

# bit FILTER REGULATOR

Filter regulator with rolling diaphragm.

- High flow rate with reduced pressure drop
- Excellent degree of condensate separation
- Semi-automatic or automatic drain
- All-round condensate level viewing

The degree of filtration is shown by the colour of the cartridge: yellow = 5µm, white = 20µm, blue = 50µm.

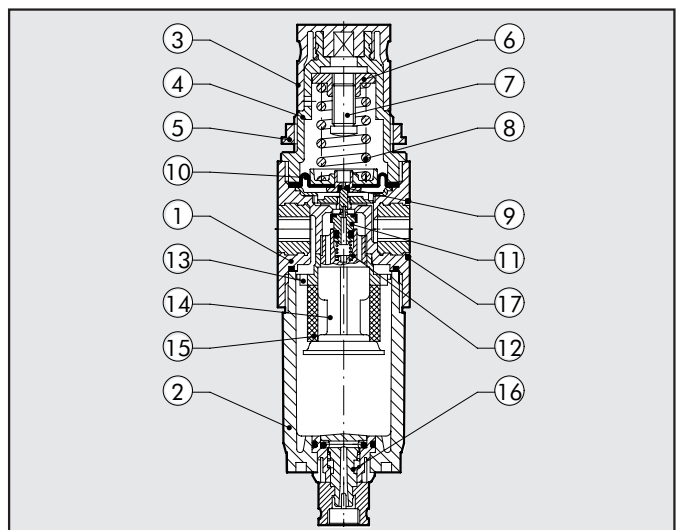


TECHNICAL DATA		FR BIT 1/8"	FR BIT 1/4"
Threaded port		1/8"	1/4"
Setting range		0 to 2 - 0 to 4 - 0 to 8 - 0 to 12	
Degree of filtration		5µm (yellow) 20µm (white) 50µm (blue)	
Max. inlet pressure	MPa	1.3	
	bar	13	
	psi	188	
Flow rate at 6.3 bar (0.63 MPa-91 psi) ΔP 0.5 bar (0.05 MPa – 7 psi)		290 NI/min = 10 scfm	
Flow rate at 6.3 bar (0.63 MPa-91 psi) ΔP 1 bar (0.1 MPa – 14 psi)		600 NI/min = 21 scfm	
Fluid		Compressed air	
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50	
	°F	122	
Weight	gr	110	
Wall fixing screws		M 4	
Mounting position		Vertical	
Gauge port		G 1/8"	
Bowl capacity	cm <sup>3</sup>	16	
Condensate drain		Manual/semi-automatic (RMSA) Automatic (SAC)	
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.	

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## COMPONENTS

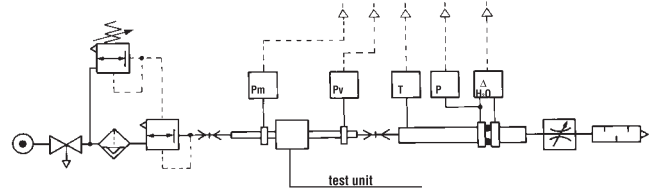
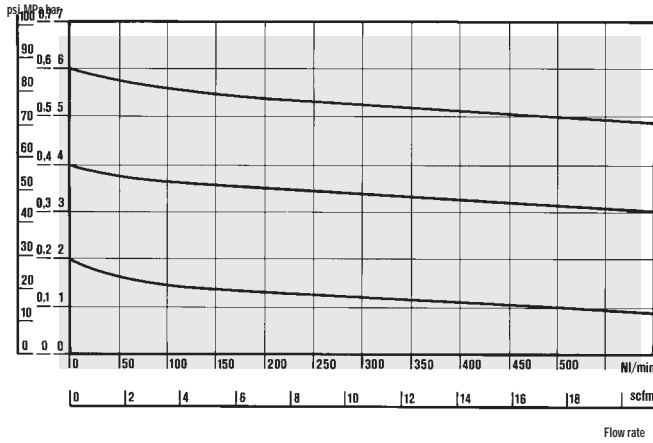
- ① Technopolymer body with OT58 threaded elements
- ② Clear technopolymer bowl
- ③ Technopolymer knob
- ④ Technopolymer dell
- ⑤ Technopolymer fixing ring nut
- ⑥ OT58 brass nut
- ⑦ OT58 brass adjusting screw
- ⑧ Steel adjusting spring
- ⑨ NBR relieving gasket
- ⑩ Rolling diaphragm
- ⑪ OT58 valve with NBR vulcanized gasket
- ⑫ Stainless steel valve compression spring
- ⑬ Technopolymer centrifuge
- ⑭ Technopolymer baffle plug
- ⑮ Sintered HDPE filter cartridge
- ⑯ Condensate drain (RMSA)
- ⑰ NBR gaskets



