

# Series MD pressure filter-regulators

New 

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

Modular assembly

Bowl with technopolymer cover and bayonet-type mounting



- » Filtering between 25 µm or 5 µm
- » Minimum pressure drops
- » Knob with position lock
- » Tamper-proof system (lockable regulator)
- » Bowl locking system reducing the risk of accidents

**Series MD filter-regulators integrate filter and pressure reducer in one unit, thus reducing their dimensions. The by-pass valve allows the fast exhaust of the air introduced. The different springs enable a more accurate adjustment of the pressure.**

Thanks to the solution adopted for the pneumatic connection, it is possible to equip the same element with interchangeable cartridges that can either be threaded, or with an integrated super-rapid fitting, both types available in different sizes. Intermediate cartridges can be also integrated to join multiple functions or with derivation to draw air.

3

TREATMENT

## GENERAL DATA

<b>Construction</b>	modular, compact with filtering element in HDPE
<b>Materials</b>	see TABLE OF MATERIALS (pag. 3/0.30.02)
<b>Ports</b>	with interchangeable cartridges: 1/8, 1/4 and 3/8 threaded or integrated with super-rapid fitting for tube with diameters of 6, 8 and 10 mm
<b>Condensate capacity</b>	24 cc
<b>Mounting</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 (with the dew point of the fluid lower than 2°C at the min. working temperature)
<b>Condensate drain</b>	semi-automatic manual, automatic protected depressurisation, direct G1/8 exhaust
<b>Quality of delivered air according to ISO 8573-1 2010</b>	Class 6.8.4 with 5 µm filtering element Class 7.8.4 with 25 µm filtering element
<b>Operating pressure</b>	0,3 ÷ 16 bar
<b>Nominal flow</b>	see FLOW DIAGRAMS (pag. 3/0.30.03)
<b>Fluid</b>	compressed air

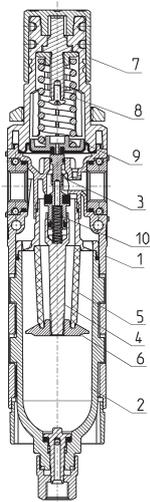
**CODING EXAMPLE**

<b>MD</b>	<b>1</b>	<b>-</b>	<b>FR</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>1/8</b>
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<b>MD</b>	SERIES
<b>1</b>	DIMENSION: 1 = 42 mm
<b>FR</b>	FILTER-REGULATOR
<b>0</b>	FILTERING ELEMENT AND DESIGN TYPE: 0 = 25 µm with relieving 1 = 5 µm with relieving 2 = 25 µm without relieving * 3 = 5 µm without relieving * 4 = 25 µm with relieving and by-pass valve 5 = 5 µm with relieving and by-pass valve 6 = 25 µm without relieving, with by-pass valve * 7 = 5 µm without relieving, with by-pass valve *  * this option is available with semiautomatic-manual drain only
<b>0</b>	CONDENSATE DRAIN: 0 = semiautomatic-manual drain 5 = automatic drain, protected depressurisation 8 = direct G1/8 exhaust
<b>0</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
<b>0</b>	PRESSURE GAUGE: 0 = without pressure gauge (with 1/8 port)
<b>1/8</b>	PORTS (IN - OUT)*: = without cartridges 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 (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated. Example: MD1-FR0000-1/4-1/8

