

New deal FILTER REGULATOR

Highly reliable piston-operated filter regulator.

- Stability of the set pressure as the upstream pressure varies
- Standard overpressure blow-off valve
- Can be fixed to the wall using the holes in the sides of the body
- Metal bowl with external viewing
- Manual/semi-auto or automatic condensate drainage



TECHNICAL DATA

		FR ND 1/4"	FR ND 3/8"	FR ND 1/2"
Threaded port		1/4"	3/8"	1/2"
Setting range	bar	0 to 8 - 0 to 12		0 to 8 - 0 to 12
Degree of filtration	µm	4 - 20 - 50		4 - 20 - 50
Max. inlet pressure	MPa	1.8		1.8
	bar	18		18
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min	260		1000
	scfm	9.2		35.5
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 1 bar (0.1 MPa to 14 psi)	Nl/min	700		2500
	scfm	25		88.5
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50		50
	°F	122		122
Weight	kg	0.5		1
Wall fixing screws		M4 x 40		M4 x 55
Gauge port		1/8"		1/8"
Bowl capacity	cm ³	10		45
Mounting position		Vertical		Vertical
Drain		RMSA - SAC		RMSA - SAC - RA

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure
 RA: automatic drain with condensate discharge, independent of pressure and flow rate.
 Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.

SAC: automatic drain with condensate discharge.

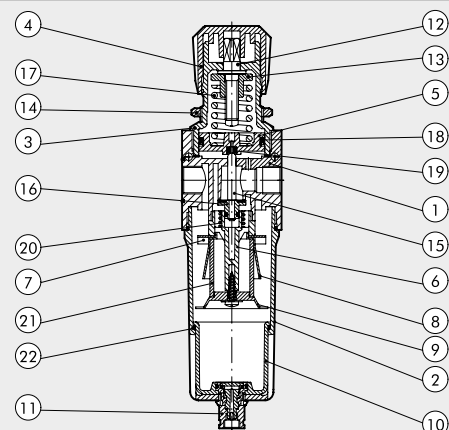
Operates by pressure drop – requires variable air take-offs.
 Compressed air

The regulator pressure must always be set upwards.

The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar. Do not take air from pressure gauge ports.

COMPONENTS

- | | |
|------------------------------|------------------------------------|
| ① Zamak body | ⑩ Valve with NBR vulcanized gasket |
| ② Aluminium bowl | ⑪ Steel adjusting spring |
| ③ Technopolymer bell | ⑫ NBR lip seal |
| ④ Technopolymer knob | ⑬ NBR relieving seal |
| ⑤ Technopolymer piston rod | ⑭ Steel valve compression spring |
| ⑥ Technopolymer plug | ⑮ Sintered HDPE filter cartridge |
| ⑦ Technopolymer centrifuge | ⑯ NBR gaskets |
| ⑧ Technopolymer baffle plug | |
| ⑨ Technopolymer screen | |
| ⑩ Technopolymer bowl | |
| ⑪ Drain (RMSA) | |
| ⑫ OT58 brass adjusting screw | |
| ⑬ OT58 brass nut | |
| ⑭ Technopolymer ring nut | |
| ⑮ OT58 brass rod | |