## FLOW CHARTS

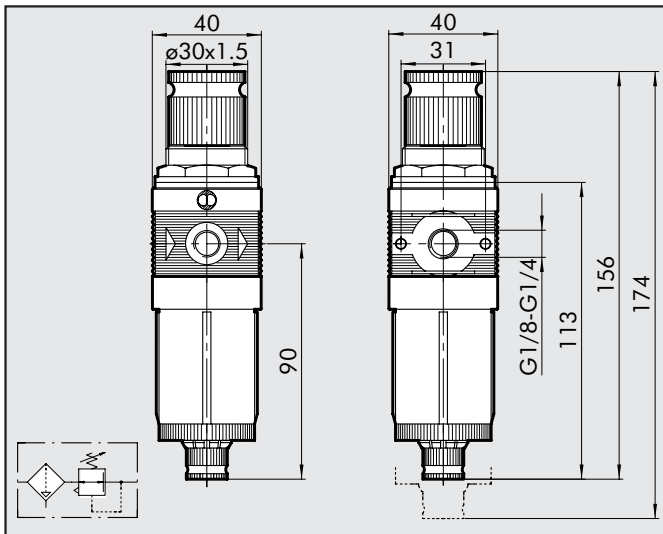
### FR

P<sub>m</sub> = 0.7 MPa; 7 bar; 102 psi  
Inlet pressure



- 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



## KEY TO CODES

FR	BIT	1/8	5 μm	02	RMSA
ELEMENT	SIZE	THREADED PORT	DEGREE OF FILTRATION	SETTING RANGE	CONDENSATE DRAIN
FR	BIT	1/8 1/4	5 μm 20 μm 50 μm	02 04 08 012	RMSA SAC

RMSA: Semi-auto drain

SAC: Automatic drain. Operates by depression – requires variable air take-offs.

## ORDERING CODES

Code	Description	Code	Description	Code	Description
5105001	FR BIT 1/8 5 02 RMSA	5105022	FR BIT 1/8 5 012 SAC	5205008	FR BIT 1/4 20 08 RMSA
5105013	FR BIT 1/8 5 02 SAC	5105011	FR BIT 1/8 20 012 RMSA	5205020	FR BIT 1/4 20 08 SAC
5105002	FR BIT 1/8 20 02 RMSA	5105023	FR BIT 1/8 20 012 SAC	5205009	FR BIT 1/4 50 08 RMSA
5105014	FR BIT 1/8 20 02 SAC	5105012	FR BIT 1/8 50 012 RMSA	5205021	FR BIT 1/4 50 08 SAC
5105003	FR BIT 1/8 50 02 RMSA	5105024	FR BIT 1/8 50 012 SAC	5205010	FR BIT 1/4 5 012 RMSA
5105015	FR BIT 1/8 50 02 SAC	5205001	FR BIT 1/4 5 02 RMSA	5205022	FR BIT 1/4 5 012 SAC
5105004	FR BIT 1/8 5 04 RMSA	5205013	FR BIT 1/4 5 02 SAC	5205011	FR BIT 1/4 20 012 RMSA
5105016	FR BIT 1/8 5 04 SAC	5205002	FR BIT 1/4 20 02 RMSA	5205023	FR BIT 1/4 20 012 SAC
5105005	FR BIT 1/8 20 04 RMSA	5205014	FR BIT 1/4 20 02 SAC	5205012	FR BIT 1/4 50 012 RMSA
5105017	FR BIT 1/8 20 04 SAC	5205003	FR BIT 1/4 50 02 RMSA	5205024	FR BIT 1/4 50 012 SAC
5105006	FR BIT 1/8 50 04 RMSA	5205015	FR BIT 1/4 50 02 SAC		
5105018	FR BIT 1/8 50 04 SAC	5205004	FR BIT 1/4 5 04 RMSA		
5105007	FR BIT 1/8 5 08 RMSA	5205016	FR BIT 1/4 5 04 SAC		
5105019	FR BIT 1/8 5 08 SAC	5205005	FR BIT 1/4 20 04 RMSA		
5105008	FR BIT 1/8 20 08 RMSA	5205017	FR BIT 1/4 20 04 SAC		
5105020	FR BIT 1/8 20 08 SAC	5205006	FR BIT 1/4 50 04 RMSA		
5105009	FR BIT 1/8 50 08 RMSA	5205018	FR BIT 1/4 50 04 SAC		
5105021	FR BIT 1/8 50 08 SAC	5205007	FR BIT 1/4 5 08 RMSA		
5105010	FR BIT 1/8 5 012 RMSA	5205019	FR BIT 1/4 5 08 SAC		