

# Series MD activated carbon filters

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with  $\varnothing$  6, 8 and 10 mm

Modular assembly

Bowl with technopolymer cover and bayonet-type mounting



- » Removal of oil, liquid and gaseous components from compressed air through the active carbons
- » Air quality in compliance with ISO 8573-1 standard, Class 1.7.1
- » Visual blockage indicator
- » Bowl locking system reducing the risk of accidents
- » Additional air intakes with the same characteristics of the inlet air (line)

Within a battery of filters the activated carbon version is placed at the end because it requires a pre-filtering like the coalescing filter.

Given the characteristic of this filter, it is recommended to replace the filter element at least every 6 months or 1000 working hours.

The operating principle is based on the adsorption characteristic of the filtering element which is composed of extremely porous fibers placed on different layers. These fibers create a cross-linked and are thus able to adsorb wet parts and contaminants remaining in the passing air, for example oil vapours/smokes, as well as odours generated from these contaminants.

## GENERAL DATA

Construction	modular, compact with activated carbon filtering element
Materials	see TABLE OF MATERIALS on the following page
Ports	With interchangeable cartridges: 1/8, 1/4 and 3/8 threaded or integrated with super-rapid fitting for tube with $\varnothing$ 6, 8 and 10 mm
Mounting	vertical in-line; wall-mounting by means of through holes in the body or with a support bracket
Operating temperature	10°C ÷ 40°C (t max = 60°C)
Condensate drain	not present
Quality of delivered air according to ISO 8573-1:2010	Class 1.7.1 (pre-filtering in Class 1.8.1 is recommended)
Operating pressure	0.3 ÷ 16 bar
Nominal flow	see FLOW DIAGRAMS on the following pages
Filtering element	activated carbon
Residual oil content	< 0.003 mg/m <sup>3</sup>
Fluid	compressed air

**CODING EXAMPLE**

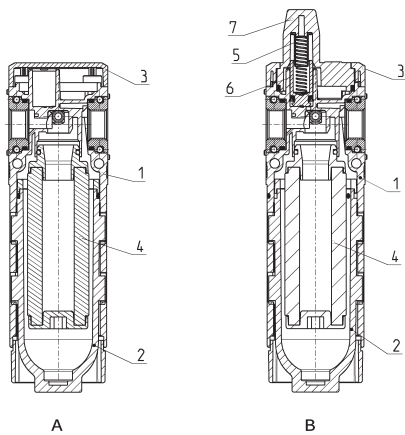
<b>MD</b>	<b>1</b>	<b>-</b>	<b>FCA</b>	<b>0</b>	<b>-</b>	<b>1/8</b>
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<b>MD</b>	SERIES
<b>1</b>	DIMENSION: 1 = 42 mm
<b>FCA</b>	ACTIVATED CARBON FILTER
<b>0</b>	VISUAL BLOCKAGE INDICATOR: 0 = not present 1 = present
<b>1/8</b>	PORTS (IN - OUT)*: = without 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-FCA1-1/4-10

SERIES MD ACTIVATED CARBON FILTERS

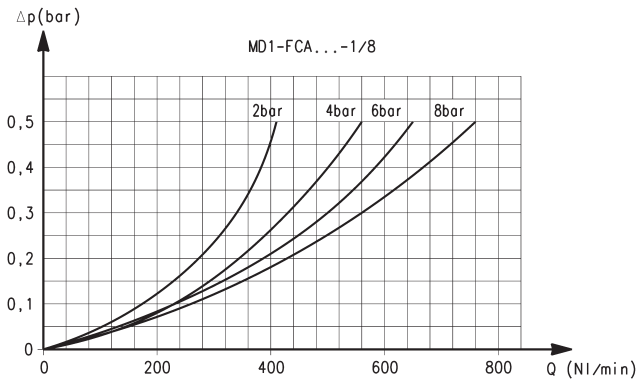
**Series MD activated carbon filters - materials**

A = filter  
B = filter with visual blockage indicator



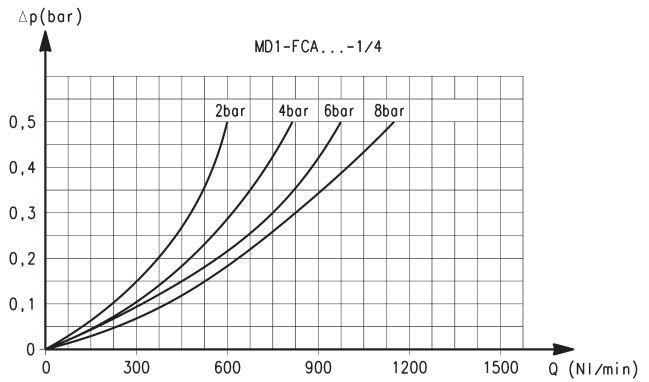
PARTS	MATERIALS
<b>1 = Body</b>	Polyamide
<b>2 = Tank</b>	Polycarbonate
<b>3 = Covering</b>	Polyamide
<b>4 = Filtering element</b>	Active carbons
<b>5 = Upper spring</b>	Stainless steel
<b>6 = Piston</b>	Anodized aluminium
<b>7 = Visual blockage indicator</b>	Polycarbonate
<b>Seals</b>	NBR

