

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.

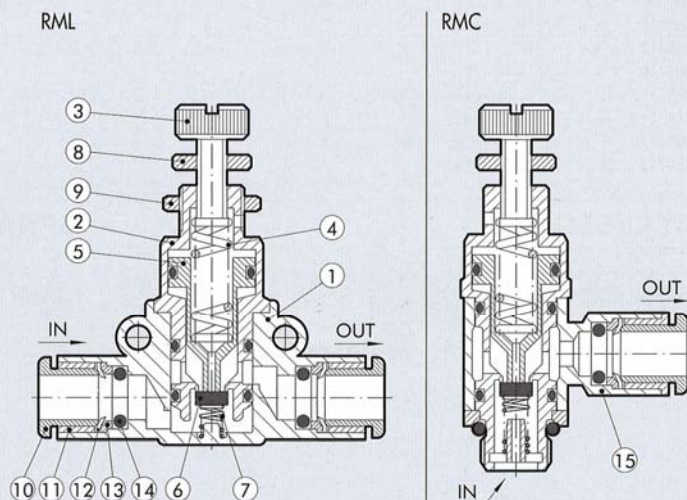
The data in brackets refer to the angle version.



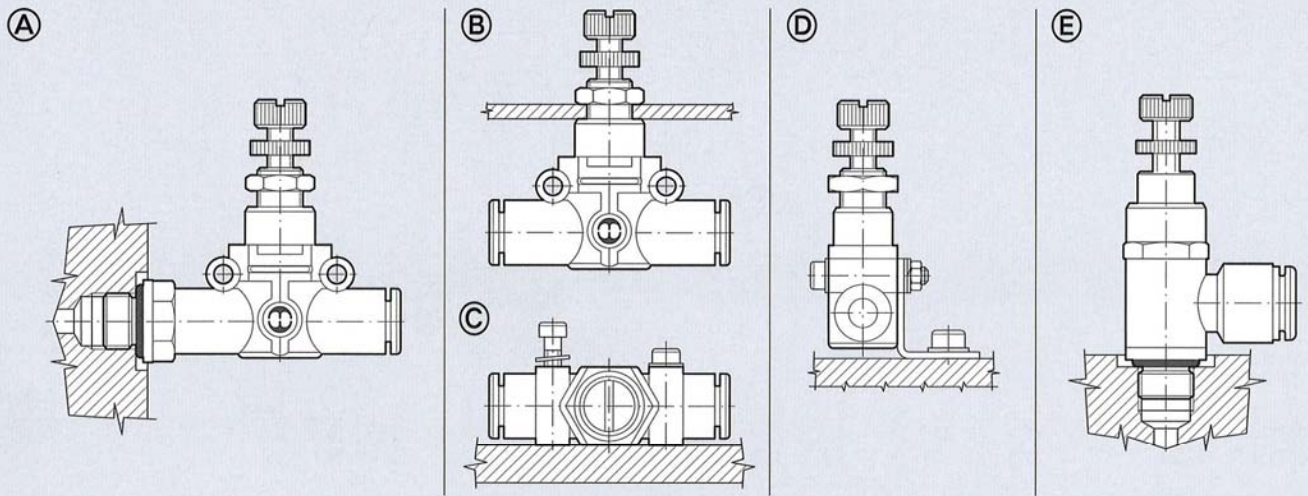
TECHNICAL DATA		RML Ø 6	RMC 1/8	RMS 1/8	RML Ø 8	RMC 1/4	RMS 1/4
Threaded ports		1/8"-1/4"	1/8"	1/8"	1/8"-1/4"-3/8"	1/4"	1/4"
Pipe coupling		Ø 6	Ø 4 - Ø 6 - Ø 8	-	Ø 8	Ø 6 - Ø 8 - Ø 10	-
Regulation range		1 to 8 bar - 0.1 to 0.8 MPa - 14.5 to 116 psi					
Inlet pressure	MPa	0.2 - 1					
	bar	2 - 10					
	psi	29 - 145					
Flow rate at 6.3 bar (0.63 MPa - 91 psi) ΔP 1 bar	NI/min	150				260	
Flow rate on exhaust at 6.3 bar (0.63 MPa - 91 psi)		400				600	
Fluid		Lubricated or unlubricated filtered air					
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.					

### 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



**ASSEMBLY OPTIONS**

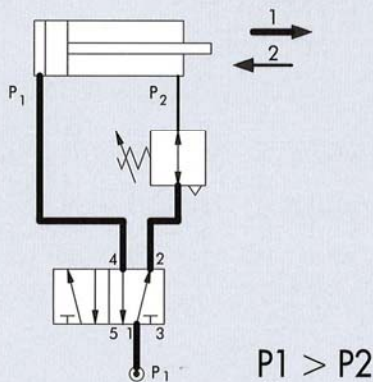


How to assembly RML/RMC:

- Fig. (A) Thanks to the male threaded part it's possible to assembly directly on the actuator or on the 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.
- 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**

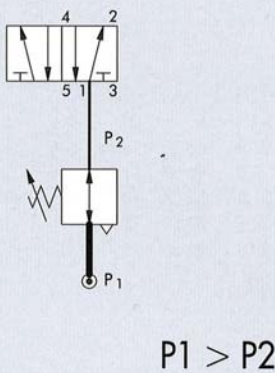


If in a cylinder you require a thrust in one direction only, e.g. piston rod extension, and a lower thrust and pressure is sufficient in the other direction, you can save a lot of energy by mounting an economizer valve.

