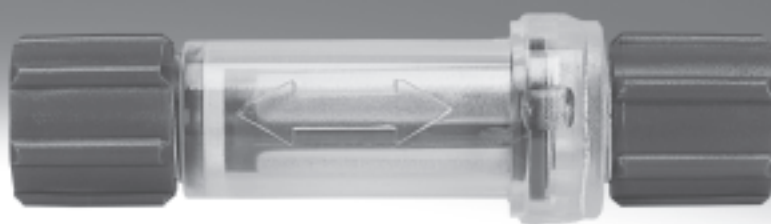


## Vacuum filters

**FESTO**



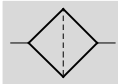
# Vacuum filters

Technical data

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## Filters ESF


### Function




Note

for suction grippers ESG, between suction cup and suction cup holder

→ Internet: esg

-  Temperature range  
0 ... +60 °C

-  Operating pressure  
-0.95 ... +4 bar



General technical data			
Holder size	3	4A	4B
Assembly position	Any		
Type of mounting	In-line installation with threaded connection		
Vacuum connection	M4x0.7	M6x1	
Grade of filtration [µm]	10		
Flow rate <sup>1)</sup> [l/min]	100	260	270

1) At a vacuum pressure of -0.75 bar

Operating and environmental conditions			
Holder size	3	4A	4B
Operating pressure [bar]	-0.95 ... +4		
Ambient temperature [°C]	0 ... +60		
Corrosion resistance class CRC <sup>1)</sup>	1		

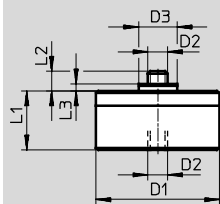
1) Corrosion resistance class 1 as per Festo standard 940 070  
Components requiring low corrosion resistance Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Materials	
Housing	Aluminium, nickel-plated brass
Filters	Polyvinylfluoride
Seals	Nitrile rubber
Note on materials	RoHS-compliant
	Free of copper and PTFE

Weights [g]			
Holder size	3	4A	4B
ESF- ...	9	19	19

### Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)



D1 Ø	D2	D3 Ø	L1	L2	L3	Part No.	Type
25	M4x0.7	7.8	10.5	4.5	3.1	191202	ESF-3
25	M6x1	8.8	10.5	5.5	3.9	191203	ESF-4A
40	M6x1	8.8	14	5.5	3.9	191204	ESF-4B

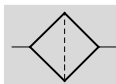
# Vacuum filters

Technical data

FESTO

## Vacuum filters VAF-PK


### Function



Note

The vacuum suction filter may only be used in open vacuum systems.

-  - Temperature range  
0 ... +40 °C

-  - Operating pressure  
-0.9 ... 0 bar

The vacuum suction filter serves for filtering dirt in the direction of suction.  
It is inserted in the tubing as an inline filter.



General technical data			
Size	PK-3	PK-4	PK-6
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]		
Mounting position	Any		
Type of mounting	In-line installation		
Pneumatic connection	PK-3 with locknut	PK-4 with locknut	PK-6 with locknut
Grade of filtration [µm]	50		
Vacuum filter flow <sup>1)</sup> [l/min]	50.8	70	210
Nominal size [mm]	2	3	4.6
Ejector pulse possibility [bar]	≤8		

1) At vacuum pressure = -0.75 bar

Operating and environmental conditions			
Size	PK-3	PK-4	PK-6
Operating pressure [bar]	-0.95 ... 0		
Ambient temperature [°C]	0 ... +40		

Materials	
Housing	Polyamide
Filter	Mesh / Polyamide
Union nut	Polyacetate
Note on materials	RoHS-conform

Weights [g]			
Size	PK-3	PK-4	PK-6
VAF- ...	4	6	10

# Vacuum filters

Technical data

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### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

- 1 Quick connectors for plastic tubing
- 2 Flow direction indicated with arrow
- 3 Degree of contamination visible through the transparent housing

Type	D1 Ø	D2 Ø	L1	≈ 1
VAF-PK-3	16	12	50.8	8
VAF-PK-4	16	12	57	12
VAF-PK-6	24	19	64	14

Ordering data		
Pneumatic connection	Part No.	Type
PK-3	535883	VAF-PK-3
PK-4	15889	VAF-PK-4
PK-6	160239	VAF-PK-6

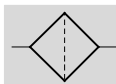
# Vacuum filters


Technical data


FESTO

## Vacuum filters VAF-DB

### Function



-  - Temperature range  
-5 ... +50 °C

-  - Operating pressure  
-0.95 ... 0 bar

-  - Note

The vacuum filter must only be used in open vacuum systems.

The vacuum filter is used to remove particles in the direction of suction. The filter cartridge is located in a transparent bowl in order to identify the degree of contamination of the filter cartridge. The filter cartridge can be replaced.



