

Standard Filters MS6N-LF – Inch Series



Standard filters, with filtration grades of 5 microns or 40 microns, are equipped with a water separator that cleans the compressed air of impurities, rust, and condensate. For pre-filtering in pneumatic systems or for special applications.

- Pneumatic connection: 1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT
- Supply pressure
 - For manual drain: 0 ... 294 psi
 - For semiautomatic drain: 22 ... 176 psi
 - For fully automatic drain: 29 ... 176 psi
 - For fully automatic drain, electrically actuated: 12 ... 235 psi
- Flow rate: 70.6 ... 144.7 scfm

Product Range Overview																		
Type	Pneumatic connections		Filtration grade [µm]				Bowl guard		Bowl drain								Contamination control	Reverse flow
			0.01	1	5	40	Plastic bowl guard	Metal bowl	Manual	Semiautomatic	Fully automatic	Electrical 24 V DC M12	Electrical 110 V AC with terminals	Electrical 230 V AC with terminals	Electrical 24 V DC with terminals			
MS6N		AG...	A	B	C	E	R	U	M	H	V	E1	E2	E3	E4	DA	Z	
LF	1/4 NPT, 3/8 NPT, 1/2 NPT	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	-	-	■	■	■	■	■	■	■	■	■	■	■	-	■	

Features

- Sintered filter with centrifugal separation removes contamination, rust and condensate from the compressed air.
- High flow rate with minimal pressure drop
- Replaceable filter cartridges

Contents

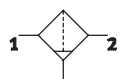
Technical Data	→ 784
Dimensional Drawings	→ 787
Ordering Data	→ 789
Accessories	→ 792
Replacement Parts	→ 800

→ www.festo.com/catalog/ms6n-lf

Standard Filters MS6N-LF – Inch Series

Technical Data

ISO Symbol



Manual bowl drain



Semi or fully automatic bowl drain



General Technical Data		1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 1, 2		1/4 NPT	3/8 NPT	1/2 NPT
Filtration grade	[µm]	5 (air purity class at the output 3.7.- to DIN ISO 8573-1) 40 (air purity class at the output 5.7.- to DIN ISO 8573-1)		
Supply Pressure	M [psi]	0 ... 294 (manual drain)		
	H [psi]	22 ... 176 (semiautomatic drain)		
	V [psi]	29 ... 176 (fully automatic drain)		
	E... [psi]	12 ... 235 (fully automatic drain, electrically actuated)		

Standard Nominal Flow Rate q _N ¹⁾ [scfm]		1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 1, 2		1/4 NPT	3/8 NPT	1/2 NPT
Filtration grade	5 µm	70.6	105.9	113.0
	40 µm	88.3	134.1	144.7

1) Measured at p₁ = 88 psi and Δp = 15 psi

Standard Filters MS6N-LF – Inch Series

Technical Data

Operating and Environmental Conditions				
Bowl drain	Manual M	Semiautomatic H	Fully automatic V	Fully automatic, electrically actuated E...
Operating medium	Compressed air			
Max. condensate volume [in ³]	2.32			
Bowl guard	Plastic bowl guard			
	Metal bowl			
Ambient temperature [°F]	14 ... 140	41 ... 140	41 ... 140	34 ... 140
Temperature of medium [°F]	14 ... 140	41 ... 140	41 ... 140	34 ... 140
Storage temperature [°F]	14 ... 140	14 ... 140	14 ... 140	34 ... 140
Assembly position	Vertical ±5°			
Corrosion resistance CRC ¹⁾	2			

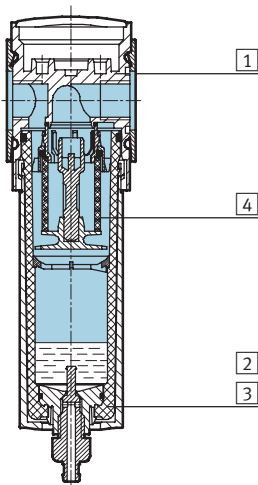
1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [lb]	
With plastic bowl guard	1.20
With metal bowl	1.64
With metal bowl and fully automatic, electrically actuated bowl drain	3.60

- Wearing parts kits → 800
- Filter cartridges → 800
- For spare parts go to: www.festo.com/en/spare_parts_service

Materials

Sectional view



Filters		
1	Body	Die-cast aluminum
2	Plastic bowl guard	Polycarbonate/polyamide
3	Metal bowl	Aluminum
	Viewing window	Polyamide
4	Filter element	Polyethylene
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE

