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lineonline®

LINE OF PRODUCTS ON LINE

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, or for thread-pipe connection with a brass nickel-plated male ISO 228 G (BSP) thread and a push-in fitting.

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.

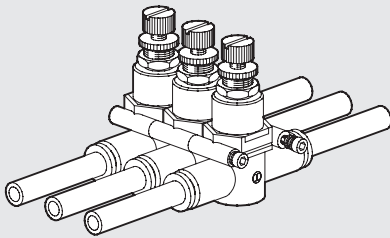
For almost every function it is available $\varnothing 1/4$ and $\varnothing 3/8$ " tube version.

It is also possible to use RU6 fitting to mount LINE ON LINE® on thread UNF or NPT.

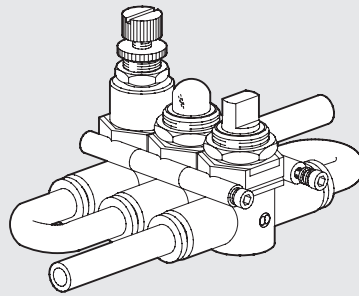


CONNECTION FREE

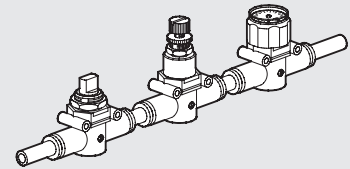
Parallel lines



Serial line parallel fitting



Serial line in-line fitting



FIXING FREE

Wall fixing

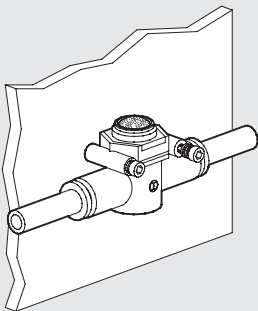
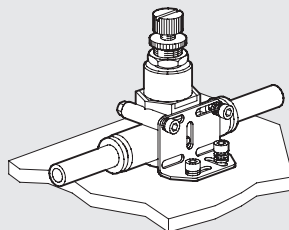
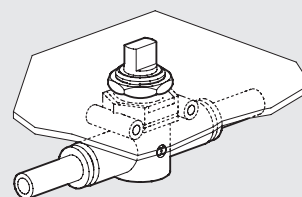


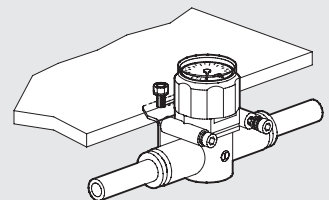
Plate fixing

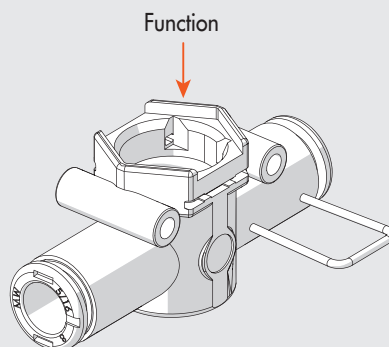



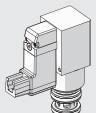
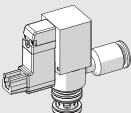


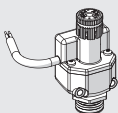



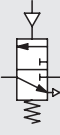
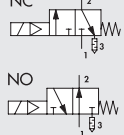
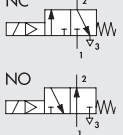
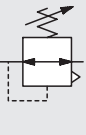





Panel fixing

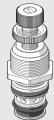













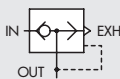
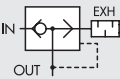
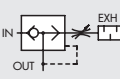
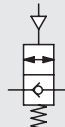




Under wall fixing



ALL THE PNEUMATIC FUNCTIONS WITH THE SAME EXTERNAL DIMENSIONS


PNV	SOV	RML ●▲	MAN ●▲	PRS ●▲	LAM ●	V2V ●▲	V3V ●▲	
								
3-way pneumatic valve	Solenoid valve 3-way with silenced exhaust	Solenoid valve 3-way with conveyed exhaust	Pressure regulator	Pressure gauge	Pressure switch	Pressure indicator	Shut-off valve 2-way	Shut-off valve 3-way
								
See page E1.7	See page E1.10	See page E1.14	See page E1.18	See page E1.20	See page E1.24	See page E1.26	See page E1.26	

RFL ●▲	RFF	VSR ●▲	VSRR	STP	VNR ●▲	FIL ▲			
									
Flow regulator unidirectional	Flow regulator bidirectional	Calibrated choke unidirectional	Calibrated choke bidirectional	Quick-exhaust valve conveyed	Quick-exhaust valve silenced	Quick-exhaust valve regulated	Stop valve	Check valve	Filter
									
See page E1.29	See page E1.34	See page E1.37	See page E1.39	See page E1.42	See page E1.45	See page E1.47			

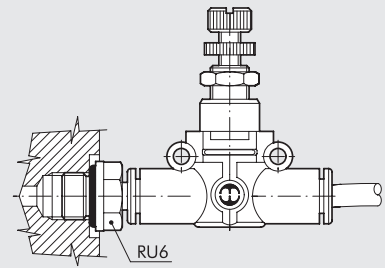
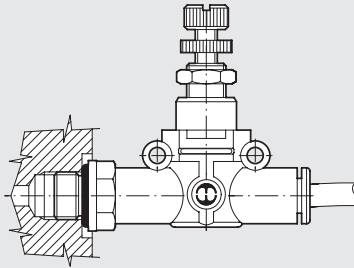
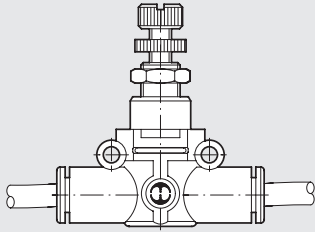
- Available also in tube Ø 1/4" version
- ▲ Available also in tube Ø 3/8" version

PIPE - PIPE

THREAD - PIPE

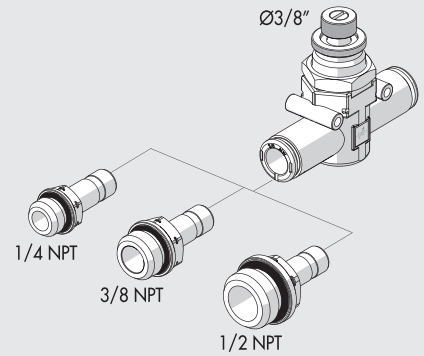
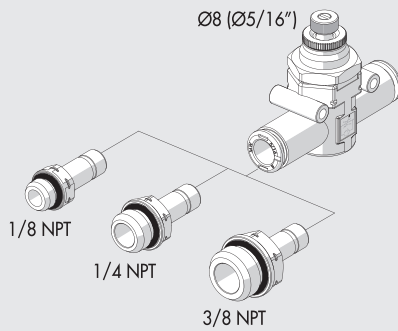
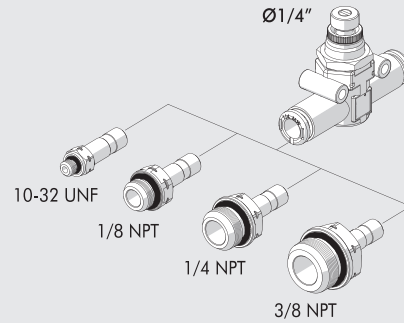
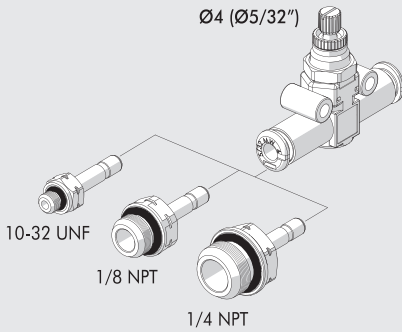
ISO 228 G (BSP) THREAD

UNF or NPT THREAD

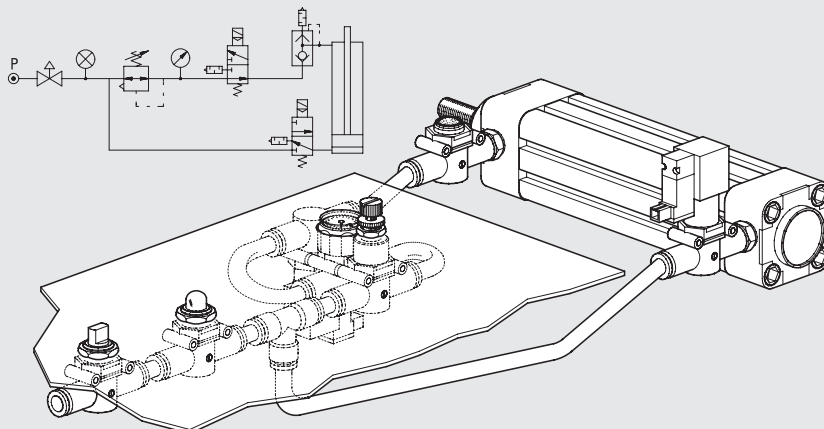


FROM TUBE - TUBE TO UNF or NPT THREAD - TUBE TRANSFORMATION

Using the RU6 fitting, it is possible to mount every Line on Line products on to the actuator or the control valve.



APPLICATION EXAMPLE



IN-LINE PNEUMATIC VALVE SERIES PNV L



The PNV L in-line pneumatic valve belongs to the LINE ON LINE® family and can be connected in series or in parallel with the other products in the same family.

It is available in a version for pipe-pipe connection, which includes two push-in fittings, and a version for thread-pipe connection, which includes a nickel-plated brass male thread and a push-in fitting.

The compressed air port is a push-in fitting for $\varnothing 4$ ($\varnothing 5/32''$) pipe.

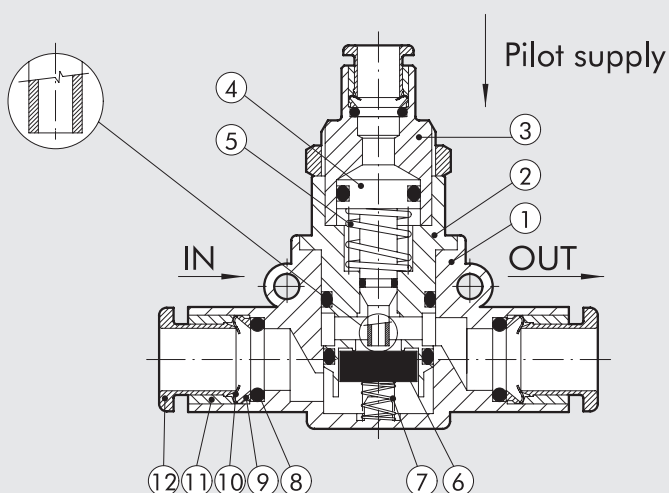
The valve is the normally-closed 3/2 pipe. It is a unidirectional valve, meaning it only works properly if supplied from port 1.



TECHNICAL DATA		$\varnothing 6$	$\varnothing 8$ ($\varnothing 5/16''$)
Max. operating pressure	MPa		1
	bar		10
	psi		145
Temperature range	$^{\circ}\text{C}$		- 20 to + 60
	$^{\circ}\text{F}$		- 4 to + 140
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene	
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous	
Compatibility with oils		See chapter Z1	

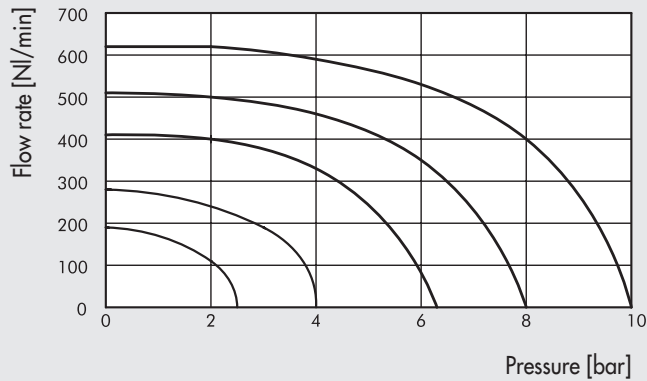
COMPONENTS

- ① Technopolymer body
- ② Nickel-plated brass insert
- ③ Nickel-plated brass pilot insert
- ④ Brass piston rod
- ⑤ Stainless steel clamping spring
- ⑥ NBR seal
- ⑦ Stainless steel poppet spring
- ⑧ NBR seal
- ⑨ Technopolymer spring ring
- ⑩ Stainless steel clamping spring
- ⑪ Technopolymer stop bushing
- ⑫ Technopolymer release bushing

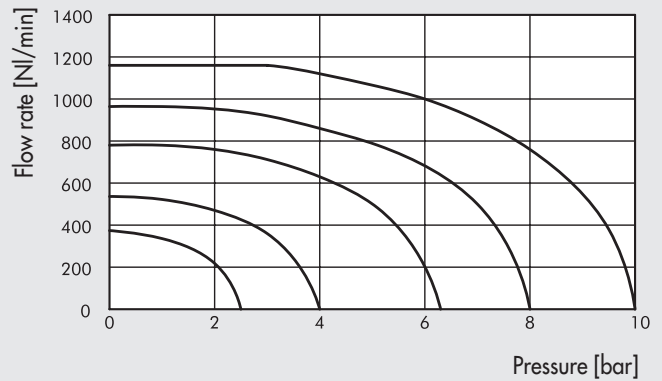


FLOW CHARTS

PNV L Ø 6

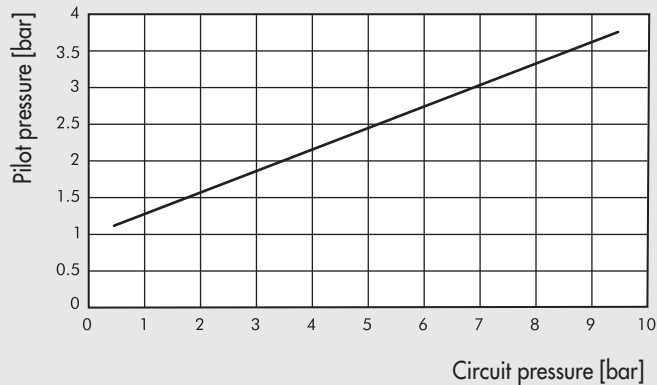


PNV L Ø 8 (Ø5/16")

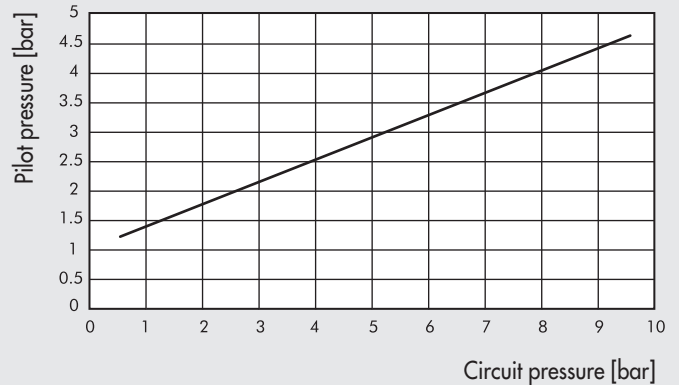


MINIMUM PILOT PRESSURE

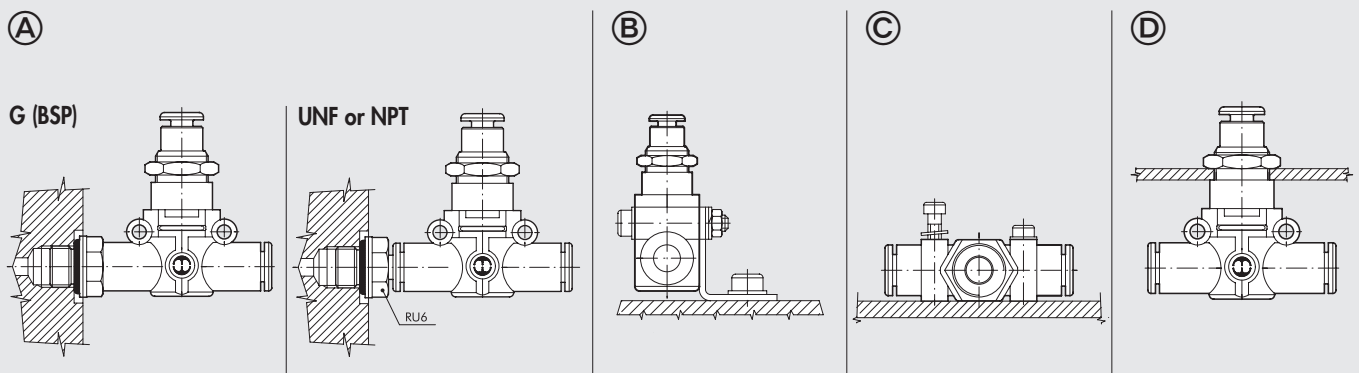
PNV L Ø 6



PNV L Ø 8 (Ø5/16")



ASSEMBLY OPTIONS



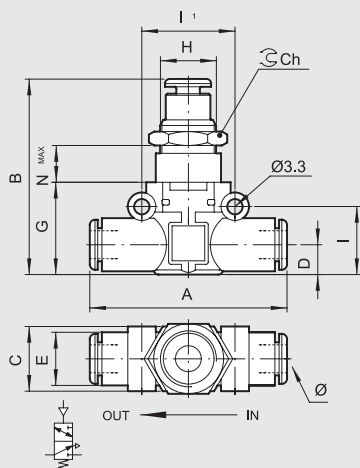
How to mount the PNV L:

- Fig. A **G (BSP)**: With the male threaded port it is possible to mount the PNV L straight onto the actuator or the control valve.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the PNV 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 PNV L straight onto the wall.
- Fig. D The ring nut is screwed onto the threaded metal part of the PNV L body for panel mounting.

PNV L 3/2 NC PIPE - PIPE

Code	Ref.	Ø	A	B	C	D	E	G	H	I	II	Ch	Nmax
9067616	PNV L3/2 NC Ø6-Ø6	6	49.4	43.2	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	12
9067624	PNV L3/2 NC Ø8-Ø8	8 ▲	57.3	49.7	18.7	9.1	13.8	26	M15x1	18.7	24	17	11.8

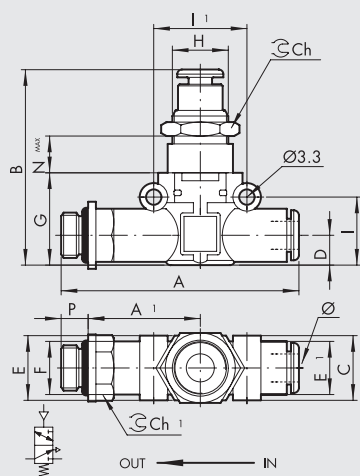
▲ Ø8 = Ø5/16"



PNV L 3/2 NC PIPE - G (BSP) THREAD

Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Nmax
9067808	PNV L3/2 NC Ø6-1/8	1/8	6	6	58.5	27.8	43.2	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12
9067809	PNV L3/2 NC Ø6-1/4	1/4	6	8	61.5	28.8	43.2	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	12
9067810	PNV L3/2 NC Ø8-1/8	1/8	8 ▲	6	66.2	31.8	49.7	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	11.8
9067811	PNV L3/2 NC Ø8-1/4	1/4	8 ▲	8	70.6	34.2	49.7	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	11.8
9067812	PNV L3/2 NC Ø8-3/8	3/8	8 ▲	9	72.2	34.8	49.7	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	11.8

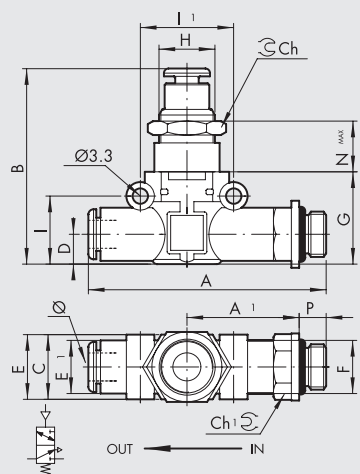
▲ Ø8 = Ø5/16"



PNV L 3/2 NC G (BSP) THREAD - PIPE

Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Nmax
9067708	PNV L3/2 NC 1/8-Ø6	6	1/8	6	58.5	27.8	43.2	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12
9067709	PNV L3/2 NC 1/4-Ø6	6	1/4	8	61.5	28.8	43.2	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	12
9067710	PNV L3/2 NC 1/8-Ø8	8 ▲	1/8	6	66.2	31.8	49.7	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	11.8
9067711	PNV L3/2 NC 1/4-Ø8	8 ▲	1/4	8	70.6	34.2	49.7	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	11.8
9067712	PNV L3/2 NC 3/8-Ø8	8 ▲	3/8	9	72.2	34.8	49.7	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	11.8

▲ Ø8 = Ø5/16"



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 push-in fittings, and in the version for thread-pipe connection with a brass nickel-plated male thread and a push-in fitting.

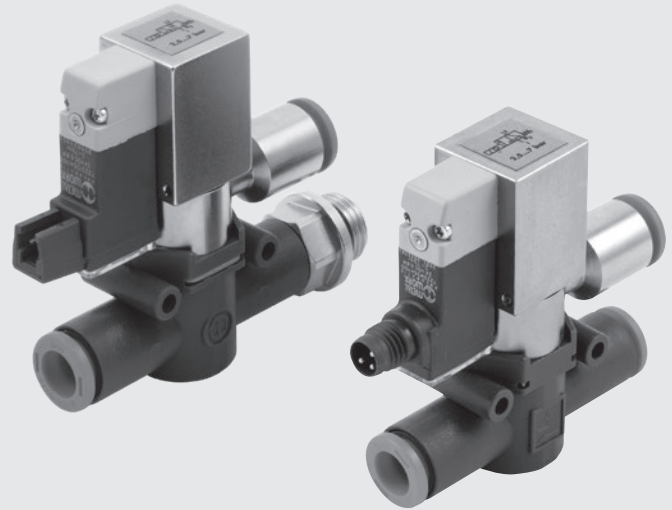
Though small in size, SOV L valves are solenoid-piloted and feature very high performance.

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.

The electrical connection can be the PLUG-IN type or the type with an M8 3 PIN IP65 threaded fitting.

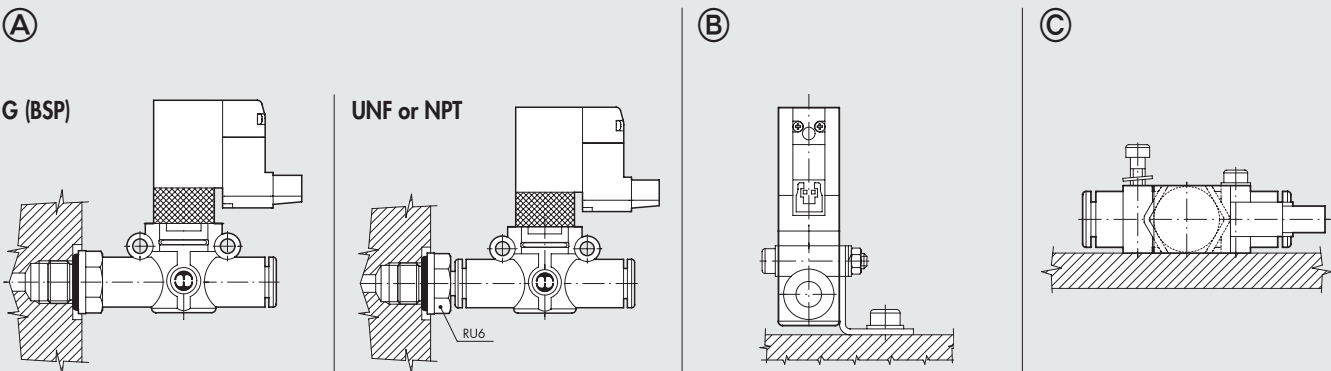
Exhaust can be damped with an annular silencer or conveyed via a pipe fitting. The fitting for conveyed exhaust can be oriented freely.



