



Vacuum filters

FESTO



Datasheet

Accessory for suction gripper ESG,
mounting between suction cup
complete holder and suction cup
→ Internet: esg

-  - Temperature range
0 ... +60°C
-  - Operating pressure
-0.95 ... +4 bar



General technical data		Size 3	Size 4
Allocating suction cup holders			For suction cup ø 20 mm For suction cup ø 30/40/50 mm
Pneumatic connection		M4	M6
Vacuum connection		M4	M6
Mounting position		Any	
Type of mounting		With male thread via vacuum port	
Grade of filtration	[µm]	10	
Flow rate ¹⁾	[l/min]	100	260 270

1) At negative pressure = -0.75 bar

Operating and environmental conditions	
Operating pressure	[bar] -0.95 ... +4
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:-]
Ambient temperature	[°C] 0 ... +60
Corrosion resistance class CRC ¹⁾	1

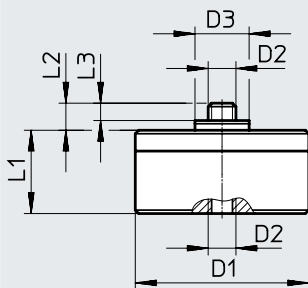
1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry internal application or transport and storage protection. Also applies to parts behind covers, in non-visible internal areas, or parts that are covered in the application (e.g. drive trunnions).

Materials	
Housing	Aluminium, nickel-plated brass
Filter	PVF
Seals	NBR
Note on materials	RoHS-compliant Free of copper and PTFE

Dimensions



Download CAD data → www.festo.com



Ordering data	D1	D2	D3	L1	L2	L3	Weight	Part no.	Type
Allocating suction cup holders	ø		ø				[g]		
Size 3	25	M4	7.8	10.5	4.5	3	9	191202	ESF-3
Size 4	25	M6	8.8	10.5	5.5	4	19	191203	ESF-4A
	40	M6	8.8	14	5.5	4	19	191204	ESF-4B

Datasheet

Vacuum filter with transparent housing for identifying the degree of contamination.


-  - Temperature range
0 ... +40°C
-  - Operating pressure
-0.95 ... 0 bar



The vacuum filter is used to filter particles in the suction direction.

The vacuum filter is inserted as an in-line filter in the tubing line. When first installed, any flow direction can be chosen. After removing and refitting the vacuum filter, the original flow direction must be maintained.

The fabric filter element is located in a transparent housing so that the degree of contamination of the filter cartridge can be determined. It is not possible to replace the filter.

 **Note**
Only for use in open vacuum systems.

General technical data

Pneumatic connection	PK-3 with union nut	PK-4 with union nut	PK-6 with union nut
Nominal size [mm]	2	3	4.6
Mounting position	Any		
Type of mounting	In-line installation		
Grade of filtration [µm]	50		
Flow rate ¹⁾ [l/min]	50.8	70	210
Ejector pulse suitability [bar]	≤8		

1) At negative pressure = -0.75 bar

Operating and environmental conditions

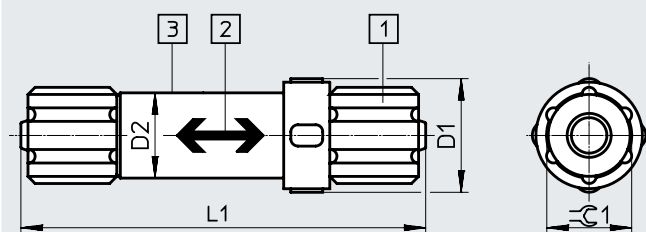
Operating pressure [bar]	-0.95 ... 0
Note on operating pressure	Only for use in open vacuum systems
Operating medium	Compressed air to ISO 8573-1:2010 [7:-;-]
Ambient temperature [°C]	0 ... +40

Materials

Housing	PA
Filter	Fabric, PA
Union nut	POM
Note on materials	RoHS-compliant

Dimensions

Download CAD data → www.festo.com





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

Ordering data

Connection	For tubing O.D.	D1 ∅	D2 ∅	L1	≈C 1	Weight [g]	Part no.	Type
PK-3	4	16	12	50.8	8	4	535883	VAF-PK-3
PK-4	6	16	12	57	12	6	15889	VAF-PK-4
PK-6	8	24	19	64	14	10	160239	VAF-PK-6

Datasheet


Vacuum filter with transparent bowl for identifying the degree of contamination.

-  - Temperature range
-5 ... +50°C
-  - Operating pressure
-0.95 ... 0 bar



The vacuum filter is used to filter particles in the suction direction.

The filter cartridge is located in a transparent bowl so that the degree of contamination of the filter cartridge can be determined. The filter cartridge can be replaced → page 7

 - **Note**
Only for use in open vacuum systems.

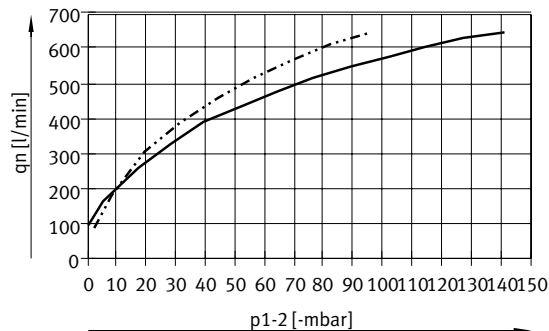
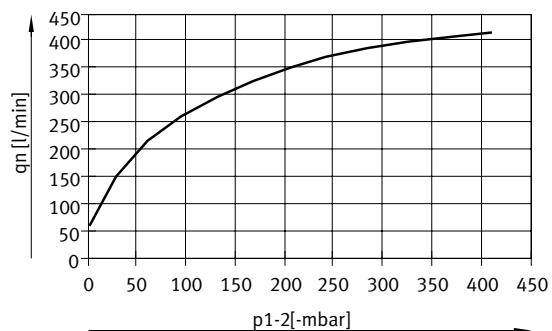
General technical data			
Pneumatic connection	G1/4	G3/8	G1/2
Vacuum connection	G1/4	G3/8	G1/2
Mounting position	Vertical		
Type of mounting	In-line installation Via wall/surface bracket → page 7		
Grade of filtration [µm]	80		
Ejector pulse suitability [bar]	≤7		
Max. tightening torque [Nm]	8.7	15.3	20.5