Standard Filters MS6N-LF – Inch Series

Technical Data

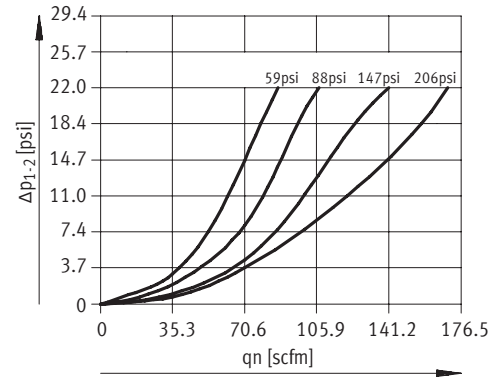
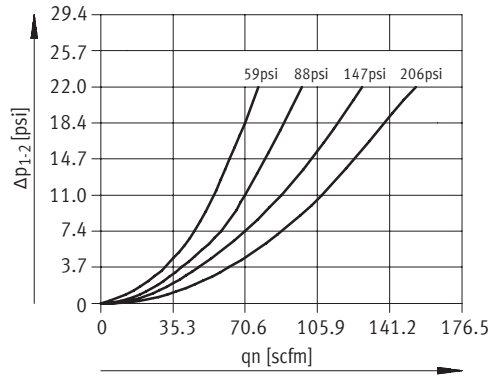


Standard Flow Rate q_n as a Function of the Differential Pressure Δp_{1-2}

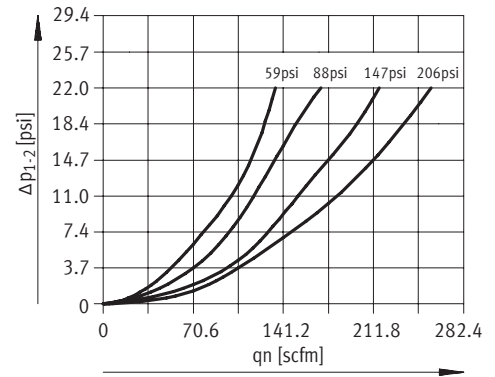
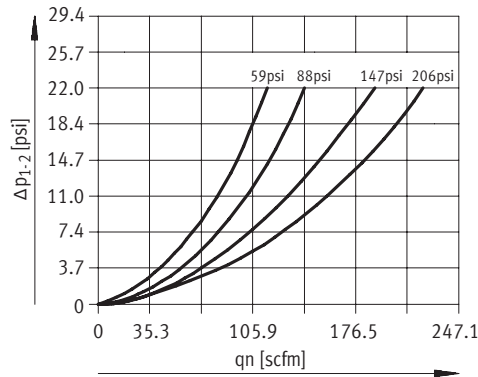
MS6N-LF-1/4

Filtration grade 5 μm

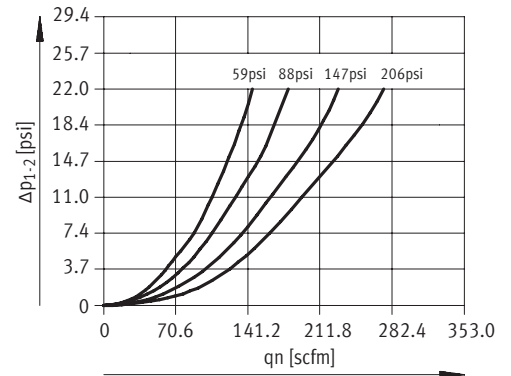
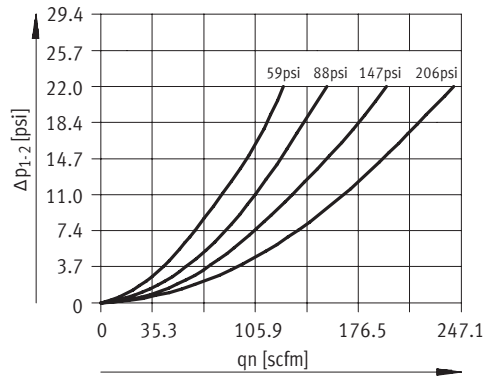
Filtration grade 40 μm