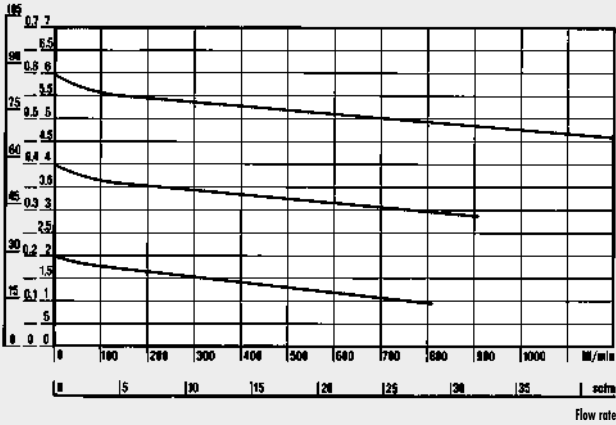
FLOW CHARTS

FR 1/4

$P_{in} = 0.7 \text{ MPa} - 7 \text{ bar} - 100 \text{ psi}$

Inlet pressure

psi MPa bar

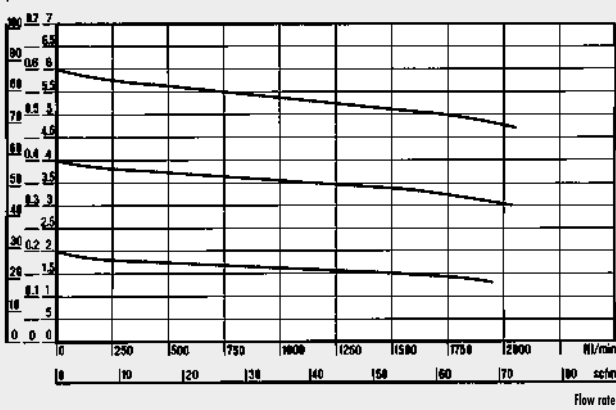


FR 3/8 - 1/2

$P_{in} = 0.7 \text{ MPa} - 7 \text{ bar} - 100 \text{ psi}$

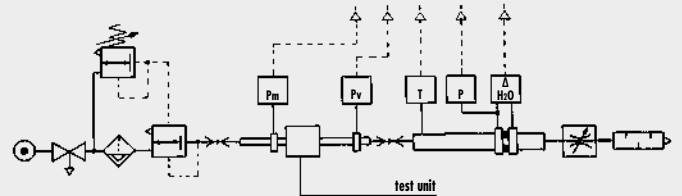
Inlet pressure

psi MPa bar



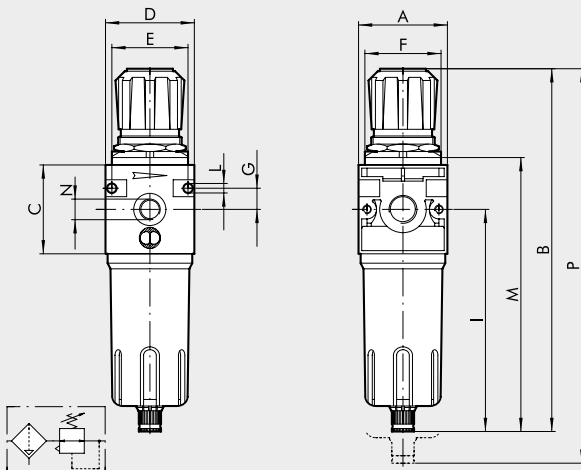
Department of Mechanics

Turin Polytechnic



• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

DIMENSIONS



		FR ND 1/4"	FR ND 3/8"	FR ND 1/2"
Threaded port		1/4"	3/8"	1/2"
A		42		60
B	RMSA			245
	RA	-		249
	SAC	194		249
C		42		60
D		42		60
E		36		52
F		30 x 1.5		38 x 2
G		10		14
I		121		150
L		Hole for M4 screws		Hole for M4 screws
M	RMSA			145
	RA	-		185
	SAC	149		189
N (Pressure gauge port)		1/8"		1/8"
P	RMSA			233
	RA	-		295
	SAC	237		299

SYNOPTIC, SIZES AND VERSIONS

FR ELEMENT	1/4 THREADED PORT	4 DEGREE OF FILTRATION	08 SETTING RANGE	RMSA CONDENSATE DRAIN
FR	1/4 3/8 1/2	4 = 4 µm 20 = 20 µm 50 = 50 µm	08 = 0 to 8 bar 012 = 0 to 12 bar	RMSA SAC RA*

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure.

RA: automatic drain with condensate discharge, independent of pressure and flow rate.

Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.

SAC: automatic drain with condensate discharge.

Operates by pressure drop – requires variable air take-offs.

* For ND 3/8 and 1/2 with RA, please contact our sales assistance department

ORDERING CODES

Code	Description
New deal FILTER REGULATOR 1/4"	
1225029	FR 1/4 4 08 RMSA
1225053	FR 1/4 4 012 RMSA
1225509	FR 1/4 4 08 SAC
1225513	FR 1/4 4 012 SAC
1225030	FR 1/4 20 08 RMSA
1225510	FR 1/4 20 08 SAC
1225054	FR 1/4 20 012 RMSA
1225514	FR 1/4 20 012 SAC
1225032	FR 1/4 50 08 RMSA
1225511	FR 1/4 50 08 SAC
1225056	FR 1/4 50 012 RMSA
1225516	FR 1/4 50 012 SAC
New deal FILTER REGULATOR 3/8"	
1325029	FR 3/8 4 08 RMSA
1325509	FR 3/8 4 08 SAC
1325053	FR 3/8 4 012 RMSA
1325513	FR 3/8 4 012 SAC
1325030	FR 3/8 20 08 RMSA
1325510	FR 3/8 20 08 SAC
1325054	FR 3/8 20 012 RMSA
1325514	FR 3/8 20 012 SAC
1325032	FR 3/8 50 08 RMSA
1325512	FR 3/8 50 08 SAC
1325056	FR 3/8 50 012 RMSA
1325516	FR 3/8 50 012 SAC
New deal FILTER REGULATOR 1/2"	
1425029	FR 1/2 4 08 RMSA
1425509	FR 1/2 4 08 SAC
1425053	FR 1/2 4 012 RMSA
1425513	FR 1/2 4 012 SAC
1425030	FR 1/2 20 08 RMSA
1425510	FR 1/2 20 08 SAC
1425054	FR 1/2 20 012 RMSA
1425514	FR 1/2 20 012 SAC
1425032	FR 1/2 50 08 RMSA
1425512	FR 1/2 50 08 SAC
1425056	FR 1/2 50 012 RMSA
1425516	FR 1/2 50 012 SAC

NOTES

UNITS

New deal FILTER REGULATOR