.50	21	M45 x 2	45
M11 x 1	11	M22 x 1.50	22	M48 x 2	48
M12 x 1	12	M23 x 1.50	23	M52 x 2.50	52
M12 x 1.25	12	M24 x 1.50	24		
M12 x 1.50	12	M25 x 1.50	25		
M13 x 1.25	13	M26 x 1.50	26		

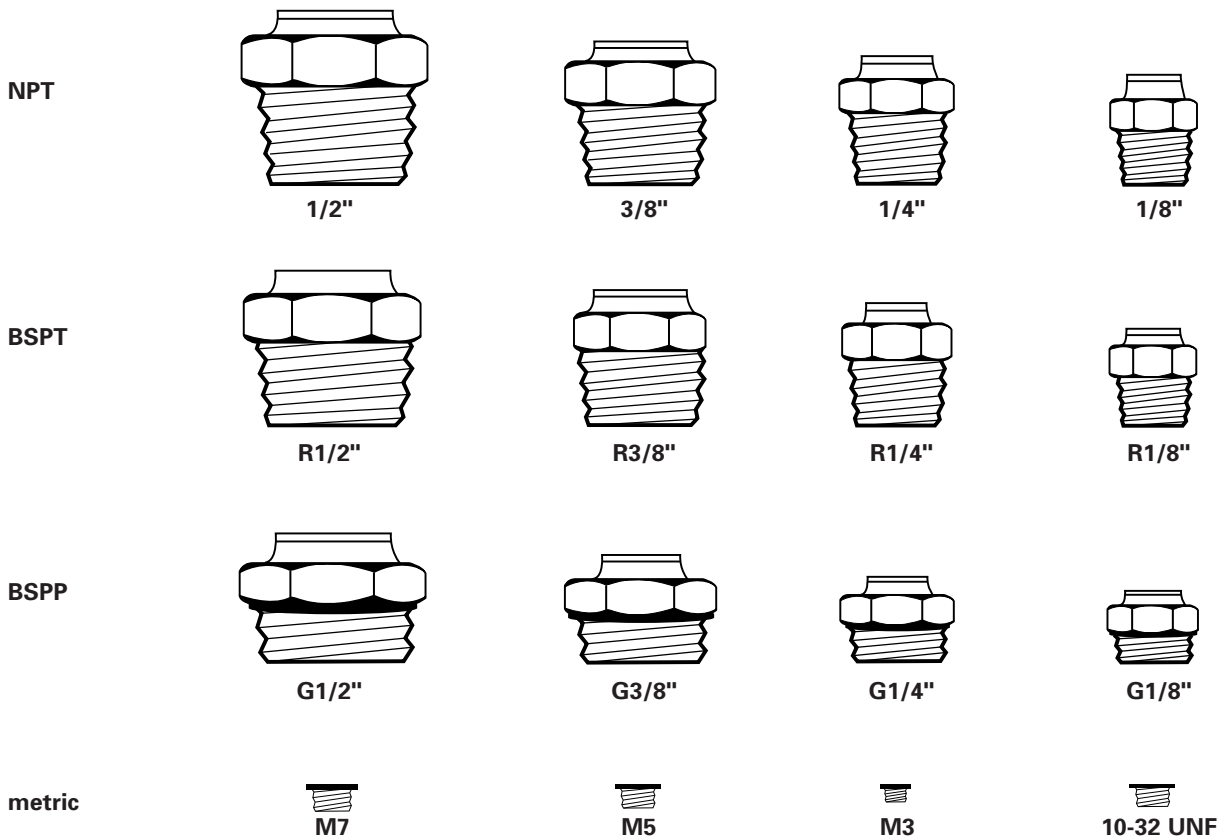
### british standard pipe

Nominal Thread Size	Threads per inch	Male Parallel Thread O.D.	Female Parallel Thread I.D.
1/8	28	0.375" (9.5mm)	0.344" (8.7mm)
1/4	19	0.531" (13.5mm)	0.438" (11.1mm)
3/8	19	0.656" (16.7mm)	0.534" (13.6mm)
1/2	14	0.813" (20.6mm)	0.719" (18.3mm)

When looking at a Legris fitting or adapter, there is a ring groove at the end of the thread to identify NPT threads. If the end of the base is smooth, the thread is BSPT. This applies to all threaded fittings, adapters and right angle flow control valves.



## • threaded profiles – ACTUAL SIZE



# practical information

## • conversion tables

### pressure – PSI and Bars

1 PSI = .0689655 bar				1 bar = 14.5 PSI			
PSI	BARS	PSI	BARS	BARS	PSI	BARS	PSI
20	1.379	1100	75.86	1	14.50	55	797.5
30	2.069	1200	82.76	2	29.00	60	870.0
40	2.759	1300	89.66	3	43.50	65	942.5
50	3.448	1400	96.55	4	58.00	70	1015
60	4.138	1500	103.5	5	72.50	75	1088
70	4.828	1600	110.3	6	87.00	80	1160
80	5.517	1700	117.2	7	101.5	85	1233
90	6.207	1800	124.1	8	116.0	90	1305
100	6.897	1900	131.0	9	130.5	95	1378
200	13.79	2000	137.9	10	145.0	100	1450
300	20.69	2250	155.2	15	217.5	150	2175
400	27.59	2500	172.4	20	290.0	200	2900
500	34.48	2750	189.7	25	362.5	250	3625
600	41.38	3000	206.9	30	435.0	300	4350
700	48.28	3500	241.4	35	507.5	350	5075
800	55.17	4000	275.9	40	580.0	400	5800
900	62.07	4500	310.3	45	652.5	450	6525
1000	68.97	5000	344.8	50	725.0	500	7250

### units of vacuum

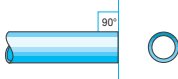
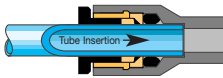
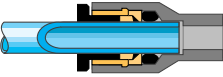
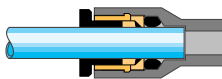
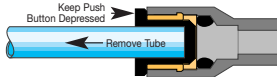
depression (in mm Hg)	vacuum (in %)	absolute pressure (in mbar)	depression (in mbar)
0	0	1000	0
-75	10	900	-100
-100	13.3	867	-133
-150	20	800	-200
-200	26.7	733	-267
-225	30	700	-300
-300	40	600	-400
-375	50	500	-500
-400	53.3	467	-533
-450	60	400	-600
-500	66.7	333	-667
-525	70	300	-700
-600	80	200	-800
-675	90	100	-900
-690	92	80	-920




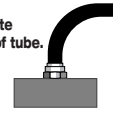





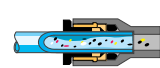
### table of equivalents

COLUMN 1 TO CONVERT INTO	COLUMN 2 INTO TO CONVERT	COLUMN 3 MULTIPLY BY DIVIDE BY
Atmospheres	Feet of Water	33.9
Atmospheres	Inches of Mercury (Hg)	29.92
Atmospheres	PSI (Lbs per Sq. Inch)	14.7
BTU	Foot Pounds	778.3
BTU per Hour	Watts	0.2931
BTU per Minute	Horsepower	0.02356
Celsius (Centigrade)	Fahrenheit	°C x 1.8 + 32
Centimeters	Inches	0.3937
Cubic Centimeters	Gallons (U.S. Liquid)	0.0002642
Cubic Centimeters	Liters	0.001
Cubic Feet	Cubic Inches	1728
Cubic Feet	Gallons (U.S. Liquid)	7.48052
Cubic Inches	Cubic Feet	0.0005787
Cubic Inches	Gallons (U.S. Liquid)	0.004329
Days	Seconds	86,400
Degrees (Angle)	Radians	0.01745
Feet	Meters	0.3048
Feet	Miles	0.0001894
Feet of Water	Atmospheres	0.0295
Feet of Water	Inches of Mercury (Hg)	0.8826
Feet of Water	PSI (Lbs. Per Sq. Inch)	0.4335
Feet per Minute	Miles per Hour	0.01136
Feet per Second	Miles per Hour	0.6818
Foot-Pounds	BTU	0.001286
Foot-Pounds per Minute	Horsepower	0.0000303
Foot-Pounds per Second	Horsepower	0.001818
Gallons (U.S. Liquid)	Cubic Feet	0.1337
Gallons (U.S. Liquid)	Cubic Inches	231
Gallons of Water	Pounds of Water	8.3453
Horsepower	BTU per Minute	42.44
Horsepower	Foot-Pounds per Minute	33,000
Horsepower	Foot-Pounds per Second	550
Horsepower	Watts	745.7
Hours	Days	0.04167
Hours	Weeks	0.005952
Inches	Centimeters	2.54
Inches of Mercury (Hg)	Atmospheres	0.03342
Inches of Mercury (Hg)	Feet of Water	1.133
Inches of Mercury (Hg)	PSI (Lbs. Per Sq. Inch)	0.4912
Inches of Water	PSI (Lbs. Per Sq. Inch)	0.03613
Liters	Cubic Centimeters	1000
Liters	Gallons (U.S. Liquid)	0.2642
Micron	Inches	0.00004
Miles (Statute)	Feet	5280
Miles per Hour (MPH)	Feet per Minute	88
Miles per Hour	Feet per Second	1.467
Ounces (Weight)	Pounds	0.0625
Ounces (Liquid)	Cubic Inches	1.805
Pints (Liquid)	Quarts (Liquid)	0.5
Pounds	Grains	7000
Pounds	Grams	453.59
Pounds	Ounces	16
PSI (Lbs. Per Sq. Inch)	Atmospheres	0.06804
PSI (Lbs. Per Sq. Inch)	Feet of Water	2.307
PSI (Lbs. Per Sq. Inch)	Inches of Mercury (Hg)	2.036
Quarts	Gallons	0.25
Square Feet	Square Inches	144
Temperature (°F - 32)	Temperature °C	0.5555
Tons (U.S.)	Pounds	2000
Watts	Horsepower	0.001341

# recommendations

## • assembly of Legris fittings

Industrial Push-to-Connect Fittings Quick Assembly	
Connection	Disconnection
<p><b>1</b> Achieve a square cut edge with a tube cutter.</p>  <p><b>2</b> Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.</p>  <p><b>3</b> Pull on the tubing to verify gripping action.</p> 	<p><b>1</b> Make sure there is no air flow.</p>  <p><b>2</b> Depress the manual push button, then pull the tube out.</p> 

Industrial Push-to-Connect Fittings Quick List	
Do's	Don'ts
<p><b>1</b> Tighten by hand. Make final adjustment with wrench at the hex.</p>  <p><b>2</b> Achieve a square cut and clean edge.</p>  <p><b>3</b> Use Legris tube cutter. (p/n 3000 71 00)</p>  <p><b>4</b> Allow adequate bend radius of tube.</p>  <p><b>5</b> Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.</p> 	<p><b>1</b> Avoid using wrench on push-to-connect end.</p>  <p><b>2</b> Avoid drastic angle cutting which can lead to an improper seal.</p>  <p><b>3</b> Avoid using a knife or a dull tool to cut the tubing. Avoid burrs, dirt, and anything that can hinder full flow.</p>  <p><b>4</b> Avoid kinking the tubing and side load against the collet or gripping ring which can cause leaks.</p>  <p><b>5</b> Avoid contaminating substances in fittings and cartridges.</p> 

## compression fittings

Cut the tube square, deburr inner and outer edges;

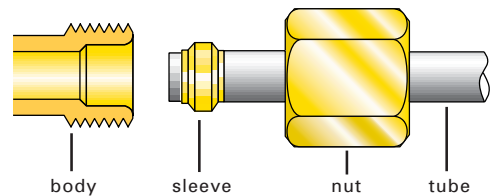
If required, any bending of the tube must be completed prior to connection.

Push the sleeve nut onto the tube. For large diameters, lubricate the inside of the nut to facilitate tightening.

Fit the sleeve onto the end of the tube, after the nut.

Firmly push the tube against the shoulder of the fitting body.

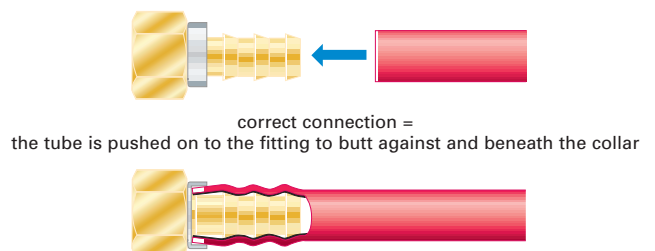
Tightening of the nut enables the sleeve to compress into the tube.



## quick-acting barbed fittings for push-on hose

Connection is quick and easy:

- no grease or oil is needed to lubricate the tube and no preparation time is required. Safety for both installer and user is safeguarded since the tube when pushed onto the fitting butts against and beneath the grey collar visually confirming correct connection.
- to disconnect, cut the tube with a knife on the barbed side of the fitting.



# recommendations

## food industry applications

Products designed for food industry use must conform to specific requirements, dependant upon the application. The Legris catalog features several product ranges that meet such requirements, including:

- ranges for food fluids, with materials that conform to relevant FDA standards.
- ranges for compressed air and other fluids, whose materials can be used in direct contact with food products.

Here are some examples:



### LF3600 push-to-connect fittings

for food fluids

Materials: FDA approved chemical nickel-plated brass and FKM seals

Found in section D.



### LF3800 push-to-connect fittings

for industrial fluids in food environments

Materials: stainless steel AISI 316L and FKM seals, can be used in contact with food products.

Found in section E.

### stainless steel function valves

flow regulators and check valves\* for food environments.

Material: stainless steel AISI 316L

\*upon request: for food fluids, with FKM seals.

Found on pages B18 & B23.



### stainless steel accessories

for food fluids

Material: stainless steel AISI 316L

Found on page H17 - H19.

### tubing and hoses

FEP 140 tubing, polyethylene tubing and braided PVC hose for food fluids

Found in section M.



### stainless steel industrial ball valves

for food environments

Material: stainless steel AISI 316L

Found on pages R12 & R13.

# recommendations

## safety

The safety of individuals and equipment in the workplace is one of the main responsibilities of company managers, shop floor supervisors, prevention organizations and standards bodies. Several Legris ranges have been specifically designed to meet the operating requirements and safety standards that apply to all industrial organizations.

Some examples are highlighted below.



### pneumatic slow start valves

These valves allow start-up air pressure to increase gradually and thus prevent shocks within the system, saving wear and preventing injury to users and components.

Found on page B33.



### lockable ball valves

These ball valves have been developed in order to prevent potentially dangerous consequences caused by unintended operation, thus meeting international safety requirements.

Found on pages R10 & R11.



### lock-out valves

Designed to offer maximum flow capacity, Legris lock-out valves lock the piston by simultaneously cutting off the supply and exhaust air.  
Found on page B21.



### C9000 automatic quick disconnect safety couplers

Even if disconnection is performed rapidly, the safety of the end-user is guaranteed due to a very short vent-time and two stage release of body and plug.  
Found in section K.



### dynamic safety blowguns

An integrated pressure regulator ensures pressure reduction and safety to the user and machinery at all times.  
Found in section L.



### legris.com's advantage points

Within the training module of the Legris web site, you will find animated presentations of many safety solutions:



[www.legris.com](http://www.legris.com)



# recommendations

## medical industry applications

Legris, inventor of push-to-connect fitting technology, offers a wide variety of products suitable for medical activities, such as cartridges, fittings and tubing. Materials and grease can be adapted to meet various medical applications like dental, anesthesia and dialysis equipment.

Here are some solutions specifically adapted to medical applications:



### carstick

The concept which combines LF3000® one-piece cartridge with a specially designed protection and dispensing sleeve. Materials: nylon button and protection sleeve, nickel-plated brass retaining sleeve, nitrile seals. Found on page A47.

### LF3800 push-to-connect fittings

Offers excellent resistance to aggressive environments and fluids. Materials: stainless steel AISI 316L and FKM seals. Found in section E.



### LF3000 push-to-connect fittings

Designed using a simple and widely proven operating principle which allows instant connection and disconnection. Materials: nylon bodies, nickel-plated brass bases, nitrile seals. Found in section A.

### LF3600 push-to-connect fittings

Can be used in aggressive environments due to its chemical nickel-plating. Materials: chemical nickel-plated brass and FKM seals. Found in section D.



### tubing

FEP 140 tubing provides excellent resistance to aggressive and corrosive agents and to high temperatures. Nylon tubing provides optimum mechanical properties and has good chemical resistance. Polyurethane tubing has high flexibility which allows for compact cabling where a small bend radius is required. Found in section M.

# recommendations

## packaging industry applications

With a wide variety of ranges, the Legris offer suits many industrial activities. One of them is packaging applications like case palletizing, labeling, filling, conveying and rinsing/pasteurizing.

Here are some products suited for the packaging industry:



### knobless flow controls

Features push-to-connect connection, compact size, orientable, recessed screw, and fine threads. The recessed adjustment screw reduces external dimensions allowing use in reduced spaces. It also provides security and helps to prevent unwanted adjustment.

Found on pages B10 & B11.



### pressure regulators

Used to stabilize the pressure at a given value that is applied to pneumatic equipment, whatever the fluctuations of pressure upstream. The pressure outlet is fully controlled by an adjustment screw which is calibrated to show pressure setting levels. Found on page B37.

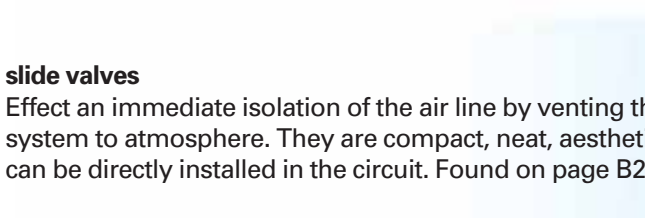
### miniature flow controls

Control the speed of small bore cylinders. Control is achieved gradually due to the extreme sensitivity of the adjustment screw, which allows exceptionally fine setting levels. Found on pages B12 & B13.



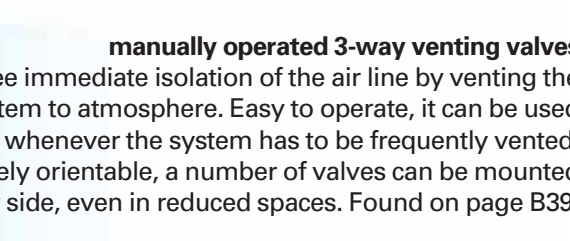
### metal flow controls

Suitable for use in severe conditions. Designed to withstand high temperatures, sparks, abrasion, etc. Locking nut guarantees adjustment stability against vibration and prevents unwanted adjustment. Found on page B19.



### slide valves

Effect an immediate isolation of the air line by venting the system to atmosphere. They are compact, neat, aesthetic and can be directly installed in the circuit. Found on page B29.



### manually operated 3-way venting valves

Guarantee immediate isolation of the air line by venting the system to atmosphere. Easy to operate, it can be used whenever the system has to be frequently vented. Completely orientable, a number of valves can be mounted side by side, even in reduced spaces. Found on page B39.

# recommendations

## • compatibility of Legris fittings and tubing

The chart below summarizes the compatibility of Legris fittings and tubing. In order to obtain the best performance of connection assembly, the user should take into account the individual technical specification of both fitting and tubing.

fittings	tubing and hoses						
	nylon semi-rigid	polyurethane	nylon and polyurethane recoil tubing	fluoropolymer FEP 140	polyethylene	PVC braided hose	push-on hose
LF3000 system							
Function valves							
LF3200 system							
LF3600 system							
LF3800 system							
Brass compression	*	*	*		*		
Cartridges							
Models 0132, 0133 and 0134							
Stainless steel compression	*	*					
C9000 safety coupler							
Metal quick disconnect couplers							
Micro & small couplers							
Blowguns							

\* tube support must also be used

At high temperature and pressure or during oscillating movements, the use of a tube support prevents distortion of the tube which guarantees effective gripping and sealing.

# recommendations

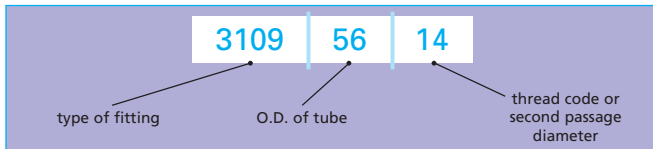
## • identification of Legris part numbers

To help users, Legris classifies its product ranges with specific part numbers which provide easy identification of each item.

### Legris fittings and valves

Part numbers have been chosen by a method of mnemonics.

#### fittings



**diameter of passage:** corresponds to the O.D. of tube  
**thread code:** see chart below

When the item is not threaded (plug-in or tube to tube fittings) the code is: **00**

#### O.D. tube size

fractional inch

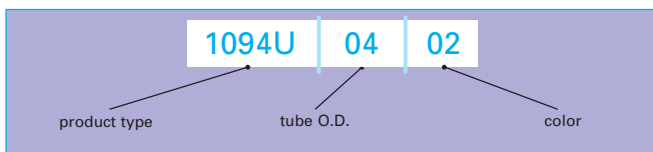
O.D. tube size	code
1/8"	53
5/32"	04
3/16"	55
1/4"	56
5/16"	08
3/8"	60
1/2"	62

#### threads

NPT thread	code	BSP thread	code
1/16"	08	1/8"	10
1/8"	11	1/4"	13
1/4"	14	3/8"	17
3/8"	18	1/2"	21
1/2"	22	3/4"	27
3/4"	28	1"	34
1"	35	1 1/4"	42
1 1/4"	43	1 1/2"	49
1 1/2"	50	2"	48
2"	44		
10-32" UNF	20		

### Legris tubing and hoses

Part numbers have been chosen by a method of mnemonics.



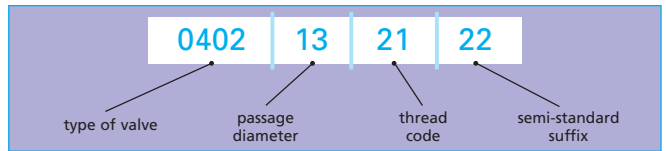
**tube O.D.:** corresponds to the O.D. (outside diameter) of the tube  
**color code:** see chart below

00 =	03 =	06 =
01 =	04 =	07 =
02 =	05 =	08 =

#### Each fitting is identified by:

- its series (4 numbers)
- the diameter of passage through the fitting (2 numbers)
- the thread code or diameter of the second passage (2 numbers)
- a suffix, if appropriate

#### valves



**passage diameter:** corresponds to the passage diameter through the valve  
**thread code:** see chart below

#### O.D. tube size

metric

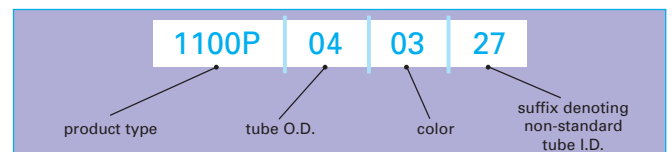
O.D. tube size	code
3 mm	03
4 mm	04
5 mm	05
6 mm	06
8 mm	08
10 mm	10
12 mm	12
14 mm	14
16 mm	16

#### threads

metric thread	code	metric thread	code	metric thread	code
M3x0.5	09	M13x1.25	68	M27x1.5	85
M5x0.8	19	M14x1.25	70	M30x2	87
M7x1	55	M14x1.5	71	M33x1.5	90
M8x1	56	M16x1.25	74	M39x1.5	36
M8x1.25	57	M16x1.5	75	M42x1.5	37
M10x1	60	M18x1.5	78	M42x2	96
M10x1.5	62	M20x1.5	80	M48x2	98
M12x1	65	M22x1.5	82		
M12x1.25	66	M24x1.5	83		

#### Each tube and hose is identified by:

- product type (4 numbers and one letter)
- O.D. of the tube (2 numbers)
- color (2 numbers)
- I.D. of non-standard tube, if appropriate (2 numbers)




**tube O.D.:** corresponds to the O.D. (outside diameter) of the tube  
**color code:** see chart below


12 =	14 =
13 =	15 =

# consult our North American catalog with ease

**principle of system LF3000®**



Industrial specifications



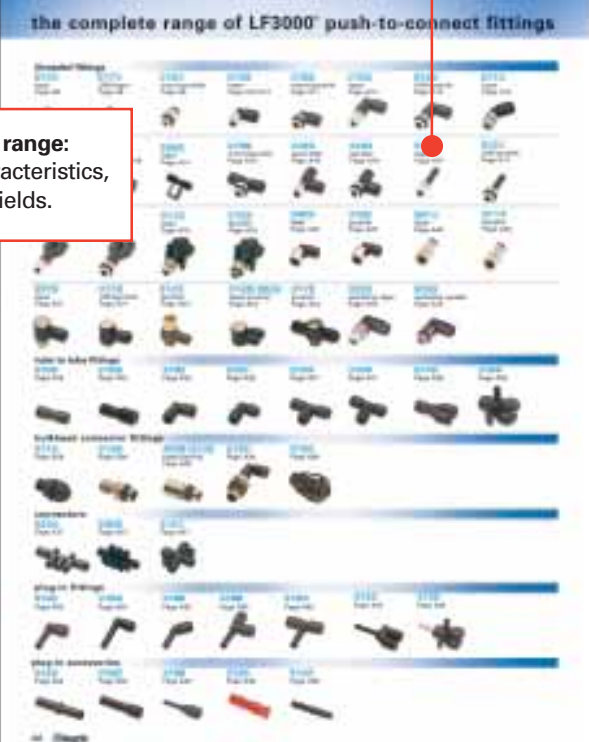
**principle of the range:**  
its general characteristics,  
its application fields.

The European Legris catalog of low pressure industrial connections is published in 8 languages – English, German, Spanish, French, Italian, Dutch, Portuguese and Swedish. Its design, identical for each of these languages, enables fast and easy selection of products.

one color per type of product.

« the complete range »  
pages: where you can find  
the models you need.

**the complete range of LF3000® push-to-connect fittings**



**yellow chart:**  
technical specifications of  
the range

**for each model:**  
a picture and a  
dimensional drawing

**for each part number:**  
the dimensions and weight

**male connector**



**information box at the bottom of  
the page:** further information to  
be consulted either in the catalog  
or on the Legris web-site

**the advantages of legris.com**



www.legris.com

**A - push-to-connect fittings, system LF3000® - pages A1 to A50**



**B - pneumatic function valves - pages B1 to B45**



**C - LF3200 push-to-connect fittings for industrial applications - pages C1 to C9**

**D - LF3600 push-to-connect fittings for food applications - D1 to D15**

**E - LF3800 stainless steel push-to-connect fittings - pages E1 to E15**

**F - SAE/DOT push-to-connect fittings for vehicle applications - F1 to F17**



**G - brass compression fittings - pages G1 to G33**



**H - accessories, silencers and plugs - pages H1 to H25**



**K - quick disconnect couplers - pages K1 to K19**

**L - universal blowguns - L1 to L9**



**M - tubing and hoses - M1 to M25**



**R - industrial ball valves - R1 to R25**

**T - axial valves - T1 to T7**

**Y - special products - pages Y1 to Y3**

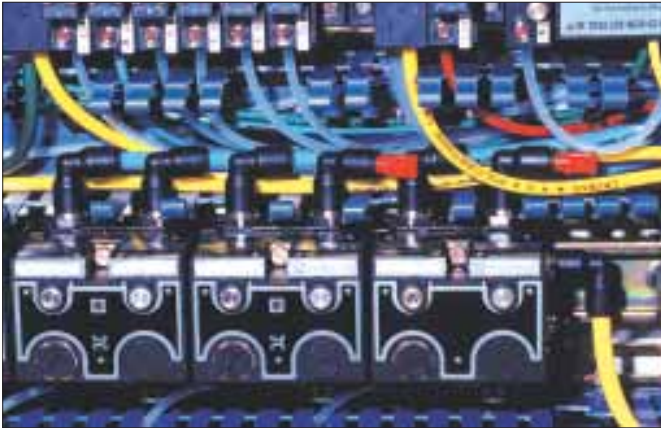
**Z - Legris worldwide, index - pages Z1 to Z6**



# push-to-connect fittings system LF3000

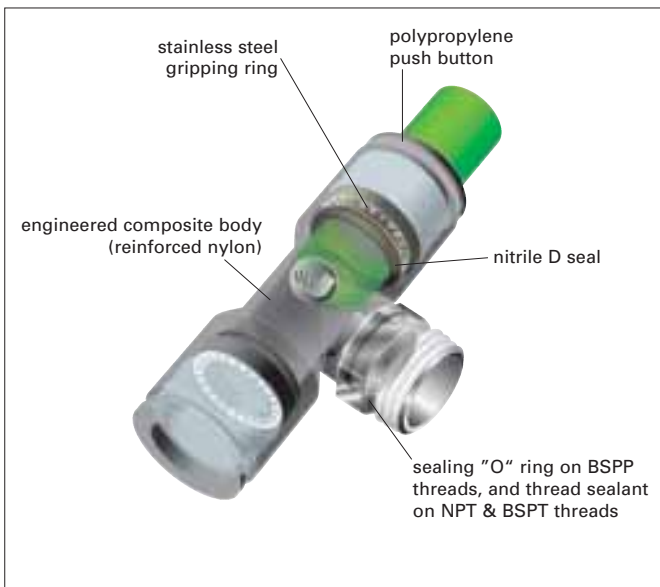


# principle of system LF3000®



## technical specifications

Reliable performance is dependent upon the tube being used, ambient temperature and fluid conveyed together with the component materials of the fitting.



All items in the LF3000® range are guaranteed **SILICONE FREE**

Invented and launched by **Legris** in 1969, the **LF3000® system** has become universally adopted. It has been designed using a simple and widely proven operating principle which allows instant connection. The **connection** of tube to fitting is made by simply pushing the tube into the fitting, no other operation is required. **Disconnection** is similarly **"instantaneous"**. Attentive to market needs, **Legris** has taken into account the requirements of its customers, i.e. optimization of performance, miniaturization, and appearance. In order to be utilized to its maximum capability, the **LF3000® system** is available in 3 ranges:

- for fractional **inch tubes with NPT threads**.
- for fractional **inch tubes with BSP threads in taper form**.
- for **metric tubes with BSP threads in taper, parallel or metric form**.

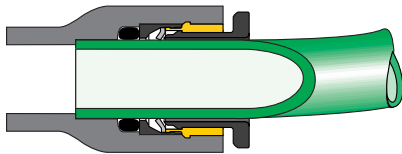
Millions of fittings are in service throughout the world.

Designed for pneumatic installations, the **LF3000® system** is therefore an essential component in a wide variety of industries.

<b>suitable fluids</b>	compressed air							
<b>working pressure</b>	290 psi maximum for <b>LF3000® gripping ring</b> (260 psi maximum for LF3000® collet technology) Maximum circuit pressure depends equally on the type and diameter of the tube used. See Chapter on <b>Legris</b> tubing. <i>For use on very low pressures, please consult us.</i>							
<b>working temperature</b>	-40°F to +175°F, <b>LF3000® gripping ring</b> (-40°F to 155°F, LF3000® collet technology) The fitting's suitability depends equally on the type and OD of the tube used. <i>For temperatures above 175°F, please consult us.</i>							
<b>vacuum capability</b>	vacuum of 28" Hg (99% vacuum)							
<b>materials of construction</b>	<b>body:</b> glass reinforced nylon 6.6 <b>collar:</b> nylon <b>gripping ring:</b> stainless steel <b>D seal:</b> nitrile <b>"O" rings:</b> nitrile <b>base:</b> nickel-plated brass with thread sealant on tapered components and captive seal on parallel threads <b>collet:</b> brass (found only in collet technology fittings)							
<b>maximum tightening torque for LF3000® fittings:</b>	NPT & BSPT taper thread	10/32	1/8"	1/4"	3/8"	1/2"		
	parallel thread	M3 x0.5	M5 x0.8	M7 x1	G1/8"	G1/4"	G3/8"	G1/2"
	in. lb	5	14	70	70	100	266	300

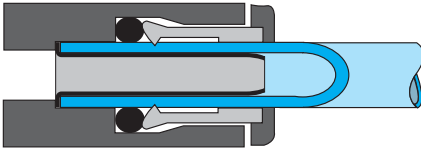
# advantages of system LF3000®

## gripping ring technology



1/8", 5/32", 1/4", 5/16", 3/8", 1/2",  
4mm, 6mm, 8mm, 10mm, 12mm, 14mm

## collet technology



3/16"



## one of the most extensive ranges on the market

- **a solution for all applications:** wide variety of body designs and numerous configurations, from 1/8" to 1/2" and 3mm to 14mm diameters.
- **types of thread:** NPT, BSP taper, BSP parallel and metric.
- **special items** on request.

## compact and aesthetic

- optimized dimensions and new body designs, to satisfy the **ergonomics** and **aesthetics of pneumatic installations**.

## orientable at base

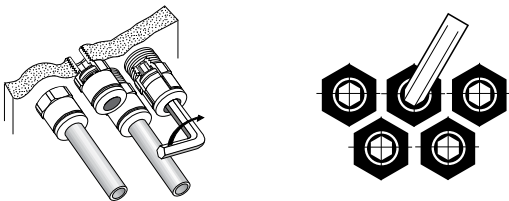
- ease of assembly
- no over/under torquing

## lightweight

- a feature introduced for improved performance, mobility and productivity.

## performance and reliability

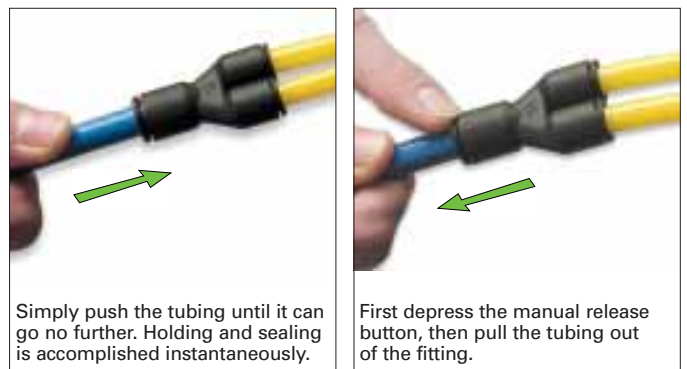
- **full flow:** as gripping and sealing within the fitting is achieved using the outside of the tube without deformation, there is no flow restriction. Smallest orifice inside the fitting is = or > than the ID of the tube.
- **automatic sealing:** the D seal within the fitting provides a positive seal on the O.D. of the tube, in both static and dynamic positions, due to an **optimized design** of the fitting cavity.
- **internal hex:** allows ease of assembly in tight places.



## immediate seal of threads

- for **tapered threaded fittings**, due to pre-applied teflon thread sealant.
- for **parallel threaded fittings**, due to a patented built in captive "O" ring seal.

***Our production process includes individual unit quality control and dating, for all LF3000® push-to-connect fittings, in order to guarantee their quality and traceability.***



Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.

First depress the manual release button, then pull the tubing out of the fitting.

## instant connection and disconnection

- **instant** connection and disconnection without the use of tools.
- time saving
- 1 piece fitting
- reusable
- **release caps:** available in 6 colors, to **identify** different circuits. Fittings come standard with a black push button.

# the complete range of LF3000® push-to-connect fittings

## threaded fittings

**3175**  
taper  
Page A6



**3171**  
UNF/taper  
Page A7



**3181**  
metric  
Page A7



**3101**  
metric/parallel  
Page A7



**3109**  
taper  
Page A8-A9



**3199**  
metric/parallel  
Page A9



**3129**  
taper  
Page A10



**3169**  
UNF/parallel  
Page A10



**3113**  
taper  
Page A11



**3133**  
UNF/parallel  
Page A11



**3108**  
taper  
Page A12-A13



**3008**  
taper  
Page A12



**3198**  
metric/parallel  
Page A13



**3103**  
taper/UNF  
Page A14



**3193**  
parallel  
Page A14



**3121**  
taper  
Page A15



**3131**  
UNF/parallel  
Page A15



**3148**  
taper  
Page A16



**3158**  
parallel  
Page A16



**3112**  
taper  
Page A17



**3132**  
parallel  
Page A17



**3009**  
taper  
Page A18



**3192**  
parallel  
Page A18



**3014**  
taper  
Page A18



**3114**  
parallel  
Page A18



**3018**  
taper  
Page A19



**3118**  
UNF/parallel  
Page A19



**3124**  
parallel  
Page A22



**3149/3049**  
taper/parallel  
Page A22



**3119**  
parallel  
Page A22



**3159**  
oscillating, taper  
Page A42



**3189**  
oscillating, parallel  
Page A43



## tube to tube fittings

**3106**  
Page A23



**3106**  
Page A23



**3102**  
Page A24



**3102**  
Page A24



**3104**  
Page A25



**3104**  
Page A25



**3140**  
Page A26



**3144**  
Page A26



## bulkhead connector fittings

**3116**  
Page A27



**3146**  
Page A27



**3036/3136**  
taper/parallel  
Page A27



**3139**  
Page A27



**3156**  
Page A28



## connectors

**3304**  
Page A29



**3306**  
Page A29



**3107**  
Page A29



## plug-in fittings

**3182**  
Page A30



**3184**  
Page A30



**3180**  
Page A30



**3183**  
Page A31



**3188**  
Page A31



**3142**  
Page A32



**3143**  
Page A32



## plug-in accessories

**3120**  
Page A32



**3166**  
Page A33



**3168**  
Page A33



**3126**  
Page A34



**3122**  
Page A34



# the complete range of LF3000® push-to-connect fittings

## manifolds

**3301**  
Page A36



**3302 01**  
Page A36



**3302 02/03**  
Page A36-A37



**3303**  
Page A37



**3305**  
Page A37



**3303**  
Page A37



**3315**  
Page A37



**3310**  
Page A37



## multi-connectors and din rail connectors

**3300**  
Page A38



**3379**  
Page A35



**3381**  
Page A35



**3320**  
Page A39



**3321**  
Page A39



**3329**  
Page A39



## modular fittings

**3538**  
Page A20



**3539**  
Page A20



**3549**  
Page A20



**3527**  
parallel  
Page A21



**3528**  
parallel  
Page A21



**3529**  
parallel  
Page A21



**3524**  
parallel  
Page A21



## self-sealing fittings

**3091**  
taper  
Page A40



**3391**  
parallel  
Page A40



**3160**  
Page A40



**7925**  
taper  
Page A40



**7960**  
Page A40



## accessories

**0121**  
Page A43



**0164**  
Page A43



**0167**  
Page A43



**0178**  
Page A44



**0179**  
Page A44



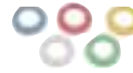
**0222**  
Page A44



**clip**  
Page A44



**3110/3330**  
Page A45



**3000 70**  
Page A45



## carstick®

**3100**  
Page A47



## mini ball valves

**7913**  
page A41



**7914**  
parallel  
Page A41



**7915**  
taper  
Page A41



**7910**  
Page A41



**7911**  
parallel  
Page A41



## 3mm threaded fittings

**3281**  
Page A49



**3299**  
Page A49



**3229**  
Page A49



**3298**  
Page A49



**3293**  
Page A49



**3218**  
Page A49



## 3mm tube to tube fittings

**3206**  
Page A50



**3202**  
Page A50



**3204**  
Page A50



**3266**  
Page A50



**3226**  
Page A50



The LF3000® system can be used for:

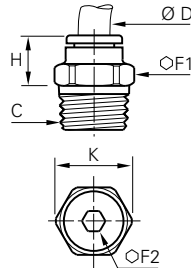
- **inch tubes**, from 1/8 to 1/2
  - NPT, UNF, and BSP taper threads
- **metric tubes**, from 3 mm to 14 mm
  - BSP taper, BSP parallel, and metric threads

# male connector

## 3175 male connector — fractional inch tube to male NPT



nickel-plated brass  
pre-applied thread sealant

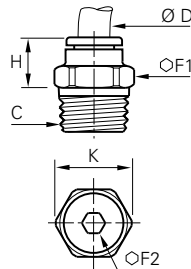


ØD in	C NPT		F1 mm	F2 in	H in	K in	oz
1/8	1/16	3175 53 08	10	.07	.413	.433	.24
1/8	1/8	3175 53 11	11	.07	.283	.472	.25
1/8	1/4	3175 53 14	14	.07	.315	.591	.59
5/32	1/8	3175 04 11	11	7/64	.334	.472	.26
5/32	1/4	3175 04 14	14	7/64	.275	.590	.56
3/16	1/8	3175 55 11	7/16"	1/8	.61	.51	.49
3/16	1/4	3175 55 14	9/16"	5/32	.59	.65	.97
1/4	1/8	3175 56 11	11	5/32	.472	.472	.26
1/4	1/4	3175 56 14	14	5/32	.374	.590	.50
1/4	3/8	3175 56 18	18	3/16	.295	.767	.88
5/16	1/8	3175 08 11	13	3/16	.787	.551	.45
5/16	1/4	3175 08 14	14	1/4	.661	.590	.58
5/16	3/8	3175 08 18	18	1/4	.464	.767	.89
3/8	1/8	3175 60 11	16	5/32	.894	.689	.79
3/8	1/4	3175 60 14	16	9/32	.807	.689	.73
3/8	3/8	3175 60 18	18	9/32	.689	.767	.97
3/8	1/2	3175 60 22	22	9/32	.610	.945	2.00
1/2	1/4	3175 62 14	22	1/4	1.1	.945	1.62
1/2	3/8	3175 62 18	22	9/32	1.1	.945	.89
1/2	1/2	3175 62 22	22	9/32	1.1	.945	2.51

## 3175 male connector — metric tube to male BSPT



nickel-plated brass  
pre-applied thread sealant

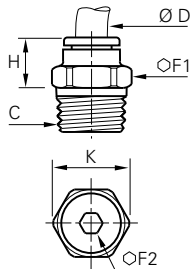


ØD mm	C BSPT		F1 mm	F2 mm	H mm	K mm	kg
4	R1/8	3175 04 10	10	3	9.5	11	.006
4	R1/4	3175 04 13	14	3	6.5	15	.013
4	R3/8	3175 04 17	17	3	8	18.5	.024
6	R1/8	3175 06 10	11	4	11.5	11	.005
6	R1/4	3175 06 13	14	4	8.5	15	.011
6	R3/8	3175 06 17	17	4	8.5	18.5	.014
6	R1/2	3175 06 21	21	4	9	23	.021
8	R1/8	3175 08 10	13	5	20	14	.011
8	R1/4	3175 08 13	14	6	17	15	.014
8	R3/8	3175 08 17	17	6	13	18.5	.021
8	R1/2	3175 08 21	21	6	12	23	.022
10	R1/8	3175 10 10	16	5	22.5	17.5	.017
10	R1/4	3175 10 13	16	7	20	17.5	.017
10	R3/8	3175 10 17	17	8	16.5	18.5	.019
10	R1/2	3175 10 21	21	8	14	23	.037
12	R1/4	3175 12 13	19	7	26.5	21	.029
12	R3/8	3175 12 17	19	9	24	21	.030
12	R1/2	3175 12 21	21	9	19.5	23	.037
14	R3/8	3175 14 17	22	9	28.5	24	.043
14	R1/2	3175 14 21	24	10	23.5	26	.047

## 3175 male connector — fractional inch tube to male BSPT



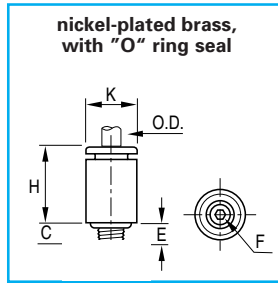
nickel-plated brass  
pre-applied thread sealant



ØD in	C BSPT		F1 mm	F2 mm	H in	K in	oz
1/8	R1/8	3175 53 10	10	2	.335	.433	.39
5/32	R1/8	3175 04 10	10	3	.37	.43	.21
5/32	R1/4	3175 04 13	14	3	.26	.59	.46
3/16	R1/8	3175 55 10	7/16"	1/8"	.61	.51	.36
3/16	R1/4	3175 55 13	9/16"	5/32"	.59	.65	.74
1/4	R1/8	3175 56 10	11	4	.472	.472	.25
1/4	R1/4	3175 56 13	14	4	.374	.591	.78
5/16	R1/8	3175 08 10	13	5	.79	.55	.39
5/16	R1/4	3175 08 13	14	6	.67	.59	.49
5/16	R3/8	3175 08 17	17	6	.51	.73	.74
5/16	R1/2	3175 08 21	21	6	.47	.91	.78
3/8	R1/4	3175 60 13	16	7	.807	.689	1.02
3/8	R3/8	3175 60 17	17	7	.650	.728	1.20
3/8	R1/2	3175 60 21	21	7	.551	.906	2.22
1/2	R1/4	3175 62 13	22	6	1.06	.945	1.55
1/2	R3/8	3175 62 17	22	7	1.02	.945	1.73
1/2	R1/2	3175 62 21	24	7	.807	1.02	1.94

# male connector

## 3171/3181 male connector — fractional inch and metric tube to 10-32 UNF, M5 or M7

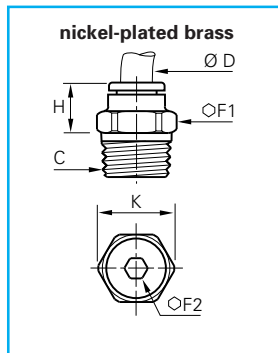


ØD in	C UNF	fractional inch	E in	F mm	H in	K in	oz
1/8	10-32	3171 53 20	.13	2	.49	.32	.17
5/32	10-32	3171 04 20	.13	2	.54	.34	.15
1/4	10-32	3171 56 20	.13	2	.64	.46	.20
1/4	M5	3181 56 19	.14	2.5	.65	.41	.20
1/4	M7	3181 56 55	.18	4	.65	.41	.20
mm	M7	metric	mm	mm	mm	mm	kg
4	M7X1	3181 04 55	4.6	3	14	9.95	.005
6	M7X1	3181 06 55	4.6	3	16	9.9	.005

Recommended for use with compact high flow valves. Because of the miniature bodies, these fittings can be placed close together. The minimum distance between centers of the fittings is 10.5 mm (0.41").

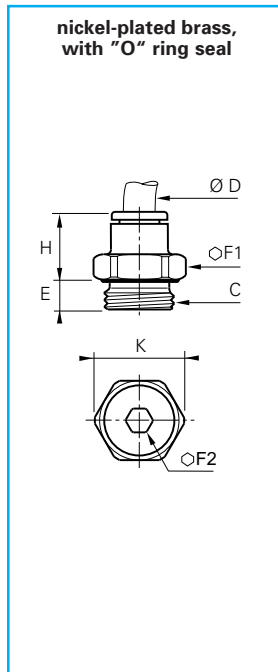


## 3175 male connector — metric tube to male NPT



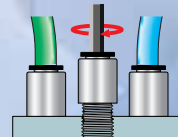
ØD mm	C NPT		F mm	F2 mm	H in	K in	oz
4	1/8	3175 04 11	11	7/64"	.33	.47	.26
4	1/4	3175 04 14	14	7/64"	.28	.59	.56
6	1/8	3175 06 11	11	4	.45	.47	.26
6	1/4	3175 06 14	14	4	.33	.59	.50
8	1/8	3175 08 11	13	3/16"	.79	.55	.45
8	1/4	3175 08 14	14	1/4"	.66	.59	.58
8	3/8	3175 08 18	18	1/4"	.46	.77	.89
10	1/4	3175 10 14	16	7	.79	.69	.63
10	3/8	3175 10 18	18	8	.65	.77	.74
10	1/2	3175 10 22	22	8	.55	.95	1.16
12	3/8	3175 12 18	19	9	.95	.83	1.02
12	1/2	3175 12 22	22	10	.77	.95	1.23

## 3101 male connector — metric tube to male BSPP, M3, M5, or M7



ØD mm	C BSPP/ metric		E mm	F1 mm	F2 mm	H mm	K mm	kg
3	M3x0.5	3101 03 09	2.5	8	-	12.5	8.5	.003
3	M5x0.8	3101 03 19	3.5	8	2.5	12.5	8.5	.003
4	M3x0.5	3101 04 09	2.5	8	-	14.5	8.5	.003
4	M5x0.8	3101 04 19	3.5	8	2.5	14	8.5	.003
4	M7x1	3101 04 55	5	10	2.5	14	11	.005
4	G1/8	3101 04 10	4.5	13	3	11.5	14	.007
4	G1/4	3101 04 13	5.5	16	3	10.5	17.5	.011
6	M5x0.8	3101 06 19	3.5	10	2.5	16	11	.005
6	M7x1	3101 06 55	5	10	3	16	11	.005
6	M10x1	3101 06 60	5	13	4	13	14	.030
6	M12x1.5	3101 06 67	5.5	15	4	13	16	.009
6	G1/8	3101 06 10	4.5	13	4	13	14	.007
6	G1/4	3101 06 13	5.5	16	4	12.5	17.5	.011
6	G3/8	3101 06 17	5.5	20	4	13	22	.015
6	G1/2	3101 06 21	7.5	24	4	20	26	.018
8	M10x1	3101 08 60	5	13	5	21	14	.012
8	M12x1.5	3101 08 67	5.5	15	5	21	16	.030
8	G1/8	3101 08 10	4.5	13	5	20.5	14	.011
8	G1/4	3101 08 13	5.5	16	6	19.5	17.5	.016
8	G3/8	3101 08 17	5.5	20	6	18	22	.022
8	G1/2	3101 08 21	7.5	24	6	16.5	26	.018
10	G1/4	3101 10 13	5.5	16	7	23	17.5	.018
10	G3/8	3101 10 17	5.5	20	8	19.5	22	.021
10	G1/2	3101 10 21	7.5	24	8	18.5	26	.033
12	G1/4	3101 12 13	5.5	19	7	27.5	21	.027
12	G3/8	3101 12 17	5.5	20	9	27	22	.029
12	G1/2	3101 12 21	7	24	10	22.5	26	.035
14	G3/8	3101 14 17	5.5	22	9	29.5	24	.041
14	G1/2	3101 14 21	7	24	11	28	26	.047

Their internal hexagon and circular external shape ensure that models 3171 and 3181 provide highly compact assembly. By using an Allen key, they can be installed in close proximity without the need to use a wrench.

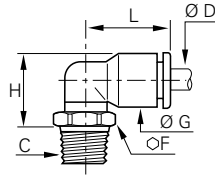


# male elbow

## 3109 male elbow — fractional inch tube to male NPT or UNF



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant  
on tapered threads



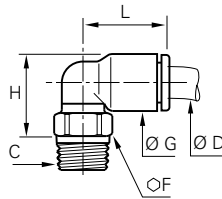
the body is orientable for  
positioning purposes

ØD in	C NPT/UNF		F mm	G in	H in	L in	⚖️ oz
1/8	10-32	3109 53 20	8	.34	.52	.57	.14
1/8	1/16	3109 53 08	10	.34	.53	.57	.23
1/8	1/8	3109 53 11	11	.34	.53	.57	.29
1/8	1/4	3109 53 14	14	.34	.55	.57	.63
5/32	10-32	3109 04 20	8	.33	.53	.55	.14
5/32	1/8	3109 04 11	11	.33	.53	.55	.28
5/32	1/4	3109 04 14	14	.33	.55	.55	.62
3/16	1/8	3109 55 11	11	.43	.67	.85	.45
1/4	10-32	3109 56 20	11	.43	.63	.71	.26
1/4	1/8	3109 56 11	11	.43	.67	.71	.32
1/4	1/4	3109 56 14	14	.43	.63	.71	.51
1/4	3/8	3109 56 18	18	.43	.65	.71	.79
5/16	1/8	3109 08 11	11	.53	.75	.91	.29
5/16	1/4	3109 08 14	14	.53	.71	.91	.58
5/16	3/8	3109 08 18	18	.53	.73	.91	.81
3/8	1/8	3109 60 11	15	.63	.91	1.08	.60
3/8	1/4	3109 60 14	15	.63	.91	1.08	.74
3/8	3/8	3109 60 18	18	.63	.87	1.08	.96
3/8	1/2	3109 60 22	22	.63	.91	1.08	1.69
1/2	1/4	3109 62 14	20	.87	1.22	1.38	1.42
1/2	3/8	3109 62 18	20	.87	1.22	1.38	1.44
1/2	1/2	3109 62 22	24	.87	1.12	1.38	1.89

## 3109 male elbow — metric tube to male BSPT



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant



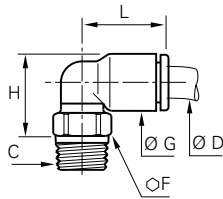
the body is orientable for  
positioning purposes

ØD mm	C BSPT		F mm	G mm	H mm	L mm	⚖️ kg
4	R1/8	3109 04 10	10	8.5	13.5	14	.006
4	R1/4	3109 04 13	14	8.5	14	14	.014
4	R3/8	3109 04 17	17	8.5	13.5	14	.019
6	R1/8	3109 06 10	10	10.5	15.5	16	.006
6	R1/4	3109 06 13	14	10.5	16	16	.015
6	R3/8	3109 06 17	17	10.5	16	16	.016
6	R1/2	3109 06 21	21	10.5	16.5	16	.018
8	R1/8	3109 08 10	10	13.5	19	23	.013
8	R1/4	3109 08 13	14	13.5	18	23	.015
8	R3/8	3109 08 17	17	13.5	18	23	.018
8	R1/2	3109 08 21	21	13.5	19.5	23	.030
10	R1/8	3109 10 10	15	16	23	26.5	.014
10	R1/4	3109 10 13	15	16	22	26.5	.016
10	R3/8	3109 10 17	17	16	22	26.5	.019
10	R1/2	3109 10 21	21	16	22	26.5	.031
12	R1/4	3109 12 13	15	19	25	31	.071
12	R3/8	3109 12 17	17	19	25	31	.074
12	R1/2	3109 12 21	21	19	25	31	.092
14	R3/8	3109 14 17	20	22	30.5	35.5	.091
14	R1/2	3109 14 21	24	22	28.5	35.5	.095

## 3109 male elbow — fractional inch tube to male BSPT



nylon body, nickel-plated  
brass base, pre-applied  
thread sealant



the body is orientable for  
positioning purposes

ØD in	C BSPT		F mm	G in	H in	L in	⚖️ oz
1/8	1/8	3109 53 10	10	.335	.531	.571	.44
5/32	1/8	3109 04 10	10	.34	.53	.55	.21
5/32	1/4	3109 04 13	14	.34	.55	.55	.49
3/16	1/8	3109 55 10	11	.43	.67	.85	.46
3/16	1/4	3109 55 13	14	.33	.55	.55	.64
1/4	1/8	3109 56 10	10	.427	.669	.709	.27
1/4	1/4	3109 56 13	14	.427	.63	.709	.48
5/16	1/8	3109 08 10	10	.53	.75	.91	.46
5/16	1/4	3109 08 13	14	.53	.71	.91	.53
5/16	3/8	3109 08 17	17	.53	.71	.91	.64
5/16	1/2	3109 08 21	21	.53	.77	.91	1.06
3/8	1/4	3109 60 13	15	.63	.87	1.04	1.87
3/8	3/8	3109 60 17	17	.63	.87	1.04	1.91
1/2	1/4	3109 62 13	20	.87	1.22	1.38	1.42
1/2	3/8	3109 62 17	20	.87	1.22	1.38	2.37
1/2	1/2	3109 62 21	24	.87	1.12	1.38	2.40

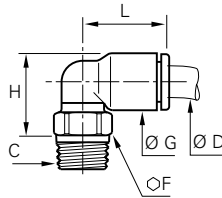
We recommend the use of an extra-flat wrench.

# male elbow

## 3109 male elbow — metric tube to male NPT



nylon body, nickel-plated brass base, pre-applied thread sealant



the body is orientable for positioning purposes

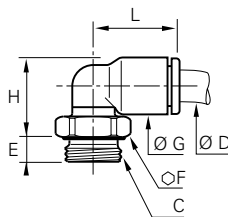
ØD mm	C NPT		F mm	G in	H in	L in	
4	1/8	3109 04 11	11	.33	.53	.55	.28
4	1/4	3109 04 14	14	.33	.55	.55	.62
6	1/8	3109 06 11	11	.41	.61	.63	.21
6	1/4	3109 06 14	14	.41	.63	.63	.53
8	1/8	3109 08 11	11	.53	.75	.91	.29
8	1/4	3109 08 14	14	.53	.71	.91	.58
8	3/8	3109 08 18	18	.53	.73	.91	.81
10	1/4	3109 10 14	15	.63	.91	1.04	.56
10	3/8	3109 10 18	18	.63	.87	1.04	.69
10	1/2	3109 10 22	22	.63	.91	1.04	1.09
12	3/8	3109 12 18	18	.75	.98	1.22	2.61
12	1/2	3109 12 22	22	.75	1.02	1.22	3.25

We recommend the use of an extra-flat wrench.

## 3199 male elbow — metric tube to BSPP, M3, M5 or M7



nylon body with "O" ring seal, nickel-plated brass base



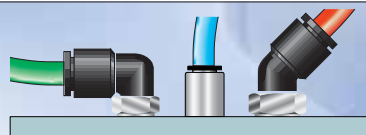
the body is orientable for positioning purposes

ØD mm	C BSPP/metric		E mm	F mm	G mm	H mm	L mm	
3	M3x0.5	3199 03 09	2.5	8	8.5	15	14.5	.003
3	M5x0.8	3199 03 19	3.5	8	8.5	13.5	14.5	.003
4	M3x0.5	3199 04 09	2.5	8	8.5	15	14.5	.003
4	M5x0.8	3199 04 19	3.5	8	8.5	13.5	14	.003
4	M7x1	3199 04 55	4.5	10	8.5	15	14	.005
4	G1/8	3199 04 10	5	13	8.5	13	14	.007
4	G1/4	3199 04 13	5.5	16	8.5	13	14	.012
6	M5x0.8	3199 06 19	3.5	8	10.5	15.5	16	.015
6	M7x1	3199 06 55	4.5	10	10.5	17.5	16	.013
6	M10x1	3199 06 60	5	13	10.5	15	14	.007
6	M12x1.5	3199 06 67	5.5	15	10.5	15	16	.030
6	G1/8	3199 06 10	5	13	10.5	15	16	.008
6	G1/4	3199 06 13	5.5	16	10.5	15	16	.013
6	G3/8	3199 06 17	5.5	20	10.5	15.5	16	.014
6	G1/2	3199 06 21	7	24	10.5	16	16	.015
8	M10x1	3199 08 60	5	13	13.5	20.5	23	.025
8	M12x1.5	3199 08 67	5.5	15	13.5	19.5	23	.010
8	G1/8	3199 08 10	4.5	13	13.5	20.5	23	.014
8	G1/4	3199 08 13	5.5	16	13.5	18.5	23	.017
8	G3/8	3199 08 17	5.5	20	13.5	18.5	23	.023
8	G1/2	3199 08 21	7	24	13.5	19	23	.025
10	G1/4	3199 10 13	5.5	16	16	23.5	26.5	.029
10	G3/8	3199 10 17	5.5	20	16	22	26.5	.033
10	G1/2	3199 10 21	7.5	24	16	22	26.5	.036
12	G1/4	3199 12 13	5.5	16	19	26.5	31	.069
12	G3/8	3199 12 17	5.5	20	19	25	31	.069
12	G1/2	3199 12 21	7	24	19	25	31	.090
14	G3/8	3199 14 17	5.5	20	22	32.5	35.5	.087
14	G1/2	3199 14 21	7	24	22	27	35.5	.097

We recommend the use of an extra-flat wrench.

Female elbows, with NPT and BSPP threads, can be found on page A18.

Legris offers a solution for all tubing configurations.

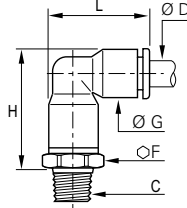


# extended male elbow

## 3129 extended male elbow — fractional inch tube to male NPT



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant



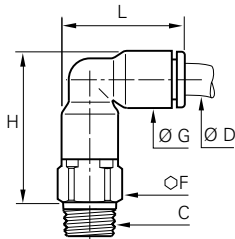
the body is orientable for  
positioning purposes

ØD in	C NPT		F mm	G in	H in	L in	Δkg
1/8	1/8	3129 53 11	11	.33	.91	.75	.36
1/8	1/4	3129 53 14	14	.33	.93	.75	.68
5/32	1/8	3129 04 11	11	.33	.91	.75	.37
5/32	1/4	3129 04 14	14	.33	.93	.75	.69
1/4	1/8	3129 56 11	11	.43	1.12	.93	.51
1/4	1/4	3129 56 14	14	.43	1.08	.93	.73
1/4	3/8	3129 56 18	17	.43	1.12	.93	.80
5/16	1/8	3129 08 11	13	.53	1.32	1.16	.73
5/16	1/4	3129 08 14	14	.53	1.28	1.16	.93
3/8	1/8	3129 60 11	17	.63	1.40	1.34	1.30
3/8	1/4	3129 60 14	17	.63	1.41	1.33	1.41
3/8	3/8	3129 60 18	18	.63	1.45	1.33	1.73

## 3129 extended male elbow — metric tube to male BSPT

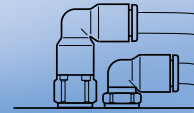


nylon body,  
nickel-plated brass base,  
pre-applied thread sealant



the body is orientable for  
positioning purposes

ØD mm BSPT	C		F mm	G mm	H mm	L mm	Δkg
4	R1/8	3129 04 10	10	8.5	23	19	.021
4	R1/4	3129 04 13	14	8.5	23.5	19	.038
6	R1/8	3129 06 10	10	10.5	27	22.5	.037
6	R1/4	3129 06 13	14	10.5	27.5	22.5	.044
8	R1/8	3129 08 10	13	13.5	34.5	29.5	.025
8	R1/4	3129 08 13	14	13.5	32.5	29.5	.026
8	R3/8	3129 08 17	17	13.5	33	29.5	.035
10	R1/4	3129 10 13	15	16	39.5	34.5	.031
10	R3/8	3129 10 17	17	16	39.5	34.5	.041
10	R1/2	3129 10 21	21	16	39.5	34.5	.042
12	R1/4	3129 12 13	19	19	45.5	40.5	.035
12	R3/8	3129 12 17	19	19	45.5	40.5	.045
12	R1/2	3129 12 21	21	19	45.5	40.5	.060
14	R3/8	3129 14 17	21	22	51.5	46.5	.080
14	R1/2	3129 14 21	21	22	51.5	46.5	.095

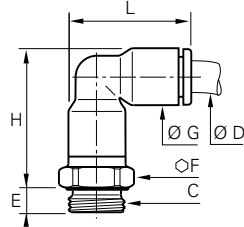


3129 is designed to allow very close  
assembly with 3109 male elbow.

## 3169 extended male elbow — UNF, BSPP, M5, or M7



nylon body with  
"O" ring seal,  
nickel-plated brass base



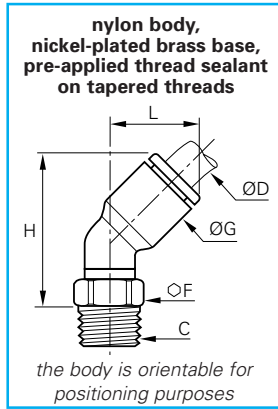
the body is orientable for  
positioning purposes

ØD in	C UNF		E in	F mm	G in	H in	L in	Δkg
1/8	10-32	3169 53 20	.20	8	.33	.91	.75	.25
5/32	10-32	3169 04 20	.20	8	.33	.91	.75	.25
1/4	10-32	3169 56 20	.20	11	.33	1.10	.93	.32
1/4	M7	3169 56 55	-	9	.43	1.17	.93	.35

mm metric	BSPP/ metric		mm	mm	mm	mm	mm	Δkg
4	M5x0.8	3169 04 19	3.5	8	8.5	23	19	.007
4	M7x1	3169 04 55	4.5	10	8.5	22.5	19	.009
4	G1/8	3169 04 10	5	13	8.5	22.5	19	.009
4	G1/4	3169 04 13	5.5	16	8.5	22.5	19	.014
6	M5x0.8	3169 06 19	3.5	10	10.5	27.5	23	.009
6	M7x1	3169 06 55	4.5	10	10.5	26	23	.009
6	G1/8	3169 06 10	5	13	10.5	27	23	.012
6	G1/4	3169 06 13	5.5	16	10.5	27	23	.017
8	G1/8	3169 08 10	5	13	13.5	36	29.5	.025
8	G1/4	3169 08 13	5.5	16	13.5	33	29.5	.026
8	G3/8	3169 08 17	5.5	20	13.5	33	29.5	.035
10	G1/4	3169 10 13	5.5	16	16	40.5	34.5	.038
10	G3/8	3169 10 17	5.5	20	16	40.5	34.5	.040
10	G1/2	3169 10 21	7.5	24	16	40.5	34.5	.042
12	G1/4	3169 12 13	5.5	19	19	44.5	40.5	.060
12	G3/8	3169 12 17	5.5	20	19	42	40.5	.065
12	G1/2	3169 12 21	7.5	24	19	42	40.5	.080
14	G3/8	3169 14 17	5.5	22	22	51	46.5	.100
14	G1/2	3169 14 21	7.5	24	22	48.5	46.5	.100

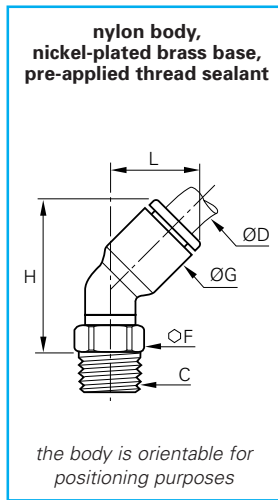
# 45 degree male elbow

## 3133/3113 45° male elbow — fractional inch tube to male NPT or UNF

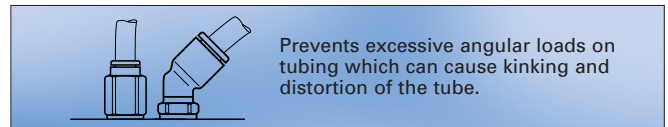


ØD in	C UNF/NPT		F mm	G in	H in	L in	
1/8	10-32	3133 53 20	8	.35	.91	.49	.28
1/8	1/8	3133 53 11	11	.35	.81	.49	.28
1/4	1/8	3133 56 11	11	.43	.98	.57	.28
1/4	1/4	3133 56 14	14	.43	.98	.57	.60
1/4	M7	3133 56 55	9	.43	1.14	.57	.28
3/8	1/4	3133 60 14	17	.63	1.36	.91	.71
3/8	3/8	3133 60 18	18	.63	1.36	.91	.81

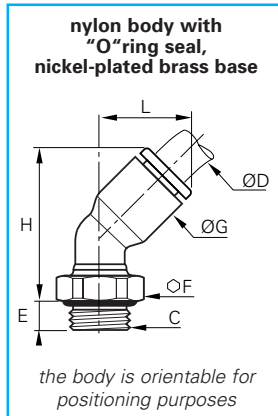
## 3113 45° male elbow — metric tube to male BSPT



ØD mm	C BSPT		F mm	G mm	H mm	L mm	
4	R1/8	3113 04 10	10	9	24.5	13	.008
6	R1/8	3113 06 10	10	11	28	14.5	.008
6	R1/4	3113 06 13	14	11	30	14.5	.017
8	R1/8	3113 08 10	10	13.5	33.5	19.5	.016
8	R1/4	3113 08 13	14	13.5	33.5	19.5	.018
8	R3/8	3113 08 17	17	13.5	33.5	19.5	.021
10	R1/4	3113 10 13	15	16	38.5	23	.020
10	R3/8	3113 10 17	17	16	39	23	.023
10	R1/2	3113 10 21	21	16	40.5	23	.034
12	R1/4	3113 12 13	15	19	44	26	.071
12	R3/8	3113 12 17	17	19	44	26	.074
12	R1/2	3113 12 21	21	19	46	26	.092



## 3133 45° male elbow — metric tube to male BSPP or M5



ØD mm	C BSPP/ metric		E mm	F mm	G mm	H mm	L mm	
4	M5x0.8	3133 04 19	3.5	8	9	23	13	.005
4	G1/8	3133 04 10	4.5	13	9	25	13	.008
6	M5x0.8	3133 06 19	3.5	8	11	30	14.5	.005
6	G1/8	3133 06 10	4.5	13	11	28.5	14.5	.008
6	G1/4	3133 06 13	5.5	16	11	29.5	14.5	.017
8	G1/8	3133 08 10	4.5	13	13.5	36	19.5	.016
8	G1/4	3133 08 13	5.5	16	13.5	34.5	19.5	.018
8	G3/8	3133 08 17	5.5	20	13.5	34.5	19.5	.021
10	G1/4	3133 10 13	5.5	16	16	40.5	23	.020
10	G3/8	3133 10 17	5.5	20	16	39	23	.023
10	G1/2	3133 10 21	7	24	16	41	23	.034
12	G1/4	3133 12 13	5.5	16	19	46	26	.071
12	G3/8	3133 12 17	5.5	20	19	44.5	26	.074
12	G1/2	3133 12 21	7	24	19	46	26	.092

Legris offers a solution for all tubing configurations.

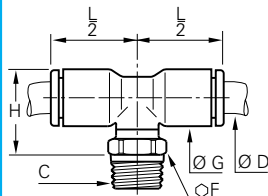


# male branch tee

## 3108 male branch tee — fractional inch tube to male NPT or UNF to tube



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant  
on tapered threads



the body is orientable for  
positioning purposes

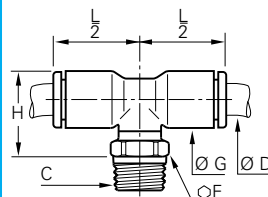
ØD in	C UNF/NPT		F mm	G in	H in	L 2 in	⚖️
1/8	10-32	3108 53 20	8	.33	.61	.57	.23
1/8	1/16	3108 53 08	10	.33	.61	.57	.27
1/8	1/8	3108 53 11	11	.33	.61	.57	.33
1/8	1/4	3108 53 14	14	.33	.63	.57	.66
5/32	10-32	3108 04 20	8	.33	.71	.55	.18
5/32	1/8	3108 04 11	11	.33	.61	.55	.32
5/32	1/4	3108 04 14	14	.33	.63	.55	.65
3/16	1/8	3108 55 11	11	.43	.67	.85	.64
1/4	1/8	3108 56 11	11	.43	.67	.71	.39
1/4	1/4	3108 56 14	14	.43	.63	.71	.56
1/4	3/8	3108 56 18	18	.43	.65	.71	.85
5/16	1/8	3108 08 11	11	.53	.87	.91	.49
5/16	1/4	3108 08 14	14	.53	.83	.91	.66
5/16	3/8	3108 08 18	18	.53	.85	.91	.97
3/8	1/8	3108 60 11	15	.63	.99	1.04	.81
3/8	1/4	3108 60 14	15	.63	.99	1.04	.88
3/8	3/8	3108 60 18	18	.63	.95	1.04	1.18
3/8	1/2	3108 60 22	22	.63	.98	1.04	1.86
1/2	1/4	3108 62 14	20	.87	1.22	1.38	1.88
1/2	3/8	3108 62 18	20	.87	1.22	1.38	1.93
1/2	1/2	3108 62 22	24	.87	1.12	1.38	2.35

We recommend the use of an extra-flat wrench.

## 3108 male branch tee — metric tube to male BSPT to tube



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant



the body is orientable for  
positioning purposes

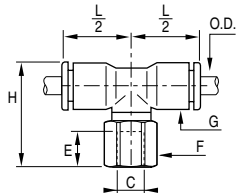
ØD mm	C BSPT		F mm	G mm	H mm	L 2 mm	⚖️
4	R1/8	3108 04 10	10	8.5	15.5	14	.007
4	R1/4	3108 04 13	14	8.5	16	14	.015
6	R1/8	3108 06 10	10	10.5	17.5	16	.009
6	R1/4	3108 06 13	14	10.5	18	16	.017
8	R1/8	3108 08 10	10	13.5	22	23	.016
8	R1/4	3108 08 13	14	13.5	21	23	.019
8	R3/8	3108 08 17	17	13.5	21	23	.020
10	R1/4	3108 10 13	15	16	24	26.5	.021
10	R3/8	3108 10 17	17	16	24	26.5	.024
10	R1/2	3108 10 21	21	16	24	26.5	.028
12	R1/4	3108 12 13	15	19	27	31	.094
12	R3/8	3108 12 17	17	19	27	31	.092
12	R1/2	3108 12 21	21	19	27	31	.109
14	R3/8	3108 14 17	20	22	30.5	35.5	.113
14	R1/2	3108 14 21	24	22	28.5	35.5	.114

We recommend the use of an extra-flat wrench.

## 3008 female branch tee — fractional inch tube to NPT



nylon body,  
nickel-plated brass base



the body is orientable for  
positioning purposes

ØD in	C NPT		F mm	G in	H in	E in	L 2 in	⚖️
1/8	1/8	3008 53 11	13	.34	.99	.37	.57	1.02
5/32	1/8	3008 04 11	13	.33	.91	.37	.55	.43
5/32	1/4	3008 04 14	16	.33	1.08	.55	.55	.74
1/4	1/8	3008 56 11	13	.43	1.02	.37	.71	.55
1/4	1/4	3008 56 14	16	.43	1.18	.55	.71	.84
5/16	1/8	3008 08 11	13	.53	1.24	.37	.91	.66
5/16	1/4	3008 08 14	16	.53	1.40	.55	.91	1.01
3/8	1/4	3008 60 14	16	.63	1.60	.55	1.04	1.13
1/2	3/8	3008 62 18	22	.87	1.88	.65	1.38	2.94



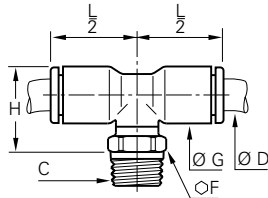
All taper threaded LF3000® male fittings are supplied with a **teflon pre-applied thread sealant** for immediate installation and re-use.

# male branch tee

## 3108 male branch tee — fractional inch tube to male BSPT to inch tube



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant



the body is orientable for  
positioning purposes

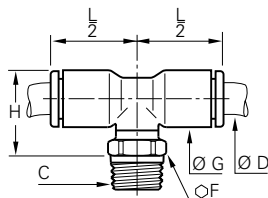
ØD in	C BSPT		F mm	G in	H in	L 2 in	oz
1/8	1/8	3108 53 10	10	.34	.61	.55	.33
5/32	1/8	3108 04 10	10	.34	.61	.55	.25
5/32	1/4	3108 04 13	14	.34	.63	.55	.53
3/16	1/8	3108 55 10	11	.43	.67	.85	.56
3/16	1/4	3108 55 13	14	.43	.67	.85	.82
1/4	1/8	3108 56 10	10	.43	.67	.71	.81
1/4	1/4	3108 56 13	14	.43	.63	.71	.92
5/16	1/8	3108 08 10	10	.53	.87	.91	.56
5/16	1/4	3108 08 13	14	.53	.83	.91	.67
5/16	3/8	3108 08 17	17	.53	.83	.91	.71
3/8	1/4	3108 60 13	15	.63	.95	1.04	2.40
3/8	3/8	3108 60 17	17	.63	.95	1.04	2.40
1/2	1/4	3108 62 13	20	.87	1.24	1.38	3.07
1/2	3/8	3108 62 17	20	.87	1.22	1.38	2.97

We recommend the use of an extra-flat wrench.

## 3108 male branch tee — metric tube to male NPT



nylon body,  
nickel-plated brass base,  
pre-applied thread sealant



the body is orientable for  
positioning purposes

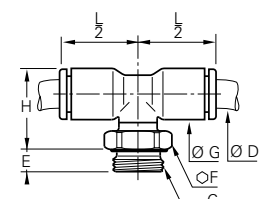
ØD mm	C NPT		F mm	G in	H in	L 2 in	oz
4	1/8	3108 04 11	11	.33	.61	.55	.32
4	1/4	3108 04 14	14	.33	.63	.55	.65
6	1/8	3108 06 11	11	.43	.69	.63	.32
6	1/4	3108 06 14	14	.43	.71	.63	.60
8	1/8	3108 08 11	11	.53	.87	.91	.49
8	1/4	3108 08 14	14	.53	.83	.91	.66
8	3/8	3108 08 18	18	.53	.85	.91	.97
10	1/4	3108 10 14	15	.63	.98	1.04	.74
10	3/8	3108 10 18	18	.63	.95	1.04	.85
10	1/2	3108 10 22	22	.63	.98	1.04	.99
12	3/8	3108 12 18	18	.87	1.06	1.22	3.25
12	1/2	3108 12 22	22	.87	.98	1.22	3.84

We recommend the use of an extra-flat wrench.

## 3198 male branch tee — metric tube to BSPP or M5 to tube



nylon body complete  
with "O" ring seal,  
nickel-plated brass base



the body is orientable for  
positioning purposes

ØD mm	C M5/ BSPP		E mm	F mm	G mm	H mm	L 2 mm	kg
4	M5X0.8	3198 04 19	3.5	8	8.5	17.5	14	.004
4	G1/8	3198 04 10	5	13	8.5	15	14	.008
4	G1/4	3198 04 13	5.5	16	8.5	15	14	.013
6	M5X0.8	3198 06 19	3.5	8	10.5	19.5	16	.006
6	G1/8	3198 06 10	5	13	10.5	17	16	.010
6	G1/4	3198 06 13	5.5	16	10.5	17	16	.015
8	G1/8	3198 08 10	4.5	13	13.5	23.5	23	.017
8	G1/4	3198 08 13	5.5	16	13.5	21.5	23	.020
8	G3/8	3198 08 17	5.5	20	13.5	21.5	23	.023
10	G1/4	3198 10 13	5.5	16	16	26	26.5	.021
10	G3/8	3198 10 17	5.5	20	16	24	26.5	.024
10	G1/2	3198 10 21	7.5	24	16	24	26.5	.039
12	G1/4	3198 12 13	5.5	16	19	29	31	.088
12	G3/8	3198 12 17	5.5	20	19	27	31	.081
12	G1/2	3198 12 21	7	24	19	27	31	.092
14	G3/8	3198 14 17	5.5	20	22	32.5	35.5	.110
14	G1/2	3198 14 21	7	24	22	27	35.5	.120

We recommend the use of an extra-flat wrench.

### Identification

the part numbers have been chosen by a method of mnemonics. Each LF3000® fitting is identified by:

- its series
- the diameter of passage through the fitting
- by the thread code or second tube diameter

Example

**3108 56 10**

type of  
fitting

O.D.  
of tube

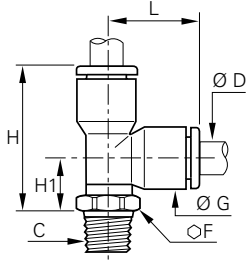
thread code  
or second  
tube O.D.

# male run tee

## 3103 male run tee — fractional inch tube to tube to male NPT or UNF



nylon body, nickel-plated brass base, pre-applied thread sealant on tapered thread



the body is orientable for positioning purposes

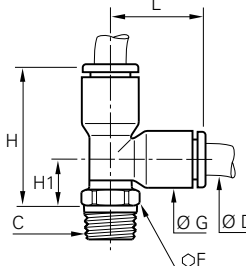
ØD in	C NPT/UNF		F mm	G in	H in	H1 in	L in	⚖️
1/8	10-32	3103 53 20	8	.33	.92	.35	.57	.19
1/8	1/16	3103 53 08	10	.33	.93	.35	.57	.24
1/8	1/8	3103 53 11	11	.33	.93	.35	.57	.31
5/32	10-32	3103 04 20	8	.33	1.02	.45	.57	.18
5/32	1/8	3103 04 11	11	.33	.93	.53	.57	.32
5/32	1/4	3103 04 14	14	.33	.94	.37	.57	.64
3/16	1/8	3103 55 11	11	.45	1.31	.45	.85	.63
1/4	1/8	3103 56 11	11	.43	1.16	.45	.69	.39
1/4	1/4	3103 56 14	14	.43	1.12	.41	.69	.58
1/4	3/8	3103 56 18	18	.43	1.14	.43	.69	.84
5/16	1/8	3103 08 11	11	.53	1.38	.49	.91	.50
5/16	1/4	3103 08 14	14	.53	1.34	.45	.91	.69
5/16	3/8	3103 08 18	18	.53	1.36	.47	.91	.97
3/8	1/8	3103 60 11	15	.63	1.63	.60	1.04	.81
3/8	1/4	3103 60 14	15	.63	1.63	.60	1.04	.81
3/8	3/8	3103 60 18	18	.63	1.60	.55	1.04	1.19
3/8	1/2	3103 60 22	22	.63	1.63	.59	1.04	1.97
1/2	1/4	3103 62 14	20	.87	2.17	.79	1.38	1.85
1/2	3/8	3103 62 18	20	.87	2.17	.79	1.38	1.93
1/2	1/2	3103 62 22	24	.87	2.07	.79	1.38	2.19

We recommend the use of an extra-flat wrench.

## 3103 male run tee — metric tube to tube to male BSPT



nylon body, nickel-plated brass base, pre-applied thread sealant



the body is orientable for positioning purposes

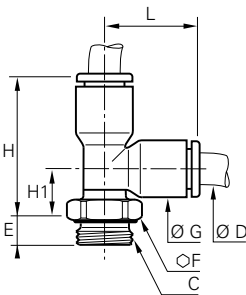
ØD mm	C BSPT		F mm	G mm	H mm	H1 mm	L mm	⚖️
4	R1/8	3103 04 10	10	8.5	23.5	9	14.5	.007
4	R1/4	3103 04 13	14	8.5	24	9.5	14.5	.010
6	R1/8	3103 06 10	10	10.5	27.5	10	17.5	.009
6	R1/4	3103 06 13	14	10.5	28	10.5	17.5	.017
8	R1/8	3103 08 10	10	13.5	35	12	23	.016
8	R1/4	3103 08 13	14	13.5	34	11	23	.019
8	R3/8	3103 08 17	17	13.5	34	11	23	.020
10	R1/4	3103 10 13	15	16	40.5	14	26.5	.021
10	R3/8	3103 10 17	17	16	40.5	14	26.5	.024
10	R1/2	3103 10 21	21	16	40.5	14	26.5	.028
12	R1/4	3103 12 13	15	19	46.5	15.5	31	.094
12	R3/8	3103 12 17	17	19	46.5	15.5	31	.092
12	R1/2	3103 12 21	21	19	46.5	15.5	31	.109
14	R3/8	3103 14 17	20	22	55	19.5	35.5	.113
14	R1/2	3103 14 21	24	22	52.5	17.5	35.5	.114

We recommend the use of an extra-flat wrench.

## 3193 male run tee — metric tube to tube to male BSPP or M5



nylon body complete with "O" ring seal, nickel-plated brass base



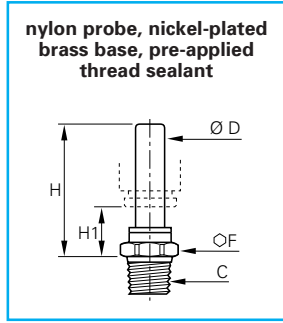
the body is orientable for positioning purposes

ØD mm	C M5/BSPP		E mm	F mm	G mm	H mm	H1 mm	L mm	⚖️
4	M5x0.8	3193 04 19	3.5	8	8.5	26	11.5	14.5	.004
4	G1/8	3193 04 10	5	13	8.5	23	8.5	14.5	.008
4	G1/4	3193 04 13	5.5	16	8.5	23	8.5	14.5	.013
6	M5x0.8	3193 06 19	3.5	8	10.5	29.5	12.5	17.5	.007
6	G1/8	3193 06 10	5	13	10.5	27	10	17.5	.010
6	G1/4	3193 06 13	5.5	16	10.5	27	10	17.5	.015
8	G1/8	3193 08 10	4.5	13	13.5	36.5	14	23	.017
8	G1/4	3193 08 13	5.5	16	13.5	34.5	12	23	.020
8	G3/8	3193 08 17	5.5	20	13.5	34.5	12	23	.023
10	G1/4	3193 10 13	5.5	16	16	42	15.5	26.5	.021
10	G3/8	3193 10 17	5.5	20	16	40.5	14	26.5	.023
10	G1/2	3193 10 21	7.5	24	16	40.5	14	26.5	.039
12	G1/4	3193 12 13	5.5	16	19	48	17	31	.087
12	G3/8	3193 12 17	5.5	20	19	46.5	15.5	31	.088
12	G1/2	3193 12 21	7	24	19	46.5	15.5	31	.091
14	G3/8	3193 14 17	5.5	20	22	56.5	21.5	35.5	.110
14	G1/2	3193 14 21	7	24	22	51	16	35.5	.120

We recommend the use of an extra-flat wrench.

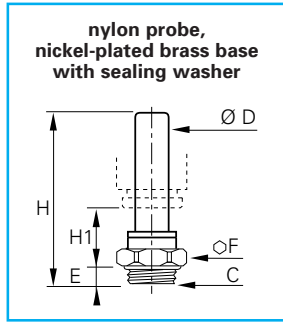
# male standpipe

## 3121 male standpipe NPT — fractional inch



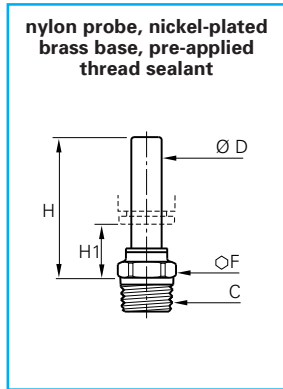
ØD in	C NPT		F mm	H in	H1 in	
5/32	1/8	3121 04 11	11	1.02	.57	.26
5/32	1/4	3121 04 14	14	1.04	.59	.59
1/4	1/8	3121 56 11	11	1.18	.61	.28
1/4	1/4	3121 56 14	14	1.12	.57	.49
5/16	1/8	3121 08 11	11	1.16	.43	.28
5/16	1/4	3121 08 14	14	1.12	.39	.49
3/8	1/8	3121 60 11	15	1.75	.65	.45
3/8	1/4	3121 60 14	15	1.42	.67	.59
3/8	3/8	3121 60 18	17	1.42	.61	.80
1/2	3/8	3121 62 18	17	1.44	.37	.90
1/2	1/2	3121 62 22	21	1.46	.39	1.63

## 3131 male standpipe 10-32 UNF — fractional inch



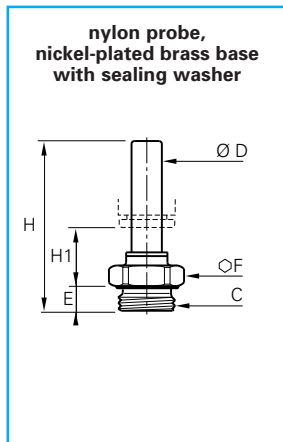
ØD in	C UNF		E in	F mm	H in	
5/32	10-32	3131 04 20	.14	8	1.24	.12

## 3121 male standpipe BSPT — metric



ØD mm	C BSPT		F mm	H mm	H1 mm	
4	R1/8	3121 04 10	10	26	14	.005
4	R1/4	3121 04 13	14	26.5	14.5	.013
6	R1/8	3121 06 10	10	28	14	.005
6	R1/4	3121 06 13	14	28.5	14.5	.013
8	R1/8	3121 08 10	10	29.5	11	.006
8	R1/4	3121 08 13	14	28.5	10	.008
8	R3/8	3121 08 17	17	28.5	10	.012
10	R1/4	3121 10 13	15	36	15.5	.010
10	R3/8	3121 10 17	17	36	15.5	.012
10	R1/2	3121 10 21	21	36	15.5	.022
12	R3/8	3121 12 17	17	36.5	12	.022
12	R1/2	3121 12 21	21	36.5	12	.043
14	R1/2	3121 14 21	21	41	13.5	.043

## 3131 male standpipe BSPP or M5 — metric



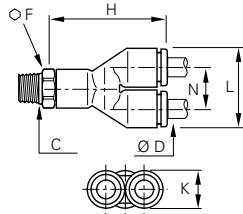
ØD mm	C M5/ BSPP		E mm	F mm	H mm	H1 mm	
4	M5x0.8	3131 04 19	3.5	8	31	16	.002
4	G1/8	3131 04 10	5	13	30	13.5	.006
4	G1/4	3131 04 13	5.5	16	31	13.5	.011
6	G1/8	3131 06 10	5	13	32	13.5	.006
6	G1/4	3131 06 13	5.5	16	33	13.5	.011
8	G1/8	3131 08 10	5	13	35.5	12.5	.006
8	G1/4	3131 08 13	5.5	16	34.5	10.5	.012
8	G3/8	3131 08 17	5.5	20	34.5	10.5	.015
10	G1/4	3131 10 13	5.5	16	43.5	17.5	.012
10	G3/8	3131 10 17	5.5	20	41.5	15.5	.015
10	G1/2	3131 10 21	7.5	24	41.5	15.5	.026
12	G3/8	3131 12 17	5.5	20	42	12	.052
12	G1/2	3131 12 21	7	24	43.5	12	.056
14	G3/8	3131 14 17	5.5	20	46.5	14	.039
14	G1/2	3131 14 21	7	24	48	13.5	.049

# threaded "Y" connector

## 3148 "Y" male — fractional inch tube to NPT



nylon body  
nickel-plated brass base  
pre-applied thread sealant



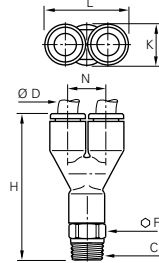
the body is orientable for positioning purposes

ØD in	C NPT		F mm	H in	K in	L in	N in	Δkg
5/32	1/8	3148 04 11	11	1.28	.33	.69	.35	.42
5/32	1/4	3148 04 14	14	1.30	.33	.69	.35	.79
1/4	1/8	3148 56 11	11	1.61	.43	.87	.45	.59
1/4	1/4	3148 56 14	14	1.56	.43	.87	.45	.80
3/8	1/4	3148 60 14	17	2.24	.63	1.30	.67	1.61
3/8	3/8	3148 60 18	18	2.28	.63	1.30	.67	1.94

## 3148 "Y" male — metric tube to BSPT



nylon body  
nickel-plated brass base  
pre-applied thread sealant



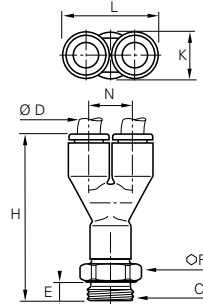
the body is orientable for positioning purposes

ØD mm	C BSPT		F mm	H mm	K mm	L mm	N mm	Δkg
4	R1/8	3148 04 10	10	32.5	8.5	17.5	9	.010
4	R1/4	3148 04 13	14	33	8.5	17.5	9	.018
6	R1/8	3148 06 10	10	39.5	10.5	21.5	11	.012
6	R1/4	3148 06 13	14	40	10.5	21.5	11	.019
8	R1/8	3148 08 10	13	56.5	13.5	28	14.5	.033
8	R1/4	3148 08 13	14	55.5	13.5	28	14.5	.037
8	R3/8	3148 08 17	16	48.5	13.5	28	14.5	.040
10	R1/4	3148 10 13	14	60	19	39	20	.040
10	R3/8	3148 10 17	16	60.5	19	39	20	.043
10	R1/2	3148 10 21	24	61	19	39	20	.045
12	R3/8	3148 12 17	19	66	19	39	20	.045
12	R1/2	3148 12 21	21	66	19	39	20	.047

## 3158 "Y" male — metric tube to BSPP or M5

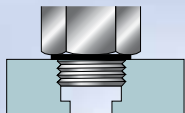


nylon body,  
nickel-plated brass base,  
with "O" ring seal



the body is orientable for positioning purposes

ØD mm	C M5/ BSPP		E mm	F mm	H mm	K mm	L mm	N mm	Δkg
4	M5x0.8	3158 04 19	3.5	8	32.5	8.5	17.5	9	.010
4	G1/8	3158 04 10	5	13	32	8.5	17.5	9	.010
4	G1/4	3158 04 13	5.5	16	32	8.5	17.5	9	.015
6	M5x0.8	3158 06 19	3.5	10	39.5	10.5	21.5	11	.011
6	G1/8	3158 06 10	5	13	39	10.5	21.5	11	.014
6	G1/4	3158 06 13	5.5	16	39	10.5	21.5	11	.019
8	G1/8	3158 08 10	5	13	56	13.5	28	14.5	.033
8	G1/4	3158 08 13	5.5	16	55	13.5	28	14.5	.039
8	G3/8	3158 08 17	6	19	54	13.5	28	14.5	.040
10	G1/4	3158 10 13	5.5	16	63.5	16	33	17	.040
10	G3/8	3158 10 17	6	20	63.5	16	33	17	.043
10	G1/2	3158 10 21	7	20	65	16	33	17	.045
12	G3/8	3158 12 17	6	19	68	19	39	20	.045
12	G1/2	3158 12 21	7	24	70	19	39	20	.047



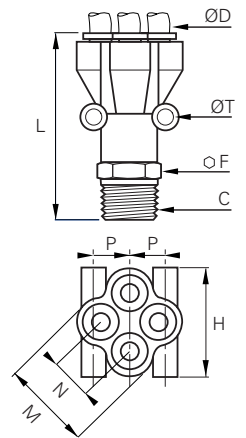
All LF3000® fittings with **BSPP and M5 threads** are supplied complete with an **integral "O" ring seal**. This permits instant assembly of the fitting, without preparation of the thread, and provides a fixed assembled height to the fitting.

# threaded double "Y" connector

## 3112 double "Y" male — metric tube to BSPT



nylon body  
nickel-plated brass base,  
pre-applied thread sealant



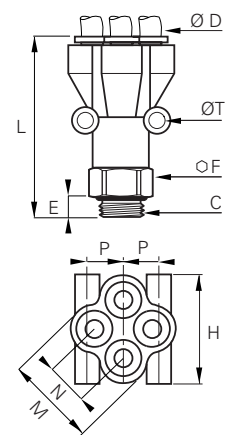
the body is orientable for  
positioning purposes

ØD mm	C BSPT		F mm	H mm	L mm	M mm	N mm	P mm	T mm	ΔkgΔ
4	R1/8	3112 04 10	13	25.5	41.5	21	10	8.5	3.7	.033
4	R1/4	3112 04 13	14	25.5	43.5	21	10	8.5	3.7	.046
6	R1/8	3112 06 10	19	31.5	54.5	26.5	12	10	3.7	.053
6	R1/4	3112 06 13	19	31.5	57.5	26.5	12	10	3.7	.066

## 3132 double "Y" male — metric tube to BSPP



nylon body,  
nickel-plated brass base,  
with "O" ring seal



the body is orientable for  
positioning purposes

ØD mm	C BSPP		E mm	F mm	H mm	L mm	M mm	N mm	P mm	T mm	ΔkgΔ
4	G1/8	3132 04 10	5	13	25.5	41	21	10	8.5	3.7	.039
4	G1/4	3132 04 13	5.5	16	25.5	40	21	10	8.5	3.7	.046
6	G1/8	3132 06 10	5	19	31.5	52.5	26.5	12	10	3.7	.066
6	G1/4	3132 06 13	5.5	19	31.5	53.5	26.5	12	10	3.7	.053

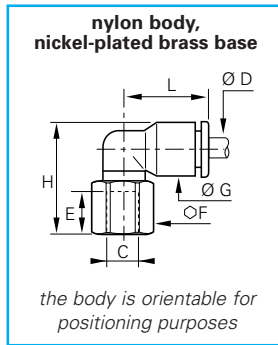
Legris **packaging boxes** ensure perfect **protection** of products. They are designed to answer the user's requirements, with:

- **immediate visual identification** - each model has clear marking which indicates the part number and the corresponding technical drawing.
- **easy storage**
- **a bar code**
- **an impregnable system of opening/closing**
- **recyclable material**



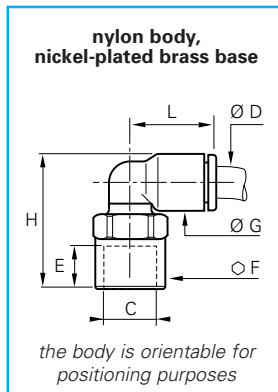
# female elbow

## 3009 female elbow — fractional inch tube to NPT



ØD in	C NPT		F mm	G in	H in	E in	L in	⚖️
1/8	1/8	3009 53 11	13	.34	.91	.37	.57	.38
5/32	1/8	3009 04 11	13	.33	.91	.37	.55	.41
5/32	1/4	3009 04 14	16	.33	1.08	.55	.55	.14
1/4	1/8	3009 56 11	13	.43	1.02	.37	.71	.47
1/4	1/4	3009 56 14	16	.43	1.18	.55	.71	.38
5/16	1/8	3009 08 11	13	.53	1.12	.37	.91	.50
5/16	1/4	3009 08 14	16	.53	1.28	.55	.91	.85
3/8	1/4	3009 60 14	16	.63	1.52	.55	1.04	.90
1/2	3/8	3009 62 18	22	.87	1.88	.65	1.38	2.47

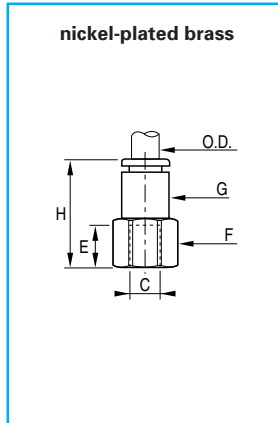
## 3192 female elbow — metric tube to BSPP



ØD mm	C BSPP		E mm	F mm	G mm	H mm	L mm	⚖️
4	G1/8	3192 04 10	8.5	13	8.5	23	14	.009
4	G1/4	3192 04 13	11.5	16	8.5	27	14	.012
6	G1/8	3192 06 10	8.5	13	10.5	25	16	.011
6	G1/4	3192 06 13	11.5	16	10.5	29	16	.011
8	G1/8	3192 08 10	8.5	13	13.5	28	23	.014
8	G1/4	3192 08 13	11.5	16	13.5	32	23	.017
8	G3/8	3192 08 17	12	19	13.5	33	23	.022
10	G1/4	3192 10 13	11	16	16	34.5	26.5	.029
10	G3/8	3192 10 17	12	19	16	35	26.5	.034
10	G1/2	3192 10 21	16	24	16	41	26.5	.037
12	G1/4	3192 12 13	11	16	19	38	30.5	.040
12	G3/8	3192 12 17	12	19	19	38.5	30.5	.041
12	G1/2	3192 12 21	16	24	19	43.5	30.5	.045

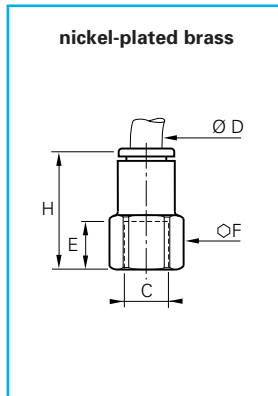
# straight female connector

## 3014 straight female connector — fractional inch tube to NPT



ØD in	C NPT		F mm	G in	H in	E in	⚖️
1/8	1/8	3014 53 11	13	.43	.87	.37	.48
1/8	1/4	3014 53 14	16	.43	1.05	.55	.74
5/32	1/8	3014 04 11	13	.33	.89	.37	.37
5/32	1/4	3014 04 14	16	.33	1.06	.55	.65
3/16	1/8	3014 55 11	9/16		1.06		.76
3/16	1/4	3014 55 14	11/16		1.26		1.01
1/4	1/8	3014 56 11	13	.42	.98	.37	.44
1/4	1/4	3014 56 14	16	.42	1.16	.55	.66
5/16	1/8	3014 08 11	13	.53	1.14	.37	.55
5/16	1/4	3014 08 14	16	.53	1.32	.55	.85
3/8	1/8	3014 60 11	16	.61	1.22	.37	.94
3/8	1/4	3014 60 14	16	.61	1.40	.55	.94
3/8	3/8	3014 60 18	22	.61	1.52	.65	1.85
1/2	3/8	3014 62 18	22	.85	1.81	.65	3.25
1/2	1/2	3014 62 22	24	.85	1.93	.77	4.02

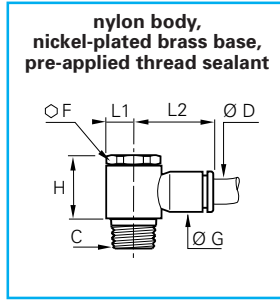
## 3114 straight female connector — metric tube to BSPP or M5



ØD mm	C M5/ BSPP		E mm	F mm	H mm	⚖️
4	M5x0.8	3114 04 19	6.5	8	19.5	.005
4	G1/8	3114 04 10	9.5	13	22.5	.010
4	G1/4	3114 04 13	13.5	16	26.5	.016
6	G1/8	3114 06 10	9.5	13	24.5	.011
6	G1/4	3114 06 13	13.5	16	28.5	.016
8	G1/8	3114 08 10	9.5	13	29	.020
8	G1/4	3114 08 13	13.5	16	33	.027
8	G3/8	3114 08 17	14	19	34	.030
10	G1/4	3114 10 13	13.5	16	36	.037
10	G3/8	3114 10 17	14	19	36	.040
10	G1/2	3114 10 21	19.5	24	41.5	.045
12	G3/8	3114 12 17	14	19	40	.092
12	G1/2	3114 12 21	19.5	24	45.5	.114
14	G3/8	3114 14 17	14	22	42.5	.140

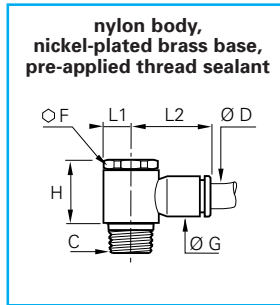
# single banjo

## 3018 banjo — fractional inch tube to NPT



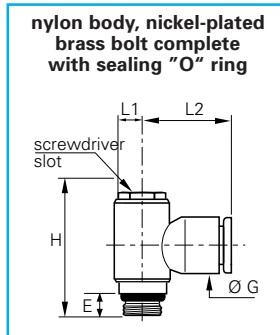
ØD in	C NPT		F mm	G in	H in	L1 in	L2 in	kg
5/32	1/8	3018 04 11	13	.33	.73	.28	.73	.72
1/4	1/8	3018 56 11	13	.43	.73	.28	.83	.75
1/4	1/4	3018 56 14	17	.43	.89	.37	.91	1.41
1/4	3/8	3018 56 18	21	.43	1.04	.43	1.12	2.60
3/8	1/4	3018 60 14	17	.63	.89	.37	1.12	2.34
3/8	3/8	3018 60 18	21	.63	1.04	.43	1.20	2.37

## 3018 banjo — metric tube to BSPT



ØD mm BSPT	C		F mm	G mm	H mm	L1 mm	L2 mm	kg
4	R1/8	3018 04 10	13	8.5	18.5	7	18.5	.010
6	R1/8	3018 06 10	13	10.5	18.5	7	20	.011
6	R1/4	3018 06 13	17	10.5	22.5	9.5	22	.015
8	R1/8	3018 08 10	13	13.5	18.5	7	25	.022
8	R1/4	3018 08 13	17	13.5	22.5	9.5	27	.030
8	R3/8	3018 08 17	21	13.5	26.5	11	29	.049
10	R1/4	3018 10 13	17	16	22.5	9.5	29	.058
10	R3/8	3018 10 17	21	16	26.5	11	31	.061
12	R1/4	3018 12 13	21	19	26.5	11	34.5	.065
12	R3/8	3018 12 17	21	19	26.5	11	34.5	.067
12	R1/2	3018 12 21	25	19	30	13.5	37	.090

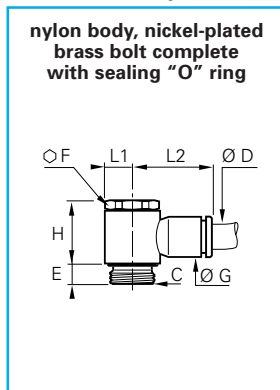
## 3118 banjo — fractional inch tube to 10-32 UNF



ØD in	C UNF		E in	G in	H in	L1 in	L2 in	kg
1/8	10-32	3118 53 20*	.16	.33	.51	.20	.63	.23
5/32	10-32	3118 04 20*	.16	.33	.51	.20	.63	.23
1/4	10-32	3118 56 20*	.16	.43	.51	.20	.75	.40

\*with screwdriver slot

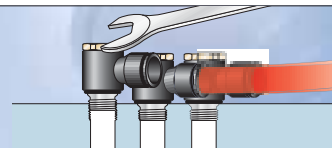
## 3118 banjo — metric tube to BSPP, M3 or M5



ØD mm	C BSPP/metric		E mm	F mm	G mm	H mm	L1 mm	L2 mm	kg
3	M3x0.5	3118 03 09*	3	-	8.5	13	5	16	.007
3	M5x0.8	3118 03 19*	4	-	8.5	13	5	16	.007
4	M5x0.8	3118 04 19*	4	-	8.5	13	5	16	.007
4	G1/8	3118 04 10	4	13	8.5	17	7	18.5	.010
6	M5x0.8	3118 06 19*	4	-	10.5	13	7	18.5	.008
6	G1/8	3118 06 10	4	13	10.5	17	7	20	.011
6	G1/4	3118 06 13	5.5	17	10.5	21	9	22	.015
8	G1/8	3118 08 10	4	13	13.5	16.5	7	25	.022
8	G1/4	3118 08 13	5.5	17	13.5	21	9	27	.030
8	G3/8	3118 08 17	5.5	20	13.5	24.5	11	29	.049
10	G1/4	3118 10 13	5.5	17	16	21	9	29	.058
10	G3/8	3118 10 17	5.5	20	16	24.5	11	31	.061
10	G1/2	3118 10 21	8	25	19	27.5	13.5	36.5	.085
12	G3/8	3118 12 17	5.5	20	19	24.5	11.5	34.5	.067
12	G1/2	3118 12 21	8	25	19	27.5	13.5	36.5	.072

\*with screwdriver slot

Legris banjos allow easy access, even when connections are close together.

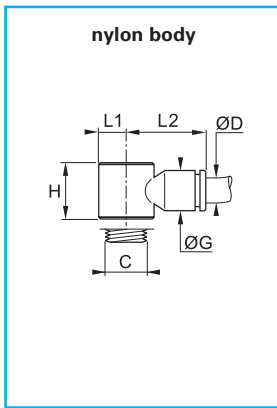


# banjo bodies for modular construction



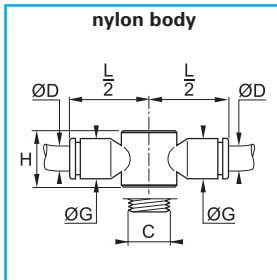
By stacking 2 and 3 compact bodies on top of each other using one bolt, a wide range of permutations of fittings, modules and manifolds can be constructed. Between 2 to 6 outlets in one modular construction are possible; the tube diameters may be different or the same. Wide flexibility in the creation of fittings to meet the personalized requirements of the end user.

## 3538 single banjo bodies — metric



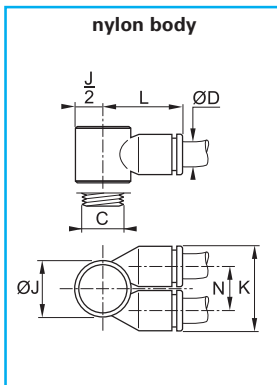
ØD mm	C M5/BSPP		G mm	H mm	L1 mm	L2 mm	⚖️ kg
3	M5x0.8	<a href="#">3538 03 19</a>	8.5	13	5	16	0.004
4	M5x0.8	<a href="#">3538 04 19</a>	8.5	13	5	16	0.004
4	G1/8	<a href="#">3538 04 10</a>	10.5	14.5	7	18.5	0.006
6	M5x0.8	<a href="#">3538 06 19</a>	11	13	5	18.5	0.004
6	G1/8	<a href="#">3538 06 10</a>	10.5	14.5	7	20	0.007
6	G1/4	<a href="#">3538 06 13</a>	13.5	18	9.5	22	0.009
8	G1/8	<a href="#">3538 08 10</a>	13.5	14.5	7	25	0.015
8	G1/4	<a href="#">3538 08 13</a>	13.5	18	9.5	27	0.020
8	G3/8	<a href="#">3538 08 17</a>	13.5	21.5	11.5	29	0.020
10	G1/4	<a href="#">3538 10 13</a>	16	18	9.5	29	0.035
10	G3/8	<a href="#">3538 10 17</a>	16	21.5	11.5	31	0.035
10	G1/2	<a href="#">3538 10 21</a>	19	22.5	13.5	36.5	0.035
12	G3/8	<a href="#">3538 12 17</a>	19	21.5	11.5	34.5	0.040
12	G1/2	<a href="#">3538 12 21</a>	19	22.5	13.5	36.5	0.040

## 3539 double banjo bodies — metric



ØD mm	C M5/BSPP		G mm	H mm	L/2 mm	⚖️ kg
4	M5x0.8	<a href="#">3539 04 19</a>	8.5	13	16	0.007
4	G1/8	<a href="#">3539 04 10</a>	10.5	14.35	20	0.008
6	G1/8	<a href="#">3539 06 10</a>	10.5	14.35	20	0.011
6	G1/4	<a href="#">3539 06 13</a>	13.5	18	26	0.012
8	G1/4	<a href="#">3539 08 13</a>	13.5	18	27	0.017
8	G3/8	<a href="#">3539 08 17</a>	16	21.5	30.5	0.025
10	G3/8	<a href="#">3539 10 17</a>	16	21.5	31	0.025

## 3549 twin banjo bodies — metric



ØD mm	C M5/BSPP		J mm	K mm	L mm	N mm	⚖️ kg
4	M5x0.8	<a href="#">3549 04 19</a>	10	17.5	15.5	9	0.007
4	G1/8	<a href="#">3549 04 10</a>	14	22.5	20	12	0.008
4	G1/4	<a href="#">3549 04 13</a>	18.5	28	25	14.5	0.011
6	G1/8	<a href="#">3549 06 10</a>	14	22.5	20.5	12	0.011
6	G1/4	<a href="#">3549 06 13</a>	18.5	28	25	14.5	0.012
6	G3/8	<a href="#">3549 06 17</a>	22.5	33	28.5	17	0.022
8	G1/4	<a href="#">3549 08 13</a>	18.5	28	26	14.5	0.017
8	G3/8	<a href="#">3549 08 17</a>	22.5	33	29.5	17	0.025
10	G3/8	<a href="#">3549 10 17</a>	22.5	33	29.5	17	0.025

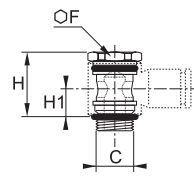
This model allows two outlets to be on the same side and to run parallel to each other.

# single, double and triple bodied banjo bolts with full passage for modular construction

## 3527 single banjo bolts — BSPP or M5



brass stem with o-ring seal



full bore

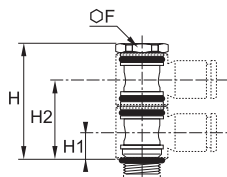
C BSPP/ M5		F mm	H mm	H1 mm	kg
M5x0.8	3527 00 19*		17	7.5	0.003
G1/8	3527 00 10	13	17	7.5	0.014
G1/4	3527 00 13	17	21	9.5	0.024
G3/8	3527 00 17	20	24.5	11	0.038
G1/2	3527 00 21	25	27.5	11.5	0.050

\* With screwdriver slot

## 3528 stacking banjo for 2 body high modules BSPP or M5



brass stem with o-ring seal



full bore

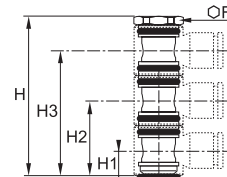
C BSPP/ M5		F mm	H mm	H1 mm	H2 mm	kg
M5x0.8	3528 00 19*		24.5	7.5	18.5	0.004
G1/8	3528 00 10	13	31	7.5	22	0.020
G1/4	3528 00 13	17	39	9.5	27.5	0.029
G3/8	3528 00 17	20	46	11	32.5	0.048

\* With screwdriver slot  
Designed for use with 2 banjo bodies.

## 3529 stacking banjo for 3 body high modules BSPP



brass stem with o-ring seal



full bore

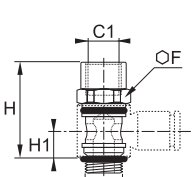
C BSPP		F mm	H mm	H1 mm	H2 mm	H2 mm	kg
G1/8	3529 00 10	13	45.5	7.5	22	36	0.026
G1/4	3529 00 13	17	54	9.5	27.5	45.5	0.036
G3/8	3529 00 17	20	67.5	11	32.5	54	0.059

Designed for use with 3 banjo bodies.

## 3524 female threaded banjo bolts — BSPP or M5



brass stem with o-ring seal

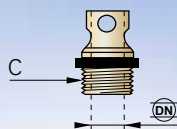


full bore

C1 BSPP/ M5	C2 BSPP/ M5		F mm	H mm	H1 mm	kg
M5x0.8	M5x0.8	3524 00 19	8	17	7.5	0.004
G1/8	G1/8	3524 00 10	13	24.5	7.5	0.017
G1/4	G1/4	3524 00 13	17	33	9.5	0.026
G3/8	G3/8	3524 00 17	20	37.5	11	0.045
G1/2	G1/2	3524 00 21	25	42	11.5	0.057

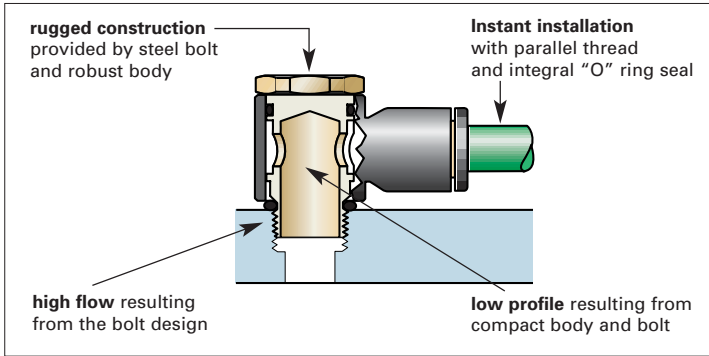
The range of banjo bolts 3527 – 3528 – 3529 and 3524 is only useable in association with the corresponding bodies for modular construction 3538 – 3539 and 3549

Thread bore for part numbers, 3527, 3528, 3529, and 3524



C	M5x0.8	G1/8	G1/4	G3/8	G1/2
DN	2.5mm	5.5mm	8.5mm	11mm	13mm

# banjo with female bolt

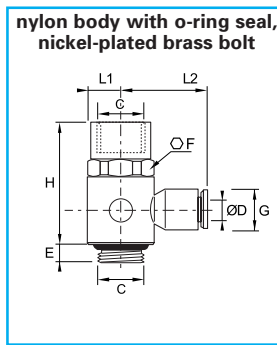


Specification includes:

- **parallel and metric threads** with an integral "O" ring seal offer the same advantages as those found on male fittings; instant assembly, security and consistent assembled height.
- **compactness** and **low profile** for better space utilization and accessibility.
- **full flow**, equivalent to the size of male elbows, and robust construction utilizing a steel bolt.

Thread	M3x0.5	M5x0.8	G1/8"	G1/4"	3/8"
in. lb	4	8	33	41	50

## 3124 banjo with female BSPP bolt — metric tube to M5 or BSPP

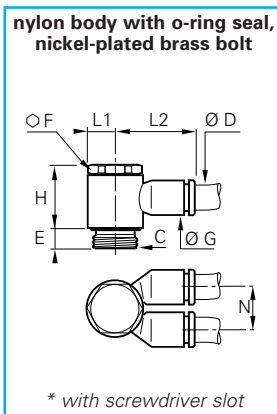


ØD	C		E	F	G	H	L1	L2	kg
mm	BSPP/M5		mm	mm	mm	mm	mm	mm	
4	M5x0.8	<a href="#">3124 04 19</a>	4	8	8.5	19	5	16	0.006
4	G1/8	<a href="#">3124 04 10</a>	4	13	8.5	25.5	7	18.5	0.012
6	G1/4	<a href="#">3124 06 13</a>	5.5	17	10.5	33	9	22	0.031
8	G3/8	<a href="#">3124 08 17</a>	5.5	20	13.5	37.5	11	29	0.056

This is a useful component allowing:

- the mounting of function fittings (sensors, flow controls and pressure reducers).
- the tapping off of a pneumatic supply from a pneumatic cylinder.

## 3149/3049 twin banjo — tube to NPT, UNF, BSPP or M5



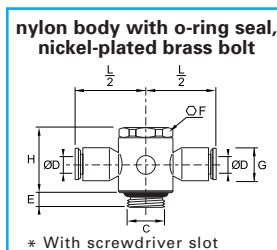
ØD	C		E	F	G	H	L1	L2	N	kg
in	UNF/NPT	fractional inch	in	mm	in	in	in	in	in	
5/32	10-32	<a href="#">3149 04 20</a>	.16	-	.33	.51	.20	.61	.45	.28
5/32	1/8	<a href="#">3049 04 11</a>	-	13	.43	.73	.28	.73	.57	.46
1/4	1/8	<a href="#">3049 56 11</a>	-	13	.43	.73	.28	.73	.57	.46
1/4	1/4	<a href="#">3049 56 14</a>	-	17	.43	.89	.37	1.04	.57	1.20
3/8	1/4	<a href="#">3049 60 14</a>	-	21	.63	1.04	.43	1.22	.67	1.20
3/8	3/8	<a href="#">3049 60 18</a>	-	21	.63	1.04	.43	1.22	.67	2.33

mm	BSPP/M5	metric	mm	mm	mm	mm	mm	mm	mm	kg
4	M5x0.8	<a href="#">3149 04 19*</a>	4	-	8.5	13	4.5	16	9	.008
4	G1/8	<a href="#">3149 04 10</a>	4	13	10.5	16.5	7	18.5	11.5	.013
6	G1/8	<a href="#">3149 06 10</a>	4	13	10.5	16.5	7	18.5	11.5	.013
6	G1/4	<a href="#">3149 06 13</a>	5.5	17	13.5	21	9.5	27	14.5	.034
8	G1/4	<a href="#">3149 08 13</a>	5.5	17	13.5	21	9.5	27	14.5	.034
8	G3/8	<a href="#">3149 08 17</a>	5.5	20	16	24.5	11	31	17	.066
10	G3/8	<a href="#">3149 10 17</a>	5.5	20	16	24.5	11	31	17	.066

This fitting provides 2 parallel outlets on the same side.

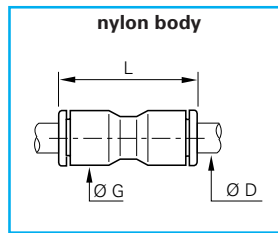
## 3119 double banjo — metric tube to BSPP or M5



ØD	C		E	F	G	H	L/2	kg
mm	BSPP/M5		mm	mm	mm	mm	mm	
4	M5x0.8	<a href="#">3119 04 19*</a>	4	-	8.5	13	16	0.005
4	G1/8	<a href="#">3119 04 10</a>	4	13	11	17	20	0.021
6	G1/8	<a href="#">3119 06 10</a>	4	13	11	17	20	0.024
6	G1/4	<a href="#">3119 06 13</a>	5.5	17	13.5	21	26.5	0.031
8	G1/4	<a href="#">3119 08 13</a>	5.5	17	13.5	21	27	0.033
8	G3/8	<a href="#">3119 08 17</a>	5.5	20	16	24.5	30.5	0.052
10	G3/8	<a href="#">3119 10 17</a>	5.5	20	16	24.5	31	0.045

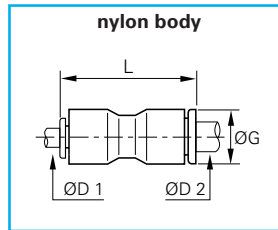
# straight union – tube to tube

## 3106 union — fractional inch tube to tube



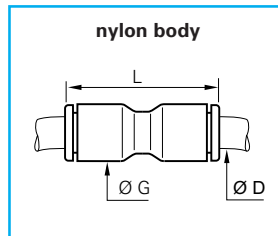
ØD in		G in	L in	⚖ .oz
1/8	<a href="#">3106 53 00</a>	.34	.97	.11
5/32	<a href="#">3106 04 00</a>	.33	.98	.07
3/16	<a href="#">3106 55 00</a>	.43	1.44	.39
1/4	<a href="#">3106 56 00</a>	.43	1.16	.14
5/16	<a href="#">3106 08 00</a>	.53	1.50	.25
3/8	<a href="#">3106 60 00</a>	.63	1.65	.40
1/2	<a href="#">3106 62 00</a>	.87	2.17	.95

## 3106 unequal union — fractional inch tube to tube



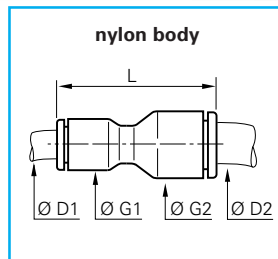
ØD1 in	ØD2 in		G in	L in	⚖ .oz
1/8	5/32	<a href="#">3106 53 04</a>	.33	.96	.11
1/8	1/4	<a href="#">3106 53 56</a>	.43	1.32	.34
5/32	1/4	<a href="#">3106 04 56</a>	.43	1.16	.34
1/4	5/16	<a href="#">3106 56 08</a>	.53	1.44	.40
3/8	1/4	<a href="#">3106 60 56</a>	.63	1.61	.50
3/8	1/2	<a href="#">3106 60 62</a>	.87	2.17	.55

## 3106 union — metric tube to tube



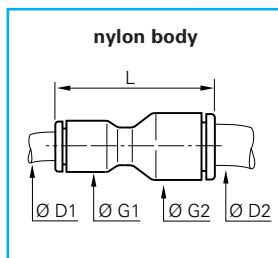
ØD mm		G mm	L mm	⚖ kg
3	<a href="#">3106 03 00</a>	8.5	25	.002
4	<a href="#">3106 04 00</a>	8.5	25	.002
6	<a href="#">3106 06 00</a>	10.5	28.5	.004
8	<a href="#">3106 08 00</a>	13.5	38	.007
10	<a href="#">3106 10 00</a>	16	42	.009
12	<a href="#">3106 12 00</a>	19	50.5	.015
14	<a href="#">3106 14 00</a>	22	56	.043

## 3106 unequal union — metric tube to tube



ØD1 mm	ØD2 mm		G1 mm	G2 mm	L mm	⚖ kg
3	4	<a href="#">3106 03 04</a>	8.5	8.5	25	.002
4	6	<a href="#">3106 04 06</a>	8.5	11	28	.008
4	8	<a href="#">3106 04 08</a>	13.5	13.5	38	.010
6	8	<a href="#">3106 06 08</a>	13.5	13.5	38	.012
6	10	<a href="#">3106 06 10</a>	16	16	42	.018
8	10	<a href="#">3106 08 10</a>	16	16	42	.020
8	12	<a href="#">3106 08 12</a>	19	19	50.5	.031
10	12	<a href="#">3106 10 12</a>	19	19	50.5	.022
12	14	<a href="#">3106 12 14</a>	22	22	56	.024

## 3106 converters — metric to fractional inch



ØD1	ØD2		G in	L in	⚖ .oz
6mm	1/4	<a href="#">3106 06 56</a>	.43	1.18	.14
3/8	10mm	<a href="#">3106 60 10</a>	.78	1.99	.40
12mm	1/2	<a href="#">3106 12 62</a>	.87	2.25	.95

### the advantages of legris.com



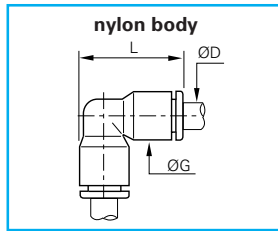
Download **CAD drawings** of all LF3000® models from the online catalog of legris.com. Formats (2D and 3D) are compatible with principal worldwide CAD platforms. A **free service** available to everyone.

[www.legris.com](http://www.legris.com)



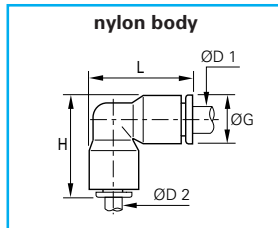
# union elbow – tube to tube

## 3102 union elbow — fractional inch tube to tube



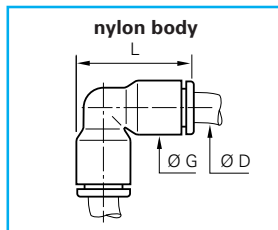
ØD in		G in	L in	⚖ oz
1/8	<a href="#">3102 53 00</a>	.33	.71	.11
5/32	<a href="#">3102 04 00</a>	.33	.75	.07
3/16	<a href="#">3102 55 00</a>	.43	1.07	.55
1/4	<a href="#">3102 56 00</a>	.43	.93	.15
5/16	<a href="#">3102 08 00</a>	.53	1.16	.25
3/8	<a href="#">3102 60 00</a>	.63	1.33	.41
1/2	<a href="#">3102 62 00</a>	.87	1.38	.65

## 3102 unequal union elbow — fractional inch tube to tube



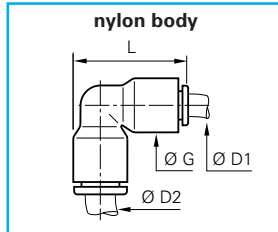
ØD1 in	ØD2 in		G in	H in	L in	⚖ oz
1/8	1/4	<a href="#">3102 53 56</a>	.43	.93	.93	.20
5/32	1/4	<a href="#">3102 04 56</a>	.43	.93	.93	.25
3/8	1/4	<a href="#">3102 60 56</a>	.63	1.30	1.33	.50
3/8	1/2	<a href="#">3102 60 62</a>	.87	1.81	1.81	.65

## 3102 union elbow — metric tube to tube



ØD mm		G mm	L mm	⚖ kg
4	<a href="#">3102 04 00</a>	8.5	19	.002
6	<a href="#">3102 06 00</a>	10.5	22.5	.004
8	<a href="#">3102 08 00</a>	13.5	29.5	.007
10	<a href="#">3102 10 00</a>	16	34.5	.015
12	<a href="#">3102 12 00</a>	19	40.5	.017
14	<a href="#">3102 14 00</a>	22	46.5	.045

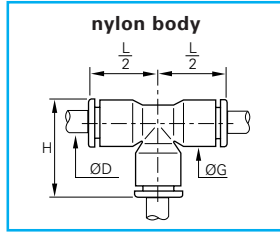
## 3102 unequal union elbow — metric tube to tube



ØD1 mm	ØD2 mm		G mm	L mm	⚖ kg
4	6	<a href="#">3102 04 06</a>	10.5	22.5	.004
6	8	<a href="#">3102 06 08</a>	13.5	29.5	.007
8	10	<a href="#">3102 08 10</a>	16	34.5	.015
10	12	<a href="#">3102 10 12</a>	19	40.5	.017

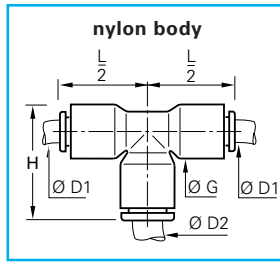
# union tee – tube to tube

## 3104 tee — fractional inch tube to tube to tube



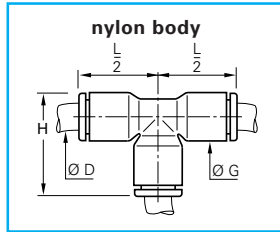
ØD in		G in	H in	L 2 in	⚖ oz
1/8	<a href="#">3104 53 00</a>	.33	.75	.57	.15
5/32	<a href="#">3104 04 00</a>	.33	.75	.57	.14
3/16	<a href="#">3104 55 00</a>	.43	1.07	.85	.58
1/4	<a href="#">3104 56 00</a>	.43	.89	.93	.22
5/16	<a href="#">3104 08 00</a>	.53	1.16	.91	.32
3/8	<a href="#">3104 60 00</a>	.63	1.34	1.02	.64
1/2	<a href="#">3104 62 00</a>	.87	1.81	1.38	1.74

## 3104 unequal tee — fractional inch tube to tube to tube



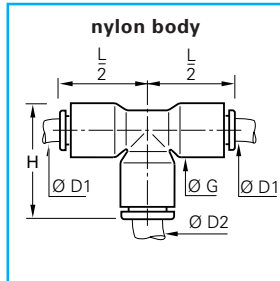
ØD1 in	ØD2 in		G in	H in	L 2 in	⚖ oz
1/8	1/4	<a href="#">3104 53 56</a>	.43	.93	.71	.20
5/32	1/4	<a href="#">3104 04 56</a>	.43	.93	.71	.28
1/4	1/8	<a href="#">3104 56 53</a>	.43	.93	.73	.35
1/4	5/32	<a href="#">3104 56 04</a>	.43	.93	.73	.40
1/4	3/8	<a href="#">3104 56 60</a>	.63	1.32	.96	.60
3/8	1/4	<a href="#">3104 60 56</a>	.63	1.28	1.00	.65
3/8	1/2	<a href="#">3104 60 62</a>	.87	1.81	1.38	.70
1/2	1/4	<a href="#">3104 62 56</a>	.87	1.81	1.38	.73
1/2	3/8	<a href="#">3104 62 60</a>	.87	1.81	1.38	.75

## 3104 tee — metric tube to tube to tube



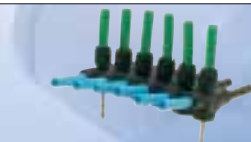
ØD mm		G mm	H mm	L 2 mm	⚖ kg
3	<a href="#">3104 03 00</a>	8.5	19	14.5	.004
4	<a href="#">3104 04 00</a>	8.5	19	14.5	.004
6	<a href="#">3104 06 00</a>	10.5	22.5	17.5	.006
8	<a href="#">3104 08 00</a>	13.5	29.5	23	.009
10	<a href="#">3104 10 00</a>	16	34.5	26.5	.014
12	<a href="#">3104 12 00</a>	19	40.5	31	.019
14	<a href="#">3104 14 00</a>	22	46	35.5	.067

## 3104 unequal tee — metric tube to tube to tube



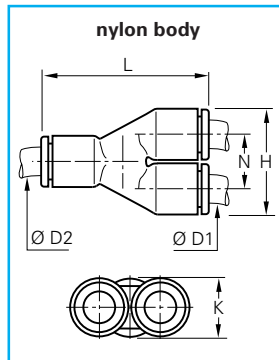
ØD1 mm	ØD2 mm		G mm	H mm	L 2 mm	⚖ kg
4	6	<a href="#">3104 04 06</a>	10.5	22.5	17.5	.006
6	4	<a href="#">3104 06 04</a>	10.5	22.5	17.5	.006
6	8	<a href="#">3104 06 08</a>	13.5	29.5	23	.009
8	6	<a href="#">3104 08 06</a>	13.5	29.5	23	.009
8	10	<a href="#">3104 08 10</a>	16	34.5	26.5	.014
10	8	<a href="#">3104 10 08</a>	16	34.5	26.5	.019
10	12	<a href="#">3104 10 12</a>	19	40.5	31	.019
12	10	<a href="#">3104 12 10</a>	19	40.5	31	.019
14	8	<a href="#">3104 14 08</a>	22	46	35.5	.034

LF3000® tube to tube fittings can be fitted in multiple strips by the use of Legris tube clips – please refer to page A44.