MS6N-LF-3/8

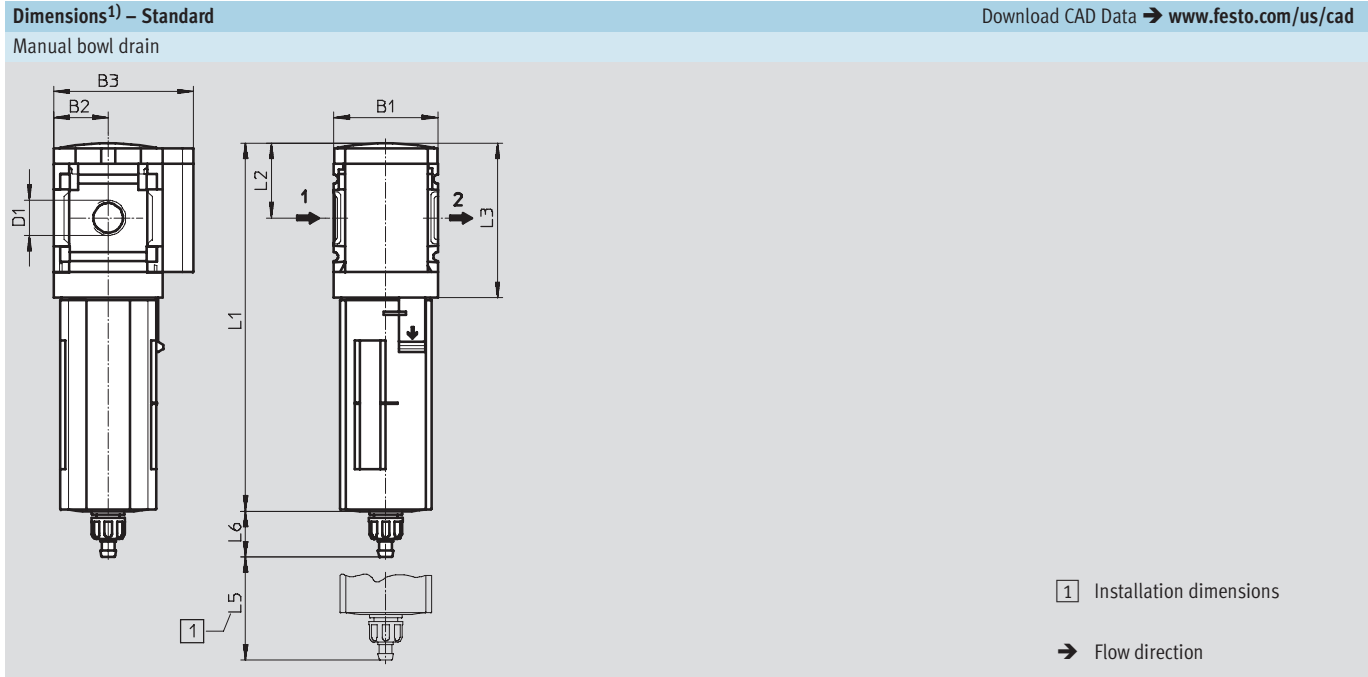


MS6N-LF-1/2



Standard Filters MS6N-LF – Inch Series

Dimensional Drawings



Type	B1	B2	B3	D1	L1		L2	L3	L5	L6	
					Bowl guard					Plastic	Metal
					Plastic	Metal					
MS6N-LF-1/4	2.44	1.22	2.99	1/4 NPT	7.56	7.80	1.65	3.43	2.68	0.62	0.75
MS6N-LF-3/8				3/8 NPT							
MS6N-LF-1/2				1/2 NPT							

1) Dimensions are in inches, unless otherwise noted.

Standard Filters MS6N-LF – Inch Series

Dimensional Drawings



Dimensions¹⁾ – Bowl Drain Download CAD Data → www.festo.com/us/cad

Manual M

Barbed fitting for plastic tubing
PCN-4

Semiautomatic H

QS fitting for plastic tubing
PUN-6/PAN-6

Fully automatic V

Barbed fitting for plastic tubing
PCN-4

Type	L6
Plastic bowl guard	
MS6N-LF-...-M	0.62
Metal bowl	
MS6N-LF-...-M	0.75

Type	L6
Plastic bowl guard	
MS6N-LF-...-H	0.80
Metal bowl	
MS6N-LF-...-H	0.90

Type	L6
Plastic bowl guard	
MS6N-LF-...-V	0.73
Metal bowl	
MS6N-LF-...-V	0.87

Fully automatic, electrically actuated E1 ... E4 Technical data PWEA → www.festo.com/catalog/pwea

- 1 Variant E1
PWEA-AP-... with M12x1 plug,
5-pin for SIM-M12-5GD-...
- 2 Variant E2/E3/E4
PWEA-AC-... with cable conduit
fitting Pg9
- 3 Connection 360° rotatable for
plastic tubing PUN-H-12x2-...

1) Dimensions are in inches, unless otherwise noted.

Standard Filters MS6N-LF – Inch Series

Ordering Data – Pre-configured Products



Ordering Data								
Bowl drain	Connection	Filtration grade 5 µm				Filtration grade 40 µm		
		Part No.	Type	LT	Part No.	Type	LT	
Plastic bowl guard								
Manual	1/4 NPT	531525	MS6N-LF-1/4-CRM	1D	531519	MS6N-LF-1/4-ERM	1D	
	3/8 NPT	531527	MS6N-LF-3/8-CRM	1D	531521	MS6N-LF-3/8-ERM	1D	
	1/2 NPT	531526	MS6N-LF-1/2-CRM	1D	531520	MS6N-LF-1/2-ERM	1D	
Fully automatic	1/4 NPT	531531	MS6N-LF-1/4-CRV	1D	531513	MS6N-LF-1/4-ERV	1D	
	3/8 NPT	531533	MS6N-LF-3/8-CRV	1D	531515	MS6N-LF-3/8-ERV	1D	
	1/2 NPT	531532	MS6N-LF-1/2-CRV	1D	531514	MS6N-LF-1/2-ERV	1D	
Metal bowl								
Manual	1/4 NPT	531537	MS6N-LF-1/4-CUM	Q	531555	MS6N-LF-1/4-EUM	Q	
	3/8 NPT	531539	MS6N-LF-3/8-CUM	Q	531557	MS6N-LF-3/8-EUM	Q	
	1/2 NPT	531538	MS6N-LF-1/2-CUM	Q	531556	MS6N-LF-1/2-EUM	Q	
Fully automatic	1/4 NPT	531543	MS6N-LF-1/4-CUV	Q	531549	MS6N-LF-1/4-EUV	Q	
	3/8 NPT	531545	MS6N-LF-3/8-CUV	Q	531551	MS6N-LF-3/8-EUV	Q	
	1/2 NPT	531544	MS6N-LF-1/2-CUV	Q	531550	MS6N-LF-1/2-EUV	Q	

