

Active Carbon Filters MS4N-LFX – Inch Series



Active carbon filters remove liquid and gaseous oil particles as well as odor and taste from compressed air. Pre-filtration with a grade of 0.01 micron is required.

- Pneumatic connection: 1/8 NPT, 1/4 NPT, 3/8 NPT
- Supply pressure 0 ... 235 psi
- Flow rate: 8.8 scfm

Product Range Overview											
Type	Pneumatic connections		Filtration grade [µm]				Bowl guard		Bowl drain	Contamination control	Reverse flow
	Body thread	Port plate	0.01	1	5	40	Plastic bowl guard	Metal bowl			
MS4N		AG...	A	B	C	E	R	U	M	DA	Z
LFX	1/8 NPT, 1/4 NPT	3/8 NPT, 1/4 NPT, 3/8 NPT	-	-	-	-	■	■	■	-	■

Features

- Removal of liquid and gaseous oil particles from compressed air using active carbon
- Eliminates odors and vapors
- Prefiltration with micro filter MS4-LFM-A, filtration grade 0.01 µm, is required.

Contents

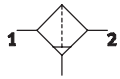
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→ www.festo.com/catalog/ms4n-lfx

Active Carbon Filters MS4N-LFX – Inch Series

Technical Data

ISO Symbol



Manual bowl drain



General Technical Data		
Pneumatic connection 1, 2	1/8 NPT	1/4 NPT
Air purity class at the output ¹⁾	1.7.1 to DIN ISO 8573-1	
Supply pressure [psi]	0 ... 206	

1) It is recommended to replace filter cartridges after 1,000 operating hours.

Standard Nominal Flow Rate qnN ²⁾ and Standard Flow Rate qn [scfm]		
Pneumatic connection 1, 2	1/8 NPT	1/4 NPT
qnN 1 → 2	8.8	8.8
qn max	12.7	12.7

2) Measured at p1 = 88 psi and Δp = 1.0 psi

Operating and Environmental Conditions		
Operating medium	Compressed air, filtered, unlubricated, filtration grade 0.01 μm	
Bowl guard	Plastic bowl guard	
	Metal bowl	
Ambient temperature [°F]	14 ... 140	
Temperature of medium [°F]	41 ... 86	
Storage temperature [°F]	14 ... 140	
Assembly position	Vertical ±5°	
Corrosion resistance CRC ³⁾	2	

3) 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	0.38
With metal bowl	0.70

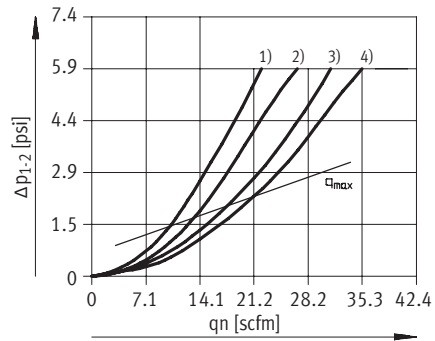
- Filter cartridges → 304
- For spare parts go to: www.festo.com/en/spare_parts_service

Active Carbon Filters MS4N-LFX – Inch Series

Technical Data

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

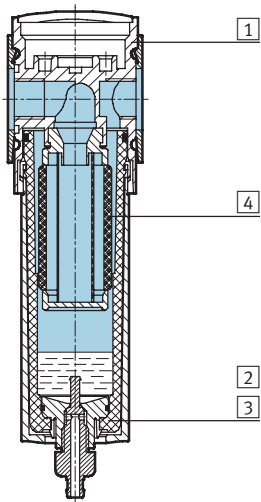
MS4N-LFX-1/8 and MS4N-LFX-1/4



- 1) 59 psi
- 2) 88 psi
- 3) 147 psi
- 4) 206 psi

Materials

Sectional view



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

Active Carbon Filters MS4N-LFX – Inch Series

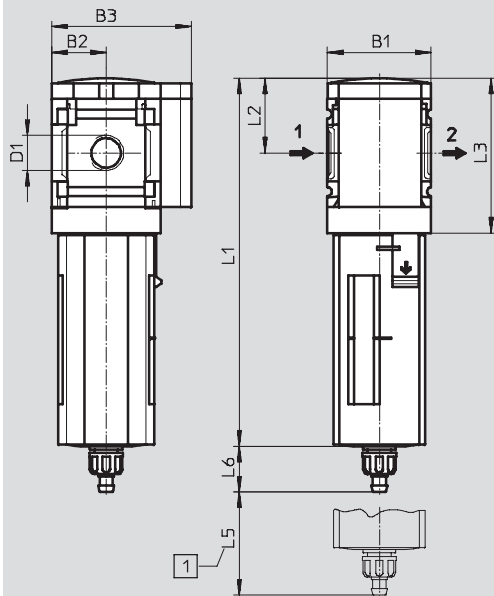


Dimensional Drawings, Ordering Data – Pre-configured Products

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					
MS4N-LFX-1/8	1.58	0.83	2.13	1/8 NPT	5.62	6.31	1.14	2.36	2.95	0.70	0.71
MS4N-LFX-1/4				1/4 NPT							

