

# GENERAL TECHNICAL DATA **bit**

The units in the **bit** range feature:

- reduced dimensions
- negligible load loss
- long life
- excellent quality-to-price ratio

Thanks to its technical features the **bit** air treatment range is particularly suitable for de-centralized use near the final actuators.



## TECHNICAL DATA

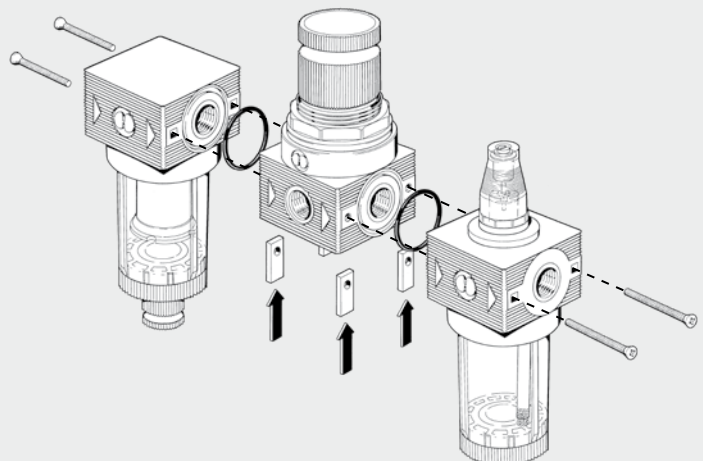
		BIT 1/8"	BIT 1/4"
Threaded port		1/8"	1/4"
Degree of filtration	µm	5 (yellow) 20 (white) 50 (blue)	
Degree of purification		99.97% α 0.01 µm	
Setting range	bar	0 to 2 - 0 to 4 - 0 to 8 - 0 to 12	
Max. inlet pressure	MPa	1.3	
	bar	13	
	psi	188	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min	350	
	scfm	12	
Max temperature at 1 MPa; 10 bar; 145 psi	°C	- 10° to + 50°	
	°F	14° to 122°	
Elements		Filter - Regulator - Lubricator - Filter-regulator - Depurator Units: FRL, FR + L, F + L, F + D	
Mounting		By means of the bracket provided	
Fluid		Compressed air	
Compatibility with oils		See <b>chapter Z1</b>	

## ASSEMBLY

Use ASSEMBLY PLATES (code 9170201) to assemble the **bit** elements correctly.

Assembly procedure:

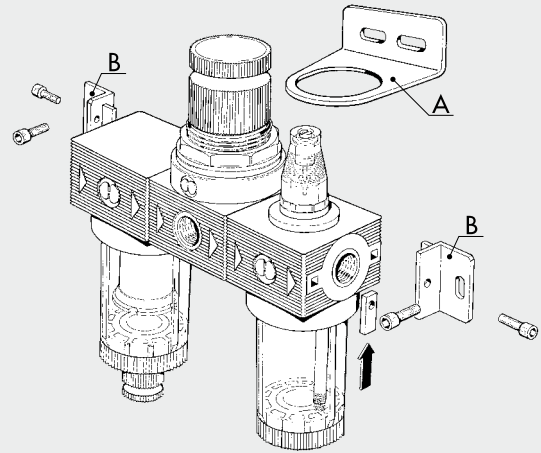
- Fit the plates right into the slots under the body of the **bit** element
- Check that there O-rings round the threaded outlet
- Assemble the elements, making sure that the flow run in the direction of the arrows marked on the body.



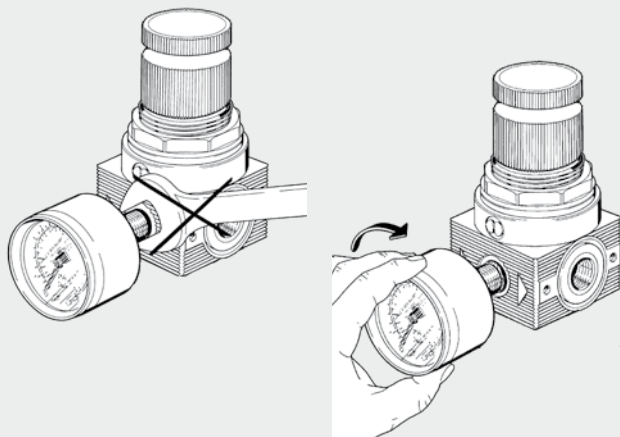
**WALL MOUNTING**

The wall fixing of a bit unit can be made through:

- Fixing bracket R/FR code 9200701 (A)
- Wall fixing plates code 9170301 (B)

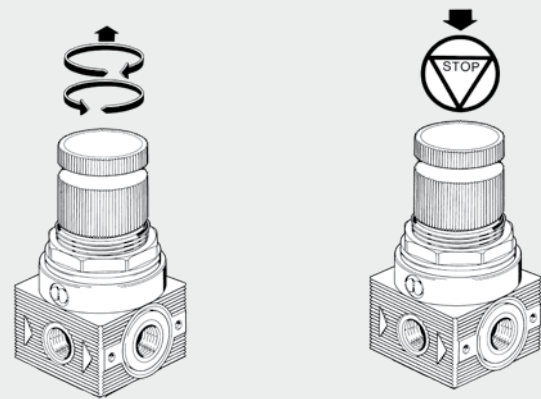


**GENERAL RULES - USE AND MAINTENANCE**



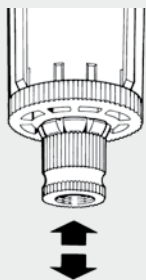
**MOUNTING THE GAUGE**

The gauge must be mounted by hand without using a spanner. Use fluid sealants to provide a good seal. N.B. Do not use Teflon.

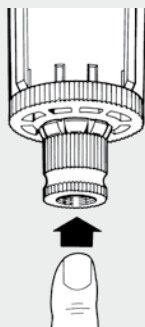


**SETTING THE PRESSURE**

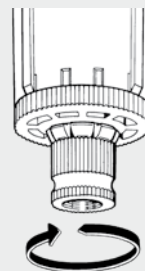
The air pressure must always be set upwards. The knob can be locked so that the set pressure cannot be altered.



With the knob in the centre position, the drain is semi-automatic. The drain operates when the bowl is not pressurized and closes when it is.



Press the button to drain condensate when the bowl is pressurized.



Turn the knob anticlockwise to close the valve with bowl pressurized or not pressurized.



To clean or replace the filter element unscrew the screen of the centrifuge assembly. Use a no. 3 compass spanner to unscrew the bowl.

