

METAL[®] WORK

P N E U M A T I C



lineonline[®]



Whoever claimed the world of fittings for pneumatic pipes had nothing more to offer?

A new market entry is a line of brand-new products based on a simple yet revolutionary idea; including the components required for all the pneumatic functions in a single body,

a technopolymer plastic fitting. This is the **lineonline** generation, a range of products for fitting on compressed-air systems. As with all new applications, it was important

to receive the signals from the market, analyze demand, and to converge them in a single project.

The following messages were received from the market:

Miniaturise

Pneumatic components must be small to enable the construction of neatly-engineered machines, and reduce the dimensions of pneumatic panels.

Lighten

Less weight, for moving parts, means less inertia and hence better acceleration and performance.

Integrate

The inclusion of different components in a single item cuts assembly times and the number of product codes, and makes miniaturisation easier.

Modularity

The use of modular items increases the designers' freedom and reduces the need for adaptors, supports and connections.

Aesthetics

If a pneumatic component is fitted on a machine in a visible position, its shape and colour must make the machine more pleasing to the eye.

Metal Work has tried to determine

... whether these principles could also be meaningful in the world of fittings, which is where **lineonline** comes in. There had never been something that looked like a pipe-pipe fitting yet was in actual fact a pressure regulator, something else that looked like previous versions but

was actually a flow regulator, and something else that looked suspiciously familiar yet was really a top-performance solenoid valve! We've managed to squeeze into a single unit main all the pneumatic functions – regulating the flow, regulating the capacity, cutting

off the flow manually or electrically, measuring the pressure, relieving the air ... and the list goes on.

In short, it is a fitting seen as a sort of brick (a Lego block, if you like) with which to build a whole new world of things pneumatic.

All the products can be connected in series or in parallel or in a combination of both.

...This allows total freedom when constructing pneumatic systems. With series connection, each module carries out a function linked to the following one. For example, there may be an RML pressure regulator followed by a MAN L gauge giving the value of the regulated pressure.

With parallel connection, each module performs a separate function. For example, a number of SOV L solenoid valves arranged in parallel gives a set of 3/2 solenoid valves that is small, lightweight and complete with fittings and reel. It is also possible to connect modules in series pneumatically, but

arrange them in parallel, in which case a pre-bent crescent-shaped pipe is provided.



All the items are available in a version

...for pipe-pipe connection, thank to the two push-in fittings, or for pipe-thread connection, adding an RU6 fitting with his male NPT thread. In the latter case the element can be mounted directly on the actuator, for

example the VSR L quick-relief valve (version with male thread) is mounted on the cylinder. On one side of the technopolymer body is an indelible pneumatic symbol in relief to help the user identify the

function and direction of flow. Two sizes are currently available: 1/4", with fittings for 1/4" pipes, and 5/16", with fittings for 5/16" pipes.

Fixing methods

All fixing methods are possible:

- On a wall, using the two transversal holes provided in all the bodies.
- On a plate, using the steel bracket provided.

- On a panel. This requires a hole in the panel and the Line-on-Line item is fixed using the ring nut provided. Note that all the control knobs on manual items have a smaller diameter than the size of the hole to make in the panel.

- Underneath, fixing the steel bracket under a piece of sheet metal.

The following ~~lineonline~~ products have been developed so far

RFL R:	in-line flow regulator
RML:	miniaturised in-line pressure reducer
VSR L:	in-line quick-relief valve
VNR L:	in-line check valve
V2V L:	in-line two-way on/off valve
V3V L:	in-line three-way on/off valve
MAN L:	in-line pressure gauge
LAM L:	in-line pressure display
SOV L:	in-line 3/2 NC or NO solenoid valve

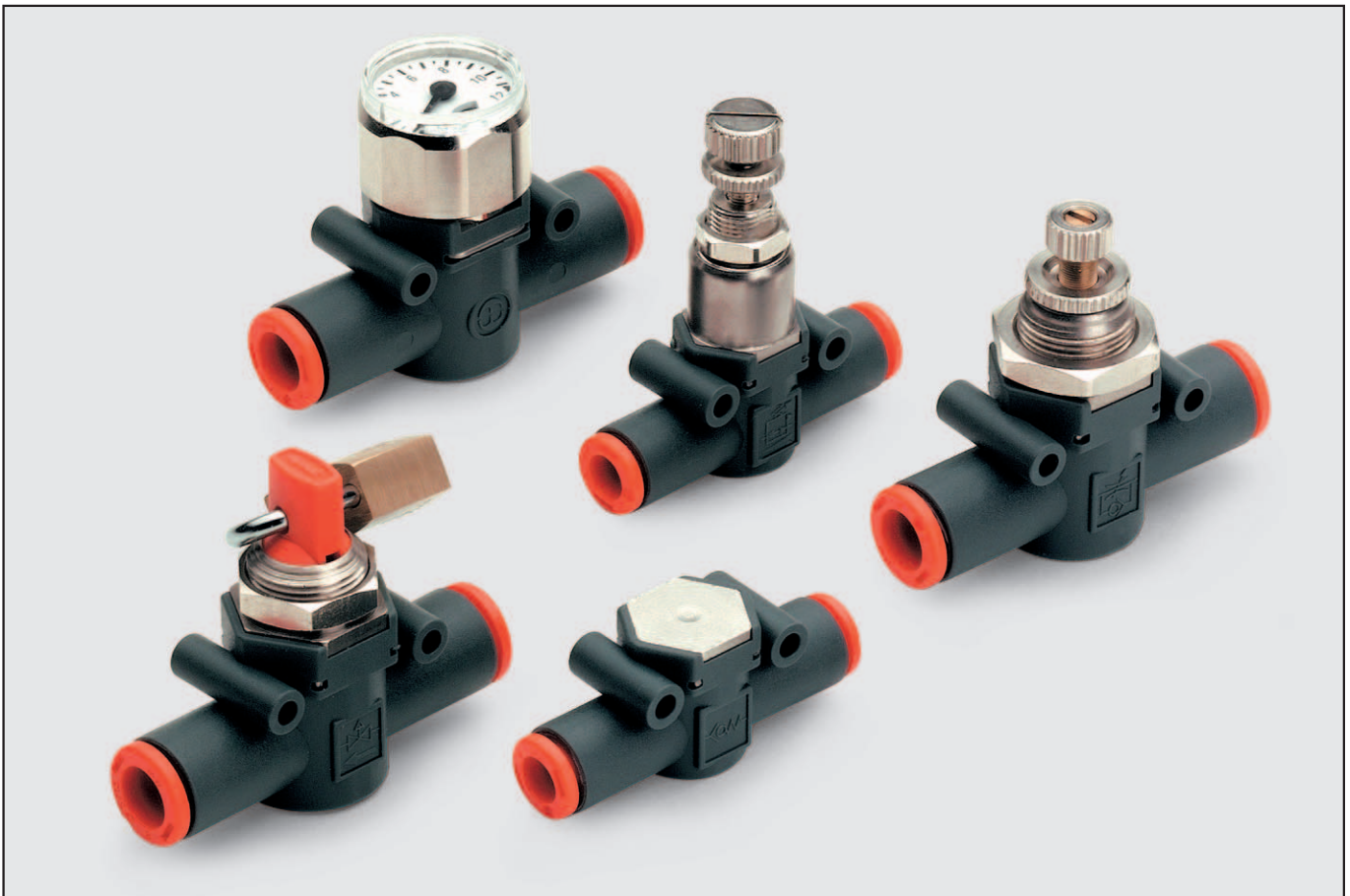
Let us take a closer look at one of these products.

The RML is a miniaturised pressure reducer capable of keeping a constant downstream pressure with a setting range of 14 to 116 psi, and 260 NL/min flow rate, measured at 87 Δp 14 psi. It can be used for numerous

applications. Mounted on a valve outlet, it can be used to regulate pressure at each utility as it is only 0.57 inc wide (1/4" pipe) or 0.73 inc (5/16" pipe); or it is easy to mount on compact valve units. It can be









used as an economiser, by supplying the cylinder chamber with the minimum pressure required for the return movement.

Dott. Ing. Giorgio Guzzoni





SUMMARY

	INTRODUCTION	PAGE 06
	LINE-MOUNTED MICRO FLOW REGULATOR SERIES "RFL-R"	PAGE 08
	MINIATURE REDUCER SERIES RML	PAGE 11
	IN-LINE QUICK-EXHAUST VALVES SERIES "VSR L"	PAGE 13
	IN-LINE CHECK VALVE SERIES "VNR L"	PAGE 15
	IN-LINE SHUTOFF VALVES SERIES "V2V L" "V3V L"	PAGE 17
	IN-LINE PRESSURE GAUGE SERIES "MAN L"	PAGE 20
	IN-LINE PRESSURE INDICATOR SERIES "LAM L"	PAGE 22
	IN-LINE SOLENOID VALVES SERIES "SOV L"	PAGE 24
	LINE-ON-LINE ACCESSORIES	PAGE 27

Line on Line is an exclusive range of products for mounting on pneumatic circuits. With these small, highly efficient components it is possible to perform all pneumatic functions at any point of the circuit.

Line on Line is ultra-modular - the components can be connected in parallel, in series or combined parallel/series. All Line on Line products are available for pipe-pipe connection with two push in fittings. Adding an RU6 fitting, it is possible to have a pipe-NPT thread connection.

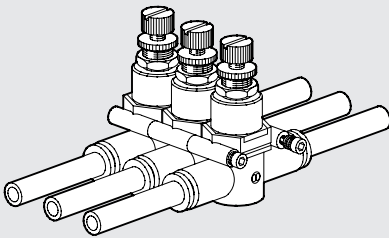
The body is made of technopolymer, giving a product that is extremely lightweight and compact.

One side of the body is marked with an indelible pneumatic symbol to facilitate identification and indicate the direction of flow.