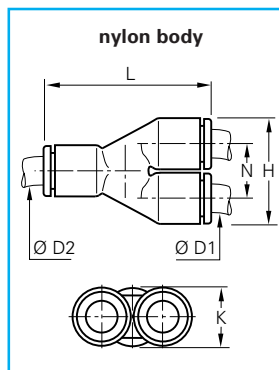
# union "Y" – tube to tube

## 3140 "Y" — fractional inch tube to tube



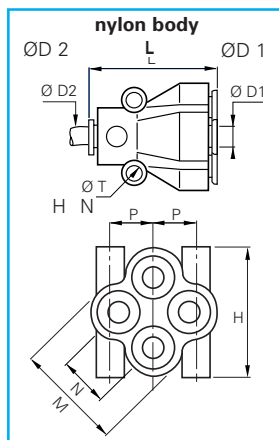
ØD1 in	ØD2 in		H in	K in	L in	N in	⚖️
1/8	1/8	<a href="#">3140 53 00</a>	.69	.33	1.12	.35	.16
5/32	5/32	<a href="#">3140 04 00</a>	.69	.34	1.12	.35	.14
1/4	1/4	<a href="#">3140 56 00</a>	.87	.43	1.42	.45	.24
5/16	5/16	<a href="#">3140 08 00</a>	1.10	.53	1.77	.57	.46
3/8	3/8	<a href="#">3140 60 00</a>	1.30	.63	2.09	.67	.59
1/8	1/4	<a href="#">3140 53 56</a>	.87	.43	1.42	.45	.20
5/32	1/4	<a href="#">3140 04 56</a>	.87	.43	1.42	.45	.43
1/4	3/8	<a href="#">3140 56 60</a>	1.30	.63	1.31	.67	.50
3/8	1/2	<a href="#">3140 60 62</a>	1.30	.63	2.09	.67	.59

## 3140 "Y" — metric tube to tube



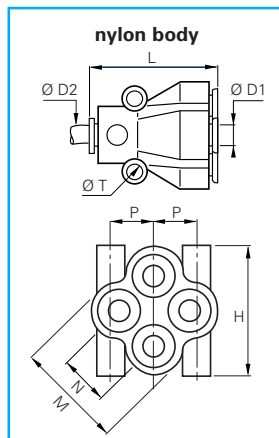
ØD1 mm	ØD2 mm		H mm	K mm	L mm	N mm	⚖️
4	4	<a href="#">3140 04 00</a>	17.5	8.5	28.5	9	.004
6	6	<a href="#">3140 06 00</a>	21.5	10.5	35	11	.007
8	8	<a href="#">3140 08 00</a>	28	13.5	45	14.5	.013
10	10	<a href="#">3140 10 00</a>	33	16	53	17	.020
12	12	<a href="#">3140 12 00</a>	39	19	57	17	.025
4	6	<a href="#">3140 04 06</a>	17.5	10.5	33	9	.005
6	8	<a href="#">3140 06 08</a>	22.5	13.5	41	11.5	.019
8	10	<a href="#">3140 08 10</a>	28	16	47	14.5	.015
10	12	<a href="#">3140 10 12</a>	33	19	57	17	.022

## 3144 double "Y" — fractional inch tube to tube



ØD1 in	ØD2 in		H in	L in	M in	N in	P in	T in	⚖️
5/32	5/32	<a href="#">3144 04 04</a>	1.00	1.20	.83	.39	.34	.15	.95
5/32	1/4	<a href="#">3144 04 56</a>	1.00	1.18	.83	.39	.34	.15	.95

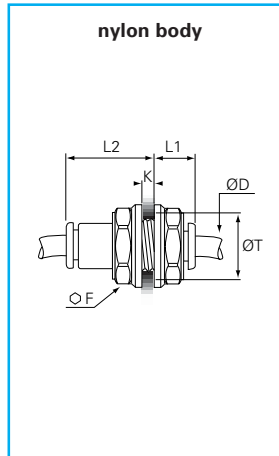
## 3144 multiple "Y" — metric tube to tube



ØD1 mm	ØD2 mm		H mm	L mm	M mm	N mm	P mm	T mm	⚖️
4	4	<a href="#">3144 04 04</a>	25.5	30.5	21	10	8.5	3.7	.027
6	6	<a href="#">3144 06 06</a>	31.5	37.5	26.5	12	10	3.7	.043
4	6	<a href="#">3144 04 06</a>	25.5	30.5	21	10	8.5	3.7	.027
6	8	<a href="#">3144 06 08</a>	31.5	38	26.5	12	10	3.7	.045

# bulkhead connector fittings

## 3116 bulkhead union — tube to tube

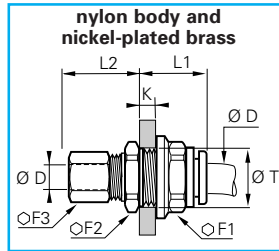


ØD in	fractional inch	F mm	K max in	L1 in	L2 in	T min in		Max Torque
1/8	3116 53 00	13	.22	.37	.61	.41	.64	11 lb. in.
5/32	3116 04 00	13	.22	.59	.39	.41	.67	11 lb. in.
1/4	3116 56 00	16	.35	.37	.81	.53	.24	13 lb. in.
5/16	3116 08 00	18	.57	.98	.53	.61	1.16	15 lb. in.
3/8	3116 60 00	22	.57	.51	1.18	.73	.65	22 lb. in.
1/2	3116 62 00	29	.81	.67	1.61	1.00	3.60	

ØD mm	metric	F mm	K max mm	L1 mm	L2 mm	T min mm	
4	3116 04 00	13	5.5	15	10	10.5	.018
6	3116 06 00	15	8.5	18	10.5	12.5	.029
8	3116 08 00	18	14.5	25	13.5	15.5	.037
10	3116 10 00	22	14.5	27.5	15.5	18.5	.084
12	3116 12 00	26	18.5	33	18	22.5	.102
14	3116 14 00	29	20.5	37.5	20.5	25.5	.135

The plastic nut is fitted with an "O" ring to optimize sealing in relation to the panel.

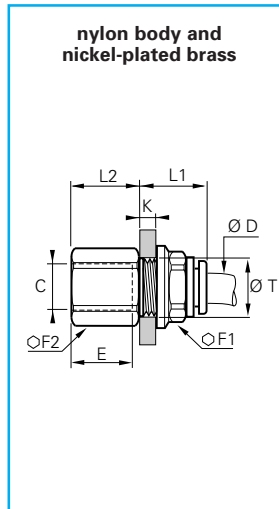
## 3146 mixed bulkhead connector — metric tube



ØD mm		F1 mm	F2 mm	F3 mm	K max mm	L1 mm	L2 mm	T min mm	
4	3146 04 00	13	13	10	7	17.5	17.5	10.5	.021
6	3146 06 00	15	17	13	8	19	18	12.5	.030
8	3146 08 00	18	19	14	8	20.5	20.5	15.5	.038
10	3146 10 00	22	22	19	8.5	23	24.5	18.5	.071
12	3146 12 00	26	25	22	8.5	27	25	22.5	.086
14	3146 14 00	29	29	24	10.5	27	27	25.5	.125

The plastic nut is fitted with an "O" ring to optimize sealing in relation to the panel.

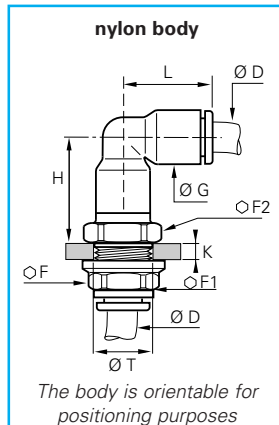
## 3036/3136 female bulkhead connector — tube to NPT or BSPP



ØD in	C NPT	fractional inch	E in	F1 mm	F2 mm	K max in	L1 in	L2 in	T min in	
1/8	1/8	3036 53 11	.37	13	13	.28	.41	.73	.41	.75
5/32	1/8	3036 04 11	.37	13	13	.28	.41	.73	.41	.88
5/32	1/4	3036 04 14	.55	13	16	.32	.41	.73	.41	.99
1/4	1/8	3036 56 11	.37	18	17	.32	.55	.96	.61	1.23
1/4	1/4	3036 56 14	.55	18	17	.32	.55	1.18	.61	1.41
3/8	1/4	3036 60 14	.55	22	22	.33	.57	.89	.73	2.57
3/8	3/8	3036 60 18	.55	22	22	.33	.57	.89	.73	2.65

mm BSPP	metric	mm	mm	mm	mm	mm	mm	mm	mm	
4 G1/8	3136 04 10	9.5	13	13	7	17.5	10.5	10.5	.025	
4 G1/4	3136 04 13	13.5	16	13	7	17.5	14.5	10.5	.028	
6 G1/8	3136 06 10	9.5	15	13	8	19	10.5	12.5	.035	
6 G1/4	3136 06 13	13.5	17	13	7	19	14.5	12.5	.040	
6 G3/8	3136 06 17	12	15	22	8	19	16	12.5	.041	
8 G1/8	3136 08 10	9.5	17	18	8	20.5	10.5	15.5	.048	
8 G1/4	3136 08 13	13.5	17	18	8	20.5	14.5	15.5	.055	
10 G3/8	3136 10 17	14	22	22	8.5	23	16	20.5	.073	
12 G3/8	3136 12 17	14	26	25	8.5	27	16	22.5	.092	
12 G1/2	3136 12 21	18.5	26	26	8.5	27	21.5	22.5	.118	

## 3139 equal bulkhead elbow — tube to tube



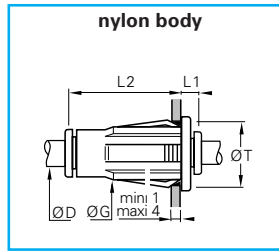
ØD in	fractional inch	F1 mm	F2 mm	G in	H in	K max in	L in	T min in	
1/8	3139 53 00	13	13	.35	.71	.28	.57	.41	.67
5/32	3139 04 00	-	13	.33	.83	.26	.67	.41	.67
1/4	3139 56 00	18	17	.43	.87	.32	.71	.61	.85
5/16	3139 08 00	-	18	.53	1.22	.31	.94	.61	1.23
3/8	3139 60 00	22	22	.63	1.08	.33	1.00	.73	2.80
1/2	3139 62 00	29	27	.87	1.54	.41	1.38	1.00	4.34

mm	metric	mm	mm	mm	mm	mm	mm	mm	
4	3139 04 00	13	8.5	21	6.5	17	10.5	.019	
6	3139 06 00	15	10.5	24.5	7	19.5	12.5	.024	
8	3139 08 00	18	13.5	31	8	24	15.5	.035	
10	3139 10 00	22	16	36	8.5	28	18.5	.081	
12	3139 12 00	26	19	42	8.5	33	22.5	.123	
14	3139 14 00	29	25.5	48	10.5	37.5	25.5	.143	

The plastic nut is fitted with an "O" ring to optimize sealing in relation to the panel.

# plug-in bulkhead union

## 3156 plug-in bulkhead union — fractional inch tube to tube



ØD in		G in	L1 in	L2 in	T min in	
5/32	3156 04 00	.83	.26	1.08	.62	.25
1/4	3156 56 00	.93	.26	1.24	.75	.41
5/16	3156 58 00	1.02	.30	1.28	.87	.57
3/8	3156 60 00	1.34	.30	1.63	1.12	1.30
1/2	3156 62 00	1.44	.30	1.71	1.25	1.41

Fittings are supplied complete with collar.  
One removal tool comes in each 3156 box.

To facilitate color coding, please refer to page A45 for details of Legris colored release caps.

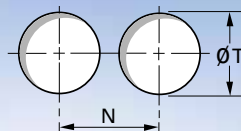
### installation

1. mark out the fixing hole.
2. make hole in panel.
3. simply push the fitting into place.
4. to complete the installation.
5. to identify circuits simply remove the black release button and replace with colored one.

### removal

1. disconnect the tube.
2. put the removal tool on the fitting.
3. push the tool over the fitting to the bulkhead face.
4. simply remove the fitting.

Minimum distance between fittings.  
Diameter of fixing hole.



ØD	5/32	1/4	5/16	3/8	1/2
ØT inches	5/8"	3/4"	7/8"	1 1/8"	1 1/4"
ØT mm	15.87	19.05	22.22	28.57	31.75
N in	.89	1.00	1.08	1.34	1.50
tolerance	ØT : +0.3 -0.1				

# multiple connection manifolds

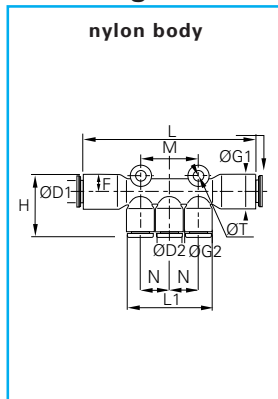


In pneumatic installations manifolding is a popular way of preparing the installation of pneumatic equipment.

Legris multiple tees, a recent addition to the LF3000® range, provide the ideal way of creating this manifold and with the careful use of other components in the range allow the system to be plumbed in as it is built. Care has been taken to ensure that flow through the main body of the manifold is adequate to feed the secondary lines.

Incorporation of the multiple tee can enable a very cost effective circuit design to be achieved.

## 3304 multiple tee with mounting holes



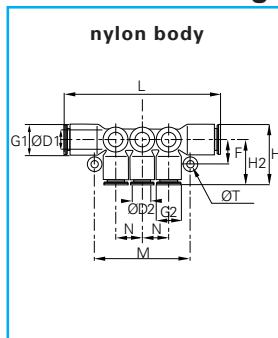
ØD1 in	ØD2 in		G1 in	G2 in	H in	L1 in	L in	N in	M in	T in	
1/4	5/32	<b>3304 56 54*</b>			1.04	1.42	2.76	.43		.13	.81
1/4	1/4	<b>3304 56 56*</b>			1.18	1.86	3.12	.55		.17	1.00
5/16	5/32	<b>3304 08 04</b>			.96		2.91	.45		.17	1.09
3/8	1/4	<b>3304 60 56</b>	.63	.53	1.34		3.21	.61	1.22	.17	2.05

\*collet technology

ØD1 mm	ØD2 mm		H mm	L1 mm	L mm	N mm	T mm	
6	4	<b>3304 06 04</b>	24.5	23	74	11.5	4.2	.023
8	4	<b>3304 08 04</b>	24.5	23	74	11.5	4.2	.031
8	6	<b>3304 08 06</b>	24.5	23	74	11.5	4.2	.033
10	6	<b>3304 10 06</b>	36	29	81	14.5	4.2	.058
10	8	<b>3304 10 08</b>	36	29	81	14.5	4.2	.060

ØT = I.D. of fixing hole

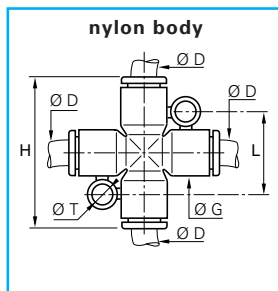
## 3306 double multiple tee with mounting holes



ØD1 in	ØD2 in		F in	G1 in	G2 in	H in	L in	N in	M in	T in	
1/4	5/32	<b>3306 56 04</b>	.45	.53	.43	.73	2.84	.45	1.69	.17	.85
1/4	1/4	<b>3306 56 56</b>	.45	.53	.43	.73	2.84	.45	1.69	.17	1.25
5/16	5/32	<b>3306 08 04</b>	.45	.53	.43	.77	2.87	.45	1.69	.17	1.13
3/8	1/4	<b>3306 60 56</b>	.51	.63	.53	.91	3.31	.57	2.05	.17	2.30

mm	mm		H2 mm	mm	mm	mm	mm	mm	mm	mm	
6	4	<b>3306 06 04</b>	11.5	13.5	11	18.5	72	11.5	43	4.2	.020
8	4	<b>3306 08 04</b>	11.5	13.5	11	18.5	73	11.5	43	4.2	.032
8	6	<b>3306 08 06</b>	11.5	13.5	11	18.5	73	11.5	43	4.2	.050
10	6	<b>3306 10 06</b>	13	16	13.5	23	84	14.5	52	4.2	.065
10	8	<b>3306 10 08</b>	13	16	13.5	23.5	84	14.5	52	4.2	.070

## 3107 equal cross

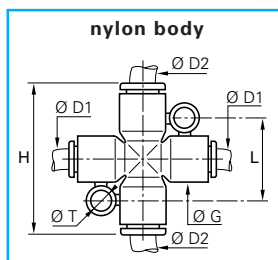


ØD in		G in	H in	L in	T in	
5/32	<b>3107 04 00</b>	.43	1.42	.79	.17	.35
1/4	<b>3107 56 00</b>	.43	1.40	.79	.17	.35
5/16	<b>3107 08 00</b>	.53	1.81	.89	.17	.71

mm		mm	mm	mm	mm	
4	<b>3107 04 00</b>	11	36	20	4.2	.010
6	<b>3107 06 00</b>	11	36	20	4.2	.010
8	<b>3107 08 00</b>	13.5	46	22.5	4.2	.020

ØT = I.D. of fixing hole

## 3107 unequal cross — metric

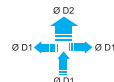


ØD1 mm	ØD2 mm		G mm	H mm	L mm	T mm	
4	6	<b>3107 04 06</b>	11	36	20	4.2	.010
6	8	<b>3107 06 08</b>	13.5	46	22.5	4.2	.020
4	6	<b>3107 06 04*</b>	11	36	20	4.2	.010
6	8	<b>3107 08 06*</b>	13.5	46	22.5	4.2	.020

This model provides 2 outlets ØD1 of equal diameters and 2 outlets ØD2 of a different diameter.

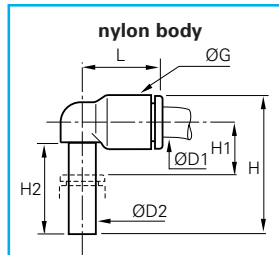
\* This model provides 3 outlets ØD1 of equal diameters and 1 outlet ØD2 of a different diameter.

ØT = I.D. of fixing hole



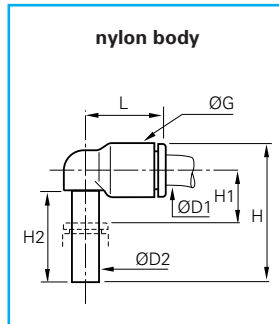
# plug-in fittings

## 3182 plug-in elbow — fractional inch



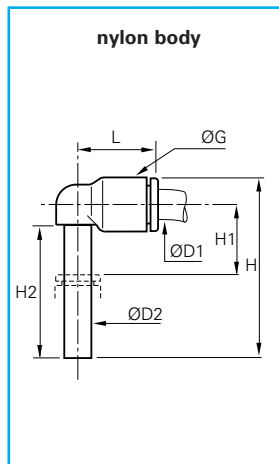
ØD1 in	ØD2 in		G in	H in	H1 in	H2 in	L in	⚖️
1/8	1/8	<a href="#">3182 53 00</a>	.33	.92	.31	.64	.57	.08
5/32	5/32	<a href="#">3182 04 00</a>	.33	.91	.24	.61	.55	.11
5/32	1/4	<a href="#">3182 04 56</a>	.43	1.08	.30	.71	.71	.20
1/4	1/4	<a href="#">3182 56 00</a>	.43	1.20	.43	.83	.73	.11
1/4	3/8	<a href="#">3182 56 60</a>	.63	1.52	.35	.96	.98	.14
5/16	5/16	<a href="#">3182 08 00</a>	.53	1.32	.32	.85	.91	.14
3/8	3/8	<a href="#">3182 60 00</a>	.63	1.52	.35	.96	1.02	.32
1/2	1/2	<a href="#">3182 62 00</a>	.87	2.00	.51	1.12	1.38	.32

## 3182 plug-in elbow — metric



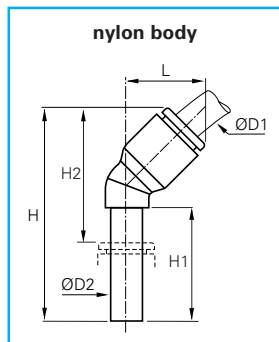
ØD1 mm	ØD2 mm		G mm	H mm	H1 mm	H2 mm	L mm	⚖️
4	4	<a href="#">3182 04 00</a>	8.5	23	6	15.5	14	.003
6	6	<a href="#">3182 06 00</a>	10.5	26.5	7	17	16	.003
8	8	<a href="#">3182 08 00</a>	13.5	33.5	8	21.5	23	.004
10	10	<a href="#">3182 10 00</a>	16	39	9.5	24.5	23.5	.009
12	12	<a href="#">3182 12 00</a>	19	44.5	10	27.5	31	.012
4	6	<a href="#">3182 04 06</a>	10.5	26.5	7	17	16	.003
6	4	<a href="#">3182 06 04</a>	10.5	24.5	7	15.5	16	.003
6	8	<a href="#">3182 06 08</a>	13.5	33.5	8	21.5	22	.004
8	10	<a href="#">3182 08 10</a>	16	39	9.5	24.5	26.5	.009
10	12	<a href="#">3182 10 12</a>	19	44.5	10	27.5	31	.012

## 3184 extended plug-in elbow



ØD1 in	ØD2 in		G in	H in	H1 in	H2 in	L in	⚖️
1/8	1/8	<a href="#">3184 53 00</a>	.33	1.26	.65	.98	.57	.18
5/32	5/32	<a href="#">3184 04 00</a>	.33	1.28	.61	.98	.55	.18
1/4	1/4	<a href="#">3184 56 00</a>	.43	1.56	.77	1.18	.71	.18
5/16	5/16	<a href="#">3184 08 00</a>	.53	1.93	.93	1.46	.91	.21
3/8	3/8	<a href="#">3184 60 00</a>	.63	2.19	1.02	1.63	1.02	.39
mm	mm		mm	mm	mm	mm	mm	⚖️
4	4	<a href="#">3184 04 00</a>	8.5	32.5	15.5	25	14	.005
6	6	<a href="#">3184 06 00</a>	10.5	38.5	19	29	16	.005
8	8	<a href="#">3184 08 00</a>	13.5	49	23.5	37	23	.006
10	10	<a href="#">3184 10 00</a>	16	56	26.5	41.5	26.5	.011
12	12	<a href="#">3184 12 00</a>	19	62.5	28	45.5	31	.014
4	6	<a href="#">3184 04 06</a>	10.5	38.5	19	29	16	.005
6	8	<a href="#">3184 06 08</a>	13.5	49	23.5	37	23	.006
8	10	<a href="#">3184 08 10</a>	16	56	26.5	41.5	26.5	.011
10	12	<a href="#">3184 10 12</a>	19	62.5	28	45.5	31	.014

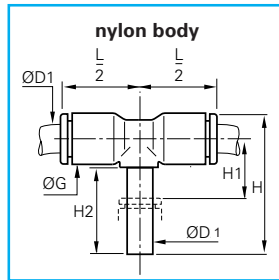
## 3180 45° plug-in elbow



ØD1 in	ØD2 in		G in	H in	H1 in	H2 in	L in	⚖️
1/8	1/8	<a href="#">3180 53 00</a>	.33	1.14	.59	.69	.47	.18
5/32	5/32	<a href="#">3180 04 00</a>	.35	1.32	.75	.83	.51	.18
1/4	1/4	<a href="#">3180 56 00</a>	.43	1.44	.71	.87	.57	.18
5/16	5/16	<a href="#">3180 08 00</a>	.53	1.73	.85	1.00	.77	.21
3/8	3/8	<a href="#">3180 60 00</a>	.63	2.00	.96	1.16	.91	.32
mm	mm		mm	mm	mm	mm	mm	⚖️
4	4	<a href="#">3180 04 00</a>	9	33.5	19	21	13	.005
6	6	<a href="#">3180 06 00</a>	11	39	21	25	14.5	.005
8	8	<a href="#">3180 08 00</a>	13.5	44	21.5	25.5	19.5	.006
10	10	<a href="#">3180 10 00</a>	16	53	27	32.5	23	.009
12	12	<a href="#">3180 12 00</a>	19	58.5	27.5	34	26.5	.012

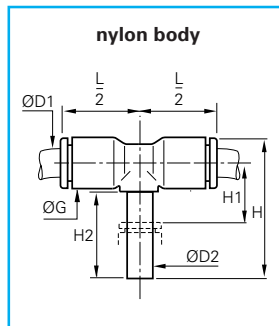
# plug-in fittings

## 3188 plug-in tee — fractional inch



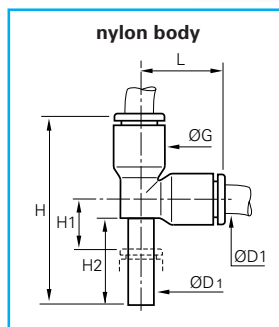
ØD1 in		G in	H in	H1 in	H2 in	L 2 in	△kg
5/32	<a href="#">3188 04 00</a>	.33	.91	.24	.61	.57	.18
1/4	<a href="#">3188 56 00</a>	.43	.98	.43	.77	.73	.18
5/16	<a href="#">3188 08 00</a>	.53	1.32	.32	.85	.91	.28

## 3188 plug-in tee — metric



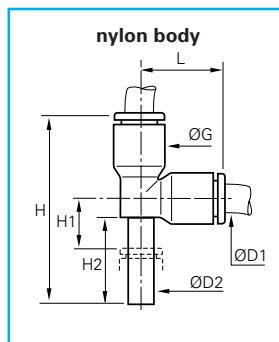
ØD1 mm	ØD2 mm		G mm	H mm	H1 mm	H2 mm	L 2 mm	△kg
4	4	<a href="#">3188 04 00</a>	8.5	23	6	15.5	14.5	.005
6	6	<a href="#">3188 06 00</a>	10.5	26.5	7	17	16	.006
8	8	<a href="#">3188 08 00</a>	13.5	33.5	8	21.5	23	.008
10	10	<a href="#">3188 10 00</a>	16	39	9.5	24.5	26.5	.012
12	12	<a href="#">3188 12 00</a>	19	44.5	10	27.5	31	.017
4	6	<a href="#">3188 04 06</a>	10.5	26.5	7	17	16	.006
6	8	<a href="#">3188 06 08</a>	13.5	33.5	8	21.5	23	.007
8	10	<a href="#">3188 08 10</a>	16	39	9.5	24.5	26.5	.011
10	12	<a href="#">3188 10 12</a>	19	44.5	10	27.5	31	.016

## 3183 plug-in run tee — fractional inch



ØD1 in		G in	H in	H1 in	H2 in	L in	△kg
5/32	<a href="#">3183 04 00</a>	.33	1.30	.24	.61	.57	.18
1/4	<a href="#">3183 56 00</a>	.43	1.69	.43	.83	.73	.21
5/16	<a href="#">3183 08 00</a>	.53	1.93	.32	.85	.91	.28

## 3183 plug-in run tee — metric



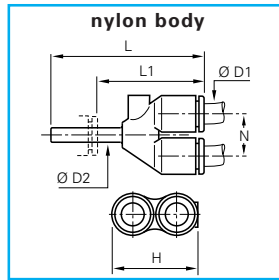
ØD1 mm	ØD2 mm		G mm	H mm	H1 mm	H2 mm	L mm	△kg
4	4	<a href="#">3183 04 00</a>	8.5	33	6	15.5	14.5	.005
6	6	<a href="#">3183 06 00</a>	10.5	38.5	7	17	17.5	.006
8	8	<a href="#">3183 08 00</a>	13.5	49	8	21.5	23	.008
10	10	<a href="#">3183 10 00</a>	16	57	10.5	24.5	26.5	.012
12	12	<a href="#">3183 12 00</a>	19	65.5	10.5	27.5	31	.017
4	6	<a href="#">3183 04 06</a>	10.5	38.5	7	17	17.5	.006
6	8	<a href="#">3183 06 08</a>	13.5	48.5	8	21.5	23	.007
8	10	<a href="#">3183 08 10</a>	16	56.5	10.5	24.5	26.5	.011
10	12	<a href="#">3183 10 12</a>	19	65.5	10.5	27.5	31	.016

Legris plug-in fittings also offer solutions for small spaces and system design by the use of cartridges. For details of Legris **Carstick**<sup>®</sup>, - an innovative, modern cartridge assembly - please refer to page A47.



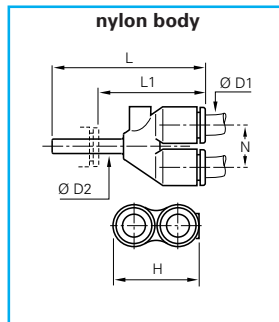
# plug-in fittings

## 3142 plug-in "Y" — fractional inch



ØD1 in	ØD2 in		H in	L in	L1 in	N in	kg
1/8	1/8	3142 53 00	.69	1.36	1.00	.35	.13
5/32	5/32	3142 04 00	.69	1.34	.85	.35	.18
5/16	5/16	3142 08 00	1.10	2.00	1.26	.57	.49

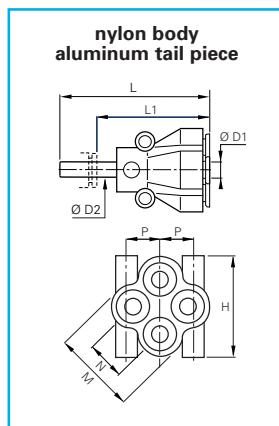
## 3142 plug-in "Y" — metric



ØD1 mm	ØD2 mm		H mm	L mm	L1 mm	N mm	kg
4	4	3142 04 00	17.5	34	21.5	9	.005
6	6	3142 06 00	21.5	39.5	25.5	11	.008
8	8	3142 08 00	28	50.5	32	14.5	.014
10	10	3142 10 00	33	57.5	36	17	.021
12	12	3142 12 00	39	66	41	20	.026
4	6	3142 04 06	17.5	35.5	21.5	9	.005
6	8	3142 06 08	21.5	44	25.5	11	.008
8	10	3142 08 10	28	53.5	32	14.5	.014
10	12	3142 10 12	33	60	35	17	.021

this model comprises one inlet (ØD2) and two equal outlets (ØD1)

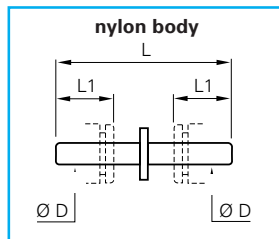
## 3143 plug-in multiple "Y" — metric



ØD1 in	ØD2 in		H mm	L mm	L1 mm	M mm	N mm	P mm	kg
4	6	3143 04 06	25.5	45	31	21	10	8.5	.027
4	8	3143 04 08	25.5	49.5	31	21	10	8.5	.026
6	8	3143 06 08	31.5	59.5	41	26.5	12	10	.040

this model comprises one inlet (ØD2) and four equal outlets (ØD1)

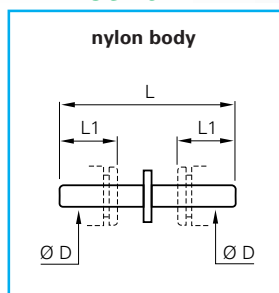
## 3120 double male union — fractional inch



ØD in		L in	L1 in	kg
5/32	3120 04 00	1.36	.47	.04
3/16	3120 55 00 85*	1.24	.57	.12
1/4	3120 56 00	1.52	.57	.03
5/16	3120 08 00	1.61	.73	.07
3/8	3120 60 00	2.03	.81	.07
1/2	3120 62 00 85*	2.13	.86	.46

\*nickel-plated brass

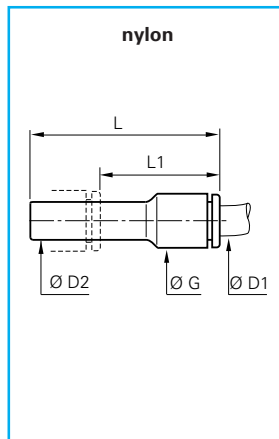
## 3120 double male union — metric



ØD mm		L mm	L1 mm	kg
4	3120 04 00	34.5	12	.001
6	3120 06 00	38.5	14	.001
8	3120 08 00	41	18.5	.002
10	3120 10 00	51.5	20.5	.003
12	3120 12 00	60	24.5	.004
14	3120 14 00	69.5	25.5	.005

# plug-in fittings

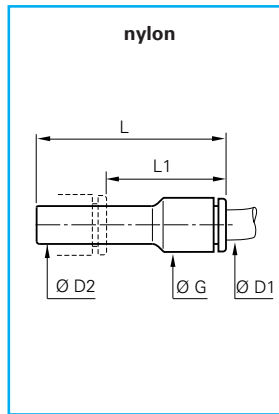
## 3166 reducer — fractional inch



ØD1 in	ØD2 in		G in	L in	L1 in	kg
1/8	5/32	3166 53 04	.43	1.79	.13	.28
1/8	3/16	3166 53 55	.43	1.79	1.14	.28
1/8	1/4	3166 53 56	.43	1.79	1.22	.29
5/32	3/16	3166 04 55	.34	1.48	.83	.11
5/32	1/4	3166 04 56	.34	1.48	.91	.09
5/32	5/16	3166 04 08	.34	1.48	.75	.14
5/32	3/8	3166 54 60*	.40	1.63	.66	.39
3/16	5/16	3166 55 08	.43	1.79	1.06	.19
3/16	1/4	3166 55 56	.43	1.79	1.22	.22
1/4	5/16	3166 56 08	.43	1.61	.89	.12
1/4	3/8	3166 56 60	.43	1.61	.81	.13
1/4	1/2	3166 56 62	.63	1.97	.98	.30
5/16	3/8	3166 08 60	.53	1.93	1.12	.21
5/16	1/2	3166 08 62	.63	2.01	1.02	.29
3/8	1/2	3166 60 62	.63	2.01	1.04	.31

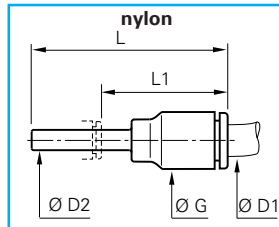
\* metal body

## 3166 reducer — metric



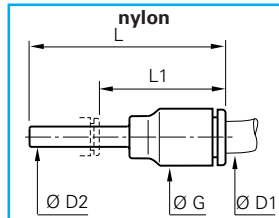
ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	kg
3	4	3166 03 04	8.5	37.5	23.5	.004
4	6	3166 04 06	8.5	37.5	23.5	.004
4	8	3166 04 08	8.5	37.5	19	.004
4	10	3166 04 10	12	44	22.5	.005
6	8	3166 06 08	10.5	37.5	20	.004
6	10	3166 06 10	10.5	38	17.5	.006
6	12	3166 06 12	14.5	46	23	.007
6	14	3166 06 14	14.5	48	23	.008
8	10	3166 08 10	13.5	49	28.5	.009
8	12	3166 08 12	13.5	49	24.5	.010
8	14	3166 08 14	17	48	23	.010
10	12	3166 10 12	21.5	56.5	33.5	.019
10	14	3166 10 14	21.5	58.5	33.5	.020
12	14	3166 12 14	23.5	58.5	33.5	.023

## 3168 expander — fractional inch



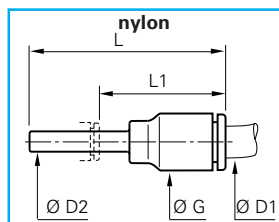
ØD1 in	ØD2 in		G in	L in	L1 in	kg
1/4	1/8	3168 56 53	.43	1.61	1.16	.08
1/4	6mm	3168 56 06	.53	1.75	1.02	.11
1/4	5/32	3168 56 04	.43	1.61	1.14	.11
1/4	3/16	3168 56 55	.81	1.61	1.00	.12
3/8	1/4	3168 60 56	.63	1.58	1.00	.14

## 3168 expander — metric



ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	kg
6	4	3168 06 04	10.5	35	23	.003
8	6	3168 08 06	13.5	45	31.5	.005
10	8	3168 10 08	16	42.5	21	.009
12	10	3168 12 10	19	49	24.5	.019

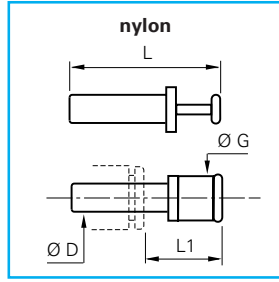
## 3168 converter — fractional inch to metric



ØD1 mm	ØD2 in		G in	L in	L1 in	kg
4	1/8	3168 04 53	.43	1.61	1.16	.08
8	1/4	3168 08 56	.63	1.58	1.00	.12

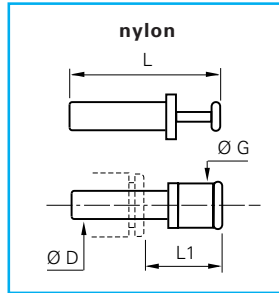
# plug-in fittings

## 3126 plug — fractional inch



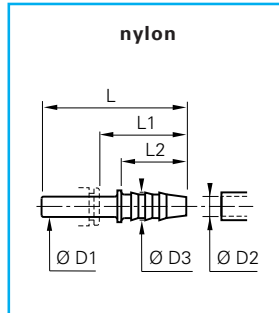
ØD in		G in	L in	L1 in	⚖ oz
1/8	3126 53 00	.24	1.30	.85	.05
5/32	3126 04 00	.16	1.18	.61	.04
3/16	3126 55 00	.27	1.36	.79	.06
1/4	3126 56 00	.32	1.44	.87	.06
5/16	3126 08 00	.39	1.38	.69	.07
3/8	3126 60 00	.46	1.67	.87	.10
1/2	3126 62 00	.58	1.91	.85	.18

## 3126 plug — metric



ØD mm		G mm	L mm	L1 mm	⚖ kg
3	3126 03 00	6	25	13.5	.001
4	3126 04 00	4	30	15.5	.001
6	3126 06 00	8	33	16.5	.001
8	3126 08 00	10	33	17.5	.002
10	3126 10 00	12	42	21	.003
12	3126 12 00	14	45	22	.004
14	3126 14 00	16	49	23.5	.005

## 3122 barbed connector — fractional inch

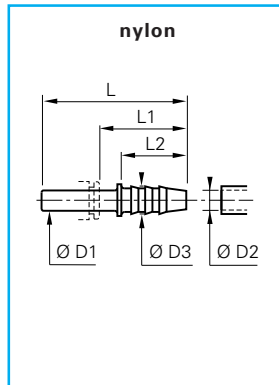


ØD1 in	ØD2 in	ØD3 in		L in	L1 in	L2 in	⚖ oz
5/32	.12	.20	3122 04 53	1.46	.98	.67	.11
5/32	.20	.28	3122 04 05	1.46	.98	.67	.11
1/4	3/16		3122 56 55*	1.65	1.00		.21
5/16	.25	.34	3122 08 56	1.55	.83	.67	.04
5/16	.32	.39	3122 08 08	1.75	1.02	.87	.04
3/8	.32	.39	3122 60 08	1.97	1.16	.87	.11

\*nickel-plated brass

dimensions for ØD2 are I.D. of the tube.

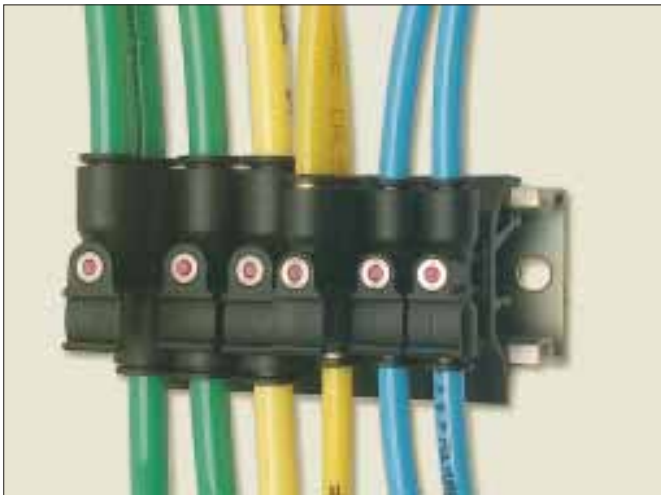
## 3122 barbed connector — metric



ØD1 mm	ØD2 mm	ØD3 mm		L mm	L1 mm	L2 mm	⚖ kg
4	3.2	5	3122 04 53	37	25	17	.002
4	5	7	3122 04 05	37	25	17	.003
6	5	7	3122 06 05	39	25	17	.004
8	6.3	8.5	3122 08 56	39.5	21	17	.005
8	8	10	3122 08 08	44.5	26	22	.005
10	6.3	8	3122 10 56	45	24.5	17	.005
10	8	10	3122 10 08	50	29.5	22	.006
12	8	10	3122 12 08	50	26	22	.008
12	10	12	3122 12 10	48.5	25.5	22.5	.014
12	12.5	14.5	3122 12 62	57	34	22.5	.019
14	12.5	14.5	3122 14 62	59.5	34.5	22.5	.022
14	14	16	3122 14 14*	59.5	34.5	22.5	.022

\*nickel-plated brass

# connectors for DIN rail profile [ or Ω



These components are similar in principle to the electrical connectors found in control panels and used to rationalize cabling and trouble shooting.

Used alongside electrical connectors Legris DIN rail connectors provide similar facilities for pneumatic pipework, and are mounted on the same rail profile which allows electrics and pneumatics to run side by side. All tube connections are Legris push-in fittings for plastic tubing.

## identification and trouble shooting

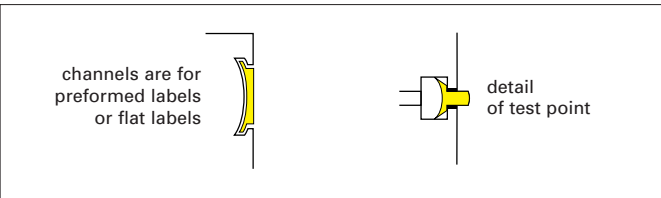
### Tube identification

Channels or slots for labels are to be found on the front faces of these connectors which allows air line tubes to be coded and identified to assist in trouble shooting.

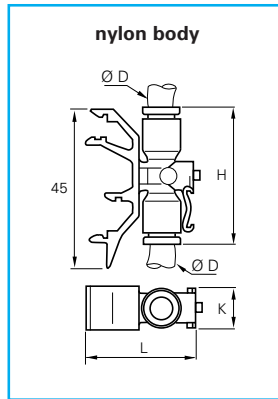
### Test point facility

Being able to detect the presence of air is an important consideration when maintaining pneumatic control systems.

Legris DIN rail connectors incorporate test points which pop out after being manually depressed, indicating the presence of air in the pipe.



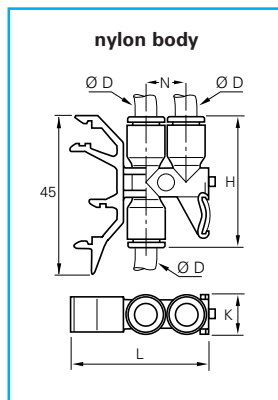
## 3379 connector for 2 tubes in line



ØD in		H in	K in	L in	
5/32	<a href="#">3379 04 00</a>	1.44	.47	1.18	.71
5/16	<a href="#">3379 08 00</a>	1.81	.51	1.28	1.20
mm		mm	mm	mm	
4	<a href="#">3379 04 00</a>	36.5	12	30	.020
6	<a href="#">3379 06 00</a>	36.5	12	30	.026
8	<a href="#">3379 08 00</a>	46	13	32.5	.034

fixed by clipping

## 3381 connector for 3 tubes



ØD in		H in	K in	L in	N in	
5/32	<a href="#">3381 04 00</a>	1.44	.43	1.56	.45	.95
5/16	<a href="#">3381 08 00</a>	1.81	.51	1.75	.57	1.52
mm		mm	mm	mm	mm	
4	<a href="#">3381 04 00</a>	36.5	11	39.5	11.5	.027
6	<a href="#">3381 06 00</a>	36.5	11	39.5	11.5	.033
8	<a href="#">3381 08 00</a>	46	13	44.5	14.5	.043

fixed by clipping

Working pressure of models 3379 and 3381 : 15 to 145 psi

# modular manifolds

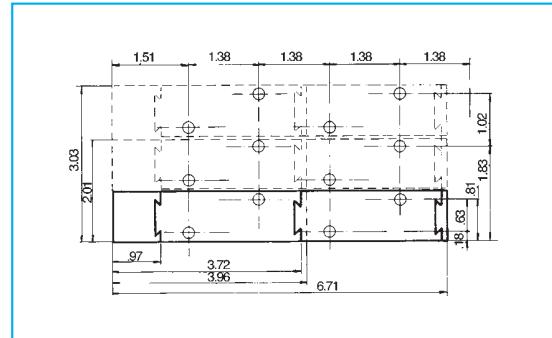


Rugged construction, anodized aluminum finish, this manifold offers connection solutions for a wide range of pneumatic applications.

Modular version with threaded or LF3000® push-in connection.

### 3 connector modules

- 8 connections for 5/32" or 4mm tubing
- 4 connections for 1/4" tubing
- 4 connections for 1/8" NPT



Use 6-32 or M3 x 20 socket head screws for mounting module.

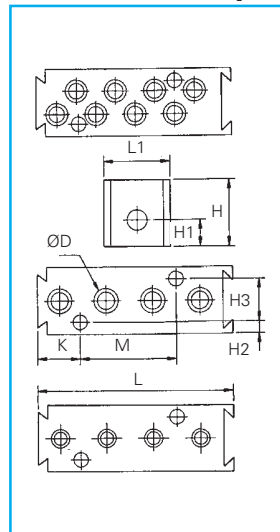
### 4 port blocks

- single port block - 1/4" NPT side entry tubing
- single port block - 1/4" NPT rear entry connection
- double port block - 3/8" NPT side entry connection
- triple port block - 3/8" NPT side entry connection

### 3 connector modules

- 8 Monobloc for 5/32" or 4mm tubing
- 4 connections for 1/4" tubing
- 4 connections for 1/8" NPT

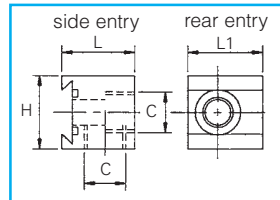
## 3301 manifold module — threaded or push-in



ØD fractional incl		H in	H1 in	L in	L1 in	K in	M in	H2 in	H3 in	oz
5/32 or 4mm	<b>3301 54 00</b>	.98	.39	2.89	.98	.68	1.38	.18	.63	4.04
1/4	<b>3301 56 00</b>	.98	.39	2.89	.98	.68	1.38	.18	.63	4.04

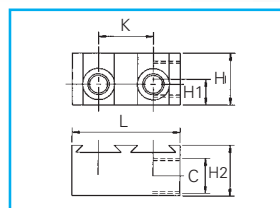
		H in	H1 in	L in	L1 in	L2 in	W in	W1 in	W2 in	oz
1/8	<b>3301 07 11</b>	.98	.39	2.89	.68	1.38	.98	.18	.63	3.24

## 3302 01 threaded entry single port block



C NPT			L in	L1 in	H in	oz
1/4	<b>3302 01 14</b>	Side entry thread	.97	.98	.98	1.11
1/4	<b>3302 01 14 01</b>	Rear entry thread	.97	.98	.98	1.11

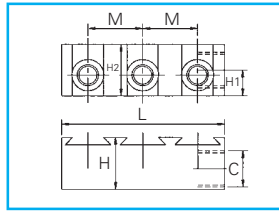
## 3302 02 double port block — with 3/8" NPT side entry



C NPT		H in	H1 in	H2 in	L in	K in	oz
3/8	<b>3302 02 18</b>	.98	.49	.97	2.01	1.02	2.16

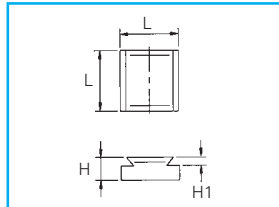
# modular manifolds

## 3302 03 triple port block — with 3/8" NPT side entry



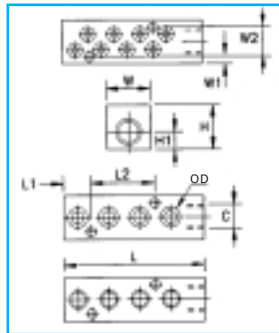
C NPT		H in	H1 in	H2 in	L in	M in	oz
3/8	3302 03 18	.97	.49	.98	3.03	1.02	3.31

## 3303 blanking end



		L in	H in	H1 in	kg
	3303 00 01	.98	.37	.14	.56

## 3305 monobloc manifold with threaded or LF3000® push-to-connect ports — fractional inch

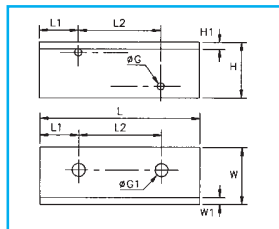


ØD in	C NPT		H in	H1 in	L in	L1 in	L2 in
5/32" O.D.	1/4	3305 54 14	.98	.39	3.15	.62	1.38
1/4" O.D.	1/4	3305 56 14	.98	.39	3.15	.62	1.38
1/8" NPT	1/4	3305 11 14	.98	.39	3.15	.62	1.38

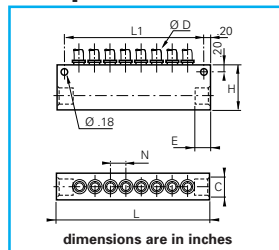
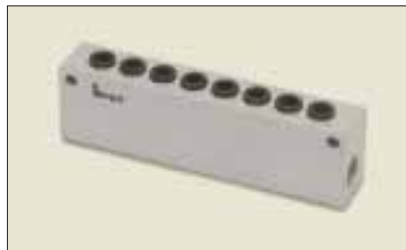
		W in	W1 in	W2 in	oz
1/4	3305 54 14	.98	.18	.63	4.5
1/4	3305 56 14	.98	.18	.63	4.4
1/4	3305 11 14	.98	.18	.63	4.2

## 3303 mounting bracket



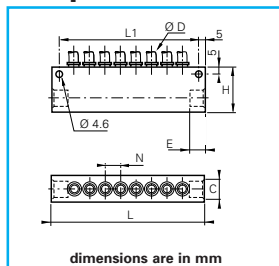
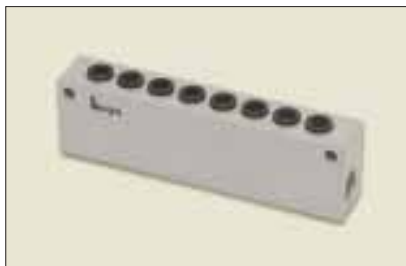
G in	G1 in		H in	H1 in	L in	L1 in	L2 in	W in	W1 in	oz
.12	.22	3303 00 02	.98	.12	2.87	.75	1.38	.98	.12	1.1

## 3315 manifold with LF3000® push-to-connect ports — fractional inch



ØD in	C NPT		Number of outlets	E in	H in	L in	L1 in	N in	oz
1/8	1/4	3315 53 14	8	.55	1.30	4.49	4.09	.45	5.75
5/32	1/4	3315 04 14	8	.55	1.30	4.49	4.09	.45	5.75
1/4	1/4	3315 56 14	8	.55	1.30	4.92	4.53	.50	5.82
3/8	3/8	3315 60 18	6	—	1.57	5.73	5.33	.67	5.82

## 3310 manifold with LF3000® push-to-connect ports — metric



ØD mm	C BSPP		Number of outlets	E mm	H mm	L mm	L1 mm	N mm	kg
4	G1/4	3310 04 13	8	10	33	114	104	11.5	.163
6	G1/4	3310 06 13	8	10	33	114	104	12.5	.163
8	G3/8	3310 08 17	6	12	33	114	104	15	.163
10	G1/2	3310 10 21	6	16	48	145.5	135.5	17.1	.207
12	G1/2	3310 12 21	6	16	45	158	148	20.5	.225

# modular plug-in connector



The modular construction of this component allows a number of pneumatic tubes to be connected or separated with a simple plug-in action.

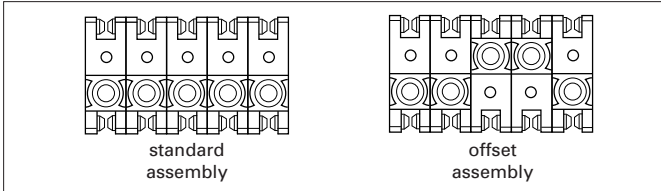
A series of male/female connectors provide a leakproof joint. Units of any length can be constructed and all connections are for 5/32" (4 mm) O.D. tube.

The two common uses for this product are:

1. Fixing one half to a panel, machine or bulkhead and allowing the floating half to be assembled or disconnected to change a machine or sequence. Often when machines are transported air lines are separated and this connection provides a foolproof method of reconnection on site.
2. Using the connector in an in-line mode for joining long lengths of pipe-work which need to be disconnected periodically. It is advisable to limit the unit length to five connectors as illustrated in the photograph below.

## personalization of connector

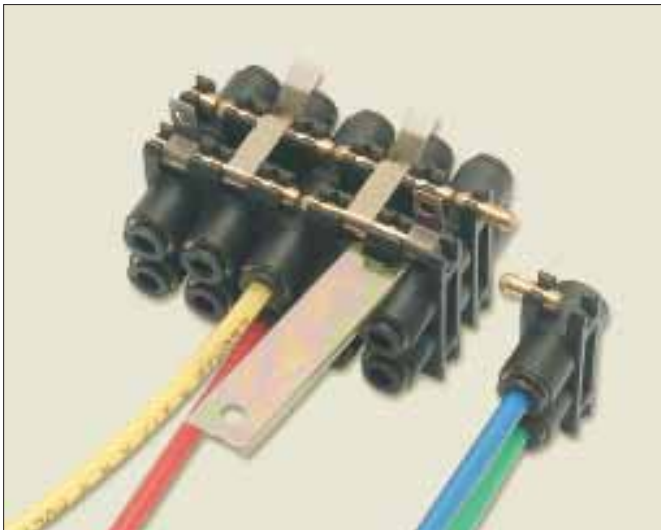
By reversing the slices of the module during their assembly it is possible to "offset" units so that they cannot be mixed or inadvertently connected in the wrong order.



## components used in the module assembly

The module is constructed from a number of symmetrical components each of which must mate with another similar component in the other half of the coupling.

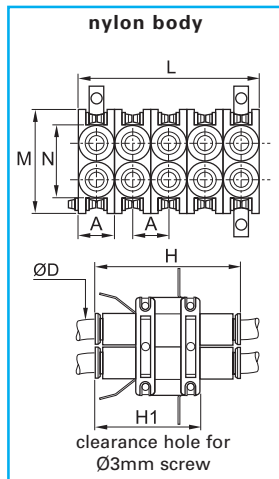
When fully assembled one box of the modular plug-in connector provides 20 x 4mm tube connections. 10 in one half and 10 mating ones in the other.



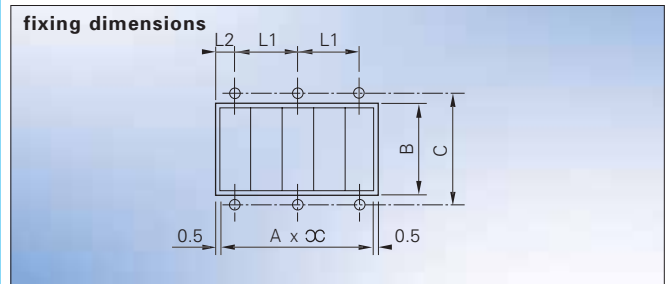
The complete box contains:

- 10 units each containing two 5/32" (4mm) connections
- 20 joining pins and 4 end pins
- 4 mounting brackets
- 4 coupling clips
- 1 dismantling tool

## 3300 modular plug-in connectors



ØD	A	B	C	H	H1	L	L1	L2	M	N	kg	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
5/32, 4mm	3300 04 00	11	21	40	40.5	29.5	55	22	6	32	20	0.106
6mm	3300 06 00	14	28	47	48	38.5	70	28	7.5	39	27.5	0.106
5/16, 8mm	3300 08 00	14	28	47	50	39	70	28	7.5	39	27.5	0.106



# LF3000® multi-connector



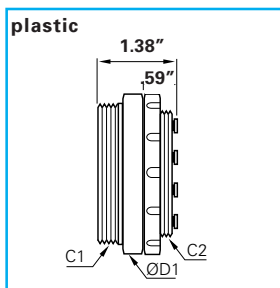
The Legris multi-connector is designed for simultaneous connection and disconnection of 7 and 12 tubes.

Its LF3000® technology and performance makes it easy to use :

- instant connection and disconnection, without tools,
- full flow, without restriction.

In order to facilitate the installation, each tube outlet is numbered. A location pin avoids assembly errors and a cap helps to guide the tubes and to protect connections. To cover all users' needs, this range can also be used for bulkhead connections. Please consult us for customized versions, including connectors with integral shut-off valves and metric sizes.

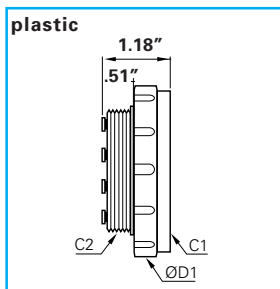
## 3320 male screw body — fractional inch



ØD in	number of outlets		C1	C2	ØD1 in
1/8	7	3320 53 00 07	M46x1.5	M40x1.5	1.97
1/8	12	3320 53 00 12	M65x1.5	M58x1.5	2.76
5/32	7	3320 04 00 07	M46x1.5	M40x1.5	1.97
5/32	12	3320 04 00 12	M65x1.5	M58x1.5	2.76
1/4	7	3320 56 00 07	M65x1.5	M58x1.5	2.76
1/4	12	3320 56 00 12	M72x1.5	M65x1.5	2.95
3/8	7	3320 60 00 07	M65x1.5	M58x1.5	2.76

The number of male body outlets must correspond to the same number of outlets on the female body. E.g. Model 3320 04 00 07 must only be connected to model 3321 04 00 07.

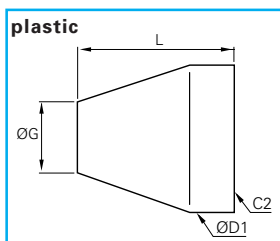
## 3321 female screw body — fractional inch



ØD in	number of outlets		C1	C2	ØD1 in
1/8	7	3321 53 00 07	M46x1.5	M40x1.5	2.17
1/8	12	3321 53 00 12	M65x1.5	M58x1.5	2.95
5/32	7	3321 04 00 07	M46x1.5	M40x1.5	2.17
5/32	12	3321 04 00 12	M65x1.5	M58x1.5	2.95
1/4	7	3321 56 00 07	M65x1.5	M58x1.5	2.95
1/4	12	3321 56 00 12	M72x1.5	M65x1.5	2.95
3/8	7	3321 60 00 07	M65x1.5	M58x1.5	2.95

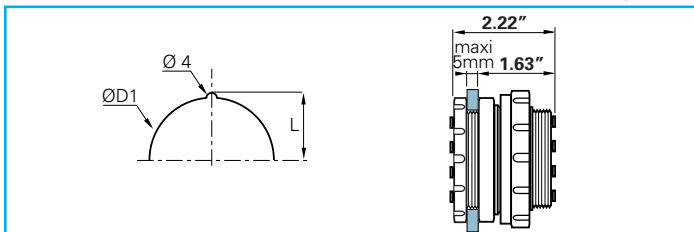
The number of female body outlets must correspond to the same number of outlets on the male body. E.g. Model 3320 04 00 07 must only be connected to model 3321 04 00 07.

## 3329 screw cap



ØD in	number of outlets		C2	G in	L in	ØD1 in
1/8	7	3329 00 02	M40x1.5	1.38	2.17	1.97
1/8	12	3329 00 03	M58x1.5	1.65	2.76	2.76
5/32	7	3329 00 02	M40x1.5	1.38	2.17	1.97
5/32	12	3329 00 03	M58x1.5	1.65	2.76	2.76
1/4	7	3329 00 03	M58x1.5	1.65	2.76	1.97
1/4	12	3329 00 04	M65x1.5	2.01	3.46	2.95
3/8	7	3329 00 03	M58x1.5	1.65	2.76	2.76

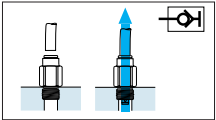
## overall dimensions for bulkhead mounting



ØD in	number of outlets	L in	ØD1 in
1/8	7	.83	1.59
1/8	12	1.19	2.30
5/32	7	.83	1.59
5/32	12	1.19	2.30
1/4	7	1.19	2.30
1/4	12	1.32	2.58
3/8	7	1.19	2.30

To complement the LF3000® multi-connector, you will also find a range of Multi bundled tubing on page M17 of the Tubes and Hoses section.

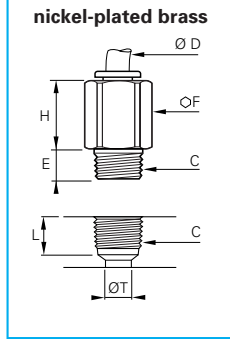
# self-sealing fittings



**Legris self-sealing fittings** enable circuits and machinery to stay under pressure when being checked and maintained. The working process is simple:

- Prevents fluid flow when there is no tube connected.
- Conversely, when connected, the compressed air flow is restored in both directions.

## 3091 self-sealing male fitting — NPT or BSPT

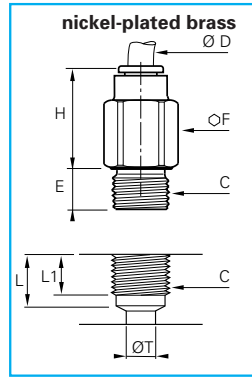


ØD in	C NPT		E in	F mm	H in	L in	ØT in	
5/32	1/8	<a href="#">3091 04 11</a>	.30	12	.51	.37	.20	.63
1/4	1/8	<a href="#">3091 56 11</a>	.30	13	.60	.37	.30	.63
1/4	1/4	<a href="#">3091 56 14</a>	.43	14	.41	.55	.30	.70
3/8	1/4	<a href="#">3091 60 14</a>	.43	19	.83	.55	.35	1.00
3/8	3/8	<a href="#">3091 60 18</a>	.45	19	.73	.55	.40	1.83

mm	BSPT		mm	mm	mm	mm	mm	
4	R1/8	<a href="#">3091 04 10</a>	7.5	12	18	9.5	5	.018
6	R1/8	<a href="#">3091 06 10</a>	7.5	13	19.5	9.5	7.5	.018
8	R1/8	<a href="#">3091 08 10</a>	6.5	14	25	10.5	7.5	.025
8	R1/4	<a href="#">3091 08 13</a>	11	14	25.5	13.5	9	.037
10	R3/8	<a href="#">3091 10 17</a>	11.5	17	27.5	14	10	.052

maximum working pressure = 145 psi

## 3391 self-sealing male fitting — metric tube to BSPP

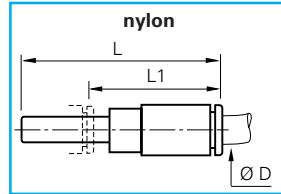


ØD mm	C BSPP		E mm	F mm	H mm	
4	G1/8	<a href="#">3391 04 10</a>	5	13	18	.018
6	G1/8	<a href="#">3391 06 10</a>	5	14	19.5	.018
8	G1/8	<a href="#">3391 08 10</a>	5	14	29.5	.025
8	G1/4	<a href="#">3391 08 13</a>	5.5	16	25.5	.037
10	G3/8	<a href="#">3391 10 17</a>	5.5	20	27.5	.052

ØD mm	C BSPP	L mm	L1 mm	ØT mm
4	G1/8	7.5	6	5
6	G1/8	9	6	7.5
8	G1/8	10	6	7.5
8	G1/4	11	8	9
10	G3/8	13	11	10

maximum working pressure = 145 psi

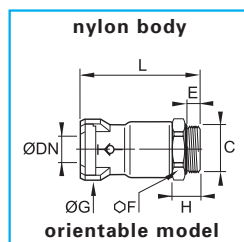
## 3160 self-sealing plug-in fitting — metric



ØD mm		L mm	L1 mm	
4	<a href="#">3160 04 00</a>	46	33.5	.005
6	<a href="#">3160 06 00</a>	53.5	31	.009
8	<a href="#">3160 08 00</a>	58	31	.009

This model prevents fluid flow in-line when there is no tube connected; connecting the tube allows fluid flow.

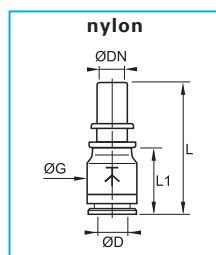
## 7925 snap connector body — NPT



C NPT			E in	F mm	G in	H in	L in	
1/8	.20	<a href="#">7925 05 11</a>	.24	10.5	.73	.63	1.46	.78
1/4	.20	<a href="#">7925 05 14</a>	.22	10	.73	.63	1.42	.85

We recommend the use of this product for frequent connection/disconnection. More information on page B35.

## 7960 snap connector plug — fractional inch

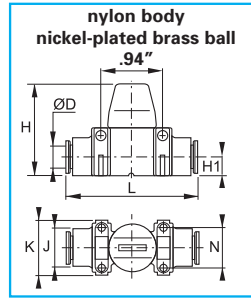


ØD in			G in	L in	L1 in	
1/4	.20	<a href="#">7960 05 56</a>	.53	1.44	.69	.32

We recommend the use of this product for frequent connection/disconnection. More information on page B35.

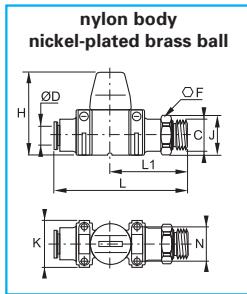
# mini ball valves

## 7913 3/2, with vent, with push-to-connect ports



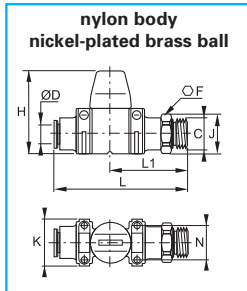
ØD in	fractional inch	H in	H1 in	J in	K in	L in	N in	oz
5/32	7913 04 00	1.46	.30	.59	.87	2.0	.64	.78
1/4	7913 56 00	1.46	.30	.59	.87	2.0	.64	1.45
5/16	7913 08 00	1.46	.30	.59	.87	2.0	.64	1.98
3/8	7913 60 00	1.69	.43	.79	1.18	2.6	.87	4.06
mm	metric	mm	mm	mm	mm	mm	mm	kg
4	7913 04 00	37	7.5	15	22	51	16.2	0.022
6	7913 06 00	37	7.5	15	22	52	16.2	0.041
8	7913 08 00	37	7.5	15	22	52	16.2	0.056
10	7913 10 00	43	11	20	30	66	22	0.115
12	7913 12 00	43	11	20	30	66	22	0.147

## 7915 3/2, with vent, with male NPT thread and push-to-connect ports



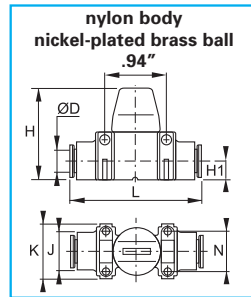
ØD in	C NPT	fractional inch	F mm	H in	J in	K in	L in	L1 in	N in	oz
5/32	1/8	7915 04 11	13	1.46	.55	.87	2.44	1.46	.64	1.76
1/4	1/8	7915 56 11	13	1.46	.55	.87	2.44	1.46	.64	1.90
1/4	1/4	7915 56 14	14	1.46	.59	.87	2.44	1.38	.64	2.40
5/16	1/4	7915 08 14	14	1.46	.59	1.18	2.40	1.61	.64	2.40
5/16	3/8	7915 08 18	18	1.46	.77	1.18	2.91	1.61	.64	2.82
3/8	1/4	7915 60 14	16	1.69	.69	1.18	2.40	1.65	.87	3.60
3/8	3/8	7915 60 18	18	1.69	.77	1.18	2.91	1.65	.87	4.94

## 7914 3/2, with vent, with male BSP parallel thread and push-to-connect ports



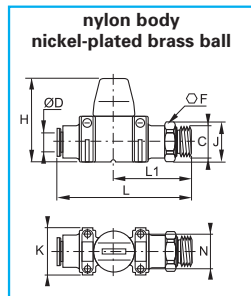
ØD mm	C BSPP	metric	F mm	H mm	J mm	K mm	L mm	L1 mm	N mm	kg
6	G1/8	7914 06 10	13	37	14	22	62	37	16.2	0.054
8	G1/4	7914 08 13	16	37	17.5	22	61	35	16.2	0.068
10	G3/8	7914 10 17	20	43	22	30	74	41	22	0.102
12	G1/2	7914 12 21	24	43	26	30	75	42	22	0.140

## 7910 2/2, with push-to-connect ports



ØD in	fractional inch	H in	H1 in	J in	K in	L in	N in	oz
5/32	7910 04 00	1.46	.30	.59	.87	2.01	.64	.74
1/4	7910 56 00	1.46	.30	.59	.87	2.05	.64	1.41
5/16	7910 08 00	1.46	.30	.59	.87	2.05	.64	1.94
3/8	7910 60 00	1.69	.43	.79	1.18	2.60	.64	3.95
mm	metric	mm	mm	mm	mm	mm	mm	kg
4	7910 04 00	37	7.5	15	22	51	16.2	0.021
6	7910 06 00	37	7.5	15	22	52	16.2	0.040
8	7910 08 00	37	7.5	15	22	52	16.2	0.055
10	7910 10 00	43	11	20	30	66	16.2	0.112
12	7910 12 00	43	11	20	30	66	16.2	0.144

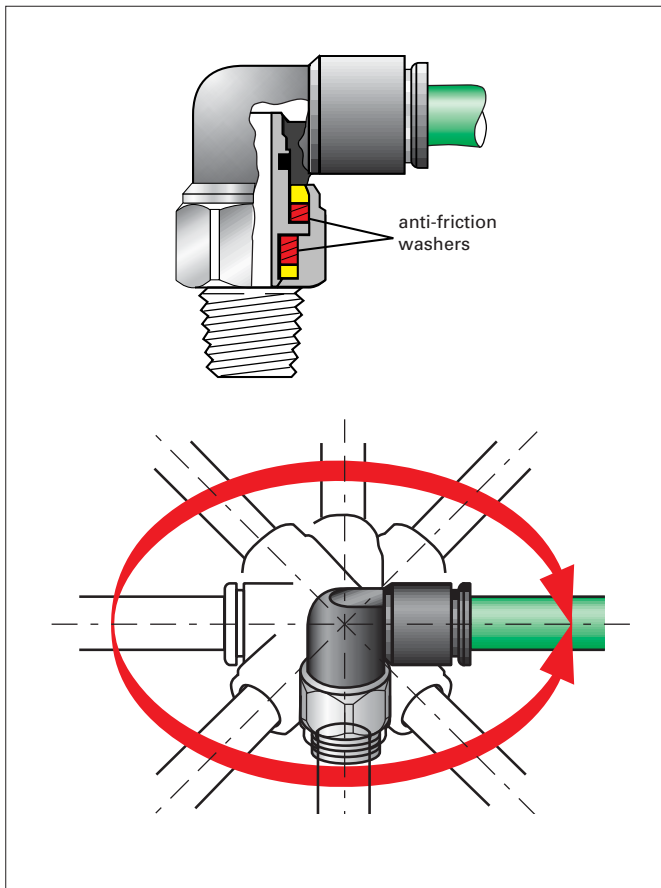
## 7911 2/2, with male BSP parallel thread and push-to-connect ports



ØD mm	C BSPP	metric	F mm	H mm	J mm	K mm	L mm	L1 mm	N mm	kg
6	G1/8	7911 06 10	13	37	14	22	62	37	16.2	0.052
8	G1/4	7911 08 13	16	37	17.5	22	61	35	16.2	0.066
10	G3/8	7911 10 17	20	43	22	30	74	41	16.2	0.098
12	G1/2	7911 12 21	24	43	26	30	75	42	16.2	0.129

To join the mini ball valves together, use the clips on pg B17. For more information on the mini ball valves, refer to pages B24 - B25.

# LF3000® oscillating fittings



Legris oscillating fittings are designed to satisfy the requirements of industrial automation and robotics. The oscillating fitting features low-friction washers enabling the fitting to rotate in conjunction with the stroke of the cylinder piston. This prevents premature tube wear due to excessive flexing. The highly reliable technology used gives particularly long life expectancy on all installations thus equipped.

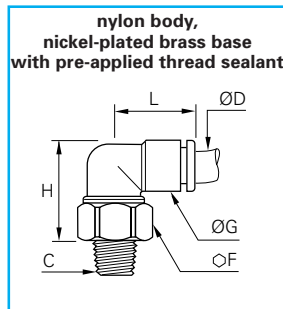
To achieve longevity of the tubing we advise that the tube is designed to move in the same plane as the tube-exit from the fitting. We advise against the use of recoil tubing.

## Technical specification

The values in this table are at 90 psi pressure and 70°F temperature.

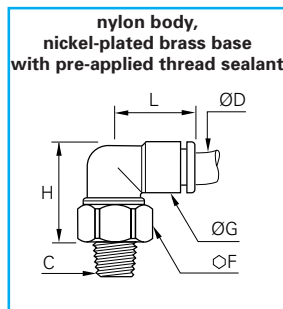
O.D. tube mm	4	6	8	10	12
torque in Nm x 10	<math>2.5 \cdot 10^3</math>	<math>4 \cdot 10^3</math>	<math>7 \cdot 10^3</math>	<math>11 \cdot 10^3</math>	<math>16 \cdot 10^3</math>
maximum rotation speed in radian/second	190	160	120	90	80

## 3159 oscillating compact elbow — fractional inch tube to NPT



ØD in	C NPT		F mm	G in	H in	L in	⚖
5/32	1/8	<a href="#">3159 04 11</a>	12	.43	.85	.69	.49
1/4	1/8	<a href="#">3159 56 11</a>	14	.55	1.04	.81	.71
1/4	1/4	<a href="#">3159 56 14</a>	14	.55	1.04	.81	.78

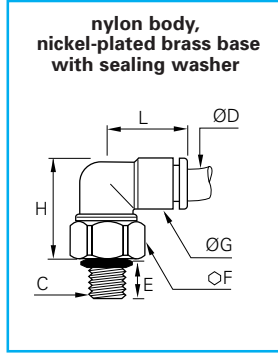
## 3159 oscillating compact elbow — metric tube to BSPT



ØD mm	C BSPT		F mm	G mm	H mm	L mm	⚖
4	R1/8	<a href="#">3159 04 10</a>	12	11	22	17.5	.014
6	R1/8	<a href="#">3159 06 10</a>	14	14	26.5	20.5	.020
6	R1/4	<a href="#">3159 06 13</a>	14	14	23.5	20.5	.022
8	R1/8	<a href="#">3159 08 10</a>	17	16	32	23.5	.034
8	R1/4	<a href="#">3159 08 13</a>	17	16	29	23.5	.034
8	R3/8	<a href="#">3159 08 17</a>	17	16	25	23.5	.032
10	R1/4	<a href="#">3159 10 13</a>	19	19.5	37.5	29	.054
10	R3/8	<a href="#">3159 10 17</a>	19	19.5	33.5	29	.050
12	R1/4	<a href="#">3159 12 13</a>	21	22	44.5	33.5	.076
12	R3/8	<a href="#">3159 12 17</a>	21	22	41	33.5	.070
12	R1/2	<a href="#">3159 12 21</a>	21	22	37	33.5	.080

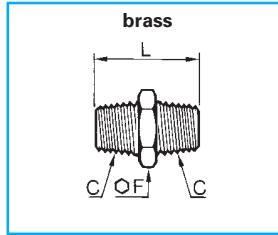
# accessories

## 3189 oscillating compact elbow — metric tube to BSPP or M5



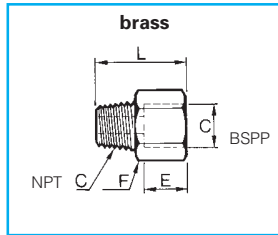
ØD mm	C M5/ BSPP		E mm	F mm	G mm	H mm	L mm	kg
4	M5x0.8	3189 04 19	3	12	11	24.5	17.5	.012
4	G1/8	3189 04 10	5	13	11	23	17.5	.014
6	M5x0.8	3189 06 19	3	12	14	27.5	20.5	.016
6	G1/8	3189 06 10	5	14	14	27	20.5	.020
6	G1/4	3189 06 13	5.5	16	14	25.5	20.5	.022
8	G1/8	3189 08 10	5	17	16	33.5	23.5	.034
8	G1/4	3189 08 13	5.5	17	16	31	23.5	.034
8	G3/8	3189 08 17	5.5	20	16	29.5	23.5	.032
10	G1/4	3189 10 13	5.5	19	19.5	50	29	.054
10	G3/8	3189 10 17	5.5	20	19.5	37	29	.050
12	G1/4	3189 12 13	5.5	21	22	46.5	33.5	.076
12	G3/8	3189 12 17	5.5	21	22	45.5	33.5	.070

## 0121 double male adapters — NPT to BSPT



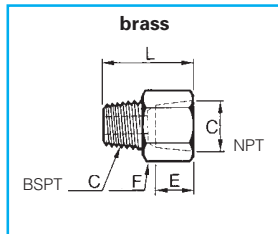
C NPT	C BSPT		F in	L in	oz
1/8	R1/8	0121 11 10	.43	.75	.32
1/4	R1/4	0121 14 13	.55	1.06	.74
3/8	R3/8	0121 18 17	.67	1.10	.88
1/2	R1/2	0121 22 21	.87	1.42	1.8
3/4	R3/4	0121 28 27	1.06	1.57	3.1

## 0164 male/female adapters — NPT to BSPP



C NPT	C BSPP		E in	F in	L in	oz
1/8	G1/8	0164 11 10	.30	.55	.79	.53
1/4	G1/4	0164 14 13	.43	.67	1.08	.99
3/8	G3/8	0164 18 17	.45	.87	1.12	1.5
1/2	G1/2	0164 22 21	.59	1.06	1.44	2.8
3/4	G3/4	0164 28 27	.65	1.26	1.52	3.9

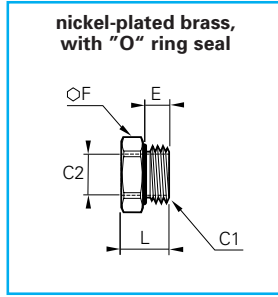
## 0167 male/female adapters — BSPT to NPT



C BSPT	C NPT		E in	F in	L in	oz
R1/8	1/8	0167 10 11	.31	.55	.83	.56
R1/4	1/4	0167 13 14	.45	.67	1.12	1.0
R3/8	3/8	0167 17 18	.47	.87	1.16	1.6
R1/2	1/2	0167 21 22	.61	1.06	1.48	3.0
R3/4	3/4	0167 27 28	.67	1.26	1.56	4.2

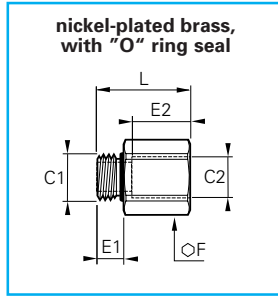
# accessories

## 0178 reducer male to female — BSPP or M5



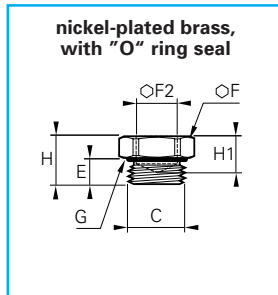
C1	C2		E	F	L	kg
BSPP	BSPP/M5		mm	mm	mm	
M7x1	M5x0.8	0178 55 19	5	10	12	.004
G1/8	M5x0.8	0178 10 19	5	13	9	.005
G1/4	G1/8	0178 13 10	5.5	16	9.5	.006
G3/8	G1/8	0178 17 10	5.5	20	10.5	.016
G3/8	G1/4	0178 17 13	5.5	20	10.5	.014
G1/2	G1/4	0178 21 13	7.5	24	12.5	.024
G1/2	G3/8	0178 21 17	7.5	24	12.5	.016
G3/4	G1/2	0178 27 21	7.5	32	13.5	.035

## 0179 expander male to female — BSPP



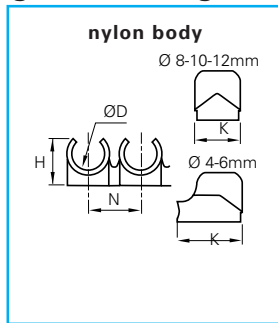
C1	C2		E1	E2	F	L	kg
BSPP	BSPP		mm	mm	mm	mm	
M12x1.5	G1/4	0179 67 13	6.5	8	16	18	.005
G1/8	G1/4	0179 10 13	5	12	16	19	.005
G1/4	G3/8	0179 13 17	5.5	15	20	23	.006
G3/8	G1/2	0179 17 21	5.5	16	24	24	.016

## 0222 threaded plug — BSPP or M5



C		E	F	G	F2	H	H1	kg
BSPP/M5		mm	mm	mm	mm	mm	mm	
M5x0.8	0222 19 00	3.5	8	9	2.5	7.1	4.1	.004
M7x1	0222 55 00	5	10		3	8.5	4.7	.005
G1/8	0222 10 00	5	13	14	5	8.6	6.4	.005
G1/4	0222 13 00	5.5	16	17.5	6	9.5	7.4	.007
G3/8	0222 17 00	5.5	20	22	8	10.5	8.4	.012
G1/2	0222 21 00	7.5	24	26	10	12.1	9.9	.019

## Clip clip strips for tubing and fittings



ØD tube	LF3000 to be clipped	H	K	N	Number of clips per strip	kg	
		mm	mm	mm			
5/32, 4mm		Clip 04 00	9	13.5	10.5	8	.008
1/4, 3/16, 6mm		Clip 06 00	10.5	13	10.5	8	.009
5/16, 8mm	5/32, 4mm	Clip 08 00	12.5	10.5	12	7	.009
3/8, 10mm	1/4, 6mm	Clip 10 00	14	12	15	6	.010
1/2, 12mm		Clip 12 00	16.5	14	16.5	5	.011
14mm	5/16, 8mm	Clip 14 00	18	16	20.5	4	.011

Legris clips can be used to mount both tubing and fittings. To order clips for tubing use the column "O.D. tube". To order clips for mounting a fitting order by the "LF3000® to be clipped". Clip strips are packaged in quantities of 5, but ordered by individual strip. They come complete with screws of 9.5mm length.

Legris clips are also designed to fix LF3000® fittings in series within a minimum of space. Supplied in strips, clips can be separated by hand or with a tube cutter and enable the use of multiple clips, depending on the users' needs.



# accessories

## 3110/3330 caps/manual release button



### fractional inch

O.D. TUBE in							
1/8	3110 53 00	NA	3110 53 02	3110 53 03	3110 53 04	3110 53 05	.04
5/32	3110 04 00	NA	3110 04 02	3110 04 03	3110 04 04	3110 04 05	.04
3/16	3330 55 00	3330 55 01	3330 55 02	3330 55 03	3330 55 04	3330 55 05	.04
1/4	3110 56 00	NA	3110 56 02	3110 56 03	3110 56 04	3110 56 05	.04
5/16	3110 08 00	NA	3110 08 02	3110 08 03	3110 08 04	3110 08 05	.04
3/8	3110 60 00	NA	3110 60 02	3110 60 03	3110 60 04	3110 60 05	.04
1/2	3110 62 00	NA	3110 62 02	3110 62 03	3110 62 04	3110 62 05	.04



### metric

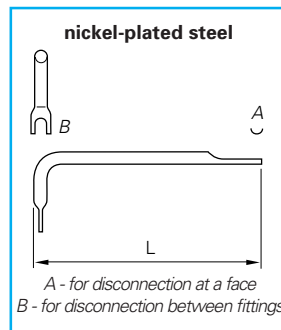
O.D. TUBE mm						
4	3110 04 00	3110 04 02	3110 04 03	3110 04 04	3110 04 05	.001
6	3110 06 00	3110 06 02	3110 06 03	3110 06 04	3110 06 05	.001
8	3110 08 00	3110 08 02	3110 08 03	3110 08 04	3110 08 05	.001
10	3110 10 00	3110 10 02	3110 10 03	3110 10 04	3110 10 05	.001
12	3110 12 00	3110 12 02	3110 12 03	3110 12 04	3110 12 05	.001
14	3110 14 00	3110 14 02	3110 14 03	3110 14 04	3110 14 05	.001

In all sizes of the LF3000® fittings, except 3/16", the push button is an integral part of the design which makes it non-removable, and comes standard in black. For identification of the circuits, colored caps (p/n 3110) fit over the black push button.

On the 3/16" sizes, the buttons are removable and can be replaced with a button of another color (p/n 3330).

Five colors are available which allow color coding of the fitting, in association with tubes of the same color.

## 3000 70 disconnection tool



ØD		L mm	
5/32", 4mm	3000 70 04	180	.024
1/4", 6mm	3000 70 06	196	.040
5/16", 8mm	3000 70 08	208	.053
3/8", 10mm	3000 70 10	220	.069
1/2", 12mm	3000 70 12	236	.092
14mm	3000 70 14	254	.108

In cases where access is difficult this tool can be useful, particularly if the standard release buttons have been removed. (Release buttons can only be removed on 3/16" sizes.)

The LF3000® system is designed for use with various types of tubing found in this catalog:

- semi-rigid nylon tube  
1/8" to 1/2" O.D. – page M7  
4mm to 14mm O.D. – page M9
- flexible polyurethane tube  
1/8" to 1/2" O.D. – page M11  
4mm to 14mm O.D. – page M13
- low density polyethylene  
1/8" to 1/2" O.D. – page M15  
4mm to 12mm O.D. – page M15
- fluoropolymer tube  
1/8" to 1/2" O.D. – page M16  
4mm to 12mm O.D. – page M16

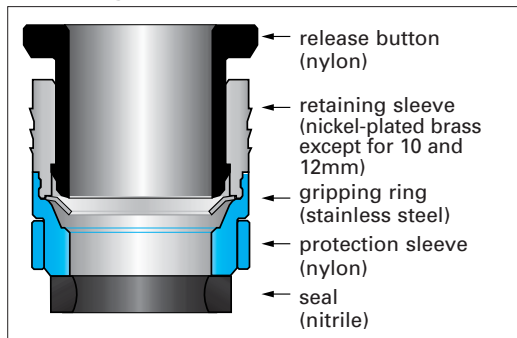




The Carstick® concept combines LF3000® one-piece cartridges with a specially designed protection and dispensing sleeve.

Ideal for continuous processes in large quantities, it provides a performance solution for automatic, semi automatic and manual assembly equipment for pneumatic components.

## working specifications

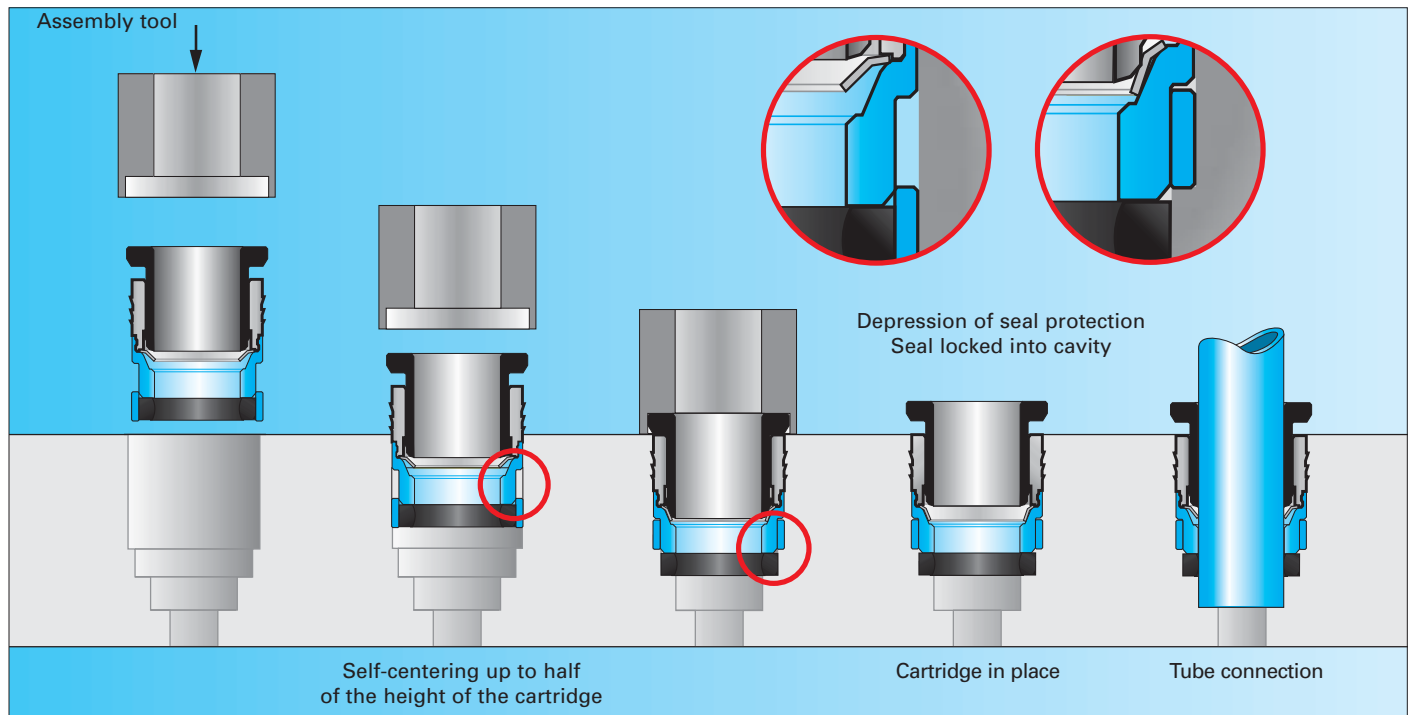


## Advantages:

- **assembly time saving, with complete safety**
  - one piece cartridge, no risk of losing the seal
  - pre-greased and protected seal
  - self-centering of the cartridge to half of its height within the cavity
  - protection against contaminants (dust, swarf ...) throughout manufacture and assembly.
- **tried and tested technology**
  - LF3000® technical performance
  - automatic seal, full flow, vacuum capability.
- **optimized dimensions**
- **suitable for automatic processes**
  - automatic self alignment during insertion
  - capable of combining dispensing and assembly
- **closer mounting tolerances and shallow cavities**

suitable fluid	compressed air
working pressure	to 290 psi maximum
working temperature	-4°F to +175°F
vacuum	28 in Hg

Carstick® is designed for use with Legris semi-rigid nylon and flexible polyurethane tubing.



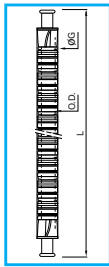
Legris can also provide alternative designs such as:

- other types of seal (EPDM, FKM...)
- other materials (stainless steel sleeve...)

Please ask for details.

# carstick®: assembly

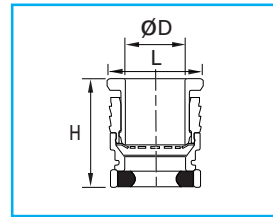
## 3100 carstick®



ØD cartridge		G in	L in
1/8	3100 53 00 99	.40	20.00
5/32, 4mm	3100 04 00 99	.57	20.87
6mm	3100 06 00 99	.57	23.62
1/4	3100 56 00 99	.57	23.62
5/16, 8mm	3100 08 00 99	.75	30.12
3/8	3100 60 00 99	.75	36.75
10mm	3100 10 00	.77	36.61
12mm	3100 12 00	.84	40.87

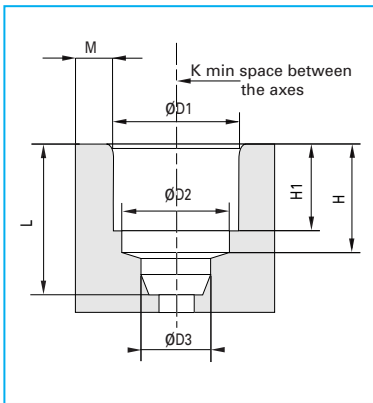
50 cartridges per carstick®

## cartridge



ØD	L in	H in
1/8	.28	.365
5/32, 4mm	.33	.39
6mm	.41	.46
1/4	.41	.48
5/16, 8mm	.51	.59
3/8	.61	.65
10mm	.61	.67
12mm	.77	.77

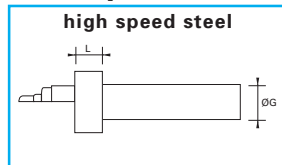
## cavity dimensions



ØD	nylon cavity				aluminum cavity				brass cavity			
	ØD1 mm	ØD2 mm	K mm	M mm	ØD1 mm	ØD2 mm	K mm	M mm	ØD1 mm	ØD2 mm	K mm	M mm
1/8	7.05 ±.05	6.2 ±.05	8.6	1.5	7.1 <sup>+04</sup> <sub>-03</sub>	6.2 ±.05	8.6	1.5	7.1 <sup>+04</sup> <sub>-03</sub>	6.2 ±.05	8.6	1.5
5/32, 4mm	8.25 <sup>+06</sup> <sub>-04</sub>	7.05 <sup>+06</sup> <sub>-04</sub>	9.75	1.5	8.25 <sup>+04</sup> <sub>-03</sub>	7.05 <sup>+06</sup> <sub>-04</sub>	11.25	3	8.25 <sup>+04</sup> <sub>-03</sub>	7.05 <sup>+06</sup> <sub>-04</sub>	10.25	2
1/4	10.55 <sup>+06</sup> <sub>-04</sub>	9.35 ±.05	12.6	2	10.6 <sup>+04</sup> <sub>-03</sub>	9.35 ±.05	12.65	2	10.6 <sup>+04</sup> <sub>-03</sub>	9.35 ±.05	12.65	2
6mm	10.2 <sup>+06</sup> <sub>-04</sub>	9.1 <sup>+08</sup> <sub>-02</sub>	12.2	2	10.3 <sup>+04</sup> <sub>-03</sub>	9.1 <sup>+08</sup> <sub>-02</sub>	13.3	3	10.25 <sup>+04</sup> <sub>-03</sub>	9.1 <sup>+08</sup> <sub>-02</sub>	12.25	2
5/16, 8mm	12.15 <sup>+06</sup> <sub>-04</sub>	10.85 ±.05	14.2	2	12.2 <sup>+07</sup> <sub>-0</sub>	10.85 ±.05	15.2	3	12.2 <sup>+05</sup> <sub>-02</sub>	10.85 ±.05	14.25	2
3/8	14.8 <sup>+09</sup> <sub>-01</sub>	13.1 <sup>+08</sup> <sub>-02</sub>	16.8	2	15.05 <sup>+03</sup> <sub>-04</sub>	13.1 <sup>+08</sup> <sub>-02</sub>	17.1	2	10.05 <sup>+03</sup> <sub>-04</sub>	13.1 <sup>+08</sup> <sub>-02</sub>	17.1	2

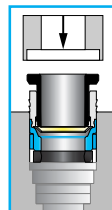
ØD	ØD3 mm	H mm	H1 mm	L mm
1/8	3.25 ±.05	7.45 <sup>+1</sup> <sub>-05</sub>	5.3 <sup>+1</sup> <sub>-05</sub>	9.5 <sup>+3</sup> <sub>-0</sub>
5/32, 4mm	4.1 ±.05	8.15 <sup>+1</sup> <sub>-05</sub>	6 <sup>+1</sup> <sub>-05</sub>	10 <sup>+3</sup> <sub>-0</sub>
1/4	6.45 ±.05	10.15 <sup>+1</sup> <sub>-05</sub>	8 <sup>+1</sup> <sub>-05</sub>	12.5 <sup>+3</sup> <sub>-0</sub>
6mm	6.1 ±.05	9.65 <sup>+1</sup> <sub>-05</sub>	7.5 <sup>+1</sup> <sub>-05</sub>	12 <sup>+3</sup> <sub>-0</sub>
5/16, 8mm	8.15 <sup>+07</sup> <sub>-03</sub>	12.45 ±.1	9.9 ±.1	15.5 <sup>+3</sup> <sub>-0</sub>
3/8	9.65 <sup>+06</sup> <sub>-03</sub>	14.35 ±.1	11.7 ±.1	19 <sup>+3</sup> <sub>-0</sub>

## 3100 machine tool for cavity — aluminum and brass cavities



ØD in		G in	L in	shank in
1/8	3100 81 53	.3125	.25	5/16
5/32	3100 81 04	.3750	.25	3/8
1/4	3100 81 56	.5000	.25	1/2
5/16	3100 81 08	.5625	.25	9/16
3/8	3100 81 60	.6250	.25	5/8

## 3100 assembly tool for carstick



ØD in	
1/8	3100 83 53
5/32	3100 83 04
1/4	3100 83 56
5/16	3100 83 08
3/8	3100 83 60

Force required for insertion (F)	tube ØD	nylon	aluminum	brass
		cavity	cavity	cavity
	1/8"	675 lbf	675 lbf	675 lbf
	5/32", 4mm	675 lbf	675 lbf	675 lbf
	6mm	675 lbf	675 lbf	675 lbf
	5/16", 8mm	675 lbf	785 lbf	675 lbf
	3/8", 10mm	675 lbf	675 lbf	675 lbf
	12mm	900 lbf	900 lbf	900 lbf

# principle and specifications of 3mm push-in fittings



Very small pneumatic installations used in many industries have severe size and weight constraints, together with an absolute requirement for precision and reliability. The Legris 3mm instant fitting is the answer to such applications.

Very small and lightweight, 3mm push-in fittings are designed for highly compact space requirements. Entirely made of chemically nickel-plated brass (body and collet), this range is resistant to corrosive and aggressive environments. Its gripping principle is based on that of Legris push-in fittings: instant connection and disconnection, by hand and without any tool.

A few examples of industrial applications are:

- assembly of electronic components using gripper feeds
- semi-conductor, integrated circuit production using miniature cylinders and valves
- manufacturing and assembly in the textile and sewing industries using micro-pneumatic circuitry
- precision mechanics, such as dental equipment



## technical specifications

Reliable performance is dependent upon the type of tube being used, the wall thickness of the tube, ambient temperature and fluid conveyed together with the component materials of the fitting.

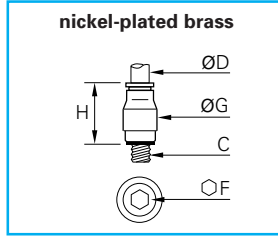


<b>suitable fluids</b>	compressed air
<b>working pressure</b>	260 psi maximum. The maximum pressure of the circuit depends on the type of tube used.
<b>working temperature</b>	from 5°F to 160°F. The allowable working temperature depends on the type of tube used.
<b>materials of construction</b>	<b>body:</b> nickel-plated brass <b>internal seal:</b> nitrile "O" ring <b>thread seal:</b> fluoropolymer <b>collet:</b> nickel-plated brass
<b>tightening torque for 3mm fittings</b>	0.8 to 8 in. lb

All items in the LF3000® range are guaranteed SILICONE FREE

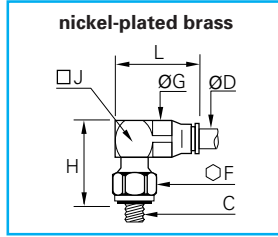
# threaded fittings

## 3281 male stud fitting — metric tube to M3, M5, or UNF



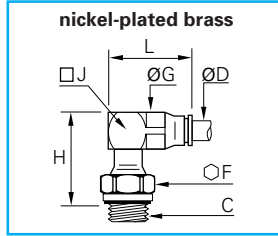
ØD mm	C		F mm	G mm	H mm	kg
3	M3x0.5	3281 03 09	1.5	6	9.5	.001
3	M5x0.8	3281 03 19	1.5	7.8	9.5	.002
			F mm	G in	H in	oz
3	10-32	3281 03 20	1.5	.30	.37	.07

## 3299 compact male elbow — metric tube to M3, M5, or UNF



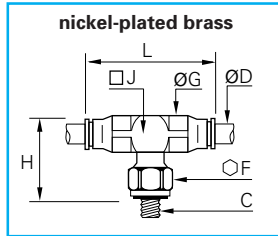
ØD mm	C		F mm	G mm	H mm	J mm	L mm	kg
3	M3x0.5	3299 03 09	6	6.2	13.5	6	13.5	.003
3	M5x0.8	3299 03 19	8	6.2	13	6	13.5	.004
			F mm	G in	H in	J mm	L in	oz
3	10-32	3299 03 20	8	.24	.51	6	.53	.14

## 3229 extended male elbow — metric tube to M3, M5



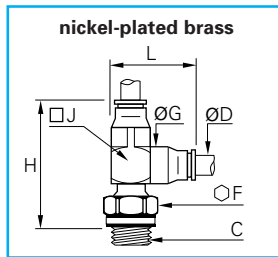
ØD mm	C		F mm	G mm	H mm	J mm	L mm	kg
3	M3x0.5	3229 03 09	6	6.2	16	6	13.5	.001
3	M5x0.8	3229 03 19	8	6.2	17	6	13.5	.001

## 3298 male branch tee — metric tube to M3, M5, or UNF to tube



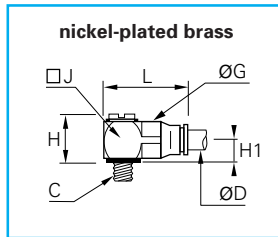
ØD mm	C		F mm	G mm	H mm	J mm	L mm	kg
3	M3x0.5	3298 03 09	6	6.2	13.5	6	20.5	.004
3	M5x0.8	3298 03 19	8	6.2	13	6	20.5	.005
			F mm	G in	H in	J mm	L in	oz
3	10-32	3298 03 20	8	.24	.51	6	.80	.18

## 3293 male run tee — metric tube to tube to M3 or M5



ØD mm	C		F mm	G mm	H mm	J mm	L mm	kg
3	M3x0.5	3293 03 09	6	6.2	20.5	6	13.5	.004
3	M5x0.8	3293 03 19	8	6.2	20	6	13.5	.005

## 3218 single banjo — metric tube to M3, M5, or UNF

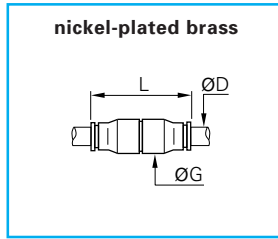


ØD mm	C		G mm	H mm	H1 mm	J mm	L mm	kg
3	M3x0.5	3218 03 09	6.2	9.5	4	6	12.5	.002
3	M5x0.8	3218 03 19	6.2	10.5	4.5	8	15	.005
			G in	H in	H1 in	J mm	L in	oz
3	10-32	3218 03 20	.24	.41	.18	6	.59	.18

The body is orientable for positioning purposes.

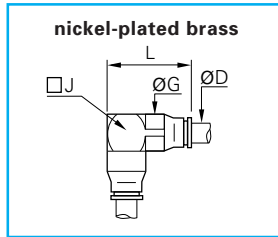
# tube to tube fittings

## 3206 straight union tube to tube — metric



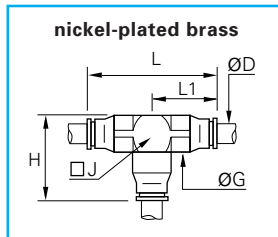
ØD mm		G mm	L mm	$\Delta$ kg
3	3206 03 00	6.2	17	.002

## 3202 union elbow — metric



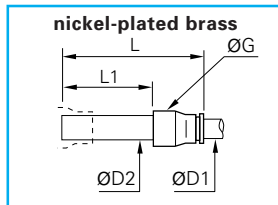
ØD mm		G mm	J mm	L mm	$\Delta$ kg
3	3202 03 00	6.2	6	13.5	.003

## 3204 union tee — metric



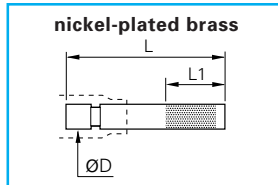
ØD mm		G mm	J mm	H mm	L mm	L1 mm	$\Delta$ kg
3	3204 03 00	6.2	6	13.5	20.5	10.5	.004

## 3266 reducer — metric



ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	$\Delta$ kg
3	4	3266 03 04	6.2	28	19	.001

## 3226 plug — metric



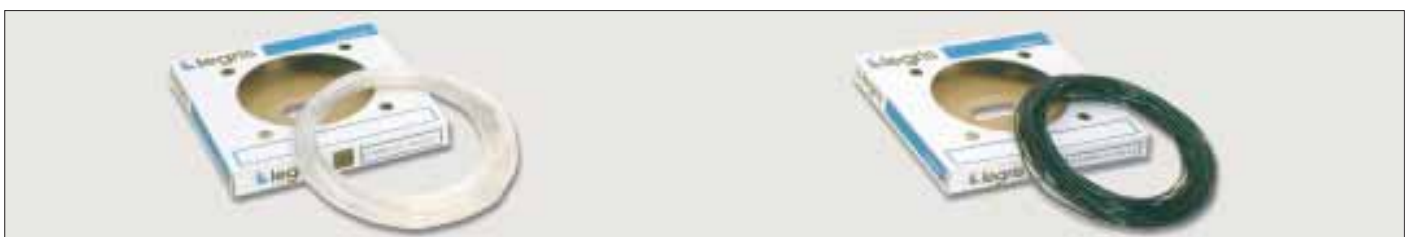
ØD mm		L mm	L1 mm	$\Delta$ kg
3	3226 03 00	20	10	.001

3mm miniature flow regulators can be found on page B12.

3mm push-in fittings allow connection with various tubing presented in this catalog:

- semi-rigid nylon tube  
3mm O.D. - page M9

- flexible polyurethane tube  
3mm O.D. - page M13





# pneumatic function valves



# pneumatic function valves

In the field of industrial automation many functions can be controlled by purpose designed fittings. **Legris Pneumatic Function Valves** have been developed to perform such functions described below.

## threshold sensor fittings



Detect pressure drop and the cylinder end-of-travel, thus providing an outlet pilot signal.

## pressure regulators



Regulate air flow to/from specific pneumatic equipment.

## pneumatic slow start fittings



Allow gradual pressure increase at start up of a circuit.

## miniature flow control regulators



Control the speed of a pneumatic cylinder. Designed specifically for use with small bore cylinders.

## snap connectors



Isolate a circuit without venting the whole installation.

## mini-ball valves



Ensure opening and closing of a pneumatic circuit.

# pneumatic function valves

**Legris Pneumatic Function Valves** are compact, user-friendly and meet today's industrial needs perfectly.

## flow control regulators



Control the speed of a pneumatic cylinder.

## flow control regulators



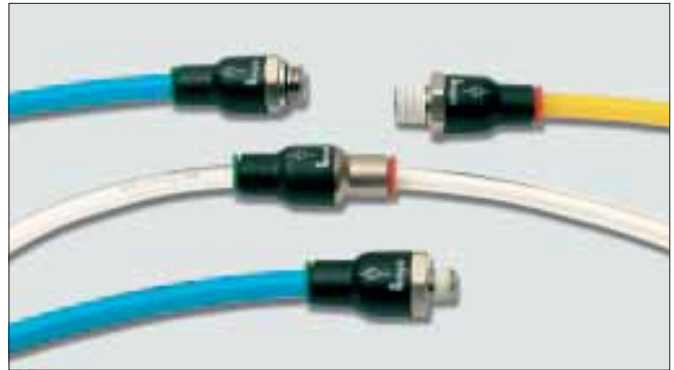
Models in composite and metal.

## lock-out valves



Mounted in pairs, lock the cylinder piston by simultaneously cutting off the supply and exhaust.

## non-return valves



Allow air to pass in one direction while preventing flow in the other direction.

## pneumatic slide valves



Allow the air supply to be closed upstream and vented downstream.

## manual operated 3-way valves



Allow the air supply to be shut-off and vented downstream by a simple manual operation of the switch.

# standard range of pneumatic function valves





## flow regulators – nylon

<b>7067</b> compact Page B8	<b>7062</b> compact Page B8	<b>7065/7066</b> compact Page B9	<b>7060/7061</b> compact Page B9	<b>7010/7011</b> knobless Page B10	<b>7012</b> knobless Page B10	<b>7015/7016</b> knobless Page B11	<b>7010/7011</b> knobless Page B11
							
<b>7660/7669/7662</b> miniature Page B12	<b>7665/7668</b> miniature Page B12-B13	<b>7660/7669</b> miniature Page B13	<b>7625</b> knobless mini Page B13	<b>7620</b> knobless mini Page B13	<b>7630/7631</b> plug-in mini Page B14	<b>7030/7031</b> plug-in compact Page B14	
							
<b>7045</b> compact swivel outlet Page B15	<b>7640-7645</b> mini swivel outlet Page B15	<b>7040</b> compact swivel outlet Page B15	<b>7640-7649</b> mini swivel outlet Page B15	<b>7770/7772</b> in-line Page B16	<b>7776</b> in-line Page B16	<b>7775/7771</b> threaded in-line Page B17	
							

## flow regulators – metal

<b>7810/7812</b> <b>7815/7817</b> Page B18	<b>7835</b> Page B18	<b>7160</b> knobless Page B18	<b>7105</b> Page B19	<b>7100/7101</b> Page B19	<b>7115</b> Page B19	<b>7110/7111</b> Page B19
						

## lock-out valves

<b>7885</b> Page B21	<b>7880</b> Page B21	<b>7886</b> Page B21	<b>7881</b> Page B21
			

## mini ball valves

<b>7913</b> 3/2 with vent page B25	<b>7915</b> 3/2 with vent page B25	<b>7914</b> 3/2 with vent page B25	<b>7910</b> 2/2 page B25	<b>7911</b> 2/2 page B25	<b>7000</b> joining clips page B24
					

## pneumatic slide valves

<b>0661</b> male/female Page B29	<b>0660/0669</b> double female Page B29	<b>0663</b> lockable male/female Page B29	<b>0662</b> lockable double female Page B29
			

## quick exhaust valve

**7982**  
Page B38



## manually operated 3-way venting valves

**7805/7806**      **7800/7801**  
Page B39              Page B39



# standard range of pneumatic function valves

## non-return valve

**7996**

Page B22



**7984/94/85/95**

Page B22



**7985/95**

Page B22



**7984/94**

Page B22



**4895/4890**

Page B23



**4891/4892**

Page B23



## threshold sensors

**7808/7818**

Page B27



**7808/7818**

Page B27



**7828**

Page B28



## slow start valves

**7864/7861**

Page B33



**7860**

Page B33



**7874/7871**

Page B33



**7870**

Page B33



## snap connectors

**7926**

body  
Page B35



**7925/21**

body  
Page B35



**7960**

plug  
Page B35



**7961**

plug  
Page B35



## pressure regulator fittings

**7305**

Page B37



**7300**

Page B37



## symbols of Legris pneumatic function valves

### regulating

air flow



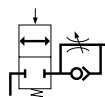
### controlling

air circulation



### controlling and regulating

air flow



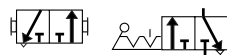
### controlling

the passage of fluid in one direction and non-return in the other



### exhausting system and controlling

pneumatic circuit supply



### detecting

pressure drop



### regulating

pressure by stabilizing at a required value



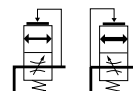
### reducing

pressure supply



### progressive

pressurizing of circuits



### isolate a circuit

without venting the whole installation

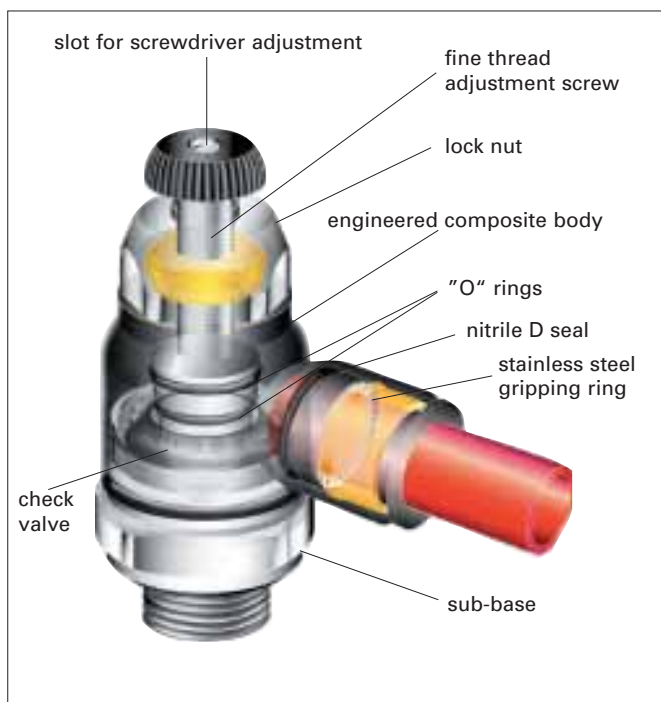


# principle of flow control regulators



## technical specifications

Reliable performance is dependent upon the tube being used, ambient temperature and fluid conveyed together with the component materials of the fitting.



Legris flow control flow charts can be found at the end of section B.

Push-to-connect connection

- ease of piping

Compact size

- covers a wide range of flow requirements and cylinder size requirements

Orientable

- tubing can be oriented at tube port

Lock nut

- secures valve to final setting, ensures repeatability

Fine thread

- better control across the range

Legris flow control regulators control the speed of a pneumatic cylinder. The exhaust air flow is controlled by an adjustable restrictor. The inlet flow is unrestricted full bore. Depending upon the model, Legris flow regulators may be fitted to the cylinder or in the compressed air line. However, flow regulation (and therefore a cylinder displacement speed) is more precise and constant when positioned near to the cylinder: in this way, it is possible to avoid the elastic effect of the compressed air contained in the pipework between the control valve and cylinder. Direct mounting of the 90 degree flow regulator fitting onto the cylinder is therefore the optimum solution.

The large range of Legris flow control regulators answers the specific needs of modern pneumatic applications.

<b>working fluid</b>	compressed air						
<b>working pressure</b>	15 to 145 psi						
<b>working temperature</b>	30° to 160°F						
<b>materials of construction</b>	<b>body:</b> depending upon the model - glass reinforced nylon 6.6 - brass <b>gripping ring:</b> stainless steel <b>adjustment screw:</b> nickel-plated brass <b>locking nut:</b> nickel-plated brass <b>base:</b> nickel-plated brass						
<b>maximum tightening torque of flow control regulators:</b>	NPT & BSPT taper thread	10/32"	1/8"	1/4"	3/8"	1/2"	
	in. lb	13	70	100	250	308	
	parallel thread	M3 x0.5	M5 x0.8	G1/8"	G1/4"	G3/8"	G1/2"
	in. lb	5	14	70	100	266	300

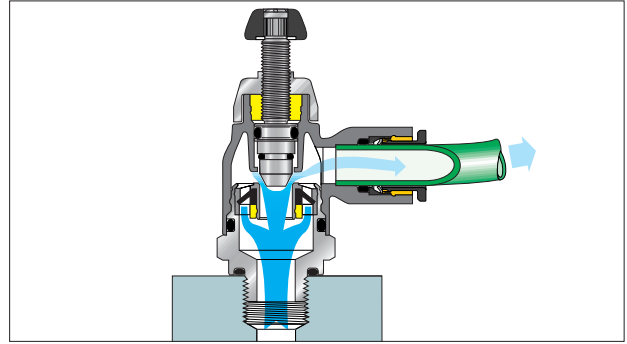
parallel threads according to norms NFE3-005 – ISO 228-1 – BS 2779 – DIN 259

# benefits of Legris flow control regulators



## handling and easy installation

- designed for easy adjustment
- LF3000® instant connection ensures quick assembly
- dependent upon the model, fittings can be swivelled in order to facilitate optimum system design and tubing configurations
- immediate visual identification of model



## proven technology



- perfectly controlled sealing both externally (tube outlet and base) and internally (adjustment screw)
- optimal flow
- stability, progressiveness and accuracy of flow
- LF3000® instant connection for Legris nylon and polyurethane tube

**the large range of Legris flow control regulators answers the specific needs of modern pneumatic applications:**



### Which material?

- for **standard** applications  models in **glass reinforced nylon**
- for use in **severe conditions**  models in **metal**




### Which type of adjustment?

- for **manual adjustment** with locking nut guaranteeing **stability of adjustment**  models with **external screw**
- for **adjustment with screwdriver** and prevention of unwanted adjustment  **knobless models**



### Which type of fitting?

- for connection to the **cylinder or threaded control valve**  models with **NPT, UNF, BSP parallel and metric, BSP taper threads**
- for connection to a **cylinder or manifold fitted with cartridge connections**  **plug-in models**

### Which configuration?

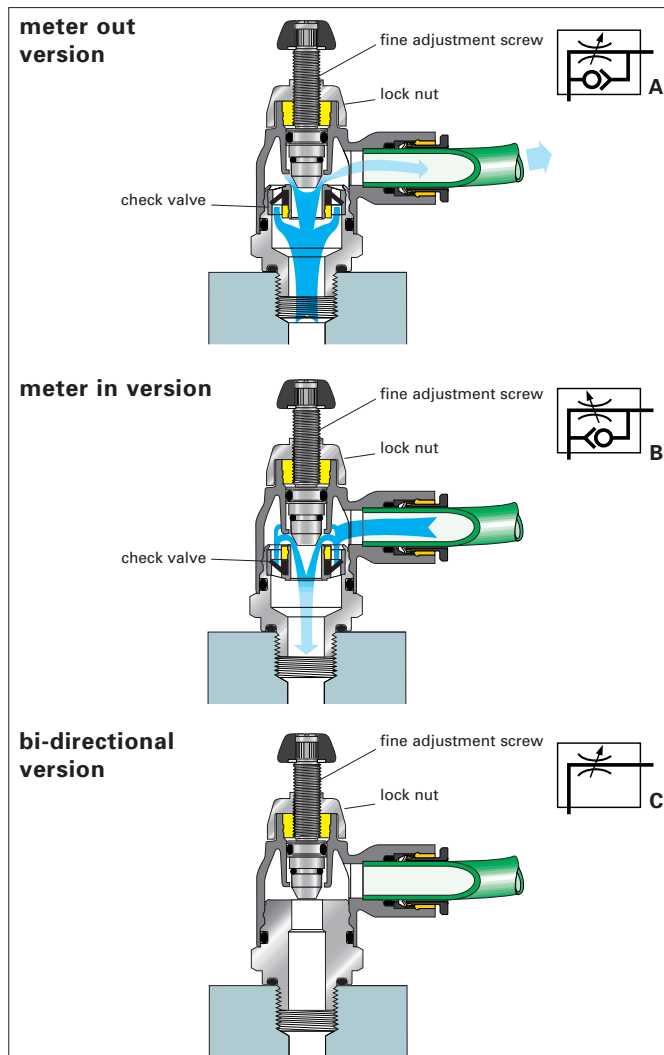
- for **standard** applications  **90 degree models**
- for **vertical or angled tube exit**  **swivel outlet models**
- where **cylinder access is difficult** or where another function valve is attached to the cylinder port  **in-line models**

### Compact or miniature?

- for **standard** applications requiring **full flow performance**  **compact models**
- for **very small sized cylinders** requiring precise and accurate adjustment  **miniature models**

**Our production process includes individual unit quality control and dating for all flow control regulators. This guarantees their quality and traceability.**

# flow control regulators – compact version



## compact type

Manufactured with robust materials, **compact flow control regulators** ensure **excellent performance** of flow and are perfectly suited for reduced spaces due to their small size.

The sensitivity of the adjustment screw provides very precise air flow control and regulation. **A locking nut** guarantees **stability** of adjustment against vibration tampering of the flow setting.

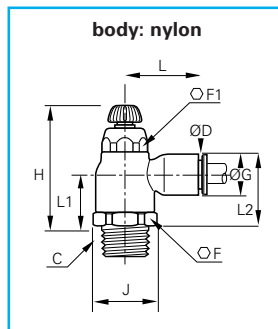
The adjustment screw and locking nut have been designed for easy manipulation, by hand. Adjustment can be made with a screwdriver and locking by use of a wrench.

### Quick identification of Legris flow control regulators

To assist differentiation, each version is identified by the corresponding pneumatic symbol and a letter:

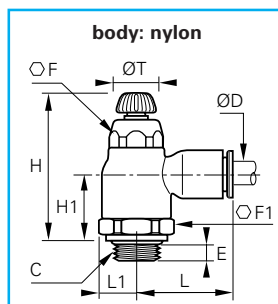
- **one-way adjustment**
  - meter out version: letter **A**
  - meter in version: letter **B**
- **bi-directional adjustment**: letter **C**

## 7067 compact bi-directional flow control – tube to NPT or BSPT



ØD	C		F	F1	G	H	H	J	L	L1	L2		
in	NPT		in	in	in	min	max	in	in	in	in	kg	
			fractional inch										
5/32	1/8	7067 04 11	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
1/4	1/8	7067 06 11	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
1/4	1/4	7067 06 14	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
			metric										
mm	BSPT		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
4	R1/8	7067 04 10	16	10	11	36.5	42.5	17.5	22	14.7	20.5	.021	
6	R1/8	7067 06 10	16	10	11	36.5	42.5	17.5	22	14.7	20.5	.021	
6	R1/4	7067 06 13	16	10	11	36.5	42.5	17.5	22	14.7	20.5	.021	
8	R1/8	7067 08 10	19	14	13.5	40	45	21	27	16.5	23.5	.035	
8	R1/4	7067 08 13	19	14	13.5	40	45	21	27	16.5	23.5	.037	
8	R3/8	7067 08 17	19	14	13.5	40	45	22	27	16.5	23.5	.037	

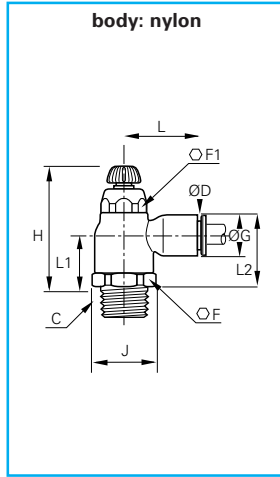
## 7062 compact bi-directional flow control – metric tube to BSPP



ØD	C		E	F	F1	H	H	H1	L	L1	T	
mm	BSPP		mm	mm	mm	min	max	mm	mm	mm	mm	kg
4	G1/8	7062 04 10	5	10	16	38	44	16	22	9	10	.021
6	G1/8	7062 06 10	5	10	16	38	44	16	22	9	10	.021
6	G1/4	7062 06 13	5.5	10	16	36.5	42.5	15	22	9	10	.021
8	G1/8	7062 08 10	4.5	14	19	41.5	48	18	28	10.5	12	.035
8	G1/4	7062 08 13	5.5	14	19	41.5	48	18.5	28	10.5	12	.037
8	G3/8	7062 08 17	5.5	14	19	41.5	48	17	28	11	12	.037

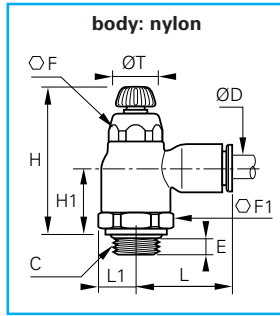
# flow control regulators – compact version

## 7065 compact meter out flow control — tube to NPT or BSPT



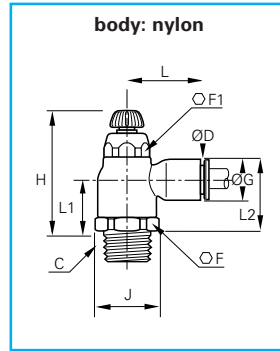
ØD	C		F	F1	G	H	H	J	L	L1	L2		
in	NPT		in	in	in	min	max	in	in	in	in	kg	
			fractional inch										
5/32	1/8	7065 04 11	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
5/32	1/4	7065 04 14	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
1/4	1/8	7065 56 11	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
1/4	1/4	7065 56 14	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
3/8	1/4	7065 60 14	.91	.67	.63	1.71	2.03	.98	1.22	.71	1.02	2.15	
3/8	3/8	7065 60 18	.91	.67	.63	1.71	2.03	.98	1.22	.71	1.02	2.22	
			metric										
mm BSPT			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
6	R1/8	7065 06 10	16	10	11	36.5	42.5	17.5	22	15	20	.021	
8	R1/8	7065 08 10	19	14	13.5	40	45	21	27	16.5	23.5	.035	
8	R1/4	7065 08 13	19	14	13.5	40	45	21	27	16.5	23.5	.037	
10	R1/4	7065 10 13	23	17	16	43.5	51.5	25	31.5	18	26	.057	
10	R3/8	7065 10 17	23	17	16	43.5	51.5	25	31.5	18	26	.059	
10	R1/2	7065 10 21	23	17	16	43.5	51.5	25	31.5	18	26	.060	
12	R1/4	7065 12 13	23	17	19	43.5	51.5	25	35	18	27.5	.063	
12	R3/8	7065 12 17	23	17	19	43.5	51.5	25	35	18	27.5	.063	
12	R1/2	7065 12 21	23	17	19	43.5	51.5	25	35	18	27.5	.065	

## 7060 compact meter out flow control — metric tube to BSPP



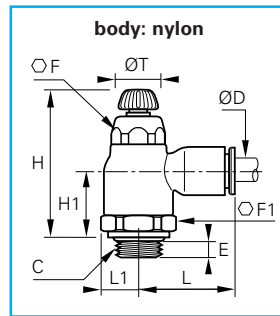
ØD	C		E	F	F1	H	H	H1	L	L1	T	
mm	BSPP		mm	mm	mm	min	max	mm	mm	mm	mm	kg
4	G1/8	7060 04 10	5	10	16	38	44	16	22	9	10	.021
6	G1/8	7060 06 10	5	10	16	38	44	16	22	9	10	.021
6	G1/4	7060 06 13	5.5	10	16	36.5	42.5	15	22	9	10	.021
8	G1/8	7060 08 10	4.5	14	19	41.5	48	18	28	10.5	12	.035
8	G1/4	7060 08 13	5.5	14	19	41.5	48	18.5	28	10.5	12	.037
8	G3/8	7060 08 17	5.5	14	19	41.5	48	17	28	11	12	.037
10	G1/4	7060 10 13	5.5	17	23	45.5	53.5	20	31.5	12.5	17	.057
10	G3/8	7060 10 17	5.5	17	23	45.5	54	20	31.5	12.5	17	.059
12	G3/8	7060 12 17	5.5	17	23	45.5	54	20	35	12.5	17	.063
12	G1/2	7060 12 21	7.5	17	24	45.5	54	20	35	13	17	.065

## 7066 compact meter in flow control — tube to NPT or BSPT



ØD	C		F	F1	G	H	H	J	L	L1	L2		
in	NPT		in	in	in	min	max	in	in	in	in	kg	
			fractional inch										
5/32	1/8	7066 04 11	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
5/32	1/4	7066 04 14	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
1/4	1/8	7066 56 11	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
1/4	1/4	7066 56 14	.63	.39	.43	1.44	1.67	.69	.85	.59	.79	.79	
			metric										
mm BSPT			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
10	R1/4	7066 10 13	23	17	16	43.5	51.5	25	31.5	18	26	.057	
10	R3/8	7066 10 17	23	17	16	43.5	51.5	25	31.5	18	26	.059	
10	R1/2	7066 10 21	23	17	16	43.5	51.5	25	31.5	18	26	.060	
12	R1/4	7066 12 13	23	17	19	43.5	51.5	25	35	18	27.5	.063	
12	R3/8	7066 12 17	23	17	19	43.5	51.5	25	35	18	27.5	.063	
12	R1/2	7066 12 21	23	17	19	43.5	51.5	25	35	18	27.5	.065	

## 7061 compact meter in flow control — metric tube to BSPP



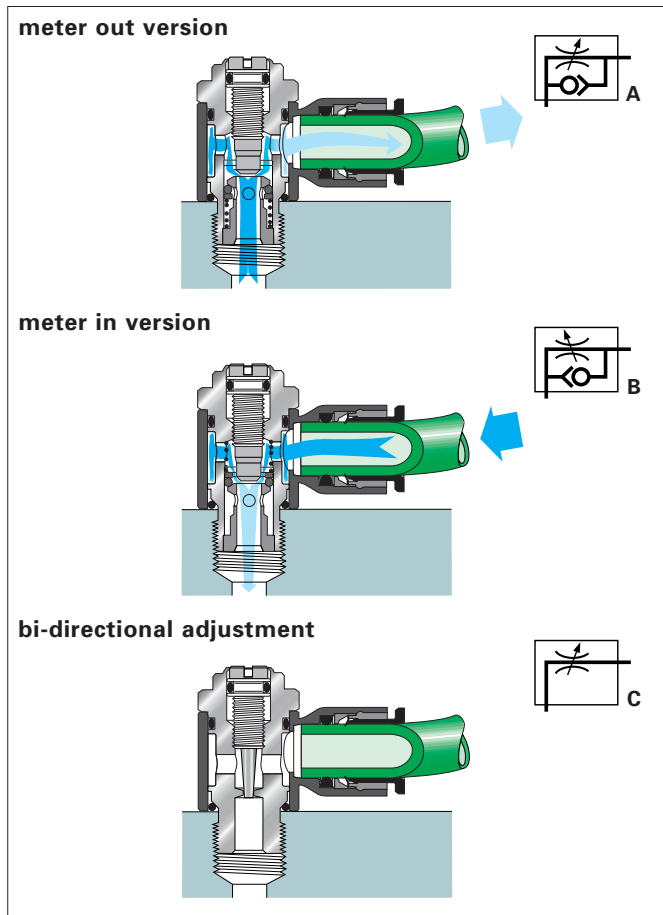
ØD	C		E	F	F1	H	H	H1	L	L1	T	
mm	BSPP		mm	mm	mm	min	max	mm	mm	mm	mm	kg
4	G1/8	7061 04 10	5	10	16	38	44	16	22	9	10	.021
6	G1/8	7061 06 10	5	10	16	38	44	16	22	9	10	.021
6	G1/4	7061 06 13	5.5	10	16	36.5	42.5	15	22	9	10	.021
8	G1/8	7061 08 10	4.5	14	19	41.5	48	18	28	10.5	12	.035
8	G1/4	7061 08 13	5.5	14	19	41.5	48	18.5	28	10.5	12	.037
8	G3/8	7061 08 17	5.5	14	19	41.5	48	17	28	11	12	.037
10	G1/4	7061 10 13	5.5	17	23	45.5	53.5	20	31.5	12.5	17	.057
10	G3/8	7061 10 17	5.5	17	23	45.5	54	20	31.5	12.5	17	.059
12	G1/2	7061 12 21	7.5	17	24	45.5	54	20	35	13	17	.065

Legris flow control regulators offer:

- Application solution across the range
  - Expertise in flow controls
  - Mounting directly on the component
- Most comprehensive product range in industry      Award winning design

# flow control regulators – compact version

## knobless



The recessed adjustment screw reduces external dimensions thus allowing use in reduced spaces and on small cylinders.

