

Fine and Micro Filters MS12-LFM – Metric Series



Fine and micro filters, with 1 micron or 0.01 micron filtration grades, remove submicronic water or oil droplets and dirt particles for exceptionally clean compressed air.

- Pneumatic connection: G1, G1¼, G1½, G2
- Supply pressure
 - For manual drain: 0.8 ... 20 bar
 - For fully automatic drain: 2 ... 12 bar
 - For fully automatic drain, electrically actuated: 0.8 ... 16 bar
- Flow rate: 5,000 ... 7,600 l/min

Product Range Overview														
Type	Pneumatic connections	Filtration grade [µm]				Bowl guard	Bowl drain						Contamination control	Reverse flow
		0.01	1	5	40		Manual	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		
MS12	AG...	A	B	C	E	U	M	V	E1	E2	E3	E4	DA	Z
LFM	G1, G1¼, G1½, G2	■	■	-	-	■	■	■	■	■	■	■	■	■

Features

- High-performance filter for exceptionally clean compressed air
- Air quality to DIN ISO 8573-1
- Available with differential pressure indicator for optical indication of filter contamination
- LFM-A:
 - ISO class 1 for particles: max. particle density 0.1 mg/m³
 - ISO class 2 for oil aerosols: max. oil concentration 0.1 mg/m³
 - Filter efficiency 99.9999%
- LFM-B:
 - ISO class 2 for particles: max. particle density 1 mg/m³
 - ISO class 3 for oil aerosols: max. oil concentration 1 mg/m³
 - Filter efficiency 99.99%

Contents

- Technical Data → 1124
- Dimensional Drawings → 1128
- Ordering Data → 1130
- Accessories → 1132
- www.festo.com/catalog/ms12-lfm

Fine and Micro Filters MS12-LFM – Metric Series

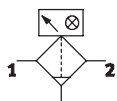
Technical Data

FESTO

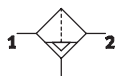
ISO Symbol



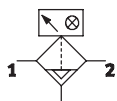
Manual bowl drain
without differential pressure indicator



With differential pressure indicator



Fully automatic bowl drain
without differential pressure indicator



With differential pressure indicator



General Technical Data			G1	G1¼	G1½	G2
Pneumatic connection 1, 2 ¹⁾			G1	G1¼	G1½	G2
Filtration grade	[µm]	0.01 (micro filter LFM-A, air purity class at the output 1.7.2 to DIN ISO 8573-1) 1 (fine filter LFM-B, air purity class at the output 2.7.3 to DIN ISO 8573-1)				
Supply pressure	M [bar]	0.8 ... 20 (manual drain)				
	V [bar]	2 ... 12 (fully automatic drain)				
	E... [bar]	0.8 ... 16 (fully automatic drain, electrically actuated)				

1) Dependent on port plate selected, must be ordered separately as an accessory → 1133

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate $q_{nN}^{(2)}$ and Standard Flow Rate $q_n^{(2)}$ [l/min]				
Pneumatic connection 1, 2	G1	G1¼	G1½	G2
Micro filter LFM-A				
$q_{nN} 1 \rightarrow 2$	5,000	6,000	6,500	7,000
$q_n \text{ min}$	700	700	700	700
$q_n \text{ max}$	23,000	23,000	23,000	23,000
Fine filter LFM-B				
$q_{nN} 1 \rightarrow 2$	5,200	6,200	7,500	7,600
$q_n \text{ min}$	950	950	950	950
$q_n \text{ max}$	23,000	23,000	23,000	23,000

2) Dependent on port plate selected, must be ordered separately as an accessory → 1133
Measured at $p_1 = 6 \text{ bar}$ and $\Delta p = 70 \text{ mbar}$.

Fine and Micro Filters MS12-LFM – Metric Series

Technical Data

Operating and Environmental Conditions			
Bowl drain	Manual M	Fully automatic V	Fully automatic, electrically actuated E...
Operating medium micro filter LFM-A	Compressed air, filtered, unlubricated, filtration grade 1 µm		
Operating medium fine filter LFM-B	Compressed air, filtered, unlubricated, filtration grade 5 µm		
Max. condensate volume [cm ³]	400		
Bowl guard	Metal bowl		
Ambient temperature [°C]	-10 ... +60	+5 ... +60	+1 ... +60
Temperature of medium [°C]	-10 ... +60	+5 ... +60	+1 ... +60
Storage temperature [°C]	-10 ... +60	-10 ... +60	+1 ... +60
Assembly position	Vertical ±5°		
Corrosion resistance CRC ¹⁾	2		

1) Corrosion resistance class 2 according to Festo standard 940 070

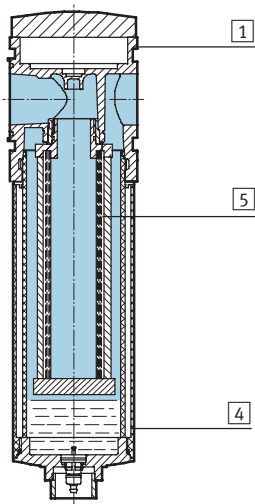
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]	
With metal bowl	7,000
With metal bowl and fully automatic, electrically actuated bowl drain	7,700

- Filter cartridges → 1135
- For spare parts go to: www.festo.com/en/spare_parts_service

Materials

Sectional view



Fine and micro filter		
1	Body	Die-cast aluminum
4	Metal bowl	Wrought aluminum alloy
5	Filter element	Borosilicate mesh
-	Seals	Nitrile rubber

