

# Series MD Pressure Regulators



Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm  
 Versions: single, combined with other functions, Manifold



- » Minimal pressure decreases
- » Knob with position lock
- » Tamper-proof system (lockable regulator)
- » With or without overpressure exhaust (relieving)
- » MANIFOLD version available
- » Version with by-pass valve available
- » Calibrated or locked versions available

Thanks to the flexibility given by the connection inserts, the regulator can be adjusted within a treatment group so that the regulation knob is in the front or lower position. Once the regulation is locked, it is possible to insert as many security locks through the 4 holes. The by-pass valve allows the fast exhaust of the air introduced. The different springs enable a more accurate adjustment of the pressure.

The Series MD offers multi-sector solutions that ensure saving in terms of installation time, space and costs. Thanks to the solution adopted for the pneumatic connection, it is possible to equip the same element with interchangeable cartridges which can be threaded or with an integrated super-rapid fitting, both in different sizes. Intermediate cartridges can be also integrated to join multiple functions or with derivation to draw air.

## GENERAL DATA

<b>Construction</b>	modular, compact with pre-formed diaphragm
<b>Materials</b>	see TABLE OF MATERIALS (pag. 3/0.20.02)
<b>Ports</b>	With interchangeable inserts: 1/8, 1/4 and 3/8 threaded, integrated with super-rapid fitting for tube with Ø 6, 8 and 10 mm
<b>Fixing</b>	in-line; wall-mounting by means of through holes in the body or with a support bracket; panel mounting
<b>Operating temperature</b>	-5°C + 50°C up to 16 bar
<b>Inlet pressure</b>	0 ÷ 16 bar
<b>Outlet pressure</b>	0 ÷ 2 bar    0 ÷ 4 bar 0.5 ÷ 7 bar    0.5 ÷ 10 bar
<b>Overpressure exhaust</b>	with relieving (standard) without relieving
<b>Nominal flow</b>	see FLOW DIAGRAMS (pag. 3/0.20.03 and 3/0.20.05)
<b>Fluid</b>	compressed air

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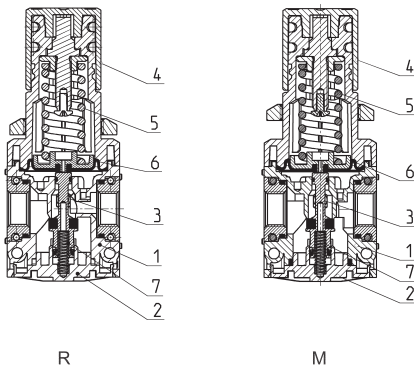
## CODING EXAMPLE

MD 1 - R T 0 0 - 1/4 - ■ - •

<b>MD</b>	SERIES
<b>1</b>	SIZE: 1 = G1/8, G1/4, G3/8, Ø6, Ø8, Ø10
<b>R</b>	TYPER OF REGULATOR: R = pressure regulator M = Manifold pressure regulator
<b>T</b>	OPERATING PRESSURE (1 bar = 14,5 psi): 0 = 0,5 ÷ 10 bar 2 = 0 ÷ 2 bar 4 = 0 ÷ 4 bar 7 = 0,5 ÷ 7 bar T = calibrated ** B = locked **
<b>0</b>	DESIGN TYPE: 0 = with relieving 1 = without relieving 2 = with relieving, VS version 3 = without relieving, VS version
<b>0</b>	PRESSURE GAUGE: 0 = without pressure gauge (with 1/8 port)
<b>1/4</b>	PORTS (IN - OUT)*: = without ports 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10  * NOTE: if the inlet port is different from the outlet port, both values shall be indicated. Example: MD1-R000-1/8-1/4
<p>** NB: IF THE REGULATOR IS CALIBRATED OR LOCKED, AFTER THE PORTS ADD THE INLET PRESSURE "■" AND THE OUTLET PRESSURE "•"</p> <p>INLET PRESSURE: ■ = enter the SUPPLY pressure value</p> <p>OUTLET PRESSURE: • = enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator</p> <p>Example of a calibrated regulator with Inlet Pressure = 6.3 bar and Outlet Pressure = 4.5 bar Complete part number: MD1-RT00-1/4-6.3-4.5</p>	

