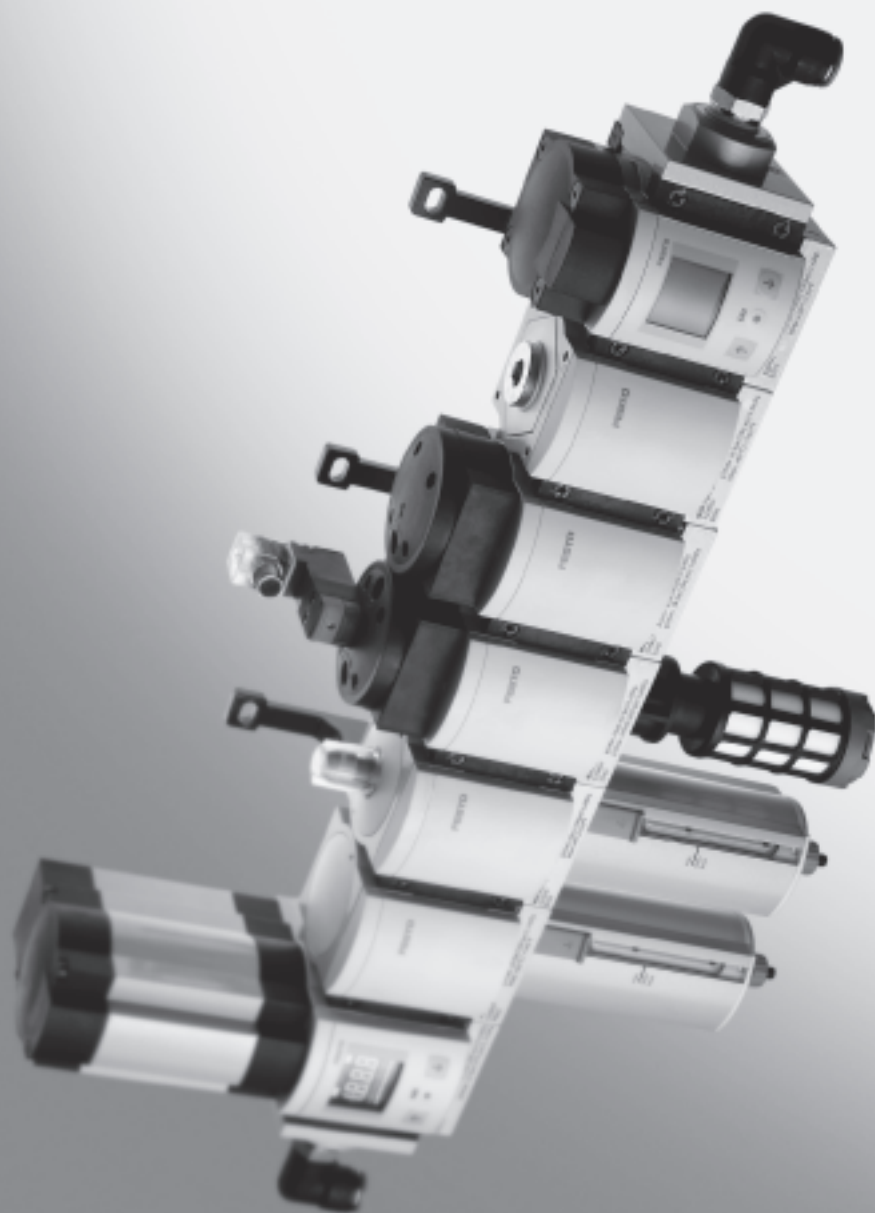


Wide range of configuration options

→ www.festo.com/en/engineering



- Three sizes:
MS4 – grid
dimension 40 mm
MS6 – grid
dimension 62 mm
MS12 – grid
dimension 124 mm
- Modular
- Easy to assemble
- Broad range of functions
- Compact with high flow rates
- Modern design
- Wide choice of variants
- Integrated safety functions

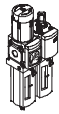
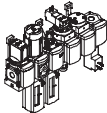
Specified types in accordance with
ATEX directive for potentially
explosive atmospheres

→ www.festo.com/en/ex

MS series service units

Product range overview

FESTO

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]						Grade of filtration [µm]			
				0.05 ... 0.7	0.05 ... 2.5	0.1 ... 4	0.3 ... 7	0.1 ... 12	0.5 ... 16	0.01	1	5	40
Code			AG...	D2	D4	D5	D6	D7	D8	A	B	C	E
Service units													
MSB-FRC 	4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	■	■	–	–	–	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	■	■	–	–	–	■	■
	12	–											
Service unit combinations (further variants can be ordered using the configurator → www.festo.com/en/engineering)													
MSB 	4	G1/4	G1/8, G1/4, G3/8	–	–	–	■	■	–	–	–	■	■
	6	G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	■	■	–	–	–	■	■
	12	–											
Individual devices													
Filter regulators MS-LFR 	4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	■	■	■	–	–	–	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	■	■	■	■	–	–	■	■
	12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	■	■	■	–	–	■	■
Filters MS-LF 	4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–	–	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–	–	■	■
	12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	–	–	■	■
Fine and micro filters MS-LFM 	4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	■	■	–	–
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	■	■	–	–
	12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	■	■	–	–
Activated carbon filters MS-LFX 	4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–	–	–	–
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–	–	–	–
	12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	–	–	–	–
Pressure regulators MS-LR 	4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	■	■	■	–	–	–	–	–
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	■	■	■	■	–	–	–	–
	12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	■	■	■	–	–	–	–
Pressure regulators MS-LRB 	4	G1/4	G1/8, G1/4, G3/8	–	–	■	■	■	–	–	–	–	–
	6	G1/2	G1/4, G3/8, G1/2, G3/4	–	–	■	■	■	■	–	–	–	–
	12	–											
Precision pressure regulators MS-LRP 	4	–											
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	–	■	–	–	–	–	–
	12	–											
Precision pressure regulators MS-LRPB 	4	–											
	6	G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	–	■	–	–	–	–	–
	12	–											

MS series service units

Product range overview

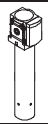
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Type	Size	Bowl guard		Condensate drains				Pressure indicator					Actuator lock		Options		→ Page
		Plastic bowl guard	Metal bowl	Manual rotary	Semi-automatic	Fully automatic	External, fully-automatic, electrical	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter for EN pressure gauge G1/8	Adapter for EN pressure gauge G1/4	Pressure sensor with display	Rotary knob, lockable	Rotary knob, long	Silencer	Flow direction from right to left	
Code		R	U	M	H	V	E...	VS	AG	A8	A4	AD...	AS	LD	S	Z	
Service units																	
MSB-FRC	4	■	–	■	–	■	–	–	■	–	–	–	■	–	–	■	2-2
	6	■	■	■	–	■	–	–	■	–	–	–	■	–	–	■	
	12	–															
Service unit combinations																	
MSB	4	■	■	■	–	■	–	–	■	–	–	–	■	–	–	■	2-2
	6	■	■	■	–	■	–	–	■	–	–	–	■	–	–	■	
	12	–															
Individual devices																	
Filter regulators MS-LFR	4	■	■	■	■	■	–	■	■	■	■	■	■	■	–	■	3-2
	6	■	■	■	■	■	■	■	■	–	■	■	■	■	–	■	
	12	–	■	■	–	■	■	■	■	■	–	■	–	■	■	–	■
Filters MS-LF	4	■	■	■	■	■	–	–	–	–	–	–	–	–	–	■	4-2, 4-4
	6	■	■	■	■	■	■	–	–	–	–	–	–	–	–	■	
	12	–	■	■	–	■	■	–	–	–	–	–	–	–	–	–	■
Fine and micro filters MS-LFM	4	■	■	■	■	■	–	–	–	–	–	–	–	–	–	■	4-2, 4-12
	6	■	■	■	■	■	■	–	–	–	–	–	–	–	–	■	
	12	–	■	■	–	■	■	–	–	–	–	–	–	–	–	–	■
Activated carbon filters MS-LFX	4	■	■	■	–	–	–	–	–	–	–	–	–	–	–	■	4-2, 4-20
	6	■	■	■	–	–	–	–	–	–	–	–	–	–	–	■	
	12	–	■	–	–	–	–	–	–	–	–	–	–	–	–	–	■
Pressure regulators MS-LR	4	–	–	–	–	–	–	■	■	■	■	■	■	■	–	■	5-2, 5-7
	6	–	–	–	–	–	–	■	■	–	■	■	■	■	–	■	
	12	–	–	–	–	–	–	■	■	–	■	–	■	■	–	■	5-58
Pressure regulators MS-LRB	4	–	–	–	–	–	–	■	■	■	■	■	■	■	–	■	5-2, 5-16
	6	–	–	–	–	–	–	■	■	–	■	■	■	■	–	■	
	12	–															
Precision pressure regulators MS-LRP	4	–															5-24, 5-29
	6	–	–	–	–	–	–	■	–	–	■	■	■	■	–	■	
	12	–															
Precision pressure regulators MS-LRPB	4	–															5-24, 5-38
	6	–	–	–	–	–	–	■	–	–	■	■	■	■	–	■	
	12	–															

MS series service units

Product range overview

FESTO

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]				Supply voltage			
				0.3 ... 4	0.3 ... 7	0.5 ... 12	0.5 ... 16	24 V DC (connection pattern to EN 175301)	24 V DC (connection pattern M12 to DESINA)	110 V AC (connection pattern to EN 175301)	230 V AC (connection pattern to EN 175301)
Code			AG...	D5	D6	D7	D8	V24	V24P	V110	V230
Individual devices											
Electrical pressure regulators MS-LRE		4	–					–	–	–	–
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	■	–	–	–
		12	–								
Lubricators MS-LOE		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–
		12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	–
On-off valves MS-EM(1)		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–
		12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	–
On-off valves MS-EE		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	■	–	■
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	■	–	■
		12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	■	■	■
Soft-start valves MS-DL		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–
		12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	–
Soft-start valves MS-DE		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	■	–	■
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	■	–	■
		12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	■	■	■
Membrane air dryers MS-LDM1		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–
		12	–								
Branching modules MS-FRM		4	G1/8, G1/4	G1/8, G1/4, G3/8	–	–	–	–	–	–	–
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	–	–	–	–	–	–	–
		12	–	G1, G1 1/4, G1 1/2, G2	–	–	–	–	–	–	–
Flow sensors MS-SFE		4	–								
		6	G1/2	G1/2	–	–	–	–	–	–	–
		12	–								