Fine and Micro Filters MS12-LFM – Metric Series

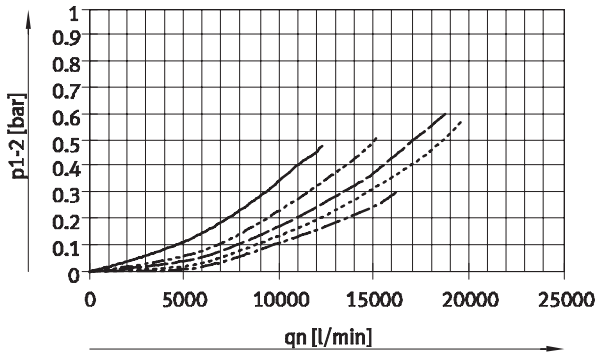
Technical Data



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

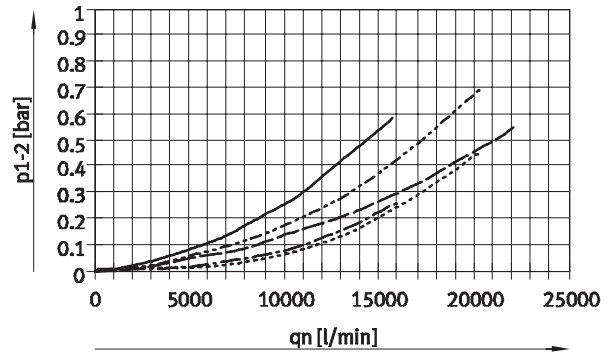
Filtration grade 0.01 μm

With port plate MS12-AGF, Pneumatic connection G1



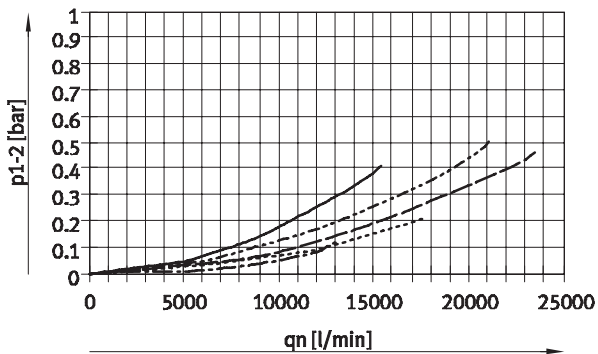
Filtration grade 0.01 μm

With port plate MS12-AGG, Pneumatic connection G1¼



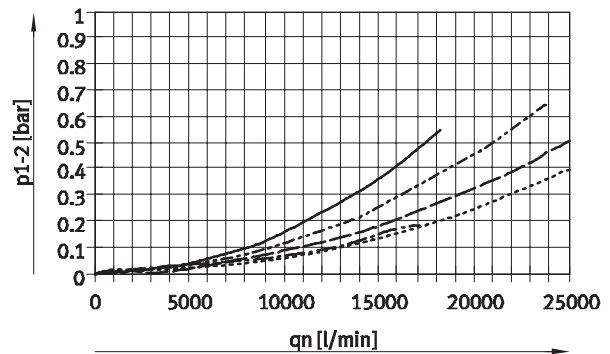
Filtration grade 0.01 μm

With port plate MS12-AGH, Pneumatic connection G1½



Filtration grade 0.01 μm

With port plate MS12-AGI, Pneumatic connection G2



- p1: 4 bar
- - - - - p1: 6 bar
- · - · - p1: 8 bar
- · · · · p1: 10 bar
- · - · - p1: 12 bar

Fine and Micro Filters MS12-LFM – Metric Series

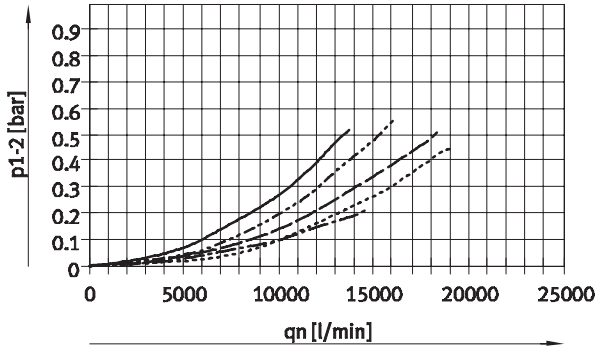
Technical Data



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

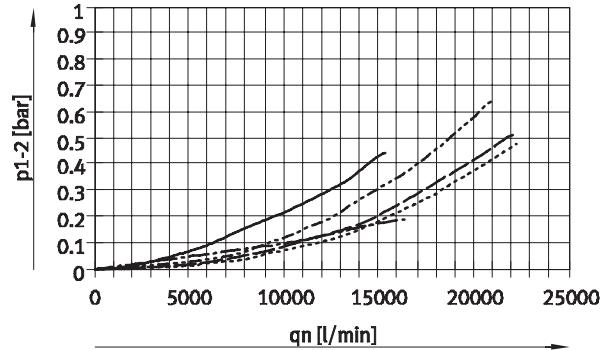
Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGF, Pneumatic connection G1



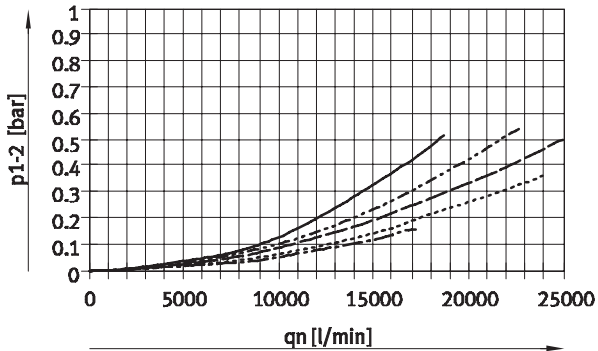
Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGG, Pneumatic connection G1¼



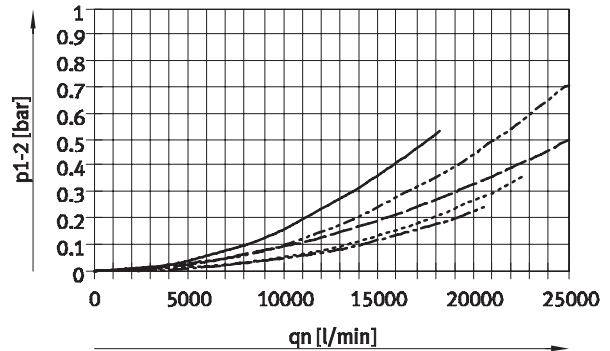
Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGH, Pneumatic connection G1½



Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGI, Pneumatic connection G2



- p1: 4 bar
- - - - p1: 6 bar
- · - · p1: 8 bar
- · · · p1: 10 bar
- · - · - p1: 12 bar

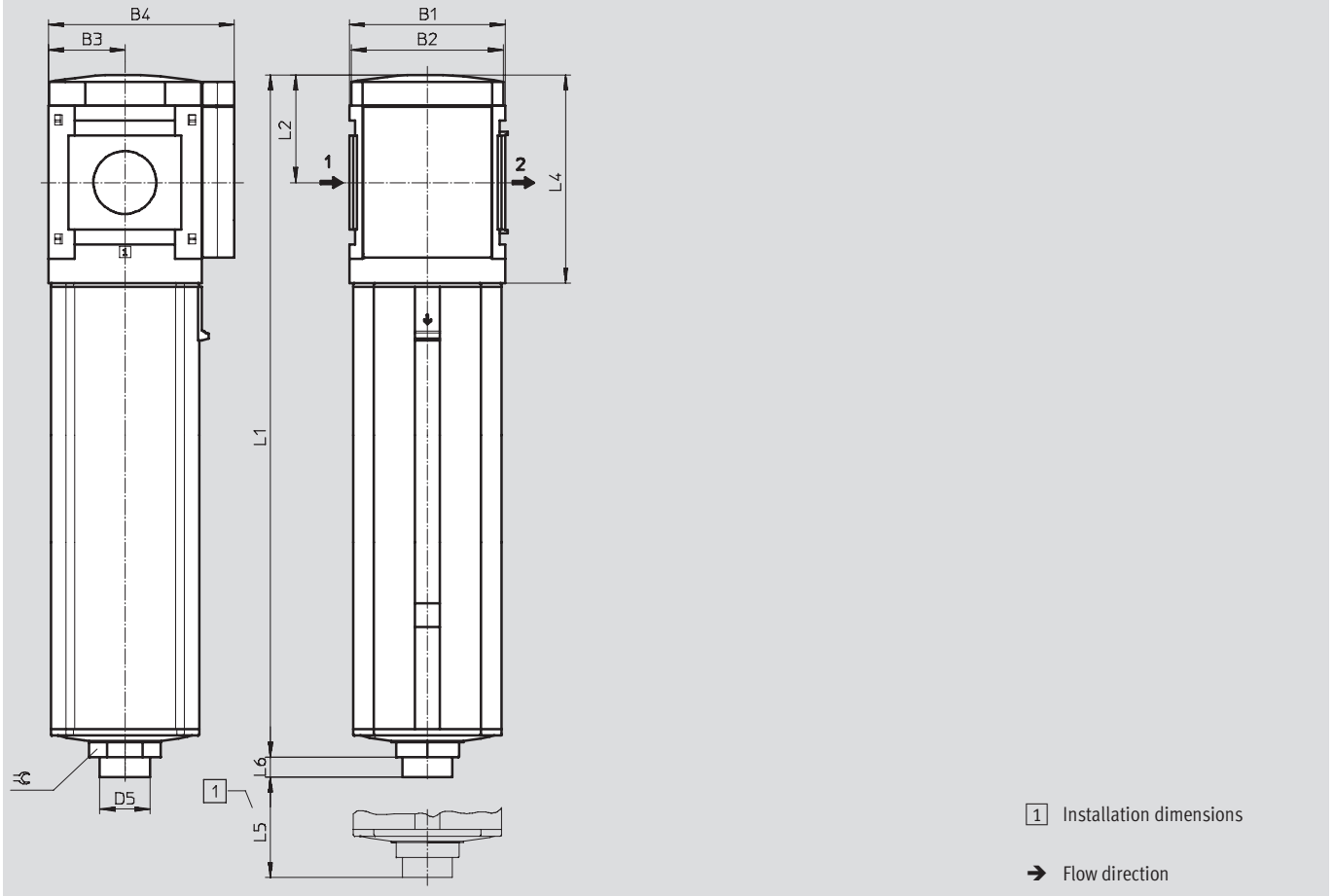
Fine and Micro Filters MS12-LFM – Metric Series