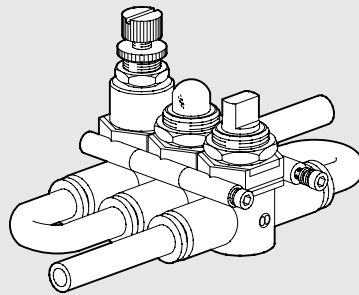


CONNECTION FREE

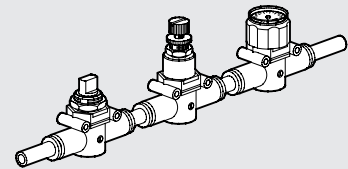
PARALLEL LINES



SERIAL LINE PARALLEL FITTING



SERIAL LINE IN-LINE FITTING



FIXING FREE

WALL FIXING

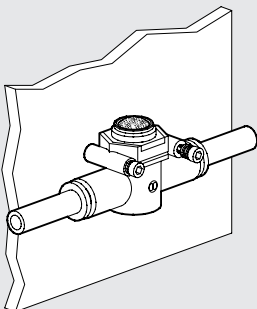
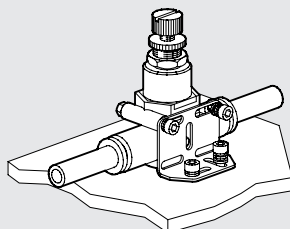
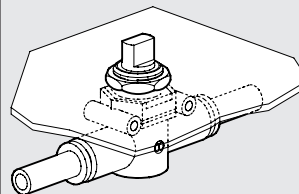


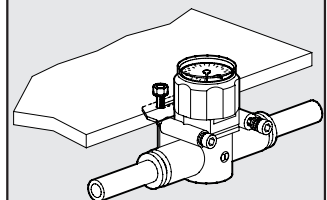
PLATE FIXING



PANEL FIXING

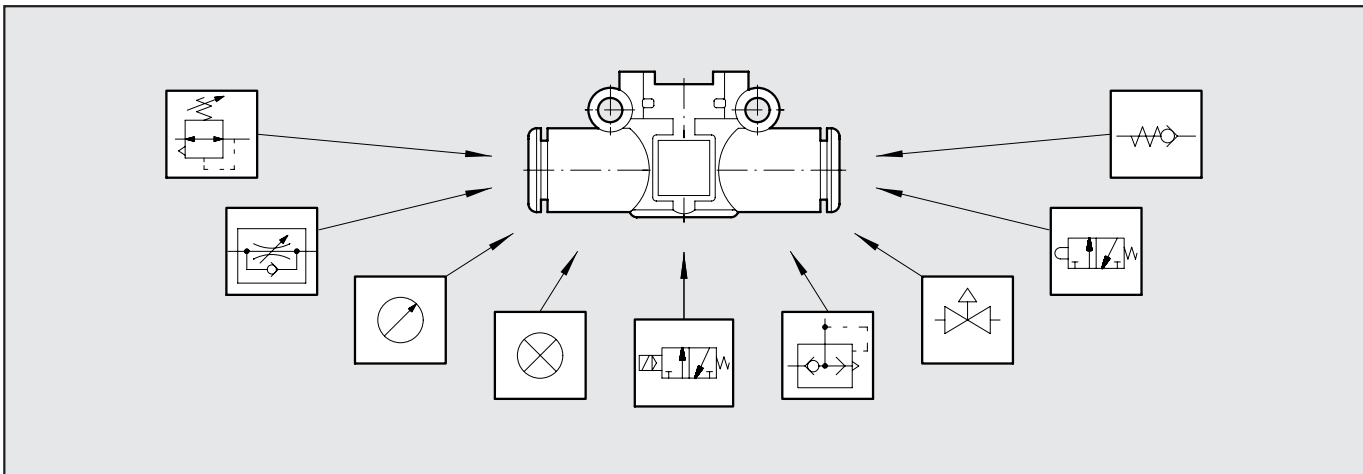


UNDER WALL FIXING

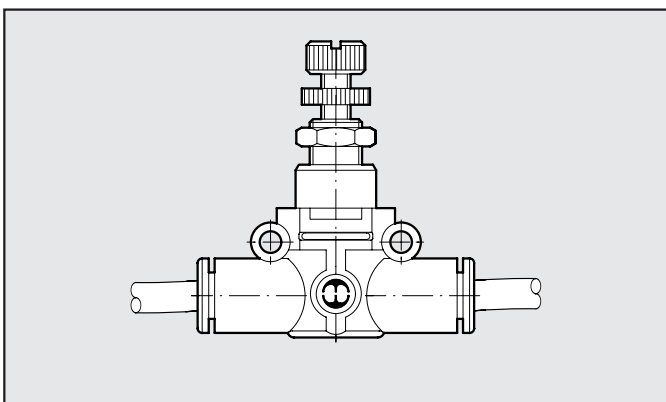




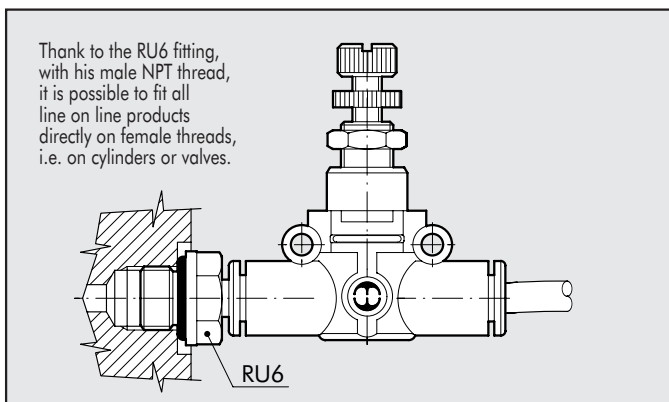
ALL THE PNEUMATIC FUNCTIONS WITH THE SAME EXTERNAL DIMENSIONS



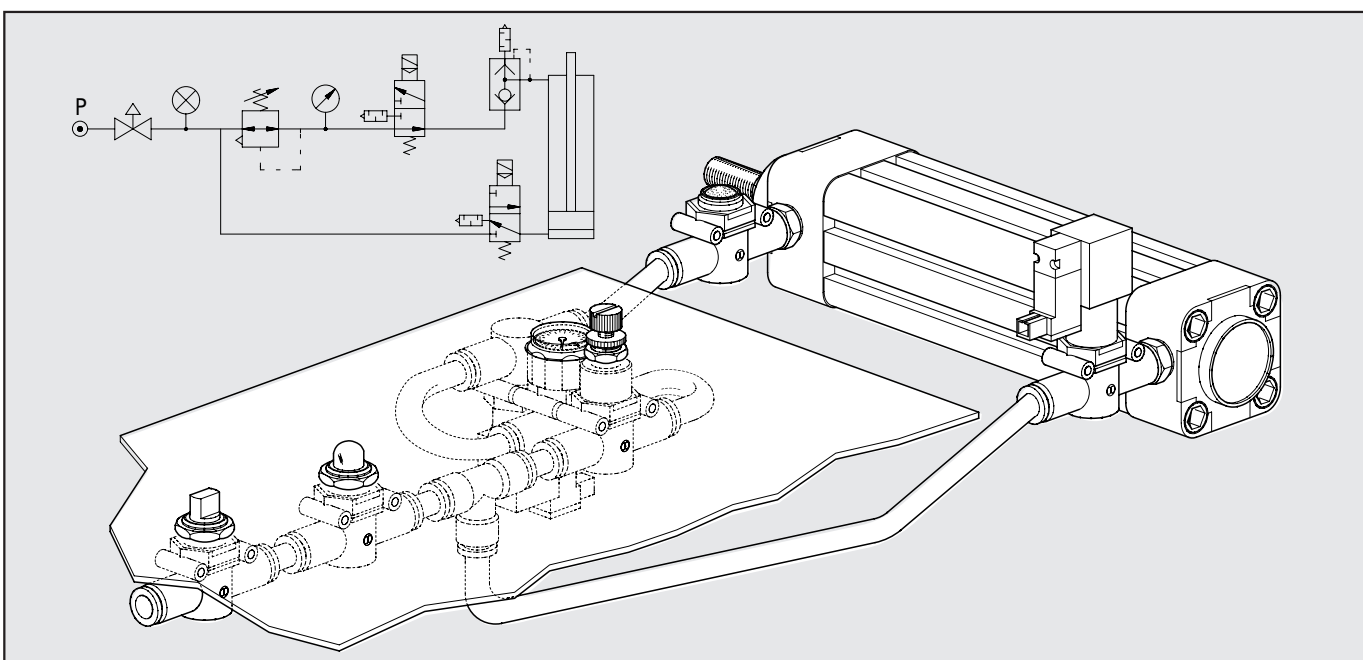
PIPE-PIPE



THREAD-PIPE



APPLICATION EXAMPLE



LINE-MOUNTED FLOW MICRO-REGULATOR WITH PUSH-IN FITTING

Serie RFL R

The RFL R flow micro-regulator belongs to the LINE ON LINE® family and can be connected in series or in parallel with all the other products.

The RFL R regulates the air input and thus the speed in pneumatic actuators. Two versions are available:

- Type U (unidirectional) regulates the flow only in one of the two directions of air flow. The following types of fitting can be mounted:

- Push-in input and output fitting

- Type B (bidirectional) regulates the flow in both directions of air flow. The following types of fitting can be mounted:

- Push-in input and output fitting

- Threaded port and push-in fitting

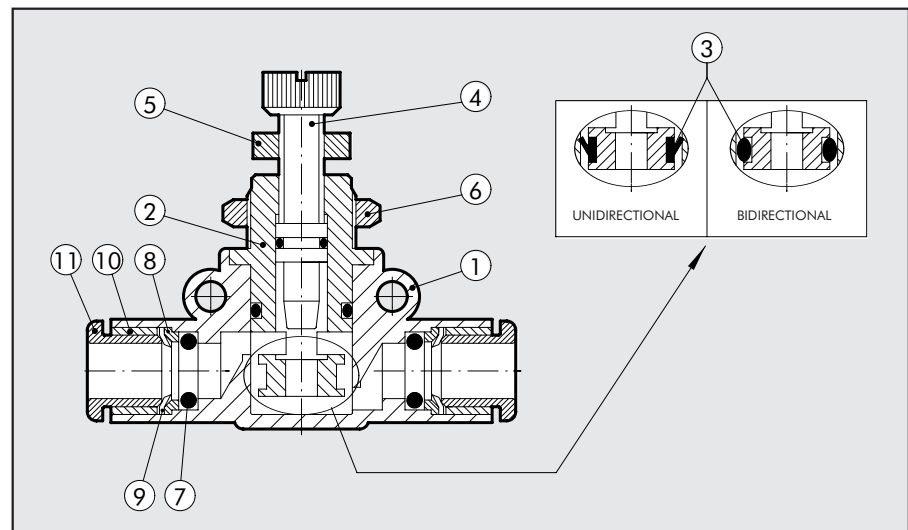
There are three possible types of assembly (see example on the following page).