# bit FILTER

The units in the **bit** range feature:

- reduced dimensions
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- long life
- excellent quality-to-price ratio

Thanks to its technical features the **bit** air treatment range is particularly suitable for de-centralized use near the final actuators.

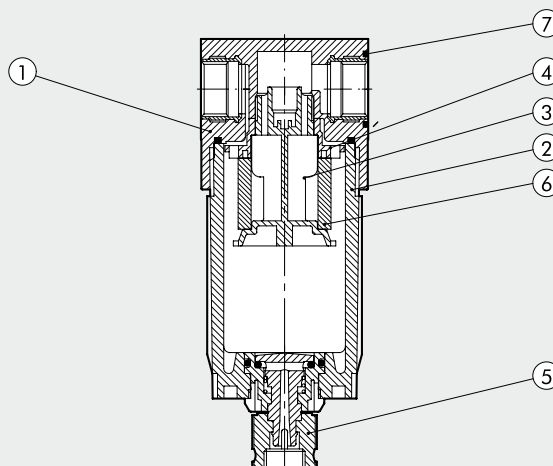


## TECHNICAL DATA

		BIT 1/8"		BIT 1/4"
		1/8"	5 (yellow) 20 (white) 50 (blue)	1/4"
Threaded port				
Degree of filtration	µm			
Max. inlet pressure	MPa		1.3	
	bar		13	
	psi		188	
Flow rate at 6.3 bar (0.6 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min		860	
	scfm		30.5	
Flow rate at 6.3 bar (0.6 MPa to 91 psi) ΔP 1 bar (0.1 MPa to 14 psi)	Nl/min		1200	
	scfm		42.5	
Max temperature at 1 MPa; 10 bar; 145 psi	°C		50	
	°F		122	
Weight	g		40	
Wall fixing screws		M4 by means of the bracket provided		
Bowl capacity	cm <sup>3</sup>		16	
Mounting position		Vertical		
Condensate drain		RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge .		
		<b>Operates by pressure drop – requires variable air take-offs.</b>		
Fluid		Compressed air		

## COMPONENTS

- ① Technopolymer body with OT58 threaded element
- ② Clear technopolymer bowl
- ③ Technopolymer baffle plug
- ④ Technopolymer centrifuge
- ⑤ Condensate drain (RMSA)
- ⑥ HDPE sintered filter cartridge
- ⑦ NBR gaskets



**FLOW CHARTS**

**FIL**

$\Delta P = (P_m - P_v)$   
psi kPa bar

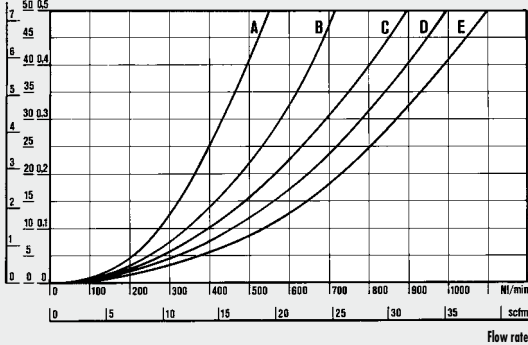
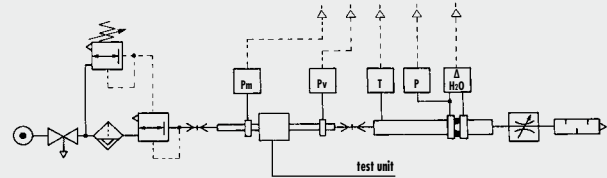


Chart referring to a filter with 1/4 ports



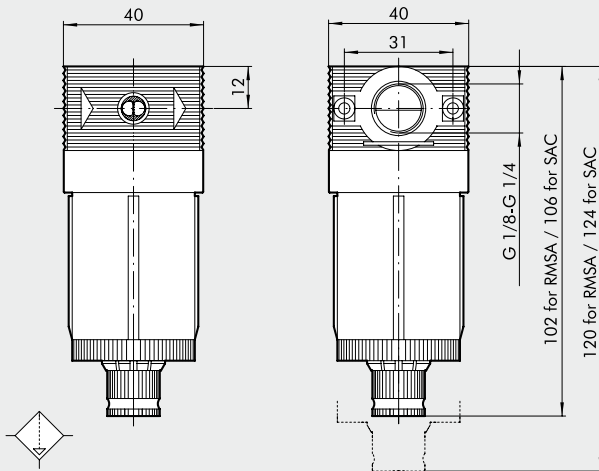
**Department of Mechanics**  
Turin Polytechnic



• 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.

- (A) = 2 bar - 0.2 MPa - 29 psi
- (B) = 4 bar - 0.4 MPa - 58 psi
- (C) = 6 bar - 0.6 MPa - 87 psi
- (D) = 8 bar - 0.8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi

**DIMENSIONS**



**ORDERING CODES**

Code	Description
5101001	FIL BIT 1/8 5 RMSA
5101004	FIL BIT 1/8 5 SAC
5101002	FIL BIT 1/8 20 RMSA
5101005	FIL BIT 1/8 20 SAC
5101003	FIL BIT 1/8 50 RMSA
5101006	FIL BIT 1/8 50 SAC
5201001	FIL BIT 1/4 5 RMSA
5201004	FIL BIT 1/4 5 SAC
5201002	FIL BIT 1/4 20 RMSA
5201005	FIL BIT 1/4 20 SAC
5201003	FIL BIT 1/4 50 RMSA
5201006	FIL BIT 1/4 50 SAC

**SYNOPTIC, SIZES AND VERSIONS**

FIL ELEMENT	BIT SIZE	1/8 THREADED PORT	5 DEGREE OF FILTRATION	RMSA CONDENSATE DRAIN
FIL	BIT	1/8 1/4	5 = 5 μm 20 = 20 μm 50 = 50 μm	RMSA SAC

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

SAC: automatic drain with condensate discharge.