1) Dimensions are in inches, unless otherwise noted.

Ordering Data

Bowl drain	Connection	Plastic bowl guard			Metal bowl		
		Part No.	Type	LT	Part No.	Type	LT
Manual	1/8 NPT	536715	MS4N-LFX-1/8-R	1D	536717	MS4N-LFX-1/8-U	Q
	1/4 NPT	531764	MS4N-LFX-1/4-R	1D	535786	MS4N-LFX-1/4-U	Q

LT = Lead time

1D typically ships same day/next day

1W typically ships within 1 week

Q request a quote for lead time

Active Carbon Filters MS4N-LFX – Inch Series



Ordering Data – Configurable Products

M Mandatory Data						O Options		
Part No.	Series	Size	Thread	Function	Connection size	Bowl	Type of mounting	Reverse flow direction
527700	MS	4	N	LFX	1/8, 1/4, AQK, AQN, AQP	R U	WP WPM WB WBM	Z
Order example								
527700	MS	4	N	- LFX	- AQK	- R	- WP	- Z

Ordering Table		Grid dimension [mm]	40	Conditions	Code	Enter code
M	Part No.	527700				
	Series	Standard			MS	MS
	Size	4			4	4
	Thread	NPT thread			N	N
	Function	Activated carbon filter			-LFX	-LFX
	Connection size	Body thread 1/8 NPT			-1/8	
		Body thread 1/4 NPT			-1/4	
		Port plate 1/8 NPT (dimensions → 300)			-AQK	
		Port plate 1/4 NPT (dimensions → 300)			-AQN	
		Port plate 3/8 NPT (dimensions → 300)			-AQP	
	Bowl	Plastic bowl with plastic bowl guard			-R	
		Metal bowl			-U	
O	Type of mounting	Mounting bracket (dimensions → 301)		1	-WP	
		Mounting bracket (dimensions → 301)		1	-WPM	
		Mounting bracket (dimensions → 298)			-WB	
		Mounting bracket (dimensions → 298)			-WBM	
	Reverse flow direction	Flow direction from right to left			-Z	

1 WP, WPM Only with port plate AQK, AQN or AQP

Transfer order code

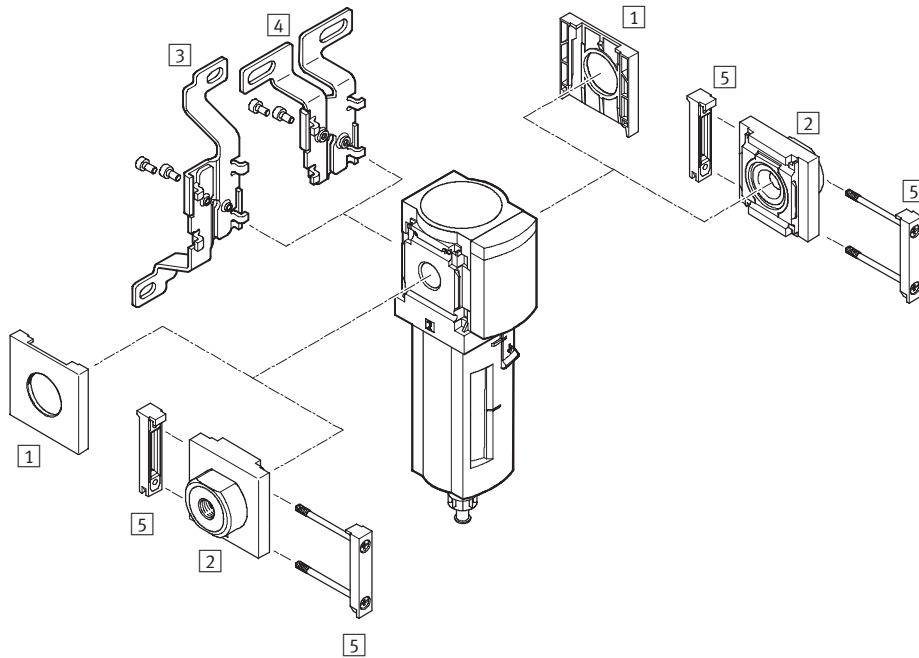
527700	MS	4	N	- LFX	-		-		-	
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Active Carbon Filters MS4N-LFX – Inch Series