TECHNICAL DATA		Ø 5/32	Ø 1/4	Ø 5/16
Max. operating pressure	psi		15 ÷ 150	
Temperature range	°C		-20 ÷ +60	
	°F		-4 ÷ +140	
Max flow rate on regulation at 90 psi	Nl/min	155	450	850
Flow rate on relief at 90 psi	Nl/min	160	550	950
Adjustment		Manual or using a screwdriver		
Internal system		Tapered needle		
Recommended pipe		Rilsan PA 11 – Nylon 6 – Polyamide 12 - Polypropylene		
Fluid		Lubricated or unlubricated filtered air		

COMPONENTS

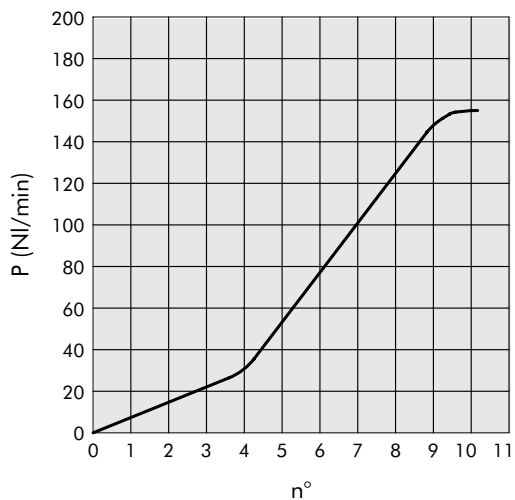
- ① Technopolymer body
- ② Nickel-plated brass seal support
- ③ NBR gasket
- ④ Brass adjusting needle
- ⑤ Nickel-plated brass needle ring nut
- ⑥ Wall fixing ring nut
- ⑦ NBR seal
- ⑧ Technopolymer spring ring
- ⑨ Stainless steel clip-on spring
- ⑩ Technopolymer stop bushing
- ⑪ Technopolymer release bushing



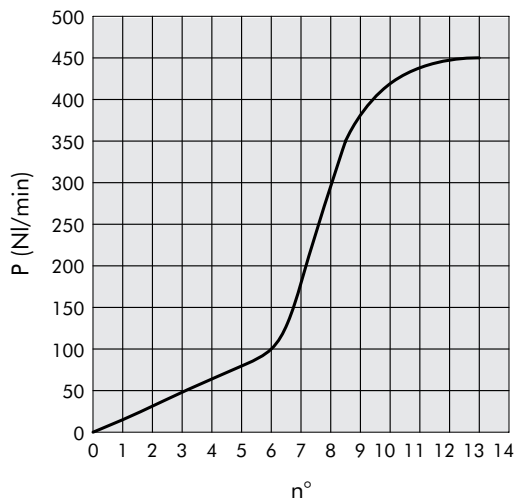


FLOW CHARTS

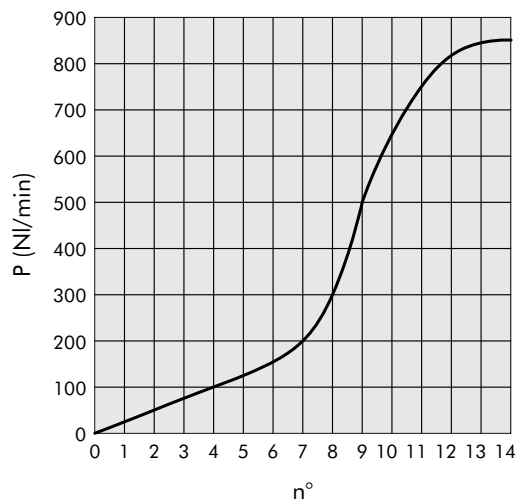
RFL R Ø 5/32



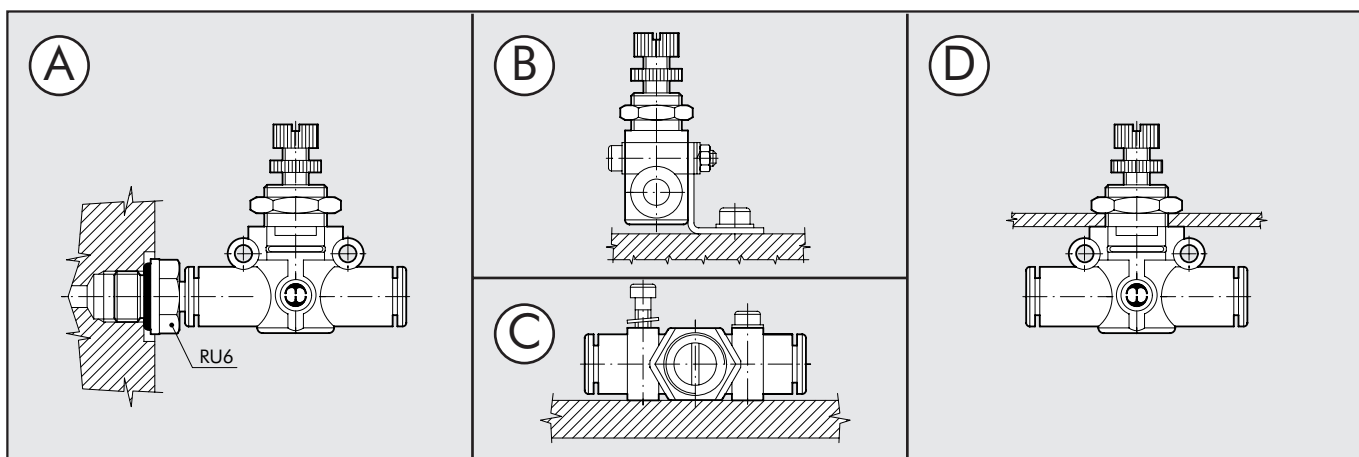
RFL R Ø 1/4



RFL R Ø 5/16



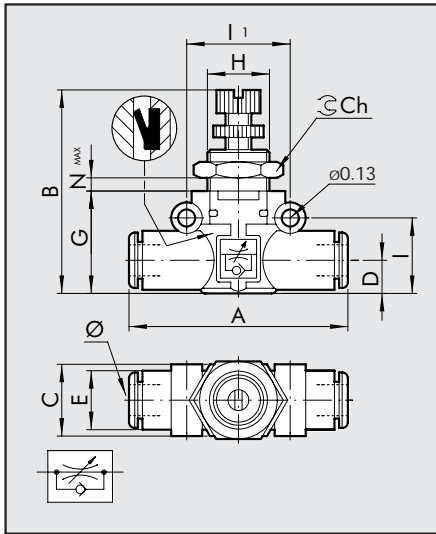
ASSEMBLY OPTIONS



How to mount the RFL R:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the RFL R straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the RFL R straight onto the wall.
- Fig. D: The ring nut is screwed onto the threaded metal part of the RFL R body for panel mounting.

RFL R PIPE-PIPE UNIDIRECTIONAL

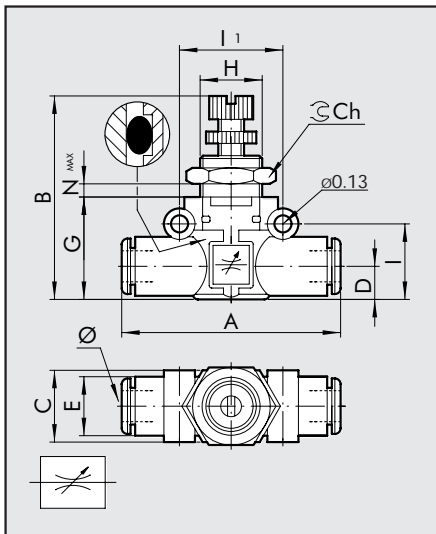


Code	Ref.	Ø	A	B	C	D	E
9041301	RFL R U 5/32-5/32	5/32	1.57	1.32-1.44	0.42	0.22	0.39
9041316U	RFL R U 1/4-1/4	1/4	1.85	1.42-1.61	0.58	0.25	0.45
9041324	RFL R U 5/16-5/16	5/16	2.18	1.73-1.93	0.74	0.36	0.54

G	H	I	I1	Ch	Nmax
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0.69	M9x0.75	0.5	0.63	0.43	0.16
0.79	M12x0.75	0.57	0.79	0.59	0.16
1.02	M15x1	0.74	0.94	0.79	0.18

RFL R PIPE-PIPE BIDIRECTIONAL



Code	Ref.	Ø	A	B	C	D	E
9041601	RFL R B 5/32-5/32	5/32	1.57	1.32-1.44	0.42	0.22	0.39
9041616U	RFL R B 1/4-1/4	1/4	1.85	1.42-1.61	0.58	0.25	0.45
9041624	RFL R B 5/16-5/16	5/16	2.18	1.73-1.93	0.74	0.36	0.54

G	H	I	I1	Ch	Nmax
---	---	---	----	----	------

0.69	M9x0.75	0.5	0.63	0.43	0.16
0.79	M12x0.75	0.57	0.79	0.59	0.16
1.02	M15x1	0.74	0.94	0.79	0.18

NOTES

MINIATURE REDUCER, Series "RML"



The RML R miniature pressure regulator belongs to the LINE ON LINE® family and can be connected in series or in parallel with all the other products.

The miniature pressure regulator is available.

The miniature pressure regulator is fitted with a relief valve for over-pressure exhaust.

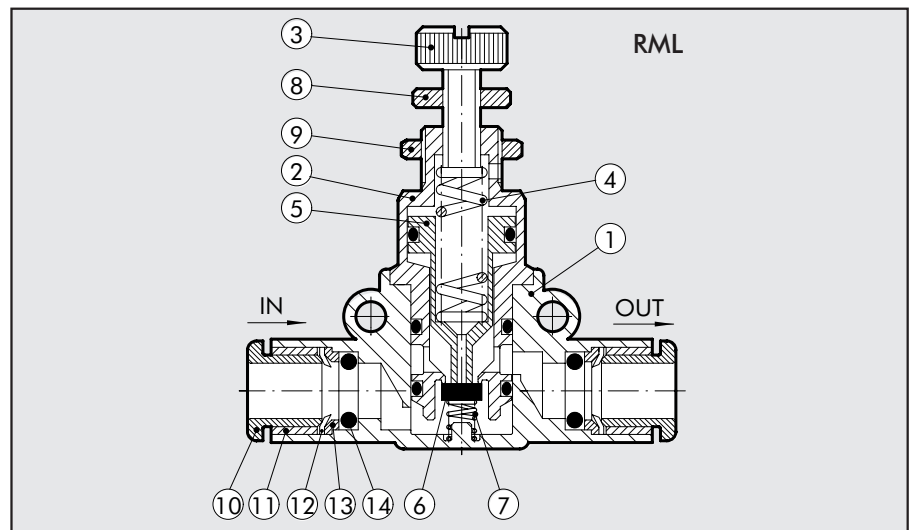
- Particularly suitable for use between the valve and actuator and as a pressure regulator in secondary branches of the pneumatic system.



