

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
									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			
	Body thread	Port plate	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	Differential pressure indicator	Flow direction from right to left	
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

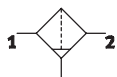
Technical Data	→ 784
Dimensional Drawings	→ 787
Ordering Data	→ 789
Accessories	→ 792
Replacement Parts	→ 800

→ 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]					
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			

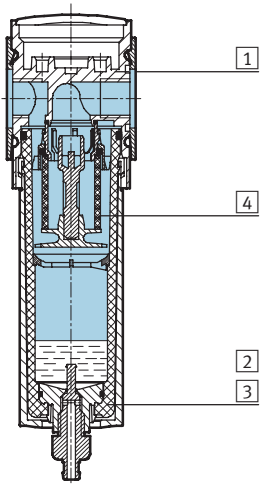
1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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

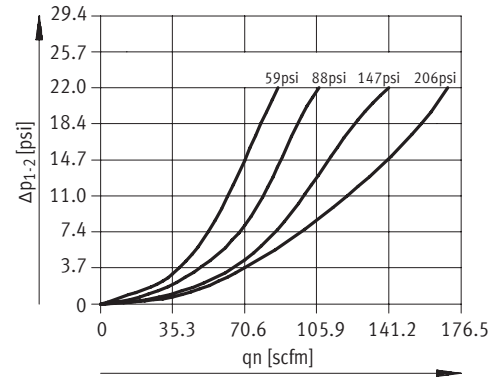
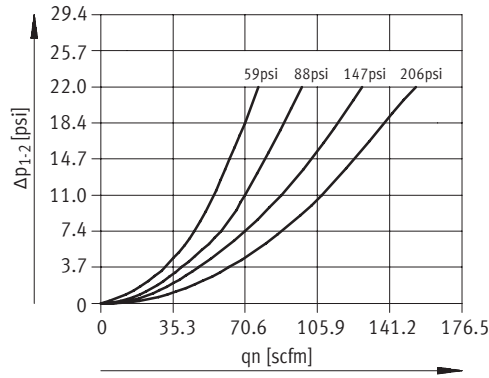
Standard Filters MS6N-LF – Inch Series

Technical Data

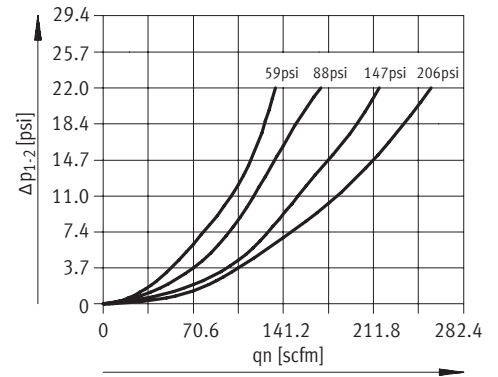
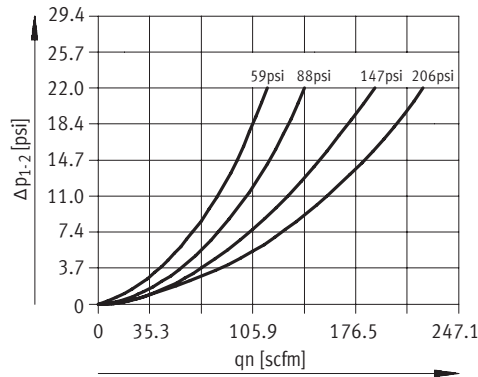


