

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.

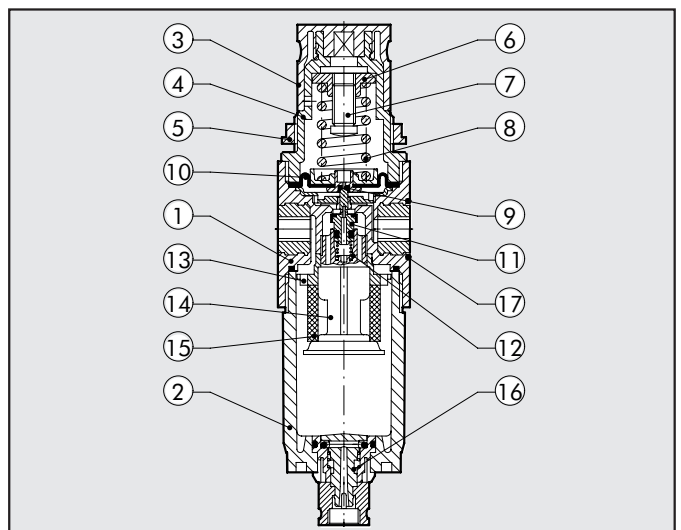


| TECHNICAL DATA | FR BIT 1/8" | FR BIT 1/4" |
|--|--|-------------|
| | Threaded port | 1/8" |
| Setting range | 0 to 2 - 0 to 4 - 0 to 8 - 0 to 12 | |
| Degree of filtration | 5µm (yellow) 20µm (white) 50µm (blue) | |
| Max. inlet pressure | MPa | 1.3 |
| | bar | 13 |
| | psi | 188 |
| Flow rate at 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 ³ | 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

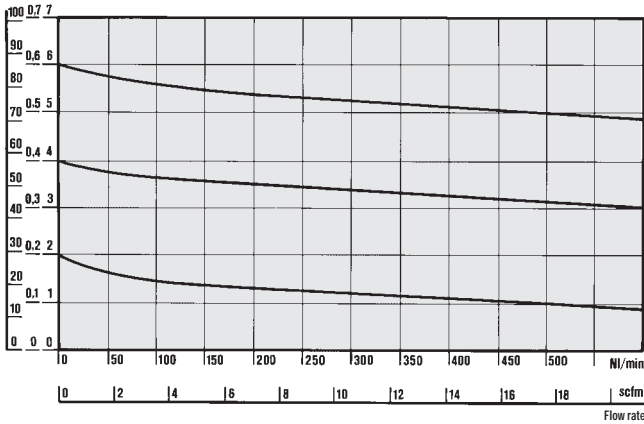
- ① Technopolymer body with OT58 threaded elements
- ② Clear technopolymer bowl
- ③ Technopolymer knob
- ④ Technopolymer dell
- ⑤ Technopolymer fixing ring nut
- ⑥ OT58 brass nut
- ⑦ OT58 brass adjusting screw
- ⑧ Steel adjusting spring
- ⑨ NBR relieving gasket
- ⑩ Rolling diaphragm
- ⑪ OT58 valve with 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

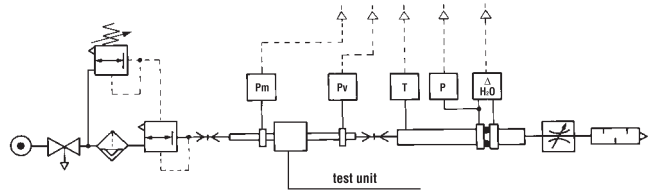
Pm = 0.7 MPa; 7 bar; 102 psi
Inlet pressure
psi MPa bar



**Department
of Mechanics**

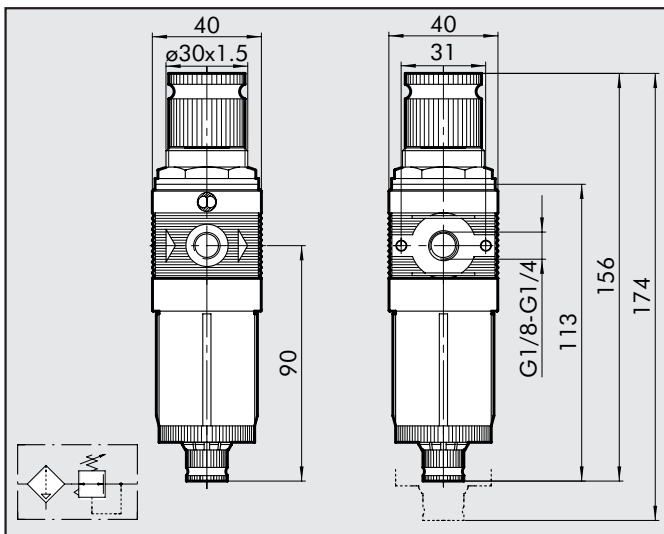


Turin Polytechnic



- 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



KEY TO CODES

| FR | BIT | 1/8 | 5µm | 02 | RMSA |
|---------|------|---------------|----------------------|-----------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE | CONDENSATE DRAIN |
| FR | BIT | 1/8 1/4 | 5µm 20µm 50µm | 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 | | |
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