In addition, the recessed screw provides security and helps to prevent unwanted adjustment.

<b>maximum tightening torque of models with recessed screw</b>	NPT, UNF & BSPT tapered thread	10/32"	1/8"	1/4"	3/8"	1/2"
	in. lb	8	35	40	50	58
	parallel thread	M5 x0.8	G1/8"	G1/4"	G3/8"	G1/2"
	in. lb	8	35	40	50	58

### Quick identification of Legris flow control regulators

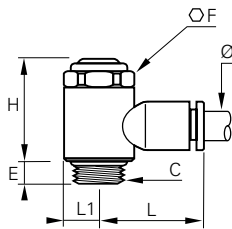
To assist differentiation, each version is identified by the corresponding pneumatic symbol and a letter:

- **one-way** adjustment
  - meter out** version: letter **A**
  - meter in** version: letter **B**
- **bi-directional** adjustment: letter **C**

## 7010/7011 knobless compact flow control — metric tube to BSPP or M5 A B



body: nylon brass screw with "O" ring seal

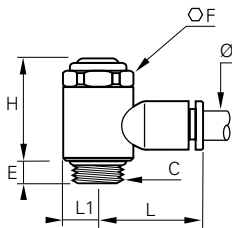


ØD mm	C M5/BSPP	meter out	meter in	E mm	F mm	H mm	L mm	L1 mm	kg
4	M5x0.8	7010 04 19	7011 04 19	4	8	17.5	17	5	.007
4	G1/8	7010 04 10	7011 04 10	5	13	25	19	7	.017
6	M5x0.8	7010 06 19	7011 06 19	4	8	17.5	19	5	.017
6	G1/8	7010 06 10	7011 06 10	5	13	25	21	7	.019
6	G1/4	7010 06 13	7011 06 13	8	17	26.5	22	9.5	.034
8	G1/8	7010 08 10	7011 08 10	5	13	25	26	7	.020
8	G1/4	7010 08 13	7011 08 13	8	17	26.5	27	9.5	.035
8	G3/8	7010 08 17	7011 08 17	7.5	20	37.5	29	11.2	.042
10	G1/4	7010 10 13	7011 10 13	8	17	26.5	29	9.5	.038
10	G3/8	7010 10 17	7011 10 17	7.5	20	37.5	31	11.2	.043
10	G1/2	7010 10 21		8	23	43	37	13.5	.117
12	G3/8	7010 12 17		7.5	20	37.5	34.5	11.2	.045
12	G1/2	7010 12 21		8	23	43	37	13.5	.111

## 7012 knobless bi-directional flow control — metric tube to BSPP or M5 C



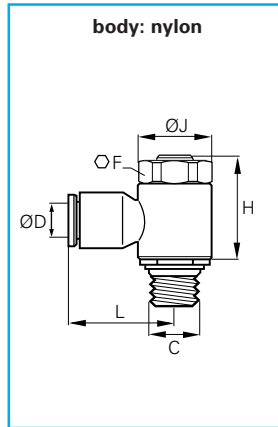
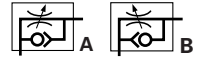
body: nylon brass screw with "O" ring seal



ØD mm	C BSPP/M5	bi-directional	E mm	F mm	H mm	L mm	L1 mm	kg
4	M5x0.8	7012 04 19	4	8	17.5	17	5	.007
4	G1/8	7012 04 10	5	13	25	19	7	.017
6	M5x0.8	7012 06 19	4	8	17.5	19	5	.017
6	G1/8	7012 06 10	5	13	25	21	7	.019
6	G1/4	7012 06 13	8	17	26.5	22	9.5	.034
8	G1/8	7012 08 10	5	13	25	26	7	.020
8	G1/4	7012 08 13	8	17	26.5	27	9.5	.035
8	G3/8	7012 08 17	7.5	20	37.5	29	11.2	.042

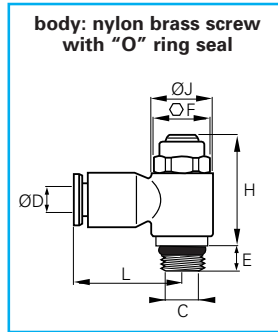
# flow control regulators – compact version

## 7015/7016 knobless compact flow control — fractional inch tube to NPT



ØD in	C NPT	meter out	meter in	F mm	H in	J in	L in	oz
1/8	1/8	7015 53 11		13	.79	.55	.75	.60
5/32	1/8	7015 04 11	7016 04 11	13	.79	.55	.75	.60
1/4	1/8	7015 56 11	7016 56 11	13	.79	.55	.85	.67
1/4	1/4	7015 56 14	7016 56 14	17	1.04	.75	.89	1.20
5/16	1/8	7015 08 11		13	.79	.55	1.02	.71
5/16	1/4	7015 08 14		17	1.04	.75	1.06	1.23
3/8	1/4	7015 60 14		17	1.04	.75	1.14	1.34
3/8	3/8	7015 60 18		20	1.14	.89	1.36	1.52

## 7010/7011 knobless compact flow control — fractional inch tube to UNF



ØD in	C UNF	meter out	meter in	E in	F mm	H in	J in	L in	oz
1/8	10-32	7010 53 20		.16	8	.69	.37	.65	.25
5/32	10-32	7010 04 20	7011 04 20	.16	8	.69	.37	.65	.25
1/4	10-32	7010 56 20	7011 56 20	.16	8	.69	.37	.77	.60

### legris.com's advantages

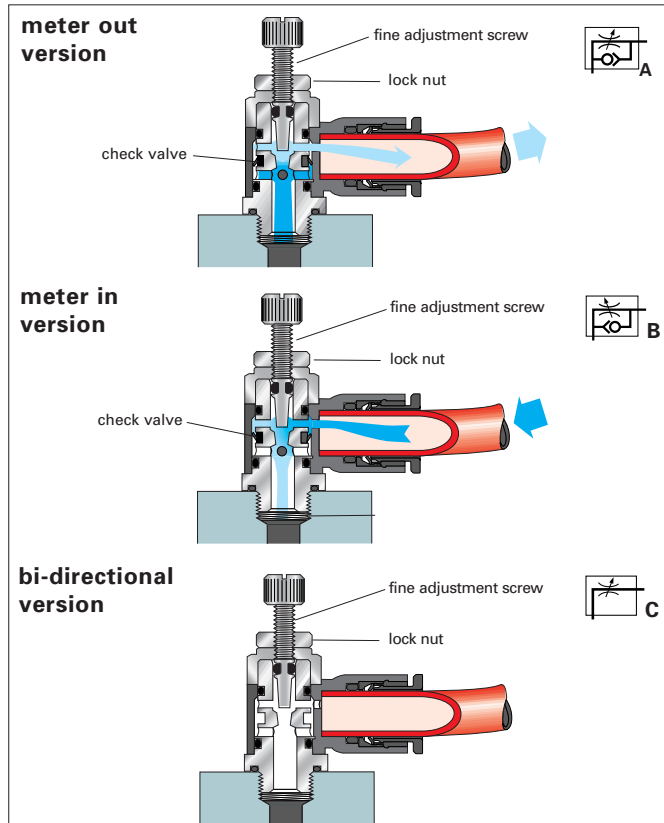


Select and download CAD drawings of pneumatic function valves easily and quickly. An optimized and free service, available to everyone on the Legris Website.

[www.legris.com](http://www.legris.com)



# flow control regulators – miniature version



## miniature type

One of the smallest in the world, the miniature flow control regulator is especially adapted for all **very small sized pneumatic applications** (micro-pneumatic in particular). They are specifically designed for use with small bore cylinders (pancake/flat cylinders).

Control is achieved gradually due to the extreme sensitivity of the adjustment screw, which allows exceptionally fine setting levels.

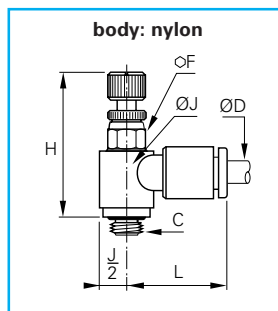
Miniature flow control regulators are available in **meter out, meter in** and **bi-directional** versions.




### Quick identification of Legris flow control regulators

To assist differentiation, each version is identified by the corresponding pneumatic symbol and a letter:

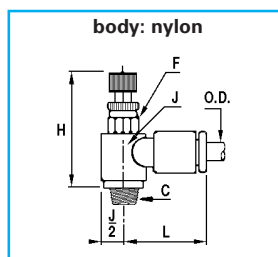
- **one-way adjustment**
  - **meter out** version: letter **A**
  - **meter in** version: letter **B**
- **bi-directional adjustment**: letter **C**



## 7660/7669/7662 miniature flow control — metric tube to BSPP or metric



ØD mm	C BSPP/ metric	 meter out	 meter in	 bi-directional	F mm	H min mm	H max mm	J mm	L mm	kg
3	M3x0.5	7660 03 09	7669 03 09		6	23.5	26	9	17	.008
3	M5x0.8	7660 03 19	7669 03 19		6	23.5	26	9	17	.008
4	M3x0.5	7660 04 09			6	23.5	26	9	16.5	.007
4	M5x0.8	7660 04 19	7669 04 19	7662 04 19	6	23.5	26	9	17	.008
4	G1/8	7660 04 10	7669 04 10	7662 04 10	7	27	29.5	11.5	18	.012
6	M5x0.8	7660 06 19	7669 06 19	7662 06 19	6	23.5	26	9	18	.010
6	G1/8	7660 06 10	7669 06 10	7662 06 10	7	27	29.5	11.5	18.5	.012
6	G1/4	7660 06 13	7669 06 13	7662 06 13	8	30	32.5	12	19	.019
8	G1/8	7660 08 10	7669 08 10		13	26.5	31	14	26	.020
8	G1/4	7660 08 13	7669 08 13		16	29	34	19	27.5	.022
8	G3/8	7660 08 17	7669 08 17		20	36	42	23	29	.025

## 7665/7668 miniature flow control — metric tube to BSPT



ØD mm	C BSPT	 meter out	 meter in	F mm	H min mm	H max mm	J mm	L mm	oz
4	R1/8	7665 04 10	7668 04 10	7	25	27.5	11.5	18	.46
6	R1/8	7665 06 10	7668 06 10	7	25	27.5	11.5	18.5	.64
6	R1/4	7665 06 13	7668 06 13	8	27.5	30	13.5	19	.79
6	R3/8	7665 06 17*		17	31.5	34		19	.85
8	R1/8	7665 08 10	7668 08 10	13	28.5	33		26	.90
8	R1/4	7665 08 13	7668 08 13	16	31	35		27.5	.93
8	R3/8	7665 08 17	7668 08 17	20	36	42		29	.95

\* on the 7665 06 17 the hex is right above the threads.

## legris.com's advantages



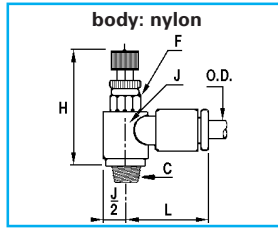
Discover, in the legris.com training module, numerous animated presentations of pneumatic function valves.

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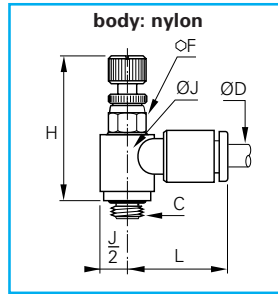
# flow control regulators – miniature version

## 7665/7668 miniature flow control — fractional inch tube to NPT



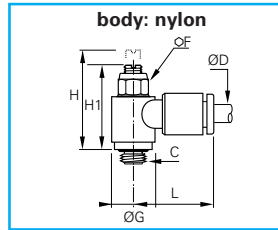
ØD in	C NPT	meter out	meter in	F mm	H min in	H1 in	J in	L in	
1/8	1/8	7665 53 11		7	1.26	1.41	.45	.69	.42
5/32	1/8	7665 04 11	7668 04 11	7	1.06	1.16	.45	.71	.46
1/4	1/8	7665 56 11	7668 56 11	7	1.06	1.16	.45	.75	.64
1/4	1/4	7665 56 14	7668 56 14	8	1.18	1.28	.47	.77	.79

## 7660/7669 miniature flow control — fractional inch tube to UNF



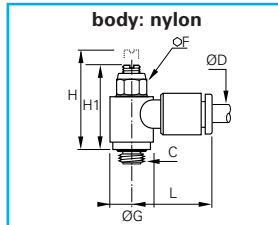
ØD in	C UNF	meter out	meter in	F mm	H min in	H1 in	J in	L in	
1/8	10-32	7660 53 20	7669 53 20	6	.91	1.14	.35	.67	.23
5/32	10-32	7660 04 20	7669 04 20	6	.93	1.02	.35	.67	.23
1/4	10-32	7660 56 20	7669 56 20	6	.93	1.02	.35	.73	.25

## 7625 knobless mini meter out flow control — fractional inch tube to NPT



ØD in	C NPT	meter out	F mm	G in	H in	H1 in	L in	
1/8	1/8	7625 53 11	6	.45	.85	.71	.71	.25
5/32	1/8	7625 04 11	6	.45	.85	.71	.71	.37
1/4	1/8	7625 56 11	6	.45	.85	.71	.73	1.98
1/4	1/4	7625 56 14	6	.53	.97	.83	.73	3.23

## 7620 knobless mini meter out flow control — fractional inch tube to UNF



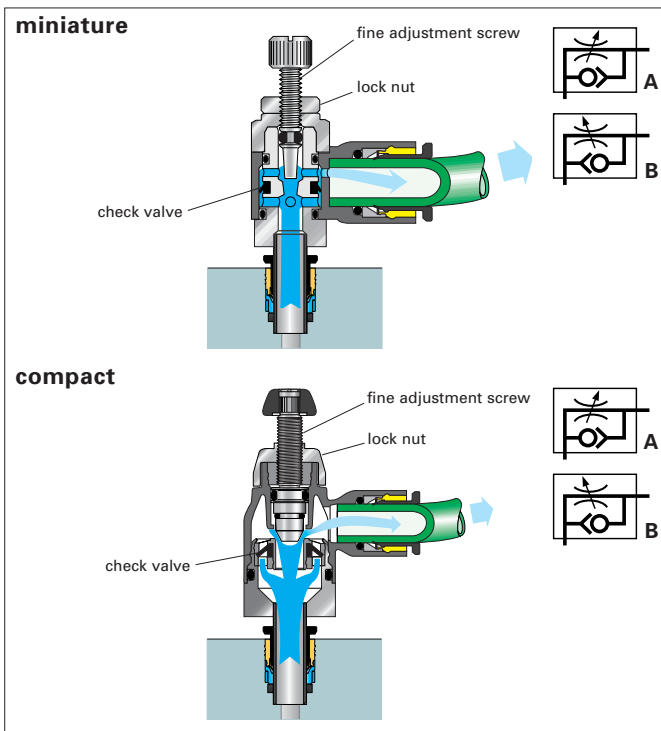
ØD in	C UNF	meter out	F mm	G in	H in	H1 in	L in	
1/8	10-32	7620 53 20	6	.35	.79	.65	.65	.18
5/32	10-32	7620 04 20	6	.35	.79	.65	.65	.18
1/4	10-32	7620 56 20	6	.35	.79	.65	.65	.20

Legris push-to-connect flow controls are designed for use with various types of tubing found in this catalog in the Tubing and Hoses section:

- **semi-rigid nylon tube**  
1/8" to 1/2" O.D. - page M7  
3mm to 16mm O.D. - page M9
- **flexible polyurethane tube**  
1/8" to 1/2" O.D. - page M11  
3mm to 14mm O.D. - page M13
- **low density polyethylene**  
1/8" to 1/2" O.D. - page M15  
4mm to 12mm O.D. - page M15



# flow control regulators – plug-in



## plug-in type

Plug-in flow control regulators can be directly mounted into existing fittings and allow very compact installations. They are particularly suited for mounting in manifolds using Legris Carstick cartridges.

Their design and function give equal performance to that of flow control regulators with threaded connection.

Depending upon the application, Legris offers 2 types of fitting:

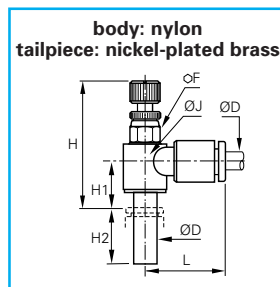
**miniature plug-in flow control regulators**, for micro-pneumatic equipment in particular.

– meter out and meter in versions

**compact plug-in flow control regulators**

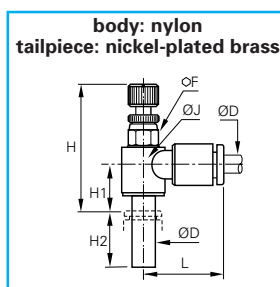
– meter out and meter in versions

## 7630/7631 plug-in miniature flow control — fractional inch tube



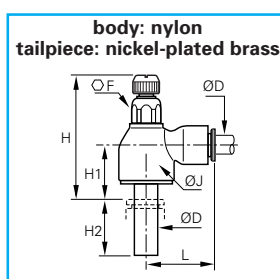
ØD			F	H	H	H1	H2	L	
in	meter out	meter in	mm	min	max	in	in	in	oz
1/8	7630 53 00	7631 53 00	6	.94	1.04	.12	.59	.67	.25
5/32	7630 04 00	7631 04 00	6	1.00	1.10	.37	.61	.67	.25
1/4	7630 56 00	7631 56 00	7	1.08	1.18	.12	.73	.73	.39

## 7630/7631 plug-in miniature flow control — metric tube



ØD			F	H	H	H1	H2	J	L	
mm	meter out	meter in	mm	mm	mm	mm	mm	mm	mm	kg
4	7630 04 00	7631 04 00	6	25.5	28	9.5	15.5	9	17	.007
6	7630 06 00	7631 06 00	7	27.5	29	10.5	17	11.5	18.5	.011

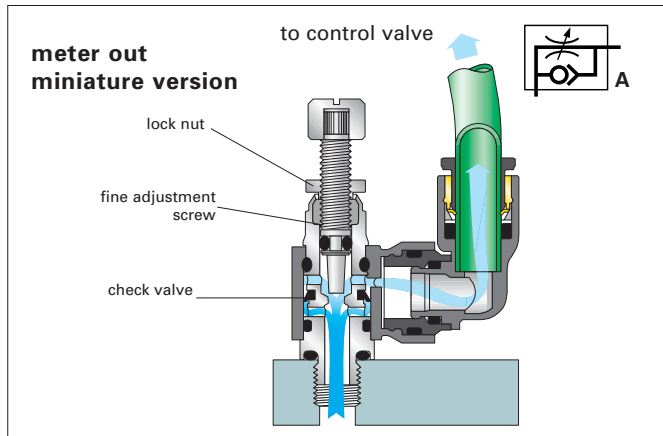
## 7030/7031 plug-in compact flow control — metric tube



ØD			F	H	H	H1	H2	J	L	
mm	meter out	meter in	mm	min	max	mm	mm	mm	mm	kg
6	7030 06 00	7031 06 00	10	35	41	14	17	16	22	.019
8	7030 08 00	7031 08 00	14	39.5	46.5	16	21.5	19	28	.035
10	7030 10 00	7031 10 00	17	43.5	51.5	17.5	24.5	23	31.5	.055
12	7030 12 00	7031 12 00	17	43	51	17	27	23	31.5	.060

# flow control regulators – swivel outlet

## adjustment screw



## swivel outlet type

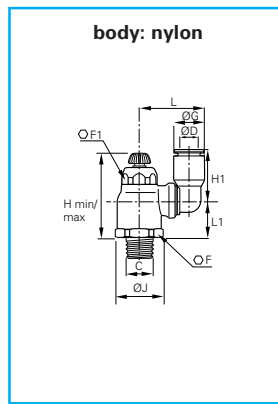
Flow control regulators with "swivel outlet" are especially designed to allow a vertical or angled tube exit where access is restricted.

The swivel outlet comes with instant push-in connection to ease installation.

flexibility of rotation movements

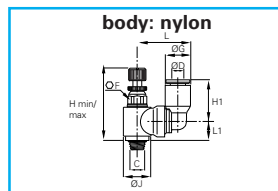


## 7045 compact swivel outlet flow control — tube to NPT or BSPT



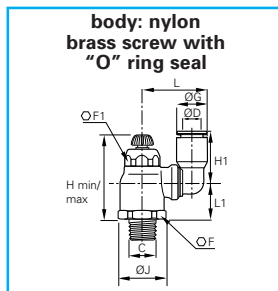
ØD in	C NPT	fractional inch meter out	F mm	F1 mm	G in	H min in	H max in	H1 in	J in	L in	L1 in			
1/4	1/8	7045 56 11	19	10	.41	1.87	2.09	.63	.83	.93	.65	.91		
1/4	1/4	7045 56 14	19	14	.43	1.79	1.99	.73	.83	1.00	.89	.91		
3/8	1/4	7045 60 14	23	17	.63	1.93	2.20	1.04	.98	1.34	.97	2.19		
3/8	3/8	7045 60 18	23	17	.63	1.93	2.20	1.04	.98	1.34	.97	2.29		
mm BSPT			metric			mm			mm			mm		
6	R1/4	7045 06 13	16	10	10.5	36.5	42.5	16	17.5	23.5	16.5	.026		
8	R1/8	7045 08 10	19	14	13.5	40	46	23	21	28	17.5	.034		
8	R1/4	7045 08 13	19	14	13.5	40	46	23	21	28	17.5	.043		
8	R3/8	7045 08 17	19	14	13.5	40	46	23	21	28	17.5	.044		
10	R1/4	7045 10 13	23	17	16	43.5	51.5	26.5	25	34	19.5	.062		
10	R3/8	7045 10 17	23	17	16	43.5	51.5	26.5	25	34	19.5	.065		
12	R3/8	7045 12 17	23	17	19	43.5	51.5	31	25	37	19.5	.067		
12	R1/2	7045 12 21	23	17	19	43.5	51.5	31	25	37	19.5	.070		

## 7640/7645 miniature swivel outlet flow control — tube to NPT, UNF, or BSPT



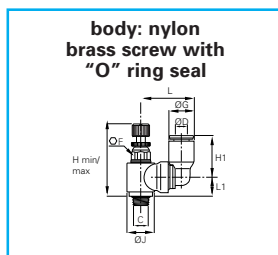
ØD in	C UNF/ NPT	fractional inch meter out	F mm	G in	H min in	H max in	H1 in	J in	L in	L1 in		
5/32	10-32	7640 04 20	6	.33	.96	1.08	.55	.37	.73	.26	.39	
5/32	1/8	7645 04 11	8	.33	1.08	1.20	.55	.45	.73	.33	.39	
mm BSPT			metric			mm			mm			
4	R1/8	7645 04 10	7	8.5	25	28.5	14.5	11.5	20	6	.012	
6	R1/8	7645 06 10	7	10.5	25	28.5	16	11.5	22	6	.014	

## 7040 compact swivel outlet flow control — metric tube to BSPP



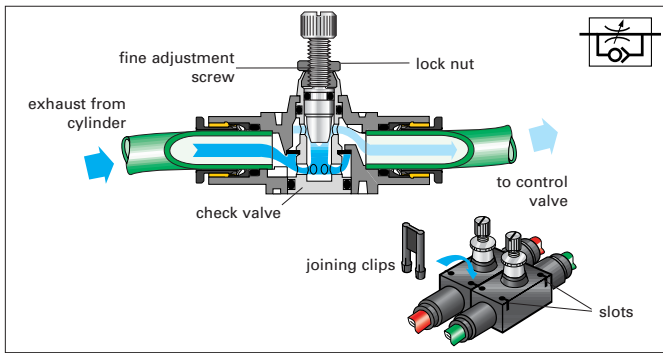
ØD mm	C BSPP	meter out	meter in	F mm	F1 mm	G mm	H min mm	H max mm	H1 mm	J mm	L mm	L1 mm	
6	G1/8	7040 06 10		16	10	10.5	38	44	16	17.5	23.5	18	.026
6	G1/4	7040 06 13	7041 06 13	16	10	10.5	36.5	42.5	16	17.5	23.5	16.5	.029
8	G1/8	7040 08 10	7041 08 10	19	14	13.5	41.5	48	23	21	28	19	.035
8	G1/4	7040 08 13	7041 08 13	19	14	13.5	41.5	48	23	21	28	19.5	.039
8	G3/8	7040 08 17		19	14	13.5	41.5	48	23	22	28	17.5	.043
10	G1/4	7040 10 13		23	17	16	45.5	53.5	26.5	25	35	21	.051
10	G3/8	7040 10 17		23	17	16	45.5	54	26.5	25	35	21.5	.063
12	G3/8	7040 12 17		23	17	19	45.5	54	31	25	38	21.5	.066
12	G1/2	7040 12 21		24	17	19	45.5	54	31	26	38	21	.071

## 7640/7649 miniature swivel outlet — metric tube to M5 or BSPP



ØD mm	C M5/ BSPP	meter out	meter in	F mm	G mm	H min mm	H max mm	H1 mm	J mm	L mm	L1 mm	
4	M5x0.8	7640 04 19	7649 04 19	6	8.5	24.5	27.5	14.5	9.5	19.5	6.5	.011
4	G1/8	7640 04 10	7649 04 10	7	8.5	27.5	31	14.5	11.5	20	8.5	.015
6	M5x0.8	7640 06 19	7649 06 19	6	10.5	24.5	27.5	16	9.5	21.5	6.5	.013
6	G1/8	7640 06 10	7649 06 10	7	10.5	27.5	31	16	11.5	22	8.5	.015

# flow control regulators – in-line



They can be easily added to existing circuitry. Simply splice it into the cylinder port line.

They may be used individually or, they may be stacked together using two joining clips, supplied with each valve. Panel mounting is accomplished by using the through holes in the molded body.

### • adjustment characteristics

Control is achieved gradually due to the extreme sensitivity of the adjustment screw, which allows exceptionally fine setting levels. With the use of a locking nut, the in-line flow control may be secured in its final setting. Settings are maintained even under adverse conditions such as vibration. A captive adjustment screw prevents loss or dangerous blow out.

### • full flow in both directions

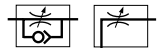
Intake capacity is always slightly greater than the full open exhaust capacity, enabling maximum variation of speeds between outward and return strokes.

### • designed to be versatile

Legris In-Line Flow Controls are unidirectional flow control valves. Intake air flows freely through the flow control; exhaust air is metered out through a specially designed adjustment screw. An arrow on the body of the valve indicates the direction of controlled flow.

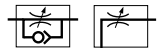
These models may be installed as meter in or meter out devices.

## 7770/7772 in-line flow control — fractional inch

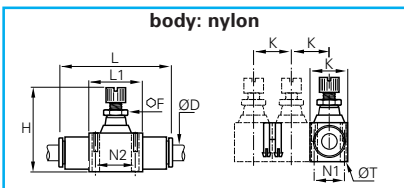


ØD in	one-way	bi-directional	DN min	F mm	H min in	H max in	K in	L in	L1 in	N1 in	N2 in	T in	Δkg
5/32	7770 04 00	7772 04 00	.12	5	1.15	1.31	.47	1.52	.59	.31	.43	.09	.42
1/4	7770 56 00	7772 56 00	.16	8	1.54	1.74	.66	2.00	.90	.43	.66	.12	1.06
5/16	7770 08 00	7772 08 00	.24	11	1.73	1.97	.73	2.38	1.02	.49	.79	.13	1.66
3/8	7770 60 00		.31	14	2.03	2.38	.94	2.87	1.29	.62	1.01	.16	4.06
1/2	7770 62 00		.39	14	2.24	2.63	1.09	3.35	1.37	.78	1.07	.16	5.56

## metric tube

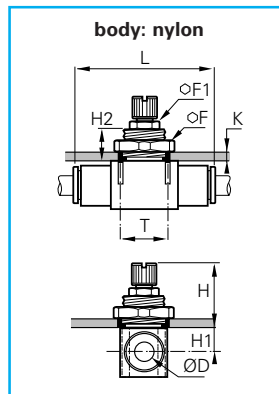


ØD mm	one-way	bi-directional	DN min	F mm	H min mm	H max mm	L mm	L1 mm	K mm	N1 mm	N2 mm	T mm	Δkg
4	7770 04 00	7772 04 00	3	5	29.5	33.5	39	15	12	8	11	2.2	.012
6	7770 06 00	7772 06 00	4	8	39.5	44.5	54	23	17	11	17	3.2	.030
8	7770 08 00	7772 08 00	6	11	44	50	60.5	26	18.5	12.5	20	3.2	.047
10	7770 10 00		8	14	52	61	76	33	24	16	26	4.2	.103
12	7770 12 00		10	14	57.5	67.5	86	35	28	20	27.5	4.2	.138



body: nylon

## 7776 in-line panel mountable flow control — metric tube



body: nylon

ØD mm	one-way	F mm	F1 mm	H min	H max	L1 mm	Δkg
4	7776 04 00*	14	-	21.5	25.5	39	.012
6	7776 06 00*	19	-	27.5	32.5	54	.030
8	7776 08 00	24	11	28.5	34.5	60.5	.047
10	7776 10 00	30	14	29.5	38.5	76	.103
12	7776 12 00	32	14	32	42	86	.138

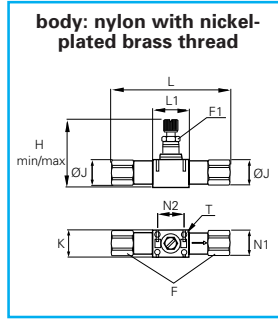
### fixing dimensions

ØD mm	K max mm	H1mm	H2mm	Tmm	
4	7776 04 00	6	6.5	11	2.2
6	7776 06 00	7	7.5	13.5	3.2
8	7776 08 00	7	9	13.5	3.2
10	7776 10 00	7	11.5	13.5	4.2
12	7776 12 00	8	12.5	15.5	4.2

\*ultrafine adjustment

# flow control regulators – in-line

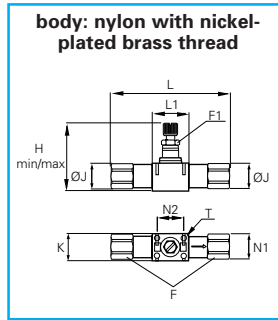
## 7775 threaded in-line flow control — NPT



C		F	F1	H	H	J	L	
NPT		mm	mm	min	max	in	in	oz
1/8	7775 11 11	13	8	1.56	1.75	.55	2.70	.55
1/4	7775 14 14	16	11	1.73	1.97	.69	3.27	1.20
3/8	7775 18 18	22	14	2.05	2.40	.94	3.82	4.61
1/2	7775 22 22	24	14	2.26	2.66	1.02	4.76	5.58

C		L1	K	N1	N2	ØT
NPT		in	in	in	in	in
1/8	7775 11 11	.91	.67	.43	.67	.12
1/4	7775 14 14	1.02	.73	.49	.79	.12
3/8	7775 18 18	1.30	.94	.63	1.02	.16
1/2	7775 22 22	1.38	1.10	.79	1.08	.16

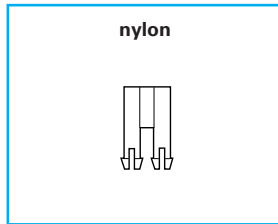
## 7771 threaded in-line flow control — BSPP



C		F	F1	H	H	J	L	
BSPP		mm	mm	min	max	mm	mm	kg
G1/8	7771 10 10	13	8	39.5	44.5	14	68.5	.043
G1/4	7771 13 13	16	11	44	50	17.5	83	.103
G3/8	7771 17 17	19	14	52	61	21	97	.160
G1/2	7771 21 21	24	14	57.5	67.5	26	121	.247

C		L1	K	N1	N2	ØT
BSPP		mm	mm	mm	mm	mm
G1/8	7771 10 10	23	17	11	17	3.2
G1/4	7771 13 13	26	18.5	12.5	20	3.2
G3/8	7771 17 17	33	24	16	26	4.2
G1/2	7771 21 21	35	28	20	27.5	4.2

## 7000 joining clips for in-line flow controls and mini ball valves\*

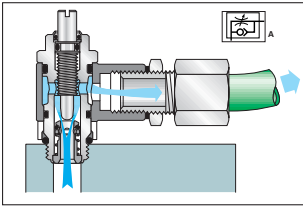


ØD	ØD		
in	mm		oz
5/32	4	7000 00 05	.14
1/4	6	7000 00 05	.14
5/16	8	7000 00 05	.14
3/8	10	7000 00 06	.32
1/2	12	7000 00 06	.32

\* Two clips are supplied with flow control.  
Order additional clips using the part numbers above.

# flow control regulators – stainless steel

meter out version



## stainless steel flow control regulator

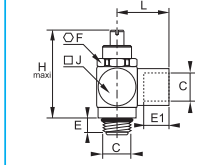
To enable easy cleaning, this flow control regulator is designed without retention zones and provides excellent resistance to detergents.

Due to these characteristics and its materials of construction – stainless steel body and FKM seals - the Legris stainless steel flow control regulator is ideally suited for food industry applications.

### 7810/7815/7812/7817 threaded port knobless stainless steel flow control — NPT/UNF



stainless steel body

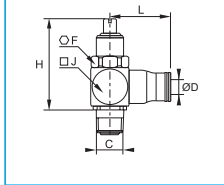


C UNF/NPT	meter out (A)	bi-directional (C)	E in	E1 in	F mm	H in	J in	L in	
10-32	7810 20 20	7812 20 20	.16	.16	8	.94	.35	.43	.95
1/8	7815 11 11	7817 11 11	.20	.31	13	1.50	.59	.67	1.23
1/4	7815 14 14	7817 14 14	.31	.47	17	1.38	.71	.94	1.69
3/8	7815 18 18	7817 18 18	.28	.55	20	1.89	.87	1.06	2.08
1/2	7815 22 22	7817 22 22	.31	.59	23	2.52	1.10	1.22	2.68

### 7835 push-to-connect knobless stainless steel flow control — fractional inch tube to NPT



stainless steel body

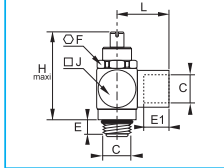


ØD in	C NPT	meter out (A)	F mm	H in	J in	L in	
5/32	1/8	7835 04 11	13	1.30	.59	.79	1.23
5/32	1/4	7835 04 14	17	1.38	.71	.87	1.54
1/4	1/8	7835 56 11	13	1.30	.59	.87	1.69
1/4	1/4	7835 56 14	17	1.38	.71	.95	1.82
3/8	1/4	7835 60 14	17	1.38	.71	1.18	2.08
3/8	3/8	7835 60 18	20	1.89	.87	1.26	2.68

### 7810/7812 threaded port knobless stainless steel flow control - BSPP/metric

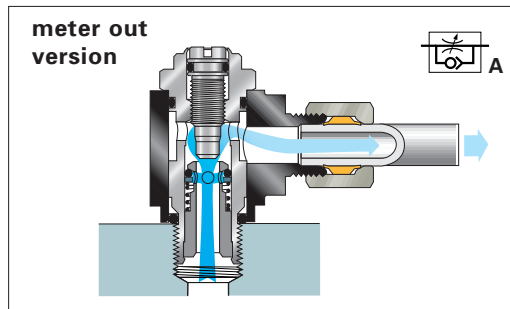


stainless steel body



C metric/ BSPP	meter out (A)	bi-directional (C)	E mm	E1 mm	F mm	H mm	J mm	L mm	
M5x0.8	7810 19 19	7812 19 19	4	4	8	24	10	11	0.027
G1/8	7810 10 10	7812 10 10	5	8	13	38	15	17	0.035
G1/4	7810 13 13	7812 13 13	8	12	17	40	18	24	0.048
G3/8	7810 17 17	7812 17 17	7	12	20	53	22	24	0.059
G1/2	7810 21 21	7812 21 21	8	15	23	69	28	31	0.076

## knobless flow control regulators — metal



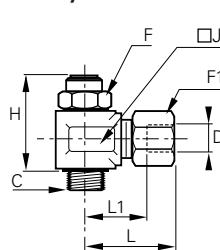
The recessed adjustment screw reduces external dimensions allowing use in reduced spaces and on small cylinders.

In addition, the recessed screw provides security and helps to prevent unwanted adjustment.

### 7160 compression knobless metal flow control — metric tube to BSPP



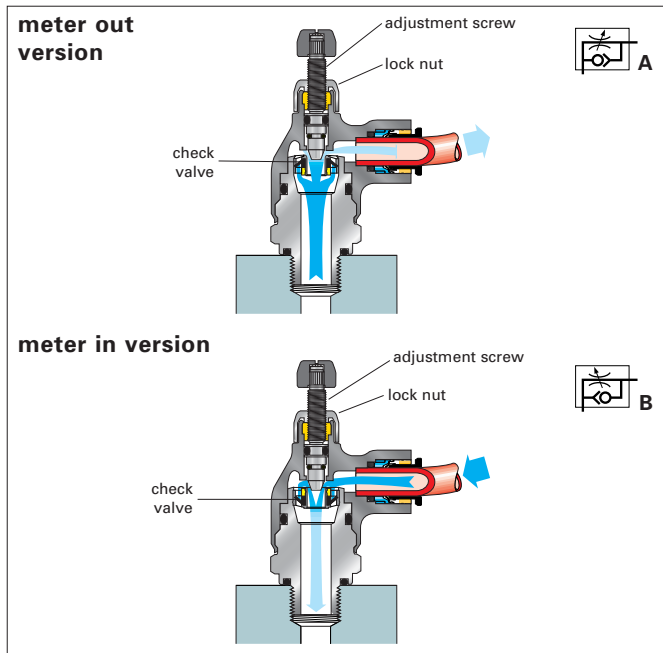
body: treated brass



ØD mm	C BSPP		F mm	F1 mm	H mm	J mm	L mm	L1 mm	
4	G1/8	7160 04 10	13	10	26	17	25.5	14.5	.050
6	G1/8	7160 06 10	13	13	26	17	25.5	14.5	.054
6	G1/4	7160 06 13	17	13	31.5	22	28.5	17.5	.108
8	G1/8	7160 08 10	13	14	26	17	29.5	15.5	.054
8	G1/4	7160 08 13	17	14	31.5	22	31	17	.109
10	G1/4	7160 10 13	17	19	31.5	22	35	19	.119
10	G3/8	7160 10 17	20	19	44.5	22	37.5	19	.186
10	G1/2	7160 10 21	23	19	50	27	37.5	19	.201
12	G3/8	7160 12 17	20	22	44.5	22	38	21.5	.195
12	G1/2	7160 12 21	23	22	50	34	38	21.5	.212

# flow control regulators – compact metal version

## adjustment screw



Legris metal flow control regulators are suited for use in severe conditions. They are designed to withstand high temperatures, sparks, abrasion etc.

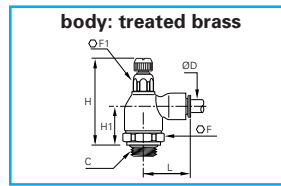
The sensitivity of the adjustment screw provides **very precise** air flow control and regulation. A locking nut guarantees **adjustment stability** against vibration and prevents unwanted adjustment.



The screw and locking nut have been designed for easy manipulation, by hand. Adjustment can be made with a screwdriver and locking by use of a wrench.

Depending upon the application, Legris offers 3 types of connection:

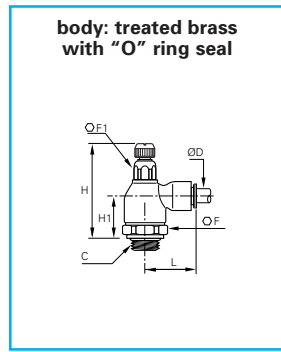
- with push-to-connect port for Legris nylon and polyurethane tubing
- with threaded fitting
- with universal brass compression fitting – series 7160




## 7105 push-to-connect meter out metal flow control — fractional inch tube to NPT



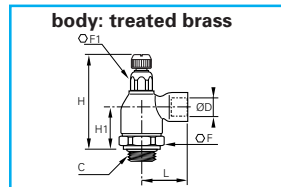
ØD in	C NPT	 meter out	F mm	F1 mm	G in	H min in	H max in	J in	L in	L1 in	L2 in	
5/32	1/8	7105 04 11	19	10	.59	1.79	2.01	.83	.85	.87	1.14	2.72
1/4	1/8	7105 56 11	19	10	.59	1.79	2.01	.83	.97	.87	1.14	2.82
1/4	1/4	7105 56 14	19	10	.59	1.79	2.01	.83	.97	.87	1.14	2.92
3/8	1/4	7105 60 14	19	14	.77	1.91	2.11	.83	1.14	.91	1.28	3.80
3/8	3/8	7105 60 18	25	17	1.06	2.15	2.40	1.06	1.40	.91	1.44	3.90



## 7100/7101 push-to-connect metal flow control — metric tube to BSPP



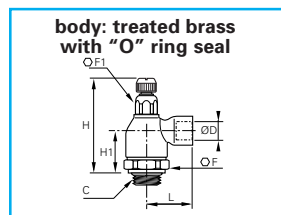
ØD mm	C BSPP	 meter out	 meter in	F mm	F1 mm	H min mm	H max mm	H1 mm	L mm	
4	G1/8	7100 04 10	7101 04 10	10	19	47	53	23	21	.076
6	G1/8	7100 06 10	7101 06 10	10	19	47	53	23	24.5	.077
6	G1/4	7100 06 13	7101 06 13	10	19	47.5	53	23.5	24.5	.080
8	G1/8	7100 08 10	7101 08 10	14	19	50	55	24.5	29	.090
8	G1/4	7100 08 13	7101 08 13	14	19	50	56	25	29	.101
8	G3/8	7100 08 17	7101 08 17	17	25	56	62	27	30.5	.121
10	G1/4	7100 10 13		14	19	50	56	25	35	.140
10	G3/8	7100 10 17		17	25	56	62	27	35	.161
12	G3/8	7100 12 17		17	25	56	62	27	38	.181
12	G1/2	7100 12 21		17	25	55	62	27	38	.203
14	G1/2	7100 14 21		17	25	55	62	27	41	.201




## 7115 threaded port meter out metal flow control — NPT



C NPT	 meter out	F mm	F1 mm	G in	H min in	H max in	J in	L in	L1 in	L2 in	
1/8	7115 11 11	19	10	.59	1.79	2.01	.83	.89	.87	1.14	2.75
1/4	7115 14 14	19	14	.77	1.91	2.11	.83	1.28	.87	1.28	3.90
3/8	7115 18 18	25	17	1.06	2.15	2.40	1.06	1.36	.91	1.44	7.25
1/2	7115 22 22	25	17	1.06	2.15	2.40	1.06	1.50	.91	1.50	7.64

## 7110/7111 threaded port metal flow control — BSPP

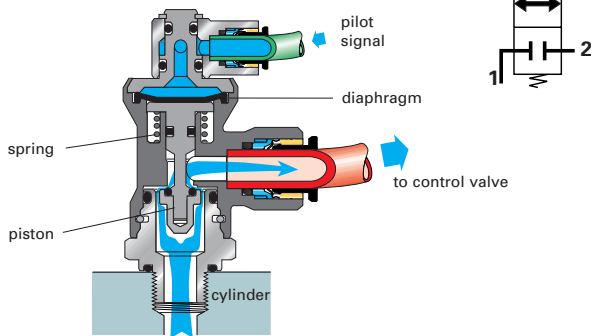


C BSPP	 meter out	 meter in	F mm	F1 mm	H min mm	H max mm	H1 mm	L mm	
G1/8	7110 10 10	7111 10 10	10	19	47	52.5	23	22.5	.076
G1/4	7110 13 13	7111 13 13	14	19	50.5	55.5	25	32	.107
G3/8	7110 17 17		17	25	56	62	27	34.5	.121
G1/2	7110 21 21		17	25	55	62	27	37.5	.194

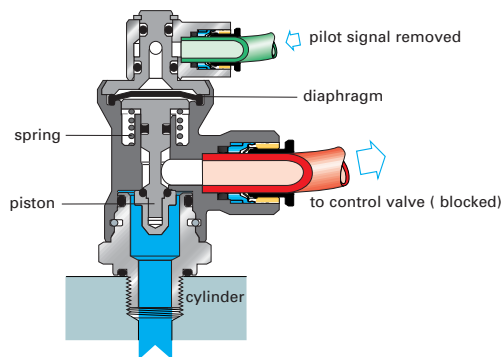
# lock-out valves

## operating principle

moving cylinder (active pilot signal)



blocked cylinder (pilot signal removed)



A flow control can be added between the lock-out valve and directional valve.

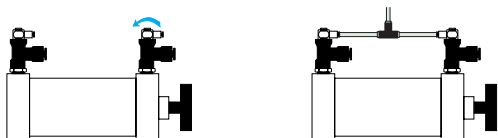
Removal of the pilot pressure causes the internal spring to reseal the pilot piston, thus closing the valve.

Must be mounted in pairs (signal Line "T"), as the two components are operated with a common pilot signal.

### installation

Mounted in pairs, lock-out valves are installed directly on the cylinder.

As they can be fully swiveled, their use provides excellent flexibility in the design and installation of pneumatic circuits.



- push-to-connect connection or threaded connection
- compact design
- fully orientable
- no adjustments

Two-way normally closed pilot operated valve  
Emergency stop valve system  
Function is to stop cylinder in mid-stroke

- emergency shut off
- loss of pressure
- loss of power

Prevents damage to work and equipment in the event of a loss of pressure

**Legris lock-out valves** – which are mounted in pairs on a cylinder – lock the piston by simultaneously cutting off the supply and exhaust. Functional locks are more precise and rapid when lock-out valves are located on the cylinder: the volume of air in the pipework no longer needs to be taken into consideration.

Legris lock-out valves are designed to offer **maximum flow capacity** and compactness (high flow performance and reduced external dimensions). Manufactured in robust materials, they are compatible with aggressive environments due to their excellent resistance to salty atmosphere, sparks (model with threaded fitting). A tried and tested automatic sealing and tube gripping technology guarantees performance and reliability.

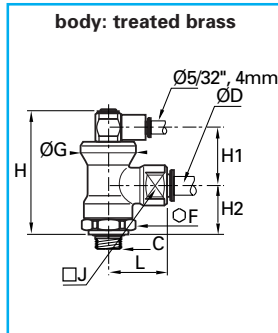
## technical specifications of lock-out valves

<b>working pressure</b>	15 to 145 psi
<b>working temperature</b>	-4° to 160°F
<b>number of cycles</b>	> 10 million at 68°F and 1 Hz
<b>leak rate</b>	< 3.2 ccm
<b>materials of construction</b>	<b>body:</b> treated brass <b>seals, diaphragm:</b> nitrile <b>gripping ring:</b> stainless steel

model	supply flow at 90 psi	pilot/depilot pressure (in psi) depending on the supply pressure					
		30 psi	60 psi	90 psi	115 psi	145 psi	
O.D. 1/4", 6 and 8mm, threads G1/8 and G1/4"	624 x 10 <sup>3</sup> ccm	pilot pressure	35	42	48	52	58
	624 x 10 <sup>3</sup> ccm	depilot pressure	22	26	31	35	40
O.D. 3/8", 1/2", 10 and 12mm, threads G3/8 and G1/2	1,536 x 10 <sup>3</sup> ccm	pilot pressure	39	46	51	55	59
	1,536 x 10 <sup>3</sup> ccm	depilot pressure	20	26	30	35	39

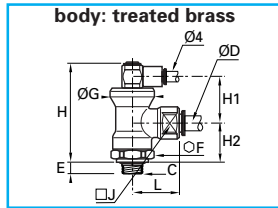
# lock-out valves

## 7885 push-to-connect lock-out valves — tube to NPT or BSPT



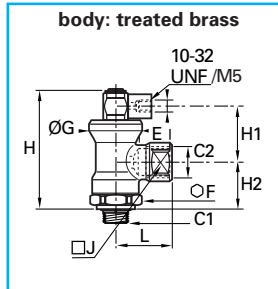
ØD in	C NPT	fractional inch	F mm	G in	H in	H1 in	H2 in	J in	L in	oz
1/4	1/8	7885 56 11	21	.95	2.03	1.24	.79	.67	1.10	6.53
1/4	1/4	7885 56 14	21	.95	2.03	1.24	.79	.67	1.10	4.77
3/8	3/8	7885 60 18	24	1.10	2.19	1.14	1.04	1.06	1.38	7.59
1/2	1/2	7885 62 22	24	1.10	2.19	1.14	1.04	1.06	1.69	18.00
mm	BSPT	metric	mm	mm	mm	mm	mm	mm	mm	kg
6	R1/8	7885 06 10	21	24	51.5	31.5	20	17	28	.121
6	R1/4	7885 06 13	21	24	51.5	31.5	20	17	28	.124
8	R1/4	7885 08 13	21	24	51.5	31.5	20	17	28	.119
8	R3/8	7885 08 17	21	24	51.5	31.5	20	17	28	.122
10	R3/8	7885 10 17	24	28	55.5	29	26.5	27	35	.197
12	R1/2	7885 12 21	24	28	55.5	29	26.5	27	37.5	.203

## 7880 push-to-connect lock-out valves — metric tube to BSPP



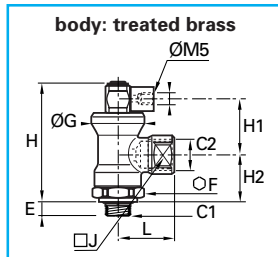
ØD mm	C BSPP	metric	E mm	F mm	G mm	H mm	H1 mm	H2 mm	J mm	L mm	kg
6	G1/8	7880 06 10	5	21	24	53	24.5	21	17	28	.121
6	G1/4	7880 06 13	5.5	21	24	53	24.5	21	17	28	.124
8	G1/4	7880 08 13	5.5	21	24	53	24.5	21	17	28	.119
8	G3/8	7880 08 17	5.5	24	28	56	25	23	27	34.5	.122
10	G3/8	7880 10 17	5.5	24	28	56	25	23	27	35	.197
12	G1/2	7880 12 21	7	24	28	56	25	23	27	37.5	.203

## 7886 lock-out valves — threaded ports — NPT or BSPT



C1 NPT	C2 NPT	fractional inch	E in	F mm	G in	H in	H1 in	H2 in	J in	L in	oz
1/8	1/8	7886 11 11	.37	21	.95	2.03	1.24	.79	.67	1.04	7.24
1/4	1/4	7886 14 14	.55	21	.95	2.03	1.24	.79	.67	1.04	4.59
3/8	3/8	7886 18 18	.65	24	1.10	2.19	1.14	1.04	1.06	1.34	7.77
1/2	1/2	7886 22 22	.77	24	1.10	2.19	1.14	1.04	1.06	1.57	8.47
BSPT	BSPT	metric	mm	mm	mm	mm	mm	mm	mm	mm	kg
R1/4	R1/8	7886 13 10	14	21	24	51.5	31.5	20	17	26.5	.113
R1/4	R1/4	7886 13 13	14	21	24	51.5	31.5	20	17	26.5	.115
R3/8	R3/8	7886 17 17	16.5	24	28	55.5	29	26.5	27	34	.200
R1/2	R1/2	7886 21 21	19.5	24	28	55.5	29	26.5	27	40	.209

## 7881 lock-out valves — threaded ports — BSPP



C1 BSPP	C2 BSPP	metric	E mm	F mm	G mm	H mm	H1 mm	H2 mm	J mm	L mm	kg
G1/8	G1/4	7881 13 10	5	21	24	53	24.5	21	17	28	.113
G1/4	G1/4	7881 13 13	5.5	21	24	53	24.5	21	17	28	.115
G3/8	G3/8	7881 17 17	5.5	24	28	56	25	23	27	34	.200
G1/2	G1/2	7881 21 21	7	24	28	56	25	23	27	41	.209

## typical applications

- Legris lock-out valves incorporated into a 5/2 valve.

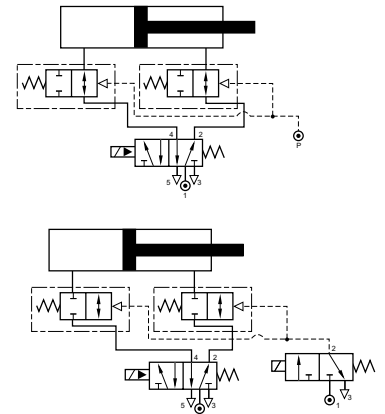
The compressed air maintains the lock-out valves in their normal position where air can easily pass through exactly like a normal fitting.

In the event of compressed air failure, the springs at both the lock-out valves will close the double-acting cylinder ports (2 & 4) thereby preventing downward movement.

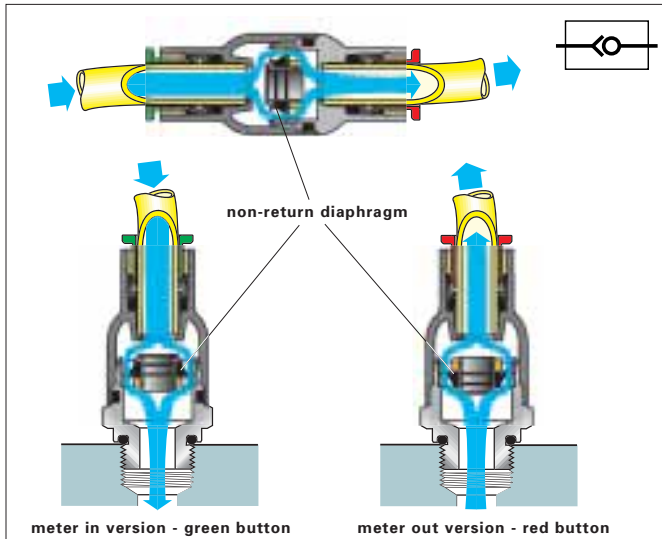
Only with the recovery of compressed air will the lock-out valves allow normal flow and operation.

- With the introduction of a 3/2 way valve more interesting variations can be achieved for specific applications.

With a normally open valve, the lock-out valves will assume their closed positions when the pilot signal is lost. A typical application is a fail safe mode or with the introduction of a signal like an emergency signal.



# check valves



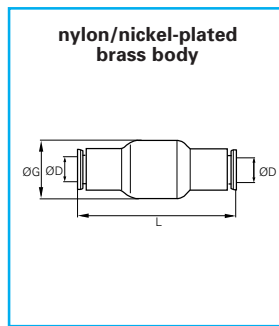
The Legris in-line check valve allows air to pass in one direction while blocking flow in the other direction. Their extreme compactness and light weight make them suitable as a safety item in compressed air circuits.

The body of the fitting contains an arrow to indicate the direction of flow.

A pressure of more than 7 psi will overcome the spring pressure, which is keeping the valve closed, thus allowing the passage of air.

technical characteristics		15 to 145 psi
model	air flow at 90 psi	Kv
7996 04 00	307 x 10 <sup>3</sup> ccm	.12
7996 56 00/7996 06 00	638 x 10 <sup>3</sup> ccm	.14
7996 08 00	1564 x 10 <sup>3</sup> ccm	.80

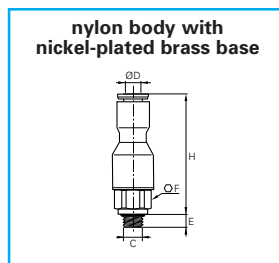
## 7996 in-line check valve — tube to tube



nylon/nickel-plated brass body

ØD in	fractional inch tube	G in	L in	
5/32	7996 04 00	.63	1.52	.28
1/4	7996 56 00	.63	1.61	.51
5/16	7996 08 00	.75	2.03	.63
3/8	7996 60 00	.91	2.50	.63
mm	metric tube	mm	mm	
4	7996 04 00	16	38.5	.008
6	7996 06 00	16	41	.013
8	7996 08 00	19	51.5	.018
10	7996 10 00	23	63.5	.018
12	7996 12 00	23	66.5	.018

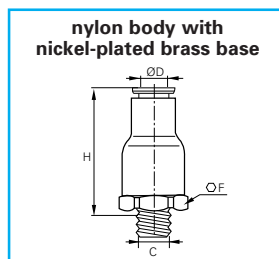
## 7984/7994/7985/7995 male check valve — inch tube to UNF or NPT



nylon body with nickel-plated brass base

ØD in	C NPT/UNF	meter out	meter in	E in	F mm	H in	
5/32	10-32	7994 04 20	7984 04 20	.14	9	1.26	.28
5/32	1/8	7995 04 11	7985 04 11		16	1.12	.28
1/4	1/8	7995 56 11	7985 56 11		19	1.42	.51
1/4	1/4	7995 56 14	7985 56 14		19	1.42	.51
3/8	1/4	7995 60 14	7985 60 14		23	1.65	.63
3/8	3/8	7995 60 18	7985 60 18		23	1.65	.63

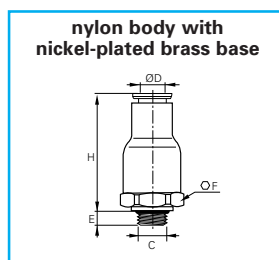
## 7985/7995 male check valve — metric tube to BSPT



nylon body with nickel-plated brass base

ØD mm	C BSPT	meter out	meter in	F mm	H mm	
4	R1/8	7995 04 10	7985 04 10	16	28.5	.016
6	R1/8	7995 06 10	7985 06 10	16	30.5	.016
6	R1/4	7995 06 13	7985 06 13	16	30.5	.021
8	R1/8	7995 08 10	7985 08 10	19	36	.022
8	R1/4	7995 08 13	7985 08 13	19	36	.026
10	R3/8	7995 10 17	7985 10 17	23	42	.027
12	R3/8	7995 12 17	7985 12 17	23	42	.029
12	R1/2	7995 12 21	7985 12 21	23	44	.034

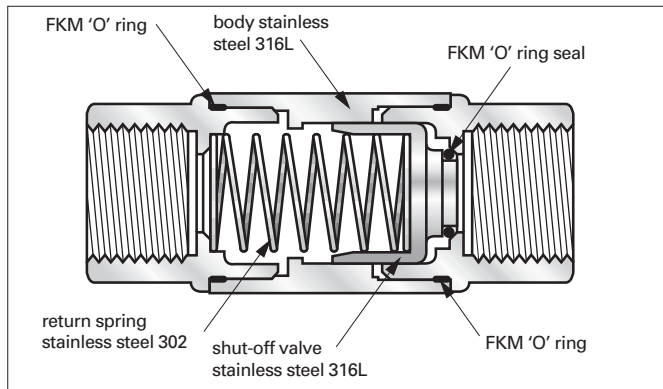
## 7984/7994 male check valve — metric tube to BSPP



nylon body with nickel-plated brass base

ØD mm	C BSPP	meter out	meter in	E mm	F mm	H mm	
4	M5	7994 04 19	7984 04 19	3	9	32	.023
4	G1/8	7994 04 10	7984 04 10	5	16	28.5	.015
6	G1/8	7994 06 10	7984 06 10	5	16	30.5	.015
6	G1/4	7994 06 13	7984 06 13	5.5	16	30.5	.015
8	G1/8	7994 08 10	7984 08 10	5	19	36	.021
8	G1/4	7994 08 13	7984 08 13	5.5	19	36	.023
10	G3/8	7994 10 17	7984 10 17	5.5	23	42	.024
12	G3/8	7994 12 17	7984 12 17	5.5	23	42	.029
12	G1/2	7994 12 21	7984 12 21	7.5	23	44	.034

# check valves – stainless steel



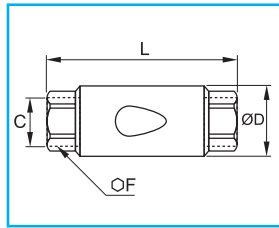
**Operation :** a stainless steel valve blocks the fluid passage, when the pressure differential is lower than 3.6 psi. Connection is by use of an allen key, upstream of the circuit.

<b>working pressure</b>	7 to 580 psi
<b>working temperature</b>	-4° to +360°F

model	water flow at 90 psi	Kv
1/8	.67 scfm	1.60
1/4	.70 scfm	1.69
3/8	1.26 scfm	3.01
1/2	1.29 scfm	3.10
3/4	2.33 scfm	5.59
1"	3.27 scfm	7.86

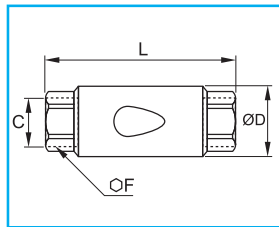
On request, we can provide you with male/female models with NPT threads and other types of seals (nitrile, EPDM, FDA).

## 4895 unidirectional, double-female – NPT



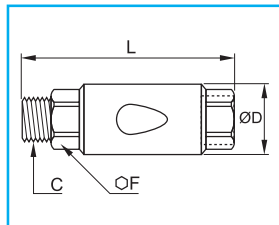
C NPT	DN		ØD mm	F mm	L mm	kg
1/8	10	4895 11 11	22	18	50	0.084
1/4	10	4895 14 14	22	18	54	0.080
3/8	15	4895 18 18	30	22	73	0.198
1/2	15	4895 22 22	30	25	77	0.213

## 4890 unidirectional, double-female – BSPP



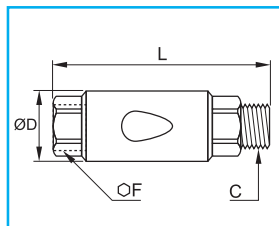
C BSPP	DN		ØD mm	F mm	L mm	kg
G1/8	10	4890 10 10	22	17	50	0.084
G1/4	10	4890 13 13	22	17	50	0.074
G3/8	15	4890 17 17	30	22	67	0.182
G1/2	15	4890 21 21	30	25	71	0.196
G3/4	20	4890 27 27	42	32	84	0.288
G1"	25	4890 34 34	42	38	90	0.416

## 4891 unidirectional, male/female – BSPP



C BSPP	DN		ØD mm	F mm	L mm	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

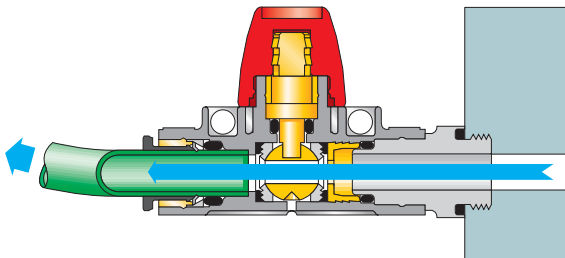
## 4892 unidirectional, female/male – BSPP



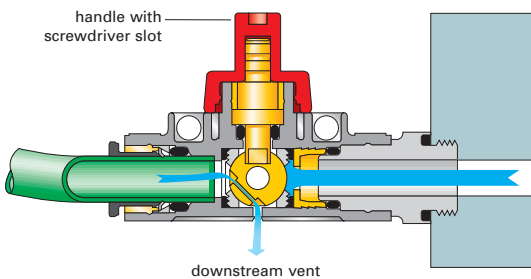
C BSPP	DN		ØD mm	F mm	L mm	kg
G1/8	10	4892 10 10	22	17	56	0.086
G1/4	10	4892 13 13	22	17	58	0.082
G3/8	15	4892 17 17	30	22	75	0.190
G1/2	15	4892 21 21	30	25	79	0.280
G3/4	20	4892 27 27	42	32	98	0.302
G1"	25	4892 34 34	42	38	104	0.424

# mini ball valves

models 3/2 with vent



handle with screwdriver slot



downstream vent

Legris mini ball valves enable in-line opening and closing of a pneumatic circuit.

Compact and light weight, they are suited to all types of installation. Moreover, due to the **3 types of mounting** available, these models are suited to all applications.

Their screwdriver slot allows opening and closing, even when access is difficult. Depending on the model, the handle is differentiated by color and marked with the corresponding pneumatic symbol, in order to enable **immediate identification** by the user.

**Full passage**, Legris mini ball valves offer excellent flow performance.

## technical specifications



suitable fluid	compressed air
max pressure	15 psi
vacuum capability	vacuum of 28" Hg (99% of vacuum)
working temperature	- 4° to + 175°C

## 7000 joining clips for in-line flow controls and mini ball valves



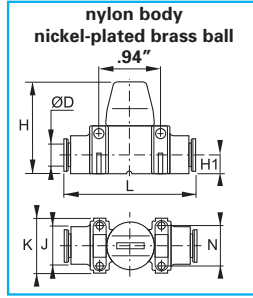
nylon



ØD in	ØD mm		
5/32	4	7000 00 05	.14
1/4	6	7000 00 05	.14
5/16	8	7000 00 05	.14
3/8	10	7000 00 06	.32
1/2	12	7000 00 06	.32

# mini ball valves

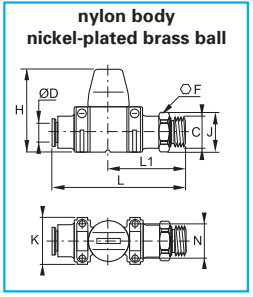
## 7913 3/2, with vent, with push-to-connect ports



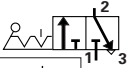
ØD in	fractional inch	H in	H1 in	J in	K in	L in	N in	
5/32	<a href="#">7913 04 00</a>	1.46	.30	.59	.87	2.0	.64	.78
1/4	<a href="#">7913 56 00</a>	1.46	.30	.59	.87	2.0	.64	1.45
5/16	<a href="#">7913 08 00</a>	1.46	.30	.59	.87	2.0	.64	1.98
3/8	<a href="#">7913 60 00</a>	1.69	.43	.79	1.18	2.6	.87	4.06
mm	metric	mm	mm	mm	mm	mm	mm	
4	<a href="#">7913 04 00</a>	37	7.5	15	22	51	16.2	0.022
6	<a href="#">7913 06 00</a>	37	7.5	15	22	52	16.2	0.041
8	<a href="#">7913 08 00</a>	37	7.5	15	22	52	16.2	0.056
10	<a href="#">7913 10 00</a>	43	11	20	30	66	22	0.115
12	<a href="#">7913 12 00</a>	43	11	20	30	66	22	0.147



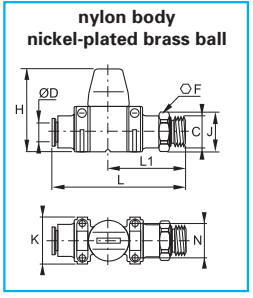
## 7915 3/2, with vent, with male NPT thread and push-to-connect ports



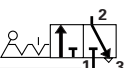
ØD in	C NPT	fractional inch	F mm	H in	J in	K in	L in	L1 in	N in	
5/32	1/8	<a href="#">7915 04 11</a>	13	1.46	.55	.87	2.44	1.46	.64	1.76
1/4	1/8	<a href="#">7915 56 11</a>	13	1.46	.55	.87	2.44	1.46	.64	1.90
1/4	1/4	<a href="#">7915 56 14</a>	14	1.46	.59	.87	2.44	1.38	.64	2.40
5/16	1/4	<a href="#">7915 08 14</a>	14	1.46	.59	1.18	2.40	1.61	.64	2.40
5/16	3/8	<a href="#">7915 08 18</a>	18	1.46	.77	1.18	2.91	1.61	.64	2.82
3/8	1/4	<a href="#">7915 60 14</a>	16	1.69	.69	1.18	2.40	1.65	.87	3.60
3/8	3/8	<a href="#">7915 60 18</a>	18	1.69	.77	1.18	2.91	1.65	.87	4.94



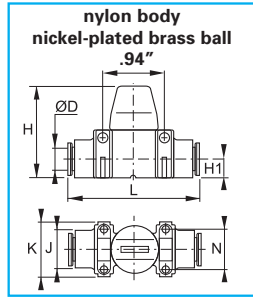
## 7914 3/2, with vent, with male BSP parallel thread and push-to-connect ports



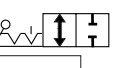
ØD mm	C BSPP	metric	F mm	H mm	J mm	K mm	L mm	L1 mm	N mm	
6	G1/8	<a href="#">7914 06 10</a>	13	37	14	22	62	37	16.2	0.054
8	G1/4	<a href="#">7914 08 13</a>	16	37	17.5	22	61	35	16.2	0.068
10	G3/8	<a href="#">7914 10 17</a>	20	43	22	30	74	41	22	0.102
12	G1/2	<a href="#">7914 12 21</a>	24	43	26	30	75	42	22	0.140



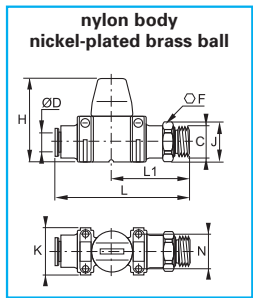
## 7910 2/2, with push-to-connect ports



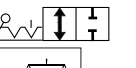
ØD in	fractional inch	H in	H1 in	J in	K in	L in	N in	
5/32	<a href="#">7910 04 00</a>	1.46	.30	.59	.87	2.01	.64	.74
1/4	<a href="#">7910 56 00</a>	1.46	.30	.59	.87	2.05	.64	1.41
5/16	<a href="#">7910 08 00</a>	1.46	.30	.59	.87	2.05	.64	1.94
3/8	<a href="#">7910 60 00</a>	1.69	.43	.79	1.18	2.60	.64	3.95
mm	metric	mm	mm	mm	mm	mm	mm	
4	<a href="#">7910 04 00</a>	37	7.5	15	22	51	16.2	0.021
6	<a href="#">7910 06 00</a>	37	7.5	15	22	52	16.2	0.040
8	<a href="#">7910 08 00</a>	37	7.5	15	22	52	16.2	0.055
10	<a href="#">7910 10 00</a>	43	11	20	30	66	16.2	0.112
12	<a href="#">7910 12 00</a>	43	11	20	30	66	16.2	0.144



## 7911 2/2, with male BSP parallel thread and push-to-connect ports

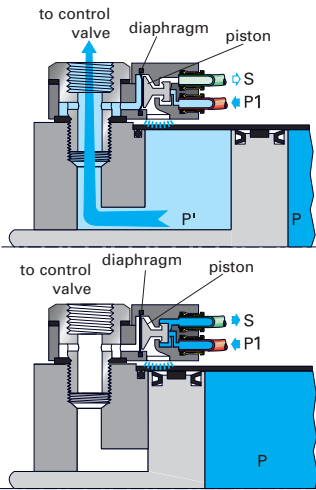


ØD mm	C BSPP	metric	F mm	H mm	J mm	K mm	L mm	L1 mm	N mm	
6	G1/8	<a href="#">7911 06 10</a>	13	37	14	22	62	37	16.2	0.052
8	G1/4	<a href="#">7911 08 13</a>	16	37	17.5	22	61	35	16.2	0.066
10	G3/8	<a href="#">7911 10 17</a>	20	43	22	30	74	41	16.2	0.098
12	G1/2	<a href="#">7911 12 21</a>	24	43	26	30	75	42	16.2	0.129

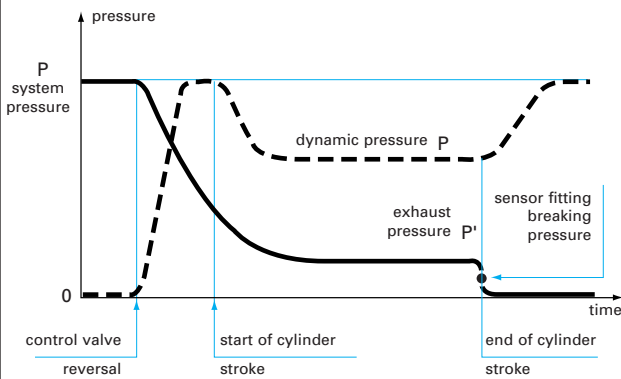


# threshold sensors

## principle of operation



P' : exhaust pressure  
 P : system pressure  
 P1: supply pressure for sensor  
 S : output signal



Sensor shifts when P' is 10% of P

## connections

### pneumatic sensors

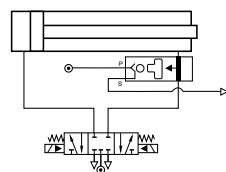
#### 1. basic connection

The threshold sensor is supplied with constant pilot pressure: this type of connection remains simple and is suitable for the majority of applications. It is therefore possible to produce various locking positions by supplying the threshold sensor with a conditional pilot signal.

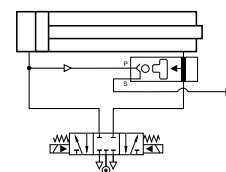
#### 2. recommended connection

The sensor fitting is supplied by a branch made on the cylinder and control valve line on the opposite side. As the driving pressure P supplies the sensor fitting no untimely signal can appear on start-up.

Constant pilot source



Piloted from blind end of cylinder



### Possible uses for signal

- sequence valve signal
- pilot valve

- senses the end of the "stroke" and reverses the operation of cylinder – sensor on each end (blind/red)
- variable end of stroke sensing capability not limited to a fixed return position
- mounting flow control directly on sensor provides an additional benefit of control without adding additional fittings
- pneumatic device does not require adjustment like mechanical devices
- pneumatic or electric version use with air piloted valve and solenoid piloted valve
- no limit switch pneumatic or electrical
- size small device

The **Legris sensor** fitting detects the absence of pressure and translates it to a high pressure pneumatic output. When used to monitor the decaying or exhausting side of a pneumatic cylinder's piston, it emits a positive output. When the cylinder comes to the end of its stroke, wherever that may be, the signal emitted from the sensor can then be used to pilot the next step.

Legris sensor fittings are very **compact**.

Legris sensor fittings can be mounted on the **cylinder**, on the **control valve** or on a terminal block provided it is between the cylinder and the flow control. For accuracy, the flow control regulator should be positioned as close as possible to the cylinder. It can also be fitted to a sensor fitting mounted on the cylinder.

This range offers 2 models:

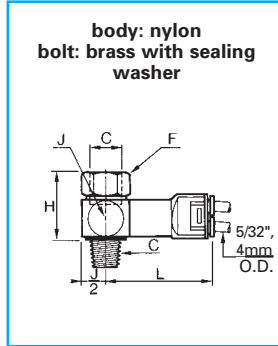
- **models with pneumatic output sensor**  
 2 possibilities:
  - supplied with permanent pressure. This is suitable for most applications.
  - supplied by a branch made on the cylinder and control valve line on the opposite side. As the driving pressure supplies the sensor fitting no untimely signal can appear on start up.
- **models with electric output sensor**  
 supplied with 3 core 0.5mm<sup>2</sup> cable, length 2 meters (6.5 ft.)

## technical specifications of pneumatic sensors

	<b>working temperature</b>	5° to 140°F
<b>models 7818</b>	<b>working pressure</b>	45 to 115 psi
	<b>breaking pressure</b>	8.5 psi
	<b>response time</b>	3 ms
<b>models 7828</b>	<b>working pressure</b>	45 to 115 psi
	<b>breaking pressure</b>	7 psi
	<b>contact "OC"</b>	2A/0-48 V 2A/250 V 50 Hz
	<b>degree of protection</b>	IP 40

# threshold sensors

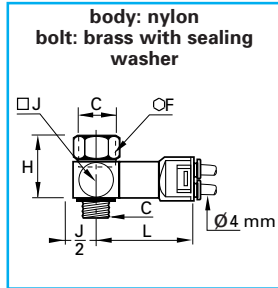
## 7808 pneumatic threshold sensor — 5/32 tube pilot/signal ports to NPT or UNF



C	orifice	F	H	J	L		
NPT/UNF		in	in	in	in	oz	
10-32	7818 04 20*	.08	5/16	.62	.43	1.70	.88
1/8	7808 04 11	.20	9/16	.90	.62	1.74	1.55
1/4	7808 04 14	.27	5/8	1.09	.76	1.81	2.51
3/8	7808 04 18	.39	7/8	1.13	.92	1.91	3.25
1/2	7808 04 22	.55	1	1.17	1.23	2.05	5.47

\*10-32: bolt zinc passivated steel

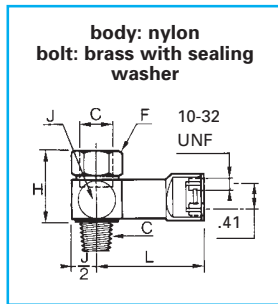
## 7818 pneumatic threshold sensor — 4mm tube pilot/signal ports to BSPP or M5



C		DN	F	H	J	L	
BSPP/M5		min	mm	mm	mm	mm	kg
M5x0.8	7818 04 19*	2	8	16	11	43.5	.025
G1/8	7818 04 10	5	14	23	16	44.5	.082
G1/4	7818 04 13	7	17	28	19.5	46.5	.113
G3/8	7818 04 17	10	22	29	23.5	49	.128
G1/2	7818 04 21	14	27	30	31.5	52.5	.159

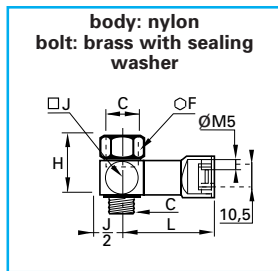
\*M5: bolt zinc passivated steel

## 7808 pneumatic threshold sensor — 10-32 UNF pilot/signal ports to NPT



C	orifice	F	H	J	L		
NPT		in	in	in	in	oz	
1/8	7808 20 11	.20	9/16	.90	.62	1.58	1.66
1/4	7808 20 14	.27	5/8	1.09	.76	1.66	2.61
3/8	7808 20 18	.39	7/8	1.13	.92	1.76	3.46

## 7818 pneumatic threshold sensor — M5 pilot/signal ports to BSPP or M5

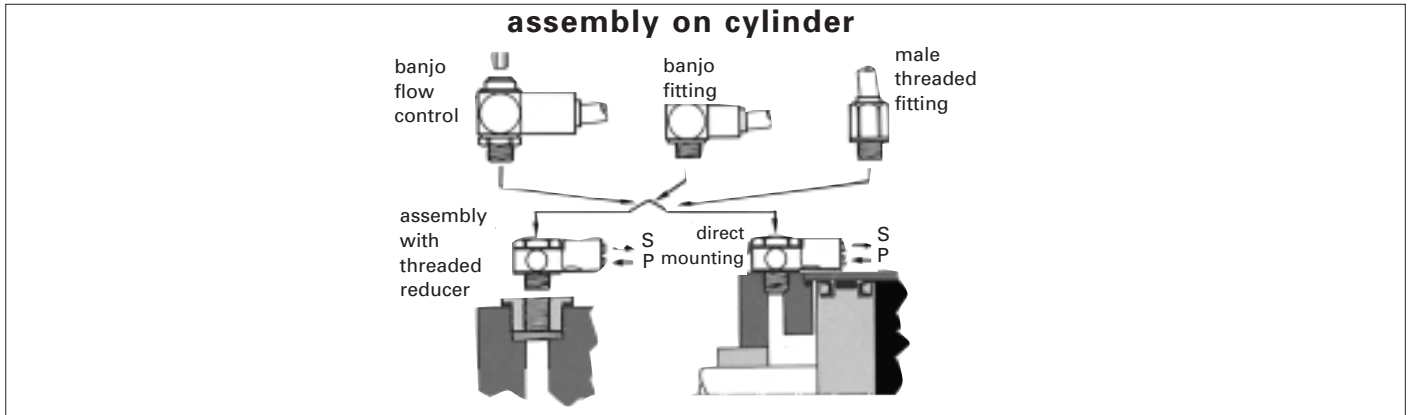


C		DN	F	H	J	L	
BSPP		min	mm	mm	mm	mm	kg
G1/8	7818 19 10	5	14	23	16	40.5	.087
G1/4	7818 19 13	7	17	28	19.5	42.5	.117

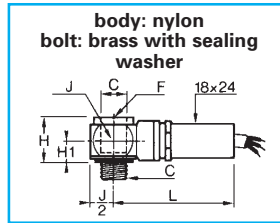
# threshold sensors

## installation

The threshold sensor can be mounted on the cylinder, on the control valve or on a terminal block provided it is between the cylinder and the flow control. For accuracy, the flow control is mounted as close as possible to the cylinder. It can be fitted to a sensor fitting mounted on the cylinder.

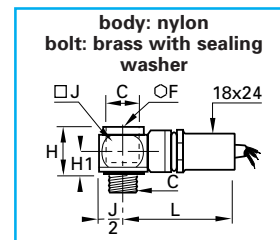


## 7828 pneumatic/electric threshold sensor — NPT or UNF



C		F	H	H1	J	L	
NPT/UNF		mm	in	in	in	in	oz
10-32	7828 00 20	8	.79	.39	.43	1.93	5.30
1/8	7828 00 11	6	.79	.39	.63	2.05	6.10
1/4	7828 00 14	8	.79	.39	.83	2.13	6.35
3/8	7828 00 18	10	.87	.47	1.10	2.24	7.50
1/2	7828 00 22	12	1.02	.55	1.30	2.28	9.35

## 7828 pneumatic/electric threshold sensor — BSPP or M5



C		F	H	H1	J	L	
BSPP/M5		mm	mm	mm	mm	mm	kg
M5x0.8	7828 00 19	8	20	10	11	49	.115
G1/8	7828 00 10	6	20	10	16	52	.120
G1/4	7828 00 13	8	20	10	21	54	.125
G3/8	7828 00 17	10	22	12	28	57	.150
G1/2	7828 00 21	12	26	14	33	58	.185

## pneumatic/electric sensors

Exhaust pressure is sensed by a N/O, N/C contract relay switch.

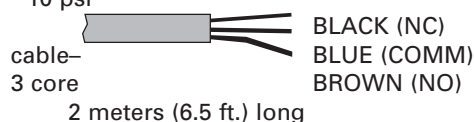
Pneumatic/Electric Threshold valves are ideally suited to turn on or off a light, or to send an electric signal to another function in the system. They are supplied with a 6 ft., 3 core cable and can be used with AC or DC voltages.

### advantages for the user

- small size
- replaces traditional sequence valves and/or limit switches
- eliminates on going normal adjustment associated with limit valves

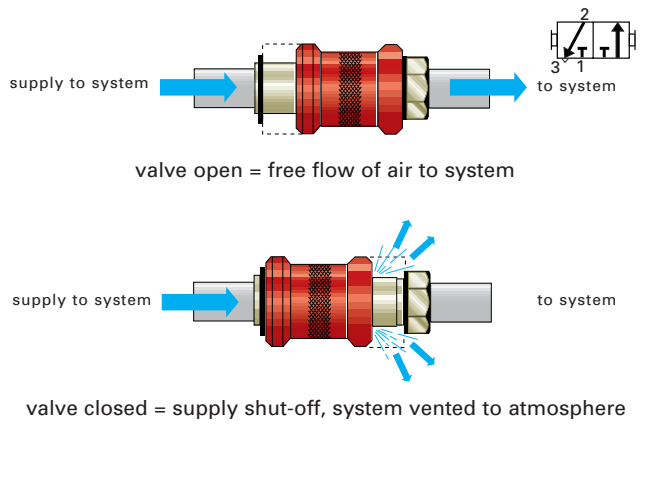
## technical specifications for pneumatic/electric threshold sensor valves

working pressure: 0 to 115 psi  
 threshold signal pressure: 7 psi  
 current rating: 5A/250VAC - 5W/48VDC  
 UL listed component  
 reset pressure: 10 psi  
 connection  
 pneumatic/electric sensor



# pneumatic slide valves

## principle of operation



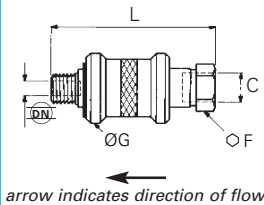
Legris pneumatic slide valves may be used to effect an **immediate isolation of the air line** by venting the system to atmosphere. By moving the sleeve in one direction, the air is free to pass through the slide valve to the system. By moving it in the opposite direction, the supply is shut off and the **downstream air is allowed to exhaust** to the atmosphere. The design is compact, neat, aesthetic and can be directly installed in the circuit

<b>suitable fluid</b>	compressed air
<b>direction of medium</b>	one way
<b>maximum working pressure</b>	230 psi (0661/60/69); 300 psi (0662/63)
<b>working temperature</b>	15° to 175°F (0661/60/69); -40° to 250°F (0662/63)
<b>materials of construction</b>	sleeve: anodized aluminum (0661/0660/0669) brass (0662/0663) body: nickel-plated brass (0661/0660/0669) brass (0662/0663) seals: nitrile rubber

## 0661 male/female slide valves — NPT



body: nickel-plated brass  
sleeve: anodized aluminum

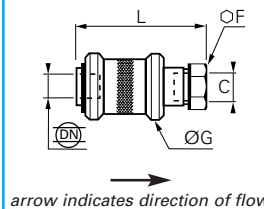


C NPT	DN		F in	G in	L in	oz
1/8	.16	0661 04 11	.55	.98	2.19	2.47
1/4	.27	0661 07 14	.67	1.18	2.75	4.59
3/8	.39	0661 10 18	.87	1.38	3.21	7.59
1/2	.55	0661 14 22	1.06	1.57	3.75	11.30

## 0660/0669 double female slide valve — NPT or BSPP



body: nickel-plated brass  
sleeve: anodized aluminum



C NPT	DN		F in	G in	L in	oz
1/8	.16	0660 04 11	.55	.98	1.89	2.12
1/4	.27	0660 07 14	.67	1.18	2.28	3.71
3/8	.39	0660 10 18	.87	1.38	2.68	6.18
1/2	.55	0660 14 22	1.06	1.57	3.15	9.53

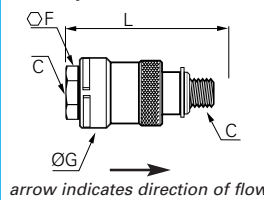
  

BSPP/M5			F mm	G mm	L mm	kg
M5x0.8	2	0669 02 19	10	14	30.5	.045
G1/8	4	0669 04 10	14	25	48	.051
G1/4	7	0669 07 13	19	30	58	.084
G3/8	10	0669 10 17	22	35	68	.153
G1/2	14	0669 14 21	27	40	80	.227
G3/4	19	0669 19 27	32	50	83	.242

## 0663 lockable slide valve — male/female — NPT



body and sleeve: brass



C NPT	DN		F in	G in	L in	oz
1/8	.25	0663 06 11	—	.93	2.00	3.14
1/4	.34	0663 08 14	3/4	1.13	2.58	4.59
3/8	.44	0663 10 18	7/8	1.19	2.60	5.80

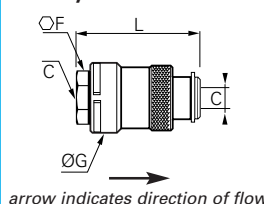


The lockable slide valves can accommodate standard locks shank sizes up to 0.145" (pictured, but not included).

## 0662 lockable slide valve — double female — NPT



body and sleeve: brass



C NPT	DN		F in	G in	L in	oz
1/8	.34	0662 06 11	—	.93	1.61	2.71
1/4	.44	0662 08 14	3/4	1.13	2.58	4.40
3/8	.50	0662 10 18	7/8	1.19	2.10	7.91



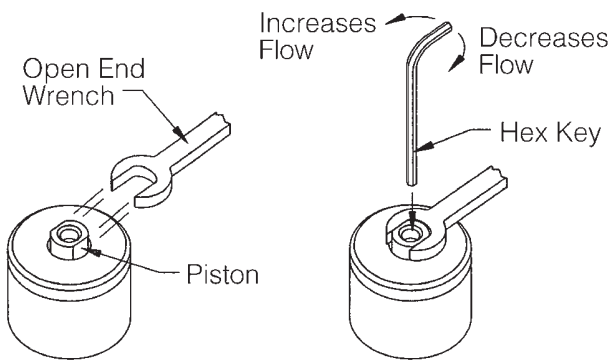
The lockable slide valves can accommodate standard locks shank sizes up to 0.145" (pictured, but not included).

# pneumatic slow start valves

## adjusting the speed of pressurization

Adjusting the needle to regulate the flow of air optimizes the time taken to pressurize depending on the air volume to be refilled and the system requirements.

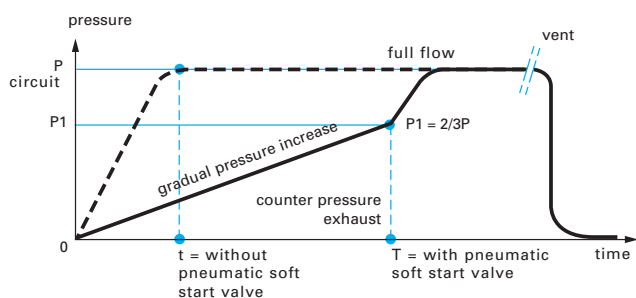
### method of adjustment



Adjustment requires only basic tools:

1. secure the piston with a 5.5mm (7/32") open end wrench.
2. adjust the needle (valve opening time) using a hex key while holding the piston with the open end wrench.
3. A 1.5mm hex key is required for the 1/4" size and a 2.5mm hex key is required for the 3/8" size. Wrench flats are 5.5mm on both sizes of valves. Maximum torque for hex key: 8 in. lb

When the downstream pressure equals 2/3 of the supply pressure, full flow is automatically established.



These Function Valves allow air pressure to **gradually increase** when a compressed air line is restarted after it has been vented for any reason (eg. at the end of work, after an emergency stop or when adjusting the system). This gradual pressure increase, or "slow start" **prevents shocks to the system** which can occur when full working pressure is immediately introduced, thus saving wear and preventing injury to users or components. Each cylinder thus protected gradually returns to the position it stopped when the system was vented.

**Types 7860/7861/7864** are mounted on the FRL outlet. These versions protect the **whole downstream installation**.

All cylinders downstream of the slow start fitting pressurize simultaneously when the system is pressurized after an emergency stop.

They return to their end-of-stroke position one after the other depending on their resistive forces.

**Types 7870/7871/7874** are mounted to the supply port of the control valve or the common supply line of several associated valves. Therefore the action of the fitting is immediate and **controls directly the designated cylinders**.

Thus the pressurization speed of the control valve, or group of valves, can be adjusted to an optimum. When the system is pressurized after an emergency stop, cylinders return to their end-of-stroke position one after the other depending on their resistive forces.

## technical specifications of pneumatic slow start fittings

<b>working temperature</b>	5° to 140°F	
<b>working pressure</b>	40 to 150 psi	
<b>materials of construction</b> 7861/64, 7871/74, 7860, 7870	<b>body:</b> nickel-plated brass <b>7860/7870 body:</b> composite material <b>seals:</b> nitrile <b>threads:</b> nickel-plated brass	
<b>maximum tightening torque</b>	<b>threads</b>	<b>in. lb</b>
	G1/4	108
	G3/8	125
<b>model</b>	<b>air flow at 90 psi</b>	<b>Kv</b>
	G1/2	150
	<b>7860 08 13</b>	1440 x 10 <sup>3</sup> ccm
<b>7860 10 13</b>	2016 x 10 <sup>3</sup> ccm	1.20
<b>7860 10 17</b>	2112 x 10 <sup>3</sup> ccm	1.30
<b>7860 12 17</b>	2976 x 10 <sup>3</sup> ccm	1.00
<b>7860 12 21</b>	2976 x 10 <sup>3</sup> ccm	1.00
<b>7861 13 13</b>	2016 x 10 <sup>3</sup> ccm	1.20
<b>7861 17 17</b>	2976 x 10 <sup>3</sup> ccm	1.00
<b>7861 21 21</b>	2976 x 10 <sup>3</sup> ccm	1.00
<b>7870 08 13</b>	1440 x 10 <sup>3</sup> ccm	0.80
<b>7870 10 13</b>	1920 x 10 <sup>3</sup> ccm	1.15
<b>7870 10 17</b>	1920 x 10 <sup>3</sup> ccm	1.15
<b>7871 13 13</b>	1920 x 10 <sup>3</sup> ccm	1.15
<b>7871 17 17</b>	1920 x 10 <sup>3</sup> ccm	1.15

# pneumatic slow start valves

The Legris Pneumatic slow start valve enables you to control the rate supply pressures introduced into your system after it has been vented (e.g. at the end of the work day, emergency stops, or adjustments). This gradual increase in pressure or "slow start", prevents harmful

mechanical shock which may occur when full system pressure is immediately introduced into a system. When the slow start valve is used, it gradually returns cylinders to the position they were in before the system air was vented.

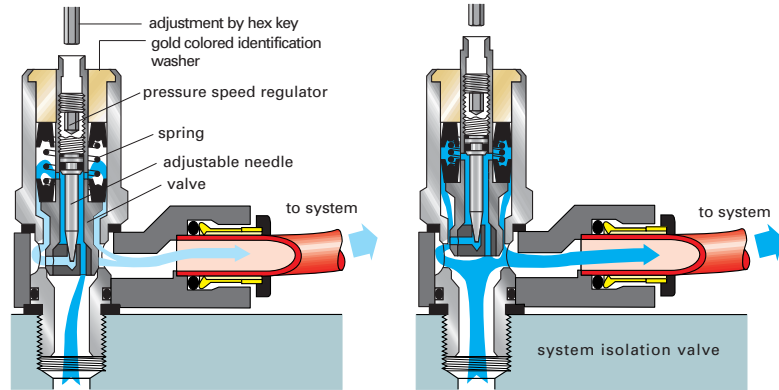
## working principles

### operating characteristics

The slow start fitting is an internally piloted control valve. It replaces any fitting without system modification.

**Note:** For adjustment information see page B28.

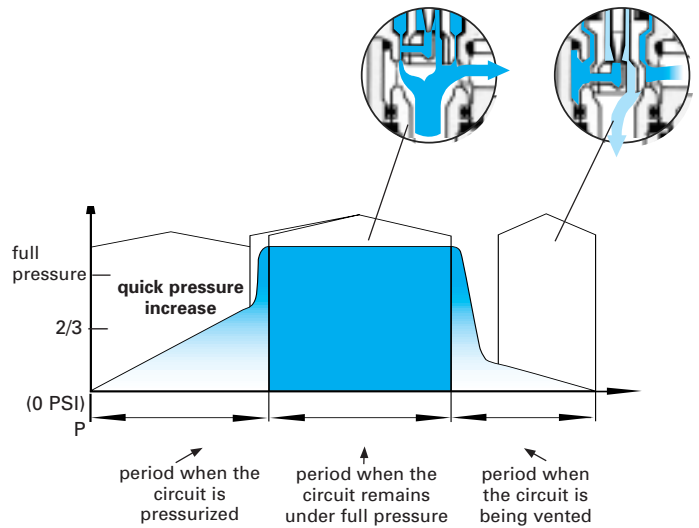
## system version: type 7860/7861/7864



## application information

### system version: type 7864

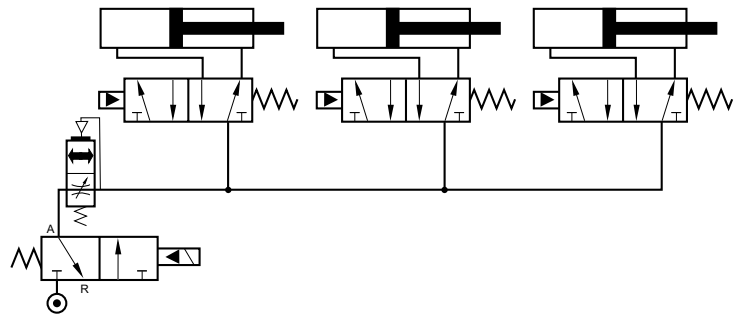
1. When the system has been vented, pressure "P" is at zero. After the system air is restarted, the pneumatic "slow start" valve allows a gradual buildup of pressure into the system. System cylinders slowly return to their extended or retracted positions.
2. An adjustable needle valve is utilized to accomplish the gradual buildup of pressure in the system. Adjusting the needle valve sets the rate of fill. The setting is determined by the requirements of the installation.
3. When the pressure in the system is at 2/3 its maximum, the "slow start" valve fully opens. The operating pressure "P" is maintained and a full flow rate is assumed until the system air is cut off and vented.



## installation

### system version: type 7864

The series 7864 "slow start" valve is mounted directly to the outlet port of the system isolation valve. Thus it protects the entire system from mechanical shock. The rate of pressurization will be common to all cylinders in the system. The speed at which each cylinder moves depends on the resistive forces acting against it.



# pneumatic slow start valves

The Legris Pneumatic slow start valve enables you to control the rate supply pressures introduced into your selected actuator after it has been vented (e.g. at the end of the work day, emergency stops, or adjustments). This gradual increase in pressure or "slow start", prevents

harmful mechanical shock which may occur when full system pressure is immediately introduced into a system. When the slow start valve is used, it gradually returns cylinders to the position they were in before the system air was vented.

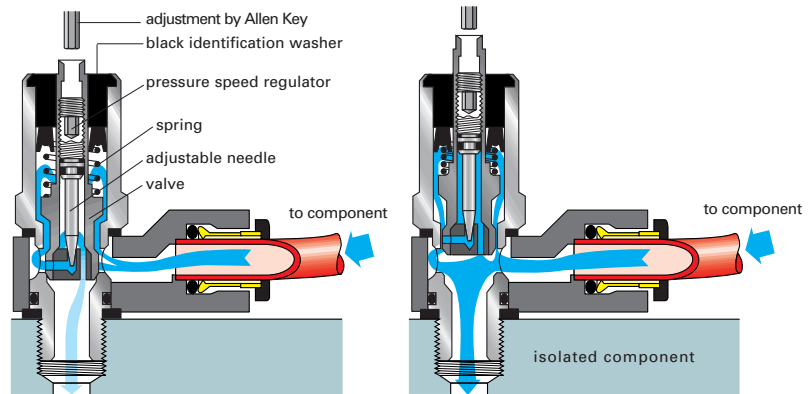
## working principles

### operating characteristics

The slow start fitting is an internally piloted control valve. It replaces any fitting without system modification.

**Note:** For adjustment information see page B28.

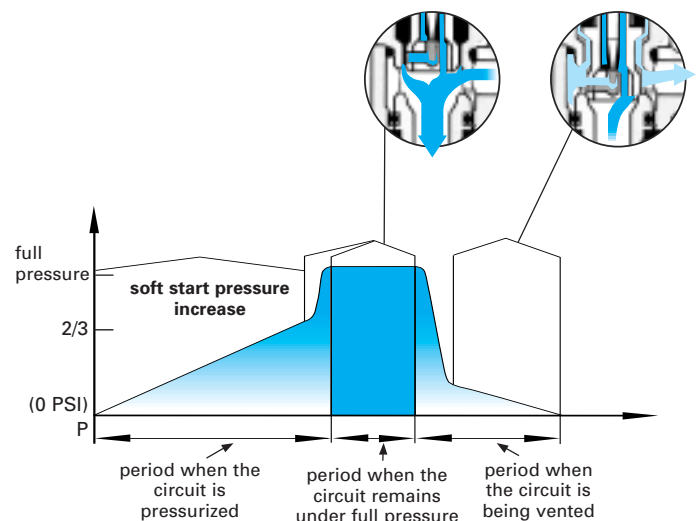
## component version: type 7870/7871/7874



## application information

### component version: type 7874

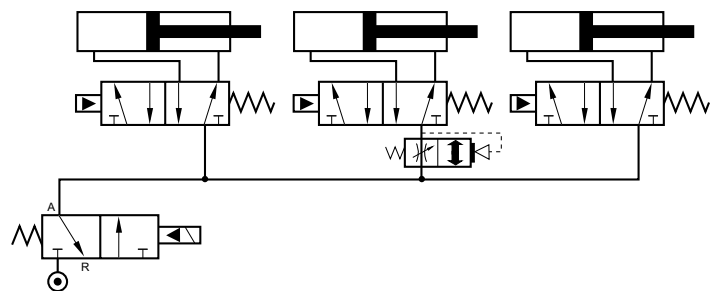
1. When the cylinder air has been vented, pressure "P" is at zero. When the system air is restarted, the pneumatic "slow start" fitting allows a gradual buildup of pressure into the selected cylinder. Resulting in the cylinder's slow return to its extended or retracted position.
2. An internal needle valve is utilized to accomplish the gradual buildup of pressure in the system. Adjusting the needle sets the rate of fill. The setting is determined by the requirements of the installation.
3. When the pressure in the system is at 2/3 "P" circuit, the "slow start" fully opens. The operating pressure is maintained and a full flow rate is assumed until the system air is cut off and vented.



## installation

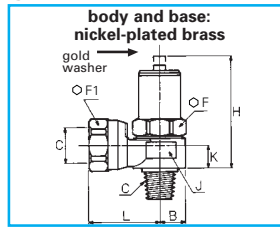
### isolated component version: type 7874

The series 7874 "slow start" valve is mounted directly to the inlet of a control valve, it provides "slow start" protection to a select cylinder. Thus the rate of pressurization to a specific cylinder may be individually controlled.



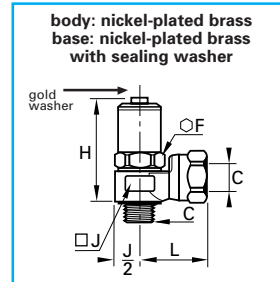
# pneumatic slow start valves

## 7864 for system isolating valve with threaded connection — NPT



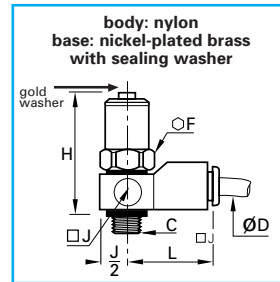
C	F	F1	H min	H max	J	L	K	kg	
NPT	in	in	in	in	in	in	in	oz	
1/4	7864 14 14	7/8	3/4	2.44	2.17	.95	1.22	.55	5.40
3/8	7864 18 18	7/8	3/4	2.44	2.17	.95	1.36	.55	5.47

## 7861 for system isolating valve with threaded connection — BSPP



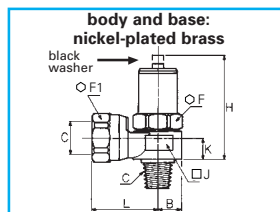
C	F	H min	H max	J	L	kg	
BSPP	mm	mm	mm	mm	mm		
G1/4	7861 13 13	22	62	54	24	31	.148
G3/8	7861 17 17	22	62	55	24	31	.140
G1/2	7861 21 21	24	70.5	63.5	24	34.5	.178

## 7860 for system isolating valve with LF3000® push-in fitting — metric tube to BSPP



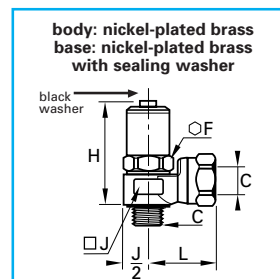
ØD	C	F	H min	H max	J	L	kg	
mm	BSPP	mm	mm	mm	mm	mm		
8	G1/4	7860 08 13	17	61	54	20	35	.066
10	G1/4	7860 10 13	22	62	55	25	41	.110
10	G3/8	7860 10 17	22	62	55	25	41	.113
12	G3/8	7860 12 17	22	62	55	25	45	.125
12	G1/2	7860 12 21	22	70.5	63.5	25	45	.151

## 7874 for isolated component version with threaded connection — NPT



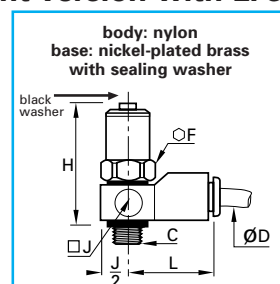
C	F	F1	H min	H max	J	L	K	kg	
NPT	in	in	in	in	in	in	in	oz	
1/4	7874 14 14	7/8	3/4	2.44	2.17	.95	1.22	.55	5.47
3/8	7874 18 18	7/8	3/4	2.44	2.17	.95	1.36	.55	4.60

## 7871 for isolated component version with threaded connection — BSPP



C	F	H min	H max	J	L	kg	
BSPP	mm	mm	mm	mm	mm		
G1/4	7871 13 13	22	62	55	24	31	.149
G3/8	7871 17 17	22	62	55	24	31	.141

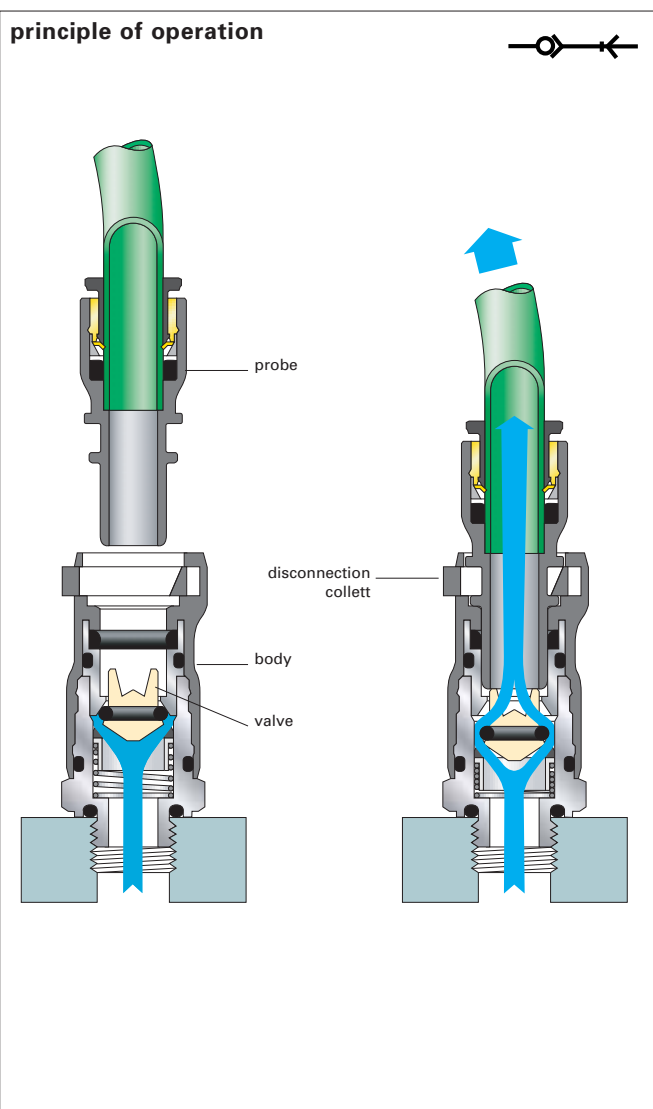
## 7870 for isolated component version with LF3000® push-in fitting — metric tube to BSPP



ØD	C	F	H min	H max	J	L	kg	
mm	BSPP	mm	mm	mm	mm	mm		
8	G1/4	7870 08 13	17	61	54	20	35	.068
10	G1/4	7870 10 13	22	62	55	25	41	.112
10	G3/8	7870 10 17	22	62	55	25	41	.115

# snap connectors

## principle of operation



Legris snap connector fittings are used to isolate a circuit without venting the whole installation. They are designed to facilitate frequent connections/disconnections – in complete **safety**. Connection is confirmed by an **audible « click »**.

## technical specifications:

fluid	compressed air	
max pressure	145 psi	
working temperature	- 4° to + 175°F	
flow performance	model	air flow at 90 psi
	DN 5 mm	1000 NI/min
	DN 7.3 mm	1900 NI/min

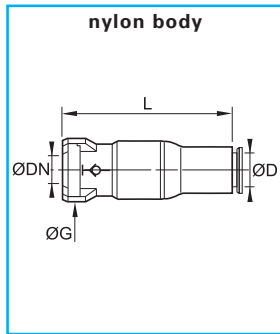
On request, we can provide:

- other **configurations**: elbow, panel mountable.
- alternate ring colors: yellow, green.



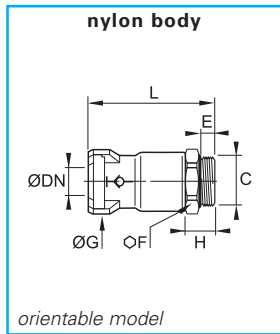
# snap connectors

## 7926 body with LF3000® connection



ØD mm	DN		G mm	L mm	kg
6	5	7926 05 06	18.5	44	0.020
8	5	7926 05 08	18.5	49	0.024
10	7.3	7926 07 10	22	58.5	0.044

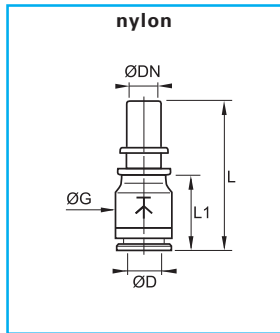
## 7925/7921 threaded body — NPT and BSPP



C	DN		E in	F mm	G in	H in	L in	oz
1/8	5	7925 05 11	.24	10.5	.73	.63	1.46	.78
1/4	5	7925 05 14	.22	10	.73	.63	1.42	.85

C	DN		E mm	F mm	G mm	H mm	L mm	kg
G1/8	5	7921 05 10	6	10.5	18.5	16	37	0.022
G1/4	5	7921 05 13	5.5	10	18.5	16	36	0.024
G1/4	7.3	7921 07 13	5.5	20	22	10	43	0.040
G3/8	7.3	7921 07 17	5.5	20	22	10	43	0.042

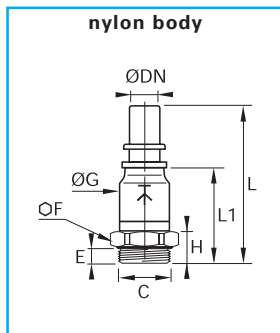
## 7960 plug with LF3000® connection



ØD in	DN		G in	L in	L1 in	kg
1/4		7960 05 56	.53	1.44	.69	.32

ØD mm	DN		G mm	L mm	L1 mm	kg
6	5	7960 05 06	13.5	36.5	17.5	0.009
8	5	7960 05 08	13.5	37	18	0.004
10	7.3	7960 07 10	16	41	20.5	0.008

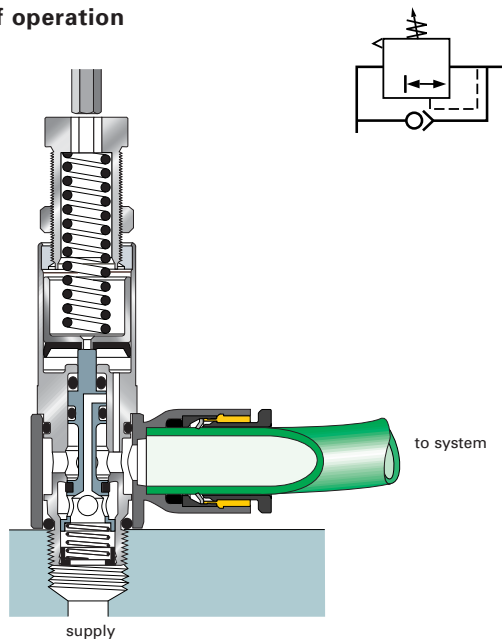
## 7961 threaded plug — BSPP



C	DN		E mm	F mm	G mm	H mm	L mm	kg
G1/8	5	7961 05 10	4.5	13	13.5	11	46	0.019
G1/4	5	7961 05 13	5.5	16	13.5	9.5	46	0.020
G1/4	7.3	7961 07 13	5.5	16	16	11.5	51.5	0.025
G3/8	7.3	7961 07 17	5.5	20	16	10.5	43	0.034

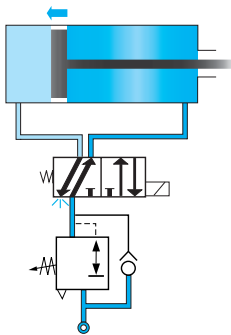
# pressure regulator fittings

## principle of operation



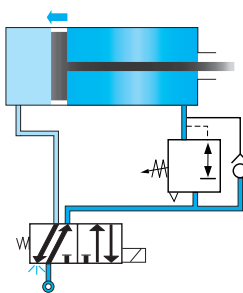
### mounting on control:

valve adjustment of piston feed pressure in both directions

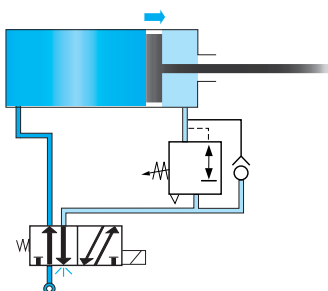


### mounting on cylinder:

adjustment of piston feed pressure in single direction



in return direction, pressure supplied through control of valve



**Legris pressure regulator fittings** are used to stabilize at a given value the pressure applied to pneumatic equipment, whatever the fluctuations of pressure upstream.

The pressure outlet is fully controlled by an adjustment screw. To assist pressure selection, the screw is calibrated showing pressure setting levels.

Adjusting pressure to a sufficient value provides a saving of compressed air and therefore energy. Consequently, when mounted in series on a manifold, these fittings control the supply required for each piece of equipment, from a single supply source.

Compact, flow pressure regulators may be mounted:

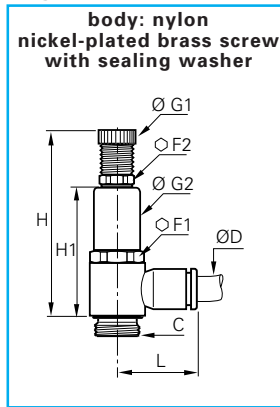
- on the cylinder, for reduced pressure in one direction,
- on the control valve, for reduced pressure in both directions.

## technical specification of pressure regulators fittings

<b>working temperature</b>	15° to 160°F			
<b>working pressure</b>	<b>P1 – input pressure</b>	15 to 230 psi		
	<b>P2 – regulated pressure</b>	15 to 115 psi		
<b>materials of construction</b>	<b>body:</b> polymer, nickel-plated brass			
	<b>seals:</b> nitrile			
<b>maximum tightening torque</b>	parallel thread	G1/8"	G1/4"	G3/8"
	in. lb	35	40	50

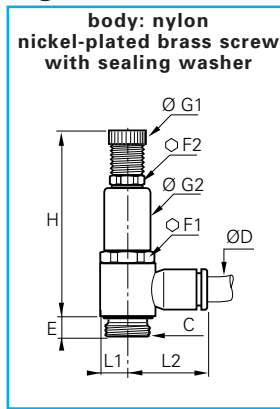
# pressure regulator fittings

## 7305 threaded pressure regulator — fractional inch tube to NPT



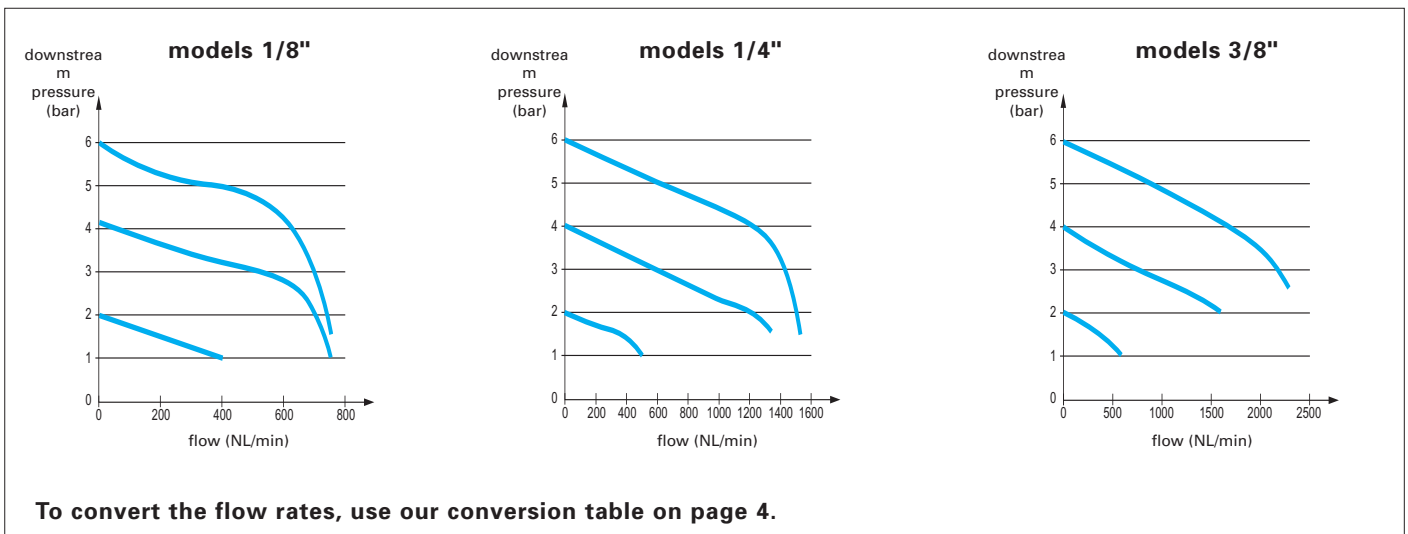
ØD in	C NPT		F1 mm	F2 mm	G1 in	G2 in	H min in	H max in	H1 in	L in	
5/32	1/8	7305 04 11	17	13	.55	.67	1.97	2.64	1.59	.73	1.34
1/4	1/8	7305 56 11	17	13	.55	.67	1.97	2.64	1.59	.81	1.59
1/4	1/4	7305 56 14	17	13	.55	.67	2.38	3.05	1.95	.89	1.73
3/8	1/4	7305 60 14	17	13	.55	.67	2.38	3.05	1.95	1.14	2.47

## 7300 threaded pressure regulator — metric tube to BSPP

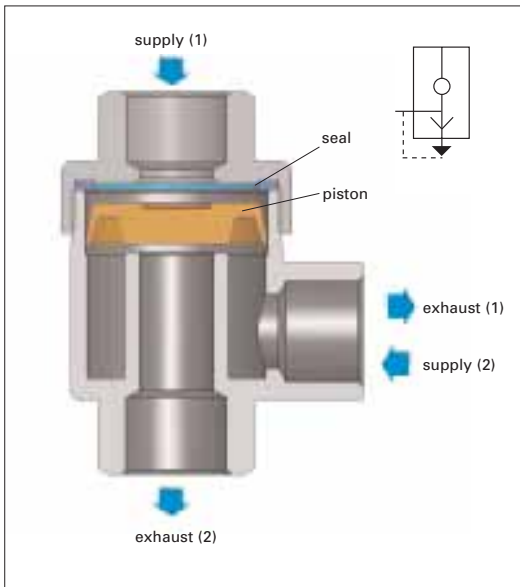


ØD mm	C BSPP		E mm	F1 mm	F2 mm	G1 mm	G2 mm	H max mm	L1 mm	L2 mm	
4	G1/8	7300 04 10	4.5	17	13	14	18.5	60.5	7	18.5	.038
6	G1/8	7300 06 10	4.5	17	13	14	18.5	60.5	7	20	.045
6	G1/4	7300 06 13	7.5	17	13	14	18.5	68.5	9.5	22	.049
8	G1/8	7300 08 10	4.5	17	13	14	18.5	60.5	7	25	.057
8	G1/4	7300 08 13	7.5	17	13	14	18.5	68.5	9.5	27	.060
8	G3/8	7300 08 17	8.5	22	17	18.5	23.5	77.5	11.5	28.5	.064
10	G1/4	7300 10 13	7.5	17	13	14	18.5	68.5	9.5	29	.070
10	G3/8	7300 10 17	8.5	22	17	18.5	23.5	77.5	11.5	30.5	.073

### Flow characteristics for NPT & BSPP threads Upstream pressure = 100 psi



# quick exhaust valve



The new **Legris Quick Exhaust Valve** can be used in all pneumatic equipment. It drastically increases **system efficiency** and the **speed of a cylinder** by purging cylinder exhaust air at the cylinder port rather than the control valve.

## technical specifications

<b>working fluid</b>	compressed air
<b>working pressure</b>	10 to 150 psi
<b>working temperature</b>	0° to 160°F
<b>materials of construction</b>	
<b>body:</b>	nickel-plated brass
<b>seal:</b>	nylon
<b>piston:</b>	polyurethane

**supply (1)** - the system pressure is applied to the inlet port, flow is directed to the cylinder port.

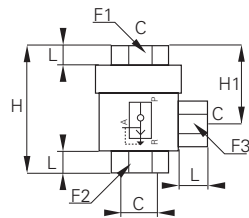
**supply (2)** - the supply (1) is dropped, exhaust air in the cylinder is discharged directly from the exhaust (2) port of the valve.

**Immediate Installation**  
**Easy to Use**  
**Complete Safety**

## 7982 quick exhaust valves — threaded ports — NPT



nickel-plated brass body



C NPT		F1 mm	F2 mm	F3 mm	H1 in	L in	D in	H in	oz
1/8	<a href="#">7982 11 11</a>	14	14	15	1.10	.28	.30	1.69	2.97
1/4	<a href="#">7982 14 14</a>	19	19	19	1.38	.37	.41	2.11	5.18
3/8	<a href="#">7982 18 18</a>	20	21	21	1.42	.35	.45	2.19	5.64
1/2	<a href="#">7982 22 22</a>	26	26	26	1.77	.55	.59	2.83	11.29



## legris.com's advantages



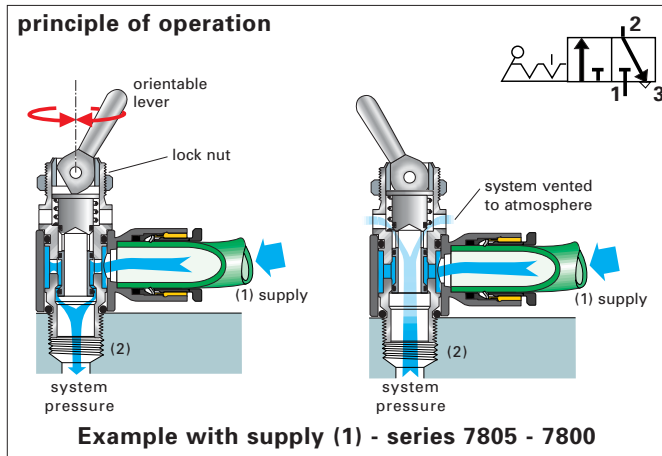
Select and download CAD drawings of pneumatic function valves easily and quickly. An optimized and free service, available to everyone on the Legris Website.

[www.legris.com](http://www.legris.com)



# manually operated 3-way venting valves

## manual switch operated vent fitting

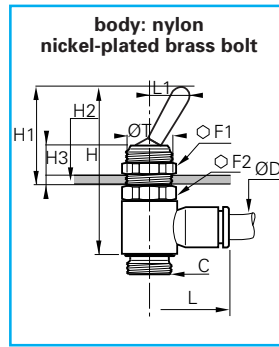


Legris manual switch operated vent fitting guarantees immediate isolation of the air line by venting the system to atmosphere by a simple manual operation of the lever. Easy to operate, it can be used whenever the system has to be frequently vented. Completely orientable, a number of valves can be mounted side by side, even in reduced spaces. The sub-base seal and push-in connection outlet allow immediate installation.

This fitting may preferably be mounted on a single-acting cylinder or directly onto a manifold, such as Legris aluminum manifolds.