MS series service units

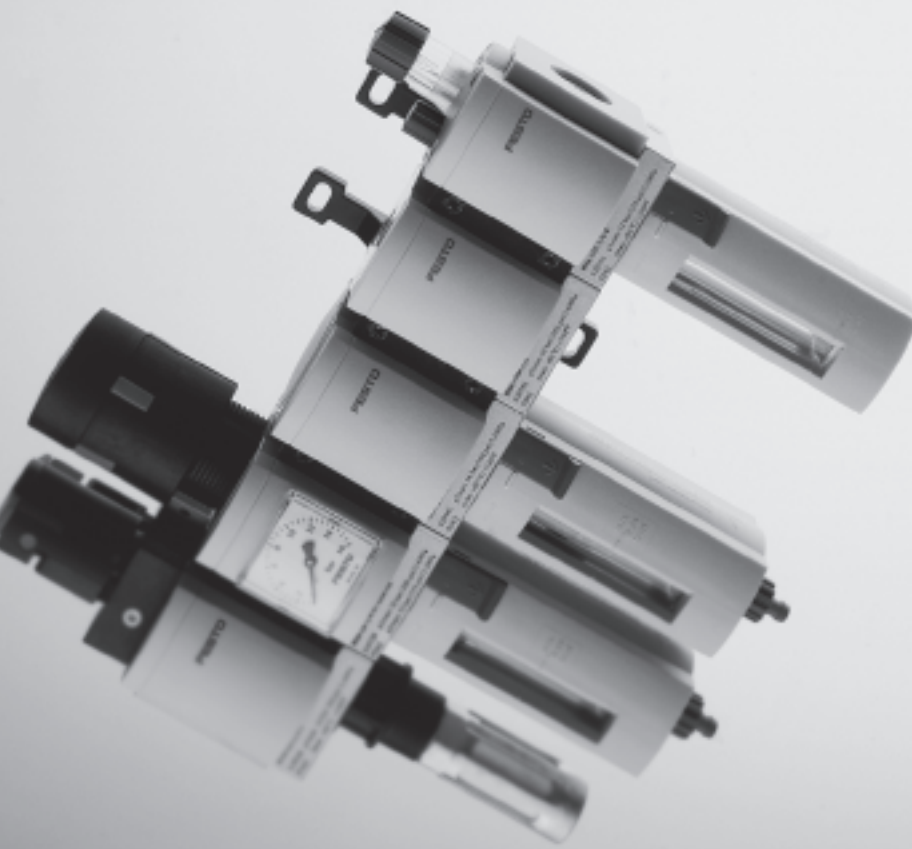
Product range overview

FESTO

Type	Size	Bowl guard		Pressure indicator					Switch output		Options		→ Page
		Plastic bowl guard	Metal bowl	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter for EN pressure gauge G1/8	Adapter for EN pressure gauge G1/4	Pressure sensor with display	2x PNP	2x NPN	Silencer	Flow direction from right to left	
Individual devices													
Electrical pressure regulators MS-LRE	4	-											5-46
	6	-	-	■	■	-	■	-	-	-	-	■	
	12	-											
Lubricators MS-LOE	4	■	■	-	-	-	-	-	-	-	-	■	6-2
	6	■	■	-	-	-	-	-	-	-	-	■	
	12	-	■	-	-	-	-	-	-	-	-	-	■
On-off valves MS-EM(1)	4	-	-	■	■	■	■	■	-	-	■	■	7-2, 7-5
	6	-	-	■	■	-	■	■	-	-	■	■	
	12	-	-	■	■	-	■	-	-	-	■	■	7-30, 7-33
On-off valves MS-EE	4	-	-	■	■	■	■	■	-	-	■	■	7-2, 7-10
	6	-	-	■	■	-	■	■	-	-	■	■	
	12	-	-	■	■	-	■	-	-	-	■	■	7-30, 7-37
Soft-start valves MS-DL	4	-	-	■	■	■	■	■	-	-	-	■	7-2, 7-18
	6	-	-	■	■	-	■	■	-	-	-	■	
	12	-	-	■	■	-	■	-	-	-	-	■	7-30, 7-41
Soft-start valves MS-DE	4	-	-	■	■	■	■	■	-	-	-	■	7-2, 7-23
	6	-	-	■	■	-	■	■	-	-	-	■	
	12	-	-	■	■	-	■	-	-	-	-	■	7-30, 7-45
Membrane air dryers MS-LDM1	4	-	■	-	-	-	-	-	-	-	-	■	8-2
	6	-	■	-	-	-	-	-	-	-	-	■	
	12	-											
Branching modules MS-FRM	4	-	-	■	■	■	■	■	-	-	-	■	9-2
	6	-	-	■	■	-	■	■	-	-	-	■	
	12	-	-	■	-	-	-	-	-	-	-	-	9-14
Flow sensors MS-SFE	4	-											10-2
	6	-	-	-	-	-	-	-	■	■	-	■ ¹⁾	
	12	-											

1) To be ordered via configurator software only → www.festo.com/en/engineering

Wide range of configuration options
→ www.festo.com/en/engineering



- MS4 – grid
dimension 40 mm
MS6 – grid
dimension 62 mm
- Modular
- Easy to assemble
- Broad range of functions
- Compact with high flow rates
- Modern design
- Wide choice of variants
- Integrated safety functions

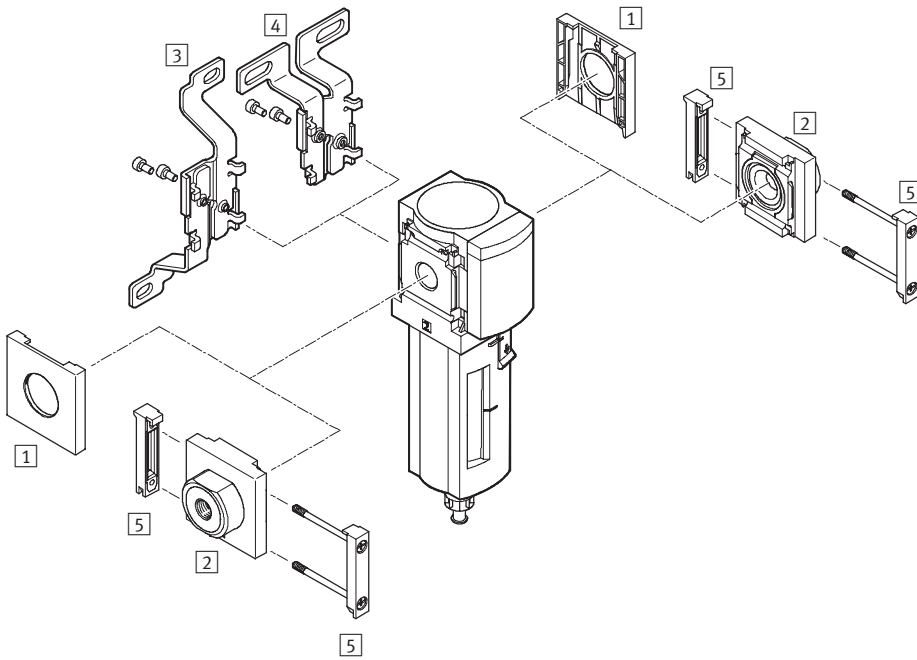
Specified types in accordance with
ATEX directive for potentially
explosive atmospheres
→ www.festo.com/en/ex



Filters MS4/MS6-LF/LFM/LFX, MS series

Peripherals overview

FESTO



Mounting attachments and accessories						
		Individual unit		Combination → 3/2.11-0		→ Page
		without connect- ing plate	with connecting plate	without connect- ing plate	with connecting plate	
1	Cover cap MS4/6-END	■	–	■	–	11-3
2	Connecting plate MS4/6-AG...	–	■	–	■	11-2
3	Mounting bracket MS4/6-WB	■	■	–	–	11-4
4	Mounting bracket MS4-WBM	■	■	–	–	11-4
5	Module connector MS4/6-MV	–	■	■	■	11-8
–	Mounting bracket MS4/6-WP/WPB/WPM	–	■	■	■	11-6, 11-7

Filters MS4/MS6-LF/LFM/LFX, MS series

Type codes

FESTO

		MS	6	-	LFM	-	1/4	-	A	R	M	-	DA
Series													
MS	Standard service unit												
Size													
4	Grid dimension 40 mm												
6	Grid dimension 62 mm												
Service function													
LF	Filter												
LFM	Fine and micro filter												
LFX	Activated carbon filter												
Pneumatic connection													
1/8	Thread G1/8												
1/4	Thread G1/4												
3/8	Thread G3/8												
1/2	Thread G1/2												
Grade of filtration (for LF and LFM only)													
A	0.01 µm												
B	1 µm												
C	5 µm												
E	40 µm												
Bowl guard													
R	Plastic bowl guard												
U	Metal bowl												
Condensate drain (for LF and LFM only)													
M	Manual rotary												
V	Fully automatic												
Filter change sensor (for LFM only)													
	Without differential pressure indicator												
DA	Differential pressure display												

Further variants can be ordered using the modular system

Filters LF	→ 4-10
Fine and micro filters LFM	→ 4-18
Active carbon filters LFX	→ 4-23

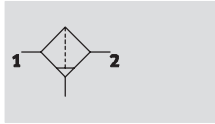
- Connecting plates
- Condensate drain
- Type of mounting
- Alternative flow direction

Filters MS4/MS6-LF, MS series

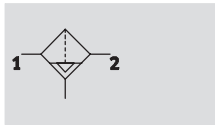
Technical data

FESTO

Function
Condensate drain
manual rotary



semi or fully automatic



-  - Flow rate
1,000 ... 4,100 l/min

-  - Temperature range
-10 ... +60 °C

-  - Input pressure
0 ... 20 bar

-  - [www.festo.com/en/
Spare_parts_service](http://www.festo.com/en/Spare_parts_service)

Wearing parts kits
→ 4-9

The sintered filter with centrifugal separation removes contamination, rust and condensate from the compressed air. The filter cartridges are replaceable.



- Good particle and condensate separation
- High flow rate with minimal pressure drop
- Available with manual, semi-automatic, fully automatic or fully automatic, electrically actuated condensate drain
- Choice of filter cartridges: 5 µm or 40 µm
- Filter cartridges → 11-9

General technical data					
Size	MS4		MS6		
Pneumatic connection 1, 2	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Design	Sintered filter with centrifugal separation				
Type of mounting	Via accessories In-line installation				
Assembly position	Vertical $\pm 5^\circ$				
Grade of filtration [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)				
Bowl guard	Plastic bowl guard Metal bowl				
Condensate drain	Manual rotary Semi-automatic Fully automatic - Fully automatic, electrical				
Max. condensate volume [cm 3]	19 (with plastic bowl guard) 25 (with metal bowl)		38		

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]					
Size	MS4		MS6		
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Grade of filtration 5 µm	1,000	1,300	2,000	3,000	3,200
40 µm	1,100	1,700	2,500	3,800	4,100

1) Measured at $p_1 = 6$ bar and $\Delta p = 1$ bar

Filters MS4/MS6-LF, MS series

FESTO

Technical data

Operating and environmental conditions							
Condensate drain	Manual rotary		Semi-automatic		Fully automatic		Fully automatic, electrical
Size	MS4	MS6	MS4	MS6	MS4	MS6	MS6
Input pressure [bar]	0 ... 14	0 ... 20	1.5 ... 12	1.5 ... 12	2 ... 12	2 ... 12	0.8 ... 16
Operating medium	Compressed air						
Ambient temperature [°C]	-10 ... +60		+5 ... +60		+5 ... +60		+1 ... +60
Temperature of medium [°C]	-10 ... +60		+5 ... +60		+5 ... +60		+1 ... +60
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60		+1 ... +60
Corrosion resistance CRC ¹⁾	2						

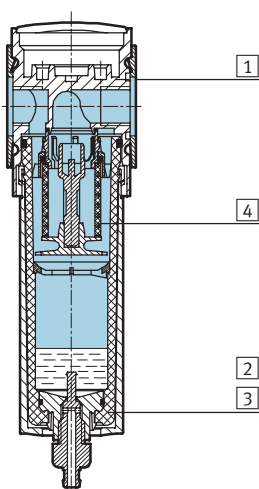
1) Corrosion resistance class 2 according to Festo standard 940 070

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]		
Size	MS4	MS6
With plastic bowl guard	190	600
With metal bowl	350	820
With metal bowl and fully automatic, electrically actuated condensate drain	–	1,800

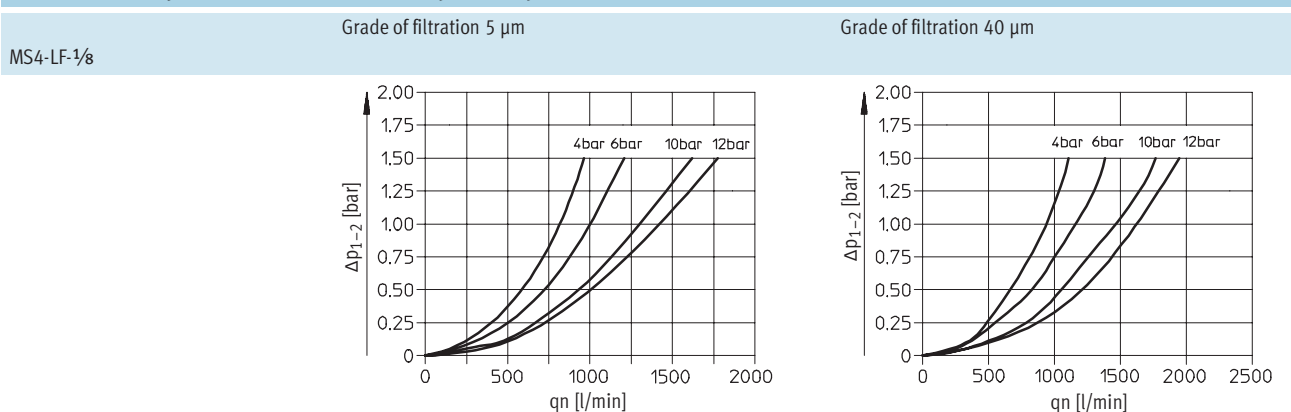
Materials

Sectional view



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

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



Filters MS4/MS6-LF, MS series

Technical data

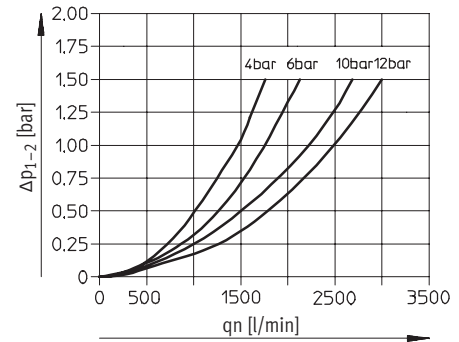
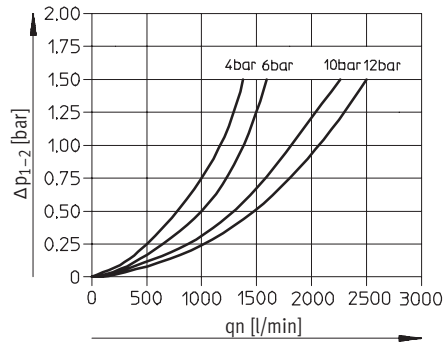
FESTO

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

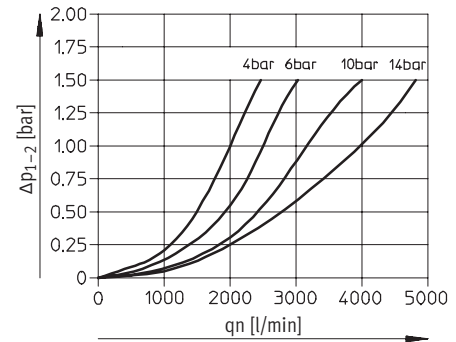
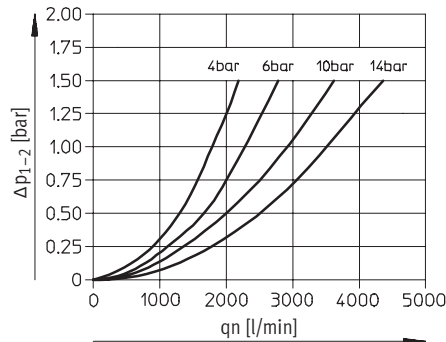
Grade of filtration 5 μm