**FLOW DIAGRAMS**



Ports with interchangeable 1/8 threaded cartridges

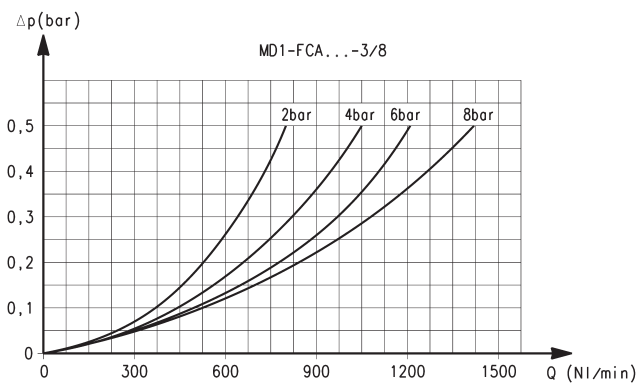
Δp = Pressure drop (bar)  
Q = Flow (NL/min)



Ports with interchangeable 1/4 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

**FLOW DIAGRAM**



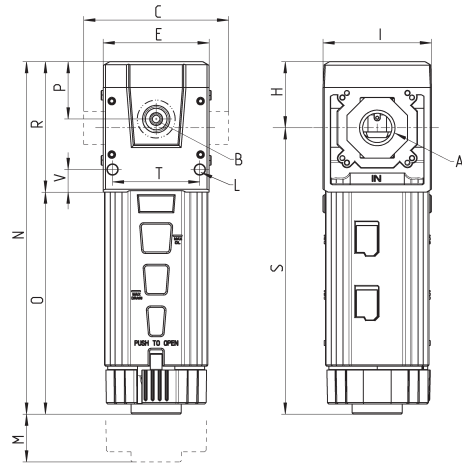
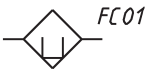
Ports with interchangeable 3/8 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

**Series MD activated carbon filters - dimensions**



FC01 = activated carbon filter

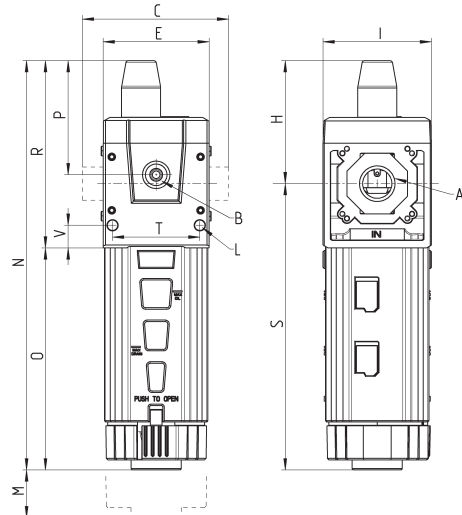
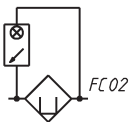


DIMENSIONS																
Mod.	A	B	C	E	H	I	L	M	N	O	P	R	S	T	V	Weight (Kg)
MD1-FCA0	-	G1/8	42	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2
MD1-FCA0-1/8	G1/8	G1/8	42	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2
MD1-FCA0-1/4	G1/4	G1/8	42	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2
MD1-FCA0-3/8	G3/8	G1/8	42	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2
MD1-FCA0-6	Ø6	G1/8	47	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2
MD1-FCA0-8	Ø8	G1/8	62	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2
MD1-FCA0-10	Ø10	G1/8	67	42	26.2	43	Ø4	90	139.7	88	22.7	51.7	113.5	34.6	9	0.2

**Series MD activated carbon filters with visual indicator - dimensions**



FC02 = activated carbon filter with visual blockage indicator



DIMENSIONS																
Mod.	A	B	C	E	H	I	L	M	N	O	P	R	S	T	V	Weight (Kg)
MD1-FCA1	-	G1/8	42	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2
MD1-FCA1-1/8	G1/8	G1/8	42	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2
MD1-FCA1-1/4	G1/4	G1/8	42	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2
MD1-FCA1-3/8	G3/8	G1/8	42	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2
MD1-FCA1-6	Ø6	G1/8	47	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2
MD1-FCA1-8	Ø8	G1/8	62	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2
MD1-FCA1-10	Ø10	G1/8	67	42	48.7	43	Ø4	90	162.2	88	45.2	74.2	113.5	34.6	9	0.2