<b>suitable fluid</b>	compressed air
<b>direction of medium</b>	one way
<b>maximum working pressure</b>	230 psi
<b>working temperature</b>	15° to 175°F

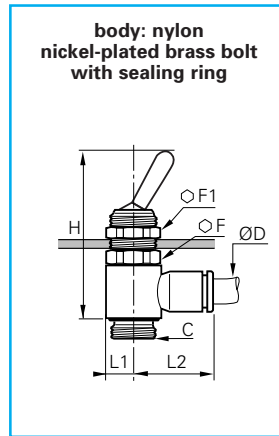
## 7805/7806 manually operated 3-way venting valve — fractional inch tube to NPT



ØD in	C NPT	supply (1)	F1 mm	F2 mm	H in	H1 in	H2 in	H3 in	L in	L1 in	ØT in	kg
5/32	1/8	7805 04 11	14	14	1.69	.98	.18	.30	.75	.43	.49	.95
1/4	1/8	7805 56 11	14	14	1.69	.98	.18	.30	.85	.43	.49	1.02
1/4	1/4	7805 56 14	14	17	1.99	.98	.18	.30	.89	.43	.49	1.55
3/8	1/4	7805 60 14	14	17	1.99	.98	.18	.30	1.14	.43	.49	1.69

ØD in	C NPT	supply (2)	F1 mm	F2 mm	H in	H1 in	H2 in	H3 in	L in	L1 in	ØT in	kg
5/32	1/8	7806 04 11	14	14	1.69	.98	.18	.30	.75	.43	.49	.95
1/4	1/8	7806 56 11	14	14	1.69	.98	.18	.30	.85	.43	.49	1.02
1/4	1/4	7806 56 14	14	17	1.99	.98	.18	.30	.89	.43	.49	1.55
3/8	1/4	7806 60 14	14	17	1.99	.98	.18	.30	1.14	.43	.49	1.69

## 7800/7801 manually operated 3-way venting valve — metric tube to BSPP



ØD mm	C BSPP	supply (1)	F mm	F1 mm	H mm	L1 mm	L2 mm	kg
4	M5x0.8	7800 04 19	8	-	32	5	16	.020
4	G1/8	7800 04 10	14	14	42.5	7	18.5	.027
6	M5x0.8	7800 06 19	8	-	32	5	19	.022
6	G1/8	7800 06 10	14	14	42.5	7	20	.029
6	G1/4	7800 06 13	17	17	51	9	22	.044
8	G1/8	7800 08 10	14	14	42.5	7	25	.030
8	G1/4	7800 08 13	17	17	51	9	27	.045
10	G1/4	7800 10 13	17	17	51	9	29	.048

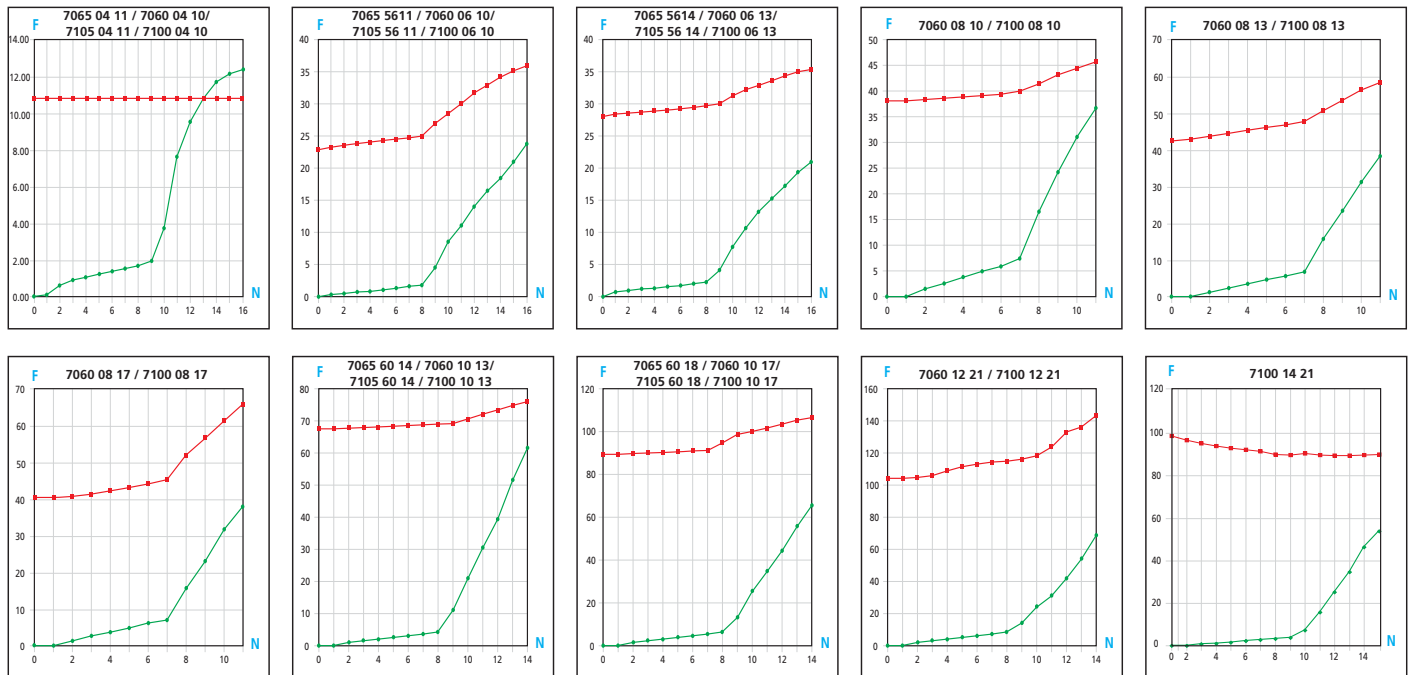
ØD mm	C BSPP	supply (2)	F mm	F1 mm	H mm	L1 mm	L2 mm	kg
4	M5x0.8	7801 04 19	8	-	32	5	16	.020
4	G1/8	7801 04 10	14	14	42.5	7	18.5	.027
6	M5x0.8	7801 06 19	8	-	32	5	19	.022
6	G1/8	7801 06 10	14	14	42.5	7	20	.029
6	G1/4	7801 06 13	17	17	51	9	22	.044
8	G1/8	7801 08 10	14	14	42.5	7	25	.030
8	G1/4	7801 08 13	17	17	51	9	27	.045
10	G1/4	7801 10 13	17	17	51	9	29	.048

There are two models of these series valves. One model shown above (principle of operation) uses port (1) as the inlet and port (2) as the use port. The second model uses port (2) as the inlet and port (1) as the use port. Versions 7806 and 7801 are suggested to be used on manifolds with a common supply port.

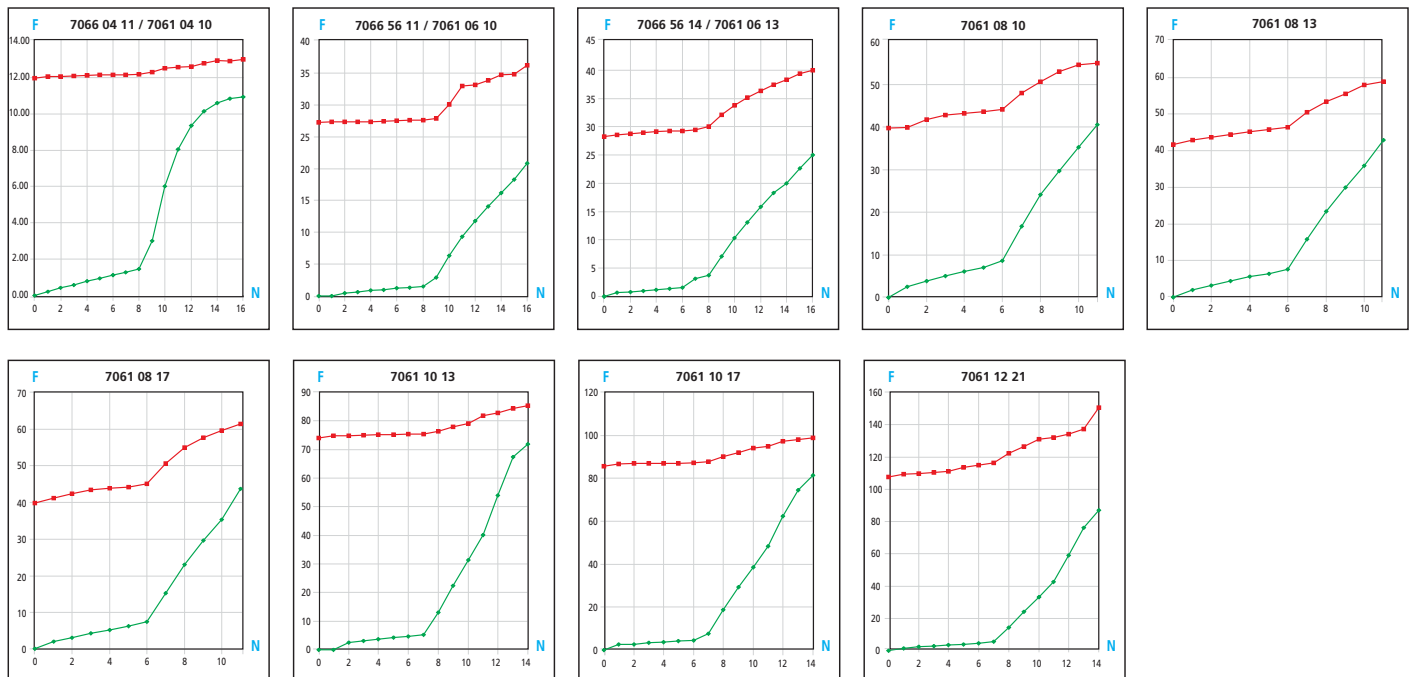
# flow control performance characteristics

## compact and metal flow controls

### 7060/7065 – 7100/7105



### 7066/7061



87 psi

■ = return direction      **N** = number of turns  
■ = controlled direction      **F** = flow in SCFM

### 7067/7062

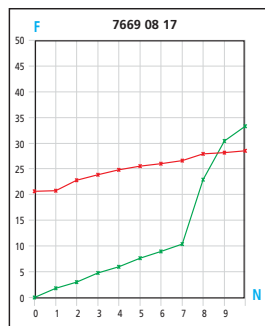
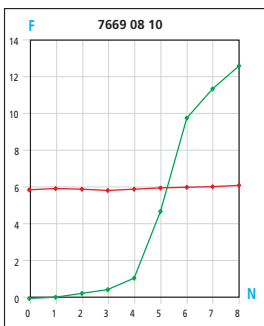
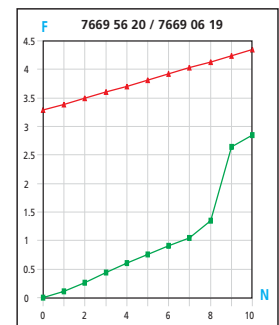
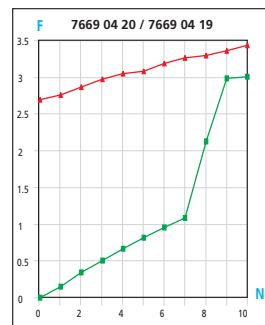
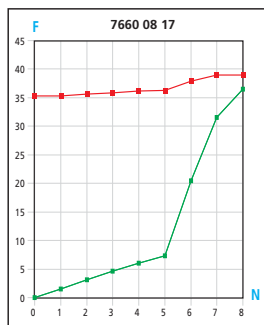
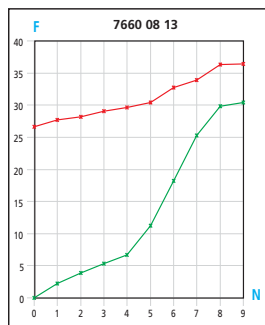
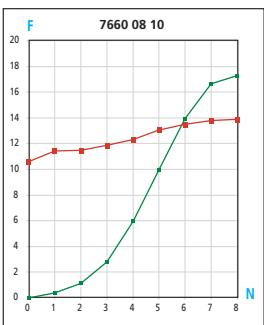
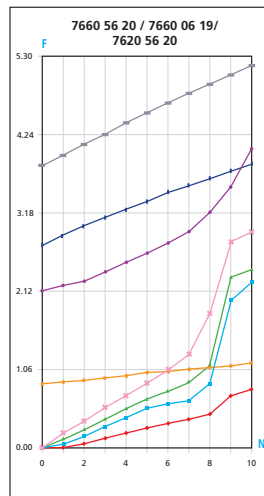
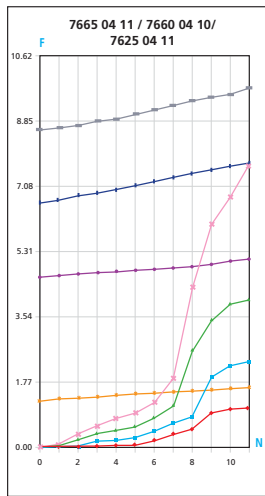
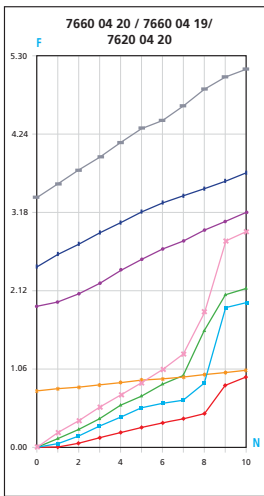
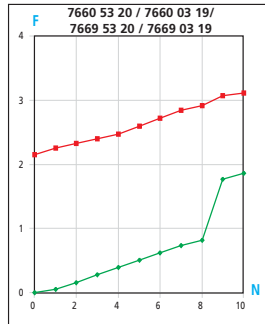
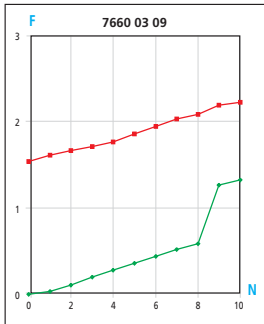
Flow characteristics of models 7067/7062:

- meter out version: see model 7065/7060 controlled direction
- meter in version: see model 7066/7061 controlled direction

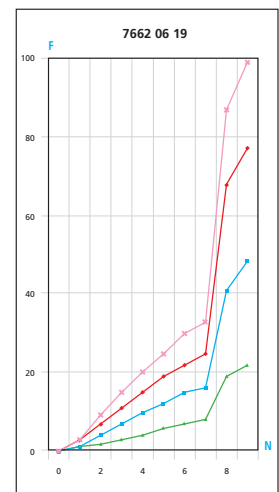
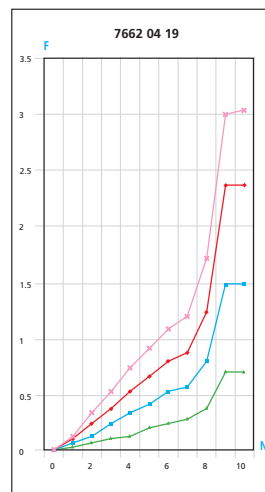
# flow control performance characteristics

## mini flow controls

7660/7665 – 7620/7625 – 7669



## 7662



87 psi

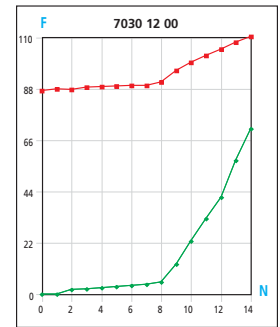
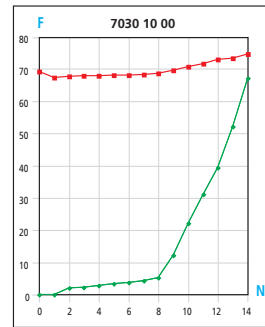
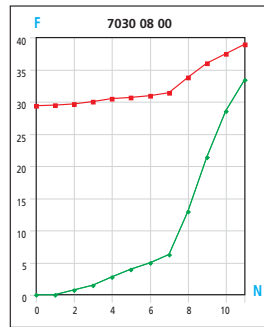
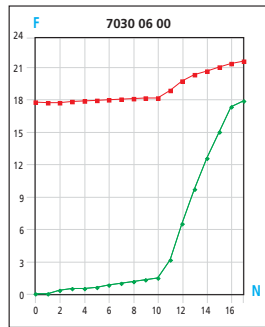
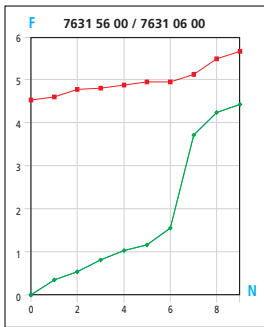
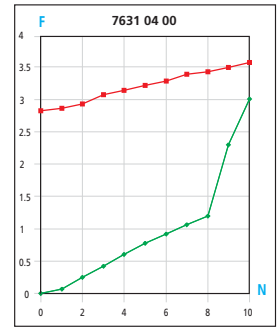
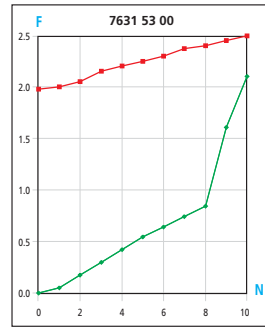
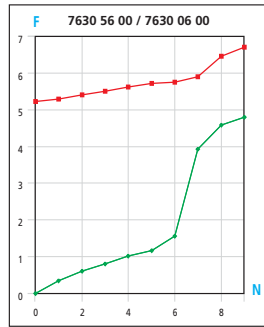
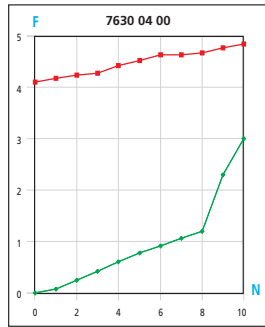
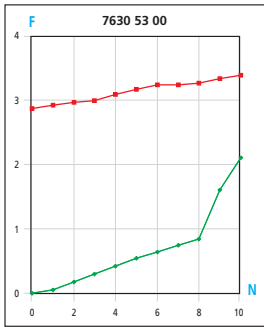
■ = return direction  
■ = controlled direction

**N** = number of turns  
**F** = flow in SCFM

# flow control performance characteristics

## plug-in flow controls

### 7630/7631/7030



87 psi



= return direction

= controlled direction

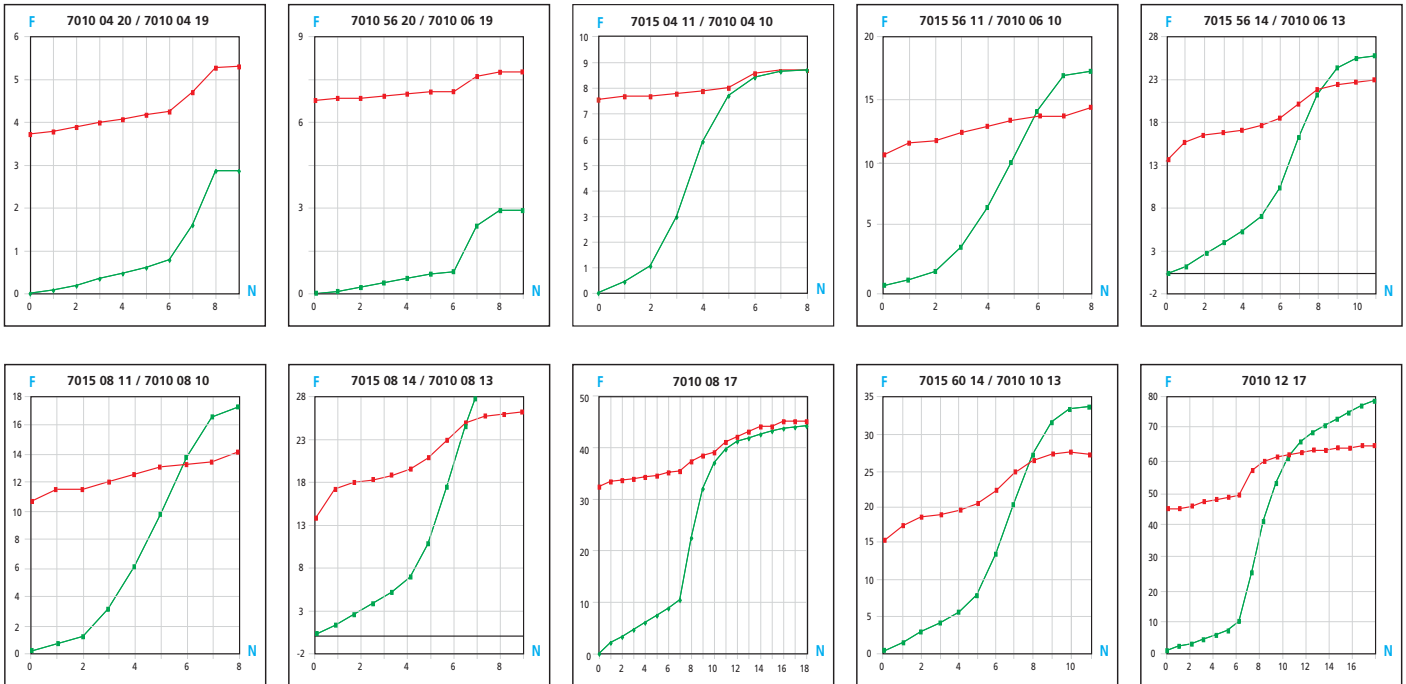
N = number of turns

F = flow in SCFM

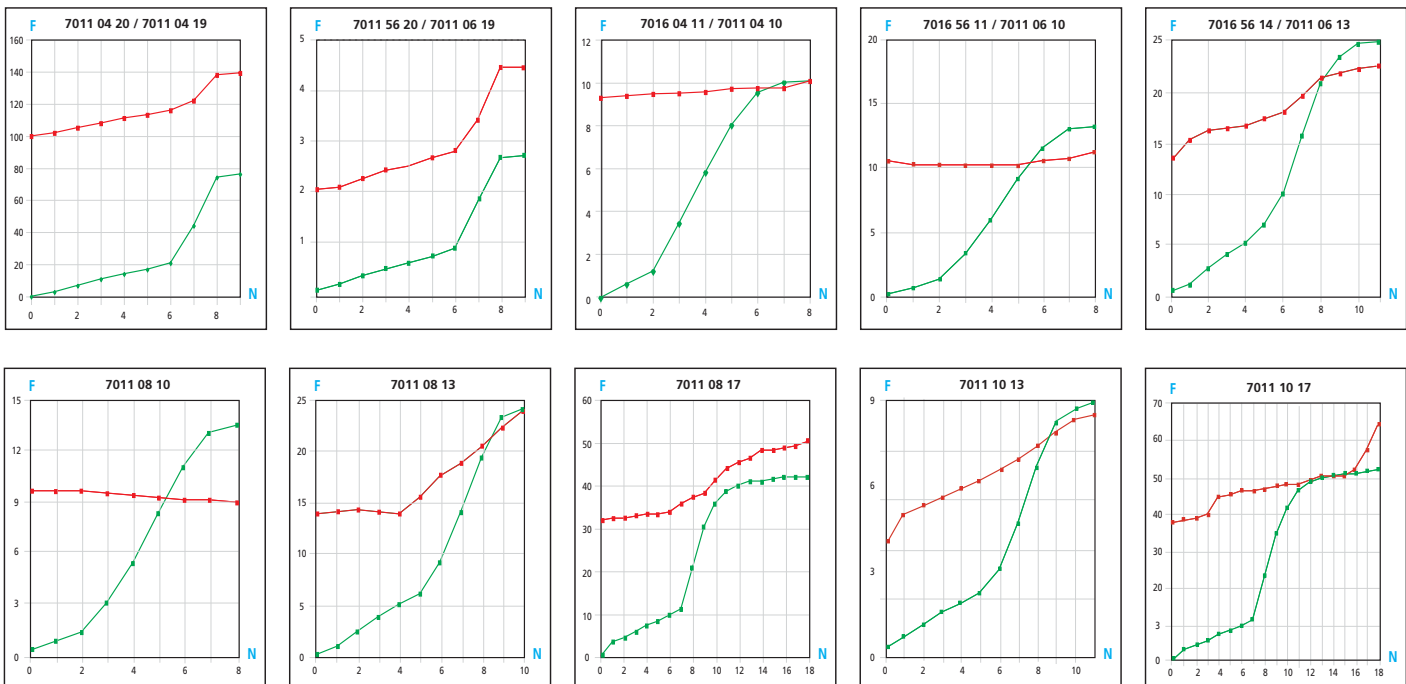
# flow control performance characteristics

## knobless flow controls

### 7010/7015



### 7011/7016



87 psi

■ = return direction

N = number of turns

■ = controlled direction

F = flow in SCFM

### 7012

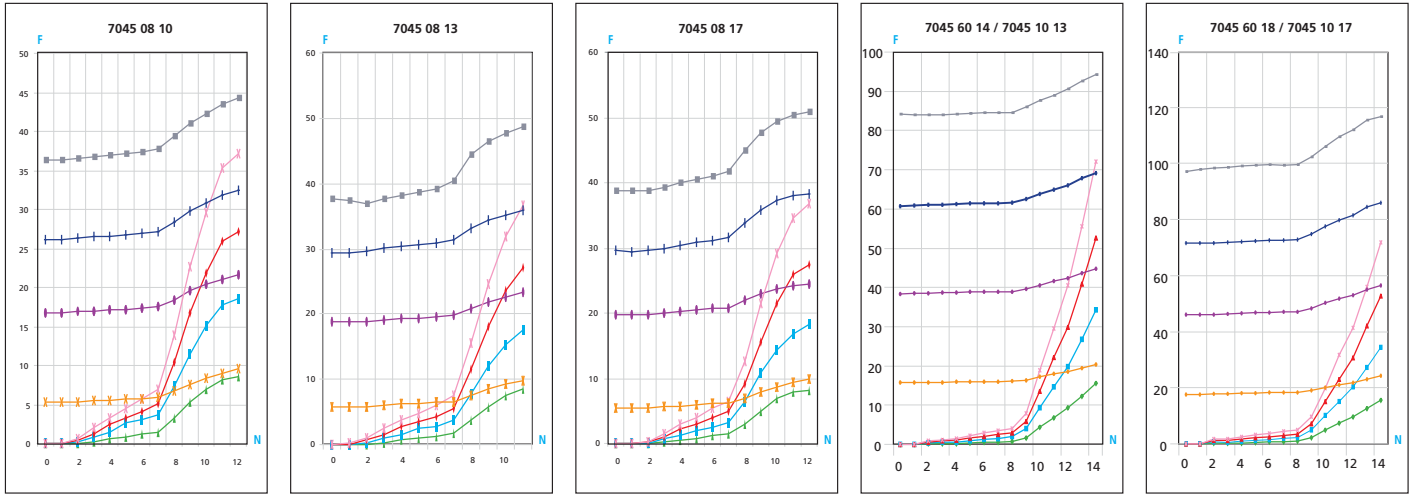
Flow characteristics of model 7012:

- meter out version: see model 7010 controlled direction
- meter in version: see model 7011 controlled direction

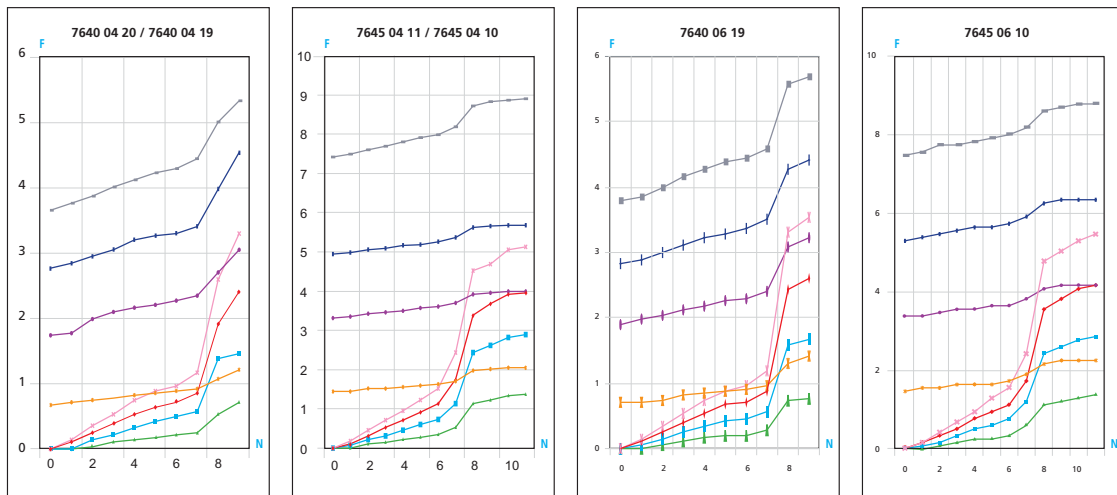
# flow control performance characteristics

## swivel outlet

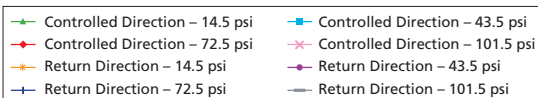
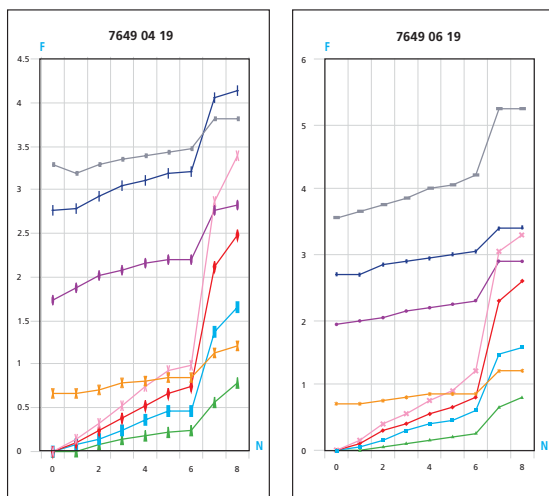
### 7045



### 7640/7645



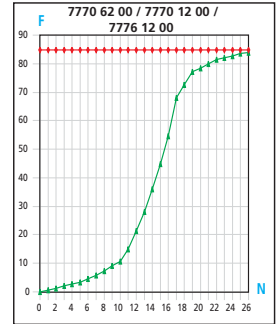
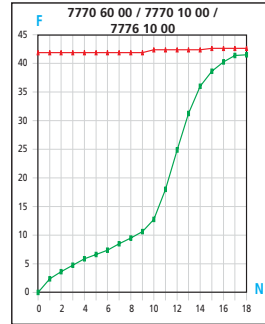
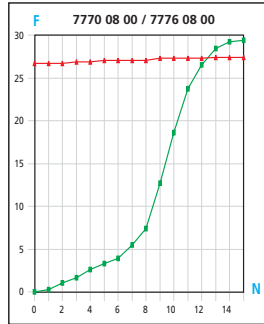
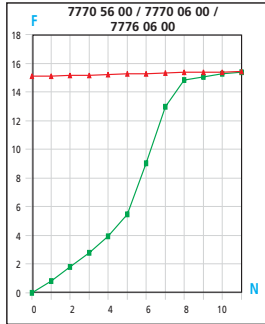
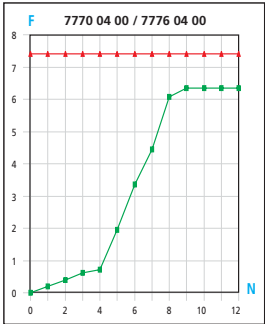
### 7649



# flow control performance characteristics

## in-line flow controls

### 7770/7776



87 psi

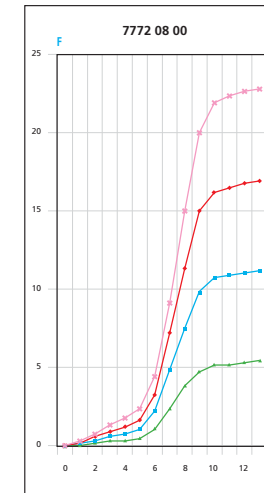
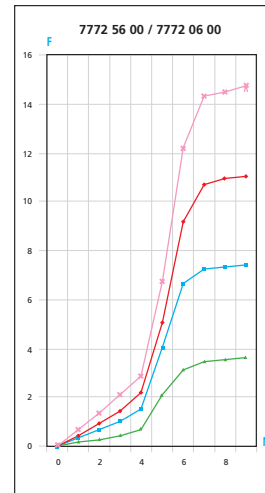
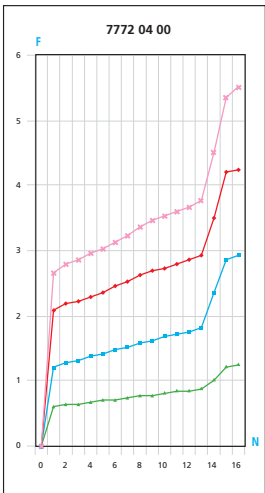
■ = return direction

**N** = number of turns

■ = controlled direction

**F** = flow in SCFM

### 7772



- Controlled Direction – 14.5 psi
- Controlled Direction – 43.5 psi
- Controlled Direction – 72.5 psi
- Controlled Direction – 101.5 psi
- Return Direction – 14.5 psi
- Return Direction – 43.5 psi
- Return Direction – 72.5 psi
- Return Direction – 101.5 psi

nickel-plated brass  
push-to-connect fittings  
for industrial applications  
system LF3200



# principle of system LF3200



Legris has put its years of experience as a leader in the connection market into the development of this performing brass push-to-connect forged fitting. The LF3200 range provides pneumatic connections in aggressive applications and harsh environments.

LF3200 is suitable for compressed air (lubricated or non-lubricated). The fitting is designed to perform in particularly harsh (e.g. weld-splatter) or abusive (e.g. steel-toed boot) environments. Tubing compatibility: Polyurethane and Nylon. Metal tubing may be used with specific preparation.

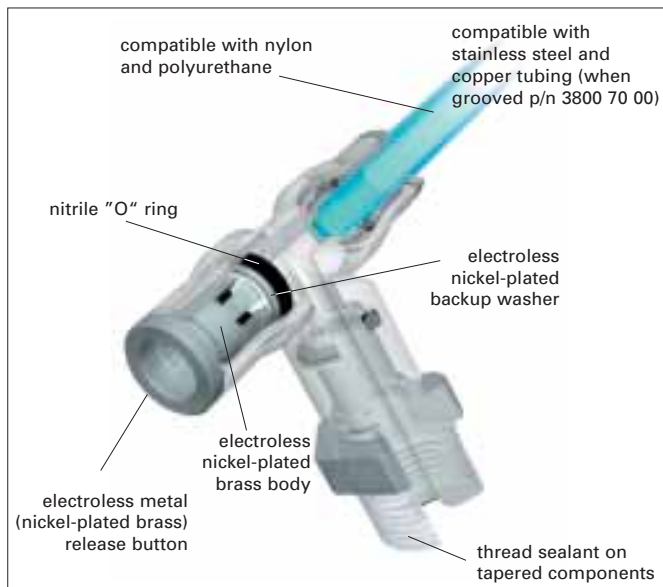
**Chemical Nickel-Plating:** For applications where the fitting is exposed to aggressive environments, better plating is required. Legris uses high phosphorous electroless nickel-plating for the LF3200 fitting range.

The electroless nickel-plating has a dull, flat finish. It adheres to more of the surface, such as in the root of the threads and grooves of the collet. It has better resistance to water, harsh detergents and other aggressive fluids and environments. As a result, the LF3200 series offers superior chemical, corrosion and abrasive resistance.

**Metal Button:** The LF3200 utilizes a metal release button more appropriate for harsh and abusive environments.

## technical specifications

This depends on the nature and thickness of the tube, surrounding temperature and that of the fluid used.



**All items in the LF3200 range are SILICONE FREE**

<b>suitable fluids</b>	compressed air						
<b>working pressure</b>	up to 290 psi						
<b>working temperature</b>	5°F to 180°F						
<b>materials of construction</b>	<b>body:</b> electroless nickel-plated brass <b>"O" ring:</b> nitrile <b>backup washer:</b> electroless nickel-plated brass <b>base:</b> electroless nickel-plated brass with thread sealant on tapered components						
<b>maximum tightening torque for LF3200 fittings:</b>	UNF & NPT thread	UNF	1/8"	1/4"	3/8"	1/2"	
	in. lb	13	70	100	250	308	

# advantages system LF3200

## for compressed air



## resistance to aggressive environments and fluids

- high phosphorous electroless nickel-plating
- all nickel-plated construction
  - body
  - push button
  - base
  - backup washer



## industrial applications

- LF3200 is suitable for many applications such as:
  - robotics
  - packaging equipment/machines
  - textile machinery
  - semi-conductor equipment
  - auto process (within auto industry)
  - pulp and paper
  - printing



## tried and tested technology

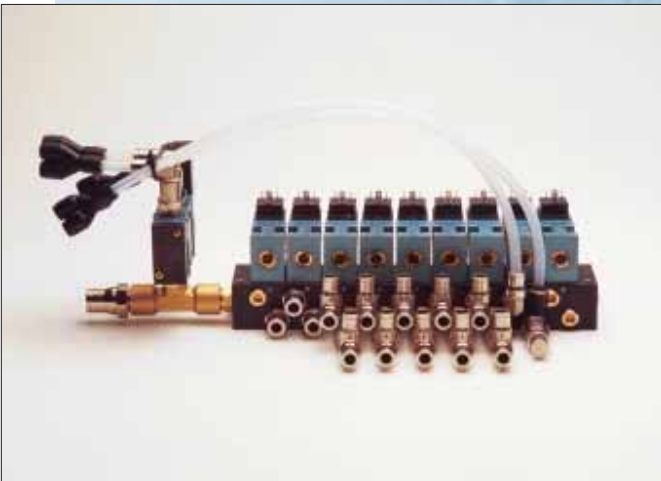
- instant manual connection and disconnection – no tools required



## compatible tubing

- semi-rigid nylon
- flexible polyurethane

# applications



# the complete range of LF3200 push-to-connect fittings

## threaded fittings

**3275**  
taper  
Page C6



**3201**  
UNF  
Page C6



**3215**  
taper  
Page C6



**3209**  
taper  
Page C7



**3299**  
UNF  
Page C7



**3208**  
taper  
Page C8



**3298**  
UNF  
Page C8



**3203**  
taper  
Page C8



**3293**  
UNF  
Page C8



## tube to tube fittings

**3206**  
Page C9



**3202**  
Page C9



**3204**  
Page C9



**3216**  
Page C9

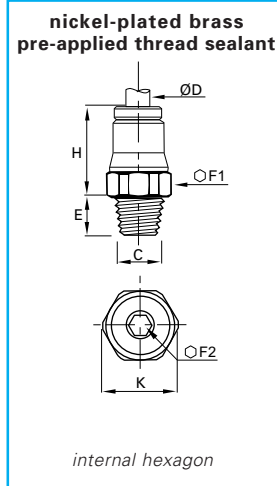


**3266**  
Page C9



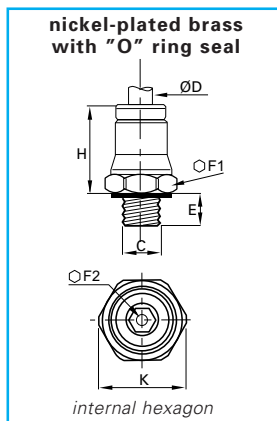
# threaded fittings

## 3275 male connector — fractional inch tube to NPT



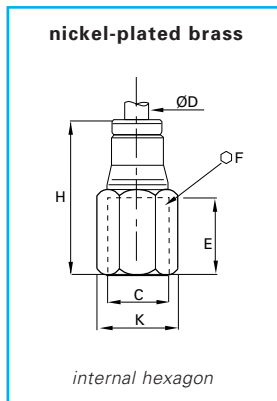
ØD in	C NPT		E in	F1 mm	F2 mm	H in	K in	oz
5/32	1/8	3275 04 11	.30	13	3	.59	.47	.34
5/32	1/4	3275 04 14	.43	14	3	.59	.59	.61
1/4	1/8	3275 56 11	.30	13	4	.67	.55	.42
1/4	1/4	3275 56 14	.43	14	4	.67	.59	.62
1/4	3/8	3275 56 18	.45	18	5	.67	.77	1.00
3/8	1/8	3275 60 11	.30	18	4	.97	.77	.89
3/8	1/4	3275 60 14	.43	18	7	.95	.77	1.04
3/8	3/8	3275 60 18	.45	18	8	.91	.77	1.16
3/8	1/2	3275 60 22	.59	22	8	.95	.94	2.03
1/2	1/4	3275 62 14	.43	22	7	.95	.94	1.42
1/2	3/8	3275 62 18	.45	22	9	.95	.94	1.49
1/2	1/2	3275 62 22	.59	22	10	.95	.94	1.77

## 3201 male connector — fractional inch tube to UNF



ØD in	C UNF		E in	F1 mm	F2 mm	H in	K in	oz
5/32	10-32	3201 04 20	.13	10	2.5	.63	.43	.28
1/4	10-32	3201 56 20	.13	13	2.5	.79	.55	.35

## 3215 female connector — fractional inch tube to NPT



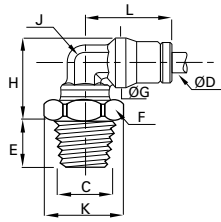
ØD in	C NPT		E in	F mm	H in	K in	oz
5/32	1/8	3215 04 11	.37	14	.98	.59	.60
5/32	1/4	3215 04 14	.55	17	1.16	.73	1.02
1/4	1/8	3215 56 11	.37	14	1.10	.59	.55
1/4	1/4	3215 56 14	.55	17	1.28	.73	1.15
3/8	1/4	3215 60 14	.55	17	1.50	.73	1.32
3/8	3/8	3215 60 18	.55	22	1.50	.94	1.97
1/2	3/8	3215 62 18	.55	22	1.52	.94	2.42
1/2	1/2	3215 62 22	.73	24	1.67	1.02	2.42

# threaded fittings

## 3209 male elbow — fractional inch tube to NPT



nickel-plated brass  
pre-applied thread sealant



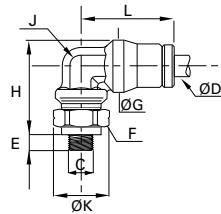
fitting will orientate about the body for positioning purposes

ØD in	C NPT		E in	F mm	G in	H in	J in	K in	L in	oz
5/32	1/8	3209 04 11	.30	13	.39	.59	.28	.47	.71	.47
5/32	1/4	3209 04 14	.43	14	.39	.67	.28	.59	.71	.71
1/4	1/8	3209 56 11	.30	13	.49	.69	.32	.47	.87	.62
1/4	1/4	3209 56 14	.43	14	.49	.75	.32	.59	.87	.81
1/4	3/8	3209 56 18	.45	18	.49	.75	.32	.77	.87	1.12
3/8	1/8	3209 60 11	.30	13	.67	.93	.47	.47	1.14	1.29
3/8	1/4	3209 60 14	.43	15	.67	.93	.47	.63	1.14	1.40
3/8	3/8	3209 60 18	.45	18	.67	1.02	.47	.77	1.14	1.57
3/8	1/2	3209 60 22	.59	22	.67	1.06	.47	.94	1.14	2.27
1/2	1/4	3209 62 14	.43	15	.79	1.14	.59	.63	1.22	1.65
1/2	3/8	3209 62 18	.45	18	.79	1.14	.59	.77	1.22	1.90
1/2	1/2	3209 62 22	.59	22	.79	1.14	.59	.94	1.22	2.41

## 3299 male elbow — fractional inch tube to UNF



nickel-plated brass  
with "O" ring seal



fitting will orientate about the body for positioning purposes

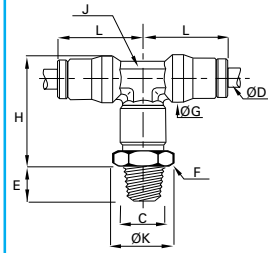
ØD in	C UNF		E in	F mm	G in	H in	J in	K in	L in	oz
5/32	10-32	3299 04 20	.13	10	.39	.71	.28	.43	.71	.39

# threaded fittings

## 3208 male branch tee — fractional inch tube to NPT to tube



nickel-plated brass  
pre-applied thread sealant



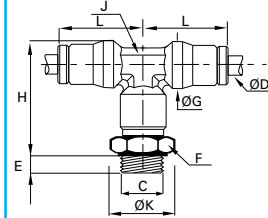
fitting will orientate about the body for positioning purposes

ØD in	C NPT		E in	F mm	G in	H in	J in	K in	L in	oz
5/32	1/8	3208 04 11	.30	13	.39	.97	.28	.47	.71	.71
5/32	1/4	3208 04 14	.43	14	.39	1.04	.28	.60	.71	1.07
1/4	1/8	3208 56 11	.30	13	.49	1.18	.32	.55	.87	1.16
1/4	1/4	3208 56 14	.43	14	.49	1.22	.32	.60	.87	1.38
1/4	3/8	3208 56 18	.45	18	.49	1.22	.32	.77	.87	1.60
3/8	1/4	3208 60 14	.43	18	.67	1.54	.47	.77	1.14	2.57
3/8	3/8	3208 60 18	.45	18	.67	1.61	.47	.77	1.14	2.82
3/8	1/2	3208 60 22	.59	22	.67	1.61	.47	.94	1.14	3.29
1/2	1/4	3208 62 14	.43	18	.79	1.61	.59	.94	1.22	3.12
1/2	3/8	3208 62 18	.45	22	.79	1.85	.59	.94	1.22	3.53
1/2	1/2	3208 62 22	.59	22	.79	1.89	.59	.94	1.22	4.00

## 3298 male branch tee — fractional inch tube to UNF to tube



nickel-plated brass  
with "O" ring seal



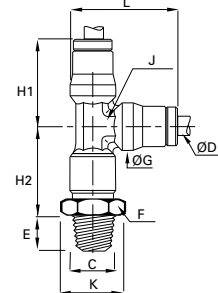
fitting will orientate about the body for positioning purposes

ØD in	C UNF		E in	F mm	G in	H in	J in	K in	L in	oz
5/32	10-32	3298 04 20	.13	10	.39	1.00	.28	.47	.71	.69

## 3203 male run tee — fractional inch tube to tube to NPT



nickel-plated brass  
pre-applied thread sealant



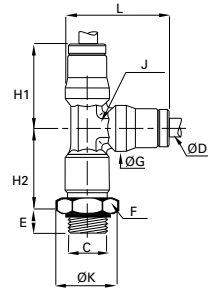
fitting will orientate about the body for positioning purposes

ØD in	C NPT		E in	F mm	G in	H1 in	H2 in	J in	K in	L in	oz
5/32	1/8	3203 04 11	.30	13	.39	.71	.77	.28	.47	.91	.71
5/32	1/4	3203 04 14	.43	14	.39	.71	.85	.28	.59	.91	1.07
1/4	1/8	3203 56 11	.30	13	.49	.87	.93	.32	.55	1.12	1.16
1/4	1/4	3203 56 14	.43	14	.49	.87	.97	.32	.59	1.12	1.38
1/4	3/8	3203 56 18	.45	18	.49	.87	.97	.32	.77	1.12	1.60
3/8	1/4	3203 60 14	.43	18	.67	1.14	1.20	.47	.77	1.48	2.57
3/8	3/8	3203 60 18	.45	18	.67	1.14	1.28	.47	.77	1.48	2.82
3/8	1/2	3203 60 22	.59	22	.67	1.14	1.28	.47	.94	1.48	3.29
1/2	1/4	3203 62 14	.43	18	.79	1.22	1.46	.59	.94	1.61	3.27
1/2	3/8	3203 62 18	.45	22	.79	1.22	1.46	.59	.94	1.61	3.53
1/2	1/2	3203 62 22	.59	22	.79	1.22	1.50	.59	.94	1.61	4.00

## 3293 male run tee — fractional inch tube to tube to UNF



nickel-plated brass  
with "O" ring seal

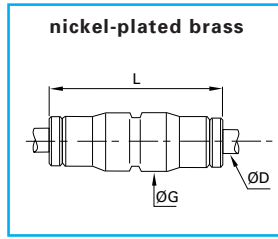


fitting will orientate about the body for positioning purposes

ØD in	C UNF		E in	F mm	G in	H1 in	H2 in	J in	K in	L in	oz
5/32	10-32	3293 04 20	.13	10	.39	.71	.81	.28	.47	.91	.69

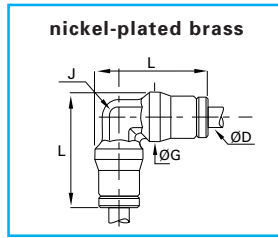
# tube to tube fittings

## 3206 straight union — fractional inch tube to tube



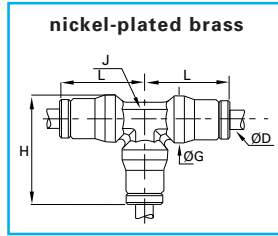
ØD in		G in	L in	
5/32	3206 04 00	.39	1.20	.35
1/4	3206 56 00	.49	1.44	.58
5/16	3206 08 00	.59	1.48	.76
3/8	3206 60 00	.67	1.87	1.31
1/2	3206 62 00	.79	1.89	1.49

## 3202 union elbow — fractional inch tube to tube



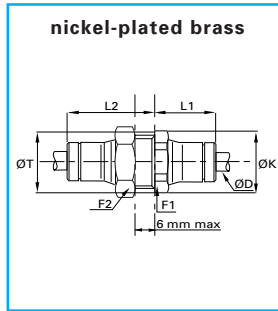
ØD in		G in	J in	L in	
5/32	3202 04 00	.39	.28	.91	.37
1/4	3202 56 00	.49	.32	1.12	.60
5/16	3202 08 00	.59	.39	1.22	.81
3/8	3202 60 00	.67	.47	1.48	1.39
1/2	3202 62 00	.79	.59	1.61	1.71

## 3204 union tee — fractional inch tube to tube to tube



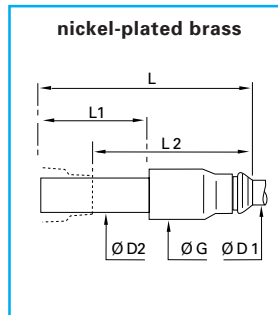
ØD in		G in	H in	J in	L in	
5/32	3204 04 00	.39	.91	.28	.71	.52
1/4	3204 56 00	.49	1.12	.32	.87	.89
5/16	3204 08 00	.59	1.22	.39	.93	1.13
3/8	3204 60 00	.67	1.48	.47	1.14	1.99
1/2	3204 62 00	.79	1.61	.59	1.22	2.31

## 3216 bulkhead connector — fractional inch tube to tube



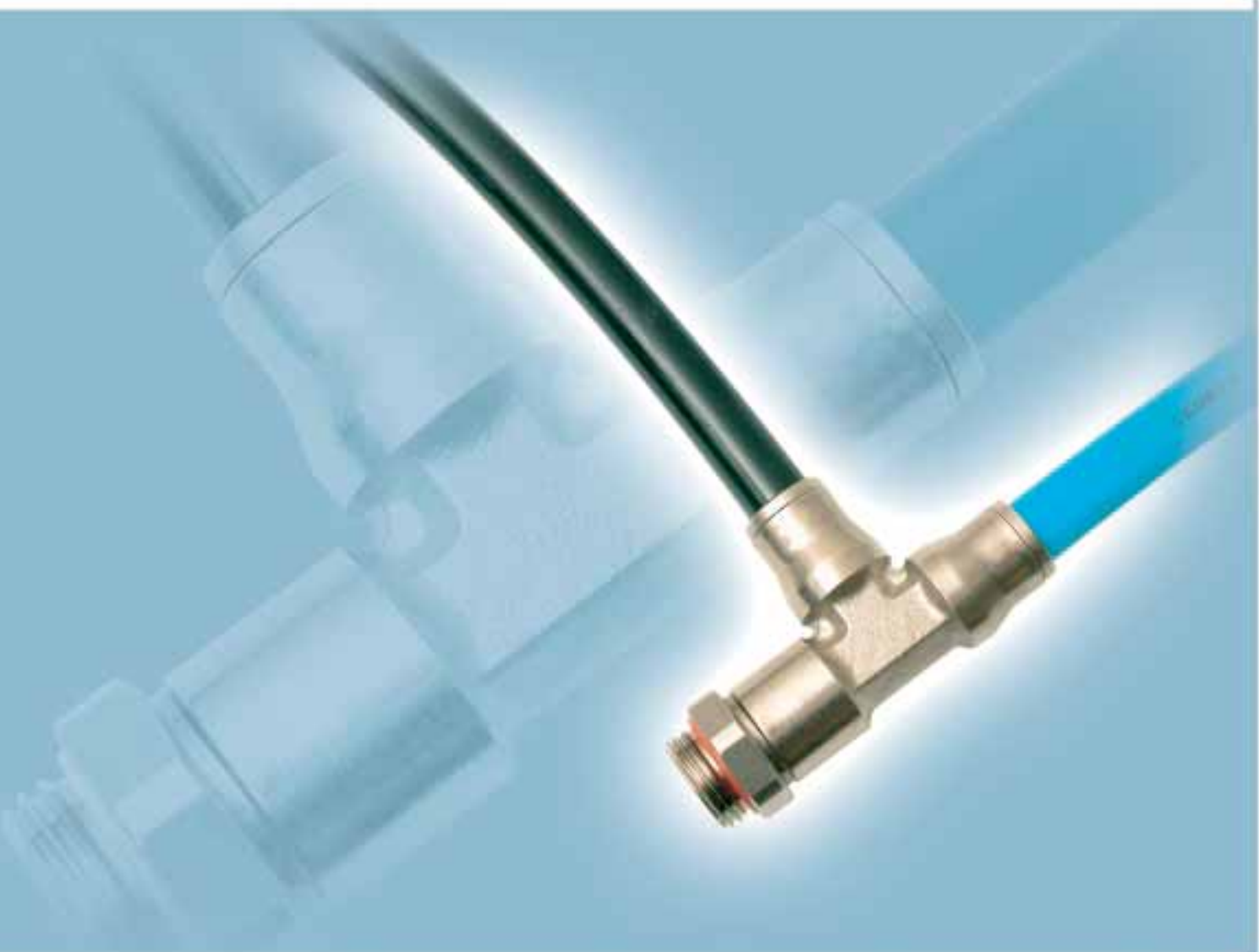
ØD in		F1 mm	F2 mm	K in	L1 in	L2 in	T in	
5/32	3216 04 00	13	14	.55	.55	.79	.49	.69
1/4	3216 56 00	16	17	.69	.67	.89	.59	1.00
5/16	3216 08 00	18	19	.77	.73	.93	.67	1.27
3/8	3216 60 00	22	27	.95	.87	1.10	.85	2.22
1/2	3216 62 00	24	24	1.02	.89	1.14	1.04	2.97

## 3266 plug-in reducer — fractional inch



ØD1 in	ØD2 in		G in	L in	L1 in	L2 in	
5/32	1/4	3266 04 56	.39	1.36	.75	.69	.27
5/32	5/16	3266 04 08	.39	1.40	.79	.71	.35
1/4	3/8	3266 56 60	.49	1.46	.79	.77	.54
1/4	1/2	3266 56 62	.49	1.71	.98	.83	.55
3/8	1/2	3266 60 62	.67	1.97	1.02	1.04	1.26

nickel-plated brass  
push-to-connect fittings  
for liquid, gas and food processing  
industry system LF3600



# principle of system LF3600

## for liquids and gases



Legris, inventors of the push-to-connect fitting, have earned a reputation as the leading specialist in push-to-connect fitting technology. Legris has employed over 30 years of experience in the research and development of the LF3600 range. LF3600 extends Legris 'know-how' from pneumatics to other industrial-applications.

The principle of the connection is the same. Instant manual connection and disconnection. No need for special tools.

Made of nickel-plated brass and fitted with a FKM "O" ring protected by a washer, LF3600 forged fittings may be used with all liquid and gaseous fluids compatible with these components, materials and temperatures up to 250°F (depending on the tube material).

**Chemical Nickel-Plating:** For applications where the fitting is exposed to aggressive environments, better plating is required. Legris uses high phosphorous electroless nickel-plating for the LF3600 fitting range.

The electroless nickel-plating has a dull, flat finish. It adheres to more of the surface, such as in the root of the threads and grooves of the collet. It has better resistance to water, harsh detergents and other aggressive fluids and environments. As a result, the LF3600 series offers superior chemical, corrosion and abrasive resistance.



All materials, seals, and plating can come in contact with food.

For the quality and cleanliness of the LF3600 products, they are placed in sealed bags inside a Legris box.

## technical specification

This depends on the nature and thickness of the tube, on surrounding temperature and that of the fluid used.



<b>working temperature</b>	from -4° to 250° F. The allowable working temperature depends on the type of tube used.					
<b>working pressure</b>	7 to 290 psi. The maximum pressure of the circuit depends on the type of tube used.					
<b>suitable fluids</b>	all liquids and gases compatible with the materials of the fitting. Examples: food fluids, cleaning/cold & hot water, steam, oils...					
<b>materials of construction</b>	<b>body:</b>	high phosphorus FDA chemical nickel-plated brass				
	<b>backup washer:</b>	high phosphorus FDA chemical nickel-plated brass				
	<b>spring collet:</b>	high phosphorus FDA chemical nickel-plated brass				
	<b>"O" ring:</b>	FKM (FPM) fluoroelastomer conforming to FDA standard				
	<b>base:</b>	high phosphorus FDA chemical nickel-plated brass				
	Thread sealant does not come on these products. This is so that the appropriate sealant for the application can be applied.					
<b>maximum tightening torque for LF3600 fittings, BSPP threads and M5: (with 0602 sealing washer)</b>	parallel thread	M5 x 0.8	G1/8"	G1/4"	G3/8"	G1/2"
	in. lb	14	70	100	266	300

All items in the LF3600 range are **SILICONE FREE**

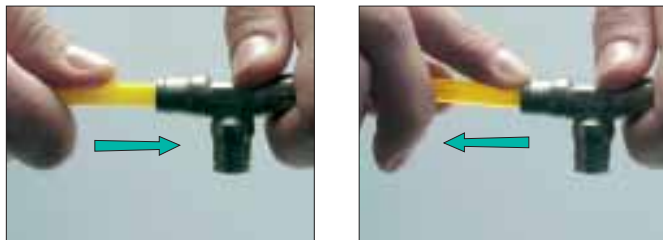
# advantages of system LF3600

## for liquids and gases



### wide range

- multiple configurations and accessories
- from 5/32" to 1/2" O.D. and 4mm to 14 mm O.D.
- NPT, BSP taper, BSP parallel and metric threads
- ideal for many types of tubing
- inch to metric tube adapters

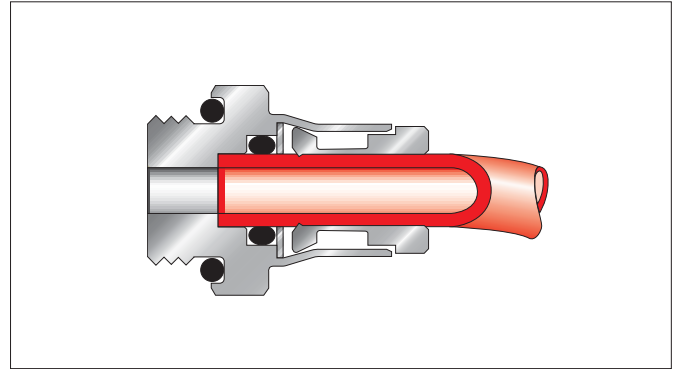


### time saving connection and disconnection

- **instant manual connection and disconnection**
- **easy installation**

### numerous applications

- suited to many **industries** including the **food industry** :  
- numerous suitable fluids (food fluids, cleaning / hot and cold water, steam, oil...)
- components and chemical nickel coating conforming to FDA standard



### increased performance

- **excellent resistance to abrasion and corrosion** due to high phosphorus chemical nickel-plating individually deposited on brass components.
- working temperature from  $-4^{\circ}$  to  $+25^{\circ}\text{F}$  due to "**all metal**" components (except o-ring)
- **full flow fluid passage**, minimal pressure drop
- **automatic sealing** of BSPP and metric versions via a captive seal at base
- backup washer protects the o-ring

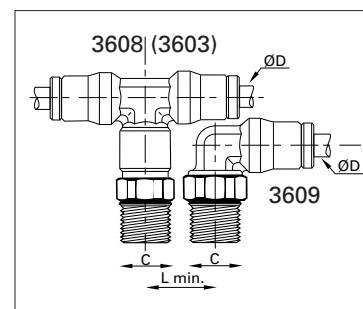


### compactness and aesthetics

Each model has been redesigned to meet all requirements :

- compactness due to **small overall dimensions** with inter-connectability for configurations pictured above
- aesthetic with modernized external shapes

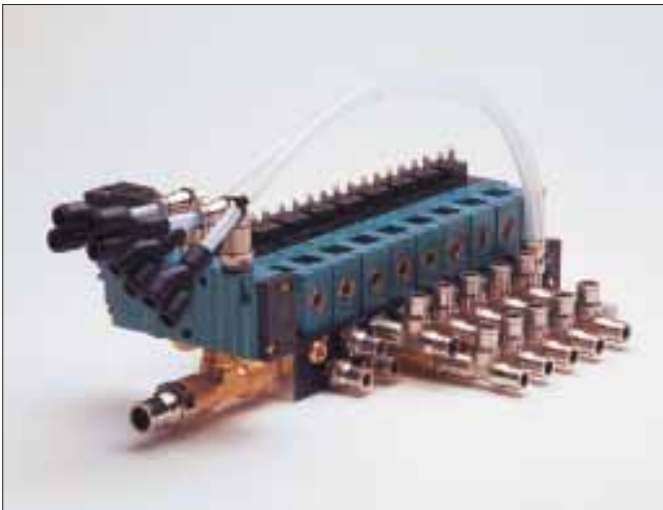
### close spacing of LF3600 products



ØD in	C NPT	L min in
5/32	1/8	.57
5/32	1/4	.69
1/4	1/8	.63
1/4	1/4	.69
1/4	3/8	.79
3/8	1/4	.83
3/8	3/8	.89
3/8	1/2	1.00
1/2	3/8	.93
1/2	1/2	1.00

*Our production process includes individual unit quality control and dating, for all LF 3600 push-to-connect fittings, in order to guarantee their quality and traceability.*

# system LF3600 for liquids and gases



# the complete range of LF3600 push-to-connect fittings

## threaded fittings

**3675**  
taper  
Page D6



**3621**  
taper  
Page D6



**3601**  
UNF, parallel and metric  
Page D7



**3681**  
metric  
Page D7



**3614**  
parallel and metric  
Page D7



**3631**  
parallel and metric  
Page D7



**3609**  
taper  
Page D8



**3669**  
parallel  
Page D8



**3629**  
taper  
Page D8



**3699**  
UNF, parallel and M5  
Page D9



**3600**  
Page D9



**3608**  
taper  
Page D10



**3603**  
taper  
Page D10



**3698**  
UNF, parallel and metric  
Page D11



**3693**  
UNF, parallel and metric  
Page D11



## tube to tube fittings

**3606**  
Page D12



**3602**  
Page D12



**3604**  
Page D12



## banjo body

**3618**  
parallel and metric  
Page D11



## bulkhead connectors

**3616**  
Page D13



**3636**  
parallel  
Page D13



**3639**  
Page D13



## accessories

**3666**  
Page D14



**3668**  
Page D14



**3667**  
Page D14



**3122**  
Page D15



**3622**  
Page D15



**3120**  
Page D15



**3620**  
Page D15



**3126**  
Page D15

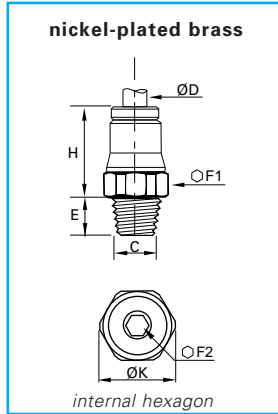


**3626**  
Page D15



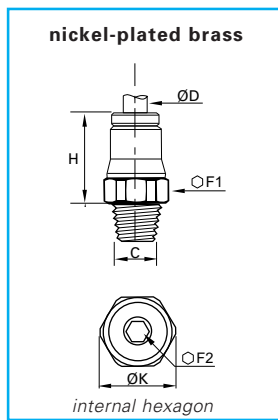
# threaded fittings

## 3675 male connector — fractional inch tube to NPT



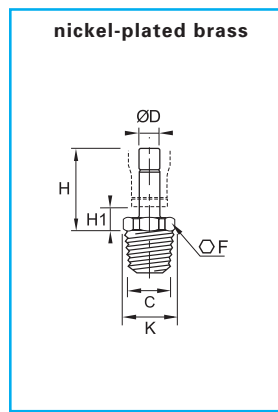
ØD in	C NPT		E in	F1 mm	F2 mm	H in	K in	
5/32	1/8	3675 04 11	.30	11	3	.59	.47	.28
5/32	1/4	3675 04 14	.43	14	3	.59	.59	.56
1/4	1/8	3675 56 11	.30	13	4	.67	.55	.42
1/4	1/4	3675 56 14	.43	14	4	.67	.59	.60
1/4	3/8	3675 56 18	.45	18	5	.67	.77	.72
3/8	1/8	3675 60 11	.30	18	4	.97	.77	.99
3/8	1/4	3675 60 14	.43	18	7	.95	.77	1.13
3/8	3/8	3675 60 18	.45	18	8	.91	.77	1.16
3/8	1/2	3675 60 22	.59	22	8	.95	.94	1.90
1/2	3/8	3675 62 18	.45	22	9	.95	.94	1.52
1/2	1/2	3675 62 22	.59	22	10	.95	.94	1.87

## 3675 male connector — metric tube to BSPT



ØD mm	C BSPT		F1 mm	F2 mm	H mm	K mm	
4	R1/8	3675 04 10	10	3	15	11	.008
4	R1/4	3675 04 13	14	3	15	15	.016
6	R1/8	3675 06 10	13	4	17	14	.012
6	R1/4	3675 06 13	14	4	17	15	.017
8	R1/8	3675 08 10	15	5	19	16	.016
8	R1/4	3675 08 13	15	6	18	16	.019
8	R3/8	3675 08 17	17	6	18.5	18.5	.028
10	R1/4	3675 10 13	18	7	23	19.5	.032
10	R3/8	3675 10 17	18	8	22.5	19.5	.033
10	R1/2	3675 10 21	22	8	22.5	24	.057
12	R1/4	3675 12 13	20	7	25.5	22	.040
12	R3/8	3675 12 17	20	9	24	22	.043
12	R1/2	3675 12 21	22	10	23	24	.053
14	R3/8	3675 14 17	22	9	27	24	.049
14	R1/2	3675 14 21	24	11	26	26	.061

## 3621 male stud standpipe — metric tube to BSPT



ØD mm	C BSPT		F1 mm	H mm	H1 mm	K mm	
4	R1/8	3621 04 10	10	21	7	11	0.007
4	R1/4	3621 04 13	14	21	7	15	0.014
6	R1/8	3621 06 10	10	23.5	6.5	11	0.008
6	R1/4	3621 06 13	10	23.5	6.5	15	0.015
8	R1/8	3621 08 10	10	24	6.5	11	0.008
8	R1/4	3621 08 13	14	24	6.5	15	0.016
10	R1/4	3621 10 13	14	22	6.5	15	0.018
10	R3/8	3621 10 17	17	30	7.5	18.5	0.029
12	R3/8	3621 12 17	17	31	7.5	18.5	0.024
12	R1/2	3621 12 21	22	38	7.5	24	0.041
14	R1/2	3621 14 21	22	33	8	24	0.042

= suitable for food applications

### legris.com's advantage points



You will also find the **LF 3600 push-to-connect fittings** on the on-line catalog of our web site for both **inch** and **metric** tubes.

[www.legris.com](http://www.legris.com)

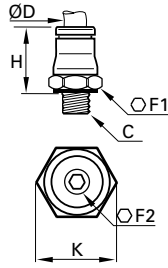


# threaded fittings





## 3601 male connector — tube to UNF, BSPP or metric



nickel-plated brass  
with "O" ring seal



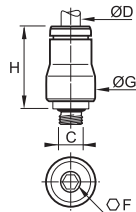
internal hexagon

ØD in	C UNF	   fractional inch	F1 mm	F2 mm	H in	K in	
5/32	10-32	<a href="#">3601 04 20</a>	10	2.5	.61	.43	.21
1/4	10-32	<a href="#">3601 56 20</a>	13	2.5	.75	.55	.35
mm BSPP/metric	metric		mm	mm	mm	mm	
4	M5x0.8	<a href="#">3601 04 19</a>	10	2.5	15.5	11	.006
4	G1/8	<a href="#">3601 04 10</a>	13	3	14.5	14	.010
4	M6x1	<a href="#">3601 04 52</a>	10	3	16	11	.010
4	G1/4	<a href="#">3601 04 13</a>	16	3	14.5	17.5	.018
4	M8x1	<a href="#">3601 04 56</a>	11	3	14.5	12	.010
6	M5x0.8	<a href="#">3601 06 19</a>	13	2.5	19	14	.010
6	G1/8	<a href="#">3601 06 10</a>	13	4	17.5	14	.013
6	M10x1	<a href="#">3601 06 60</a>	13	4	17.5	14	.013
6	G1/4	<a href="#">3601 06 13</a>	16	4	17	17.5	.019
8	G1/8	<a href="#">3601 08 10</a>	15	5	20	16	.016
8	G1/4	<a href="#">3601 08 13</a>	16	6	18	17.5	.020
8	G3/8	<a href="#">3601 08 17</a>	20	6	19	22	.029
10	G1/4	<a href="#">3601 10 13</a>	18	7	25	19.5	.030
10	G3/8	<a href="#">3601 10 17</a>	20	8	22.5	22	.033
10	G1/2	<a href="#">3601 10 21</a>	24	8	22.5	26	.045
12	G1/4	<a href="#">3601 12 13</a>	20	7	27	22	.040
12	G3/8	<a href="#">3601 12 17</a>	20	9	26	22	.041
12	G1/2	<a href="#">3601 12 21</a>	24	10	23.5	26	.052
14	G3/8	<a href="#">3601 14 17</a>	22	9	28	24	.047
14	G1/2	<a href="#">3601 14 21</a>	24	11	26.5	26	.052

## 3681 male connector — metric tube to M5



nickel-plated brass  
with "O" ring seal



internal hexagon

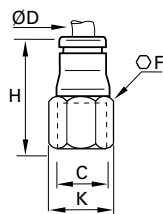
ØD mm	C M5		F mm	G mm	H mm	
4	M5x0.8	<a href="#">3681 04 19</a>	2.5	10	16	.005



 = suitable for food applications

## 3614 female connector — metric tube to BSPP or M5



nickel-plated brass

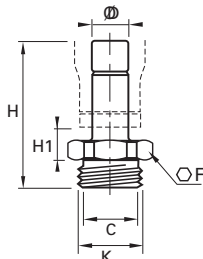




ØD mm BSPP/metric	C BSPP/metric		F mm	H mm	K mm	
4	M5x0.8	<a href="#">3614 04 19</a>	10	22	11	.010
4	G1/8	<a href="#">3614 04 10</a>	14	25	15	.017
4	G1/4	<a href="#">3614 04 13</a>	17	29	18.5	.027
6	G1/8	<a href="#">3614 06 10</a>	14	27.5	15	.018
6	G1/4	<a href="#">3614 06 13</a>	17	31.5	18.5	.029
8	G1/8	<a href="#">3614 08 10</a>	15	28.5	16	.023
8	G1/4	<a href="#">3614 08 13</a>	17	32.5	18.5	.030
10	G3/8	<a href="#">3614 10 17</a>	22	38	24	.056
12	G3/8	<a href="#">3614 12 17</a>	22	39	24	.060
12	G1/2	<a href="#">3614 12 21</a>	24	43.5	26	.068

## 3631 male standpipe — metric tube to BSPP or M5



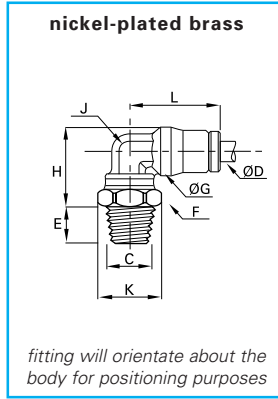
nickel-plated brass  
with 'O' ring seal



ØD mm BSPP/metric	C BSPP/metric		F mm	H mm	H1 mm	K mm	
4	M5x0.8	<a href="#">3631 04 19</a>	13	25.5	7	14	0.003
4	G1/8	<a href="#">3631 04 10</a>	16	26.5	7	17.5	0.007
4	G1/4	<a href="#">3631 04 13</a>	8	25	7.5	8.7	0.011
6	G1/8	<a href="#">3631 06 10</a>	13	28	6.5	14	0.008
6	G1/4	<a href="#">3631 06 13</a>	16	29	6.5	17.5	0.012
8	G1/8	<a href="#">3631 08 10</a>	13	28.5	6.5	14	0.009
8	G1/4	<a href="#">3631 08 13</a>	16	29.5	6.5	17.5	0.013
8	G3/8	<a href="#">3631 08 17</a>	20	30.5	7.5	22	0.021
10	G1/4	<a href="#">3631 10 13</a>	16	34.5	6.5	17.5	0.017
10	G3/8	<a href="#">3631 10 17</a>	20	35.5	7.5	22	0.023
10	G1/2	<a href="#">3631 10 21</a>	24	37	7.5	26	0.029
12	G3/8	<a href="#">3631 12 17</a>	20	36.5	7.5	22	0.021
12	G1/2	<a href="#">3631 12 21</a>	24	38	7.5	26	0.031
14	G1/2	<a href="#">3631 14 21</a>	24	40	8	26	0.031

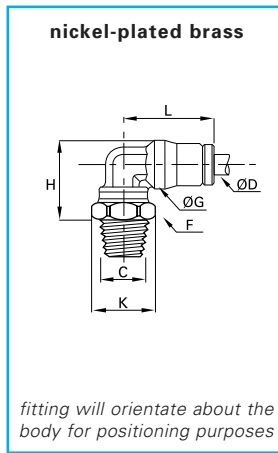
# threaded fittings

## 3609 male elbow — fractional inch tube to NPT



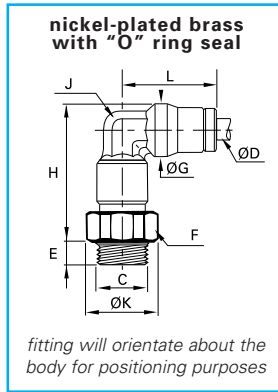
ØD in	C NPT		E in	F mm	G in	H in	J in	K in	L in	kg
5/32	1/8	3609 04 11	.30	11	.39	.59	.28	.47	.71	.56
5/32	1/4	3609 04 14	.43	14	.39	.67	.28	.60	.71	.81
1/4	1/8	3609 56 11	.30	11	.49	.69	.32	.47	.87	.92
1/4	1/4	3609 56 14	.43	14	.49	.75	.32	.60	.87	1.09
1/4	3/8	3609 56 18	.45	18	.49	.75	.32	.77	.87	1.20
3/8	1/4	3609 60 14	.43	15	.67	.93	.47	.63	1.14	2.40
3/8	3/8	3609 60 18	.45	18	.67	1.02	.47	.77	1.14	2.36
3/8	1/2	3609 60 22	.59	22	.67	1.06	.47	.94	1.14	2.54
1/2	3/8	3609 62 18	.45	18	.79	1.14	.59	.77	1.22	3.28
1/2	1/2	3609 62 22	.59	22	.79	1.14	.59	.94	1.22	3.49

## 3609 male elbow — metric tube to BSPT



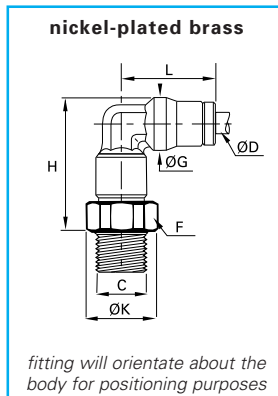
ØD mm	C BSPT		F mm	G mm	H mm	K mm	L mm	kg
4	R1/8	3609 04 10	11	10	15	12	18	.016
4	R1/4	3609 04 13	14	10	17	15	18	.023
6	R1/8	3609 06 10	11	12	17.5	12	21.5	.026
6	R1/4	3609 06 13	14	12	19	15	21.5	.031
8	R1/8	3609 08 10	11	15	19.5	12	23.5	.040
8	R1/4	3609 08 13	14	15	21	15	23.5	.044
8	R3/8	3609 08 17	17	15	21	18.5	23.5	.048
10	R1/4	3609 10 13	15	17.5	23.5	16	29	.068
10	R3/8	3609 10 17	17	17.5	25.5	18.5	29	.067
12	R1/4	3609 12 13	15	19.5	26	16	31	.087
12	R3/8	3609 12 17	17	19.5	28.5	18.5	31	.093
12	R1/2	3609 12 21	21	19.5	28.5	23	31	.099
14	R3/8	3609 14 17	19	21.5	29	21	34	.066
14	R1/2	3609 14 21	24	21.5	30	26	34	.076

## 3669 extended male elbow — metric tube to BSPP or M5



ØD mm	C BSPP/ M5		F mm	G mm	H mm	K mm	L mm	kg
4	M5x0.8	3669 04 19	10	10	27.5	11	18	0.015
4	G1/8	3669 04 10	13	10	25.5	14	18	0.017
6	G1/8	3669 06 10	13	12	31	14	18	0.023
6	G1/4	3669 06 13	16	12	30.5	17.5	21.5	0.028
8	G1/8	3669 08 10	14	15	33.5	15	23.5	0.031
8	G1/4	3669 08 13	16	15	34	17.5	23.5	0.036
10	G1/4	3669 10 13	18	17.5	42	19.5	29	0.053
10	G3/8	3669 10 17	20	17.5	41	22	29	0.056
12	G1/4	3669 12 13	20	19.5	47	22	31	0.075
12	G3/8	3669 12 17	20	19.5	46	22	31	0.072
14	G1/2	3669 14 21	24	21.5	49	26	34	0.094

## 3629 extended male elbow — metric tube to BSPT



ØD mm	C BSPT		F mm	G mm	H mm	K mm	L mm	kg
4	R1/8	3629 04 10	10	10	24.5	11	18	.016
6	R1/8	3629 06 10	13	12	29.5	14	21.5	.025
6	R1/4	3629 06 13	14	12	30.5	15	21.5	.031
8	R1/8	3629 08 10	14	15	32.5	15	23.5	.031
8	R1/4	3629 08 13	14	15	34	15	23.5	.036
10	R1/4	3629 10 13	18	17.5	39	19.5	29	.053

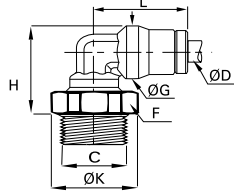
 = suitable for food applications

# threaded fittings

## 3699 male elbow — tube to UNF, BSPP or M5



nickel-plated brass with "O" ring seal



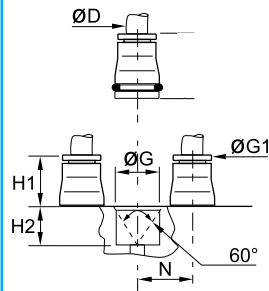
fitting will orientate about the body for positioning purposes

ØD in	C UNF	fractional inch	F mm	G in	H in	K in	L in	kg
5/32	10-32	3699 04 20	10	.39	.71	.43	.71	.49
mm BSPP/M5		metric	mm	mm	mm	mm	mm	kg
4	M5	3699 04 19	10	10	18	11	18	.014
4	G1/8	3699 04 10	13	10	17	14	18	.018
4	M6	3699 04 52	10	10	18	11	18	.020
4	G1/4	3699 04 13	16	10	17.5	17.5	18	.023
4	M8	3699 04 56	11	10	18	12	18	.024
6	G1/8	3699 06 10	13	12	19	14	21.5	.026
6	M10	3699 06 60	13	12	19	14	21.5	.030
6	G1/4	3699 06 13	16	12	19.5	17.5	21.5	.032
8	G1/8	3699 08 10	13	15	20.5	14	23.5	.040
8	G1/4	3699 08 13	16	15	21.5	17.5	23.5	.044
8	G3/8	3699 08 17	20	15	21.5	22	23.5	.049
10	G1/4	3699 10 13	16	17.5	27	17.5	29	.067
10	G3/8	3699 10 17	20	17.5	25.5	22	29	.071
12	G1/4	3699 12 13	16	19.5	29.5	17.5	31	.087
12	G3/8	3699 12 17	20	19.5	28.5	22	31	.087
12	G1/2	3699 12 21	24	19.5	28.5	26	31	.107
14	G3/8	3699 14 17	20	21.5	29	22	34	.121
14	G1/2	3699 14 21	24	21.5	29.5	26	34	.124

## 3600 cartridge



nickel-plated brass



ØD mm	fractional inch	G mm	H1 mm	H2 mm	N mm	kg
4	3600 04 00	10	9	8.5	11	.006
6	3600 06 00	12	11	8.5	13.5	.009
8	3600 08 00	15	12.5	8.5	16	.014
10	3600 10 00	17.5	14.5	10.5	20	.020
12	3600 12 00	19.5	15	10.5	22.5	.022
14	3600 14 00	21.5	16.5	12	25	.032

The use of this cartridge

- avoids the need to cut threads
- permits the part to be press fitted
- enables instant tube connection and disconnection

Please contact us to discuss the choice of material into which the cartridge will be inserted.

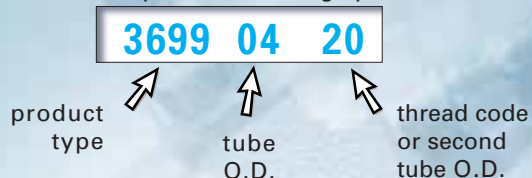
= suitable for food applications

### Identification

Part numbers have been chosen by a method of mnemonics. Each LF3600 fitting is identified by:

- product type
- the outside diameter of the tube
- the thread code or second tube O.D.

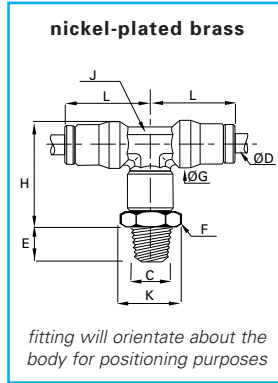
Example of numbering system



If the nylon sealing washers are incompatible with the application, system LF3600 may be used with copper washer 0138. Details on this washer can be found in the Accessories section of this catalog, section H.

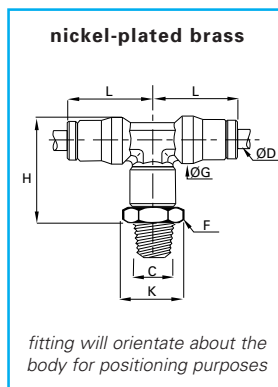
# threaded fittings

## 3608 male branch tee — fractional inch tube to NPT to tube



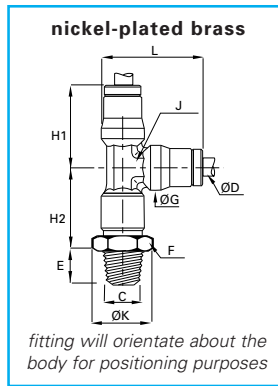
ØD in	C NPT		E in	F mm	G in	H in	J in	K in	L in	
5/32	1/8	3608 04 11	.30	11	.39	.87	.28	.47	.71	.71
5/32	1/4	3608 04 14	.43	14	.39	1.04	.28	.59	.71	.93
1/4	1/8	3608 56 11	.30	13	.49	1.18	.32	.55	.87	1.16
1/4	1/4	3608 56 14	.43	14	.49	1.22	.32	.59	.87	1.34
1/4	3/8	3608 56 18	.45	18	.49	1.22	.32	.77	.87	1.54
3/8	1/4	3608 60 14	.43	18	.67	1.54	.47	.77	1.14	2.89
3/8	3/8	3608 60 18	.45	18	.67	1.61	.47	.77	1.14	2.82
3/8	1/2	3608 60 22	.59	22	.67	1.61	.47	.94	1.14	3.10
1/2	3/8	3608 62 18	.45	22	.79	1.85	.59	.94	1.22	3.81
1/2	1/2	3608 62 22	.59	22	.79	1.89	.59	.94	1.22	4.41

## 3608 male branch tee — metric tube to BSPT to tube



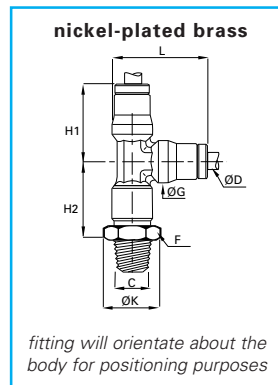
ØD mm	C BSPT		F mm	G mm	H mm	K mm	L mm	
4	R1/8	3608 04 10	10	10	24.5	11	18	.020
6	R1/8	3608 06 10	13	12	29.5	14	21.5	.033
6	R1/4	3608 06 13	14	12	30.5	15	21.5	.038
8	R1/8	3608 08 10	14	15	32.5	15	23.5	.049
8	R1/4	3608 08 13	14	15	34	15	23.5	.052
10	R1/4	3608 10 13	18	17.5	39	19.5	29	.082
10	R3/8	3608 10 17	18	17.5	41	19.5	29	.074
12	R3/8	3608 12 17	21	19.5	46.5	23	31	.108
14	R1/2	3608 14 21	22	21.5	50.5	24	34	.142

## 3603 male run tee — fractional inch tube to tube to NPT



ØD in	C NPT		E in	F mm	G in	H1 in	H2 in	J in	K in	L in	
5/32	1/8	3603 04 11	.30	11	.39	.71	.77	.28	.47	.91	.71
5/32	1/4	3603 04 14	.43	14	.39	.71	.85	.28	.59	.91	.93
1/4	1/8	3603 56 11	.30	13	.49	.87	.93	.32	.55	1.12	1.16
1/4	1/4	3603 56 14	.43	14	.49	.87	.97	.32	.59	1.12	1.31
1/4	3/8	3603 56 18	.45	18	.49	.87	.97	.32	.77	1.12	1.54
3/8	1/4	3603 60 14	.43	18	.67	1.14	1.20	.47	.77	1.48	2.89
3/8	3/8	3603 60 18	.45	18	.67	1.14	1.28	.47	.77	1.48	2.82
3/8	1/2	3603 60 22	.59	22	.67	1.14	1.28	.47	.94	1.48	3.10
1/2	3/8	3603 62 18	.45	22	.79	1.22	1.46	.59	.94	1.61	4.02
1/2	1/2	3603 62 22	.59	22	.79	1.22	1.50	.59	.94	1.61	4.16

## 3603 male run tee — metric tube to tube to BSPT

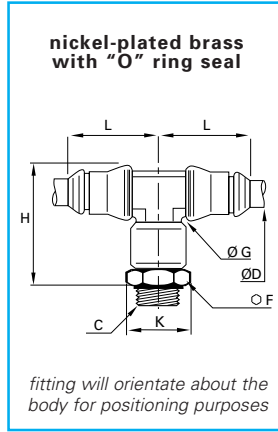


ØD mm	C BSPT		F mm	G mm	H1 mm	H2 mm	K mm	L mm	
4	R1/8	3603 04 10	10	10	18	19.5	11	23	.020
6	R1/8	3603 06 10	13	12	21.5	23.5	14	28	.033
6	R1/4	3603 06 13	14	12	21.5	24.5	15	28	.037
8	R1/8	3603 08 10	14	15	23.5	25	15	31	.048
8	R1/4	3603 08 13	14	15	23.5	26.5	15	31	.053
10	R1/4	3603 10 13	18	17.5	29	30.5	19.5	37.5	.082
10	R3/8	3603 10 17	18	17.5	29	32.5	19.5	37.5	.074
12	R3/8	3603 12 17	21	19.5	31	36.5	23	40.5	.114
14	R1/2	3603 14 21	22	21.5	34	40	24	45	.142

= suitable for food applications

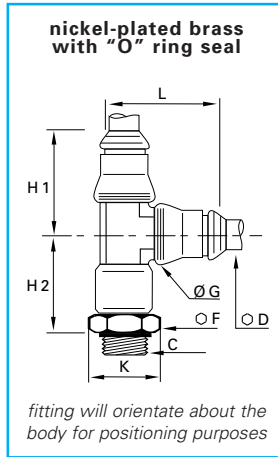
# threaded fittings

## 3698 male branch tee — tube to UNF, BSPP or M5 to tube



ØD in	C UNF	fractional inch	F mm	G in	H in	K in	L in	oz
5/32	10-32	3698 04 20	10	.39	1.00	.47	.71	.60
mm BSPP/M5		metric	mm	mm	mm	mm	mm	kg
4	M5x0.8	3698 04 19	10	10	27.5	11	18	.017
4	G1/8	3698 04 10	13	10	25.5	14	18	.022
6	G1/8	3698 06 10	13	12	31	14	21.5	.032
6	G1/4	3698 06 13	16	12	30.5	17.5	21.5	.038
8	G1/8	3698 08 10	14	15	33.5	15	23.5	.049
8	G1/4	3698 08 13	16	15	34	17.5	23.5	.053
10	G1/4	3698 10 13	18	17.5	42	19.5	29	.081
12	G3/8	3698 12 17	21	19.5	46	23	31	.112
14	G1/2	3698 14 21	24	21.5	49	26	34	.109

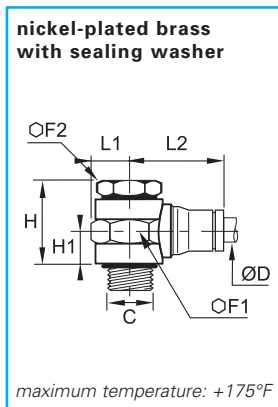
## 3693 male run tee — tube to tube to UNF, BSPP or M5



ØD in	C UNF	fractional inch	F mm	G in	H1 in	H2 in	K in	L in	oz
5/32	10-32	3693 04 20	10	.39	.71	.81	.47	.91	.64
mm BSPP/M5		metric	mm	mm	mm	mm	mm	mm	kg
4	M5x0.8	3693 04 19	10	10	18	22.5	11	23	.018
4	G1/8	3693 04 10	13	10	18	20.5	14	23	.021
6	G1/8	3693 06 10	13	12	21.5	25	14	28	.032
6	G1/4	3693 06 13	16	12	21.5	24.5	17.5	28	.039
8	G1/8	3693 08 10	14	15	23.5	26.5	15	31	.048
8	G1/4	3693 08 13	16	15	23.5	26.5	17.5	31	.053
10	G1/4	3693 10 13	18	17.5	29	33	19.5	37.5	.081
12	G3/8	3693 12 17	21	19.5	31	36.5	23	40.5	.111
14	G1/2	3693 14 21	24	21.5	34	38.5	26	45	.129

= suitable for food applications

## 3618 single banjo — metric tube to BSPP or M5

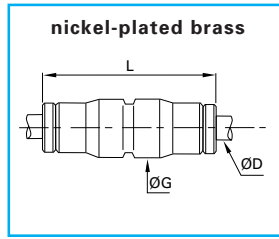


ØD mm	C BSPP/ metric		F1 mm	F2 mm	H mm	H1 mm	L1 mm	L2 mm	kg
4	M5x0.8	3618 04 19	10	8	14.5	6.5	6	18.5	0.011
4	G1/8	3618 04 10	17	14	23	9.5	10	20.5	0.041
6	M5x0.8	3618 06 19	10	8	15	7	6	22.5	0.014
6	G1/8	3618 06 10	17	14	23	9.5	10	23.5	0.045
6	G1/4	3618 06 13	22	17	22	9	13	25.5	0.068
8	G1/8	3618 08 10	17	14	23	9.5	10	26	0.046
8	G1/4	3618 08 13	22	17	22	9	13	27.5	0.066
10	G3/8	3618 10 17	22	22	33	14	13	32	0.105

suitable for industrial applications only

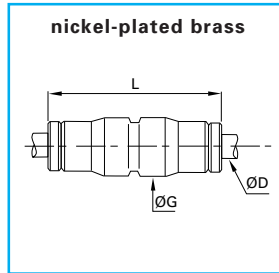
# tube to tube fittings

## 3606 straight union — fractional inch tube to tube



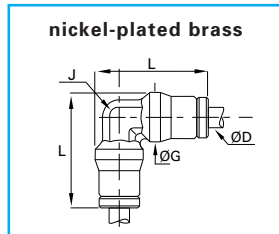
ØD in		G in	L in	
5/32	3606 04 00	.39	1.20	.32
1/4	3606 56 00	.49	1.44	.53
5/16	3606 08 00	.59	1.48	.81
3/8	3606 60 00	.67	1.87	1.27
1/2	3606 62 00	.79	1.89	1.69

## 3606 straight union — metric tube to tube



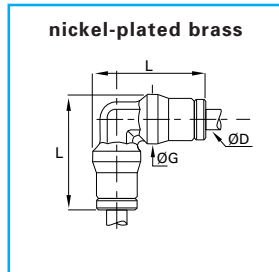
ØD mm		G mm	L mm	
4	3606 04 00	10	30.5	.009
6	3606 06 00	12	36.5	.015
8	3606 08 00	15	37.5	.023
10	3606 10 00	17.5	47.5	.036
12	3606 12 00	19.5	50	.048
14	3606 14 00	21.5	52.5	.054

## 3602 union elbow — fractional inch tube to tube



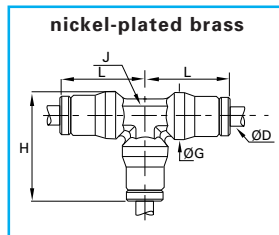
ØD in		G in	J in	L in	
5/32	3602 04 00	.39	.28	.91	.32
1/4	3602 56 00	.49	.32	1.12	.60
5/16	3602 08 00	.59	.39	1.22	.88
3/8	3602 60 00	.67	.47	1.48	1.34
1/2	3602 62 00	.79	.59	1.61	1.98

## 3602 union elbow — metric tube to tube



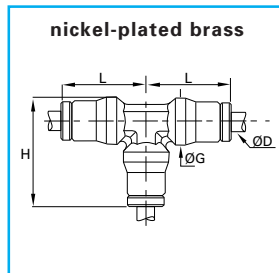
ØD mm		G mm	L mm	
4	3602 04 00	10	23	.009
6	3602 06 00	12	28	.017
8	3602 08 00	15	31	.025
10	3602 10 00	17.5	37.5	.038
12	3602 12 00	19.5	40.5	.056
14	3602 14 00	21.5	45	.068

## 3604 union tee — fractional inch tube to tube to tube



ØD in		G in	H in	J in	L in	
5/32	3604 04 00	.39	.91	.28	.71	.46
1/4	3604 56 00	.49	1.12	.32	.87	.81
5/16	3604 08 00	.59	1.22	.39	.93	1.20
3/8	3604 60 00	.67	1.48	.47	1.14	1.90
1/2	3604 62 00	.79	1.61	.59	1.22	2.68

## 3604 union tee — metric tube to tube to tube

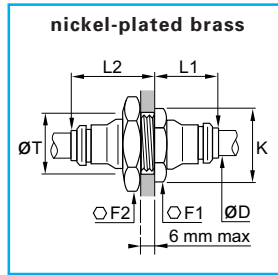


ØD mm		G mm	H mm	L mm	
4	3604 04 00	10	23	18	.013
6	3604 06 00	12	28	21.5	.023
8	3604 08 00	15	31	23.5	.034
10	3604 10 00	17.5	37.5	29	.054
12	3604 12 00	19.5	40.5	31	.076
14	3604 14 00	21.5	45	34	.096

= suitable for food applications

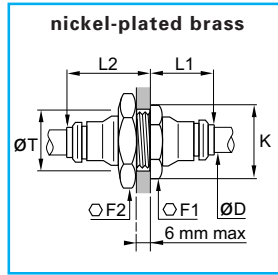
# bulkhead connectors

## 3616 bulkhead connector — fractional inch tube to tube



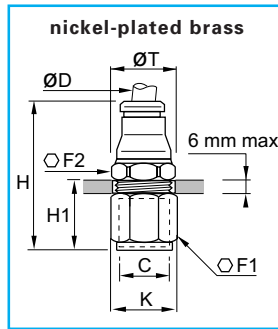
ØD in		F1 mm	F2 mm	K in	L1 in	L2 in	T in	⚖️
5/32	3616 04 00	13	14	.55	.55	.79	.49	.64
1/4	3616 56 00	16	17	.69	.67	.89	.59	1.06
5/16	3616 08 00	18	19	.77	.73	.93	.67	1.34
3/8	3616 60 00	22	27	.95	.87	1.10	.85	2.29
1/2	3616 62 00	24	24	1.16	.89	1.14	1.04	2.50

## 3616 bulkhead connector — metric tube to tube



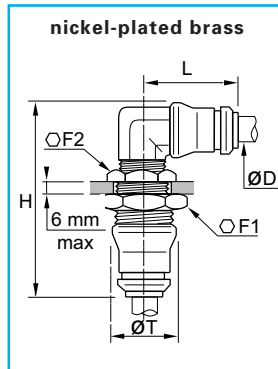
ØD mm		F1 mm	F2 mm	K mm	L1 mm	L2 mm	T mm	⚖️
4	3616 04 00	13	14	14	14	20	12.5	.018
6	3616 06 00	16	17	17.5	17	22	15	.030
8	3616 08 00	18	19	19.5	18.5	23.5	17	.038
10	3616 10 00	22	27	24	21.5	26.5	21	.065
12	3616 12 00	24	24	26	23	27	23	.071
14	3616 14 00	27	27	29.5	25.5	29.5	25	.098

## 3636 female bulkhead connector — metric tube to BSPP



ØD mm	C BSPP		F1 mm	F2 mm	H mm	H1 mm	K mm	T mm	⚖️
4	G1/8	3636 04 10	14	14	30.5	11	15	13	.024
6	G1/8	3636 06 10	17	17	32.5	11	18.5	15	.032
6	G1/4	3636 06 13	17	17	37	15	18.5	15	.036
8	G1/8	3636 08 10	19	19	34	10.5	21	17	.041
8	G1/4	3636 08 13	19	19	38	14.5	21	17	.040
10	G3/8	3636 10 17	22	27	42.5	16	24	21	.075
12	G3/8	3636 12 17	24	24	43	16	26	23	.092
12	G1/2	3636 12 21	27	24	48.5	21.5	29.5	23	.116

## 3639 bulkhead elbow — metric tube to tube



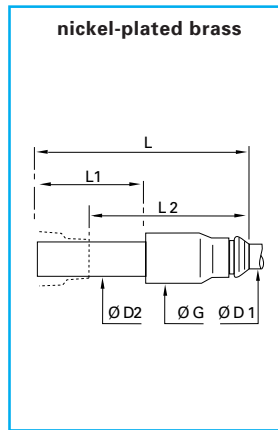
ØD mm		F1 mm	F2 mm	H mm	K mm	L mm	T mm	⚖️
4	3639 04 00	13	14	35	14	18	12.5	.024
6	3639 06 00	16	17	40.5	17.5	21.5	15	.038
8	3639 08 00	18	19	44	19.5	23.5	17	.054
10	3639 10 00	22	27	51	24	29	21	.088
12	3639 12 00	24	24	55	26	31	23	.117
14	3639 14 00	27	27	59	29.5	34	25	.144

= suitable for food applications

Fittings will orientate about the body for positioning purpose.

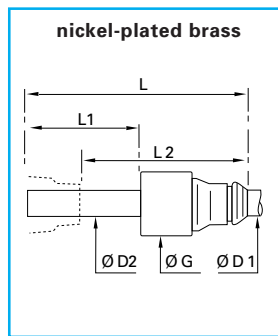
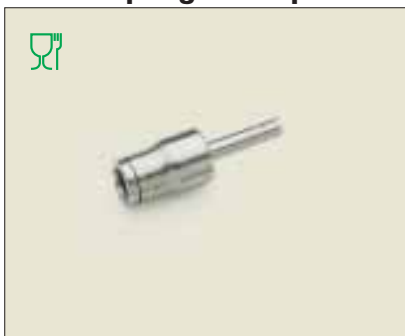
# plug-in accessories

## 3666 plug-in reducer — metric



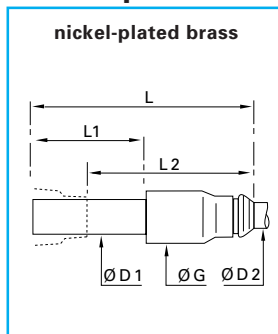
ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	L2 mm	kg
4	6	<a href="#">3666 04 06</a>	10	34.5	19	17.5	.005
4	8	<a href="#">3666 04 08</a>	10	35.5	20	18	.006
6	8	<a href="#">3666 06 08</a>	12	37	20	19.5	.003
6	10	<a href="#">3666 06 10</a>	12	43.5	25	21	.009
8	10	<a href="#">3666 08 10</a>	15	44	25	21.5	.012
8	12	<a href="#">3666 08 12</a>	15	45	26	21.5	.013
10	12	<a href="#">3666 10 12</a>	17.5	50	26	26.5	.018
12	14	<a href="#">3666 12 14</a>	19.5	53	28	28.5	.039

## 3668 plug-in expander — metric



ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	L2 mm	kg
6	4	<a href="#">3668 06 04</a>	17	42	22	28	.013

## 3667 plug-in — metric/inch adapter



ØD1 mm	ØD2 in		G mm	L mm	L1 mm	L2 mm	kg
6	1/4	<a href="#">3667 06 56</a>	12.5	38	19	20.5	.016
10	3/8	<a href="#">3667 10 60</a>	17	49.5	25	27	.020
12	1/2	<a href="#">3667 12 62</a>	20	51	26	27.5	.040

This item allows fractional inch tube to be used with fittings designed for use with mm tubing.

= suitable for food applications

**LF3600 push-to-connect fittings** allow connection with **various types of tubing** presented in this catalog:

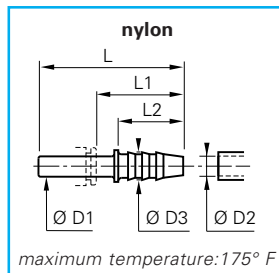
- semi-rigid nylon tube  
1/8" to 1/2" O.D. – page M7  
4mm to 14mm O.D. – page M9
- flexible polyurethane tube  
1/8" to 1/2" O.D. – page M11  
4mm to 14mm O.D. – page M13
- low density polyethylene  
1/8" to 1/2" O.D. – page M15  
4mm to 12mm O.D. – page M15
- fluoropolymer FEP140 tube  
1/8" to 1/2" O.D. – page M16  
4mm to 12mm O.D. – page M16



This catalog includes details of a range of brass accessories compatible with LF3600. Please refer to the Accessories section H.

# plug-in accessories

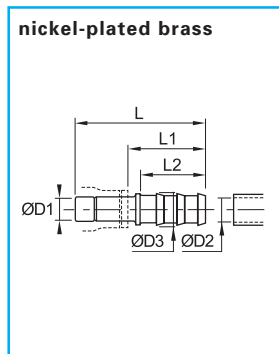
## 3122 barbed connector — fractional inch



ØD1 in	ØD2 in	ØD3 in		L in	L1 in	L2 in	
5/32	.12	.20	3122 04 53	1.46	.98	.67	.11
5/32	.20	.28	3122 04 05	1.46	.98	.67	.11
5/16	.25	.34	3122 08 56	1.55	.83	.67	.04
5/16	.32	.39	3122 08 08	1.75	1.02	.87	.04
3/8	.32	.39	3122 60 08	1.97	1.16	.87	.11

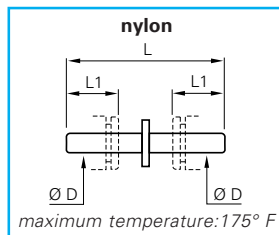
Dimensions for ØD2 are I.D. of the tube.

## 3622 plug-in barbed connector — metric



ØD1 mm	ØD2 mm	ØD3 mm		L mm	L1 mm	L2 mm	
4	3.2	5	3622 04 53	40.5	27	22.5	0.003
4	5	7	3622 04 05	40.5	27	22.5	0.004
6	5	7	3622 06 05	43	27	22.5	0.006
8	6.3	8.3	3622 08 56	42	25	22.5	0.008
8	8	10	3622 08 08	44	27	22.5	0.009
10	6.3	10	3622 10 56	47.5	25.5	22.5	0.011
10	8	8.3	3622 10 08	47.5	25.5	22.5	0.011
12	8	10	3622 12 08	48.5	25.5	22.5	0.013
12	10	12	3622 12 10	48.5	25.5	22.5	0.014
12	12.5	14.5	3622 12 62	57	34	29.5	0.019
14	12.5	14.5	3622 14 62	57.5	33	29.5	0.022
14	14	16	3622 14 14	59.5	35	29.5	0.023

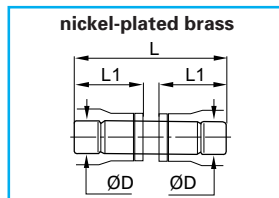
## 3120 double male union — fractional inch



ØD in		L in	L1 in	
5/32	3120 04 00	1.36	.47	.04
3/16	3120 55 00 85*	1.24	.57	.12
1/4	3120 56 00	1.52	.57	.03
5/16	3120 08 00	1.61	.73	.07
3/8	3120 60 00	2.03	.81	.07
1/2	3120 62 00 85*	2.13	.86	.46

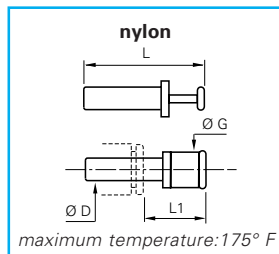
\*nickel-plated brass

## 3620 double male union — metric



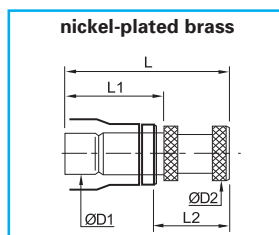
ØD mm		L mm	L1 mm	
4	3620 04 00	31	14	.002
6	3620 06 00	36.5	17	.005
8	3620 08 00	37.5	17.5	.007
10	3620 10 00	47.5	22.5	.010
12	3620 12 00	49.5	23.5	.014
14	3620 14 00	53	25	.017

## 3126 plug — fractional inch



ØD in		G in	L in	L1 in	
1/8	3126 53 00	.24	1.30	.85	.05
5/32	3126 04 00	.16	1.18	.61	.04
3/16	3126 55 00	.27	1.36	.79	.06
1/4	3126 56 00	.32	1.44	.87	.06
5/16	3126 08 00	.39	1.38	.69	.07
3/8	3126 60 00	.46	1.67	.87	.10
1/2	3126 62 00	.58	1.91	.85	.18

## 3626 plug — metric



ØD1 mm	ØD2 mm		L mm	L1 mm	L2 mm	
4	6	3626 04 00	25.5	17	11.5	.004
6	8	3626 06 00	30.5	19.5	13.5	.009
8	10	3626 08 00	33	20	16	.010
10	12	3626 10 00	40	25	18	.015
12	14	3626 12 00	43	26	20	.025
14	16	3626 14 00	47	28	22.5	.029

LF3800  
stainless steel  
push-to-connect fittings



# principle of system LF3800

## stainless steel push-to-connect fitting system



The **LF3800** range provides the advantages of push-to-connect fittings – instant connection and disconnection – for a wider range of industrial applications. All are stainless steel construction and provided with a FKM "O" ring, LF3800 offers excellent resistance to aggressive environments and fluids.

To suit most applications, models are available:

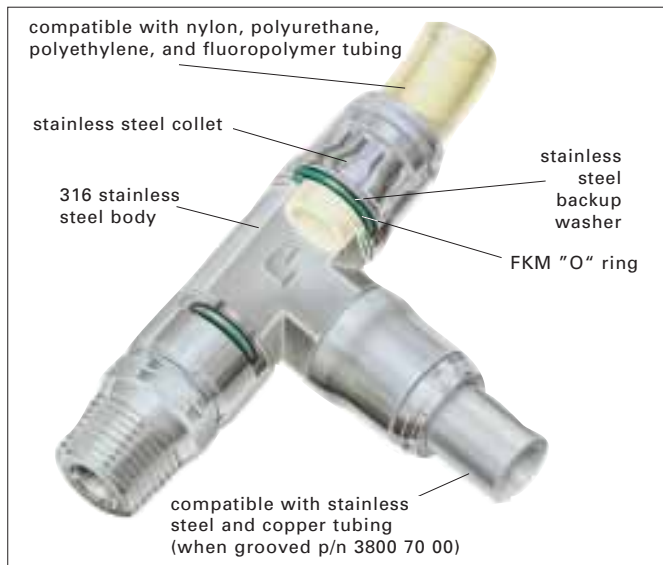
- for inch O.D. tubing with NPT thread.
- for metric tubing with BSP taper thread, BSP parallel thread and metric or NPT threads

LF3800 conforms to the following norms:

- ISO
- CETOP
- AFNOR

## technical specification

The working specification depends on the type and wall thickness of the tube, the type of fluid, fluid temperature, and ambient temperature.



<b>working pressure</b>	maximum 290 psi depending on tube (see section on <b>Legris</b> tubing)		
<b>working temperature</b>	5° to 230°F depending on the type and size of the tube.		
<b>compatible fluids</b>	all fluids compatible with fitting and tubing material.		
<b>materials of construction</b>	<p><b>body:</b> stainless steel AISI 316  <b>backup washer:</b> stainless steel 304 L  <b>collet:</b> stainless steel 303 L  <b>"O" ring:</b> FKM  <b>base:</b> stainless steel AISI 316</p> <p>Thread sealant does not come on these products. This is so that the appropriate sealant for the application can be applied.</p>		
<b>maximum tightening torque for LF3800 fittings, BSSP and metric threads</b>	parallel & metric thread	M5 x 0.8	G1/8"
	in. lb	14	70

**All items in the LF3800 range are SILICONE FREE**

# advantages of LF3800 system



## resistance to aggressive environments and fluids

- all stainless steel construction:
  - stainless steel body AISI 316
  - stainless steel washer 304L
  - stainless steel collet 303L
- FKM "O" ring seal



## tried and tested technology

- instant manual connection and disconnection – no tools required
- full bore, without pressure drop
- automatic seal

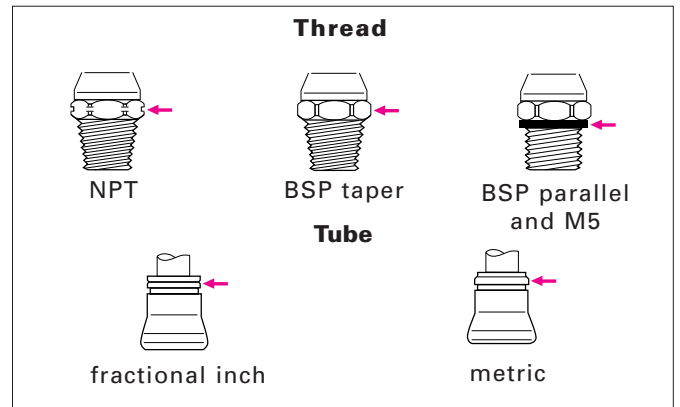
## compatible with a range of tubes

- semi-rigid nylon tube
- flexible polyurethane tube
- low density polyethylene
- fluoropolymer FEP 140 tube
- stainless steel and copper tube (when grooved)



## industrial applications

- LF3800 is suitable for many applications such as:
  - chemical industry
  - food industry
  - packaging industry
  - medical sector etc.

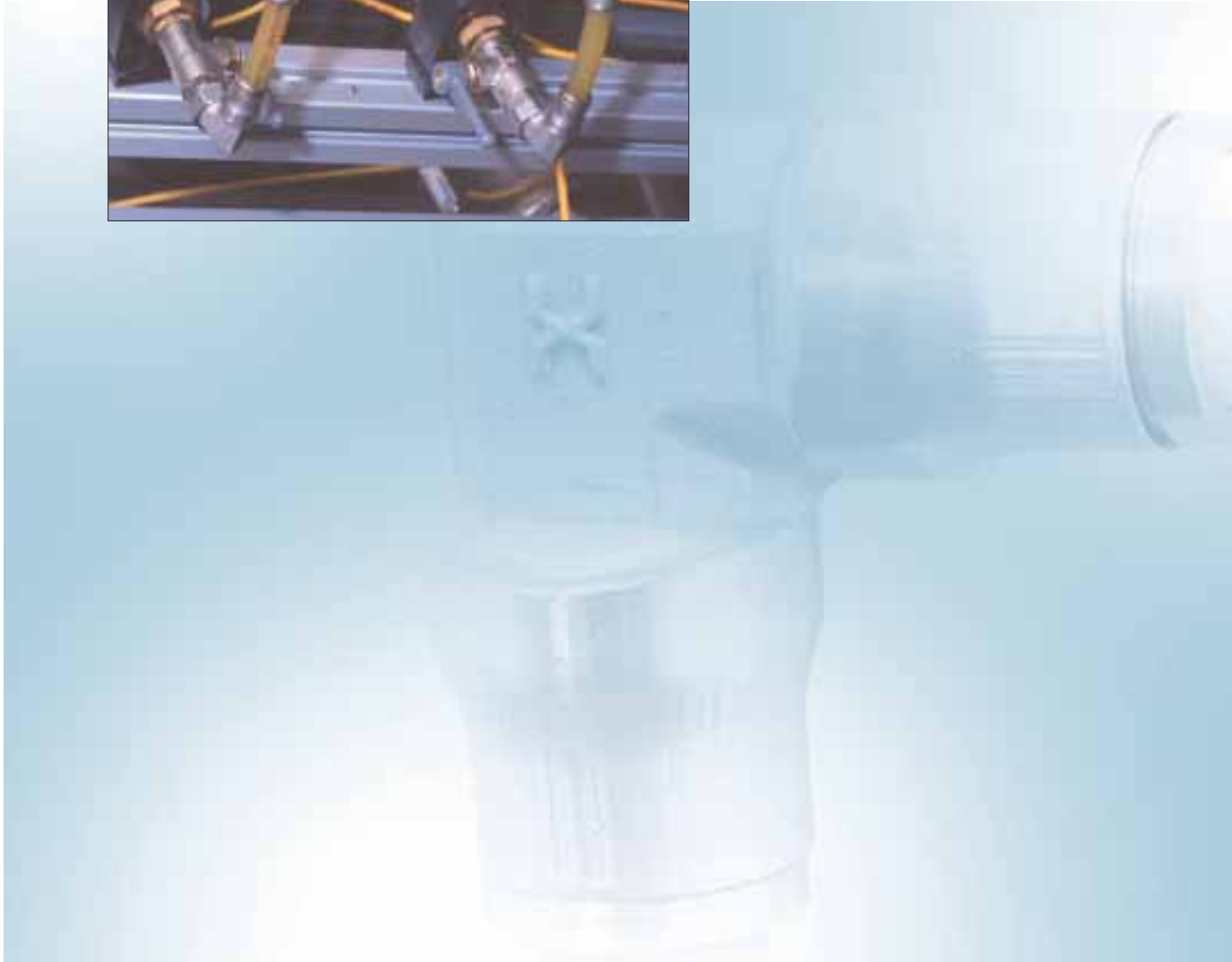


## a range adapted to many markets

- many models, identified by a specific visual mark:
- for inch O.D. tubing with NPT thread.
- for metric tubing with BSP taper thread, BSP parallel thread and metric or NPT threads

*Our production process includes individual unit quality control and dating, for all LF3800 push-to-connect fittings, in order to guarantee their quality and traceability.*

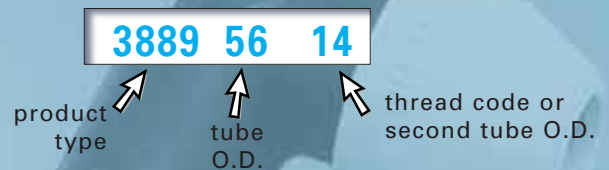
# industrial applications



## Identification

The part numbers have been chosen by a method of mnemonics. Each LF3800 fitting is identified by:

- product type
- the O.D. of the tube
- the thread code or second tube O.D.



# the complete range of LF3800 push-to-connect fittings

## threaded fittings

**3805**  
NPT  
Page E6



**3805**  
BSPT  
Page E6



**3801**  
UNF, parallel, metric  
Page E6



**3821**  
NPT  
Page E7



**3821**  
BSPT  
Page E7



**3889**  
NPT  
Page E8



**3899**  
UNF  
Page E8



**3889**  
BSPT  
Page E8



**3809**  
NPT  
Page E9



**3809**  
BSPT  
Page E9



**3899**  
M5  
Page E9



**3803**  
NPT  
Page E10



**3803**  
BSPT  
Page E10



**3808**  
NPT  
Page E11



**3808**  
BSPT  
Page E11



**3800**  
Page E11



## tube to tube fittings

**3806**  
Page E12



**3816**  
Page E12



**3802**  
Page E13



**3804**  
Page E13



**3866**  
Page E13



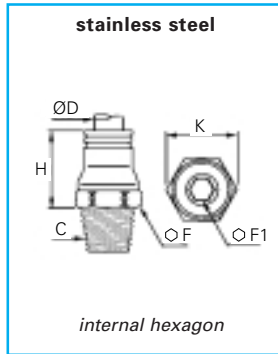
## accessories

**3800**  
Page E14



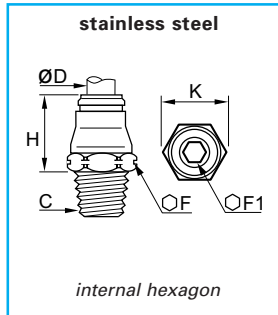
# threaded fittings

## 3805 male connector — fractional inch tube to NPT



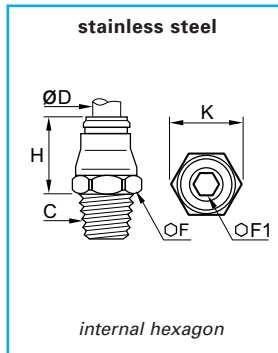
ØD in	C NPT		F mm	F1 mm	H in	K in	
5/32	1/8	3805 04 11	10	3	.61	.43	.28
3/16	1/8	3805 55 11	10	3	.61	.43	.35
3/16	1/4	3805 55 14	14	3	.61	.59	.56
1/4	1/8	3805 56 11	13	4	.75	.55	.42
1/4	1/4	3805 56 14	14	4	.69	.59	.63
5/16	1/8	3805 08 11	15	4	.79	.65	.56
5/16	1/4	3805 08 14	15	6	.79	.65	.63
3/8	1/4	3805 60 14	19	6	.98	.83	.99
3/8	3/8	3805 60 18	19	7	.94	.83	1.20
1/2	1/4	3805 62 14	22	7	1.02	.94	1.41
1/2	3/8	3805 62 18	22	8	.98	.94	1.48
1/2	1/2	3805 62 22	22	10	.98	.94	1.76

## 3805 male connector — metric tube to NPT



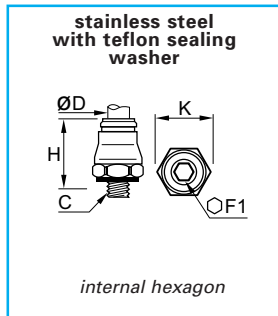
ØD mm	C NPT		F mm	F1 mm	H mm	K mm	
4	1/8	3805 04 11	11	3	14.5	12	.008
6	1/8	3805 06 11	13	4	18	14	.012
6	1/4	3805 06 14	14	4	16.5	15	.016
8	1/8	3805 08 11	15	5	19	16.5	.016
8	1/4	3805 08 14	15	6	18	16.5	.020
10	1/4	3805 10 14	19	6	24	21	.030
10	3/8	3805 10 18	19	7	22.5	21	.032
12	1/4	3805 12 14	22	7	25	24	.038
12	3/8	3805 12 18	22	8	24	24	.042
12	1/2	3805 12 22	22	10	23	24	.048

## 3805 male connector — metric tube to BSPT



ØD mm	C BSPT		F mm	F1 mm	H mm	K mm	
4	R1/8	3805 04 10	10	3	14.5	11	.008
4	R1/4	3805 04 13	14	3	14.5	15	.014
6	R1/8	3805 06 10	13	4	18	14	.012
6	R1/4	3805 06 13	14	4	16.5	15	.016
8	R1/8	3805 08 10	15	5	19	16.5	.016
8	R1/4	3805 08 13	15	6	18	16.5	.018
8	R3/8	3805 08 17	17	6	18.5	18.5	.026
10	R1/4	3805 10 13	19	6	24	21	.030
10	R3/8	3805 10 17	19	7	22.5	21	.032
12	R1/4	3805 12 13	22	7	25	24	.038
12	R3/8	3805 12 17	22	8	24	24	.042
12	R1/2	3805 12 21	22	10	23	24	.048

## 3801 male connector — tube to UNF, BSPP, or M5



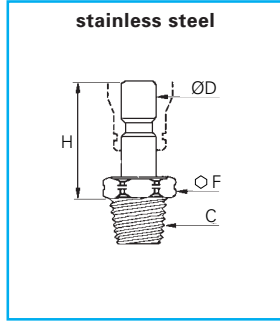
ØD in	C UNF		F mm	F1 mm	H in	K in	
5/32	10-32	3801 04 20	10	2.5	.59	.43	.21

mm	BSPP/M5		F mm	F1 mm	H mm	K mm	
4	M5x0.8	3801 04 19	10	2.5	17	11	.006
4	G1/8	3801 04 10	13	3	16.5	14	.008

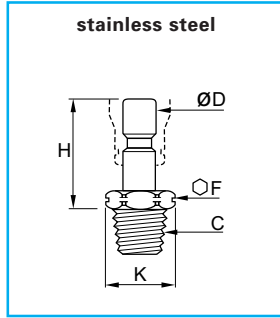
# threaded fittings

## 3821 male standpipe — fractional inch tube to NPT



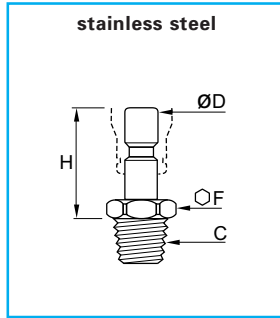
ØD in	C NPT		F in	H in	⚖️
5/32	1/8	<a href="#">3821 04 11</a>	.39	.98	.21
3/16	1/8	<a href="#">3821 55 11</a>	.39	.98	.28
1/4	1/8	<a href="#">3821 56 11</a>	.39	1.02	.35
1/4	1/4	<a href="#">3821 56 14</a>	.55	1.06	.63
5/16	1/8	<a href="#">3821 08 11</a>	.43	1.06	.42
5/16	1/4	<a href="#">3821 08 14</a>	.55	1.06	.71
3/8	1/4	<a href="#">3821 60 14</a>	.75	1.26	.71
3/8	3/8	<a href="#">3821 60 18</a>	.75	1.26	1.06
1/2	1/4	<a href="#">3821 62 14</a>	.75	1.42	1.13
1/2	3/8	<a href="#">3821 62 18</a>	.75	1.46	1.34
1/2	1/2	<a href="#">3821 62 22</a>	.87	1.46	1.98

## 3821 male standpipe — metric tube to NPT



ØD mm	C NPT		F mm	H mm	K mm	⚖️
4	1/8	<a href="#">3821 04 11</a>	11	21	12	.006
6	1/8	<a href="#">3821 06 11</a>	11	23	12	.008
6	1/4	<a href="#">3821 06 14</a>	14	24	15	.016
8	1/8	<a href="#">3821 08 11</a>	14	24	15	.010
8	1/4	<a href="#">3821 08 14</a>	14	25	15	.016
10	1/4	<a href="#">3821 10 14</a>	14	30	15	.016
10	3/8	<a href="#">3821 10 18</a>	17	30	18.5	.022
12	1/4	<a href="#">3821 12 14</a>	14	31	15	.022
12	3/8	<a href="#">3821 12 18</a>	17	31	18.5	.026
12	1/2	<a href="#">3821 12 22</a>	22	32	24	.052

## 3821 male standpipe — metric tube to BSPT

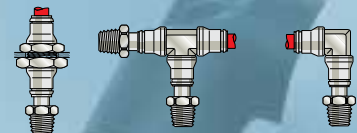


ØD mm	C BSPT		F mm	H mm	⚖️
4	R1/8	<a href="#">3821 04 10</a>	10	21	.006
6	R1/8	<a href="#">3821 06 10</a>	10	23	.008
6	R1/4	<a href="#">3821 06 13</a>	14	24	.014
8	R1/8	<a href="#">3821 08 10</a>	11	24	.010
8	R1/4	<a href="#">3821 08 13</a>	14	25	.016
10	R1/4	<a href="#">3821 10 13</a>	19	30	.020
10	R3/8	<a href="#">3821 10 17</a>	19	30	.020
12	R1/4	<a href="#">3821 12 13</a>	19	31	.028
12	R3/8	<a href="#">3821 12 17</a>	19	31	.026
12	R1/2	<a href="#">3821 12 21</a>	22	32	.050

⌘ = stainless steel

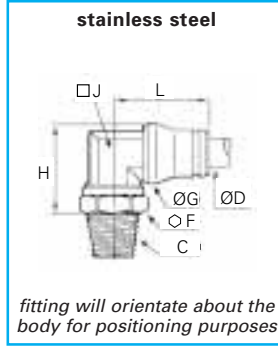
By using the male standpipe, Type 3821, as illustrated

- stock of parts may be reduced
- tees and elbows can be fitted where required



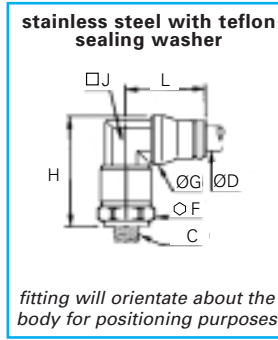
# threaded fittings

## 3889 compact male elbow — fractional inch tube to NPT



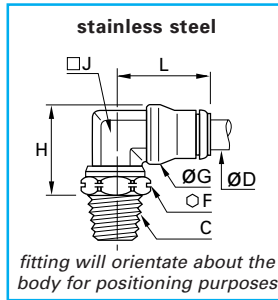
ØD in	C NPT		F mm	G in	H in	J in	L in	
5/32	1/8	3889 04 11	13	.39	.77	.28	.77	.56
3/16	1/8	3889 55 11	10	.39	.81	.28	.77	.56
3/16	1/4	3889 55 14	14	.39	.81	.28	.77	.99
1/4	1/8	3889 56 11	13	.47	.85	.35	.91	.78
1/4	1/4	3889 56 14	14	.47	.85	.35	.91	1.06
5/16	1/8	3889 08 11	15	.59	1.00	.43	.98	.99
5/16	1/4	3889 08 14	15	.59	1.00	.43	.98	1.20
3/8	1/4	3889 60 14	17	.69	1.12	.51	1.20	1.69
3/8	3/8	3889 60 18	19	.69	1.12	.51	1.20	2.05
1/2	1/4	3889 62 14	22	.79	1.34	.59	1.30	2.61
1/2	3/8	3889 62 18	22	.79	1.34	.59	1.30	2.54
1/2	1/2	3889 62 22	22	.79	1.34	.59	1.30	3.25

## 3899 male elbow — fractional inch tube to UNF



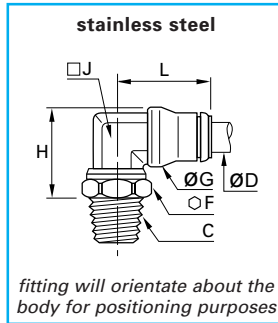
ØD in	C UNF		F mm	G in	H in	J in	L in	
5/32	10-32	3899 04 20	10	.39	.98	.28	.77	.49

## 3889 compact male elbow — metric tube to NPT



ØD mm	C NPT		F mm	G mm	H mm	J mm	L mm	
4	1/8	3889 04 11	13	10	17.5	7	19	.016
6	1/8	3889 06 11	13	12.5	20	9	22.5	.022
6	1/4	3889 06 14	14	12.5	20	9	22.5	.030
8	1/8	3889 08 11	13	15	25	11	24	.028
8	1/4	3889 08 14	14	15	24	11	24	.034
10	1/4	3889 10 14	17	17.5	27.5	13	27.5	.046
10	3/8	3889 10 18	19	17.5	28.5	13	26.5	.056
12	1/4	3889 12 14	22	20	31.5	15	32.5	.070
12	3/8	3889 12 18	22	20	32.5	15	32.5	.060
12	1/2	3889 12 22	22	20	27.5	15	32.5	.084

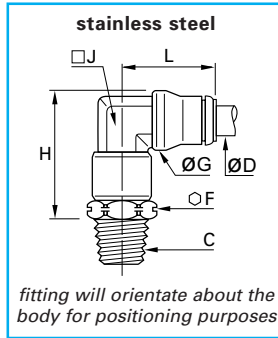
## 3889 compact male elbow — metric tube to BSPT



ØD mm	C BSPT		F mm	G mm	H mm	J mm	L mm	
4	R1/8	3889 04 10	13	10	18	7	17	.014
4	R1/4	3889 04 13	17	10	19.5	7	16.5	.026
6	R1/8	3889 06 10	13	12	21.5	9	20.5	.020
6	R1/4	3889 06 13	14	12	21.5	9	20.5	.028
8	R1/8	3889 08 10	14	15	24	11	22	.028
8	R1/4	3889 08 13	14	15	24	11	22	.034
10	R1/4	3889 10 13	17	17.5	28.5	13	27.5	.046
10	R3/8	3889 10 17	19	17.5	28.5	13	27.5	.054
12	R1/4	3889 12 13	22	20	33.5	15	30	.070
12	R3/8	3889 12 17	22	20	33.5	15	30	.060
12	R1/2	3889 12 21	22	20	33.5	15	33	.082

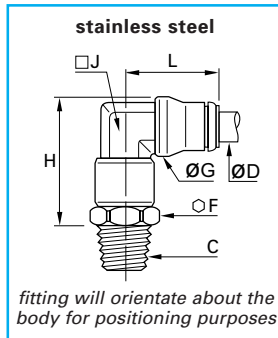
# threaded fittings

## 3809 male elbow — metric tube to NPT



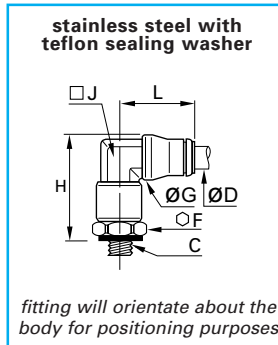
ØD mm	C NPT		F mm	G mm	H mm	J mm	L mm	Δkg
4	1/8	3809 04 11	11	10	25.5	7	18.5	.016
6	1/8	3809 06 11	13	12.5	29	9	22.5	.026
6	1/4	3809 06 14	14	12.5	29	9	22.5	.030
8	1/8	3809 08 11	14	15	34	11	24	.040
8	1/4	3809 08 14	14	15	34	11	24	.044
10	1/4	3809 10 14	19	17.5	39.5	13	30	.066
10	3/8	3809 10 18	19	17.5	39.5	13	30	.066

## 3809 male elbow — metric tube to BSPT



ØD mm	C BSPT		F mm	G mm	H mm	J mm	L mm	Δkg
4	R1/8	3809 04 10	10	10	23.5	7	16.5	.016
6	R1/8	3809 06 10	13	12	27.5	9	20	.026
6	R1/4	3809 06 13	14	12	27.5	9	20	.030
8	R1/8	3809 08 10	14	15	32	11	22	.040
8	R1/4	3809 08 13	14	15	32	11	22	.044
10	R1/4	3809 10 13	19	17.5	37.5	13	27.5	.066
10	R3/8	3809 10 17	19	17.5	37.5	13	27.5	.066

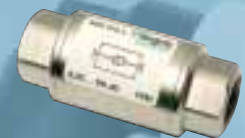
## 3899 male elbow — metric tube to M5



ØD mm	C M5		F mm	G mm	H mm	J mm	L mm	Δkg
4	M5x0.8	3899 04 19	10	10	26	7	18	.014

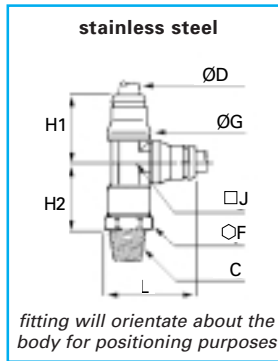
Other stainless steel products can be found throughout the catalog:

- stainless steel flow controls, section B
- stainless steel check valve, section B
- stainless steel silencers, section H
- stainless steel accessories, section H



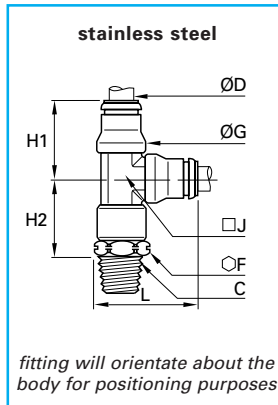
# threaded fittings

## 3803 male run tee — fractional inch tube to NPT



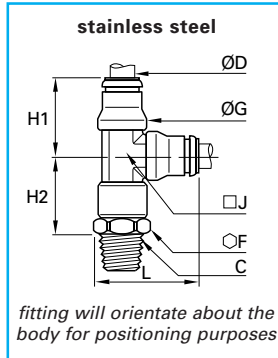
ØD in	C NPT		F mm	G in	H1 in	H2 in	J in	L in	kg
5/32	1/8	3803 04 11	10	.39	.69	.71	.28	.89	.71
5/16	1/8	3803 08 11	14	.59	.94	1.04	.43	1.20	1.76
5/16	1/4	3803 08 14	14	.59	.94	1.04	.43	1.20	1.90

## 3803 male run tee — metric tube to NPT



ØD mm	C NPT		F mm	G mm	H1 mm	H2 mm	J mm	L mm	kg
4	1/8	3803 04 11	11	10	19	21	7	25	.020
6	1/8	3803 06 11	13	12	21	24	9	27	.032
6	1/4	3803 06 14	14	12	21	24	9	27.5	.038
8	1/8	3803 08 11	14	15	24	26.5	11	30.5	.050
8	1/4	3803 08 14	14	15	24	26.5	11	30.5	.054
10	1/4	3803 10 14	19	17.5	29.5	31	13	37.5	.084
10	3/8	3803 10 18	19	17.5	29.5	31	13	37.5	.084

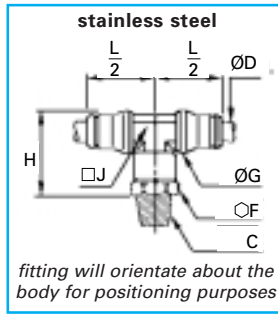
## 3803 male run tee — metric tube to BSPT



ØD mm	C BSPT		F mm	G mm	H1 mm	H2 mm	J mm	L mm	kg
4	R1/8	3803 04 10	10	10	17	19	7	22	.020
6	R1/8	3803 06 10	13	12	20	22	9	26.5	.032
6	R1/4	3803 06 13	14	15	20	22	9	27	.038
8	R1/8	3803 08 10	14	15	23	24	11	31	.050
8	R1/4	3803 08 13	14	15	23	24	11	31	.054
10	R1/4	3803 10 13	19	17.5	29	30	13	38	.084
10	R3/8	3803 10 17	19	17.5	29	30	13	38	.084

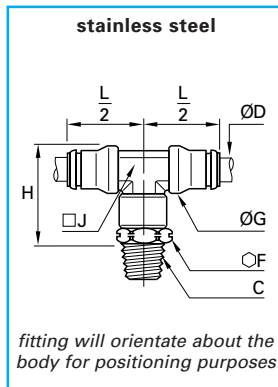
# threaded fittings

## 3808 male branch tee — fractional inch tube to NPT



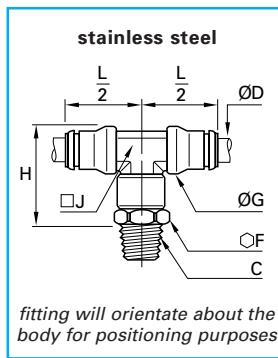
ØD in	C NPT		F mm	G in	H in	J in	L 2 in	kg
5/32	1/8	3808 04 11	10	.39	.91	.28	.69	.71
5/16	1/8	3808 08 11	14	.59	1.34	.43	.94	1.76
5/16	1/4	3808 08 14	14	.59	1.34	.43	.94	1.90

## 3808 male branch tee — metric tube to NPT



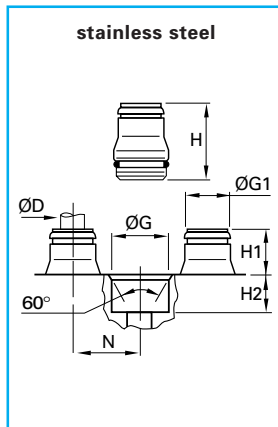
ØD mm	C NPT		F mm	G mm	H mm	J mm	L 2 mm	kg
4	1/8	3808 04 11	11	10	22	7	19.5	.020
6	1/8	3808 06 11	13	12.5	30	9	22.5	.034
6	1/4	3808 06 14	14	12.5	30	9	22.5	.038
8	1/8	3808 08 11	14	15	34	11	24	.050
8	1/4	3808 08 14	14	15	34	11	24	.054
10	1/4	3808 10 14	19	17.5	40	13	29.5	.084
10	3/8	3808 10 18	19	17.5	40	13	29.5	.084

## 3808 male branch tee — metric tube to BSPT



ØD mm	C BSPT		F mm	G mm	H mm	J mm	L 2 mm	kg
4	R1/8	3808 04 10	10	10	23.5	7	17	.020
6	R1/8	3808 06 10	13	12	27.5	9	20	.034
6	R1/4	3808 06 13	14	12	27.5	9	20	.038
8	R1/8	3808 08 10	14	15	32	11	22	.050
8	R1/4	3808 08 13	14	15	32	11	22	.054
10	R1/4	3808 10 13	19	17.5	37.5	13	27.5	.084
10	R3/8	3808 10 17	19	17.5	37.5	13	27.5	.084

## 3800 cartridge



ØD mm		G mm	G1 mm	H mm	H1 mm	H2 mm	N mm	kg
4	3800 04 00	9.8	8	17	8.5	8.5	11	.006
6	3800 06 00	12.1	10	19	10.5	8.5	13.5	.008
8	3800 08 00	14.8	13	21	12.5	8.5	16	.012
10	3800 10 00	17.5	15	24.5	14	10.5	20	.020
12	3800 12 00	20	17	25	14.5	10.5	22.5	.027

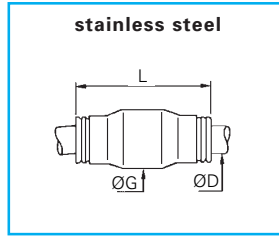
Subject to quantity we can supply cartridge inserts for fitting into various materials, choice of material used should be discussed between Legris and user. Please consult us.

