

# Skillair® FILTER REGULATOR

This device combines a filter and a pressure regulator in a single unit. It has the dual function of filtering and regulating air from the compressor.

As the filter regulator is made up of the same elements as the regulator and the filter, the performance is the same.

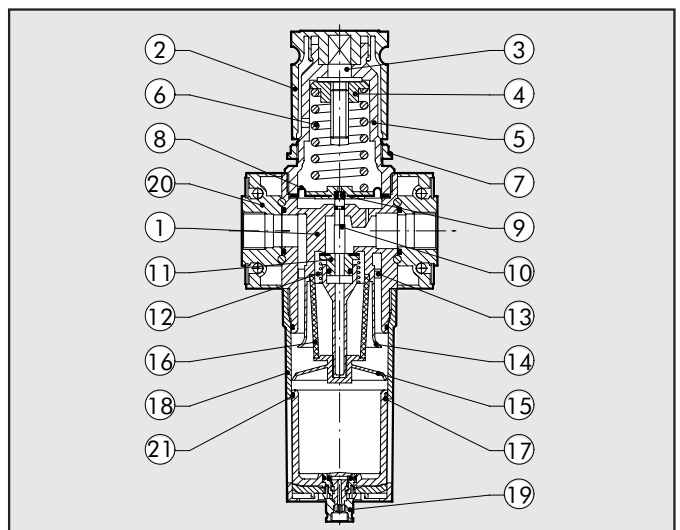
- High flow rates with low load loss.
- Special rolling diaphragm – higher flow rate, greater stability, improved sensitivity.
- Rapid relief of downstream overpressures.
- Stability of the regulated pressure as the mains pressure fluctuates.
- Maximum degree of condensate separation.
- 360° condensate level display.
- Condensate drain with manual/semi-automatic or automatic function.

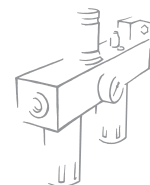


TECHNICAL DATA	FR 100	FR 100	FR 200	FR 200	FR 200	FR 300	FR 300	FR 300
Threaded port	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"
Setting range bar	0 ÷ 2 - 0 ÷ 4 - 0 ÷ 8 - 0 ÷ 12		0 ÷ 2 - 0 ÷ 4 - 0 ÷ 8 - 0 ÷ 12			0 ÷ 2 - 0 ÷ 4 - 0 ÷ 8 - 0 ÷ 12		
Degree of filtration	5µm - 20µm - 50µm		5µm - 20µm - 50µm			5µm - 20µm - 50µm		
Max. input pressure	1.5 MPa - 15 bar - 217 psi		1.3 MPa - 13 bar - 188 psi			1.3 MPa - 13 bar - 188 psi		
Flow rate at 6.3 bar (0.63 MPa-91 psi) NI/min	1100		1600			3500		
ΔP 0.5 bar (0.05 MPa – 7 psi) scfm	39		57			125		
Flow rate at 6.3 bar (0.63 MPa-91 psi) NI/min	1600		3000			5600		
ΔP 1 bar (0.1 MPa – 14 psi) scfm	57		71			200		
Fluid	Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.							
Max temperature °C	50		50			50		
at 1 MPa; 10 bar; 145 psi °F	122		122			122		
Weight Kg	0.5		1			1.8		
Wall fixing screws	M4x50		M5x60			M5x70		
Mounting position	Vertical							
Pressure gauge port	G 1/8"		G 1/8"			G 1/8"		
Bowl capacity cm <sup>3</sup>	22		45			75		
Drain	Manual/semi-auto (RMSA) Automatic (SAC)		Manual/semi-auto (RMSA) Automatic (SAC)			Manual/semi-auto (RMSA) Automatic (RA)		
Notes	The regulator pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. Do not take air from pressure gauge ports.							

## COMPONENTS

- |                                    |   |
|------------------------------------|---|
| ① Technopolymer body               | ⑭ Technopolymer baffle plug                                 |
| ② Technopolymer knob               | ⑮ Technopolymer screen                                      |
| ③ OT58 brass adjusting screw       | ⑯ Sintered bronze filtered cartridge                        |
| ④ OT58 brass scroll                | ⑰ Clear technopolymer glass                                 |
| ⑤ Technopolymer bell               | ⑱ Bowl: technopolymer for FR100 and FR200, metal for FR 300 |
| ⑥ Steel adjusting spring           | ⑲ Drain (RMSA)  |
| ⑦ Technopolymer ring nut           | ⑳ Zamak end plate   |
| ⑧ Rolling diaphragm                | ㉑ NBR gaskets   |
| ⑨ NBR relieving gasket             |   |
| ⑩ OT58 brass stem                  |   |
| ⑪ Valve with NBR vulcanized gasket |   |
| ⑫ Stainless steel valve spring     |   |
| ⑬ Technopolymer centrifuge         |   |



