

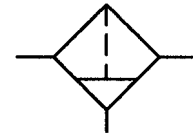


Additional charge for automatic drain

**Activated carbon filter**

**431.5102 to 431.3612**  
G 1/4 to G 1

Residual oil content 0.005 mg/m<sup>3</sup>



**Description**

- **Activated carbon filter with a high capacity**
- **Residual oil content 0.005 mg/m<sup>3</sup>**
- 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**

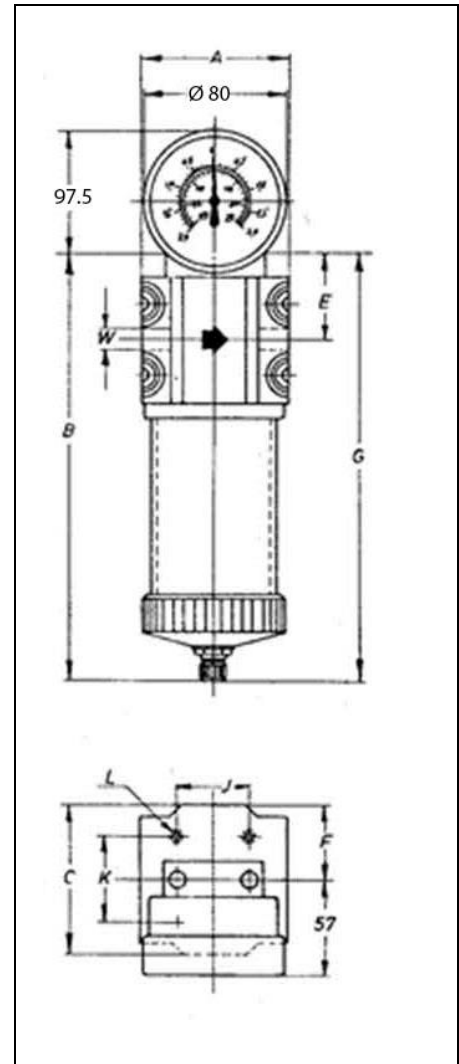
Part	Material
Head piece	Al
Filter bowl	Plastic
Filter element	Activated carbon - stainless steel
O-rings	NBR

**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.	<b>16 bar</b>					
- With automatic drain						
Min.	<b>4 bar</b>					
- With manual drain valve						
Min.	<b>0 bar</b>					
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 <sup>2</sup> )					
Mounting position	Vertical					
Flow direction	Indicated by arrow					
<b>Residual oil content</b>	<b>0.005 mg/m<sup>3</sup></b>					



(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	118	330	118	72	59	440	70	80	M 8	4340
4	G 1¼		430								
5	G 1½		530								
6	G 2		720								

**Flow rates**

Flow rate at pressure drop Δp = 0.5%	m <sup>3</sup> /h	Size	Pressure [bar]							
			2	4	6	8	10	12	14	16
		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