The use of this cartridge

- eliminates the need to cut threads
- allows compact assembly with reduced height
- provides instant connection and disconnection of the tube

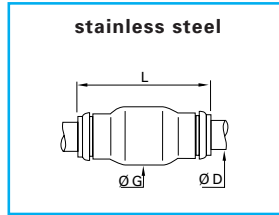
# tube-to-tube fittings

## 3806 straight union — fractional inch tube to tube



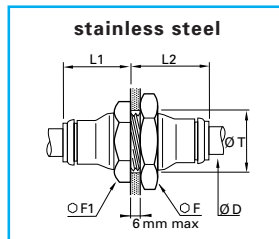
ØD in		G in	L in	oz
5/32	3806 04 00	.39	1.18	.28
3/16	3806 55 00	.39	1.18	.28
1/4	3806 56 00	.47	1.38	.49
5/16	3806 08 00	.59	1.46	.71
3/8	3806 60 00	.69	1.81	1.20
1/2	3806 62 00	.79	1.89	1.62

## 3806 straight union — metric tube to tube



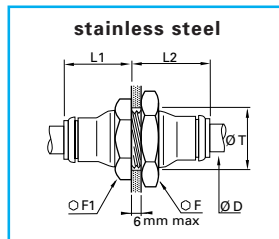
ØD mm		G mm	L mm	kg
4	3806 04 00	10	29	.008
6	3806 06 00	12	34	.014
8	3806 08 00	15	36	.020
10	3806 10 00	17.5	45	.034
12	3806 12 00	20	46.5	.046

## 3816 bulkhead union — fractional inch tube to tube



ØD in		F mm	F1 mm	L1 in	L2 in	T in	oz
5/32	3816 04 00	13	14	.59	.83	.49	.63
3/16	3816 55 00	17	13	.59	.83	.49	.63
1/4	3816 56 00	19	17	.67	.89	.57	.99
5/16	3816 08 00	19	19	.75	.94	.65	1.27
3/8	3816 60 00	27	22	.87	1.08	.81	2.05
1/2	3816 62 00	27	27	.94	1.14	.79	2.54

## 3816 bulkhead union — metric tube to tube



ØD mm		F mm	F1 mm	L1 mm	L2 mm	T mm	kg
4	3816 04 00	13	14	13.5	19.5	12.5	.018
6	3816 06 00	17	17	16.5	21.5	14.5	.028
8	3816 08 00	19	19	18	24	16.5	.036
10	3816 10 00	22	22	21.5	27.5	20.5	.058
12	3816 12 00	24	24	24	29	22.5	.072

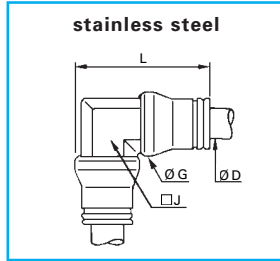
The LF3800 system allows use with various types of tubing shown in this catalog:

- **semi-rigid nylon tube**  
1/8" to 1/2" O.D. - page M7  
4mm to 14mm O.D. - page M9
- **flexible polyurethane tube**  
1/8" to 1/2" O.D. - page M11  
4mm to 14mm O.D. - page M13
- **low density polyethylene**  
1/8" to 1/2" O.D. - page M15  
4mm to 14mm O.D. - page M15
- **fluoropolymer FEP 140 tube**  
1/8" to 1/2" O.D. - page M16  
4mm to 12mm O.D. - page M16



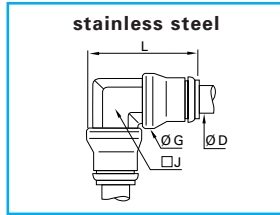
# tube to tube fittings

## 3802 union elbow — fractional inch tube to tube



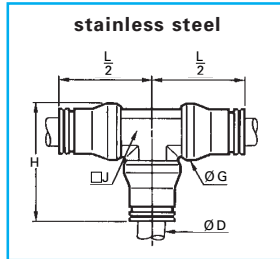
ØD in		G in	J in	L in	⚖️ oz
5/32	3802 04 00	.39	.28	.96	.35
3/16	3802 55 00	.39	.28	.96	.35
1/4	3802 56 00	.47	.35	1.14	.56
5/16	3802 08 00	.59	.43	1.28	.92
3/8	3802 60 00	.69	.51	1.56	1.48
1/2	3802 62 00	.79	.59	1.61	1.83

## 3802 union elbow — metric tube to tube



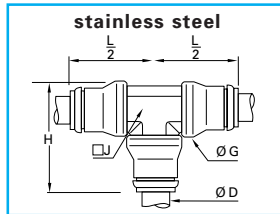
ØD mm		G mm	J mm	L mm	⚖️ kg
4	3802 04 00	10	7	21.5	.010
6	3802 06 00	12	9	26.5	.016
8	3802 08 00	15	11	29.5	.026
10	3802 10 00	17.5	13	36.5	.042
12	3802 12 00	20	15	40	.052

## 3804 union tee — fractional inch tube to tube to tube



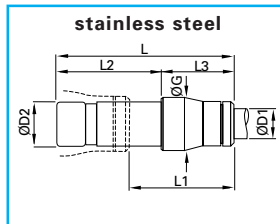
ØD in		G in	H in	J in	L/2 in	⚖️ oz
5/32	3804 04 00	.39	.89	.28	.69	.56
3/16	3804 55 00	.39	.89	.28	.69	.56
1/4	3804 56 00	.47	1.06	.35	.83	.85
5/16	3804 08 00	.59	1.20	.43	.91	1.27
3/8	3804 60 00	.69	1.48	.51	1.12	1.98
1/2	3804 62 00	.79	1.61	.59	1.22	2.40

## 3804 union tee — metric tube to tube to tube



ØD mm		G mm	H mm	J mm	L/2 mm	⚖️ kg
4	3804 04 00	10	22	7	17	.016
6	3804 06 00	12	26	9	20	.024
8	3804 08 00	15	29.5	11	22	.036
10	3804 10 00	17.5	36.5	13	27.5	.056
12	3804 12 00	20	40	15	33	.068

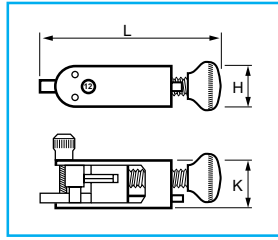
## 3866 reducer — metric



ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	L2 mm	L3 mm	⚖️ kg
4	6	3866 04 06	10	35	19	19	16	.012
4	8	3866 04 08	10	34	17	20	14	.015
6	8	3866 06 08	12	42	24	23	19	.016
6	10	3866 06 10	12	41	19	25	16	.024
8	10	3866 08 10	15	45	22.5	25	20	.027
8	12	3866 08 12	15	43	20	26	17	.033
10	12	3866 10 12	17.5	50	23	26	24	.042

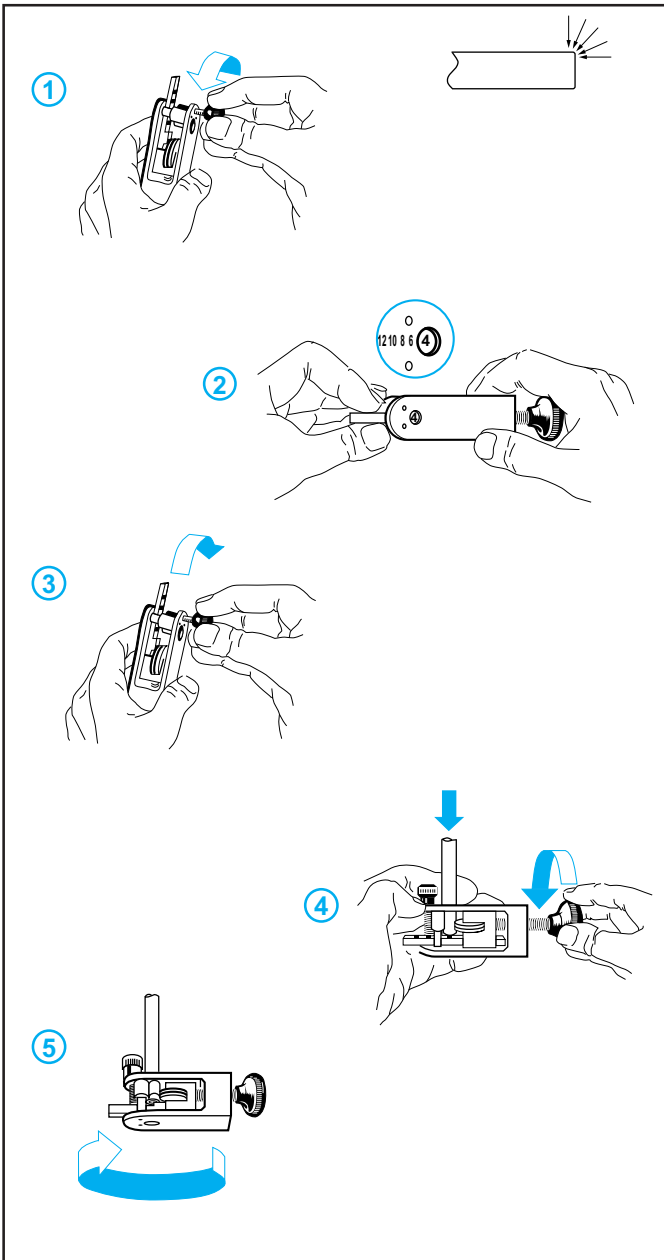
# accessories

## 3800 pre-grooving tool for stainless steel tubing, metric and fractional inch



	K in	H in	L in	
3800 70 00	.98	1.18	4.13	10

This tool correctly pre-grooves 5/32"-1/2" O.D. and 4-12mm O.D. stainless steel tube, to ensure that the LF3800 collet grips the tube securely.



1 - Unscrew the setting pin and deburr the end of the tube.

2 - Select appropriate tube size on adjusting arm.

3 - Screw the setting pin into adjusting arm as far as possible.

4 - Place the tube between the rollers.  
Adjust the top roller into contact with the tube.

5 - Holding the tube firmly, slowly rotate the tool around the tube to cut the groove.



# SAE and DOT push-to-connect fittings for vehicle applications



# principle of SAE and DOT fittings

Legris is the leading supplier for the automotive connection and truck markets. Our ability to propose innovative and economical solutions has been proven with a long list of customers.

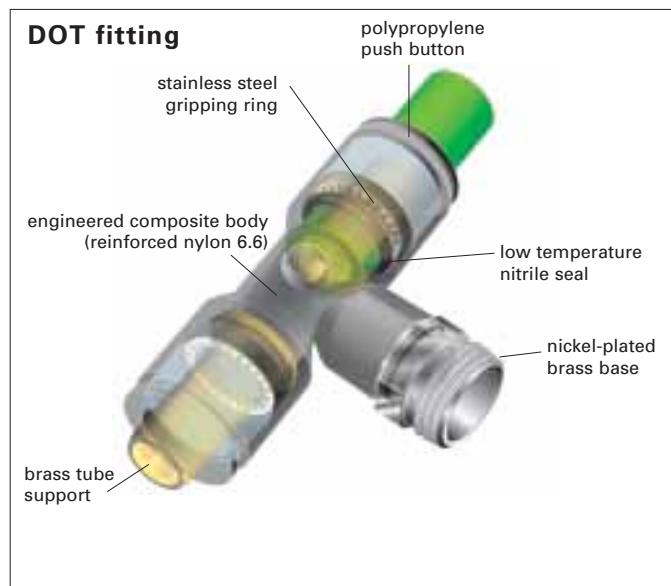
Today we have many assets:

- Legris is the world leader in the fuel line and the **on board Air Systems**.
- For the past five years Legris has been the leader in **writing and developing standards** for the Truck Industry in North America such as SAE J2494.

Concerning the Heavy Duty Truck Industry, Legris is the leader in **manifolds and Push-to-Connect fittings for air assisted systems**.

- **Legris DOT fittings** meet all applicable requirements of the D.O.T. FMVSS 106 specification.

- **Legris SAE fittings** comply with the requirements of D.O.T. FMVSS 106, SAE J1131 and SAE J2494-3.



## SAE specifications

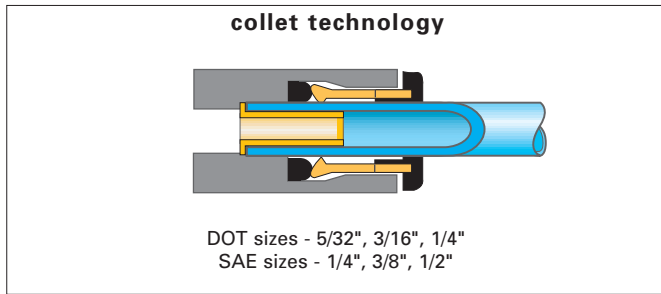
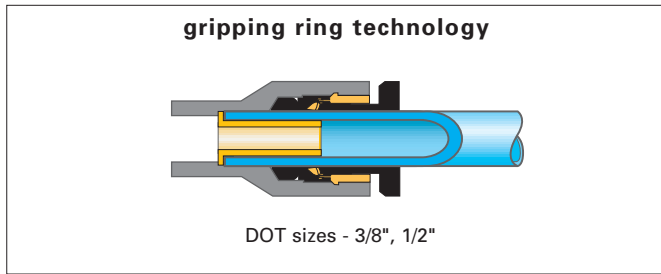
<b>technology</b>	collet - 1/4", 3/8", 1/2"
<b>suitable fluids</b>	compressed air only lubricated or non-lubricated
<b>working pressure</b>	maximum 275 psi
<b>working temperature</b>	-40°F to +225°F
<b>tubing</b>	Tubing used should comply with SAE standards. Legris air brake tubing on pg M18 can be used.
<b>materials of construction</b>	<b>body:</b> glass reinforced nylon 12 <b>seals:</b> low temperature nitrile <b>collet:</b> brass <b>tube support:</b> brass <b>base:</b> brass optional thread sealant for male threaded bases is available.

## DOT specifications

<b>technology</b>	collet - 5/32", 3/16", 1/4" gripping ring - 3/8", 1/2"
<b>suitable fluids</b>	compressed air only lubricated or non-lubricated
<b>working pressure</b>	28Hg – 275 psi at ambient temperature
<b>working temperature</b>	-20° to 225°F
<b>tubing</b>	Tubing used should comply with SAE standards. Legris air brake tubing on pg M18 can be used.
<b>materials of construction</b>	<b>body:</b> glass reinforced nylon 6.6 <b>seals:</b> low temperature nitrile <b>gripping ring:</b> stainless steel <b>collet:</b> brass <b>tube support:</b> brass <b>base:</b> nickel-plated brass  To order products with thread sealant, add '96' suffix to part #

All products in the SAE and DOT range are SILICONE FREE

# advantages of SAE and DOT fittings



## performance and reliability

### optimum flow

- **full flow:** the gripping and sealing of the fitting is achieved using the outside diameter of the tube without deformation, compact yet no restriction in flow.

### immediate seal

- the fittings **seal both in static and dynamic** applications.
- **tube insert** which reinforces the grip on the tubing OD.
- **slotted collet** or **gripping ring** mechanism locks the tubing into the fitting.

### options

- optional colored release buttons or caps.
- optional thread sealant upon request

## features

### Time Savings:

- tube fitting assembly time is substantially reduced. With either SAE or DOT fittings, savings are on average, 80% of conventional compression fittings.
- the Legris Instant Fitting System provides a 100% tubing lock. This feature eliminates the need for tightening.
- no special tools required for assembly.

### Orientable:

- elbows, "Y"s and tees can be oriented 360°. This assembly feature is a great time saver in areas of poor accessibility and allows proper positioning of the fitting.

### Anti Kink Feature:

- the tubing will rotate 360° while being held in the fitting thus eliminating annoying and wasteful kinking.

### Temperature:

- fittings accommodate wide range of temperature applications.

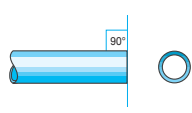
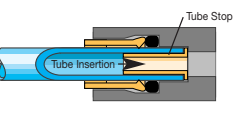
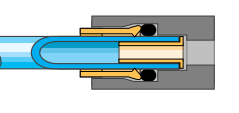
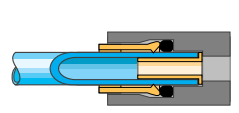
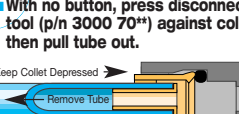
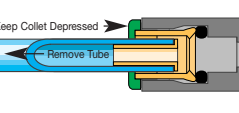

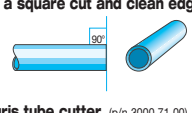
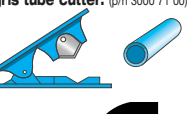
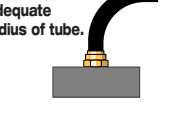
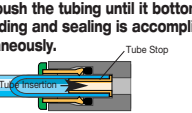
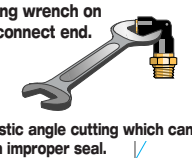
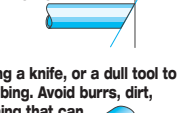


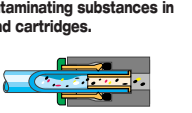
### Tubing

- tubing used should be that specified in SAE J844 (Oct '80) which also meets NHTSA FMVSS 106. Legris air brake tubing on pg M18 complies with this standard.

The Legris SAE and DOT products conform to the standards for the industry. This table compares the specifications of each range.

SAE Products	DOT Products
Tensile strength	Tensile strength
Water absorption	Water absorption
Hot water	Not required
Frozen water	Not required
Temperature cycling	Not required
Pull force	Pull force
1/4" = 50 lbf	1/4" = 50 lbf
3/8" = 150 lbf	3/8" = 50 lbf
1/2" = 200 lbf	1/2" = 150 lbf
Air leakage: 3ccm to 7ccm	Pressure drop: 1 psi/min
Corrosion resistance	Corrosion resistance
Burst pressure: 800 psi	Burst pressure: 800 psi
Vibration	Not required
Re-assembly	Not required
Oil compatibility	Not required
Side lead leakage	Not required
Moisture absorption	Not required
UV resistance	Not required
Zinc chloride resistance	Not required
Methyl alcohol resistance	Not required
Cold impact resistance	Not required

# recommendations

Vehicle Technology Products Push-to-Connect Fittings Quick Assembly	
Connection	Disconnection
<p><b>1</b> Achieve a square cut edge with a tube cutter.</p>  <p><b>2</b> Simply push the tubing until it bottoms out. Holding and sealing is accomplished instantaneously.</p>  <p><b>3</b> Pull on the tubing to verify gripping action.</p> 	<p><b>1</b> Make sure there is no air flow.</p>  <p><b>2</b> With no button, press disconnect tool (p/n 3000 70**) against collet, then pull tube out.</p>  <p>With button - depress the manual release button, then pull the tube out.</p> 
Vehicle Technology Products Push-to-Connect Fittings Quick List	
Do's	Don'ts
<p><b>1</b> Tighten by hand. Make final adjustment with wrench at the hex.</p>  <p><b>2</b> Achieve a square cut and clean edge.</p>  <p><b>3</b> Use Legris tube cutter. (p/n 3000 71 00)</p>  <p><b>4</b> Allow adequate bend radius of tube.</p>  <p><b>5</b> Simply push the tubing until it bottoms out. Holding and sealing is accomplished instantaneously.</p> 	<p><b>1</b> Avoid using wrench on push-to-connect end.</p>  <p><b>2</b> Avoid drastic angle cutting which can lead to an improper seal.</p>  <p><b>3</b> Avoid using a knife, or a dull tool to cut the tubing. Avoid burrs, dirt, and anything that can hinder full flow.</p>  <p><b>4</b> Avoid kinking the tubing and side load against the collet which can cause leaks.</p>  <p><b>5</b> Avoid contaminating substances in fittings and cartridges.</p> 

## application of SAE & DOT fittings

### Auto/Truck/Bus

#### Cab

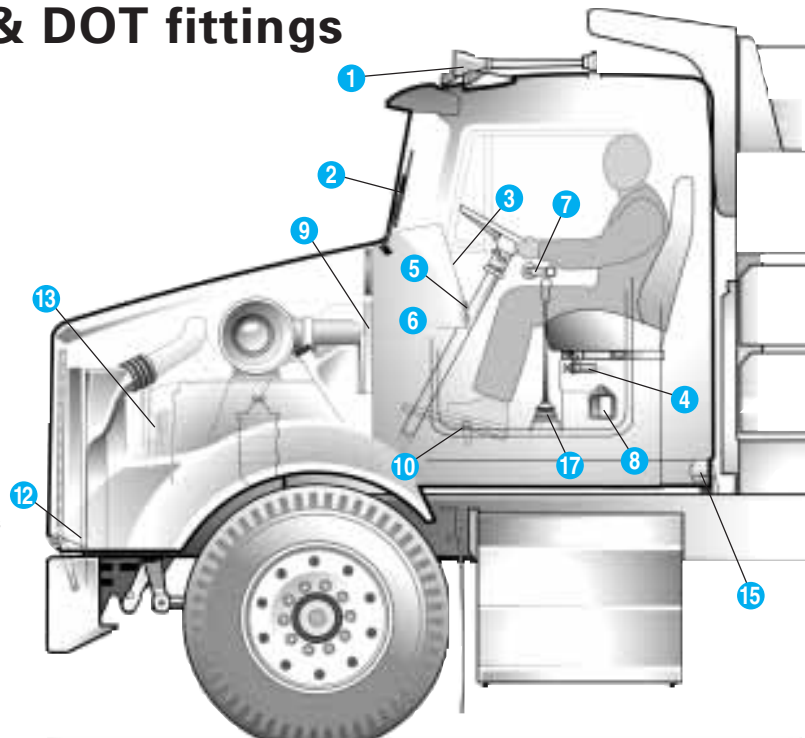
1. Air Horns/Valves
2. Wiper Motors/Controls
3. Instruments - Air Gauges
4. Air Seat Controls
5. Air Toggle Switches
6. Heaters/Air Conditioners
7. Air Window Lift/Controls
8. Air Door Locks
9. Air Manifolds
10. Air Throttle
11. Accessory Kits

#### Chassis

12. Shutter Stats/Cylinders
13. Fan Clutch - Air Op.
14. Air Slide 5th Wheels
15. Cab/Chassis Air Suspensions
16. Chassis Air Lines
17. Gearshift/Transmission
18. Air Manifolds - Chassis

#### Trailer

19. Chassis Air Lines
20. Air Operated Valves
21. Air Operated Cylinders
22. Air Suspensions
23. Air Manifolds



Excerpt from the National Highway Traffic Safety Administration Department of Transportation FMVSS 106.

#### FMVSS 106 Part 571: 5106-1 Paragraph 57.3.10

Legris DOT fittings meet all applicable requirements of the D.O.T. FMVSS 106 specification. Our fittings are designed for use on all pneumatic circuits other than air brake assemblies between the frame and axle. Final determination as to the use of this product in its application is the responsibility of the users design engineering.

Legris SAE fittings comply with the requirements of D.O.T. FMVSS 106, SAE J1131 and SAE J2494-3.

# the complete range of SAE fittings

## threaded fittings

**3175**  
NPTF  
Page F6



**3109**  
NPTF  
Page F6



**3108**  
NPTF  
Page F6



**3148**  
NPTF  
Page F6



**3103**  
NPTF  
Page F7



**3014**  
NPTF  
Page F7



**3092**  
NPTF  
Page F7



**3113**  
NPTF  
Page F7



## tube to tube fittings

**3106**  
Page F8



**3102**  
Page F8



**3104**  
Page F8



**3140**  
Page F8



**3182**  
Page F9



**3183**  
Page F9



**3188**  
Page F9



**3166**  
Page F9



**3116**  
Page F9



## tubing & accessories

**1487P**  
NPTF  
Page F8



**clip**  
Page F10



**3000**  
Page F10



**3126**  
Page F10



**tube support**  
Page F10



**3330/3110**  
Page F10



# the complete range of DOT fittings

## threaded fittings

**3115**  
NPT  
Page F11



**3109**  
NPT  
Page F11



**3108**  
NPT  
Page F11



**3103**  
NPT  
Page F12



**3114**  
NPT  
Page F12



**3148**  
NPT  
Page F12



## tube to tube fittings

**3106**  
Page F13



**3102**  
Page F13



**3104**  
Page F13



**3140**  
Page F13



**3182**  
Page F14



**3183**  
Page F14



**3188**  
Page F14



**3166**  
Page F14



**3168**  
Page F14



## bulkheads

**3116**  
Page F13

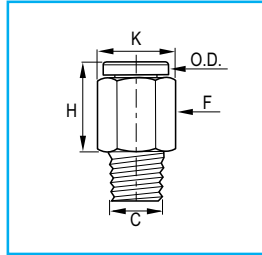


### Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

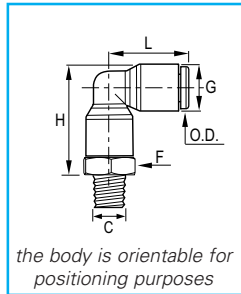
# SAE products – threaded fittings

## 3175 straight male connector — fractional inch tube to NPTF



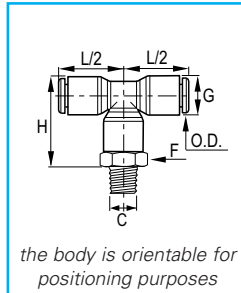
O.D. TUBE	C NPTF		F in	H in	K in	$\Delta$ oz
1/4	1/8	3175 56 11AE	1/2	.669	.579	.54
1/4	1/4	3175 56 14AE	9/16	.630	.650	.94
1/4	3/8	3175 56 18AE	11/16	.630	.795	1.59
3/8	1/4	3175 60 14AE	3/4	.941	.866	1.40
3/8	3/8	3175 60 18AE	3/4	.941	.866	1.84
3/8	1/2	3175 60 22AE	7/8	.862	1.01	3.14
1/2	3/8	3175 62 18AE	7/8	1.02	1.01	2.16
1/2	1/2	3175 62 22AE	7/8	1.02	1.01	2.94

## 3109 male elbow — fractional inch tube to NPTF



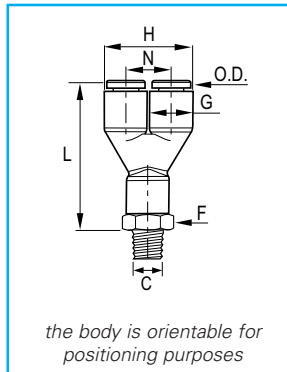
O.D. TUBE	C NPTF		F in	G in	H in	L in	$\Delta$ oz
1/4	1/8	3109 56 11AE	9/16	.531	1.26	.902	.90
1/4	1/4	3109 56 14AE	9/16	.531	1.26	.902	1.02
1/4	3/8	3109 56 18AE	11/16	.531	1.26	.902	1.30
3/8	1/4	3109 60 14AE	3/4	.748	1.68	1.23	2.10
3/8	3/8	3109 60 18AE	3/4	.748	1.70	1.23	2.29
3/8	1/2	3109 60 22AE	7/8	.748	1.70	1.23	2.86
1/2	3/8	3109 62 18AE	7/8	.870	1.96	1.41	3.00
1/2	1/2	3109 62 22AE	7/8	.870	1.96	1.41	3.91

## 3108 male branch tee — fractional inch tube to NPTF



O.D. TUBE	C NPTF		F in	G in	H in	L/2 in	$\Delta$ oz
1/4	1/8	3108 56 11AE	9/16	.531	1.26	.902	.90
1/4	1/4	3108 56 14AE	9/16	.531	1.26	.902	1.02
1/4	3/8	3108 56 18AE	11/16	.531	1.26	.902	1.30
3/8	1/4	3108 60 14AE	3/4	.748	1.68	1.23	2.62
3/8	3/8	3108 60 18AE	3/4	.748	1.70	1.23	2.80
3/8	1/2	3108 60 22AE	7/8	.748	1.70	1.23	3.37
1/2	3/8	3108 62 18AE	7/8	.870	1.96	1.41	3.15
1/2	1/2	3108 62 22AE	7/8	.870	1.96	1.41	4.05

## 3148 Y connector — fractional inch tube to NPTF



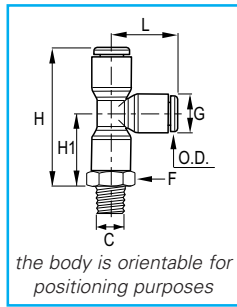
O.D. TUBE	C NPTF		F in	G in	H in	L in	N in	$\Delta$ oz
1/4	1/8	3148 56 11AE	9/16	.531	1.09	1.87	.562	.93
1/4	1/4	3148 56 14AE	9/16	.531	1.09	1.87	.562	1.04

### Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

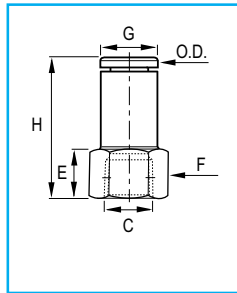
# SAE products – threaded fittings

## 3103 male run tee — fractional inch tube to NPTF



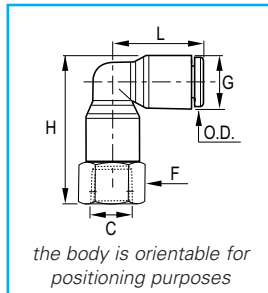
O.D. TUBE	C NPTF		F in	G in	H in	H1 in	L in	
1/4	1/8	3103 56 11AE	9/16	.531	1.90	1.00	.902	1.01
1/4	1/4	3103 56 14AE	9/16	.531	1.90	1.00	.902	1.23
3/8	1/4	3103 60 14AE	3/4	.748	2.53	1.30	1.23	2.62
3/8	3/8	3103 60 18AE	3/4	.748	2.55	1.32	1.23	2.80

## 3014 straight female connector — fractional inch tube to NPTF



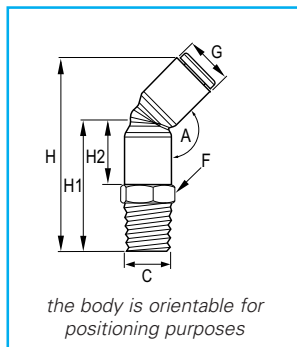
O.D. TUBE	C NPTF		E in	F in	G in	H in	
1/4	1/8	3014 56 11AE	.413	9/16	.472	1.19	.71

## 3092 female elbow — fractional inch tube to NPTF



O.D. TUBE	C NPTF		F in	G in	H in	L in	
1/4	1/8	3092 56 11AE	9/16	.531	1.47	.902	.85
1/4	1/4	3092 56 14AE	9/16	.531	1.67	.902	1.22

## 3113 45° male elbow — fractional inch tube to NPTF



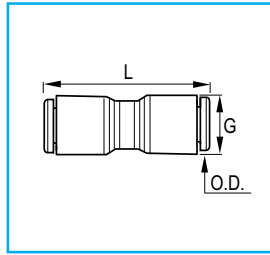
O.D. TUBE	C NPTF		A	F in	G in	H in	H1 in	H2 in	
1/4	1/8	3113 56 11AE	135°	9/16	.531	2.02	1.31	.730	.90
1/4	1/4	3113 56 14AE	135°	9/16	.531	2.02	1.49	.730	1.02
3/8	1/4	3113 60 14AE	135°	3/4	.747	2.71	1.75	.977	2.10
3/8	3/8	3113 60 18AE	135°	3/4	.747	2.73	1.77	.977	2.29

### Legris DOT and SAE fittings

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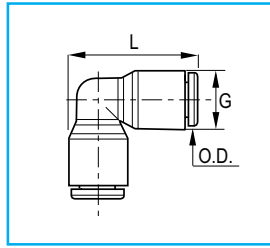
# SAE products – tube to tube fittings

## 3106 union — fractional inch tube to tube



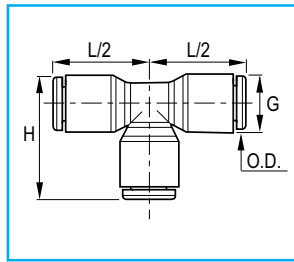
O.D. TUBE		G in	L in	
1/4	<a href="#">3106 56 00AE</a>	.531	1.50	.41
3/8	<a href="#">3106 60 00AE</a>	.748	2.03	1.05
1/2	<a href="#">3106 62 00AE</a>	.870	2.24	1.93

## 3102 union elbow — fractional inch tube to tube



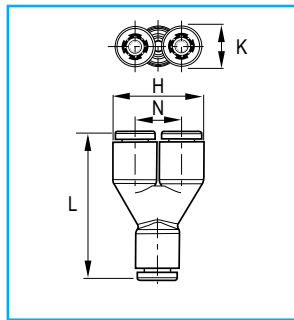
O.D. TUBE		G in	L in	
1/4	<a href="#">3102 56 00AE</a>	.531	1.07	.42
3/8	<a href="#">3102 60 00AE</a>	.747	1.60	1.10
1/2	<a href="#">3102 62 00AE</a>	.870	1.84	2.01

## 3104 union tee — fractional inch tube to tube



O.D. TUBE		G in	H in	L/2 in	
1/4	<a href="#">3104 56 00AE</a>	.531	1.17	.900	.62
3/8	<a href="#">3104 60 00AE</a>	.747	1.60	1.23	1.60
1/2	<a href="#">3104 62 00AE</a>	.870	1.84	1.41	2.53

## 3140 "Y" union — fractional inch tube to tube



O.D. TUBE		H in	K in	L in	N in	
1/4	<a href="#">3140 56 00AE</a>	1.09	.531	1.78	.563	.64

## 1487P recoil assembly for fifth wheel



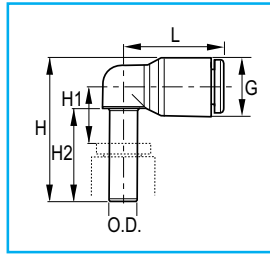
ØD tube	NPTF		
1/4	1/4	<a href="#">1487P00 21SP</a>	(without thread sealant)
1/4	1/4	<a href="#">1487P00 22SP</a>	(with thread sealant)

Each standard assembly consists of: 1 recoil tube; 2 1/4" x 1/4" male connectors with or without sealant; 2 spring guards; J844 type A fifth wheel assembly.

O.D.	Contracted Length	Working Length	Linear Feet Per	Pigtail Length	Coil Length	Temp	Max Working Pressure
1/4"	6"	5'	8'	3 1/2"	1 3/4"	-15°F to +160°F	200 PSI

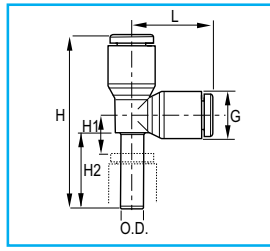
# SAE products – tube to tube fittings

## 3182 plug-in elbow — fractional inch



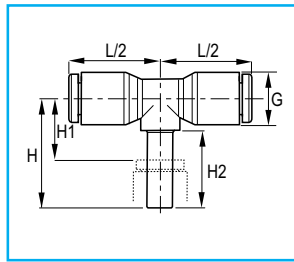
O.D. TUBE		G in	H in	H1 in	H2 in	L in	oz
1/4	3182 56 00AE	.531	1.31	.512	.843	.902	.31

## 3183 plug-in run tee — fractional inch



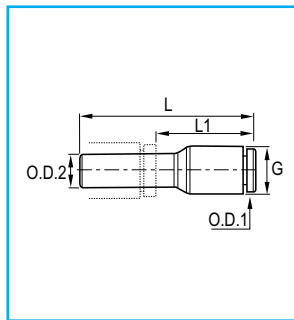
O.D. TUBE		G in	H in	H1 in	H2 in	L in	oz
1/4	3183 56 00AE	.531	1.94	.433	.843	.902	.43

## 3188 plug-in union tee — fractional inch



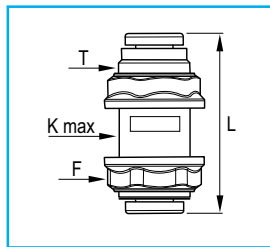
O.D. TUBE		G in	H in	H1 in	H2 in	L in	oz
1/4	3188 56 00AE	.531	1.09	.610	.772	.902	.43

## 3166 reducer — fractional inch



O.D. TUBE	O.D. TUBE2		G in	L in	L1 in	oz
1/4	3/8	3166 56 60AE	.531	1.93	1.08	.25

## 3116 bulkhead union — fractional inch



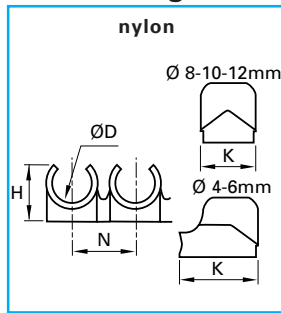
O.D. TUBE		F mm	K max in	L in	T min in	oz
1/4	3116 56 00AE	18	.35	1.50	.590	.50
3/8	3116 60 00AE	26	.57	2.01	.866	1.15

### Legris DOT and SAE fittings

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# accessories for SAE and DOT products

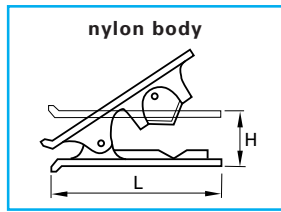
## Clip clip strips for tubing and fittings



ØD	ØLF3000 body size		H mm	K mm	N mm	Number of clips per strip	kg
5/32, 4mm		Clip 04 00	9	13.5	10.5	8	.008
1/4, 3/16, 6mm		Clip 06 00	10.5	13	10.5	8	.009
5/16, 8mm	5/32, 4mm	Clip 08 00	12.5	10.5	12	7	.009
3/8, 10mm	1/4, 6mm	Clip 10 00	14	12	15	6	.010
1/2, 12mm		Clip 12 00	16.5	14	16.5	5	.011

Legris clips can be used to mount both tubing and fittings. To order clips for tubing use the column "O.D. tube". To order clips for mounting a fitting order by the "O.D. body size". Clip strips are packaged in quantities of 5, but ordered by individual strip. They come complete with screws of 9.5mm length.

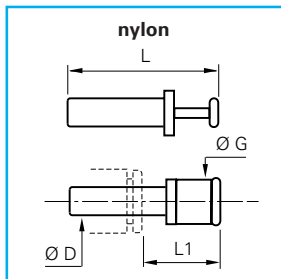
## 3000 71 00 tube cutter



	H in	L in	oz
3000 71 00	.98	3.11	1.09

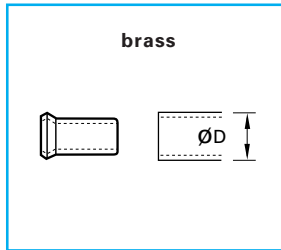
This tool will cut all resilient plastic tube (e.g. nylon, teflon, polyurethane, braided PVC, soft rubber, etc.) from 1/8" to 1/2" and 4mm to 14mm diameter inclusive. It is designed to give a clean cut at right angles to the tube axis. A spring maintains the cutter in the closed position.

## 3126 plug — fractional inch



ØD in		G in	L in	L1 in	oz
5/32	3126 04 00	.16	1.18	.61	.04
3/16	3126 55 00	.27	1.36	.79	.06
1/4	3126 56 00	.32	1.44	.87	.06
3/8	3126 60 00	.46	1.67	.87	.10
1/2	3126 62 00	.58	1.91	.85	.18

## tube support — fractional inch



ØD in		for DOT products	technology	for SAE products	technology
5/32	38165	collet			
3/16	38163	collet			
1/4	38164	collet		40176	collet
3/8	40240	gripping ring		40240	collet
1/2	40782A	gripping ring		40182	collet

## 3110/3330 caps — manual release button — fractional inch



ØD tube in						oz	
5/32	3330 04 00	3330 04 01	3330 04 02	3330 04 03	3330 04 04	3330 04 05	.04
3/16	3330 55 00	3330 55 01	3330 55 02	3330 55 03	3330 55 04	3330 55 05	.04
1/4	3330 56 00	3330 56 01	3330 56 02	3330 56 03	3330 56 04	3330 56 05	.04
3/8	3110 60 00	NA	3110 60 02	3110 60 03	3110 60 04	3110 60 05	.04
1/2	3110 62 00	NA	3110 62 02	3110 62 03	3110 62 04	3110 62 05	.04
<b>for SAE</b>							
3/8	3330 60 00	3330 60 01	3330 60 02	3330 60 03	3330 60 04	3330 60 05	.04
1/2	3330 62 00	3330 62 01	3330 62 02	3330 62 03	3330 62 04	3330 62 05	.04

DOT fittings are supplied **standard, with manual release buttons** for easy disconnect. These buttons (p/n 3330) are removable for sizes 5/32", 3/16" and 1/4". For 3/8" and 1/2" fittings, colored caps (p/n 3110) are available to fit over the black push button.

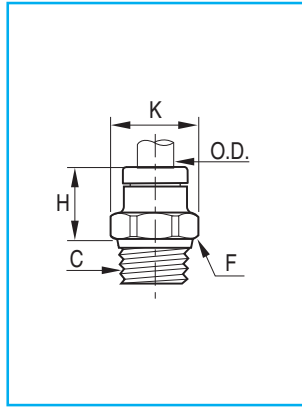
DOT release buttons are supplied in package quantities of 100. Release buttons are particularly useful when the tube needs to be disconnected frequently. The optional colors allow color coding to be used. Other colors may be available upon request.

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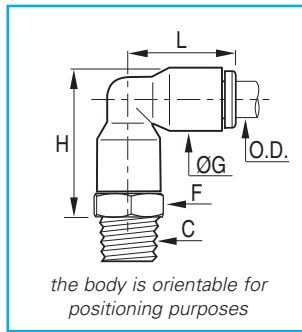
# DOT products – threaded fittings

## 3115 male connector — fractional inch tube to male NPT



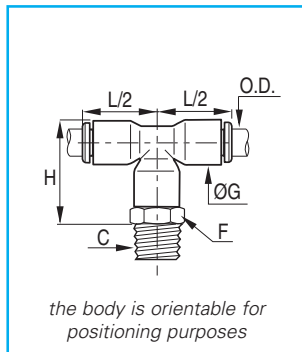
ØD in	C NPT		F mm	H in	K in	oz
5/32	1/8	3115 04 11DOT	11	.334	.472	.220
5/32	1/4	3115 04 14DOT	14	.275	.590	.510
3/16	1/8	3115 55 11DOT	7/16"	.610	.490	.230
3/16	1/4	3115 55 14DOT	9/16"	.590	.628	.480
1/4	1/8	3115 56 11DOT	11	.472	.472	.230
1/4	1/4	3115 56 14DOT	14	.374	.590	.480
1/4	3/8	3115 56 18DOT	18	.295	.768	.860
3/8	1/8	3115 60 11DOT	16	.914	.690	.660
3/8	1/4	3115 60 14DOT	16	.827	.690	.680
3/8	3/8	3115 60 18DOT	18	.710	.768	.930
3/8	1/2	3115 60 22DOT	22	.630	.945	1.70
1/2	1/4	3115 62 14DOT	22	1.31	.85	1.40
1/2	3/8	3115 62 18DOT	22	1.31	.85	1.40
1/2	1/2	3115 62 22DOT	22	1.31	.85	1.60

## 3109 male elbow — fractional inch tube to male NPT



ØD in	C NPT		F mm	G in	H in	L in	oz
5/32	1/8	3109 04 11DOT	11	.334	.905	.75	.370
3/16	1/8	3109 55 11DOT	11	.427	1.09	.86	.490
1/4	1/8	3109 56 11DOT	11	.427	1.09	.93	.490
1/4	1/4	3109 56 14DOT	14	.427	1.09	.93	.690
1/4	3/8	3109 56 18DOT	18	.427	1.18	.93	1.01
3/8	1/4	3109 60 14DOT	17	.630	1.54	1.33	1.09
3/8	3/8	3109 60 18DOT	18	.630	1.54	1.33	1.60
3/8	1/2	3109 60 22DOT	22	.630	1.54	1.33	2.80
1/2	1/4	3109 62 14DOT	7/8"	.87	1.95	1.59	1.80
1/2	3/8	3109 62 18DOT	7/8"	.87	1.95	1.59	2.00
1/2	1/2	3109 62 22DOT	1"	.87	1.95	1.59	2.20

## 3108 male branch tee — fractional inch tube to male NPT



ØD in	C NPT		F mm	G in	H in	L/2 in	oz
5/32	1/8	3108 04 11DOT	11	.334	.905	.57	.420
5/32	1/4	3108 04 14DOT	14	.334	.905	.57	.720
3/16	1/8	3108 55 11DOT	11	.427	1.09	.85	.570
1/4	1/8	3108 56 11DOT	11	.427	1.09	.71	.570
1/4	1/4	3108 56 14DOT	14	.427	1.09	.71	.770
1/4	3/8	3108 56 18DOT	18	.427	1.18	.71	1.13
3/8	1/4	3108 60 14DOT	17	.630	1.54	1.04	1.21
3/8	3/8	3108 60 18DOT	18	.630	1.54	1.04	1.78
3/8	1/2	3108 60 22DOT	22	.630	1.54	1.04	2.94
1/2	1/4	3108 62 14DOT	7/8"	.87	1.52	1.41	2.20
1/2	3/8	3108 62 18DOT	7/8"	.87	1.52	1.41	2.70
1/2	1/2	3108 62 22DOT	1"	.87	1.52	1.41	2.80

### Identification

Part numbers have been chosen by a method of mnemonics. Each instant fitting for DOT is identified by:

- its series
- the diameter of passage through the fitting
- the thread code or the second passage diameter
- the designation of DOT

Example

**3109 56 11DOT**

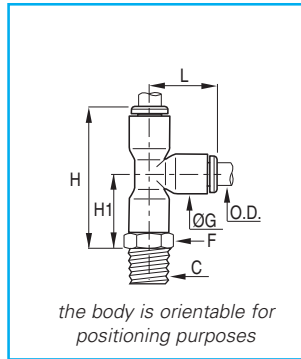
type of fitting      O.D. of tube      thread code or second tube O.D.      to designate it is part of the DOT range

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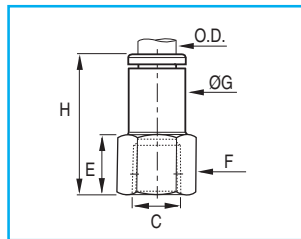
# DOT products – threaded fittings

## 3103 male run tee — fractional inch tube to male NPT



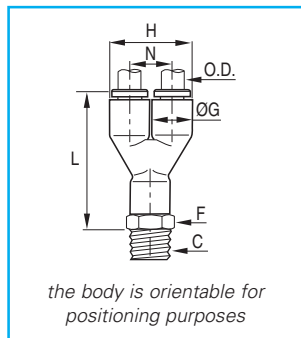
ØD tube	C NPT		F mm	G in	H in	H1 in	L in	oz
5/32	1/8	3103 04 11DOT	11	.334	1.34	.736	.57	.420
5/32	1/4	3103 04 14DOT	14	.334	1.34	.736	.57	.720
3/16	1/8	3103 55 11DOT	11	.427	1.73	.874	.85	.570
1/4	1/8	3103 56 11DOT	11	.427	1.60	.870	.71	.570
1/4	1/4	3103 56 14DOT	14	.427	1.60	.870	.71	.770
1/4	3/8	3103 56 18DOT	18	.427	1.60	.964	.71	1.13
3/8	1/4	3103 60 14DOT	17	.630	2.30	1.22	1.06	1.21
3/8	3/8	3103 60 18DOT	18	.630	2.30	1.22	1.06	1.78
3/8	1/2	3103 60 22DOT	22	.630	2.30	1.22	1.06	2.94
1/2	1/4	3103 62 14DOT	7/8"	.87	2.95	1.51	1.40	2.40
1/2	3/8	3103 62 18DOT	7/8"	.87	2.95	1.51	1.40	2.70
1/2	1/2	3103 62 22DOT	1"	.87	2.95	1.51	1.40	2.80

## 3114 straight female connector — fractional inch tube to NPT



ØD tube	C NPT		F mm	G in	H in	E in	oz
5/32	1/8	3114 04 11DOT	13	.326	.89	.374	.350
5/32	1/4	3114 04 14DOT	16	.326	1.06	.551	.560
3/16	1/8	3114 55 11DOT	9/16"	.45	1.01	.374	.370
1/4	1/8	3114 56 11DOT	13	.421	.98	.374	.390
1/4	1/4	3114 56 14DOT	16	.421	1.16	.551	.560
3/8	1/4	3114 60 14DOT	16	.610	1.44	.551	2.50
3/8	3/8	3114 60 18DOT	22	.610	1.56	.650	2.58

## 3148 "Y" male connector — fractional inch tube to NPT



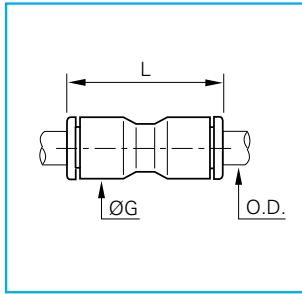
ØD tube	C NPT		F mm	H in	G in	L in	N in	oz
5/32	1/8	3148 04 11DOT	11	.689	.334	1.30	.354	.350
5/32	1/4	3148 04 14DOT	14	.689	.334	1.32	.354	.630
1/4	1/8	3148 56 11DOT	11	.866	.433	1.65	.453	.630
1/4	1/4	3148 56 14DOT	14	.866	.433	1.60	.453	.750

### Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

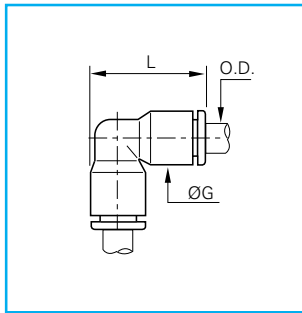
# DOT products – tube to tube fittings

## 3106 union — fractional inch tube to tube



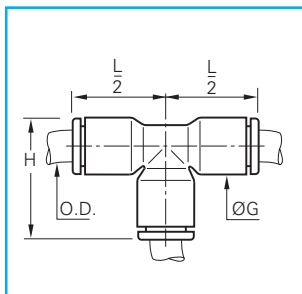
ØD tube		G in	L in	oz
5/32	3106 04 00DOT	.334	.98	.070
3/16	3106 55 00DOT	.427	1.44	.280
1/4	3106 56 00DOT	.427	1.16	.140
3/8	3106 60 00DOT	.630	1.69	.950
1/2	3106 62 00DOT	.87	2.22	1.15

## 3102 union elbow — fractional inch tube to tube



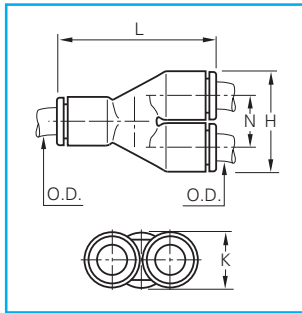
ØD tube		G in	L in	oz
5/32	3102 04 00DOT	.334	.75	.070
3/16	3102 55 00DOT	.427	1.07	.280
1/4	3102 56 00DOT	.427	.93	.140
3/8	3102 60 00DOT	.630	1.36	.950
1/2	3102 62 00DOT	.87	1.84	1.45

## 3104 union tee — fractional inch tube to tube to tube



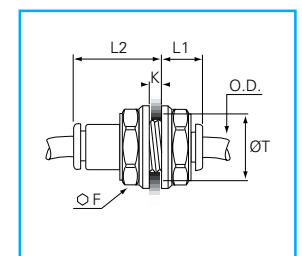
ØD tube		G in	H in	L/2 in	oz
5/32	3104 04 00DOT	.334	.728	.57	.140
3/16	3104 55 00DOT	.427	1.02	.85	.420
1/4	3104 56 00DOT	.427	.905	.93	.490
3/8	3104 60 00DOT	.630	1.33	1.05	1.48
1/2	3104 62 00DOT	.87	1.81	1.41	2.00

## 3140 union "Y"— fractional inch tube to tube



ØD tube		H in	K in	L in	N in	oz
5/32	3140 04 00DOT	.689	.334	1.12	.354	.140
1/4	3140 56 00DOT	.878	.433	1.42	.453	.350
3/8	3140 60 00DOT	1.30	.630	2.12	.669	.520

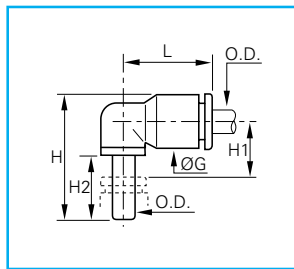
## 3116 bulkhead union — fractional inch



ØD tube		F mm	K MAX in	L1 in	L2 in	T min in	MAX TORQUE	oz
5/32	3116 04 00DOT	13	.216	.37	.571	.413	11 lb in	.670
1/4	3116 56 00DOT	15	.334	.37	.768	.492	13 lb in	1.02
3/8	3116 60 00DOT	22	.571	.53	1.18	.728	22 lb in	2.96
1/2	3116 62 00DOT	29	.82	.69	1.64	1.02	39 lb in	3.60

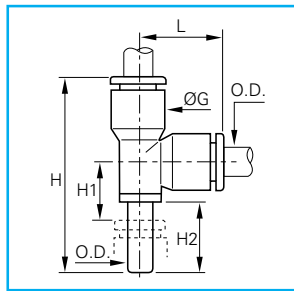
# DOT products – plug-in fittings

## 3182 plug-in elbow — fractional inch



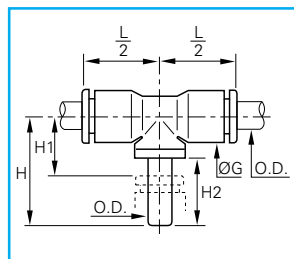
ØD tube		G in	H in	H1 in	H2 in	L in	oz
5/32	3182 04 00DOT	.334	1.02	.374	.748	.55	.110
1/4	3182 56 00DOT	.427	1.20	.433	.827	.73	.140

## 3183 plug-in run tee — fractional inch



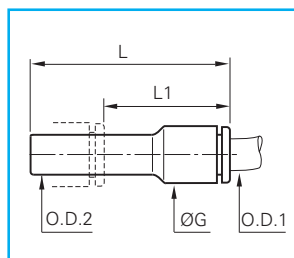
ØD tube		G in	H in	H1 in	H2 in	L in	oz
1/4	3183 56 00DOT	.427	1.71	.433	.827	.73	.210

## 3188 plug-in tee — fractional inch



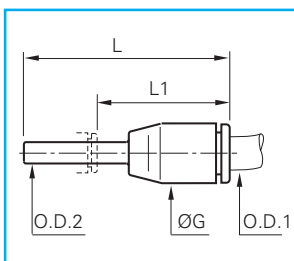
ØD tube		G in	H in	H1 in	H2 in	L/2 in	oz
1/4	3188 56 00DOT	.427	.984	.433	.768	.73	.280

## 3166 reducer — fractional inch



ØD tube	ØD2 tube		G in	L in	L1 in	oz
5/32	3/16	3166 04 55DOT	.334	1.48	.83	.210
5/32	1/4	3166 04 56DOT	.334	1.48	.91	.250
3/16	1/4	3166 55 56DOT	.433	1.79	1.22	.250
1/4	3/8	3166 56 60DOT	.433	1.61	.81	.350

## 3168 expander — fractional inch



ØD tube	ØD2 tube		G in	L in	L1 in	oz
1/4	5/32	3168 56 04DOT	.433	1.61	1.14	.320

### Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

# DOT products and cartridges

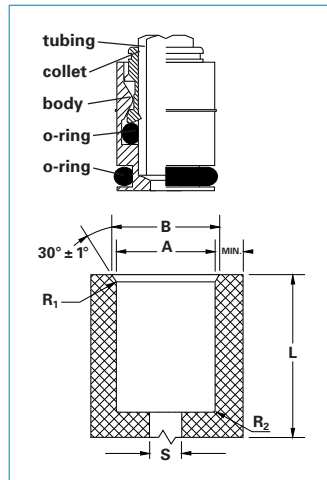
## 3000 single step cartridges — for the integration into components

### materials of construction

**body:** brass  
**collet:** brass  
**tube support:** brass  
**inner o-ring:** low temperature Buna N – standard  
**outer o-ring:** Buna N (consult factory for different o-ring)

### specifications

Compressed air only  
 Maximum pressure 200 psi  
 Temp. range: -40 to +225°F



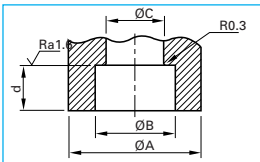
### features and benefits

- Economical and compact
- Optional manual release buttons available in many colors for system identification
- Easy press-in capability into a single bore cavity
- External static o-ring to prevent leakage on outside diameter of cartridge
- Internal o-ring seals on O.D. of tubing
- Fixed groove to contain o-ring to avoid falling off during installations
- Comply with D.O.T. FMVSS 571.106 specification requirements (tube support sold separately)
- Suitable for use with metal and plastic parts

O.D. SIZE	Image Icon	ØA 0.05 0	ØB ±0.05	L+0.15 0	S ±0.1	R1 ±0.1	R2+0 -0.2	min wall thickness	
								plastic	brass
5/32	3000 00 05 13DT	8.25	8.83	13	3.1	0.4	0.5	1.32	1.04
1/4	3000 00 05 11DT	10.94	12	16	4.5	0.4	0.5	1.45	.95
3/8	3000 00 05 12DT	16.51	17.65	21.4	7.5	0.4	0.5	2.2	1.45

All dimensions and tolerances are in millimeters.

### single step cartridge press-in tool dimensions



O.D. SIZE	ØA +0.1 -0	ØB +0.1 -0	ØC +0.1 -0	d ±0.1
5/32	10.7	6.5	4.3	6
1/4	14	8.5	6.2	4.76
3/8	20.5	12.2	10.9	6.35

All dimensions and tolerances are in millimeters.

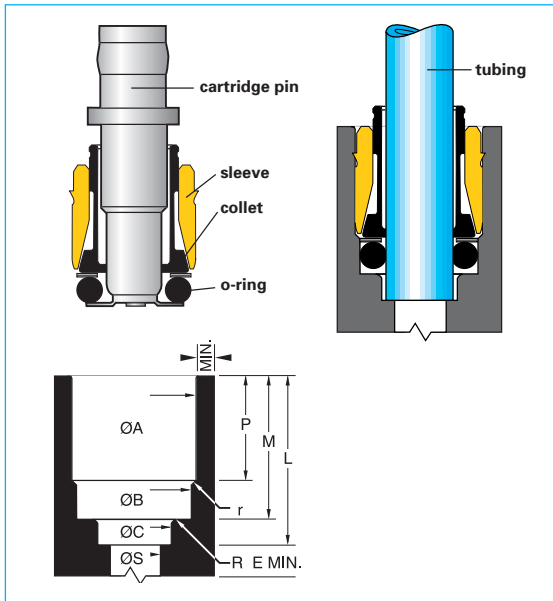
Using cartridges offers application advantages not available with most threaded connectors. Please consult Legris for specific information about these products and assembly data. We work closely with customers on cartridge applications as well as the manufacture of molded components with preassembled cartridges.

### Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

# DOT products – cartridges

## 3000 3 step cartridge — for the integration into components



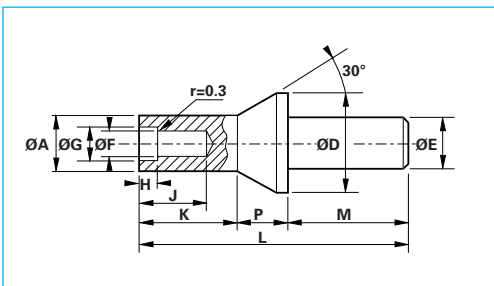
### feature and benefits

- Economical and compact
- Outer sleeve, slotted collet, and o-ring assembled to a cartridge pin
- Cartridge pin maintains the component assembly and acts as an insertion guide
- Complete assembly is press fit into a cavity using a form tool
- Once assembled, cartridge pin is discarded and tubing is inserted
- Comply with D.O.T. FMVSS 571.106 specification requirements (tube support sold separately)
- Suitable for use with metal and plastic parts
- Optional manual release buttons available in many colors for system identification

### DIMENSIONS

O.D.		ØA +.05 -0 mm	ØB +.05 -0 mm	ØC +.05 -0 mm	ØS	L +.3 -0 mm	M +.25 -0 mm	P +.15 -0 mm	R	r	E MIN	min wall thickness	
												plastic	brass
1/8	3000 53 00	7.8	6.2	3.35	2	12	9.6	7.5	0.4	0.2	1	1.3	1.3
5/32	3000 54 00	8.3	7.2	4.2	3.3	12	9.8	7.5	0.4	0.2	1	1.32	1.04
3/16	3000 55 00	8.5	7.8	5	3.5	12	9.8	7.5	0.4	0.2	1	1.22	.94
1/4	3000 56 00	10.5	9.7	6.55	4.5	14	11	8.5	0.5	0.3	1.5	1.45	.95
3/8	3000 60 00	16.5	14.8	9.7	7.5	19	16	11.5	0.7	0.3	1.5	2.2	1.45
1/2	3000 62 00	19	18	12.9	10	20	17	12.5	0.8	0.4	2	2.5	1.50

### 3 step cartridge press-in tool dimensions



O.D. SIZE	ØA +0.1 -0	ØG +0.1 -0	ØF +0.1 -0	ØD	ØE	H	J	K	P	M	L
1/8	10.2	5.3	3.2	19.05	12.7	6.35	15.87	19.05	12.7	31.75	63.5
5/32	10.7	6.7	4.3	19.05	12.7	6	14	19.05	12.7	31.75	63.5
3/16	11	6.9	4.7	19.05	12.7	6.35	15.87	19.05	12.7	31.75	63.5
1/4	14	8.6	6.2	25.4	12.7	4.76	17.5	25.4	12.7	31.75	69.85
5/16	16	10.1	8.6	25.4	12.7	6	16.5	25.4	12.7	31.75	69.85
3/8	20.5	13.1	10.9	31.75	12.7	6.35	19.5	25.4	12.7	31.75	69.85

All dimensions and tolerances are in millimeters.

### Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.



# brass compression fittings



# fractional inch compression fittings

## applications



Use long nut when excessive vibration may be encountered.

## compression

Copper, brass, aluminum, and plastic tubing. Not recommended for steel tubing. Soft plastic tubing requires support inside and in line sleeve.

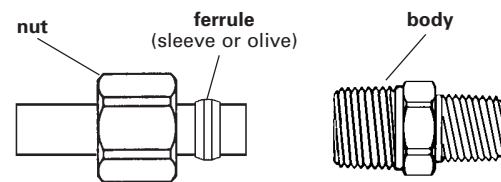
Maximum working pressure is 400 psi. Nominal working pressure is 200 psi.

-65° to +250°F.

## compression fitting components and assembly

### how are they assembled?

1. Use a tube cutter on the tubing to cut to length and assure a clean straight cut.
2. Prepare the end of the tube with a deburring tool to assure a surface free of burrs.
3. Slide the nut and then the ferrule onto the tube. The thread end of the nut must face out.
4. Insert tubing into the fitting body, making sure the tube is bottomed out on the fitting shoulder.
5. Assemble the nut to the body, hand tight.
6. Tighten the nut to the body using a wrench to the number of turns indicated in the table to the right.



tube size	additional turns from hand tight
1/8" thru 5/16"	1 1/4"
3/8" and larger	2 1/4"

**Note:** This chart applies to fractional inch sizes only.

## application parameters

### types of tubing

Designed for use with aluminum, copper and plastic tubing, not recommended for steel tube. Compression fittings are designed for medium pressure tubing where excessive vibration or tube movement is not involved. Not recommended for application using gaseous media.

### working pressures for aluminum or copper tubing

Temperature and type of tubing are important factors. However, the following table is a good guide for proper selection at ambient temperatures of 73°F.

psi	tube O.D. (in.)	tube wall (in.)
400	1/8"	.030
400	3/16"	.030
300	1/4"	.030
300	5/16"	.032
200	3/8"	.032
200	1/2"	.032
150	5/8"	.035
100	3/4"	.035
75	7/8"	.035

**Note:** For working pressures with plastic tubing, please see the tubing section of the Legris catalog. The pressure ratings will vary with the type tubing chosen. In any case **use only with nylon or polyethylene tubing.**

## special requirements

**plastic tubing:** For application with either nylon or polyethylene tubing, it is recommended that the standard brass ferrule be replaced with a delrin ferrule. As well a brass insert should be used to further support the tube. The insert is **Series U063L** and the delrin ferrule is **Series U060L**.

**vibration:** It is not recommended to apply compression application or applications where there may be side loading on the fitting. For low vibration or side load, it is necessary to use a long nut. In this way the tubing will be better supported. The reference for this long nut is **Series U061L**.

# fractional inch compression fittings

## thread and tubing codes

### tube fitting size and thread standards

O.D. tube size	body threads	
	O.D.	threads/in.
1/8	5/16	24
3/16	3/8	24
1/4	7/16	24
5/16	1/2	24
3/8	9/16	24
1/2	11/16	20

### fractional size code

used with all part numbers to designate tube and pipe fractional sizes.

tube size code—1/16ths	1/8 2	3/16 3	1/4 4	5/16 5	3/8 6	1/2 8
pipe size code	1/8 A	1/4 B	3/8 C	1/2 D		

## brass compression fittings

**U068 L**  
NPT  
Page G4



**U066 L**  
NPT  
Page G4



**U069 L**  
NPT  
Page G4



**U070 L**  
NPT  
Page G5



**U079 L**  
NPT  
Page G5



**U072 L**  
NPT  
Page G5



**U071 L**  
NPT  
Page G5



**U062 L**  
Page G6



**U065 L**  
Page G6



**U064 L**  
Page G6



**U077 L**  
Page G7



**U060 L**  
Page G7



**U060 L**  
Page G7



**U061 L**  
Page G8



**U061 L**  
Page G8

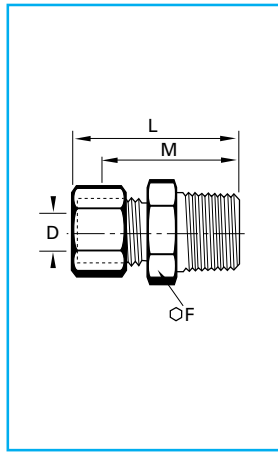


**U063 L**  
Page G8



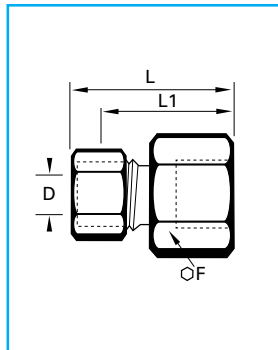
# brass compression fittings

## U068 L compression connector — fractional inch tube to male NPT



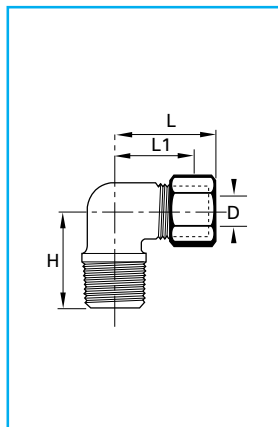
ØD in	NPT thread		F in	L in	M in	flow dia.D	
1/8	1/8	U068 L 2A	7/16	.97	.77	.094	.52
3/16	1/8	U068 L 3A	7/16	1.08	.84	.125	.53
3/16	1/4	U068 L 3B	9/16	1.27	1.03	.125	.84
1/4	1/8	U068 L 4A	7/16	1.10	.86	.188	.61
1/4	1/4	U068 L 4B	9/16	1.30	1.06	.188	.92
1/4	3/8	U068 L 4C	11/16	1.27	1.03	.188	1.20
1/4	1/2	U068 L 4D	7/8	1.55	1.31	.188	1.97
5/16	1/8	U068 L 5A	1/2	1.15	.89	.234	.73
5/16	1/4	U068 L 5B	9/16	1.33	1.07	.250	.96
3/8	1/8	U068 L 6A	9/16	1.25	.97	.250	.90
3/8	1/4	U068 L 6B	9/16	1.42	1.14	.312	1.08
3/8	3/8	U068 L 6C	11/16	1.44	1.16	.312	1.42
3/8	1/2	U068 L 6D	7/8	1.53	1.25	.312	1.88
1/2	1/4	U068 L 8B	11/16	1.62	1.22	.312	1.84
1/2	3/8	U068 L 8C	11/16	1.60	1.20	.406	1.95
1/2	1/2	U068 L 8D	7/8	1.71	1.31	.406	2.45

## U066 L compression connector — fractional inch tube to female NPT



ØD in	NPT thread		F in	L in	L1 in	flow dia.D	
1/8	1/8	U066 L 2A	9/16	.95	.75	.094	.64
3/16	1/8	U066 L 3A	9/16	1.02	.78	.125	.68
1/4	1/8	U066 L 4A	9/16	1.02	.78	.188	.46
1/4	1/4	U066 L 4B	11/16	1.24	1.00	.188	1.20
5/16	1/8	U066 L 5A	9/16	1.07	.81	.250	.80
5/16	1/4	U066 L 5B	11/16	1.29	1.03	.250	1.24
3/8	1/8	U066 L 6A	9/16	1.06	.78	.312	.88
3/8	1/4	U066 L 6B	11/16	1.34	1.06	.312	.70
3/8	3/8	U066 L 6C	13/16	1.34	1.06	.312	1.53
3/8	1/2	U066 L 6D	1	1.54	1.27	.312	.60
1/2	3/8	U066 L 8C	13/16	1.52	1.12	.406	1.66
1/2	1/2	U066 L 8D	1	1.71	1.31	.406	1.67

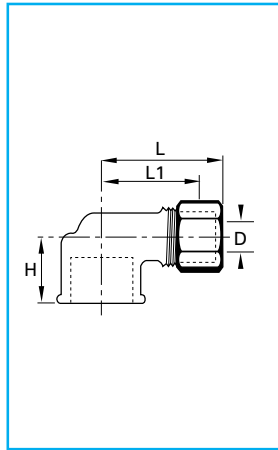
## U069 L compression elbow — fractional inch tube to male NPT



ØD in	NPT thread		L in	L1 in	H in	flow dia.D	
1/8	1/8	U069 L 2A	.80	.60	.67	.094	.73
3/16	1/8	U069 L 3A	.84	.61	.69	.125	.76
3/16	1/4	U069 L 3B	.86	.64	.93	.125	1.11
1/4	1/8	U069 L 4A	.86	.61	.74	.188	.93
1/4	1/4	U069 L 4B	.86	.62	.94	.188	1.29
1/4	3/8	U069 L 4C	.93	.68	1.00	.188	1.94
5/16	1/8	U069 L 5A	.88	.61	.74	.234	1.13
5/16	1/4	U069 L 5B	.95	.71	.93	.250	1.33
3/8	1/8	U069 L 6A	1.03	.74	.74	.234	1.42
3/8	1/4	U069 L 6B	1.03	.74	.93	.312	1.52
3/8	3/8	U069 L 6C	1.03	.75	1.00	.312	2.26
3/8	1/2	U069 L 6D	1.22	.94	1.27	.312	2.30
1/2	1/4	U069 L 8B	1.34	.94	1.00	.312	2.39
1/2	3/8	U069 L 8C	1.34	.93	1.11	.406	2.65
1/2	1/2	U069 L 8D	1.48	1.06	1.15	.406	3.00

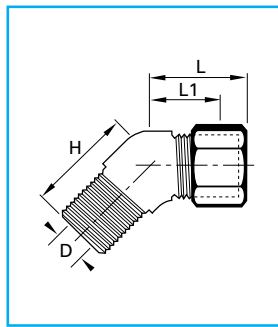
# brass compression fittings

## U070 L compression elbow — fractional inch tube to female NPT



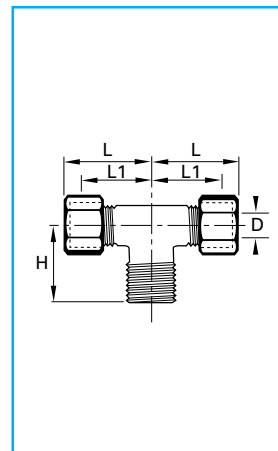
ØD in	NPT thread		L in	L1 in	H in	flow dia.D	
1/8	1/8	U070 L 2A	.89	.69	.56	.094	.83
3/16	1/8	U070 L 3A	.98	.73	.56	.125	.94
1/4	1/8	U070 L 4A	.93	.69	.56	.188	.94
1/4	1/4	U070 L 4B	1.02	.78	.70	.188	1.35
3/8	1/4	U070 L 6B	1.06	.79	.73	.312	2.34
3/8	3/8	U070 L 6C	1.22	.94	.69	.312	1.89
1/2	3/8	U070 L 8C	1.34	1.00	.69	.406	3.70

## U079 L 45 degree elbow — fractional inch tube to male NPT



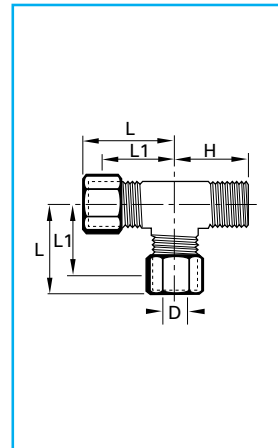
ØD in	NPT thread		L in	L1 in	H in	flow dia.D	
1/4	1/8	U079 L 4A	.90	.66	.56	.188	.75
1/4	1/4	U079 L 4B	.80	.56	.84	.188	1.45
3/8	1/4	U079 L 6B	.90	.63	.84	.312	1.56
3/8	3/8	U079 L 6C	.97	.75	.95	.312	2.00
1/2	3/8	U079 L 8C	1.15	.81	.95	.406	2.50

## U072 L compression tee — fractional inch tube to male NPT



ØD in	NPT thread		L in	L1 in	H in	flow dia.D	
1/8	1/8	U072 L 2A	.82	.61	.71	.094	.99
3/16	1/8	U072 L 3A	.86	.61	.71	.125	1.10
1/4	1/8	U072 L 4A	.86	.61	.74	.188	1.24
1/4	1/4	U072 L 4B	.93	.69	.92	.188	1.46
3/8	1/8	U072 L 6A	1.03	.75	.75	.234	1.87
3/8	1/4	U072 L 6B	1.09	.77	1.03	.312	1.87
3/8	3/8	U072 L 6C	1.09	.81	1.00	.312	2.35
1/2	3/8	U072 L 8C	1.34	.93	1.10	.406	3.94

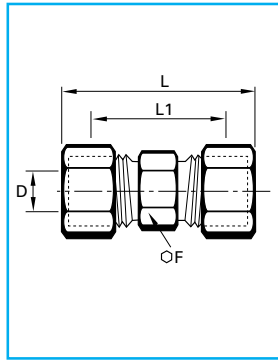
## U071 L compression tee — fractional inch tube to male NPT



ØD in	NPT thread		L in	L1 in	H in	flow dia.D	
1/8	1/8	U071 L 2A	.82	.61	.71	.094	.90
3/16	1/8	U071 L 3A	.86	.61	.71	.125	1.05
1/4	1/8	U071 L 4A	.90	.64	.75	.188	1.27
1/4	1/4	U071 L 4B	.93	.69	.92	.188	1.45
3/8	1/4	U071 L 6B	1.09	.81	1.03	.312	2.06

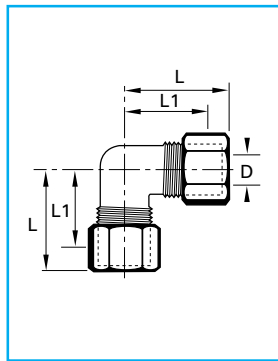
# brass compression fittings

## U062 L compression union — fractional inch tube to tube



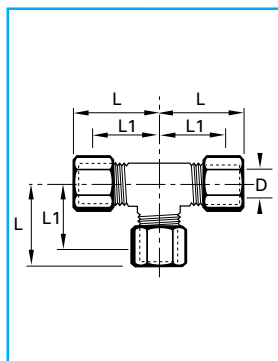
ØD in		F in	L in	L1 in	flow dia.D	
1/8	<a href="#">U062 L 2</a>	5/16	1.05	.64	.094	.44
3/16	<a href="#">U062 L 3</a>	3/8	1.21	.72	.125	.65
1/4	<a href="#">U062 L 4</a>	7/16	1.33	.79	.188	.84
5/16	<a href="#">U062 L 5</a>	1/2	1.39	.85	.250	1.01
3/8	<a href="#">U062 L 6</a>	9/16	1.52	.97	.312	2.61
1/2	<a href="#">U062 L 8</a>	11/16	1.90	1.08	.406	2.55

## U065 L compression elbow — fractional inch tube to tube



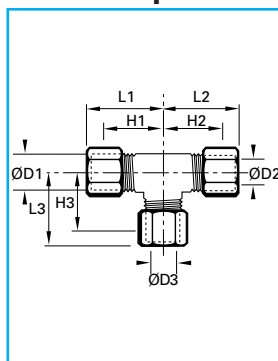
ØD in		L in	L1 in	flow dia.D	
1/8	<a href="#">U065 L 2</a>	.82	.61	.094	.66
3/16	<a href="#">U065 L 3</a>	.87	.61	.125	.92
1/4	<a href="#">U065 L 4</a>	.88	.61	.188	1.04
5/16	<a href="#">U065 L 5</a>	.95	.71	.250	1.32
3/8	<a href="#">U065 L 6</a>	1.03	.74	.312	1.40
1/2	<a href="#">U065 L 8</a>	1.34	.93	.406	2.97

## U064 L compression tee — fractional inch tube to tube to tube



ØD in		L in	L1 in	flow dia.D	
1/8	<a href="#">U064 L 2</a>	.82	.61	.094	1.09
3/16	<a href="#">U064 L 3</a>	.84	.60	.125	1.20
1/4	<a href="#">U064 L 4</a>	.86	.61	.188	1.51
5/16	<a href="#">U064 L 5</a>	.98	.71	.250	2.10
3/8	<a href="#">U064 L 6</a>	1.03	.74	.312	2.54
1/2	<a href="#">U064 L 8</a>	1.34	.93	.406	4.49

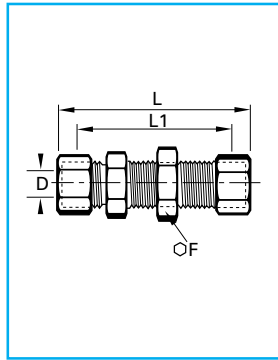
## U064 L compression tee — unequal — fractional inch tube to tube to tube



ØD1 in	ØD2 in	ØD3 in		L1 in	L2 in	L3 in	H1 in	H2 in	H3 in	flow dia.D	
3/8	3/8	1/4	<a href="#">U064 L 6CB</a>	1.03	.96	.96	.75	.75	.72	.188	2.54
1/2	1/2	3/8	<a href="#">U064 L 8DC</a>	1.34	1.16	1.16	.94	.94	.88	.312	4.49

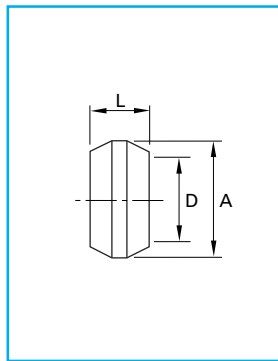
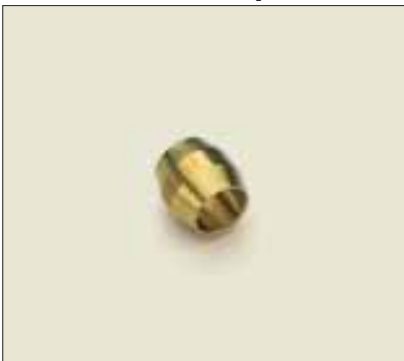
# brass compression fittings

## U077 L compression bulkhead union — fractional inch tube to tube



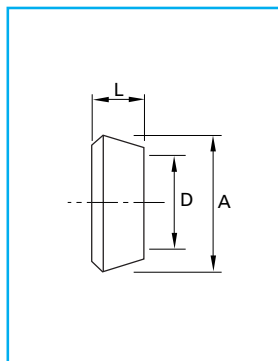
ØD in		F in	L in	L1 in	flow dia.D	
1/4	U077 L 4	9/16	2.29	1.75	.188	2.00
3/8	U077 L 6	11/16	2.42	1.88	.312	2.40

## U060 L compression sleeve — fractional inch



ØD in		A in	D in	L in	
1/8	U060 L 2	.187	.130	.19	.01
3/16	U060 L 3	.266	.192	.22	.02
1/4	U060 L 4	.344	.255	.25	.01
5/16	U060 L 5	.406	.318	.25	.04
3/8	U060 L 6	.469	.382	.25	.04
1/2	U060 L 8	.594	.507	.38	.04

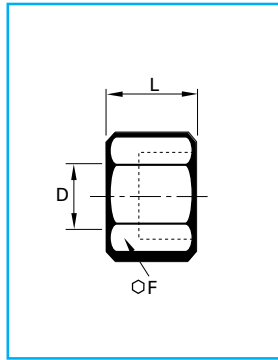
## U060 L delrin compression sleeve — fractional inch



plastic tube well	tube wall		A in	D in	L in	
1/4	.040	U060 L 4A	.375	.254	.19	.01
5/16	.062	U060 L 5A	.438	.317	.19	.01
3/8	.062	U060 L 6A	.500	.379	.19	.01
1/2	.062	U060 L 8A	.631	.507	.25	.01

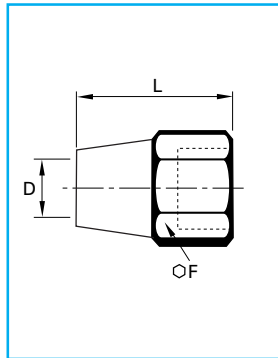
# brass compression fittings

## U061 L compression nut — fractional inch



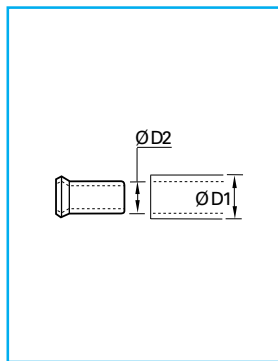
ØD in		F in	D in	L in	
1/8	U061 L 2	3/8	.130	.38	.16
3/16	U061 L 3	7/16	.192	.41	.21
1/4	U061 L 4	1/2	.255	.44	.26
5/16	U061 L 5	9/16	.318	.44	.27
3/8	U061 L 6	5/8	.382	.47	.34
1/2	U061 L 8	13/16	.507	.62	.36

## U061 L compression nut — long — fractional inch



ØD in		F in	D in	L in	
1/4	U061 L 4A	1/2	.255	.75	.41
5/16	U061 L 5A	6/16	.318	.84	.48
3/8	U061 L 6A	5/8	.382	.97	.69
1/2	U061 L 8A	13/16	.507	1.06	1.20

## U063 L tube support — fractional inch



ØD1 in	ØD2 in	tube wall		L in	
.163	1/4	.040	U063 L 4	.50	.02
.187	5/16	.040	U063 L 5	.53	.04
.250	3/8	.062	U063 L 6	.56	.04
.370	1/2	.062	U063 L 8	.72	.08

At high temperature and pressure or during oscillating movements, the use of tube supports prevents distortion of the tube and guarantees effective gripping and sealing.

The metric brass compression products are on the following pages.



# principle of brass compression fittings



The range is called universal because it offers the maximum number of direct fitting alternatives with the minimum number of components. Tube threading and soldering are unnecessary. Universal brass compression fittings are designed to solve all fluid distribution problems and provide a complete system of fittings suited to all types of tubing, cylinders and valves thanks to the flexibility offered by the vast range of accessories: sleeves, nuts, reducers, tube adapters.

All components conform to at least one of the following standards: **ISO, CETOP, AFNOR, CNOMO.**

## fitting instructions

The Legris brass compression fitting comprises a body, sleeve and nut.

Cut the tube square, deburr inner and outer edges; If required, any bending of the tube must be completed prior to connection.

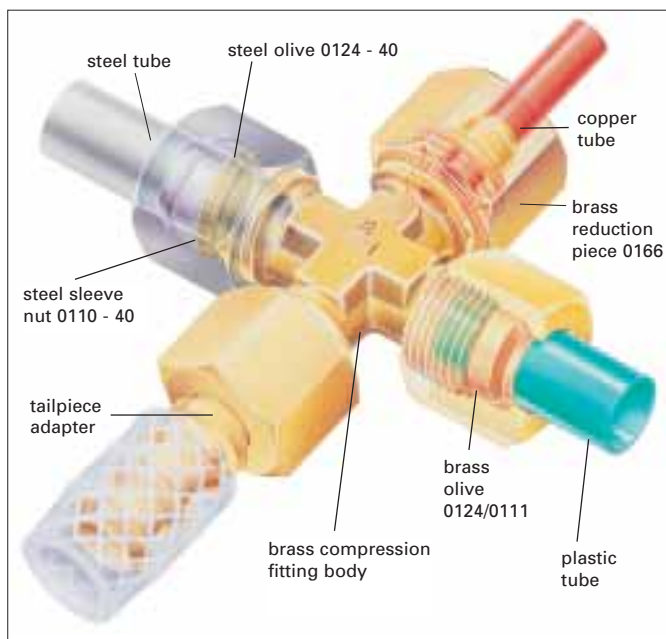
Push the nut onto the tube. For large diameters, lubricate the inside of the nut to facilitate tightening.

Fit the sleeve onto the end of the tube, after the nut. Firmly push the tube fully home against the shoulder of the body of the fitting.

Tightening of the nut enables the sleeve to bite into the tube and secures the fully assembled fitting.

## technical specification

Details of fittings specifications for use with copper, brass, steel or nylon tubing can be found on page G12 and G13 of this section. Please consult us regarding applications which include thermal shocks or excessive vibration.



The table below shows the standard recommended compatibility of tube size, BSP male thread and maximum passage diameter.

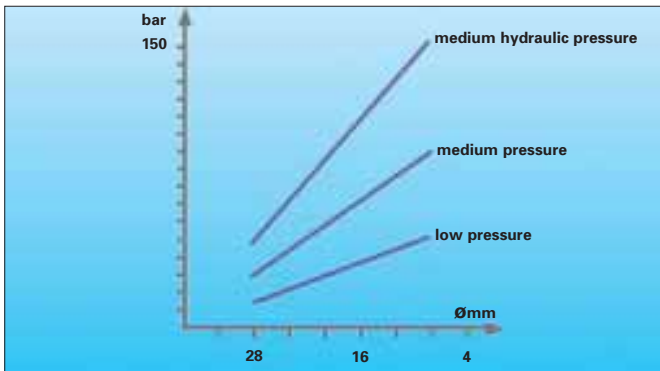
Ø tube O.D. mm	corresponding BSP thread	maximum passage
4-5-6	G1/8	.16" (4mm)
6-8-10	G1/4	.28" (7mm)
10-12-14	G3/8	.43" (11mm)
14-15-1-6-18	G1/2	.55" (14mm)
18-20-22	G3/4	.71" (18mm)
22-25-28	G1"	.94" (24mm)

Minimum tube length (L) required between two fittings.



ØD mm	(L in)	ØD mm	(L in)	ØD mm	(L in)
4	1.04	12	1.55	20	2.01
5	1.02	14	1.61	22	2.13
6	1.02	15	1.61	25	2.44
8	1.26	16	1.83	28	2.44
10	1.55	18	1.95		

# principle of brass compression fittings



## suitable for different pressure ranges

- low, medium compressed air pressure
- medium hydraulic pressure
- for compressed air, fuel oil, hydrocarbon, water...etc.

## extensive connection in all industrial fields

- many connection possibilities
- direct assembly, without soldering or tubing preparation

## a large range for many applications

- 18 different body configurations from 4mm to 28mm
- many accessories
- for use with:
  - BSP parallel threads with nitrile or bi-material seal
  - metric parallel threads
  - BSP taper threads
  - NPT threads

## special products

Where a standard product is unsuitable, Legris is willing to develop special products for specific applications.



## use to connect different types of tubing

- copper to brass
- plastic (nylon, polyurethane, fluoropolymer, PVC...)
- steel
- rubber

## use to connect different diameter tubing

- with the Legris Reduction Assembly, different types and diameters of tubing can be easily connected.



## barbed fittings

perfectly adapted to the requirements of industry:

- no tools are required and no nuts or collars to tighten
- connection to push-on hose

# technical specifications

To enable the user to obtain the best results from Legris brass compression fittings due regard to the application and tube used is necessary. As a guide the table below details the service pressures of the fitting assembly

together with the service and burst pressures of various tubes. The pressures are expressed in **psi** and are provided in good faith – however they should be taken only as a guide and are not guaranteed.

type of tube	<b>copper tube</b> 'cold drawn' from straight bars	<b>steel tube</b> 'thin wall' unwelded cold drawn from annealed straight bars
type of assembly	with brass nut and olive	with treated steel olive and nut ( <b>suffix 40</b> )

metric tube designation	tube dimensions		maximum pressure of fitting assembly	maximum service pressure of tube	burst pressure of tubes	continuous maximum service pressure	service pressure with intermittent surge	maximum intermittent surge pressure	maximum service pressure of tube	burst pressure of tube
	O.D.	wall thickness								
2 x 4	4	1	3,330	6,380	31,900	8,000	6,670	14,000	8,410	26,830
3 x 5	5	1	2,755	4,060	20,300	6,800	5,365	12,475	7,100	20,300
4 x 6	6	1	2,175	3,190	16,000	5,800	4,200	11,170	6,090	17,840
6 x 8	8	1	1,450	2,100	10,600	4,500	3,260	8,560	4,640	13,345
8 x 10	10	1	1,090	1,600	8,000	3,480	2,680	6,960	3,625	10,730
10 x 12	12	1	800	1,230	6,380	2,900	2,100	5,800	3,045	8,935
12 x 14	14	1	650	1,060	5,220	2,320	1,810	4,900	2,610	7,690
13 x 15	15	1	610	960	4,785	2,175	1,660	4,500	2,390	7,100
14 x 16	16	1	580	900	4,500	2,030	1,600	4,060	2,250	6,670
16 x 18	18	1	535	800	3,900	1,740	1,230	3,335	1,885	5,800
15.6 x 18	18	1.2	800	970	6,500					
18 x 20	20	1	510	650	3,480	1,450	1,015	2,755	1,600	4,930
17.6 x 20	20	1.2	725	870	4,350					
20 x 22	22	1	435	465	3,045	1,305	870	2,320	1,305	4,200
18.8 x 22	22	1.6	870	1,070	5,365					
23 x 25	25	1	290	435	2,610	1,015	580	1,665	1,015	3,480
21.8 x 25	25	1.6	800	930	4,640					
26 x 28	28	1	360	480	2,390					
24.8 x 28	28	1.6	580	810	4,060					
24 x 28	28	2	725	1,060	5,295					

brass tube: supplied in straight lengths: figures as above  
 copper tube: supplied in coils: **reduce the above service pressures by 35%.**  
**Do not use in areas of vibration.**

**IMPORTANT:** for use only on thin wall tubing from O.D. 6mm to O.D. 16mm - maximum wall thickness 1mm. Above 16mm maximum wall thickness 1.5mm.

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

# technical specifications

The table below is valid at 70°F.  
For other temperatures apply the relevant coefficient.

temperature °F	- 40°F/ 5°F	5°F/ 90°F	90°F/ 122°F	122°F/ 160°F	160°F/ 210°F
coefficient	1.8 not advised	<b>1</b>	0.68	0.55	0.31 not advised

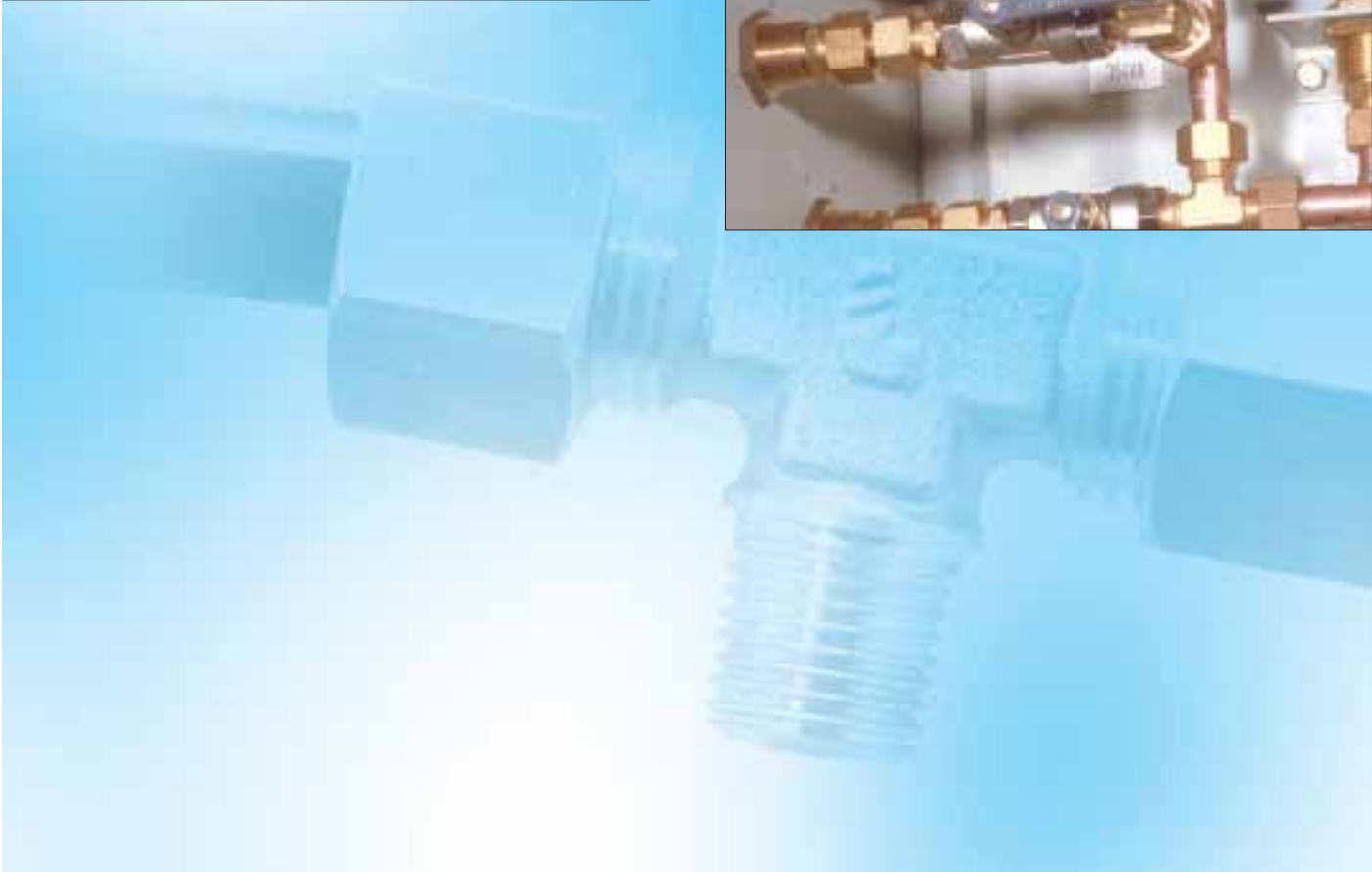
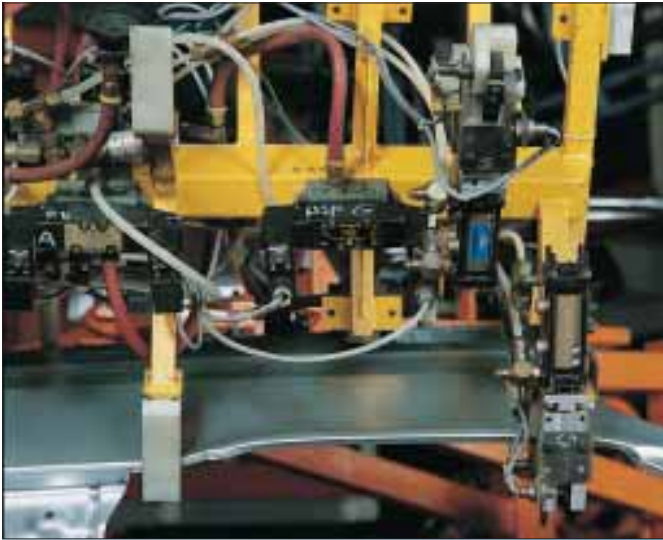
type of tube		<b>nylon tube (semi-rigid)</b>						
		for rigid type, multiply figures by 1.8						
assembly		with brass nut and olive				with semi-plastic fitting (type suffix 70)		
metric tube designation	tube dimensions		maximum service pressure of fitting assembly	maximum service pressure of nylon tube	burst pressure of tube	maximum service pressure of fitting assembly	maximum service pressure of nylon tube	burst pressure of tube
	O.D.	wall thickness						
<b>3 x 4</b>	<b>4</b>	<b>0.5</b>	290	290	940	145	290	940
* <b>2.7 x 4</b>	<b>4</b>	<b>0.65</b>	360	360	1,090	145	360	1,090
* <b>2 x 4</b>	<b>4</b>	<b>1</b>	580	725	1,960	145	725	1,960
* <b>3.3 x 5</b>	<b>5</b>	<b>0.85</b>	435	435	1,015			
* <b>4 x 6</b>	<b>6</b>	<b>1</b>	465	465	1,230	145	465	1,230
* <b>6 x 8</b>	<b>8</b>	<b>1</b>	320	320	840	145	320	840
* <b>8 x 10</b>	<b>10</b>	<b>1</b>	230	230	610	145	230	610
* <b>7.5 x 10</b>	<b>10</b>	<b>1.25</b>	330	330	825	145	330	825
* <b>10 x 12</b>	<b>12</b>	<b>1</b>	175	175	465	145	175	465
* <b>9 x 12</b>	<b>12</b>	<b>1.5</b>	320	320	910	145	320	915
* <b>12 x 14</b>	<b>14</b>	<b>1</b>	145	145	390	145	145	390
* <b>11 x 14</b>	<b>14</b>	<b>1.5</b>	230	230	755	145	230	755
<b>10.4 x 14</b>	<b>14</b>	<b>1.8</b>	320	320	960	145	320	960
<b>12 x 15</b>	<b>15</b>	<b>1.5</b>	200	200	700			
<b>11 x 15</b>	<b>15</b>	<b>2</b>	330	330	1,015			
* <b>13 x 16</b>	<b>16</b>	<b>1.5</b>	175	175	640	145	175	640
<b>12 x 16</b>	<b>16</b>	<b>2</b>	300	300	960	145	300	960
<b>14 x 18</b>	<b>18</b>	<b>2</b>	245	245	840			
<b>15 x 20</b>	<b>20</b>	<b>2.5</b>	290	290	1,000			
<b>16 x 22</b>	<b>22</b>	<b>3</b>	300	300	1,090			
<b>19 x 25</b>	<b>25</b>	<b>3</b>	260	260	985			
<b>23 x 28</b>	<b>28</b>	<b>2.5</b>	230	230	725			
<b>22 x 28</b>	<b>28</b>	<b>3</b>	290	290	870			

\*sizes marked are available from stock

Our brass compression fittings are not compatible with ammonia and its derivatives (ammonia fumes for example).

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

# Legris brass compression fittings



# the complete range of brass compression fittings

## threaded couplings

**0105**  
BSPT  
Page G16



**0105**  
NPT  
Page G16



**0101**  
metric  
Page G17



**0101**  
parallel  
Page G17



**0101...39**  
parallel  
Page G18



**0114**  
parallel  
Page G18



**0109**  
BSPT  
Page G19



**0199**  
parallel  
Page G19



**0109**  
NPT  
Page G19



**0108**  
BSPT  
Page G20



**0103**  
BSPT  
Page G20



**0118**  
parallel  
Page G21



**0118...39**  
parallel  
Page G21



**0119**  
parallel  
Page G22



**0119...39**  
parallel  
Page G22



## tube to tube couplings

**0106**  
Page G23



**0113**  
Page G23



**0116**  
Page G23



**0102**  
Page G23



**0104**  
Page G24



**0142**  
Page G24



**0107**  
Page G24



## complementary fittings

**0166**  
Page G25



**0124**  
**0124...40**  
Page G26-27



**0111**  
Page G26-27



**0110**  
**0110...40**  
**0110...60**  
Page G26-27



**0110...70**  
Page G26-27



## accessories

**0122**  
Page G28



**0165**  
Page G28



**0132**  
Page G29



**0133...39**  
parallel  
Page G29



**0134**  
BSPT  
Page G29



**0126**  
Page G30



**0125**  
parallel  
Page G30



**0220...39**  
parallel  
Page G30



**0120**  
BSPT  
Page G31



**0112**  
metric  
Page G31



**0127**  
Page G31



**0128...39**  
parallel  
Page G32



**0151**  
parallel  
Page G32

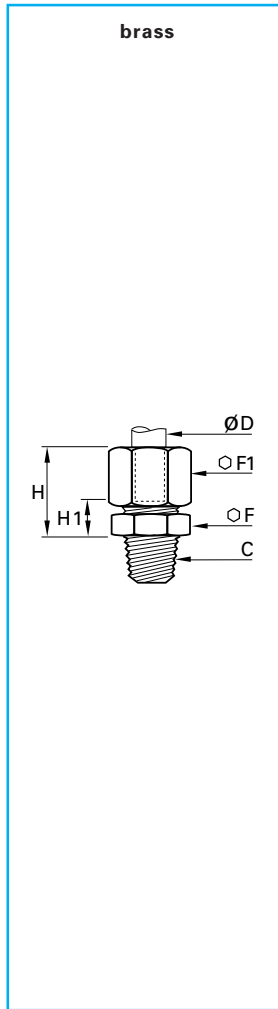


**0168...39**  
parallel  
Page G32



# threaded connectors

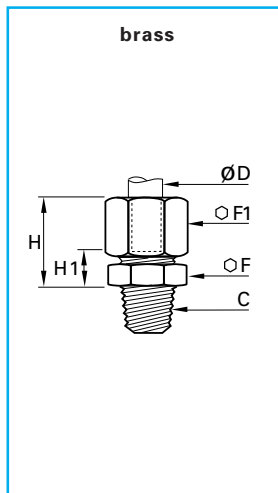
## 0105 male connector — BSPT



ØD mm	C BSPT		F mm	F1 mm	H max mm	H1 mm	
4	R1/8	0105 04 10	10	10	17	7	.013
5	R1/8	0105 05 10	11	12	17.5	7.5	.017
5	R1/4	0105 05 13	14	12	17.5	7.5	.022
6	R1/8	0105 06 10	11	13	18	7.5	.017
6	R1/4	0105 06 13	14	13	18	7.5	.024
6	R3/8	0105 06 17	17	13	19	8.5	.031
8	R1/8	0105 08 10	13	14	19.5	7	.021
8	R1/4	0105 08 13	14	14	19.5	7	.026
8	R3/8	0105 08 17	17	14	20.5	8	.032
10	R1/8	0105 10 10	17	19	24	9	.043
10	R1/4	0105 10 13	17	19	24	9	.047
10	R3/8	0105 10 17	17	19	24	9	.048
10	R1/2	0105 10 21	22	19	25	10	.067
12	R1/4	0105 12 13	19	22	24	9	.059
12	R3/8	0105 12 17	19	22	24	9	.061
12	R1/2	0105 12 21	22	22	25	10	.076
14	R1/4	0105 14 13	22	24	25	8	.067
14	R3/8	0105 14 17	22	24	25	8	.069
14	R1/2	0105 14 21	22	24	26	9	.079
14	R3/4	0105 14 27	27	24	27	10	.105
15	R3/8	0105 15 17	22	24	25	8	.064
15	R1/2	0105 15 21	22	24	26	9	.075
16	R1/4	0105 16 13	24	27	27	9.5	.091
16	R3/8	0105 16 17	24	27	27	9.5	.092
16	R1/2	0105 16 21	24	27	27	9.5	.100
16	R3/4	0105 16 27	27	27	28	10.5	.120
18	R1/2	0105 18 21	27	30	30	10.5	.130
18	R3/4	0105 18 27	27	30	30	10.5	.140
20	R1/2	0105 20 21	30	32	32	11	.148
20	R3/4	0105 20 27	30	32	32	11	.156
22	R1/2	0105 22 21	32	36	33	11	.180
22	R3/4	0105 22 27	32	36	33	11	.193
22	R1"	0105 22 34	36	36	33	11	.226
25	R3/4	0105 25 27	36	41	36	11	.263
25	R1"	0105 25 34	36	41	36	11	.277
28	R3/4	0105 28 27	41	42	36	11	.272
28	R1"	0105 28 34	41	42	36	11	.287

Metric taper threads or Briggs NPT threads are available by special order, subject to minimum quantities.

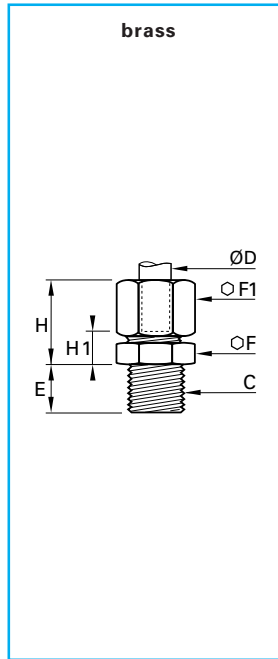
## 0105 male connector — NPT



ØD mm	C NPT		F mm	F1 mm	H max mm	H1 mm	
6	1/8	0105 06 11	11	13	18	7.5	.018
6	1/4	0105 06 14	14	13	18	7.5	.028
8	1/8	0105 08 11	13	14	21	7	.021
8	1/4	0105 08 14	14	14	18.5	7	.026
10	1/4	0105 10 14	17	19	24	9	.047
10	3/8	0105 10 18	17	19	24	9	.048
10	1/2	0105 10 22	22	19	25	10	.067

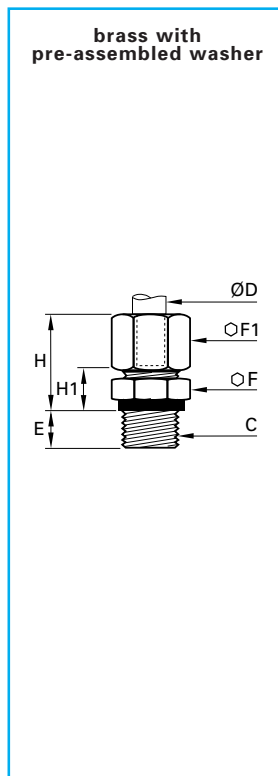
# threaded connectors

## 0101 male connector — parallel metric thread



ØD mm	C metric		E mm	F mm	F1 mm	H max mm	H1 mm	
4	M7x1	0101 04 55	6.5	10	10	16.5	7.5	.013
4	M8x1	0101 04 56	6.5	11	10	16.5	7.5	.013
5	M8x1	0101 05 56	6.5	11	12	17.5	8	.016
5	M10x1	0101 05 60	6.5	14	12	17.5	8.5	.021
6	M10x1	0101 06 60	6.5	14	13	18	8.5	.022
6	M10x1.5	0101 06 62	6.5	14	13	18	8.5	.021
8	M12x1	0101 08 65	8	17	14	19.5	9	.031
8	M12x1.25	0101 08 66	8	17	14	19.5	9	.031
8	M13x1.25	0101 08 68	8	17	14	19.5	9	.032
10	M14x1.25	0101 10 70	8	17	19	24	11	.047
10	M14x1.5	0101 10 71	8	17	19	24	11	.047
10	M16x1.25	0101 10 74	9	19	19	24	11	.052
10	M16x1.5	0101 10 75	9	19	19	24	11	.054
10	M18x1.5	0101 10 78	9	22	19	24	11.5	.060
12	M16x1.25	0101 12 74	9	19	22	24	11	.062
12	M16x1.5	0101 12 75	9	19	22	24	11	.060
12	M18x1.5	0101 12 78	9	22	22	24	11.5	.070
14	M18x1.5	0101 14 78	9	22	24	25	10.5	.075
14	M20x1.5	0101 14 80	10	24	24	25	11	.085
15	M18x1.5	0101 15 78	9	22	24	25	10.5	.072
16	M20x1.5	0101 16 80	10	24	27	27	12.5	.104
16	M22x1.5	0101 16 82	10	27	27	27	12.5	.113
18	M22x1.5	0101 18 82	10	27	30	29.5	12.5	.131
18	M24x1.5	0101 18 83	11	30	30	29.5	13	.142

## 0101 male connector — BSPP or M5



ØD mm	C BSPP/M5		E mm	F mm	F1 mm	H max mm	H1 mm	
4	M5X.8	0101 04 19	5	10	10	16.5	8	.012
4	G1/8	0101 04 10	6.5	13	10	16.5	8	.017
5	G1/8	0101 05 10	6.5	13	12	17.5	8.5	.019
6	G1/8	0101 06 10	6.5	13	13	18	8.5	.022
6	G1/4	0101 06 13	8	17	13	18	9.5	.034
8	G1/8	0101 08 10	6.5	13	14	19	8.5	.023
8	G1/4	0101 08 13	8	17	14	19.5	9	.034
8	G3/8	0101 08 17	11	22	14	20	10.5	.046
10	G1/4	0101 10 13	8	17	19	24	11	.049
10	G3/8	0101 10 17	11	22	19	24	11.5	.061
12	G1/4	0101 12 13	8	19	22	24	11	.062
12	G3/8	0101 12 17	11	22	22	24	11.5	.072
12	G1/2	0101 12 21	12	27	22	24	12	.090
14	G3/8	0101 14 17	11	22	24	25	10.5	.074
14	G1/2	0101 14 21	12	27	24	25	11	.097
15	G3/8	0101 15 17	11	22	24	25	10.5	.071
15	G1/2	0101 15 21	12	27	24	25	11	.112
16	G3/8	0101 16 17	11	22	27	27	12	.090
16	G1/2	0101 16 21	12	27	27	27	12.5	.110
18	G1/2	0101 18 21	12	27	30	29.5	12.5	.136
18	G3/4	0101 18 27	13	32	30	29.5	13	.153
20	G3/4	0101 20 27	13	32	32	31	13	.163
22	G3/4	0101 22 27	13	32	36	32	13	.195
22	G1"	0101 22 34	15	41	36	31	13.5	.260
25	G3/4	0101 25 27	13	36	41	35.5	13	.262
25	G1"	0101 25 34	15	41	41	35.5	13	.306
28	G1"	0101 28 34	15	41	42	35.5	13.5	.398

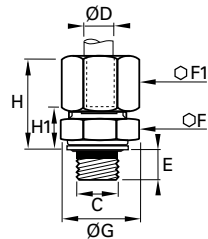
The captive sealing washers 0602 are shown on page H23.

# threaded connectors

## 0101...39 male connector — BSPP



brass with  
bi-material seal

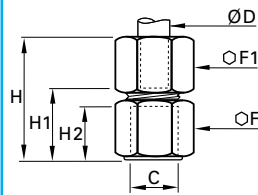


ØD mm	C BSPP		E mm	F mm	F1 mm	G mm	H mm	H1 mm	kg
4	G1/8	0101 04 10 39	5.5	13	10	14	17.5	9	.017
5	G1/8	0101 05 10 39	5.5	13	12	14	18.5	9.5	.019
6	G1/8	0101 06 10 39	5.5	13	13	14	19	9.5	.022
6	G1/4	0101 06 13 39	7	17	13	17	19	10.5	.034
8	G1/8	0101 08 10 39	5.5	13	14	14	20	9.5	.023
8	G1/4	0101 08 13 39	7	17	14	17	20.5	10	.034
8	G3/8	0101 08 17 39	9.5	22	14	22	21.5	12	.046
10	G1/4	0101 10 13 39	7	17	19	17	25	12	.049
10	G3/8	0101 10 17 39	9.5	22	19	22	25.5	13	.061
12	G1/4	0101 12 13 39	7	19	22	17	25	12	.062
12	G3/8	0101 12 17 39	9.5	22	22	22	25	13	.072
12	G1/2	0101 12 21 39	10.5	27	22	26	25	13.5	.090
14	G3/8	0101 14 17 39	9.5	22	24	22	26.5	12	.074
14	G1/2	0101 14 21 39	10.5	27	24	26	26.5	12.5	.097
15	G3/8	0101 15 17 39	9.5	22	24	22	26.5	12	.071
15	G1/2	0101 15 21 39	10.5	27	24	26	26.5	12.5	.112
16	G3/8	0101 16 17 39	9.5	22	27	22	28.5	13.5	.090
16	G1/2	0101 16 21 39	10.5	27	27	26	28.5	14	.110
18	G1/2	0101 18 21 39	10.5	27	30	26	31	14	.136
18	G3/4	0101 18 27 39	11.5	32	30	32	31	14.5	.153
20	G3/4	0101 20 27 39	11.5	32	32	32	32.5	14.5	.163
22	G3/4	0101 22 27 39	11.5	32	36	32	33.5	14.5	.195
22	G1"	0101 22 34 39	13	41	36	39.5	33	15.5	.260
25	G3/4	0101 25 27 39	11.5	36	41	32	37	14.5	.262
25	G1"	0101 25 34 39	13	41	41	39.5	37.5	15.5	.306
28	G1"	0101 28 34 39	13	41	42	39.5	37.5	15.5	.398

## 0114 female connector — BSPP



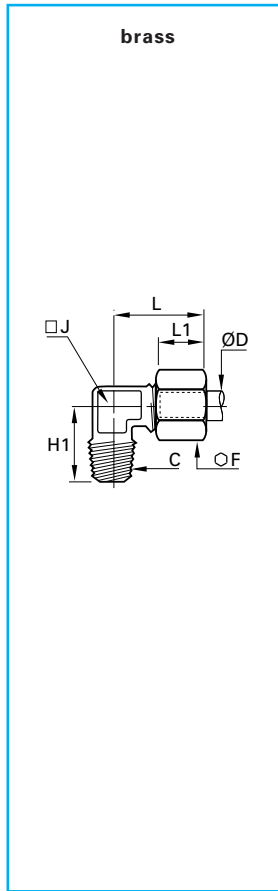
brass



ØD mm	C BSPP		F mm	F1 mm	H max mm	H1 mm	H2 mm	kg
4	G1/8	0114 04 10	14	10	26	16.5	9.5	.021
4	G1/4	0114 04 13	17	10	30	20.5	13.5	.029
5	G1/8	0114 05 10	14	12	28	17	9.5	.024
5	G1/4	0114 05 13	17	12	31	21	13.5	.033
6	G1/8	0114 06 10	14	13	28	17	9.5	.025
6	G1/4	0114 06 13	17	13	32	21	13.5	.034
6	G3/8	0114 06 17	22	13	32	21.5	14	.051
8	G1/8	0114 08 10	14	14	29	16.5	9.5	.027
8	G1/4	0114 08 13	17	14	33	20.5	13.5	.035
8	G3/8	0114 08 17	22	14	34	21	14	.052
10	G1/4	0114 10 13	17	19	37	21.5	13.5	.051
10	G3/8	0114 10 17	22	19	37	22	14	.069
10	G1/2	0114 10 21	27	19	42	26.5	18.5	.100
12	G1/4	0114 12 13	19	22	36	20.5	13.5	.069
12	G3/8	0114 12 17	22	22	37	22	14	.077
12	G1/2	0114 12 21	27	22	42	26.5	18.5	.109
14	G1/4	0114 14 13	22	24	36	18.5	13.5	.084
14	G3/8	0114 14 17	22	24	38	21	14	.081
14	G1/2	0114 14 21	27	24	43	25.5	18.5	.112
15	G3/8	0114 15 17	22	24	38	21	14	.077
15	G1/2	0114 15 21	27	24	43	25.5	18.5	.109
16	G1/4	0114 16 13	24	27	36	18	13.5	.110
16	G3/8	0114 16 17	24	27	38	20.5	14	.106
16	G1/2	0114 16 21	27	27	44	26	18.5	.129
18	G3/8	0114 18 17	27	30	39	19.5	14	.141
18	G1/2	0114 18 21	27	30	45	26	18.5	.146
18	G3/4	0114 18 27	32	30	46	27	19.5	.168
20	G3/8	0114 20 17	30	32	38	18	14	.162
20	G1/2	0114 20 21	30	32	44.5	24	18.5	.174
20	G3/4	0114 20 27	32	32	47	26.5	19.5	.171
22	G3/4	0114 22 27	32	36	48	26.5	19.5	.201
25	G3/4	0114 25 27	36	41	50.5	26	19.5	.298

# threaded connectors

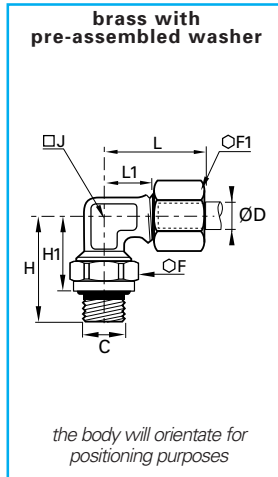
## 0109 male elbow — BSPT



ØD mm	C BSPT		F mm	H1 mm	J mm	L max mm	L1 mm	kg
4	R1/8	0109 04 10	10	17	8	19	9.5	.017
4	R1/4	0109 04 13	10	20	10	19	11	.024
5	R1/8	0109 05 10	12	17.5	8	21	11	.019
5	R1/4	0109 05 13	12	21.5	10	22	12	.029
6	R1/8	0109 06 10	13	18	8	22	11	.021
6	R1/4	0109 06 13	13	21.5	10	22	12	.030
8	R1/8	0109 08 10	14	18.5	10	28	15	.028
8	R1/4	0109 08 13	14	22	10	28	15	.033
8	R3/8	0109 08 17	14	24	12	28	15	.044
10	R1/4	0109 10 13	19	25	12	30	14.5	.052
10	R3/8	0109 10 17	19	25.5	12	30	14.5	.061
10	R1/2	0109 10 21	19	32	19	36	21	.105
12	R1/4	0109 12 13	22	26	15	30	15	.074
12	R3/8	0109 12 17	22	27	15	30	15	.077
12	R1/2	0109 12 21	22	32	19	36	21	.117
14	R3/8	0109 14 17	24	30	19	35	18	.103
14	R1/2	0109 14 21	24	32	19	35	18	.107
15	R3/8	0109 15 17	24	30	19	35	18	.104
15	R1/2	0109 15 21	24	32	19	35	18	.104
16	R3/8	0109 16 17	27	30	19	39	21	.118
16	R1/2	0109 16 21	27	33.5	19	39	21	.134
16	R3/4	0109 16 27	27	36.5	23	41	23	.186
18	R1/2	0109 18 21	30	35.5	23	41	21.5	.175
18	R3/4	0109 18 27	30	36.5	23	41	21.5	.201
20	R1/2	0109 20 21	32	36.5	23	42	21.5	.174
20	R3/4	0109 20 27	32	38	23	42	21.5	.274
22	R3/4	0109 22 27	36	40	27	50	30	.294
22	R1"	0109 22 34	36	44	27	50	30	.322
25	R3/4	0109 25 27	41	43	27	54	30	.330
25	R1"	0109 25 34	41	44	27	54	30	.360
28	R3/4	0109 28 27	42	46	32	54	30	.364
28	R1"	0109 28 34	42	48	32	54	30	.380

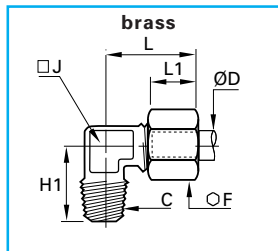
Metric taper threads or Briggs NPT threads are available to special order, subject to minimum quantities.