Dimensional Drawings



Dimensions¹⁾ – Standard

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



B1	B2	B3	B4	D5	L1	L2	L4	L5	L6	≅
124	122	61	148	∅ 40	543	86	166	350	16	50

1) Dimensions are in millimeters, unless otherwise noted.

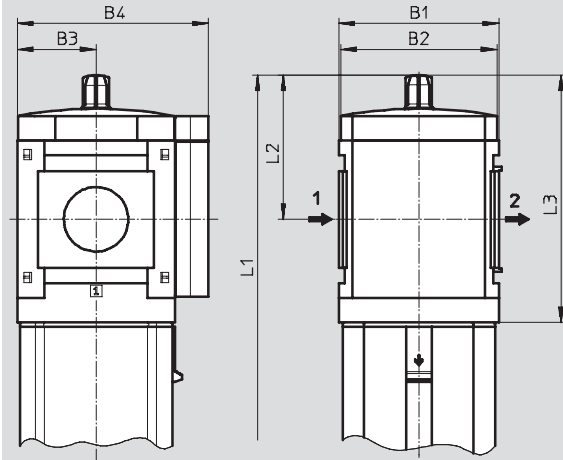
Fine and Micro Filters MS12-LFM – Metric Series

Dimensional Drawings



Dimensions¹⁾ – Differential Pressure Indicator

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



→ Flow direction

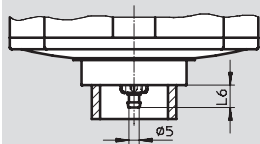
Type	B1	B2	B3	B4	L1	L2	L3
MS12-LFM-...-DA	124	122	61	148	569	112	192

1) Dimensions are in millimeters, unless otherwise noted.

Dimensions¹⁾ – Bowl Drain

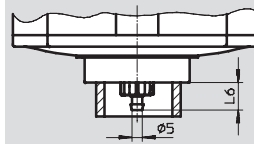
Download CAD Data → www.festo.com/us/cad

Manual M



Barbed fitting for plastic tubing
PCN-4

Fully automatic V



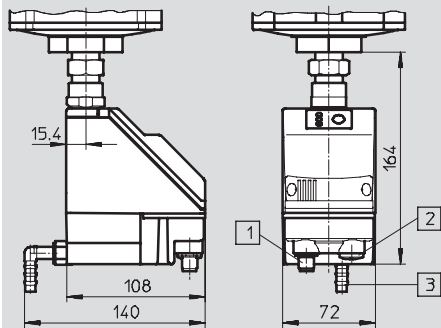
Barbed fitting for plastic tubing
PCN-4

Type	L6
MS12-LFM-...-M	11

Type	L6
MS12-LFM-...-V	13

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 millimeters, unless otherwise noted.

Fine and Micro Filters MS12-LFM – Metric Series



Ordering Data – Pre-configured Products

Ordering Data							
Metal bowl							
Bowl drain	Connection	Micro filter			Fine filter		
		Filtration grade 0.01 µm			Filtration grade 1 µm		
		Part No.	Type	LT	Part No.	Type	LT
Fully automatic	G1 ... G2 ¹⁾	537154	MS12-LFM-G-AUV	1D	537153	MS12-LFM-G-BUV	1D

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

1) Port plate must be ordered separately as an accessory → 1133

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Fine and Micro Filters MS12-LFM – Metric Series



Ordering Data – Configurable Products

M Mandatory data								O Options		
Part No.	Series	Size	Function	Connection size	Filtration grade	Bowl	Bowl drain	Filter change sensor	Type of mounting	Reverse flow direction
535042	MS	12	LFM	AGF AGG AGH AGI G	B A	U	M V E1 E2 E3 E4	DA	WP	Z
Order example										
535042	MS	12	- LFM	- AGI	- A	- U	- M	-	-	-

Ordering Table		Grid dimension [mm]	124	Conditions	Code	Enter code
M	Part No.	535042				
	Series	Standard			MS	MS
	Size	12			12	12
	Function	Fine and micro filter			-LFM	-LFM
	Connection size	Port plate G1 (dimensions → 1133)			-AGF	
		Port plate G1¼ (dimensions → 1133)			-AGG	
		Port plate G1½ (dimensions → 1133)			-AGH	
		Port plate G2 (dimensions → 1133)			-AGI	
		Module without connecting thread, without port plate			-G	
	Filtration grade	1 µm			-B	
		0.01 µm			-A	
	Bowl	Metal bowl			-U	-U
	Bowl drain	Manual			-M	
		Fully automatic (P1 max. 12 bar)			-V	
		External fully automatic bowl drain, electrical, 24 V DC, M12			-E1	
		External fully automatic bowl drain, electrical, 110 V AC, terminals			-E2	
		External fully automatic bowl drain, electrical, 230 V AC, terminals			-E3	
	External fully automatic bowl drain, electrical, 24 V DC, terminals			-E4		
O	Filter change sensor	Differential pressure indicator, optical			-DA	
	Type of mounting	Mounting bracket (dimensions → 1134)		1	-WP	
	Reverse flow direction	Flow direction from right to left			-Z	

