

# 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.



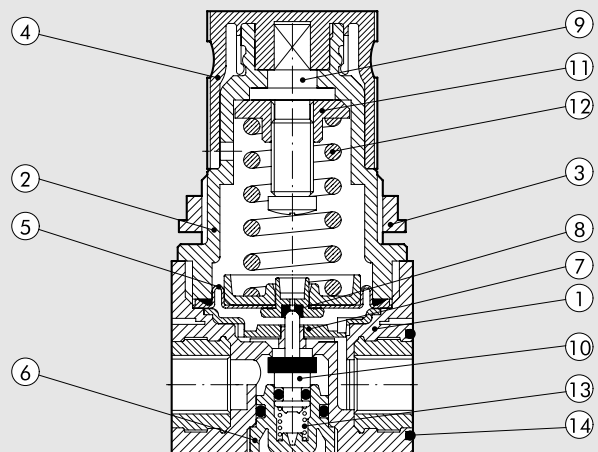
UNITS

bit MICRO-REGULATOR

TECHNICAL DATA	MR BIT 1/8"	MR BIT 1/4"
	Threaded port	1/8"
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. <b>Do not take air from pressure gauge ports.</b>	

## 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



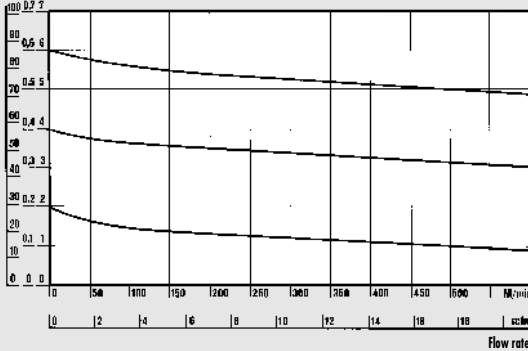
## FLOW CHARTS

### MR

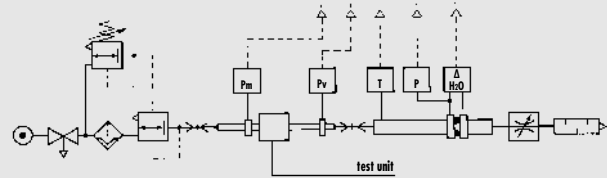
$P_{in} = 0,7 \text{ MPa}; 7 \text{ bar}; 102 \text{ psi}$

Inlet pressure

psi kPa bar

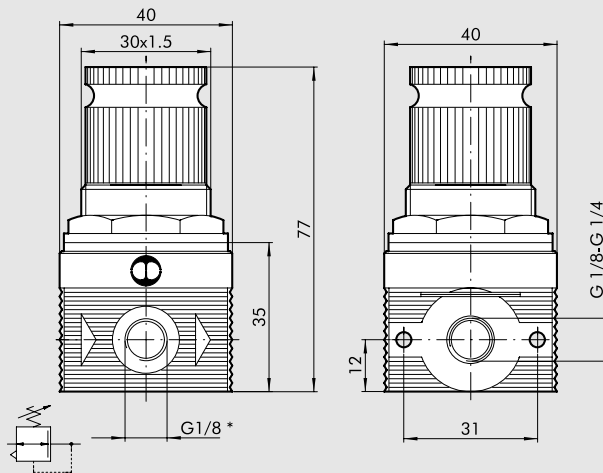


**Department  
of Mechanics**  
Turin Polytechnic



- 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

## KEY TO CODES

MR	BIT	FC	1/8	02
ELEMENT	SIZE	VERSION	THREADED PORT	CONDENSATE DRAIN
MR	BIT	FC	1/8	02 = 0 to 2 bar
	BIT	SR	1/4	04 = 0 to 4 bar
	BIT			08 = 0 to 8 bar
MRA	BIT	(for WATER)		012 = 0 to 12 bar

FC: Controlled relief  
SR: Quickly relieved  
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