Standard Flow Rate q_n as a Function of the Differential Pressure Δp_{1-2}

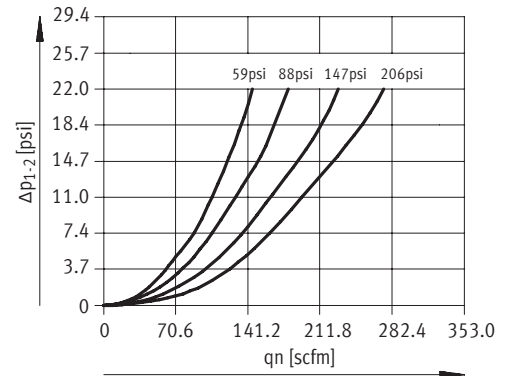
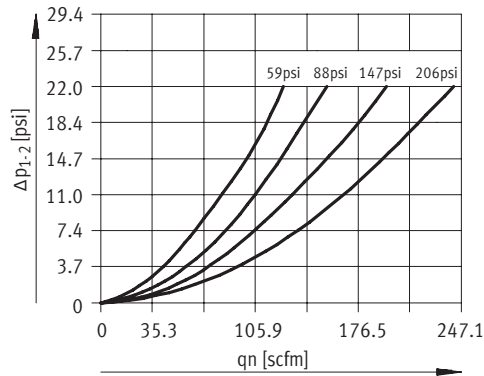
MS6N-LF-1/4 Filtration grade 5 μm Filtration grade 40 μm



MS6N-LF-3/8



MS6N-LF-1/2



Standard Filters MS6N-LF – Inch Series

Dimensional Drawings



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

Manual bowl drain

1 Installation dimensions
→ Flow direction

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				
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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

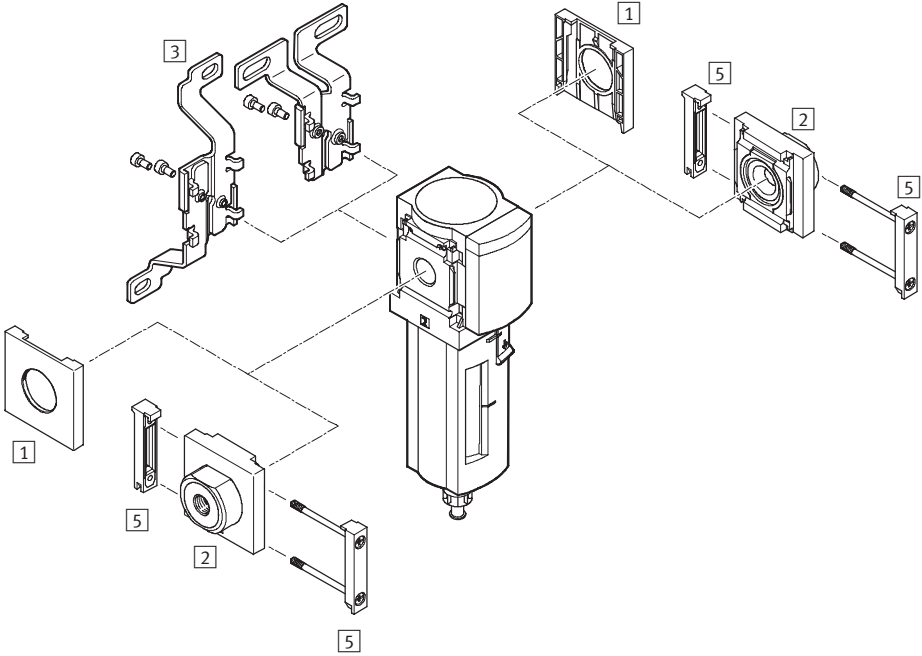
Transfer order code

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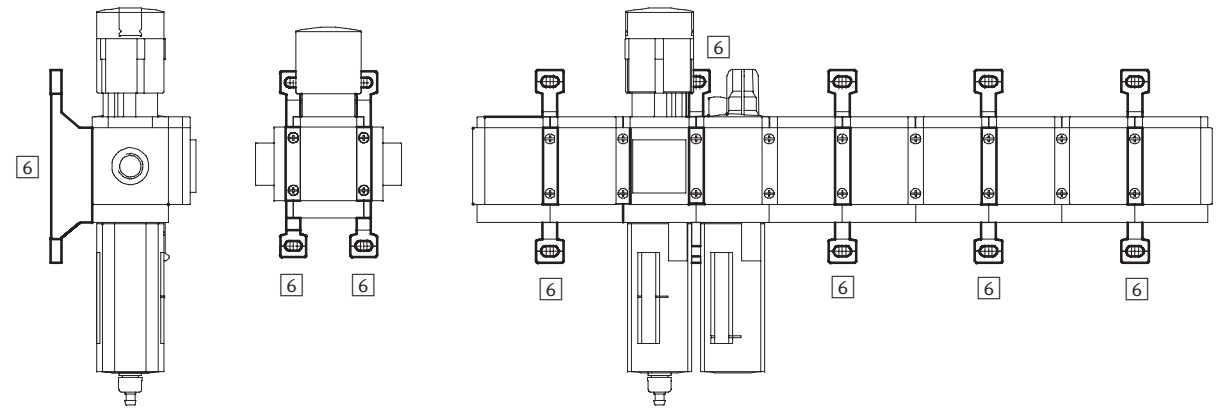
Standard Filters MS6N-LF – Inch Series