TECHNICAL DATA

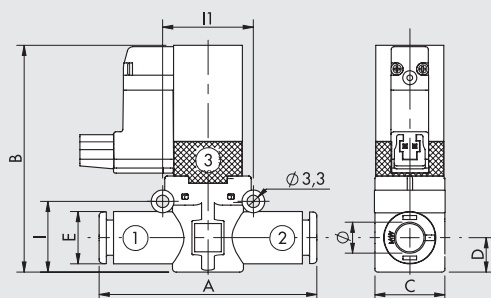
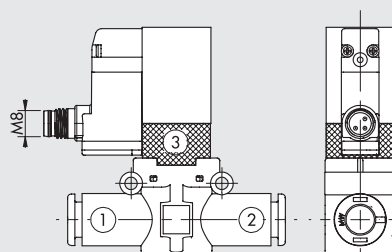
		Ø 6	Ø 1/4	Ø 8 (Ø5/16")
Operating pressure	MPa		0.3 to 0.7	
	bar		3 to 7	
	psi		43.5 to 101	
Temperature range	°C		5 to 50	
	°F		41 to 122	
Flow rate at 6.3 bar ΔP 0.5 bar	NI/min	270	270	500
Flow rate at 6.3 bar ΔP 1 bar	NI/min	380	380	700
Conductance C	NI/min-bar	95.8	95.8	178.1
Coefficient b	bar/bar	0.145	0.145	0.129
Voltage	VDC		24	
Power			0.9	
Recommended pipe		Rilsan PA11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous		
Compatibility with oils		See chapter Z1		
Type of electrical connection		PLUG-IN - M8 3 PIN IP65 threaded fitting		


ASSEMBLY OPTIONS

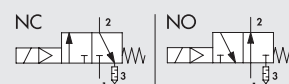


How to mount the SOV L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the SOV L straight onto the actuator.
UNF or NPT: Adding a RU6 fitting, with his male UNF or 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.

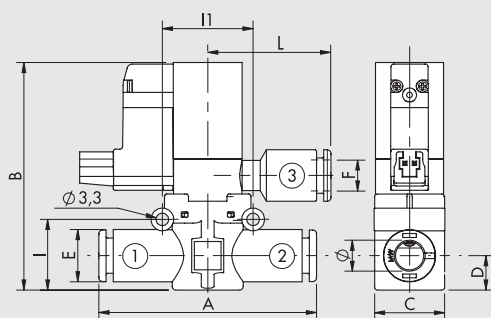
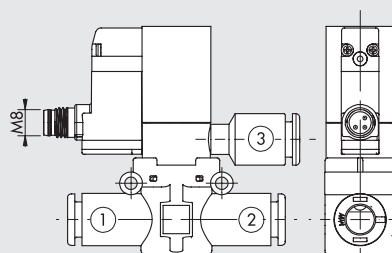
SOV L 3/2 NC-NO PIPE - PIPE SILENCED EXHAUST
PLUG-IN VERSION

M8 VERSION

M8 CONNECTION


- 
- 1 Not used
 - 3 0 V (Operation also with reverse polarity)
 - 4 +24V

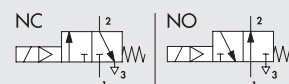


Code	Ref..	Ø	A	B	C	D	E	I	I1	Electrical connection
9069016	SOV L 3/2 NC Ø6-Ø6	6	49.4	57.5	14.7	6.4	11.4	14.6	20	PLUG-IN
906M016	SOV L 3/2 NC Ø6-Ø6 M8									M8
9069116	SOV L 3/2 NO Ø6-Ø6									PLUG-IN
9069016U	SOV L 3/2 NC Ø1/4-Ø1/4	1/4	49.4	57.5	14.7	6.4	11.4	14.6	20	PLUG-IN
906M016U	SOV L 3/2 NC Ø1/4-Ø1/4 M8									M8
9069116U	SOV L 3/2 NO Ø1/4-Ø1/4									PLUG-IN
9069024	SOV L 3/2 NC Ø8-Ø8	8 ▲	57.3	63.5	18.7	9.1	13.8	18.7	24	PLUG-IN
906M024	SOV L 3/2 NC Ø8-Ø8 M8									M8
9069124	SOV L 3/2 NO Ø8-Ø8									PLUG-IN

▲ Ø8 = Ø5/16"

SOV L 3/2 NC-NO PIPE - PIPE CONVEYED EXHAUST
PLUG-IN VERSION

M8 VERSION

M8 CONNECTION

- 
- 1 Not used
 - 3 0 V (Operation also with reverse polarity)
 - 4 +24V

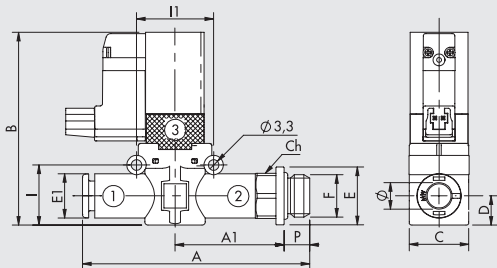


Code	Ref.	Ø	A	B	C	D	E	F	I	I1	L	Electrical connection
9069216	SOV L 3/2 NC Ø6-Ø6-Ø6	6	49.4	57.5	14.7	6.4	11.4	Ø 6	14.6	20	28.3	PLUG-IN
906M216	SOV L 3/2 NC Ø6-Ø6-Ø6 M8											M8
9069316	SOV L 3/2 NO Ø6-Ø6-Ø6											PLUG-IN
9069216U	SOV L 3/2 NC Ø1/4-Ø1/4-Ø1/4	1/4	49.4	57.5	14.7	6.4	11.4	Ø1/4	14.6	20	28.3	PLUG-IN
906M216U	SOV L 3/2 NC Ø1/4-Ø1/4-Ø1/4 M8											M8
9069316U	SOV L 3/2 NO Ø1/4-Ø1/4-Ø1/4											PLUG-IN
9069224	SOV L 3/2 NC Ø8-Ø8-Ø8	8 ▲	57.3	63.5	18.7	9.1	13.8	Ø 8 ▲	18.7	24	30	PLUG-IN
906M224	SOV L 3/2 NC Ø8-Ø8-Ø8 M8											M8
9069324	SOV L 3/2 NO Ø8-Ø8-Ø8											PLUG-IN

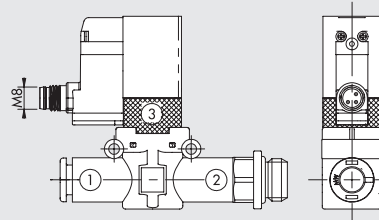
▲ Ø8 = Ø5/16"

SOV L 3/2 NC-NO PIPE - G (BSP) THREAD SILENCED EXHAUST

PLUG-IN VERSION

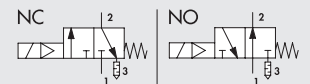


M8 VERSION



M8 CONNECTION

- 1 Not used
 3 0 V (Operation also with reverse polarity)
 4 +24V

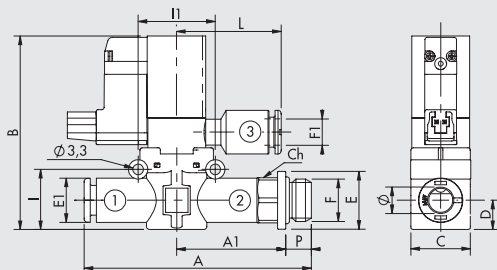


Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	I	I1	Ch	Electrical connection
9069408	SOV L 3/2 NC Ø6-1/8	6	1/8	6	58.5	27.8	57.5	14.7	6.4	14	11.4	14.6	20	12	PLUG-IN
906M408	SOV L 3/2 NC Ø6-1/8 M8														M8
9069508	SOV L 3/2 NO Ø6-1/8														PLUG-IN
9069409	SOV L 3/2 NC Ø6-1/4	6	1/4	8	61.5	28.8	57.5	14.7	6.4	18	11.4	14.6	20	14	PLUG-IN
906M409	SOV L 3/2 NC Ø6-1/4 M8														M8
9069509	SOV L 3/2 NO Ø6-1/4														PLUG-IN
9069410	SOV L 3/2 NC Ø8-1/8	8 ▲	1/8	6	66.2	31.8	63.5	18.7	9.1	15	13.8	18.7	24	14	PLUG-IN
906M410	SOV L 3/2 NC Ø8-1/8 M8														M8
9069510	SOV L 3/2 NO Ø8-1/8														PLUG-IN
9069411	SOV L 3/2 NC Ø8-1/4	8 ▲	1/4	8	70.6	34.2	63.5	18.7	9.1	18	13.8	18.7	24	14	PLUG-IN
906M411	SOV L 3/2 NC Ø8-1/4 M8														M8
9069511	SOV L 3/2 NO Ø8-1/4														PLUG-IN
9069412	SOV L 3/2 NC Ø8-3/8	8 ▲	3/8	9	72.2	34.8	63.5	18.7	9.1	22	13.8	18.7	24	17	PLUG-IN
906M412	SOV L 3/2 NC Ø8-3/8 M8														M8
9069512	SOV L 3/2 NO Ø8-3/8														PLUG-IN

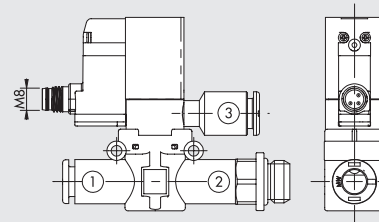
▲ Ø8 = Ø5/16"

SOV L 3/2 NC-NO PIPE - G (BSP) THREAD CONVEYED EXHAUST

PLUG-IN VERSION

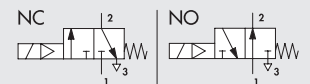


M8 VERSION



M8 CONNECTION

- 1 Not used
 3 0 V (Operation also with reverse polarity)
 4 +24V

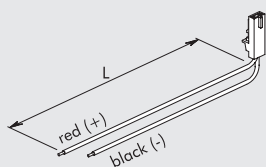


Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	F1	I	I1	L	Ch	Electrical connection
9069608	SOV L 3/2 NC Ø6-1/8-Ø6	6	1/8	6	58.5	27.8	57.5	14.7	6.4	14	11.4	Ø 6	14.6	20	28.3	12	PLUG-IN
906M608	SOV L 3/2 NC Ø6-1/8-Ø6 M8																M8
9069708	SOV L 3/2 NO Ø6-1/8-Ø6																PLUG-IN
9069609	SOV L 3/2 NC Ø6-1/4-Ø6	6	1/4	8	61.5	28.8	57.5	14.7	6.4	18	11.4	Ø 6	14.6	20	28.3	14	PLUG-IN
906M609	SOV L 3/2 NC Ø6-1/4-Ø6 M8																M8
9069709	SOV L 3/2 NO Ø6-1/4-Ø6																PLUG-IN
9069610	SOV L 3/2 NC Ø8-1/8-Ø8	8 ▲	1/8	6	66.2	31.8	63.5	18.7	9.1	15	13.8	Ø 8 ▲	18.7	24	30	14	PLUG-IN
906M610	SOV L 3/2 NC Ø8-1/8-Ø8 M8																M8
9069710	SOV L 3/2 NO Ø8-1/8-Ø8																PLUG-IN
9069611	SOV L 3/2 NC Ø8-1/4-Ø8	8 ▲	1/4	8	70.6	34.2	63.5	18.7	9.1	18	13.8	Ø 8 ▲	18.7	24	30	14	PLUG-IN
906M611	SOV L 3/2 NC Ø8-1/4-Ø8 M8																M8
9069711	SOV L 3/2 NO Ø8-1/4-Ø8																PLUG-IN
9069612	SOV L 3/2 NC Ø8-3/8-Ø8	8 ▲	3/8	9	72.2	34.8	63.5	18.7	9.1	22	13.8	Ø 8 ▲	18.7	24	30	17	PLUG-IN
906M612	SOV L 3/2 NC Ø8-3/8-Ø8 M8																M8
9069712	SOV L 3/2 NO Ø8-3/8-Ø8																PLUG-IN

▲ Ø8 = Ø5/16"

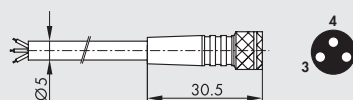
ACCESSORIES

PLUG-IN CONNECTOR



Code	Description
W0970512000	Plug-in connector Mach 11 L = 300 mm
W0970512007	Plug-in connector Mach 11 L = 1 m
W0970512002	Plug-in connector Mach 11 L = 2 m

M8 STRAIGHT CONNECTOR WITH CABLE

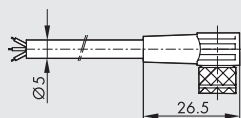


Pin	Cable color
1	Brown
3	Blue
4	Black

Code	Description
02400A0100	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 1 m
02400A0250	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 2.5 m
02400A0500	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 5 m
02400A1000	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 10 m

Very flexible cables, class 6 according to IEC 60228

90° M8 CONNECTOR WITH CABLE

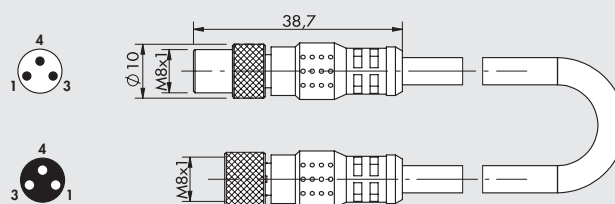


Pin	Cable color
1	Brown
3	Blue
4	Black

Code	Description
02400B0100	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 1 m
02400B0250	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 2.5 m
02400B0500	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 5 m
02400B1000	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 10 m

Very flexible cables, class 6 according to IEC 60228

M8 M - M8 F CONNECTOR

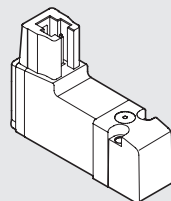


Code	Description
0240009009	M8-M8 3-pin straight connector with cable L = 3 m

Note: Can be used for direct connection to the modules with digital OUTPUT of the EB 80 valves

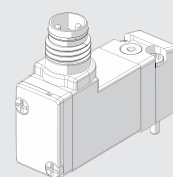
SPARE PARTS

PLUG-IN PILOT



Code	Description
722213541100	PLT-10 722213541100

M8 PILOT



Code	Description
7222M3541100	PLT-10 3/2 NC 0.8W 24VDC LED M8 with manual

MINIATURE REDUCER/ECONOMIZER, SERIES RML, RMC AND RMS

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 in five different types:

- In-line with push-in input and output fitting
- In-line with threaded input port and push-in output fitting
- In-line with push-in input fitting and threaded output port
- At an angle with threaded input port and push-in output fitting
- Cartridge type for direct assembly in suitably worked slot.

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.



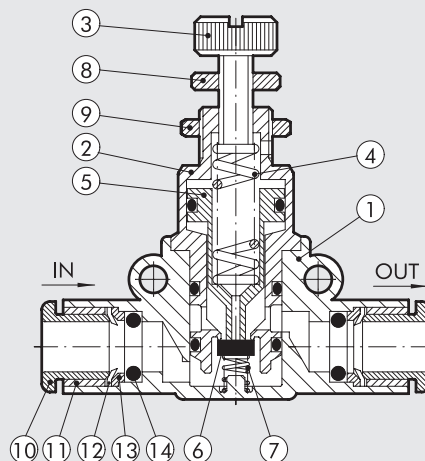
TECHNICAL DATA		RML					RMC			RMS		
		Ø 6	Ø 1/4"	Ø 8 (Ø 5/16")	Ø 3/8"	Ø 10	1/8	1/4	3/8	1/8	1/4	3/8
Threaded ports	G (BSP)	1/8"-1/4"	-	1/8"-1/4"-3/8"	-	1/4"-3/8"-1/2"	1/8"	1/4"	3/8"	1/8"	1/4"	3/8"
Pipe coupling	Ø	6	1/4"	8 ▲	3/8"	10	4 ▲ - 6 - 8 ▲	6 - 8 ▲ - 10	8 ▲ - 10 - 12	-	-	-
Regulation range		1 to 8 bar - 0.1 to 0.8 MPa - 14.5 to 116 psi										
Inlet pressure	MPa	0.2 to 1										
	bar	2 to 10										
	psi	29 to 145										
Flow rate at 6.3 bar (0.63 MPa - 91 psi) ΔP 1 bar	Nl/min	150	260	300	300	150	260	300	150	260	300	
Flow rate on exhaust at 6.3 bar (0.63 MPa - 91 psi)	Nl/min	400	600	1000	1000	400	600	1000	400	600	1000	
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous										
Max. temperature at 1 MPa; 10 bar; 145 psi	°C	- 20 to + 60										
	°F	- 4 to + 140										
Assembly position		Available										
Notes		In the miniature regulator the pressure must always be set upwards										
Compatibility with oils		See chapter Z1										

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

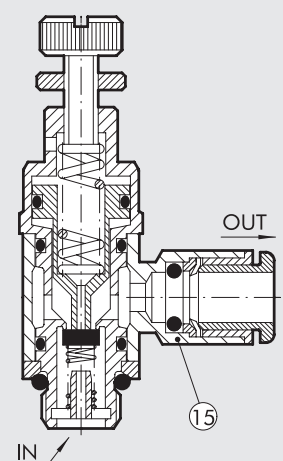
COMPONENTS

- ① Technopolymer body (brass for RMC)
- 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 (brass for RMC)
- ⑫ Stainless steel crimping spring
- ⑬ Technopolymer spring ring
- ⑭ NBR gasket
- ⑮ Nickel-plated brass rotating ring

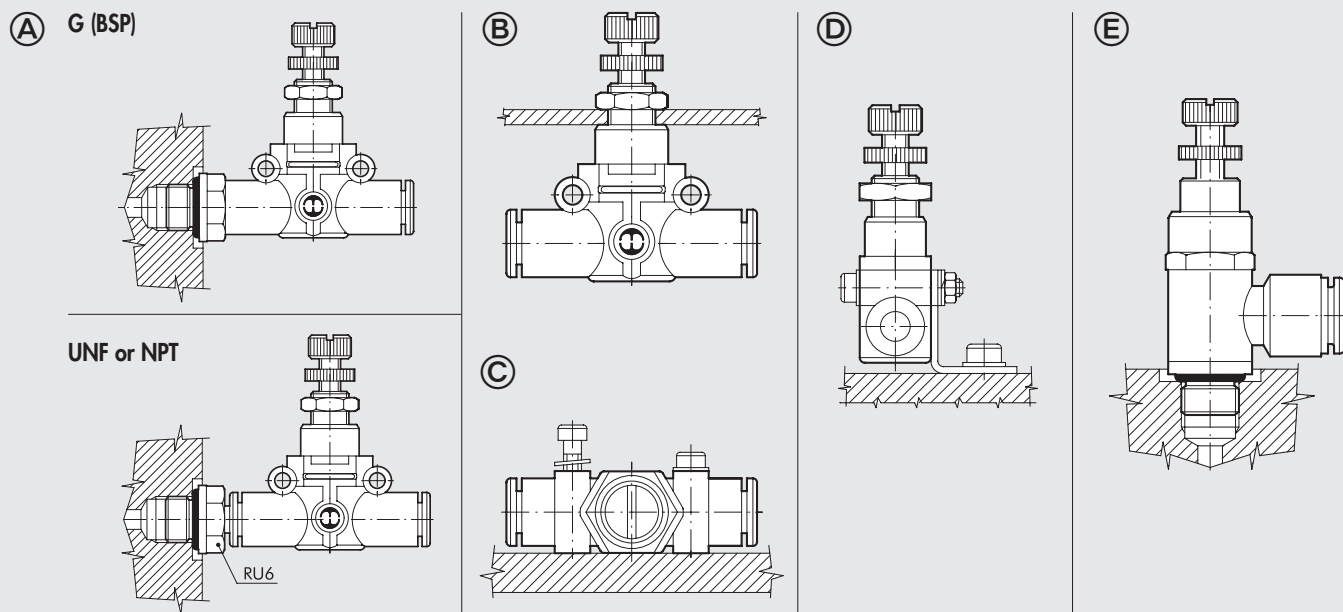
RML



RMC



ASSEMBLY OPTIONS

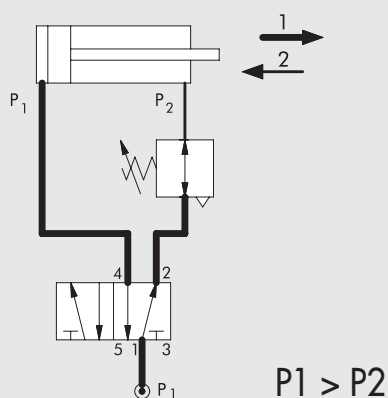


How to assembly RML/RMC:

- Fig. **A G (BSP)**: Thanks to the male threaded part it's possible to assembly directly on the actuator or on the valve.
- **UNF or NPT**: Adding a RU6 fitting, with his male UNF or 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, except for $\text{Ø}3/8$ and $\text{Ø}10$.
- Fig. **E**: For maintaining the tube the most parallel possible to the system, had been designed a specific version (RMC) with inlet and outlet at 90° .

POSSIBLE APPLICATIONS

ECONOMIZER

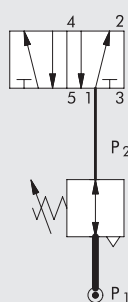


If in a cylinder you require a thrust in one direction only, e.g. piston rod extension, and a lower thrust and pressure is sufficient in the other direction, you can save a lot of energy by mounting an economizer valve.

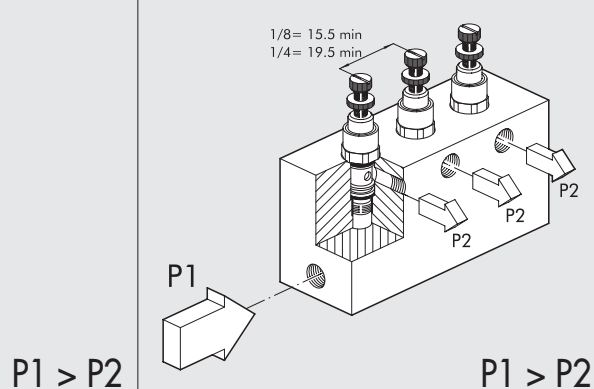
Example

Cylinder $\text{Ø} 80$ mm, stroke 200 mm, 6 bar,
12 cycles/min, 16 hours a day, 230 days a year.
Consumption: 144 Nl/min \Rightarrow 3460 kWh/year \Rightarrow
880 litres of oil \Rightarrow 2428 kg of CO_2 \Rightarrow € 346/year.
If you install an economizer that reduces the pressure
from 6 to 2 bar, you SAVE: € 115/year.

REMOTE REDUCER



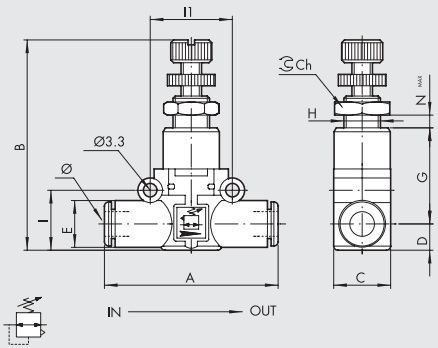
CARTRIDGE REDUCER, SERIE RMS



The cartridge regulator can be used:

- Fitted directly into the structure or along the air supply ducting.
- Package with common feed and separate regulated outlets.

