

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.

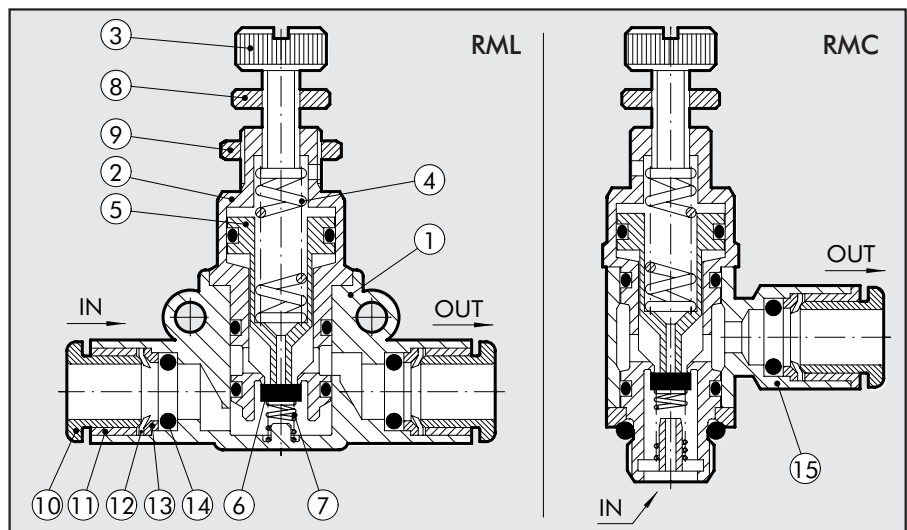
The data in brackets refer to the angle version.



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 ÷ 8 bar - 0.1 ÷ 0.8 MPa - 14.5 ÷ 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	1/8": 150 NI/min				1/4": 260 NI/min	
Flow rate on exhaust at 6.3 bar (0.63 MPa ÷ 91 psi)	1/8": 400 NI/min				1/4": 600 NI/min	
Fluid	lubricated or unlubricated filtered air					
Max. temperature at 1 MPa, 10 bar, 145 psi	°C		-20 ÷ +60			
	°F		-4 ÷ +140			
Assembly position	available					
Comments	In the miniature regulator the pressure must always be set upwards.					

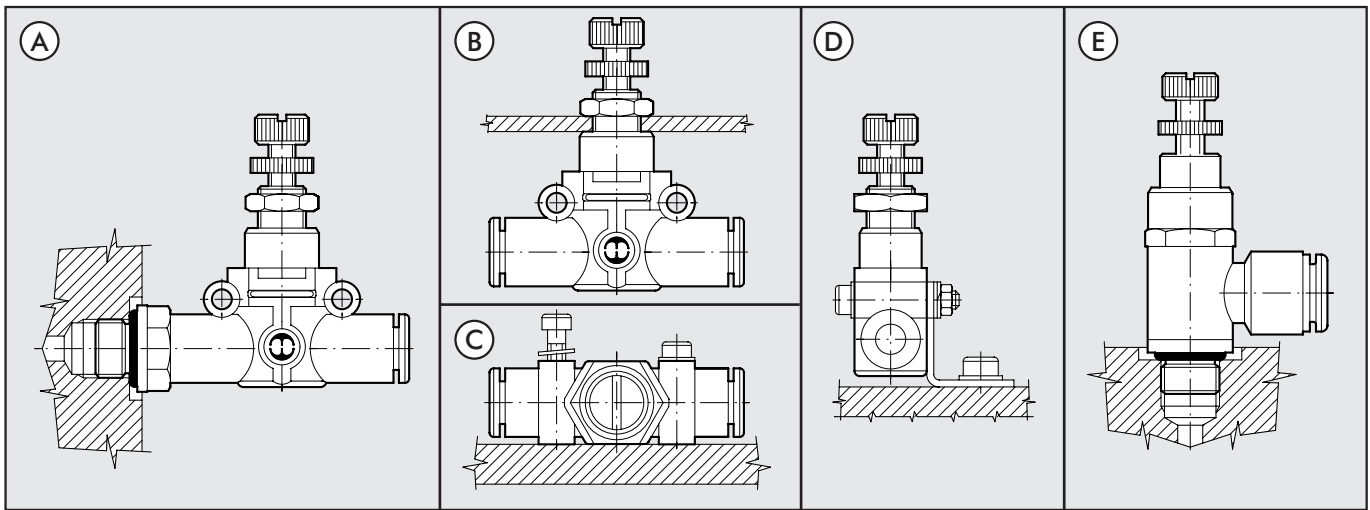
COMPONENTS

- ① Technopolymer body (brass)
 - 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)
 - ⑫ Stainless steel crimping spring
 - ⑬ Technopolymer spring ring
 - ⑭ NBR gasket
 - ⑮ Nickel-plated brass rotating ring
- In brackets data relevant RMC version