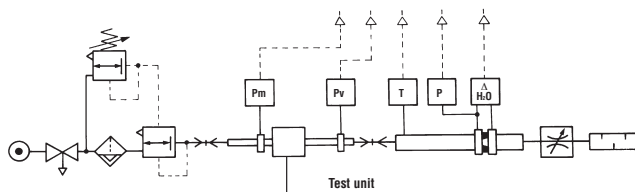
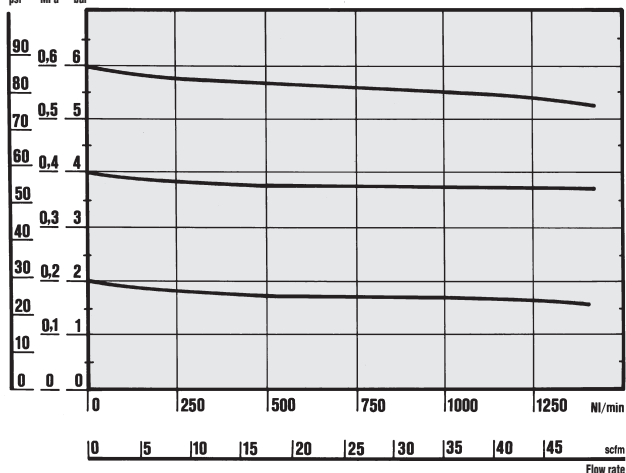


## FLOW CHARTS

### FR 100 1/4 - 3/8

Preset pressure  
Pm = 7 bar - 0.7 MPa - 100 psi

psi MPa bar

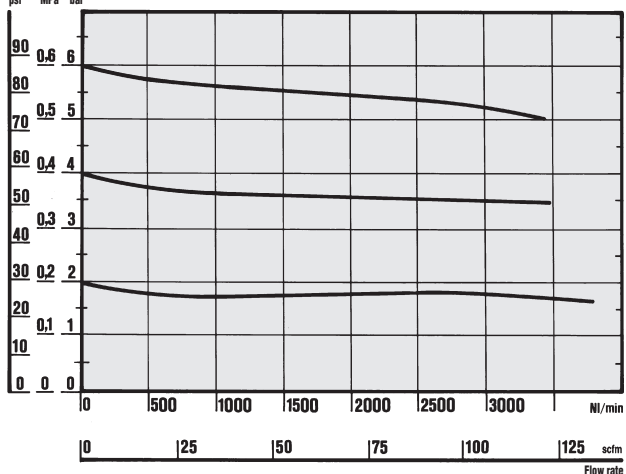


● Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

### FR 200 1/4 - 3/8 - 1/2

Preset pressure  
Pm = 7 bar - 0.7 MPa - 100 psi

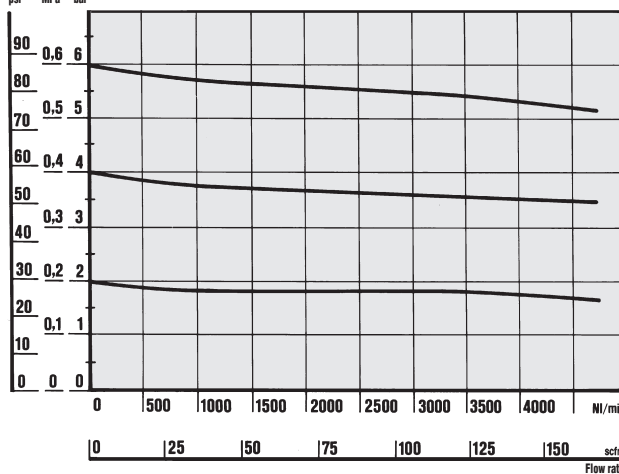
psi MPa bar



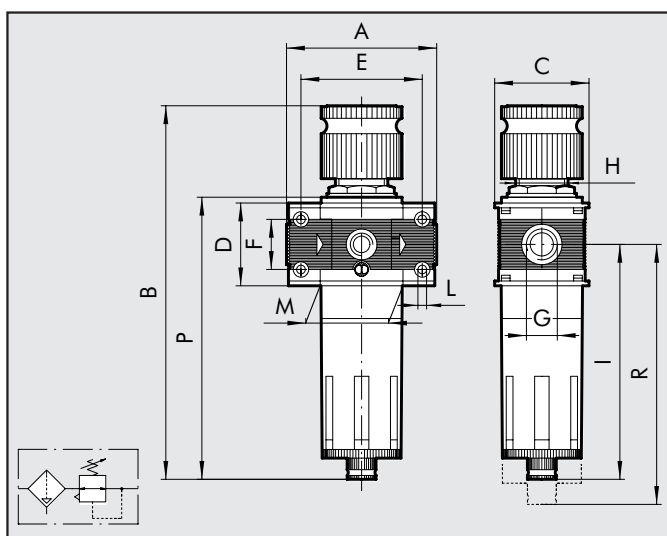
### FR 300 1/2 - 3/4 - 1

Preset pressure  
Pm = 7 bar - 0.7 MPa - 100 psi

psi MPa bar



## DIMENSIONS



	FR 100	FR 100	FR 200	FR 200	FR 200	FR 300	FR 300	FR 300
	G 1/4	G 3/8	G 1/4	G 3/8	G 1/2	G 1/2	G 3/4	G 1"
A	78			93.5		110		112
B	199			245				
C	50			63		72		
D	43			55			92	
E	63			78.5				
F	26			36				
G	G 1/4	G 3/8	G 1/4	G 3/8	G 1/2	G 1/2	G 3/4	G 1"
H	30x1.5			40x1.5				
I	122.5			147.5			162.5	
L	M4 hole			M5 hole				
M	43			55.5			65	
P	147			178				
R	137			196			215	