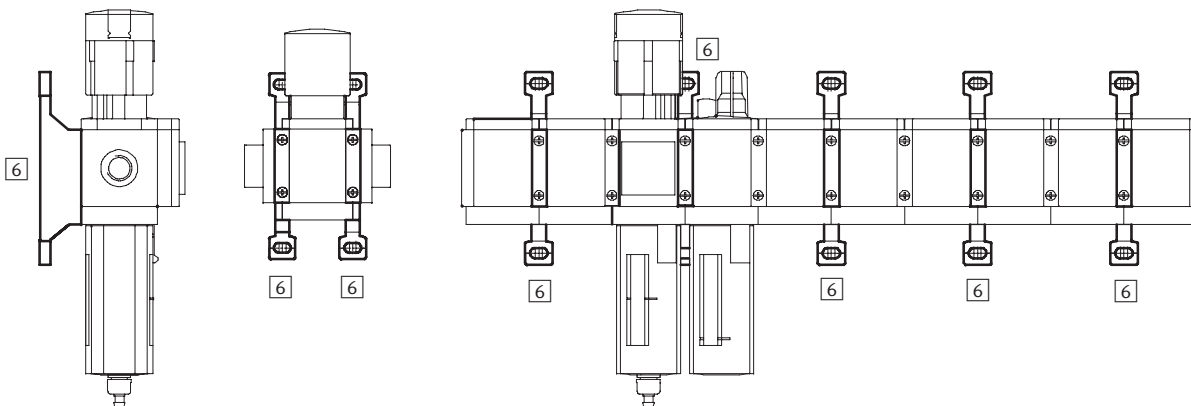
Accessories Overview



Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.



Active Carbon Filters MS4N-LFX – Inch Series

Accessories Overview

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Mounting Attachments and Accessories						
		Single unit		Combination unit → 2.1-49		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS4-END	■	-	■	-	299
2	Port plate MS4N-AQ..	-	■	-	■	300
3	Mounting bracket MS4-WB	■	■	-	-	298
4	Mounting bracket MS4-WBM	■	■	-	-	298
5	Body connector MS4-MV	-	■	■	■	300
6	Mounting bracket MS4-WP/WPB/WPM	-	■	■	■	301

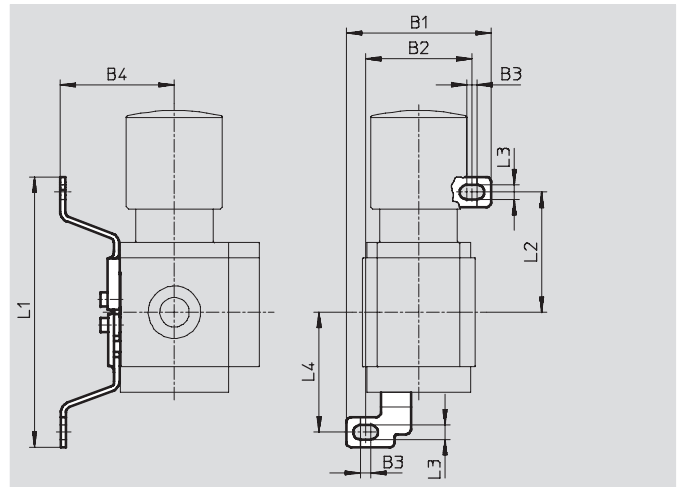
Active Carbon Filters MS4N-LFX – Inch Series

