IN-LINE FLOW MICRO-REGULATOR SERIES RFL L

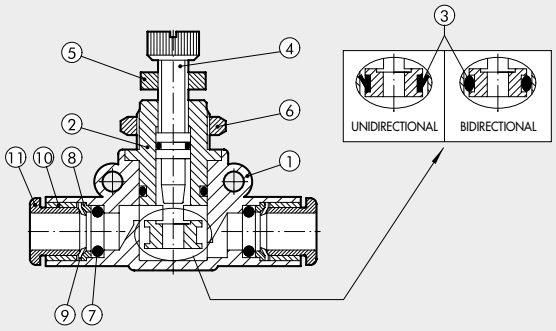
The RLF L flow micro-regulator belongs to the LINE ON LINE® family and can be connected in series or in parallel with all the other products.
The RFL L regulates the air input and thus the speed in pneumatic actuators.
Two versions are available:
Type U (unidirectional) regulates the flow only in one of the two directions of air flow. The following types of fitting can be mounted:
- Push-in input and output fitting
- 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.
The following types of fitting can be mounted:
- 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")
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
Flow rate on exhaust at 6.3 bar	Nl/min	160	550	550	950
Adjustment		Manual or using a screwdriver			
Internal system		Tapered needle			
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene			
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous			
Compatibility with oils		See **chapter Z1**			

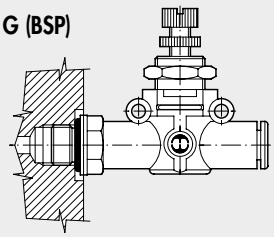
COMPONENTS

① Technopolymer body
② Nickel-plated brass seal support
③ NBR gasket
④ Brass adjusting needle
⑤ Nickel-plated brass needle ring nut
⑥ 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

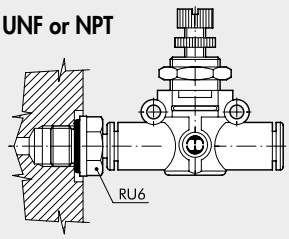


ASSEMBLY OPTIONS

Ⓐ
G (BSP)



UNF or NPT



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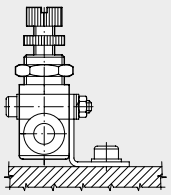

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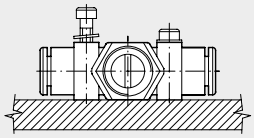

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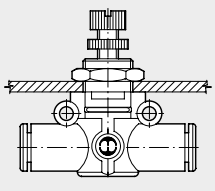
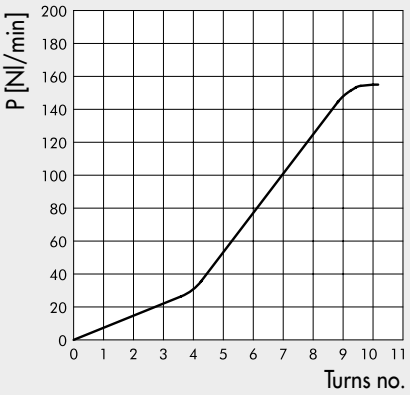


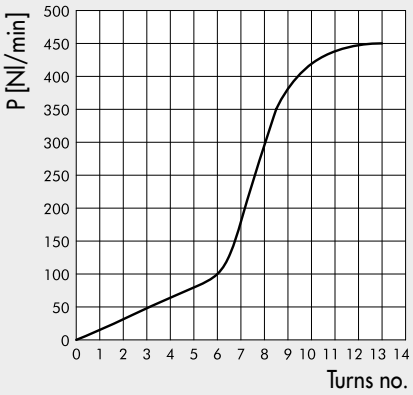
How to mount the RFL L:
- Fig. Ⓐ **G (BSP)**: With the male threaded port it is possible to mount the RFL L straight onto the actuator or the control valve.
  UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the RFL L straight on to the actuator or the control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

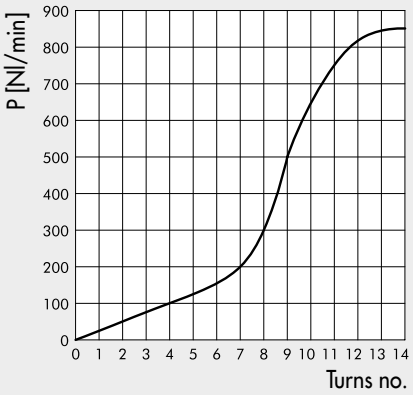
RFL L Ø 4 (Ø5/32")