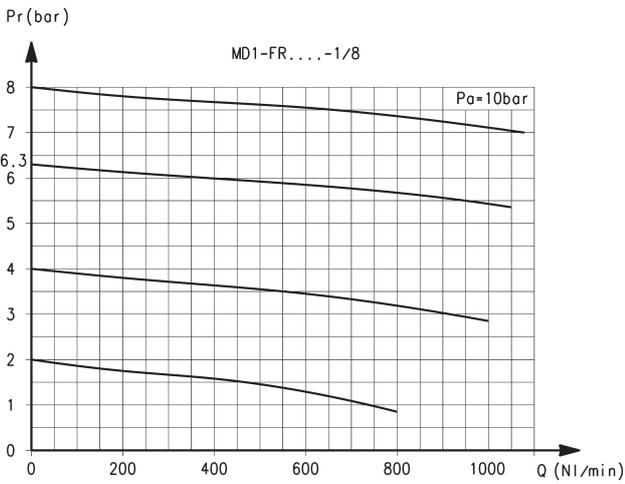
**3**

TREATMENT

**Series MD filter-regulators - materials**


PARTS	MATERIALS
<b>1 = Body</b>	Polyamide
<b>2 = Tank</b>	Polycarbonate
<b>3 = Poppet</b>	Brass
<b>4 = Valve guide</b>	Polyacetal
<b>5 = Filtering element</b>	Polyethylene
<b>6 = Separation deflector</b>	Polyacetal
<b>7 = Knob</b>	Polyamide
<b>8 = Upper spring</b>	Zinc-plated steel
<b>9 = Diaphragm</b>	NBR
<b>10 = Lower spring</b>	Stainless steel
<b>Seals</b>	NBR