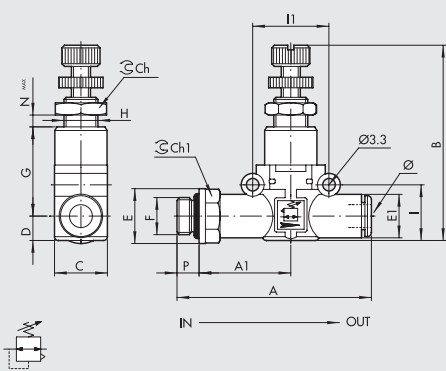
LINE-MOUNTED MINIATURE REDUCER, SERIES RML



Code	Ref.	Ø	A	B	C	D	E	G	H	I	II	Ch	Nmax
9061316	RML Ø6-Ø6	6	49.4	46÷52	14.7	6.4	11.4	24.8	M9x0.75	14.6	20	11	4.5
9061316U	RML Ø1/4-Ø1/4	1/4	49.4	46÷52	14.7	6.4	11.4	24.8	M9x0.75	14.6	20	11	4.5
9061324	RML Ø8-Ø8	8 ▲	57.3	52÷58	18.7	9.1	13.8	27.4	M11x1	18.7	24	13	3.8
9061332U	RML Ø3/8-Ø3/8	3/8	65	59÷66	21	10.9	16	30	M13x1	21.4	26	16	4.5
9061332	RML Ø10-Ø10	10	65	59÷66	21	10.9	16	30	M13x1	21.4	26	16	4.5

▲ Ø8 = Ø5/16"

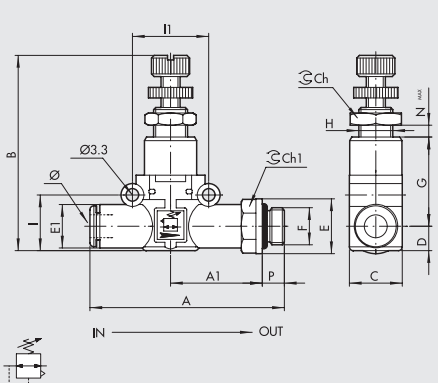
LINE-MOUNTED G (BSP) THREAD - PIPE MINIATURE REDUCER SERIES RML



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9061408	RML 1/8-Ø6	1/8	6	6	58.5	27.8	46÷52	14.7	6.4	14	11.4	24.8	M9x0.75	14.6	20	11	12	4.5
9061409	RML 1/4-Ø6	1/4	6	8	61.5	28.8	46÷52	14.7	6.4	18	11.4	24.8	M9x0.75	14.6	20	11	14	4.5
9061410	RML 1/8-Ø8	1/8	8 ▲	6	66.2	31.8	52÷58	18.7	9.1	15	13.8	27.4	M11x1	18.7	24	13	14	3.8
9061411	RML 1/4-Ø8	1/4	8 ▲	8	70.6	34.2	52÷58	18.7	9.1	18	13.8	27.4	M11x1	18.7	24	13	14	3.8
9061412	RML 3/8-Ø8	3/8	8 ▲	9	72.2	34.8	52÷58	18.7	9.1	22	13.8	27.4	M11x1	18.7	24	13	17	3.8
9061415	RML 1/4-Ø10	1/4	10	8	79.9	39.2	59÷66	21	10.9	18	16	30	M13x1	21.4	26	16	16	4.5
9061416	RML 3/8-Ø10	3/8	10	9	81.2	40.4	59÷66	21	10.9	20	16	30	M13x1	21.4	26	16	17	4.5
9061417	RML 1/2-Ø10	1/2	10	11	83.7	40	59÷66	21	10.9	26	16	30	M13x1	21.4	26	16	22	4.5

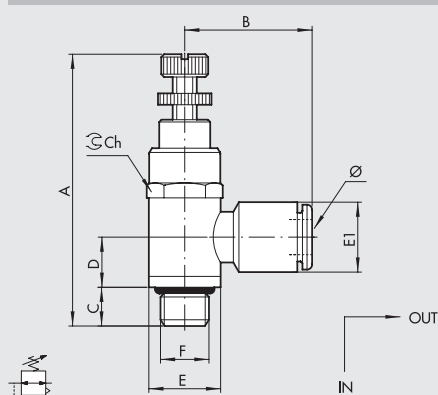
▲ Ø8 = Ø5/16"

LINE-MOUNTED PIPE - G (BSP) THREAD MINIATURE REDUCER, SERIES RML



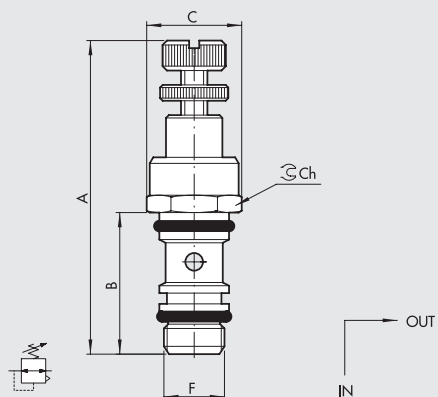
Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9061508	RML Ø6-1/8	6	1/8	6	58.5	27.8	46÷52	14.7	6.4	14	11.4	24.8	M9x0.75	14.6	20	11	12	4.5
9061509	RML Ø6-1/4	6	1/4	8	61.5	28.8	46÷52	14.7	6.4	18	11.4	24.8	M9x0.75	14.6	20	11	14	4.5
9061510	RML Ø8-1/8	8 ▲	1/8	6	66.2	31.8	52÷58	18.7	9.1	15	13.8	27.4	M11x1	18.7	24	13	14	3.8
9061511	RML Ø8-1/4	8 ▲	1/4	8	70.6	34.2	52÷58	18.7	9.1	18	13.8	27.4	M11x1	18.7	24	13	14	3.8
9061512	RML Ø8-3/8	8 ▲	3/8	9	72.2	34.8	52÷58	18.7	9.1	22	13.8	27.4	M11x1	18.7	24	13	17	3.8
9061515	RML Ø10-1/4	10	1/4	8	79.9	39.2	59÷66	21	10.9	18	16	30	M13x1	21.4	26	16	16	4.5
9061516	RML Ø10-3/8	10	3/8	9	81.2	40.4	59÷66	21	10.9	20	16	30	M13x1	21.4	26	16	17	4.5
9061517	RML Ø10-1/2	10	1/2	11	83.7	40	59÷66	21	10.9	26	16	30	M13x1	21.4	26	16	22	4.5

▲ Ø8 = Ø5/16"

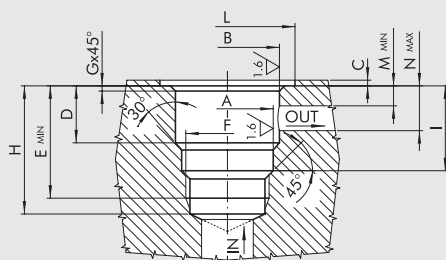
MINIATURE REDUCER, SERIES RMC


Code	Ref.	Ø	F	A	B	C	D	E	E1	Ch
9061102	RMC 1/8-Ø4	4 ▲	1/8	51±57	20.4	7.1	12.7	14	9.5	14
9061108	RMC 1/8-Ø6	6	1/8	51±57	23.7	7.1	12.7	14	11.3	14
9061110	RMC 1/8-Ø8	8 ▲	1/8	51±57	25.6	7.1	12.7	14	13.8	14
9061109	RMC 1/4-Ø6	6	1/4	57±63	25.1	9	11	18	11.3	17
9061111	RMC 1/4-Ø8	8 ▲	1/4	57±63	27	9	11	18	13.8	17
9061112	RMC 1/4-Ø10	10	1/4	57±63	32.2	9	11	18	16.5	17
9061113	RMC 3/8-Ø8	8 ▲	3/8	67±74	28.5	9	13.4	21	13.8	21
9061114	RMC 3/8-Ø10	10	3/8	67±74	32.8	9	13.4	21	16	21
9061115	RMC 3/8-Ø12	12	3/8	67±74	35.3	9	13.4	21	19.5	21

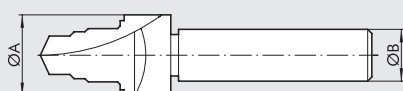
▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

CARTRIDGE REDUCER, SERIES RMS


Code	Ref.	F	A	B	C	Ch
9061001	RMS 1/8	1/8	51±57	24.3	15	14
9061002	RMS 1/4	1/4	57±63	27.8	19	17
9061003	RMS 3/8	3/8	67±74	33	23.5	21

SEAT OF A MINIATURE CARTRIDGE REDUCER


Code	F	A	B	C	D	E	G	H	I	L	M	N
SE.RMS 1/8	1/8	9.8 ^{+0.1/-0}	11.2 ^{±0.05}	0.5 ^{±0.5}	15.6 ^{±0.07}	24.6	0.3	27	18.1 ^{±0.2}	15.4	3.5	12
SE.RMS 1/4	1/4	13.5 ^{+0.1/-0}	14.4 ^{±0.05}	0.5 ^{±0.5}	17.5 ^{±0.07}	28	0.4	31.2	20.8 ^{±0.2}	19.4	3.5	13.5
SE.RMS 3/8	3/8	17 ^{+0.1/-0}	17.7 ^{±0.05}	0.5 ^{±0.5}	22 ^{±0.07}	33.5	0.8	42	25.2 ^{±0.2}	23.8	3.6	16.2

TOOL FOR RMS SEAT


Code	Ref.	ØA	ØB
9062001	UT.SE 1/8	16	12
9062002	UT.SE 1/4	20	15
9062003	UT.SE 3/8	26	15

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 push-in fittings, and in the version for thread-pipe connection with a brass nickel-plated male thread and a push-in fitting.

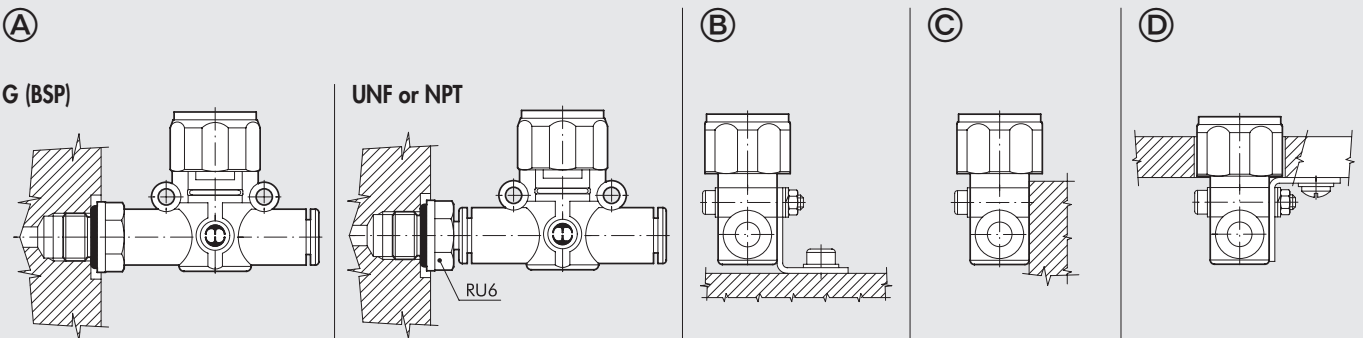
Though small in size, this pressure gauge, which is supplied in a metal casing, ensures accurate reading. It can be angled in any direction simply by rotating manually.



TECHNICAL DATA

		Ø 4 (Ø5/32")	Ø 6	Ø 1/4"	Ø 8 (Ø5/16")	Ø 3/8"	Ø 10
Operating pressure	MPa				1.2		
	bar				12		
	psi				174		
Temperature range	°C				- 20 to + 60		
	°F				- 4 to + 140		
Precision					± 4% full scale		
Recommended pipe					Rilsan PA11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid					Lubricated or unlubricated filtered compressed air; if used, must be continuous		
Compatibility with oils					See chapter Z1		

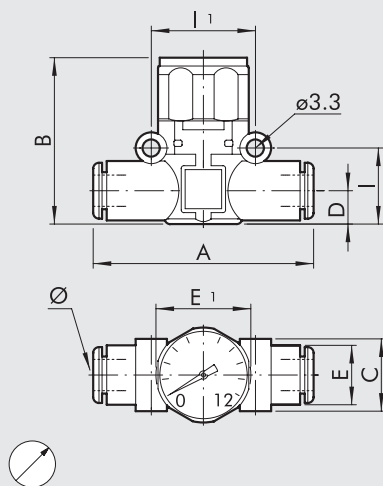
ASSEMBLY OPTIONS



How to mount the MAN L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the MAN L straight onto the female thread.
UNF or NPT: Adding a RU6 fitting, with his male UNF or 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, except for Ø3/8 and Ø10.
- 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.

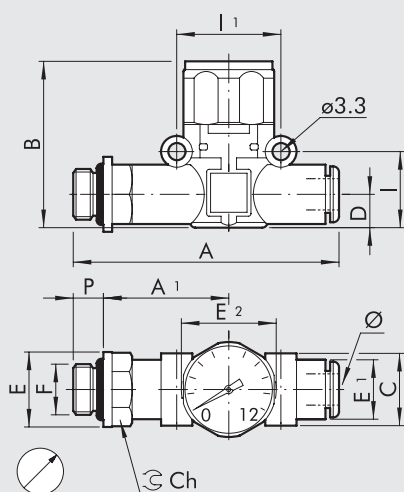
MAN L PIPE - PIPE



Code	Ref.	Ø	A	B	C	D	E	E1	I	I1
9067001	MAN L Ø4-Ø4	4 ▲	41.8	36.1	10.7	5.6	10	23	12.8	16
9067016	MAN L Ø6-Ø6	6	49.4	35	14.7	6.4	11.4	23	14.6	20
9067016U	MAN L Ø1/4-Ø1/4	1/4	49.4	35	14.7	6.4	11.4	23	14.6	20
9067024	MAN L Ø8-Ø8	8 ▲	57.3	41	18.7	9.1	13.8	23	18.7	24
9067032U	MAN L Ø3/8-Ø3/8	3/8	65.4	45	20.7	10.9	16	23	21.4	26
9067032	MAN L Ø10-Ø10	10	65.7	45	20.7	10.9	16	23	21.4	26

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

MAN L G (BSP) THREAD - PIPE



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	E2	I	I1	Ch
9067101	MAN L M5-Ø4	M5	4 ▲	4	47.7	22.7	36.1	10.7	5.6	9.9	10	23	12.8	16	9
9067102	MAN L 1/8-Ø4	1/8	4 ▲	6	51.5	24.6	36.1	10.7	5.6	14	10	23	12.8	16	12
9067108	MAN L 1/8-Ø6	1/8	6	6	58.5	27.8	35	14.7	6.4	14	11.4	23	14.6	20	12
9067109	MAN L 1/4-Ø6	1/4	6	8	61.5	28.8	35	14.7	6.4	18	11.4	23	14.6	20	14
9067110	MAN L 1/8-Ø8	1/8	8 ▲	6	66.2	31.8	41	18.7	9.1	15	13.8	23	18.7	24	14
9067111	MAN L 1/4-Ø8	1/4	8 ▲	8	70.6	34.2	41	18.7	9.1	18	13.8	23	18.7	24	14
9067112	MAN L 3/8-Ø8	3/8	8 ▲	9	72.2	34.8	41	18.7	9.1	22	13.8	23	18.7	24	17
9067115	MAN L 1/4-Ø10	1/4	10	8	79.9	39.2	45	20.7	10.9	18	16	23	21.4	26	16
9067116	MAN L 3/8-Ø10	3/8	10	9	81.2	40.4	45	20.7	10.9	20	16	23	21.4	26	17
9067117	MAN L 1/2-Ø10	1/2	10	11	83.7	40	45	20.7	10.9	26	16	23	21.4	26	22

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

NOTES

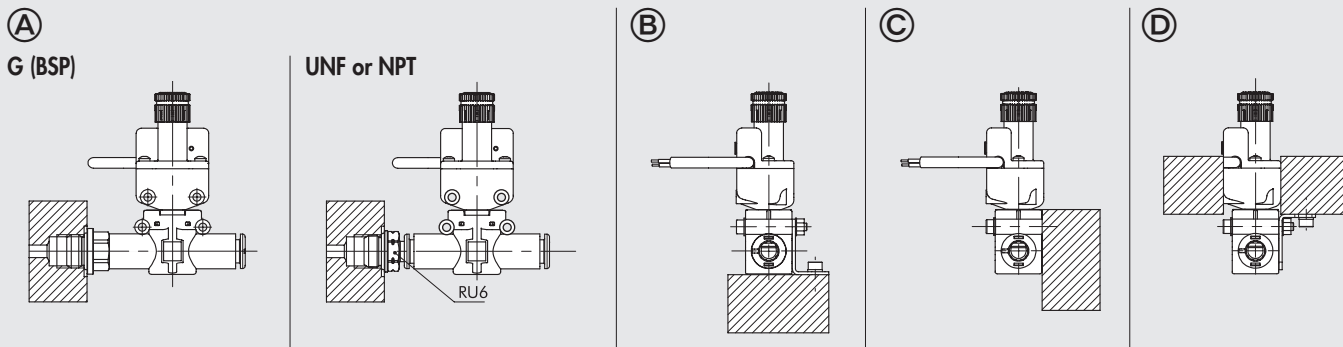
IN LINE PRESSURE SWITCH SERIES PRS L

The PRS L pressure switch belongs to the LINE ON LINE® range and can therefore be connected in series or in parallel to all other products. It is available in a version for tube-to-tube connection, which includes two automatic fittings, or in a version for thread-to-tube connection, which includes a nickel-plated brass male thread and an automatic fitting. The pressure switch can be installed in any position and orientation. It is supplied pre-assembled and complete with an electrical cable to save wiring time. You can choose between a 2-metre cable or an M8 connector with a 300-mm cable. It is a switchover contact, which means that both normally open and normally closed signals are provided. Adjustment is by means of a knurled knob with a push-lock system.



TECHNICAL DATA		Ø 6	Ø 1/4"	Ø 8 (Ø5/16")	Ø 3/8"	Ø 10
Maximum pressure	MPa			1		
	bar			10		
	psi			145		
Operating temperature range at: 1 MPa; 10 bar; 145 psi	°C			50		
	°F			122		
Adjustable pressure interval	bar			0.5 to 10		
Hysteresis (not adjustable)	bar			From 0.4 to 0.8 (see diagram following pages)		
Maximum current	A			2		
Maximum voltage	V			250		
Outside diameter of cable	mm			4.9		
Number of wires and cross section				3 x 0.5 mm ²		
Contacts				Normally-Open (NO) and Normally-Closed (NC)		
Protection				IP65		
Number of switchings				5 x 10 ⁶		
Recommended pipe				Rilsan PA11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid				Filtered lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.		
Mounting position				In any position		

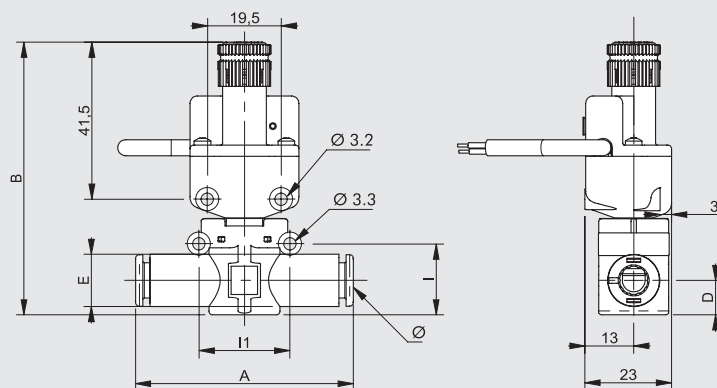
ASSEMBLY OPTIONS



How to mount the PRS L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the PRS L straight onto the female thread.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the PRS L straight on to the actuator or the control valve.
- Fig. **B** Fixing to the plate with the special SQU L bracket, except for Ø3/8 and Ø10.
- Fig. **C** There are two robust rings on the plastic body for fixing the PRS L straight onto the wall.
- Fig. **D** Use the SQU L bracket for panel mounting the PRS L.

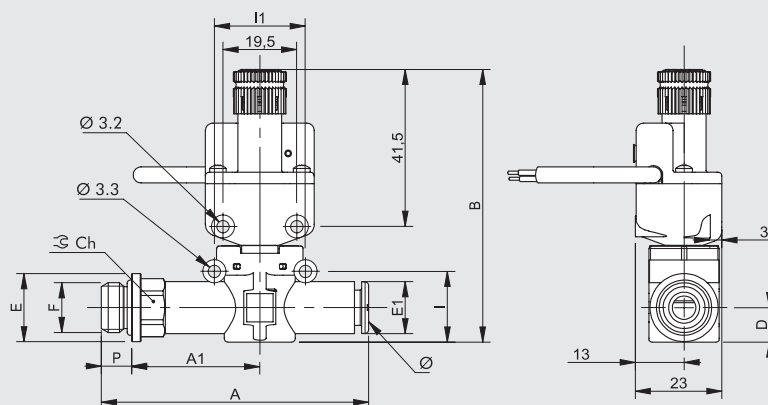
PRS L PIPE - PIPE



Code	Ref.	Ø	A	B	D	E	I	I1
9070016	PRS L Ø6-Ø6 2 metres cable	6	49.4	~72	6.4	11.4	14.6	20
9070116	PRS L Ø6-Ø6 M8 connector	6	49.4	~72	6.4	11.4	14.6	20
9070016U	PRS L Ø1/4-Ø1/4 2 metres cable	1/4	49.4	~72	6.4	11.4	14.6	20
9070116U	PRS L Ø1/4-Ø1/4 M8 connector	1/4	49.4	~72	6.4	11.4	14.6	20
9070024	PRS L Ø8-Ø8 2 metres cable	8 ▲	57.3	~73	9.1	13.8	18.7	24
9070124	PRS L Ø8-Ø8 M8 connector	8 ▲	57.3	~73	9.1	13.8	18.7	24
9070032U	PRS L Ø3/8-Ø3/8 2 metres cable	3/8	65.4	~76	10.9	16	21.4	26
9070132U	PRS L Ø3/8-Ø3/8 M8 connector	3/8	65.4	~76	10.9	16	21.4	26
9070032	PRS L Ø10-Ø10 2 metres cable	10	65.7	~76	10.9	16	21.4	26
9070132	PRS L Ø10-Ø10 M8 connector	10	65.7	~76	10.9	16	21.4	26

▲ Ø8 = Ø5/16"

PRS L THREAD - PIPE

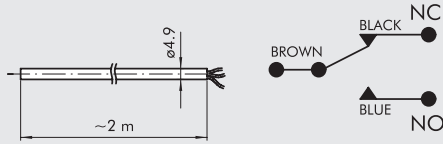


Code	Ref.	F	Ø	P	A	A1	B	D	E	E1	I	I1	Ch
9070208	PRS L 1/8-Ø6 2 metres cable	1/8	6	6	58.5	27.8	~72	6.4	14	11.4	14.6	20	12
9070308	PRS L 1/8-Ø6 M8 connector	1/8	6	6	58.5	27.8	~72	6.4	14	11.4	14.6	20	12
9070209	PRS L 1/4-Ø6 2 metres cable	1/4	6	8	61.5	28.8	~72	6.4	18	11.4	14.6	20	14
9070309	PRS L 1/4-Ø6 M8 connector	1/4	6	8	61.5	28.8	~72	6.4	18	11.4	14.6	20	14
9070210	PRS L 1/8-Ø8 2 metres cable	1/8	8 ▲	6	66.2	31.8	~73	9.1	15	13.8	18.7	24	12
9070310	PRS L 1/8-Ø8 M8 connector	1/8	8 ▲	6	66.2	31.8	~73	9.1	15	13.8	18.7	24	12
9070211	PRS L 1/4-Ø8 2 metres cable	1/4	8 ▲	8	70.6	34.2	~73	9.1	18	13.8	18.7	24	14
9070311	PRS L 1/4-Ø8 M8 connector	1/4	8 ▲	8	70.6	34.2	~73	9.1	18	13.8	18.7	24	14
9070212	PRS L 3/8-Ø8 2 metres cable	3/8	8 ▲	9	72.2	34.8	~73	9.1	22	13.8	18.7	24	17
9070312	PRS L 3/8-Ø8 M8 connector	3/8	8 ▲	9	72.2	34.8	~73	9.1	22	13.8	18.7	24	17
9070215	PRS L 1/4-Ø10 2 metres cable	1/4	10	8	79.9	39.2	~76	10.9	18	16	21.4	26	16
9070315	PRS L 1/4-Ø10 M8 connector	1/4	10	8	79.9	39.2	~76	10.9	18	16	21.4	26	16
9070216	PRS L 3/8-Ø10 2 metres cable	3/8	10	9	81.2	40.4	~76	10.9	20	16	21.4	26	17
9070316	PRS L 3/8-Ø10 M8 connector	3/8	10	9	81.2	40.4	~76	10.9	20	16	21.4	26	17
9070217	PRS L 1/2-Ø10 2 metres cable	1/2	10	11	85.7	40	~76	10.9	26	16	21.4	26	22
9070317	PRS L 1/2-Ø10 M8 connector	1/2	10	11	85.7	40	~76	10.9	26	16	21.4	26	22