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

Standard Filters MS6N-LF – Inch Series

Ordering Data – Configurable Products



M Mandatory Data →

Part No.	Series	Size	Thread	Function	Connection size	Filtration grade	Bowl
527669	MS	6	N	LF	1/4, 3/8, 1/2, AQN, AQP, AQR, AQS	E C	R U
Order example							
527669	MS	6	N	- LF	- AQN	- E	- R

Ordering Table

Grid dimension	[mm]	62	Conditions	Code	Enter code
M Part No.	527669				
Series	Standard			MS	MS
Size	6			6	6
Thread	NPT thread			N	N
Function	Filters			-LF	-LF
Connection size	Body thread 1/4 NPT			-1/4	
	Body thread 3/8 NPT			-3/8	
	Body thread 1/2 NPT			-1/2	
	Port plate 1/4 NPT (dimensions → 796)			-AQN	
	Port plate 3/8 NPT (dimensions → 796)			-AQP	
	Port plate 1/2 NPT (dimensions → 796)			-AQR	
	Port plate 3/4 NPT (dimensions → 796)			-AQS	
Filtration grade	40 µm			-E	
	5 µm			-C	
Bowl	Plastic bowl with plastic bowl guard			-R	
	Metal bowl			-U	

Transfer order code

527669	MS	6	N	- LF				
---------------	-----------	----------	----------	-------------	--	--	--	--

Standard Filters MS6N-LF – Inch Series



Ordering Data – Configurable Products

→ M Mandatory Data	O Options	
Bowl drain	Type of mounting	Reverse flow direction
M H V E1 E2 E3 E4	WP WPM WB	Z
- M	- WP	- Z

Ordering Table					
Grid dimension	[mm]	62	Conditions	Code	Enter code
↓ M	Bowl drain	Manual		-M	
		Semiautomatic (P1 max. 176 psi)		-H	
		Fully automatic (P1 max. 176 psi)		-V	
		External fully automatic bowl drain, electrical, 24 V DC, M12	1	-E1	
		External fully automatic bowl drain, electrical, 110 V AC, terminals	1	-E2	
		External fully automatic bowl drain, electrical, 230 V AC, terminals	1	-E3	
		External fully automatic bowl drain, electrical, 24 V DC, terminals	1	-E4	
O	Type of mounting	Mounting bracket (dimensions → 797)	2	-WP	
		Mounting bracket (dimensions → 797)	2	-WPM	
		Mounting bracket (dimensions → 794)		-WB	
	Reverse flow direction	Flow direction from right to left		-Z	

