

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.

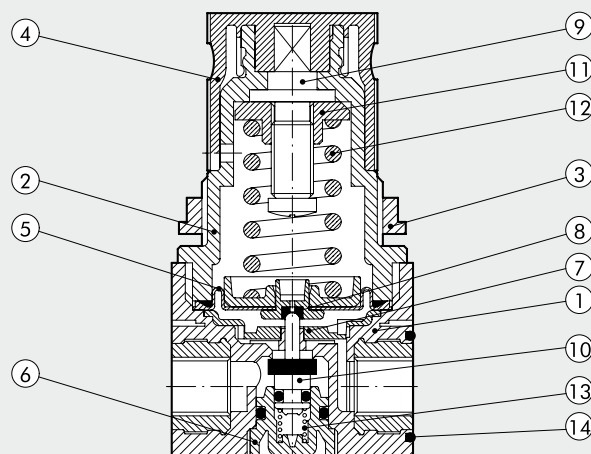


TECHNICAL DATA

		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)	NI/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)	NI/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



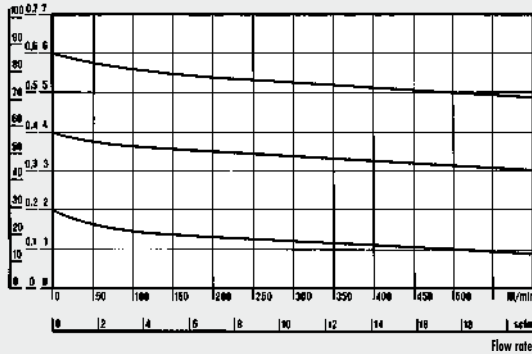
FLOW CHARTS

MR

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

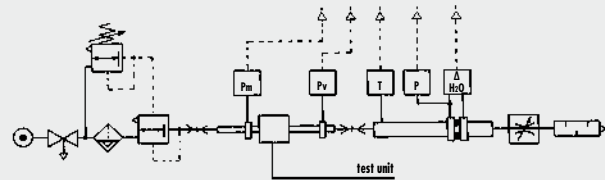
Inlet pressure

psi kPa bar



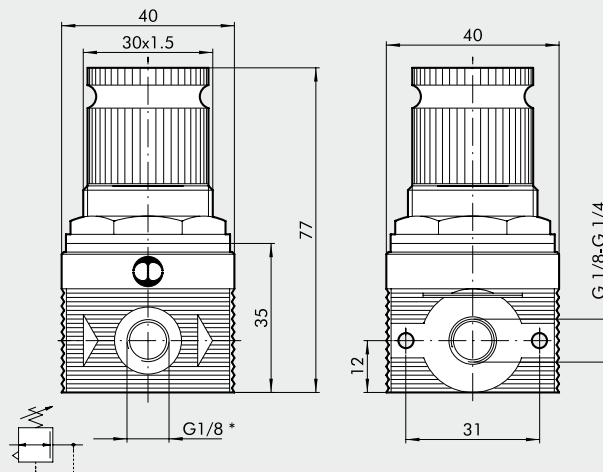
**Department
of Mechanics**

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

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
MICROREGULATOR (MR)	
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
MICROREGULATOR WITH CONTROLLED RELIEF	
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
MICROREGULATOR WITH QUICK RELIEF	
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
WATER MICROREGULATOR	
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

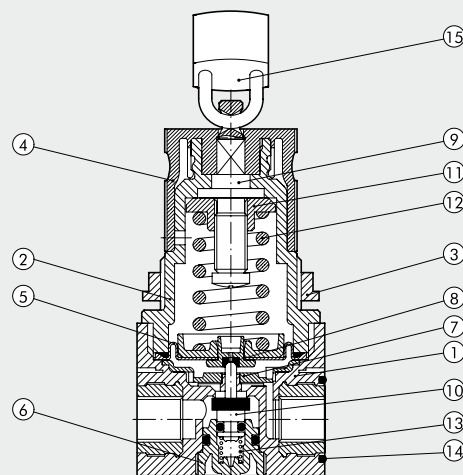
The padlockable microregulator has a pin with a hole in it that projects from the top of the knob. When the knob is in the push-lock position, the padlock can be inserted in the hole, preventing the knob from being operated. A padlock and two keys are supplied with the regulator.

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

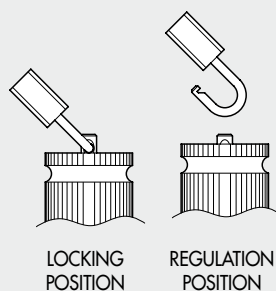
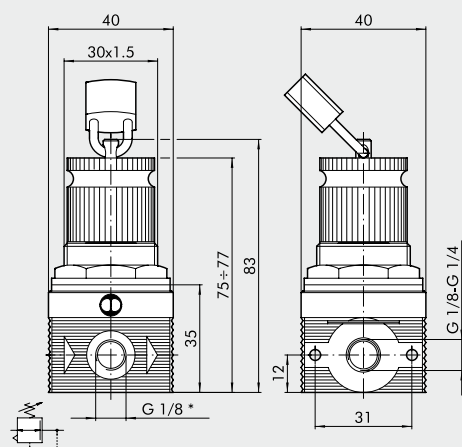


COMPONENTS

- 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