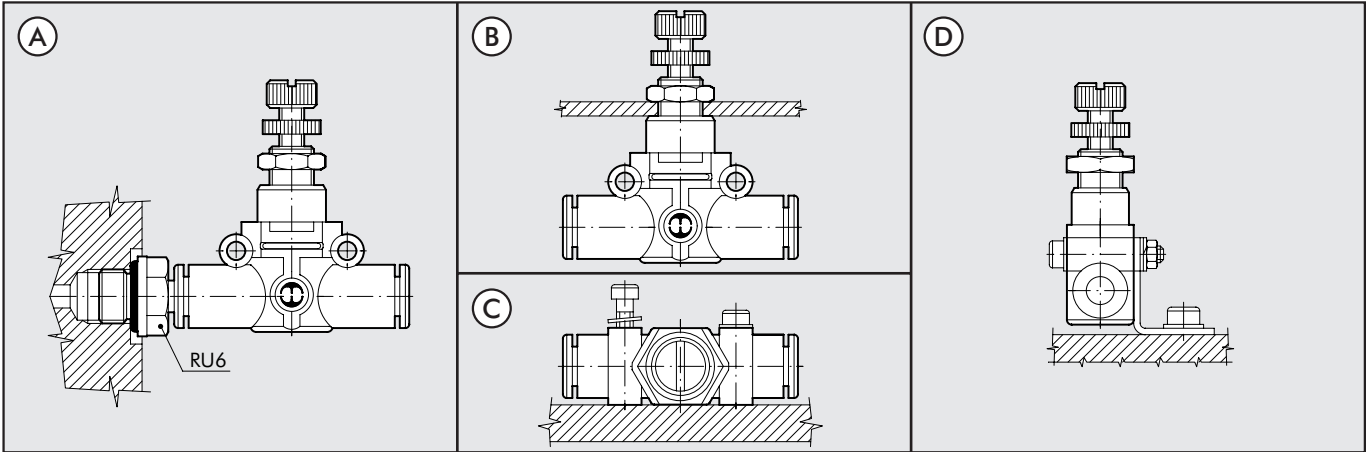
TECHNICAL DATA	RML Ø 1/4	RML Ø 5/16
Pipe coupling	Ø 1/4	Ø 5/16
Regulation range	15 ÷ 120 psi	
Inlet pressure	30 ÷ 150 psi	
Flow rate at 90 psi ΔP 14.5 psi	150 NI/min	260 NI/min
Flow rate on relief at 90 psi	400 NI/min	600 NI/min
Fluid	lubricated or unlubricated filtered air	
Max. temperature at 150 psi	-20 ÷ +60 °C	
	-4 ÷ +140 °F	
Assembly position	available	
Comments	In the miniature regulator the pressure must always be set upwards.	

COMPONENTS

- ① Technopolymer body
- ② Nickel-plated brass insert
- ③ Nickel-plated brass adjusting screw
- ④ Steel adjusting spring
- ⑤ Brass piston rod
- ⑥ NBR shutter
- ⑦ Stainless steel shutter spring
- ⑧ Adjusting screw ring nut
- ⑨ Nickel-plated brass wall ring nut
- ⑩ Technopolymer release bushing
- ⑪ Technopolymer stop bushing
- ⑫ Stainless steel crimping spring
- ⑬ Technopolymer spring ring
- ⑭ NBR gasket
- ⑮ Nickel-plated brass rotating ring



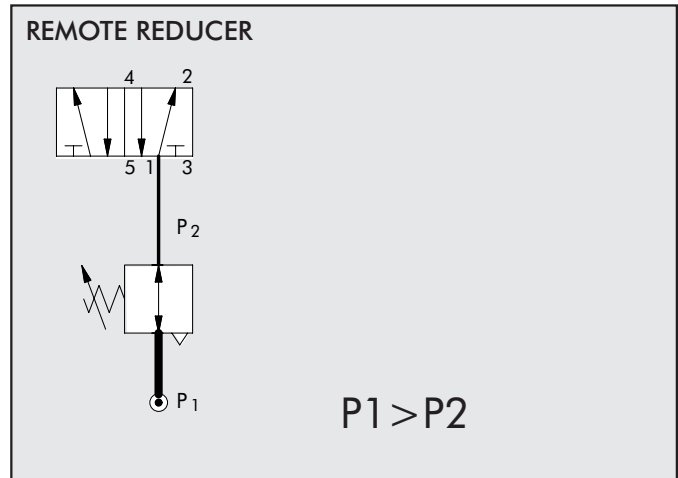
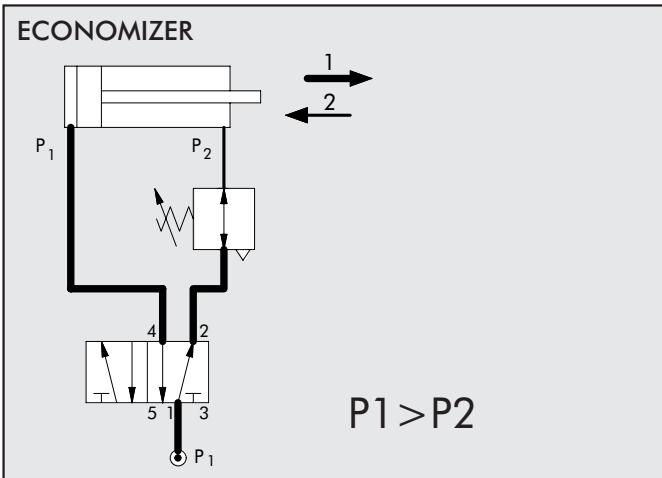
ASSEMBLY OPTION



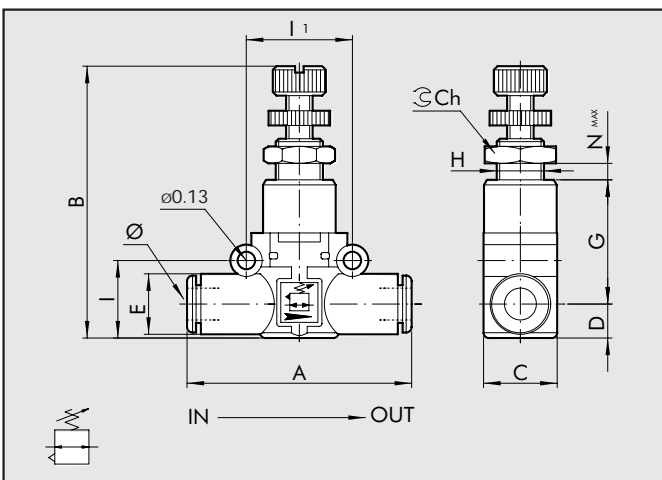
How to assembly RML

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the RML straight on to the actuator or the control valve.
- Fig. B: By using the ring nut screwed on the threaded body it's possible the assembling on panels
- Fig C: On the plastic body there are two strong ring for the direct wall assembly
- Fig. D: Fixing on plate trough the proper small square SQU L

POSSIBLE APPLICATIONS



LINE-MOUNTED MINIATURE REDUCER, SERIES RML



Code	Ref.	Ø	A	B	C	D	E
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9061316U	RML 1/4-1/4	1/4	1.85	1.81-2.05	0.58	0.25	0.45
9061324	RML 5/16-5/16	5/16	2.18	2.05-2.28	0.74	0.36	0.54

G	H	I	I1	Ch	Nmax
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0.98	M9x0.75	0.57	0.79	0.43	0.18
1.08	M11x1	0.74	0.94	0.51	0.15

IN-LINE QUICK-EXHAUST VALVES

Series VSR L



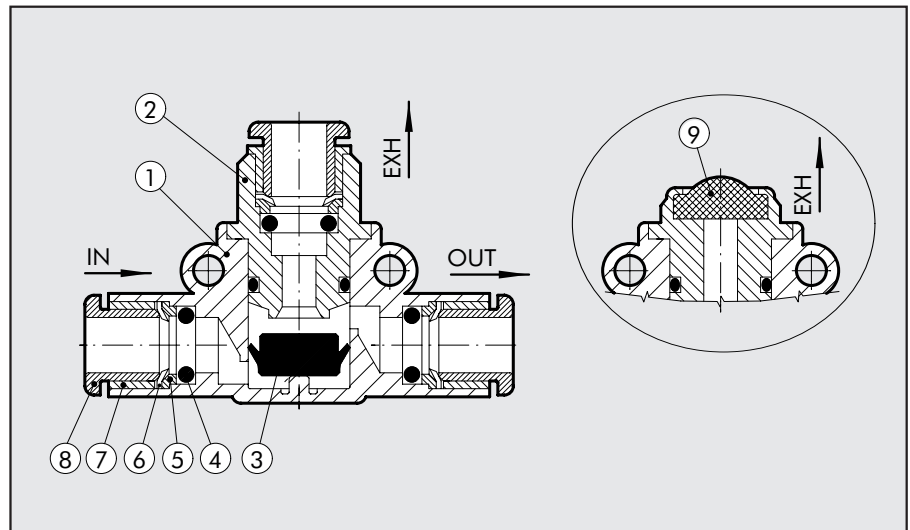
The VSR L quick-exhaust valve belongs to the LINE ON LINE® family, which means it can be connected to all the other components in series or in parallel. Available in the version for pipe-pipe connection with two FOX push-in fittings. Exhaust can be silenced using a STAINLESS steel wire silencer, or conveyed using a FOX push-in fitting.