1 E1, E2, E3, E4
Only with metal bowl U

2 WP, WPM Only with port plate AQN, AQP, AQR or AQS

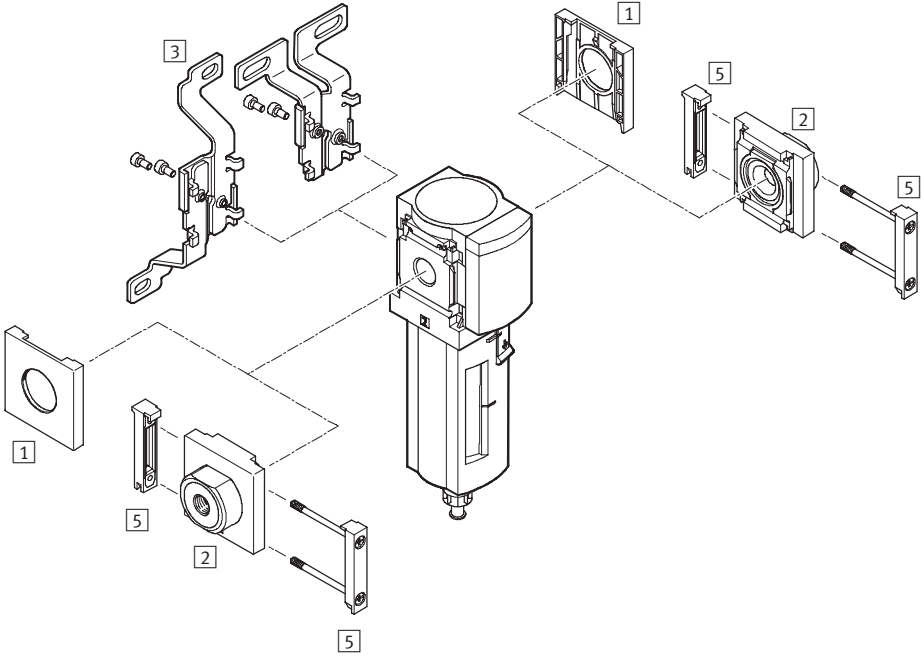
Transfer order code

- - -

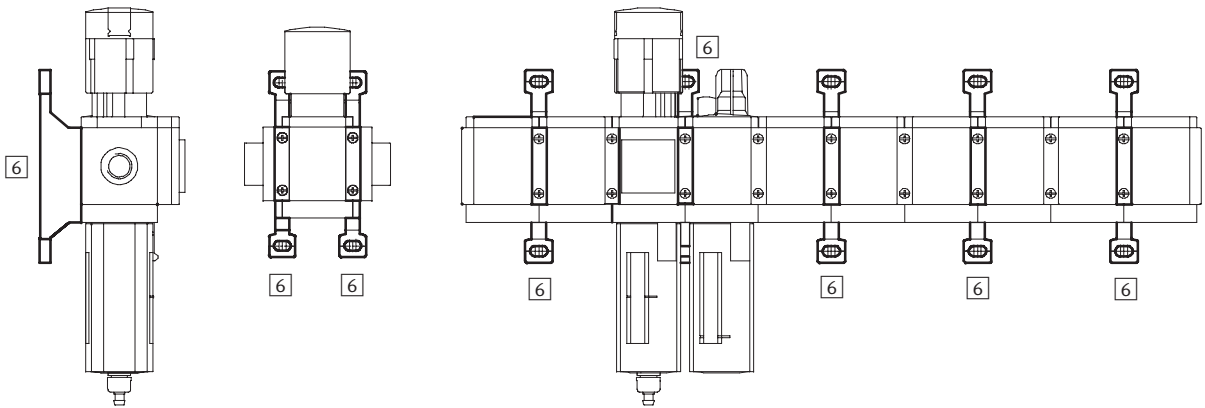
Standard Filters MS6N-LF – Inch Series

Accessories Overview

Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.



Standard Filters MS6N-LF – Inch Series

Accessories Overview



Mounting Attachments and Accessories						
		Single unit		Combination unit → 3.1-49		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	-	■	-	795
2	Port plate MS6N-AQ...	-	■	-	■	796
3	Mounting bracket MS6-WB	■	■	-	-	794
5	Body connector MS6-MV	-	■	■	■	796
6	Mounting bracket MS6-WP/WPB/WPM	-	■	■	■	797

Standard Filters MS6N-LF – Inch Series

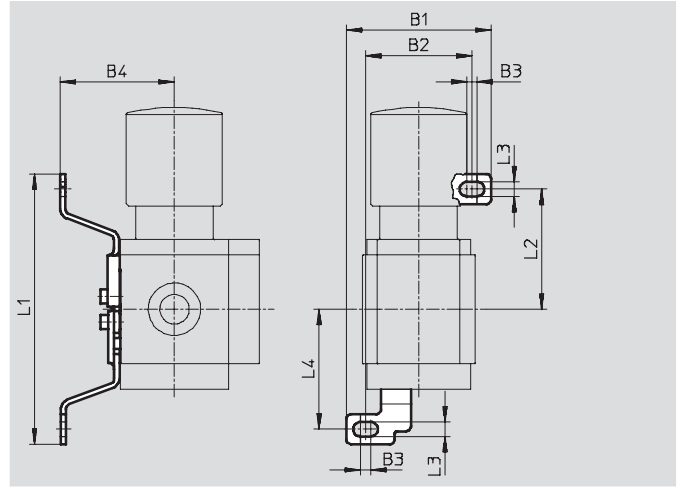


Accessories

3 Mounting bracket MS6-WB

- For wall mounting

Material:
Steel



Dimensions and Ordering Data										
B1	B2	B3	B4	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.13	2.44	0.18	2.17	6.20	2.80	0.26	2.80	0.24	532196	MS6-WB

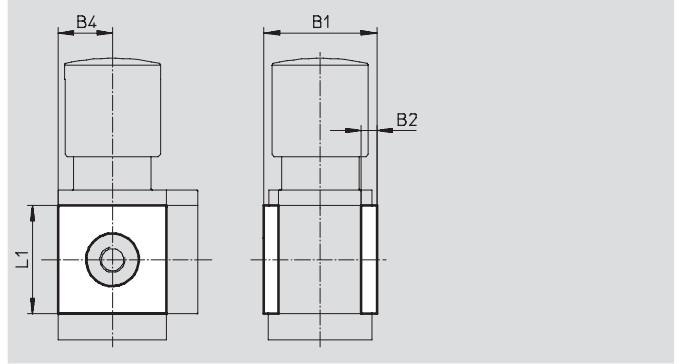
Standard Filters MS6N-LF – Inch Series

Accessories

1 Cover cap MS6-END

- Can be used to cover the body sides of the first and last module if port plates are not used.