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

# bit DEPURATOR

Coalescing mini-depurator

- Space saving
- Minimum load loss as the flow rate varies
- All-round condensate level viewing



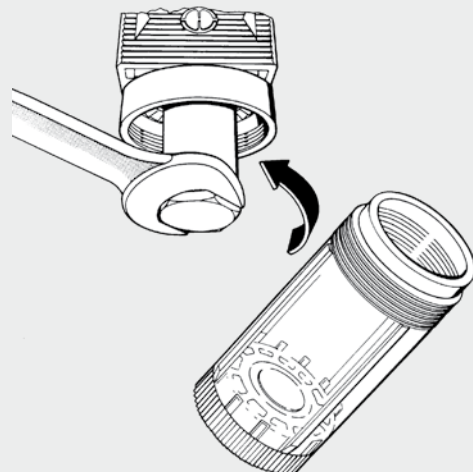
UNITS

bit DEPURATOR

TECHNICAL DATA		DEP BIT 1/8"	DEP BIT 1/4"
Threaded port		1/8"	1/4"
Degree of purification		99.97% 0.01 µm	
Max. inlet pressure	MPa	1.3	
	bar	13	
	psi	188	
Suggested flow at 6 bar	NI/min	200	
	scfm	7	
Maximum suggested flow rate		See next page	
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50	
	°F	122	
Weight	g	65	
Wall fixing screws		M4 by means of the bracket provided	
Bowl capacity	cm <sup>3</sup>	16	
Mounting position		Vertical	
Condensate drain		RMSA: drain with manual condensate discharge and automatic discharge at zero pressure.	
Fluid		Filtered 5 µm compressed air	
Notes		A It is advisable to mount a 5 m filter upstream the depurator acting as a rough filter.	

## USE AND MAINTENANCE

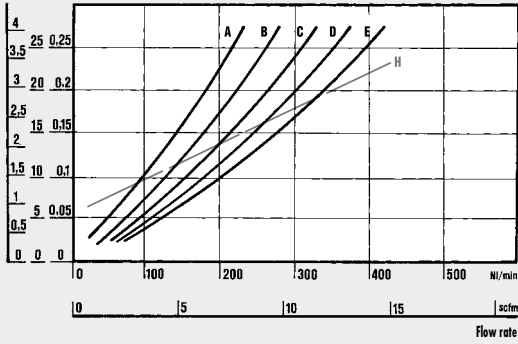
When replacing the coalescing cartridge, unscrew the bowl and then unscrew the screen of the cartridge assembly. Then replace the cartridge. Use a no. 3 compass spanner to unscrew the bowl.



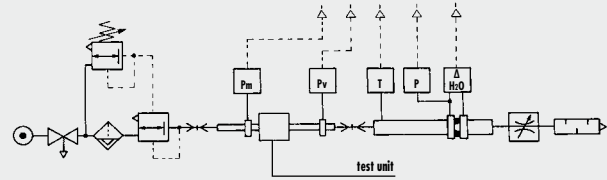
**FLOW CHARTS**

**DEP**

$\Delta P = (P_m - P_v)$   
psi kPa bar



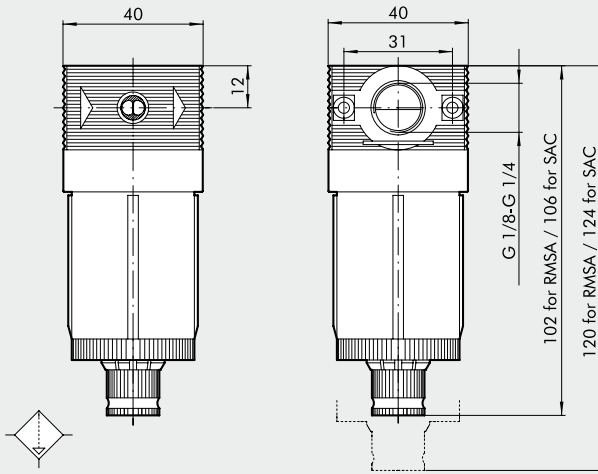
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Turin Polytechnic



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- (A) = 2 bar - 0.2 MPa - 29 psi
- (B) = 4 bar - 0.4 MPa - 58 psi
- (C) = 6 bar - 0.6 MPa - 87 psi
- (D) = 8 bar - 0.8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi
- (H) = maximum flow rate recommended for optimal operation

**DIMENSIONS**



**ORDERING CODES**

Code	Description
5112001	DEP BIT 1/8 RMSA
5212001	DEP BIT 1/4 RMSA

**SYNOPTIC, SIZES AND VERSIONS**

DEP ELEMENT	BIT SIZE	1/8 THREADED PORT	RMSA CONDENSATE DRAIN
DEP	BIT	1/8 1/4	RMSA

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

# bit MICRO-REGULATOR

Micro-regulator with rolling diaphragm.

- Preset pressure stability as the upstream pressure varies.
- High flow rates with reduced pressure drops
- Quick overpressure exhaust

## Versions available

**bit FC:** controlled relief to allow greater accuracy in regulation by means of slight continuous air relief.

**bit for water:** used to regulate the pressure in water circuits; without blowoff valve

**bit SR:** for use when the downstream circuit needs to be relieved quickly as the upstream pressure drops. Mount the SR regulator between the power supply valve and the point of use.

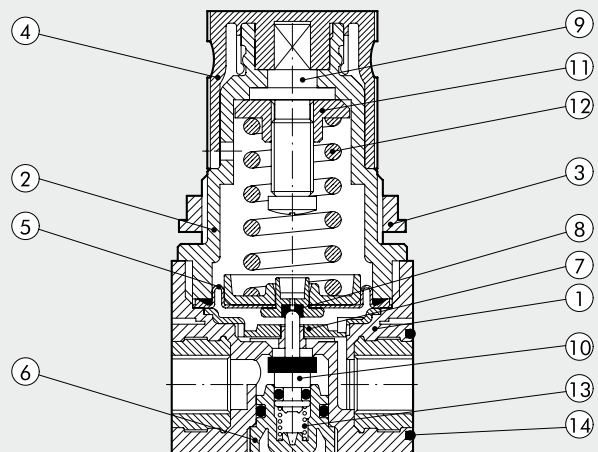


## TECHNICAL DATA

		MR BIT 1/8"	MR BIT 1/4"
Threaded port		1/8"	1/4"
Setting range		0 to 2 - 0 to 4 - 0 to 8 - 0 to 12	
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		340
	scfm		12
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		80
Wall fixing screws		M4 by means of the bracket provided	
Gauge port		G 1/8"	
Mounting position		In any position	
Fluid		Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.	
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 Technopolymer bell
- ③ Technopolymer fixing ring nut
- ④ Technopolymer knob
- ⑤ Rolling diaphragm
- ⑥ Technopolymer plug
- ⑦ Technopolymer anti-vibration screen
- ⑧ NBR relieving gasket
- ⑨ OT58 brass adjusting screws
- ⑩ OT58 valve with NBR vulcanized gasket
- ⑪ OT58 brass nut
- ⑫ Steel adjusting spring
- ⑬ Stainless steel valve compression spring
- ⑭ NBR gaskets