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

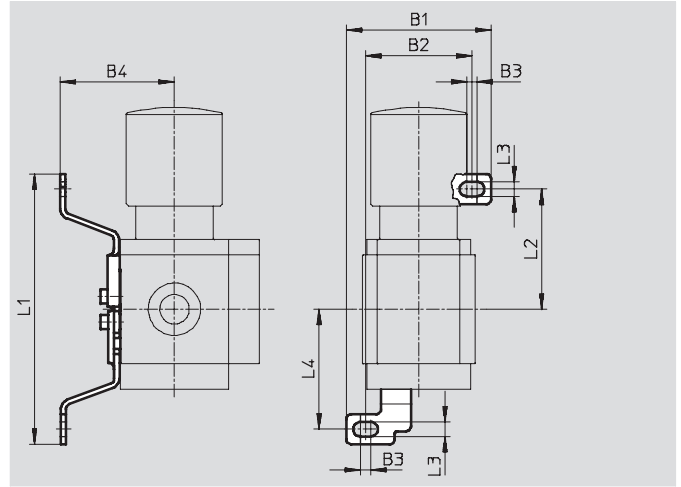


Accessories

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

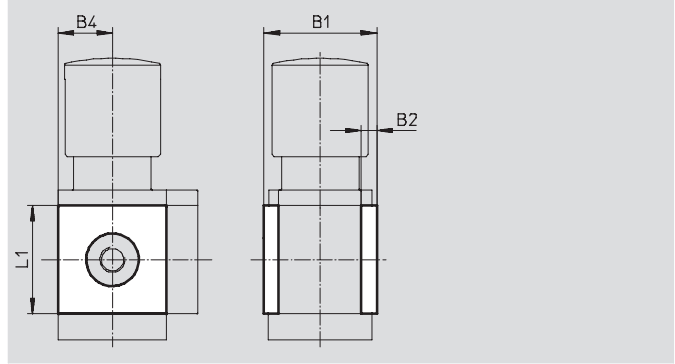
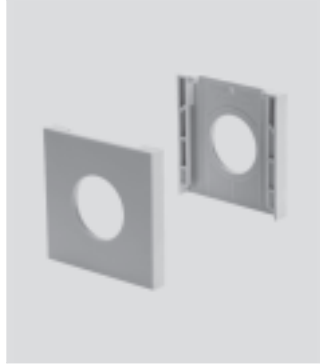
Standard Filters MS6N-LF – Inch Series

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

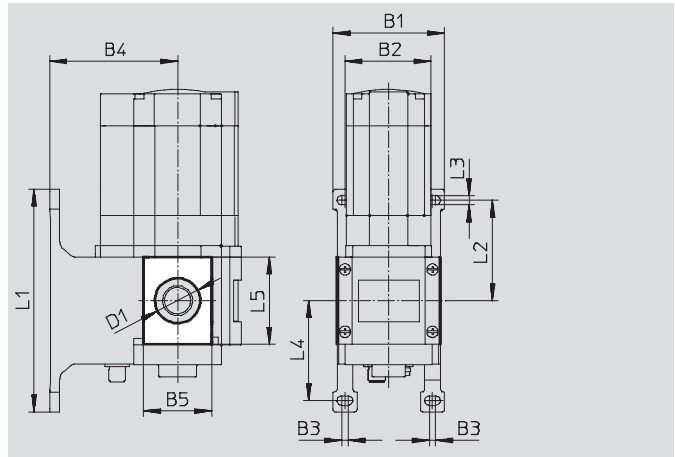


Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
2.64	0.31	1.22	2.44	538780	MS6-END	

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.