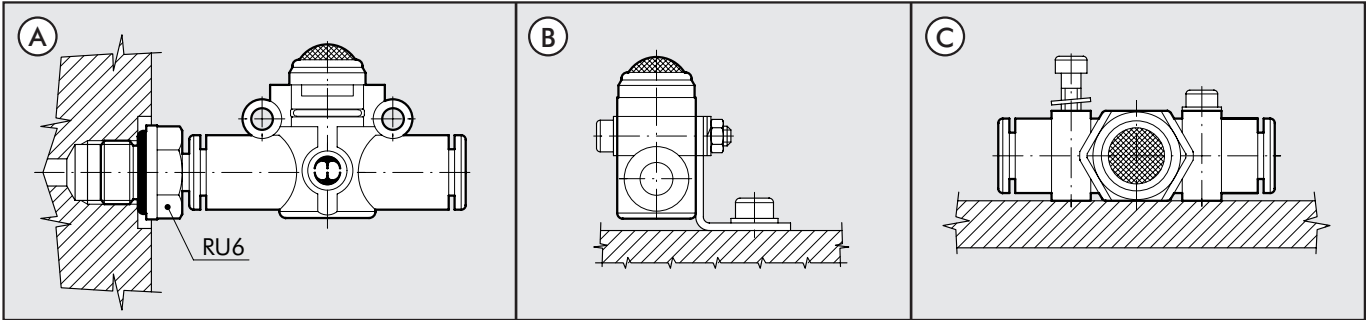
TECHNICAL DATA		Ø 1/4	Ø 5/16
Operating pressure	psi	7 ÷ 150	
Temperature range	°C	-20 to +60	
	°F	-4 to +140	
Inlet Flow rate at 90 psi ΔP 14.5 psi	NI/min	270	400
Exhaust Flow rate at 90 psi	NI/min	700	1000
Recommended pipe		Rilsan PA 11 – Nylon 6 – Polyamide 12 – Polypropylene	
Fluid		lubricated or unlubricated filtered compressed air; if used, must be continuous	

COMPONENT PARTS

- ① Technopolymer body
- ② Nickel-plated brass insert
- ③ NBR valve
- ④ NBR gasket
- ⑤ Technopolymer spring ring
- ⑥ Stainless steel folding spring
- ⑦ Brass or technopolymer locking bushing
- ⑧ Technopolymer release bushing
- ⑨ Stainless steel wire silencer



ASSEMBLY OPTIONS

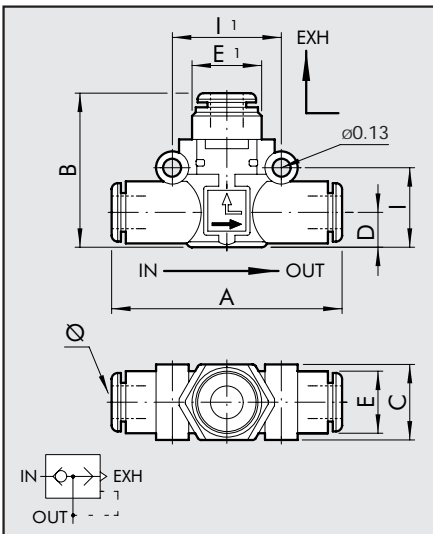


How to mount the VSR L:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the VSR L straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the RFL R straight onto the wall.

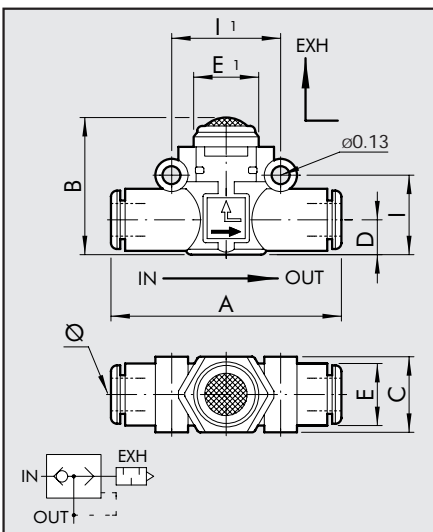
OVERALL DIMENSIONS AND ORDERING CODES

VSR L PIPE-PIPE, CONVEYED EXHAUST



Code	Ref.	Ø	A	B	C	D	E	E1	I	I1
9063016	VSR L 1/4-1/4-1/4	1/4	1.85	1.14	0.58	0.25	0.45	0.51	0.57	0.79
9063024	VSR L 5/16-5/16-5/16	5/16	2.18	1.37	0.74	0.36	0.54	0.59	0.74	0.94

VSR L PIPE-PIPE, SILENCED EXHAUST



Code	Ref.	Ø	A	B	C	D	E	E1	I	I1
9063116U	VSR L 1/4-1/4-SIL	1/4	1.85	1	0.58	0.25	0.45	0.51	0.57	0.79
9063124	VSR L 5/16-5/16-SIL	5/16	2.18	1.24	0.74	0.36	0.54	0.71	0.74	0.94

IN-LINE CHECK VALVE Series VNR L



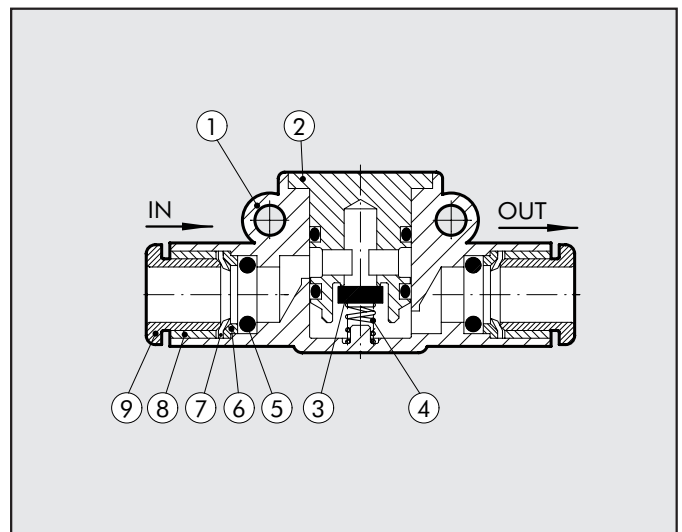
The VNR L check valve belongs to the LINE ON LINE® family, which means it can be connected to all the other components in series or in parallel. Available in the version for pipe-pipe connection with two FOX push-in fittings. It is still the only check valve with holes for wall mounting.



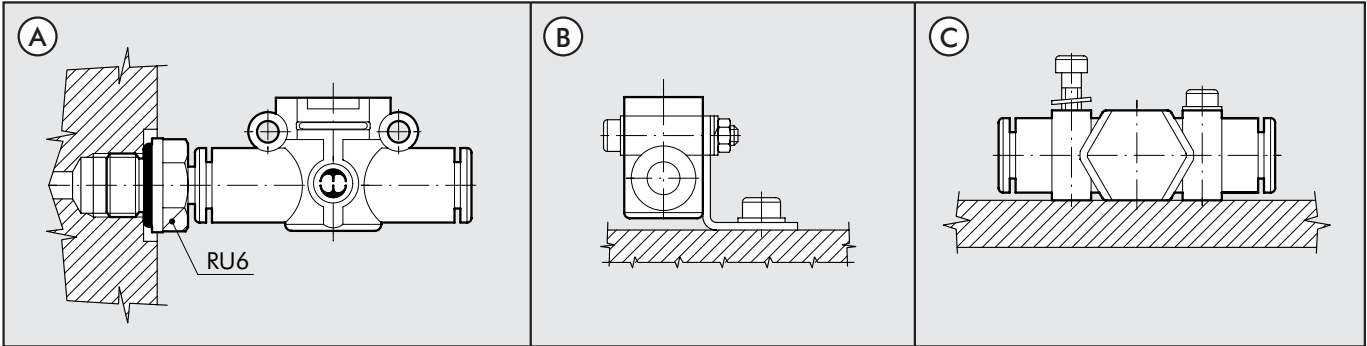
TECHNICAL DATA		Ø 1/4	Ø 5/16
Operating pressure	psi	7 ÷ 170	
Temperature range	°C	-20 to +60	
	°F	-4 to +140	
Flow rate at 90 psi ΔP 14.5 psi	NI/min	320	480
Recommended pipe		Rilsan PA 11 – Nylon 6 – Polyamide12 – Polypropylene	
Fluid		lubricated or unlubricated filtered compressed air	

COMPONENT PARTS

- ① Technopolymer body
- ② Nickel-plated brass insert
- ③ NBR valve
- ④ Stainless steel valve compression spring
- ⑤ NBR gasket
- ⑥ Technopolymer spring ring
- ⑦ Stainless steel folding spring
- ⑧ Technopolymer locking bushing
- ⑨ Technopolymer release bushing



ASSEMBLY OPTIONS

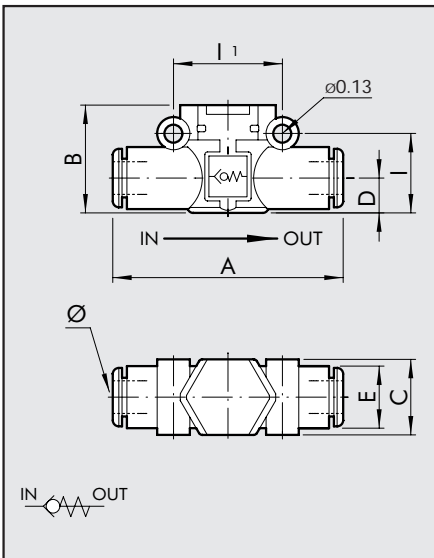


How to mount the VNR L:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the VNR L straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the VNR L straight onto the wall.

OVERALL DIMENSIONS AND ORDERING CODES

VNR L PIPE-PIPE	Code	Ref.	Ø	A	B	C	D	E	I	I1
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9064016U	VNR L 1/4-1/4	1/4	1.85	0.79	0.58	0.25	0.45	0.57	0.79
9064024	VNR L 5/16-5/16	5/16	2.18	1	0.74	0.36	0.54	0.73	0.94

NOTES

IN-LINE SHUTOFF VALVE

Series "V2V L" and "V3V L"



V2V L and V3V L shutoff valves belong to the LINE ON LINE® family which means they can be connected to all the other components in series or in parallel.

Available in the version for pipe-pipe connection with two FOX push-in fittings.

V2V is a two-way unidirectional valve, while V3V is a three-way valve with free discharge in the area around the control knob.