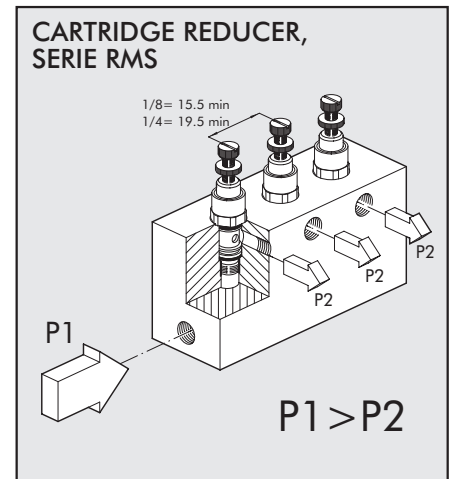
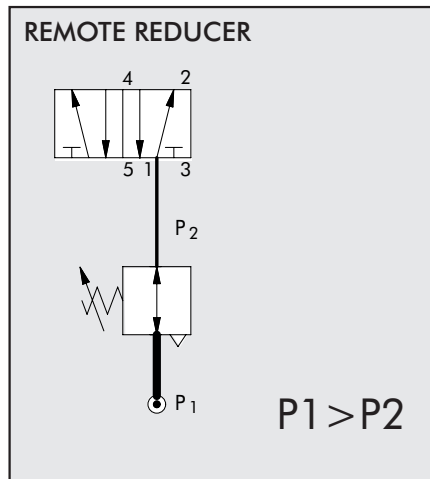
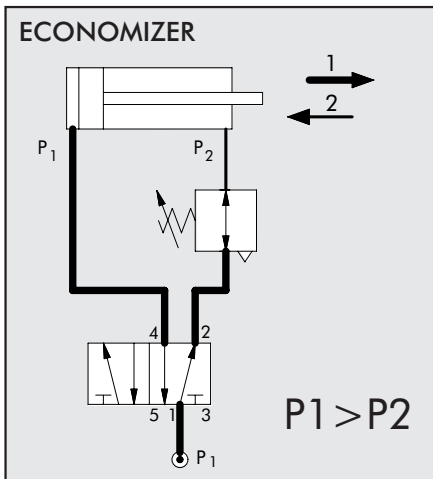
ASSEMBLY OPTION



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



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.

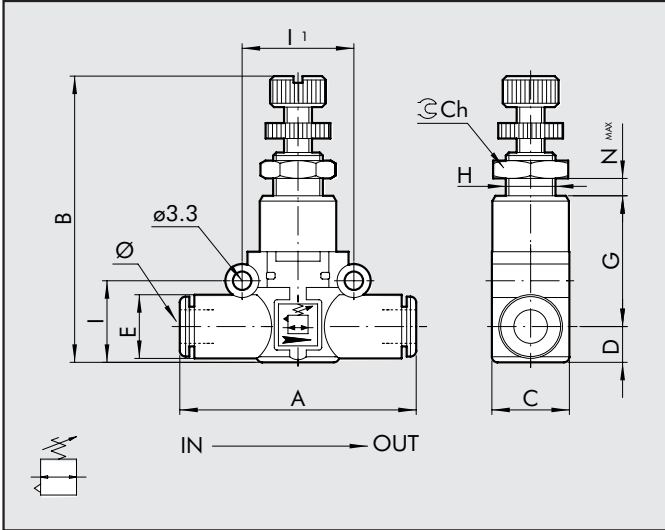
Consumption: 144 NI/min => 3460 kWh/year => 880 litres of oil => 2428 kg of CO2 => € 346/year.

If you install an economizer that reduces the pressure from 6 to 2 bar, you **SAVE: € 115 a year.**

The cartridge regulator can be used:

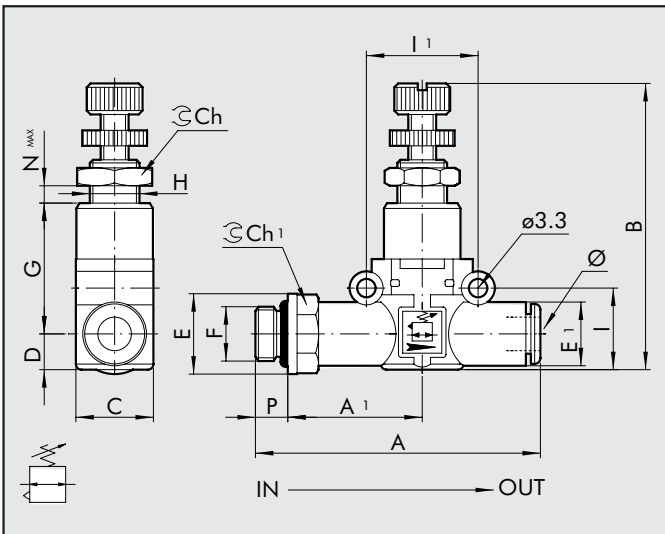
- Fitted directly into the structure or along the air supply ducting, or
- Package with common feed and separate regulated outlets.