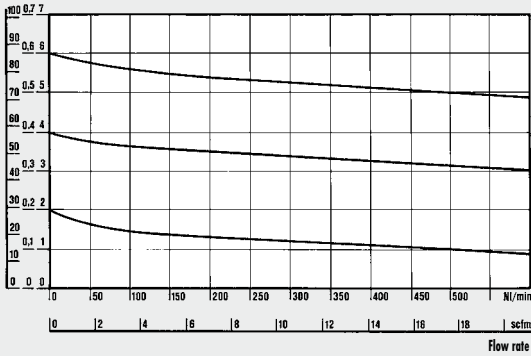
**FLOW CHARTS**

**MR**

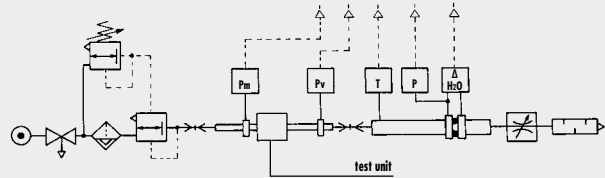
$P_m = 0.7 \text{ MPa}; 7 \text{ bar}; 102 \text{ psi}$

Inlet pressure

psi kPa bar

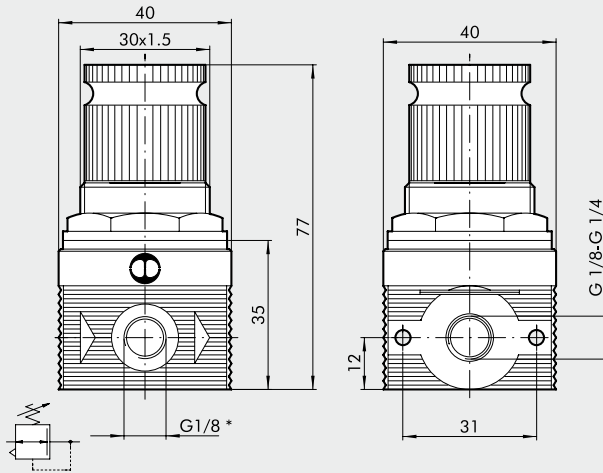


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**DIMENSIONS**



\* Pressure gauge port

**SYNOPTIC, SIZES AND VERSIONS**

MR ELEMENT	BIT SIZE	FC VERSION	1/8 THREADED PORT	02 CONDENSATE DRAIN
MR	BIT	FC = Controlled relief SR = Quickly relieved = Standard	1/8" 1/4"	02 = 0 to 2 bar 04 = 0 to 4 bar 08 = 0 to 8 bar 012 = 0 to 12 bar
MRA		Without relief (for WATER)		

**ORDERING CODES**

Code	Description
<b>MICROREGULATOR (MR)</b>	
5107004	MR BIT 1/8 012
5107001	MR BIT 1/8 02
5107002	MR BIT 1/8 04
5107003	MR BIT 1/8 08
5207004	MR BIT 1/4 012
5207001	MR BIT 1/4 02
5207002	MR BIT 1/4 04
5207003	MR BIT 1/4 08
<b>MICROREGULATOR WITH CONTROLLED RELIEF</b>	
5111001	MR BIT FC 1/8 02
5111002	MR BIT FC 1/8 04
5211001	MR BIT FC 1/4 02
5211002	MR BIT FC 1/4 04
<b>MICROREGULATOR WITH QUICK RELIEF</b>	
5102001	MR BIT SR 1/8 02
5102002	MR BIT SR 1/8 04
5102003	MR BIT SR 1/8 08
5102004	MR BIT SR 1/8 012
5202001	MR BIT SR 1/4 02
5202002	MR BIT SR 1/4 04
5202003	MR BIT SR 1/4 08
5202004	MR BIT SR 1/4 012
<b>WATER MICROREGULATOR</b>	
5108001	MRA BIT 1/8 02
5108002	MRA BIT 1/8 04
5108003	MRA BIT 1/8 08
5108004	MRA BIT 1/8 012
5208001	MRA BIT 1/4 02
5208002	MRA BIT 1/4 04
5208003	MRA BIT 1/4 08
5208004	MRA BIT 1/4 012



# bit PADLOCKABLE MICROREGULATOR

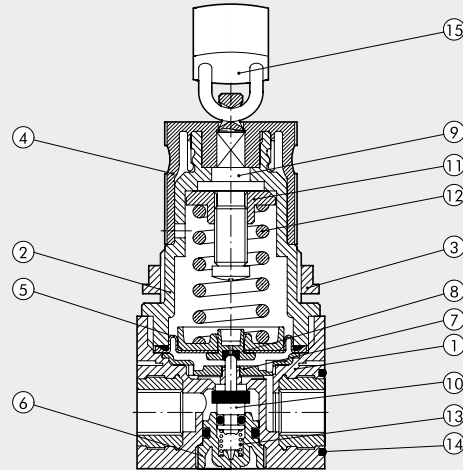
The padlockable microregulator has a pin with a hole in it that projects from the top of the knob. When the knob is in the push-lock position, the padlock can be inserted in the hole, preventing the knob from being operated. A padlock and two keys are supplied with the regulator.

Refer to the bit microregulator for technical data and flow curves.

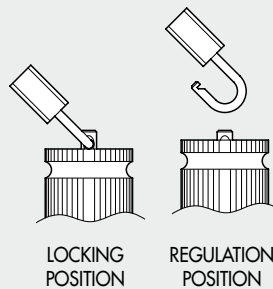
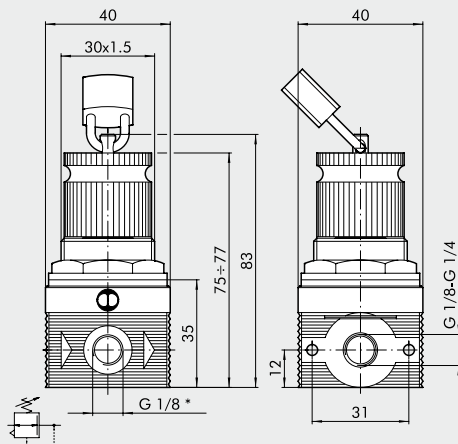


## COMPONENTS

- ① Technopolymer body with OT58 threaded element
- ② Technopolymer bell
- ③ Technopolymer fixing ring nut
- ④ Technopolymer knob
- ⑤ Rolling diaphragm
- ⑥ Technopolymer plug
- ⑦ Technopolymer anti-vibration screen
- ⑧ NBR relieving gasket
- ⑨ Nickel-plated brass OT58 adjusting screws
- ⑩ OT58 valve with NBR vulcanized gasket
- ⑪ OT58 brass nut
- ⑫ Steel adjusting spring
- ⑬ Stainless steel valve compression spring
- ⑭ NBR gaskets
- ⑮ Padlock