Accessories

3 Mounting bracket MS4-WB

- For wall mounting

Material:
Steel

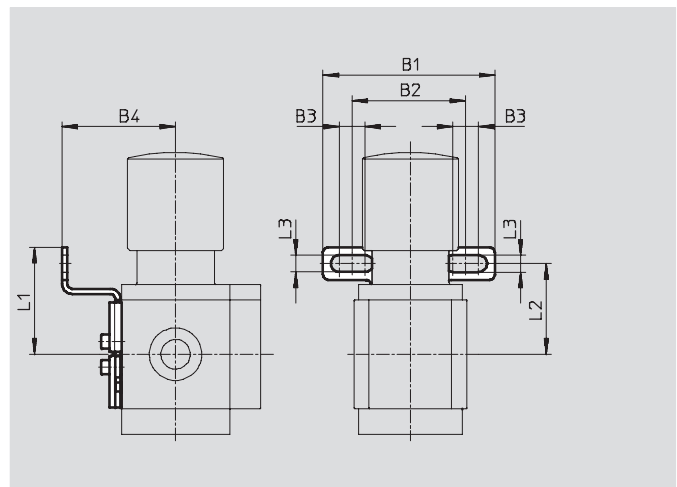


Dimensions and Ordering Data										
B1	B2	B3	B4	L1	L2	L3	L4	Weight [lb]	Part No.	Type
2.21	1.62	0.16	1.74	4.12	1.83	0.22	1.79	0.09	532185	MS4-WB

4 Mounting bracket MS4-WBM

- For wall mounting

Material:
Steel



Dimensions and Ordering Data									
B1	B2	B3	B4	L1	L2	L3	Weight [lb]	Part No.	Type
2.62	1.73	0.39	1.73	1.63	1.38	0.26	0.10	526062	MS4-WBM

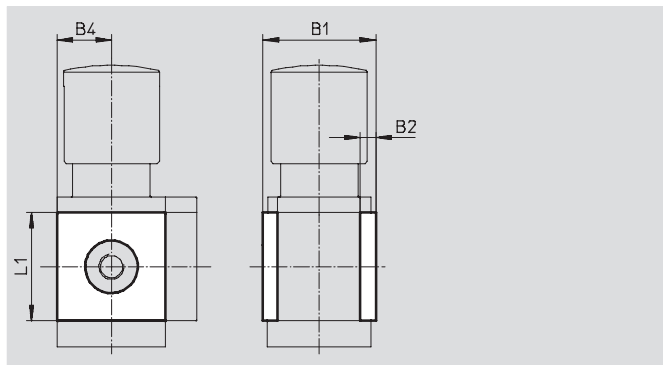
Active Carbon Filters MS4N-LFX – Inch Series

Accessories

1 Cover cap MS4-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

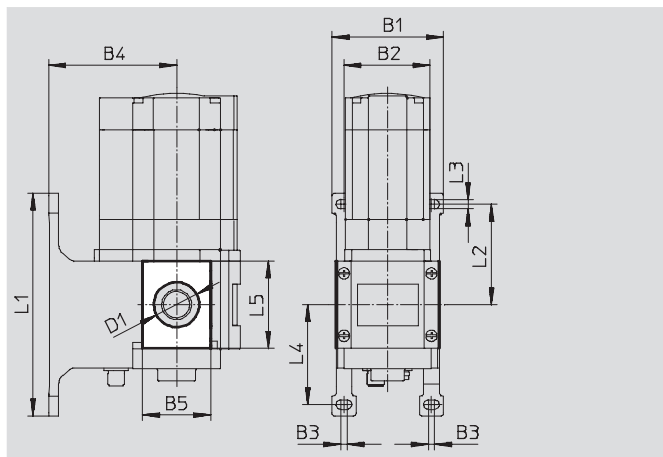


Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
1.72	0.24	0.83	1.65	538779	MS4-END	

Mounting plate MS4-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											
2.17	1.58	0.16	1.73	2.60	1.20	0.80	4.17	1.83	0.22	1.84	1.65	2	0.01	542966	MS4-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.

Active Carbon Filters MS4N-LFX – Inch Series

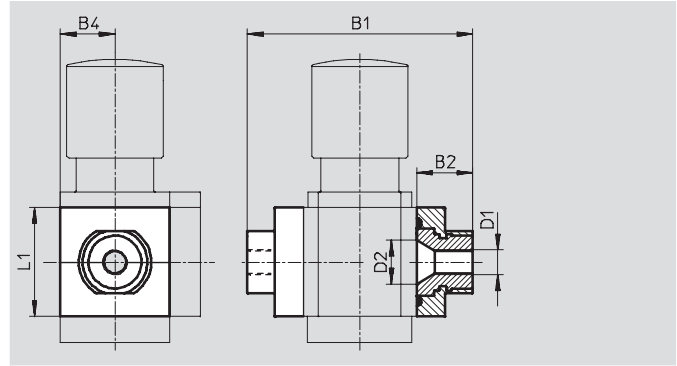
Accessories

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2 Port plate MS4N-AQ...