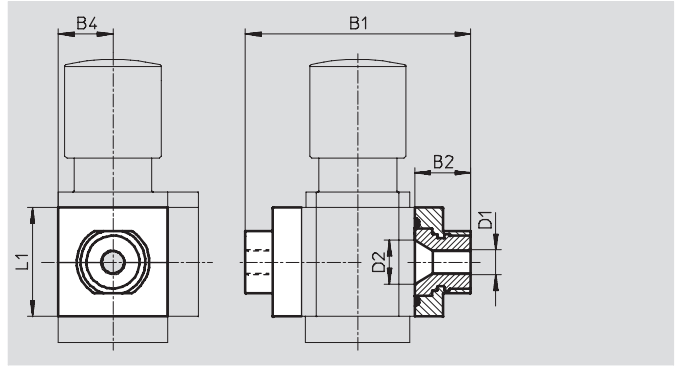
Standard Filters MS6N-LF – Inch Series

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...

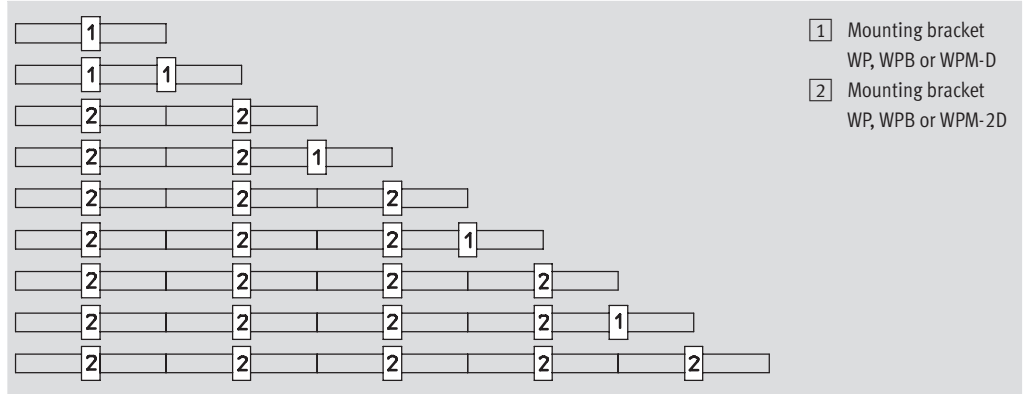
Suggested placement of wall mounting brackets when mounting air preparation combinations

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

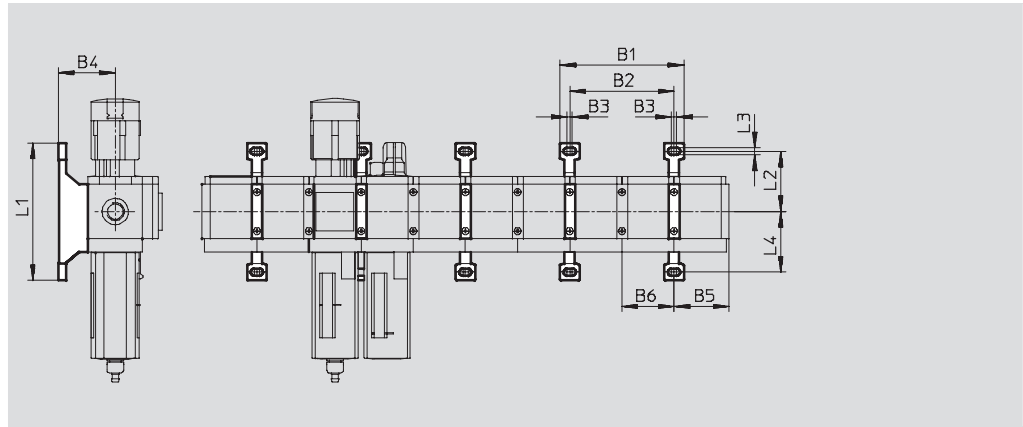
2 units: 4.88 in with WP, WPB
5.43 in with WPM-2D

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						1.63
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