## 0199 male orientable elbow — BSPP



ØD mm	C BSPP		F mm	G mm	F1 mm	H mm	H1 min mm	H1 max mm	J mm	L mm	L1 mm	kg
4	G1/8	0199 04 10	14	15	10	23	16	17	8	19	9.5	.017
4	G1/4	0199 04 13	19	21	10	30.5	22	23.5	10	19	11	.024
6	G1/8	0199 06 10	14	15	13	23	16	17	8	22	11	.021
6	G1/4	0199 06 13	19	21	13	30.5	22	23.5	10	22	12	.030
8	G1/8	0199 08 10	14	15	14	24	17	18	10	28	15	.028
8	G1/4	0199 08 13	19	21	14	30.5	22	23.5	10	28	15	.033
8	G3/8	0199 08 17	22	24	14	33.5	24	25.5	12	28	15	.044
10	G1/4	0199 10 13	19	21	19	31	22.5	24	12	30	14.5	.052
10	G3/8	0199 10 17	22	24	19	33.5	24	25.5	12	30	14.5	.061
10	G1/2	0199 10 21	27	29.5	19	40	39.5	31	19	37	22	.105
14	G3/8	0199 14 17	22	24	24	35.5	26	27.5	19	35	18	.103
14	G1/2	0199 14 21	27	29.5	24	40	29.5	31	19	35	18	.107
18	G1/2	0199 18 21	27	29.5	30	40	29	30.5	23	41	21.5	.175
18	G3/4	0199 18 27	32	35	30	43.5	32	33.5	23	41	21.5	.201
22	G3/4	0199 22 27	32	35	36	45.5	34	36	32	51	31	.294
22	G1"	0199 22 34	41	45	36	54	40.5	43	32	51	31	.322
28	G1"	0199 28 34	41	45	42	54	40.5	43	32	54	30	.380

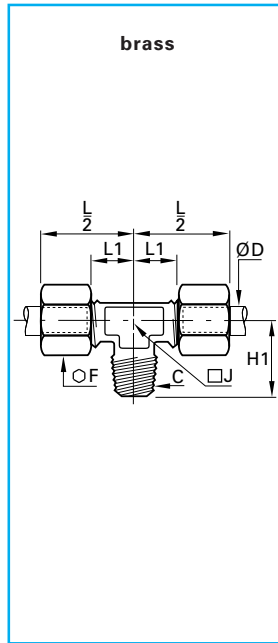
## 0109 male elbow — NPT



ØD mm	C NPT		F mm	H1 mm	J mm	L max mm	L1 mm	kg
6	1/8	0109 06 11	13	18	8	22	11	.021
6	1/4	0109 06 14	13	21.5	10	22	12	.030
8	1/8	0109 08 11	14	18.5	10	28	15	.028
8	1/4	0109 08 14	14	22	10	28	15	.033
10	1/4	0109 10 14	19	25	12	30	14.5	.052

# threaded connectors

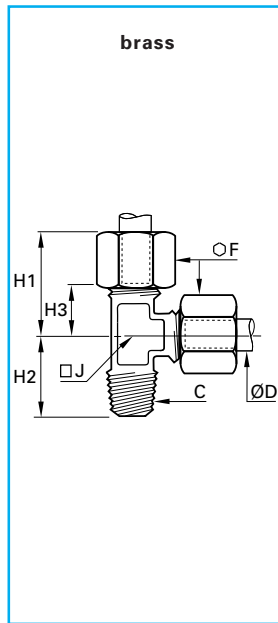
## 0108 male branch tee — BSPT



ØD mm	C BSPT		F mm	H1 mm	J mm	$\frac{L}{2}$ mm	L1 mm	$\Delta$ kg
4	R1/8	0108 04 10	10	17	8	19	9.5	.026
5	R1/8	0108 05 10	12	17.5	8	21	11	.031
6	R1/8	0108 06 10	13	18	8	22	11	.033
6	R1/4	0108 06 13	13	21.5	10	27	16	.050
8	R1/8	0108 08 10	14	18.5	10	28	15	.046
8	R1/4	0108 08 13	14	22	10	28	15	.049
8	R3/8	0108 08 17	14	24	12	28	15	.063
10	R1/4	0108 10 13	19	25	12	30	14.5	.085
10	R3/8	0108 10 17	19	25.5	12	30	14.5	.093
12	R1/4	0108 12 13	22	26	15	30	15	.115
12	R3/8	0108 12 17	22	27	15	30	15	.118
14	R3/8	0108 14 17	24	30	19	35	18	.156
14	R1/2	0108 14 21	24	32	19	35	18	.193
15	R3/8	0108 15 17	24	30	19	35	18	.145
15	R1/2	0108 15 21	24	32	19	35	18	.156
16	R3/8	0108 16 17	27	30	19	39	21	.190
16	R1/2	0108 16 21	27	33.5	19	39	21	.200
18	R1/2	0108 18 21	30	35.5	23	41	21.5	.264
18	R3/4	0108 18 27	30	36.5	23	41	21.5	.270
20	R3/4	0108 20 27	32	38	23	42	21.5	.280
22	R3/4	0108 22 27	36	40	27	50	29	.440
22	R1"	0108 22 34	36	44	27	50	29	.477

Metric taper threads or Briggs NPT threads are available to special order, subject to minimum quantities.

## 0103 male run tee — BSPT

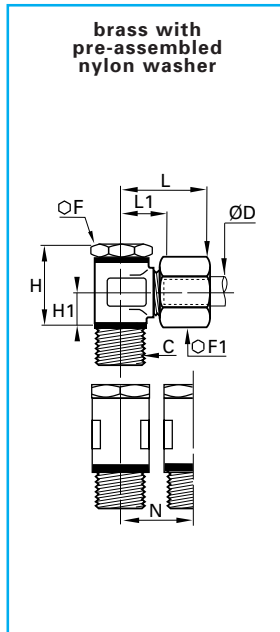


ØD mm	C BSPT		F mm	H1 max mm	H2 mm	H3 mm	J mm	$\Delta$ kg
4	R1/8	0103 04 10	10	19	17	9.5	8	.026
5	R1/8	0103 05 10	12	21	17.5	11	8	.031
6	R1/8	0103 06 10	13	22	18	11	8	.031
6	R1/4	0103 06 13	13	27	21.5	16	10	.049
8	R1/8	0103 08 10	14	28	18.5	15	10	.044
8	R1/4	0103 08 13	14	28	22	15	10	.050
8	R3/8	0103 08 17	14	28	24	15	12	.062
10	R1/4	0103 10 13	19	30	25	14.5	12	.085
10	R3/8	0103 10 17	19	30	25.5	14.5	12	.092
12	R1/4	0103 12 13	22	30	26	15	15	.113
12	R3/8	0103 12 17	22	30	27	15	15	.120
14	R3/8	0103 14 17	24	35	30	18	19	.156
14	R1/2	0103 14 21	24	35	32	18	19	.166
15	R3/8	0103 15 17	24	35	30	18	19	.141
15	R1/2	0103 15 21	24	35	32	18	19	.151
16	R3/8	0103 16 17	27	39	30	21	19	.189
16	R1/2	0103 16 21	27	39	33.5	21	19	.199
18	R1/2	0103 18 21	30	41	35.5	21.5	23	.263
18	R3/4	0103 18 27	30	41	36.5	21.5	23	.281
20	R3/4	0103 20 27	32	42	38	21.5	23	.295
22	R3/4	0103 22 27	36	50	40	29	27	.428

Metric taper threads or Briggs NPT threads are available to special order, subject to minimum quantities.

# threaded connectors

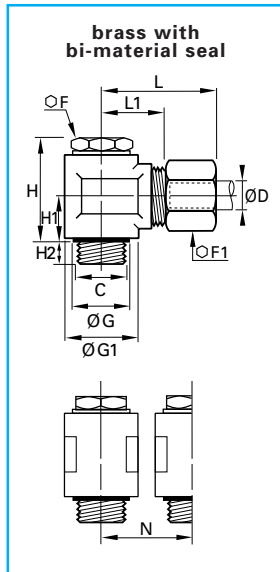
## 0118 single banjo — BSPP



ØD mm	C BSPP		F mm	F1 mm	H mm	H1 mm	L max mm	L1 mm	N min mm	kg
4	G1/8	0118 04 10	14	10	24	9.5	24	14.5	17.5	.039
5	G1/8	0118 05 10	14	12	24	9.5	25	14.5	17.5	.042
5	G1/4	0118 05 13	17	12	25	10	26	16	21	.056
6	G1/8	0118 06 10	14	13	24	9.5	25	14.5	17.5	.043
6	G1/4	0118 06 13	17	13	25	10	26	16	21	.056
8	G1/8	0118 08 10	14	14	24	9.5	28	15.5	17.5	.054
8	G1/4	0118 08 13	17	14	25	10	28	15.5	21	.057
8	G3/8	0118 08 17	22	14	32	13	30	18	26.5	.112
10	G1/4	0118 10 13	17	19	31	13	34	19	23	.117
10	G3/8	0118 10 17	22	19	32	13	34	19	26.5	.126
12	G1/4	0118 12 13	17	22	34	14.5	34	19	23	.128
12	G3/8	0118 12 17	22	22	35	14.5	34	19	26.5	.134
14	G1/4	0118 14 13	17	24	37	16	37	20.5	28	.188
14	G3/8	0118 14 17	22	24	38	16	37	20.5	28	.194
14	G1/2	0118 14 21	27	24	40	16	38	20.5	32.5	.208
15	G3/8	0118 15 17	22	24	38	16	37	20.5	28	.188
15	G1/2	0118 15 21	27	24	40	16	38	20.5	32.5	.198
16	G1/2	0118 16 21	27	27	42	16	38	21	32.5	.226
18	G1/2	0118 18 21	27	30	46	19.5	43	24.5	36	.375
20	G3/4	0118 20 27	32	32	49	20	44	24.5	39	.383
22	G3/4	0118 22 27	32	36	53	22	45	24.5	39	.455

Subject to minimum quantities these products can be made with a metric thread.

## 0118...39 single banjo — BSPP



ØD mm	C BSPP		F mm	F1 mm	G mm	G1 mm	H mm	H1 mm	H2 mm	L mm	L1 mm	N mm	kg
4	G1/8	0118 04 10 39	14	10	14	14	23	9.5	6.5	24	14.5	17.5	.042
5	G1/8	0118 05 10 39	14	12	14	14	23	9.5	6.5	25	14.5	17.5	.044
5	G1/4	0118 05 13 39	17	12	17	17	24	10	8	26	16	21	.060
6	G1/8	0118 06 10 39	14	13	14	14	23	9.5	6.5	25	14.5	17.5	.045
6	G1/4	0118 06 13 39	17	13	17	17	24	10	8	26	16	21	.060
8	G1/8	0118 08 10 39	14	14	14	17	23	9.5	6.5	28	15.5	17.5	.057
8	G1/4	0118 08 13 39	17	14	17	17	24	10	8	28	15.5	21	.062
8	G3/8	0118 08 17 39	22	14	22	22	31.5	13.5	7.5	30	18	26.5	.115
10	G1/4	0118 10 13 39	17	19	17	22	30	13	7.5	34	19	23	.120
10	G3/8	0118 10 17 39	22	19	22	22	31.5	13.5	7.5	34	19	26.5	.129
12	G1/4	0118 12 13 39	17	22	17	22	33	14.5	8	34	19	23	.130
12	G3/8	0118 12 17 39	22	22	22	22	34.5	15	10.5	34	19	26.5	.136
14	G1/4	0118 14 13 39	17	24	17	27	36	16	8	37	20.5	28	.191
14	G3/8	0118 14 17 39	22	24	22	27	37.5	16.5	8.5	37	20.5	28	.198
14	G1/2	0118 14 21 39	27	24	26	27	39	16.5	10	38	20.5	32.5	.212
15	G3/8	0118 15 17 39	22	24	22	27	37.5	16.5	8.5	37	20.5	28	.191
15	G1/2	0118 15 21 39	27	24	26	27	40	16.5	10	38	20.5	32.5	.201
16	G1/2	0118 16 21 39	27	27	26	27	40	16.5	10	38	21	32.5	.230
18	G1/2	0118 18 21 39	27	30	26	34	47	20	9	43	24.5	36	.379
20	G3/4	0118 20 27 39	32	32	32	34	50	20.5	13	44	24.5	39	.386
22	G3/4	0118 22 27 39	32	36	32	34	54	22.5	12	45	24.5	39	.455

Refer to page H22 for details of sealing washer 0602 used on banjos 0118.

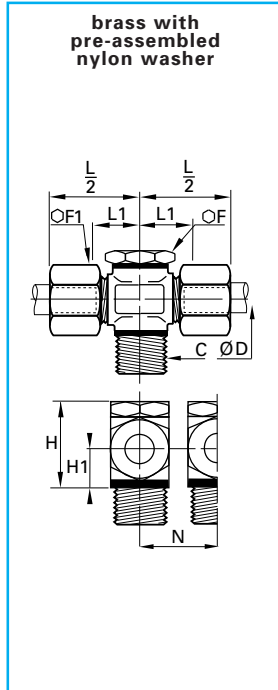
Length of parallel threads for part nos. 0118



C	G1/8	G1/4	G3/8	G1/2	G3/4
E	4.5mm	6mm	8mm	9mm	10mm

# threaded connectors

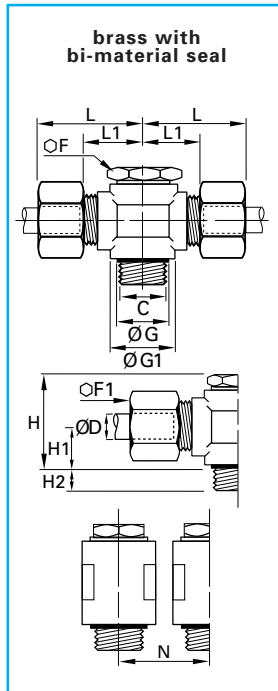
## 0119 double banjo — BSPP



ØD	C		F	F1	H	H1	L	L1	N	
mm	BSPP		mm	mm	mm	mm	2 mm	mm	min	kg
4	G1/8	0119 04 10	14	10	24	9.5	24	14.5	17.5	.048
6	G1/8	0119 06 10	14	13	24	9.5	25	14.5	17.5	.055
6	G1/4	0119 06 13	17	13	25	10	26.5	16	21	.071
8	G1/8	0119 08 10	14	14	24	9.5	28	15.5	17.5	.071
8	G1/4	0119 08 13	17	14	25	10	28	15.5	21	.074
8	G3/8	0119 08 17	22	14	32	13	30.5	18	26.5	.139
10	G1/4	0119 10 13	17	19	31	13	34	19	23	.156
10	G3/8	0119 10 17	22	19	32	13	34	19	26.5	.171
12	G1/4	0119 12 13	17	22	34	14.5	34	19	23	.156
12	G3/8	0119 12 17	22	22	35	14.5	34	19	26.5	.181
14	G1/4	0119 14 13	17	24	37	16	37.5	20.5	28	.248
14	G3/8	0119 14 17	22	24	38	16	37.5	20.5	28	.243
14	G1/2	0119 14 21	27	24	40	16	38	20.5	32.5	.257
16	G1/2	0119 16 21	27	27	42	16	38.5	21	32.5	.295

Subject to minimum quantities these products can be made with a metric thread.

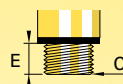
## 0119...39 double banjo — BSPP



ØD	C		F	F1	G	G1	H	H1	H2	L	L1	N	
mm	BSPP		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
4	G1/8	0119 04 10 39	14	10	14	14	23	9.5	6.5	24	14.5	17.5	.049
5	G1/8	0119 05 10 39	14	12	14	14	23	9.5	6.5	25	14.5	17.5	.049
5	G1/4	0119 05 13 39	17	12	17	17	24	10	8	26	16	21	.051
6	G1/8	0119 06 10 39	14	13	14	14	23	9.5	6.5	25	14.5	17.5	.055
6	G1/4	0119 06 13 39	17	13	17	17	24	10	8	26	16	21	.071
8	G1/8	0119 08 10 39	14	14	14	17	23	9.5	6.5	28	15.5	17.5	.071
8	G1/4	0119 08 13 39	17	14	17	17	24	10	8	28	15.5	21	.074
8	G3/8	0119 08 17 39	22	14	22	22	31.5	13.5	7.5	30	18	26.5	.139
10	G1/4	0119 10 13 39	17	19	17	22	30	13	7.5	34	19	23	.156
10	G3/8	0119 10 17 39	22	19	22	22	31.5	13.5	7.5	34	19	26.5	.171
12	G1/4	0119 12 13 39	17	22	17	22	33	14.5	8	34	19	23	.156
12	G3/8	0119 12 17 39	22	22	22	22	34.5	15	10.5	34	19	26.5	.181
14	G1/4	0119 14 13 39	17	24	17	27	36	16	8	37	20.5	28	.248
14	G3/8	0119 14 17 39	22	24	22	27	37.5	16.5	8.5	37	20.5	28	.243
14	G1/2	0119 14 21 39	27	24	26	27	39	16.5	10	38	20.5	32.5	.257
15	G3/8	0119 15 17 39	22	24	22	27	37.5	16.5	8.5	37	20.5	28	.270
15	G1/2	0119 15 21 39	27	24	26	27	40	16.5	10	38	20.5	32.5	.278
16	G1/2	0119 16 21 39	27	27	26	27	40	16.5	10	38	21	32.5	.295
18	G1/2	0119 18 21 39	27	30	26	34	47	20	9	43	24.5	36	.312
20	G3/4	0119 20 27 39	32	32	32	34	50	20.5	13	44	24.5	39	.320
22	G3/4	0119 22 27 39	32	36	32	34	54	22.5	12	45	24.5	39	.330

Refer to page H22 for details of sealing washer 0602 used on banjos 0119.

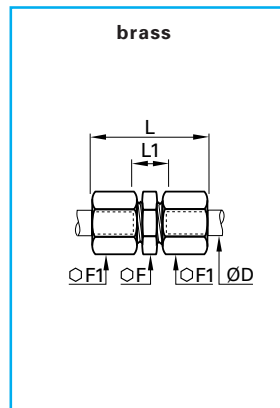
Length of parallel threads for part numbers 0119.



C	G1/8	G1/4	G3/8	G1/2	G3/4
E	4.5mm	6mm	8mm	9mm	10mm

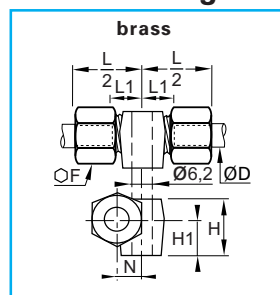
# tube-to-tube connectors

## 0106 straight union



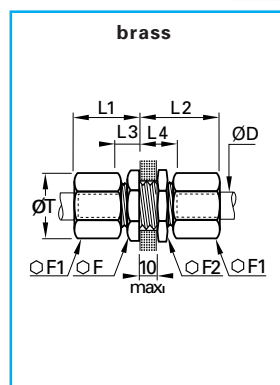
ØD mm		F mm	F1 mm	L max mm	L1 mm	$\Delta$ kg
4	0106 04 00	10	10	28	10	.017
5	0106 05 00	11	12	31	11	.024
6	0106 06 00	11	13	32	11	.026
8	0106 08 00	13	14	36	10	.031
10	0106 10 00	17	19	42	13	.070
12	0106 12 00	19	22	42	13	.092
14	0106 14 00	22	24	45	11	.096
15	0106 15 00	22	24	45	11	.104
16	0106 16 00	24	27	48	13	.142
18	0106 18 00	27	30	53	14	.191
20	0106 20 00	30	32	56	14	.216
22	0106 22 00	32	36	60	14	.280
25	0106 25 00	36	41	64	14	.398
28	0106 28 00	42	41	64	14	.400

## 0113 union connector with mounting hole



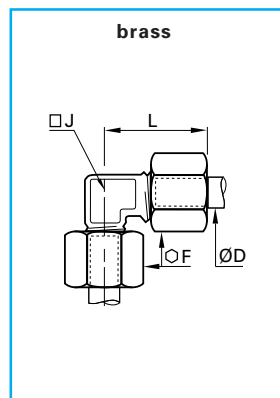
ØD mm		F mm	H mm	H1 mm	H1 mm	L 2 mm	N mm	$\Delta$ kg
4	0113 04 00	10	10.5	7	19	9.5	6	.022
6	0113 06 00	13	13	9	20.5	10	7	.033
8	0113 08 00	14	14.5	9.5	23.5	11	8	.040
10	0113 10 00	19	19.5	12.5	26	11	9	.081
12	0113 12 00	22	22	14	26.5	12	11	.109
14	0113 14 00	24	25	16	28	11	12	.122

## 0116 bulkhead union



ØD mm		F mm	F1 mm	F2 mm	L1 max mm	L2 min mm	L3 mm	L4 mm	T min mm	$\Delta$ kg
4	0116 04 00	10	10	13	17	27	7	17	8.3	.024
5	0116 05 00	13	12	14	18	28	7.5	17.5	10.3	.035
6	0116 06 00	13	13	14	19	28	7.5	17.5	10.3	.037
8	0116 08 00	14	14	17	20	29	7	17	12.3	.047
10	0116 10 00	19	19	22	25	33	9	19	16.5	.101
12	0116 12 00	22	22	22	25	33	9	19	18.5	.125
14	0116 14 00	24	24	24	25	35	8	18	20.5	.143
15	0116 15 00	24	24	24	25	35	8	18	20.5	.133
16	0116 16 00	27	27	27	28	36	9.5	19.5	22.5	.191
18	0116 18 00	27	30	30	30	40	10.5	20.5	24.5	.244
20	0116 20 00	32	30	32	31	41	11	21	27.5	.268
22	0116 22 00	36	36	36	32	42	11	21	30.5	.372
25	0116 25 00	36	41	38	36	46	11	21	33.5	.475

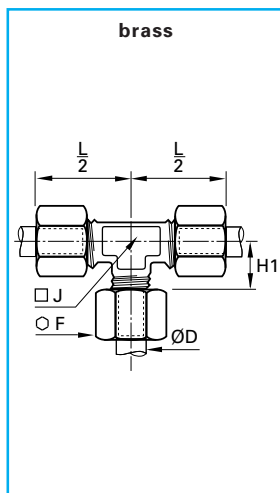
## 0102 equal elbow



ØD mm		F mm	J mm	L max mm	$\Delta$ kg
4	0102 04 00	10	5	19	.017
5	0102 05 00	12	8	21	.024
6	0102 06 00	13	8	22	.027
8	0102 08 00	14	10	28	.038
10	0102 10 00	19	12	30	.072
12	0102 12 00	22	15	30	.097
14	0102 14 00	24	19	35	.131
15	0102 15 00	24	19	35	.119
16	0102 16 00	27	19	39	.164
18	0102 18 00	30	23	41	.230
20	0102 20 00	32	23	42	.236
22	0102 22 00	36	27	50	.376
25	0102 25 00	41	27	54	.464
28	0102 28 00	42	32	54.5	.460

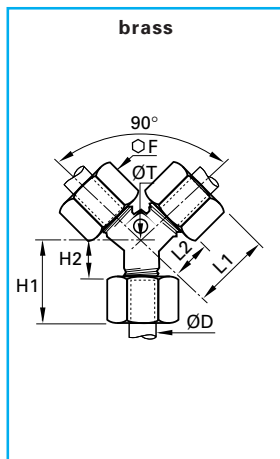
# tube to tube connectors

## 0104 equal tee



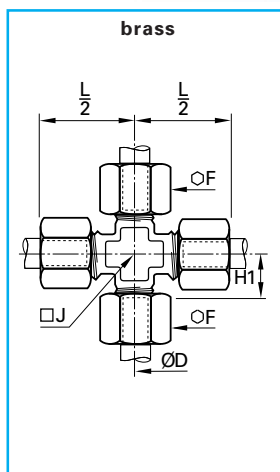
ØD mm		F mm	H1 mm	J mm	$\frac{L}{2}$ mm	$\Delta$ kg
4	<a href="#">0104 04 00</a>	10	9.5	8	19	.029
5	<a href="#">0104 05 00</a>	12	11	8	21	.035
6	<a href="#">0104 06 00</a>	13	11	8	22	.040
8	<a href="#">0104 08 00</a>	14	15	10	28	.055
10	<a href="#">0104 10 00</a>	19	14.5	12	30	.103
12	<a href="#">0104 12 00</a>	22	15	15	30	.139
14	<a href="#">0104 14 00</a>	24	18	19	35	.188
15	<a href="#">0104 15 00</a>	24	18	19	35	.168
16	<a href="#">0104 16 00</a>	27	21	19	39	.236
18	<a href="#">0104 18 00</a>	30	21.5	23	41	.322
20	<a href="#">0104 20 00</a>	32	21.5	23	42	.324
22	<a href="#">0104 22 00</a>	36	29	27	50	.518
25	<a href="#">0104 25 00</a>	41	29	27	54	.646
28	<a href="#">0104 28 00</a>	42	30	32	55	.650

## 0142 equal "Y" connector



ØD mm		F mm	H1 max mm	H2 mm	L1 max mm	L2 mm	T mm	$\Delta$ kg
4	<a href="#">0142 04 00</a>	10	16.5	7	26.5	17	4.2	.032
5	<a href="#">0142 05 00</a>	12	18.5	8.5	27	17	4.2	.046
6	<a href="#">0142 06 00</a>	13	19.5	8.5	28	17	4.2	.050
8	<a href="#">0142 08 00</a>	14	21	8	30	17	6.2	.062
10	<a href="#">0142 10 00</a>	19	24.5	9	37.5	22	6.2	.130
12	<a href="#">0142 12 00</a>	22	26	11	38	23	6.2	.171
14	<a href="#">0142 14 00</a>	24	28	11	41.5	24.5	6.2	.199
15	<a href="#">0142 15 00</a>	24	28	11	41.5	24.5	6.2	.177
16	<a href="#">0142 16 00</a>	27	30	12	43	25	6.2	.257
18	<a href="#">0142 18 00</a>	30	31.5	12	50.5	31	10.2	.350
20	<a href="#">0142 20 00</a>	32	33.5	13	51.5	31	10.2	.410
22	<a href="#">0142 22 00</a>	36	34	13	53	32	10.2	.543
25	<a href="#">0142 25 00</a>	41	39	14	59	34	10.2	.728

## 0107 equal cross



ØD mm		F mm	H1 mm	J mm	$\frac{L}{2}$ mm	$\Delta$ kg
4	<a href="#">0107 04 00</a>	10	9.5	8	19	.037
5	<a href="#">0107 05 00</a>	12	11	8	21	.048
6	<a href="#">0107 06 00</a>	13	11	8	22	.053
8	<a href="#">0107 08 00</a>	14	15	11	28	.074
10	<a href="#">0107 10 00</a>	19	14.5	14	30	.143
12	<a href="#">0107 12 00</a>	22	15	15	30	.185
14	<a href="#">0107 14 00</a>	24	18	20	35	.241
15	<a href="#">0107 15 00</a>	24	18	20	35	.223
16	<a href="#">0107 16 00</a>	27	21	20	39	.311
18	<a href="#">0107 18 00</a>	30	21.5	25	41	.431
20	<a href="#">0107 20 00</a>	32	21.5	25	42	.442
22	<a href="#">0107 22 00</a>	36	29	27	50	.682
25	<a href="#">0107 25 00</a>	41	29	27	50	.811

# complementary fittings

## the Legris reduction assembly

This patented accessory enables a smaller tube size to be used with the standard Legris connector designed for larger sized tube. Tube may be copper, brass, nylon, thin wall steel (wall thickness  $\leq 1\text{mm}$ ).

For example the following can be connected to a 14mm equal cross connector:

- a 4mm nylon tube
- a 8mm copper tube
- a 12mm brass tube
- a 14mm braided PVC hose

### The Legris reduction assembly

- allows a lower stockholding of fittings (57 alternative reductions are available).
- enables less complicated system designs.
- allows connection of several tube diameters within one fitting.

Legris reducers may be used with the 0122 tailpiece adapter for rubber hose, the 0165 tailpiece adapter for nylon hose and blanking plug 0126.

The reduction assembly comprises three components.

① the reduction piece,



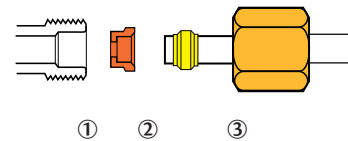
which fits inside the fitting body.



② the universal compression sleeve which fits on the end of the tube and is inserted between the reduction piece and the nut.



③ the brass nut



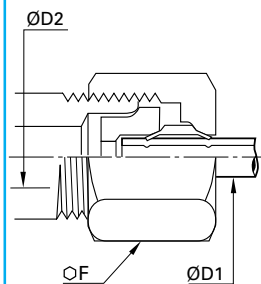
which is slightly longer than the standard nut in order to accommodate the extended length of the reduction piece.

fully assembled unit

## 0166 reduction assembly



brass



ØD1 = tube to be fitted  
ØD2 = for a xmm fitting

ØD1 mm	ØD2 mm	Part No.	F mm	Weight kg	ØD1 mm	ØD2 mm	Part No.	F mm	Weight kg
4	5	0166 04 05	13	.011	16	18	0166 16 18	30	.078
5	6	0166 05 06	13	.011	15	18	0166 15 18	30	.080
4	6	0166 04 06	13	.011	14	18	0166 14 18	30	.084
6	8	0166 06 08	14	.012	12	18	0166 12 18	30	.090
5	8	0166 05 08	14	.013	10	18	0166 10 18	30	.097
4	8	0166 04 08	14	.014	8	18	0166 08 18	30	.099
8	10	0166 08 10	19	.027	18	20	0166 18 20	32	.080
6	10	0166 06 10	19	.030	16	20	0166 16 20	32	.089
5	10	0166 05 10	19	.030	14	20	0166 14 20	32	.097
4	10	0166 04 10	19	.031	12	20	0166 12 20	32	.102
10	12	0166 10 12	22	.037	10	20	0166 10 20	32	.104
8	12	0166 08 12	22	.040	18	22	0166 18 22	36	.120
6	12	0166 06 12	22	.043	16	22	0166 16 22	36	.122
5	12	0166 05 12	22	.044	15	22	0166 15 22	36	.130
4	12	0166 04 12	22	.045	14	22	0166 14 22	36	.132
12	14	0166 12 14	24	.043	12	22	0166 12 22	36	.135
10	14	0166 10 14	24	.046	10	22	0166 10 22	36	.145
8	14	0166 08 14	24	.051	20	25	0166 20 25	41	.166
6	14	0166 06 14	24	.051	18	25	0166 18 25	41	.178
5	14	0166 05 14	24	.053	16	25	0166 16 25	41	.174
4	14	0166 04 14	24	.054	14	25	0166 14 25	41	.190
12	15	0166 12 15	24	.045	12	25	0166 12 25	41	.195
10	15	0166 10 15	24	.048	10	25	0166 10 25	41	.205
8	15	0166 08 15	24	.053	22	28	0166 22 28	42	.169
6	15	0166 06 15	24	.055	18	28	0166 18 28	42	.180
4	15	0166 04 15	24	.058					
14	16	0166 14 16	27	.060					
12	16	0166 12 16	27	.072					
10	16	0166 10 16	27	.069					
8	16	0166 08 16	27	.076					
6	16	0166 06 16	27	.078					
5	16	0166 05 16	27	.077					

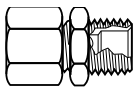









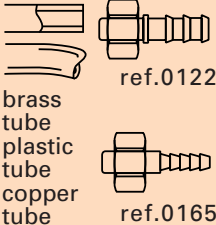





Each of the above part numbers comprises:

- a reduction piece
- a sleeve: ref 0124
- a nut: ref 0110

# brass sleeves and nuts

The table below illustrates the wide number of possible combinations available when using the Legris brass

compression range. In addition the advantages of the **Legris** reduction assembly are shown on page G25.

brass fitting body					
					
<b>0110</b>  brass		<b>0110... 60</b>  brass		<b>0110... 40</b>  steel	<b>0110... 70</b>  plastic
<b>0124</b>  brass	<b>0111</b>  brass BNA	<b>0124</b>  brass	<b>0111</b>  brass BNA	<b>0124... 40</b>  steel	
brass tube plastic tube copper tube  ref.0122 ref.0165	 copper tube	 soft copper tube subjected to vibration and lateral forces	 half hard copper tube subjected to vibration and lateral forces	 steel tube: low and medium pressure hydraulics	 plastic tubes



## 0124

This type of brass sleeve is supplied as standard and is for use with nut **0110**. This 'nut and sleeve' assembly is suitable for connecting copper, brass, thin walled steel, and plastic tube as well as **0122** and **0165** tube adapters.



## 0124... 40

This steel sleeve is for use with hydraulic fluids. It is used with the nut reference **0110...suffix 40**. This 'nut and sleeve' assembly is suitable for medium pressure hydraulics (see page G11)



## 0111

This brass sleeve conforms to BNA 34-E-29601. It is assembled with a nut **0110** and is suitable for copper tube.



## 0110/0110... 40

Brass nut **0110** is used with brass sleeve **0124**, or **0111** or blanking plug **0126**. Steel nut **0110...suffix 40** is used with steel sleeve **0124...suffix 40**. It is recommended to lubricate threads and components.



## 0110... 60

The use of this nut improves the grip on soft copper tube and on all fittings which may be subjected to relatively large vibrations or abnormal lateral forces. Nut **0110...suffix 60** should be used with olives **0124** or **0111**.



## 0110... 70

This product acts as both nut and sleeve when used with soft plastic tubing

- 1 - manually tighten the **0110...70** several times on to the fitting
- 2 - push home the plastic tube through the nut/sleeve
- 3 - manually fully tighten the plastic nut/sleeve

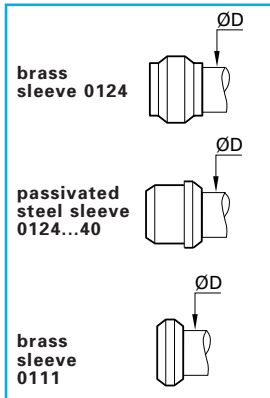
The above recommendations are given in good faith. However, since each application is different it is advisable to undertake tests in actual working conditions.

# complementary fittings

## 0124, 0124 suffix



## 40, 0111 sleeves

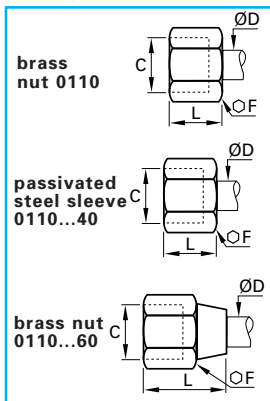


ØD mm						
4	0124 04 00	.001	0124 04 00 40	.001	0111 04 00	.001
5	0124 05 00	.001	0124 05 00 40	.001	0111 05 00	.001
6	0124 06 00	.001	0124 06 00 40	.001	0111 06 00	.001
8	0124 08 00	.002	0124 08 00 40	.002	0111 08 00	.002
10	0124 10 00	.003	0124 10 00 40	.003	0111 10 00	.002
12	0124 12 00	.004	0124 12 00 40	.004	0111 12 00	.003
14	0124 14 00	.004	0124 14 00 40	.005	0111 14 00	.003
15	0124 15 00	.004	0124 15 00 40	.005	0111 15 00	.003
16	0124 16 00	.006	0124 16 00 40	.006	0111 16 00	.004
18	0124 18 00	.007	0124 18 00 40	.008		
20	0124 20 00	.009	0124 20 00 40	.008		
22	0124 22 00	.012	0124 22 00 40	.010		
25	0124 25 00	.017	0124 25 00 40	.015		
28	0124 28 00	.017				

## 0110, 0110 suffix



## 40, 0110 suffix



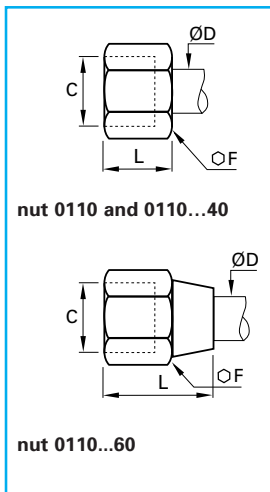
## 60 nuts

ØD mm	C metric						
4	M8x1	0110 04 00	.005	0110 04 00 40	.004	0110 04 00 60	.006
5	M10x1	0110 05 00	.006	0110 05 00 40	.006	0110 05 00 60	.009
6	M10x1	0110 06 00	.008	0110 06 00 40	.008	0110 06 00 60	.011
8	M12x1	0110 08 00	.008	0110 08 00 40	.009	0110 08 00 60	.012
10	M16x1.5	0110 10 00	.019	0110 10 00 40	.019	0110 10 00 60	.027
12	M18x1.5	0110 12 00	.026	0110 12 00 40	.027	0110 12 00 60	.041
14	M20x1.5	0110 14 00	.029	0110 14 00 40	.030	0110 14 00 60	.051
15	M20x1.5	0110 15 00	.028	0110 15 00 40	.030	0110 15 00 60	.050
16	M22x1.5	0110 16 00	.043	0110 16 00 40	.043	0110 16 00 60	.072
18	M24x1.5	0110 18 00	.059	0110 18 00 40	.057	0110 18 00 60	.097
20	M27x1.5	0110 20 00	.057	0110 20 00 40	.062	0110 20 00 60	.102
22	M30x1.5	0110 22 00	.079	0110 22 00 40	.084	0110 22 00 60	.129
25	M33x1.5	0110 25 00	.121	0110 25 00 40	.130	0110 25 00 60	.194
28	M36x1.5	0110 28 00	.109				

### Technical specification of nuts

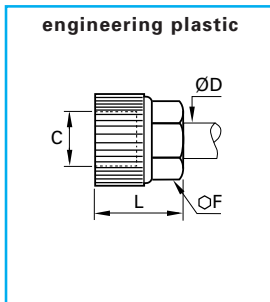
#### tightening torque:

Max kg = tightening torque for nut 0110 and sleeve 0124 on copper, brass or steel tube



ØD mm	F 0110	L 0110	F 0110...60	L 0110...60	max kg torque copper or brass	F 0110...40	L 0110...40	max kg torque steel
4	10	11	11	14.5	.7	10	11	1.5
5	12	11	13	17	.7	12	11.5	1.5
6	13	11	13	17.5	1.5	13	12	2.5
8	14	13	16	20	1.5	14	13.5	2.5
10	19	15	20	23	1.8	19	16	3
12	22	15	22	25	3	22	16.5	4.5
14	24	15	24	30	3.5	24	17	5.5
15	24	15	24	30	4	24	17	6
16	27	17	27	32	5	27	18	7
18	30	18	30	35	6	30	19	9
20	32	18	32	35	6	32	20.5	10
22	36	19	36	36	7	36	21.5	12
25	41	21	41	40	8	41	24	13
28	42	21			9			

## 0110 suffix 70 nut-sleeve

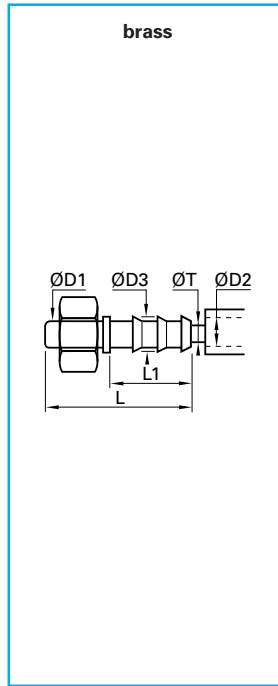


ØD mm	C		F mm	L mm	
4	M8x1	0110 04 00 70	8	13	.001
6	M10x1	0110 06 00 70	11	15	.002
8	M12x1	0110 08 00 70	13	16	.002
10	M16x1.5	0110 10 00 70	17	19	.004
12	M18x1.5	0110 12 00 70	19	19	.005
14	M20x1.5	0110 14 00 70	22	20	.007
16	M22x1.5	0110 16 00 70	24	21	.009

NB. plastic nut-olives should not be used on metal tubes.

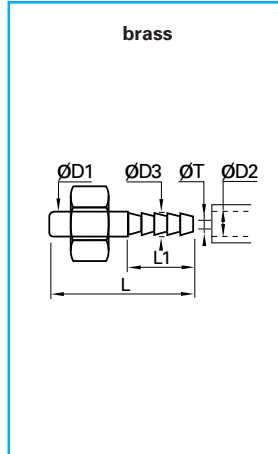
# accessories

## 0122 barbed adapter for rubber hose



ØD1 mm	ØD2 mm		ØD3 mm	L mm	L1 mm	ØT min mm	kg
4	4	0122 04 04	6	37.5	22.5	3	.004
5	4	0122 05 04	6	37.5	22.5	3	.004
6	4	0122 06 04	6	37.5	22.5	3	.005
6	7	0122 06 07	9	37.5	22.5	6	.007
8	6	0122 08 06	8	40	22.5	5	.007
8	7	0122 08 07	9	40	22.5	6	.008
8	10	0122 08 10	12.5	40	22.5	9	.012
10	7	0122 10 07	9	43	22.5	6	.010
10	10	0122 10 10	12.5	43	22.5	9	.013
12	10	0122 12 10	12.5	43	22.5	9	.013
12	13	0122 12 13	15	50	29.5	12	.018
14	13	0122 14 13	15	52	29.5	12	.018
14	16	0122 14 16	18.5	60.5	38	15	.031
15	13	0122 15 13	15	52	29.5	12	.020
15	16	0122 15 16	18.5	60.5	38	15	.032
16	13	0122 16 13	15	53.5	29.5	12	.021
16	16	0122 16 16	18.5	62	38	15	.029
18	16	0122 18 16	18.5	62	38	15	.032
18	19	0122 18 19	21.5	62	38	18	.039
20	16	0122 20 16	18.5	64	38	15	.036
20	19	0122 20 19	21.5	64	38	18	.039
22	19	0122 22 19	21.5	64	38	18	.040
25	19	0122 25 19	21.5	70	38	18	.050
25	25	0122 25 25	27.5	70	38	24	.063
28	25	0122 28 25	27.5	70	38	24	.088

## 0165 barbed adapter for plastic hose



ØD1 mm	ØD2 mm		ØD3 mm	L mm	L1 mm	ØT min mm	kg
4	4	0165 04 06	4.3	30	15	2	.003
5	4	0165 05 06	4.3	30	15	2	.003
6	4	0165 06 06	4.3	30	15	2	.003
6	6	0165 06 08	6.4	30	15	4	.004
6	8	0165 06 10	8.4	30	15	4	.005
8	6	0165 08 08	6.4	32.5	15	4	.006
8	8	0165 08 10	8.4	32.5	15	6	.006
8	10	0165 08 12	10.7	37.5	20	6	.009
10	8	0165 10 10	8.4	35.5	15	6	.008
10	10	0165 10 12	10.7	40.5	20	8	.010
10	12	0165 10 14	12.7	40.5	20	8	.012
12	10	0165 12 12	10.7	40.5	20	8	.012
12	12	0165 12 14	12.7	40.5	20	10	.012
14	12	0165 14 14	12.7	42.5	20	10	.014
15	13	0165 15 16	13.7	42.5	20	11	.015
16	13	0165 16 16	13.7	44	20	11	.018

① + ② + adapter  
nut + sleeve + adapter

② ①

**0122 and 0165** barbed adapters are used in place of tube. They are therefore inserted into the fittings and fixed with the nut and sleeve supplied with the fitting.

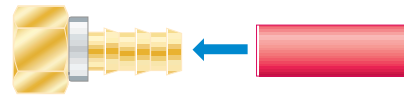
# quick-acting barbed fittings for push-on hose



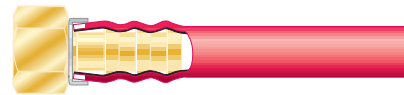
Exclusively designed to be connected to push-on hose (see Tubing and Hoses section), Legris quick-acting barbed fittings are perfectly adapted to modern requirements of industry, such as automation.

Connection is quick and easy:

- no grease or oil is needed to lubricate the tube and no preparation time is required. Safety for both installer and user is safeguarded since the tube when pushed onto the fitting butts against and beneath the grey collar visually confirming correct connection.
- to disconnect, cut the tube with a knife on the barbed side of the fitting.

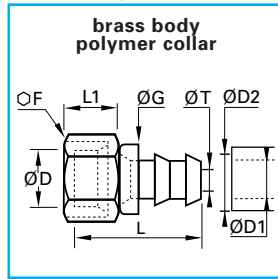


correct connection =  
the tube is pushed on to the fitting to butt against and beneath the collar



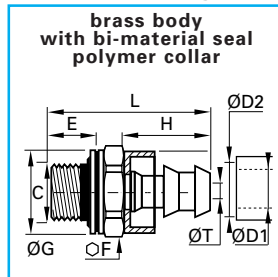
Legris push-on hose can be found on page M21 of this catalog.

## 0132 quick-acting barbed fitting with brass compression fitting



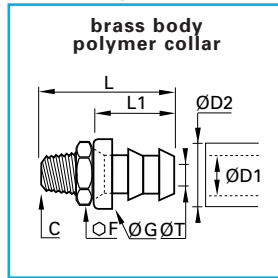
ØD mm	ID		ØD1	ØD2	F	G	L	L1	T	kg
6	1/4	0132 06 56	6.3	13	12	16.5	32.5	12.5	4.8	.012
8	1/4	0132 08 56	6.3	13	14	16.5	29.5	11.5	4.8	.014
10	1/4	0132 10 56	6.3	13	19	16.5	30	14	4.8	.027
10	3/8	0132 10 60	9.5	16	19	19.5	34	14	7.5	.035
14	3/8	0132 14 60	9.5	16	24	19.5	35.5	15	7.5	.049
14	1/2	0132 14 62	12.7	19	24	23.5	39.5	15	10	.054
18	1/2	0132 18 62	12.7	19	30	23.5	41.5	17	10	.092
18	5/8	0132 18 66	15.9	23	30	27	50	17	13.5	.090
22	3/4	0132 22 69	19.1	27	36	30.5	56.5	17	16	.128

## 0133...39 quick-acting barbed fitting with male — BSPP



C BSPP	ID		ØD1	ØD2	E	F	G	H	L	T	kg
G1/8	1/4	0133 56 10 39	6.3	13	5.5	13	14	20	31.5	4.8	.012
G1/4	1/4	0133 56 13 39	6.3	13	7	17	17	20	33.5	4.8	.020
G1/4	3/8	0133 60 13 39	9.5	16	7	17	17	24	37.5	7.5	.021
G3/8	3/8	0133 60 17 39	9.5	16	9.5	22	22	24	42.5	7.5	.035
G3/8	1/2	0133 62 17 39	12.7	19	9.5	22	22	28	46.5	10	.038
G1/2	1/2	0133 62 21 39	12.7	19	10.5	27	26	28	48.5	10	.064
G1/2	5/8	0133 66 21 39	15.9	23	10.5	27	26	36.5	57	13.5	.057
G3/4	5/8	0133 66 27 39	15.9	23	11.5	32	32	36.5	59	13.5	.101
G3/4	3/4	0133 69 27 39	19.1	27	11.5	32	32	43	65.5	16	.107

## 0134 quick-acting barbed fitting with male — BSPT



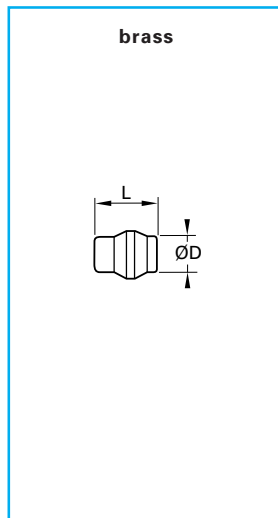
C BSPT	ID		ØD1	ØD2	F	G	L	L1	T	kg
R1/8	1/4	0134 56 10	6.3	13	14	16.5	32.5	20	4.8	.012
R1/4	1/4	0134 56 13	6.3	13	14	16.5	37	20	4.8	.020
R1/4	3/8	0134 60 13	9.5	16	14	19.5	41	24	7.5	.021
R3/8	3/8	0134 60 17	9.5	16	19	19.5	41.5	24	7.5	.035
R3/8	1/2	0134 62 17	12.7	19	19	23.5	45.5	28	10	.038
R1/2	1/2	0134 62 21	12.7	19	22	23.5	50	28	10	.064
R1/2	5/8	0134 66 21	15.9	23	22	27	58.5	36.5	13.5	.057
R3/4	5/8	0134 66 27	15.9	23	27	27	60.5	36.5	13.5	.101
R3/4	3/4	0134 69 27	19.1	27	27	30.5	67	43	16	.107

Maximum torque for model 0132

ØDmm	6	8	10	14	18	22
max torque	60	130	160	310	530	620
in. lb						

# accessories

## 0126 plug



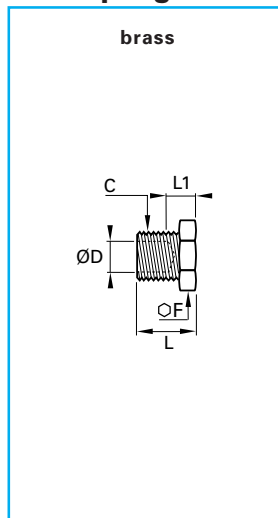
ØD mm		L mm	$\Delta$ kg
4	0126 04 00	10	.002
5	0126 05 00	10	.002
6	0126 06 00	10	.003
8	0126 08 00	11.5	.006
10	0126 10 00	13	.011
12	0126 12 00	13	.014
14	0126 14 00	13.5	.020
15	0126 15 00	13.5	.022
16	0126 16 00	16	.030
18	0126 18 00	16	.038
20	0126 20 00	16	.046
22	0126 22 00	18	.062
28	0126 28 00	19.5	.108

The plug is used to blank off an outlet in a compression fitting.

It replaces the sleeve.

When an open outlet is required simply dismantle, replace the plug by the tube and sleeve, reusing the nut. The plug is also reusable.

## 0125 metric parallel tube end plug



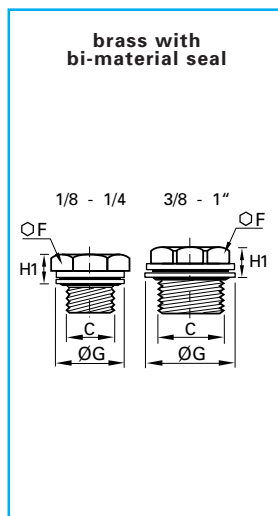
ØD mm	C metric		F mm	L mm	L1 mm	$\Delta$ kg
4	M8x1	0125 04 00	10	12	8	.006
6	M10x1	0125 06 00	11	13.5	9.5	.009
8	M12x1	0125 08 00	14	14	9	.012
10	M16x1.5	0125 10 00	17	18	11	.025
12	M18x1.5	0125 12 00	19	18	11	.031
14	M20x1.5	0125 14 00	22	19	11	.039

This plug enables unused tubes to be blanked off.

The male thread on the plug has the same pitch as the female thread on the nut of a standard Legris fitting. Therefore the plug screwed into the nut blanks off the tube.

To reopen the passage, simply unscrew the plug and fit the required connector. No further treatment of the tube is required.

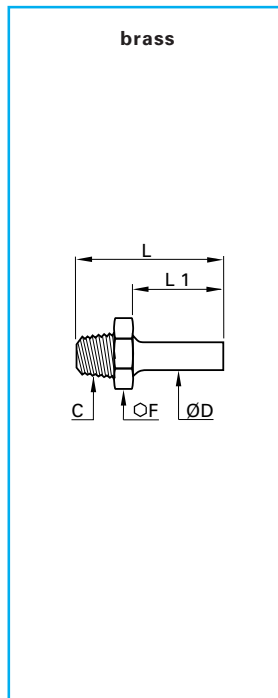
## 0220...39 male plug — BSPP



C BSPP		F mm	G mm	H1 mm	$\Delta$ kg
G1/8	0220 10 00 39	14	14	6.5	.005
G1/4	0220 13 00 39	17	17	6.5	.016
G3/8	0220 17 00 39	17	22	8	.021
G1/2	0220 21 00 39	22	26	9	.045
G3/4	0220 27 00 39	22	32	10	.053
G1"	0220 34 00 39	27	39.5	10.5	.067

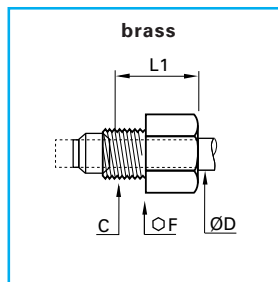
# accessories

## 0120 straight stem adapter — BSPT



ØD mm	C BSPT	F mm	L mm	L1 mm	Δkg
4	R1/8 0120 04 10	11	25.5	14	.007
5	R1/8 0120 05 10	11	26	14.5	.008
6	R1/8 0120 06 10	11	26.5	15	.008
6	R1/4 0120 06 13	14	31	15	.015
8	R1/8 0120 08 10	11	28.5	17	.008
8	R1/4 0120 08 13	14	33	17	.016
8	R3/8 0120 08 17	17	33.5	17	.021
10	R1/4 0120 10 13	14	36	20	.017
10	R3/8 0120 10 17	17	36.5	20	.022
10	R1/2 0120 10 21	22	41	20	.040
12	R1/4 0120 12 13	14	36	20	.017
12	R3/8 0120 12 17	17	36.5	20	.022
12	R1/2 0120 12 21	22	41	20	.045
14	R3/8 0120 14 17	17	38	21.5	.023
14	R1/2 0120 14 21	22	42.5	21.5	.040
15	R3/8 0120 15 17	17	38	21.5	.023
15	R1/2 0120 15 21	22	42.5	21.5	.039
16	R3/8 0120 16 17	17	39.5	23	.024
16	R1/2 0120 16 21	22	44	23	.042
18	R1/2 0120 18 21	22	44.5	23.5	.041
18	R3/4 0120 18 27	27	47.5	23.5	.071
20	R3/4 0120 20 27	27	49	25	.069
22	R3/4 0120 22 27	27	48.5	25.5	.067
22	R1" 0120 22 34	36	52.5	25.5	.116
25	R1" 0120 25 34	36	57	30	.117
28	R1" 0120 28 34	36	57	30	.138

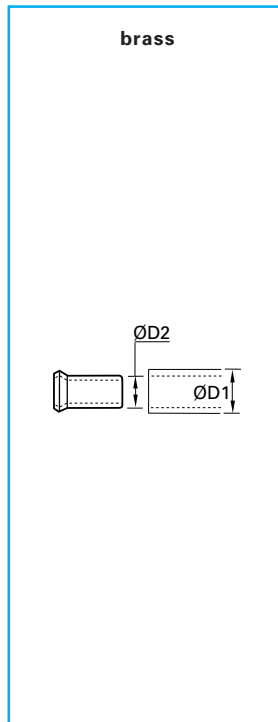
## 0112 male nut for standard sleeve



ØD mm	C metric	F mm	L1 mm	Δkg
4	M8x1 0112 04 00	10	8.5	.006
5	M10x1 0112 05 00	11	9.5	.007
6	M10x1 0112 06 00	11	9.5	.008
8	M12x1 0112 08 00	13	10.5	.009
10	M16x1.5 0112 10 00	17	11	.018
12	M18x1.5 0112 12 00	19	11	.021
14	M20x1.5 0112 14 00	22	12	.026

This product is designed to allow the tube to be fitted directly into the tapped port in a body using a standard Legris olive.

## 0127 tube support for plastic tube

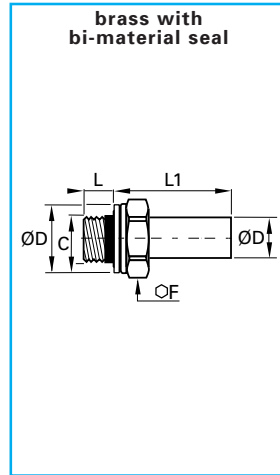


ØD1 mm	ØD2 mm	Δkg
4	2 0127 04 00	.001
4	2.7 0127 04 27	.001
5	3 0127 05 03	.001
5	3.3 0127 05 00	.001
6	4 0127 06 00	.001
8	5.5 0127 08 55	.001
8	6 0127 08 00	.001
10	7 0127 10 07	.002
10	7.5 0127 10 75	.002
10	8 0127 10 00	.002
12	8 0127 12 08	.002
12	9 0127 12 09	.002
12	10 0127 12 00	.002
14	11 0127 14 11	.003
14	12 0127 14 00	.003
15	12 0127 15 12	.003
16	13 0127 16 13	.003
18	14 0127 18 14	.004
20	15 0127 20 15	.004
22	16 0127 22 16	.005
25	19 0127 25 19	.005

At high temperature and pressure or during oscillating movements, the use of tube supports prevents distortion of the tube and guarantees effective gripping and sealing.

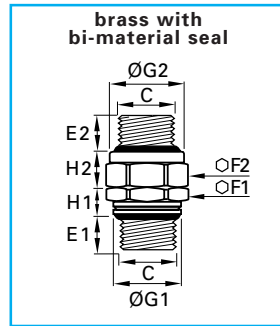
# accessories

## 0128...39 straight stem adapter — BSPP



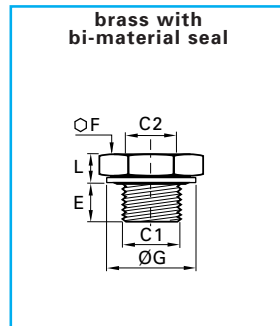
ØD	C		F	G	L	L1	kg
mm	BSPP		mm	mm	mm	mm	
4	G1/8	0128 04 10 39	13	14	7.5	20	.008
4	G1/4	0128 04 13 39	17	17	9	22	.010
6	G1/8	0128 06 10 39	13	14	7.5	21	.009
6	G1/4	0128 06 13 39	17	17	9	23	.015
8	G1/8	0128 08 10 39	13	14	7.5	23	.009
8	G1/4	0128 08 13 39	17	17	9	25	.017
8	G3/8	0128 08 17 39	22	22	12	26	.022
10	G1/4	0128 10 13 39	17	17	9	28	.017
10	G3/8	0128 10 17 39	22	22	12	29	.025
10	G1/2	0128 10 21 39	27	26	27	30	.042
14	G3/8	0128 14 17 39	22	22	12	30.5	.025
14	G1/2	0128 14 21 39	27	26	27	31.5	.043
18	G1/2	0128 18 21 39	27	26	27	33.5	.044
18	G3/4	0128 18 27 39	32	32	14	34.5	.073
22	G3/4	0128 22 27 39	32	32	14	36.5	.069
22	G1"	0128 22 34 39	41	39.5	16.5	38	.118
28	G1"	0128 28 34 39	41	39.5	16.5	42.5	.140

## 0151 straight male orientable adapter — BSPP



C		E1	E2	F1	F2	G1	G2	H1	H2	kg
BSPP		mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	0151 10 10 39	5.5	7	13	14	14	14	6	6.5	.017
G1/4	0151 13 13 39	7	8.5	17	19	17	19	6.5	9	.026
G3/8	0151 17 17 39	9.5	9.5	22	22	22	22	9	9	.042
G1/2	0151 21 21 39	10.5	10.5	27	27	26	26	10	10	.070
G3/4	0151 27 27 39	11.5	11.5	32	32	32	32	11	10.5	.096
G1"	0151 34 34 39	13	13.5	41	41	39.5	39.5	12.5	13	.115

## 0168...39 reducer male to female — BSPP



C1	C2		E	F	G	L	kg
BSPP	BSPP/metric		mm	mm	mm	mm	
G1/8	M5x.8	0168 10 19 39	8	14	14	4.5	.010
G1/4	M5x.8	0168 13 19 39	8	17	17	5	.012
G1/4	G1/8	0168 13 10 39	8	17	17	5	.020
G3/8	G1/8	0168 17 10 39	10	19	22	5	.028
G3/8	G1/4	0168 17 13 39	10	19	22	5	.035
G1/2	G1/8	0168 21 10 39	12	24	26	7.5	.039
G1/2	G1/4	0168 21 13 39	12	24	26	7.5	.056
G1/2	G3/8	0168 21 17 39	12	24	26	7.5	.062
G3/4	G1/4	0168 27 13 39	12	32	32	9.5	.067
G3/4	G3/8	0168 27 17 39	12	32	32	9.5	.097
G3/4	G1/2	0168 27 21 39	12	32	32	9.5	.116

This catalog offers a range of brass accessories compatible with brass compression fittings. Please refer to section H.

# special products

## brass compression fittings



These products include special connections, fluids compatibility, threads, shape, temperature, materials etc., which preclude the use of standard fittings. Legris is pleased to share its knowledge and experience to solve special problems.

Brass compression fittings can be used with various tubing shown in this catalog:

- semi-rigid Nylon tube  
4mm to 16mm O.D.  
Page M9

- rigid Nylon tube  
4mm to 10mm O.D.

- fluoropolymer tube FEP 140  
4mm to 12mm O.D.  
Page M16

- PVC hose  
8mm to 26mm O.D.  
Page M22



# accessories and plugs



# the complete range of accessories and plugs

## NPT brass pipe fittings

<b>U100 L</b> NPT Page H5	<b>U115 L</b> NPT Page H5	<b>U124 L</b> NPT Page H5	<b>U114 L</b> NPT Page H5	<b>U101 L</b> NPT Page H5	<b>U106 L</b> NPT Page H5	<b>U107 L</b> NPT Page H6	<b>U102 L</b> NPT Page H6	
<b>U122 L</b> NPT Page H6	<b>U103 L</b> NPT Page H6	<b>U119 L</b> NPT Page H6	<b>U121 L</b> NPT Page H6	<b>U104 L</b> NPT Page H7	<b>U110 L</b> NPT Page H7	<b>U120 L</b> NPT Page H7	<b>U112 L</b> NPT Page H7	<b>U113 L</b> NPT Page H7

## brass accessories

<b>0143</b> BSPP Page H8	<b>0144</b> BSPP/BSPT Page H8	<b>0152</b> BSPT Page H8	<b>0145</b> BSPP Page H8	<b>0158</b> BSPP/BSPT Page H8	<b>0117</b> BSPP/M5 Page H8	<b>0121</b> NPT/BSPT Page H9	<b>0121</b> BSPT Page H9	<b>0929</b> taper page H9
<b>0155</b> BSPP Page H9	<b>0164</b> BSPP/NPT Page H9	<b>0167</b> NPT/BSPT Page H10	<b>0168</b> BSPP Page H10	<b>0163</b> BSPP/BSPT Page H10	<b>0169</b> BSPP Page H10	<b>0123</b> BSPT Page H11	<b>0136</b> BSPT Page H11	<b>0931</b> BSPP/M5 Page H11

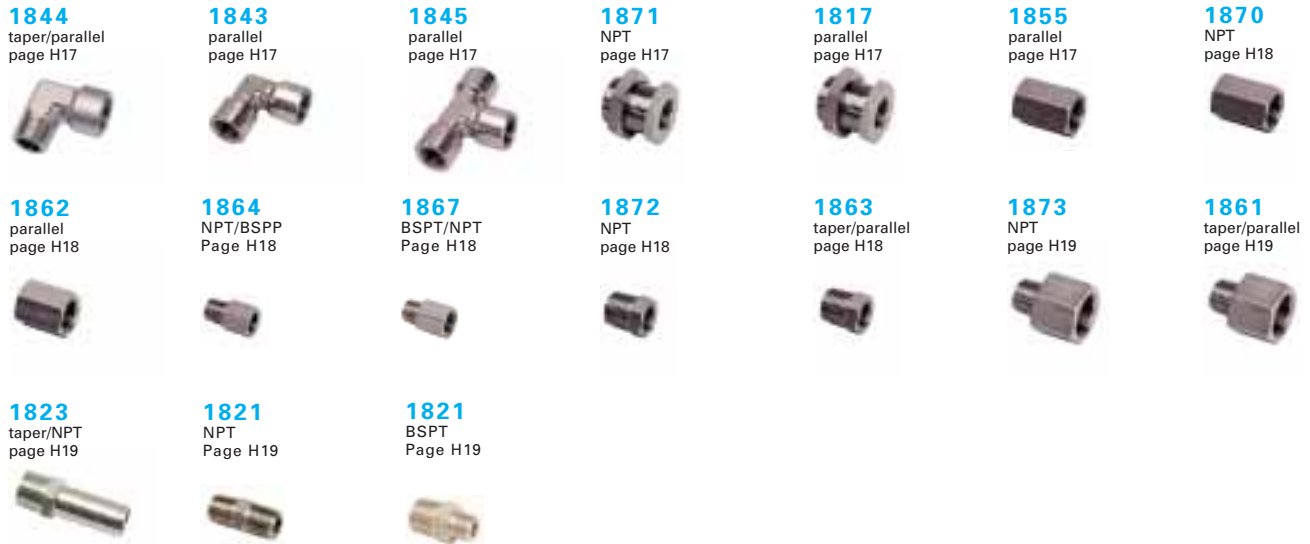
<b>0912</b> BSPP/M5 Page H12	<b>0913/0921</b> BSPP/BSPT Page H12	<b>0914/0922</b> BSPT/M5 Page H12	<b>0910</b> BSPP Page H12	<b>0911</b> BSPP/BSPT Page H12	<b>0915</b> BSPP/M5 Page H12	<b>0916/0923</b> BSPP/BSPT Page H13	<b>0917/0924</b> BSPP/BSPT Page H13
<b>0927</b> taper page H13	<b>0928</b> taper/parallel page H13	<b>0908</b> BSPP Page H13	<b>0909</b> BSPP/BSPT Page H13	<b>0903</b> BSPP Page H14	<b>0904</b> BSPP/BSPT Page H14	<b>0905</b> BSPP/M5 Page H14	<b>0906</b> BSPP Page H14
<b>0907</b> BSPP Page H14	<b>0920</b> BSPP/M5 Page H14	<b>0191</b> BSPP Page H15	<b>0900</b> BSPT Page H15	<b>0901</b> BSPP/M5 Page H15	<b>0192</b> BSPT/BSPP Page H15	<b>0902</b> BSPP/M5 Page H15	

# the complete range of accessories and plugs

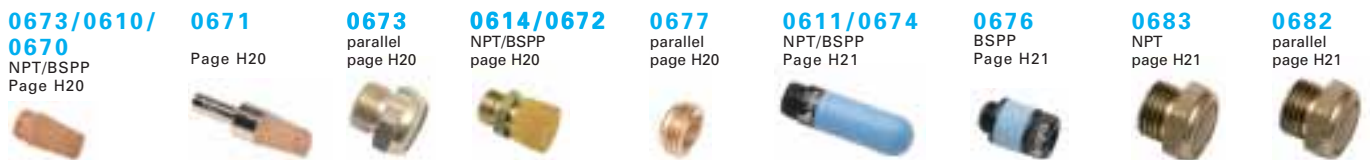
## aluminum manifolds



## stainless steel accessories



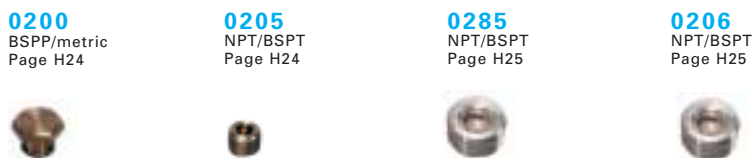
## silencers



## sealing accessories



## plugs



# accessories and plugs

In order to offer global solutions for connection, **Legris** now provides users with a comprehensive range of nickel-plated brass accessories suitable for use with the different thread types and ball valves featured in this catalog.



## models for principal applications

- models for high and medium pressure (3,625 psi maximum)
- stainless steel accessories, for corrosive fluids and harsh environments, low and medium pressure applications
- anodized aluminum manifolds
- plugs brass, steel and stainless steel

## a large and diversified offer

- many models and configurations:
  - adapters; sleeves, reducers; elbows, tees, crosses, Y pieces, manifolds, bulkheads
- large variety of threaded types:
  - NPT, BSP taper, BSP parallel and metric
- from 1/8" to 3/4" NPT and M5 to 2" BSP



## sealing systems matched to installation requirements

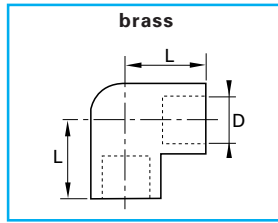
- copper washers
- bonded seals
- captive sealing washers
- teflon tape

## a complete range of silencers

- standard and flow control models
- BSP parallel and M5 and push-in threaded connectors
- sintered bronze and polyethylene

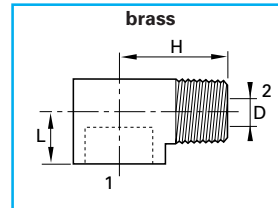
# NPT brass pipe fittings

## U100 L female elbow — NPT



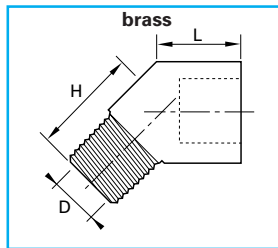
NPT		L in	flow dia.D	
1/8	U100 L A	.56	.328	1.15
1/4	U100 L B	.81	.422	2.37
3/8	U100 L C	.84	.562	3.14
1/2	U100 L D	1.09	.687	6.00

## U115 L street elbow — NPT



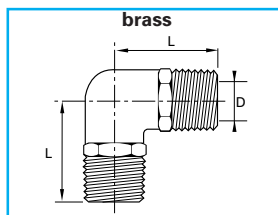
NPT 1	NPT 2		H in	L in	flow dia.D	
1/8	1/8	U115 L A	.81	.56	.220	.64
1/4	1/4	U115 L B	1.08	.69	.314	1.25
3/8	3/8	U115 L C	1.25	.78	.428	2.07
1/2	1/2	U115 L D	1.25	1.03	.552	1.29

## U124 L 45° elbow — female NPT to male NPT



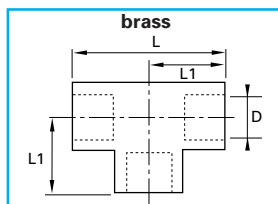
NPT		H in	L in	flow dia.D	
1/8	U124 L A	.50	.38	.220	.50
1/4	U124 L B	.70	.54	.314	.26
3/8	U124 L C	.78	.54	.440	1.99
1/2	U124 L D	1.00	.73	.562	3.66

## U114 L equal elbow — male NPT



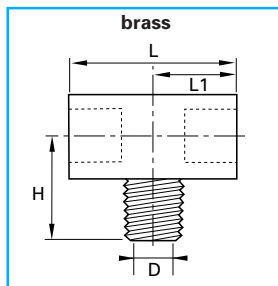
NPT		L in	flow dia.D	
1/8	U114 L A	.71	.220	.66
1/4	U114 L B	1.09	.312	1.69
3/8	U114 L C	1.09	.406	1.91
1/2	U114 L D	1.41	.562	3.49

## U101 L female tee — NPT



NPT		L in	L1 in	flow dia.D	
1/8	U101 L A	1.12	.56	.328	3.38
1/4	U101 L B	1.38	.69	.422	2.81
3/8	U101 L C	1.68	.84	.562	6.46
1/2	U101 L D	2.14	1.07	.687	7.26

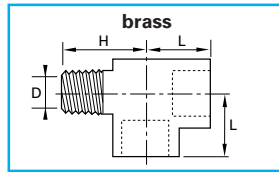
## U106 L branch tee — NPT



NPT		H in	L in	L1 in	flow dia.D	
1/8	U106 L A	.66	1.06	.53	.220	1.29
1/4	U106 L B	.91	1.52	.76	.314	2.63
3/8	U106 L C	.97	1.68	.84	.438	3.92
1/2	U106 L D	1.26	2.18	1.09	.592	6.97

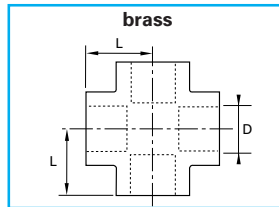
# NPT brass pipe fittings

## U107 L run tee — NPT



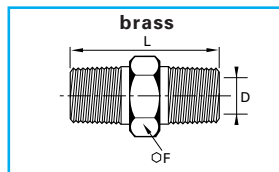
NPT		H in	L in	flow dia. D	
1/8	U107 L A	.66	.55	.220	1.25
1/4	U107 L B	.91	.76	.312	2.59
3/8	U107 L C	.99	.82	.440	3.50
1/2	U107 L D	1.27	1.07	.564	6.78

## U102 L cross — female NPT



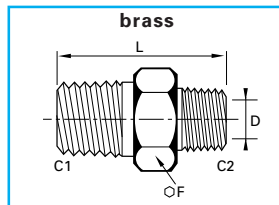
NPT		L in	flow dia. D	
1/8	U102 L A	.53	.328	1.57
1/4	U102 L B	.75	.421	3.25
3/8	U102 L C	.82	.562	4.18
1/2	U102 L D	1.07	.688	4.19

## U122 L hex nipple — NPT



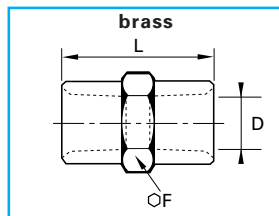
NPT		F in	L in	flow dia. D	
1/8	U122 L A	7/16	.97	.220	.41
1/4	U122 L B	9/16	1.38	.314	1.03
3/8	U122 L C	11/16	1.41	.440	1.29
1/2	U122 L D	7/8	1.81	.564	2.35

## U122 L hex nipple reducer — NPT



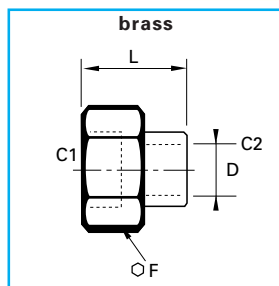
C1 NPT	C2 NPT		F in	L in	flow dia. D	
1/4	1/8	U122 L BA	9/16	1.19	.220	.82
3/8	1/8	U122 L CA	11/16	1.22	.220	1.08
3/8	1/4	U122 L CB	11/16	1.41	.314	1.21
1/2	1/4	U122 L DB	7/8	1.62	.314	1.60
1/2	3/8	U122 L DC	7/8	1.62	.440	2.08
3/4	1/2	U122 L ED	1-1/16	1.80	.564	2.08

## U103 L female sleeve — NPT



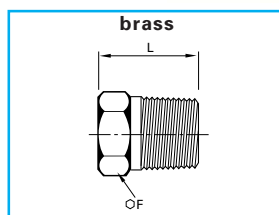
NPT		F in	L in	flow dia. D	
1/8	U103 L A	9/16	.75	.328	.58
1/4	U103 L B	3/4	1.12	.422	1.52
3/8	U103 L C	7/8	1.12	.562	1.04
1/2	U103 L D	1-1/16	1.50	.688	3.31

## U119 L unequal female sleeve — NPT



C1 NPT	C2 NPT		F in	L in	flow dia. D	
1/4	1/8	U119 L BA	3/4	.97	.328	1.32
3/8	1/4	U119 L CB	7/8	1.16	.422	1.99
1/2	1/4	U119 L DB	1-1/16	1.28	.422	3.20
1/2	3/8	U119 L DC	1-1/16	1.38	.562	3.38
3/4	1/2	U119 L ED	1-3/8	1.50	.688	5.40

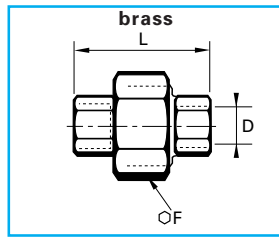
## U121 L hex head plug — NPT



NPT		F in	L in	
1/8	U121 L A	7/16	.560	.29
1/4	U121 L B	9/16	.750	.66
3/8	U121 L C	11/16	.780	1.05
1/2	U121 L D	7/8	.970	1.54
3/4	U121 L E	1-1/16	1.063	1.54

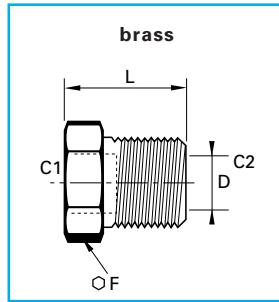
# NPT brass pipe fittings

## U104 L 3 piece union — NPT



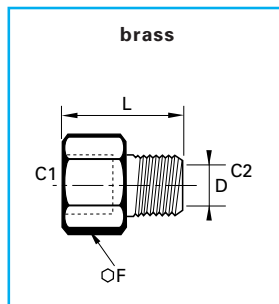
NPT		F in	L in	D in	oz
1/4	U104 L B	1-3/16	1.53	.422	3.94
3/8	U104 L C	1-1/4	1.78	.562	4.51

## U110 L adapter reducer — NPT



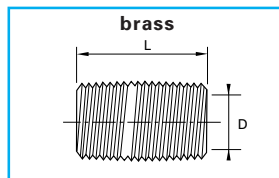
C1 NPT	C2 NPT		F in	L in	flow dia.D	oz
1/8	1/4	U110 L BA	9/16	.75	.328	.45
1/8	3/8	U110 L CA	11/16	.75	.328	.90
1/4	3/8	U110 L CB	3/4	.75	.422	.69
1/8	1/2	U110 L DA	7/8	1.00	.328	2.14
1/4	1/2	U110 L DB	7/8	1.00	.422	1.81
3/8	1/2	U110 L DC	7/8	1.00	.562	1.25
1/8	3/4	U110 L EA	1-1/8	1.00	.328	3.78
1/4	3/4	U110 L EB	1-1/8	1.00	.422	3.33
3/8	3/4	U110 L EC	1-1/8	1.00	.562	2.88
1/2	3/4	U110 L ED	1-1/8	1.00	.688	2.10

## U120 L expander — female NPT to male NPT



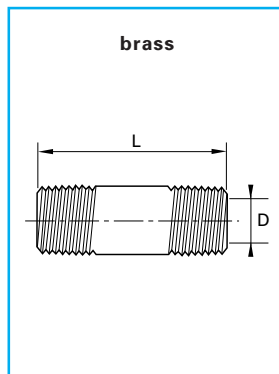
C1 NPT	C2 NPT		F in	L in	flow dia.D	oz
1/8	1/8	U120 L AA	9/16	.88	.218	.42
1/4	1/8	U120 L BA	3/4	1.06	.218	1.16
1/4	1/4	U120 L BB	3/4	1.25	.314	1.43
3/8	1/8	U120 L CA	7/8	1.10	.218	.96
3/8	1/4	U120 L CB	7/8	1.25	.314	1.37
3/8	3/8	U120 L CC	7/8	1.25	.440	1.01
1/2	1/4	U120 L DB	1	1.47	.312	2.48
1/2	3/8	U120 L DC	1-1/16	1.47	.440	3.04
1/2	1/2	U120 L DD	1-1/16	1.66	.562	3.40
3/4	1/2	U120 L ED	1-3/8	1.69	.562	3.40

## U112 L close nipple — NPT



NPT		L in	flow dia.D	oz
1/8	U112 L A	.75	.281	.19
1/4	U112 L B	.88	.375	.35
3/8	U112 L C	1.00	.500	.57
1/2	U112 L D	1.13	.625	.95
3/4	U112 L E	1.31	.750	1.91

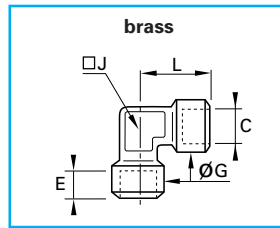
## U113 L long nipple — NPT



NPT		L in	flow dia.D	oz
1/8	U113 L A 1 1/2	1-1/2	.250	.52
1/4	U113 L B 1 1/2	1-1/2	.375	.71
3/8	U113 L C 1 1/2	1-1/2	.500	1.01
1/8	U113 L A 2	2	.250	.94
1/4	U113 L B 2	2	.375	.96
3/8	U113 L C 2	2	.500	.96
1/8	U113 L A 2 1/2	2-1/2	.250	.95
3/8	U113 L C 2 1/2	2-1/2	.500	1.77
1/2	U113 L D 2 1/2	2-1/2	.625	2.12
1/8	U113 L A 3 1/2	3-1/2	.250	1.36
1/4	U113 L B 3 1/2	3-1/2	.375	1.36
3/8	U113 L C 3 1/2	3-1/2	.500	1.45
1/2	U113 L D 3 1/2	3-1/2	.625	1.45

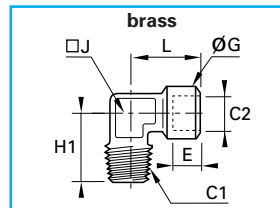
# brass accessories

## 0143 female elbow — BSPP



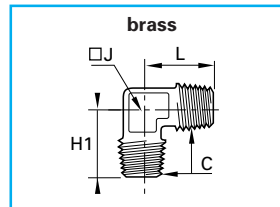
C BSPP		E mm	G mm	J mm	L mm	kg
G1/8	<a href="#">0143 10 10</a>	7.5	16.5	12	22.5	.042
G1/4	<a href="#">0143 13 13</a>	11	18.5	15	26.5	.055
G3/8	<a href="#">0143 17 17</a>	11.5	23.5	19	31.5	.098
G1/2	<a href="#">0143 21 21</a>	15	28	23	35.5	.158
G3/4	<a href="#">0143 27 27</a>	16.5	34	27	43.5	.256

## 0144 street elbow — female BSPP to male BSPT



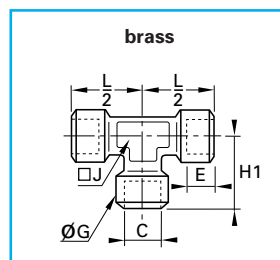
C1 BSPT	C2 BSPP		E mm	E mm	H1 mm	J mm	L mm	kg
R1/8	G1/8	<a href="#">0144 10 10</a>	7.5	16.5	23	12	22.5	.033
R1/4	G1/4	<a href="#">0144 13 13</a>	11	18.5	26	15	26.5	.050
R3/8	G3/8	<a href="#">0144 17 17</a>	11.5	23.5	30	19	31.5	.085
R1/2	G1/2	<a href="#">0144 21 21</a>	15	28	35	23	34.5	.138
R3/4	G3/4	<a href="#">0144 27 27</a>	16.5	34	40	27	43.5	.229

## 0152 equal elbow — male BSPT



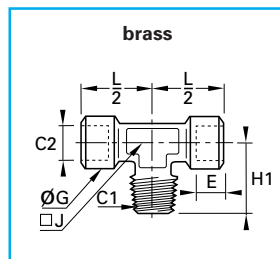
C BSPT		H1 mm	J mm	L mm	kg
R1/8	<a href="#">0152 10 10</a>	19.5	10	19.5	.018
R1/4	<a href="#">0152 13 13</a>	25	15	25	.045
R3/8	<a href="#">0152 17 17</a>	26.5	15	26.5	.056
R1/2	<a href="#">0152 21 21</a>	31.5	19	31.5	.087
R3/4	<a href="#">0152 27 27</a>	35.5	23	35.5	.153

## 0145 female tee — BSPP



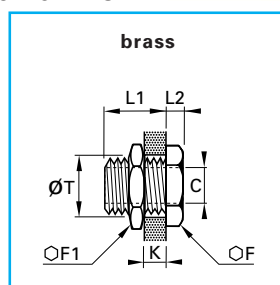
C BSPP		E mm	G mm	H1 mm	J mm	L mm	kg
G1/8	<a href="#">0145 10 10</a>	7.5	16.5	22.5	12	22.5	.051
G1/4	<a href="#">0145 13 13</a>	11	18.5	26.5	15	26.5	.074
G3/8	<a href="#">0145 17 17</a>	11.5	23.5	31	19	31	.147
G1/2	<a href="#">0145 21 21</a>	15	28	38	23	38	.231
G3/4	<a href="#">0145 27 27</a>	16.5	34	47.5	27	47.5	.381

## 0158 branch tee — female BSPP to male BSPT



C1 BSPT	C2 BSPP		E mm	G mm	H1 mm	J mm	L mm	kg
R1/8	G1/8	<a href="#">0158 10 10</a>	7.5	16.5	21.5	12	21.5	.045
R1/4	G1/4	<a href="#">0158 13 13</a>	11	18.5	26	15	26	.071
R3/8	G3/8	<a href="#">0158 17 17</a>	11.5	23.5	30	19	30	.118
R1/2	G1/2	<a href="#">0158 21 21</a>	15	28	36	23	36	.203
R3/4	G3/4	<a href="#">0158 27 27</a>	16.5	34	44	27	44	.320

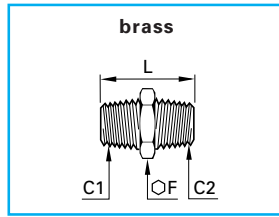
## 0117 bulkhead — BSPP and M5



C BSPP/M5		F mm	F1 mm	K max mm	L1 mm	L2 mm	T max mm	kg
M5x0.8	<a href="#">0117 00 19</a>	14	14	7	10.5	3.5	10.5	.013
G1/8	<a href="#">0117 00 10</a>	19	22	9	14	4	16.5	.033
G1/4	<a href="#">0117 00 13</a>	24	27	15	21	4	20.5	.057
G3/8	<a href="#">0117 00 17</a>	30	32	14	21	5	26.5	.096
G1/2	<a href="#">0117 00 21</a>	32	36	20	27	6	28.5	.117
G3/4	<a href="#">0117 00 27</a>	41	41	22.5	30	6	34.5	.162
G1"	<a href="#">0117 00 34</a>	46	50	24.5	34	8	42.5	.270
G1"1/4	<a href="#">0117 00 42</a>	55	55	29.5	39	8	49.5	.300
G1"1/2	<a href="#">0117 00 49</a>	60	60	29.5	39	8	54.5	.306

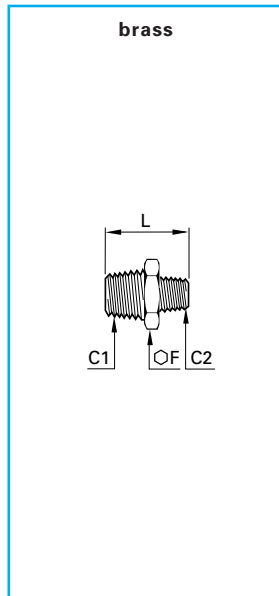
# brass accessories

## 0121 male straight adapter — NPT to BSPT



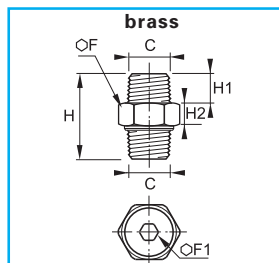
C1 NPT	C2 BSPT		F mm	L mm	kg
1/8	R1/4	0121 11 10	11	19	.009
1/4	R1/4	0121 14 13	14	27	.021
3/8	R3/8	0121 18 17	17	28	.025
1/2	R1/2	0121 22 21	22	36	.053
3/4	R3/4	0121 28 27	27	40	.090

## 0121 male straight adapter — BSPT



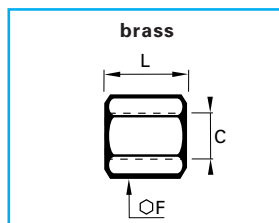
C1 BSPT	C2 BSPT		F mm	L mm	kg
R1/8	R1/8	0121 10 10	11	19	.009
R1/4	R1/4	0121 13 13	14	27	.021
R1/4	R1/8	0121 13 10	14	23.5	.021
R3/8	R3/8	0121 17 17	17	28	.025
R3/8	R1/4	0121 17 13	17	27.5	.024
R3/8	R1/8	0121 17 10	17	24	.022
R1/2	R1/2	0121 21 21	22	36	.053
R1/2	R3/8	0121 21 17	22	32.5	.045
R1/2	R1/4	0121 21 13	22	32	.045
R1/2	R1/8	0121 21 10	22	28.5	.041
R3/4	R3/4	0121 27 27	27	40	.092
R3/4	R1/2	0121 27 21	27	39	.084
R3/4	R3/8	0121 27 17	27	35.5	.076
R3/4	R1/4	0121 27 13	27	35	.079
R1"	R1"	0121 34 34	36	46	.156
R1"	R3/4	0121 34 27	36	43	.143
R1"	R1/2	0121 34 21	36	42	.133
R1"	R3/8	0121 34 17	36	38.5	.126
R1"1/4	R1"1/4	0121 42 42	46	53	.233
R1"1/4	R1"	0121 42 34	46	50.5	.237
R1"1/4	R3/4	0121 42 27	46	47.5	.229
R1"1/4	R1/2	0121 42 21	46	46.5	.219

## 0929 3 piece adapter — double male BSPT



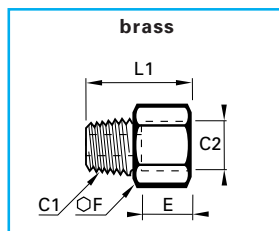
C BSPT		F mm	F1 mm	H mm	H1 mm	H2 mm	kg
R1/8	0929 00 10	15	5	27	9	8.5	0.181
R1/4	0929 00 13	19	6	33.5	11.5	9.5	0.100
R3/8	0929 00 17	22	8	36.5	13	10	0.010
R1/2	0929 00 21	27	12	45	15.5	12	0.088

## 0155 female sleeve — BSPP



C BSPP		F mm	L mm	kg
G1/8	0155 10 10	14	17	.015
G1/4	0155 13 13	17	24	.025
G3/8	0155 17 17	22	25	.045
G1/2	0155 21 21	27	32	.084
G3/4	0155 27 27	32	35	.109

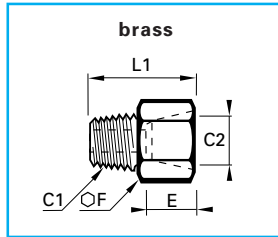
## 0164 adapter — female BSPP to male NPT



C1 NPT	C2 BSPP		E mm	F mm	L mm	kg
1/8	G1/8	0164 11 10	7.5	14	20	.015
1/4	G1/4	0164 14 13	11	17	27.5	.028
3/8	G3/8	0164 18 17	11.5	22	28.5	.044
1/2	G1/2	0164 22 21	15	27	36.5	.081
3/4	G3/4	0164 28 27	16.5	32	38.5	.112

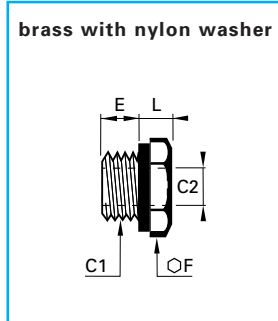
# brass accessories

## 0167 adapter — female NPT to male BSPT



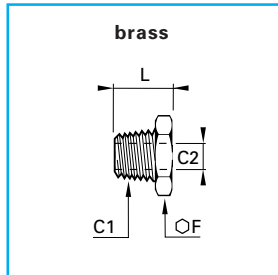
C1 BSPT	C2 NPT		E mm	F mm	L mm	kg
R1/8	1/8	<a href="#">0167 10 11</a>	8	14	21	.016
R1/4	1/4	<a href="#">0167 13 14</a>	11.5	17	28.5	.029
R3/8	3/8	<a href="#">0167 17 18</a>	12	22	29.5	.047
R1/2	1/2	<a href="#">0167 21 22</a>	15.5	27	37.5	.087
R3/4	3/4	<a href="#">0167 27 28</a>	17	32	39.5	.121

## 0168 adapter reducer — female BSPP to male BSPP



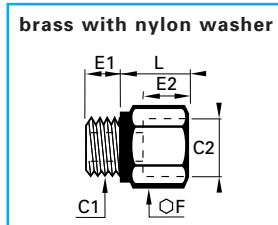
C1 BSPP	C2 BSPP/M5		E mm	F mm	L mm	kg
G1/8	M5x0.8	<a href="#">0168 10 19</a>	7	14	6	.008
G1/4	M5x0.8	<a href="#">0168 13 19</a>	7	17	7	.010
G1/4	G1/8	<a href="#">0168 13 10</a>	7	17	7	.010
G3/8	G1/8	<a href="#">0168 17 10</a>	9	19	6	.020
G3/8	G1/4	<a href="#">0168 17 13</a>	9	19	6	.013
G1/2	G1/8	<a href="#">0168 21 10</a>	11	24	10	.046
G1/2	G1/4	<a href="#">0168 21 13</a>	11	24	10	.038
G1/2	G3/8	<a href="#">0168 21 17</a>	11	24	10	.026
G3/4	G1/4	<a href="#">0168 27 13</a>	11	32	12	.090
G3/4	G3/8	<a href="#">0168 27 17</a>	11	32	12	.078
G3/4	G1/2	<a href="#">0168 27 21</a>	11	32	12	.058

## 0163 adapter reducer — female BSPP to male BSPT



C1 BSPP	C2 BSPP		F mm	L mm	kg
R1/4	G1/8	<a href="#">0163 13 10</a>	14	16	.009
R3/8	G1/8	<a href="#">0163 17 10</a>	17	16.5	.020
R3/8	G1/4	<a href="#">0163 17 13</a>	17	16.5	.012
R1/2	G1/8	<a href="#">0163 21 10</a>	22	21	.047
R1/2	G1/4	<a href="#">0163 21 13</a>	22	21	.038
R1/2	G3/8	<a href="#">0163 21 17</a>	22	21	.025
R3/4	G1/4	<a href="#">0163 27 13</a>	27	24	.086
R3/4	G3/8	<a href="#">0163 27 17</a>	27	24	.069
R3/4	G1/2	<a href="#">0163 27 21</a>	27	24	.048

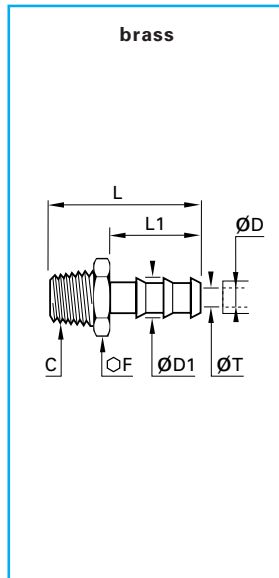
## 0169 expander — female BSPP to male BSPP



C1 BSPP	C2 BSPP		E1 mm	E2 mm	F mm	L mm	kg
G1/8	G1/4	<a href="#">0169 10 13</a>	5	11	17	16	.020
G1/8	G3/8	<a href="#">0169 10 17</a>	5	14	22	19.5	.038
G1/4	G3/8	<a href="#">0169 13 17</a>	7	14	22	19.5	.042
G1/4	G1/2	<a href="#">0169 13 21</a>	7	14.5	27	20.5	.061
G3/8	G1/2	<a href="#">0169 17 21</a>	8	14.5	27	20.5	.062
G3/8	G3/4	<a href="#">0169 17 27</a>	8	15.5	32	22	.082
G1/2	G3/4	<a href="#">0169 21 27</a>	9.5	15.5	32	22.5	.088

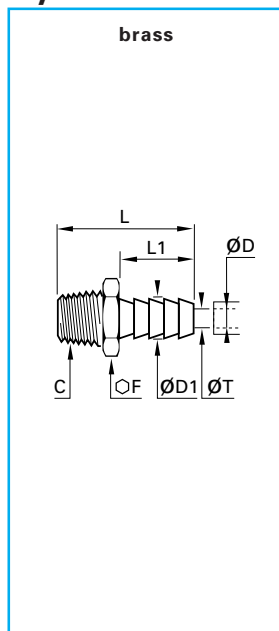
# brass accessories

## 0123 barbed adapter for rubber hose — BSPT



ØD mm	C BSPT		ØD1 mm	F mm	L mm	L1 mm	T min mm	kg
4	R1/8	0123 04 10	6	10	34	22.5	3.3	.008
6	R1/8	0123 06 10	8	10	34	22.5	5	.009
7	R1/8	0123 07 10	9	10	34	22.5	5	.009
7	R1/4	0123 07 13	9	14	38.5	22.5	6	.018
7	R3/8	0123 07 17	9	17	39	22.5	6	.023
10	R1/8	0123 10 10	12.2	13	34	22.5	5	.014
10	R1/4	0123 10 13	12.2	14	38.5	22.5	7	.021
10	R3/8	0123 10 17	12.2	17	39	22.5	9.5	.023
12	R3/8	0123 12 17	14	17	46	29.5	11	.026
13	R1/4	0123 13 13	15	17	45.5	29.5	7	.027
13	R3/8	0123 13 17	15	17	46	29.5	11	.027
13	R1/2	0123 13 21	15	22	50.5	29.5	12	.047
16	R3/8	0123 16 17	18.5	19	54.5	38	11	.040
16	R1/2	0123 16 21	18.5	22	59	38	14	.056
16	R3/4	0123 16 27	18.5	27	62	38	15	.082
19	R3/8	0123 19 17	21.5	22	54.5	38	11	.046
19	R1/2	0123 19 21	21.5	22	59	38	14	.058
19	R3/4	0123 19 27	21.5	27	62	38	18	.083
25	R3/4	0123 25 27	26.7	27	62	38	18	.083
25	R1"	0123 25 34	27	36	65	38	24	.124
32	R1"	0123 32 34	34.5	36	70	43	24	.144

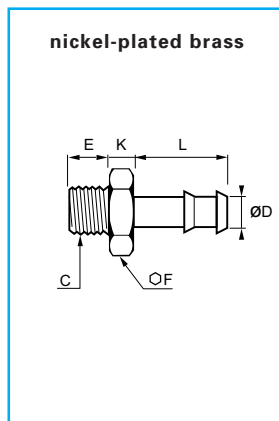
## 0136 barbed adapter for nylon tube — BSPT



ØD mm	C BSPT		ØD1 mm	F mm	L mm	L1 mm	T min mm	kg
4	R1/8	0136 06 10	4.3	10	26.5	15	2	.007
4	R1/4	0136 06 13	4.3	14	31	15	2	.015
4	R3/8	0136 06 17	4.3	17	31.5	15	2	.020
6	R1/8	0136 08 10	6.4	10	26.5	15	4	.007
6	R1/4	0136 08 13	6.4	14	31	15	4	.015
6	R3/8	0136 08 17	6.4	17	31.5	15	4	.020
8	R1/4	0136 10 13	8.4	14	31	15	6	.016
8	R3/8	0136 10 17	8.4	17	31.5	15	6	.020
8	R1/2	0136 10 21	8.4	22	36	15	6	.039
10	R1/4	0136 12 13	10.7	14	36	20	7	.019
10	R3/8	0136 12 17	10.7	17	36.5	20	8	.023
10	R1/2	0136 12 21	10.7	22	41	20	8	.040
12	R1/4	0136 14 13	12.7	14	36	20	7	.019
12	R3/8	0136 14 17	12.7	17	36.5	20	10	.023
12	R1/2	0136 14 21	12.7	22	41	20	10	.042
12	R3/4	0136 14 27	12.7	27	44	20	10	.072
13	R3/8	0136 16 17	13.7	17	36.5	20	11	.023
13	R1/2	0136 16 21	13.7	22	41	20	11	.041
13	R3/4	0136 16 27	13.7	27	44	20	11	.071

The 2 central digits in the product code part number represent the tube O.D. Ex: 0136 16 27  
This range of adapters is limited to the maximum size (16 x 13) of Legris nylon tube.

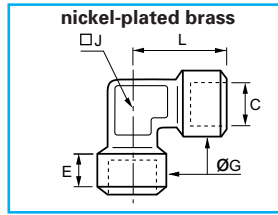
## 0931 barbed adapter for rubber hose — BSPP



ØD mm	C BSPP		ØD1 mm	E mm	F mm	K mm	L mm	kg
6	G1/8	0931 06 10	7	6	12	4	20	0.008
6	G1/4	0931 06 13	7	8	14	5	20	0.013
7	G1/8	0931 07 10	8	6	12	4	20	0.009
7	G1/4	0931 07 13	8	8	14	5	20	0.017
7	G3/8	0931 07 17	8	9	19	5	20	0.022
8	G1/8	0931 08 10	9	6	12	4	20	0.009
8	G1/4	0931 08 13	9	8	14	5	20	0.014
8	G3/8	0931 08 17	9	9	19	5	20	0.022
10	G1/4	0931 10 13	12	8	14	5	20	0.016
10	G3/8	0931 10 17	12	9	19	5	20	0.023
10	G1/2	0931 10 21	12	10	22	6	22	0.032
15	G3/8	0931 15 17	17	9	19	6	24	0.030
15	G1/2	0931 15 21	17	10	22	6	24	0.036
18	G1/2	0931 18 21	20	10	22	6	24	0.043

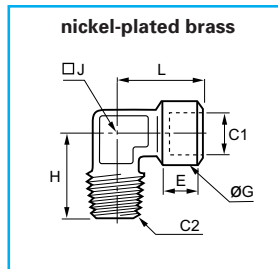
# nickel-plated accessories

## 0912 female elbow — BSPP and M5



C		E	G	J	L	kg
BSPP/M5		mm	mm	mm	mm	
M5	0912 00 19	4	8	9	11	.037
G1/8	0912 00 10	8	13	10	21	.042
G1/4	0912 00 13	11	17	13	25.5	.055
G3/8	0912 00 17	11.5	21	17	28	.098
G1/2	0912 00 21	14	26	21	33.5	.158
G3/4	0912 00 27	15	31	27	36.5	.256

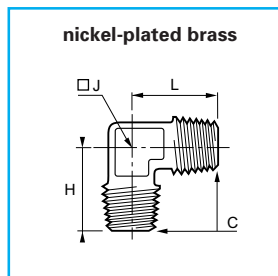
## 0913/0921 street elbow — female BSPP to male BSPT and M5



C		E	G	H	J	L	kg
M5		mm	mm	mm	mm	mm	
M5	0921 00 19	4	8	11	9	11	.037

C1	C2		E	G	H	J	L	kg
BSPP	BSPT		mm	mm	mm	mm	mm	
G1/8	R1/8	0913 00 10	8	13	18.5	10	21	.033
G1/4	R1/4	0913 00 13	11	17	23.5	13	25.5	.050
G3/8	R3/8	0913 00 17	11.5	21	26	17	28	.085
G1/2	R1/2	0913 00 21	14	26	31	21	33.5	.138
G3/4	R3/4	0913 00 27	15	31	35	27	36.5	.229

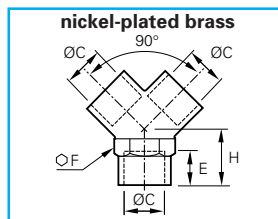
## 0914/0922 equal elbow — male BSPT or M5



C		H1	J	L	kg
M5		mm	mm	mm	
M5	0922 00 19	11	9	11	.037

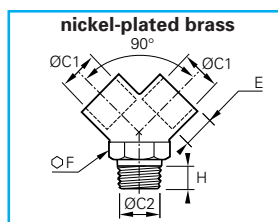
C		H1	J	L	kg
BSPT		mm	mm	mm	
R1/8	0914 00 10	18.5	10	18.5	.018
R1/4	0914 00 13	23.5	13	23.5	.045
R3/8	0914 00 17	26	17	26	.056
R1/2	0914 00 21	31	21	31	.087
R3/4	0914 00 27	35	27	35	.153

## 0910 "Y" connector — female BSPP



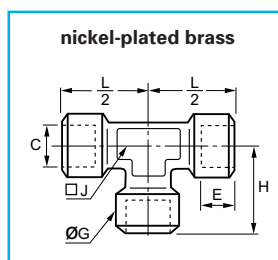
C		E	F	H	kg
BSPP		mm	mm	mm	
1/8	0910 00 10	8	13	12	.055
1/4	0910 00 13	11	17	14	.081
3/8	0910 00 17	11.5	20	16	.128
1/2	0910 00 21	14	25	19	.213

## 0911 "Y" connector — female BSPP to male BSPT



C1	C2		E	F	H	kg
BSPP	BSPT		mm	mm	mm	
G1/8	R1/8	0911 00 10	8	13	12	.055
G1/4	R1/4	0911 00 13	11	17	14	.081
G3/8	R3/8	0911 00 17	11.5	20	16	.128
G1/2	R1/2	0911 00 21	14	25	19	.213

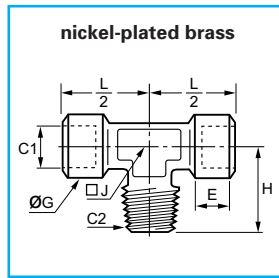
## 0915 female tee — BSPP or M5



C		E	G	H	J	L	kg
BSPP/M5		mm	mm	mm	mm	2 mm	
M5	0915 00 19	4	8	11	9	11	.047
G1/8	0915 00 10	8	13	21	10	21	.051
G1/4	0915 00 13	11	17	25.5	13	25.5	.074
G3/8	0915 00 17	11.5	21	28	17	28	.147
G1/2	0915 00 21	14	26	33.5	21	33.5	.231
G3/4	0915 00 27	15	31	36.5	27	36.5	.381

# nickel-plated accessories

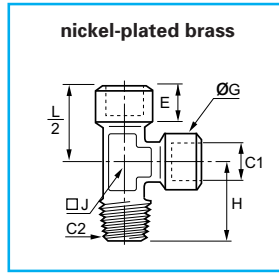
## 0916/0923 branch tee — female BSPP to male BSPT



C		E	G	H	J	L	kg
metric		mm	mm	mm	mm	$\frac{L}{2}$ mm	
M5	0923 00 19	4	8	11	9	11	.040

C1	C2		E	G	H	J	L	kg
BSPP	BSPT		mm	mm	mm	mm	$\frac{L}{2}$ mm	
G1/8	R1/8	0916 00 10	8	13	18.5	10	21	.045
G1/4	R1/4	0916 00 13	11	17	23.5	13	25.5	.071
G3/8	R3/8	0916 00 17	11.5	21	26	17	28	.118
G1/2	R1/2	0916 00 21	14	26	31	21	33.5	.203
G3/4	R3/4	0916 00 27	15	31	36.5	27	36.5	.320

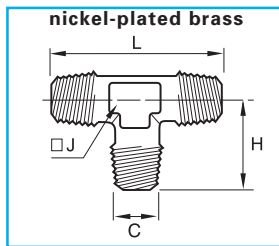
## 0917/0924 run tee — female BSPP to male BSPT or M5



C		E	G	H	J	L	kg
metric		mm	mm	mm	mm	$\frac{L}{2}$ mm	
M5	0924 00 19	4	8	11	9	11	.040

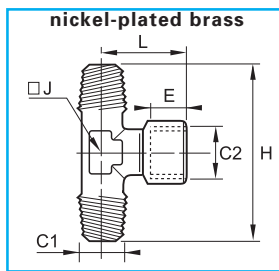
C1	C2		E	G	H	J	L	kg
BSPP	BSPT		mm	mm	mm	mm	$\frac{L}{2}$ mm	
G1/8	R1/8	0917 00 10	8	13	18.5	10	21	.045
G1/4	R1/4	0917 00 13	11	17	23.5	13	25.5	.071
G3/8	R3/8	0917 00 17	11.5	21	26	17	28	.118
G1/2	R1/2	0917 00 21	14	26	31	21	33.5	.203
G3/4	R3/4	0917 00 27	15	31	36.5	27	36.5	.320

## 0927 equal male tee — BSPT



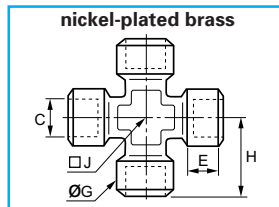
C		H	J	L	kg
BSPT		mm	mm	mm	
R1/8	0927 00 10	18.5	10	37	0.017
R1/4	0927 00 13	23.5	13	47	0.038
R3/8	0927 00 17	26	17	52	0.057
R1/2	0927 00 21	31	21	62	0.093

## 0928 male stud branch tee — BSPT, female BSPP



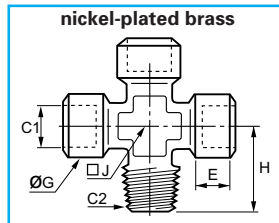
C1	C2		E	H	J	L	kg
BSPT	BSPP		mm	mm	mm	mm	
R1/8	G1/8	0928 00 10	8	37	10	21	0.021
R1/4	G1/4	0928 00 13	11	47	13	25.5	0.044
R3/8	G3/8	0928 00 17	11.5	52	17	28	0.066
R1/2	G1/2	0928 00 21	14	62	21	33.5	0.109

## 0908 cross — female BSPP



C		E	G	H	J	kg
BSPP		mm	mm	mm	mm	
G1/8	0908 00 10	8	13	21	10	.055
G1/4	0908 00 13	11	17	25.5	13	.081
G3/8	0908 00 17	11.5	21	28	17	.128
G1/2	0908 00 21	14	26	33.5	21	.213

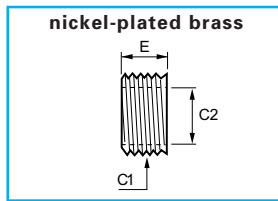
## 0909 cross — female BSPP to male BSPT



C1	C2		E	G	H	J	kg
BSPP	BSPT		mm	mm	mm	mm	
G1/8	R1/8	0909 00 10	8	13	18.5	10	.055
G1/4	R1/4	0909 00 13	11	17	23.5	13	.081
G3/8	R3/8	0909 00 17	11.5	21	26	17	.128
G1/2	R1/2	0909 00 21	14	26	31	21	.213

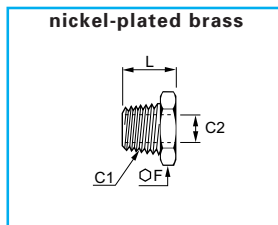
# nickel-plated accessories

## 0903 adapter reducer — BSPP



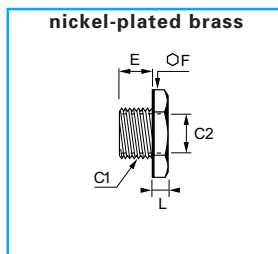
C1	C2		E	
BSPP	BSPP		mm	kg
G1/4	G1/8	<a href="#">0903 10 13</a>	8	.009
G3/8	G1/4	<a href="#">0903 13 17</a>	9	.020
G1/2	G3/8	<a href="#">0903 17 21</a>	10	.025
G3/4	G1/2	<a href="#">0903 21 27</a>	14	.048
G1"	G3/4	<a href="#">0903 27 34</a>	20	.060

## 0904 adapter reducer — female BSPP to male BSPT



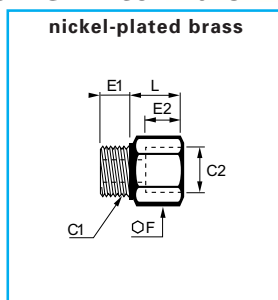
C1	C2		F	L	
BSPT	BSPP		mm	mm	kg
R1/4	G1/8	<a href="#">0904 10 13</a>	14	16	.009
R3/8	G1/8	<a href="#">0904 10 17</a>	17	16.5	.020
R3/8	G1/4	<a href="#">0904 13 17</a>	17	16.5	.012
R1/2	G1/4	<a href="#">0904 13 21</a>	22	19.5	.038
R1/2	G3/8	<a href="#">0904 17 21</a>	22	19.5	.025
R3/4	G3/8	<a href="#">0904 17 27</a>	27	23.5	.069
R3/4	G1/2	<a href="#">0904 21 27</a>	27	23.5	.048

## 0905 adapter reducer — male BSPP to female BSPP or M5



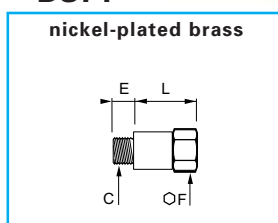
C1	C2		E	F	L	
BSPP	BSPP/M5		mm	mm	mm	kg
G1/8	M5	<a href="#">0905 19 10</a>	6	14	4.5	.009
G1/4	G1/8	<a href="#">0905 10 13</a>	8	17	5	.009
G3/8	G1/8	<a href="#">0905 10 17</a>	9	19	5	.020
G3/8	G1/4	<a href="#">0905 13 17</a>	9	19	5	.012
G1/2	G1/4	<a href="#">0905 13 21</a>	10	24	5.5	.038
G1/2	G3/8	<a href="#">0905 17 21</a>	10	24	5.5	.025
G3/4	G3/8	<a href="#">0905 17 27</a>	12	30	5.5	.069
G3/4	G1/2	<a href="#">0905 21 27</a>	12	30	5.5	.048

## 0906 expander — female BSPP to male BSPP



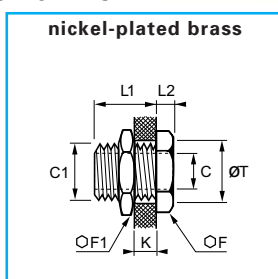
C1	C2		E1	E2	F	L	
BSPP/M5	BSPP		mm	mm	mm	mm	kg
M5	G1/8	<a href="#">0906 10 19</a>	4	8	14	10	.009
G1/8	G1/8	<a href="#">0906 00 10</a>	6	8.5	14	10	.009
G1/8	G1/4	<a href="#">0906 10 13</a>	6	11.5	17	14	.020
G1/8	G3/8	<a href="#">0906 10 17</a>	6	11.5	22	14.5	.038
G1/4	G1/4	<a href="#">0906 00 13</a>	8	11.5	17	14	.040
G1/4	G3/8	<a href="#">0906 13 17</a>	8	11.5	22	14.5	.042
G1/4	G1/2	<a href="#">0906 13 21</a>	8	15	27	18	.061
G3/8	G3/8	<a href="#">0906 00 17</a>	9	11.5	22	14.5	.061
G3/8	G1/2	<a href="#">0906 17 21</a>	9	15	27	18	.062
G1/2	G1/2	<a href="#">0906 00 21</a>	10	15	27	18	.070

## 0907 extended adapter — BSPP



C		E	F	L	
BSPP		mm	mm	mm	kg
G1/8	<a href="#">0907 00 10</a>	6	14	16	.009
G1/8	<a href="#">0907 00 10 01</a>	6	14	36	.009
G1/4	<a href="#">0907 00 13</a>	8	17	23	.020
G1/4	<a href="#">0907 00 13 01</a>	8	17	43	.020

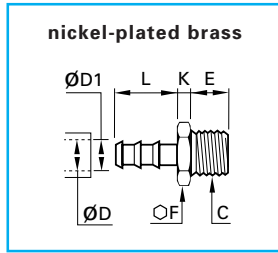
## 0920 bulkhead — BSPP and M5



C1	C2		F	F1	K	L1	L2	T	
BSPP/M5	metric		mm	mm	max mm	mm	mm	min mm	kg
M5	M10x1	<a href="#">0920 00 19</a>	14	14	7	10.5	3.5	10.5	.013
G1/8	M16x1.5	<a href="#">0920 00 10</a>	19	22	9	14	4	16.5	.033
G1/4	M20x1.5	<a href="#">0920 00 13</a>	24	27	15	21	4	20.5	.057
G3/8	M26x1.5	<a href="#">0920 00 17</a>	30	32	14	21	5	26.5	.096
G1/2	M28x1.5	<a href="#">0920 00 21</a>	32	36	20	27	6	28.5	.117

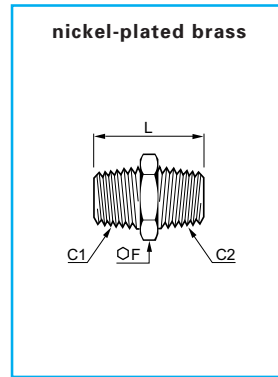
# nickel-plated accessories

## 0191 barbed adapter for rubber hose — BSPP



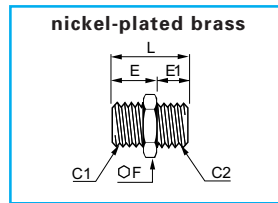
ØD mm	C BSPP		ØD1 mm	E mm	F mm	K mm	L mm	kg
4	G1/4	0191 04 13	6	9.5	17	5	22.5	.019
7	G1/4	0191 07 13	9	9.5	17	5	22.5	.021
7	G1/2	0191 07 21	9	11	27	7	29.5	.065
10	G1/4	0191 10 13	12.2	9.5	17	5	22.5	.021
10	G1/2	0191 10 21	12.2	11	27	7	29.5	.060
13	G1/4	0191 13 13	15.2	9.5	17	5	22.5	.023
13	G1/2	0191 13 21	15.2	11	27	7	29.5	.058
16	G1/2	0191 16 21	18.5	11	27	7	36.5	.069

## 0900 male straight adapter — BSPT



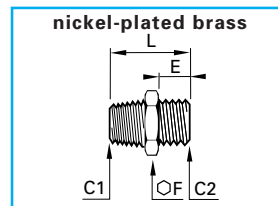
C1 BSPT	C2 BSPT		F mm	L mm	kg
R1/8	R1/8	0900 00 10	12	19.5	.009
R1/8	R1/4	0900 10 13	14	23.5	.021
R1/4	R1/4	0900 00 13	14	27	.021
R1/8	R3/8	0900 10 17	17	24	.022
R1/4	R3/8	0900 13 17	17	27.5	.024
R3/8	R3/8	0900 00 17	17	28	.025
R1/4	R1/2	0900 13 21	22	30.5	.045
R3/8	R1/2	0900 17 21	22	31	.045
R1/2	R1/2	0900 00 21	22	33.5	.055
R1/2	R3/4	0900 21 27	27	37.5	.084
R3/4	R3/4	0900 00 27	27	40	.092
R3/4	R1"	0900 27 34	34	43	.143
R1"	R1"	0900 00 34	34	45.5	.156

## 0901 male straight adapter — M5 or BSPP



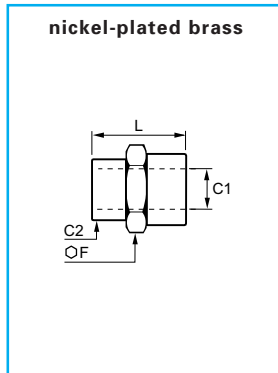
C1 BSPP/M5	C2 BSPP/M5		E mm	E1 mm	F mm	L mm	kg
M5	M5	0901 00 19	4	4	8	11.5	.002
M5	G1/8	0901 19 10	4	6	14	14.5	.008
G1/8	G1/8	0901 00 10	6	6	14	16.5	.008
G1/8	G1/4	0901 10 13	6	8	17	19	.014
G1/4	G1/4	0901 00 13	8	8	17	21	.016
G1/4	G3/8	0901 13 17	8	9	19	22	.021
G3/8	G3/8	0901 00 17	9	9	19	23	.024

## 0192 male straight adapter — BSPT to BSPP



C1 BSPT	C2 BSPP		E mm	F mm	L mm	kg
R1/8	G1/4	0192 10 13	9.5	17	23.5	.019
R1/4	G1/4	0192 13 13	9.5	17	27.5	.024
R1/4	G1/2	0192 13 21	27	27	31.5	.067
R3/8	G1/4	0192 17 13	9.5	17	45	.025
R3/8	G1/2	0192 17 21	27	27	31.5	.061
R1/2	G1/2	0192 21 21	27	27	34	.060

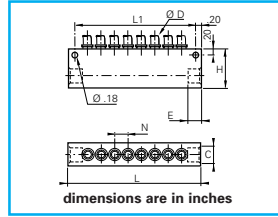
## 0902 female sleeve — BSPP and M5



C1 BSPP/M5	C2 BSPP/M5		F mm	L mm	kg
M5	M5	0902 00 19	8	11	.009
M5	G1/8	0902 19 10	14	13	.009
G1/8	G1/8	0902 00 10	14	15	.015
G1/8	G1/4	0902 10 13	17	19.5	.020
G1/4	G1/4	0902 00 13	17	22	.025
G1/8	G3/8	0902 10 17	22	20	.030
G1/4	G3/8	0902 13 17	22	23	.040
G3/8	G3/8	0902 00 17	22	24	.045
G1/4	G1/2	0902 13 21	27	27	.050
G3/8	G1/2	0902 17 21	27	27.5	.060
G1/2	G1/2	0902 00 21	27	30	.084
G1/2	G3/4	0902 21 27	30	30	.090
G3/4	G3/4	0902 00 27	30	32	.109

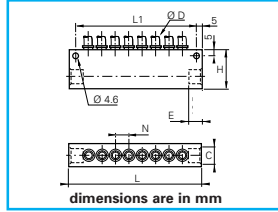
# aluminum manifolds

## 3315 manifold with LF3000® push-to-connect ports — fractional inch



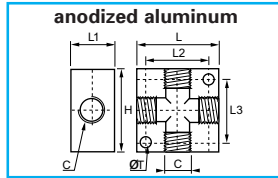
ØD in	C NPT		Number of outlets	E in	H in	L in	L1 in	N in	
1/8	1/4	3315 53 14	8	.55	1.30	4.49	4.09	.45	5.75
5/32	1/4	3315 04 14	8	.55	1.30	4.49	4.09	.45	5.75
1/4	1/4	3315 56 14	8	.55	1.30	4.92	4.53	.50	5.82
3/8	3/8	3315 60 18	6	—	1.57	5.73	5.33	.67	5.82

## 3310 manifold with LF3000® push-to-connect ports — metric



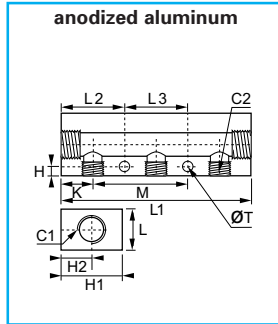
ØD mm	C BSP		Number of outlets	E mm	H mm	L mm	L1 mm	N mm	
4	G1/4	3310 04 13	8	10	33	114	104	11.5	.163
6	G1/4	3310 06 13	8	10	33	114	104	12.5	.163
8	G3/8	3310 08 17	6	12	33	114	104	15	.163
10	G1/2	3310 10 21	6	16	48	145.5	135.5	17.1	.207
12	G1/2	3310 12 21	6	16	45	158	148	20.5	.225

## 3312 cross manifold — female BSP and M5



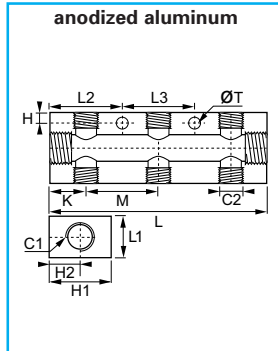
C BSP/M5		H mm	L mm	L1 mm	L2 mm	L3 mm	T mm	
M5x0.8	3312 00 19	20	20	10	12	12	4.5	.008
G1/8	3312 00 10	30	30	16	23	22	4.5	.032
G1/4	3312 00 13	40	40	20	30	27	5.5	.067
G3/8	3312 00 17	50	50	25	38	39	6.5	.130
G1/2	3312 00 21	50	50	25	38	39	6.5	.105

## 3311 manifold — female BSP and M5



C1 BSP	C2 BSP/M5		Number of outlets	H mm	H1 mm	H2 mm	K mm	L mm	L1 mm	L2 mm	L3 mm	M mm	T mm	
G1/8	M5x0.8	3311 19 10 07	7	4	20	10	10.5	95	15	21.5	52.5	16	5	.072
G1/4	G1/8	3311 10 13 02	2	4.5	30	15	15.5	61	20	5.5	50	30	5	.086
G1/4	G1/8	3311 10 13 03	3	4.5	30	15	15.5	91	20	30.5	30	30	5	.128
G1/4	G1/8	3311 10 13 04	4	4.5	30	15	15.5	121	20	30.5	60	30	5	.175
G1/4	G1/8	3311 10 13 05	5	4.5	30	15	15.5	151	20	30.5	90	30	5	.227
G1/4	G1/8	3311 10 13 06	6	4.5	30	15	15.5	181	20	30.5	120	30	5	.268
G3/8	G1/4	3311 13 17 02	2	6	30	11	19	74	20	6.5	61	36	6.5	.417
G3/8	G1/4	3311 13 17 03	3	6	30	11	19	110	20	37	36	36	6.5	.134
G3/8	G1/4	3311 13 17 04	4	6	30	11	19	146	20	37	72	36	6.5	.191
G3/8	G1/4	3311 13 17 05	5	6	30	11	19	182	20	37	108	36	6.5	.235
G3/8	G1/4	3311 13 17 06	6	6	30	11	19	218	20	37	144	36	6.5	.280

## 3313 manifold — female BSP



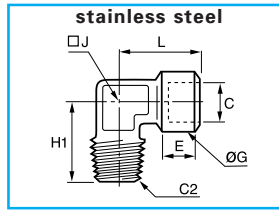
C1 BSP	C2 BSP		Number of outlets	H mm	H1 mm	H2 mm	K mm	L mm	L1 mm	L2 mm	L3 mm	M mm	T mm	
G1/4	G1/8	3313 10 13 02	2x2	4.5	30	15	15.5	61	20	5.5	50	30	5	.082
G1/4	G1/8	3313 10 13 03	2x3	4.5	30	15	15.5	91	20	30.5	30	30	5	.124
G1/4	G1/8	3313 10 13 04	2x4	4.5	30	15	15.5	121	20	30.5	60	30	5	.157
G1/4	G1/8	3313 10 13 05	2x5	4.5	30	15	15.5	151	20	30.5	90	30	5	.214
G3/8	G1/4	3313 13 17 02	2x2	6	40	20	19	74	20	6.5	61	36	6.5	.120
G3/8	G1/4	3313 13 17 03	2x3	6	40	20	19	110	20	37	36	36	6.5	.176
G3/8	G1/4	3313 13 17 04	2x4	6	40	20	19	146	20	37	72	36	6.5	.254
G3/8	G1/4	3313 13 17 05	2x5	6	40	20	19	182	20	37	108	36	6.5	.297
G1/2	G1/4	3313 13 21 03	2x3	6	40	20	22	116	28	40	36	36	6.5	.235
G1/2	G1/4	3313 13 21 04	2x4	6	40	20	22	152	28	40	72	36	6.5	.396
G1/2	G1/4	3313 13 21 05	2x5	6	40	20	22	188	28	40	108	36	6.5	.396

### technical specification of manifolds 3311, 3312 and 3313

- working pressure: maximum 290 psi
- working temperature: 14° to 175°F

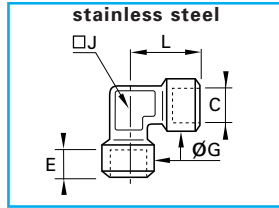
# stainless steel accessories

## 1844 equal male stud elbow — BSPT, female BSPP



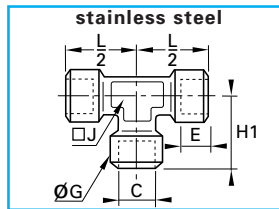
C1	C2		E	G	H1	J	L	
BSPT	BSPP		mm	mm	mm	mm	mm	kg
R1/8	G1/8	1844 10 10	7.5	15	20.5	10	22.5	0.025
R1/4	G1/4	1844 13 13	12	18.5	27.5	12	26.5	0.046
R3/8	G3/8	1844 17 17	12	23.5	28	14	30	0.070
R1/2	G1/2	1844 21 21	15	28	38	18	38	0.125
R3/4	G3/4	1844 27 27	16.5	33	41	22	44.5	0.175
R1"	G1"	1844 34 34	19	40	48	32	50	0.335

## 1843 equal elbow — female BSPP



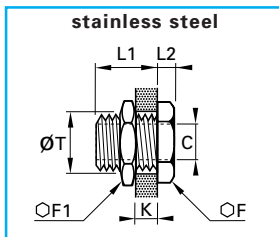
C			E	G	J	L	
BSPP			mm	mm	mm	mm	kg
G1/8	1843 10 10		7.5	17.5	12	22.5	0.044
G1/4	1843 13 13		11	18.5	15	26.5	0.051
G3/8	1843 17 17		11.5	23.5	18	29	0.077
G1/2	1843 21 21		15	28	23	38	0.160
G3/4	1843 27 27		16.5	33	22	43.5	0.232
G1"	1843 34 34		19	40	32	52	0.477

## 1845 equal tee — triple female BSPP



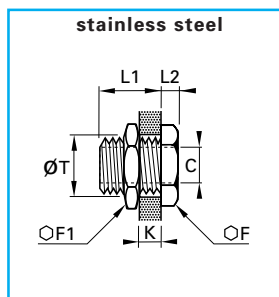
C			E	G	H1	J	L/2	L	
BSPP			mm	mm	mm	mm	mm	mm	kg
G1/8	1845 10 10		7.5	17.5	22.5	12	22.5	0.061	
G1/4	1845 13 13		11	18.5	26.5	15	26.5	0.074	
G3/8	1845 17 17		11.5	23.5	29	18	29	0.147	
G1/2	1845 21 21		15	28	38	23	38	0.224	
G3/4	1845 27 27		16.5	33	43.5	22	43.5	0.325	
G1"	1845 34 34		19	40	50	32	50	0.489	

## 1871 bulkhead adapter — NPT



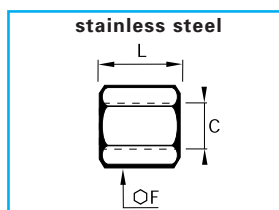
C			F	F1	K <sub>max</sub>	L1	L2	T	
NPT			mm	mm	mm	mm	mm	mm	kg
1/8	1871 00 11		19	22	9	14	5	16.5	0.377
1/4	1871 00 14		24	27	17	23	5	20.5	0.708
3/8	1871 00 18		30	32	18	23	5	26.5	0.111
1/2	1871 00 22		32	36	22	29	6	28.5	0.141

## 1817 bulkhead adapter — BSPP



C			F	F1	K <sub>max</sub>	L1	L2	T <sub>min</sub>	
BSPP			mm	mm	mm	mm	mm	mm	kg
G1/8	1817 00 10		19	22	9	14	4	16.5	0.033
G1/4	1817 00 13		24	27	15	21	4	20.5	0.057
G3/8	1817 00 17		30	32	14	21	5	26.5	0.096
G1/2	1817 00 21		32	36	20	27	6	28.5	0.117
G3/4	1817 00 27		41	41	22.5	30	6	34.5	0.185
G1"	1817 00 34		46	50	24.5	34	8	42.5	0.306

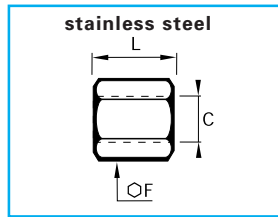
## 1855 double female sleeve — BSPP



C			F	L	
BSPP			mm	mm	kg
G1/8	1855 10 10		14	17	0.013
G1/4	1855 13 13		17	24	0.023
G3/8	1855 17 17		22	25	0.042
G1/2	1855 21 21		27	32	0.077
G3/4	1855 27 27		32	35	0.116
G1"	1855 34 34		41	40	0.227

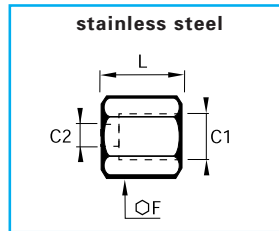
# stainless steel accessories

## 1870 double female sleeve — NPT



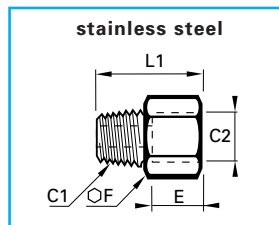
C NPT		F mm	L mm	kg
1/8	<a href="#">1870 11 11</a>	14	19	0.016
1/4	<a href="#">1870 14 14</a>	17	28	0.033
3/8	<a href="#">1870 18 18</a>	22	28	0.055
1/2	<a href="#">1870 22 22</a>	27	35	0.104

## 1862 reducer/expander — double female sleeve, BSPP



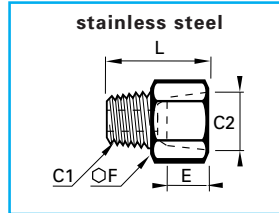
C1 BSPP	C2 BSPP		F mm	L mm	kg
G1/4	G1/8	<a href="#">1862 13 10</a>	17	20.5	0.023
G3/8	G1/8	<a href="#">1862 17 10</a>	22	21	0.042
G3/8	G1/4	<a href="#">1862 17 13</a>	22	24.5	0.048
G1/2	G1/4	<a href="#">1862 21 13</a>	27	28.5	0.084
G1/2	G3/8	<a href="#">1862 21 17</a>	27	29	0.080
G3/4	G1/2	<a href="#">1862 27 21</a>	32	39.5	0.160
G1"	G3/4	<a href="#">1862 34 27</a>	41	45	0.302

## 1864 adapter — male NPT to female BSPP



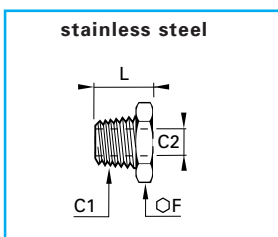
C1 NPT	C2 BSPP		E mm	F mm	L mm	kg
1/8	G1/8	<a href="#">1864 11 10</a>	7.5	14	21.5	.014
1/4	G1/4	<a href="#">1864 14 13</a>	11	17	30	.027
3/8	G3/8	<a href="#">1864 18 17</a>	11.5	22	31	.043
1/2	G1/2	<a href="#">1864 22 21</a>	15	27	39.5	.079

## 1867 adapter — male BSPT to female NPT



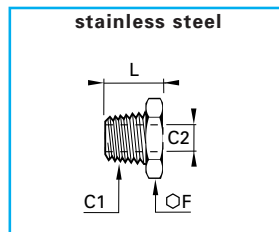
C1 BSPT	C2 NPT		E mm	F mm	L mm	kg
R1/8	1/8	<a href="#">1867 10 11</a>	8	14	21	.014
R1/4	1/4	<a href="#">1867 13 14</a>	11.5	17	28.5	.027
R3/8	3/8	<a href="#">1867 17 18</a>	12	22	29.5	.044
R1/2	1/2	<a href="#">1867 21 22</a>	15.5	27	37.5	.080

## 1872 reducer — male/female NPT



C1 NPT	C2 NPT		F mm	L mm	kg
1/4	1/8	<a href="#">1872 14 11</a>	14	16	0.012
3/8	1/8	<a href="#">1872 18 11</a>	19	16.5	0.026
3/8	1/4	<a href="#">1872 18 14</a>	19	16.5	0.020
1/2	1/4	<a href="#">1872 22 14</a>	22	21	0.045
1/2	3/8	<a href="#">1872 22 18</a>	22	21	0.035

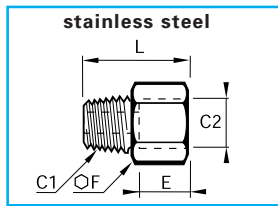
## 1863 reducer — male BSPT to female BSPP



C1 BSPT	C2 BSPP		F mm	L mm	kg
R1/4	G1/8	<a href="#">1863 13 10</a>	14	16	0.008
R3/8	G1/8	<a href="#">1863 17 10</a>	17	16.5	0.018
R3/8	G1/4	<a href="#">1863 17 13</a>	17	16.5	0.011
R1/2	G1/4	<a href="#">1863 21 13</a>	22	21	0.035
R1/2	G3/8	<a href="#">1863 21 17</a>	22	21	0.022
R3/4	G1/2	<a href="#">1863 27 21</a>	27	25.5	0.058
R1"	G3/4	<a href="#">1863 34 27</a>	36	28.5	0.104

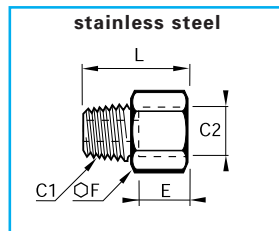
# stainless steel accessories

## 1873 expander — male/female NPT



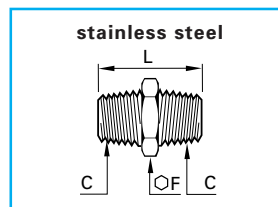
C1 NPT	C1 NPT		E mm	F mm	L mm	kg
1/8	1/4	1873 11 14	14	17	25	0.026
1/8	3/8	1873 11 18	14	22	25	0.042
1/4	3/8	1873 14 18	14	22	28.5	0.047
1/4	1/2	1873 14 22	17.5	27	31	0.071
3/8	1/2	1873 18 22	17.5	27	31.5	0.072

## 1861 expander — male BSPT to female BSPP



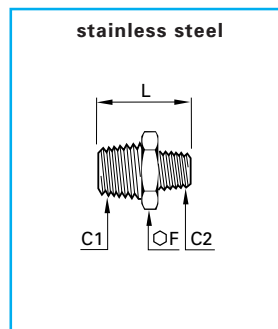
C1 BSPT	C2 BSPP		E mm	F mm	L mm	kg
R1/8	G1/4	1861 10 13	11	17	24	0.021
R1/8	G3/8	1861 10 17	11.5	22	25	0.037
R1/4	G3/8	1861 13 17	11.5	22	28.5	0.041
R1/4	G1/2	1861 13 21	15	27	32.5	0.069
R3/8	G3/4	1861 17 21	15	27	33	0.070
R1/2	G3/4	1861 21 27	16.5	32	38	0.104
R3/4	G1	1861 27 34	19	41	43.5	0.200

## 1821 adapter — male NPT



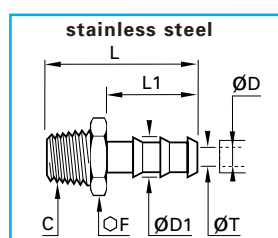
C NPT		F mm	L mm	kg
1/8	1821 11 11	12	23	.011
1/4	1821 14 14	14	32	.023
3/8	1821 18 18	19	33	.031
1/2	1821 22 22	22	42	.056
3/4	1821 28 28	27	40	.096
1"	1821 35 35	36	46	.161

## 1821 adapter — male BSPT



C1 BSPT	C2 BSPT		F mm	L mm	kg
R1/8	R1/8	1821 10 10	12	19	.008
R1/4	R1/4	1821 13 13	14	27	.019
R1/4	R1/8	1821 13 10	14	23.5	.015
R3/8	R3/8	1821 17 17	17	28	.025
R3/8	R1/4	1821 17 13	17	27.5	.024
R1/2	R1/2	1821 21 21	22	36	.048
R1/2	R3/8	1821 21 17	22	32.5	.041
R3/4	R3/4	1821 27 27	27	42	.099
R3/4	R1/2	1821 27 21	27	41	.088
R1	R1	1821 34 34	36	46	.168
R1	R3/4	1821 34 27	22	48	.158

## 1823 tailpiece adapter for rubber hose — male NPT



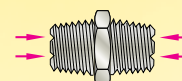
ØD in	C NPT		ØD1 mm	F mm	L mm	L1 mm	T min mm	kg
1/4	1/8	1823 56 11	8.3	10	34	22.5	5.3	0.011
1/4	1/4	1823 56 14	8.3	14	38.5	22.5	5.3	0.018
3/8	1/4	1823 60 14	11.7	14	38.5	22.5	8.5	0.020
3/8	3/8	1823 60 18	11.7	19	39	22.5	8.5	0.029

stainless steel =

Visual identification of NPT threads  
for part numbers 1864, 1867

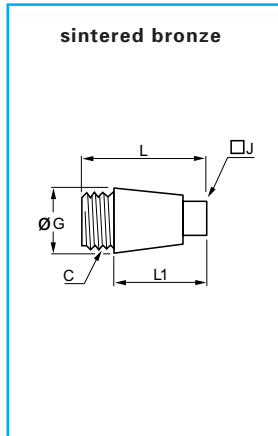


Visual identification of NPT threads  
on part number 1821



# silencers

## 0673/0610/0670 threaded silencer — UNF, NPT or BSPP

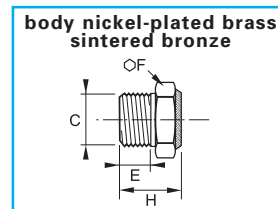


C		J	G	L	L1	
UNF/NPT		in	in	in	in	oz
10-32	0673 00 20*	.27	.31	.34	.18	.07
1/8	0610 00 11	.27	.47	.81	.59	.25
1/4	0610 00 14	.31	.59	.96	.73	.46
3/8	0610 00 18	.39	.75	1.46	1.14	1.16
1/2	0610 00 22	.55	.91	1.57	1.22	1.73

C		J	G	L	L1	
BSPP		mm	mm	mm	mm	kg
G1/8	0670 00 10	7	12	20.5	15	.007
G1/4	0670 00 13	8	15	24.5	18.5	.013
G3/8	0670 00 17	10	19	37	29	.033
G1/2	0670 00 21	14	23	40	31	.049
G3/4	0670 00 27	16.5	29.5	51	40.5	.092
G1"	0670 00 34	20	36	60	49.5	.140

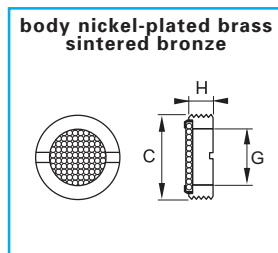
\*brass body

## 0673 compact threaded silencer — male BSPP and M5



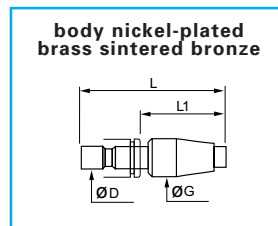
C		E	F	H	
BSPP/M5		mm	mm	mm	kg
M5x0.8	0673 00 19	5	8	12	0.002
G1/8	0673 00 10	6	13	14	0.007
G1/4	0673 00 13	7	16	17	0.011
G3/8	0673 00 17	8	19	18	0.017
G1/2	0673 00 21	10	24	20	0.027

## 0677 silencer, miniature — BSPP



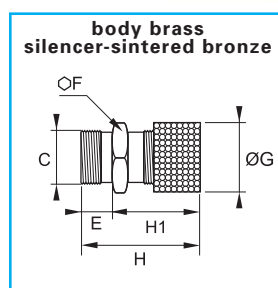
C		G	H	
BSPP		mm	mm	kg
G1/8	0677 00 10	6	5	0.004
G1/4	0677 00 13	8	5	0.008
G3/8	0677 00 17	9	7	0.014
G1/2	0677 00 21	14	8	0.022
G3/4	0677 00 27	19	10	0.040
G1"	0677 00 34	25	10	0.065

## 0671 plug-in silencer



C		G	L	L1	
mm		mm	mm	mm	
4	0671 04 00	13	41.5	24.5	.015
6	0671 06 00	15	48	29	.023
8	0671 08 00	15	49.5	29.5	.024
10	0671 10 00	19.5	68	43.5	.054
12	0671 12 00	20	68.5	43	.055

## 0614/0672 flow control silencer — male NPT and BSPP



C		E	F	G	H mini	H maxi	H1	
NPT		in	mm	in	in	in	in	oz
1/8	0614 00 11	.31	14	.55	.94	1.06	.71	.42
1/4	0614 00 14	.31	17	.67	.98	1.10	.75	.81
3/8	0614 00 18	.39	22	.87	1.18	1.30	.94	1.16
1/2	0614 00 22	.47	27	1.06	1.54	1.65	1.30	1.55
C					mini	maxi		
BSPP		mm	mm	mm	mm	mm	mm	kg
1/8	0672 00 10	8	14	14	24	27	18	.012
1/4	0672 00 13	8	17	17	25	28	19	.023
3/8	0672 00 17	10	22	22	30	33	24	.033
1/2	0672 00 21	12	27	27	39	42	33	.044

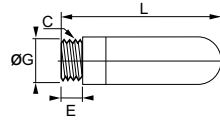
Consult us for flow characteristics.