LINE-MOUNTED MINIATURE REDUCER, SERIES RML



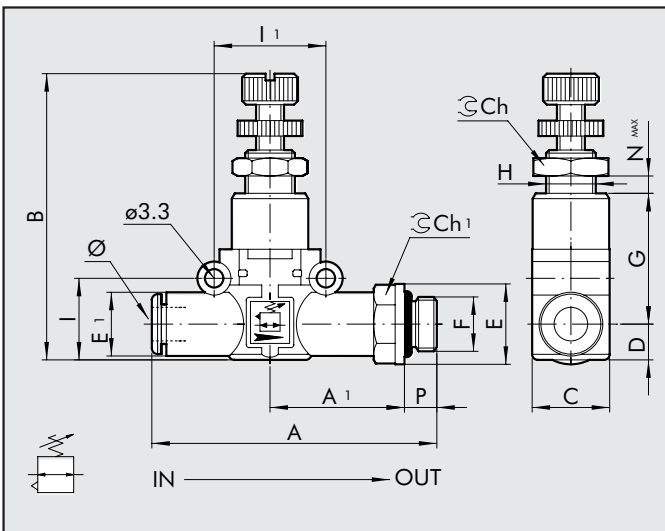
Code	Ref.	Ø	A	B	C	D	E
9061316	RML 6-6	6	49.4	46÷52	14.7	6.4	11.4
9061324	RML 8-8	8	57.3	52÷58	18.7	9.1	13.8
G	H	I	I1	Ch	Nmax		
24.8	M9x0.75	14.6	20	11	4.5		
27.4	M11x1	18.7	24	13	3.8		

LINE-MOUNTED R/F MINIATURE REDUCER SERIES RML



Code	Ref.	F	Ø	P	A	A1	B	C	D	
9061408	RML 1/8-6	1/8	6	6	58.5	27.8	46÷52	14.7	6.4	
9061409	RML 1/4-6	1/4	6	8	61.5	28.8	46÷52	14.7	6.4	
9061410	RML 1/8-8	1/8	8	6	66.2	31.8	52÷58	18.7	9.1	
9061411	RML 1/4-8	1/4	8	8	70.6	34.2	52÷58	18.7	9.1	
9061412	RML 3/8-8	3/8	8	9	72.2	34.8	52÷58	18.7	9.1	
E	E1	G	H	I	I1	Ch	Ch1	Nmax		
14	11.4	24.8	M9x0.75	14.6	20	11	12	4.5		
18	11.4	24.8	M9x0.75	14.6	20	11	14	4.5		
15	13.8	27.4	M11x1	18.7	24	13	14	3.8		
18	13.8	27.4	M11x1	18.7	24	13	14	3.8		
22	13.8	27.4	M11x1	18.7	24	13	17	3.8		