Material:
Reinforced polyamide
Free of copper and PTFE

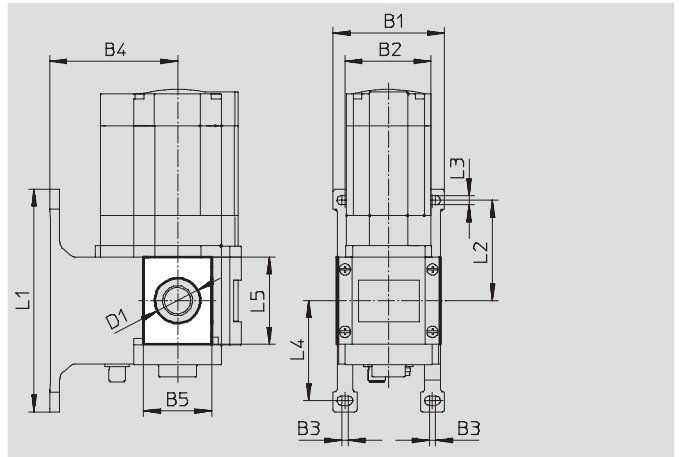


Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
2.64	0.31	1.22	2.44	538780	MS6-END	

Mounting plate MS6-AEND

- In combination with mounting bracket MS-WP or MS-WPB for mounting an individual unit with body thread on a wall

Material:
Reinforced polyamide
Conforms to RoHS
Free of copper and PTFE



Dimensions and Ordering Data															
B1	B2	B3	B4		B5	D1 ∅	L1	L2	L3	L4	L5	CRC ¹⁾	Weight [lb]	Part No.	Type
			WP	WPB											
3.11	2.44	0.18	2.13	3.56	1.91	1.26	6.22	2.80	0.26	2.80	2.44	2	0.03	535408	MS6-AEND

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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.

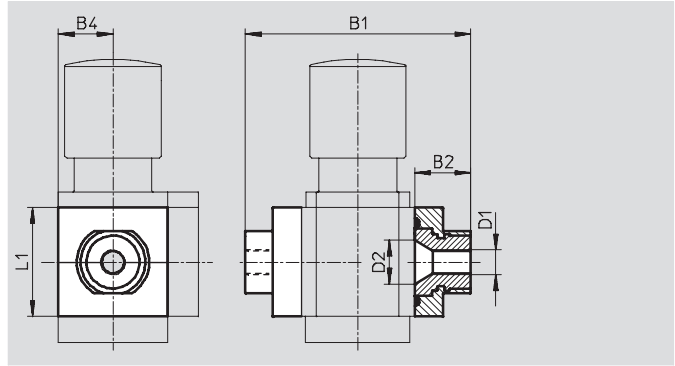
Standard Filters MS6N-LF – Inch Series

Accessories

2 Port plate MS6N-AQ...

- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection 3/4 NPT

Material:
Aluminum



Dimensions and Ordering Data								
B1	B2	B4	D1	D2	L1	Weight [lb]	Part No.	Type
4.53	1.04	1.22	1/4 NPT	0.94	2.44	0.60	526076	MS6N-AQN
			3/8 NPT				526077	MS6N-AQP
			1/2 NPT				526078	MS6N-AQR
			3/4 NPT				526079	MS6N-AQS

5 Body connector MS6-MV

- For connecting modules

Material:
Stainless steel/polyacetate



Ordering Data		
Weight [lb]	Part No.	Type
0.11	532799	MS6-MV

Standard Filters MS6N-LF – Inch Series

Accessories



6 Mounting Bracket MS6-WP...

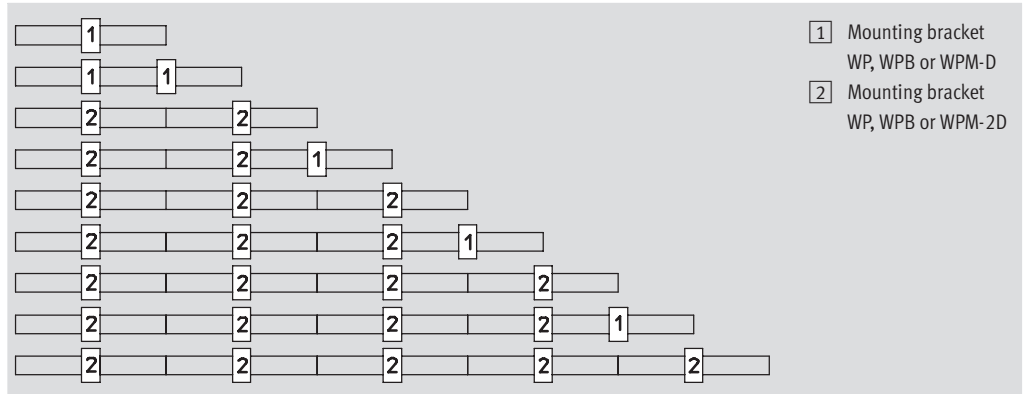
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 2.44 in with WP, WPB
2.715 in with WPM-D