# silencers

## 0611/0674 threaded silencer — NPT, BSPP or M5



polyethylene body  
plastic thread



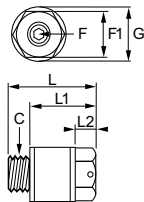
C		E	G	L	
NPT		in	in	in	
1/8	0611 00 11	.24	.49	1.34	.07
1/4	0611 00 14	.28	.61	1.67	.11
3/8	0611 00 18	.45	.73	2.66	.21
1/2	0611 00 22	.43	.93	3.07	.35

C		E	G	L	
BSPP/M5		mm	mm	mm	
M5x0.8	0674 00 19	4	6.5	23	.001
G1/8	0674 00 10	6	12.5	34	.002
G1/4	0674 00 13	7	15.5	42.5	.003
G3/8	0674 00 17	11.5	18.5	67.5	.006
G1/2	0674 00 21	11	23.5	78	.010
G3/4	0674 00 27	15.5	38.5	131	.040
G1"	0674 00 34	19.5	49	160	.050

## 0676 flow control silencer — BSPP



polyethylene/plastic



C		F	F1	G	L	L1	L2	
BSPP		mm	mm	mm	mm	mm	mm	
G1/8	0676 00 10	2.5	13	15	20.5	14.5	5	.002
G1/4	0676 00 13	4	15	18	29	22	7	.007

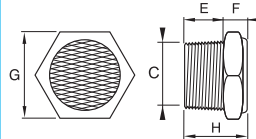
### technical characteristics

	flow (scfm at 87 psi)									noise level (dBA at 87 psi and 12 scfm)	
	number of turns										
	0	1	2	3	4	5	6	7	8		9
0676 00 10	0	1.06	3.2	7.4	11.8	13	13.8	13.9	13.9	13.9	82
0676 00 13	0	.78	.88	1.77	12	26.5	33	34.6	35.3	36	84

## 0683 stainless steel threaded silencer — male NPT



body stainless steel 316L

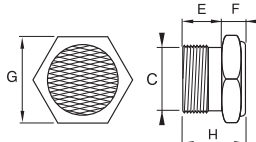


C		E	F	G	H	
NPT		mm	mm	mm	mm	
1/8	0683 00 11	7	7	14	14	0.010
1/4	0683 00 14	11	7	17	18	0.015
3/8	0683 00 18	11	8	22	19	0.023
1/2	0683 00 22	15	10	27	25	0.044

## 0682 stainless steel threaded silencer — male BSPP



body stainless steel 316L



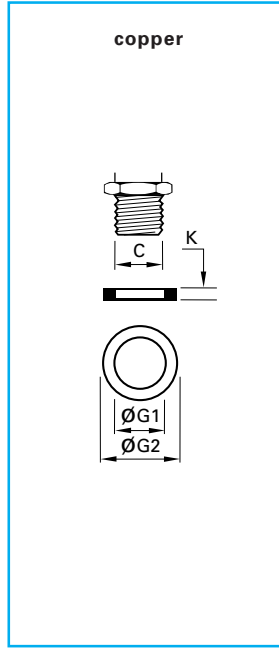
C		E	F	G	H	
BSPP		mm	mm	mm	mm	
G1/8	0682 00 10	8	7	14	15	0.009
G1/4	0682 00 13	8	7	17	15	0.013
G3/8	0682 00 17	10	8	22	18	0.020
G1/2	0682 00 21	12	10	27	22	0.038
G3/4	0682 00 27	15	12	32	27	0.066
G1"	0682 00 34	18	14	38	32	0.118

### Technical specification of silencers :

- Working pressure : sintered bronze: 175 psi  
polyethylene: 145 psi  
stainless steel: 175 psi
- Working temperature : sintered bronze: -4° to 300°F  
polyethylene: -14° +175°F  
stainless steel: -4° to 355°F

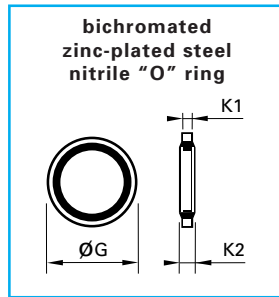
# sealing accessories

## 0138 copper washer



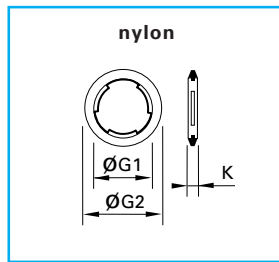
C mm		G1 mm	G2 mm	K mm	kg
6	0138 06 00	6.3	9	1	.001
8	0138 08 00	8.3	11	1	.001
10	G1/8 0138 10 00	10.3	13.5	1	.001
12	0138 12 00	12.3	15.5	1.5	.001
13	G1/4 0138 13 00	13.5	18	1.5	.001
14	0138 14 00	14.3	18	1.5	.001
16	0138 16 00	16.3	20	1.5	.001
17	G3/8 0138 17 00	17.3	21	1.5	.001
18	0138 18 00	18.3	22	1.5	.001
20	0138 20 00	20.3	24	1.5	.001
21	G1/2 0138 21 00	21.3	26	1.5	.002
22	0138 22 00	22.3	27	1.5	.002
24	0138 24 00	24.3	29	2	.003
26	0138 26 00	26.3	31	2	.003
27	G3/4 0138 27 00	27.3	32	2	.005
30	0138 30 00	30.3	36	2	.004
33	G1" 0138 33 00	33.5	39	2	.006
36	0138 36 00	36.3	42	2	.006
39	0138 39 00	39.3	44	2	.006
42	G1"1/4 0138 42 00	42.5	49	2	.007
45	0138 45 00	45.3	52	2	.008
48	G1"1/2 0138 48 00	48.3	55	2	.008
52	0138 52 00	52.3	60	2	.011
60	G2" 0138 60 00	60	68	2.5	.014

## 0139 bi-material captive sealing washer



C BSPP		G mm	K1 mm	K2 mm	kg
G1/8	0139 10 00	14	1	1.8	.001
G1/4	0139 13 00	17	1	1.8	.001
G3/8	0139 17 00	22	1.3	2.1	.001
G1/2	0139 21 00	26	1.6	2.4	.002
G3/4	0139 27 00	32	1.6	2.4	.002
G1"	0139 34 00	43	3.5	4.5	.002

## 0602 captive sealing washer

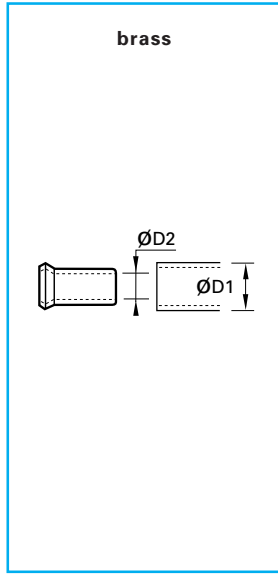


C BSPP/M5		G1 mm	G2 mm	K mm	kg
M5x0.8	0602 29 93 15	5.2	7.8	1.5	.001
G1/8	0602 23 10 20	10.3	14	2	.001
G1/4	0602 23 11 20	13.7	17.5	2	.001
G3/8	0602 23 12 20	17.2	21	2	.001
G1/2	0602 23 13 20	21.5	25.5	2.5	.001
G3/4	0602 27 32 20	27	32	2.5	.001
G1"	0602 30 60 20	33.8	39	3	.001

Technical specification of captive sealing washer 0602		M5x0.8	G1/8"	G1/4"	G3/8"	G1/2"	G3/4	G1"
		minimum torque in. lb	5	7	25	45	90	100
Tightening torque		14	70	100	265	310	530	800
		maximum torque in. lb						

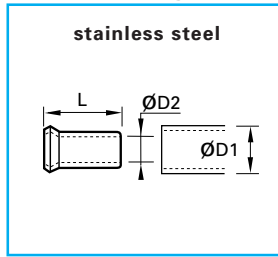
# sealing accessories

## 0127 tube support for nylon and polyurethane tubing



ØD1 mm	ØD2 mm		kg
4	2	0127 04 00	.001
4	2.7	0127 04 27	.001
5	3	0127 05 03	.001
5	3.3	0127 05 00	.001
6	4	0127 06 00	.001
8	5.5	0127 08 55	.001
8	6	0127 08 00	.001
10	7	0127 10 07	.002
10	7.5	0127 10 75	.002
10	8	0127 10 00	.002
12	8	0127 12 08	.002
12	9	0127 12 09	.002
12	10	0127 12 00	.002
14	11	0127 14 11	.003
14	12	0127 14 00	.003
15	12	0127 15 12	.003
16	13	0127 16 13	.003
18	14	0127 18 14	.004
20	15	0127 20 15	.004
22	16	0127 22 16	.005
25	19	0127 25 19	.005

## 1827 tube support for teflon tubing



ØD1 mm	ØD2 mm		L mm	kg
4	6	1827 06 00	11.5	.001
6	8	1827 08 00	14	.001
8	10	1827 10 00	18	.002
10	12	1827 12 00	18	.002
14	16	1827 16 00	18	.003

This ferrule is necessary when using teflon tube FEP 140 at all temperatures compatible with the fitting/tube assembly.

## 0605 fluoropolymer tape

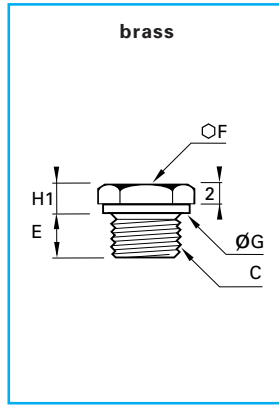


	kg
0605 12 12	.011

- can be used for temperatures from - 420°F to +500°F
- non toxic and waterproof
- chemically inert and resistant to gases, acids, solvents, hydrocarbons, oils, alkalines, steam etc.
- self lubricating
- used to facilitate the preparation of leak free thread joints
- supplied on a reel
- length = 39.3ft (12m); width = 0.5in (12.7mm); thickness = 0.003in (0.08 mm)

# plugs

## 0200 hex head plug — BSPP and metric

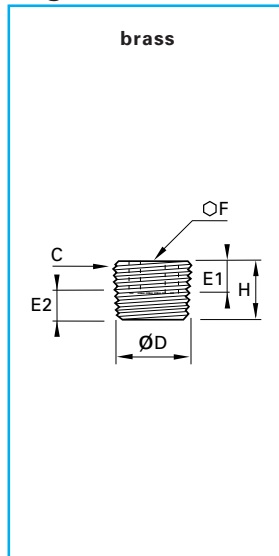


C		E	F	G	H1	H2	kg
BSPP		mm	mm	mm	mm	mm	
G1/8	0200 10 00	7	14	13.7	5.5	4	.012
G1/4	0200 13 00	8.5	17	16.7	5.5	4	.019

C		E	F	G	H1	H2	kg
metric		mm	mm	mm	mm	mm	
M6x1	0200 52 00	6	10	10	4	3.5	.004
M8x1.25	0200 57 00	7	13	13	4	3.5	.007
M10x1	0200 60 00	8	14	14	5	4.5	.012
M12x1	0200 65 00	9	17	17	5	4.5	.018
M12x1.25	0200 66 00	9	17	17	5	4.5	.018

Conforms generally to standard BNA 229. Parallel metric threads ISO – standards NFE 03-054 and BNA 541. Parallel metric threads – standards NFE 03-005 and BNA 541.

## 0205 internal hex head plug — NPT and BSPT

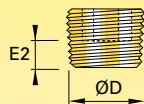


C		ØD	E1	E2 min	E2 max	F	H	kg
NPT		mm	mm	mm	mm	mm	mm	
1/8	0205 11 00	10.242	6	3.2	5	5	8	.004
1/4	0205 14 00	13.616	8	4.4	7.2	6	10	.008
3/8	0205 18 00	17.055	8	4.7	7.5	8	11	.014
1/2	0205 22 00	21.223	8	6.3	9.9	10	13	.026
3/4	0205 28 00	26.568	11	6.8	10.4	14	17	.052
1"	0205 35 00	33.227	13	8	12.4	17	19	.092

C		ØD	E1	E2 min	E2 max	F	H	kg
BSPT		mm	mm	mm	mm	mm	mm	
R1/8	0205 10 00	9.728	6	3.1	4.9	5	8	.004
R1/4	0205 13 00	13.157	8	4.7	7.3	6	10	.008
R3/8	0205 17 00	16.662	8	5.1	7.7	8	11	.014
R1/2	0205 21 00	20.955	8	6.4	10	10	13	.027
R3/4	0205 27 00	26.441	11	7.7	11.3	14	17	.053
R1"	0205 34 00	33.249	13	8.1	12.7	17	19	.092
R1"1/4	0205 42 00	41.910	14	10.4	15	22	22	.183
R1"1/2	0205 49 00	47.803	14	10.4	15	24	22	.250
R2"	0205 48 00	59.614	16	13.6	18.2	30	25	.440

\*For BSP taper plus 1/2" - 1 1/2" inclusive - conforms generally to standard BNA 347 - thread standard NFE 03-004 - DIN906

Definition of dimensions  
ØD and E2 for product 0205

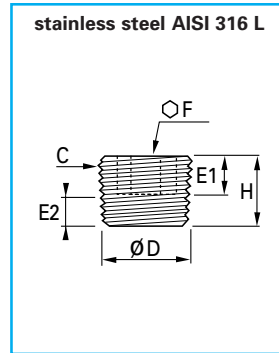


D = diameter of gauge drawing

E2 = max. and min. length of gauge diameter (D)

# plugs

## 0285 internal hex head plug — NPT or BSPT



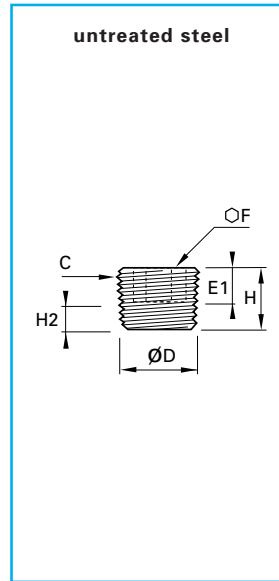
C		ØD	E1	E2	E2	F	H	
NPT		in	in	min in	max in	mm	in	⚖
1/8	0285 11 00	.40	.24	.13	.20	5	.31	.14
1/4	0285 14 00	.54	.31	.17	.28	6	.39	.25
3/8	0285 18 00	.67	.31	.19	.30	8	.43	.49
1/2	0285 22 00	.84	.31	.25	.39	10	.51	.88

C		ØD	E1	E2	E2	F	H	
BSPT		mm	mm	min mm	max mm	mm	mm	⚖
R1/8	0285 10 00	9.72	6	3.1	4.9	5	8	.003
R1/4	0285 13 00	13.15	8	4.7	7.3	6	10	.007
R3/8	0285 17 00	16.66	8	5.1	7.7	8	11	.013
R1/2	0285 21 00	20.95	8	6.4	10	10	13	.025
R3/4	0285 27 00	26.44	11	7.7	11.3	14	17	.057
R1	0285 34 00	33.25	13	8.1	12.7	17	19	.098

Conforms generally to standard DIN 306

## 0206 internal hex head — NPT and BSPT



C		ØD	E1	E2	E2	F	H	
NPT		mm	mm	min mm	mm	mm	mm	⚖
1/16	0206 08 00	7.800	6	3.8	6.4	4	7	.002
1/8	0206 11 00	10.242	6	3.2	5	5	8	.003
1/4	0206 14 00	13.616	8	4.4	7.2	6	10	.007
3/8	0206 18 00	17.055	8	4.7	7.5	8	11	.012
1/2	0206 22 00	21.223	8	6.3	9.9	10	13	.024
3/4	0206 28 00	26.568	11	6.8	10.4	14	17	.047
1"	0206 35 00	33.227	13	8	12.4	17	19	.083

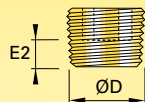
  

C		ØD	E1	E2	E2	F	H	
BSPT		mm	mm	min mm	mm	mm	mm	⚖
R1/8	0206 10 00	9.728	6	3.1	4.9	5	8	.003
R1/4	0206 13 00	13.157	8	4.7	7.3	6	10	.007
R3/8	0206 17 00	16.662	8	5.1	7.7	8	11	.012
R1/2	0206 21 00	20.955	8	6.4	10	10	13	.024
R3/4	0206 27 00	26.441	11	7.7	11.3	14	17	.048
R1"	0206 34 00	33.249	13	8.1	12.7	17	19	.086
R1"1/4	0206 42 00	41.910	14	10.4	15	22	22	.162
R1"1/2	0206 49 00	47.803	14	10.4	15	24	22	.222

For BSP taper plugs 1/2 - 1 1/2" inclusive - conform to standard BNA 247 - thread - DIN 906 standard NFE 03-004

stainless steel =

Definition of dimensions  
ØD and E2 for product 0285, 0206



D = diameter of gauge drawing

E2 = max. and min. length of gauge diameter (D)

## quick disconnect coupler range



# quick disconnect coupler range

## 9000 – safety couplers



reinforced nylon body for compressed air – industrial and ARO 210 interchange profiles  
page K4-K9

### industrial interchange coupler



reinforced nylon body for compressed air  
page K6-K7

### industrial interchange coupler



brass body for compressed air  
page K10-K11

### micro coupler



chrome plated brass body for air – water – oil  
page K12-K13

### small coupler



chrome plated brass body for air – water – oil  
page K14-K15

# the complete range of quick disconnect couplers

## C9000 safety couplers – industrial interchange

**9405U**

NPT  
Page K6, K7



**9415U**

NPT  
Page K6, K7



**9410U**

Page K6, K7



**9417U**

NPT  
Page K6, K7



**9421U**

Page K6, K7



**9442U**

NPT  
Page K6, K7



**9084**

NPT  
Page K6, K7



**9083**

NPT  
Page K6, K7



**9070**

NPT  
Page K6



**9085**

Page K6, K7



**9080U**

Page K6, K7



## C9000 safety couplers – ARO 210

**9405A**

NPT  
Page K8



**9415A**

NPT  
Page K8



**9410A**

Page K8



**9417A**

NPT  
Page K8



**9421A**

Page K8



**9442A**

NPT  
Page K8



**9084**

NPT  
Page K8



**9083**

NPT  
Page K8



**9085**

Page K8



**9080A**

Page K8



## industrial interchange couplers

**9L05**

NPT  
Page K11



**9L04**

NPT  
Page K11



**9L85**

Page K11



**9084**

NPT  
Page K11



**9083**

NPT  
Page K11



**9085**

Page K11



## micro couplers

**9L05**

NPT  
Page K13



**9L06**

Page K13



**9L02**

Page K13



**9L84**

NPT  
Page K13



**9L94**

Page K13



**9L93**

Page K13



## small couplers

**9L05**

NPT  
Page K15



**9L04**

NPT  
Page K15



**9L15**

Page K15



**9L84**

NPT  
Page K15



**9L83**

NPT  
Page K15



**9L82**

NPT  
Page K15



# C9000 automatic safety coupler



C9000 is an innovative safety coupler for pneumatic applications. This coupler's unique two turn release quickly vents down stream air pressure before disconnecting – preventing serious injuries associated with hose whip. C9000 is made from a tough composite material which will stand up to the most abusive applications, yet is light weight. The composite body will not mar a workpiece either!

C9000 is used for any application (assembly, construction, aircraft industry, automotive) where safety, durability and performance are demanded.

## ergonomic performance: ease of operation

Each detail of C9000 is designed with the requirements of industrial users in mind.

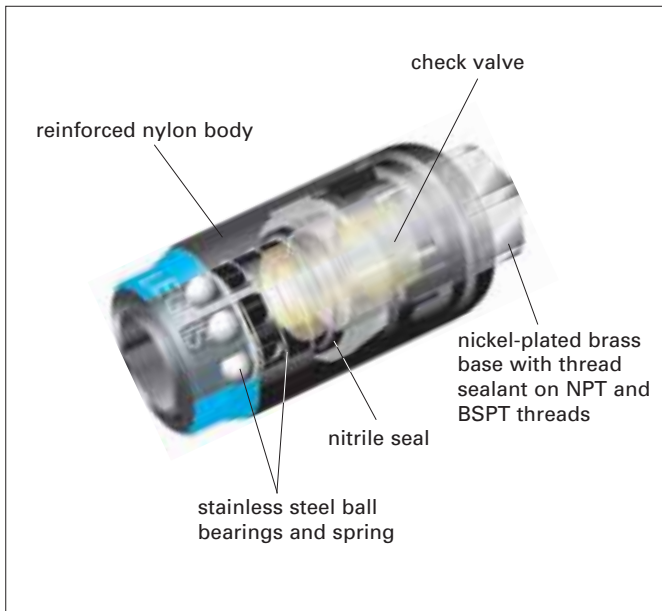
- **easy to use**, lightweight materials and effortless connection
- **easy to handle** with non-slip surface
- **easy to identify**, clearly marked with profile design, part number and disconnection steps

1 vents plug side

2 disconnects

## technical specifications

- excellent flow characteristic
- maintains excellent sealing characteristics, even after 2 million cycles
- tough, impact resistant material
- no flubbing, with buttons or collars - 1, 2 disconnect



## international profile for interchangeability

The C9000 range has been developed for worldwide applications:

**industrial interchange profile** – body size 1/4" and 3/8"  
**ARO 210 profile** – body size 1/4"

<b>compatible fluids</b>	compressed air
<b>working pressure</b>	up to 230 psi Maximum pressure of a circuit depends on the nature and thickness of the tube.
<b>working temperature</b>	-4° to 140°F The temperature of a circuit also depends on the nature and type of the tubing.
<b>flow rate</b>	industrial interchange - 47 scfm for 1/4" body 97 scfm for 3/8" body ARO 210 - 44 scfm
<b>materials of construction</b>	<b>body:</b> glass reinforced nylon 6.6 ARO profile: zamac <b>ball bearings &amp; spring:</b> stainless steel <b>seal:</b> nitrile <b>sleeve:</b> reinforced polymer <b>plugs:</b> nickel-plated brass, glass reinforced nylon 6.6 <b>base:</b> nickel-plated brass with thread sealant on tapered components

Meets your toughest application requirements.

# C9000 automatic safety coupler

## connection instructions

simply push the plug into the coupler until it clicks.  
**no rotation of the coupler is necessary**



## disconnection instructions

### 2 steps = 100% safety

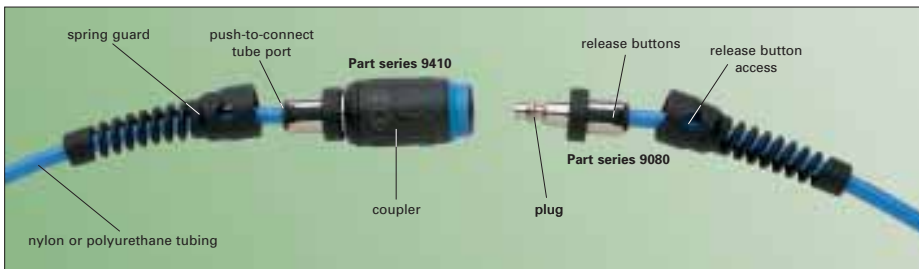
The disconnection is made by the rotation of the body:  
a safety movement which avoids accidental disconnection.

**Rotate the body first to vent downstream pressure.**

- 1 vents plug side** – rotate coupler toward arrow #1 to vent downstream pressure – a safety movement which avoids accidental disconnection
- 2 disconnects** – rotate coupler toward arrow #2 to disconnect the plug



An extra rapid exhaust assures safe disconnection even with rapid movement.



## identification of parts

Part numbers 9410 and 9080 are designed with a LF3000 push-to-connect port. This is compatible with nylon or polyurethane tubing instead of hose.

The spring guard protects the tubing and keeps it from kinking.

## push-to-connect and spring guard connection/disconnection



1. connect the tubing by inserting into the tube port



2. insert the spring guard until it clicks



3. after the connection is made, the coupler is ready for use



4. to disconnect the spring guard, depress buttons and pull on spring guard

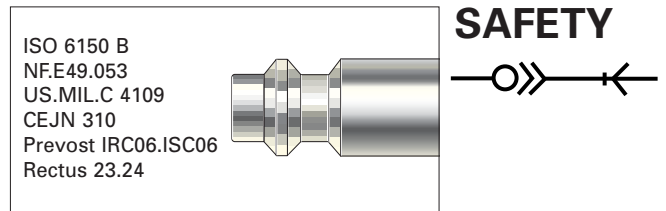
# C9000 automatic safety coupler

flow: 47 scfm

The C9000 Industrial Interchange 1/4" body size ensures a very good flow and total security due to disconnection in two steps. Therefore C9000 is perfectly suited for numerous type of installations:

- pneumatic tools
- blowguns
- pneumatic automotive equipment

industrial interchange profile  
body size 1/4" I.D.



## coupler

### 9405U male NPT straight body



NPT		oz
1/4	9405U06 14	1.6
3/8	9405U06 18	1.6
1/2	9405U06 22	2.0

### 9415U female NPT straight body



NPT		oz
1/4	9415U06 14	1.6
3/8	9415U06 18	1.6
1/2	9415U06 22	2.0

### 9410U push-to-connect + spring guard



ØD		oz
5/16	9410U06 08	1.55
3/8	9410U06 60	1.60

### 9417U NPT bulkhead body



NPT		oz
1/4	9417U06 14	2.0

### 9421U barbed connector body



ØD		oz
1/4, 6mm	9421U06 06	1.6
5/16, 8mm	9421U06 08	1.6
3/8, 10mm	9421U06 10	1.6

### 9442U "Y" connector body



NPT		oz
3/8	9442U06 18	7.65

## plugs

### 9084 male NPT straight



NPT		oz
1/4	9084 23 14	1.01
3/8	9084 23 18	1.35

### 9083 female NPT straight



NPT		oz
1/4	9083 23 14	.95
3/8	9083 23 18	1.36

### 9085 barbed connector



ØD		oz
1/4	9085 23 56	.85
5/16	9085 23 08	.88
3/8	9085 23 60	.93

### 9080U push-to-connect + spring guard



ØD		oz
5/16	9080U06 08	1.03
3/8	9080U06 60	1.27

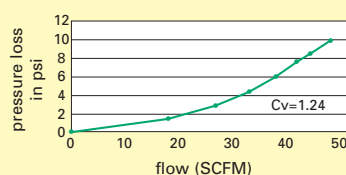
### 9070U oscillating male NPT



NPT		oz
1/4	9070U06 14	1.99

## flow characteristics — industrial interchange 1/4" body size

Working pressure  
up to 230 psi



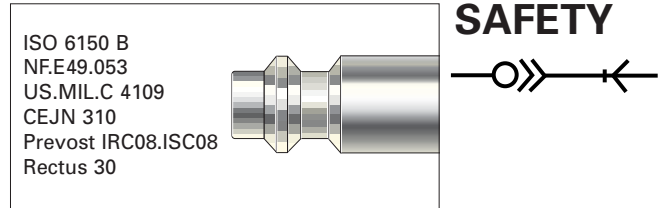
# C9000 automatic safety coupler

flow: 97 scfm

The C9000 Industrial Interchange 3/8" body size has a very high flow capacity. Its robust construction and the twist disconnect design make it perfectly suited for heavy duty applications such as:

- large pneumatic tools
- main supply outlets
- stamping equipment

industrial interchange profile  
body size 3/8" I.D.



## coupler

### 9405U male NPT straight body



NPT		oz
1/4	9405U08 14	3.2
3/8	9405U08 18	3.2
1/2	9405U08 22	4.0

### 9415U female NPT straight body



NPT		oz
1/4	9415U08 14	3.2
3/8	9415U08 18	3.2
1/2	9415U08 22	4.0

### 9410U push-to-connect + spring guard



ØD		oz
1/2	9410U08 62	3.1

### 9417U NPT bulkhead body



NPT		oz
3/8	9417U08 18	3.95

### 9421U barbed connector body



ØD		oz
1/4, 6mm	9421U08 06	3.20
5/16, 8mm	9421U08 08	3.25
3/8, 10mm	9421U08 10	3.45
1/2, 13mm	9421U08 13	3.90

### 9442U "Y" connector body



NPT		oz
1/2	9442U08 22	10.95

## plugs

### 9084 male NPT straight



NPT		oz
1/4	9084 30 14	1.11
3/8	9084 30 18	1.35
1/2	9084 30 22	1.58

### 9083 female NPT straight



NPT		oz
1/4	9083 30 14	1.03
3/8	9083 30 18	1.44
1/2	9083 30 22	1.58

### 9085 barbed connector



ØD		oz
5/16	9085 30 08	.94
3/8	9085 30 60	.96
1/2	9085 30 62	1.01

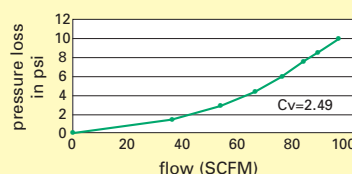
### 9080U push-to-connect + spring guard



ØD		oz
1/2	9080U08 62	1.87

## flow characteristics — industrial interchange 3/8" body size

Working pressure  
up to 230 psi

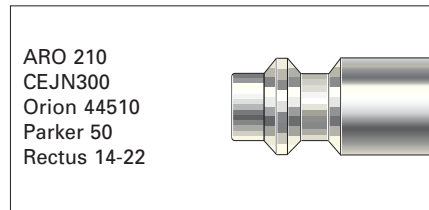


# C9000 automatic safety coupler

flow: 44 scfm

The C9000 ARO 210 profile 1/4" body sizes ensure the user a very high flow and small pressure pass - therefore they are perfectly suited for numerous types of installations and equipment.

## ARO 210 PROFILE body size 1/4" I.D.



ARO 210  
CEJN300  
Orion 44510  
Parker 50  
Rectus 14-22



### coupler

#### 9405A male NPT straight body



NPT		
1/4	9405A06 14	1.6
3/8	9405A06 18	1.6
1/2	9405A06 22	2.0

### plugs

#### 9084 male NPT straight



NPT		
1/4	9084 22 14	1.01
3/8	9084 22 18	1.35

#### 9415A female NPT straight body



NPT		
1/4	9415A06 14	1.6
3/8	9415A06 18	1.6
1/2	9415A06 22	2.0

#### 9083 female NPT straight



NPT		
1/4	9083 22 14	.95
3/8	9083 22 18	1.36

#### 9410A push-to-connect + spring guard



ØD		
5/16	9410A06 08	1.55

#### 9085 barbed connector



ØD		
1/4, 6mm	9085 22 06	.494
5/16, 8mm	9085 22 08	.564
3/8, 10mm	9085 22 10	.635

#### 9417A NPT bulkhead body



NPT		
1/4	9417A06 14	2.0

#### 9080A push-to-connect + spring guard



ØD		
5/16, 8mm	9080A06 08	1.83

#### 9421A barbed connector body



ØD		
1/4, 6mm	9421A06 06	1.6
5/16, 8mm	9421A06 08	1.6
3/8, 10mm	9421A06 10	1.6

#### 9442A "Y" connector body



NPT		
3/8	9442A06 18	7.65

### OSHA Recommendation — Safety concerns regarding power tools

#### Pneumatic Tools – Disconnection

"Pneumatic tools must be checked to see that the tools are fastened securely to the air hose to prevent them from being disconnected. A short wire or positive locking device attaching the air hose to the tool must also be used and will serve as an added safeguard."

# C9000 automatic safety coupler

## You will find C9000 couplers on legris.com

### catalog space



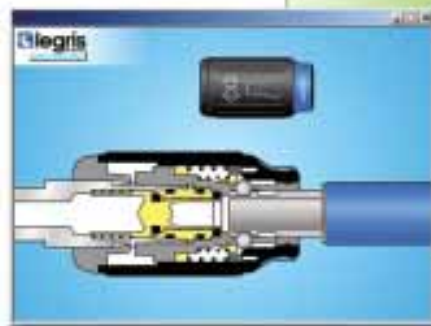
- with the **on-line catalog**, regularly updated, you will easily find the whole range of **C9000**.
  - you will quickly find a product due to the 3 search options
  - you will get a complete product datasheet with a photo, dimensional drawing and specifications
  - you can ask for a quotation from our distributors



### training module



- with the **training module** designed to optimize performance of your installations, you will find **animated presentations** of **C9000**:
  - innovating technology and its functions
  - applications and solutions to **match** your equipment **requirements**



# industrial interchange coupler

## features and benefits

- conforms to ANSI (NFPA) T3.20.14-1990 and MIL-C-4109 specifications
- type "A900" interchange
- more balanced connection (6 ball bearings instead of 4)
- protective sleeve
- pre-applied thread sealant on NPT components
- automatic and easy connection
- plug insertion force 4.6 lbF
- interchange with major competitors
- prolonged life
- provides protection from accidental disconnection
- no leaks once connection is made

## application

- air

## interchangeability

Interchanges with other manufacturers product conforming to ANSI (NFPA) T3.20.14-1990 and MIL-C-4109 specifications

## materials

body: brass  
plug: zinc-plated steel



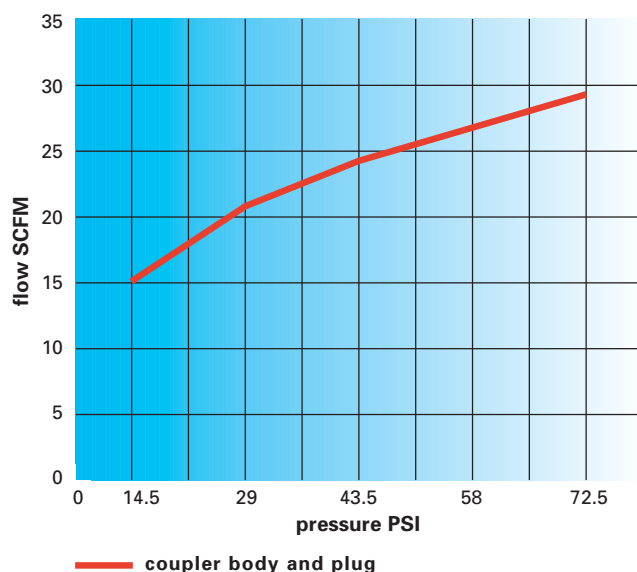
## industries

- pneumatic equipment
- air tools
- general industrial applications and air piping

## technical performances

sealing material	nitrile (Buna-N) U-cup and O-ring
max. working pressure	250 psi
proof pressure	4:1 Safety factor
operating temperature range	-40° F to 250° F
vacuum data	disconnected, not recommended Connected, 28 in Hg
direction of flow	connected, either direction disconnected, seal only in one direction, air in from hex fitting
thread sealant	on male NPT threads

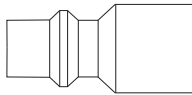
## industrial interchange coupler flow rate



# industrial interchange coupler range

Compressed air application  
For other non-aggressive fluids, contact us.

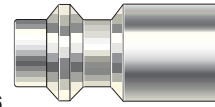
Check the profile and size of plug with this image.



actual size

## body size 1/4" I.D.

ISO 6150 B  
AFNOR:  
NFE49.053  
US.MIL.C 4109  
CEJN 310  
Prevost IRC06.ISC06  
Rectus 23.24



Can be interchanged with other manufacturers.

## coupler

### 9L05 male NPT straight body



NPT		
1/4	9L05 11 14P180	3.03
3/8	9L05 11 18P180	3.09

## plugs

### 9084 male NPT straight plug



NPT		
1/4	9084 23 14	1.01
3/8	9084 23 18	1.35
1/2	9084 23 22	1.50

### 9L04 female NPT straight body



NPT		
1/4	9L04 11 14P180	2.94
3/8	9L04 11 18P180	1.33

### 9083 female NPT straight plug



NPT		
1/4	9083 23 14	.95
3/8	9083 23 18	1.36
1/2	9083 23 22	1.50

### 9L85 hose barb straight body



HOSE ID		
1/4	9L85 11 14P1	3.03
3/8	9L85 11 18P1	3.10

### 9085 hose barb straight plug



HOSE ID		
1/4	9085 23 56	.81
5/16	9085 23 08	.88
3/8	9085 23 60	.93

Hose barb versions are to be used with single braid general purpose industrial grade rubber hose only. These versions are not to be used with nylon or polyurethane tubing. Hose should be clamped onto the barb with either a worm gear or double ear type clamp. Hose can also be crimped onto the hose barb with a crimped metal ferrule.

# micro couplers

## features and benefits

- automatic shut-off valve
- all models with external diameter of only 9.5mm
- pre-applied thread sealant on NPT components
- lightweight and compact for small spaces
- automatic coupler connection
- excellent resistance to corrosion
- built-in push-to-connect port

## applications

- air
- water
- oil

Note: For water and oil applications on push-to-connect ports, please consult us.

## interchangeability

Bodies and plugs can be interchanged within this product range

## materials

body & plug: chrome-plated brass built-in push-to-connect port: stainless steel gripping ring, nickel-plated brass sleeve and polypropylene push button.

## technical performances

micro couplers max. working pressure*	145 psi
proof pressure**	215 psi
operating temperature range	25° F to 140° F
storage temperature range	-4° F to 160° F
insertion force - to connect a plug and a socket	with no air pressure = 3.7 Lbf with 6.6 kgf/cm air pressure = 6.6 Lbf
thread sealant	on male NPT threads

- \* Allowable maximum pressure to use the coupler continuously.  
 \*\* Maximum pressure before the coupler's performance will drop. Cannot be used continuously.

## compatible tubing

**Push-to-connect ports** – compatible with 85 and 95 Durometer Polyurethane; and Nylon tubing.

**Hose barb** – compatible with 85 and 95 Durometer Polyurethane only.

To install, push the tube all the way onto the hose barb. Use a double ear clamp to secure the connection.



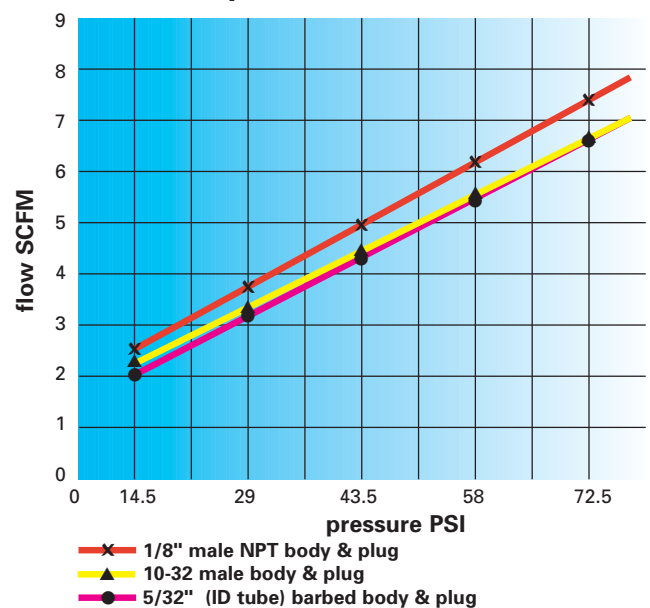
## industries

ultra small applications such as:

- pneumatic components
- medical and dental equipment
- automation equipment

The 5/32" (4mm) push-to-connect plugs are designed with the latest gripping ring technology. For technical performances on the push-to-connect plug, refer to the LF3000 section.

## micro coupler flow rate

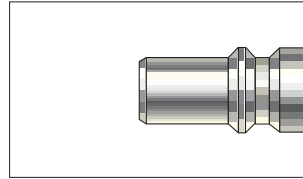


# micro coupler range

The smallest of the range, these **micro** couplers are excellent for use where **space is restricted**. **Optimum flow** and light sealing, easy **manageability** and compatibility with **tubings** make them particularly well adapted for the following types of application :

- medical and dental industries
- instrumentation
- laboratories

## micro coupler



Can be interchanged within this range.

## coupler

### 9L05 male NPT straight body



NPT		
1/8	<a href="#">9L05 99 11P1</a>	.51

### 9L06 push-to-connect straight body



O.D. TUBE		
5/32	<a href="#">9L06 99 04P1</a>	.38

### 9L02 push-to-connect elbow body



O.D. TUBE		
5/32	<a href="#">9L02 99 04P1</a>	.61

## plugs

### 9L84 male NPT straight plug



NPT		
1/8	<a href="#">9L84 99 11X0</a>	.37

### 9L94 push-to-connect straight plug



O.D. TUBE		
5/32	<a href="#">9L94 99 04X0</a>	.17

### 9L93 push-to-connect elbow plug



O.D. TUBE		
5/32	<a href="#">9L93 99 04X0</a>	.41

For complementary products, other ranges, or technical specifications, go to [www.legris.com](http://www.legris.com).

# small couplers

## features and benefits

- automatic shut-off valve
- models with external diameter of only 14mm
- pre-applied thread sealant on NPT component
- lightweight and compact for small spaces
- automatic coupler connection
- excellent resistance to corrosion
- built-in push-to-connect port

## applications

- air
- water
- oil

Note: For water and oil applications on push-to-connect ports, please consult us.

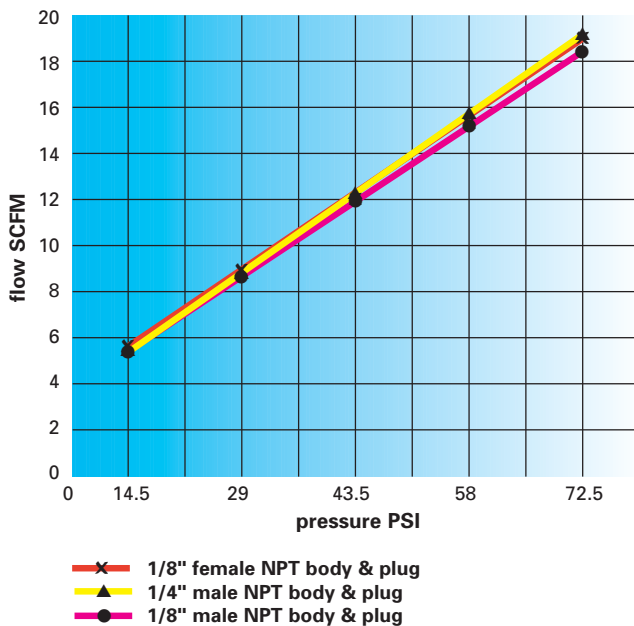
## technical performances

max. working pressure*	100 psi
proof pressure**	150 psi
operating temperature range	25° F to 140° F
storage temperature range	-4° F to 160° F
insertion force - to connect a plug and a socket	with no air pressure = 3.3 Lbf with 6 kgf/cm air pressure = 9.9 Lbf
thread sealant	on male NPT threads

\* Allowable maximum pressure to use the coupler continuously.

\*\* Maximum pressure before the coupler's performance will drop. Cannot be used continuously.

## small coupler flow rate



## interchangeability

Bodies and plugs can be interchanged within this product range.

## materials

body and plug: Chrome-plated brass built-in push-to-connect port: stainless steel gripping ring, nickel-plated brass sleeve and polypropylene push button

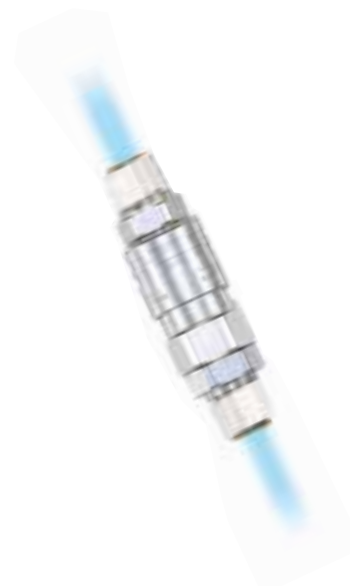
## industries

- pneumatic components
- medical and dental equipment
- applications of progressive miniaturization and modularization

The 1/4" push-to-connect plugs are designed with the latest gripping ring technology. For technical performances on the push-to-connect plug, refer to the LF3000 section.

## compatible tubing

Compatible with 85 and 95 Durometer Polyurethane; and Nylon tubing.



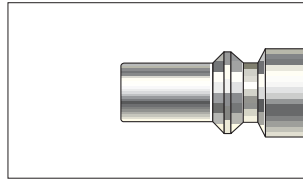
# small coupler range

Where **space is a premium**, **small couplers** ensure the user a **very high flow**. The wide variety of probes allow these couplers many options where space is restricted.

For example :

- equipment for very small pneumatic tools
- control machines, measuring or regulatory devices
- pneumatic automation equipment

## small coupler range



Can be interchanged within this range.

### coupler

#### 9L05 male NPT straight body



NPT		
1/8	9L05 98 11P1	.93
1/4	9L05 98 14P1	1.26

#### 9L04 female NPT straight body



NPT		
1/8	9L04 98 11P1	1.08

#### 9L15 push-to-connect straight body



O.D. TUBE		
1/4	9L15 98 14P1	.98

### plugs

#### 9L84 male NPT straight plug



NPT		
1/8	9L84 98 11X0	.38
1/4	9L84 98 14X0	.72

#### 9L83 female NPT straight plug



NPT		
1/8	9L83 98 11X0	.43

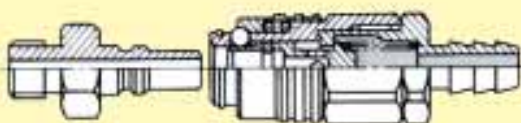
#### 9L82 push-to-connect straight plug



O.D. TUBE		
1/4	9L82 98 14X0	.33

### connection/disconnection

**when disconnected** – instantly seals valve preventing leakage.



**when connected** – fully opens valve automatically allowing free fluid flow in either direction.

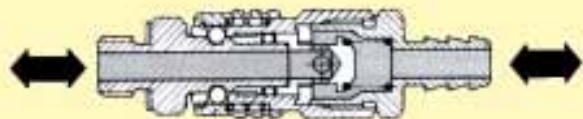
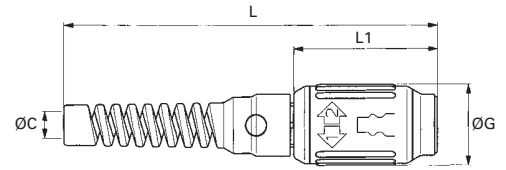
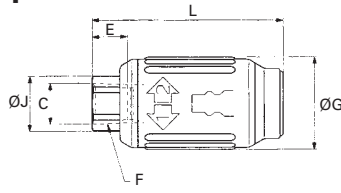
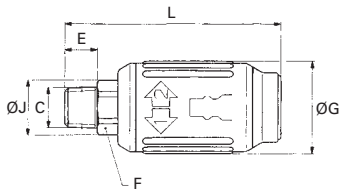


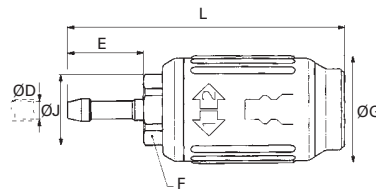
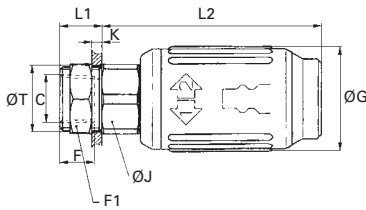
Diagram applies to micro and small couplers.

# dimensions

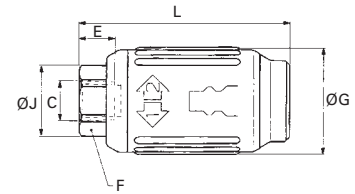
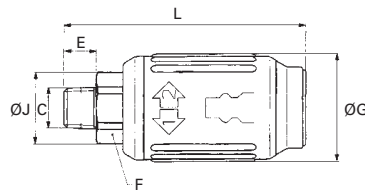
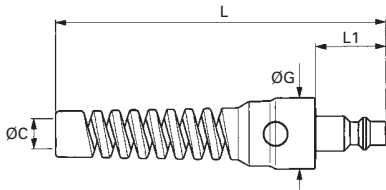
## C9000 — industrial interchange profile



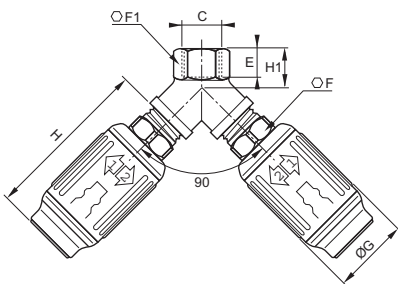
C NPT		E in	F mm	ØG in	ØJ in	L mm	C NPT		E in	F mm	ØG in	ØJ in	L mm	C NPT		ØG in	L in	L1 mm
1/4	9405U06 14	.43	17	1.24	.73	2.91	1/4	9415U06 14	.47	17	1.24	.73	2.58	5/16	9410U06 08	31.5	145	56
3/8	9405U06 18	.45	19	1.24	.83	2.97	3/8	9415U06 18	.47	22	1.24	.95	2.84	3/8	9410U06 60	31.5	145	56
1/2	9405U06 22	.59	22	1.24	.95	3.17	1/2	9415U06 22	.59	27	1.24	1.16	3.01					



C NPT		E in	F mm	F1 mm	ØG in	ØJ in	K in max	L1 in	L2 in	T in min	ØD		E in	F mm	ØG in	ØJ in	L mm
1/4	9417U06 14	.47	22	22	1.24	.95	.24	.49	2.70	.73	1/4, 6mm	9421U06 06	1.02	17	1.24	.73	3.48
											5/16, 8mm	9421U06 08	1.02	17	1.24	.73	3.48
											3/8, 10mm	9421U06 10	1.02	17	1.24	.73	3.48



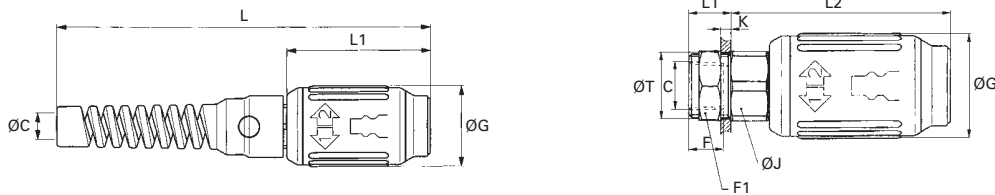
C NPT		ØG in	L in	L1 mm	C NPT		E in	F mm	ØG in	ØJ in	L mm	C NPT		E in	F mm	ØG in	ØJ in	L mm
5/16	9080U06 08	24	112	24	1/4	9405U08 14	.43	22	1.44	.95	3.27	1/4	9415U08 14	.47	22	1.44	.95	2.95
3/8	9080U06 60	24	112	24	3/8	9405U08 18	.45	22	1.44	.95	3.29	3/8	9415U08 18	.47	22	1.44	.95	2.95
					1/2	9405U08 22	.59	22	1.44	.95	3.43	1/2	9415U08 22	.59	27	1.44	1.14	3.15



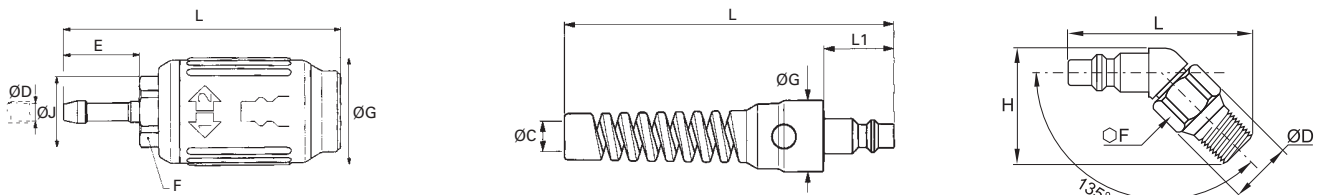
NPT		E in	F mm	F1 in	G in	H in	H1 in
3/8	9442U06 18	.45	19	.79	1.24	2.76	.63

# dimensions

## C9000 — industrial interchange profile



C NPT		ØG in	L in	L1 mm	ØD		E in	F mm	F1 mm	ØG in	ØJ in	K max in	L1 in	L2 in	ØT min in
1/2	<a href="#">9410U08 62</a>	36.5	165	63	3/8	<a href="#">9417U08 18</a>	.47	24	24	1.24	.95	.24	.49	2.70	.73

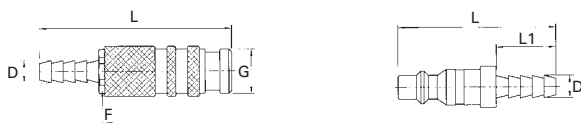


ØD		E in	F mm	ØG in	ØJ in	L in	C NPT		ØG in	L in	L1 mm	C NPT		ØD in	F mm	H in	L in
1/4", 6mm	<a href="#">9421U08 06</a>	1.02	22	1.44	.94	3.74	1/2	<a href="#">9080U08 62</a>	29.5	125	26	1/4	<a href="#">9070U06 14</a>	.81	19	1.34	2.20
5/16", 8mm	<a href="#">9421U08 08</a>	1.02	22	1.44	.94	3.74											
3/8", 10mm	<a href="#">9421U08 10</a>	1.02	22	1.44	.94	3.74											
1/2", 13mm	<a href="#">9421U08 13</a>	1.18	22	1.44	.94	3.74											

## industrial interchange



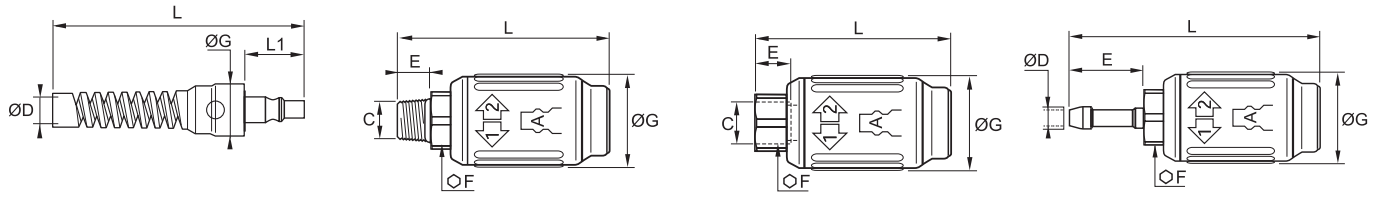
C NPT		F in	G in	L in	C NPT		F in	L in	L1 in	C NPT		F in	G in	L in	C NPT		F in	L in	L1 in
1/4	<a href="#">9L05 11 14P180</a>	11/16	.80	2.21	1/4	<a href="#">9084 23 14</a>	9/16	1.75	.81	1/4	<a href="#">9L04 11 14P180</a>	11/16	.80	2.00	1/4	<a href="#">9083 23 14</a>	5/8	1.56	.63
3/8	<a href="#">9L05 11 18P180</a>	11/16	.80	2.25	3/8	<a href="#">9084 23 18</a>	11/16	1.75	.81	3/8	<a href="#">9L04 11 18P180</a>	3/4	.80	2.15	3/8	<a href="#">9083 23 18</a>	13/16	1.60	.67













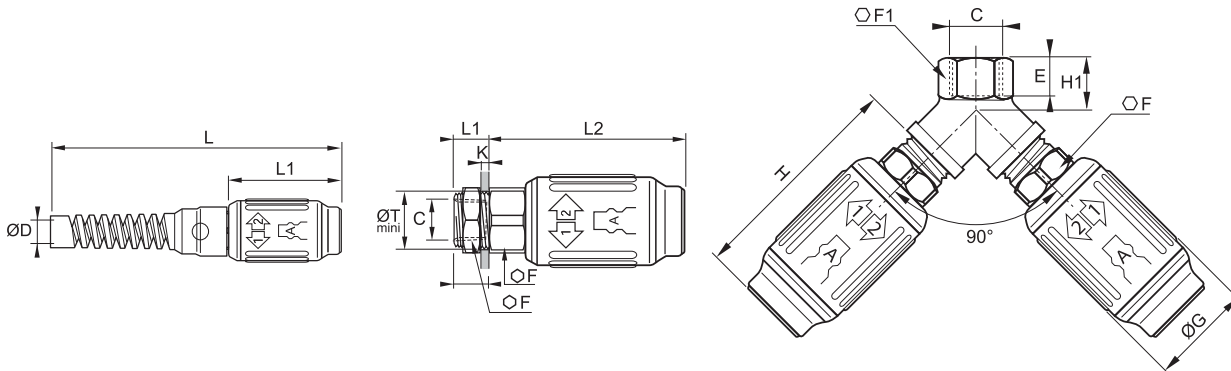
D HOSE ID		F in	G in	L in	D HOSE ID		L in	L1 in
1/4	<a href="#">9L85 11 14P1</a>	11/16	.80	2.63	1/4	<a href="#">9085 23 56</a>	2.10	.95
3/8	<a href="#">9L85 11 18P1</a>	11/16	.80	2.63	3/8	<a href="#">9085 23 60</a>	2.10	.95




# dimensions

## C9000 — ARO 210 profile



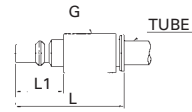
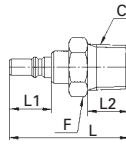
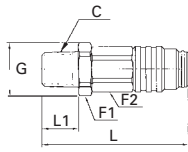
ØD		G	L	L1	C		E	F	G	L	C		E	F	G	L	ØD		E	F	G	L
		in	in	in	NPT		in	mm	in	in	NPT		in	mm	in	in			in	mm	in	in
5/16, 8mm	 9080A06 08	.94	4.65	.87	1/4	 9405A06 14	.47	17	1.24	2.87	1/4	 9415A06 14	.47	17	1.24	2.54	6mm, 1/4	 9421A06 06	1.02	17	1.24	3.41
					3/8	 9405A06 18	.49	19	1.24	2.93	3/8	 9415A06 18	.47	22	1.24	2.76	8mm, 5/16	 9421A06 08	1.02	17	1.24	3.41
					1/2	 9405A06 22	.63	22	1.24	3.13	1/2	 9415A06 22	.59	27	1.24	2.99	10mm, 3/8	 9421A06 10	1.02	17	1.24	3.41



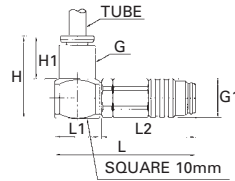
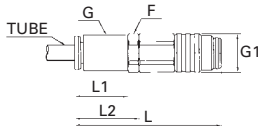
ØD		L	L1	C		E	F	K	L1	L2	T	C		E	F	F1	G	H	H1
		in	in	NPT		in	mm	in	in	in	in	NPT		in	mm	in	in	in	in
5/16, 8mm	 9410A06 08	5.63	2.13	1/4	 9417A06 14	.47	22	.24	.49	2.62	.73	3/8	 9442A06 18	.45	19	.79	1.24	2.68	.63

# dimensions

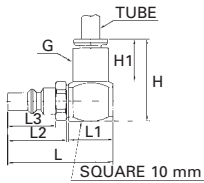
## micro couplers



C NPT	F1 mm	F2 mm	G in	L in	L1 in	C NPT	F mm	L in	L1 in	L2 in	O.D. TUBE	G in	L in	L1 in
1/8 9L05 99 11P1	11	9	.47	1.18	.35	1/8 9L84 99 11X0	11	1.02	.36	.35	5/32 9L94 99 04X0	.34	.89	.36

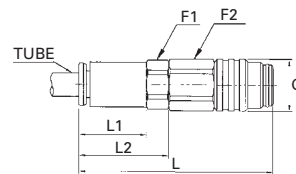
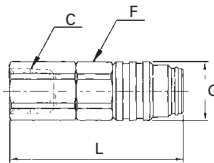
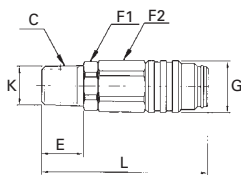


O.D. TUBE	F mm	G in	G1 in	L in	L1 in	L2 in	O.D. TUBE	G in	G1 in	H in	H1 in	L in	L1 in	L2 in
5/32 9L06 99 04P1	9	.34	.37	1.26	.49	.59	5/32 9L02 99 04P1	.37	.34	.81	.41	1.21	.39	.79

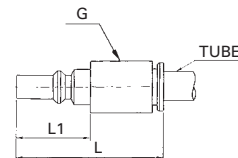
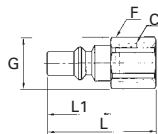
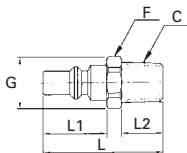


O.D. TUBE	G in	H in	H1 in	L in	L1 in	L2 in	L3 in
5/32 9L93 99 04X0	.34	.81	.41	.92	.39	.49	.36

## small couplers



C NPT	E in	F1 mm	F2 mm	G in	K in	L in	C NPT	F mm	G in	L in	O.D. TUBE	F1 in	F2 in	G in	L in	L1 in	L2 in
1/8 9L05 98 11P1	.35	12	13	.55		1.45	1/8 9L04 98 11P1	13	.55	1.53	1/4 9L15 98 14P1	12	13	.55	1.61	.49	.69
1/4 9L05 98 14P1	.51	14	13	.55	.60	1.61											

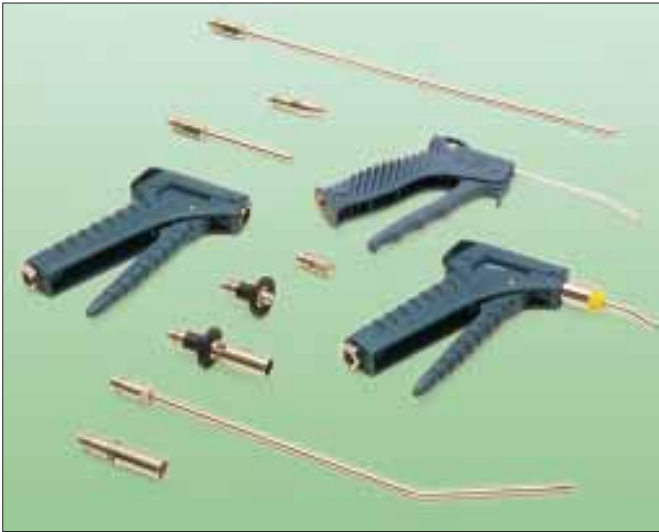


C NPT	F mm	G in	L in	L1 in	L2 in	C NPT	F mm	G in	L in	L1 in	O.D. TUBE	G in	L in	L1 in
1/8 9L84 98 11X0	11	.47	1.12	.60	.35	1/8 9L83 98 11X0	13	.55	1.06	.60	1/4 9L82 98 14X0	.46	1.13	.60
1/4 9L84 98 14X0	14	.60	1.28	.60	.51									

# universal blowguns



# principle of universal blowguns



This state of the art range of Legris blowguns fulfills the demanding requirements of industrial users. The design is a pleasing balance of technical performance, ergonomic features and aesthetic appearance.

Legris blowguns combine a progressive trigger action with a powerful and quiet air jet.

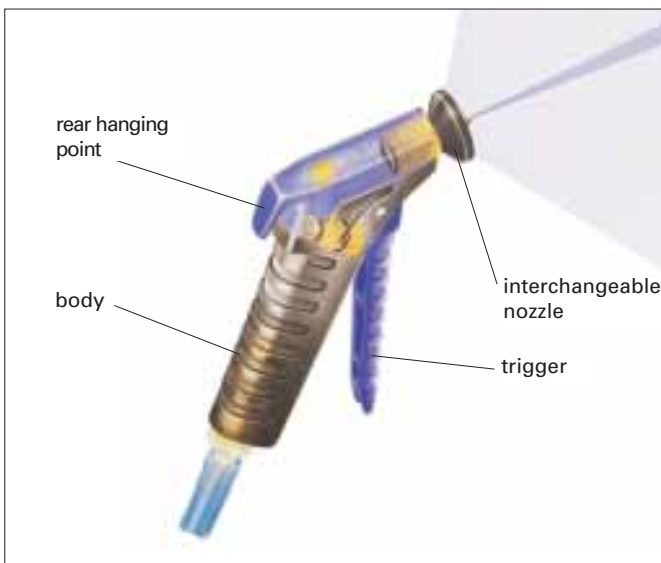
Personal safety and the safety at work regulations were given a high priority in the product design.

Particular attention has been paid to the "feel", performance and appearance of the gun; it is light, yet robust.

The range of interchangeable nozzles allows the Legris blowgun to be used in many ways:

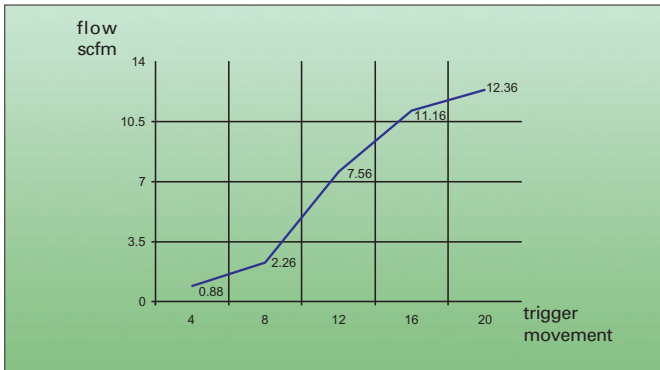
- **blowing air to:** cool machines, dry parts, ventilate, dust benches etc.
- **dispersal:** of steams, fumes, particles, etc...
- **transport:** small components, granules, etc...
- **mixing:** of air and other gases
- **cooling:** stamped parts when ejected from a press

## technical specification



<b>fluid</b>	compressed air <i>please consult us for other fluids</i>
<b>maximum working Pressure</b>	up to 145 psi
<b>temperatures</b>	dry air: -5°F to +175°F ambient: 5°F to +120°F
<b>material</b>	body, trigger: polyacetal seals: nitrile nozzles: nickel-plated brass (0659 = aluminum) deflectors: engineering grade plastic

# advantages



## progressive action

The trigger is very sensitive and has a long, easily controlled movement, which allows the user to control the flow accurately. This responsive and gradual action gives greater sensitivity when using the blowgun in the workplace (for example with small parts).



## ergonomic design

- Special attention has been paid to the shape, size and design to enhance comfort and safety:
  - the blowgun is easy to grip
  - it has the right "feel"

Its light weight and ease of use make it especially suited to production environments and for both male and female operators.



## safety features

Technology is built in to ensure adherence to international health and safety at work requirements, eg.

- pressure is reduced on certain models
- safety nozzles
- low noise levels



## wide range of nozzles

Legris blowguns with a wide range of interchangeable nozzles meet many specific requirements, whether it be difficult access, safety, economy, power, etc...

- standard jet
- safety
- straight tube (long or short)
- angled tube (long or short)
- coanda nozzle
- booster nozzle
- air screen nozzle
- booster nozzle with airscreen
- LF3000 nozzle

The Legris range of blowguns and nozzles gives you the right equipment for the job in hand.

# universal blowguns

## dynamic safety blowgun



Thanks to its innovative design, the Legris universal safety blowgun ensures the safety of the operator and machines at all times. An integrated pressure regulator gives active safety to the user.

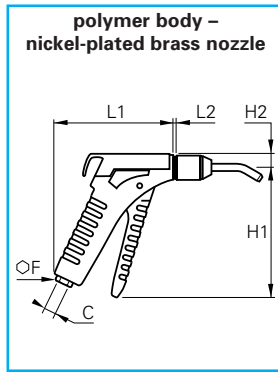
The principle is simple:

- when in close proximity to any obstacle, the pressure falls rapidly, restricting pressure to 7 psi (at inlet pressure of 87 psi) once directly in contact with the object.
- conversely, as soon as the nozzle is removed from the obstacle, the pressure rises automatically.

### technical specifications

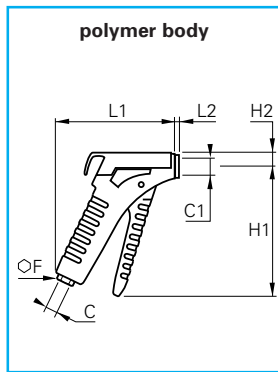
fluid carried: compressed air  
 maximum flow pressure: 145 psi  
 safety pressure at 87 psi: 7 psi (0.5 bar)  
 output at 87 psi: 9 scfm  
 force of air jet at 87 psi: 0.33 lbf  
 noise level (norm NFS 31 031): 83.3 dbA

## 0654 dynamic safety blowgun — BSPP



C		F	H1	H2	L1	L2	
BSPP		mm	mm	mm	mm	mm	kg
G1/4	0654 00 13	17	128	14	120	1.5	.213

## 0652/0653 blowgun for interchangeable nozzles — BSPP

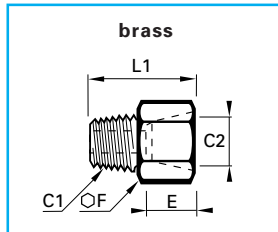


C	C1		F	H1	H2	L1	L2	
BSPP	metric		mm	mm	mm	mm	mm	kg
G1/4	M12x1.25	0652 66 13	17	128	14	120	1.5	.161
G1/4	M12x1.25	0653 66 13*	17	128	14	120	1.5	.169

\*nozzle with passage reduction

Choose from the wide range of interchangeable nozzles to have the right tool for the job - please refer to pages L8 and L9

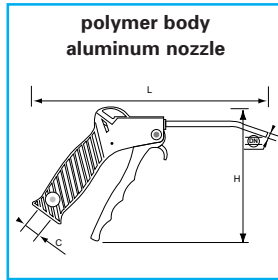
## 0167 adapter — female NPT to male BSPT



C1	C2		E	F	L	
BSPT	NPT		mm	mm	mm	kg
R1/4	1/4	0167 13 14	11.5	17	28.5	.029

# universal blowguns

## 0659 fixed angled nozzle blowgun — NPT

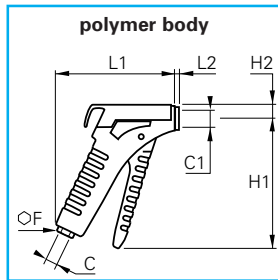


C	DN		H	L	oz
NPT			in	in	
1/4	.137	0659 00 14	4.94	8.79	2.65

This blow gun will meet OSHA 1910.242, if the following issues are observed:

- inlet pressure does not exceed 100PSIG
- blow gun used with proper chip guarding
- personal protection by operator

## 0653 safety blowgun for interchangeable nozzles — NPT



C	C1		F	H1	H2	L1	L2	oz
NPT	metric		mm	in	in	in	in	
1/4	M12x125	0653 66 14	17	4.99	.55	4.68	.06	5.97

Note: When used with air, airline must be regulated to less than 30 psi maximum to conform to current safety requirements.

A tamperproof pressure regulator reduces a supply pressure of 100 psi (7 bar) to 30 psi (2 bar) ±3 psi (±0.2 bar)

Note: If supply pressure exceeds 100 psi then operating pressure will exceed 30 psi by that amount.

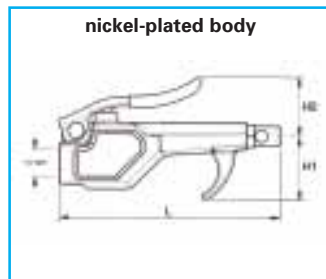
**nozzle selections:** to conform to current safety requirements use only the following nozzles with the 0653 blowgun:

0690 02 00      0690 09 00      0690 10 00      0690 11 00      0690 08 00

(These nozzles have a secondary air flow path should the tip become obstructed.)

The nozzle advantages and part numbers are on the following pages.

## 0623 standard safety blowgun — NPT

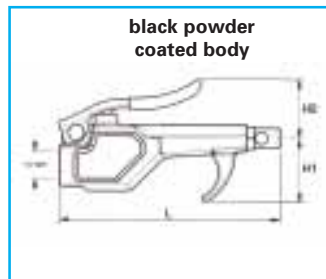


C			H1	H2	L	oz
NPT			in	in	in	
1/4		0623 00 14US	1.28	1.18	4.32	6.89

Legris' Standard Safety Blowguns conform to the following standards:

- OSHA standard 1910.242 (B) permitting a maximum of 30 psi outlet pressure when dead ended with a maximum of 150 psi inlet pressure.
- OSHA standard 1910.95 regulating occupational noise level exposure.

## 0623 standard safety blowgun — NPT



C			H1	H2	L	oz
NPT			in	in	in	
1/4		0623 01 14US	1.28	1.18	4.32	6.89

Legris' Standard Safety Blowguns conform to the following standards:

- OSHA standard 1910.242 (B) permitting a maximum of 30 psi outlet pressure when dead ended with a maximum of 150 psi inlet pressure.
- OSHA standard 1910.95 regulating occupational noise level exposure.

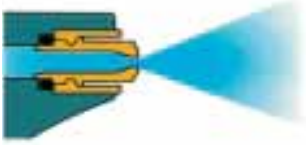




Legris quick disconnect couplers can be used with any of the Legris blowguns.  
For more information on the couplers, see Section K.



# threaded nozzles for universal blowguns 0652/0653

The information given below is to help you choose the correct nozzle for your needs.

## nozzles

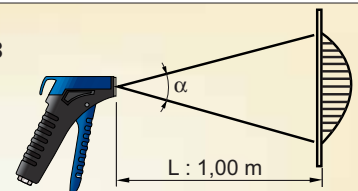
nozzles	technical characteristics at 87 psi		other features
<b>0690 01 00 standard nozzle</b> 	1- flow rate	14 scfm	safety noise level
	2- noise level	96 dBA	power difficult access
	3- spread of air cone at nozzle	23°	directional control economy
	4- force of airjet	0.79 lbf	dusting ability orientable
<b>0690 02 00 safety nozzle</b> 	1- flow rate	21.5 scfm	safety noise level
	2- noise level	99 dBA	power difficult access
	3- spread of air cone at nozzle	26°	directional control economy
	4- force of airjet	0.90 lbf	dusting ability orientable
<b>0690 03 00 straight tube nozzle (long)</b> 	1- flow rate	14 scfm	safety noise level
	2- noise level	92 dBA	power difficult access
	3- spread of air cone at nozzle	21°	directional control economy
	4- force of airjet	0.70 lbf	dusting ability orientable
<b>0690 04 00 straight tube nozzle (short)</b> 	1- flow rate	14.5 scfm	safety noise level
	2- noise level	93 dBA	power difficult access
	3- spread of air cone at nozzle	21°	directional control economy
	4- force of airjet	0.79 lbf	dusting ability economy
<b>0690 05 00 angled tube nozzle (long)</b> 	1- flow rate	13 scfm	safety noise level
	2- noise level	92 dBA	power difficult access
	3- spread of air cone at nozzle	21°	directional control economy
	4- force of airjet	0.70 lbf	dusting ability orientable

## additional technical information

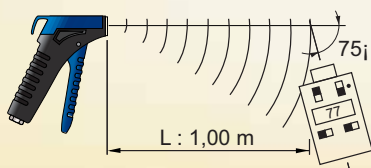
1- with blowgun 0652/0653 plus nozzle.



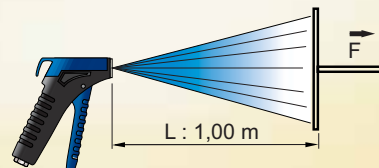
3- with blowgun 0652/0653 plus nozzle.




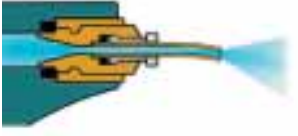


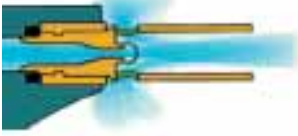

2- according to A.N.S.I. 51-4 standard (American National Standard Institute) with blowgun 0652/0653 plus nozzle.



4- with blowgun 0652/0653 plus nozzle. Pushing a 0.1m<sup>2</sup> circular plate.



# threaded nozzles for universal blowguns 0652/0653

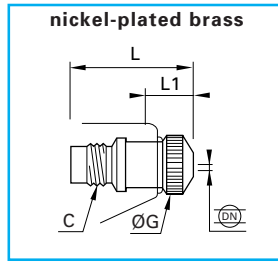
nozzles	technical characteristics at 87 psi		other features
<b>0690 06 00 angled tube nozzle (short)</b> 	1- flow rate	14.5 scfm	safety noise level
	2- noise level	93 dBA	power difficult access ●●
	3- spread of air cone at nozzle	21°	directional control ●● economy
	4- force of airjet	0.79 lbf	dusting ability ● orientable ●●
<b>0690 07 00 nozzle for nylon + polyurethane tubing</b> 	1- flow rate	$\varnothing 4\text{mm} \times 2\text{mm}$ 7 scfm $\varnothing 4\text{mm} \times 2.7\text{mm}$ 12 scfm	safety noise level
	2- noise level	90 dBA    96 dBA	power difficult access ●●●
	3- spread of air cone at nozzle	22°    23°	directional control ●● economy
	4- force of airjet	0.38 lbf    0.67 lbf	dusting ability ●●● orientable ●●●
<b>0690 08 00 COANDA nozzle</b> 	1- flow rate	9 scfm	safety ● noise level ●●●
	2- noise level	77 dBA	power difficult access
	3- spread of air cone at nozzle	20°	directional control ●●● economy ●
	4- force of airjet	0.27 lbf	dusting ability orientable
<b>0690 09 00 air screen nozzle</b> 	1- flow rate	23 scfm	safety ●●● noise level
	2- noise level	96 dBA	power difficult access
	3- spread of air cone at nozzle	jet 24°    screen 140°	directional control ● economy
	4- force of airjet	0.34 lbf	dusting ability orientable
<b>0690 10 00 booster nozzle</b> 	1- flow rate	27.5 scfm	safety ●● noise level
	2- noise level	103 dBA	power ●● difficult access
	3- spread of air cone at nozzle	28°	directional control economy ●●●
	4- force of airjet	0.70 lbf	dusting ability orientable
<b>0690 11 00 booster nozzle with air screen</b> 	1- flow rate	30 scfm	safety ●●● noise level
	2- noise level	101 dBA	power ●●● difficult access
	3- spread of air cone at nozzle	jet 26°    screen 140°	directional control economy ●●
	4- force of airjet	0.34 lbf	dusting ability orientable

## main advantages

- **safety** = maximum protection for the user.
- **noise level** = low noise levels reduce health hazards.
- **power** = efficiency and high output
- **difficult access** = nozzles designed for use where access is difficult
- **directional control** = precision
- **economy** = booster nozzle venturi system increases flow rate
- **dusting ability** = use to move powdered materials
- **orientable** = nozzle can be turned 360°

# interchangeable nozzles for universal blowgun 0652/0653

## 0690 01 standard nozzle

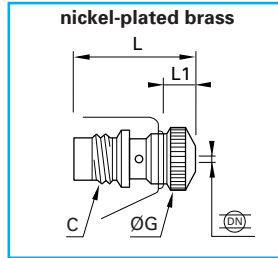


C	metric	DN		G	L	L1	
				in	in	in	oz
M12x1.25	2.5	0690 01 00		.59	1.23	.35	.88



- Multi-purpose
- Powerful and responsive air jet

## 0690 02 safety nozzle

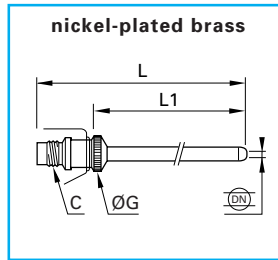
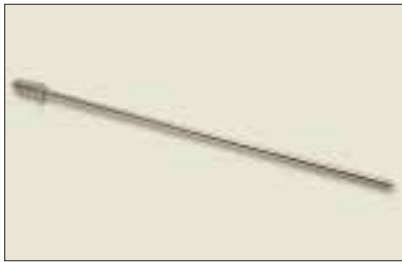


C	metric	DN		G	L	L1	
				in	in	in	oz
M12x1.25	3	0690 02 00		.59	1.23	.36	.88

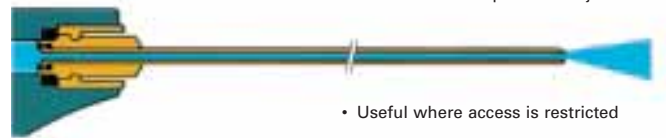


- Should the nozzle become obstructed, air escapes through holes in the side of the nozzle
- Powerful and responsive air jet

## 0690 03 straight tube nozzle (long)

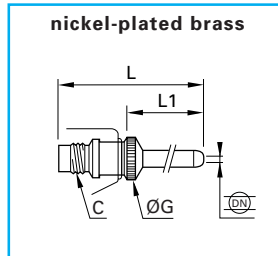


C	metric	DN		G	L	L1	
				in	in	in	oz
M12x1.25	2.5	0690 03 00		.59	13	12	2.29

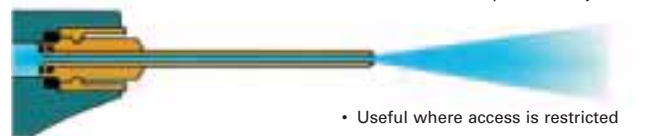


- Powerful and responsive air jet
- Useful where access is restricted

## 0690 04 straight tube nozzle (short)

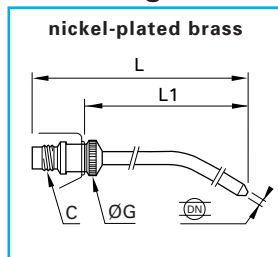


C	metric	DN		G	L	L1	
				in	in	in	oz
M12x1.25	2.5	0690 04 00		.59	4	3	1.23

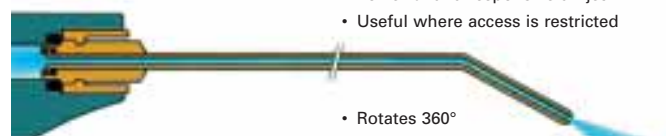


- Powerful and responsive air jet
- Useful where access is restricted

## 0690 05 angled tube nozzle (long)

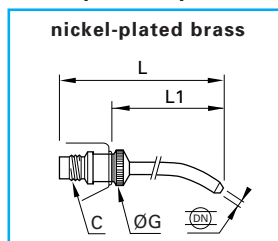


C	metric	DN		G	L	L1	
				in	in	in	oz
M12x1.25	2.5	0690 05 00		.59	12.4	11.5	2.29

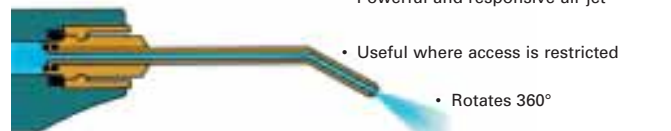


- Powerful and responsive air jet
- Useful where access is restricted
- Rotates 360°

## 0690 06 angled tube nozzle (short)



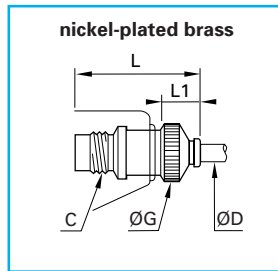
C	metric	DN		G	L	L1	
				in	in	in	oz
M12x1.25	2.5	0690 06 00		.59	3.7	2.75	1.23



- Powerful and responsive air jet
- Useful where access is restricted
- Rotates 360°

# interchangeable nozzles for universal blowgun 0652/0653

## 0690 07 safety nozzle

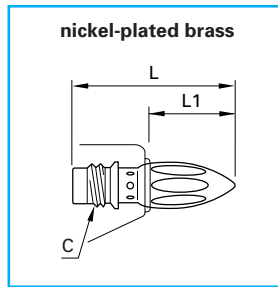


ØD	C		G	L	L1	
	metric		in	in	in	oz
4	M12x1.25	0690 07 00	.59	1.38	.5	.88



- Fluidized powders
- Choose either nylon or polyurethane tube for use where access is restricted

## 0690 08 coanda effect nozzle

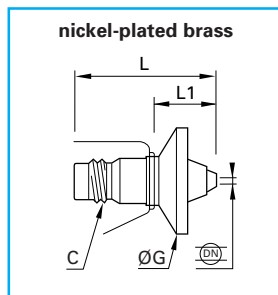


C			L	L1	
			in	in	oz
M12x1.25	0690 08 00		1.87	1.02	1.16



- Precise air jet
- Very quiet
- Energy saving
- Safe, because its shape makes it difficult to obstruct the opening of the nozzle

## 0690 09 air screen nozzle

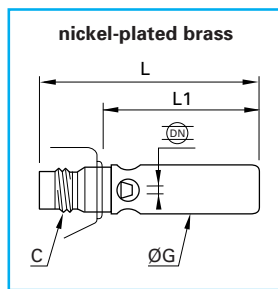


C	DN		G	L	L1	
			in	in	in	oz
M12x1.25	2	0690 09 00	1.18	1.59	.73	.74

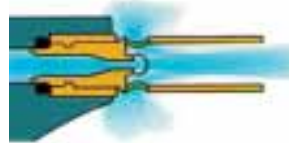


- An air screen and an air deflector prevent dust and swarf being blown back at the operator
- No risk of overpressure when nozzle is blocked

## 0690 10 booster nozzle

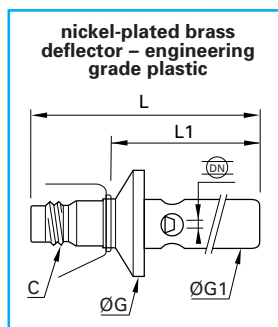


C	DN		G	L	L1	
			in	in	in	oz
M12x1.25	2.5	0690 10 00	.59	2.52	1.65	1.34

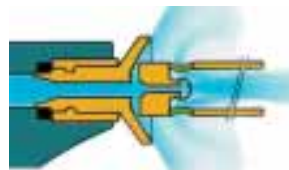


- Improved air flow, especially suited for use with large areas
- Saves energy by venturi method of increasing air flow
- Lower speed air flow

## 0690 11 booster nozzle with air screen



C	DN		G	G1	L	L1	
			in	in	in	in	oz
M12x1.25	2.5	0690 11 00	1.18	.59	2.99	2.13	1.62



- Has the same venturi features as the booster nozzle
- No risk of overpressure when nozzle is blocked
- An air screen and an air deflector prevent dust and swarf being blown back at the operator

# tubing and hoses



# tubing and hoses

Legris' policy is to offer its customers a complete range of fittings, and in addition, a full range of tubes and hoses, compatible with the different ranges of fittings featured in this catalog.

## nylon air brake tubing



- meets performance of SAE J844 and Federal Regulation DOT FMVSS 106
- for air brake system in transportation applications
- available in 6 colors from 1/8" to 1/2"

## multi bundled tubing



- polyurethane 95 durometer for fractional inch Ø.D.
  - clear PVC jacket
  - 7 and 12 tubes from 1/8" to 1/4"
- nylon for metric Ø.D.
  - black PVC jacket
  - 2, 4, 7 and 12 tubes from 4mm to 8mm

## braided PVC hose



- translucent for visual checking of fluids
- food quality to FDA standard
- available in 8mm to 26mm O.D.

## push-on hose



- excellent resistance to hydrocarbons, UV, sparks, abrasion and rupture
- ozone resistant
- simple and easy push on installation
- for use with Legris quick-acting barbed fittings

## tubepack® packaging



- for polyurethane, nylon, polyethylene and fluoropolymer tubing
- rationalization of tube storage with:
  - better tubing protection
  - location of tube end made easier
  - cleaner storage in warehouse – can store vertically or horizontally
  - material identification made simple – can punch out "P" for Polyamide (nylon) or "U" for Polyurethane
  - date coding (manufactured date) – provides traceability of product
  - sizes:
    - fractional inch – 100ft, 250ft
    - metric – 25m, 100m
  - easy identification of the tube size and visual color identification
  - unreels easily

# tubing and hoses

All Legris tube and hose designs conform to international standards. In order to offer global solutions for connection, Legris provides users with a comprehensive range suitable for most applications in order to meet the majority of users' needs.

## nylon tubing



- rigid and semi-rigid
- optimum mechanical properties and good chemical resistance
- 7 colors for visual identification of circuits
- close tolerance, available in 1/8" to 1/2" O.D. supplied in 100ft, 500ft, 1000ft rolls, available in 3mm to 16mm O.D., supplied in 25m and 100m rolls

## polyurethane tubing



- highly flexible for use in reduced spaces and for small bend radius applications
- optimum mechanical properties and good chemical resistance
- 7 colors available for coding of circuits
- close tolerance, available in 1/8" to 1/2" O.D. supplied in 100ft, 500ft, 1000ft rolls, available in 3mm to 14mm O.D., supplied in 25m and 100m rolls

## polyethylene tubing



- good resistance to aggressive and corrosive agents
- FDA approved material (food applications)
- economical solution
- close tolerance, available in 1/8" to 1/2" O.D. supplied in 100ft, 250ft, 500ft rolls, available in 4mm to 12mm O.D., supplied in 25m rolls.

## fluoropolymer FEP 140 tubing



- excellent resistance to aggressive and corrosive agents and high temperatures
- food quality to FDA 177.1550
- close tolerance, available in 1/8" to 1/2" O.D. supplied in 25ft and 100ft rolls, available in 4mm to 12mm O.D., supplied in 5m and 25m rolls

## accessories



- clips
- tube cutter
- tube supports
- caps – see page A45

## recoil tubing



- nylon and polyurethane
- ages well with excellent flexibility and coil retention
- ready for use and designed with spring protection end fittings
- close tolerance, available in 5 colors and several lengths, 1/4" O.D. and 4mm to 12mm O.D.

# tubing

Legris offers a complete range of tubing – in addition to a full range of fittings.

In order to precisely choose the correct tubing for an application, Legris takes into account the many factors necessary: materials, physical properties, chemical and mechanical properties, fluids to be carried, etc.

Legris, therefore, offers several types of tubing:

- nylon tubing
- polyurethane tubing
- polyethylene tubing
- fluoropolymer tubing
- recoil tubing

*To find out what tubing is recommended for what fittings, see page 14 in the introduction section at the beginning of this catalog.*

## Legris tubing

	Nylon	Polyurethane (PU)	Polyethylene (PE)	Fluoropolymer FEP140
<b>Fractional Sizes</b>	1/8" - 1/2"	1/8" - 1/2"	1/8" - 1/2"	1/8" - 1/2"
<b>Metric Sizes</b>	3mm - 16mm	3mm - 14mm	4mm - 12mm	4mm - 12mm
<b>Resistance</b>				
Abrasion	Good	Excellent	Fair	Good
Fungus	Excellent	Good	Good	Excellent
Kinking	Fair	Excellent	Poor	Poor
Moisture	Good	Good (ether)	Good	Excellent
UV Rays	Good	Fair	Poor	Excellent
<b>Compatibility</b>				
Push-to-connect	Excellent	Good (+90 Durometer)	Excellent	Excellent
Compression	Excellent	Poor	Excellent	Excellent
Barbed	Poor	Excellent	Poor	Poor
<b>Criteria</b>				
Clarity	Translucent	Clear	Translucent	Translucent
Colors	Yes	Yes	Yes	Natural
FDA	No	No	Yes (except red)	Yes
Flexibility	Fair	Excellent	Good	Poor

## advantages of Legris tubing

<b>nylon:</b>	<ul style="list-style-type: none"> <li>• semi rigid close tolerance</li> <li>• several colors available for coding circuits</li> </ul>
<b>polyurethane:</b>	<ul style="list-style-type: none"> <li>• small bending radii in ambient temperatures</li> <li>• ages well</li> <li>• excellent abrasion resistance</li> </ul>
<b>polyethylene:</b>	<ul style="list-style-type: none"> <li>• dimensional stability</li> <li>• resists most solvents and chemicals</li> </ul>
<b>fluoropolymer FEP 140:</b>	<ul style="list-style-type: none"> <li>• food quality</li> <li>• excellent resistance to corrosive applications</li> </ul>
<b>recoil hose:</b>	<ul style="list-style-type: none"> <li>• contracts to original length after multiple use</li> <li>• straight ends equipped with fittings</li> </ul>



The 100ft, 250ft, 25m and 100m rolls of tubing are packaged in tubepack®.

The 500ft, 1000ft and bulk rolls of tubing are packaged on reels.

# the complete range of tubing and hoses

## nylon

**fractional inch**  
Page M6, M7



**metric**  
Page M8, M9



**multi-bundled nylon/PVC jacket  
metric**  
Page M17



**air brake tubing  
fractional inch**  
Page M18



## polyurethane

**95 & 85 durometer  
fractional inch**  
Page M10, M11



**metric**  
Page M12, M13



**twin tubing  
metric**  
Page M12, M13



**multi-bundled polyurethane  
fractional inch**  
Page M17



## polyethylene

**fractional inch**  
Page M14, M15



**metric**  
Page M14, M15



## fluoropolymer FEP 140

**fractional inch**  
Page M16



**metric**  
Page M16



## recoil

**nylon  
fractional inch**  
Page M20



**nylon  
metric**  
Page M20



**polyurethane  
fractional inch**  
Page M21



**polyurethane  
metric**  
Page M21



## hose

**braided PVC hose**  
Page M22



**push-on-hose**  
Page M23



## accessories

**brass  
tube support**  
Page M18



**stainless steel  
tube support**  
Page M18



**clip strips**  
Page M19



**tube cutter**  
Page M19



**tube & hose cutter**  
Page M19



**hose clip**  
Page M19



# nylon – fractional inch



Legris offers a large range of nylon tubing that meets most requirements for industrial applications. Our nylon tubing provides optimum mechanical properties and has good chemical, humidity, and abrasive resistance.

Some technical tubing applications require a specific quality of Nylon (Nylon 11 or 12). To meet these application requirements, Legris offers both nylon 11 and 12 tubing.

We offer our tubing in 2 packages:

- **tubepack®** for 100ft lengths
- **reels** for 500ft and 1,000ft lengths

Nylon 11= part numbers 1098P and 1099P

Nylon 12= part numbers 1094P (except 3/16" OD is nylon 11)

## technical information Nylon 11

raw material:	castor oil
working temperature:	-60° to 200°F
vacuum:	-28" Hg
rockwell hardness:	78R
norm conformity:	UL - 94HB

## technical information Nylon 12

raw material:	oil
working temperature:	-4° to 175°F
vacuum:	-28" Hg
shore hardness:	60D
norm conformity:	NFE 49.100

## Nylon 11 and Nylon 12 tube tolerance

Flexible nylon tubing is commonly used in connecting pneumatic systems. Here are the tolerances and operating conditions to which it must conform.

O.D. of tube	tolerances on O.D. and I.D.	
1/8" to 1/2"	+0.002	-0.004









*Legris tube conforms to these specifications.*

## Nylon 11 and Nylon 12 fractional inch tubing







O.D. tube in.	I.D. tube in.	R min bend radius (in.)	Working pressure in PSI when using nylon tubing with LF3000 fittings	
			75° F	safety factor
1/8	.093	.375	225	3
5/32	.106	.500	275	3
3/16	.138	.625	225	3
1/4	.180	.875	250	3
5/16	.232	1.25	220	3
3/8	.275	1.50	220	3
1/2	.375	2.00	200	3

# nylon – fractional inch




## 1094P semi-rigid tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Nylon tube in 100ft rolls – packaged in tubepack®								per 100' roll
			 clear	 black	 green	 red	 blue	 yellow	 gray	 orange	
1/8	.093	.375	1094P53 00	1094P53 01							7.06
5/32	.106	.500	1094P04 00	1094P04 01	1094P04 02	1094P04 03	1094P04 04	1094P04 05	1094P04 06	1094P04 07	9.71
3/16	.138	.625	1094P55 00	1094P55 01							13.59
1/4	.180	.875	1094P56 00	1094P56 01	1094P56 02	1094P56 03	1094P56 04	1094P56 05	1094P56 06	1094P56 07	23.83
5/16	.232	1.25	1094P08 00	1094P08 01	1094P08 02	1094P08 03	1094P08 04	1094P08 05	1094P08 06	1094P08 07	35.12
3/8	.275	1.50	1094P60 00	1094P60 01		1094P60 03	1094P60 04				44.30
1/2	.375	2.00	1094P62 00	1094P62 01	1094P62 02	1094P62 03	1094P62 04	1094P62 05	1094P62 06		65.31

## 1098P semi-rigid tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Nylon tube in 500ft rolls						per 500' roll
			 clear	 black	 green	 red	 blue	 yellow	
1/8	.093	.375	1098P53 00	1098P53 01					27.18
5/32	.106	.500	1098P04 00	1098P04 01	1098P04 02	1098P04 03	1098P04 04		44.83
1/4	.180	.875	1098P56 00	1098P56 01	1098P56 02	1098P56 03	1098P56 04	1098P56 05	105.12
5/16	.232	1.25	1098P08 00			1098P08 03			147.10
3/8	.275	1.50	1098P60 00	1098P60 01			1098P60 04		189.08
1/2	.375	2.00	1098P62 00	1098P62 01			1098P62 04		228.75

## 1099P semi-rigid tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Nylon tube in 1,000ft rolls			per 1,000' roll
			 clear	 black	 blue	
1/8	.093	.375	1099P53 00	1099P53 01		58.42
5/32	.106	.500	1099P04 00	1099P04 01	1099P04 04	95.31
1/4	.180	.875	1099P56 00	1099P56 01	1099P56 04	135.00

Other colors in the sizes and lengths above may be available on special request. Please consult us if you need a color that is not listed.

### advantages of Legris nylon tubing

- large range of working temperatures and pressures
- good chemical resistance (see list of fluids at the end of this section – page M24)
- good humidity resistance
- small pressure drop
- constant rigidity, good aging with constant tolerance on O.D.
- good absorption of vibration
- strong abrasion resistance
- 8 colors for easy identification of circuits

# nylon – metric

## close tolerance semi-rigid nylon tubing



Technical characteristics of Legris nylon tubing also depend on the type of connection used.

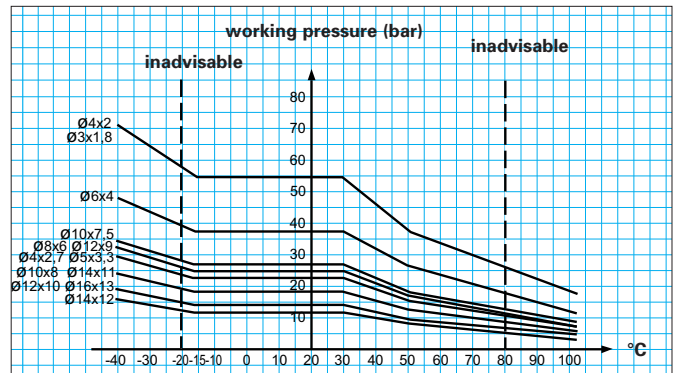
### pressure and temperature resistance of Legris nylon tubing

In this graph, each curve represents the acceptable maximum pressure at a given temperature, by diameter.  
example: semi-rigid nylon tube, Ø14x12, at 20°C, maximum pressure = 10bar

This range includes semi-rigid nylon tubing used in pneumatic systems and rigid tubing ideally suited for centralized lubrication applications requiring high pressure. Legris nylon tubing provides optimum mechanical properties, has good chemical resistance and conforms to NFE 49.100 standard. Semi-rigid tube is shore hardness 60°D and rigid tube, shore hardness 65°D.

O.D. of tube	tolerances on O.D.		Connected to <b>Legris</b> instant fittings, the calibration of Legris nylon tubing ensures <b>perfect sealing</b> .
3 to 5mm	+0.05	-0.08	
6 to 16mm	+0.05	-0.1	

### semi-rigid nylon tubing



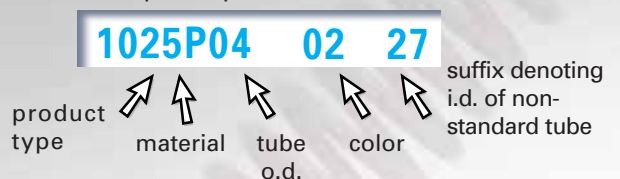
To calculate burst pressure, the value in the above graph should be multiplied x 3.

#### Product codes

Part numbers have been chosen by a method of mnemonics. Each tube and hose is identified by :

- product type and material
- o.d. of the tube
- color
- i.d. of non-standard tube, if appropriate

example of product code



# nylon – metric

## 1025P close tolerance semi-rigid nylon tubing, 25m rolls

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at ambient temp. in mm	Nylon tube in 25m rolls – packaged in tubepack®							kg for 25m	
			clear	black	green	red	blue	yellow	gray		
3	1.8	8	1025P03 00 18					1025P03 04 18			0.020
4	2	25	1025P04 00	1025P04 01	1025P04 02	1025P04 03	1025P04 04	1025P04 05	1025P04 06		0.318
4	2.7	30	1025P04 00 27	1025P04 01 27	1025P04 02 27	1025P04 03 27	1025P04 04 27	1025P04 05 27	1025P04 06 27		0.254
5	3.3	25	1025P05 00 33	1025P05 01 33			1025P05 04 33				0.420
6	4	35	1025P06 00	1025P06 01	1025P06 02	1025P06 03	1025P06 04	1025P06 05	1025P06 06		0.535
8	6	55	1025P08 00	1025P08 01	1025P08 02	1025P08 03	1025P08 04	1025P08 05	1025P08 06		0.748
10	7.5	75	1025P10 00 75	1025P10 01 75			1025P10 04 75				1.135
10	8	90	1025P10 00	1025P10 01	1025P10 02	1025P10 03	1025P10 04	1025P10 05	1025P10 06		0.989
12	9	75	1025P12 00 09	1025P12 01 09			1025P12 04 09				1.769
12	10	90	1025P12 00	1025P12 01			1025P12 04				1.345
14	11	120	1025P14 00 11	1025P14 01 11			1025P14 04 11				2.226
14	12	100	1025P14 00	1025P14 01			1025P14 04				1.734
16	13	120	1025P16 00 13								2.500

## 1100P close tolerance semi-rigid nylon tubing, 100m rolls

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at ambient temp. in mm	Nylon tube in 100m rolls – packaged in tubepack®							kg for 100m	
			clear	black	green	red	blue	yellow	gray		
4	2	25	1100P04 00	1100P04 01	1100P04 02	1100P04 03	1100P04 04	1100P04 05	1100P04 06		1.152
4	2.7	30	1100P04 00 27	1100P04 01 27	1100P04 02 27	1100P04 03 27	1100P04 04 27	1100P04 05 27	1100P04 06 27		0.893
5	3.3	25	1100P05 00 33	1100P05 01 33			1100P05 04 33				1.274
6	4	35	1100P06 00	1100P06 01	1100P06 02	1100P06 03	1100P06 04	1100P06 05	1100P06 06		1.799
8	6	55	1100P08 00	1100P08 01	1100P08 02	1100P08 03	1100P08 04	1100P08 05	1100P08 06		2.898
10	7.5	75	1100P10 00 75	1100P10 01 75			1100P10 04 75				4.400
10	8	90	1100P10 00	1100P10 01	1100P 10 02	1100P10 03	1100P10 04	1100P10 05			3.667
12	9	75	1100P12 00 09	1100P12 01 09			1100P12 04 09				5.600
12	10	90	1100P12 00	1100P12 01			1100P12 04				5.052
14	11	120	1100P14 00 11	1100P14 01 11			1100P14 04 11				5.200
14	12	100	1100P14 00	1100P14 01			1100P14 04				4.800
16	13	120	1100P16 00 13								7.800

Legris nylon tubing is delivered in tubepack® boxes

- easy storage
- protection of tubing against outside aggression
- unreels easily
- quick identification of the tube



# polyurethane – fractional inch



## technical information

	95A durometer	85A durometer
<b>temperature range:</b>	-40° to 165°F	-40° to 165°F
<b>vacuum rating:</b>	28" Hg	28" Hg
<b>vicat softening:</b>	252°F	201-252°F
<b>melting point:</b>	324°F	320°F

## polyurethane tubing

O.D. of tube	tolerances on O.D. and I.D.	
1/8 to 1/2	+ .005	- .005

Legris tube conforms to these specifications.

### 95 durometer

O.D. tube in.	I.D. tube in.	R min bend radius at ambient (in.)	Working pressure in PSI when using polyurethane tubing	
			75° F	safety factor
1/8	.06	1/4	233	3
5/32	.094	3/8	176	3
1/4	.160	1/2	148	3
3/8	.250	7/8	147	3
1/2	.320	1-1/8	140	3

### 85 durometer

1/8	.066	3/16	130	3
5/32	.078	3/8	136	3
1/4	.125	3/8	126	3

Polyurethane 95 durometer tubing is harder than the 85 durometer tubing compound. With an increased wall rigidity, 95 durometer tubing is compatible with LF3000® push-to-connect fittings. Durometer 95 tubing is tough and offers significantly higher working pressures, but is less flexible than lower durometer polyurethane tubing.

Polyurethane 85 durometer tubing is softer than the 95 durometer. The new gripping ring design of the LF3000® fittings has been designed to hold the soft 85 durometer tubing. Legris offers standard and translucent colors in polyurethane.

### 95A durometer 85A durometer

<b>moisture absorption 24hr. immersion:</b>	1.5%	1.5-2%
<b>specific gravity:</b>	1.14	1.12
<b>ultimate tensile strength:</b>	5500 psi	5500-7000 psi
<b>ultimate elongation:</b>	475%	475-570%

### ultraviolet light (U.V.)

Under normal conditions, U.V. usually has a minimal effect other than causing a yellow discoloring. More severe exposures to concentrated U.V., such as some types of artificial lighting, may affect polyurethane over a period of time. The easiest solution is to select a black color tubing, which screens many of the deteriorating effects.














### advantages of Legris polyurethane tubing

- high flexibility and small bend radius
- large range of working temperatures and pressures
- good chemical resistance (see the list of fluids at the end of this section)
- good humidity resistance
- small pressure drop
- constant rigidity, good aging
- good absorption of vibration
- UV resistant
- 7 colors for easy circuit identification
- fluid identification (clear version)







# polyurethane – fractional inch

## 1094U 95 durometer tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Flexible polyurethane in 100ft rolls – packaged in tubepack®											per 100' roll	
			 clear	 black	 green	 red	 blue	 yellow	 gray	 translucent green	 translucent red	 translucent blue	 translucent yellow		
1/8	.093	1/4	1094U53R00	1094U53 01		1094U53 03	1094U53 04	1094U53 05							9.88
5/32	.106	3/8	1094U04R00	1094U04 01	1094U04 02	1094U04 03	1094U04 04	1094U04 05	1094U04 06						12.88
1/4	.180	1/2	1094U56R00	1094U56 01	1094U56 02	1094U56 03	1094U56 04	1094U56 05	1094U56 06	1094U56R12	1094U56R13	1094U56R14	1094U56R15		29.48
5/16	.232	5/8	1094U08R00	1094U08 01	1094U08 02	1094U08 03	1094U08 04	1094U08 05		1094U08R12		1094U08R14	1094U08R15		37.95
3/8	.245	7/8	1094U60R00	1094U60 01	1094U60 02	1094U60 03	1094U60 04	1094U60 05	1094U60 06	1094U60R12	1094U60R13	1094U60R14	1094U60R15		58.77
1/2	.320	1 1/8	1094U62R00	1094U62 01	1094U62 02	1094U62 03	1094U62 04	1094U62 05	1094U62 06	1094U62R12	1094U62R13	1094U62R14	1094U62R15		106.78

\* 'R' designates polyether tubing







## 1098U 95 durometer tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Flexible polyurethane in 500ft rolls						per 500' roll
			 clear	 black	 red	 blue	 yellow	 gray	
1/8	.093	1/4	1098U53R00	1098U53R01					51.89
5/32	.106	3/8	1098U04R00	1098U04R01			1098U04R04		56.48
1/4	.180	1/2	1098U56R00	1098U56R01	1098U56R03		1098U56R04	1098U56R05	58.12
5/16	.232	5/8	1098U08R00	1098U08R01				1098U56 06	70.31
3/8	.245	7/8	1098U60R00	1098U60R01			1098U60R04	1098U60 06	266.87



\* 'R' designates polyether tubing

Note: The 1/8", 5/32", and 1/4" sizes are available in 1000ft rolls in clear, black, and blue. To order a 1000ft roll reference part number 1099U\*\*. Add the tube size and color to complete the part number. Example: 1099U56 01 = 1,000ft, O.D. 1/4", black color

## 1094U\*\*U 85 durometer tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Flexible polyurethane in 100ft rolls – packaged in tubepack®						per 500' roll
			 clear	 black	 green	 red	 blue	 yellow	
1/8	.066	3/16	1094U53U00	1094U53U01					9.88
5/32	.078	3/8	1094U04U00	1094U04U01					14.30
1/4	.125	3/8	1094U56U00	1094U56U01	1094U56U02	1094U56U03	1094U56U04	1094U56U05	34.52

## 1098U\*\*U 85 durometer tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Flexible polyurethane in 500ft rolls		per 500' roll
			 clear	 black	
1/8	.066	3/16	1098U53U00	1098U53U01	54.75
5/32	.078	3/8	1098U04U00	1098U04U01	61.13
1/4	.125	3/8	1098U56U00	1098U56U01	69.27

### polyurethane polyester and polyether benefits

#### polyester

- recommended for pneumatic applications
- UV resistant
- constant rigidity and good aging

#### polyether – same benefits as polyester, plus

- excellent resistance to humidity and bacteriological aggressions

# polyurethane – metric

## close tolerance flexible polyurethane tubing



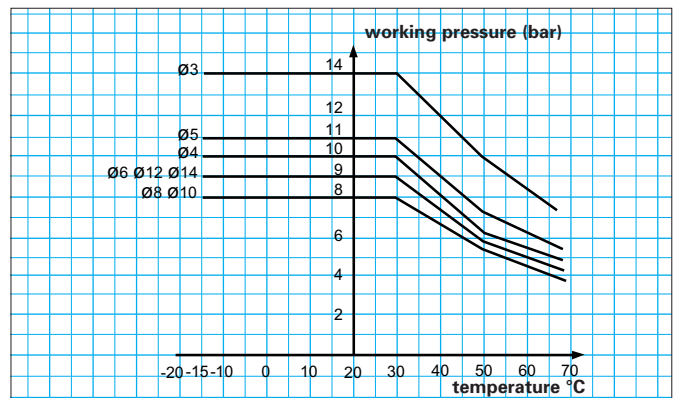
Technical characteristics of Legris polyurethane tubing also depend on the type of connection used.

The high flexibility of Legris flexible polyurethane tubing allows compact cabling where a small bend radius is required. Legris flexible polyurethane tubing has a shore hardness 52°D and conforms to NFE 49.101 standard.

O.D. of tube	tolerances on O.D.	Connected to <b>Legris</b> instant fittings, the calibration of Legris polyurethane tubing ensures <b>perfect sealing</b> .
3 to 8mm	+0.10 -0.10	
10 to 14mm	+0.15 -0.15	

## pressure and temperature resistance of Legris polyurethane tubing

In the graph below, each curve represents the acceptable maximum pressure at a given temperature, by diameter.  
example: polyurethane tube, Ø4 mm, at 20°C, working pressure = 10 bar



To calculate burst pressure, the values in the above graph should be multiplied x 3

In order to answer the different needs of the user, Legris provides additional ranges of polyurethane tubing:

- polyurethane twin tubing – below
- polyurethane recoil tubing – page M21

## close tolerance flexible polyurethane twin tubing



Technical characteristics of Legris flexible polyurethane twin tubing are the same as for Legris polyurethane tubing.

**Legris** flexible polyurethane twin tubing maintains the smooth surface of both tubes when separated and keeps the characteristics of their dimension.








Its use enables:

- swift and easy assembly
- compactness of circuitry
- differentiation of circuits, via two colors

O.D. of tube	tolerances on O.D.	Connected to <b>Legris</b> instant fittings, the calibration of Legris flexible polyurethane twin tubing ensures <b>optimum sealing</b> .
4 to 8mm	+0.10 -0.10	








# polyurethane – metric

## 1025U flexible polyurethane tubing

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at ambient temp. in mm	Flexible polyurethane tubing in 25m rolls – packaged in tubepack®							kg for 25m
			 clear	 black	 green	 red	 blue	 yellow	 gray	
3	1.8	8		1025U03 01 18						0.020
4	2.5	10	1025U04R08	1025U04 01	1025U04 02	1025U04 03	1025U04 04	1025U04 05	1025U04 06	0.310
5	3	13	1025U05R08	1025U05 01			1025U05 04			0.522
6	4	15	1025U06R08	1025U06 01	1025U06 02	1025U06 03	1025U06 04	1025U06 05	1025U06 06	0.591
8	5.5	20	1025U08R08	1025U08 01	1025U08 02	1025U08 03	1025U08 04	1025U08 05	1025U08 06	0.971
10	7	25	1025U10R08	1025U10 01	1025U10 02		1025U10 04	1025U10 05	1025U10 06	0.467
12	8	35	1025U12R08	1025U12 01	1025U12 02		1025U12 04	1025U12 05	1025U12 06	2.406
14	9.5	45		1025U14 01 95			1025U14 04 95			2.815

\* 'R' designates polyether tubing




## 1100U flexible polyurethane tubing

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at ambient temp. in mm	Flexible polyurethane tubing in 100m rolls – packaged in tubepack®							kg for 100m
			 clear	 black	 green	 red	 blue	 yellow	 gray	
4	2.5	10		1100U04 01	1100U04 02	1100U04 03	1100U04 04	1100U04 05	1100U04 06	1.092
5	3	13		1100U05 01			1100U05 04			1.605
6	4	15	1100U06R08	1100U06 01	1100U06 02	1100U06 03	1100U06 04	1100U06 05	1100U06 06	2.064
8	5.5	20	1100U08R08	1100U08 01	1100U08 02	1100U08 03	1100U08 04	1100U08 05	1100U08 06	3.610
10	7	25	1100U10R08	1100U10 01			1100U10 04			6.105
12	8	35	1100U12R08	1100U12 01			1100U12 04			8.610
14	9.5	45		1100U14 01 95			1100U14 04 95			11.215

\* 'R' designates polyether tubing

## flexible polyurethane twin tubing

### 1420U flexible polyurethane twin tubing, 25m roll

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at 20° C in mm	Part numbers for flexible polyurethane twin tubing in 25m rolls – packaged in tubepack®			kg for 25m
						
4	2.5	10	1420U04 11	1420U04 44	1420U04 41	0.620
6	4	15	1420U06 11	1420U06 44	1420U06 41	1.182
8	5.5	20	1420U08 11	1420U08 44	1420U08 41	1.942

Some technical tubing applications require a specific quality of polyurethane tubing (polyether or polyester). Legris offers both polyether PU and polyester PU. We recommend polyether PU tubing for water flow or liquids. For more information, please consult us.