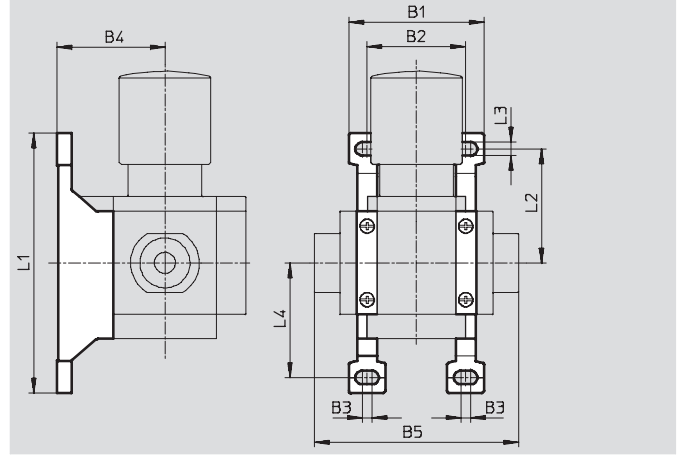


Accessories

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

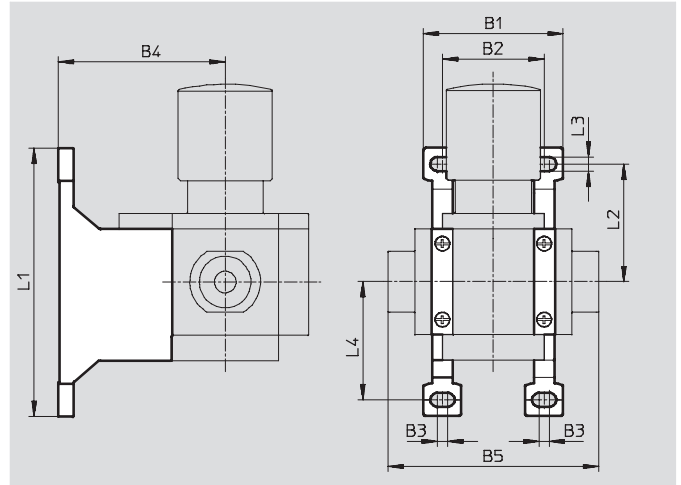


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	2.13	4.53	6.22	2.80	0.26	2.80	0.15	532195	MS6-WP

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

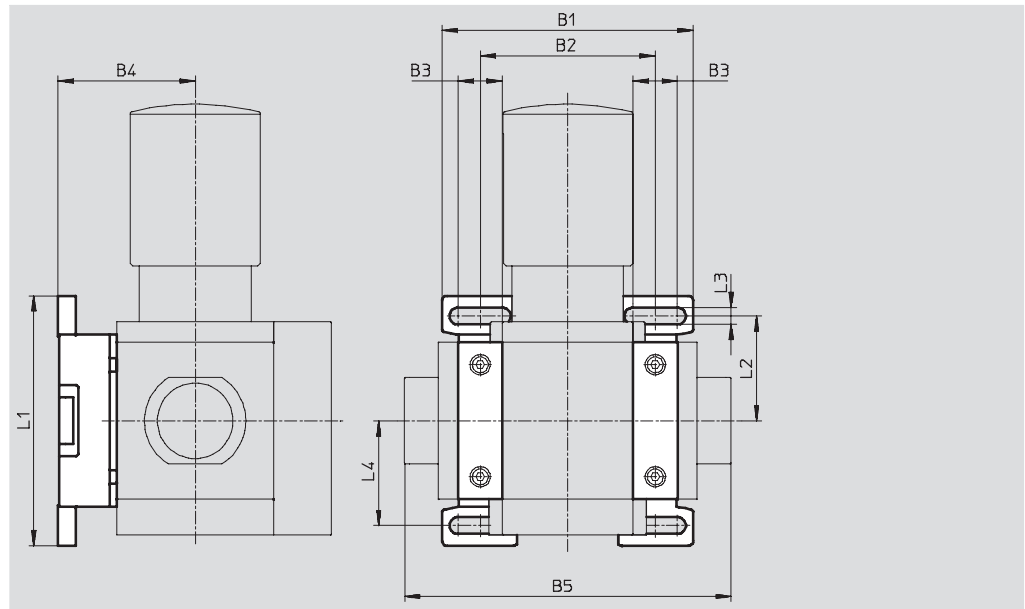
Accessories

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

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