1 WP Only with port plate AGF, AGG, AGH or AGI

Transfer order code

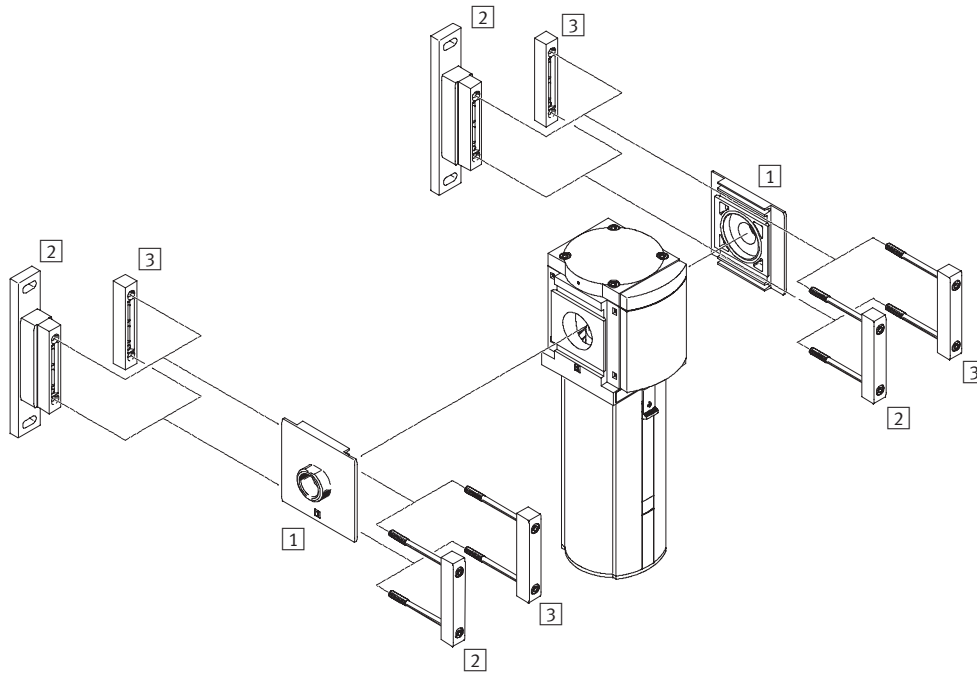
535042	MS	12	-	LFM	-		-		-	U	-		-		-	
--------	----	----	---	-----	---	--	---	--	---	---	---	--	---	--	---	--

Fine and Micro Filters MS12-LFM – Metric Series

Accessories Overview



Mounting Attachments and Accessories



Mounting Attachments and Accessories

		→ Page
1	Port plate MS12-AG...	1133
2	Mounting bracket MS12-WP	1134
3	Body connector MS12-MV	1133

Fine and Micro Filters MS12-LFM – Metric Series



Accessories

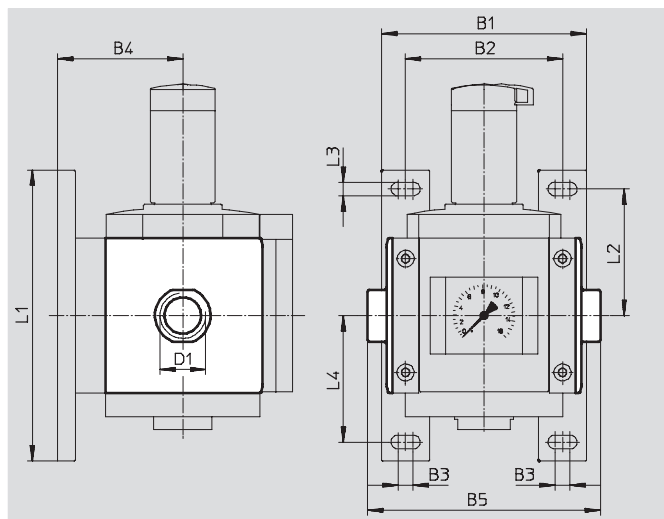
1 Port plate MS12-AG...

- Adapter for pneumatic connection

Material:

Die-cast aluminum

Free of copper and PTFE



Dimensions and Ordering Data												Part No.	Type
B1	B2	B3	B4	B5	D1	L1	L2	L3	L4	Weight [g]			
162	124	12	99	184	G1	230	100	11	100	1,300	537135	MS12-AGF	
				184	G1¼						537136	MS12-AGG	
				184	G1½						537137	MS12-AGH	
				196	G2						537138	MS12-AGI	

3 Body connector MS12-MV

- For connecting modules

Material:

Die-cast aluminum,

Free of copper and PTFE



Ordering Data			
Size	Weight [g]	Part No.	Type
MS12	500	537134	MS12-MV

Fine and Micro Filters MS12-LFM – Metric Series

FESTO

Accessories

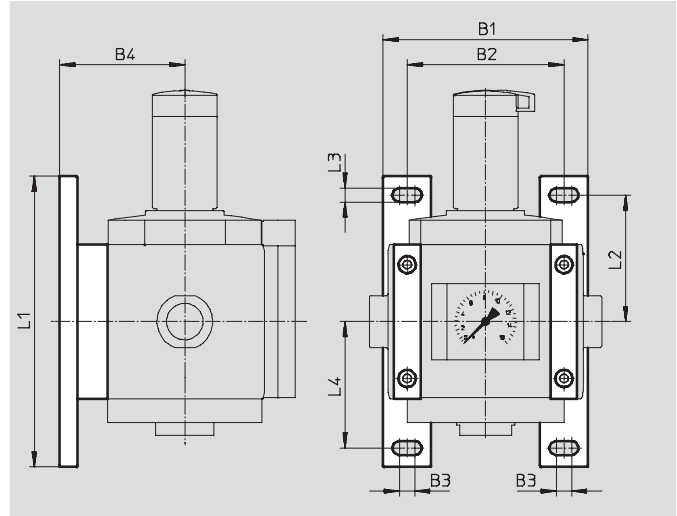
2 Mounting bracket MS12-WP

- To connect the modules for wall mounting
- In combination with a port plate for mounting an individual unit on a wall

Material:

Die-cast aluminum

Free of copper and PTFE



Dimensions and Ordering Data

Size	B1	B2	B3	B4	L1	L2	L3	L4	Weight [g]	Part No.	Type
MS12	162	124	12	99	230	100	11	100	700	537133	MS12-WP

Fine and Micro Filters MS12-LFM – Metric Series

Replacement Parts

FESTO



Ordering Data – Filter Cartridges			
Size	Filtration grade [μm]	Part No.	Type
MS12	0.01	537146	MS12-LFM-A
	1	537145	MS12-LFM-B

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

Fine and Micro Filters MS12N-LFM – Inch Series



Fine and micro filters, with 1 micron or 0.01 micron filtration grades, remove submicronic water or oil droplets and dirt particles for exceptionally clean compressed air.