LINE-MOUNTED F/R MINIATURE REDUCER, SERIES RML

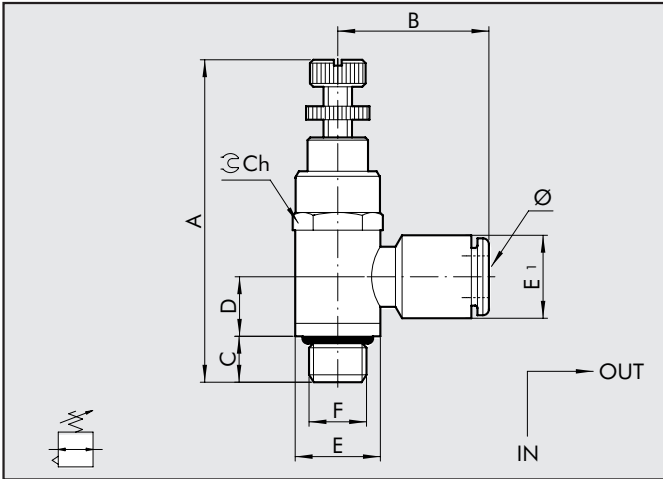


Code	Ref.	Ø	F	P	A	A1	B	C	D	
9061508	RML 6-1/8	6	1/8	6	58.5	27.8	46÷52	14.7	6.4	
9061509	RML 6-1/4	6	1/4	8	61.5	28.8	46÷52	14.7	6.4	
9061510	RML 8-1/8	8	1/8	6	66.2	31.8	52÷58	18.7	9.1	
9061511	RML 8-1/4	8	1/4	8	70.6	34.2	52÷58	18.7	9.1	
9061512	RML 8-3/8	8	3/8	9	72.2	34.8	52÷58	18.7	9.1	
E	E1	G	H	I	I1	Ch	Ch1	Nmax		
14	11.4	24.8	M9x0.75	14.6	20	11	12	4.5		
18	11.4	24.8	M9x0.75	14.6	20	11	14	4.5		
15	13.8	27.4	M11x1	18.7	24	13	14	3.8		
18	13.8	27.4	M11x1	18.7	24	13	14	3.8		
22	13.8	27.4	M11x1	18.7	24	13	17	3.8		



MINIATURE REDUCER, SERIES RMC

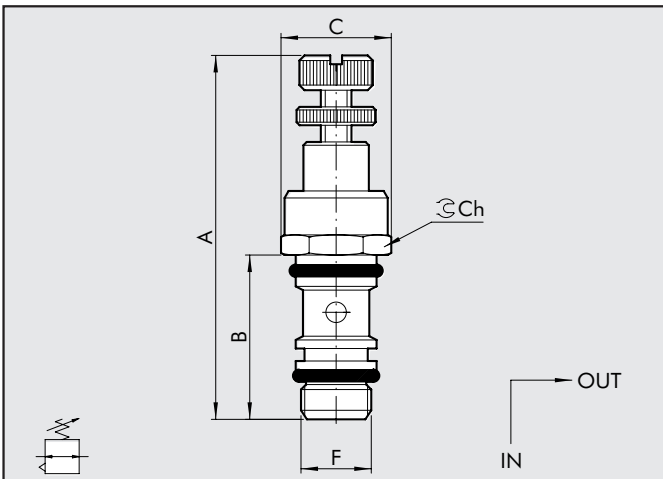
Code Ref. Ø A B C D E E1 Ch



9061102	RMC 1/8-4	4	51÷57	20.4	6	12.7	14	9.5	14
9061108	RMC 1/8-6	6	51÷57	23.7	6	12.7	14	11.3	14
9061110	RMC 1/8-8	8	51÷57	25.6	6	12.7	14	13.8	14
9061109	RMC 1/4-6	6	57÷63	25.1	8	11	18	11.3	17
9061111	RMC 1/4-8	8	57÷63	27	8	11	18	13.8	17
9061112	RMC 1/4-10	10	57÷63	32.2	8	11	18	16.5	17

CARTRIDGE REDUCER, SERIES RMS

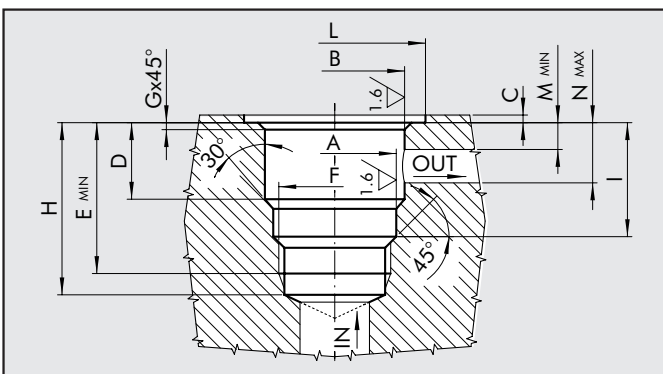
Code Ref. F A B C Ch



9061001	RMS 1/8	1/8	51÷57	24.3	15	14
9061002	RMS 1/4	1/4	57÷63	27.8	19	17

SEAT OF A MINIATURE CARTRIDGE REDUCER

F A B C D

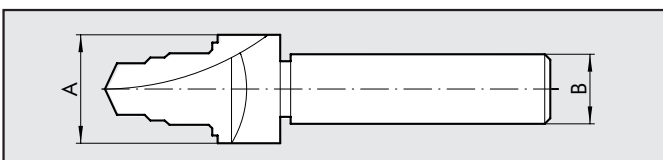


SE.RMS 1/8	1/8	9.8 +0.1/-0	11.2 ±0.05	0.5 ±0.5	15.6 ±0.07
SE.RMS 1/4	1/4	13.5 +0.1/-0	14.4 ±0.05	0.5 ±0.5	17.5 ±0.07

E	G	H	I	L	M	N
24.6	0.3	27	18.1 ±0.2	15.4	3.5	12
28	0.4	31.2	20.8 ±0.2	19.4	3.5	13.5

TOOL FOR RMS SEAT

Code Ref. A B



9062001	UT.SE 1/8	16	12
9062002	UT.SE 1/4	20	15