

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:

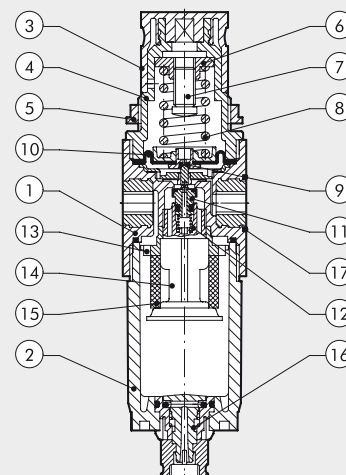
yellow = 5 μm , white = 20 μm , blue = 50 μm .



TECHNICAL DATA	FR BIT 1/8"		FR BIT 1/4"	
	1/8"		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	5 (yellow) - 20 (white) - 50 (blue)			
Max. inlet pressure	MPa		1.3	
	bar		13	
	psi		188	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min	290		
	scfm	10		
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 1 bar (0.1 MPa to 14 psi)	Nl/min	600		
	scfm	21		
Max temperature at 1 MPa; 10 bar; 145 psi	°C		50	
	°F		122	
Weight	g		110	
Wall fixing screws	M4 by means of the bracket provided			
Bowl capacity	cm ³		16	
Mounting position	Vertical			
Gauge port	G 1/8"			
Condensate drain	RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge.			
Fluid	Operates by depression – requires variable air take-offs. Compressed air			
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.			

COMPONENTS

- ① Technopolymer body with OT58 threaded element
- ② Clear technopolymer bowl
- ③ Technopolymer knob
- ④ Technopolymer bell
- 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 HDPE sintered filter cartridge
- ⑯ Condensate drain (RMSA)
- ⑰ NBR gaskets



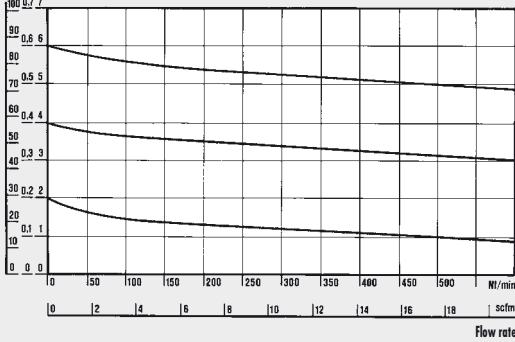
FLOW CHARTS

FR

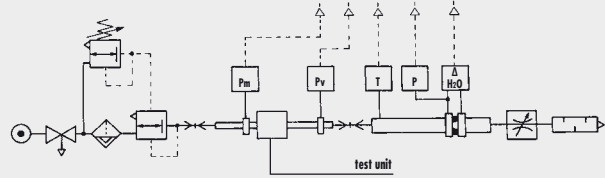
P_{in} = 0.7 MPa; 7 bar; 102 psi

Inlet pressure

psi kPa bar

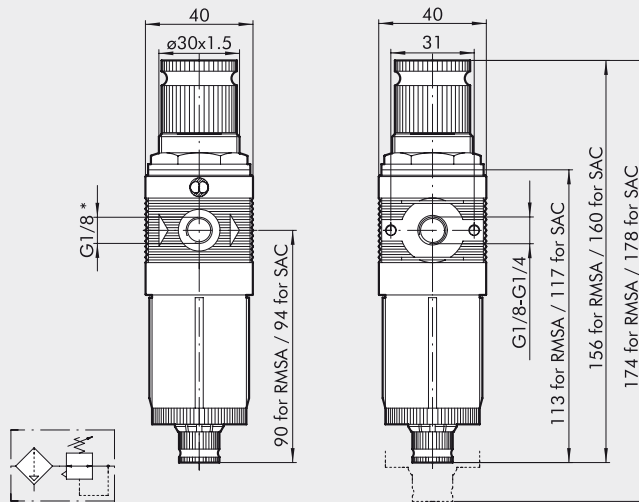


Department of Mechanics
Turin Polytechnic



• 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



* Pressure gauge port

SYNOPTIC, SIZES AND VERSIONS

FR	BIT	1/8	5	02	RMSA
ELEMENT	SIZE	THREADED PORT	DEGREE OF FILTRATION	SETTING RANGE	CONDENSATE DRAIN
FR	BIT	1/8 1/4	5 = 5 μm 20 = 20 μm 50 = 50 μm	02 = 0 to 2 bar 04 = 0 to 4 bar 08 = 0 to 8 bar 012 = 0 to 12 bar	RMSA SAC

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

Operates by depression – requires variable air take-offs.

ORDERING CODES

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