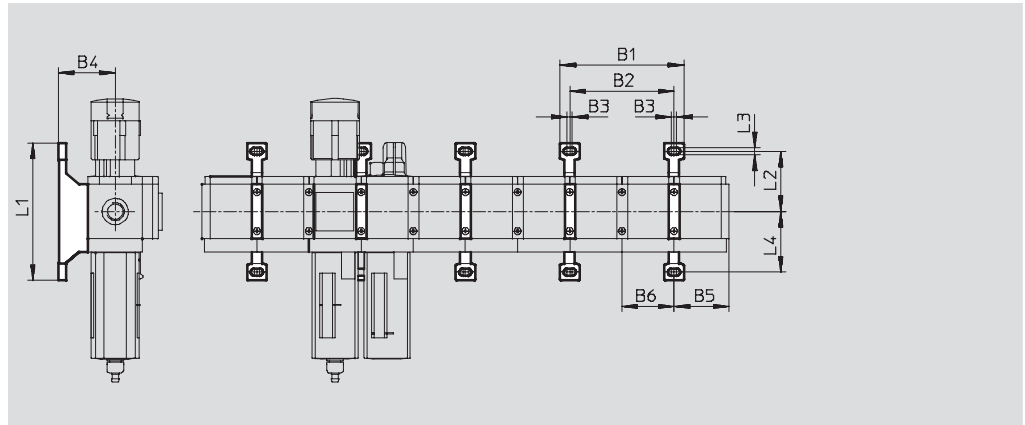
2 units: 4.88 in with WP, WPB
5.43 in with WPM-2D

Number of units

1 2 3 4 5 6 7 8 9 10



Mounting dimensions



Type	B1	B2	B3	B4	B5	B6	L1	L2	L3	L4
MS6-WP	5.55	4.88	0.18	2.13	2.54	2.44	6.22	2.80	0.26	2.80
MS6-WPB				3.56						
MS6-WPM-...D	6.61	5.43	0.69	2.13	2.58	2.72	3.88	1.63		1.63

Standard Filters MS6N-LF – Inch Series

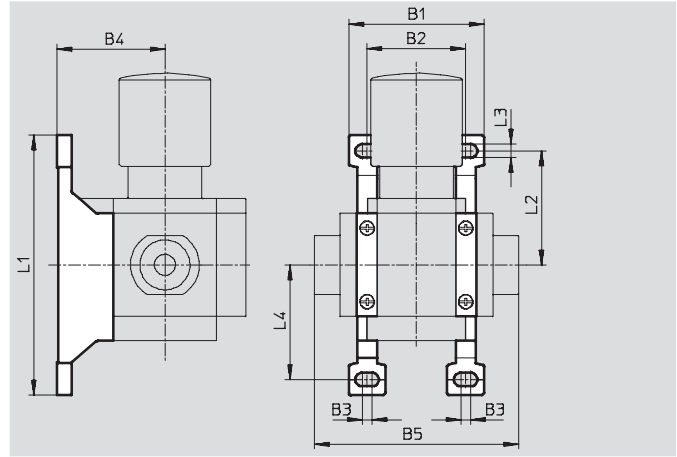


Accessories

Mounting bracket MS6-WP

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with body thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:
Die-cast aluminum

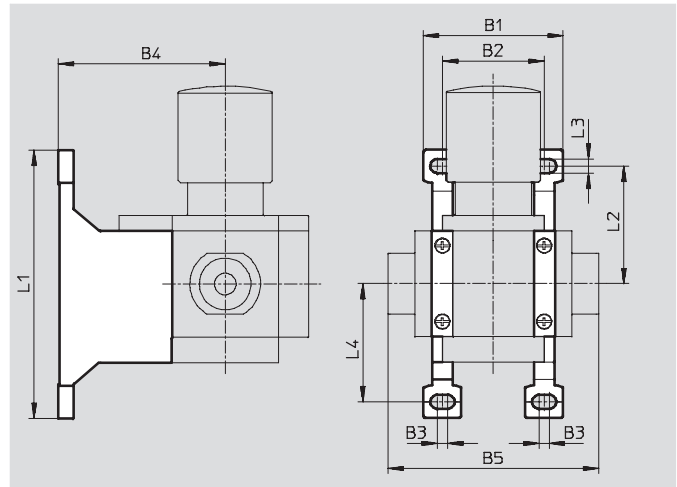


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	2.13	4.53	6.22	2.80	0.26	2.80	0.15	532195	MS6-WP