# polyethylene – fractional inch and metric



Legris polyethylene tubing provides good resistance to aggressive and corrosive agents. Due to its FDA approved material (Food and Drug Administration), Legris polyethylene tubing can be used for food applications. It has a surface hardness of 44° shore D.

Polyethylene tubing is tasteless and odorless. It is known for its broad resistance to many chemicals and solvents and its impermeability to gases and moisture. Due to stress cracking, barbed fittings are not recommended for PE tubing.

## technical information

<b>temperature range:</b>	-40° to 135°F	<b>moisture absorption 24hr. immersion:</b>	negligible
<b>vacuum rating:</b>	28" Hg	<b>specific gravity:</b>	0.94
<b>hardness:</b>	44 shore D	<b>ultimate tensile strength:</b>	2250 psi
<b>melting point:</b>	240°F	<b>ultimate elongation:</b>	600%

Natural compound should meet the food and drug administration code of federal regulations, title 21, part 177.1520(c) 2.1 for a resin which may be processed for use involving contact with human food.

**NOTE: All color dyes, EXCEPT RED, meet FDA criteria.**

## tolerance

### polyethylene tubing

O.D. of tube	tolerances on O.D. and I.D.	
1/8" to 1/2"	+ .004	- .004
4mm to 12mm	+ .1mm	- .1mm

## fractional inch

O.D. tube in.	I.D. tube in.	R min bend radius (in.)	Working pressure in PSI when using polyethylene tubing with LF3000 fittings	
			75° F	safety factor
1/8	.062	1/2	120	3
5/32	.106	1/2	166	3
1/4	.170	1-1/4	173	3
5/16	.187	1-1/2	200	3
3/8	.250	2	192	3
1/2	.375	2-1/2	123	3






## metric

O.D. tube mm	I.D. tube mm	R min bend radius (mm)	Working pressure in PSI when using polyethylene tubing with LF3000 fittings	
			75° F	safety factor
4	2.7	12.7	166	3
6	4	31.7	170	3
8	6	38.1	118	3
10	8	50.8	90	3
12	9	63.5	113	3







 = suitable for food applications

# polyethylene – fractional inch and metric




## 1094Y low density polyethylene tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Polyethylene tube in 100ft rolls – packaged in tubepack®					for 100'
			 clear	 black	 green	 red	 blue	
1/8	.062	1/2	1094Y53 00	1094Y53 01				8.61
5/32	.106	1/2	1094Y04 00	1094Y04 01				9.63
1/4	.170	1 1/4	1094Y56 00	1094Y56 01	1094Y56 02	1094Y56 03	1094Y56 04	19.98
3/8	.250	2	1094Y60 00	1094Y60 01				45.89
1/2	.375	2 1/2	1094Y62 00	1094Y62 01				63.54




## 1096Y low density polyethylene tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Polyethylene tube in 250ft rolls – packaged in tubepack®						for 250'
			 clear	 black	 green	 red	 blue	 yellow	
1/8	.062	1/2	1096Y53 00	1096Y53 01	1096Y53 02	1096Y53 03	1096Y53 04	1096Y53 05	21.53
5/32	.106	1/2	1096Y04 00	1096Y04 01	1096Y04 02	1096Y04 03	1096Y04 04	1096Y04 05	24.07
1/4	.170	1 1/4	1096Y56 00	1096Y56 01	1096Y56 02	1096Y56 03	1096Y56 04	1096Y56 05	49.95
5/16	.187	1 1/2	1096Y08 00	1096Y08 01	1096Y08 02	1096Y08 03	1096Y08 04	1096Y08 05	94.60
3/8	.250	2	1096Y60 00	1096Y60 01	1096Y60 02	1096Y60 03	1096Y60 04	1096Y60 05	114.73
1/2	.375	2 1/2	1096Y62 00	1096Y62 01	1096Y62 02	1096Y62 03	1096Y62 04	1096Y62 05	158.85

## 1098Y low density polyethylene tubing

O.D. tube in	I.D. tube in	R minimum bend radius for tube at ambient temp. in in.	Polyethylene tube in 500ft rolls			for 500'
			 clear	 black	 blue	
1/4	.170	1 1/4	1098Y56 00	1098Y56 01		102.90
3/8	.250	2	1098Y60 00	1098Y60 01	1098Y60 04	192.20
1/2	.375	2 1/2	1098Y62 00	1098Y62 01		320.70

## 1025Y low density polyethylene tubing

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at ambient temp. in mm	Polyethylene tube in 25m rolls – packaged in tubepack®			for 25m
			 clear	 black	 blue	
4	2.7	12.7	1025Y04 00	1025Y04 01	1025Y04 04	0.310
6	4	31.7	1025Y06 00	1025Y06 01	1025Y06 04	0.591
8	6	38.1	1025Y08 00	1025Y08 01	1025Y08 04	0.971
10	8	50.8	1025Y10 00	1025Y10 01	1025Y10 04	0.467
12	9	63.5	1025Y12 00	1025Y12 01	1025Y12 04	2.406

Other colors in the sizes and lengths above may be available on special request. Please consult us if you need a color that is not listed

# close tolerance fluoropolymer FEP 140 tube



Legris fluoropolymer FEP 140 tube is of food quality and provides excellent resistance to aggressive and corrosive agents and to high temperatures. It has a surface hardness of 55° shore D.


O.D. of tube	Tolerances on O.D.	
4mm	+0.05	-0.05
6 to 10mm	+0.07	-0.07
12mm	+0.10	-0.10

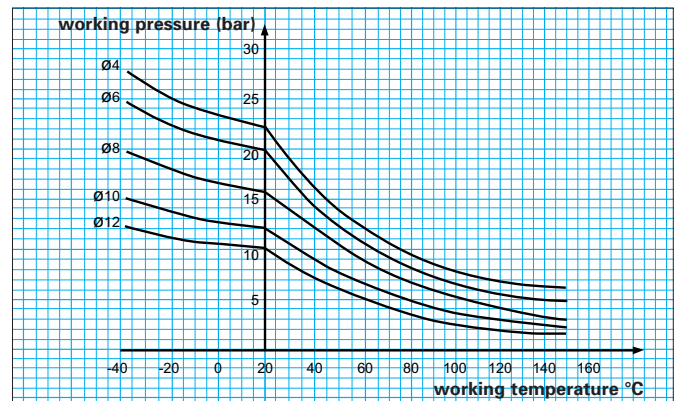
Connected to **Legris** instant fittings, the calibration of Legris fluoropolymer FEP 140 tube ensures **perfect sealing**.

Technical characteristics of Legris fluoropolymer FEP 140 tube also depend on the type of connection used.

## pressure and temperature resistance of Legris fluoropolymer FEP 140 tube

In the graph, each curve represents the acceptable maximum pressure at a given temperature, by diameter. example: polyethylene tube, O.D. 6 , at 20°C, maximum pressure = 20 bar



 = suitable for food applications



To calculate burst pressure, the values in the above graph should be multiplied x 3. (For flow chart information on fractional inch, please consult us.)



## 1092T-1094T fluoropolymer FEP 140 tube – fractional inch

O.D. tube in	I.D. tube in	R minimum bend radius in in.
1/8	.06	1.57
1/4	.17	3.15
3/8	.30	4.33
1/2	.42	7.48

in 25ft rolls	oz	in 100ft rolls	oz
 clear	per 25'	 clear	per 100'
1092T53 00	5.92	1094T53 00	25.44
1092T56 00	10.88	1094T56 00	43.68
1092T60 00	18.40	1094T60 00	73.60
1092T62 00	20.80	1094T62 00	83.20

## 1005T-1025T fluoropolymer FEP 140 tube – metric

O.D. tube mm	I.D. tube mm	R minimum bend radius for tube at 20° C in mm
4	2.5	40
6	4	50
8	6	70
10	8	120
12	10	180

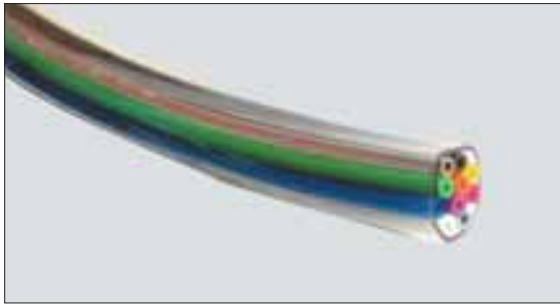
in 5m rolls	kg	in 25m rolls	kg
 clear	per 5m	 clear	per 25m
1005T04 00 25	0.155	1025T04 00 25	0.506
1005T06 00	0.250	1025T06 00	1.027
1005T08 00	0.385	1025T08 00	1.431
1005T10 00	0.524	1025T10 00	1.693
1005T12 00	0.547	1025T12 00	1.913

### main advantages of Legris fluoropolymer FEP 140 tube

- excellent resistance to chemicals and high temperature
- FDA approved (food quality)
- good abrasion resistance
- excellent UV resistance
- delivered in tubepack® boxes for protection

# multi bundled tubing

## polyurethane 95 – fractional inch





# or tubes	7	colors: blue, yellow, clear, red, black, green, gray
# or tubes	12	colors: blue, yellow, clear, red, black, green, gray, orange, purple, white, translucent blue, translucent red

Please refer to section A for further details of Legris LF 3000 Multi-Connectors.

The Legris multi bundled tubing is an **excellent solution to neatly color code** a pneumatic system. Jacketed with clear flexible PVC, the polyurethane 95 durometer tubing can be connected with push-to-connect fittings or multi-connectors.

### 1093U\*\*M/1094U\*\*M polyurethane multi bundled tubing

O.D. tube in	I.D. tube in	# of tubes	 30 ft rolls	 100 ft rolls
1/8	.066	7	1093U53 00M07	1094U53 00M07
5/32	.093	7	1093U04 00M07	1094U04 00M07
1/4	.160	7	1093U56 00M07	1094U56 00M07
1/8	.066	12	1093U53 00M12	1094U53 00M12
5/32	.093	12	1093U04 00M12	1094U04 00M12
1/4	.160	12	1093U56 00M12	1094U56 00M12

Packaged in plastic bags.

## close tolerance semi-rigid nylon – metric




Technical characteristics of Legris nylon multi bundled tubing are the same as for Legris semi-rigid nylon tubing. Please refer to page M8.


Legris semi-rigid nylon multi bundled tubing is suited to pneumatic circuits submitted to external aggression. Its PVC jacket is resistant to abrasion, fire, caustic fluids, oils, alcohol etc. The special design jacket and spiral assembly ensure a small bend radius for compact and flexible cabling. For fast identification of circuits, tubes are numbered from 1 to 12 and 6 colors are available.

o.d. of tube	tolerances on o.d.	
4 mm	+0.05	-0.08
6 to 8 mm	+0.05	-0.1

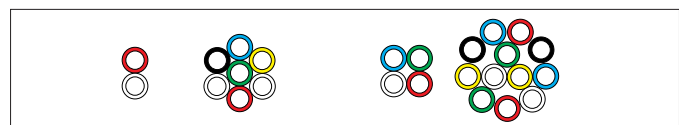
Connected to **Legris** instant fittings, the calibration of Legris nylon multitube ensures **optimum sealing**.

### 1050P-1010P semi-rigid nylon multi bundled tubing

o.d. PVC jacket (mm)	o.d. x i.d. semi-rigid nylon (mm)	R minimum bend radius at 70° F (mm)	number of tubes	 supplied in 50 meter rolls
11.2	4x2.7	20	2	1050P04 00M02
13.5	4x2.7	35	4	1050P04 00M04
16	4x2.7	45	7	1050P04 00M07
20.5	4x2.7	55	12	1050P04 00M12
16	6x4	45	2	1050P06 00M02
18.5	6x4	55	4	1050P06 00M04
22	6x4	60	7	1050P06 00M07
19.2	8x6	45	2	1050P08 00M02

o.d. PVC jacket (mm)	o.d. x i.d. semi-rigid nylon (mm)	R minimum bend radius at 70° F (mm)	number of tubes	 supplied in 10 meter rolls
13.5	4x2.7	35	4	1010P04 00M04
16	4x2.7	45	7	1010P04 00M07
18.5	6x4	55	4	1010P06 00M04
22	6x4	60	7	1010P06 00M07
19.2	8x6	45	2	1010P08 00M02

#### color choice



Please refer to section A for further details of Legris LF 3000 Multi-Connectors.

# air brake tubing — nylon



Legris offers a full range of **nylon air brake tubing Type A and Type B**. Connected to the air brake system, it is ideal for use in the transportation and instrumentation markets and pneumatic accessories.

Designed to replace rubber and metal tubing, our tubing can save as much as 75% in weight over metal tubing. It offers superior resistance to oil, grease, gasoline, fuel, salts, moisture and chemicals.

Legris air brake tubing meets performance requirements of SAE J844 and Federal Regulation DOT FMVSS 106.

O.D. tube	type	description
*1/8" to 5/16"	A	non-reinforced tubing
3/8" to 1/2"	B	reinforced tubing

\*1/8" does not comply with DOT FMVSS 106

## 1094P air brake nylon tubing

O.D. tube in	I.D. tube in	min. bend radius in	min. burst PSI	nylon tubing in 100ft rolls – packaged in tubepack®						oz/lb
				black	green	red	blue	yellow	orange	
1/8	.102	3/8	1000	1094P53 01DT						7.77
5/32	.124	1	1000	1094P04 01DT						10.68
3/16	.153	1	1000	1094P55 01DT						14.95
1/4	.210	1	1200	1094P56 01DT	1094P56 02DT	1094P56 03DT	1094P56 04DT	1094P56 05DT	1094P56 07DT	26.21
3/8	.313	1.5	1400	1094P60 01DT	1094P60 02DT	1094P60 03DT	1094P60 04DT	1094P60 05DT	1094P60 07DT	48.73
1/2	.438	2	950	1094P62 01DT	1094P62 02DT	1094P62 03DT	1094P62 04DT	1094P62 05DT	1094P62 07DT	71.84

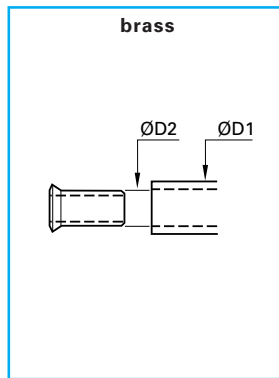
We recommend the use of the Legris air brake tubing with:

- Legris DOT push-to-connect fittings for vehicle applications. Refer to section F.
- Legris SAE push-to-connect fittings for vehicle applications. Refer to section F.



## accessories

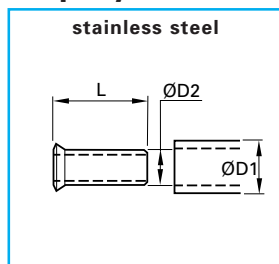
### 0127 tube support for plastic tube



ØD1 mm	ØD2 mm		kg			
4	2	0127 04 00	.001	12	8	0127 12 08 .002
4	2.7	0127 04 27	.001	12	9	0127 12 09 .002
5	3	0127 05 03	.001	12	10	0127 12 00 .002
5	3.3	0127 05 00	.001	14	11	0127 14 11 .003
6	4	0127 06 00	.001	14	12	0127 14 00 .003
8	5.5	0127 08 55	.001	15	12	0127 15 12 .003
8	6	0127 08 00	.001	16	13	0127 16 13 .003
10	7	0127 10 07	.002	18	14	0127 18 14 .004
10	7.5	0127 10 75	.002	20	15	0127 20 15 .004
10	8	0127 10 00	.002	22	16	0127 22 16 .005
				25	19	0127 25 19 .005

This tube support guarantees good gripping, at high temperatures and pressures, by preventing collapsing of the tube. For fractional inch tube support see page G8.

### 1827 tube support for fluoropolymer tubing

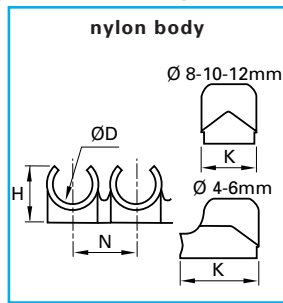


ØD1 mm	ØD2 mm		L in	kg
6	4	1827 06 00	11.5	.001
8	6	1827 08 00	14	.001
10	8	1827 10 00	18	.002
12	10	1827 12 00	18	.002
16	14	1827 16 00	18	.003

This tube support is necessary when using fluoropolymer tube at all temperatures compatible with the fitting/tube assembly.

# accessories

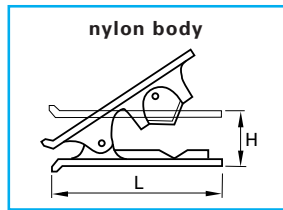
## Clip clip strips for tubing and fittings



ØD	ØLF3000 body size		H mm	K mm	N mm	Number of clips per strip	
5/32, 4mm		Clip 04 00	9	13.5	10.5	8	.008
1/4, 3/16, 6mm		Clip 06 00	10.5	13	10.5	8	.009
5/16, 8mm	5/32, 4mm	Clip 08 00	12.5	10.5	12	7	.009
3/8, 10mm	1/4, 6mm	Clip 10 00	14	12	15	6	.010
1/2, 12mm		Clip 12 00	16.5	14	16.5	5	.011
14mm	5/16, 8mm	Clip 14 00	18	16	20.5	4	.011

Legris clips can be used to mount both tubing and fittings. To order clips for tubing use the column "O.D. tube". To order clips for mounting a fitting order by the "O.D. body size". Clip strips are packaged in quantities of 5, but ordered by individual strip. They come complete with screws of 9.5mm length.

## 3000 71 00 tube cutter



	H in	L in	
3000 71 00	.98	3.11	1.09

This tool will cut all resilient plastic tube (e.g. nylon, teflon, polyurethane, braided PVC, soft rubber, etc.) from 1/8" to 1/2" and 4mm to 14mm diameter inclusive. It is designed to give a clean cut at right angles to the tube axis. A spring maintains the cutter in the closed position.

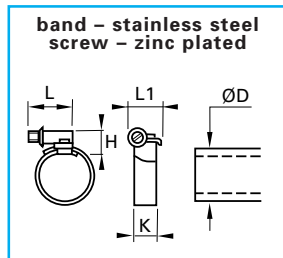
## 3000 71 11 tube cutter for tubing & push-on hose



3000 71 11	8.01

For hoses up to 1" (25mm)  
spare blade: 3000 71 11 05

## 0697 clip for PVC braided tube



ØD mm		H mm	K mm	L mm	L1 mm	
8	0697 00 01	7	5	12	7	.003
10	0697 00 02	12	9	21	13	.010
11	0697 00 02	12	9	21	13	.010
13	0697 00 02	12	9	21	13	.010
15	0697 00 03	12	9	24	13	.013
18	0697 00 03	12	9	24	13	.013
21	0697 00 04	12	9	24	13	.014
26	0697 00 05	12	9	24	13	.014

# nylon recoil






Legris nylon recoil tubing ensures that the coil will continue to contract after multiple use. Assembled with male connector 1/4" BSP taper fittings, it is ready for immediate use. Protection springs are fitted to prevent the ends of the tubing from becoming damaged.

### service pressure at variable temperatures

+5°F to 90°F 200 psi	+90°F to 120°F 160 psi	+120°F to 160°F 120 psi
-------------------------	---------------------------	----------------------------

## 1480P fractional inch tube with 1/4" NPT end fittings

O.D. tube in	I.D. tube in	 yellow	 orange	contracted length in.	working length feet	linear feet per coil	ØD of coil in.	
1/4	3/16	1480P56 05 14	1480P56 07 14	3	4	6	2-1/8	4.16
1/4	3/16	1481P56 05 14	1481P56 07 14	6	8	12	2-1/8	5.12
1/4	3/16	1482P56 05 14	1482P56 07 14	9	12	18	2-1/8	6.40
1/4	3/16	1483P56 05 14	1483P56 07 14	12	16	24	2-1/8	7.36
1/4	3/16	1484P56 05 14	1484P56 07 14	24	32	48	2-1/8	9.28







## materials of construction

- tubing: nylon
- fitting: nickel-plated brass
- tube insert: brass
- spring guard: zinc treated steel





O.D. of tube	tolerances on O.D.	
6 to 8mm	+0.05	-0.10

Technical characteristics of Legris nylon recoil tubing also depend on the type of connection used.





## 1470P metric tube with 1/4" BSPT end fittings

O.D. tube mm	I.D. tube mm	2m recoil tubing  service length		total closed length	ØD of coil	
6	4	 blue	 orange	120mm	60mm	.143
8	6	1470P06 04 13	1470P06 07 13	160mm	70mm	.174
		1470P08 04 13	1470P08 07 13			

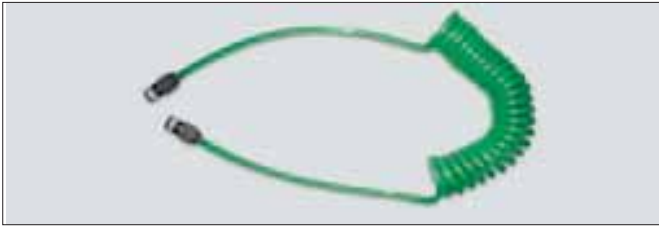
## 1471P metric tube with 1/4" BSPT end fittings

O.D. tube mm	I.D. tube mm	4m recoil tubing  service length		total closed length	ØD of coil	
6	4	 blue	 orange	240mm	60mm	.199
8	6	1471P06 04 13	1471P06 07 13	320mm	70mm	.249
		1471P08 04 13	1471P08 07 13			

## 1472P metric tube with 1/4" BSPT end fittings




O.D. tube mm	I.D. tube mm	6m recoil tubing  service length		total closed length	ØD of coil	
6	4	 blue	 orange	360mm	60mm	.260
8	6	1472P06 04 13	1472P06 07 13	480mm	70mm	.329
		1472P08 04 13	1472P08 07 13			

# polyurethane recoil



Legris polyurethane recoil tubing is perfectly suited for installations requiring flexibility within a reduced space, due to its small coil diameters. Straightened extremities and good resistance to shocks and abrasion enable safe and easy manipulation of pneumatic machinery.

## 1470U fractional inch tube with 1/4" NPT end fittings

O.D. tube in	I.D. tube in	 neon green	contracted length in.	working length ft.	ØD of coil in. 	assembly information	
1/4	3/16	1481U56 22 14	6	8	1-1/2	supplied with 1/4" male NPT swivel end fittings	3.50
1/4	3/16	1481U56 22	6	8	1-1/2	supplied without 1/4" male NPT swivel end fittings	3.00










**temperature:** up to 160°F  
**working pressure:** up to 145°F  
**tubing:** polyurethane  
**fitting:** nickel-plated brass  
**tube insert:** brass  
**spring guard:** zinc








O.D. of tube	tolerances on O.D.	
4 to 8mm	+0.10	-0.10
12mm	+0.15	-0.15

Technical characteristics of Legris polyurethane recoil tubing also depend on the type of connection used.







## 1470U metric tube with BSPT end fittings

O.D. tube mm	I.D. tube mm	Ø.D. BSPT thread	Polyurethane recoil tubing,  service length 2m long			total closed length 	length of long straight section in mm	length of short straight section in mm	ØD of coil 	
			 red	 blue	 yellow					
4	2.5	R1/8	1470U04 03 10	1470U04 04 10	1470U04 05 10	595mm	300	100	24mm	.060
6	4	R1/4	1470U06 03 13	1470U06 04 13	1470U06 05 13	630mm	300	100	32mm	.120
8	5	R1/4	1470U08 03 13	1470U08 04 13	1470U08 05 13	780mm	500	100	42mm	.160
10	7	R1/4	1470U10 03 13	1470U10 04 13	1470U10 05 13	780mm	500	100	62mm	.200
12	8	R3/8	1470U12 03 17	1470U12 04 17	1470U12 05 17	780mm	500	100	65mm	.220

## 1471U metric tube with BSPT end fittings

O.D. tube mm	I.D. tube mm	Ø.D. BSPT thread	Polyurethane recoil tubing,  service length 4m long			total closed length 	length of long straight section in mm	length of short straight section in mm	ØD of coil 	
			 red	 blue	 yellow					
4	2.5	R1/8	1471U04 03 10	1471U04 04 10	1471U04 05 10	785mm	300	100	24mm	.100
6	4	R1/4	1471U06 03 13	1471U06 04 13	1471U06 05 13	850mm	300	100	32mm	.160
8	5	R1/4	1471U08 03 13	1471U08 04 13	1471U08 05 13	1000mm	500	100	42mm	.200
10	7	R1/4	1471U10 03 13	1471U10 04 13	1471U10 05 13	1000mm	500	100	62mm	.230
12	8	R3/8	1471U12 03 17	1471U12 04 17	1471U12 05 17	990mm	500	100	65mm	.260

## 1472U metric tube with BSPT end fittings

O.D. tube mm	I.D. tube mm	Ø.D. BSPT thread	Polyurethane recoil tubing,  service length 6m long			total closed length 	length of long straight section in mm	length of short straight section in mm	ØD of coil 	
			 red	 blue	 yellow					
8	5	R1/4	1472U08 03 13	1472U08 04 13	1472U08 05 13	1230mm	500	100	42mm	.280
10	7	R1/4	1472U10 03 13	1472U10 04 13	1472U10 05 13	1140mm	500	100	62mm	.300
12	8	R3/8	1472U12 03 17	1472U12 04 17	1472U12 05 17	1190mm	500	100	65mm	.310

# braided PVC hose



Technical characteristics of Legris braided PVC hose also depend on the type of connection used.

## pressure and temperature resistance of Legris braided PVC hose

In the adjacent graph, each curve represents the acceptable maximum pressure at a given temperature, by diameter.

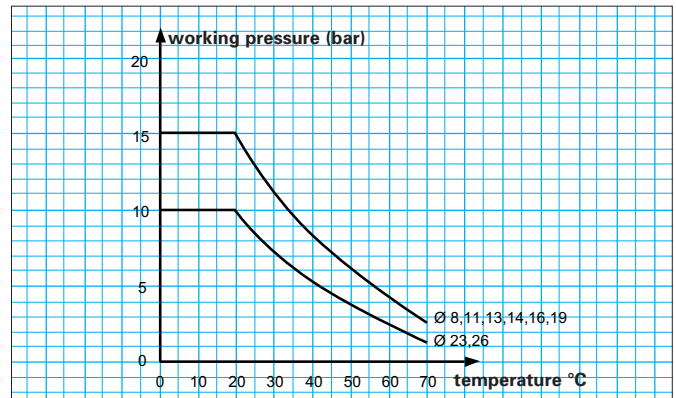
example: braided PVC hose, O.D. 13 , at 20°C

maximum pressure = 15 bar

Translucent Legris braided PVC hose comprises a polyester fiber mesh sandwiched between two layers of polymer. It has a wide variety of applications. It is food quality and is suitable for use with milk, beer, water, wine, etc.



It is translucent which allows a visual check on fluid flow, cleanliness inside the tube, airlocks etc.

Braided PVC hose can be used with barbed adapters, see page H16.



To calculate burst pressure, the values in the above graph should be multiplied x 3

## 1025V-1050V braided PVC hose, 25m and 50m rolls

I.D. tube mm	O.D. tube mm	R minimum bend radius for tube at 20° C (in mm)	Braided PVC hose in 25m rolls		Braided PVC hose in 50m rolls	
			kg	kg	kg	kg
4	8	10				
6	11	12				
7	13	14				
8	14	16				
10	16	25				
12	18	30				
15	23	40				
19	26	60				
			 clear		 clear	
			1025V08 00 04	1.260	1050V08 00 04	2.500
			1025V11 00 06	2.100	1050V11 00 06	4.200
			1025V13 00 07	2.820	1050V13 00 07	5.600
			1025V14 00 08	3.065	1050V14 00 08	6.000
			1025V16 00 10	3.200	1050V16 00 10	6.400
			1025V18 00 12	4.120	1050V18 00 12	8.250
			1025V23 00 15	6.300	1050V23 00 15	12.600
			1025V26 00 19	7.800	1050V26 00 19	15.600

We recommend the use of hose clip 0697 (page M17) when PVC braided hose is connected to a barbed fitting.

### advantages of Legris braided PVC hose

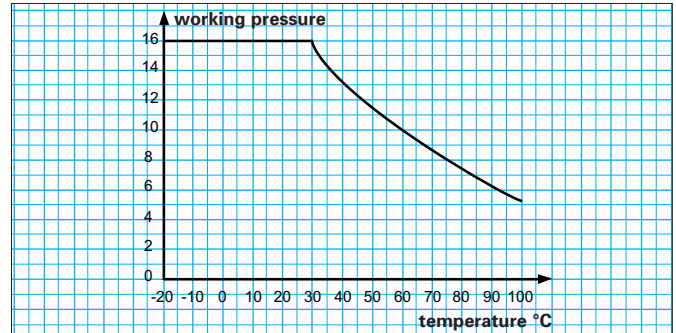
- food quality
- translucent for visual checking of fluid flow
- flexibility
- good aging
- numerous applications

# push-on hose



Legris push-on hose is constructed with NBR nitrile rubber reinforced with a textile braid on both inner and outer layers. It is designed for automobile process equipment (CNOMO E07.21115N) both for cooling circuits and for many general pneumatic installations. Used with Legris **quick barbed fittings**, (see page G29) this new range of hose provides both reliability of push-on technology and simplicity of installation.

## temperature and pressure resistance of Legris push-on hose



use with water: maximum temperature: 100°C  
use with air: maximum temperature: 70°C

For correct connection, push the tube firmly against the shoulder of the fitting. Dismantling should be done by cutting the tube with a knife on the barbed side of the fitting.

## technical conditions of use

### • installation / dismantling

Assembly is simple and easy and no collar, no additive (grease, oil...etc) nor preparation time is required.

## 1040H push-on hose

I.D. hose	O.D. hose mm	R min. bend radius at 20°C (mm)	Max. working pressure in bar at 20°C	burst pressure in bar at 20°C
1/4, 6.3mm	13	60	16	60
3/8, 9.5mm	16	70	16	60
1/2, 12.7mm	19	120	16	60
5/8, 15.9mm	23	140	16	60
3/4, 19.1mm	27	170	16	60

push-on hose, in 40m (131.23ft) rolls			
black	green	red	blue
1040H56 01	1040H56 02	1040H56 03	1040H56 04
1040H60 01	1040H60 02	1040H60 03	1040H60 04
1040H62 01	1040H62 02	1040H62 03	1040H62 04
1040H66 01	1040H66 02	1040H66 03	1040H66 04
1040H69 01	1040H69 02	1040H69 03	1040H69 04

## 1080H push-on hose

I.D. hose	O.D. hose mm	R min. bend radius at 20°C (mm)	Max. working pressure in bar at 20°C	burst pressure in bar at 20°C
5/8, 15.9mm	23	140	16	60
3/4, 19.1mm	27	170	16	60

push-on hose, in 80m ( 262.47ft) rolls			
black	green	red	blue
1080H66 01	1080H66 02	1080H66 03	1080H66 04
1080H69 01	1080H69 02	1080H69 03	1080H69 04

## 1100H push-on hose

I.D. hose	O.D. hose mm	R min. bend radius at 20°C (mm)	Max. working pressure in bar at 20°C	burst pressure in bar at 20°C
1/4, 6.3mm	13	60	16	60
3/8, 9.5mm	16	70	16	60
1/2, 12.7mm	19	120	16	60

push-on hose, in 100m (328.08ft) rolls			
black	green	red	blue
1100H56 01	1100H56 02	1100H56 03	1100H56 04
1100H60 01	1100H60 02	1100H60 03	1100H60 04
1100H62 01	1100H62 02	1100H62 03	1100H62 04

### main advantages of Legris push-on hose

- reliable technology, easy installation
- ozone resistant:
  - external resistance conforms to NFT 46019
  - internal resistance conforms to NFT 47252

- guaranteed silicone free
- excellent resistance to hydrocarbons, UV, welding sparks and abrasion
- available in 4 standard colors
- packed on drums for easy handling

# tubing

## application table for Legris nylon tubing

1 recommended    2 satisfactory    3 inappropriate

at 70°F		at 70°F	
Acetaldehyde	1	Kerosene	1
Acetone	1	Methane	1
Acetylene	1	Methyl Acetate	1
Benzene	1	Methyl Alcohol (pure)	1
Bleach	2	Methyl Bromide	1
Bromine	3	Methyl Chloride	1
Butane	1	Methyl Ethyl Ketone	1
Butyl Acetate	1	Methyl Isobutyl Ketone	1
Butylic Alcohol	1	Oxygen	1
Calcium Chloride	1	Ozone	2
Carbon Tetrachloride	3	Perchlorate Ethylene	2
Chloride	3	Phenols	3
Chromic Acid 10%	3	Phosphoric Acid 50%	1
Citric Acid	1	Potash 50%	1
Concentrated Ammonia	1	Potassium Nitrate	1
Copper Sulfate	1	Potassium Sulphate	1
Cutting Oils	1	Propane	1
Cyclohexane	1	Soda 50%	1
Cyclohexanone	1	Sodium Carbonate	1
Diesel Oil	1	Sodium Chloride	1
Ethyl Acetate	1	Sulphuric Acid 10%	1
Ethyl Alcohol (pure)	1	Sulphurous Anhydride	2
Ethyleneoxide	1	Supergrade Petrol	1
Freon 12-22	1	Toluene	1
Formalin	1	Tributylphosphate	1
Gaseous Ammonia	1	Trichlorethane	1
Glucose	1	Trichlorethylene	2
Hydrochloric Acid 10%	1	Water	1
Hydrogen	1	Xylem	1
Hydrogen Peroxide	1	Zinc Chloride	1

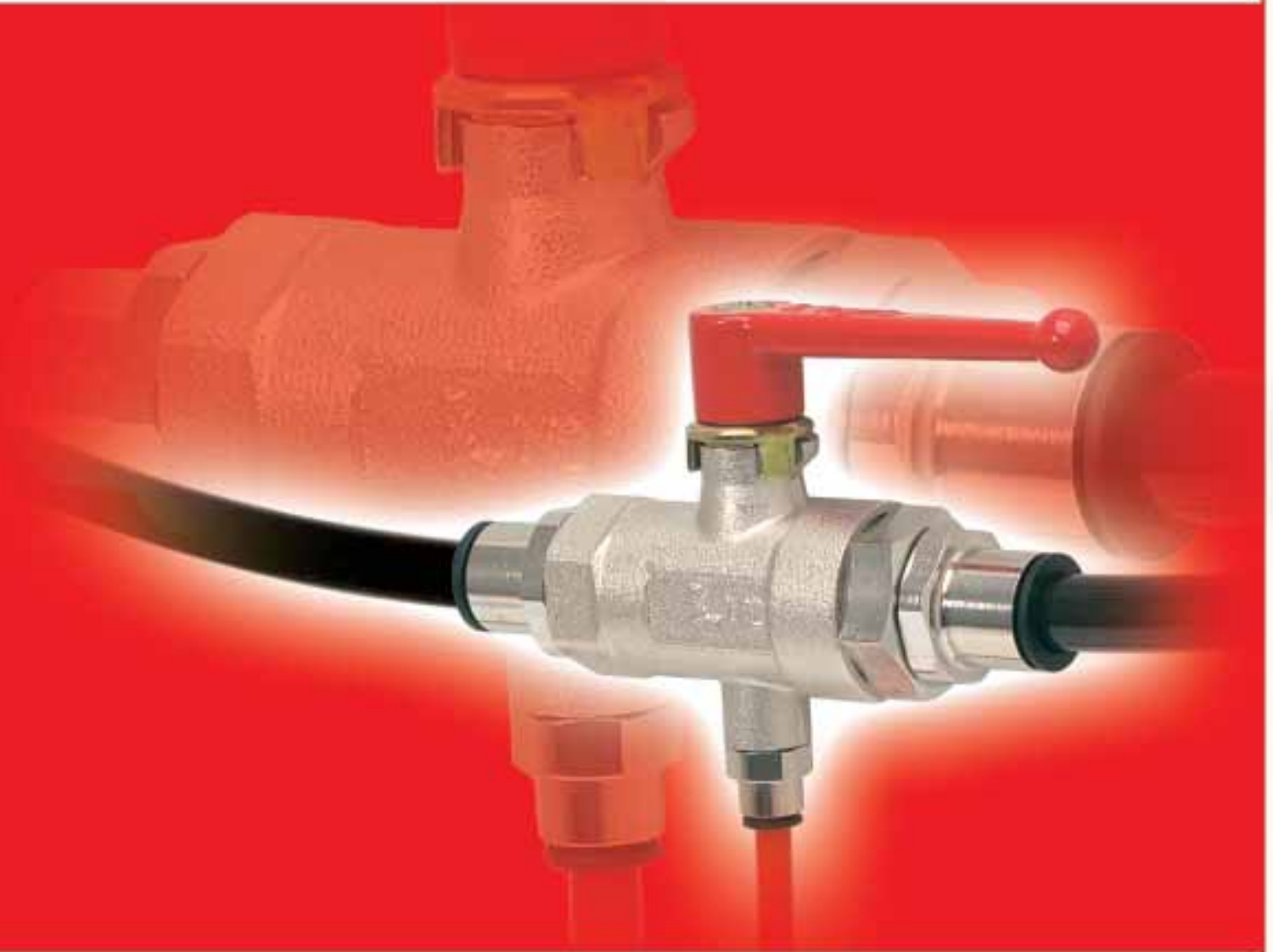
# tubing

## application table for Legris polyurethane tubing

1 recommended    2 satisfactory    3 inappropriate

	Crystal tubing Polyether base at 70°F	Other colors Polyester base at 70°F
Acetic Acid	3	1
Acetone	1	3
Ammonia	1	1
Ammonium Chloride 10%	1	1
ASTM – Fuel oil A	1	1
ASTM – Fuel oil B	1	2
ASTM – Fuel oil C	1	2
ASTM – Oil 1	1	1
ASTM – Oil 2	1	1
ASTM – Oil 3	1	1
Benzene	3	3
Butane	1	1
Butyl Acetate	2	3
Butyl Alcohol	2	2
Carbon Tetrachloride	2	3
Caustic Soda	2	1
Chloroform	3	3
Chromic Acid 3n	3	3
Cyclohexanone	3	3
Diesel Oil	1	1
Distilled Water	1	2
Ethanol	2	2
Ethyl Acetate	2	2
Freon 12-22	2	2
Glycol Without H2O	1	1
Hexachloride	1	2
Hydrochloric Acid 3n	3	1
Hydrogen Peroxide 3%	1	1
Kerosene	1	1
Magnesium Chloride 10% and 30%	2	1
Methane	1	1
Methanol	3	1
Methyl Acetate	2	2
Methyl Ethyl Ketone	3	3
Methyl Glycol	3	3
Nitric Acid 3n	3	3
Ozone	1	1
Paraffin Oil	1	1
Perchlorate Ethylene	2	2
Phosphoric Acid 3n	3	2
Potassium Chloride 10% and 40%	2	1
Potassium Manganate 5%	2	3
Propane	1	1
Sea Water	2	1
Sodium Chloride	2	1
Sulphuric Acid 3n maxi 10%	3	1
Sulphuric Acid 13 PH	3	2
Tetrachloroethylene	3	3
Toluene	2	2
Trichlorethylene	3	3
Xylem	2	2

# ball valves

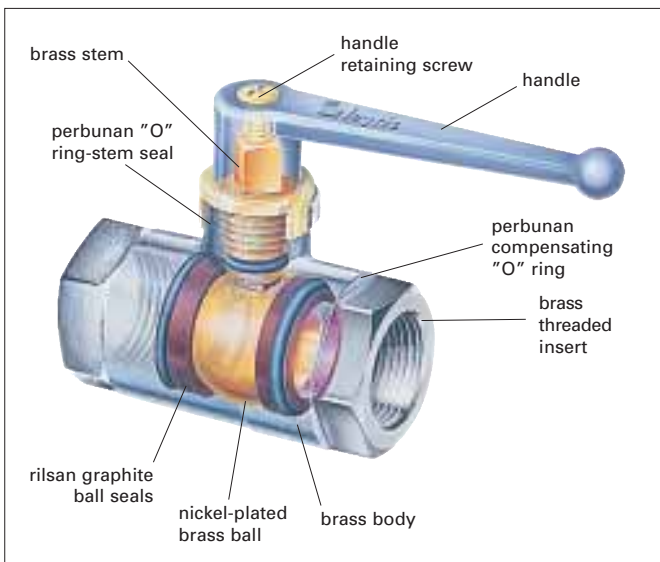


# principle of industrial ball valves

## standard range



## technical specifications



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.

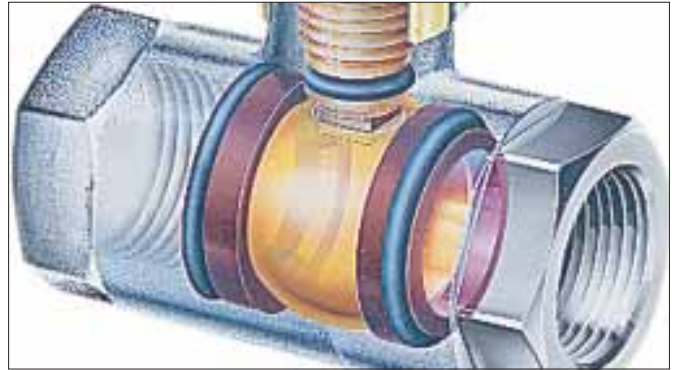
In order to meet industry's requirements, Legris offers three other series of ball valves in addition to its standard range:

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

<b>working fluids</b>	see application table on pages R20 to R23					
<b>working pressure</b>	290 to 580 psi according to the model					
<b>working temperature</b>	-4° to 175°F					
<b>materials of construction</b>	body: sand blasted nickel-plated brass ball: polished brass stem: brass retaining nut: brass ball seal: graphite impregnated rilsan stem seal: nitrile compensating "O" rings: nitrile					
<b>maximum tightening torque of ball valves, standard range</b>	thread	G1/8	G1/4	G3/8	G1/2	G3/4
	in. lb	.90 to 1.75	.90 to 1.75	1.30 to 2.20	1.75 to 3.10	4.40 to 6.20
	thread	G1"	G1"1/4	G1"1/2	G2"	
	in lb.	4.40 to 6.20	3.50 to 5.30	7 to 10.6	7 to 10.6	

# 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 50mm
- 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

# ball valves



# the complete range of ball valves



## general purpose ball valves

**4982**  
Page R6



**0492**  
Page R6



**0491**  
Page R6



**0490**  
Page R6



**4962**  
Page R7



**4902**  
Page R7



## vented ball valves

**0489**  
Page R9



**0449**  
Page R9



**0469**  
Page R9



**7913**  
page R15



**7915/7914**  
Page R15



**7910/7911**  
Page A41



## lockable ball valves

**0432**  
Page R10



**0438**  
Page R10



**0499**  
Page R11



**0439**  
Page R11



**0437**  
Page R11



## stainless steel ball valves

**4832**  
Page R12



**0465**  
Page R12



**4813**  
Page R13



**4810**  
Page R13



**4895/4890**  
Page R14



**4891/4892**  
Page R14



## universal series

**0402**  
Page R17



**0446**  
Page R17



**0401**  
Page R17



**0400**  
Page R17



**0472**  
Page R18



**0462**  
Page R18



**0471**  
Page R18



**0461**  
Page R18



**0482**  
Page R19



**0448**  
Page R19



**0452**  
Page R19



**0483**  
Page R19



**6402**  
Page R20



**6401**  
Page R20



**0411**  
Page R20



**0414**  
Page R20



**4602**  
Page R21



**0497**  
Page R21



**0496**  
Page R21



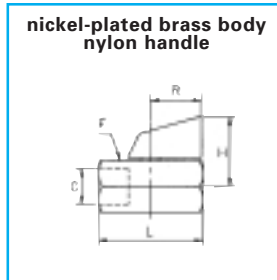
# economy ball valve

This economy ball valve is designed for use where there is a requirement for medium pressure. For industrial fluids – air, water and oil.

## technical specifications

- working pressure: 150 psi
- working temperature: to 200°F
- materials of construction:
  - body: nickel-plated brass
  - ball: brass UNI 5705-65
  - stem: brass UNI 5705-65
  - handle: nylon +15% glass filled
  - seal/stem seals: PTFE

## 4982 double female — NPT thread



nickel-plated brass body  
nylon handle

C NPT	orifice		L in	R in	H in	F in	oz
1/8	.31	<a href="#">4982 58 11</a>	1.61	.81	1.14	.83	3.50
1/4	.31	<a href="#">4982 58 14</a>	1.61	.81	1.14	.83	3.85
3/8	.31	<a href="#">4982 58 18</a>	1.61	.81	1.14	.83	3.50
1/2	.39	<a href="#">4982 60 22</a>	1.81	.81	1.22	.98	4.90

Silicon free

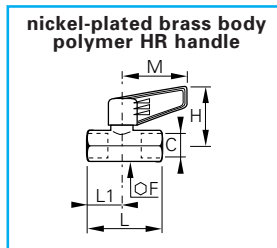
# light series ball valves

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

## technical specifications

- maximum working pressure: 175 psi
- maximum temperature: 175°F

## 0492 double female — BSPP thread

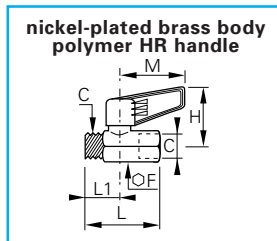


nickel-plated brass body  
polymer HR handle

C BSPP	DN		E mm	F mm	H mm	L mm	L1 mm	M mm	kg
G1/4	4	<a href="#">0492 04 13</a>	9	17	34	39.5	17	35	.07
G1/4	4	<a href="#">0492 04 13 64*</a>	9	17	36	39.5	17	25	.07
G3/8	7	<a href="#">0492 07 17</a>	11	22	38	45	20	43	.12
G1/2	10	<a href="#">0492 10 21</a>	12	24	44	54	25	50	.16
G3/4	13	<a href="#">0492 13 27</a>	14	30	46	62	28	50	.24

\* Zamac short handle

## 0491 male and female — BSPP thread

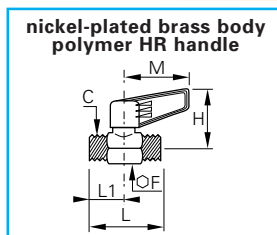


nickel-plated brass body  
polymer HR handle

C BSPP	DN		E mm	E1 mm	F mm	H mm	L mm	L1 mm	M mm	kg
G1/4	4	<a href="#">0491 04 13</a>	9	7	17	34	39.5	17	35	.07
G1/4	4	<a href="#">0491 04 13 64*</a>	9	7	17	36	39.5	17	25	.07
G3/8	7	<a href="#">0491 07 17</a>	11	8	22	38	45	20	43	.12
G1/2	10	<a href="#">0491 10 21</a>	12	10	24	44	53	24	50	.15
G3/4	13	<a href="#">0491 13 27</a>	14	12	30	46	59	25	50	.23

\* Zamac short handle

## 0490 double male — BSPP thread



nickel-plated brass body  
polymer HR handle

C BSPP	DN		E mm	F mm	H mm	L mm	L1 mm	M mm	kg
G1/4	4	<a href="#">0490 04 13</a>	9	17	34	39	17	35	.07
G3/8	7	<a href="#">0490 07 17</a>	11	22	38	44	20	43	.11
G1/2	10	<a href="#">0490 10 21</a>	12	24	44	53	24	50	.15
G3/4	13	<a href="#">0490 13 27</a>	14	30	46	59	25	50	.22

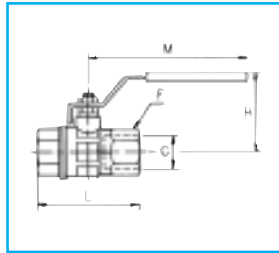
# in-line economy ball valve

These valves are 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 pressure: 600 psi
- working temperature: to 320°F
- materials of construction:
  - body: brass UNI 5705-65
  - ball: brass UNI 5705-65
  - stem: brass UNI 5705-65
  - handle: plated steel
  - seal/stem seals: PTFE

## 4962 double female — NPT thread

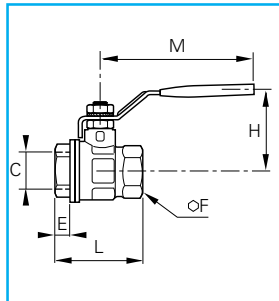


C NPT	orifice		L in	M in	H in	F in	oz
1/4	.39	<a href="#">4962 60 14</a>	1.98	3.86	1.69	.79	4.94
3/8	.39	<a href="#">4962 60 18</a>	1.98	3.86	1.69	.79	5.30
1/2	.59	<a href="#">4962 65 22</a>	2.36	3.86	1.81	1.98	6.71
3/4	.79	<a href="#">4962 70 28</a>	2.66	4.80	2.13	1.22	12.0
1	.98	<a href="#">4962 75 35</a>	3.15	4.80	2.32	1.50	18.71
1-1/4	1.26	<a href="#">4962 82 43</a>	3.64	6.02	3.03	1.89	34.59
1-1/2	1.57	<a href="#">4962 90 50</a>	4.17	6.02	3.27	2.13	51.19
2	1.97	<a href="#">4962 01 44</a>	4.90	6.69	3.54	2.64	67.78

## technical specifications

- working temperature: -4° to 300°F
- materials of construction:
  - 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 — BSPP thread



C BSPP	DN	PN		E mm	F mm	H mm	L mm	M mm	kg
G1/4	10	30	<a href="#">4902 10 13</a>	11	20	43	51.5	98	.140
G3/8	10	30	<a href="#">4902 10 17</a>	11.4	20	43	51.5	98	.130
G1/2	15	30	<a href="#">4902 15 21</a>	13.5	25	47	55	98	.200
G3/4	20	30	<a href="#">4902 20 27</a>	12.5	31	58	57.5	122	.320
G1"	25	30	<a href="#">4902 25 34</a>	15	38	60	69.5	122	.490
G1"1/4	32	25	<a href="#">4902 32 42</a>	17	48	77	81.5	153	.900
G1"1/2	40	25	<a href="#">4902 40 49</a>	18	54	83	95	153	1.350
G2"	50	25	<a href="#">4902 50 48</a>	22	66	95	113	162	1.800

### 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

**4962 60 18**

type of ball valve

diameter of passage

thread code

# vented ball valve with threaded exhaust

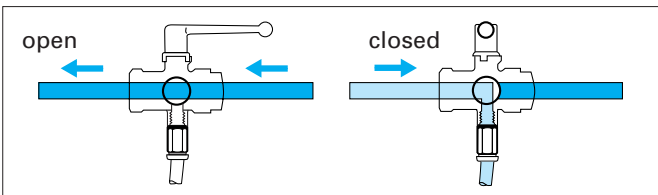


In certain situations, there is a requirement for stopping fluid circulation and venting the circuit. Therefore Legris offers 2 types of in-line vented ball valves:

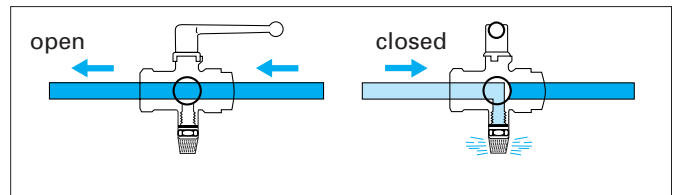
- **with threaded exhaust**, to allow discharge of downstream medium.
- **with pin-hole vent**, for applications with no special discharge requirement.

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

with threaded exhaust = collection of purged media

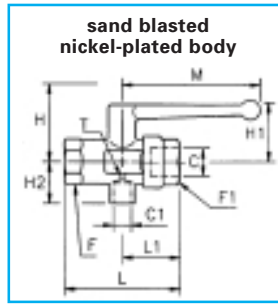


with silencer noiseless discharge to atmosphere



# vented ball valve with threaded exhaust

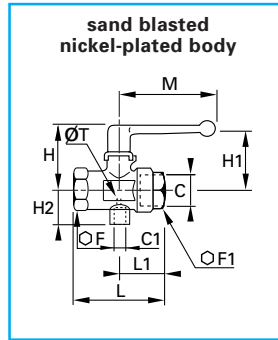
## 0489 double female vented ball valve — NPT thread



C	NPT orifice	C1	F	F1	H	H1	H2	L	L1	M	T	$\Delta$ kg	
1/4	.27	0489 07 14	10-32	.94	.94	1.79	1.68	.66	2.30	1.21	2.69	.08	9.50
3/8	.89	0489 10 18	10-32	.94	.94	1.79	1.68	.66	2.30	1.21	2.69	.08	10.38
1/2	.51	0489 13 22	1/8	1.05	1.05	1.83	1.72	.94	2.61	1.33	2.69	.08	11.01
3/4	.70	0489 18 28	1/4	1.25	1.48	2.46	2.11	1.29	3.12	1.52	4.21	.10	26.62
1"	.90	0489 23 35	1/4	1.60	1.79	2.61	2.22	1.44	3.67	1.83	4.21	.12	38.41

maximum working pressure: 580 psi

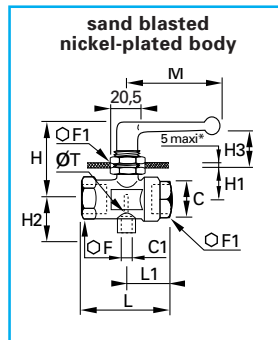
## 0489 double female vented ball valve — BSPP thread



C	BSPP	C1	F	F1	H	H1	H2	L	L1	M	T	$\Delta$ kg	
G1/4	7	0489 07 13	M5x0.8	24	24	46	43	17	59	31	69	2	.27
G3/8	10	0489 10 17	M5x0.8	24	24	46	43	17	59	31	69	2	.29
G1/2	13	0489 13 21	G1/8	27	27	47	44	24	67	34	69	2	.31
G3/4	18	0489 18 27	G1/4	32	38	63	54	33	80	39	108	2.5	.75
G1"	23	0489 23 34	G1/4	41	46	67	57	37	94	47	108	3	1.09

maximum working pressure: 580 psi

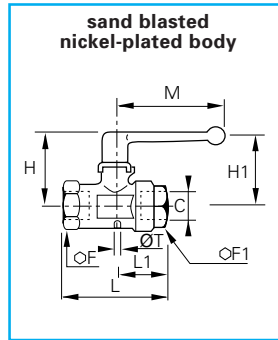
## 0449 double female ball valve, panel mountable — BSPP thread



C	BSPP	C1	F	F1	H	H1	H2	F	L	L1	M	T	$\Delta$ kg	
G1/4	7	0449 07 13	M5x0.8	24	27	50	20	17	21	59	31	69	2.5	.32
G3/8	10	0449 10 17	M5x0.8	24	27	50	20	17	21	59	31	69	2.5	.30
G1/2	13	0449 13 21	G1/8	27	27	52	23	24	21	67	34	69	4	.35

maximum working pressure: 290 psi

## 0469 double female vented ball valve — BSPP thread



C	BSPP	F	F1	H	H1	L	L1	M	T	$\Delta$ kg	
G1/8	4	0469 04 10	-	14	35	29	44	25	48	1.5	.10
G1/4	7	0469 07 13	24	24	46	43	59	31	70	2	.26
G3/8	10	0469 10 17	24	24	46	43	59	31	70	2	.25
G1/2	13	0469 13 21	27	27	47	44	67	34	70	2	.29
G3/4	18	0469 18 27	32	38	63	54	80	39	108	2.5	.70
G1"	23	0469 23 34	41	46	67	57	94	47	108	3	1.02

maximum working pressure: 580 psi

# lockable ball valves



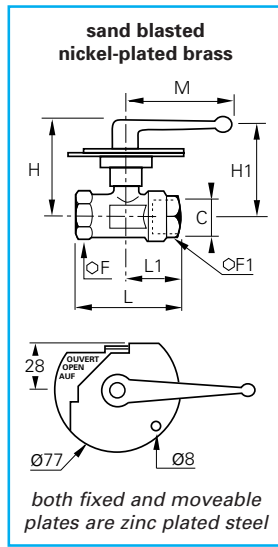
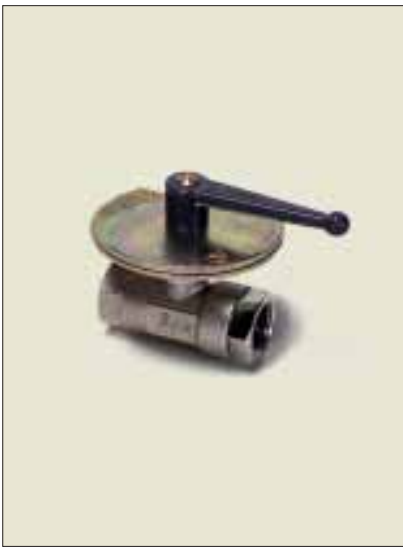
**Legris lockable ball valves** have been developed in order to prevent potentially dangerous consequences caused by unintended operation. Lockable in different positions, this range meets international safety requirements, such as ISO 4414.

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.

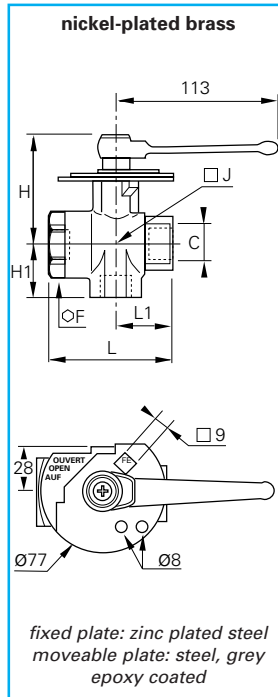
## 0432 in-line double female — BSPP thread



C	DN	E	F	F1	H	H1	L	L1	M	kg	
BSPP		mm	mm	mm	mm	mm	mm	mm	mm		
G1/8	4	0432 04 10	8	19	19	59	54	51	27	69	.41
G1/4	7	0432 07 13	12	19	19	59	54	59	28	69	.40
G3/8	10	0432 10 17	12	24	24	60	55	59	31	69	.46
G1/2	13	0432 13 21	15	27	27	62	57	67	34	69	.52
G3/4	20	0432 20 27	16.5	32	38	66	56	80	39	108	.85
G1"	23	0432 23 34	19	41	46	70	59	94	47	108	1.17

maximum service pressure: 580 psi  
handle is non-removable

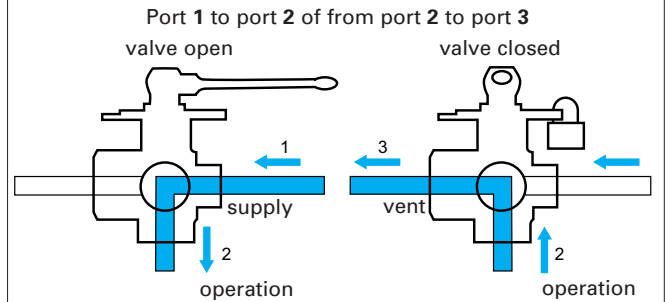
## 0438 female 3 way lockable ball valve sand blasted nickel-plated body — BSPP thread



C	DN	E	F	H	H1	J	L	L1	kg	
BSPP		mm	mm	mm	mm	mm	mm	mm		
G3/8	9	0438 09 17	12	38	76	34	39	73	35	.91
G1/2	12	0438 12 21	15	38	76	37	39	78	38	.90
G3/4	18	0438 18 27	16.5	38	76	40	39	80	40	.85
G1"	23	0438 23 34	19	46	80	47	48	94	47	1.27

maximum working pressure: 290 psi

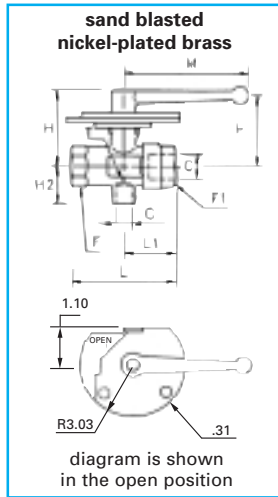
These valves are lockable in the closed position only.  
Right angle ported ball allows flow:



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

# lockable ball valves

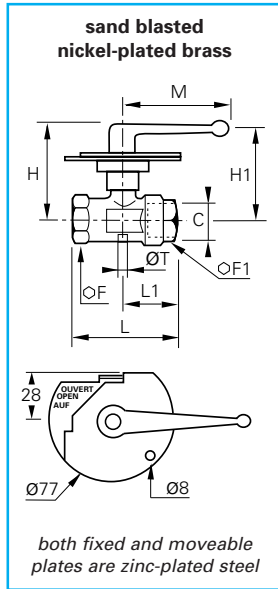
## 0499 double female lockable vented ball valve – NPT thread



C NPT orifice	C1	F	F1	H	H1	H2	L	L1	M	T	kg		
	in	in	in	in	in	in	in	in	in	in			
1/4	.27	0499 07 14	10-32	.94	.94	1.79	1.68	.66	2.30	1.21	2.69	.08	9.83
3/8	.39	0499 10 18	10-32	.94	.94	1.79	1.68	.66	2.30	1.21	2.69	.08	11.71
1/2	.51	0499 13 22	1/8	1.05	1.05	1.83	1.72	.94	2.61	1.33	2.69	.08	11.39
3/4	.70	0499 18 28	1/4	1.25	1.25	2.46	2.11	1.29	3.12	1.52	4.21	.10	26.95
1"	.90	0499 23 35	1/4	1.60	1.60	2.61	2.22	1.44	3.67	1.83	4.21	.12	38.74

These ball valves are OSHA approved.

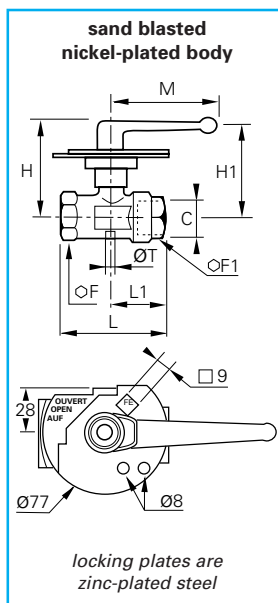
## 0439 double female with vent – BSPP thread



C BSPP	DN	E	F	F1	H	H1	L	L1	M	T	kg	
		mm	mm	mm	mm	mm	mm	mm	mm	mm		
G1/8	4	0439 04 10	8	19	19	59	54	51	27	69	2	.42
G1/4	7	0439 07 13	12	24	24	60	55	59	31	69	2	.48
G3/8	10	0439 10 17	12	24	24	60	55	59	31	69	2	.46
G1/2	13	0439 13 21	15	27	27	62	57	67	34	69	2	.51
G3/4	18	0439 18 27	16.5	32	38	66	56	80	39	108	2.5	.83
G1"	23	0439 23 34	19	41	46	70	59	94	47	108	3	1.17

maximum service pressure: 580 psi  
handle is non-removable

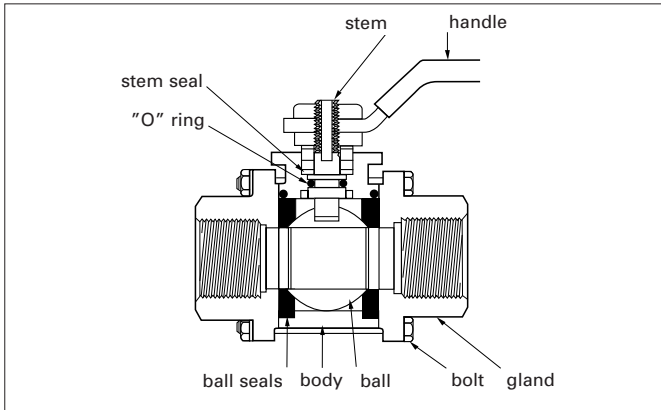
## 0437 in-line double female vented lockable ball valve – BSPP thread



C BSPP	DN	E	F	F1	H	L	L1	M	T	kg	
		mm	mm	mm	mm	mm	mm	mm	mm		
G1/4	7	0437 07 13	12	24	24	60	59	32	69.5	2	.40
G3/8	10	0437 10 17	12	24	24	60	60	32	69.5	2	.46
G1/2	13	0437 13 21	15	27	27	60	67.5	34.5	69.5	2	.52
G3/4	18	0437 18 27	16.5	32	38	69.5	80	39.5	108.5	2.5	.85
G1"	23	0437 23 34	19	41	46	73	94.5	47.5	108.5	3	1.17

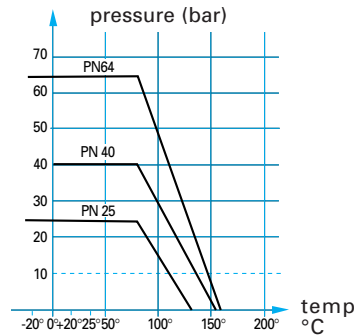
maximum working pressure: 580 psi  
handle is non-removable

# 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 laterally, to facilitate maintenance. They are suitable for higher pressure and temperature applications.

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

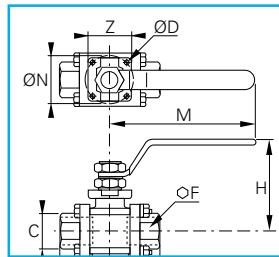


example: at 100°C  
 PN 64 becomes 48 bar  
 PN 40 becomes 30 bar  
 PN 42 becomes 17 bar  
 For temperatures between 150°C and 200°C, please consult us.

### materials of construction:

- 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

## 4832 3 piece double female with lateral dismantling — BSPP thread



C	BSPP	DN	PN bar	E mm	F mm	H mm	L mm	M mm	kg
G1/4	10	4832 10 13	64	13	22	50	57	110	.43
G3/8	10	4832 10 17	64	15	22	50	57	110	.40
G1/2	15	4832 15 21	64	15	27	65	65	130	.37
G3/4	20	4832 20 27	40	16.3	32	70	77	130	.56
G1"	25	4832 25 34	40	19.1	41	79	92	170	1.04
G1"1/4	32	4832 32 42	25	21.4	50	83	106	170	1.47
G1"1/2	40	4832 40 49	25	21.4	55	100	115	250	2.00
G2"	50	4832 50 48	25	25.7	70	107	136	250	3.14

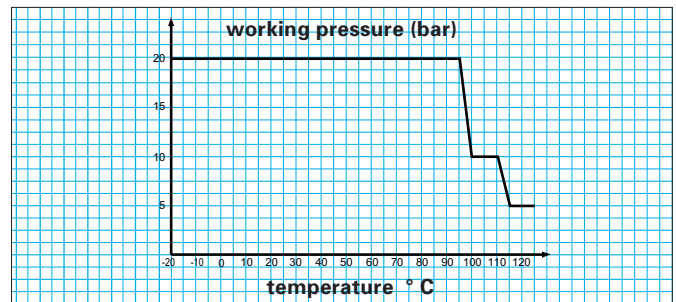
# compact stainless steel ball valves

Designed for use with many aggressive and corrosive fluids at pressures not exceeding 290 psi.

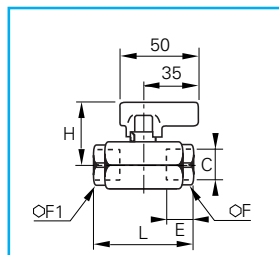
### materials of construction:

- body, ball, ports, stem: stainless steel 18/10
- 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 — BSPP thread



C	BSPP	DN	E mm	F mm	F1 mm	H mm	L mm	kg
G1/4	4	0465 04 13	13	19	24	36	50	.22
G3/8	7	0465 07 17	13	24	27	39	55	.28
G1/2	10	0465 10 21	16	27	30	40	62	.32

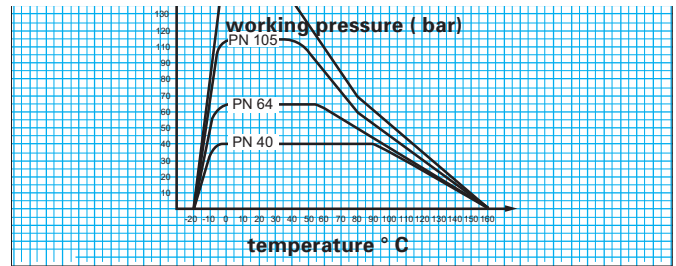
# stainless steel series ball valves

**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.

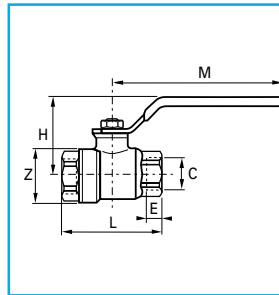
• **materials of construction:**

- 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: viton

**pressure and temperature resistance of stainless steel series valves 4813 and 4810**

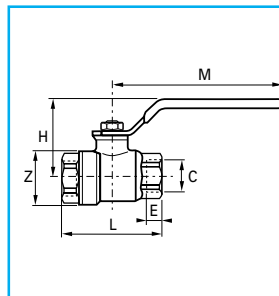


## 4813 double female — NPT thread



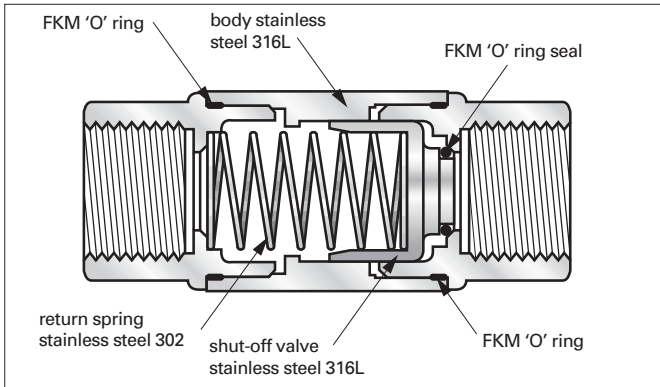
C	DN	PN	E	H	L	M	kg
NPT		bar	in	in	in	in	oz
1/4	.31	4813 08 14	64	.39	1.75	2.11	4.35 7.76
3/8	.39	4813 10 18	64	.39	1.75	2.11	4.35 7.05
1/2	.59	4813 15 22	64	.51	1.85	2.36	4.35 8.82
3/4	.79	4813 20 28	40	.55	2.15	2.76	5.18 15.87
1"	.98	4813 25 35	40	.67	2.30	3.11	5.18 29.98

## 4810 double female — BSPP thread



C	DN	PN	E	H	L	M	kg
BSPP		bar	mm	mm	mm	mm	
G1/4	8	4810 08 13	64	10	44.5	53.5	110.5 .22
G3/8	10	4810 10 17	64	10	44.5	53.5	110.5 .20
G1/2	15	4810 15 21	64	13	47	60	110.5 .25
G3/4	20	4810 20 27	40	14	54.5	70	131.5 .45
G1"	25	4810 25 34	40	17	58.5	79	131.5 .85

# check valves – stainless steel



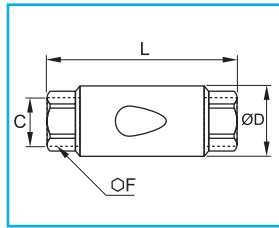
**Operation** : a stainless steel valve blocks the fluid passage, when the pressure differential is lower than 3.6 psi. Connection is by use of an allen key, upstream of the circuit.

<b>working pressure</b>	7 to 580 psi
<b>working temperature</b>	-4° to +360°F

model	water flow at 90 psi	Kv
1/8	.67 scfm	1.60
1/4	.70 scfm	1.69
3/8	1.26 scfm	3.01
1/2	1.29 scfm	3.10
3/4	2.33 scfm	5.59
1"	3.27 scfm	7.86

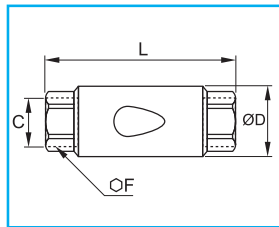
On request, we can provide you with male/female models with NPT threads and other types of seals (nitrile, EPDM, FDA).

## 4895 unidirectional, double-female – NPT



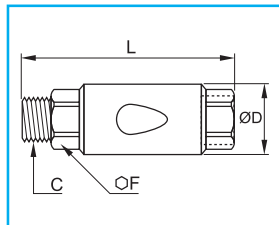
C NPT	DN		ØD mm	F mm	L mm	kg
1/8	10	4895 11 11	22	18	50	0.084
1/4	10	4895 14 14	22	18	54	0.080
3/8	15	4895 18 18	30	22	73	0.198
1/2	15	4895 22 22	30	25	77	0.213

## 4890 unidirectional, double-female – BSPP



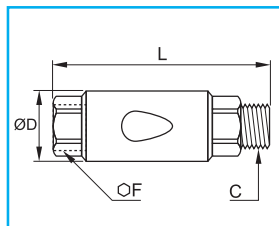
C BSPP	DN		ØD mm	F mm	L mm	kg
G1/8	10	4890 10 10	22	17	50	0.084
G1/4	10	4890 13 13	22	17	50	0.074
G3/8	15	4890 17 17	30	22	67	0.182
G1/2	15	4890 21 21	30	25	71	0.196
G3/4	20	4890 27 27	42	32	84	0.288
G1"	25	4890 34 34	42	38	90	0.416

## 4891 unidirectional, male/female – BSPP



C BSPP	DN		ØD mm	F mm	L mm	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

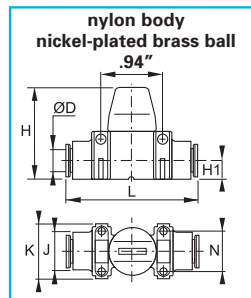
## 4892 unidirectional, female/male – BSPP



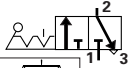
C BSPP	DN		ØD mm	F mm	L mm	kg
G1/8	10	4892 10 10	22	17	56	0.086
G1/4	10	4892 13 13	22	17	58	0.082
G3/8	15	4892 17 17	30	22	75	0.190
G1/2	15	4892 21 21	30	25	79	0.280
G3/4	20	4892 27 27	42	32	98	0.302
G1"	25	4892 34 34	42	38	104	0.424

# mini ball valves

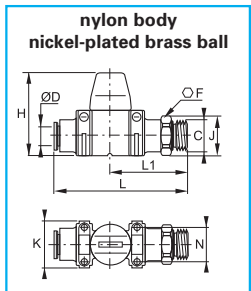
## 7913 3/2, with vent, with push-to-connect ports



ØD in	fractional inch	H in	H1 in	J in	K in	L in	N in	oz
5/32	<a href="#">7913 04 00</a>	1.46	.30	.59	.87	2.0	.64	.78
1/4	<a href="#">7913 56 00</a>	1.46	.30	.59	.87	2.0	.64	1.45
5/16	<a href="#">7913 08 00</a>	1.46	.30	.59	.87	2.0	.64	1.98
3/8	<a href="#">7913 60 00</a>	1.69	.43	.79	1.18	2.6	.87	4.06
mm	metric	mm	mm	mm	mm	mm	mm	kg
4	<a href="#">7913 04 00</a>	37	7.5	15	22	51	16.2	0.022
6	<a href="#">7913 06 00</a>	37	7.5	15	22	52	16.2	0.041
8	<a href="#">7913 08 00</a>	37	7.5	15	22	52	16.2	0.056
10	<a href="#">7913 10 00</a>	43	11	20	30	66	22	0.115
12	<a href="#">7913 12 00</a>	43	11	20	30	66	22	0.147



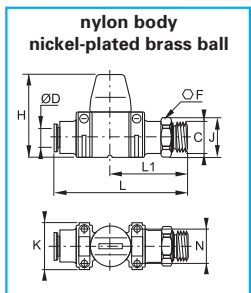
## 7915 3/2, with vent, with male NPT thread and push-to-connect ports



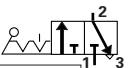
ØD in	C NPT	fractional inch	F mm	H in	J in	K in	L in	L1 in	N in	oz
5/32	1/8	<a href="#">7915 04 11</a>	13	1.46	.55	.87	2.44	1.46	.64	1.76
1/4	1/8	<a href="#">7915 56 11</a>	13	1.46	.55	.87	2.44	1.46	.64	1.90
1/4	1/4	<a href="#">7915 56 14</a>	14	1.46	.59	.87	2.44	1.38	.64	2.40
5/16	1/4	<a href="#">7915 08 14</a>	14	1.46	.59	1.18	2.40	1.61	.64	2.40
5/16	3/8	<a href="#">7915 08 18</a>	18	1.46	.77	1.18	2.91	1.61	.64	2.82
3/8	1/4	<a href="#">7915 60 14</a>	16	1.69	.69	1.18	2.40	1.65	.87	3.60
3/8	3/8	<a href="#">7915 60 18</a>	18	1.69	.77	1.18	2.91	1.65	.87	4.94



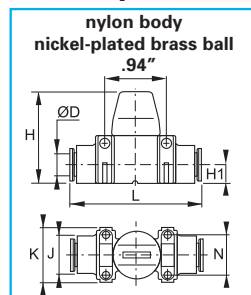
## 7914 3/2, with vent, with male BSP parallel thread and push-to-connect ports



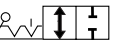
ØD mm	C BSPP	metric	F mm	H mm	J mm	K mm	L mm	L1 mm	N mm	kg
6	G1/8	<a href="#">7914 06 10</a>	13	37	14	22	62	37	16.2	0.054
8	G1/4	<a href="#">7914 08 13</a>	16	37	17.5	22	61	35	16.2	0.068
10	G3/8	<a href="#">7914 10 17</a>	20	43	22	30	74	41	22	0.102
12	G1/2	<a href="#">7914 12 21</a>	24	43	26	30	75	42	22	0.140



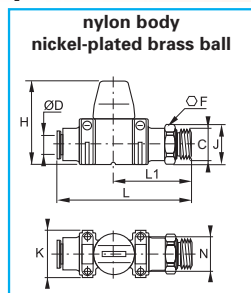
## 7910 2/2, with push-to-connect ports



ØD in	fractional inch	H in	H1 in	J in	K in	L in	N in	oz
5/32	<a href="#">7910 04 00</a>	1.46	.30	.59	.87	2.01	.64	.74
1/4	<a href="#">7910 56 00</a>	1.46	.30	.59	.87	2.05	.64	1.41
5/16	<a href="#">7910 08 00</a>	1.46	.30	.59	.87	2.05	.64	1.94
3/8	<a href="#">7910 60 00</a>	1.69	.43	.79	1.18	2.60	.64	3.95
mm	metric	mm	mm	mm	mm	mm	mm	kg
4	<a href="#">7910 04 00</a>	37	7.5	15	22	51	16.2	0.021
6	<a href="#">7910 06 00</a>	37	7.5	15	22	52	16.2	0.040
8	<a href="#">7910 08 00</a>	37	7.5	15	22	52	16.2	0.055
10	<a href="#">7910 10 00</a>	43	11	20	30	66	16.2	0.112
12	<a href="#">7910 12 00</a>	43	11	20	30	66	16.2	0.144



## 7911 2/2, with male BSP parallel thread and push-to-connect ports



ØD mm	C BSPP	metric	F mm	H mm	J mm	K mm	L mm	L1 mm	N mm	kg
6	G1/8	<a href="#">7911 06 10</a>	13	37	14	22	62	37	16.2	0.052
8	G1/4	<a href="#">7911 08 13</a>	16	37	17.5	22	61	35	16.2	0.066
10	G3/8	<a href="#">7911 10 17</a>	20	43	22	30	74	41	16.2	0.098
12	G1/2	<a href="#">7911 12 21</a>	24	43	26	30	75	42	16.2	0.129



To join the mini ball valves together, use the clips on pg B17. For more information on the mini ball valves, refer to pages B24 - B25.

# 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.

**suffixes:**

20

22

26

27

30

32



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

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

On pages R22 to R25, an application table enables correct choice of valve depending on the fluid used.

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	color band on handle	nickel-plated brass	chemically nickel-plated brass	standard	nickel-plated brass	chemically nickel-plated brass	nickel-plated polished brass	chemically nickel-plated brass	ethylene propylene	viton	teflon	Rilsan graphite	glass fibre impregnated teflon	teflon	
20	Blue/Red	●		●			●			●		●			for hydrocarbons
22	Blue/Green	●		●				●		●			●		for slightly aggressive fluids and high temperatures
26*	Green/Blue	●			●			●				bonded seal		●	for aggressive liquids or high temperatures
27	Green/Blue		●			●		●		●			●		for slightly aggressive fluids and/or not very aggressive environments
30**	White/Red	●		●			●		●			●			for oxygen gas circuits
32	White/Green	●		●				●	●				●		for water and steam

\* degreased

\*\* grease compatible with oxygen

example of numbering systems for semi-standard ball valves

0402 13 21 22

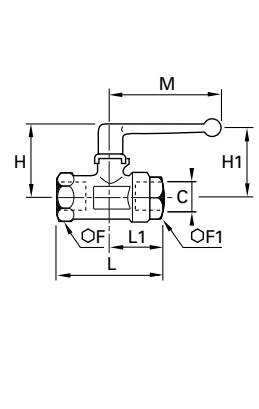
type of ball valve      diameter of passage      thread code      reference number of semi-standard valve

# standard in-line ball valves

## 0402 double female — BSPP thread



sand blasted nickel-plated brass body



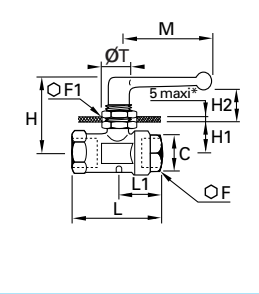
C	DN		F	F1	H	H1	L	L1	M	kg
BSPP			mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0402 04 10	-	14	35	29	44	25	48	.09
G1/8	7	0402 07 10	19	19	38	31	51	27	48	.17
G1/4	7	0402 07 13	19	19	38	31	53	28	48	.16
G3/8	10	0402 10 17	24	24	45	43	59	31	69	.23
G1/2	13	0402 13 21	27	27	47	44	67	34	69	.29
G3/4	20	0402 20 27	32	38	63	54	80	39	108	.69
G1"	23	0402 23 34	41	46	67	57	94	47	108	1.03
G1"1/4	32	0402 32 42	55	60	97	115	112	59	180	2.43
G1"1/2	32	0402 32 49	55	60	97	115	120	62	180	2.28
G1"1/2	40	0402 40 49	55	55	104	-	111	55	190	2.56
G2"	40	0402 40 48	70	70	104	-	122	61	190	2.75

maximum working pressure: 580 psi

## 0446 double female panel mounted — BSPP thread



sand blasted nickel-plated brass body



C	DN		F	F1	H	H1	H2	L	L1	M	T	kg
BSPP			mm	mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0446 04 10	14	22	37	14	12	44	25	48	16.5	.10
G1/4	7	0446 07 13	19	24	45	19	14	53	28	48	20.5	.19
G3/8	10	0446 10 17	24	27	50	21	21	59	31	69	20.5	.29
G1/2	13	0446 13 21	27	27	51	23	21	67	34	69	20.5	.34

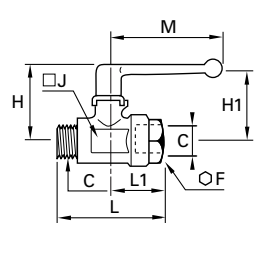
maximum working pressure: 290 psi

for model G 1/8, maximum panel thickness = 3 mm (.118 in)

## 0401 male female — BSPP thread



sand blasted nickel-plated brass body



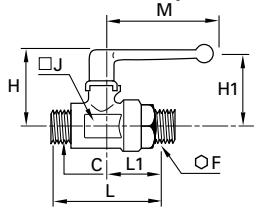
C	DN		F	H	H1	J	L	L1	M	kg
BSPP			mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0401 04 10	14	35	29	14	45	25	48	.09
G1/8	5	0401 05 10	19	38	31	19	51	27	48	.16
G1/4	7	0401 07 13	19	38	31	19	52	28	48	.15
G3/8	10	0401 10 17	24	45	43	24	58	31	69	.23
G1/2	13	0401 13 21	27	47	44	27	66	34	69	.29
G3/4	18	0401 18 27	38	63	54	39	79	39	108	.71
G1"	23	0401 23 34	46	67	57	48	91	47	108	1.03
G1"1/4	32	0401 32 42	60	97	115	55	113	59	180	2.37

maximum working pressure: 580 psi

## 0400 double male — BSPP thread



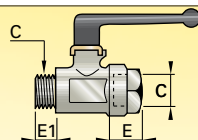
sand blasted nickel-plated brass body



C	DN		F	H	H1	J	L	L1	M	kg
BSPP			mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0400 04 10	14	35	29	14	45	25	48	.09
G1/4	7	0400 07 13	19	38	31	19	60	36	48	.16
G3/8	10	0400 10 17	24	45	43	24	70	43	69	.25
G1/2	13	0400 13 21	27	47	44	27	78	45	69	.33
G3/4	18	0400 18 27	38	63	54	39	90	50	108	.77

maximum working pressure: 580 psi

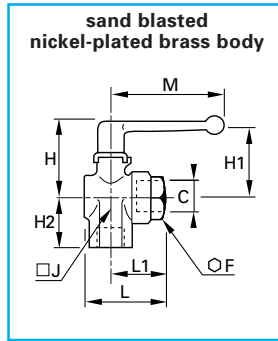
length of female threads (E)  
and male BSPP threads (E1)  
0402 – 0446 – 0401 and 0400



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"	G1"1/4	G1"1/2	G2"
E (mm)	8	12	12	15	16.5	19	21.5	22	26
E1 (mm)	7	9	11	12	12	15	18		

# ball valves with right angled flow

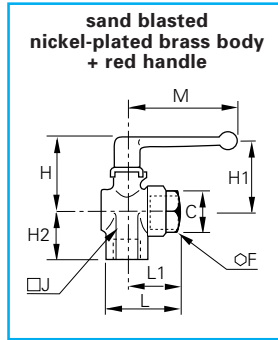
## 0472 double female — BSPP thread



C	BSPP	DN	F	H	H1	H2	J	L	L1	M	kg
			mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0472 04 10	14	35	29	18	14	34	25	48	.10
G1/8	6	0472 06 10	19	38	31	20	22	37	27	48	.18
G1/4	6	0472 06 13	19	38	31	24	22	38	28	48	.18
G3/8	9	0472 09 17	24	45	43	27	25	46	31	69	.26
G1/2	12	0472 12 21	27	47	44	33	29	49	34	69	.32
G3/4	18	0472 18 27	38	59	51	40	39	60	39	108	.72
G1"	23	0472 23 34	46	63	55	47	48	72	47	108	1.08

maximum working pressure: 290 psi

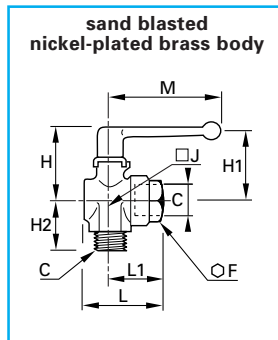
## 0462 double female with vent — BSPP thread



C	BSPP	DN	F	H	H1	H2	J	L	L1	M	kg
			mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	6	0462 06 10	19	38	31	20	22	37	27	48	.18
G1/4	6	0462 06 13	19	38	31	24	22	38	28	48	.18
G3/8	9	0462 09 17	24	45	43	27	25	46	31	69	.27
G1/2	12	0462 12 21	27	47	44	33	29	49	34	69	.31
G3/4	18	0462 18 27	38	59	51	40	39	60	39	108	.73
G1"	23	0462 23 34	46	63	55	47	48	72	47	108	1.05

maximum working pressure: 290 psi

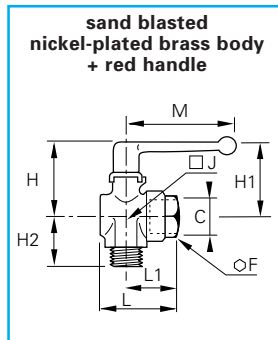
## 0471 male and female — BSPP thread



C	BSPP	DN	F	H	H1	H2	J	L	L1	M	kg
			mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0471 04 10	14	35	29	19	14	34	25	48	.10
G1/8	6	0471 06 10	19	38	31	22	22	37	27	48	.17
G1/4	6	0471 06 13	19	38	31	25	22	38	28	48	.17
G3/8	9	0471 09 17	24	45	43	28	25	46	31	69	.26
G1/2	12	0471 12 21	27	47	44	32	29	49	34	69	.31
G3/4	18	0471 18 27	38	59	51	37	39	60	39	108	.72
G1"	23	0471 23 34	46	63	55	44	48	72	47	108	1.02

maximum working pressure: 290 psi

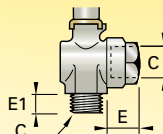
## 0461 male and female with vent — BSPP thread



C	BSPP	DN	F	H	H1	H2	J	L	L1	M	kg
			mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	6	0461 06 10	19	38	31	22	22	37	27	48	.17
G1/4	6	0461 06 13	19	38	31	25	22	38	28	48	.17
G3/8	9	0461 09 17	24	45	43	28	25	46	31	69	.26
G1/2	12	0461 12 21	27	47	44	32	29	49	34	69	.31
G3/4	18	0461 18 27	38	59	51	37	39	60	39	108	.70

maximum working pressure: 290 psi

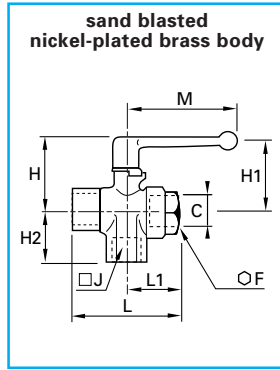
Thread length (E) and **BSP parallel** male thread (E1) for 0472 - 0462 - 0471 and 0461



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E (mm)	8	12	12	15	16.5	19
E1 (mm)	7	9	11	12	12	15

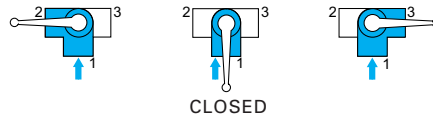
# standard 3 way ball valves

## 0482 female right angled porting — BSPP thread

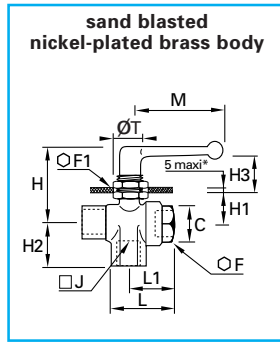


C	BSPP	DN	F	H	H1	H2	J	L	L1	M	kg
			mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0482 04 10	14	35	29	18	14	44	25	48	.11
G1/4	6	0482 06 13	19	38	31	24	22	53	28	48	.19
G3/8	9	0482 09 17	24	45	43	27	25	59	31	69	.26
G1/2	12	0482 12 21	27	47	44	33	29	67	34	69	.35
G3/4	18	0482 18 27	38	59	51	40	39	80	39	108	.39
G1"	23	0482 23 34	46	63	55	47	48	94	47	108	1.17

maximum working pressure: 290 psi



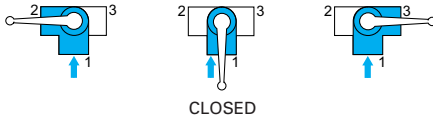
## 0448 panel mountable female right angled porting — BSPP thread



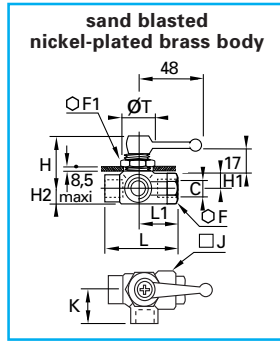
C	BSPP	DN	F	F1	H	H1	H2	H3	J	L	L1	M	T	kg
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0448 04 10	14	22	37	14	18	12	14	44	25	48	16.5	.12
G1/4	6	0448 06 13	19	24	45	19	24	14	22	53	28	48	20.5	.22
G3/8	9	0448 09 17	24	27	50	21	27	21	25	59	31	69	20.5	.32
G1/2	12	0448 12 21	27	27	51	23	33	21	29	67	34	69	20.5	.40

maximum working pressure: 290 psi

\*G1/8 version: maximum panel thickness = 3 mm (.118 in)

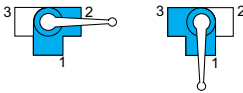


## 0452 panel mountable female equal plane porting — BSPP thread

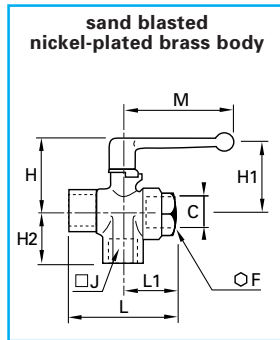


C	BSPP	DN	F	F1	H	H1	H2	J	K	L	L1	T	kg
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0452 04 10	14	22	39	10	8	16	18	44	25	19	.32
G1/4	6	0452 06 13	19	24	40	11	11	23	24	53	28	20	.30

maximum working pressure: 290 psi

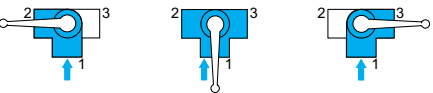


## 0483 female right angled porting without closed position — BSPP thread

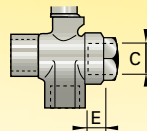


C	BSPP	DN	F	H	H1	H2	J	L	L1	M	kg
			mm	mm	mm	mm	mm	mm	mm	mm	
G1/8	4	0483 04 10	14	35	29	18	14	44	25	48	.10
G1/4	6	0483 06 13	19	38	31	24	22	53	28	48	.19
G3/8	9	0483 09 17	24	45	43	27	25	59	31	69	.28
G1/2	12	0483 12 21	27	47	44	33	29	67	34	69	.35
G3/4	18	0483 18 27	38	59	51	40	39	80	39	108	.71
G1"	23	0483 23 34	46	63	55	47	48	94	47	108	1.09

maximum working pressure: 290 psi



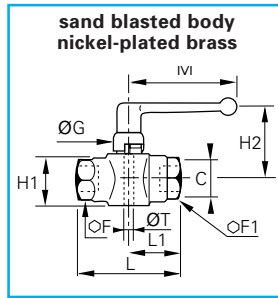
length of internal BSPP thread (E)  
for 0482 – 0448 – 0452 and 0483



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
E (mm)	8	12	12	15	16.5	19

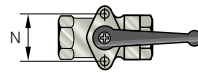
# standard ball valves for screw fixing

## 6402 double female — BSPP thread



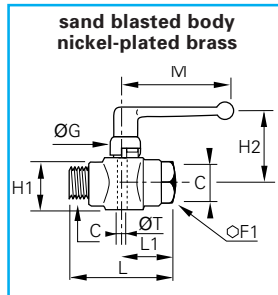
C	DN	E	F	F1	G	H1	H2	L	L1	M	T	kg	
BSPP		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
G1/8	4	6402 04 10	8	14	14	18	18	30	44	25	48	4x70	.13
G1/4	7	6402 07 13	12	19	19	24	31	53	28	48	5x80	.22	
G3/8	10	6402 10 17	12	24	24	20	30	45	59	31	69	5x80	.32
G1/2	13	6402 13 21	15	27	27	20	34	47	67	34	69	6x100	.39
G3/4	20	6402 20 27	16.5	32	38	27	44	52	80	39	108	8x125	.82
G1"	23	6402 23 34	19	41	46	27	53	56	94	47	108	8x125	1.25

maximum working pressure: 580 psi



C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
N (mm)	25	31	31	34	43	51

## 6401 male and female — BSPP thread



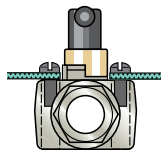
C	DN	E	E1	F	G	H1	H2	L	L1	M	T	kg	
BSPP		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
G1/8	4	6401 04 10	8	7	14	18	18	30	45	25	48	4x70	.13
G1/4	7	6401 07 13	12	9	19	24	31	52	28	48	5x80	.22	
G3/8	10	6401 10 17	12	11	24	20	30	45	58	31	69	5x80	.32
G1/2	13	6401 13 21	15	12	27	20	34	47	67	34	69	6x100	.39

maximum working pressure: 580 psi

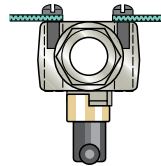


C	G1/8	G1/4	G3/8	G1/2	G3/4	G1"
N (mm)	25	31	31	34	43	51

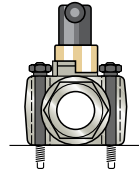
## different methods of mounting



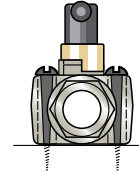
screw fixed mounting on a metal bulkhead with handle above the bulkhead



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



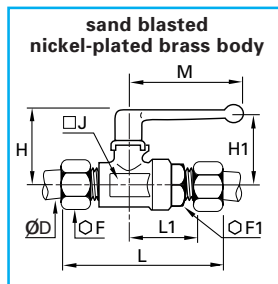
tapped fixing mounting onto a metal plate



wood screw fixed mounting onto a wooden panel

# standard in-line valves with tube couplings

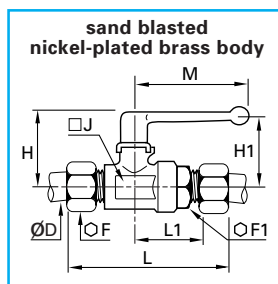
## 0411 with two couplings fitted for use with steel tube — metric



ØD	DN	F	F1	H	H1	J	L	L1	M	kg	
mm		mm	mm	mm	mm	mm	mm	mm	mm		
6	4	0411 04 06	14	19	38	31	19	76	30	48	.18
8	6	0411 06 08	17	19	38	31	19	77	30	48	.18
10	7	0411 07 10	19	19	38	31	19	78	31	48	.21
12	10	0411 10 12	22	24	45	43	24	85	36	69	.31

maximum working pressure: 580 psi

## 0414 with two couplings fitted with double taper rings — metric



ØD	DN	F	F1	H	H1	J	L	L1	M	kg	
mm		mm	mm	mm	mm	mm	mm	mm	mm		
6	4	0414 04 06	13	19	38	31	19	72	31	48	.18
8	6	0414 06 08	14	19	38	31	19	74	30	48	.18
10	7	0414 07 10	19	19	38	31	19	78	31	48	.21
12	10	0414 10 12	22	24	45	43	24	86	36	69	.31

maximum working pressure: 580 psi

# 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.

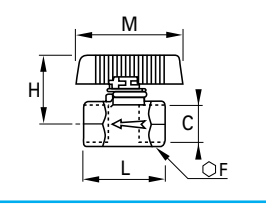
### technical specifications:

- maximum working pressure: 20 psi
- working temperature: -4° to 175°F
- compatible fluids: compressed air, industrial gas, water, cutting oil, mineral oil, fuel, inert gases, solid particles...
- lenticule: stainless steel
- seals: nitrile

## 4602 double female — BSPP thread



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



C		E	F	H	L	M	
BSPP		mm	mm	mm	mm	mm	kg
G1/4	4602 06 13	9	17	35	34	54	.10
G3/8	4602 07 17	11	22	35	39	54	.14
G1/2	4602 10 21	12	24	37	42	54	.14
G3/4	4602 13 27	14	30	40	49	54	.21
G1"	4602 18 34	15	41	46	55	54	.41

# 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 materials of construction are the same as for the standard series.

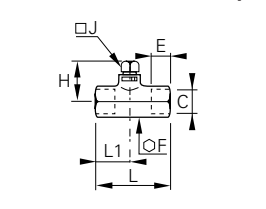
### technical specifications:

- maximum working pressure: 175 psi
- maximum working temperature: 175°F

## 0497 double female with square stem — BSPP thread



sand blasted brass body

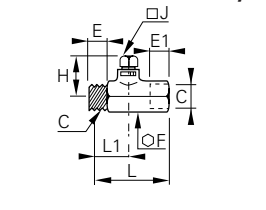


C	DN		E	F	H	J	L	L1	
BSPP			mm	mm	mm	mm	mm	mm	kg
G1/4	4	0497 04 13	9	17	25	7	39	17	.07
G3/8	7	0497 07 17	11	22	26	7	45	20	.11
G1/2	10	0497 10 21	12	24	29	10	54	25	.14
G3/4	13	0497 13 27	14	30	30	10	62	28	.23

## 0496 male and female with square stem — BSPP thread



sand blasted brass body



C	DN		E	E1	F	H	J	L	L1	
BSPP			mm	mm	mm	mm	mm	mm	mm	kg
G1/4	4	0496 04 13	9	7	17	25	7	39	17	.07
G3/8	7	0496 07 17	11	8	22	26	7	45	20	.10
G1/2	10	0496 10 21	12	10	24	29	10	53	24	.14
G3/4	13	0496 13 27	14	12	30	30	10	59	25	.22





# standard and semi-standard ranges

PRODUCT	SYNONYMS / USES	max. pressure psi	temperature in °F		standard	semi-standard					
			min.	max.		20	22	26	27	30	32
METHANE GAS CH4		280	-4	140	●						
METHANOL	Methyl Alcohol	280	-4	Boi. pt							●
METHYL ALCOHOL	Methanol 1	280	-4	Boi. pt							●
METHYL ALCOHOL (SOLVENT)	Methanol	280	-4	Boi. pt							●
MINERAL OIL		565	-4	190	●						
MINERAL PETROLEUM OIL	Up To 320°F	280	-4	320			●				
NATURAL (VEGETABLE, BEES, CARNAUCA, CHINA, LIGNITE) WAXES		565	-4	190				●			
NATURAL GAS		280	-4	105	●						
NEON GAS NE		280	-4	140	●						
NITROGEN GAS N2		565	-4	190	●						
ORDINARY PETROL		280	-4	105	●						
ORDINARY WATER		565		175	●						
OXYGEN (AMBIENT TEMPERATURE)	Degreased	280	-4	105						●	
PAINT AND RELEVANT SOLVENTS		280	-4	140				●			
PARAFFIN	Ozokerite	280	-4	140	●						
PARAFFIN OIL		565	-4	190	●						
PENTANE (LIQUID HYDROCARBON)		280	-4	140	●						
PENTANOLS 1 AND 2	Amylic Alcohol Or Methyl Butanol	280	-4	Boi. pt							●
PETROLEUM		280	-4	105		●					
PETROLEUM FAT		565	-4	190	●						
PETROLEUM OIL AND EMULSION WATER		565	-4	190	●						
PHENOL (ALCOHOLIC OR AQUEOUS SOLUTION)	Phenic Or Carbonic Acid	280	-4	140				●			
PROPANE		280	-4	140	●						
PROPANOLS 1 AND 2	Propyl Alcohol And Isopropyl	280	-4	Boi. pt	●						
PROPENE OR PROPYLENE	Various Preparations - Synthetic	280	-4	140			●				
PROPYL ALCOHOL	Propanol	280	-4	Boi. pt							●
SAPONIFYING LIQUIDS		280		85	●						
SEA WATER		565		175	●						
SEA WATER - HIGH TEMPERATURE		280		300					●		
SOAP	Liquid, Paste, Solutions	280	-4	105							●
SOAP (LIQUID OR PASTE)		565	-4	210	●						
SODIUM CARBONATE (WITH WATER)	Carbonated Water	280	0	105	●						
STARCH - GELS OR PASTE (GLUE, COSMETICS) C6H10O5		565	50	105	●						
STEAM AT 150°C MAXI		280		300							●
SYNTHETIC OIL		280	-4	210							●
TOLUENE	Methyl-Benzene (Solvent,Synthetic)	280	-4	140				●			
TRICHLOROETHYLENE	Fatting Solvent	280	-4	150			●				

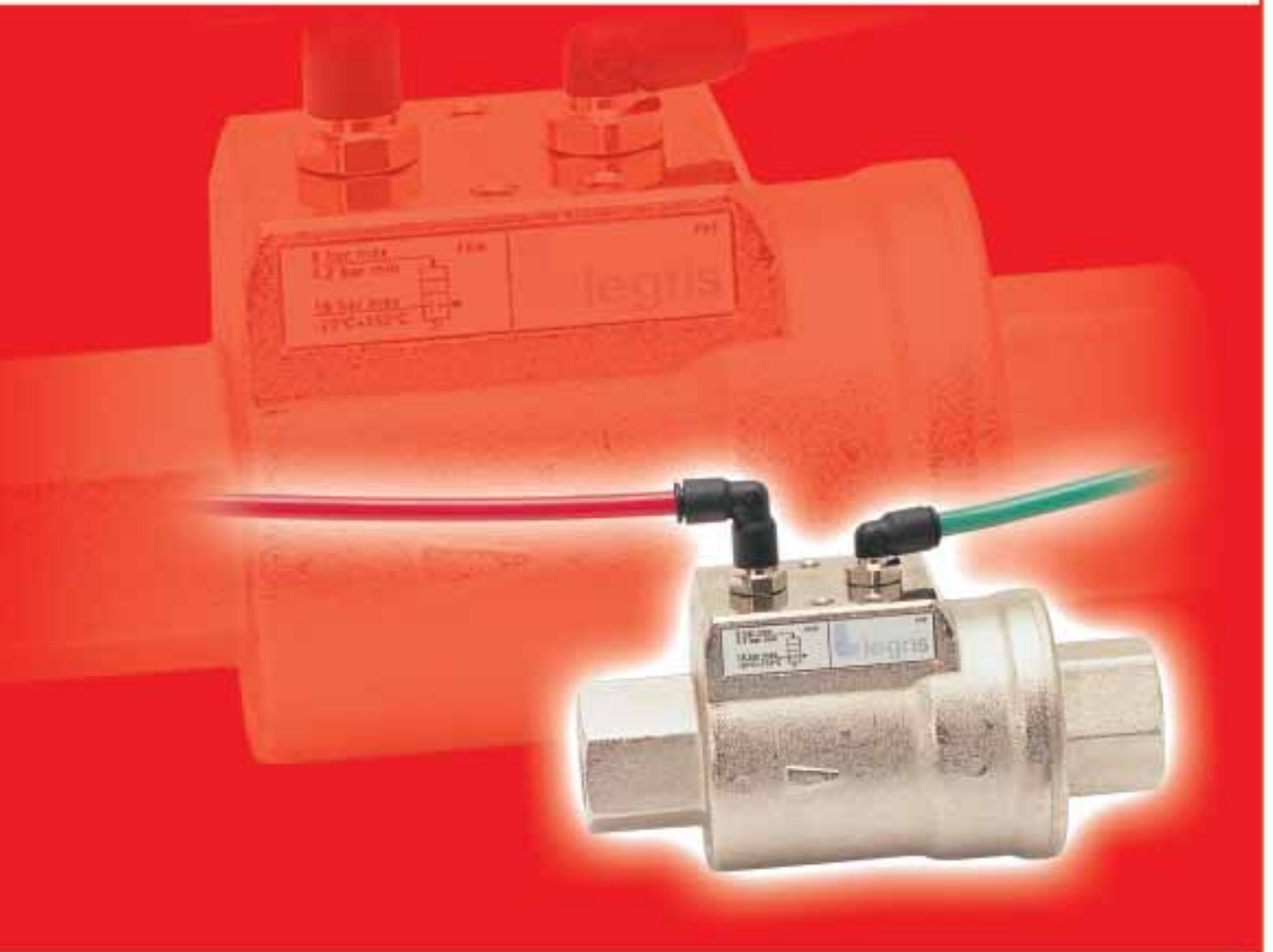
Note: because of the many specific environmental factors which might affect corrosion rate such as temperature and concentration, we would suggest that the chart be used as a rough guide to material selection and final acceptability be established by actual test under specific conditions.

# standard and semi-standard ranges

PRODUCT	SYNONYMS / USES	max. pressure psi	temperature in °F		standard	semi-standard						
			min.	max.		20	22	26	27	30	32	
TURPENTINE	Turps	280	-4	120	●							
VARNISH AND PAINT	And Relevant Solvent	280	-4	140				●				
VASELINE		565	-4	140	●							
VASELINE OIL		565	-4	190	●							
WATER - HIGH TEMPERATURE		280		300								●
WATER WITH CARBONATED GAS		565		190	●							
WHITE SPIRIT	Mix Of Methyl				●							
	And Ethyl Alcohol And Acetone	565	-4	105	●							
XENON (GAS) XE		280	-4	140	●							
XYLENE		280	-4	140				●				

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



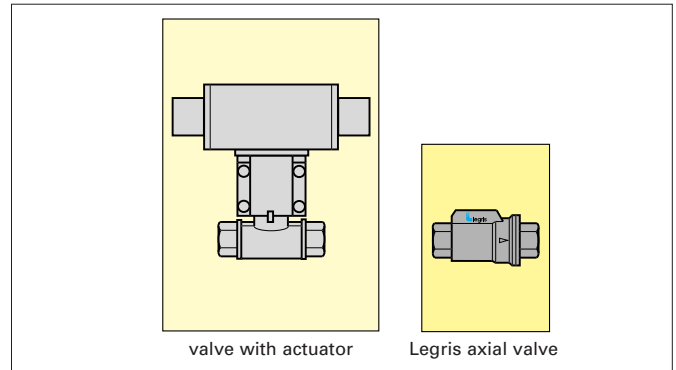


# principal advantages of the axial valve



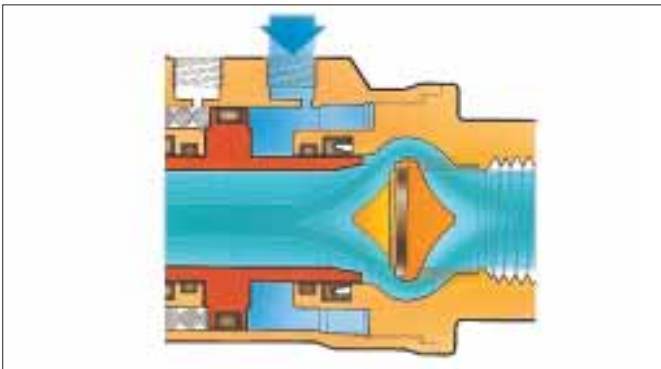
## compactness

- 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** which 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.



## straightforward 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 LF3000** instant fittings when piping up

# axial valve

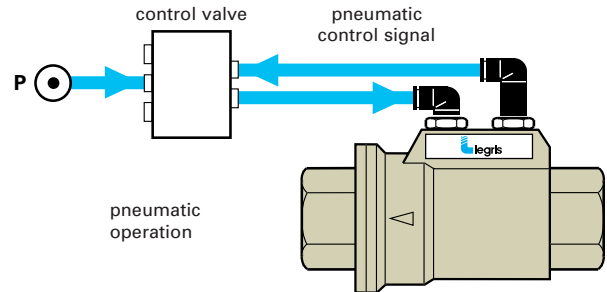
## which control method?

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

### pneumatic control

**example: 4222 axial valve, double acting**

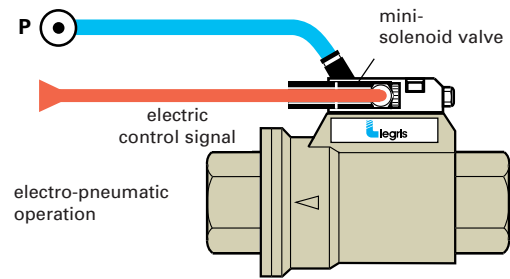
- on-site control
- for repetitive on/off cycles
- remote control in case of difficulty of access to the machine



### electro-pneumatic control

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

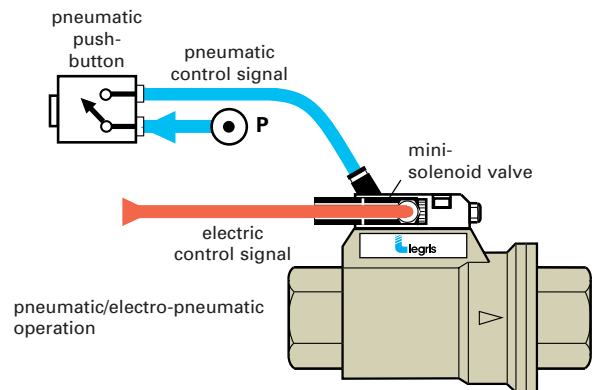
- for industrial automation requiring remote control



### 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

**4203**

N.C. version – NPT  
Page T6



**4202**

N.C. version – BSPP  
Page T6



**4298**

subbase  
Page T7

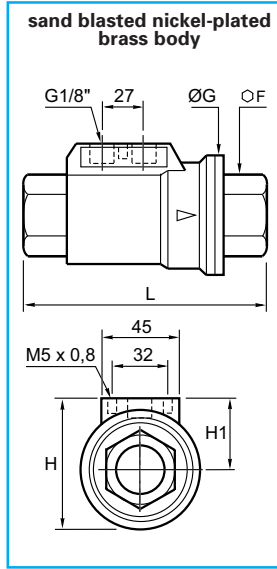


**4299**

Page T7

# axial valve

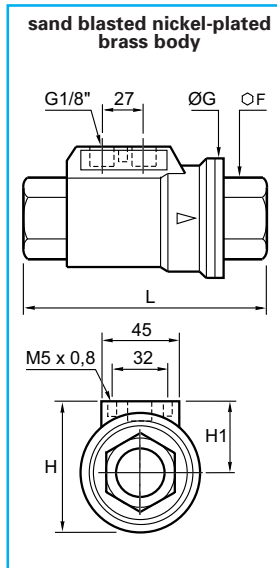
## 4203 normally closed, double female — NPT



C	DN	FKM seal	F	G	H	H1	L	kg
NPT			mm	in	in	in	in	
3/8	10	4203 10 18 20	22	1.81	2.13	1.22	3.86	1.79
1/2	15	4203 15 22 20	27	2.05	2.36	1.38	4.41	2.39
3/4	20	4203 20 28 20	33	2.52	2.76	1.50	5.31	3.60
1	25	4203 25 35 20	41	2.72	2.99	1.63	5.63	4.46
1 1/4	32	4203 32 43 20	50	3.39	3.58	1.89	6.50	7.28
1 1/2	40	4203 40 50 20	60	3.78	4.02	2.13	7.09	9.22
2	50	4203 50 44 20	75	4.29	4.53	2.38	8.15	14.02

Pilot port: 1/8" BSPP  
Complete with 1/8" BSPT silencer

## 4202 normally closed, double female — BSPP



C	DN	FKM seal	F	G	H	H1	L	kg
BSPP			mm	mm	mm	mm	mm	
G3/8	10	4202 10 17 20	22	46	54	31	98	.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

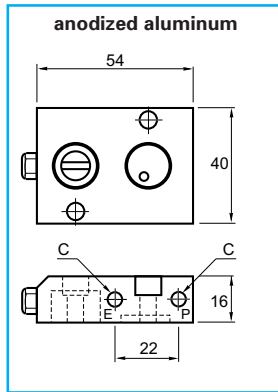
Pilot port: 1/8" BSPP  
Complete with 1/8" BSPT silencer

Upon special request, we can supply

- normally open and double acting valves
- 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

# axial valve

## 4298 subbase for solenoid pilot valve — M5



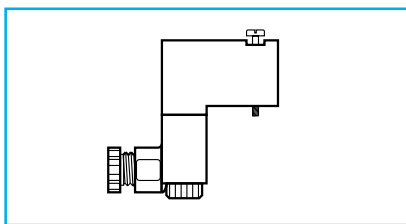
C		
M5x0.8	4298 00 01	.094

Subbase conforms to NAMUR specifications.

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

Supplied with 2 fixing bolts and silencer

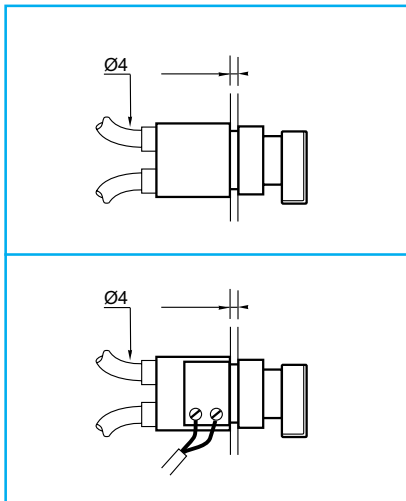
## 4298 mini-solenoid valve 1W/1.2VA



voltage	
24V = DC	4298 01 01
24V ~ AC	4298 01 02
110V ~ AC	4298 02 01
220V ~ AC	4298 02 02

type of coil	voltage	power class	insulation degree	protection	cable entry
size 15	~	24-110-220V - 50/60 Hz	F	IP 65	plug size 15 rotatable through 90° - CM 6
	=	24V			

## 4299 pneumatic button/electro-pneumatic



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

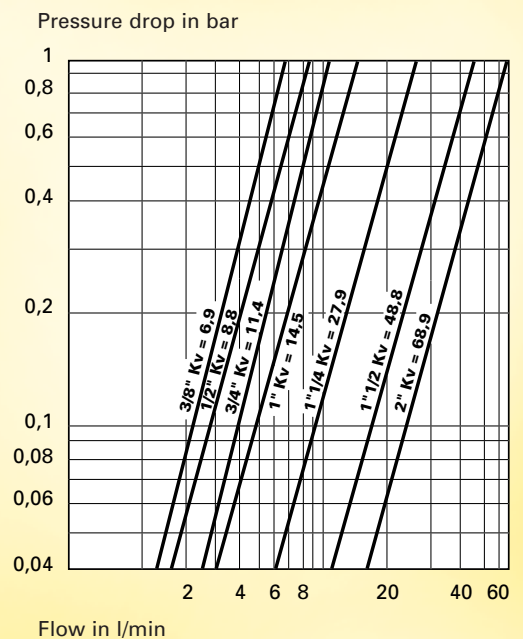
1 electro-pneumatic contact	
standard	4299 02 01
with key	4299 02 02

Bulkhead fixing hole diameter: 22mm

### Flow curve / Pressure drop / Kv

Kv in l/min

(water at ambient temperature, under a differential pressure of one bar)



# special products



legris  
connectic

## special products

Legris has substantial experience in the design and manufacture of special fittings and assemblies for fluid control:

- whether developed from standard product
- or developed hand-in-hand with customers

Our aim is to design, develop and put into series production products or assemblies which give our customers a “profit” in terms of:

- competitive pricing
- technical excellence
- compact size, etc.



*Manifold with push-to-connect parts for oil distribution.*



*LF3000® multi-connector for compact installations.*



*Instant fitting with special seal, for low pressure circuits.*



*LF3000® instant fittings for connection with close hole centers.*

## special products



*Technical tubes (crystal polyurethane and colorless nylon) marked with a band to allow identification of fluids.*



*Preassembled polyurethane tubing with 16 outlets for quick installation in many profiles.*



*Nylon recoil tubing allowing 3 assemblies in compact spaces for high flexibility.*



*Ball valve handle shape allows manipulation with one hand.*

# index

Part #	Page #	Part #	Page #	Part #	Page #
CLIP	A44, F10, M19	0123	H11	0469	R9
U060 L	G7	0124	G27	0471	R18
U061 L	G8	0125	G30	0472	R18
U062 L	G6	0126	G30	0482	R19
U063 L	G8	0127	G31, H23, M18	0483	R19
U064 L	G6	0128..39	G32	0489	R9
U065 L	G6	0132	G29	0490	R6
U066 L	G4	0133..39	G29	0491	R6
U068 L	G4	0134	G29	0492	R6
U069 L	G4	0136	H11	0496	R21
U070 L	G5	0138	H22	0497	R21
U071 L	G5	0139	H22	0499	R11
U072 L	G5	0142	G24	0602	H22
U077 L	G7	0143	H8	0605	H23
U079 L	G5	0144	H8	0610	H20
U100 L	H5	0145	H8	0611	H21
U101 L	H5	0151	G32	0623	L5
U102 L	H6	0152	H8	0614	H20
U103 L	H6	0155	H9	0652	L4
U104 L	H7	0158	H8	0653	L4, L5
U106 L	H5	0163	H10	0654	L4
U107 L	H6	0164	A43, H9	0659	L5
U110 L	H7	0165	G28	0660	B29
U112 L	H7	0166	G25	0661	B29
U113 L	H7	0167	A43, H10, L4	0662	B29
U114 L	H5	0168	H10	0663	B29
U115 L	H5	0168..39	G32	0669	B29
U119 L	H6	0169	H10	0670	H20
U120 L	H7	0178	A44	0671	H20
U121 L	H6	0179	A44	0672	H20
U122 L	H6	0191	H15	0673	H20
U124 L	H5	0192	H15	0676	H21
0101	G17	0199	G19	0677	H20
0101..39	G18	0200	H24	0682	H21
0102	G23	0205	H24	0683	H21
0103	G20	0206	H25	0690 01	L8
0104	G24	0220..39	G30	0690 02	L8
0105	G16	0222	A44	0690 03	L8
0106	G23	0285	H25	0690 04	L8
0107	G24	0400	R17	0690 05	L8
0108	G20	0401	R17	0690 06	L8
0109	G19	0402	R17	0690 07	L9
0110	G27	0411	R20	0690 08	L9
0111	G27	0414	R20	0690 09	L9
0112	G31	0432	R10	0690 10	L9
0113	G23	0437	R11	0690 11	L9
0114	G18	0438	R10	0697	M19
0116	G23	0439	R11	0900	H15
0117	H8	0446	R17	0901	H15
0118	G21	0448	R19	0902	H15
0118..39	G21	0449	R9	0903	H14
0119	G22	0452	R19	0904	H14
0120	G31	0461	R18	0905	H14
0121	A43, H9	0462	R18	0906	H14
0122	G28	0465	R12	0907	H14

# index

Part #	Page #	Part #	Page #	Part #	Page #
0908	H13	1823	H19	3116	A27
0909	H13	1827	H23, M18	3116..AE	F9
0910	H12	1843	H17	3116..DOT	F13
0911	H12	1844	H17	3118	A19
0912	H12	1845	H17	3119	A22
0913	H12	1855	H17	3120	A32, D15
0914	H12	1861	H19	3121	A15
0915	H12	1862	H18	3122	A34, D15
0916	H13	1863	H18	3124	A22
0917	H13	1864	H18	3126	A34, D15, F10
0920	H14	1867	H18	3129	A10
0921	H12	1870	H18	3131	A15
0922	H12	1871	H17	3132	A17
0923	H13	1872	H18	3133	A11
0924	H13	1873	H19	3136	A27
0927	H13	3000	F15, F16	3139	A27
0928	H13	3000 70	A45	3140	A26
0929	H9	3000 71	F10, M19	3140..AE	F8
0931	H11	3008	A12	3140..DOT	F13
1005T	M16	3009	A18	3142	A32
1010P	M17	3014	A18	3143	A32
1025P	M9	3014..AE	F7	3144	A26
1025T	M16	3018	A19	3146	A27
1025U	M13	3036	A27	3148	A16
1025V	M22	3049	A22	3148..AE	F6
1025Y	M15	3091	A40	3148..DOT	F12
1040H	M23	3092..AE	F7	3149	A22
1050P	M17	3100	A47	3156	A28
1050V	M22	3101	A7	3158	A16
1080H	M23	3102	A24	3159	A42
1092T	M16	3102..AE	F8	3160	A40
1093U	M17	3102..DOT	F13	3166	A33
1094P	M7, M18	3103	A14	3166..AE	F9
1094T	M16	3103..AE	F7	3166..DOT	F14
1094U	M11, M17	3103..DOT	F12	3168	A33
1094Y	M15	3104	A25	3168..DOT	F14
1096Y	M15	3104..AE	F8	3169	A10
1098P	M7	3104..DOT	F13	3171	A7
1098U	M11	3106	A23	3175	A6, A7
1098Y	M15	3106..AE	F8	3175..AE	F6
1099P	M7	3106..DOT	F13	3180	A30
1100H	M23	3107	A29	3181	A7
1100P	M9	3108	A12	3182	A30
1100U	M13	3108..AE	F6	3182..AE	F9
1420U	M13	3108..DOT	F11	3182..DOT	F14
1470P	M20	3109	A8, A9	3183	A31
1470U	M21	3109..AE	F6	3183..AE	F9
1471P	M20	3109..DOT	F11	3183..DOT	F14
1471U	M21	3110	A45, F10	3184	A30
1472P	M20	3112	A17	3188	A31
1472U	M21	3113	A11	3188..AE	F9
1480P	M20	3113..AE	F7	3188..DOT	F14
1487P	F8	3114	A18	3189	A43
1817	H17	3114..DOT	F12	3192	A18
1821	H19	3115..DOT	F11	3193	A14

# index

Part #	Page #	Part #	Page #	Part #	Page #
3198	A13	3616	D13	7016	B11
3199	A9	3618	D11	7030	B14
3201	C6	3620	D15	7031	B14
3202	A50, C9	3621	D6	7040	B15
3203	C8	3622	D15	7045	B15
3204	A50, C9	3626	D15	7060	B9
3206	A50, C9	3629	D8	7061	B9
3208	C8	3631	D7	7062	B8
3209	C7	3636	D13	7065	B9
3215	C6	3639	D13	7066	B9
3216	C9	3666	D14	7067	B8
3218	A49	3667	D14	7100	B19
3226	A50	3668	D14	7101	B19
3229	A49	3669	D8	7105	B19
3266	A50, C9	3675	D6	7110	B19
3275	C6	3681	D7	7111	B19
3281	A49	3693	D11	7115	B19
3293	A49, C8	3698	D11	7160	B18
3298	A49, C8	3699	D9	7300	B37
3299	A49, C7	3800	E11, E14	7305	B37
3300	A38	3801	E6	7620	B13
3301	A36	3802	E13	7625	B13
3302	A36, A37	3803	E10	7630	B14
3303	A37	3804	E13	7631	B14
3304	A29	3805	E6	7640	B15
3305	A37	3806	E12	7645	B15
3306	A29	3808	E11	7649	B15
3310	A37, H16	3809	E9	7660	B12, B13
3311	H16	3816	E12	7662	B12
3312	H16	3821	E7	7665	B12, B13
3313	H16	3866	E13	7668	B12, B13
3315	A37, H16	3889	E8	7669	B12, B13
3320	A39	3899	E8, E9	7770	B16
3321	A39	4202	T6	7771	B17
3329	A39	4203	T6	7772	B16
3330	A45, F10	4298	T7	7775	B17
3379	A35	4299	T7	7776	B16
3381	A35	4602	R21	7800	B39
3391	A40	4810	R13	7801	B39
3524	A21	4813	R13	7805	B39
3527	A21	4832	R12	7806	B39
3528	A21	4890	B23, R14	7808	B27
3529	A21	4891	B23, R14	7810	B18
3538	A20	4892	B23, R14	7812	B18
3539	A20	4895	B23, R14	7815	B18
3549	A20	4902	R7	7817	B18
3600	D9	4962	R7	7818	B27
3601	D7	4982	R6	7828	B28
3602	D12	6401	R20	7835	B18
3603	D10	6402	R20	7860	B33
3604	D12	7000	B17, B24	7861	B33
3606	D12	7010	B10, B11	7864	B33
3608	D10	7011	B10, B11	7870	B33
3609	D8	7012	B10	7871	B33
3614	D7	7015	B11	7874	B33

# index

<b>Part #</b>	<b>Page #</b>
7880	B21
7881	B21
7885	B21
7886	B21
7910	A41, B25, R15
7911	A41, B25, R15
7913	A41, B25, R15
7914	A41, B25, R15
7915	A41, B25, R15
7921	B35
7925	A40, B35
7926	B35
7960	A40, B35
7961	B35
7982	B38
7984	B22
7985	B22
7994	B22
7995	B22
7996	B22
9080A	K8
9080U	K6, K7
9083	K6, K7, K8, K11
9084	K6, K7, K8, K11
9085	K6, K7, K8, K11
9405A	K8
9405U	K6, K7
9410A	K8
9410U	K6, K7
9415A	K8
9415U	K6, K7
9417A	K8
9417U	K6, K7
9421A	K8
9421U	K6, K7
9442A	K8
9442U	K6, K7
9L02	K13
9L04	K11, K15
9L05	K11, K15, K17
9L06	K13
9L15	K15
9L82	K15
9L83	K15
9L84	K13, K15
9L85	K11
9L93	K13
9L94	K13



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**A - push-to-connect fittings, system LF3000® - pages A1 to A50**



**B - pneumatic function valves - pages B1 to B45**



**C - LF3200 push-to-connect fittings for industrial applications - pages C1 to C9**

**D - LF3600 push-to-connect fittings for food applications - D1 to D15**

**E - LF3800 stainless steel push-to-connect fittings - pages E1 to E15**

**F - SAE/DOT push-to-connect fittings for vehicle applications - F1 to F17**



**G - brass compression fittings - pages G1 to G33**



**H - accessories, silencers and plugs - pages H1 to H25**



**K - quick disconnect couplers - pages K1 to K19**

**L - universal blowguns - L1 to L9**



**M - tubing and hoses - M1 to M25**



**R - industrial ball valves - R1 to R25**

**T - axial valves - T1 to T7**

**Y - special products - pages Y1 to Y3**

**Z - Legris worldwide, index - pages Z1 to Z6**