Grade of filtration 40 μm

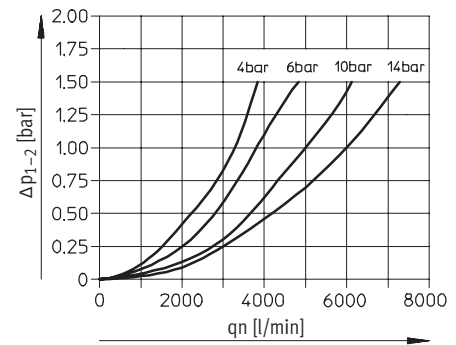
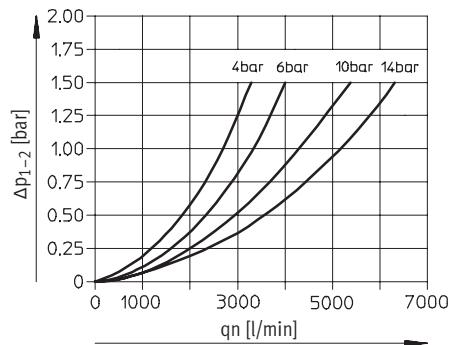
MS4-LF-1/4



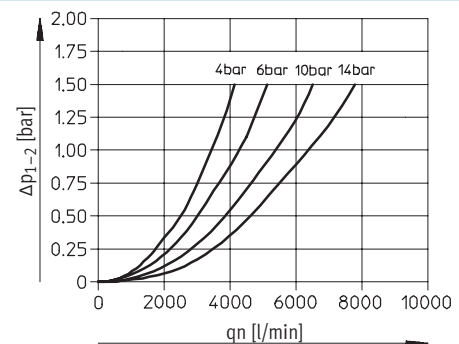
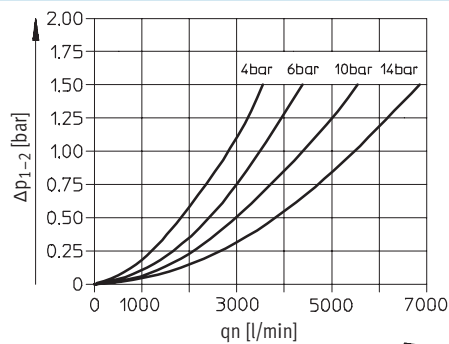
MS6-LF-1/4



MS6-LF-3/8



MS6-LF-1/2



Filters MS4/MS6-LF, MS series

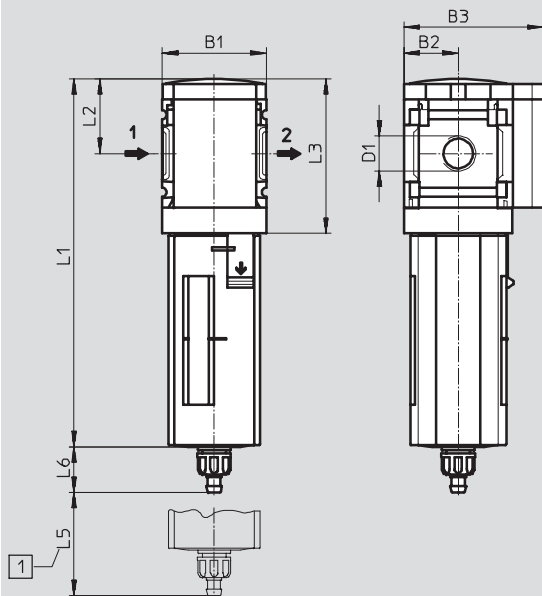
Technical data

FESTO

Dimensions – Standard

Download CAD data → www.festo.com/en/engineering

Manual rotary condensate drain



Type	B1	B2	B3	D1	L1		L2	L3	L5	L6	
					Bowl guard					Bowl guard	
					Plastic	Metal				Plastic	Metal
MS4-LF-1/8	40	21	54	G1/8	142.8	159.4	29	60.5	25	17.7	17.7
MS4-LF-1/4				G1/4							
MS6-LF-1/4	62	31	76	G1/4	192	198	42	87	68	15.8	19
MS6-LF-3/8				G3/8							
MS6-LF-1/2				G1/2							

Filters MS4/MS6-LF, MS series

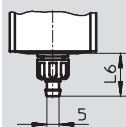
Technical data

FESTO

Dimensions – Condensate drain

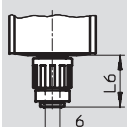
Download CAD data → www.festo.com/en/engineering

Manual rotary M



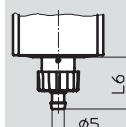
Barbed fitting for plastic tubing
PCN-4

Semi-automatic H



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

Fully automatic V



Barbed fitting for plastic tubing
PCN-4

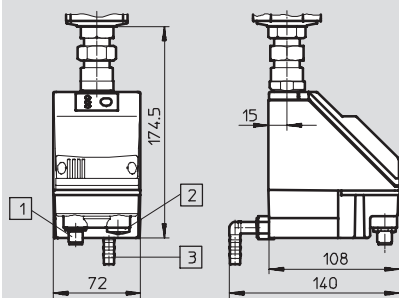
Type	L6
Plastic bowl guard	
MS4-LF-...-M	17.7
MS6-LF-...-M	15.8
Metal bowl	
MS4-LF-...-M	17.7
MS6-LF-...-M	19

Type	L6
Plastic bowl guard	
MS4-LF-...-H	22.1
MS6-LF-...-H	20.2
Metal bowl	
MS4-LF-...-H	22.1
MS6-LF-...-H	22.8

Type	L6
Plastic bowl guard	
MS4-LF-...-V	20.4
MS6-LF-...-V	18.5
Metal bowl	
MS4-LF-...-V	20.4
MS6-LF-...-V	22

Fully automatic, electrically actuated E1 ... E4

Technical data PWEA → www.festo.com



- 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-...

Filters MS4/MS6-LF, MS series

Technical data

FESTO

Ordering data						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MS4	manual rotary	G1/8	529 403	MS4-LF-1/8-CRM	529 407	MS4-LF-1/8-ERM
		G1/4	529 395	MS4-LF-1/4-CRM	529 399	MS4-LF-1/4-ERM
	fully automatic	G1/8	529 405	MS4-LF-1/8-CRV	529 409	MS4-LF-1/8-ERV
		G1/4	529 397	MS4-LF-1/4-CRV	529 401	MS4-LF-1/4-ERV
MS6	manual rotary	G1/4	529 623	MS6-LF-1/4-CRM	529 631	MS6-LF-1/4-ERM
		G3/8	529 639	MS6-LF-3/8-CRM	529 647	MS6-LF-3/8-ERM
		G1/2	529 607	MS6-LF-1/2-CRM	529 615	MS6-LF-1/2-ERM
	fully automatic	G1/4	529 625	MS6-LF-1/4-CRV	529 633	MS6-LF-1/4-ERV
		G3/8	529 641	MS6-LF-3/8-CRV	529 649	MS6-LF-3/8-ERV
		G1/2	529 609	MS6-LF-1/2-CRV	529 617	MS6-LF-1/2-ERV
Metal bowl						
MS4	manual rotary	G1/8	535 638	MS4-LF-1/8-CUM	535 644	MS4-LF-1/8-EUM
		G1/4	535 654	MS4-LF-1/4-CUM	535 660	MS4-LF-1/4-EUM
	fully automatic	G1/8	535 640	MS4-LF-1/8-CUV	535 642	MS4-LF-1/8-EUV
		G1/4	535 656	MS4-LF-1/4-CUV	535 658	MS4-LF-1/4-EUV
MS6	manual rotary	G1/4	529 627	MS6-LF-1/4-CUM	529 635	MS6-LF-1/4-EUM
		G3/8	529 643	MS6-LF-3/8-CUM	529 651	MS6-LF-3/8-EUM
		G1/2	529 611	MS6-LF-1/2-CUM	529 619	MS6-LF-1/2-EUM
	fully automatic	G1/4	529 629	MS6-LF-1/4-CUV	529 637	MS6-LF-1/4-EUV
		G3/8	529 645	MS6-LF-3/8-CUV	529 653	MS6-LF-3/8-EUV
		G1/2	529 613	MS6-LF-1/2-CUV	529 621	MS6-LF-1/2-EUV

Ordering data – Wearing parts kits		
Size	Part No.	Type
MS4	673 639	MS4-LF
MS6	673 640	MS6-LF

Filters MS4/MS6-LF, MS series

Ordering data – Modular products

FESTO

Mandatory data

Module No.	Series	Size	Function	Connection size	Grade of filtration	Bowl
527 695	MS	4	LF	1/8, 1/4, 3/8, 1/2,	E	R
527 668		6		AGA, AGB, AGC, AGD, AGE	C	U
Order example						
527 695	MS	4	- LF	- AGB	- E	- R

Ordering table

Grid dimension	[mm]	40	62	Condi- tions	Code	Enter code
M	Module No.	527 695	527 668			
	Series	Standard			MS	MS
	Size	4	6		...	
	Function	Filters			-LF	-LF
	Connection size	Thread G1/8	-		-1/8	
		Thread G1/4	Thread G1/4		-1/4	
		-	Thread G3/8		-3/8	
		-	Thread G1/2		-1/2	
		Connecting plate G1/8	-		-AGA	
		Connecting plate G1/4	Connecting plate G1/4		-AGB	
		Connecting plate G3/8	Connecting plate G3/8		-AGC	
		-	Connecting plate G1/2		-AGD	
		-	Connecting plate G3/4		-AGE	
	Grade of filtration	40 µm			-E	
		5 µm			-C	
	Bowl	Plastic bowl with plastic bowl guard			-R	
		Metal bowl			-U	

Transfer order code

	MS		-	LF	-		-		-	
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Filters MS4/MS6-LF, MS series

Ordering data – Modular products

FESTO

→ M Mandatory data		0 Options	
Condensate drain M H V E1 E2 E3 E4		Type of mounting WP WPM WB WBM	
		Alternative flow direction Z	
- M		- WP	

Ordering table						
Grid dimension	[mm]	40	62	Condi- tions	Code	Enter code
↓ M	Condensate drain	Manual			-M	
		Semi-automatic (P1 max. 12 bar)			-H	
		Fully automatic (P1 max. 12 bar)			-V	
		–	External fully automatic condensate drain, electrical, 24 V DC, M12	1	-E1	
		–	External fully automatic condensate drain, electrical, 110 V AC, terminals	1	-E2	
		–	External fully automatic condensate drain, electrical, 230 V AC, terminals	1	-E3	
		–	External fully automatic condensate drain, electrical, 24 V DC, terminals	1	-E4	
0	Type of mounting	Mounting bracket		2	-WP	
		Mounting bracket		2	-WPM	
		Mounting bracket			-WB	
		Mounting bracket	–		-WBM	
	Alternative flow direction	Flow direction from right to left			-Z	

1 E1, E2, E3, E4

Only with metal bowl U.

2 WP, WPM

Only with connecting plate AGA, AGB, AGC, AGD or AGE.