## DIMENSIONS



\* Pressure gauge port

## ORDERING CODES

Code	Description
5110001	MR BIT KEY 1/8 02
5110002	MR BIT KEY 1/8 04
5110003	MR BIT KEY 1/8 08
5110004	MR BIT KEY 1/8 012
5210001	MR BIT KEY 1/4 02
5210002	MR BIT KEY 1/4 04
5210003	MR BIT KEY 1/4 08
5210004	MR BIT KEY 1/4 012

## SYNOPTIC, SIZES AND VERSIONS

MR ELEMENT	BIT SIZE	KEY TYPE	1/8 THREADED PORT	02 SETTING RANGE
MR	BIT	Padlockable	1/8 1/4	02 = 0 to 2 bar 04 = 0 to 4 bar 08 = 0 to 8 bar 012 = 0 to 12 bar

# 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  $\mu\text{m}$ , white = 20  $\mu\text{m}$ , blue = 50  $\mu\text{m}$ .



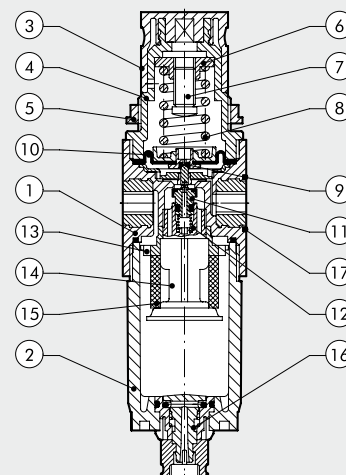
TECHNICAL DATA	FR BIT 1/8"		FR BIT 1/4"	
	1/8"		1/4"	
Threaded port	1/8"		1/4"	
Setting range	0 to 2 - 0 to 4 - 0 to 8 - 0 to 12			
Degree of filtration	5 (yellow) - 20 (white) - 50 (blue)			
Max. inlet pressure	MPa		1.3	
	bar		13	
	psi		188	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) $\Delta P$ 0.5 bar (0.05 MPa to 7 psi)	Nl/min	290		
	scfm	10		
Flow rate at 6.3 bar (0.63 MPa to 91 psi) $\Delta P$ 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 <sup>3</sup>		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.			
	<b>Operates by pressure drop – requires variable air take-offs.</b>			
	Compressed air			
	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.			

UNITS

bit FILTER-REGULATOR

## 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



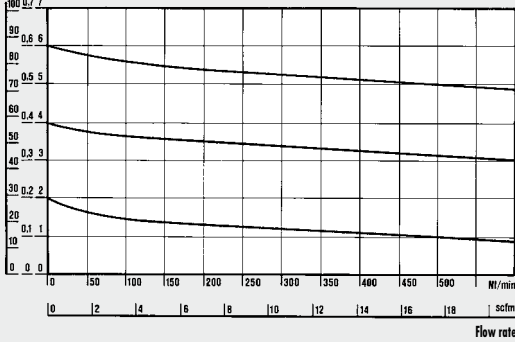
FLOW CHARTS

FR

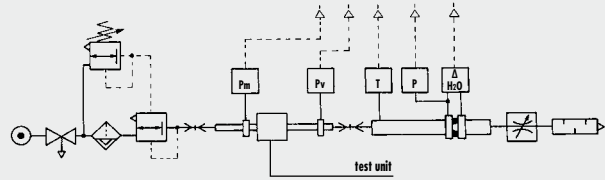
P<sub>in</sub> = 0.7 MPa; 7 bar; 102 psi

Inlet pressure

psi kPa bar

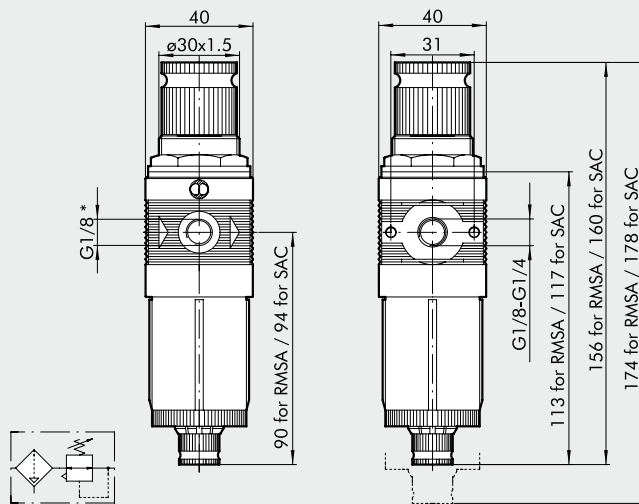


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DIMENSIONS



\* 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 pressure drop – 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

# bit LUBRICATOR

Mini-lubricator with high lubrication stability.

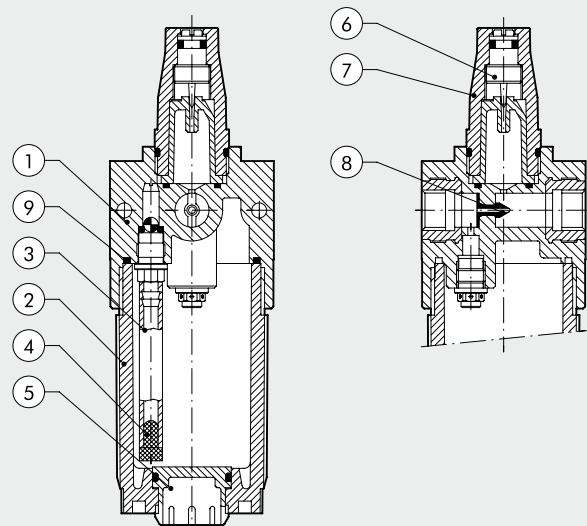
- Quantity of lubricant proportioned to air flow
- Activates at low flow rates
- Micrometric regulation of lubricant flow
- All-round oil level viewing



TECHNICAL DATA	LUB BIT 1/8"		LUB BIT 1/4"	
	1/8"		1/4"	
Threaded port			Oil mist	
Type of lubrication			26.5	
Bowl capacity	cm <sup>3</sup>		Manual filling with the bowl disassembled	
Lubricator version			1.3	
Max. inlet pressure	MPa		13	
	bar		188	
	psi		400	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min		14	
	scfm		710	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 1 bar (0.1 MPa to 14 psi)	Nl/min		25	
	scfm		50	
Max temperature at 1 MPa; 10 bar; 145 psi	°C		122	
	°F		40	
Weight	g		M4 by means of the bracket provided	
Wall fixing screws			Vertical	
Mounting position			Filtered compressed air	
Fluid				

