

Vacuum filters

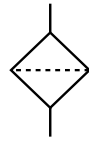
FESTO





Datasheet

Accessory for suction gripper ESG,
mounting between suction cup holder
and suction cup

→ Internet: esg



-  - Temperature range
0 ... +60°C

-  - Operating pressure
-0.95 ... +4 bar



General technical data

Allocating suction cup holders	Size 3	Size 4
		For suction cup ø 20 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	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

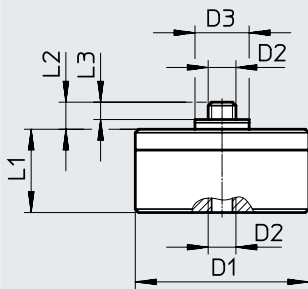
1) More information www.festo.com/x/topic/crc

Materials

Housing	Aluminium, nickel-plated brass
Filter	PVF
Seals	NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-A1-L

Dimensions

Download CAD data → www.festo.com

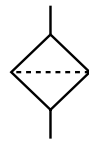


Ordering data

Allocating suction cup holders	D1	D2	D3	L1	L2	L3	Weight [g]	Part no.	Type
	ø		ø						
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. Once the vacuum filter has been removed and refitted, 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		PK-3 with union nut	PK-4 with union nut	PK-6 with union nut
Pneumatic connection				
Nominal width	[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		

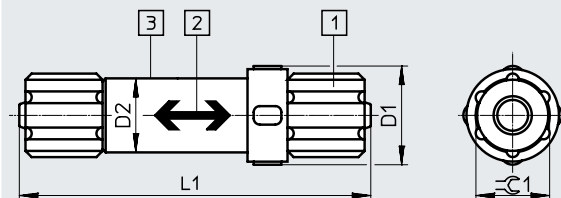
1) At negative pressure = -0.75 bar

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
LABS (PWS) conformity	VDMA24364-B1/B2-L
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.

Dimensions

Download CAD data → www.festo.com

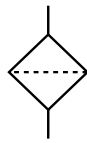




- [1] Quick connector for plastic tubing
- [2] Flow direction indicated with arrow
- [3] Degree of contamination visible through the transparent housing

Ordering data								
Connection	For tubing O.D.	D1 ø	D2 ø	L1	≅ 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

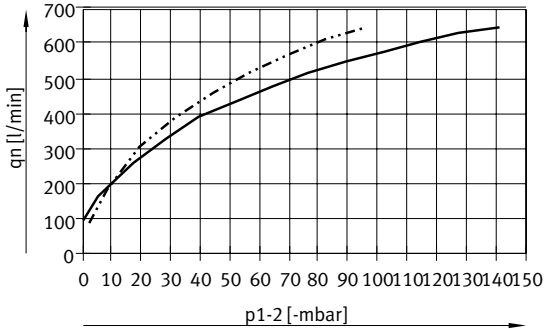
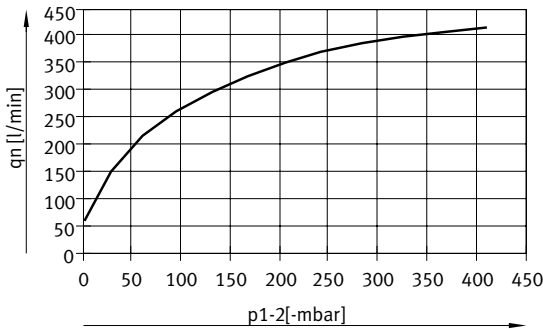
Operating pressure [bar]	-0.95 ... 0
Note on operating pressure	Only for use in open vacuum systems
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]
Ambient temperature [°C]	-5 ... +50

Materials

Housing	Reinforced PP
Bowl	PA
Filter	PU
Seals	NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III

Datasheet

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



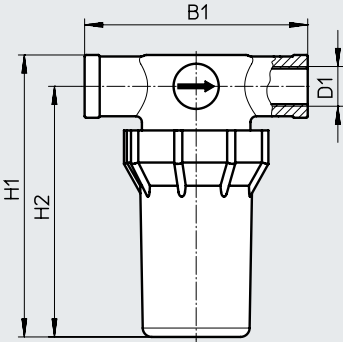
— VAF-DB-1/4

— VAF-DB-3/8

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

Dimensions

Download CAD data → www.festo.com



Ordering data

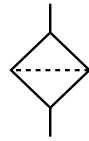
Connection	B1	H1	H2	Weight [g]	Part no.	Type
1/4	75	94.5	84.5	71	547261	VAF-DB-1/4
3/8	90.5	125	113	156	553140	VAF-DB-3/8
1/2	90.5	129	115	162	553141	VAF-DB-1/2

Datasheet

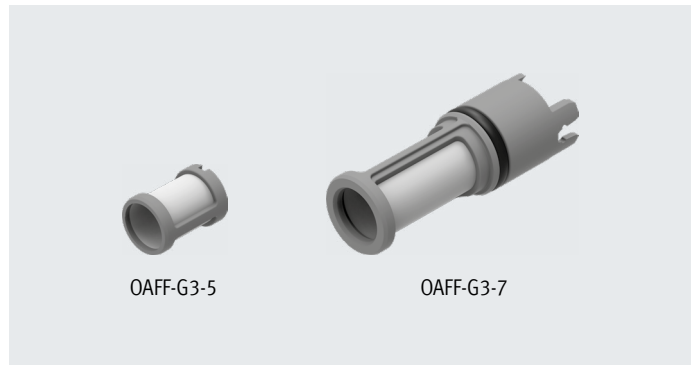
Accessories for vacuum generators

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:-:-]
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	
LABS (PWS) conformity	VDMA24364-B1/B2-L	

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

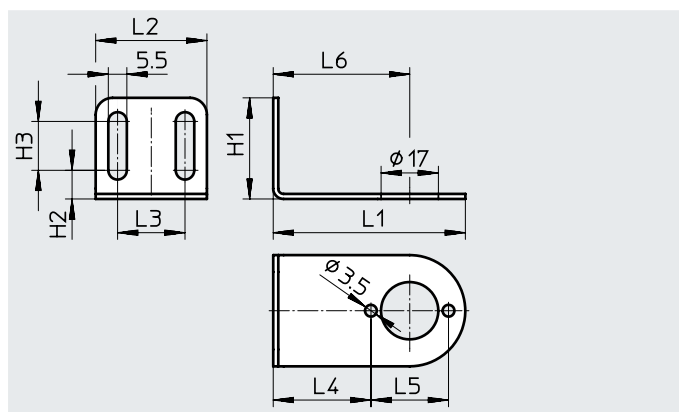
1) Packaging unit

Accessories

Mounting bracket VAF-DB-HR

For vacuum filter VAF-DB

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



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) More information www.festo.com/x/topic/crc

Materials

Mounting bracket	High-alloy stainless steel
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III

Filter cartridge VAF-DB-P

For vacuum filter VAF-DB

Type of mounting: plug-in



Materials

Filter	PU
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III

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