- Adapter for pneumatic connection

Material:
Aluminum



Dimensions and Ordering Data							
B1	B2	B4	D1	D2	L1	Weight [lb]	Part No. Type
3.29	0.85	0.83	1/8 NPT	0.66	1.65	0.26	526065 MS4N-AQK
			1/4 NPT				526066 MS4N-AQN
			3/8 NPT				526067 MS4N-AQP

5 Body connector MS4-MV

- For connecting modules

Material:
Stainless steel/polyacetate



Ordering Data		
Weight [lb]	Part No.	Type
0.07	532798	MS4-MV

Active Carbon Filters MS4N-LFX – Inch Series

Accessories



6 Mounting Bracket MS4-WP...

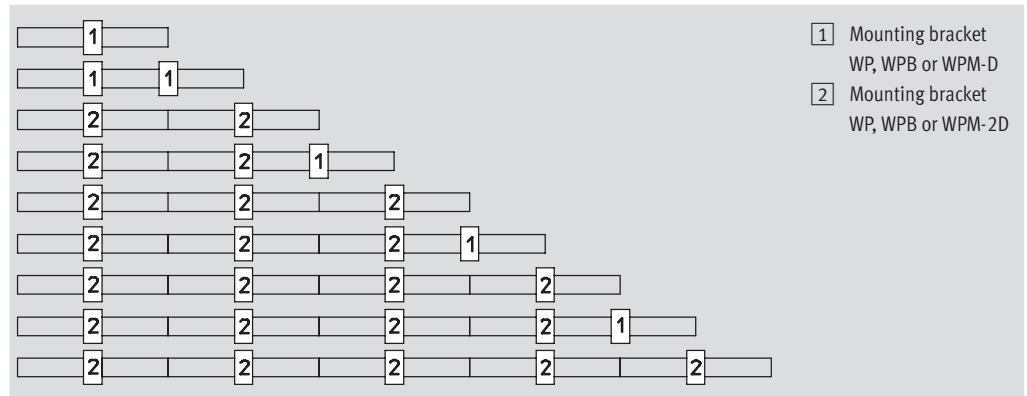
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 1.575 in

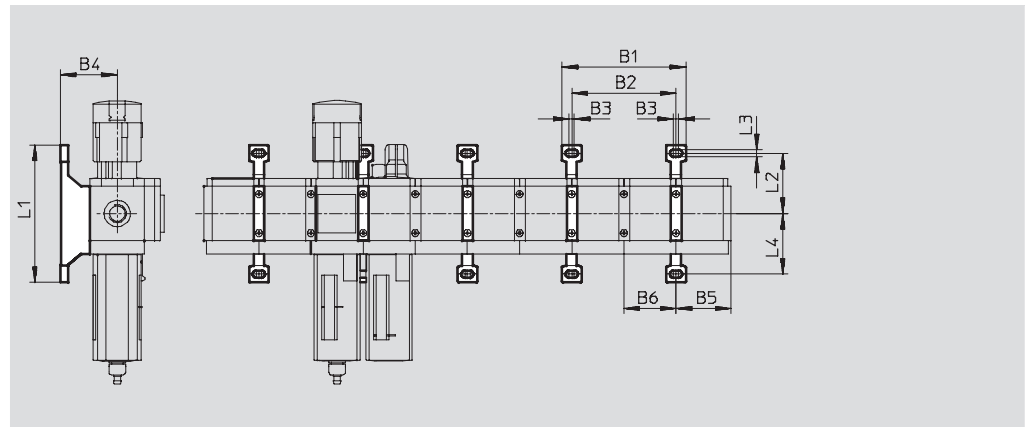
2 units: 3.15 in

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
MS4-WP	3.75	3.15	0.16	1.73	1.65	1.57	4.17	1.83	0.22	1.84
MS4-WPB				2.60						1.57
MS4-WPM-...D				1.73						3.65