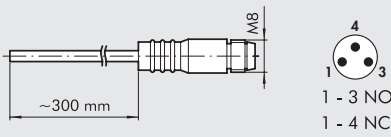
▲ Ø8 = Ø5/16"

WIRING DIAGRAM

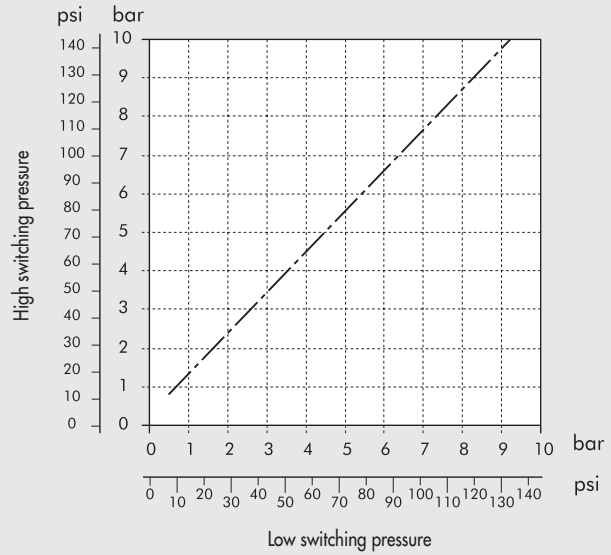
VERSION WITH CABLE



VERSION WITH M8 CONNECTOR

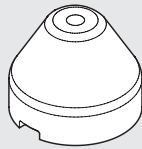


HYSTERESIS GRAPH



ACCESSORIES

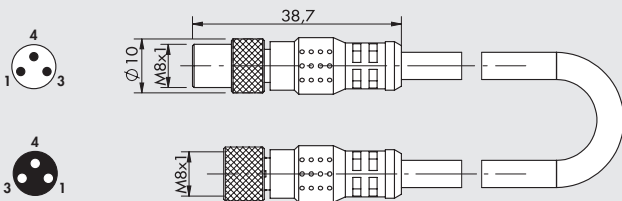
SECURITY KNOB



Code	Description
9200703	Security knob APR / pressure switch

Note: Pull outwards to remove the knob from the pressure switch on the unit. Insert the security knob and regulate the pressure switch. Then press the handle firmly to lock it in position. If the pressure switch needs to be reset, remove the security knob by forcing it laterally with a screwdriver.

M8 ADAPTER CABLE FOR CONNECTING THE PRESSURE SWITCH TO THE EB 80 E CM DIGITAL INPUTS MODULE

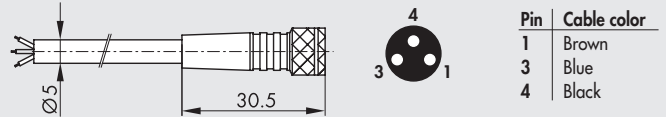


Code	Description
0240010501	M8-M, M8-F 3-pole adapter with cable L = 0.3 m

Note: Can be used to connect the pressure switch to the module of digital INPUT 501 of the EB 80 valves, to the additional M8 INPUT module of the CM valves and to the Profibus-DP IP67 M8 input. Contact type NO (Normally open)

M8F	M8M	Function
pin 1	pin 1	Power supply +
pin 3	pin 2	Signal NO
pin 4	disconnect	

M8 STRAIGHT CONNECTOR WITH CABLE



Code	Description
02400A0100	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 1 m
02400A0250	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 2.5 m
02400A0500	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 5 m
02400A1000	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 10 m

Very flexible cables, class 6 according to IEC 60228

NOTES



NOTES

A large rectangular area with horizontal grey lines, intended for handwritten 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, and in the version for thread-pipe connection with a brass nickel-plated male thread and a push-in fitting.

When there is no pressure, the clear technopolymer bell looks empty.

When there is pressure, a red signal appears.

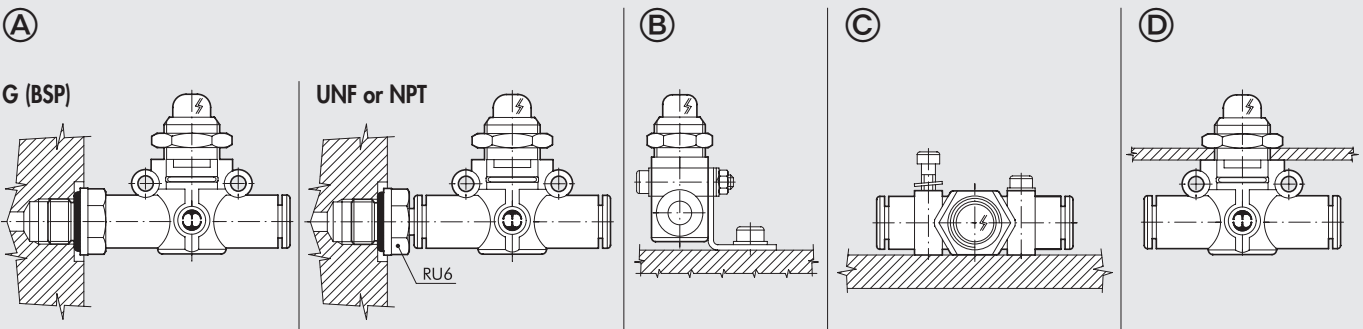
The clear bell can be cleaned using normal detergents or ethyl alcohol, as the technopolymer used is fully compatible.



TECHNICAL DATA

		Ø 6	Ø 1/4"	Ø 8 (Ø5/16")
Operating pressure	MPa		0.2 to 1	
	bar		2 to 10	
	psi		29 to 145	
Temperature range	°C		-20 to +60	
	°F		-4 to +140	
Flow rate at 6.3 bar ΔP 1 bar	NI/min	420	420	800
Colour with pressure		Orange - Green		
Recommended pipe		Rilsan PA11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous		
Compatibility with oils		See chapter Z1		

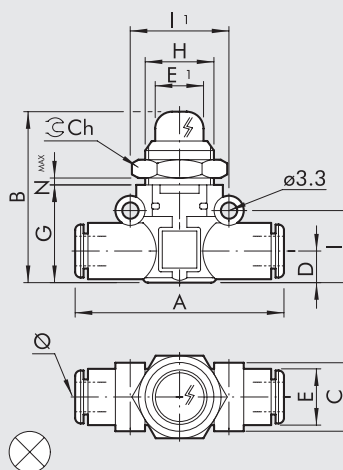
ASSEMBLY OPTIONS



How to mount the LAM L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the LAM L straight onto the female thread.
UNF or NPT: Adding a RU6 fitting, with his male UNF or 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.

LAM L PIPE - PIPE

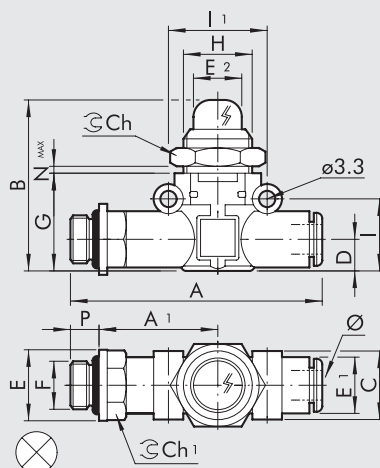


Code	Ref.	Ø	A	B	C	D	E	E1	G	H	I	II	Ch	Nmax
9068016	LAM L Ø6-Ø6-A	6	49.4	37	14.7	6.4	11.4	10.6	21	M15x1	14.6	20	17	4.5
9068216	LAM L Ø6-Ø6-V													
9068016U	LAM L Ø1/4-Ø1/4-A	1/4	49.4	37	14.7	6.4	11.4	10.6	21	M15x1	14.6	20	17	4.5
9068216U	LAM L Ø1/4-Ø1/4-V													
9068024	LAM L Ø8-Ø8-A	8 ▲	57.3	41	18.7	9.1	13.8	10.6	26	M15x1	18.7	24	17	4.5
9068224	LAM L Ø8-Ø8-V													

A = Orange; V = Green

▲ Ø8 = Ø5/16"

LAM L G (BSP) THREAD - PIPE



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	E2	G	H	I	II	Ch	Ch1	Nmax	
9068108	LAM L 1/8-Ø6-A	1/8	6	6	58.5	27.8	37	14.7	6.4	14	11.4	10.6	21	M15x1	14.6	20	17	12	4.5	
9068308	LAM L 1/8-Ø6-V																			
9068109	LAM L 1/4-Ø6-A	1/4	6	8	61.5	28.8	37	14.7	6.4	18	11.4	10.6	21	M15x1	14.6	20	17	14	4.5	
9068309	LAM L 1/4-Ø6-V																			
9068110	LAM L 1/8-Ø8-A	1/8	8 ▲	6	66.2	31.8	41	18.7	9.1	15	13.8	10.6	26	M15x1	18.7	24	17	14	4.5	
9068310	LAM L 1/8-Ø8-V																			
9068111	LAM L 1/4-Ø8-A	1/4	8 ▲	8	70.6	34.2	41	18.7	9.1	18	13.8	10.6	26	M15x1	18.7	24	17	14	4.5	
9068311	LAM L 1/4-Ø8-V																			
9068112	LAM L 3/8-Ø8-A	3/8	8 ▲	9	72.2	34.8	41	18.7	9.1	22	13.8	10.6	26	M15x1	18.7	24	17	17	4.5	
9068312	LAM L 3/8-Ø8-V																			

A = Orange; V = Green

▲ Ø8 = Ø5/16"

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 push-in fittings, and in the version for thread-pipe connection with a brass nickel-plated male thread and a push-in fitting.

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.

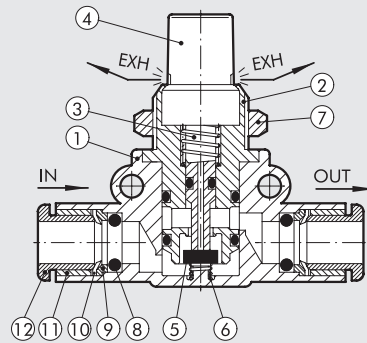


TECHNICAL DATA

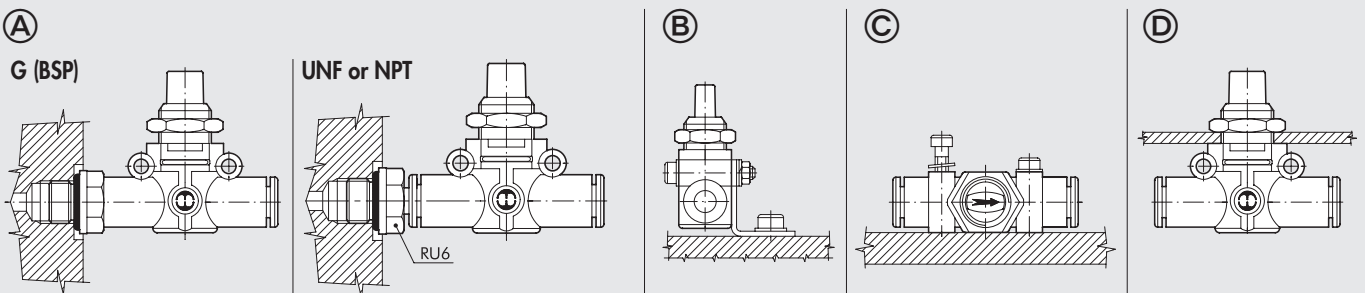
		Ø 6	Ø 1/4"	Ø 8 (Ø5/16")	Ø 3/8"	Ø 10
Operating pressure	MPa	1				
	bar	10				
	psi	145				
Temperature range	°C	- 20 to + 60				
	°F	- 4 to + 140				
Flow rate at 6.3 bar ΔP 1 bar	NI/min	280	280	470	600	600
Exhaust flow rate at 6.3 bar	NI/min	110	110	110	110	110
Recommended pipe		Rilsan PA11 - Nylon 6 - Polyamide 12 - Polypropylene				
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous				
Compatibility with oils		See chapter Z1				

COMPONENTS

- 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



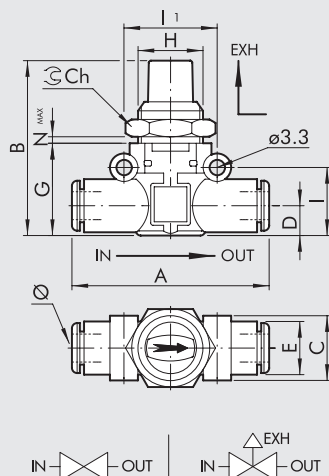
ASSEMBLY OPTIONS



How to mount the V2V/V3V L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the V2V/V3V L straight onto the female thread.
UNF or NPT: Adding a RU6 fitting, with his male UNF or 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, except for Ø3/8 and Ø10.
- 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.

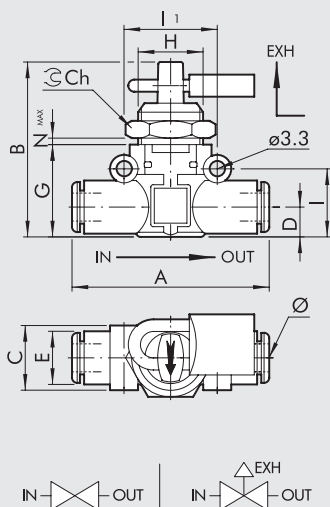
V2V/V3V L PIPE - PIPE



Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9065016	V2V L Ø6-Ø6	6	49.4	41	14.7	6.4	11.4	21	M15x1	14.6	20	17	5.5
9066016	V3V L Ø6-Ø6												
9065016U	V2V L Ø1/4-Ø1/4	1/4	49.4	41	14.7	6.4	11.4	21	M15x1	14.6	20	17	5.5
9066016U	V3V L Ø1/4-Ø1/4												
9065024	V2V L Ø8-Ø8	8 ▲	57.3	46	18.7	9.1	13.8	26	M15x1	18.7	24	17	5.5
9066024	V3V L Ø8-Ø8												
9065032U	V2V L Ø3/8-Ø3/8	3/8	65	52	21	10.9	16	30	M18x1.5	21.4	26	22	5
9066032U	V3V L Ø3/8-Ø3/8												
9065032	V2V L Ø10-Ø10	10	65	52	21	10.9	16	30	M18x1.5	21.4	26	22	5
9066032	V3V L Ø10-Ø10												

▲ Ø8 = Ø5/16"

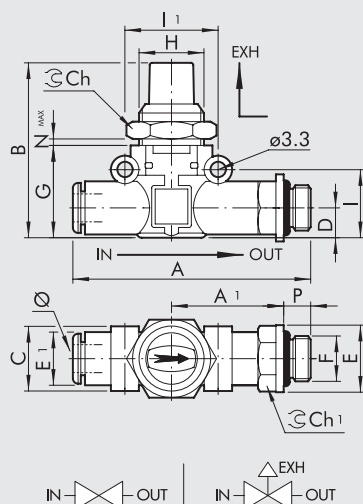
V2V/V3V L PIPE - PIPE PADLOCKED



Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9065116	V2V L Ø6-Ø6 KEY	6	49.4	41	14.7	6.4	11.4	21	M15x1	14.6	20	17	5.5
9066116	V3V L Ø6-Ø6 KEY												
9065116U	V2V L Ø1/4-Ø1/4 KEY	1/4	49.4	41	14.7	6.4	11.4	21	M15x1	14.6	20	17	5.5
9066116U	V3V L Ø1/4-Ø1/4 KEY												
9065124	V2V L Ø8-Ø8 KEY	8 ▲	57.3	46	18.7	9.1	13.8	26	M15x1	18.7	24	17	5.5
9066124	V3V L Ø8-Ø8 KEY												
9065132U	V2V L Ø3/8-Ø3/8 KEY	3/8	65	52	21	10.9	16	30	M18x1.5	21.4	26	22	5
9066132U	V3V L Ø3/8-Ø3/8 KEY												
9065132	V2V L Ø10-Ø10 KEY	10	65	52	21	10.9	16	30	M18x1.5	21.4	26	22	5
9066132	V3V L Ø10-Ø10 KEY												

▲ Ø8 = Ø5/16"

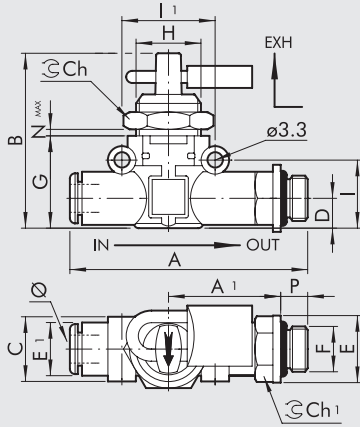
V2V/V3V L PIPE - G (BSP) THREAD



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9065208	V2V L Ø6-1/8	6	1/8	6	58.5	27.8	41	14.7	6.4	14	11.4	21	M15x1	14.6	20	17	12	5.5
9066208	V3V L Ø6-1/8																	
9065209	V2V L Ø6-1/4	6	1/4	8	61.5	28.8	41	14.7	6.4	18	11.4	21	M15x1	14.6	20	17	14	5.5
9066209	V3V L Ø6-1/4																	
9065210	V2V L Ø8-1/8	8 ▲	1/8	6	66.2	31.8	46	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	5.5
9066210	V3V L Ø8-1/8																	
9065211	V2V L Ø8-1/4	8 ▲	1/4	8	70.6	34.2	46	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	5.5
9066211	V3V L Ø8-1/4																	
9065212	V2V L Ø8-3/8	8 ▲	3/8	9	72.2	34.8	46	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	5.5
9066212	V3V L Ø8-3/8																	
9065215	V2V L Ø10-1/4	10	1/4	8	79.9	39.2	52	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5
9066215	V3V L Ø10-1/4																	
9065216	V2V L Ø10-3/8	10	3/8	9	81.2	40.4	52	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5
9066216	V3V L Ø10-3/8																	
9065217	V2V L Ø10-1/2	10	1/2	11	83.7	40	52	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5
9066217	V3V L Ø10-1/2																	

▲ Ø8 = Ø5/16"

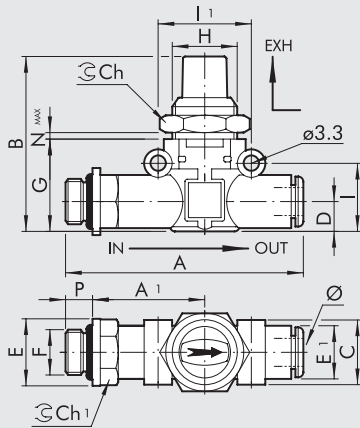
V2V/V3V L PIPE - G (BSP) THREAD PADLOCKED



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax	
9065308	V2V L Ø6-1/8 KEY	6	1/8	6	58.5	27.8	41	14.7	6.4	14	11.4	21	M15x1	14.6	20	17	12	5.5	
9066308	V3V L Ø6-1/8 KEY																		
9065309	V2V L Ø6-1/4 KEY	6	1/4	8	61.5	28.8	41	14.7	6.4	18	11.4	21	M15x1	14.6	20	17	14	5.5	
9066309	V3V L Ø6-1/4 KEY																		
9065310	V2V L Ø8-1/8 KEY	8 ▲	1/8	6	66.2	31.8	46	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	5.5	
9066310	V3V L Ø8-1/8 KEY																		
9065311	V2V L Ø8-1/4 KEY	8 ▲	1/4	8	70.6	34.2	46	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	5.5	
9066311	V3V L Ø8-1/4 KEY																		
9065312	V2V L Ø8-3/8 KEY	8 ▲	3/8	9	72.2	34.8	46	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	5.5	
9066312	V3V L Ø8-3/8 KEY																		
9065315	V2V L Ø10-1/4 KEY	10	1/4	8	79.9	39.2	52	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5	
9066315	V3V L Ø10-1/4 KEY																		
9065316	V2V L Ø10-3/8 KEY	10	3/8	9	81.2	40.4	52	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5	
9066316	V3V L Ø10-3/8 KEY																		
9065317	V2V L Ø10-1/2 KEY	10	1/2	11	83.7	40	52	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5	
9066317	V3V L Ø10-1/2 KEY																		

▲ Ø8 = Ø5/16"

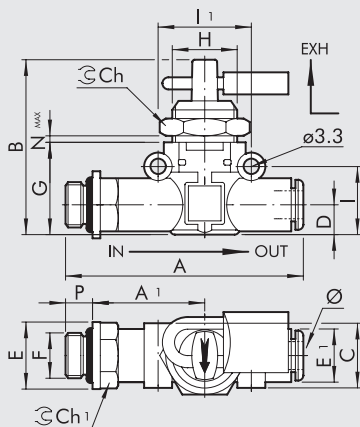
V2V/V3V L G (BSP) THREAD - PIPE



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax	
9065408	V2V L 1/8-Ø6	1/8	6	6	58.5	27.8	41	14.7	6.4	14	11.4	21	M15x1	14.6	20	17	12	5.5	
9066408	V3V L 1/8-Ø6																		
9065409	V2V L 1/4-Ø6	1/4	6	8	61.5	28.8	41	14.7	6.4	18	11.4	21	M15x1	14.6	20	17	14	5.5	
9066409	V3V L 1/4-Ø6																		
9065410	V2V L 1/8-Ø8	1/8	8 ▲	6	66.2	31.8	46	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	5.5	
9066410	V3V L 1/8-Ø8																		
9065411	V2V L 1/4-Ø8	1/4	8 ▲	8	70.6	34.2	46	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	5.5	
9066411	V3V L 1/4-Ø8																		
9065412	V2V L 3/8-Ø8	3/8	8 ▲	9	72.2	34.8	46	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	5.5	
9066412	V3V L 3/8-Ø8																		
9065415	V2V L 1/4-Ø10	1/4	10	8	79.9	39.2	52	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5	
9066415	V3V L 1/4-Ø10																		
9065416	V2V L 3/8-Ø10	3/8	10	9	81.2	40.4	52	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5	
9066416	V3V L 3/8-Ø10																		
9065417	V2V L 1/2-Ø10	1/2	10	11	83.7	40	52	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5	
9066417	V3V L 1/2-Ø10																		

▲ Ø8 = Ø5/16"

V2V/V3V L G (BSP) THREAD - PIPE PADLOCKED



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax	
9065508	V2V L 1/8-Ø6 KEY	1/8	6	6	58.5	27.8	41	14.7	6.4	14	11.4	21	M15x1	14.6	20	17	12	5.5	
9066508	V3V L 1/8-Ø6 KEY																		
9065509	V2V L 1/4-Ø6 KEY	1/4	6	8	61.5	28.8	41	14.7	6.4	18	11.4	21	M15x1	14.6	20	17	14	5.5	
9066509	V3V L 1/4-Ø6 KEY																		
9065510	V2V L 1/8-Ø8 KEY	1/8	8 ▲	6	66.2	31.8	46	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	5.5	
9066510	V3V L 1/8-Ø8 KEY																		
9065511	V2V L 1/4-Ø8 KEY	1/4	8 ▲	8	70.6	34.2	46	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	5.5	
9066511	V3V L 1/4-Ø8 KEY																		
9065512	V2V L 3/8-Ø8 KEY	3/8	8 ▲	9	72.2	34.8	46	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	5.5	
9066512	V3V L 3/8-Ø8 KEY																		
9065515	V2V L 1/4-Ø10 KEY	1/4	10	8	79.9	39.2	52	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5	
9066515	V3V L 1/4-Ø10 KEY																		
9065516	V2V L 3/8-Ø10 KEY	3/8	10	9	81.2	40.4	52	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5	
9066516	V3V L 3/8-Ø10 KEY																		
9065517	V2V L 1/2-Ø10 KEY	1/2	10	11	83.7	40	52	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5	
9066517	V3V L 1/2-Ø10 KEY																		

▲ Ø8 = Ø5/16"

IN-LINE FLOW MICRO-REGULATOR SERIE RFL L



The RFL L 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 L regulates the air input and thus the speed in pneumatic actuators.

