

# Compressed air conditioning

Three-stage filtration P-M-A



## Description

- Filter element made of borosilicate microfiber fabric with plastic support body and polyester needle felt drainage layer
- Filter rating **3 µm**
- Efficiency 99.99%
- Resistance: Fuels, acids and alkaline solutions (remember to take account of the resistance of polyethylene)
- Particle separation: 3 µm
- Moisture separation
- Pre-filter for connection upstream of a micro-filter and a micro-filter / activated carbon filter
- Optionally with a differential pressure gauge
- Automatic drain as standard
- · Regeneration by brushing or blowing out

#### Applications

- All applications where standard centrifugal filters with a sintered element do not afford the desired efficiency.
- Part of a modular system that **also includes** a micro-filter and an activated carbon filter, this device belongs to a homogeneous product family that is suitable for a wide variety of applications, from technically clean compressed air for tools through process air to odourless respiratory air in spray booths.
- The differential pressure gauge indicates the pressure drop  $\Delta p$  inside the filter.

#### **Operating principle**

- Flow direction (inside the element) from the inside to the outside.
- The element functions according to the deep-bed filtration principle (coalescence effect). The large filter surface facilitates a long service life.
- The (optional) differential pressure gauge indicates the degree of contamination of the element as a function of the pressure drop.

#### **Cleaning / element replacement**

At the latest when the pressure drop is 0.6 bar, i.e. when the pressure gauge scale shows a value in the red sector.

Regeneration by brushing or blowing out.

#### **Materials**

Material
AI
Plastic
Borosilicate microfiber fabric,
stainless steel support body
NBR

# Characteristics

**1**-17

Order No.			Accessories							
(1)	Port	Size	Filter	Con-	Mounting	Differential				
	(thread)		element	nectors	kit	pressure				
	G					gauge				
429.2102	1/4									
429.2104	3/8	1	429/52	429/29						
429.2106	1/2									
429.2208	3/4	2	429/56			5429.10				
429.2309	1	3	429/58							
429.2410	1¼	4	429/59	429/33	429/27					
429.2511	1½	5	429/61							
429.2612	2	6	429/62							
General										
Operating pr	essure:									
	Max.	12 bar								
- With autom	natic									
drain	N.45-2	4 har								
	MIN.	4 bar								
- with manua	ai drain									
valve	Min	0 har								
Operating to	mperature:	5°C to	60°C							
Port: ISO 22	8									
	•	G 1/4	to G 2 standard; G 2 <sup>1</sup> / <sub>2</sub> and G 3 on request							
Indicating ra	nge of			,/		- 1				
diff. pressure	0 to 2	0 to 2 bar (0 to 29 lb/in <sup>2</sup> )								
Mounting po	sition	Vertical								
Flow direction	n	Indica	cated by arrow							
			•							

(1) The first digit after the point is  ${\bf 5}$  instead of 2 for pre-filters without a differential pressure gauge.

Order example:

Pre-filter G 1/4 without differential pressure gauge: 429.5102

## **Dimensions** [mm]

Size	Port	Dimensions					Space needed for element replacement	needed Mounting ement ement			Weight incl. pr.gauge
	W	Α	В	С	E	F	G	J	K	L	[g]
1	G 1/4 / 3/8 / 1/2	83	335	83	57	41.5	410	40	48	M 6	2100
2	G 3/4		405				550				2100
3	G 1		420				530				4700
4	G 1¼	118	520	118	72	59	730	70	80	M 8	5000
5	G 1½		620				930				5500
6	G2	1	810				1310				6140

## Flow rates

		Size	Pressure [bar]							
			2	4	6	8	10	12	14	16
Flow rate at pressure drop $\Delta p = 0.5\%$		1	26	43	60	77	94	111	129	145
	m³/h	2	51	86	120	154	189	223	257	291
		3	77	129	180	231	283	334	386	437
		4	137	229	320	411	503	594	686	777
		5	214	357	500	643	786	929	1071	1214
		6	343	571	800	1029	1257	1486	1714	1943



97.5