Operating and environmental conditions	
Operating pressure [bar]	-0.95 ... 0
Note on operating pressure	Only for use in open vacuum systems
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]
Ambient temperature [°C]	-5 ... +50

Materials	
Housing	Reinforced PP
Bowl	PA
Filter	PU
Seals	NBR
Note on materials	RoHS-compliant Contains paint-wetting impairment substances

Datasheet

Standard flow rate q_n as a function of differential pressure Δp_{1-2}



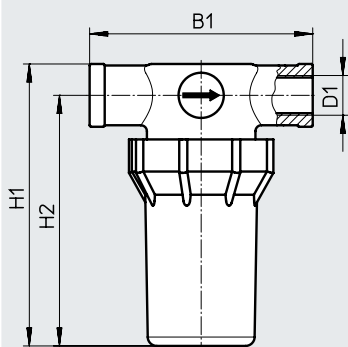
— VAF-DB-1/4

— VAF-DB-3/8

..... VAF-DB-1/2

Dimensions

Download CAD data → www.festo.com




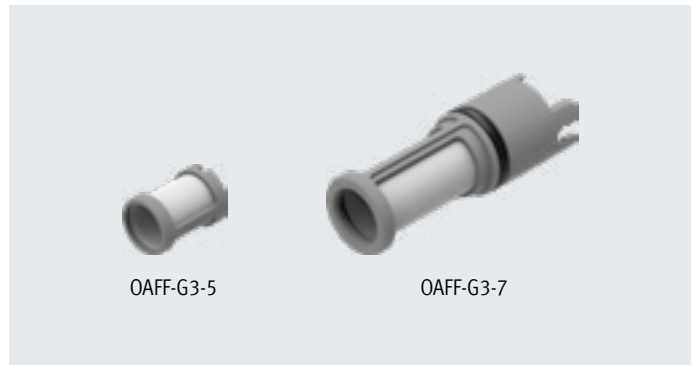
Ordering data

Connection	B1	H1	H2	Weight [g]	Part no.	Type
1/4	75	94.5	84.5	71	547261	VAF-DB-1/4
3/8	90.5	125	113	156	553140	VAF-DB-3/8
1/2	90.5	129	115	162	553141	VAF-DB-1/2

Datasheet

Accessories for vacuum generators
 OVEL
 → Internet: ovel

 Operating pressure
 -95 ... 0 kPa



OAFF-G3-5

OAFF-G3-7

General technical data

Type of mounting	Push-on
	Snap-in
Grade of filtration	[µm] 40
Ejector pulse suitability	[bar] ≤7

Operating and environmental conditions

Operating pressure	[kPa]	-95 ... 0
	[bar]	-0.95 ... 0
	[psi]	-13.775 ... 0
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:-]	
PWIS conformity	VDMA24364-B1/B2-L	
Ejector pulse suitability	[MPa]	0.7
	[bar]	7
	[psi]	101.5

Materials

Type	OAFF-G3-5	OAFF-G3-7
Housing	POM	
Filter	Fabric, PA	
Seals	-	NBR
Note on materials	RoHS-compliant	

Ordering data

	Weight [g]	Part no.	Type	PU ¹⁾
For vacuum generator OVEL-5	1	8068944	OAFF-G3-5	10
For vacuum generator OVEL-7/10	1.5	8068945	OAFF-G3-7	10

1) Packaging unit

Accessories

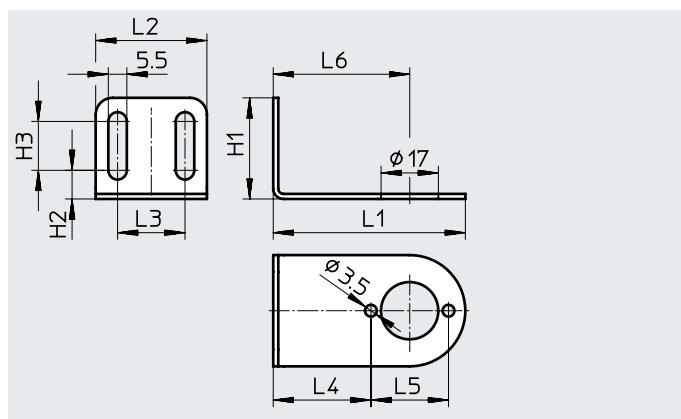
Mounting bracket VAF-DB-HR

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 paint-wetting impairment substances



Dimensions and ordering data												
L1	L2	L3	L4	L5	L6	H1	H2	H3	CRC ¹⁾	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 CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements that are in direct contact with a normal industrial environment.

Filter cartridge VAF-DB-P

For vacuum filter VAF-DB

Type of mounting: plug-in

Material: PE

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



Ordering data		
	Part no.	Type
For vacuum filter VAF-DB	553142	VAF-DB-P-1/8-1/4
	553143	VAF-DB-P-3/8-1/2