Type U (unidirectional) regulates the flow only in one of the two directions of air flow and is available in the types with:

- push-in input and output fitting;
- push-in input fitting and threaded port on the exhaust (cylinder type);
- input threaded port and push-in fitting on the exhaust (valve type).

Type B (bidirectional) regulates the flow in both directions of air flow and is available in the types with:

- push-in input and output fitting;
- threaded port and push-in fitting.

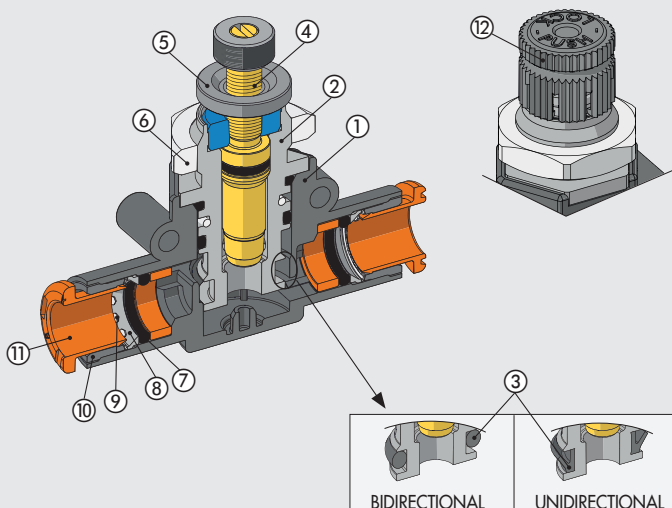


TECHNICAL DATA		Ø 4 (Ø5/32")	Ø 6	Ø 1/4"	Ø 8 (Ø5/16")	Ø 3/8" *	Ø 10 *
Max. operating pressure	MPa	1					
	bar	10					
	psi	145					
Temperature range	°C	- 20 to + 60					
	°F	- 4 to + 140					
Max flow rate on regulation at 6.3 bar	Nl/min	155	450	450	850	1400	1400
Flow rate on exhaust at 6.3 bar	Nl/min	160	550	550	950	1500	1500
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 compressed air; if used, must be continuous					
Compatibility with oils		See chapter Z1					

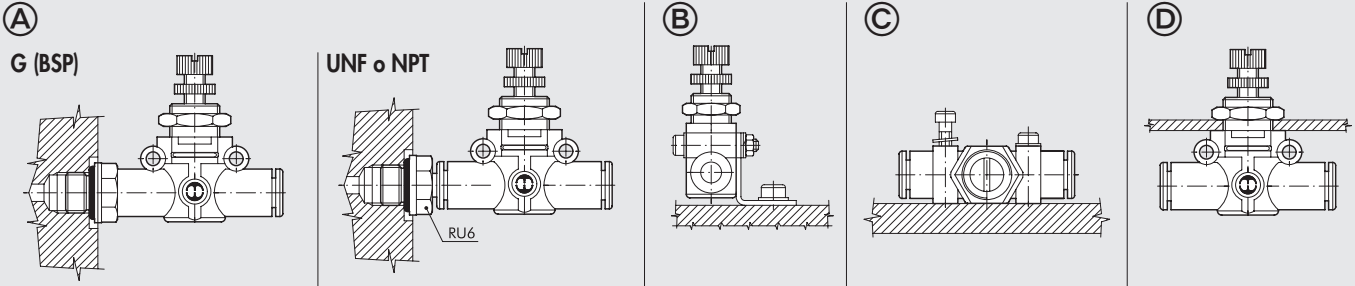
* To completely close the air flow in the PUSH-LOCK version, it is recommended to remove the plastic knob and tighten the pin with a screwdriver.

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
- ⑫ Technopolymer knob



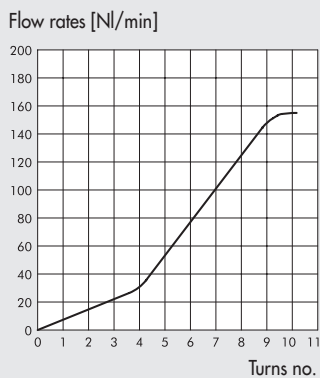
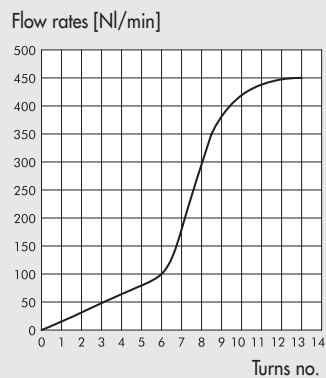
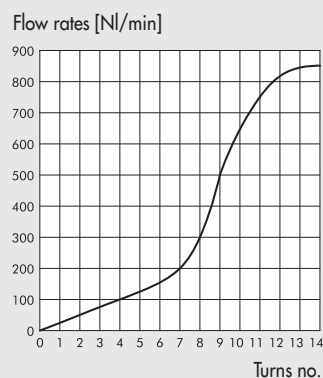
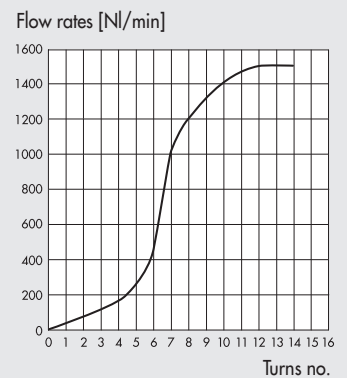
ASSEMBLY OPTIONS



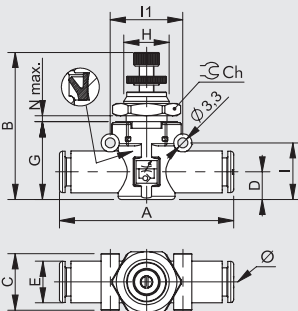
How to mount the RFL L:

- Fig. A **G (BSP)**: With the male threaded port it is possible to mount the RFL L straight onto the actuator or the control valve.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the RFL L straight on to the actuator or the control valve.
- Fig. B Fixing to the plate with the special SQU L bracket, except for $\text{Ø}3/8$ and $\text{Ø}10$.
- Fig. C There are two robust rings on the plastic body for fixing the RFL L straight onto the wall.
- Fig. D The ring nut is screwed onto the threaded metal part of the RFL L body for panel mounting.

FLOW RATE CHARTS AT 6.3 bar DEPENDING ON THE TURNS EFFECTED BY THE REGULATION SCREW

RFL L $\text{Ø}4$ ($\text{Ø}5/32''$)RFL L $\text{Ø}6$ - RFL L $\text{Ø}1/4''$ RFL L $\text{Ø}8$ ($\text{Ø}5/16''$)RFL L $\text{Ø}10$ - RFL L $\text{Ø}3/8''$ 

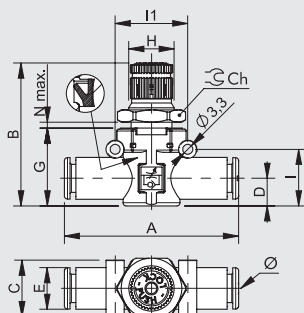
RFL L PIPE - PIPE UNIDIRECTIONAL



Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9041301	RFL L U $\text{Ø}4$ - $\text{Ø}4$	4 ▲	42	35.5÷38.5	10.7	5.6	10	17.5	M9x0.75	12.8	16	11	4
9041316	RFL L U $\text{Ø}6$ - $\text{Ø}6$	6	49.4	36÷41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041316U	RFL L U $\text{Ø}1/4$ - $\text{Ø}1/4$	1/4	49.4	36÷41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041324	RFL L U $\text{Ø}8$ - $\text{Ø}8$	8 ▲	57.3	44÷49	18.7	9.1	13.8	26	M15x1	18.7	24	20	4.5
9041332U	RFL L U $\text{Ø}3/8$ - $\text{Ø}3/8$	3/8	65	51.5÷60	21	10.9	16	30	M18x1.5	21.4	26	22	5.5
9041332	RFL L U $\text{Ø}10$ - $\text{Ø}10$	10	65	51.5÷60	21	10.9	16	30	M18x1.5	21.4	26	22	5.5

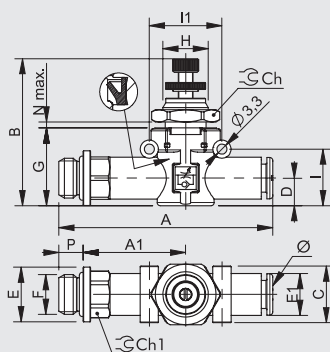
▲ $\text{Ø}4 = \text{Ø}5/32''$; $\text{Ø}8 = \text{Ø}5/16''$



RFL L PIPE - PIPE UNIDIRECTIONAL PUSH-LOCK


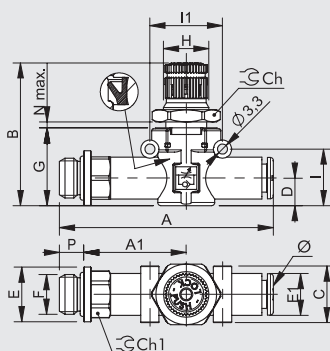
Code	Ref.	Ø	A	B	C	D	E	G	H	I	II	Ch	Nmax
9041366	RFL LU Ø6-Ø6 PL	6	49.4	42.3÷44.5	14.7	6.4	11.4	20	M15x1	14.6	20	15	4
9041366U	RFL LU Ø1/4-Ø1/4 PL	1/4	49.4	42.3÷44.5	14.7	6.4	11.4	20	M15x1	14.6	20	15	4
9041374	RFL LU Ø8-Ø8 PL	8 ▲	57.3	47.2÷49.4	18.7	9.1	13.8	26	M15x1	18.7	24	20	4.5
9041382U	RFL LU Ø3/8-Ø3/8 PL	3/8	65	53.5÷55.8	21	10.9	16	30	M18x1.5	21.4	26	22	5.5
9041382	RFL LU Ø10-Ø10 PL	10	65	53.5÷55.8	21	10.9	16	30	M18x1.5	21.4	26	22	5.5

▲ Ø8 = Ø5/16"

RFL L G (BSP) THREAD - PIPE UNIDIRECTIONAL CYLINDER VERSION


Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9041401	RFL LU M5-Ø4	M5	4 ▲	4	47.7	22.7	35.5÷38.5	10.7	5.6	9.9	10	17.5	M9x0.75	12.8	16	11	9	4
9041402	RFL LU 1/8-Ø4	1/8	4 ▲	6	51.6	24.6	35.5÷38.5	10.7	5.6	14	10	17.5	M9x0.75	12.8	16	11	12	4
9041408	RFL LU 1/8-Ø6	1/8	6	6	58.5	27.8	36÷41	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	4
9041409	RFL LU 1/4-Ø6	1/4	6	8	61.5	28.8	36÷41	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	4
9041410	RFL LU 1/8-Ø8	1/8	8 ▲	6	66.2	31.8	44÷49	18.7	9.1	15	13.8	26	M15x1	18.7	24	20	14	4.5
9041411	RFL LU 1/4-Ø8	1/4	8 ▲	8	70.6	34.2	44÷49	18.7	9.1	18	13.8	26	M15x1	18.7	24	20	14	4.5
9041412	RFL LU 3/8-Ø8	3/8	8 ▲	9	72.2	34.8	44÷49	18.7	9.1	22	13.8	26	M15x1	18.7	24	20	17	4.5
9041415	RFL LU 1/4-Ø10	1/4	10	8	79.9	39.2	51.5÷60	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5.5
9041416	RFL LU 3/8-Ø10	3/8	10	9	81.2	40.4	51.5÷60	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5.5
9041417	RFL LU 1/2-Ø10	1/2	10	11	83.7	40	51.5÷60	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5.5

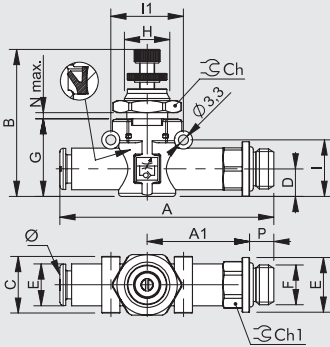
▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

RFL L G (BSP) THREAD - PIPE UNIDIRECTIONAL CYLINDER VERSION PUSH-LOCK


Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9041458	RFL LU 1/8-Ø6 PL	1/8	6	6	58.5	27.8	42.3÷44.5	14.7	6.4	14	11.4	20	M15x1	14.6	20	15	12	4
9041459	RFL LU 1/4-Ø6 PL	1/4	6	8	61.5	28.8	42.3÷44.5	14.7	6.4	18	11.4	20	M15x1	14.6	20	15	14	4
9041460	RFL LU 1/8-Ø8 PL	1/8	8 ▲	6	66.2	31.8	47.2÷49.4	18.7	9.1	15	13.8	26	M15x1	18.7	24	20	14	4.5
9041461	RFL LU 1/4-Ø8 PL	1/4	8 ▲	8	70.6	34.2	47.2÷49.4	18.7	9.1	18	13.8	26	M15x1	18.7	24	20	14	4.5
9041462	RFL LU 3/8-Ø8 PL	3/8	8 ▲	9	72.2	34.8	47.2÷49.4	18.7	9.1	22	13.8	26	M15x1	18.7	24	20	17	4.5
9041465	RFL LU 1/4-Ø10 PL	1/4	10	8	79.9	39.2	53.5÷55.8	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5.5
9041466	RFL LU 3/8-Ø10 PL	3/8	10	9	81.2	40.4	53.5÷55.8	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5.5
9041467	RFL LU 1/2-Ø10 PL	1/2	10	11	83.7	40	53.5÷55.8	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5.5

▲ Ø8 = Ø5/16"

RFL L PIPE - G (BSP) THREAD UNIDIRECTIONAL VALVE VERSION

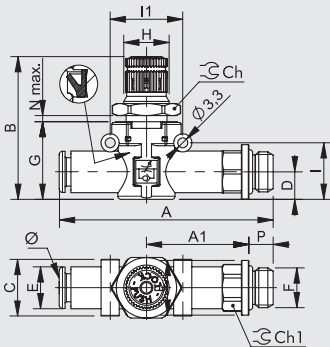


Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9041501	RFL LU Ø4-M5	4 ▲	M5	4	47.7	22.7	35.5±38.5	10.7	5.6	9.9	10	17.5	M9x0.75	12.8	16	11	9	4
9041502	RFL LU Ø4-1/8	4 ▲	1/8	6	51.6	24.6	35.5±38.5	10.7	5.6	14	10	17.5	M9x0.75	12.8	16	11	12	4
9041508	RFL LU Ø6-1/8	6	1/8	6	58.5	27.8	36±41	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	4
9041509	RFL LU Ø6-1/4	6	1/4	8	61.5	28.8	36±41	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	4
9041510	RFL LU Ø8-1/8	8 ▲	1/8	6	66.2	31.8	44±49	18.7	9.1	15	13.8	26	M15x1	18.7	24	20	14	4.5
9041511	RFL LU Ø8-1/4	8 ▲	1/4	8	70.6	34.2	44±49	18.7	9.1	18	13.8	26	M15x1	18.7	24	20	14	4.5
9041512	RFL LU Ø8-3/8	8 ▲	3/8	9	72.2	34.8	44±49	18.7	9.1	22	13.8	26	M15x1	18.7	24	20	17	4.5
9041515	RFL LU Ø10-1/4	10	1/4	8	79.9	39.2	51.5±60	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5.5
9041516	RFL LU Ø10-3/8	10	3/8	9	81.2	40.4	51.5±60	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5.5
9041517	RFL LU Ø10-1/2	10	1/2	11	83.7	40	51.5±60	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"



RFL L PIPE - G (BSP) THREAD UNIDIRECTIONAL VALVE VERSION PUSH-LOCK

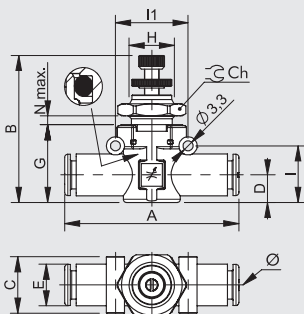


Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9041558	RFL LU Ø6-1/8 PL	6	1/8	6	58.5	27.8	42.3±44.5	14.7	6.4	14	11.4	20	M15x1	14.6	20	15	12	4
9041559	RFL LU Ø6-1/4 PL	6	1/4	8	61.5	28.8	42.3±44.5	14.7	6.4	18	11.4	20	M15x1	14.6	20	15	14	4
9041560	RFL LU Ø8-1/8 PL	8 ▲	1/8	6	66.2	31.8	47.2±49.4	18.7	9.1	15	13.8	26	M15x1	18.7	24	20	14	4.5
9041561	RFL LU Ø8-1/4 PL	8 ▲	1/4	8	70.6	34.2	47.2±49.4	18.7	9.1	18	13.8	26	M15x1	18.7	24	20	14	4.5
9041562	RFL LU Ø8-3/8 PL	8 ▲	3/8	9	72.2	34.8	47.2±49.4	18.7	9.1	22	13.8	26	M15x1	18.7	24	20	17	4.5
9041565	RFL LU Ø10-1/4 PL	10	1/4	8	79.9	39.2	53.5±55.8	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5.5
9041566	RFL LU Ø10-3/8 PL	10	3/8	9	81.2	40.4	53.5±55.8	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5.5
9041567	RFL LU Ø10-1/2 PL	10	1/2	11	83.7	40	53.5±55.8	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5.5

▲ Ø8 = Ø5/16"



RFL L PIPE - PIPE BIDIRECTIONAL

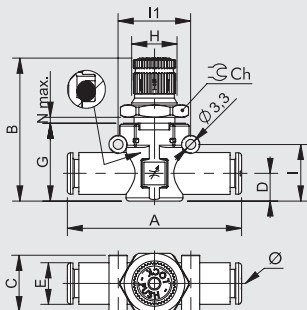


Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9041601	RFL LB Ø4-Ø4	4 ▲	42	35.5±38.5	10.7	5.6	10	17.5	M9x0.75	12.8	16	11	4
9041616	RFL LB Ø6-Ø6	6	49.4	36±41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041616U	RFL LB Ø1/4-Ø1/4	1/4	49.4	36±41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041624	RFL LB Ø8-Ø8	8 ▲	57.3	44±49	18.7	9.1	13.8	26	M15x1	18.7	24	20	4.5
9041632U	RFL LB Ø3/8-Ø3/8	3/8	65	51.5±60	21	10.9	16	30	M18x1.5	21.4	26	22	5.5
9041632	RFL LB Ø10-Ø10	10	65	51.5±60	21	10.9	16	30	M18x1.5	21.4	26	22	5.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"



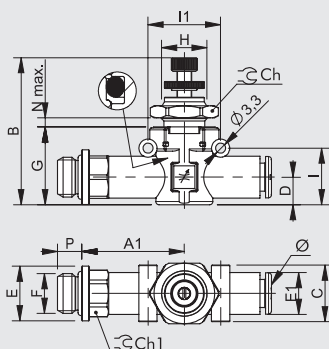
RFL L PIPE - PIPE BIDIRECTIONAL PUSH-LOCK



Code	Ref.	Ø	A	B	C	D	E	G	H	I	II	Ch	Nmax
9041666	RFL L B Ø6-Ø6 PL	6	49.4	42.3÷44.5	14.7	6.4	11.4	20	M15x1	14.6	20	15	4
9041666U	RFL L B Ø1/4-Ø1/4 PL	1/4	49.4	42.3÷44.5	14.7	6.4	11.4	20	M15x1	14.6	20	15	4
9041674	RFL L B Ø8-Ø8 PL	8 ▲	57.3	47.2÷49.4	18.7	9.1	13.8	26	M15x1	18.7	24	20	4.5
9041682U	RFL L B Ø3/8-Ø3/8 PL	3/8	65	53.5÷55.8	21	10.9	16	30	M18x1.5	21.4	26	22	5.5
9041682	RFL L B Ø10-Ø10 PL	10	65	53.5÷55.8	21	10.9	16	30	M18x1.5	21.4	26	22	5.5

▲ Ø8 = Ø5/16"

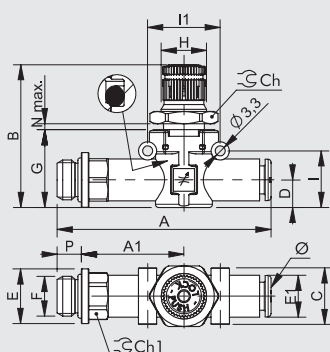
RFL L G (BSP) THREAD - PIPE BIDIRECTIONAL



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9041701	RFL L B M5-Ø4	M5	4 ▲	4	47.7	22.7	35.5÷38.5	10.7	5.6	9.9	10	17.5	M9x0.75	12.8	16	11	9	4
9041702	RFL L B 1/8-Ø4	1/8	4 ▲	6	51.6	24.6	35.5÷38.5	10.7	5.6	14	10	17.5	M9x0.75	12.8	16	11	12	4
9041708	RFL L B 1/8-Ø6	1/8	6 ▲	6	58.5	27.8	36÷41	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	4
9041709	RFL L B 1/4-Ø6	1/4	6 ▲	8	61.5	28.8	36÷41	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	4
9041710	RFL L B 1/8-Ø8	1/8	8 ▲	6	66.2	31.8	44÷49	18.7	9.1	15	13.8	26	M15x1	18.7	24	20	14	4.5
9041711	RFL L B 1/4-Ø8	1/4	8 ▲	8	70.6	34.2	44÷49	18.7	9.1	18	13.8	26	M15x1	18.7	24	20	14	4.5
9041712	RFL L B 3/8-Ø8	3/8	8 ▲	9	72.2	34.8	44÷49	18.7	9.1	22	13.8	26	M15x1	18.7	24	20	17	4.5
9041715	RFL L B 1/4-Ø10	1/4	10	8	79.9	39.2	51.5÷60	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5.5
9041716	RFL L B 3/8-Ø10	3/8	10	9	81.2	40.4	51.5÷60	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5.5
9041717	RFL L B 1/2-Ø10	1/2	10	11	83.7	40	51.5÷60	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

RFL L G (BSP) THREAD - PIPE BIDIRECTIONAL PUSH-LOCK

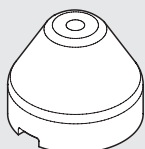


Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9041758	RFL L B 1/8-Ø6 PL	1/8	6	6	58.5	27.8	42.3÷44.5	14.7	6.4	14	11.4	20	M15x1	14.6	20	15	12	4
9041759	RFL L B 1/4-Ø6 PL	1/4	6	8	61.5	28.8	42.3÷44.5	14.7	6.4	18	11.4	20	M15x1	14.6	20	15	14	4
9041760	RFL L B 1/8-Ø8 PL	1/8	8 ▲	6	66.2	31.8	47.2÷49.4	18.7	9.1	15	13.8	26	M15x1	18.7	24	20	14	4.5
9041761	RFL L B 1/4-Ø8 PL	1/4	8 ▲	8	70.6	34.2	47.2÷49.4	18.7	9.1	18	13.8	26	M15x1	18.7	24	20	14	4.5
9041762	RFL L B 3/8-Ø8 PL	3/8	8 ▲	9	72.2	34.8	47.2÷49.4	18.7	9.1	22	13.8	26	M15x1	18.7	24	20	17	4.5
9041765	RFL L B 1/4-Ø10 PL	1/4	10	8	79.9	39.2	53.5÷55.8	20.7	10.9	18	16	30	M18x1.5	21.4	26	22	16	5.5
9041766	RFL L B 3/8-Ø10 PL	3/8	10	9	81.2	40.4	53.5÷55.8	20.7	10.9	20	16	30	M18x1.5	21.4	26	22	17	5.5
9041767	RFL L B 1/2-Ø10 PL	1/2	10	11	83.7	40	53.5÷55.8	20.7	10.9	26	16	30	M18x1.5	21.4	26	22	22	5.5

▲ Ø8 = Ø5/16"

ACCESSORIES RFL PUSH-LOCK

ANTI-TAMPERING KNOB



Code	Description
9200703	Anti-tampering knob

NOTE: Remove the knob on the Push-Lock RFL by pulling outwards.