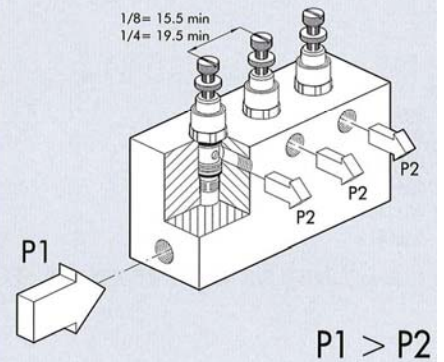
**Example**

Cylinder Ø 80 mm, stroke 200 mm, 6 bar,  
 12 cycles/min, 16 hours a day, 230 days a year.  
 Consumption: 144 NI/min => 3460 kWh/year =>  
 880 litres of oil => 2428 kg of CO2 => € 346/year.  
 If you install an economizer that reduces the pressure  
 from 6 to 2 bar, you SAVE: € 115/year.

**REMOTE REDUCER**

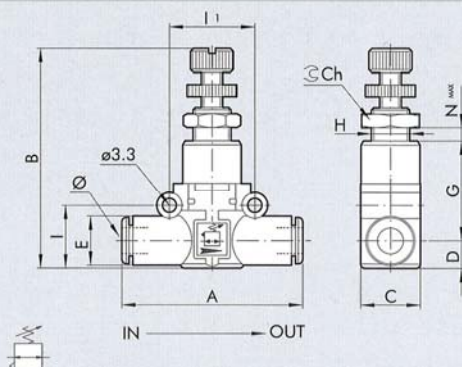


**CARTRIDGE REDUCER, SERIE RMS**

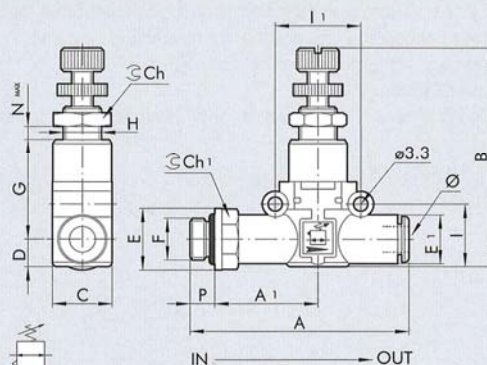


The cartridge regulator can be used:

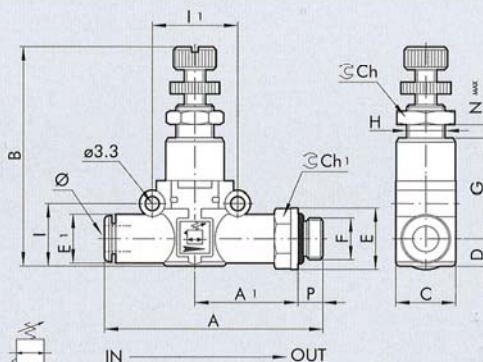
- Fitted directly into the structure or along the air supply ducting.
- Package with common feed and separate regulated outlets.

**LINE-MOUNTED MINIATURE REDUCER, SERIES RML**


Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	I	Nmax
420-6	RML 6-6	6	49.4	46-52	14.7	6.4	11.4	24.8	M9x0.75	14.6	20	11	14.6	4.5
420-8	RML 8-8	8	57.3	52-58	18.7	9.1	13.8	27.4	M11x1	18.7	24	13	18.7	3.8

**LINE-MOUNTED R/F MINIATURE REDUCER SERIES RML**


Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
421.018-6	RML 1/8-6	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
421.014-6	RML 1/4-6	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
421.018-8	RML 1/8-8	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
421.014-8	RML 1/4-8	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
421.038-8	RML 3/8-8	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

**LINE-MOUNTED F/R MINIATURE REDUCER, SERIES RML**


Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
422.018-6	RML 6-1/8	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
422.014-6	RML 6-1/4	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
422.018-8	RML 8-1/8	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
422.014-8	RML 8-1/4	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
422.038-8	RML 8-3/8	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

**Summary Art. No.:**

<b>Art. No.</b>	<b>Ident No.</b>
420-6	106741
420-8	106742
421.018-6	106743
421.018-8	106744
421.014-6	106745
421.014-8	106746
421.038-8	106747
422.018-6	106748
422.018-8	106749
422.014-6	106750
422.014-8	106751
422.038-8	106752