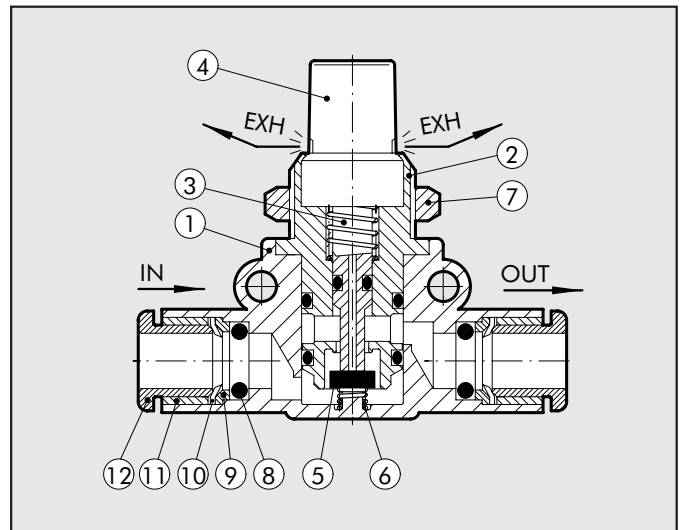
The locked version is probably the smallest available on the market. A lock is provided to ensure the valve is kept in the closed position during machine maintenance. The valve is supplied complete with a lock and two keys.



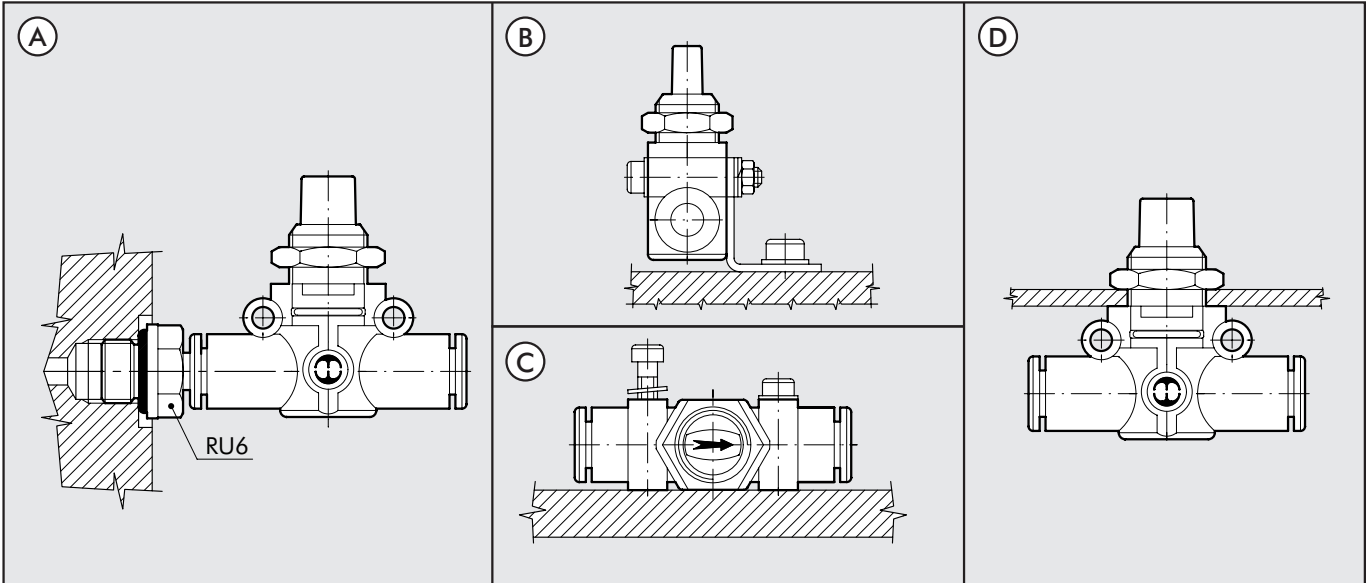
TECHNICAL DATA		Ø 1/4	Ø 5/16
Operating pressure	psi	0 ÷ 150	
Temperature range	°C	-20 to +60	
	°F	-4 to +140	
Inlet Flow rate at 90 psi ΔP 14.5 psi	NI/min	280	470
Exhaust Flow rate 90 psi	NI/min	110	110
Recommended pipe		Rilsan PA 11 – Nylon 6 – Polyamide 12 – Polypropylene	
Fluid		lubricated or unlubricated filtered compressed air; if used, must be continuous	

COMPONENT PARTS

- ① Technopolymer body
- ② Nickel-plated brass insert
- ③ Brass rod
- ④ Technopolymer knob
- ⑤ NBR valve
- ⑥ Stainless steel valve compression spring
- ⑦ Nickel-plated brass wall-mount ring nut
- ⑧ NBR gasket
- ⑨ Technopolymer spring ring
- ⑩ Stainless steel folding spring
- ⑪ Technopolymer locking bushing
- ⑫ Technopolymer release bushing



ASSEMBLY OPTIONS

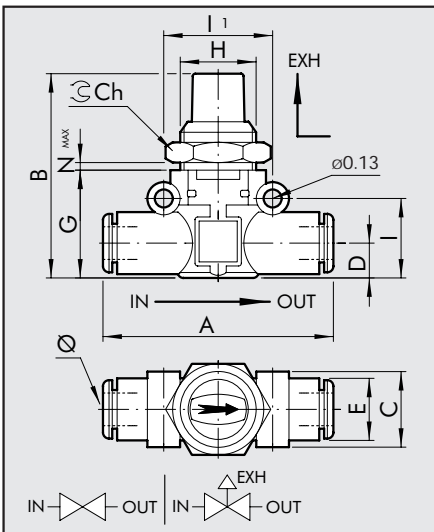


How to mount the V2V/V3V L:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the V2V/V3V L straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the V2V/V3V L straight onto the wall.
- Fig. D: the rig nut is screwed onto the threaded metal part of the V2V/V3V L body for panel mounting.

OVERALL DIMENSIONS AND ORDERING CODES

V2V/V3V L PIPE-PIPE	Code	Ref.	Ø	A	B	C	D	E
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9065016U	V2V L 1/4-1/4		1/4	1.85	1.61	0.58	0.25	0.45
9066016U	V3V L 1/4-1/4							
9065024	V2V L 5/16-5/16		5/16	2.18	1.81	0.74	0.36	0.54
9066024	V3V L 5/16-5/16							

G	H	I	I1	Ch	Nmax
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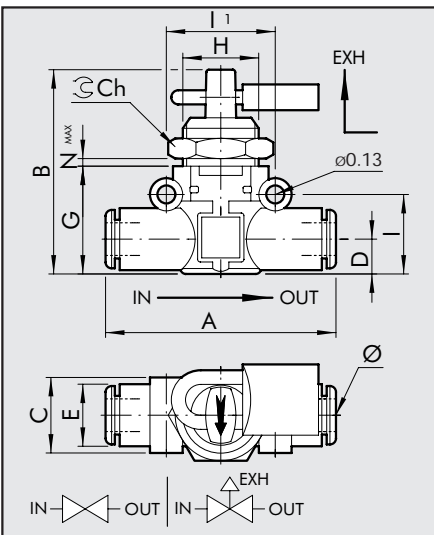
0.83	M15x1	0.57	0.79	0.67	0.22
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1.02	M15x1	0.74	0.94	0.67	0.22
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**V2V/V3V L PIPE-PIPE
PADLOCKED**

Code	Ref.	Ø	A	B	C	D	E
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9065116U	V2V L 1/4-1/4 KEY	1/4	1.85	1.61	0.58	0.25	0.45
9066116U	V3V L 1/4-1/4 KEY						
9065124	V2V L 5/16-5/16 KEY	5/16	2.18	1.81	0.74	0.36	0.54
9066124	V3V L 5/16-5/16 KEY						

G	H	I	I1	Ch	Nmax
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0.83	M15x1	0.57	0.79	0.67	0.22
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1.02	M15x1	0.74	0.94	0.67	0.22
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NOTES

IN-LINE PRESSURE GAUGE Series MAN L

The MAN L pressure gauge belongs to the LINE ON LINE® family, which means it can be connected to all the other components in series or in parallel.

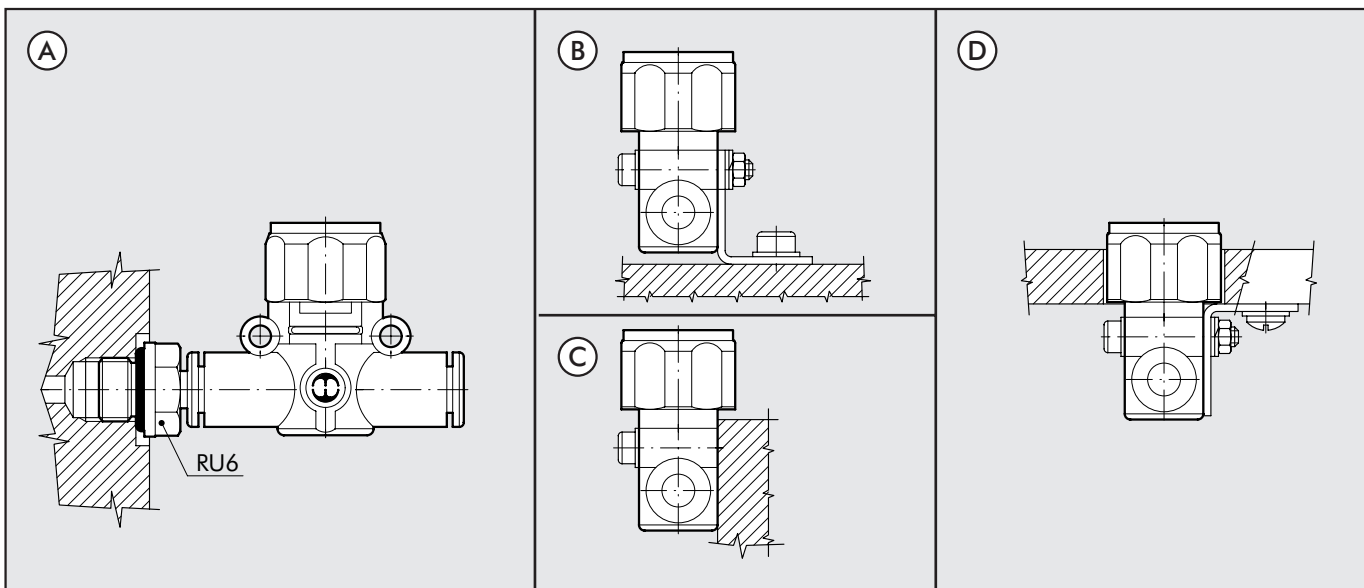
Available in the version for pipe-pipe connection with two FOX push-in fittings.

Though small in size, this pressure gauge, which is supplied in a metal casing, ensures accurate reading. It can be angled in any direction simply by rotating manually.