## COMPONENTS

- ① Technopolymer body with OT58 threaded elements
- ② Clear technopolymer bowl
- ③ Rilsan oil suction pipe
- ④ Filter
- ⑤ Technopolymer plug
- ⑥ Oil flow adjustment regulation needle made of OT58 brass
- ⑦ Clear technopolymer cover
- ⑧ NBR Venturi diaphragm
- ⑨ NBR gaskets

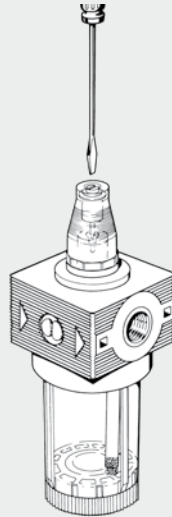


**GENERAL RULES - USE AND MAINTENANCE**

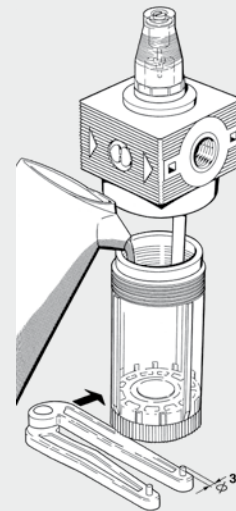
Use a no. 3 compass spanner to unscrew the bowl.

- Fit the lubricator as close as possible to the point of use
- Fill the bowl with oil before pressurizing the system
- Do not use cleaning oil, brake fluid or solvents in general
- For correct lubrication, set the drip rate to approximately 1 drop every 300-600 NI via the adjusting screw.
- Recommended lubricants:  
ISO and UNI FD22  
E.g. Energol HLP 22 (BP) – Spinesso 22 (Esso)  
- Mobil DTE 22 (Mobil) – Tellus Oil 22 (Shell).

**REGULATING LUBRICATION**



**FILLING THE BOWL WITH OIL**

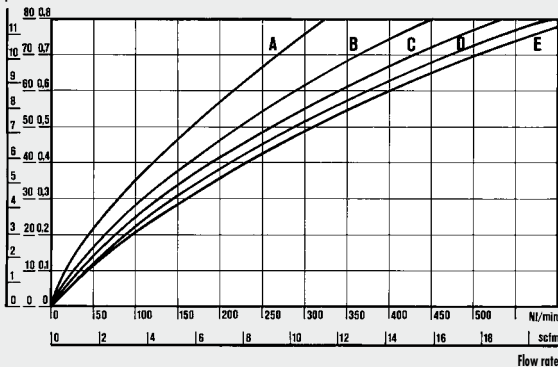


**FLOW CHARTS**

**LUB**

$\Delta P = (P_m - P_v)$

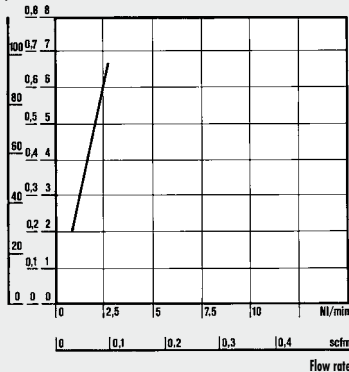
psi kPa bar



**LUB 1/8-1/4**

Pm

psi MPa bar



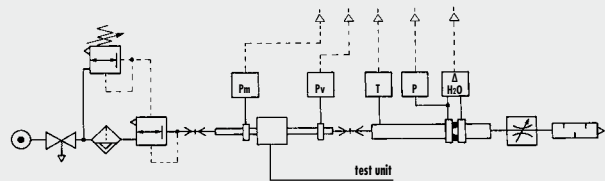
**MINIMUM OPERATION FLOW CHARTS**

Minimum flow tests were performed in compliance with ISO/DP 6301/2.



**Department of Mechanics**

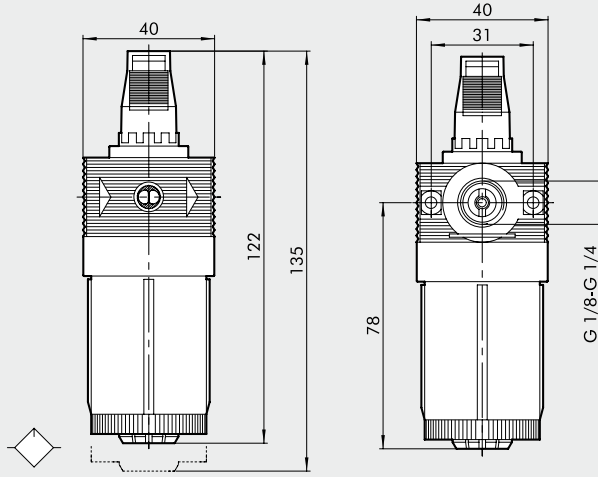
Turin Polytechnic



• 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.

- (A) = 2 bar - 0.2 MPa - 29 psi
- (B) = 4 bar - 0.4 MPa - 58 psi
- (C) = 6 bar - 0.6 MPa - 87 psi
- (D) = 8 bar - 0.8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi

**DIMENSIONS**



**ORDERING CODES**

Code	Description
5103001	LUB BIT 1/8
5203001	LUB BIT 1/4

**NOTES**

# bit TAKE-OFF

- The air take-off takes air from the FRL unit irrespective of the assembly position.
- It is necessary when air needs to be taken from the FRL unit at any stage of the treatment (normal, filtered, regulated, lubricated, etc.).

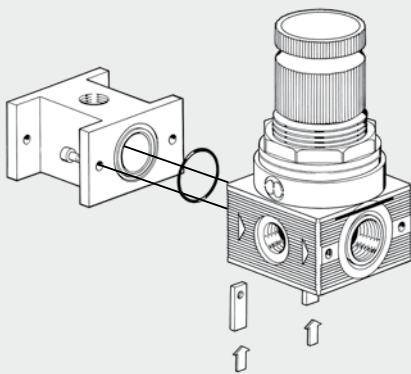


## TECHNICAL DATA

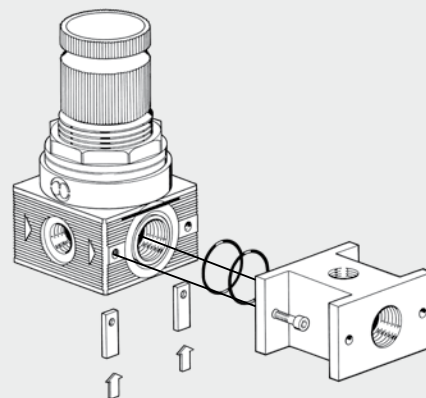
		PA
Maximum operating pressure	MPa	1.3
	bar	13
	psi	188
Maximum working temperature at 1 MPa; 10 bar; 145 psi	°C	50
	°F	