MS series service units
Filters

4

Transfer order code

-		-		-	
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Fine and micro filters MS4/MS6-LFM, MS series

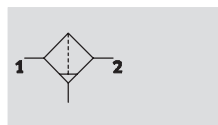
Technical data

Function

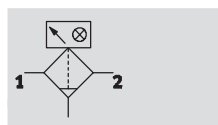
Condensate drain

manual rotary

without differential pressure indicator



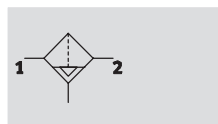
with differential pressure indicator



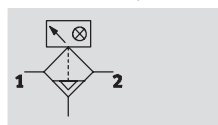
Condensate drain

semi or fully automatic

without differential pressure indicator



with differential pressure indicator



-  - Flow rate
120 ... 850 l/min
-  - Temperature range
-10 ... +60 °C
-  - Input pressure
0 ... 20 bar
-  - [www.festo.com/en/
Spare_parts_service](http://www.festo.com/en/Spare_parts_service)

Wearing parts kits

→ 4-17



- High-performance filter for exceptionally clean compressed air
- Air quality to DIN ISO 8573-1
- Available with manual, semi-automatic, fully automatic or fully automatic, electrically actuated condensate drain
- Available with differential pressure indicator for optical indication of filter contamination
- Choice of filter cartridges: 0.01 µm or 1 µm
- Filter cartridges → 11-9

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%

General technical data

General technical data		MS4		MS6	
Pneumatic connection 1, 2		G ¹ / ₈	G ¹ / ₄	G ¹ / ₄	G ³ / ₈
Design		Fibre filter			
Type of mounting		Via accessories			
		In-line installation			
Assembly position		Vertical ±5°			
Grade of filtration [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)			
Bowl guard		Plastic bowl guard			
		Metal bowl			
Condensate drain		Manual rotary			
		Semi-automatic			
		Fully automatic			
		–		Fully automatic, electrical	
Differential pressure display		Visual indicator			
Residual oil content [mg/m³]		≤0.01 (micro filter LFM-A)			
		≤0.5 (fine filter LFM-B)			
Max. condensate volume [cm³]		19 (with plastic bowl guard) 25 (with metal bowl)		38	

Fine and micro filters MS4/MS6-LFM, MS series

FESTO

Technical data

Standard nominal flow rate $q_{nN}^{1)}$ and standard flow rate q_n [l/min]					
Size	MS4		MS6		
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Micro filter LFM-A					
$q_{nN} 1 \rightarrow 2$	120	120	380	430	480
q_n min	54	54	135	135	135
q_n max	360	360	900	900	900
Fine filter LFM-B					
$q_{nN} 1 \rightarrow 2$	180	180	550	700	850
q_n min	54	54	140	140	140
q_n max	360	360	950	950	950

1) Measured at $p_1 = 6$ bar and $\Delta p = 70$ mbar

Operating and environmental conditions							
Condensate drain	Manual rotary		Semi-automatic		Fully automatic		Fully automatic, electrical
Size	MS4	MS6	MS4	MS6	MS4	MS6	MS6
Input pressure [bar]	0 ... 14	0 ... 20	1.5 ... 12	1.5 ... 12	2 ... 12	2 ... 12	0.8 ... 16
Operating medium micro filter LFM-A	Compressed air, filtered, unlubricated, grade of filtration 1 µm						
Operating medium fine filter LFM-B	Compressed air, filtered, unlubricated, grade of filtration 5 µm						
Ambient temperature [°C]	-10 ... +60		+5 ... +60		+5 ... +60		+1 ... +60
Temperature of medium [°C]	-10 ... +60		+5 ... +60		+5 ... +60		+1 ... +60
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60		+1 ... +60
Corrosion resistance CRC ¹⁾	2						

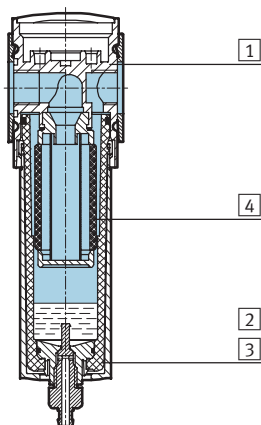
1) Corrosion resistance class 2 according to Festo standard 940 070

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]		
Size	MS4	MS6
With plastic bowl guard	190	600
With metal bowl	350	820
With metal bowl and fully automatic, electrically actuated condensate drain	–	1,800

Materials

Sectional view



Fine and micro filter	
1 Body	Die-cast aluminium
2 Plastic bowl guard	Polycarbonate/polyamide
3 Metal bowl Viewing window	Aluminium Polyamide
4 Filters	Borosilicate fibre
– Seals	Nitrile rubber
Note on materials	Free of copper and PTFE

Fine and micro filters MS4/MS6-LFM, MS series

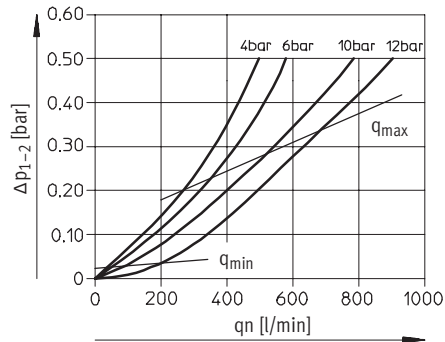
Technical data

FESTO

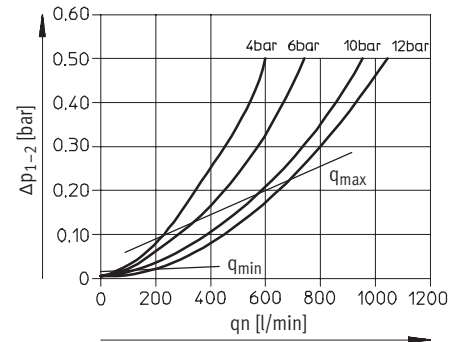
Standard flow rate q_n as a function of the differential pressure Δp_{1-2}

Grade of filtration 0.01 μm

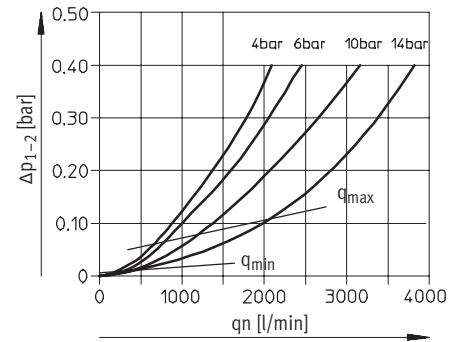
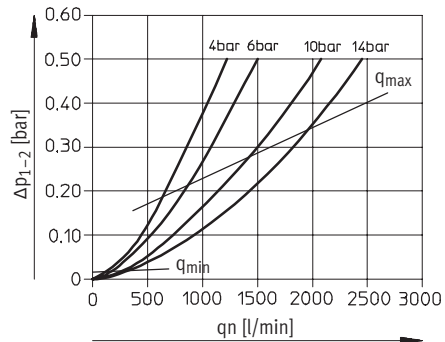
MS4-LFM-1/8 and MS4-LFM-1/4



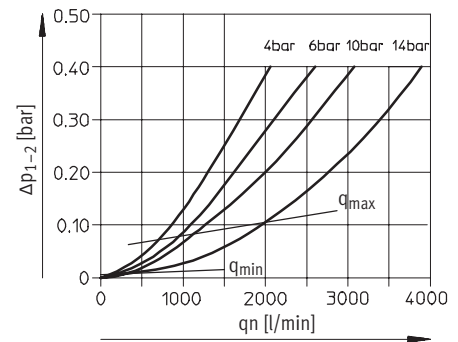
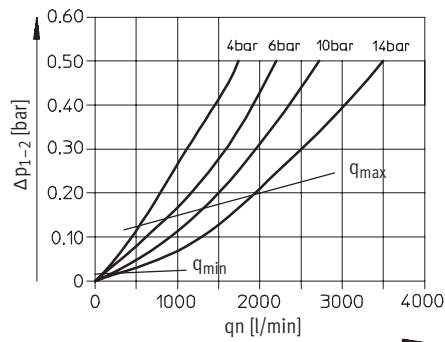
Grade of filtration 1 μm



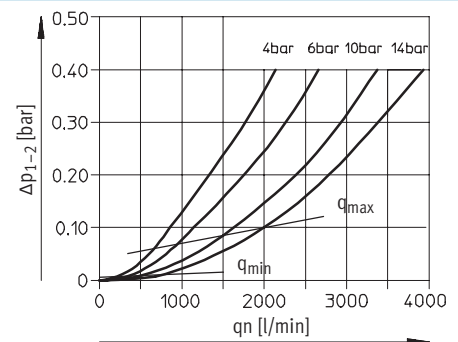
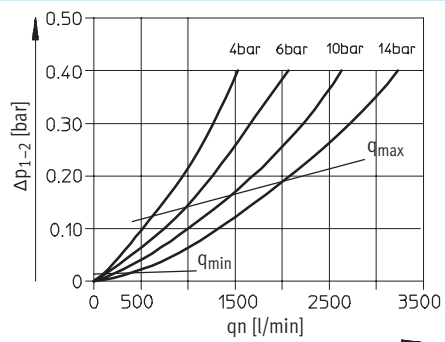
MS6-LFM-1/4



MS6-LFM-3/8



MS6-LFM-1/2



Fine and micro filters MS4/MS6-LFM, MS series

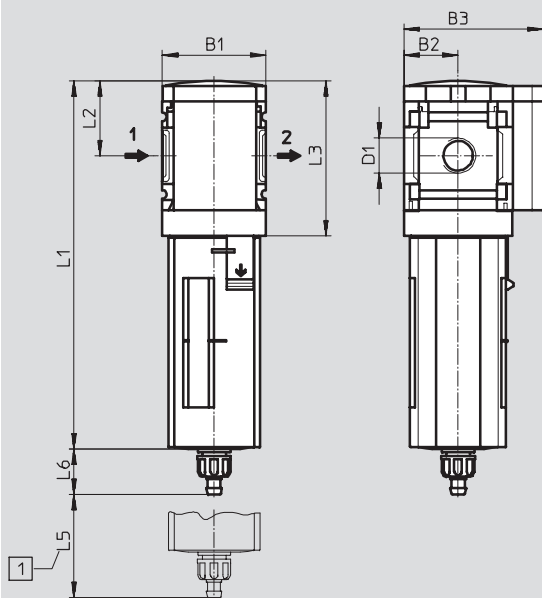
Technical data

FESTO

Dimensions – Standard

Download CAD data → www.festo.com/en/engineering

Manual rotary condensate drain



1 Installation dimensions

→ Flow direction

Type	B1	B2	B3	D1	L1		L2	L3	L5	L6	
					Bowl guard					Bowl guard	
					Plastic	Metal				Plastic	Metal
MS4-LFM-1/8	40	21	54	G1/8	142	160	29	60	25	17.7	17.7
MS4-LFM-1/4				G1/4							
MS6-LFM-1/4	62	31	76	G1/4	189	198	42	87	75	15.8	19
MS6-LFM-3/8				G3/8							
MS6-LFM-1/2				G1/2							

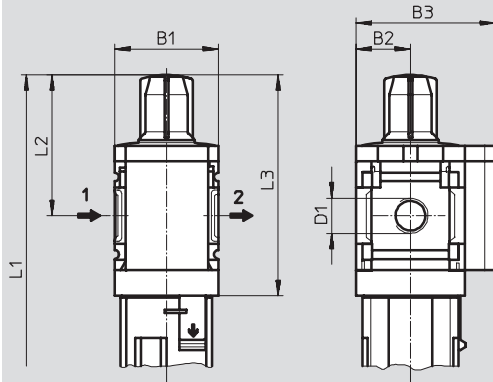
Fine and micro filters MS4/MS6-LFM, MS series

Technical data

FESTO

Dimensions – Differential pressure indicator

Download CAD data → www.festo.com/en/engineering



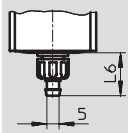
→ Flow direction

Type	B1	B2	B3	D1	L1		L2	L3
					Plastic	Metal		
MS4-LFM-1/8-...-DA	40	21	54	G1/8	168	186	55	86
MS4-LFM-1/4-...-DA				G1/4				
MS6-LFM-1/4-...-DA	62	31	76	G1/4	218	224	68	113
MS6-LFM-3/8-...-DA				G3/8				
MS6-LFM-1/2-...-DA				G1/2				

Dimensions – Condensate drain

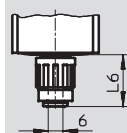
Download CAD data → www.festo.com/en/engineering

Manual rotary M



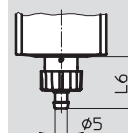
Barbed fitting for plastic tubing
PCN-4

Semi-automatic H



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

Fully automatic V



Barbed fitting for plastic tubing
PCN-4

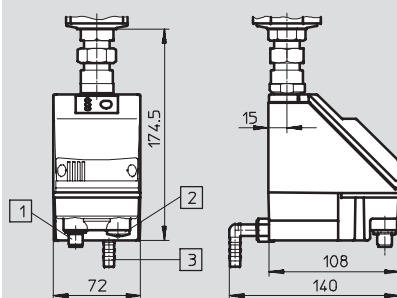
Type	L6
Plastic bowl guard	
MS4-LFM-...-M	17.7
MS6-LFM-...-M	15.8
Metal bowl	
MS4-LFM-...-M	17.7
MS6-LFM-...-M	19

Type	L6
Plastic bowl guard	
MS4-LFM-...-H	22.1
MS6-LFM-...-H	20.2
Metal bowl	
MS4-LFM-...-H	22.1
MS6-LFM-...-H	22.8

Type	L6
Plastic bowl guard	
MS4-LFM-...-V	20.4
MS6-LFM-...-V	18.5
Metal bowl	
MS4-LFM-...-V	20.4
MS6-LFM-...-V	22

Fully automatic, electrically actuated E1 ... E4

Technical data PWEA → www.festo.com



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

Fine and micro filters MS4/MS6-LFM, MS series

Technical data

FESTO

Ordering data						
Without differential pressure indicator						
Size	Condensate drain	Connection	Micro filter		Fine filter	
			Grade of filtration 0.01 μm		Grade of filtration 1 μm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MS4	manual rotary	G1/8	529 463	MS4-LFM-1/8-ARM	529 465	MS4-LFM-1/8-BRM
		G1/4	529 459	MS4-LFM-1/4-ARM	529 461	MS4-LFM-1/4-BRM
MS6	manual rotary	G1/4	529 663	MS6-LFM-1/4-ARM	529 667	MS6-LFM-1/4-BRM
		G3/8	529 671	MS6-LFM-3/8-ARM	529 675	MS6-LFM-3/8-BRM
		G1/2	529 655	MS6-LFM-1/2-ARM	529 659	MS6-LFM-1/2-BRM
	fully automatic	G1/4	530 510	MS6-LFM-1/4-ARV	530 514	MS6-LFM-1/4-BRV
		G3/8	530 518	MS6-LFM-3/8-ARV	530 522	MS6-LFM-3/8-BRV
		G1/2	530 502	MS6-LFM-1/2-ARV	530 506	MS6-LFM-1/2-BRV
Metal bowl						
MS4	fully automatic	G1/8	539 208	MS4-LFM-1/8-AUV	539 204	MS4-LFM-1/8-BUV
		G1/4	535 768	MS4-LFM-1/4-AUV	535 766	MS4-LFM-1/4-BUV
MS6	fully automatic	G1/4	529 665	MS6-LFM-1/4-AUV	529 669	MS6-LFM-1/4-BUV
		G3/8	529 673	MS6-LFM-3/8-AUV	529 677	MS6-LFM-3/8-BUV
		G1/2	529 657	MS6-LFM-1/2-AUV	529 661	MS6-LFM-1/2-BUV