## Pressure regulators Series MD - materials

R = pressure regulator  
M = Manifold pressure regulator

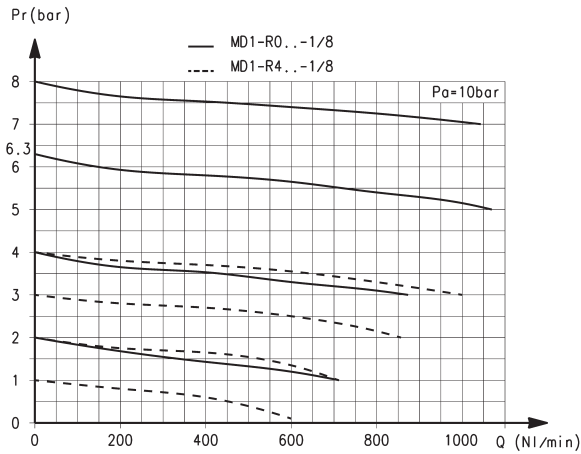


PARTS	MATERIALS
<b>1 = Body</b>	Polyamide
<b>2 = Valve holder plug</b>	Polyamide
<b>3 = Poppet</b>	Brass
<b>4 = Knob</b>	Polyamide
<b>5 = Upper spring</b>	Zinc-plated steel
<b>6 = Diaphragm</b>	NBR
<b>7 = Lower spring</b>	Stainless steel
<b>Seals</b>	NBR