- Pneumatic connection: 1 NPT, 1¼ NPT, 1½ NPT, 2 NPT
- Supply pressure
 - For manual drain: 12 ... 294 psi
 - For fully automatic drain: 29 ... 176 psi
 - For fully automatic drain, electrically actuated: 12 ... 235 psi
- Flow rate: 176.5 ... 268.3 scfm

Product Range Overview														
Type	Pneumatic connections	Filtration grade [µm]				Bowl guard	Bowl drain						Contamination control	Reverse flow
		0.01	1	5	40		Manual	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		
MS12N	AG...	A	B	C	E	U	M	V	E1	E2	E3	E4	DA	Z
LFM	1 NPT, 1¼ NPT, 1½ NPT, 2 NPT	■	■	-	-	■	■	■	■	■	■	■	■	■

Features

- High-performance filter for exceptionally clean compressed air
- Air quality to DIN ISO 8573-1
- Available with differential pressure indicator for optical indication of filter contamination
- LFM-A:
 - ISO class 1 for particles: max. particle density 0.1 mg/m³
 - ISO class 2 for oil aerosols: max. oil concentration 0.1 mg/m³
 - Filter efficiency 99.9999%
- LFM-B:
 - ISO class 2 for particles: max. particle density 1 mg/m³
 - ISO class 3 for oil aerosols: max. oil concentration 1 mg/m³
 - Filter efficiency 99.99%

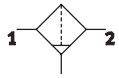
Contents

Technical Data	→ 1138
Dimensional Drawings	→ 1142
Ordering Data	→ 1144
Accessories	→ 1146
→ www.festo.com/catalog/ms12n-lfm	

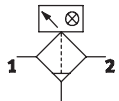
Fine and Micro Filters MS12N-LFM – Inch Series

Technical Data

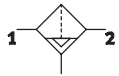
ISO Symbol



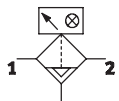
Manual bowl drain
without differential pressure indicator



With differential pressure indicator



Fully automatic bowl drain
without differential pressure indicator



With differential pressure indicator



General Technical Data		1 NPT	1¼ NPT	1½ NPT	2 NPT
Pneumatic connection 1, 2 ¹⁾		1 NPT	1¼ NPT	1½ NPT	2 NPT
Filtration grade		0.01 (micro filter LFM-A, air purity class at the output 1.7.2 to DIN ISO 8573-1) 1 (fine filter LFM-B, air purity class at the output 2.7.3 to DIN ISO 8573-1)			
Supply pressure	M [psi]	12 ... 294 (manual drain)			
	V [psi]	29 ... 176 (fully automatic drain)			
	E... [psi]	12 ... 235 (fully automatic drain, electrically actuated)			

1) Dependent on port plate selected, must be ordered separately as an accessory → 1147

Standard Nominal Flow Rate q _N ²⁾ and Standard Flow Rate q _n ²⁾ [scfm]		1 NPT	1¼ NPT	1½ NPT	2 NPT
Pneumatic connection 1, 2		1 NPT	1¼ NPT	1½ NPT	2 NPT
Micro filter LFM-A					
q _N 1 → 2		176.5	211.8	229.5	247.1
q _n min		24.7	24.7	24.7	24.7
q _n max		811.9	811.9	811.9	811.9
Fine filter LFM-B					
q _N 1 → 2		183.6	218.9	264.8	268.3
q _n min		33.5	33.5	33.5	33.5
q _n max		811.9	811.9	811.9	811.9

2) Dependent on port plate selected, must be ordered separately as an accessory → 1147
Measured at p₁ = 88 psi and Δp = 1.0 psi

Fine and Micro Filters MS12N-LFM – Inch Series

Technical Data

Operating and Environmental Conditions			
Bowl drain	Manual M	Fully automatic V	Fully automatic, electrically actuated E...
Operating medium micro filter LFM-A	Compressed air, filtered, unlubricated, filtration grade 1 µm		
Operating medium fine filter LFM-B	Compressed air, filtered, unlubricated, filtration grade 5 µm		
Max. condensate volume [in ³]	24.40		
Bowl guard	Metal bowl		
Ambient temperature [°F]	14 ... 140	41 ... 140	34 ... 140
Temperature of medium [°F]	14 ... 140	41 ... 140	34 ... 140
Storage temperature [°F]	14 ... 140	14 ... 140	34 ... 140
Assembly position	Vertical ±5°		
Corrosion resistance CRC ¹⁾	2		

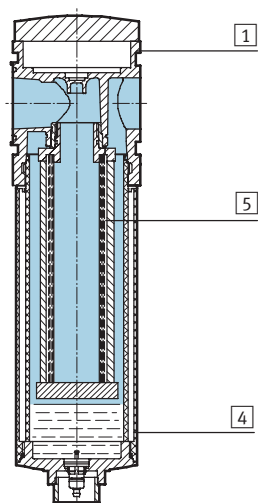
1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [lb]	
With metal bowl	14.00
With metal bowl and fully automatic, electrically actuated bowl drain	15.40

- Filter cartridges → 1149
- For spare parts go to: www.festo.com/en/spare_parts_service

Materials

Sectional view



Fine and micro filter		
1	Body	Die-cast aluminum
4	Metal bowl	Wrought aluminum alloy
5	Filter element	Borosilicate mesh
-	Seals	Nitrile rubber

Fine and Micro Filters MS12N-LFM – Inch Series

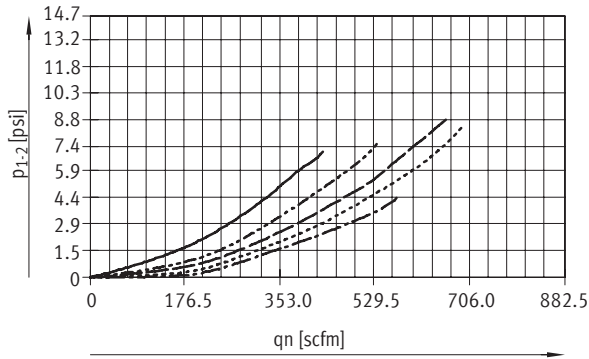
Technical Data



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

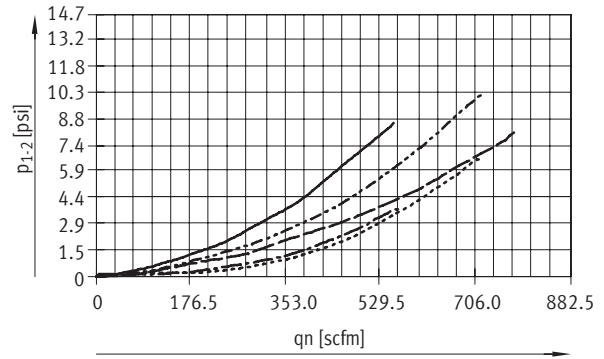
Filtration grade 0.01 μm

With port plate MS12-AGF, Pneumatic connection 1 NPT



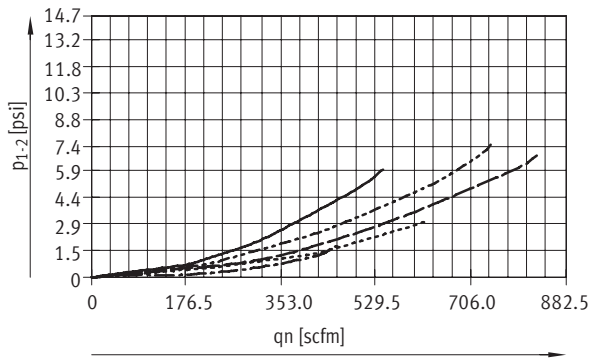
Filtration grade 0.01 μm

With port plate MS12-AGG, Pneumatic connection 1 1/4 NPT



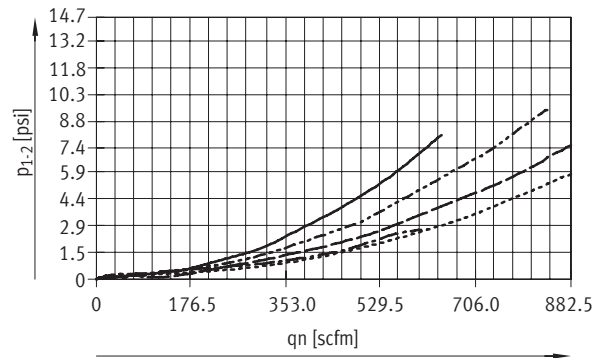
Filtration grade 0.01 μm

With port plate MS12-AGH, Pneumatic connection 1 1/2 NPT



Filtration grade 0.01 μm

With port plate MS12-AGI, Pneumatic connection 2 NPT



- p1: 59 psi
- - - p1: 88 psi
- · - p1: 118 psi
- · · p1: 147 psi
- - - p1: 176 psi