Mounting bracket MS6-WPB

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:
Die-cast aluminum



Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	3.56	4.53	6.22	2.80	0.26	2.80	0.23	526074	MS6-WPB

Standard Filters MS6N-LF – Inch Series

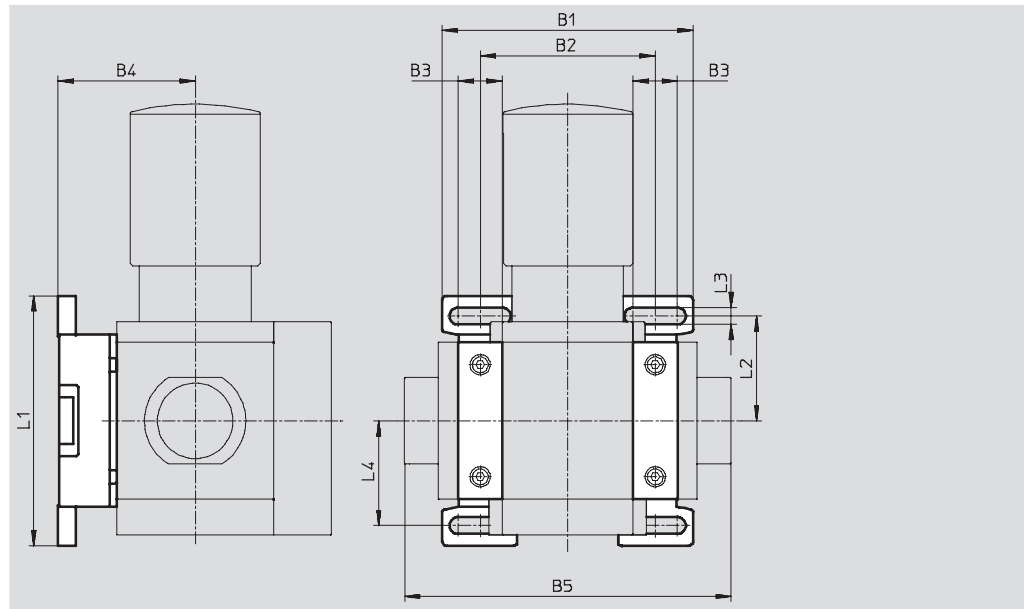
Accessories

Mounting bracket MS6-WPM

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- Speedy attachment and detachment
- For installation of modules with regulating knob pointing downwards

The distance piece D or 2D (designated in the type code) is included in the scope of delivery and ensures the correct clearance

Material:
Die-cast aluminum



Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [lb]	Part No.	Type
3.90	2.72	0.69	2.13	5.08	3.88	1.63	0.26	1.63	2.44	0.29	526073	MS6-WPM-D
6.61	5.43			7.80					4.88			

Body connector MS6-MVM

- For installation of modules with regulating knob pointing downwards

Material:
Die-cast aluminum



Ordering Data		
Size	Part No.	Type
MS6	532801	MS6-MVM

Standard Filters MS6N-LF – Inch Series



Replacement Parts

Ordering Data – Wearing Parts Kits			
Size	Description	Part No.	Type
MS6	O-rings, screws, sealing ring	673640	MS6-LF



Ordering Data – Filter Cartridges			
Size	Filtration grade [µm]	Part No.	Type
MS6	5	534499	MS6-LFP-C
	40	534500	MS6-LFP-E

- For spare parts go to: www.festo.com/en/spare_parts_service

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

United States

Customer Resource Center
502 Earth City Expy., Suite 125
Earth City, MO 63045

For ordering assistance, or to find
your nearest Festo Distributor,

Call: 1.800.99.FESTO

Fax: 1.800.96.FESTO

Email: customer.service@us.festo.com

For technical support,

Call: 1.866.GO.FESTO

Fax: 1.800.96.FESTO

Email: product.support@us.festo.com

Headquarters

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

Sales Offices

Appleton

N. 922 Tower View Drive, Suite N
Greenville, WI 54942

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056

Dallas

1825 Lakeway Drive, Suite 600
Lewisville, TX 75057

Detroit - Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326

New York

395 Moreland Road
Hauppauge, NY 11788

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550

Design and Manufacturing Operations



East: 395 Moreland Road, Hauppauge, NY 11788



Central: 1441 East Business Center Drive, Mt. Prospect, IL 60056



West: 4935 Southfront Road, Suite F, Livermore, CA 94550

Mexico

Headquarters

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



Canada

Headquarters

Festo Inc.
5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Call: 1.905.624.9000
Fax: 1.905.624.9001
Email: info.ca@ca.festo.com
www.festo.com/ca



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