TECHNICAL DATA		Ø 1/4	Ø 5/16
Max. inlet pressure	psi		0 ÷ 170
Temperature range	°C		-20 to +60
	°F		-4 to +140
Precision			±4% full scale
Recommended pipe		Rilsan PA 11 – Nylon 6 – Polyamide 12 – Polypropylene	
Fluid		lubricated or unlubricated filtered compressed air	

ASSEMBLY OPTIONS



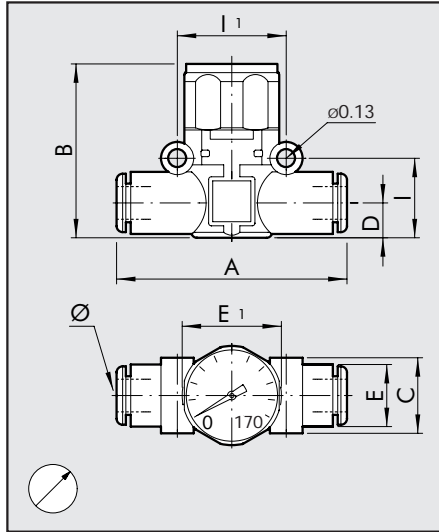
How to mount the MAN L:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the MAL L straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the MAN L straight onto the wall.
- Fig. D: Use the SQL L bracket for panel mounting the MAN L.



OVERALL DIMENSIONS AND ORDERING CODES

MAN L PIPE-PIPE	Code	Ref.	Ø	A	B	C	D	E	E1	I	I1
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9067016U	MAN L 1/4-1/4	1/4	1.85	1.38	0.58	0.25	0.45	0.9	0.57	0.79
9067024	MAN L 5/16-5/16	5/16	2.18	1.61	0.74	0.36	0.54	0.9	0.74	0.94

NOTES

IN-LINE PRESSURE INDICATOR Series LAM L

The LAM L pneumatic light indicator belongs to the LINE ON LINE® family, which means it can be connected to all the other components in series or in parallel.

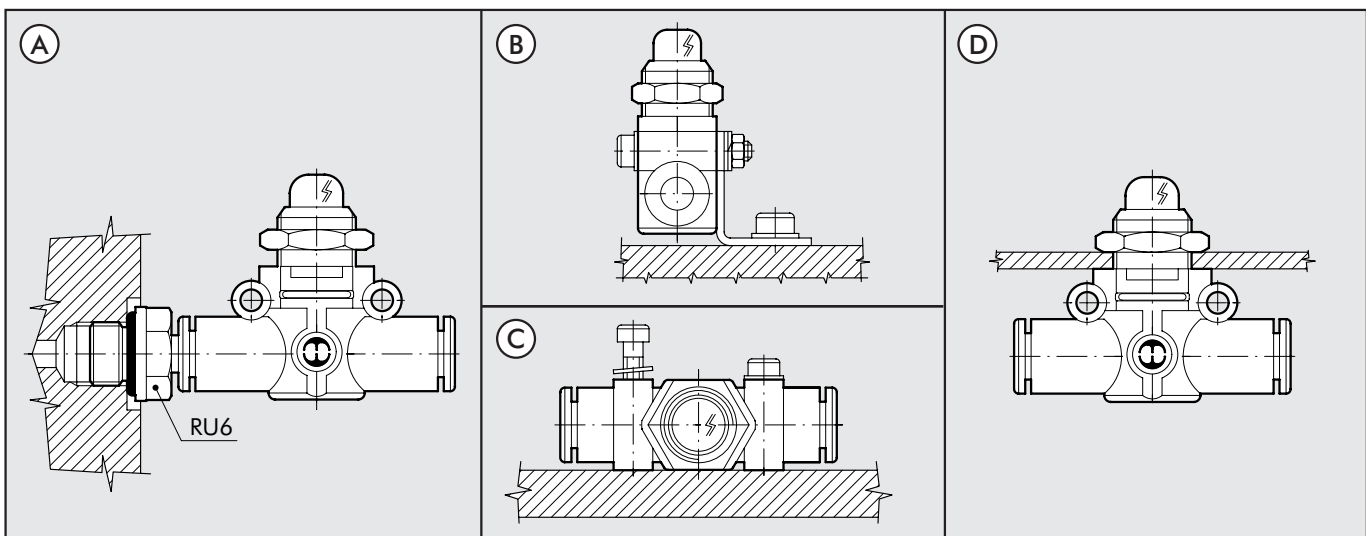
Available in the version for pipe-pipe connection with two FOX push-in fittings.

When there is no pressure, the clear technopolymer bell looks empty. When there is pressure, a red signal appears. The clear bell can be cleaned using normal detergents or ethyl alcohol, as the technopolymer used is fully compatible.



TECHNICAL DATA		Ø 1/4	Ø 5/16
Max. inlet pressure	psi		30 ÷ 150
Temperature range	°C		-20 to +60
	°F		-4 to +140
Colour with pressure			orange - green
Recommended pipe			Rilsan PA 11 – Nylon 6 – Polyamide 12 – Polypropylene
Fluid			lubricated or unlubricated filtered compressed air; if used, must be continuous

ASSEMBLY OPTIONS



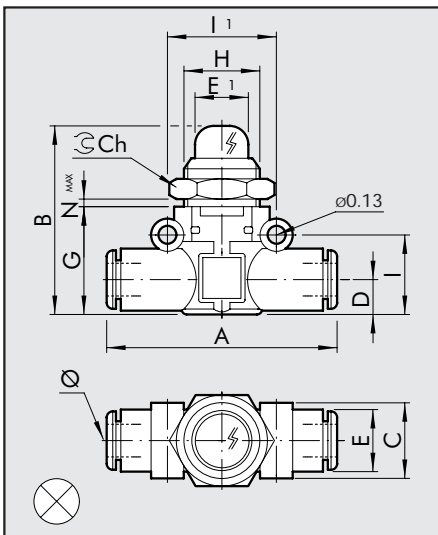
How to mount the LAM L:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the LAM L straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the LAM L straight onto the wall.
- Fig. D: The ring nut is screwed onto the threaded metal part of the LAM L body for panel mounting.



OVERALL DIMENSIONS AND ORDERING CODES

LAM L PIPE-PIPE	Code	Ref.	∅	A	B	C	D	E	E1
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9068016U	LAML 1/4-1/4-A	1/4	1.85	1.46	0.58	0.25	0.45	0.42
9068216U	LAML 1/4-1/4-V							
9068024	LAML 5/16-5/16-A	5/16	2.18	1.61	0.74	0.36	0.54	0.42
9068224	LAML 5/16-5/16-V							

G	H	I	I1	Ch	Nmax
0.83	M15x1	0.57	0.79	0.67	0.18
1.02	M15x1	0.74	0.94	0.67	0.18

A = ORANGE
V = GREEN

NOTES

IN-LINE SOLENOID VALVE Series SOV L

SOV L solenoid valves belong to the LINE ON LINE® family, which means they can be connected to all the other components in series or in parallel.

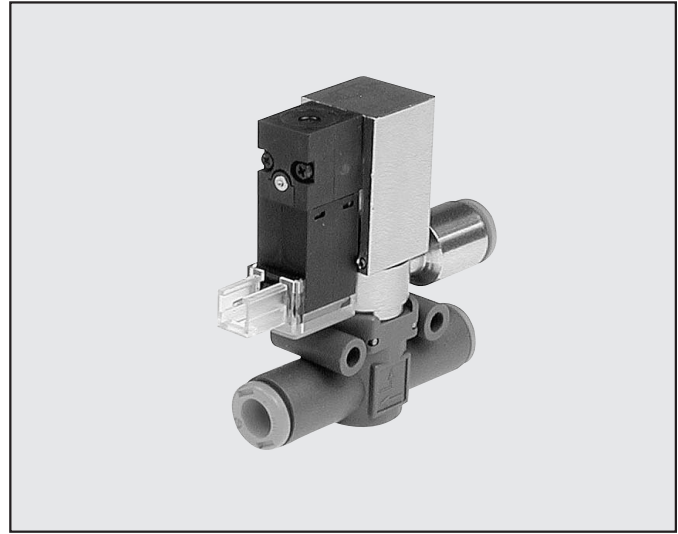
Available in the version for pipe-pipe connection with two FOX push-in fittings.

Though small in size, SOV L valves are solenoid-piloted and feature very high performance.

The spool distributor is fitted with special polyurethane gaskets to ensure a very long working life.

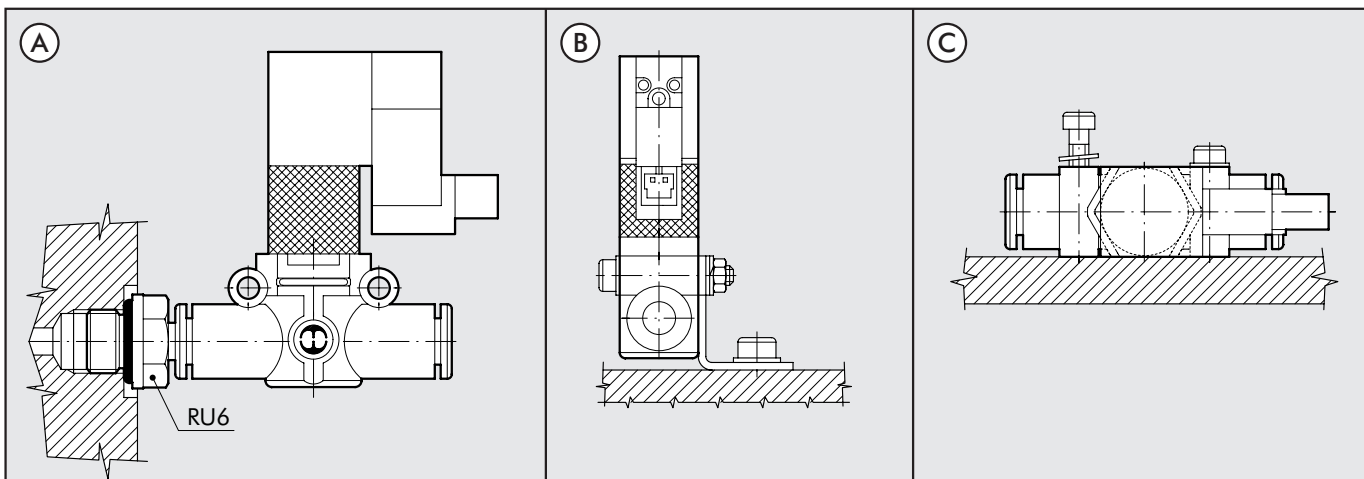
Each valve comes complete with a monostable manual control and LED.