Fine and Micro Filters MS12N-LFM – Inch Series

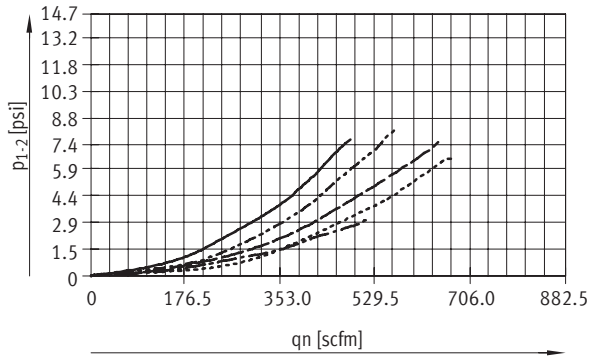
Technical Data



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

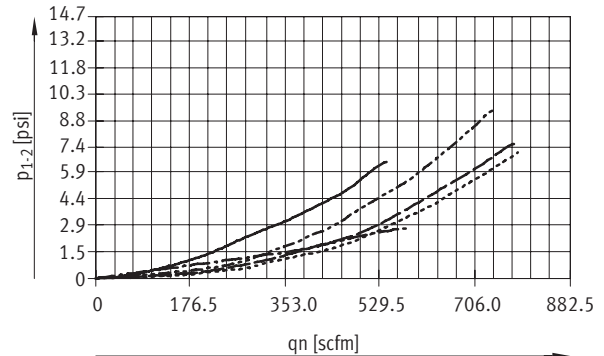
Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGF, Pneumatic connection 1 NPT



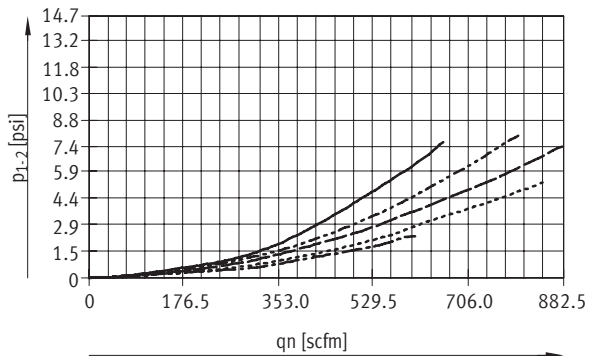
Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGG, Pneumatic connection $1\frac{1}{4}$ NPT



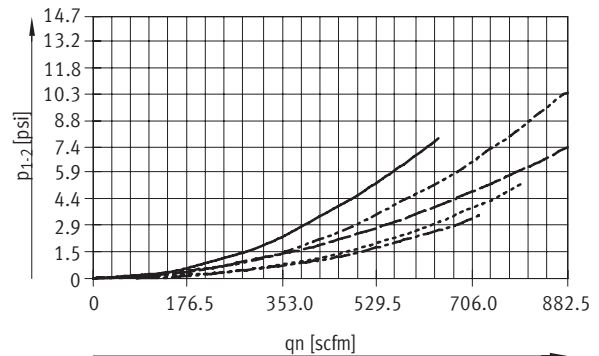
Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGH, Pneumatic connection $1\frac{1}{2}$ NPT



Filtration grade $1\ \mu\text{m}$

With port plate MS12-AGI, Pneumatic connection 2 NPT



- p1: 59 psi
- - - p1: 88 psi
- · - p1: 118 psi
- · · p1: 147 psi
- - - - p1: 176 psi

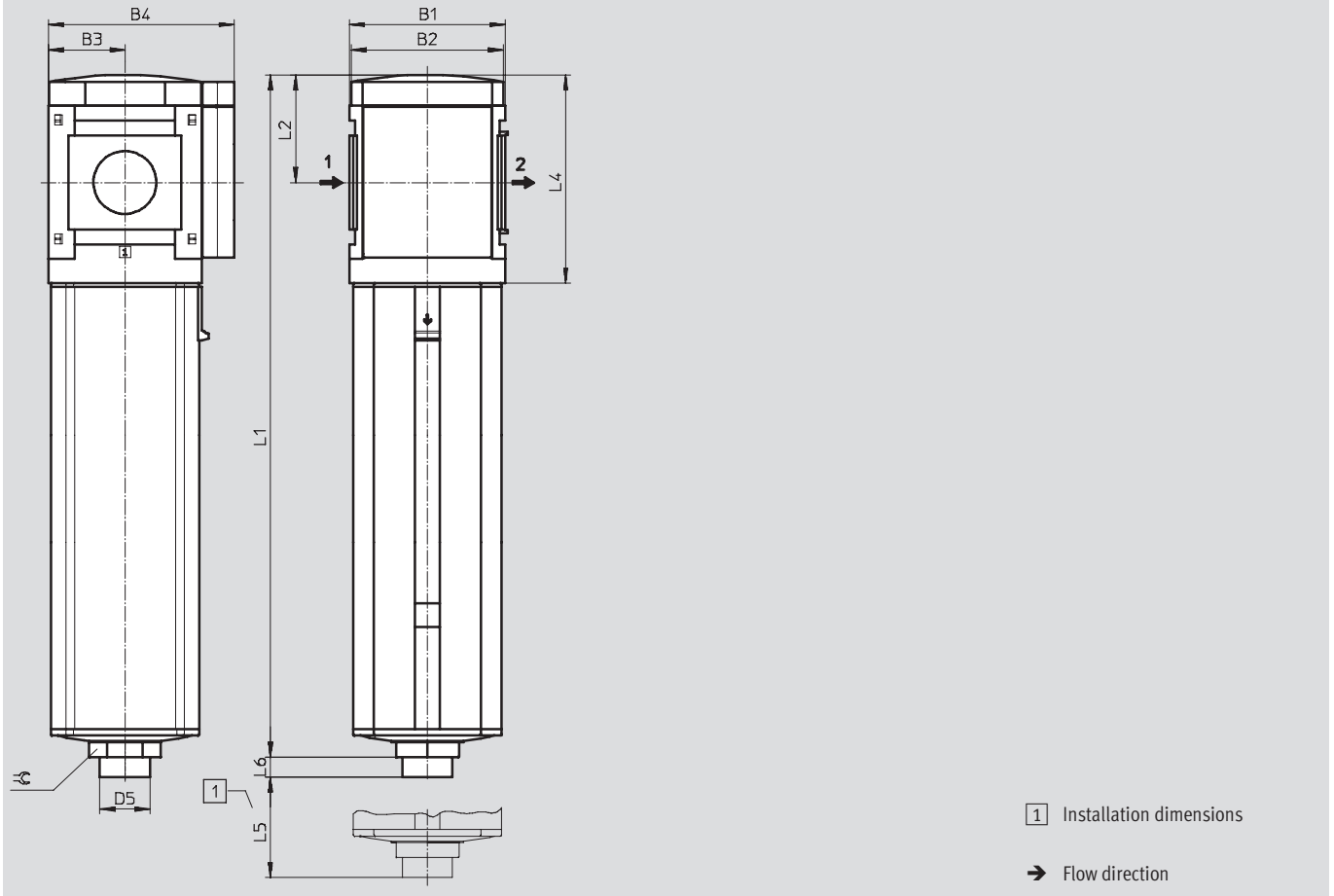
Fine and Micro Filters MS12N-LFM – Inch Series