## CONNECTION DIAGRAMS AND APPLICATION

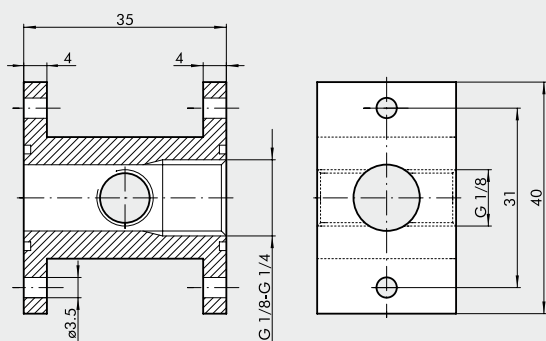
**Mounting the air take-off at the inlet:**  
only use two screws and the O-rings supplied in the PA kit.



**Mounting the air take-off at the outlet:**  
only use two screws and the O-rings supplied in the PA kit. Seal is provided by the contact between O-rings.



## DIMENSIONS



## ORDERING CODES

Code	Description
9100401	PA 1/8 - 1/4 BIT

# FIL + REG + LUB bit



Complete mini-FRL unit with rolling diaphragm.

- High flow rates with reduced pressure drop
- Excellent degree of condensate separation
- Quantity of lubricant proportioned to air flow
- Activates at low flow rates

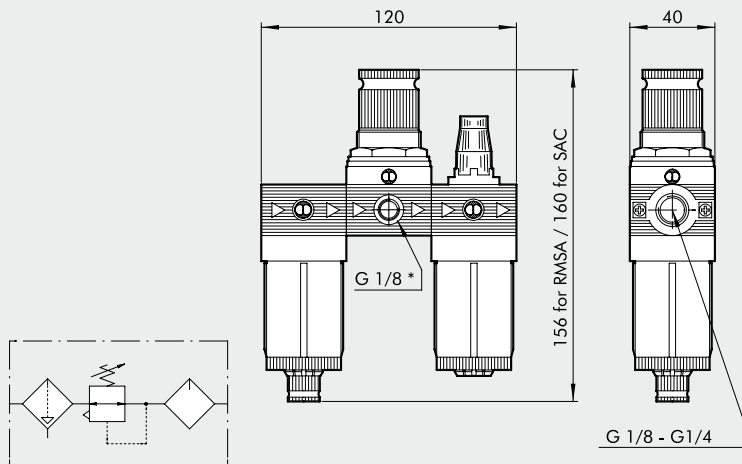


TECHNICAL DATA		F + R + L BIT 1/8"	F + R + L BIT 1/4"
Threaded port		1/8"	1/4"
Setting range		0 to 2 - 0 to 4 - 0 to 8 - 0 to 12	
Degree of filtration	µm	5 (yellow) 20 (white) 50 (blue)	
Type of lubrication		Oil mist	
Max. inlet pressure	MPa	1.3	
	bar	13	
	psi	188	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min	150	
	scfm	5.3	
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 1 bar (0.1 MPa to 14 psi)	Nl/min	280	
	scfm	10	
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50	
	°F	122	
Weight	g	160	
Wall fixing screws		M4 by means of the bracket provided	
Gauge port		G1/8"	
Mounting position		Vertical	
Condensate drain		RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge.	
Fluid		<b>Operates by pressure drop – requires variable air take-offs.</b> Compressed air	
Notes		See chapters regarding individual elements.	

UNITS

FIL + REG + LUB bit

## DIMENSIONS



\* Pressure gauge port



**SYNOPTIC, SIZES AND VERSIONS**

**ORDERING CODES**

FRL ELEMENT	BIT SIZE	1/8 THREADED PORT	5 DEGREE OF FILTRATION	02 SETTING RANGE	RMSA CONDENSATE DRAIN
FRL	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

Code	Description
5104008	FRL BIT 1/8 20 08 RMSA
5104011	FRL BIT 1/8 20 012 RMSA
5204008	FRL BIT 1/4 20 08 RMSA
5204011	FRL BIT 1/4 20 012 RMSA

The following versions are available on request:

- with 5 µm or 50 µm degree of filtration
- with 0-2 bar or 0-4 bar setting range
- with SAC condensate discharge

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure  
 SAC: automatic drain with condensate discharge.  
**Operates by pressure drop – requires variable air take-offs.**

**NOTES**

Blank area for notes.

# FR + LUB bit



- Compact FR + L unit with rolling diaphragm.
- High flow rates with reduced pressure drop
  - Excellent degree of condensate separation
  - Quantity of lubricant proportioned to air flow
  - Activates at low flow rates

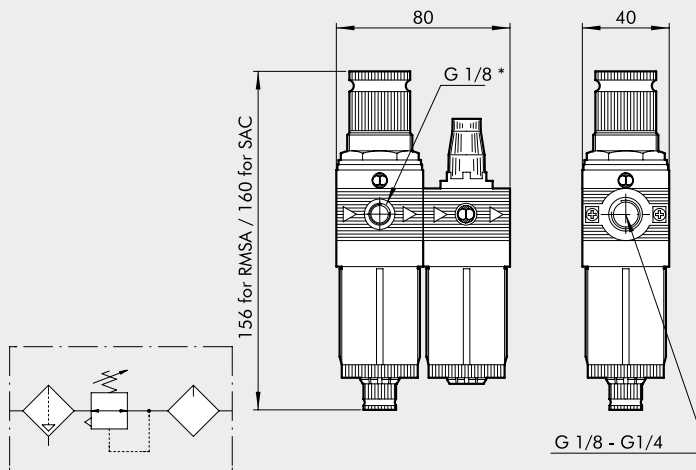


TECHNICAL DATA	FR + L BIT 1/8"	FR + L BIT 1/4"
Threaded port	1/8"	1/4"
Setting range	0 to 2 - 0 to 4 - 0 to 8 - 0 to 12	
Degree of filtration	5 (yellow) 20 (white) 50 (blue)	
Type of lubrication	Oil mist	
Max. inlet pressure	MPa	1.3
	bar	13
	psi	188
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min	140
	scfm	5
Flow rate at 6.3 bar (0.63 MPa to 91 psi) ΔP 1 bar (0.1 MPa to 14 psi)	Nl/min	260
	scfm	9.2
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50
	°F	122
Weight	g	170
Wall fixing screws	M4 by means of the bracket provided	
Gauge port	G1/8"	
Mounting position	Vertical	
Condensate drain	RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge.	
Fluid	<b>Operates by pressure drop – requires variable air take-offs.</b> Compressed air	
Notes	See chapters regarding individual elements.	