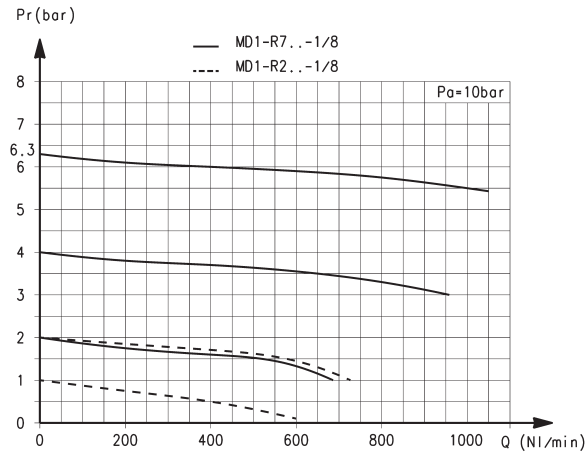
# Series MD Pressure Regulators



## FLOW DIAGRAMS FOR MD1 PRESSURE REGULATORS - G1/8 ports

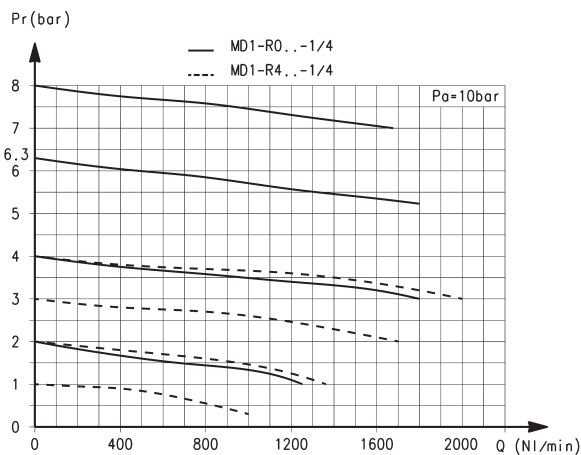


Pr = Regulated pressure  
Q = Flow  
Pa = Inlet pressure

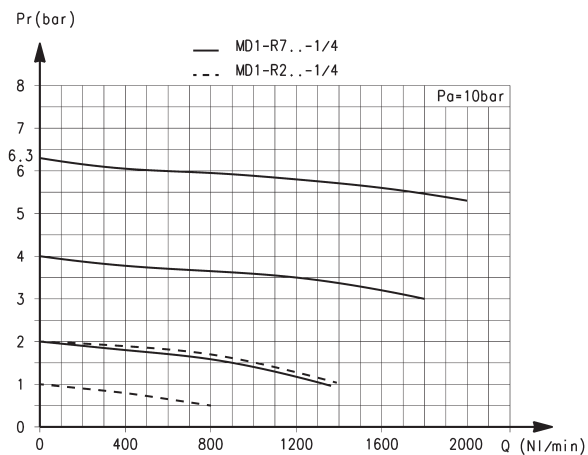


Pr = Regulated pressure  
Q = Flow  
Pa = Inlet pressure

## FLOW DIAGRAMS FOR MD1 PRESSURE REGULATORS - G1/4 ports



Pr = Regulated pressure  
Q = Flow  
Pa = Inlet pressure

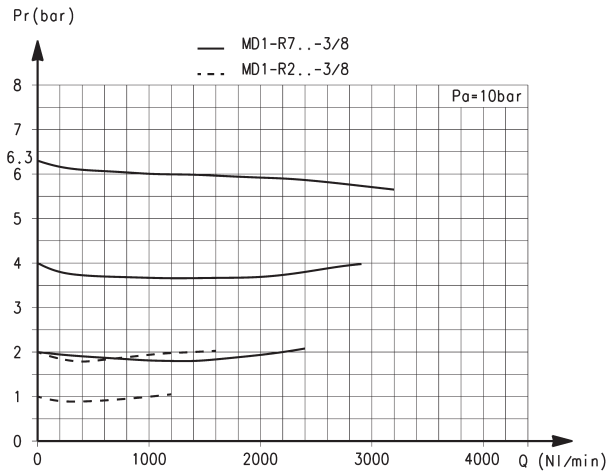
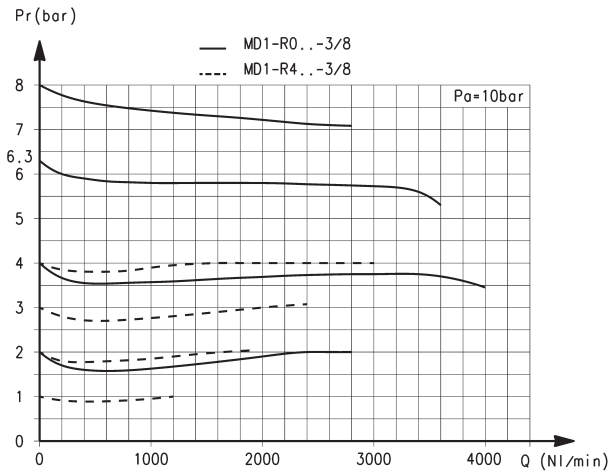


Pr = Regulated pressure  
Q = Flow  
Pa = Inlet pressure

# Series MD Pressure Regulators



## FLOW DIAGRAMS FOR MD1 PRESSURE REGULATORS - G3/8 ports



Pr = Regulated pressure  
Q = Flow

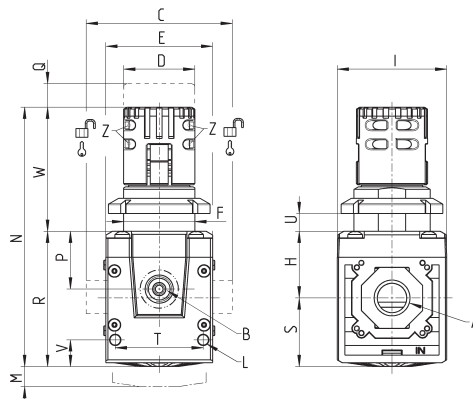
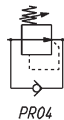
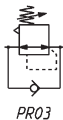
Pr = Regulated pressure  
Q = Flow