Dimensional Drawings



Dimensions¹⁾ – Standard

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



B1	B2	B3	B4	D5 ∅	L1	L2	L4	L5	L6	⌀
4.88	4.80	2.40	5.83	1.57	21.38	3.39	6.54	13.78	0.63	1.97

1) Dimensions are in inches, unless otherwise noted.

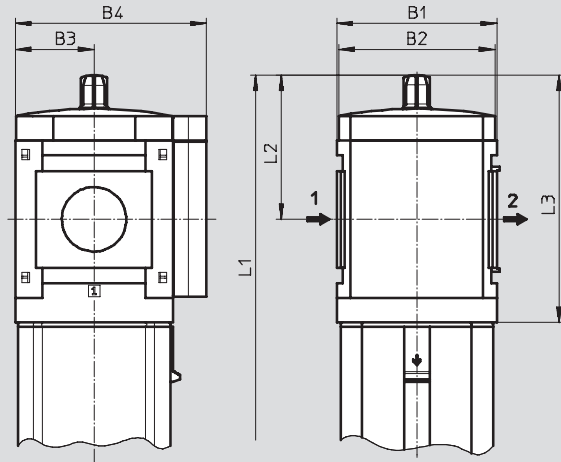
Fine and Micro Filters MS12N-LFM – Inch Series

Dimensional Drawings



Dimensions¹⁾ – Differential Pressure Indicator

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



→ Flow direction

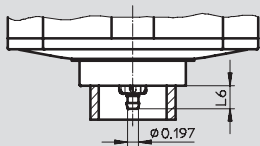
Type	B1	B2	B3	B4	L1	L2	L3
MS12-LFM-...-DA	4.88	4.80	2.40	5.83	22.40	4.41	7.56

1) Dimensions are in inches, unless otherwise noted.

Dimensions¹⁾ – Bowl Drain

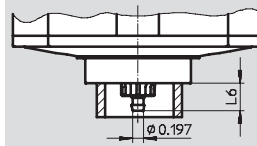
Download CAD Data → www.festo.com/us/cad

Manual M



Barbed fitting for plastic tubing
PCN-4

Fully automatic V



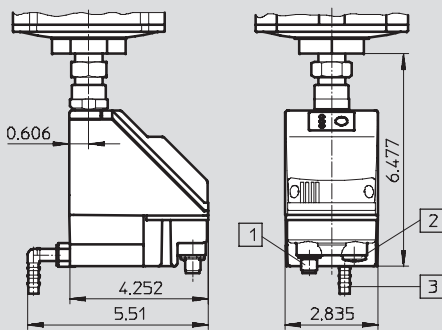
Barbed fitting for plastic tubing
PCN-4

Type	L6
MS12-LFM-...-M	0.43

Type	L6
MS12-LFM-...-V	0.51

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.

Fine and Micro Filters MS12N-LFM – Inch Series



Ordering Data – Pre-configured Products

Ordering Data							
Metal bowl							
Bowl drain	Connection	Micro filter			Fine filter		
		Filtration grade 0.01 µm			Filtration grade 1 µm		
		Part No.	Type	LT	Part No.	Type	LT
Fully automatic	1 NPT... 2 NPT ¹⁾	537154	MS12-LFM-G-AUV	1D	537153	MS12-LFM-G-BUV	1D

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

1) Port plate must be ordered separately as an accessory → 1147

Fine and Micro Filters MS12N-LFM – Inch Series



Ordering Data – Configurable Products

M Mandatory data									O Options		
Part No.	Series	Size	Thread	Function	Connection size	Filtration grade	Bowl	Bowl drain	Filter change sensor	Type of mounting	Reverse flow direction
535045	MS	12	N	LFM	AQT AQU AQV AQW G	B A	U	M V E1 E2 E3 E4	DA	WP	Z
Order example											
535045	MS	12	N	- LFM	- AQW	- A	- U	- M	-	-	-

Ordering Table		Grid dimension [mm]	124	Conditions	Code	Enter code
M	Part No.	535045				
	Series	Standard			MS	MS
	Size	12			12	12
	Thread	NPT thread			N	N
	Function	Fine and micro filter			-LFM	-LFM
	Connection size	Port plate 1 NPT (dimensions → 1147)			-AQT	
		Port plate 1¼ NPT (dimensions → 1147)			-AQU	
		Port plate 1½ NPT (dimensions → 1147)			-AQV	
		Port plate 2 NPT (dimensions → 1147)			-AQW	
		Module without connecting thread, without port plate			-G	
	Filtration grade	1 µm			-B	
		0.01 µm			-A	
	Bowl	Metal bowl			-U	-U
	Bowl drain	Manual			-M	
		Fully automatic (P1 max. 176 psi)			-V	
		External fully automatic bowl drain, electrical, 24 V DC, M12			-E1	
		External fully automatic bowl drain, electrical, 110 V AC, terminals			-E2	
		External fully automatic bowl drain, electrical, 230 V AC, terminals			-E3	
		External fully automatic bowl drain, electrical, 24 V DC, terminals			-E4	
O	Filter change sensor	Differential pressure indicator, optical			-DA	
	Type of mounting	Mounting bracket (dimensions → 1148)		1	-WP	
	Reverse flow direction	Flow direction from right to left			-Z	

