

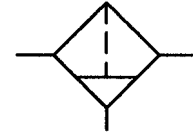


Additional charge for automatic drain

Activated carbon filter

431.5102 to 431.3612
G 1/4 to G 1

Residual oil content 0.005 mg/m³



Description

- **Activated carbon filter with a high capacity**
- **Residual oil content 0.005 mg/m³**
- Activated carbon filter for adsorbing vaporous media
→ **A micro-filter must be connected upstream** if dried air is not available!
- Optionally with a differential pressure gauge
- Manual drain valve as standard

Applications

- Food processing, packaging, beverages, respiratory air (spray booths), pressure chambers, medical technology, dental equipment

Operating principle

- Flow direction (inside the element) **from the inside to the outside**.
- The activated carbon filter is only allowed to be operated with purified air (using a drier, micro-filter or pre-filter and micro-filter).
First, the air flows through the activated carbon layer. The thickness of this layer ensures a sufficient contact time to allow all vaporous media to be adsorbed. The outer filter layer absorbs any entrained activated-carbon particles. In order to guarantee a long service life, the compressed air must not contain any liquid or solid impurities when it enters the activated carbon filter.
- The (optional) differential pressure gauge indicates the degree of contamination of the element as a function of the pressure drop.

Cleaning / element replacement

The filter cannot be cleaned or regenerated!

The element should be replaced 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.

Materials

Part	Material
Head piece	Al
Filter bowl	Al
Filter element	Activated carbon - stainless steel
O-rings	NBR

Important

→ **When the pressure system is started up again (e.g. after the element has been replaced), the pressure should be built up gradually to prevent irreparable damage to the filter element**

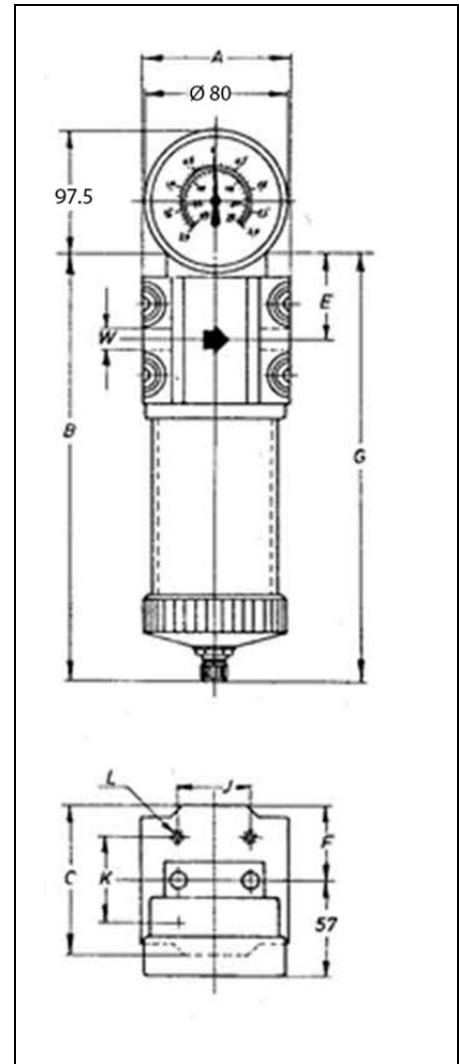
Characteristics

Order No. (1)	Port (thread) G	Size	Accessories			
			Filter element	Con- nectors	Mounting kit	Differential pressure gauge
431.3102	1/4	1	431/2	429/29	429/25	5429.10
431.3104	3/8					
431.3106	1/2					
431.3208	3/4	2	431/6	429/33	429/27	
431.3309	1	3	431/8			
431.3410	1¼	4	431/9			
431.3511	1½	5	431/11			
431.3612	2	6	431/12			
General						
Operating pressure: Max.	16 bar					
- With automatic drain	Min. 4 bar					
- With manual drain valve	Min. 0 bar					
Operating temperature:	5°C to 60°C					
Port: ISO 228	G 1/4 to G 2 standard; G 2½ and G 3 on request					
Indicating range of diff. pressure gauge	0 to 2 bar (0 to 29 lb/in ²)					
Mounting position	Vertical					
Flow direction	Indicated by arrow					
Residual oil content	0.005 mg/m³					

(1) The first digit after the point is **5** instead of 3 for activated carbon filters without a differential pressure gauge.

Order example:

Activated carbon filter G 1/4 without differential pressure gauge: 431.5102



Dimensions [mm]

Size	Port	Dimensions					Space needed for element replacement G	Mounting			Weight incl. pr.gauge [g]
		A	B	C	E	F		J	K	L	
1	G 1/4 / 3/8 / 1/2	83	245	83	57	41.5	320	40	48	M 6	1750
2	G 3/4		315								
3	G 1		330								
4	G 1¼	118	430	118	72	59	640	70	80	M 8	5010
5	G 1½		530								
6	G 2		720								
			1220								

Flow rates

Flow rate at pressure drop Δp = 0.5%	Size	Pressure [bar]							
		2	4	6	8	10	12	14	16
m ³ /h	1	13	21	30	39	47	56	64	73
	2	26	43	60	77	94	111	129	145
	3	39	64	90	116	141	167	193	219
	4	69	114	160	206	251	297	343	389
	5	107	179	250	321	399	464	536	607
	6	171	286	400	514	629	743	857	971