UNITS

FR + LUB bit

## DIMENSIONS



\* Pressure gauge port

SYNOPTIC, SIZES AND VERSIONS

FR+L ELEMENT	BIT SIZE	1/8 THREADED PORT	5 DEGREE OF FILTRATION	02 SETTING RANGE	RMSA CONDENSATE DRAIN
FR+L	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

ORDERING CODES

Code	Description
5106008	FR+L BIT 1/8 20 08 RMSA
5106011	FR+L BIT 1/8 20 012 RMSA
5206008	FR+L BIT 1/4 20 08 RMSA
5206011	FR+L BIT 1/4 20 012 RMSA

The following versions are available on request:

- with 5 µm or 50 µm degree of filtration
- with 0-2 bar or 0-4 bar setting range
- with SAC condensate discharge

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure  
 SAC: automatic drain with condensate discharge.  
**Operates by pressure drop – requires variable air take-offs.**

NOTES

UNITS

FR + LUB bit

# FIL + DEP bit



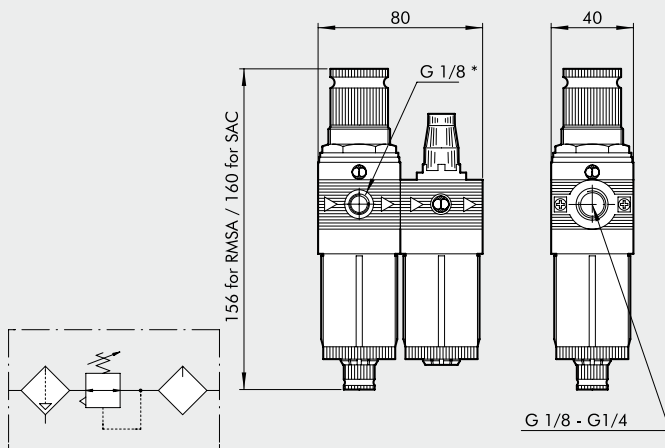
Compact filter + depurator unit for fine filtering followed by purification by coalescence.

- All-round condensate level viewing
- Condensate drainage - manual/semi-auto (RMSA) or automatic (SAC) on the filter
- 5 µm filter element.



TECHNICAL DATA	F + D BIT 1/8"		F + D BIT 1/4"	
	Threaded port	1/8"		1/4"
Degree of purification	5 µm filter – 99.97% depurator at 0.01 µm			
Max. inlet pressure	MPa	1.3		
	bar	13		
	psi	188		
Maximum suggested flow rate	Please look at the flow rate curves at page C2.7			
Fluid	Compressed air			
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			
Mounting position	Vertical			
Condensate drain	RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge.			
Notes	<b>Operates by pressure drop – requires variable air take-offs.</b> See chapters regarding individual elements			

## DIMENSIONS



## SYNOPTIC, SIZES AND VERSIONS

F+D ELEMENT	BIT SIZE	1/4 THREADED PORT	5 DEGREE OF FILTRATION	RMSA CONDENSATE DRAIN
F+D	BIT	1/8 1/4	5 µm	RMSA SAC

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure  
 SAC: automatic drain with condensate discharge.  
**Operates by pressure drop – requires variable air take-offs.**

## ORDERING CODES

Code	Description
5114001	F+D BIT 1/8 5 RMSA - RMSA
5114002	F+D BIT 1/8 5 SAC - RMSA
5214001	F+D BIT 1/4 5 RMSA - RMSA
5214002	F+D BIT 1/4 5 SAC - RMSA

UNITS  
FIL + DEP bit

# FIL + LUB bit

Compact filter + lubricator unit with different degrees of filtration and high lubrication stability.

- Excellent degree of condensate separation
- Semi-automatic and automatic condensate drainage
- Lubrication activates at low flow rates
- All-round oil and condensate level viewing

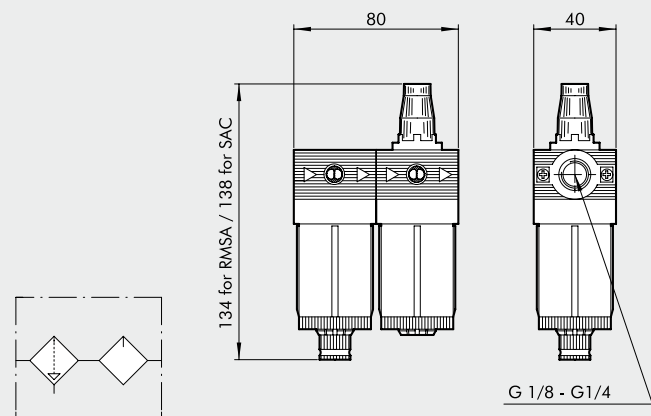


UNITS

FIL + LUB bit

TECHNICAL DATA		F + L BIT 1/8"	F + L BIT 1/4"
Threaded port		1/8"	1/4"
Degree of filtration	µm	5 (yellow) - 20 (white) - 50 (blue)	
Max. inlet pressure	MPa	1.3	
	bar	13	
	psi	188	
Flow rate at 6 bar (0.6 MPa to 87 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	Nl/min	300	
	scfm	10.6	
Flow rate at 6 bar (0.6 MPa to 87 psi) ΔP 1 bar (0.1 MPa to 1.4 psi)	Nl/min	600	
	scfm	21.2	
Fluid		Compressed air	
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50	
	°F	122	
Weight	g	90	
Wall fixing screws		M4 by means of the bracket provided	
Mounting position		Vertical	
Condensed drain		RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge.	
Notes		<b>Operates by pressure drop – requires variable air take-offs.</b> See chapters regarding individual elements	

## DIMENSIONS



## SYNOPTIC, SIZES AND VERSIONS

F+L ELEMENT	BIT SIZE	1/4 THREADED PORT	5 DEGREE OF FILTRATION	RMSA CONDENSATE DRAIN
F+L	BIT	1/8 1/4	5 = 5 µm 20 = 20 µm 50 = 50 µm	RMSA SAC

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure  
 SAC: automatic drain with condensate discharge.  
**Operates by pressure drop – requires variable air take-offs.**

## ORDERING CODES

Code	Description
5113002	F+L BIT 1/8 20 RMSA
5213002	F+L BIT 1/4 20 RMSA

The following versions are available on request:  
 - with 5 µm or 50 µm degree of filtration  
 - with SAC condensate discharge