Pa = Inlet pressure

Pa = Inlet pressure



PR03 = regulator with relieving  
and by-pass valve  
PR04 = regulator without relieving  
and with by-pass valve

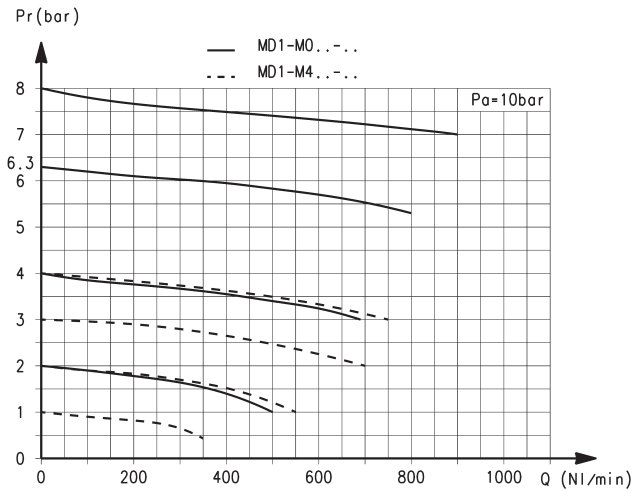


Mod.	A	B	C	D	E	F	H	I	L	M	N	P	Q	R	S	T	U	V	W	Z	Weight (Kg)
MD1-R000	-	G1/8	42	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2
MD1-R000-1/8	G1/8	G1/8	42	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2
MD1-R000-1/4	G1/4	G1/8	42	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2
MD1-R000-3/8	G3/8	G1/8	42	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2
MD1-R000-6	Ø6	G1/8	47	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2
MD1-R000-8	Ø8	G1/8	62	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2
MD1-R000-10	Ø10	G1/8	67	Ø28	42	M28X1,5	26.2	43	Ø4	16	102	22.7	4	53.2	27	34.6	0 + 11	10.5	48.8	Ø3.2	0.2

# Series MD Pressure Regulators

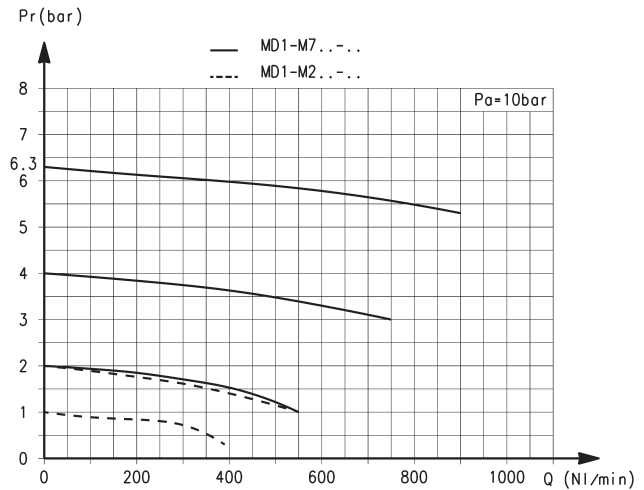


## FLOW DIAGRAMS FOR MD1 PRESSURE REGULATORS - MANIFOLD



Pr = Regulated pressure  
Q = Flow

Pa = Inlet pressure



Pr = Regulated pressure  
Q = Flow

Pa = Inlet pressure

## Series MD pressure regulators - dimensions



With the Manifold version it is possible to realize a battery of regulators which are fed by a single source of inlet pressure. Each regulator can be set up at any pressure (lower than the inlet pressure). The front or rear connection of each regulator allows to draw air at the pressure value set on the regulator itself.

FR19 = Manifold regulator with relieving and without pressure gauge

FR21 = Manifold regulator without relieving and without pressure gauge

There is no limit to the number of regulators that can be connected.