Active Carbon Filters MS4N-LFX – Inch Series

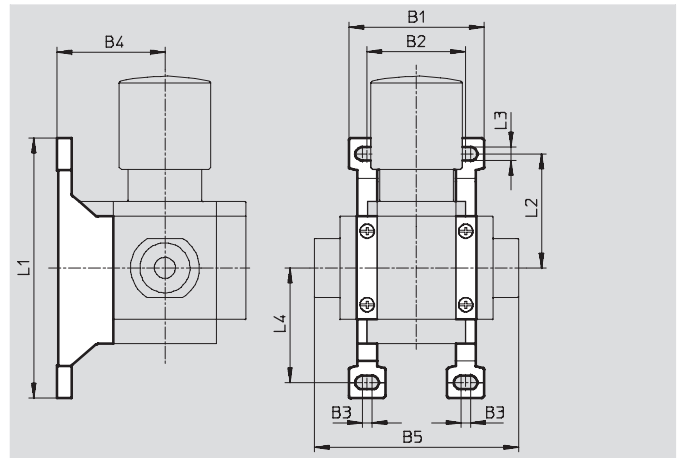


Accessories

Mounting bracket MS4-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

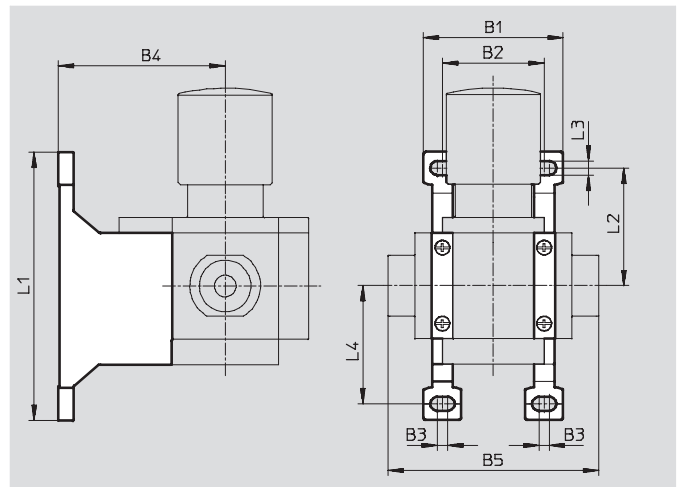


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
2.17	1.58	0.16	1.73	3.28	4.17	1.83	0.22	1.84	0.08	532184	MS4-WP

Mounting bracket MS4-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
2.17	1.58	0.16	2.60	3.28	4.17	1.83	0.22	1.84	0.11	526063	MS4-WPB

Active Carbon Filters MS4N-LFX – Inch Series

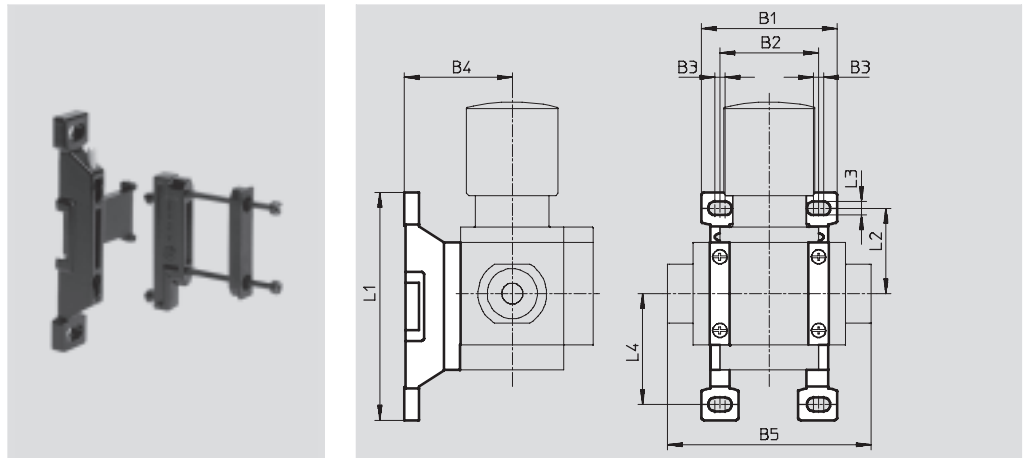
Accessories

Mounting bracket MS4-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
2.17	1.57	0.16	1.73	3.28	3.65	1.37	0.22	1.78	1.57	0.09	526060	MS4-WPM-D
3.75	3.15			4.86					3.15	0.11	526061	MS4-WPM-2D

Body connector MS4-MVM

- For installation of modules with regulating knob pointing downwards

Material:
Die-cast aluminum



Ordering Data		
Size	Part No.	Type
MS4	532800	MS4-MVM

Active Carbon Filters MS4N-LFX – Inch Series

Replacement Parts

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Ordering Data – Filter Cartridges			
Size	Filtration grade [µm]	Part No.	Type
MS4	Residual oil content $\leq 0.003 \text{ mg/m}^3$	532912	MS4/D-MINI-LFX

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

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Subject to change