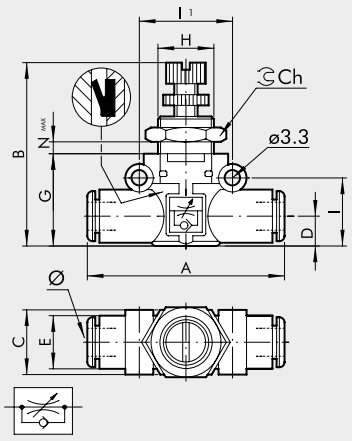
RFL L Ø 6 - RFL L Ø 1/4"



RFL L Ø 8 (Ø5/16")



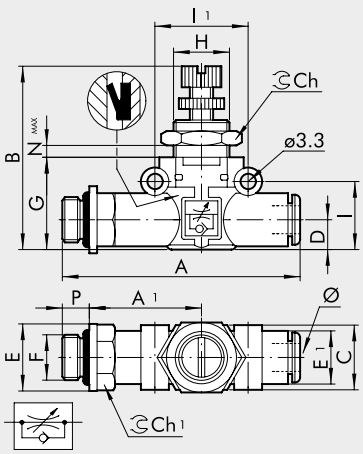
RFL L PIPE - PIPE UNIDIRECTIONAL



Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9041301	RFL L U Ø4-Ø4	4 ▲	42	35.5-38.5	10.7	5.6	10	17.5	M9x0.75	12.8	16	11	4
9041316	RFL L U Ø6-Ø6	6	49.4	36-41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041316U	RFL L U Ø1/4-Ø1/4	1/4	49.4	36-41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041324	RFL L U Ø8-Ø8	8 ▲	57.3	44-49	18.7	9.1	13.8	26	M15x1	18.7	24	20	4.5

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"

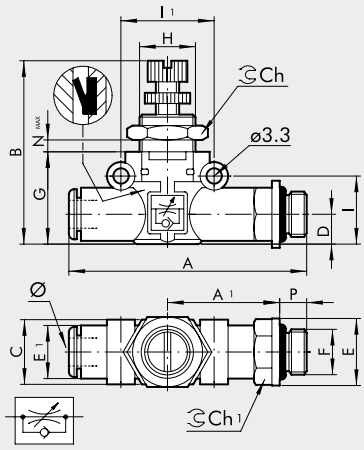
RFL L G (BSP) THREAD - PIPE UNIDIRECTIONAL CYLINDER VERSION



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9041401	RFL L U 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 L U 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	RLF L U 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 L U 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 L U 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 L U 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 L U 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

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"

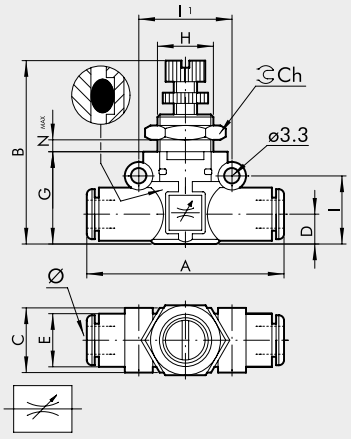
RFL L PIPE - G (BSP) THREAD UNIDIRECTIONAL VALVE VERSION



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9041501	RFL L U 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 L U 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 L U 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 L U 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 L U 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 L U 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 L U 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

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"

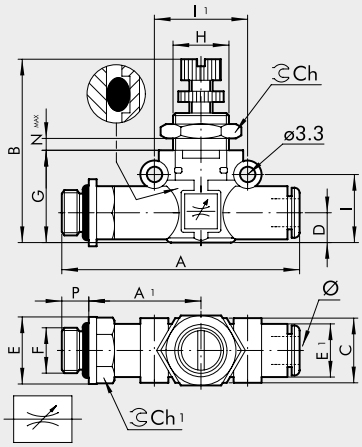
RFL L PIPE - PIPE BIDIRECTIONAL



Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9041601	RFL L B Ø4-Ø4	4▲	42	35.5-38.5	10.7	5.6	10	17.5	M9x0.75	12.8	16	11	4
9041616	RFL L B Ø6-Ø6	6	49.4	36-41	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	4
9041616U	RFL L B 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 L B Ø8-Ø8	8▲	57.3	44-49	18.7	9.1	13.8	26	M15x1	18.7	24	20	4.5

▲ **Ø4** = Ø5/32"; **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	I1	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

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"