Fit on the anti-tamper ring knob and make the necessary settings.

When the RFL has been set, press the knob firmly until it locks in position.

If the RFL needs to be recalibrated, remove the anti-tampering knob and push laterally using a screwdriver.

IN-LINE FIXED-REGULATION FLOW REGULATOR SERIES RFF L

The in-line fixed regulation flow regulator belongs to the LINE ON LINE® family and can be connected in series or in parallel with the other products in the same family. The RFF L regulates the flow of air, and hence the rate of operation of pneumatic actuators. Air flow is regulated by means of a choke with a calibrated diameter. A full range of diameters is available. The advantage of the RFF L over other adjustable versions is that there is no need for regulation during machine installation. Subsequent adjustments are not required either. Two versions are available. Version U (unidirectional) regulates the flow in one direction only. Version B (bidirectional) regulates the air flow in both directions.

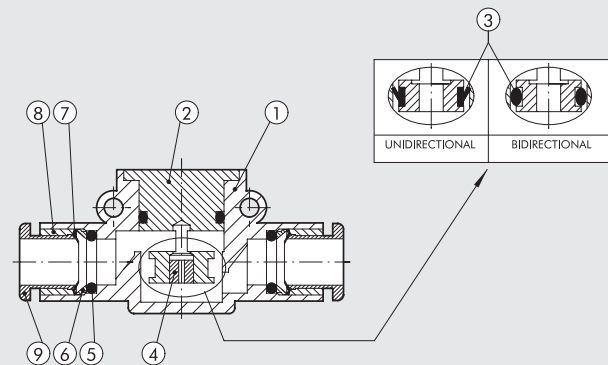


TECHNICAL DATA

		Ø 4 (Ø5/32")	Ø 6	Ø 8 (Ø5/16")
Max. operating pressure	MPa		1	
	bar		10	
	psi		145	
Temperature range	°C		- 20 to + 60	
	°F		- 4 to + 140	
Choke flow rate	NI/min		See table below	
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous		
Compatibility with oils		See chapter Z1		

COMPONENTS

- ① Technopolymer body
- ② Nickel-plated brass gasket holding insert
- ③ NBR gasket
- ④ Brass choke cartridge
- ⑤ NBR seal
- ⑥ Technopolymer spring ring
- ⑦ Stainless steel clip-on spring
- ⑧ Technopolymer stop bushing
- ⑨ Technopolymer release bushing



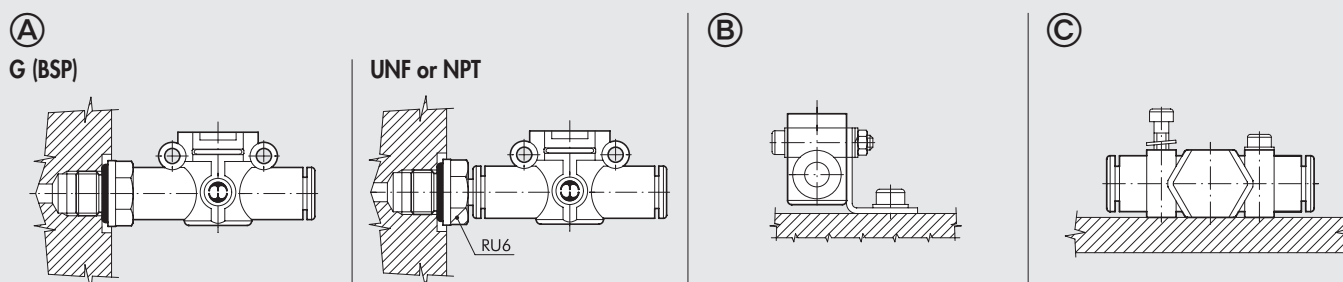
EXHAUST FLOW RATE AT 6.3 bar FOR VERSIONS C-U-V [NI/min]

Choke [mm]	Ø 4 (Ø5/32")	Ø 6	Ø 8 (Ø5/16")
Ø 0.2	142	552	912
Ø 0.3	144	554	914
Ø 0.4	147	557	917
Ø 0.5	153	563	923
Ø 0.6	155	565	925
Ø 0.8	172	582	942
Ø 1.0	190	600	960
Ø 1.3	225	635	995
Ø 1.5	250	660	1020

CHOKE FLOW-RATE AT 6 bar WITH RELIEF VALVE OPEN

Choke [mm]	Flow rate [NI/min]
Ø 0.2	2
Ø 0.3	4
Ø 0.4	7
Ø 0.5	13
Ø 0.6	15
Ø 0.8	32
Ø 1.0	50
Ø 1.3	85
Ø 1.5	110

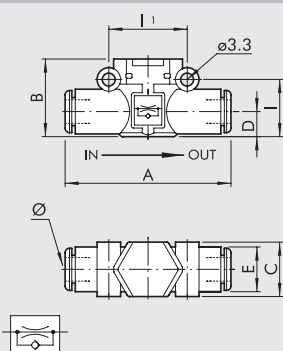
ASSEMBLY OPTIONS



How to mount the RFF L:

- Fig. (A) **G (BSP)**: With the male threaded port it is possible to mount the RFF L straight onto the actuator or the control valve.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the RFF 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 RFF L straight onto the wall.

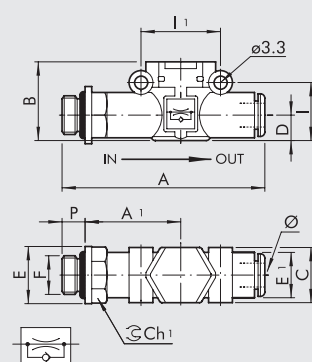
RFF L PIPE - PIPE UNIDIRECTIONAL



Code	Ref.	Ø	A	B	C	D	E	I	II
9070U11_*	RFF-U L Ø4-Ø4	4 ▲	42	17.5	10.7	5.6	10	12.8	16
9070U22_*	RFF-U L Ø6-Ø6	6	49.4	20	14.7	6.4	11.4	14.6	20
9070U33_*	RFF-U L Ø8-Ø8	8 ▲	57.3	25.5	18.7	9.1	13.8	18.7	24

* The last two digits indicate the narrowing Ø. To complete the code please look at the key to codes.
▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

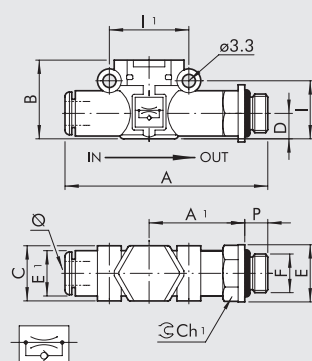
RFF L G (BSP) THREAD - PIPE UNIDIRECTIONAL CYLINDER VERSION



Code	Ref.	F	Ø	P	A	A1	B	C	E	E1	I	II	Ch1
9070C51_*	RFF-C L M5 - Ø4	M5	4 ▲	4	47.7	22.7	17.5	10.7	9.9	10	12.8	16	9
9070C61_*	RFF-C L 1/8 - Ø4	1/8	4 ▲	6	51.6	24.6	17.5	10.7	14	10	12.8	16	12
9070C62_*	RFF-C L 1/8 - Ø6	1/8	6	6	58.5	27.8	20	14.7	14	11.4	14.6	20	12
9070C72_*	RFF-C L 1/4 - Ø6	1/4	6	8	61.5	28.8	20	14.7	18	11.4	14.6	20	14
9070C63_*	RFF-C L 1/8 - Ø8	1/8	8 ▲	6	66.2	31.8	25.5	18.7	15	13.8	18.7	24	14
9070C73_*	RFF-C L 1/4 - Ø8	1/4	8 ▲	8	70.6	34.2	25.5	18.7	18	13.8	18.7	24	14
9070C83_*	RFF-C L 3/8 - Ø8	3/8	8 ▲	9	72.2	34.8	25.5	18.7	22	13.8	18.7	24	17

* The last two digits indicate the narrowing Ø. To complete the code please look at the key to codes.
▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

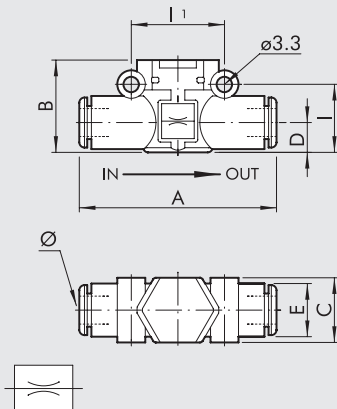
RFF L PIPE - G (BSP) THREAD UNIDIRECTIONAL VALVE VERSION



Code	Ref.	Ø	F	P	A	A1	B	C	E	E1	I	II	Ch1
9070V15_*	RFF-V L Ø4 - M5	4 ▲	M5	4	47.7	22.7	17.5	10.7	9.9	10	12.8	16	9
9070V16_*	RFF-V L Ø4 - 1/8	4 ▲	1/8	6	51.6	24.6	17.5	10.7	14	10	12.8	16	12
9070V26_*	RFF-V L Ø6 - 1/8	6	1/8	6	58.5	27.8	20	14.7	14	11.4	14.6	20	12
9070V27_*	RFF-V L Ø6 - 1/4	6	1/4	8	61.5	28.8	20	14.7	18	11.4	14.6	20	14
9070V36_*	RFF-V L Ø8 - 1/8	8 ▲	1/8	6	66.2	31.8	25.5	18.7	15	13.8	18.7	24	14
9070V37_*	RFF-V L Ø8 - 1/4	8 ▲	1/4	8	70.6	34.2	25.5	18.7	18	13.8	18.7	24	14
9070V38_*	RFF-V L Ø8 - 3/8	8 ▲	3/8	9	72.2	34.8	25.5	18.7	22	13.8	18.7	24	17

* The last two digits indicate the narrowing Ø. To complete the code please look at the key to codes.
▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

RFF L PIPE - PIPE BIDIRECTIONAL

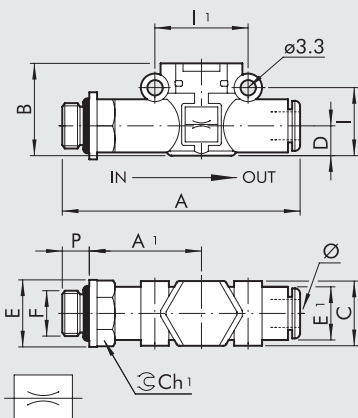


Code	Ref.	Ø	A	B	C	D	E	I	II
9070B11_*	RFF-B L Ø4-Ø4	4 ▲	42	17.5	10.7	5.6	10	12.8	16
9070B22_*	RFF-B L Ø6-Ø6	6	49.4	20	14.7	6.4	11.4	14.6	20
9070B33_*	RFF-B L Ø8-Ø8	8 ▲	57.3	25.5	18.7	9.1	13.8	18.7	24

* The last two digits indicate the narrowing Ø. To complete the code please look at the key to codes.

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

RFF L G (BSP) THREAD - PIPE BIDIRECTIONAL



Code	Ref.	F	Ø	P	A	A1	B	C	E	E1	I	II	Ch1
9070B51_*	RFF-B L M5 - Ø4	M5	4 ▲	4	47.7	22.7	17.5	10.7	9.9	10	12.8	16	9
9070B61_*	RFF-B L 1/8 - Ø4	1/8	4 ▲	6	51.6	24.6	17.5	10.7	14	10	12.8	16	12
9070B62_*	RFF-B L 1/8 - Ø6	1/8	6	6	58.5	27.8	20	14.7	14	11.4	14.6	20	12
9070B72_*	RFF-B L 1/4 - Ø6	1/4	6	8	61.5	28.8	20	14.7	18	11.4	14.6	20	14
9070B63_*	RFF-B L 1/8 - Ø8	1/8	8 ▲	6	66.2	31.8	25.5	18.7	15	13.8	18.7	24	14
9070B73_*	RFF-B L 1/4 - Ø8	1/4	8 ▲	8	70.6	34.2	25.5	18.7	18	13.8	18.7	24	14
9070B83_*	RFF-B L 3/8 - Ø8	3/8	8 ▲	9	72.2	34.8	25.5	18.7	22	13.8	18.7	24	17

* The last two digits indicate the narrowing Ø. To complete the code please look at the key to codes.

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

KEY TO CODES

9 0 7 0	B	11	02
TYPE	FUNCTION	Ø IN - Ø OUT	Ø CHOKE
9070 RFF L	B Bidirectional C For cylinder U Unidirectional V For valve	▲ ■ 11 = Ø 4 - Ø 4 ▲ * 15 = Ø 4 - M5 ▲ * 16 = Ø 4 - 1/8" ■ 22 = Ø 6 - Ø 6 * 26 = Ø 6 - 1/8" * 27 = Ø 6 - 1/4" ▲ ■ 33 = Ø 8 - Ø 8 ▲ * 36 = Ø 8 - 1/8" ▲ * 37 = Ø 8 - 1/4" ▲ * 38 = Ø 8 - 3/8" ▲ ● 51 = M5 - Ø 4 ▲ ● 61 = 1/8" - Ø 4 ● 62 = 1/8" - Ø 6 ▲ ● 63 = 1/8" - Ø 8 ● 72 = 1/4" - Ø 6 ▲ ● 73 = 1/4" - Ø 8 ▲ ● 83 = 3/8" - Ø 8	02 = Ø 0.2 03 = Ø 0.3 04 = Ø 0.4 05 = Ø 0.5 06 = Ø 0.6 08 = Ø 0.8 10 = Ø 1.0 13 = Ø 1.3 15 = Ø 1.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

■ Only for B (bidirectional) and U (unidirectional) versions

* Only for V (valve) versions

● Only for C (cylinder) and B (bidirectional) versions

IN-LINE QUICK-EXHAUST VALVES SERIES VSR L

**METAL
WORK**[®]
P N E U M A T I C

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 push-in fittings, and in the version for thread-pipe connection with a brass nickel-plated male thread and a push-in fitting.

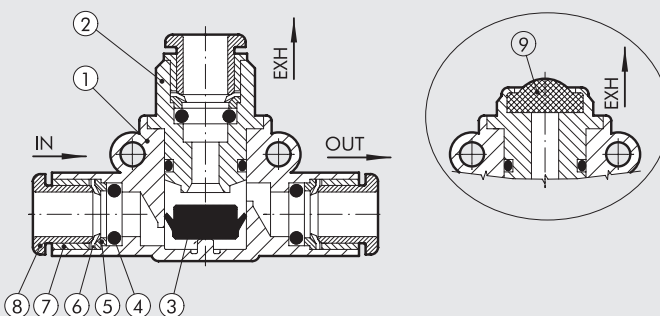
Exhaust can be silenced using a STAINLESS steel wire silencer, or conveyed using a push-in fitting.



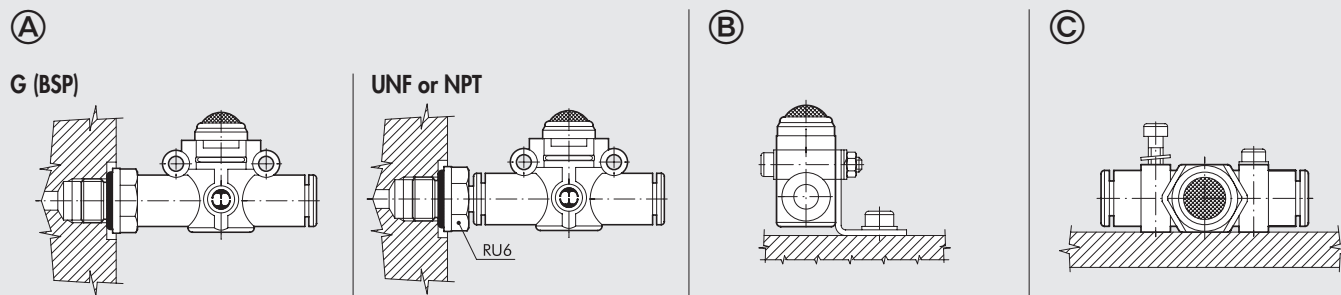
TECHNICAL DATA		Ø 4 (Ø5/32")	Ø 6	Ø 1/4"	Ø 8 (Ø5/16")	Ø3/8"	Ø10
Inlet pressure	MPa	0.1 to 1					
	bar	1 to 10					
	psi	14.5 to 145					
Temperature range	°C	- 20 to + 60					
	°F	- 4 to + 140					
Inlet flow rate at 6.3 bar ΔP 1 bar	Nl/min	50	270	270	400	530	530
Exhaust flow rate at 6.3 bar	Nl/min	100	700	700	1000	1400	1400
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene					
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous					
Compatibility with oils		See chapter Z1					

COMPONENTS

- 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



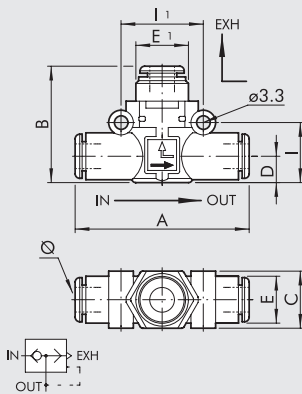
ASSEMBLY OPTIONS



How to mount the VSR L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the VSR L straight onto the actuator.
UNF or NPT: Adding a RU6 fitting, with his male UNF or 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, except for Ø3/8 and Ø10.
- Fig. **C** There are two robust rings on the plastic body for fixing the VSR L straight onto the wall.

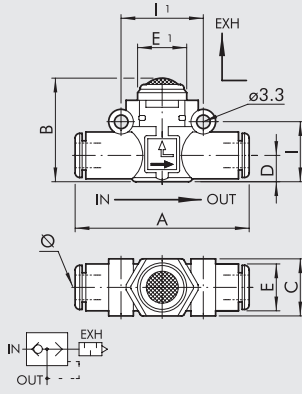
VSR L PIPE - PIPE, CONVEYED EXHAUST



Code	Ref.	Ø	A	B	C	D	E	E1	I	I1
9063001	VSR L Ø4-Ø4-Ø4	4 ▲	41.8	25.8	10.7	5.6	10	9.7	12.8	16
9063016	VSR L Ø6-Ø6-Ø6	6	49.4	30.2	14.7	6.4	11.4	13	14.6	20
9063016U	VSR L Ø1/4-Ø1/4-Ø1/4	1/4	49.4	30.2	14.7	6.4	11.4	13	14.6	20
9063024	VSR L Ø8-Ø8-Ø8	8 ▲	57.3	35.9	18.7	9.1	13.8	15	18.7	24
9063032U	VSR L Ø3/8-Ø3/8-Ø3/8	3/8	65	41.5	21	10.9	16	17	21.4	26
9063032	VSR L Ø10-Ø10-Ø10	10	65	41.5	21	10.9	16	17	21.4	26

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

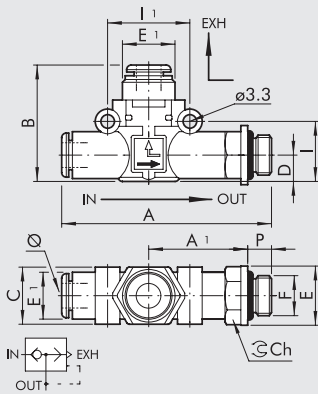
VSR L PIPE - PIPE, SILENCED EXHAUST



Code	Ref.	Ø	A	B	C	D	E	E1	I	I1
9063101	VSR L Ø4-Ø4-SIL	4 ▲	41.8	19.8	10.7	5.6	10	10	12.8	16
9063116	VSR L Ø6-Ø6-SIL	6	49.4	25.5	14.7	6.4	11.4	14	14.6	20
9063116U	VSR L Ø1/4-Ø1/4-SIL	1/4	49.4	25.5	14.7	6.4	11.4	14	14.6	20
9063124	VSR L Ø8-Ø8-SIL	8 ▲	57.3	31.5	18.7	9.1	13.8	18	18.7	24
9063132U	VSR L Ø3/8-Ø3/8-SIL	3/8	65	37	21	10.9	16	17	21.4	26
9063132	VSR L Ø10-Ø10-SIL	10	65	37	21	10.9	16	17	21.4	26

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

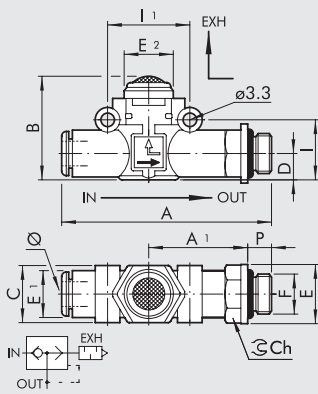
VSR L PIPE - G (BSP) THREAD, CONVEYED EXHAUST



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	E2	I	I1	Ch
9063201	VSR L Ø4-M5-Ø4	4 ▲	M5	4	47.7	22.7	25.8	10.7	5.6	9.9	10	9.7	12.8	16	9
9063202	VSR L Ø4-1/8-Ø4	4 ▲	1/8	6	50.6	24.6	25.8	10.7	5.6	14	10	9.7	12.8	16	12
9063208	VSR L Ø6-1/8-Ø6	6	1/8	6	58.5	27.8	30.2	14.7	6.4	14	11.4	13	14.6	20	12
9063209	VSR L Ø6-1/4-Ø6	6	1/4	8	61.5	28.8	30.2	14.7	6.4	18	11.4	13	14.6	20	14
9063210	VSR L Ø8-1/8-Ø8	8 ▲	1/8	6	66.2	31.8	35.9	18.7	9.1	15	13.8	15	18.7	24	14
9063211	VSR L Ø8-1/4-Ø8	8 ▲	1/4	8	70.6	34.2	35.9	18.7	9.1	18	13.8	15	18.7	24	14
9063212	VSR L Ø8-3/8-Ø8	8 ▲	3/8	9	72.2	34.8	35.9	18.7	9.1	22	13.8	15	18.7	24	17
9063215	VSR L Ø10-1/4-Ø10	10	1/4	8	79.9	39.2	41.5	21	10.9	18	16	17	21.4	26	16
9063216	VSR L Ø10-3/8-Ø10	10	3/8	9	81.2	40.4	41.5	21	10.9	20	16	17	21.4	26	17
9063217	VSR L Ø10-1/2-Ø10	10	1/2	11	83.7	40	41.5	21	10.9	26	16	17	21.4	26	22

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

VSR L PIPE - G (BSP) THREAD, SILENCED EXHAUST



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	E2	I	I1	Ch
9063301	VSR L Ø4-M5-SIL	4 ▲	M5	4	46.7	22.7	19.8	10.7	5.6	9.9	10	10	12.8	16	9
9063302	VSR L Ø4-1/8-SIL	4 ▲	1/8	6	50.6	24.6	19.8	10.7	5.6	14	10	10	12.8	16	12
9063308	VSR L Ø6-1/8-SIL	6	1/8	6	58.5	27.8	25.5	14.7	6.4	14	11.4	14	14.6	20	12
9063309	VSR L Ø6-1/4-SIL	6	1/4	8	61.5	28.8	25.5	14.7	6.4	18	11.4	14	14.6	20	14
9063310	VSR L Ø8-1/8-SIL	8 ▲	1/8	6	66.2	31.8	31.5	18.7	9.1	15	13.8	18	18.7	24	14
9063311	VSR L Ø8-1/4-SIL	8 ▲	1/4	8	70.6	34.2	31.5	18.7	9.1	18	13.8	18	18.7	24	14
9063312	VSR L Ø8-3/8-SIL	8 ▲	3/8	9	72.2	34.8	31.5	18.7	9.1	22	13.8	18	18.7	24	17
9063315	VSR L Ø10-1/4-SIL	10	1/4	8	79.9	39.2	37	21	10.9	18	16	17	21.4	26	16
9063316	VSR L Ø10-3/8-SIL	10	3/8	9	81.2	40.4	37	21	10.9	20	16	17	21.4	26	17
9063317	VSR L Ø10-1/2-SIL	10	1/2	11	83.7	40	37	21	10.9	26	16	17	21.4	26	22

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

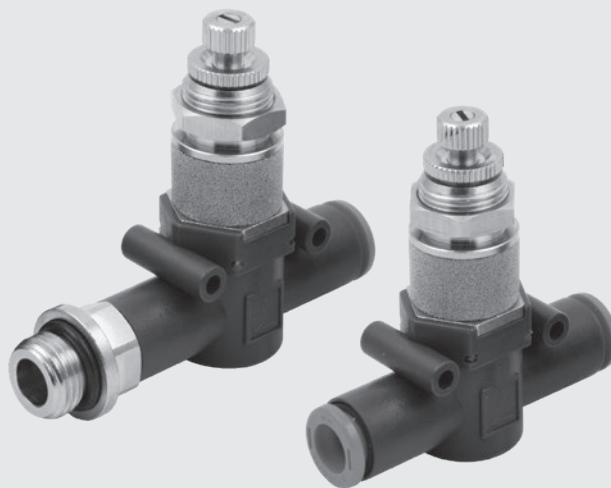
IN-LINE QUICK-EXHAUST VALVE WITH REGULATED EXHAUST SERIES VSRR L

**METAL
WORK**[®]
P N E U M A T I C

The VSRR L quick-exhaust valve with regulated exhaust belongs to the LINE ON LINE[®] family of products and can be linked in series or in parallel to all the other products.

