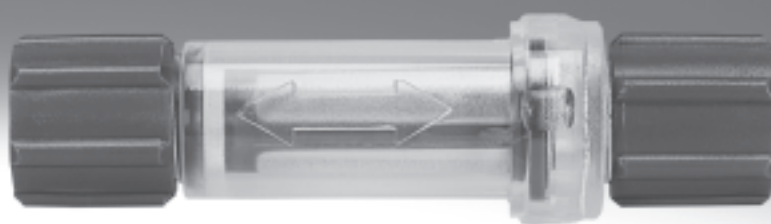


Vacuum filters

FESTO



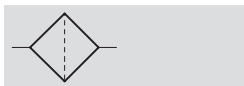
Vacuum filters

Technical data

FESTO

Filters ESF

Function



Temperature range
0 ... +60 °C

Operating pressure
-0.95 ... +4 bar



Note

for suction grippers ESG, between
suction cup and suction cup holder
→ Internet: esg

General technical data

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 ¹⁾ [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 ¹⁾	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

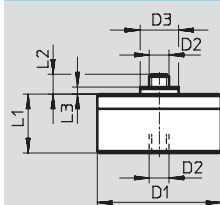
Housing	Aluminium, nickel-plated brass
Filters	Polyvinylfluoride
Seals	Nitrile rubber
Note on materials	RoHS-compliant
	Free of copper and PTFE

Weights [g]

Holder size	3	4A	4B
ESF- ...	9	19	19

Dimensions and ordering data

Download CAD Data → www.festo.com/us/cad



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

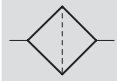
Vacuum filters

Technical data

FESTO

Vacuum filters VAF-PK

Function



Temperature range
0 ... +40 °C

Operating pressure
-0.9 ... 0 bar

Note

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

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	Atmospheric air		
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 ¹⁾ [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

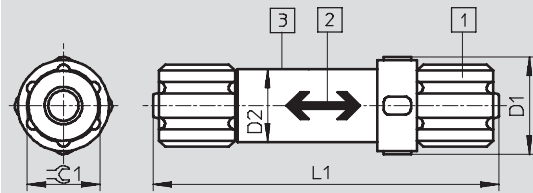
Vacuum filters

Technical data

FESTO

Dimensions

Download CAD Data → www.festo.com/us/cad



- 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

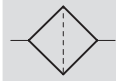
Vacuum filters

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	Atmospheric air		
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)

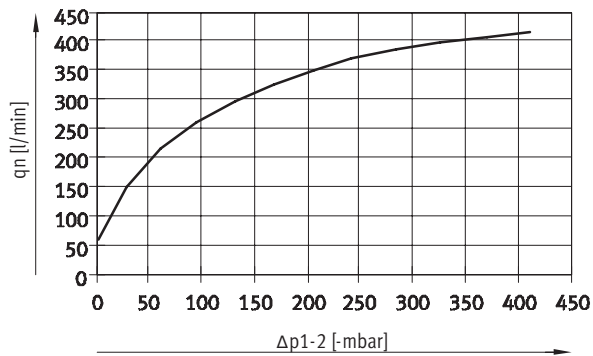
Weights [g]			
Pneumatic connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
VAF-DB- ...	71	156	162

Vacuum filters

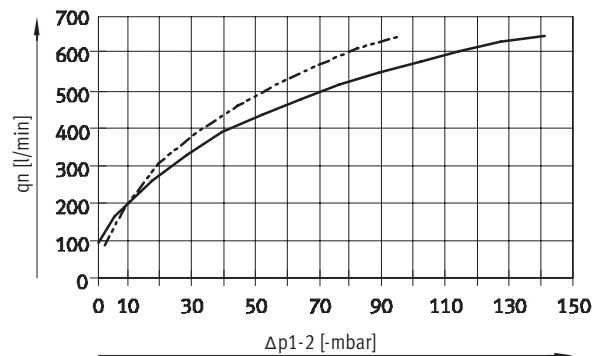
Technical data

FESTO

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



— VAF-DB- 1/4

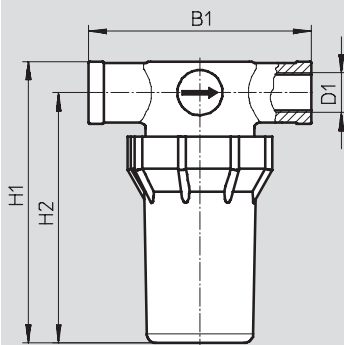


— VAF-DB- 3/8

- - - VAF-DB- 1/2

Dimensions and ordering data

Download CAD Data → www.festo.com/us/cad



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

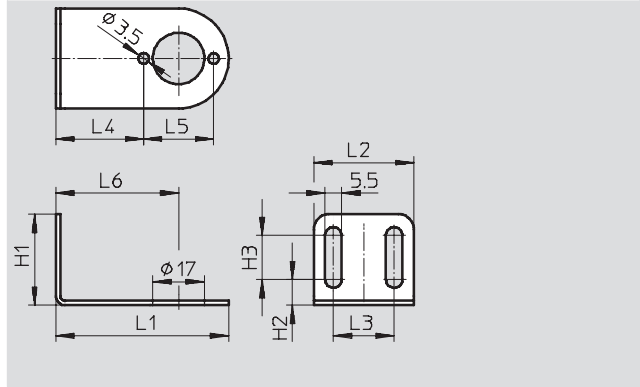
FESTO

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 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 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

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

Festo North America

Festo Regional Contact Center

5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Canada

USA Customers:

For ordering assistance,

Call: 1.800.99.FESTO (1.800.993.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: customer.service@us.festo.com

For technical support,

Call: 1.866.GO.FESTO (1.866.463.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: product.support@us.festo.com

Canadian Customers:

Call: 1.877.GO.FESTO (1.877.463.3786)

Fax: 1.877.FX.FESTO (1.877.393.3786)

Email: festo.canada@ca.festo.com

USA Headquarters

Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788, USA
www.festo.com/us

USA Sales Offices

Appleton

North 922 Tower View Drive, Suite N
Greenville, WI 54942, USA

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801, USA

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056, USA

Dallas

1825 Lakeway Drive, Suite 600
Lewisville, TX 75057, USA

Detroit – Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326, USA

New York

395 Moreland Road
Hauppauge, NY 11788, USA

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550, USA

United States



USA Headquarters, East: Festo Corp., 395 Moreland Road, Hauppauge, NY 11788

Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: info@festo-usa.com

www.festo.com/us

Canada



Headquarters: Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4

Phone: 1.905.624.9000; Fax: 1.905.624.9001;

Email: festo.canada@ca.festo.com

www.festo.ca

Mexico



Headquarters: Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquahuac,
54020 Tlalneapantla, Edo. de México

Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;

Email: festo.mexico@mx.festo.com

www.festo.com/mx

Central USA

Festo Corporation
1441 East Business
Center Drive
Mt. Prospect, IL 60056, USA
Phone: 1.847.759.2600
Fax: 1.847.768.9480



Western USA

Festo Corporation
4935 Southfront Road,
Suite F
Livermore, CA 94550, USA
Phone: 1.925.371.1099
Fax: 1.925.245.1286



Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia
Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

www.festo.com