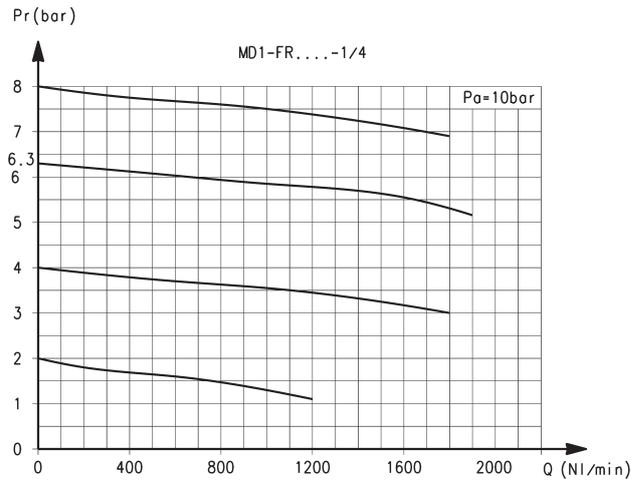
FLOW DIAGRAMS



Ports with interchangeable G1/8 threaded cartridges

Pr = Regulated pressure  
Q = Flow

Pa = Inlet pressure

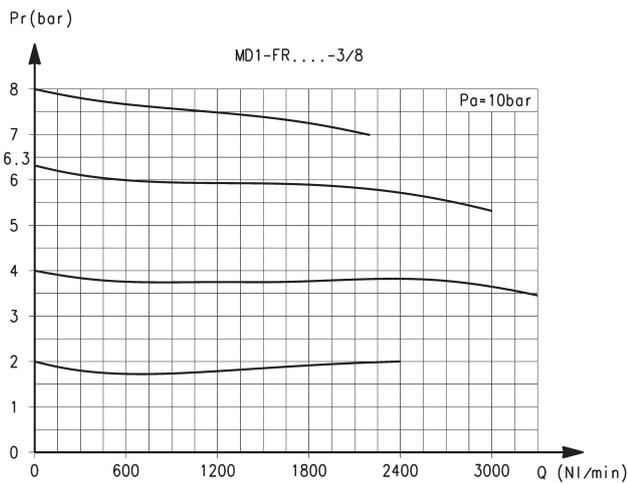


Ports with interchangeable G1/4 threaded cartridges

Pr = Regulated pressure  
Q = Flow

Pa = Inlet pressure

FLOW DIAGRAMS

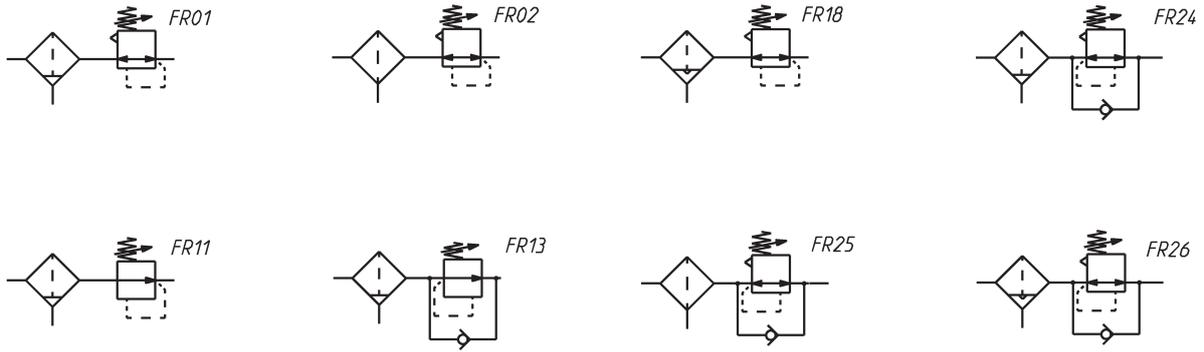


Ports with interchangeable G3/8 threaded cartridges

Pr = Regulated pressure  
Q = Flow

Pa = Inlet pressure

PNEUMATIC SYMBOLS



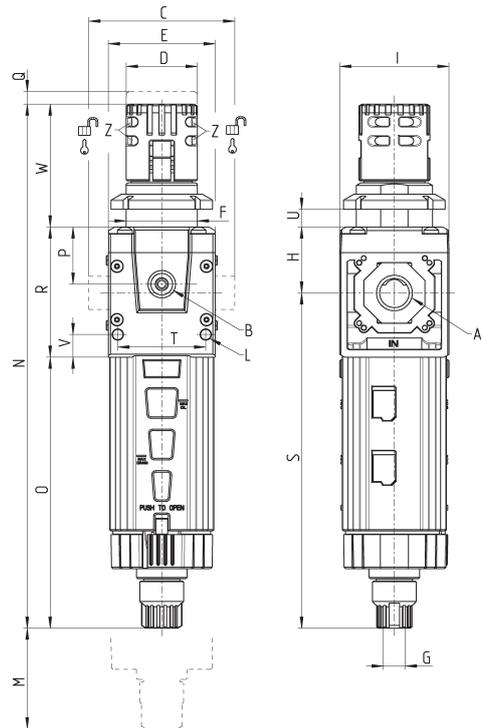
FR01 = filter-regulator with relieving and semi-automatic manual drain  
 FR02 = filter-regulator with relieving and direct G1/8 exhaust  
 FR11 = filter-regulator without relieving, with semi-automatic manual drain  
 FR13 = filter-regulator without relieving, with by-pass valve and semi-automatic manual drain

FR18 = filter-regulator with relieving and automatic/depressuring drain  
 FR24 = filter-regulator with relieving, by-pass valve and semi-automatic manual drain  
 FR25 = filter-regulator with relieving, by-pass valve and direct G1/8 exhaust  
 FR26 = filter-regulator with relieving, by-pass valve and automatic/depressuring drain

3

TREATMENT

Series MD filter-regulators - dimensions



Mod.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	V	W	Z	Weight (Kg)
MD1-FR0000	-	G1/8	42	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2
MD1-FR0000-1/8	G1/8	G1/8	42	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2
MD1-FR0000-1/4	G1/4	G1/8	42	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2
MD1-FR0000-3/8	G3/8	G1/8	42	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2
MD1-FR0000-6	Ø6	G1/8	47	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2
MD1-FR0000-8	Ø8	G1/8	62	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2
MD1-FR0000-10	Ø10	G1/8	67	Ø28	42	M28X1,5	G1/8	26.2	43	Ø4	110	208.2	107.7	22.7	4	51.7	133.2	34.6	0+11	9	48.8	Ø3.2	0.2