1 WP Only with port plate AQT, AQU, AQV or AQW

Transfer order code

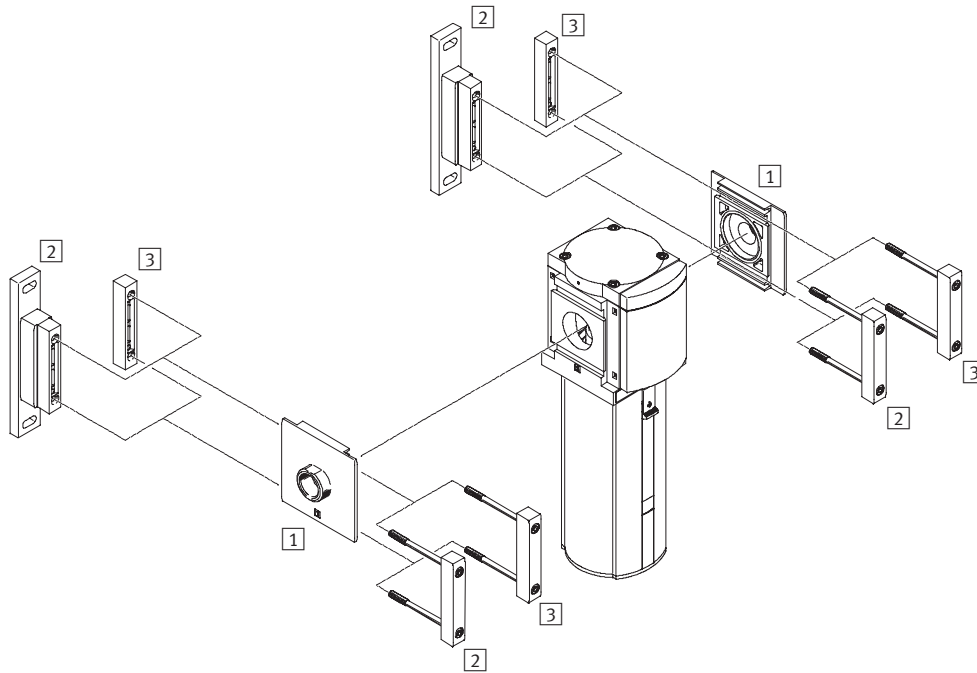
535045	MS	12	N	- LFM	-	-	- U	-	-	-	-
--------	----	----	---	-------	---	---	-----	---	---	---	---

Fine and Micro Filters MS12N-LFM – Inch Series

Accessories Overview



Mounting Attachments and Accessories



Mounting Attachments and Accessories

		→ Page
1	Port plate MS12-AQ...	1147
2	Mounting bracket MS12-WP	1148
3	Body connector MS12-MV	1147

Fine and Micro Filters MS12N-LFM – Inch Series

Accessories

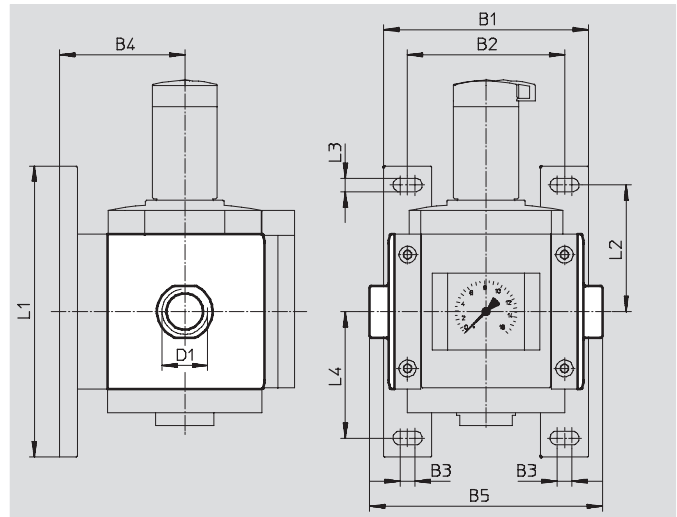
1 Port plate MS12-AQ...

- Adapter for pneumatic connection

Material:

Die-cast aluminum

Free of copper and PTFE



Dimensions and Ordering Data												Part No.	Type
B1	B2	B3	B4	B5	D1	L1	L2	L3	L4	Weight [[lb]			
6.38	4.88	0.47	3.90	7.24	1 NPT	9.06	3.94	0.43	3.94	2.60	537139	MS12-AQT	
				7.24	1¼ NPT						537140	MS12-AQU	
				7.24	1½ NPT						537141	MS12-AQV	
				7.72	2 NPT						537142	MS12-AQW	

3 Body connector MS12-MV

- For connecting modules

Material:

Die-cast aluminum,

Free of copper and PTFE



Ordering Data			
Size	Weight [[lb]	Part No.	Type
MS12	1.00	537134	MS12-MV

Fine and Micro Filters MS12N-LFM – Inch Series

Accessories

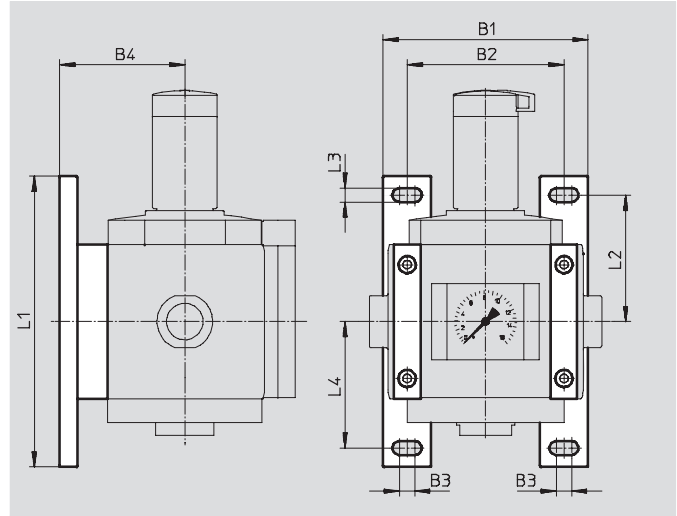
2 Mounting bracket MS12-WP

- To connect the modules for wall mounting
- In combination with a port plate for mounting an individual unit on a wall

Material:

Die-cast aluminum

Free of copper and PTFE



Dimensions and Ordering Data

Size	B1	B2	B3	B4	L1	L2	L3	L4	Weight [[b]	Part No.	Type
MS12	6.38	4.88	0.47	3.90	9.06	3.94	0.43	3.94	1.40	537133	MS12-WP

Fine and Micro Filters MS12N-LFM – Inch Series

Replacement Parts

FESTO



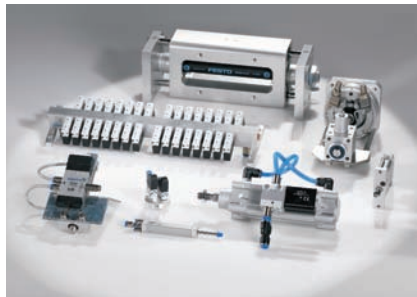
Ordering Data – Filter Cartridges			
Size	Filtration grade [μm]	Part No.	Type
MS12	0.01	537146	MS12-LFM-A
	1	537145	MS12-LFM-B

- 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



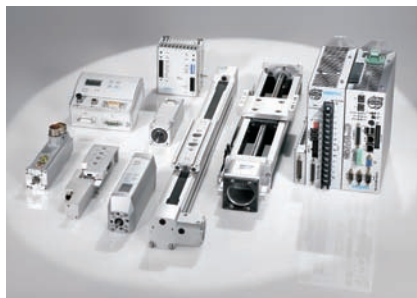
Custom Control Cabinets
Comprehensive engineering support and on-site services



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 11,500 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 Certification

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

All Festo locations within the United States are registered to ISO 9001.



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

2800 Collier Canyon Road
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: 2800 Collier Canyon Road, 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