Ordering data						
With differential pressure indicator						
Size	Condensate drain	Connection	Micro filter		Fine filter	
			Grade of filtration 0.01 µm		Grade of filtration 1 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MS4	manual rotary	G1/8	536 821	MS4-LFM-1/8-ARM-DA	536 817	MS4-LFM-1/8-BRM-DA
		G1/4	536 822	MS4-LFM-1/4-ARM-DA	536 818	MS4-LFM-1/4-BRM-DA
MS6	manual rotary	G1/4	536 869	MS6-LFM-1/4-ARM-DA	536 833	MS6-LFM-1/4-BRM-DA
		G3/8	536 870	MS6-LFM-3/8-ARM-DA	536 834	MS6-LFM-3/8-BRM-DA
		G1/2	536 871	MS6-LFM-1/2-ARM-DA	536 835	MS6-LFM-1/2-BRM-DA
	fully automatic	G1/4	536 875	MS6-LFM-1/4-ARV-DA	536 839	MS6-LFM-1/4-BRV-DA
		G3/8	536 876	MS6-LFM-3/8-ARV-DA	536 840	MS6-LFM-3/8-BRV-DA
		G1/2	536 877	MS6-LFM-1/2-ARV-DA	536 841	MS6-LFM-1/2-BRV-DA
Metal bowl						
MS4	fully automatic	G1/8	537 213	MS4-LFM-1/8-AUV-DA	537 209	MS4-LFM-1/8-BUV-DA
		G1/4	537 214	MS4-LFM-1/4-AUV-DA	537 210	MS4-LFM-1/4-BUV-DA
MS6	fully automatic	G1/4	536 881	MS6-LFM-1/4-AUV-DA	536 845	MS6-LFM-1/4-BUV-DA
		G3/8	536 882	MS6-LFM-3/8-AUV-DA	536 846	MS6-LFM-3/8-BUV-DA
		G1/2	536 883	MS6-LFM-1/2-AUV-DA	536 847	MS6-LFM-1/2-BUV-DA

Ordering data – Wearing parts kits			
Size	Part No.	Type	
MS4	673 641	MS4-LFM	
MS6	673 642	MS6-LFM	

Fine and micro filters MS4/MS6-LFM, MS series

Ordering data – Modular products

FESTO

Mandatory data

Module No.	Series	Size	Function	Connection size	Grade of filtration	Bowl
527 697 527 670	MS	4 6	LFM	1/8, 1/4, 3/8, 1/2, AGA, AGB, AGC, AGD, AGE	B A	R U
Order example	MS	4	- LFM	- AGB	- B	- R

Ordering table						
Grid dimension	[mm]	40	62	Condi- tions	Code	Enter code
M	Module No.	527 697	527 670			
	Series	Standard			MS	MS
	Size	4	6		...	
	Function	Fine and micro filter			-LFM	-LFM
	Connection size	Thread G1/8	–		-1/8	
		Thread G1/4	Thread G1/4		-1/4	
		–	Thread G3/8		-3/8	
		–	Thread G1/2		-1/2	
		Connecting plate G1/8	–		-AGA	
		Connecting plate G1/4	Connecting plate G1/4		-AGB	
		Connecting plate G3/8	Connecting plate G3/8		-AGC	
		–	Connecting plate G1/2		-AGD	
		–	Connecting plate G3/4		-AGE	
	Grade of filtration	1 µm			-B	
		0.01 µm			-A	
	Bowl	Plastic bowl with plastic bowl guard			-R	
		Metal bowl			-U	

Transfer order code

	MS		-	LFM		-		-	
--	----	--	---	-----	--	---	--	---	--

Fine and micro filters MS4/MS6-LFM, MS series

Ordering data – Modular products

FESTO

→ M Mandatory data		O Options	
Condensate drain		Filter change sensor	Type of mounting
M H V E1 E2 E3 E4		DA	WP WPM WB WBM
- M		-	- WP
			- Z

Ordering table						
Grid dimension	[mm]	40	62	Condi- tions	Code	Enter code
↓ M	Condensate drain	Manual			-M	
		Semi-automatic (P1 max. 12 bar)			-H	
		Fully automatic (P1 max. 12 bar)			-V	
		-	External fully automatic condensate drain, electrical, 24 V DC, M12	1	-E1	
		-	External fully automatic condensate drain, electrical, 110 V AC, terminals	1	-E2	
		-	External fully automatic condensate drain, electrical, 230 V AC, terminals	1	-E3	
		-	External fully automatic condensate drain, electrical, 24 V DC, terminals	1	-E4	
O	Filter change sensor	Differential pressure indicator, optical			-DA	
	Type of mounting	Mounting bracket		2	-WP	
		Mounting bracket		2	-WPM	
		Mounting bracket			-WB	
		Mounting bracket	-		-WBM	
	Alternative flow direction	Flow direction from right to left			-Z	

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

2 WP, WPM Only with connecting plate AGA, AGB, AGC, AGD or AGE.

MS series service units
Filters

4

Transfer order code

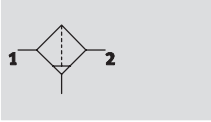
- - -

Active carbon filters MS4/MS6-LFX, MS series

Technical data

FESTO

Function
Condensate drain
manual rotary



-  - Flow rate
250 ... 1,200 l/min

-  - Temperature range
-10 ... +60 °C

-  - Input pressure
0 ... 20 bar



- Removal of liquid and gaseous oil particles from compressed air using active carbon
- Eliminates odours and vapours
- Prefiltration with micro filter MS-LFM-A, grade of filtration 0.01 µm, recommended
- Filter cartridges → 11-9

General technical data					
Size	MS4		MS6		
Pneumatic connection 1, 2	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Design	Active carbon filter				
Type of mounting	Via accessories				
	In-line installation				
Assembly position	Vertical $\pm 5^\circ$				
Air purity class at the output ¹⁾	1.7.1 to DIN ISO 8573-1				
Bowl guard	Plastic bowl guard				
	Metal bowl				
Residual oil content	[mg/m ³]	≤ 0.003			

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

Standard nominal flow rate $q_{nN}^{1)}$ and standard flow rate q_n [l/min]					
Size	MS4		MS6		
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
$q_{nN} 1 \rightarrow 2$	250	250	700	1,000	1,200
$q_n \text{ max}$	360	360	900	900	900

1) Measured at $p_1 = 6 \text{ bar}$ and $\Delta p = 70 \text{ mbar}$

Operating and environmental conditions		
Size	MS4	MS6
Input pressure	[bar] 0 ... 14	0 ... 20
Operating medium	Compressed air, filtered, unlubricated, grade of filtration 0.01 µm	
Ambient temperature	[°C] -10 ... +60	
Temperature of medium	[°C] +5 ... +30	
Storage temperature	[°C] -10 ... +60	
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.

Active carbon filters MS4/MS6-LFX, MS series

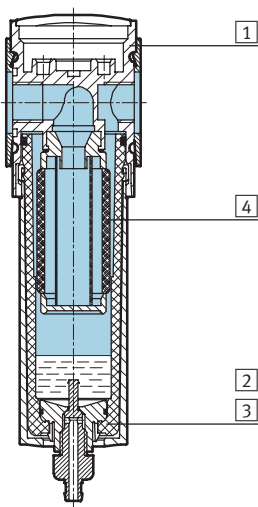
Technical data

FESTO

Weights [g]		
Size	MS4	MS6
With plastic bowl guard	190	600
With metal bowl	350	820

Materials

Sectional view

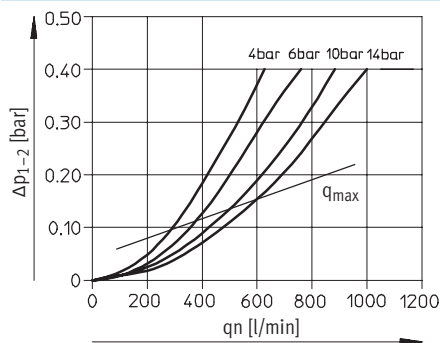


Active carbon filter

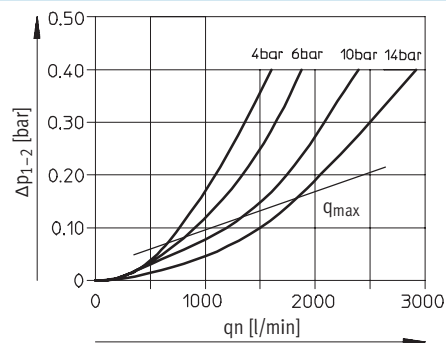
1	Body	Die-cast aluminium
2	Plastic bowl guard	Polycarbonate/polyamide
3	Metal bowl	Aluminium
	Viewing window	Polyamide
4	Filters	Active carbon
-	Seals	Nitrile rubber
	Note on materials	Free of copper and PTFE

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

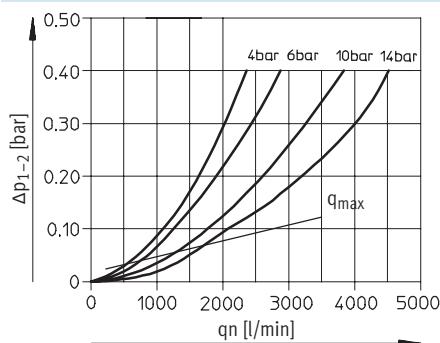
MS4-LFX-1/8 and MS4-LFX-1/4



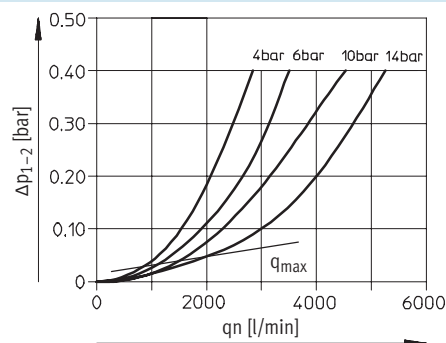
MS6-LFX-1/4



MS6-LFX-3/8



MS6-LFX-1/2



Active carbon filters MS4/MS6-LFX, MS series

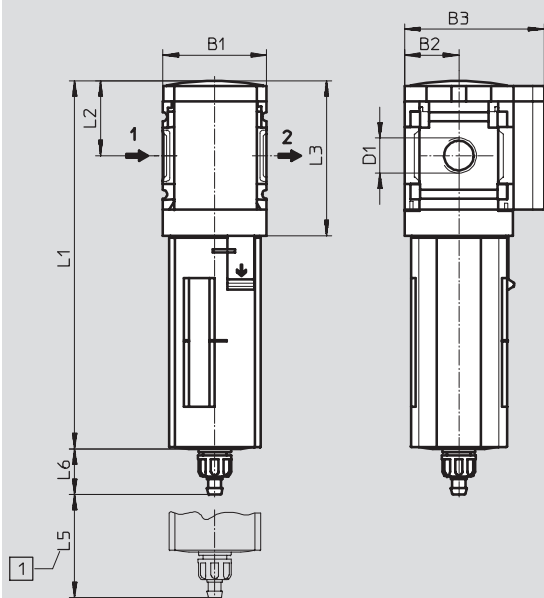
Technical data

FESTO

Dimensions – Standard

Download CAD data → www.festo.com/en/engineering

Manual rotary condensate drain



1 Installation dimensions

→ Flow direction

Type	B1	B2	B3	D1	L1		L2	L3	L5	L6	
					Bowl guard					Bowl guard	
					Plastic	Metal				Plastic	Metal
MS4-LFX-1/8	40.2	21	54	G1/8	142.8	160.4	29	60	75	17.7	18
MS4-LFX-1/4				G1/4							
MS6-LFX-1/4	62	31	76	G1/4	192	198	42	87	100	15.8	19
MS6-LFX-3/8				G3/8							
MS6-LFX-1/2				G1/2							

Ordering data

Size	Condensate drain	Connection	Plastic bowl guard		Metal bowl	
			Part No.	Type	Part No.	Type
MS4	manual rotary	G1/8	536 707	MS4-LFX-1/8-R	536 709	MS4-LFX-1/8-U
		G1/4	529 467	MS4-LFX-1/4-R	535 782	MS4-LFX-1/4-U
MS6	manual rotary	G1/4	529 683	MS6-LFX-1/4-R	529 685	MS6-LFX-1/4-U
		G3/8	529 687	MS6-LFX-3/8-R	529 689	MS6-LFX-3/8-U
		G1/2	529 679	MS6-LFX-1/2-R	529 681	MS6-LFX-1/2-U