It comes in a version for pipe-pipe connection, which includes two push-in fittings, and a version for thread-pipe connection, which includes a nickel-plated brass taper thread and push-in fitting.

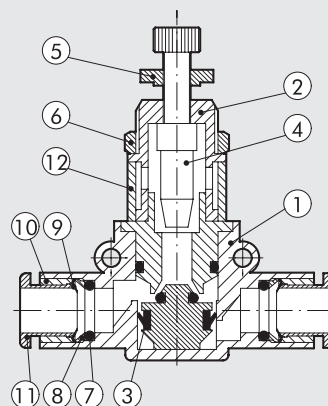
The main feature of these valves is that the discharge flow can be adjusted via a pin regulator. This allows you to control the speed of the actuator connected to the valve, giving a higher speed than with an MRF regulator.



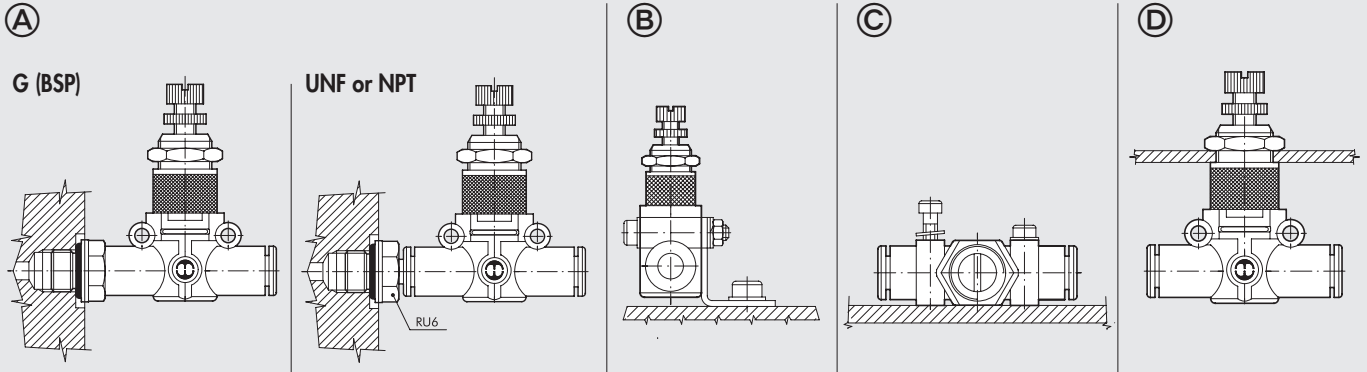
TECHNICAL DATA		Ø 4 (Ø5/32")	Ø 6	Ø 8 (Ø5/16")
Max. operating pressure	MPa		1	
	bar		10	
	psi		145	
Temperature range	°C		-20 to +60	
	°F		-4 to +140	
Max flow rate on regulation at 6.3 bar ΔP 1 bar	Nl/min	50	270	400
Flow rate on exhaust at 6.3 bar	Nl/min	170	460	960
Adjustment		Manual or using a screwdriver		
Internal system		Tapered needle		
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous		
Compatibility with oils		See chapter Z1		

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 Nickel-plated brass 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
- ⑫ Sintered bronze silencer



ASSEMBLY OPTIONS

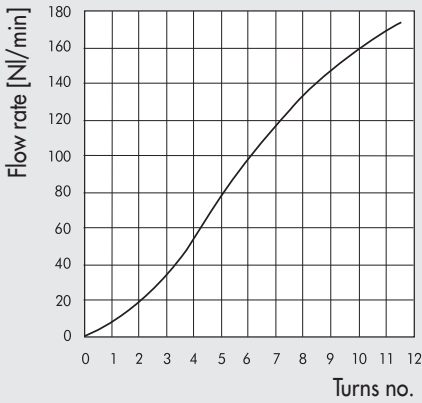


How to mount the VSRR L:

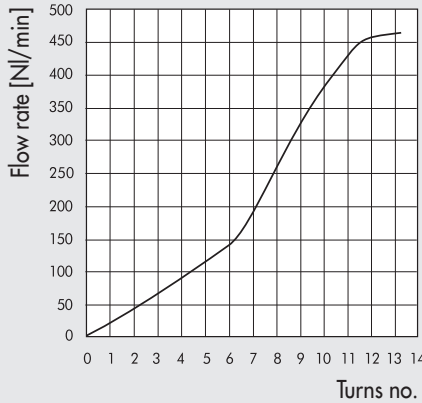
- Fig. **A G (BSP)**: With the male threaded port it is possible to mount the VSRR L straight onto the actuator or the control valve.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the VSRR L straight on to the actuator or the control valve.
- Fig. **B** Fixing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

EXHAUST FLOW CHARTS VSRR L

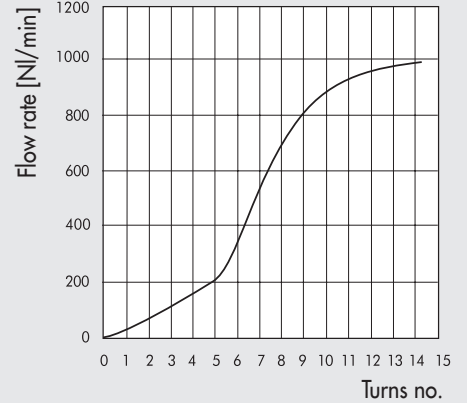
VSRR L Ø 4 (Ø5/32")



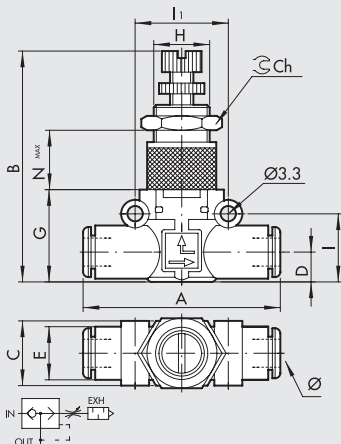
VSRR L Ø 6



VSRR L Ø 8 (Ø5/16")

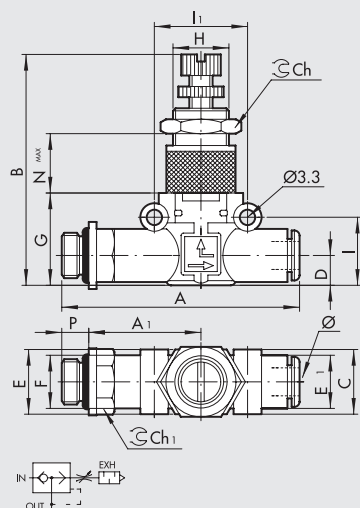


VSRR L PIPE - PIPE



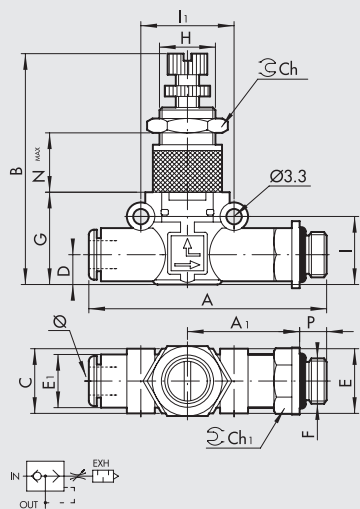
Code	Ref.	Ø	A	B	C	D	E	G	H	I	II	Ch	Nmax
9063501	VSRR L Ø4-Ø4	4 ▲	42	39.5-43.5	10.7	5.6	10	17.5	M9x0.75	12.8	16	11	11.5
9063516	VSRR L Ø6-Ø6	6	49.4	47-52	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	15.5
9063524	VSRR L Ø8-Ø8	8 ▲	57.3	56-61.2	18.7	9.1	13.8	26	M15x1	18.7	24	17	18.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

VSRR L G (BSP) THREAD - PIPE


Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9063601	VSRR LM5-Ø4	M5	4▲	4	47.7	22.7	39.5-43.5	10.7	5.6	9.9	10	17.5	M9x0.75	12.8	16	11	9	11.5
9063602	VSRR L1/8-Ø4	1/8	4▲	6	51.6	24.6	39.5-43.5	10.7	5.6	14	10	17.5	M9x0.75	12.8	16	11	12	11.5
9063608	VSRR L1/8-Ø6	1/8	6	6	58.5	27.8	47-52	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	15.5
9063609	VSRR L1/4-Ø6	1/4	6	8	61.5	28.8	47-52	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	15.5
9063610	VSRR L1/8-Ø8	1/8	8▲	6	66.2	31.8	56-61.2	18.7	9.1	15	13.8	26	M15x1	18.7	26	17	14	18.5
9063611	VSRR L1/4-Ø8	1/4	8▲	8	70.6	34.2	56-61.2	18.7	9.1	18	13.8	26	M15x1	18.7	26	17	14	18.5
9063612	VSRR L3/8-Ø8	3/8	8▲	9	72.2	34.8	56-61.2	18.7	9.1	22	13.8	26	M15x1	18.7	26	17	17	18.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

VSRR L PIPE - G (BSP) THREAD


Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9063701	VSRR LØ4-M5	4▲	M5	4	47.7	22.7	39.5-43.5	10.7	5.6	9.9	10	17.5	M9x0.75	12.8	16	11	9	11.5
9063702	VSRR LØ4-1/8	4▲	1/8	6	51.6	24.6	39.5-43.5	10.7	5.6	14	10	17.5	M9x0.75	12.8	16	11	12	11.5
9063708	VSRR LØ6-1/8	6	1/8	6	58.5	27.8	47-52	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	15.5
9063709	VSRR LØ6-1/4	6	1/4	8	61.5	28.8	47-52	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	15.5
9063710	VSRR LØ8-1/8	8▲	1/8	6	66.2	31.8	56-61.2	18.7	9.1	15	13.8	26	M15x1	18.7	26	17	14	18.5
9063711	VSRR LØ8-1/4	8▲	1/4	8	70.6	34.2	56-61.2	18.7	9.1	18	13.8	26	M15x1	18.7	26	17	14	18.5
9063712	VSRR LØ8-3/8	8▲	3/8	9	72.2	34.8	56-61.2	18.7	9.1	22	13.8	26	M15x1	18.7	26	17	17	18.5

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

NOTES

IN-LINE STOP VALVE SERIES STP L

The STP L stop valve belongs to the LINE ON LINE® family and can be connected in series or in parallel with the other products in the same family. It is available in a version for pipe-pipe connection, which includes two push-in fittings, and a version for thread-pipe connection, which includes a nickel-plated brass male thread and a push-in fitting. The stop valve is normally mounted on the inlet port of cylinders and allows the flow of air only in the presence of a pneumatic pilot.

Cylinder movement ceases if there is a drop in pneumatic pilot pressure. The compressed air port is a push-in fitting for $\text{Ø } 4$ ($\text{Ø}5/32''$) pipe. This stop valve is available in a unidirectional version, so the flow can be interrupted in one direction, but remains free in the other direction. This valve can also be used as a unidirectional normally-closed 2/2 pneumatic control valve.



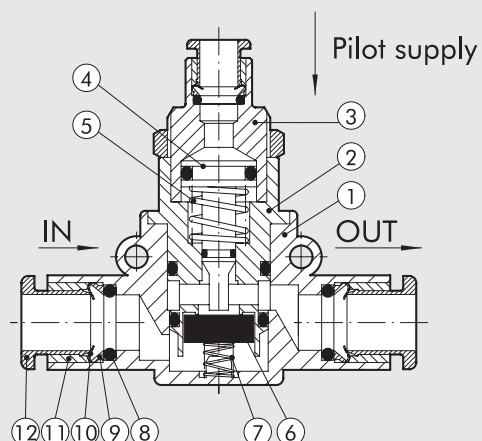
TECHNICAL DATA		$\text{Ø } 6$	$\text{Ø } 8$ ($\text{Ø}5/16''$)
Max. operating pressure	MPa	1	
	bar	10	
	psi	145	
Temperature range	$^{\circ}\text{C}$	-20 to +60	
	$^{\circ}\text{F}$	-4 to +140	
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene	
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous	
Compatibility with oils		See chapter Z1	

IN-LINE STOP VALVE SERIES STP L

ACCESSORIES

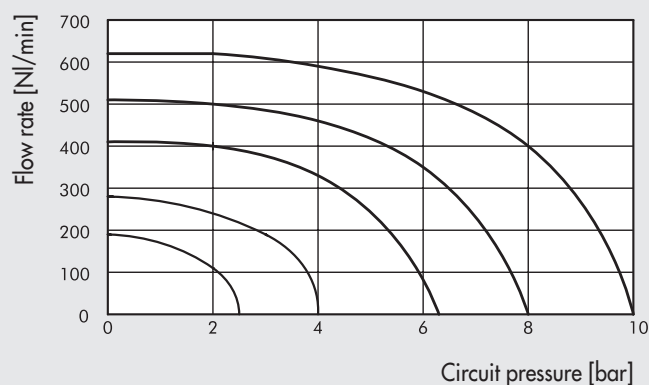
COMPONENTS

- ① Technopolymer body
- ② Nickel-plated brass insert
- ③ Nickel-plated brass pilot insert
- ④ Brass piston rod
- ⑤ Stainless steel clamping spring
- ⑥ NBR seal
- ⑦ Stainless steel poppet spring
- ⑧ NBR seal
- ⑨ Technopolymer spring ring
- ⑩ Stainless steel clip-on spring
- ⑪ Technopolymer stop bushing
- ⑫ Technopolymer release bushing

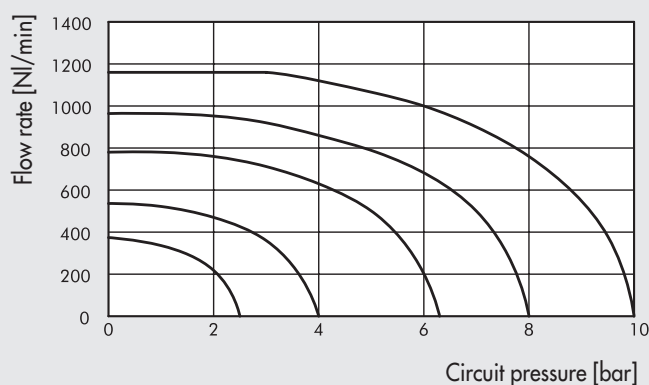


FLOW CHARTS

STP L Ø 6

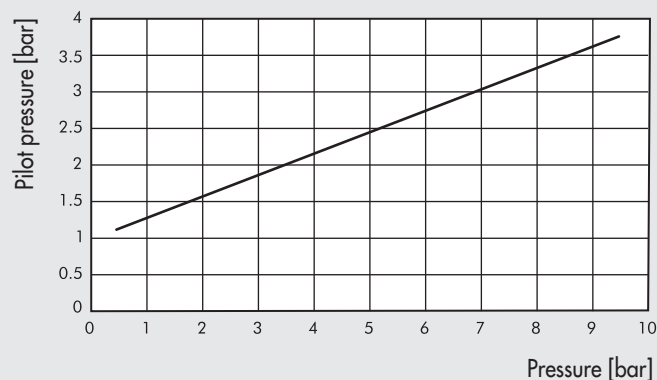


STP L Ø 8 (Ø5/16")

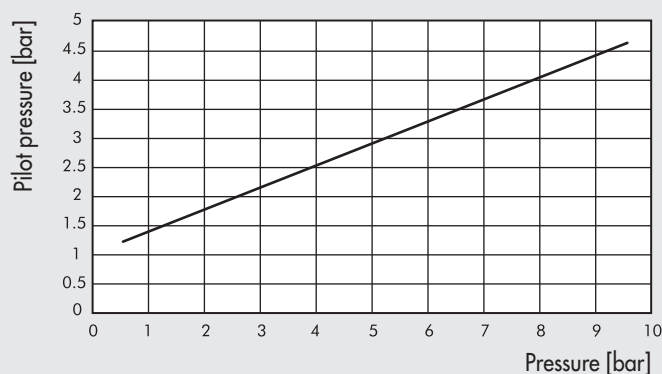


MINIMUM PILOT PRESSURE

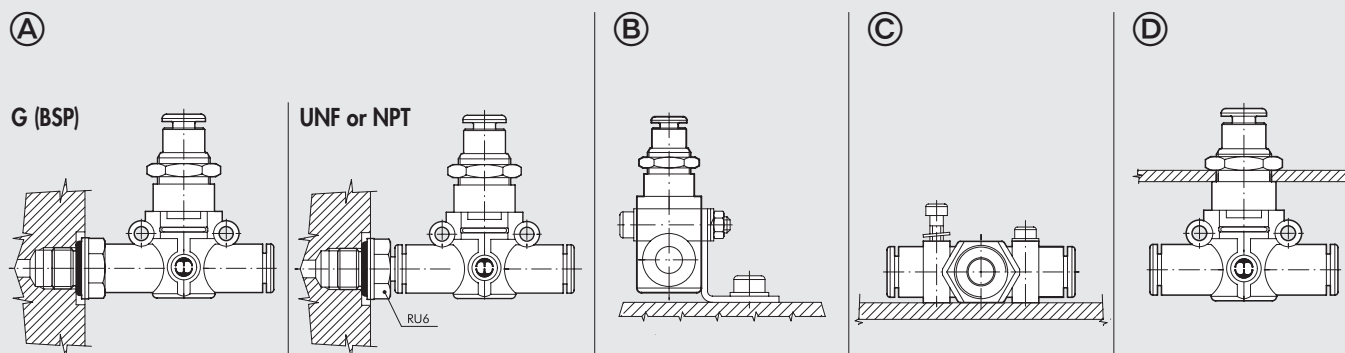
STP L Ø 6



STP L Ø 8 (Ø5/16")



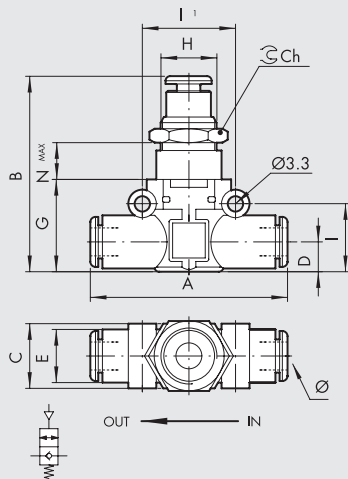
ASSEMBLY OPTIONS



How to mount the STP L:

- Fig. (A) **G (BSP)**: With the male threaded port it is possible to mount the STP L straight onto the actuator or the control valve.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the STP 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 STP L straight onto the wall.
- Fig. (D) The ring nut is screwed onto the threaded metal part of the STP L body for panel mounting.