Exhaust can be damped with an annular silencer.



TECHNICAL DATA		Ø 1/4	Ø 5/16
Max. inlet pressure	psi	30 ÷ 100	
Temperature range	°C	-10 to +60	
	°F	+14 to +140	
Flow rate at 90 psi ΔP 7.2 psi	NI/min	270	500
Flow rate at 90 psi ΔP 14.5 psi	NI/min	380	700
Conductance C	NI/min*bar	95.8	178.1
Coefficient b	bar/bar	0.145	0.129
Voltage	VDC	24	
Power	W	1.2	
Recommended pipe Fluid		Rilsan PA 11 – Nylon 6 – Polyamide 12 – Polypropylene lubricated or unlubricated filtered compressed air; if used, must be continuous	

ASSEMBLY OPTIONS



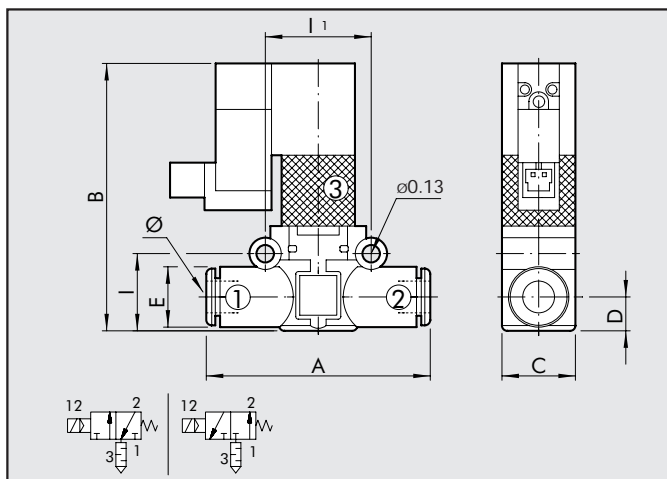
How to mount the SOV L:

- Fig. A: Adding a RU6 fitting, with his male NPT thread, it is possible to mount the SOV L straight on to the actuator or the control valve.
- Fig. B: Fixing to the plate with the special SQU L bracket.
- Fig. C: There are two robust rings on the plastic body for fixing the SOV L straight onto the wall.



OVERALL DIMENSIONS AND ORDERING CODES

SOV L 3/2 NC-NO PIPE-PIPE SILENCED EXHAUST



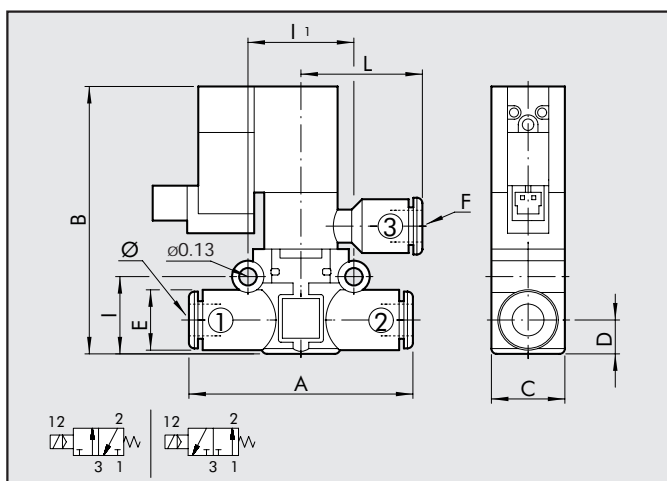
Code	Ref.	\varnothing	A	B	C
9069016U	SOV L 3/2 NC 1/4-1/4	1/4	1.85	2.18	0.58
9069116U	SOV L 3/2 NO 1/4-1/4				
9069024	SOV L 3/2 NC 5/16-5/16	5/16	2.18	2.5	0.74
9069124	SOV L 3/2 NO 5/16-5/16				

D	E	I	I1
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0.25	0.45	0.57	0.79
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0.36	0.54	0.74	0.94
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SOV L 3/2 NC-NO PIPE-PIPE CONVEYED EXHAUST



Code	Ref.	\varnothing	A	B	C	D
9069216U	SOV L 3/2 NC 5/16-5/16-5/16	1/4	1.85	2.18	0.58	0.25
9069316U	SOV L 3/2 NO 5/16-5/16-5/16					
9069224	SOV L 3/2 NC 1/4-1/4-1/4	5/16	2.18	2.5	0.74	0.36
9069324	SOV L 3/2 NO 1/4-1/4-1/4					

E	F	I	I1	L
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0.45	$\varnothing 1/4$	0.57	0.79	1.06
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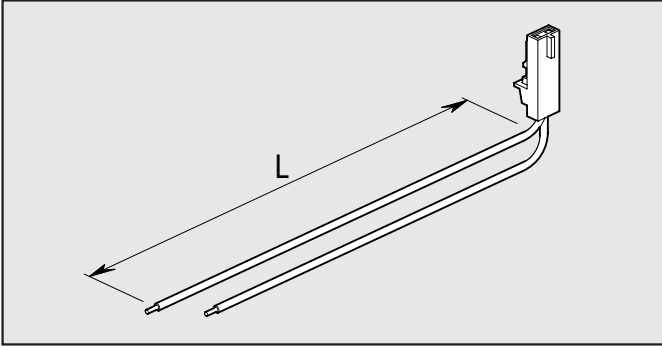
0.54	$\varnothing 5/16$	0.74	0.94	1.18
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NOTES

ACCESSORIES

PLUG-IN CONNECTOR

NOTES

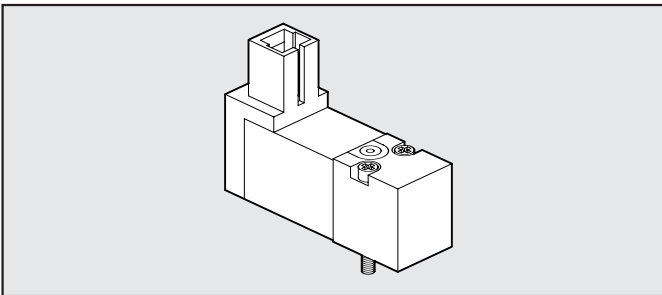


Code	Description
W0970512000	PLUG-IN CONNECTOR MACH 11 L=300

SPARES

PLUG-IN PILOT

NOTES

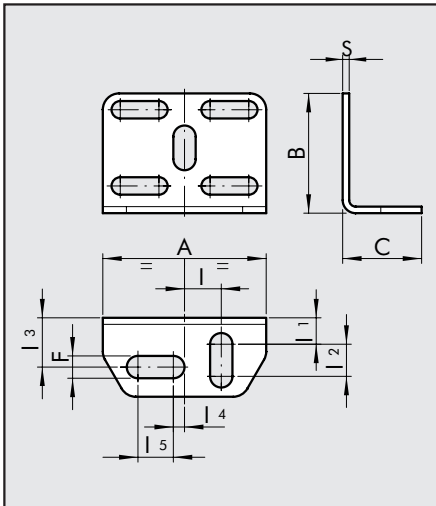


Code	Description
W4005001100	PLUG-IN PILOT B01 24VDC LED



FIXING SQUARE KIT

Code	Description	A	B	C	F	I	I1	I2	I3	I4	I5	S
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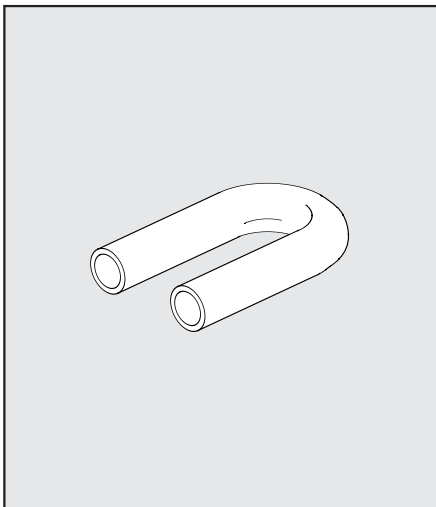


9062110	SQU L	1.18	0.87	0.57	0.16	0.27	0.19	0.23	0.36	0.08	0.25	0.05
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NOTE: comes with two m3x16 screws (for L.O.L. Ø 6 - 8), two m3 hexagonal nuts, 2 groovers, 4 washers.

U-BOLT

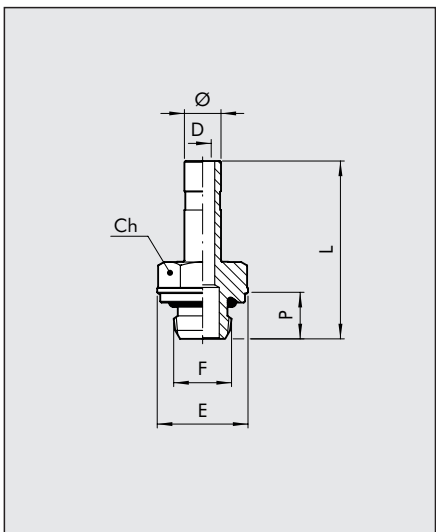
Code	Description
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9062216U	TUB L 1/4-1/4
9062224	TUB L 5/16-5/16

RU6 - STEM ADAPTORS

MW Part. No.	Ref.	ø	F	Ch		P	L	D	E
				Inc	mm				



2U06001	RU6	5/32	10/32 UNF	5/16	8	0,16	0,99	0,08	0,35
2U06002	RU6	5/32	1/8 NPT	0,472	12	0,24	1,09	0,10	0,51
2U06003	RU6	5/32	1/4 NPT	0,551	14	0,31	1,19	0,10	0,65
2U06000	RU6	1/4	10/32 UNF	5/16	8	0,16	1,01	0,08	0,35
2U06007	RU6	1/4	1/8 NPT	0,472	12	0,24	1,11	0,16	0,51
2U06008	RU6	1/4	1/4 NPT	0,551	14	0,31	1,20	0,16	0,65
2U06020	RU6	1/4	3/8 NPT	0,669	17	0,35	1,31	0,16	0,79
2U06009	RU6	5/16	1/8 NPT	0,472	12	0,24	1,15	0,22	0,51
2U06010	RU6	5/16	1/4 NPT	0,551	14	0,31	1,24	0,24	0,65
2U06011	RU6	5/16	3/8 NPT	0,669	17	0,35	1,35	0,24	0,79