Active carbon filters MS4/MS6-LFX, MS series

Ordering data – Modular products

FESTO

M Mandatory data						O Options	
Module No.	Series	Size	Function	Connection size	Bowl	Type of mounting	Alternative flow direction
527 699 527 672	MS	4 6	LFX	1/8, 1/4, 3/8, 1/2, AGA, AGB, AGC, AGD, AGE	R U	WP WPM WB WBM	Z
Order example							
527 699	MS	4	- LFX	- AGB	- R	- WP	- Z

Ordering table							
Grid dimension [mm]		40	62	Condi- tions	Code	Enter code	
M	Module No.	527 699	527 672				
	Series	Standard			MS		MS
	Size	4	6		...		
	Function	Activated carbon filter			-LFX		-LFX
	Connection size	Thread G1/8	-		-1/8		
		Thread G1/4	Thread G1/4		-1/4		
		-	Thread G3/8		-3/8		
		-	Thread G1/2		-1/2		
		Connecting plate G1/8	-		-AGA		
		Connecting plate G1/4	Connecting plate G1/4		-AGB		
		Connecting plate G3/8	Connecting plate G3/8		-AGC		
		-	Connecting plate G1/2		-AGD		
		-	Connecting plate G3/4		-AGE		
	Bowl	Plastic bowl with plastic bowl guard			-R		
		Metal bowl			-U		
O	Type of mounting	Mounting bracket		1	-WP		
		Mounting bracket		1	-WPM		
		Mounting bracket			-WB		
		Mounting bracket	-		-WBM		
	Alternative flow direction	Flow direction from right to left			-Z		

1 WP, WPM Only with connecting plate AGA, AGB, AGC, AGD or AGE.

Transfer order code

	MS		-	LFX	-		-		-		-	
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MS series service units
Filters

4

MS12 series service units

FESTO

Wide range of configuration options

→ www.festo.com/en/engineering



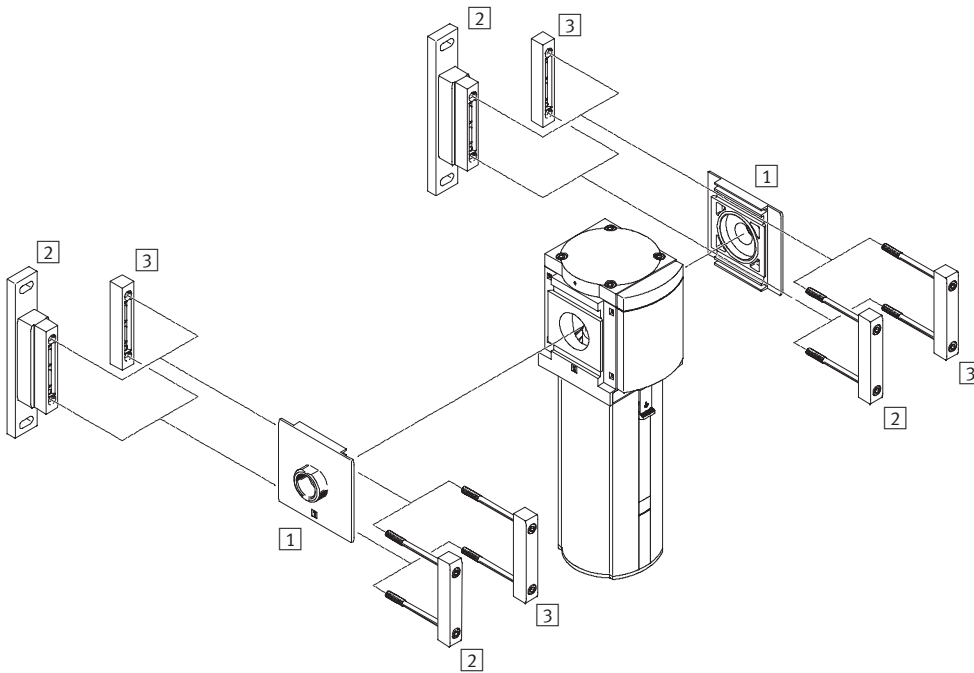
- Grid dimension 124 mm
- High flow rates
- Modern design



Filters MS12-LF/LFM/LFX, MS series

Peripherals overview

FESTO



MS series service units
Filters

4

Mounting attachments and accessories		→ Page
1	Connecting plate MS12-AG...	11-2
2	Mounting bracket MS12-WP	11-8
3	Module connector MS12-MV	11-8

Filters MS12-LF/LFM/LFX, MS series

Type codes

FESTO

		MS	12	-	LF	-	G	-	C	U	V
Series											
MS	Standard service unit										
Size											
12	Grid dimension 124 mm										
Service function											
LF	Filter										
LFM	Fine and micro filter										
LFX	Active carbon filter										
Connection size											
G	Module without connecting thread, without connecting plate Connecting plates → Accessories										
Grade of filtration (for LF and LFM only)											
A	0.01 µm										
B	1 µm										
C	5 µm										
E	40 µm										
Bowl guard											
U	Metal bowl										
Condensate drain (for LF and LFM only)											
V	Fully automatic										

Further variants can be ordered using the modular system

Filters LF	→ 4-32
Fine and micro filters LFM	→ 4-39
Active carbon filters LFX	→ 4-43

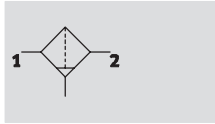
- Connecting plates
- Condensate drain (LF/LFM only)
- Filter change sensor (for LFM only)
- Type of mounting
- Alternative flow direction

Filters MS12-LF, MS series

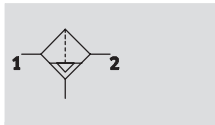
Technical data

FESTO

Function
Condensate drain
manual rotary



fully automatic



-  - Flow rate
11,500 ... 16,000 l/min

-  - Temperature range
-10 ... +60 °C

-  - Input pressure
0.8 ... 20 bar



The sintered filter with centrifugal separation removes contamination, rust and condensate from the compressed air. The filter cartridges are replaceable.

- Good particle and condensate separation
- High flow rate with minimal pressure drop

- Available with manual, fully automatic or fully automatic, electrically actuated condensate drain
- Choice of filter cartridges: 5 µm or 40 µm
- Filter cartridges → 11-9

General technical data				
Pneumatic connection 1, 2 ¹⁾	G1	G1¼	G1½	G2
Design	Sintered filter with centrifugal separation			
Type of mounting	Via accessories			
	In-line installation			
Assembly position	Vertical ±5°			
Grade of filtration [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)			
Bowl guard	Metal bowl			
Condensate drain	Manual rotary			
	Fully automatic			
	Fully automatic, electrical actuated			
Max. condensate volume [cm³]	400			

1) Dependent on connecting plate selected, must be ordered separately as an accessory → 11-2

Standard nominal flow rate q _N ¹⁾ [l/min]				
Pneumatic connection	G1	G1¼	G1½	G2
Grade of filtration 5 µm	11,500	12,500	13,500	14,000
40 µm	12,500	13,000	14,000	16,000

1) Dependent on connecting plate selected, must be ordered separately as an accessory → 11-2
Measured at p₁ = 6 bar and Δp = 0.5 bar

Filters MS12-LF, MS series

Technical data

FESTO

Operating and environmental conditions			
Condensate drain	Manual rotary M	Fully automatic V	Fully automatic, electrical actuated E...
Input pressure [bar]	0.8 ... 20	2 ... 12	0.8 ... 16
Operating medium	Compressed air, air quality class 5.7.- to DIN ISO 8573-1		
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
Corrosion resistance CRC ¹⁾	2		

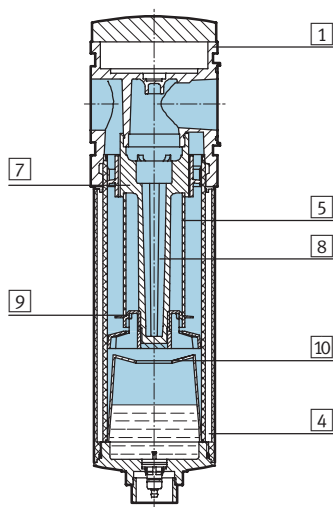
1) Corrosion resistance class 2 according to Festo standard 940 070

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	6,500
With metal bowl and fully automatic, electrically actuated condensate drain	7,200

Materials

Sectional view



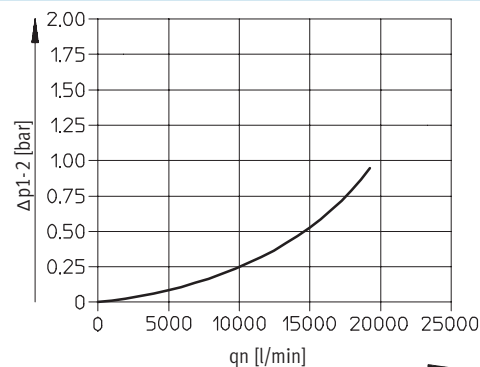
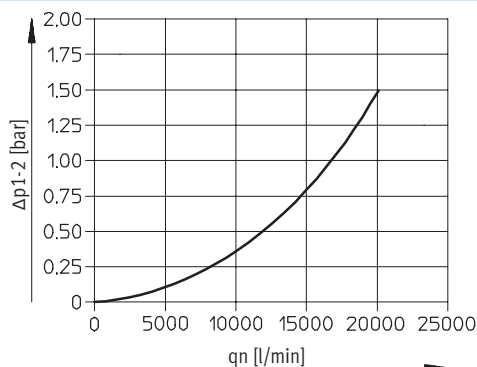
Filter		
1	Body	Die-cast aluminium
4	Metal bowl	Wrought aluminium alloy
5	Filter element	Sintered bronze
7	Spin disc	Polyacetate
8	Filter holder	Polyacetate
9	Separating plate	Polyacetate
10	Stabilising disc	Polyacetate
-	Seals	Nitrile rubber

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

Grade of filtration 5 μm

With connecting plate MS12-AGF
Pneumatic connection G1

With connecting plate MS12-AGI
Pneumatic connection G2

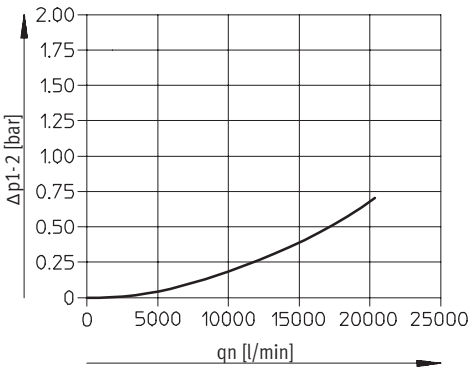
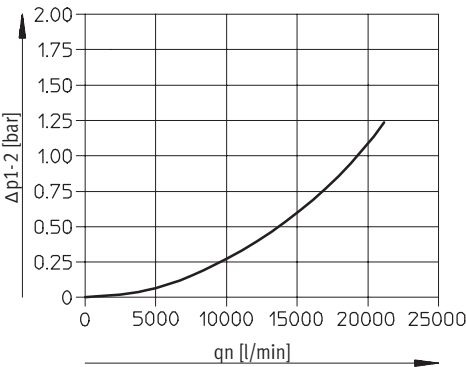


Filters MS12-LF, MS series

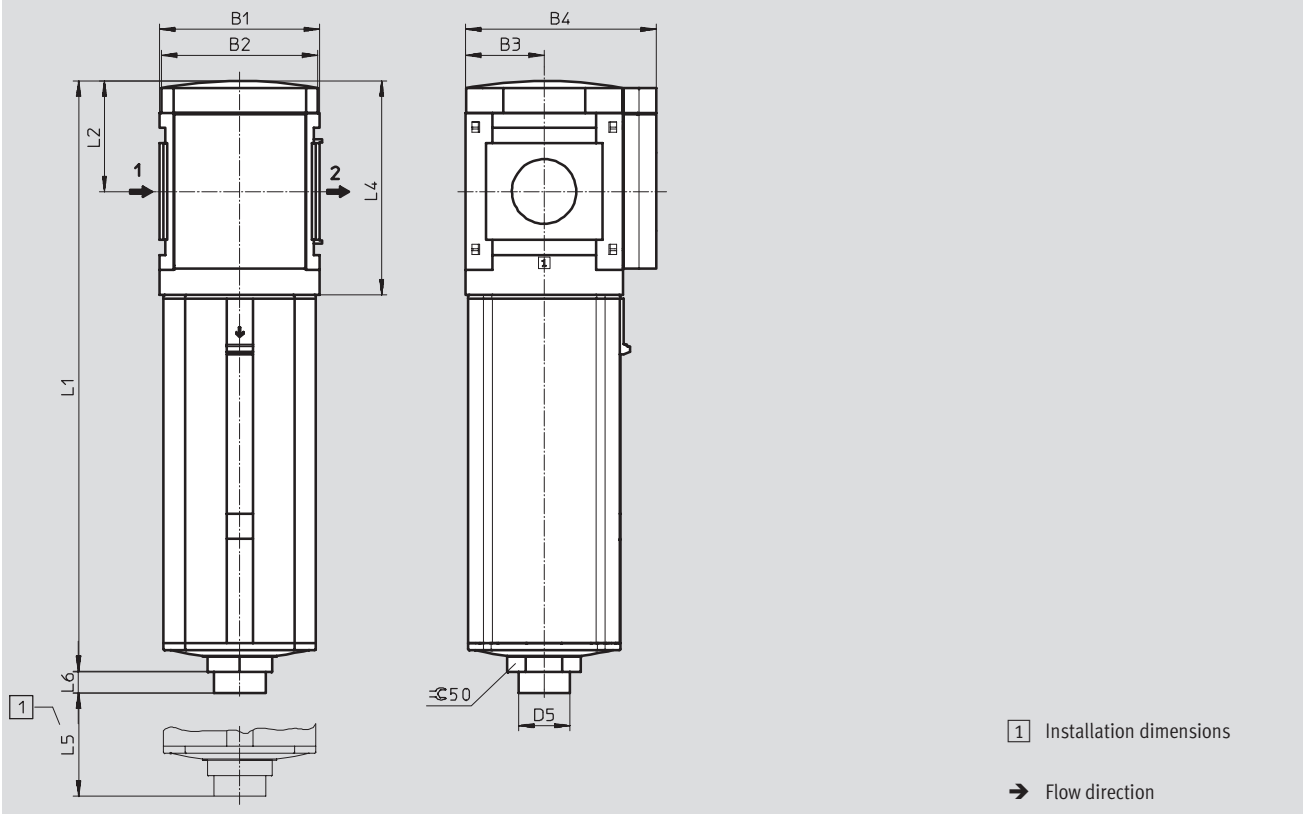
Technical data

FESTO

Standard flow rate q_n as a function of the differential pressure Δp_{1-2}		
Grade of filtration 40 μm	With connecting plate MS12-AGF Pneumatic connection G1	With connecting plate MS12-AGI Pneumatic connection G2