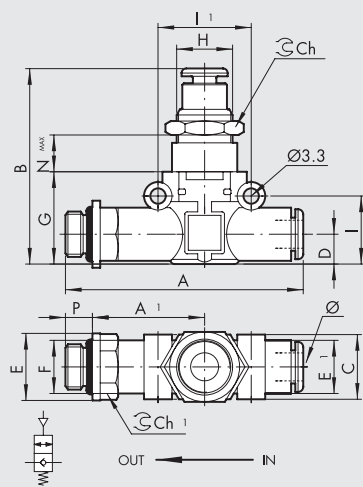
STP L 2/2 PIPE - PIPE



Code	Ref.	Ø	A	B	C	D	E	G	H	I	II	Ch	Nmax
9065616	STP L 2/2 Ø6 - Ø6	6	49.4	43.2	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	12
9065624	STP L 2/2 Ø8 - Ø8	8 ▲	57.3	49.7	18.7	9.1	13.8	26	M15x1	18.7	24	17	11.8

▲ Ø8 = Ø5/16"

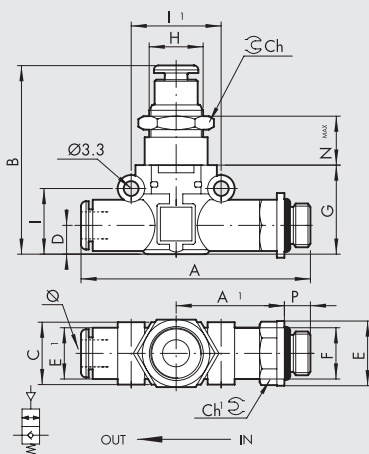
STP L 2/2 PIPE - G (BSP) THREAD



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9065808	STP L 2/2 Ø6 - 1/8	6	1/8	6	58.5	27.8	43.2	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	12
9065809	STP L 2/2 Ø6 - 1/4	6	1/4	8	61.5	28.8	43.2	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	12
9065810	STP L 2/2 Ø8 - 1/8	8 ▲	1/8	6	66.2	31.8	49.7	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	11.8
9065811	STP L 2/2 Ø8 - 1/4	8 ▲	1/4	8	70.6	34.2	49.7	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	11.8
9065812	STP L 2/2 Ø8 - 3/8	8 ▲	3/8	9	72.2	34.8	49.7	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	11.8

▲ Ø8 = Ø5/16"

STP L 2/2 G (BSP) THREAD - PIPE



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	II	Ch	Ch1	Nmax
9065708	STP L 2/2 1/8 - Ø6	1/8	6	6	58.5	27.8	43.2	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	12
9065709	STP L 2/2 1/4 - Ø6	1/4	6	8	61.5	28.8	43.2	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	12
9065710	STP L 2/2 1/8 - Ø8	1/8	8 ▲	6	66.2	31.8	49.7	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	11.8
9065711	STP L 2/2 1/4 - Ø8	1/4	8 ▲	8	70.6	34.2	49.7	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	11.8
9065712	STP L 2/2 3/8 - Ø8	3/8	8 ▲	9	72.2	34.8	49.7	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	11.8

▲ Ø8 = Ø5/16"

IN-LINE CHECK VALVE SERIES VNR L

**METAL
WORK**
P N E U M A T I C

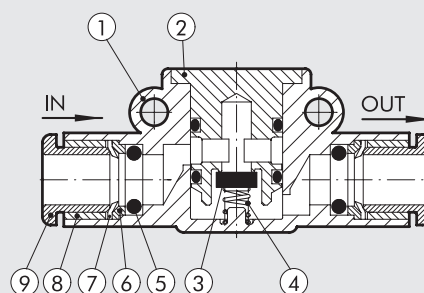
The VNR L check valve belongs to the LINE ON LINE® family, which means it can be connected to all the other components in series or in parallel. Available in the version for pipe-pipe connection with two push-in fittings, and in the version for thread-pipe connection with a brass nickel-plated male thread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



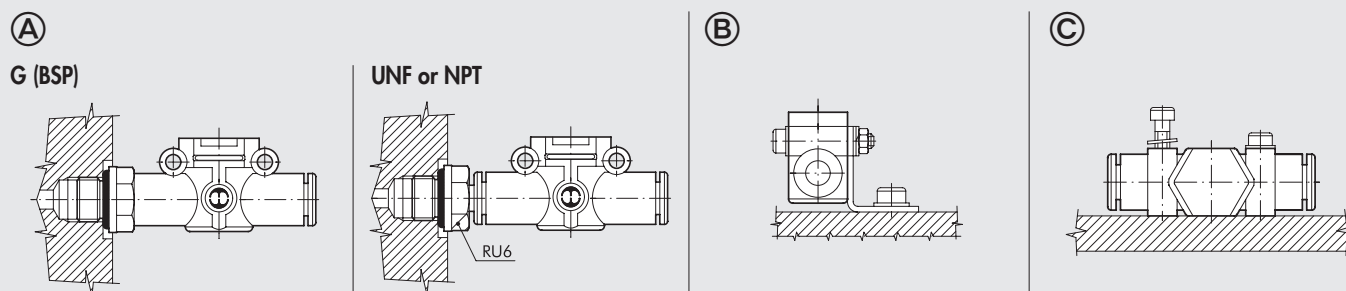
TECHNICAL DATA		Ø 4 (Ø5/32")	Ø 6	Ø 1/4"	Ø 8 (Ø5/16")	Ø 3/8"	Ø 10
Operating pressure	MPa	0.05 to 1.2					
	bar	0.5 to 12					
	psi	7.2 to 174					
Temperature range	°C	-20 to +60					
	°F	-4 to +140					
Flow rate at 6.3 bar ΔP 1 bar	Nl/min	80	320	320	480	750	750
Recommended pipe Fluid		Rilsan PA11 - Nylon 6 - Polyamide 12 - Polypropylene Lubricated or unlubricated filtered compressed air; if used, must be continuous					

COMPONENTS

- 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



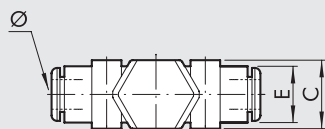
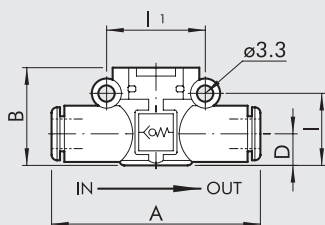
ASSEMBLY OPTIONS



How to mount the VNR L:

- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the VNR L straight onto the female thread.
UNF or NPT: Adding a RU6 fitting, with his male UNF or 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, except for Ø3/8 and Ø10.
- Fig. **C** There are two robust rings on the plastic body for fixing the VNR L straight onto the wall.

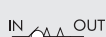
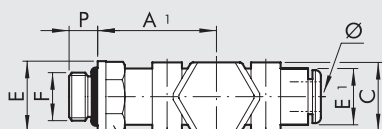
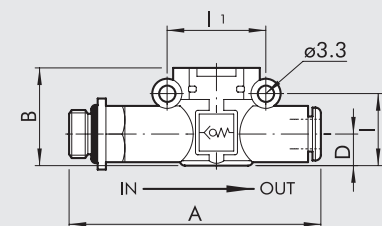
VNR L PIPE - PIPE



Code	Ref.	Ø	A	B	C	D	E	I	II
9064001	VNR L Ø4-Ø4	4 ▲	41.8	17.5	10.7	5.6	10	12.8	16
9064016	VNR L Ø6-Ø6	6	49.4	20	14.7	6.4	11.4	14.6	20
9064016U	VNR L Ø1/4-Ø1/4	1/4	49.4	20	14.7	6.4	11.4	14.6	20
9064024	VNR L Ø8-Ø8	8 ▲	57.3	25.5	18.7	9.1	13.8	18.7	24
9064032U	VNR L Ø3/8-Ø3/8	3/8	65	30	21	10.9	16	21.4	26
9064032	VNR L Ø10-Ø10	10	65	30	21	10.9	16	21.4	26

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

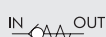
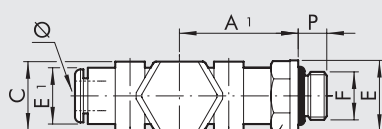
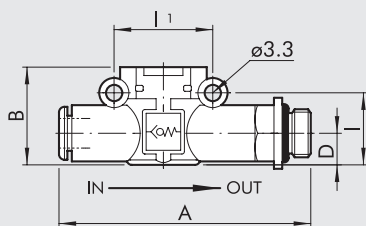
VNR L G (BSP) THREAD - PIPE



Code	Ref.	F	Ø	P	A	A1	B	C	E	E1	I	II	Ch1
9064101	VNR L M5-Ø4	M5	4 ▲	4	47.7	22.7	17.5	10.7	9.9	10	12.8	16	9
9064102	VNR L 1/8-Ø4	1/8	4 ▲	6	50.6	24.6	17.5	10.7	14	10	12.8	16	12
9064108	VNR L 1/8-Ø6	1/8	6	6	58.5	27.8	20	14.7	14	11.4	14.6	20	12
9064109	VNR L 1/4-Ø6	1/4	6	8	61.5	28.8	20	14.7	18	11.4	14.6	20	14
9064110	VNR L 1/8-Ø8	1/8	8 ▲	6	66.2	31.8	25.5	18.7	15	13.8	18.7	24	14
9064111	VNR L 1/4-Ø8	1/4	8 ▲	8	70.6	34.2	25.5	18.7	18	13.8	18.7	24	14
9064112	VNR L 3/8-Ø8	3/8	8 ▲	9	72.2	34.8	25.5	18.7	22	13.8	18.7	24	17
9064115	VNR L 1/4-Ø10	1/4	10	8	79.9	39.2	30	20.7	18	16	21.4	26	16
9064116	VNR L 3/8-Ø10	3/8	10	9	81.2	40.4	30	20.7	20	16	21.4	26	17
9064117	VNR L 1/2-Ø10	1/2	10	11	83.7	40	30	20.7	26	16	21.4	26	22

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

VNR L PIPE - G (BSP) THREAD



Code	Ref.	Ø	F	P	A	A1	B	C	E	E1	I	II	Ch1
9064201	VNR L Ø4-M5	4 ▲	M5	4	47.7	22.7	17.5	10.7	9.9	10	12.8	16	9
9064202	VNR L Ø4-1/8	4 ▲	1/8	6	50.6	24.6	17.5	10.7	14	10	12.8	16	12
9064208	VNR L Ø6-1/8	6	1/8	6	58.5	27.8	20	14.7	14	11.4	14.6	20	12
9064209	VNR L Ø6-1/4	6	1/4	8	61.5	28.8	20	14.7	18	11.4	14.6	20	14
9064210	VNR L Ø8-1/8	8 ▲	1/8	6	66.2	31.8	25.5	18.7	15	13.8	18.7	24	14
9064211	VNR L Ø8-1/4	8 ▲	1/4	8	70.6	34.2	25.5	18.7	18	13.8	18.7	24	14
9064212	VNR L Ø8-3/8	8 ▲	3/8	9	72.2	34.8	25.5	18.7	22	13.8	18.7	24	17
9064215	VNR L Ø10-1/4	10	1/4	8	79.9	39.2	30	20.7	18	16	21.4	26	16
9064216	VNR L Ø10-3/8	10	3/8	9	81.2	40.4	30	20.7	20	16	21.4	26	17
9064217	VNR L Ø10-1/2	10	1/2	11	83.7	40	30	20.7	26	16	21.4	26	22

▲ Ø4 = Ø5/32"; Ø8 = Ø5/16"

IN-LINE FILTER SERIES FIL L



The FIL L filter is part of the LINE ON LINE® family, which means it can be connected in series or in parallel with all other products of the same line. Available in the version for pipe-pipe connection with two push-in fittings, and in the version for thread-pipe connection with a brass nickel-plated male thread and a push-in fitting.

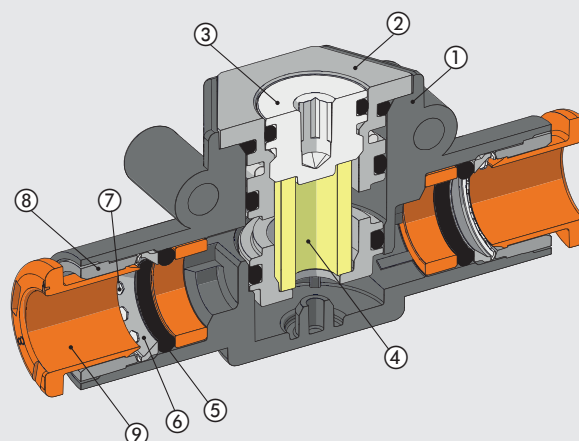
The sintered filter cartridge, which can be easily inspected and replaced by simply opening a removable cap, is available in 3 filtering grades of a different colour for easy identification: 5 µm (yellow), 20 µm (white) and 50 µm (blue).



TECHNICAL DATA		Ø 8 (Ø5/16")	Ø 3/8"	Ø 10
Inlet pressure	MPa		0.05 to 1.2	
	bar		0.5 to 12	
	psi		7.2 to 174	
Temperature range	°C		-20 to +60	
	°F		-4 to +140	
Flow rate at 6.3 bar ΔP 0.5 bar	NI/min		200	
Flow rate at 6.3 bar ΔP 1 bar	NI/min		280	
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene		
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous		
Compatibility with oils		See chapter Z1		

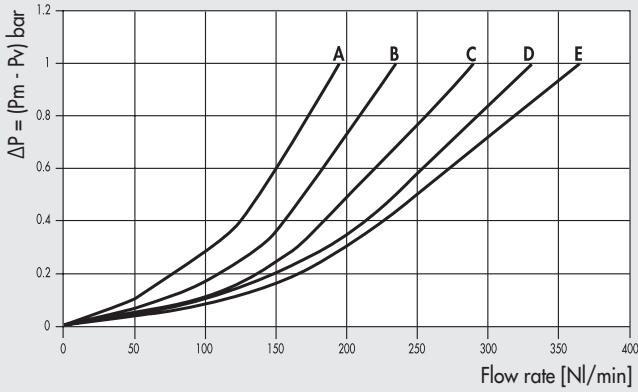
COMPONENTS

- ① Technopolymer body
- ② Nickel-plated brass filter insert
- ③ Nickel-plated brass filter cap
- ④ Sintered HDPE filter cartridge
- ⑤ NBR gasket
- ⑥ Technopolymer spring ring
- ⑦ Stainless steel clip-on spring
- ⑧ Technopolymer locking bushing
- ⑨ Technopolymer release bushing



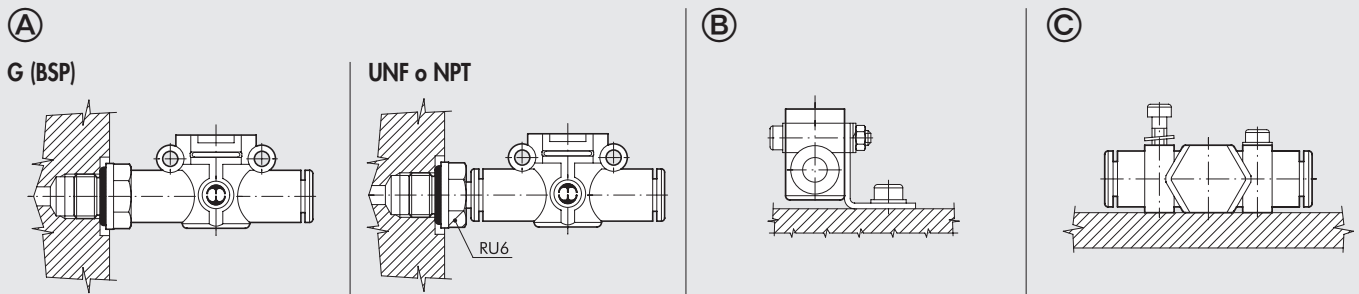
FLOW CHART

FIL L Ø 8 (Ø 5/16") 20 µm - FIL L Ø 3/8" 20 µm - FIL L Ø 10 20 µm



A = 2.5 bar C = 6.3 bar E = 10 bar
 B = 4 bar D = 8 bar

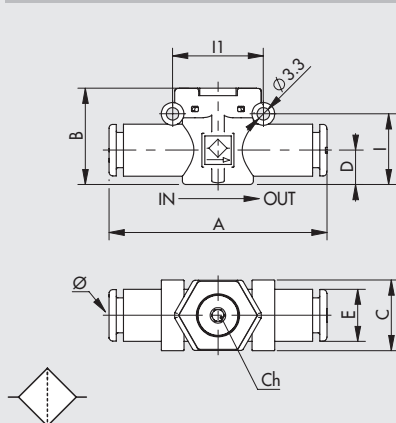
ASSEMBLY OPTIONS



How to mount the FIL L:

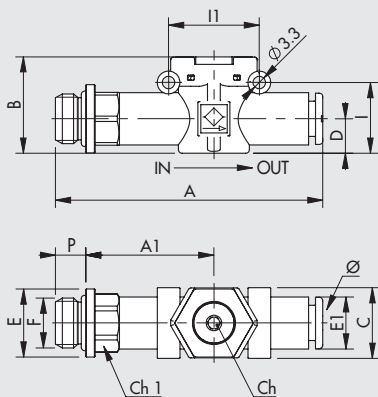
- Fig. **A** **G (BSP)**: With the male threaded port it is possible to mount the FIL L straight onto the female thread.
UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the FIL L straight on to the actuator or the control valve.
- Fig. **B** Fixing to the plate with the special SQU L bracket (only for Ø8).
- Fig. **C** There are two robust rings on the plastic body for fixing the FIL L straight onto the wall.

FIL L PIPE - PIPE



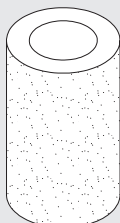
Code	Ref.	Ø	A	B	C	D	E	I	II	Ch
9070424	FIL L Ø8-Ø8 5 µm	8 ▲	57.3	25.5	18.7	9.1	13.8	18.7	24	3
9070444	FIL L Ø8-Ø8 20 µm	8 ▲	57.3	25.5	18.7	9.1	13.8	18.7	24	3
9070464	FIL L Ø8-Ø8 50 µm	8 ▲	57.3	25.5	18.7	9.1	13.8	18.7	24	3
9070432U	FIL L Ø3/8-Ø3/8 5 µm	3/8	65.4	29.7	20.7	10.9	16	21.4	26	3
9070452U	FIL L Ø3/8-Ø3/8 20 µm	3/8	65.4	29.7	20.7	10.9	16	21.4	26	3
9070472U	FIL L Ø3/8-Ø3/8 50 µm	3/8	65.4	29.7	20.7	10.9	16	21.4	26	3
9070432	FIL L Ø10-Ø10 5 µm	10	65.7	29.7	20.7	10.9	16	21.4	26	3
9070452	FIL L Ø10-Ø10 20 µm	10	65.7	29.7	20.7	10.9	16	21.4	26	3
9070472	FIL L Ø10-Ø10 50 µm	10	65.7	29.7	20.7	10.9	16	21.4	26	3

▲ Ø8 = Ø5/16"

FIL L G (BSP) THREAD - PIPE


Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	I	I1	Ch	Ch1
9070510	FIL L 1/8-Ø8 5 µm	1/8	8 ▲	6	66.2	31.8	25.5	18.7	9.1	15	13.8	18.7	24	3	14
9070530	FIL L 1/8-Ø8 20 µm	1/8	8 ▲	6	66.2	31.8	25.5	18.7	9.1	15	13.8	18.7	24	3	14
9070550	FIL L 1/8-Ø8 50 µm	1/8	8 ▲	6	66.2	31.8	25.5	18.7	9.1	15	13.8	18.7	24	3	14
9070511	FIL L 1/4-Ø8 5 µm	1/4	8 ▲	8	70.6	34.2	25.5	18.7	9.1	18	13.8	18.7	24	3	14
9070531	FIL L 1/4-Ø8 20 µm	1/4	8 ▲	8	70.6	34.2	25.5	18.7	9.1	18	13.8	18.7	24	3	14
9070551	FIL L 1/4-Ø8 50 µm	1/4	8 ▲	8	70.6	34.2	25.5	18.7	9.1	18	13.8	18.7	24	3	14
9070512	FIL L 3/8-Ø8 5 µm	3/8	8 ▲	9	72.2	34.8	25.5	18.7	9.1	22	13.8	18.7	24	3	17
9070532	FIL L 3/8-Ø8 20 µm	3/8	8 ▲	9	72.2	34.8	25.5	18.7	9.1	22	13.8	18.7	24	3	17
9070552	FIL L 3/8-Ø8 50 µm	3/8	8 ▲	9	72.2	34.8	25.5	18.7	9.1	22	13.8	18.7	24	3	17
9070515	FIL L 1/4-Ø10 5 µm	1/4	10	8	79.9	39.2	29.7	20.7	10.9	18	16	21.4	26	3	16
9070535	FIL L 1/4-Ø10 20 µm	1/4	10	8	79.9	39.2	29.7	20.7	10.9	18	16	21.4	26	3	16
9070555	FIL L 1/4-Ø10 50 µm	1/4	10	8	79.9	39.2	29.7	20.7	10.9	18	16	21.4	26	3	16
9070516	FIL L 3/8-Ø10 5 µm	3/8	10	9	81.2	40.4	29.7	20.7	10.9	20	16	21.4	26	3	17
9070536	FIL L 3/8-Ø10 20 µm	3/8	10	9	81.2	40.4	29.7	20.7	10.9	20	16	21.4	26	3	17
9070556	FIL L 3/8-Ø10 50 µm	3/8	10	9	81.2	40.4	29.7	20.7	10.9	20	16	21.4	26	3	17
9070517	FIL L 1/2-Ø10 5 µm	1/2	10	11	83.7	40	29.7	20.7	10.9	26	16	21.4	26	3	22
9070537	FIL L 1/2-Ø10 20 µm	1/2	10	11	83.7	40	29.7	20.7	10.9	26	16	21.4	26	3	22
9070557	FIL L 1/2-Ø10 50 µm	1/2	10	11	83.7	40	29.7	20.7	10.9	26	16	21.4	26	3	22

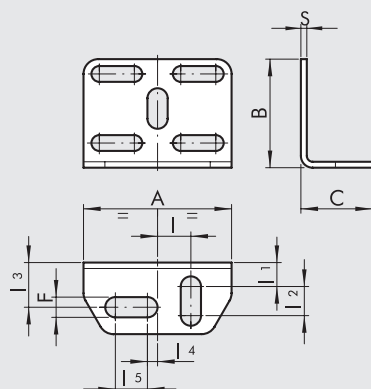
▲ Ø8 = Ø5/16"

SPARE PARTS
FILTERING ELEMENT


Code	Descrizione
9062500	Filtering element 5 µm (yellow) LOL
9062501	Filtering element 20 µm (white) LOL
9062502	Filtering element 50 µm (blue) LOL

NOTES

FIXING SQUARE KIT



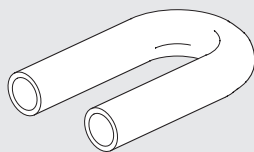
Code	Description	A	B	C	F	I	I1	I2	I3	I4	I5	S
9062110	SQU L	30	22	14.5	4.2	6.8	4.8	5.9	9.1	2	6.5	1.2

NOTE: comes with two M3x16 screws (for L.O.L. $\varnothing 4$ ▲), two M3x25 screws (for L.O.L. $\varnothing 6$ - $\varnothing 1/4$ - $\varnothing 8$ ▲), two M3 hexagonal nuts, 2 groovers, 4 washers.

NOT COMPATIBLE WITH $\varnothing 3/8$ AND $\varnothing 10$

▲ $\varnothing 4 = \varnothing 5/32"$; $\varnothing 8 = \varnothing 5/16"$

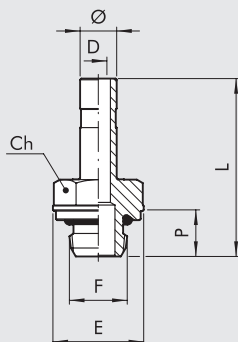
U-BOLT



Code	Description
9062216	TUB L $\varnothing 6$ - $\varnothing 6$
9062216U	TUB L $\varnothing 1/4$ - $\varnothing 1/4$
9062224	TUB L $\varnothing 8$ - $\varnothing 8$ ▲

▲ $\varnothing 8 = \varnothing 5/16"$

RU6 - STEM ADAPTORS UNF or NPT



Code	Ref.	\varnothing	F	Ch			L	D	E
				Inc	mm	P			
2U06001	RU6	5/32	10-32 UNF	5/16	8	4	25.2	2	9
2U06002	RU6	5/32	1/8 NPT	0.472	12	6	27.7	2.5	13
2U06003	RU6	5/32	1/4 NPT	0.551	14	8	30.2	2.5	16.4
2U06000	RU6	1/4	10-32 UNF	5/16	8	4	25.7	2	9
2U06007	RU6	1/4	1/8 NPT	0.472	12	6	28.2	4	13
2U06008	RU6	1/4	1/4 NPT	0.551	14	8	30.5	4	16.4
2U06020	RU6	1/4	3/8 NPT	0.669	17	9	33.3	4	20
2U06009	RU6	5/16	1/8 NPT	0.472	12	6	29.2	5.5	13
2U06010	RU6	5/16	1/4 NPT	0.551	14	8	31.5	6	16.4
2U06011	RU6	5/16	3/8 NPT	0.669	17	9	34.3	6	20
2U06012	RU6	3/8	1/4 NPT	0.551	14	8	34.8	7.3	16.4
2U06013	RU6	3/8	3/8 NPT	0.669	17	9	37.6	7.3	20
2U06022	RU6	3/8	1/2 NPT	0.748	19	11	41.2	7.3	24.5