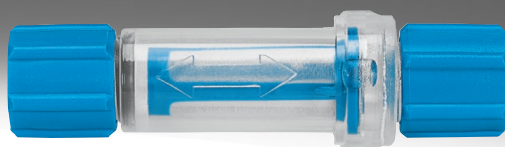


Vacuum filters

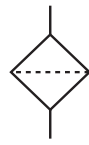
FESTO




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 \varnothing 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 [μ m] | 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 |

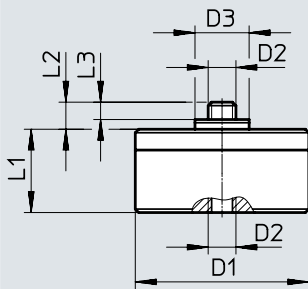
1) More information www.festo.com/x/topic/crc

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

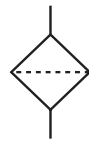


Ordering data

| Allocating suction cup holders | D1 \varnothing | D2 | D3 \varnothing | L1 | L2 | L3 | Weight [g] | Part no. | Type |
|--------------------------------|---------------------|----|---------------------|------|-----|----|---------------|----------|--------|
| 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 | | |

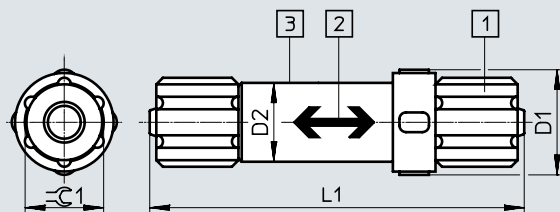
1) At negative pressure = -0.75 bar

| 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

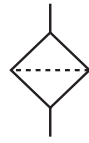




- [1] Quick connector for plastic tubing
- [2] Flow direction indicated with arrow
- [3] Degree of contamination visible through the transparent housing

| Ordering data | | | | | | | | |
|---------------|-----------------|---------------|---------------|------|-----------------|------------|----------|----------|
| Connection | For tubing O.D. | D1 | D2 | L1 | $\varnothing 1$ | Weight [g] | Part no. | Type |
| | | \varnothing | \varnothing | | | | | |
| 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.

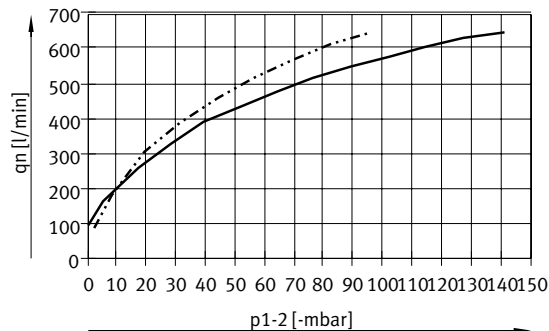
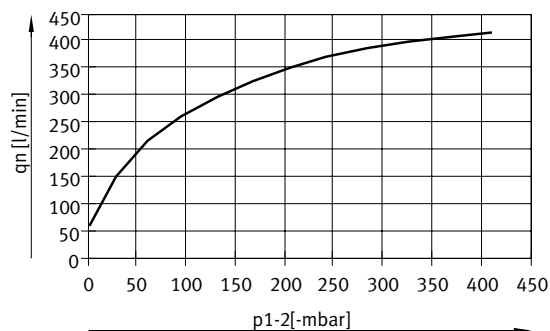
| General technical data | | | |
|---------------------------------|---|------|------|
| Pneumatic connection | G1/4 | G3/8 | G1/2 |
| Vacuum connection | G1/4 | G3/8 | G1/2 |
| Mounting position | Vertical | | |
| Type of mounting | In-line installation Via wall/surface bracket → page 7 | | |
| Grade 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}



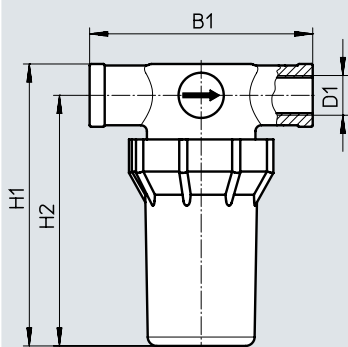
— VAF-DB-1/4

— VAF-DB-3/8

⋯ VAF-DB-1/2

Dimensions

Download CAD data → www.festo.com



Ordering data

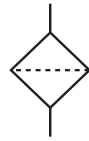
| Connection | B1 | H1 | H2 | Weight [g] | Part no. | Type |
|------------|------|------|------|------------|----------|------------|
| 1/4 | 75 | 94.5 | 84.5 | 71 | 547261 | VAF-DB-1/4 |
| 3/8 | 90.5 | 125 | 113 | 156 | 553140 | VAF-DB-3/8 |
| 1/2 | 90.5 | 129 | 115 | 162 | 553141 | VAF-DB-1/2 |

Datasheet

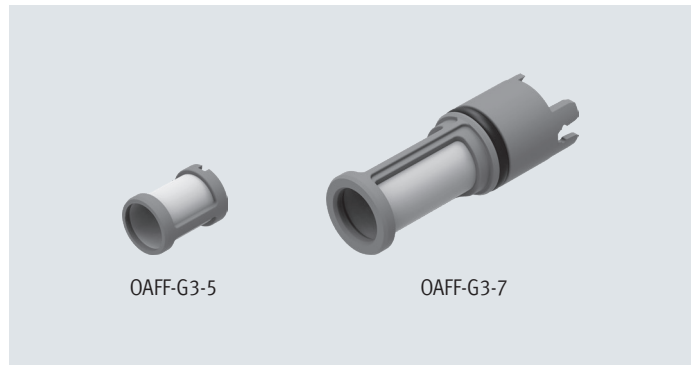
Accessories for vacuum generators

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 (PWIS) 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

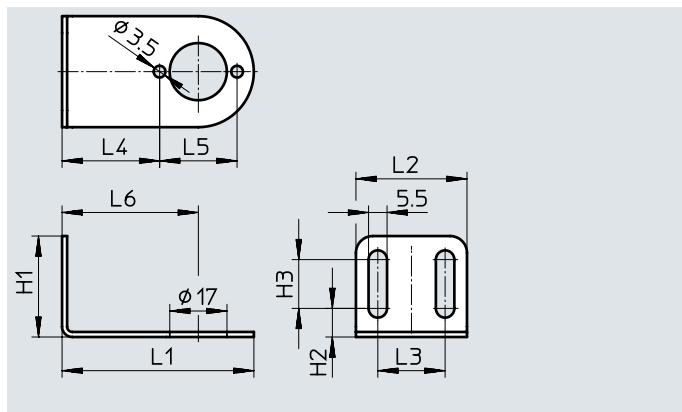
Accessories

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 |