Dimensions – Standard Download CAD data → www.festo.com/en/engineering



Type	B1	B2	B3	B4	D5 Ø	L1	L2	L4	L5	L6
MS12-LF	124	122	61	148	40	458	86	166	250	16

Filters MS12-LF, MS series

Technical data

FESTO

Dimensions – Condensate drain Download CAD data → www.festo.com/en/engineering

Manual rotary M

Barbed fitting for plastic tubing
PCN-4

Fully automatic V

Barbed fitting for plastic tubing
PCN-4

Type	L6
MS12-LF-...-M	11

Type	L6
MS12-LF-...-V	13

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

- 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-...

Ordering data					
Metal bowl					
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm
			Part No.	Type	Part No. Type
MS12	fully automatic	G1 ... G2 ¹⁾	537 152	MS12-LF-G-CUV	537 151 MS12-LF-G-EUV

1) Connecting plate must be ordered separately as an accessory → 11-2

Filters MS12-LF, MS series

Ordering data – Modular products

FESTO

M Mandatory data								O Options	
Module No.	Series	Size	Function	Connec- tion size	Grade of filtration	Bowl	Conden- sate drain	Type of mounting	Alternative flow direction
535 023	MS	12	LF	AGF AGG AGH AGI G	E C	U	M V E1 E2 E3 E4	WP	Z
Order example									
535 023	MS	12	- LF	- G	- E	- U	- V	-	-

Ordering table						Condi- tions	Code	Enter code
Grid dimension	[mm]	124						
M Module No.	535 023							
Series	Standard						MS	MS
Size	12						12	12
Function	Filter						-LF	-LF
Connection size	Connecting plate G1						-AGF	
	Connecting plate G1¼						-AGG	
	Connecting plate G1½						-AGH	
	Connecting plate G2						-AGI	
	Module without connecting thread, without connecting plate						-G	
Grade of filtration	40 µm						-E	
	5 µm						-C	
Bowl	Metal bowl						-U	-U
Condensate drain	Manual						-M	
	Fully automatic (P1 max. 12 bar)						-V	
	External fully automatic condensate drain, electrical, 24 V DC, M12						-E1	
	External fully automatic condensate drain, electrical, 110 V AC, terminals						-E2	
	External fully automatic condensate drain, electrical, 230 V AC, terminals						-E3	
	External fully automatic condensate drain, electrical, 24 V DC, terminals						-E4	
O Type of mounting	Mounting bracket					1	-WP	
Alternative flow direction	Flow direction from right to left						-Z	

1 WP Only with connecting plate AGF, AGG, AGH or AGI.

Transfer order code

535 023	MS	12	- LF	-	-	- U	-	-	-
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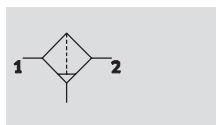
Fine and micro filters MS12-LFM, MS series

FESTO

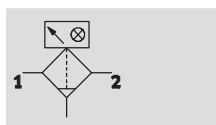
Technical data

Function

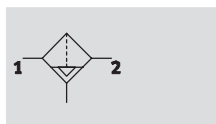
Condensate drain
manual rotary
without differential pressure indicator



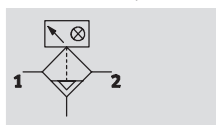
with differential pressure indicator



Condensate drain
fully automatic
without differential pressure indicator



with differential pressure indicator



- - Flow rate
5,000 ... 7,600 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
0.8 ... 20 bar



- High-performance filter for exceptionally clean compressed air
 - Air quality to DIN ISO 8573-1
 - Available with manual, fully automatic or fully automatic, electrically actuated condensate drain
 - Available with differential pressure indicator for optical indication of filter contamination
 - Choice of filter cartridges: 0.01 µm or 1 µm
 - Filter cartridges → 11-9
- 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%

MS series service units
Filters

4

General technical data				
Pneumatic connection 1, 2 ¹⁾	G1	G1¼	G1½	G2
Design	Fibre filter			
Type of mounting	Via accessories			
	In-line installation			
Assembly position	Vertical ±5°			
Grade of filtration [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)			
Bowl guard	Metal bowl			
Condensate drain	Manual rotary			
	Fully automatic			
	Fully automatic, electrical actuated			
Max. condensate volume [cm ³]	400			

1) Dependent on connecting plate selected, must be ordered separately as an accessory → 11-2

Fine and micro filters MS12-LFM, MS series

Technical data

FESTO

Standard nominal flow rate $q_{nN}^{1)}$ and standard flow rate $q_n^{1)}$ [l/min]				
Pneumatic connection	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

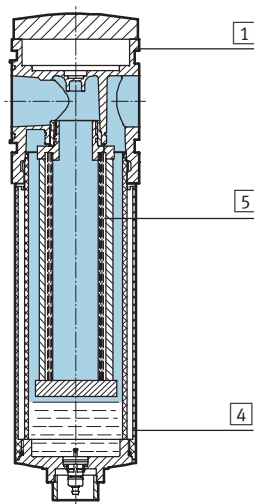
- 1) Dependent on connecting plate selected, must be ordered separately as an accessory → 11-2
Measured at $p_1 = 6 \text{ bar}$ and $\Delta p = 70 \text{ mbar}$.

Operating and environmental conditions			
Condensate drain	Manual rotary M	Fully automatic V	Fully automatic, electrical actuated E...
Input pressure [bar]	0.8 ... 20	2 ... 12	0.8 ... 16
Operating medium micro filter LFM-A	Compressed air, filtered, unlubricated, grade of filtration 1 µm		
Operating medium fine filter LFM-B	Compressed air, filtered, unlubricated, grade of filtration 5 µm		
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
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 condensate drain	7,700

Materials
Sectional view



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

Fine and micro filters MS12-LFM, MS series

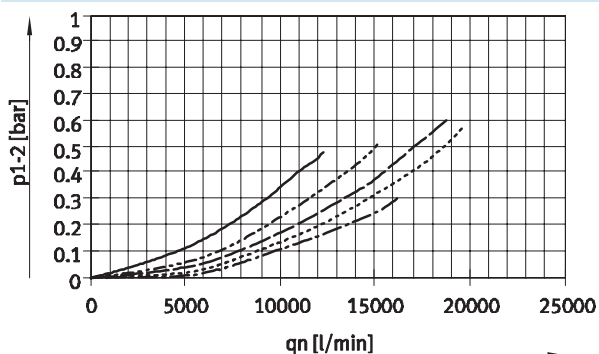
Technical data

FESTO

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

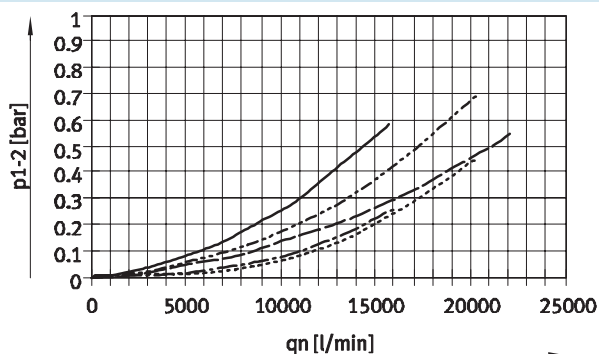
Grade of filtration 0.01 μm

With connecting plate MS12-AGF, Pneumatic connection G1



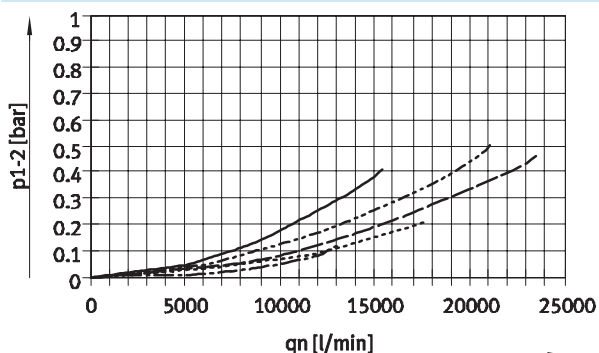
Grade of filtration 0.01 μm

With connecting plate MS12-AGG, Pneumatic connection G1¼



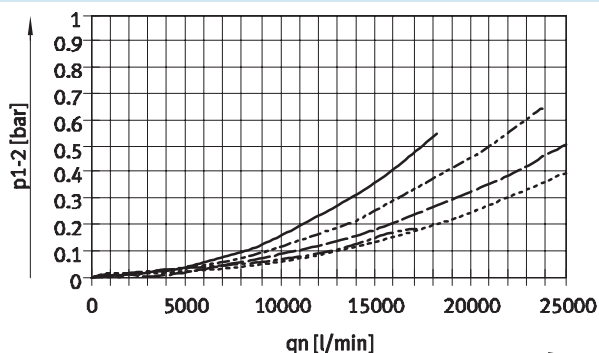
Grade of filtration 0.01 μm

With connecting plate MS12-AGH, Pneumatic connection G1½



Grade of filtration 0.01 μm

With connecting plate MS12-AGI, Pneumatic connection G2



- p_1 : 4 bar
- - - p_1 : 6 bar
- p_1 : 8 bar
- - - p_1 : 10 bar
- - - p_1 : 12 bar

Fine and micro filters MS12-LFM, MS series

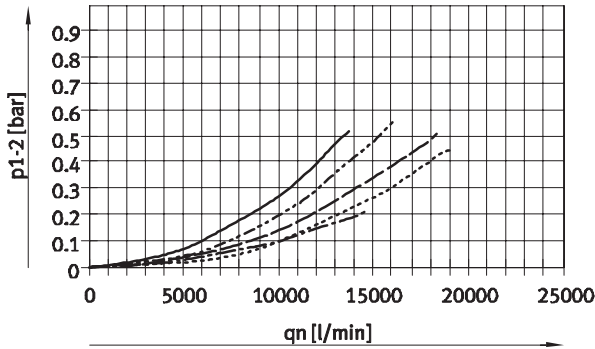
Technical data

FESTO

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

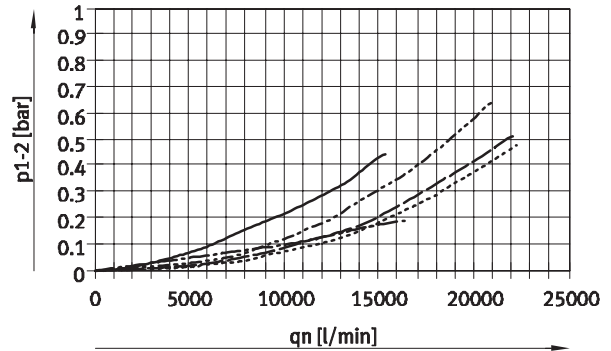
Grade of filtration $1\text{ }\mu\text{m}$

With connecting plate MS12-AGF, Pneumatic connection G1



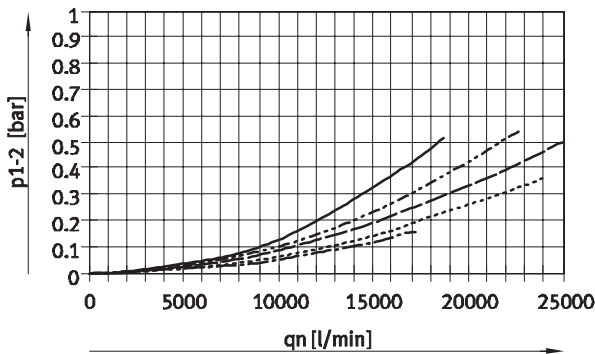
Grade of filtration $1\text{ }\mu\text{m}$