General technical data			
Pneumatic connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]		
Mounting position	Vertical		
Type of mounting	In-line installation With wall/surface bracket		
Vacuum port	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Grade of filtration [μm]	80		
Ejector pulse suitability [bar]	≤7		
Max. tightening torque [Nm]	8.7	15.3	20.5

1) At vacuum = -0.75 bar

Operating and environmental conditions			
Pneumatic connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Operating pressure [bar]	-0.95 ... 0		
Ambient temperature [°C]	-5 ... +50		

Materials	
Housing	Reinforced polypropylene
Bowl	Polyamide
Filter	Polyethylene
Seals	Nitrile rubber
Note on materials	RoHS-compliant
	Contains PWIS (paint-wetting impairment substances)

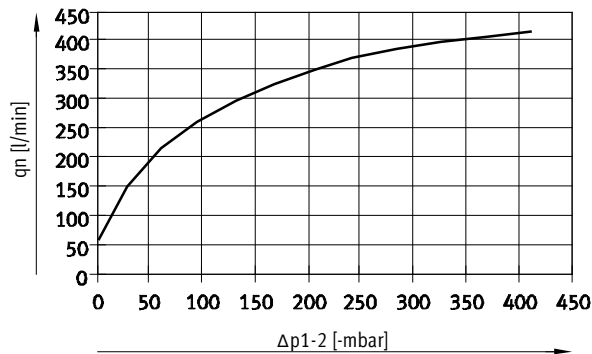
Weights [g]			
Pneumatic connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
VAF-DB- ...	71	156	162

# Vacuum filters

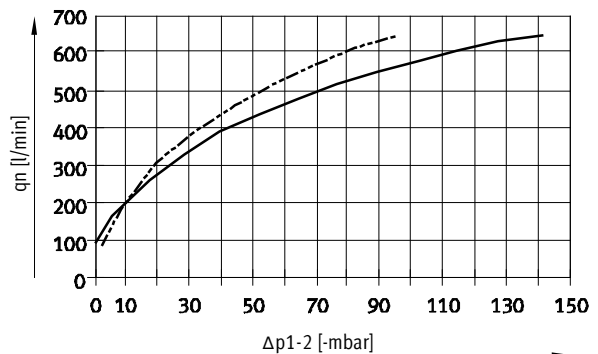
Technical data

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Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$



VAF-DB- 1/4

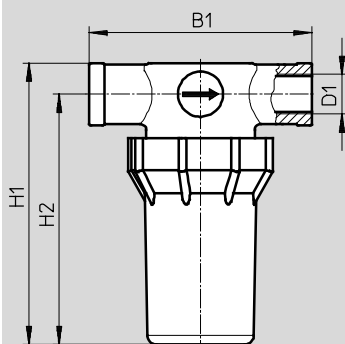


VAF-DB- 3/8

VAF-DB- 1/2

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)



Connection D1	B1	H1	H2	Part No.	Type
1/4	75	94.5	84.5	547261	VAF-DB- 1/4
3/8	90.5	125	113	553140	VAF-DB- 3/8
1/2	90.5	129	115	553141	VAF-DB- 1/2

# Vacuum filters

Accessories

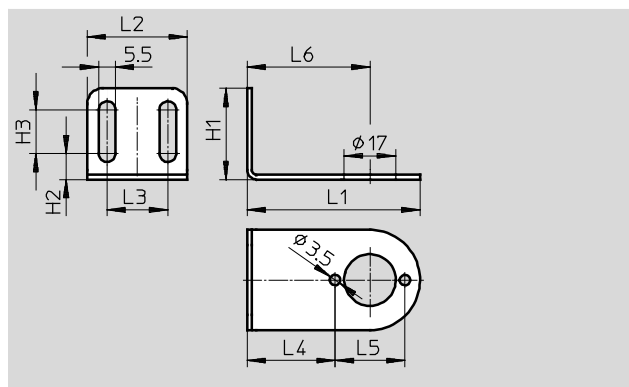
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## Mounting bracket VAF-DB-HR for vacuum filter VAF-DB

Type of mounting: Threaded  
Max. tightening torque: 0.63 Nm

Material:  
High-alloy stainless steel

Note on materials:  
RoHS-compliant  
Contains PWIS (paint-wetting  
impairment substances)



Dimensions and ordering data											
L1	L2	L3	L4	L5	L6	H1	H2	H3	CRC <sup>1)</sup>	Weight [g]	Part No. Type
57	33	20	29	23	40.5	30	8.5	14.5	2	27	553144 VAF-DB-HR-1/8-1/4
80	53	35	37	33	53.5	50	13.5	24.5	2	92	553145 VAF-DB-HR-3/8-1/2

1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

## Filter cartridge VAF-DB-P for vacuum filter VAF-DB

Type of mounting: Plug-in

Material: Polyethylene

Note on material:  
RoHS-compliant  
Contains PWIS (paint-wetting  
impairment substances)



Ordering data		
	Part No.	Type
Filter cartridge	553142	VAF-DB-P-1/8-1/4
	553143	VAF-DB-P-3/8-1/2