With connecting plate MS12-AGG, Pneumatic connection G1¼



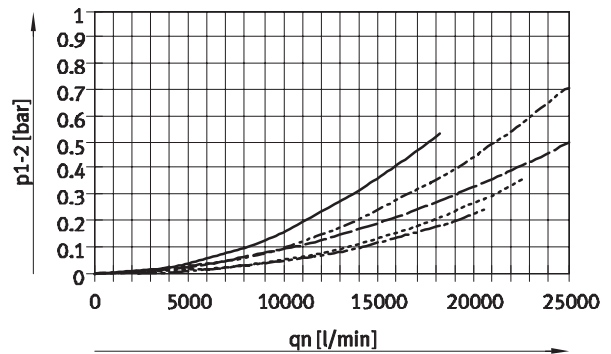
Grade of filtration $1\text{ }\mu\text{m}$

With connecting plate MS12-AGH, Pneumatic connection G1½



Grade of filtration $1\text{ }\mu\text{m}$

With connecting plate MS12-AGI, Pneumatic connection G2



- p_1 : 4 bar
- - - p_1 : 6 bar
- p_1 : 8 bar
- - - p_1 : 10 bar
- - - p_1 : 12 bar

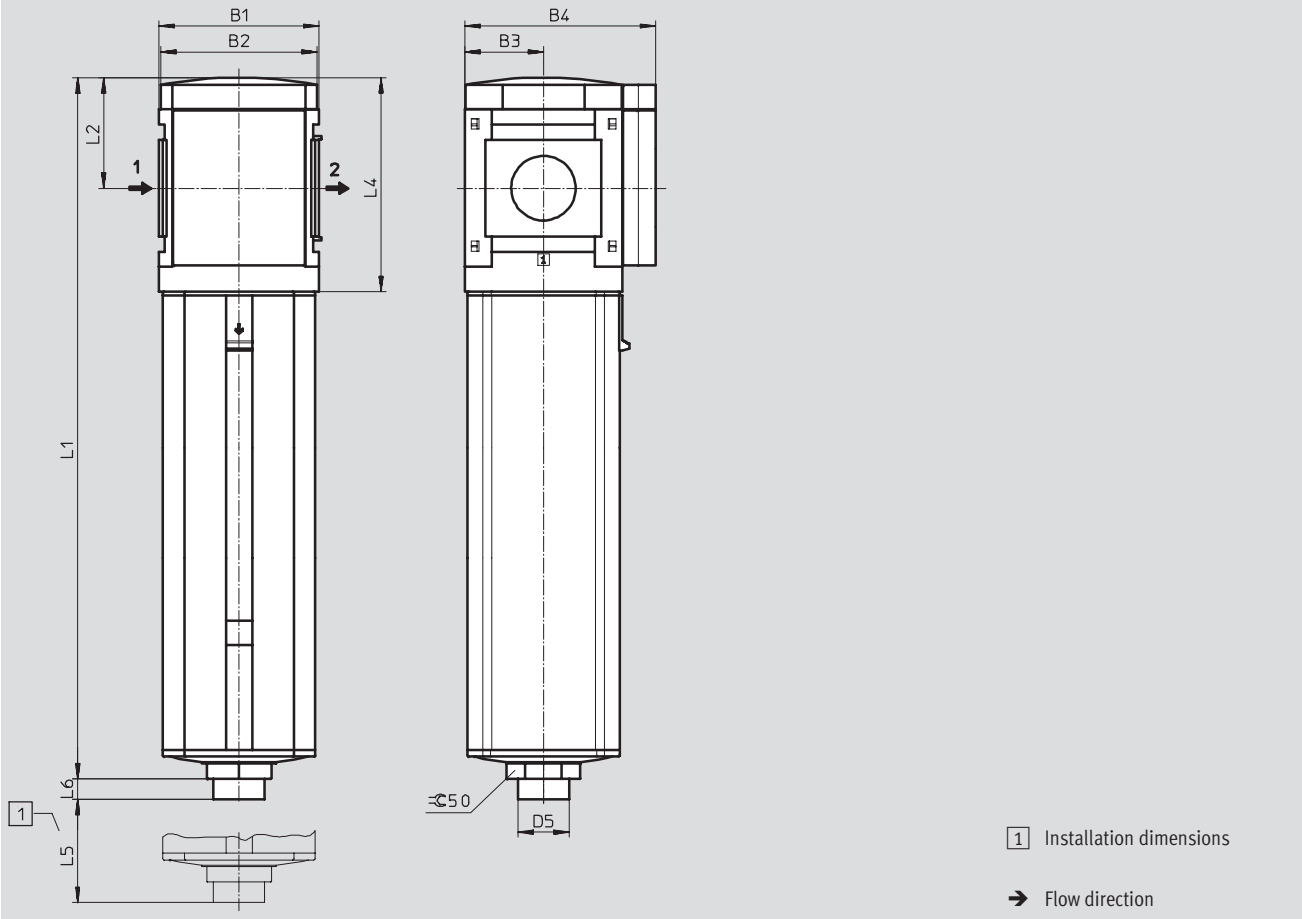
Fine and micro filters MS12-LFM, MS series

Technical data

FESTO

Dimensions – Standard

Download CAD data → www.festo.com/en/engineering



Type	B1	B2	B3	B4	D5	L1	L2	L4	L5	L6
MS12-LFM	124	122	61	148	40	543	86	166	350	16

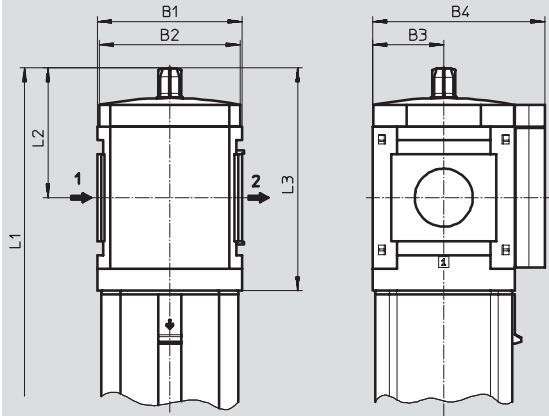
Fine and micro filters MS12-LFM, MS series

Technical data

FESTO

Dimensions – Differential pressure indicator

Download CAD data → www.festo.com/en/engineering



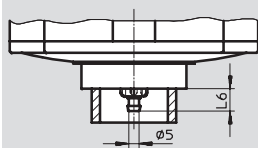
→ Flow direction

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

Dimensions – Condensate drain

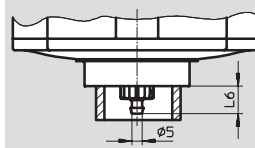
Download CAD data → www.festo.com/en/engineering

Manual rotary M



Barbed fitting for plastic tubing
PCN-4

Fully automatic V



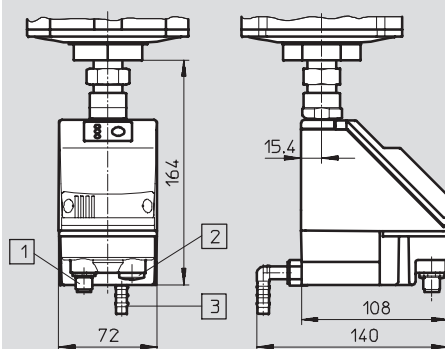
Barbed fitting for plastic tubing
PCN-4

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

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

Fully automatic, electrically actuated E1 ... E4

Technical data PWEA → www.festo.com



- 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-...

Ordering data

Metal bowl						
Size	Condensate drain	Connection	Micro filter		Fine filter	
			Grade of filtration 0.01 µm		Grade of filtration 1 µm	
			Part No.	Type	Part No.	Type
MS12	fully automatic	G1 ... G2 ¹⁾	537 154	MS12-LFM-G-AUV	537 153	MS12-LFM-G-BUV

1) Connecting plate must be ordered separately as an accessory → 11-2

Fine and micro filters MS12-LFM, MS series

Ordering data – Modular products

FESTO

[M] Mandatory data								[O] Options		
Module No.	Series	Size	Function	Connection size	Grade of filtration	Bowl	Condensate drain	Filter change sensor	Type of mounting	Alternative flow direction
535 042	MS	12	LFM	AGF AGG AGH AGI G	B A	U	M V E1 E2 E3 E4	DA	WP	Z
Order example										
535 042	MS	12	- LFM	- AGI	- A	- U	- M	-	-	-

Ordering table					
Grid dimension	[mm]	124	Condi- tions	Code	Enter code
[M] Module No.	535 042				
Series	Standard			MS	MS
Size	12			12	12
Function	Fine and micro filter			-LFM	-LFM
Connection size	Connecting plate G1			-AGF	
	Connecting plate G1¼			-AGG	
	Connecting plate G1½			-AGH	
	Connecting plate G2			-AGI	
	Module without connecting thread, without connecting plate			-G	
Grade of filtration	1 µm			-B	
	0.01 µm			-A	
Bowl	Metal bowl			-U	-U
Condensate drain	Manual			-M	
	Fully automatic (P1 max. 12 bar)			-V	
	External fully automatic condensate drain, electrical, 24 V DC, M12			-E1	
	External fully automatic condensate drain, electrical, 110 V AC, terminals			-E2	
	External fully automatic condensate drain, electrical, 230 V AC, terminals			-E3	
	External fully automatic condensate drain, electrical, 24 V DC, terminals			-E4	
[O] Filter change sensor	Differential pressure indicator, optical			-DA	
Type of mounting	Mounting bracket		1	-WP	
Alternative flow direction	Flow direction from right to left			-Z	

1 WP Only with connecting plate AGF, AGG, AGH or AGI.

Transfer order code

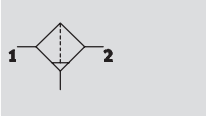
535 042	MS	12	-	LFM	-		-		-	U	-		-		-	
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Active carbon filters MS12-LFX, MS series

Technical data

FESTO

Function
Condensate drain
manual rotary



-  - Flow rate
4,800 ... 6,000 l/min
-  - Temperature range
-10 ... +60 °C
-  - Input pressure
0 ... 20 bar



- Removal of liquid and gaseous oil particles from compressed air using active carbon
- Eliminates odours and vapours
- Prefiltration with micro filter MS-LFM-A, grade of filtration 0.01 µm, recommended
- Filter cartridges → 11-9

General technical data				
Pneumatic connection 1, 2 ¹⁾	G1	G1¼	G1½	G2
Design	Active carbon filter			
Type of mounting	Via accessories			
	In-line installation			
Assembly position	Vertical ±5°			
Air purity class at the output	1.7.1 to DIN ISO 8573-1			
Bowl guard	Metal bowl			
Residual oil content [mg/m³]	≤ 0.003			
Max. condensate volume [cm³]	400			

1) Dependent on connecting plate selected, must be ordered separately as an accessory → 11-2

Standard nominal flow rate q _N ¹⁾ [l/min]				
Pneumatic connection	G1	G1¼	G1½	G2
In main flow direction 1 → 2	4,800	5,000	5,500	6,000

1) Dependent on connecting plate selected, must be ordered separately as an accessory → 11-2
Measured at p₁ = 6 bar and Δp = 70 mbar

Operating and environmental conditions	
Input pressure [bar]	0 ... 20
Operating medium	Compressed air, filtered, unlubricated, grade of filtration 0.01 µm
Ambient temperature [°C]	-10 ... +60
Temperature of medium [°C]	+5 ... +30
Storage temperature [°C]	-10 ... +60
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

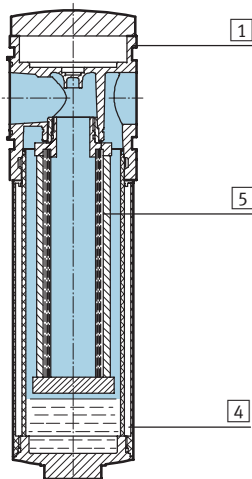
Active carbon filters MS12-LFX, MS series

Technical data

FESTO

Materials

Sectional view

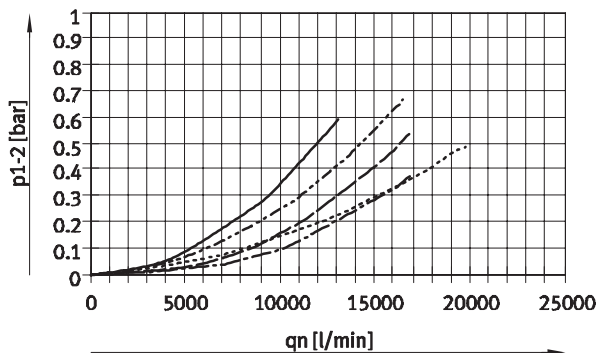


Active carbon filter

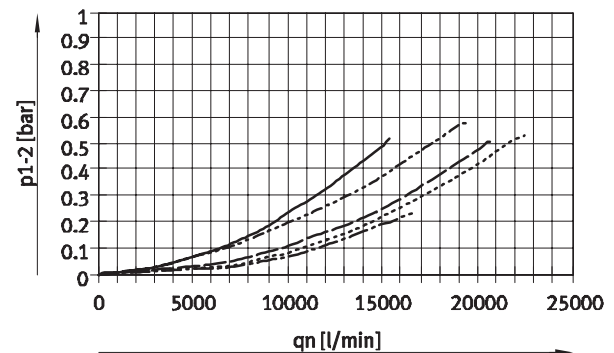
1	Body	Die-cast aluminium
4	Metal bowl	Wrought aluminium alloy
5	Filter	Active carbon
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE

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

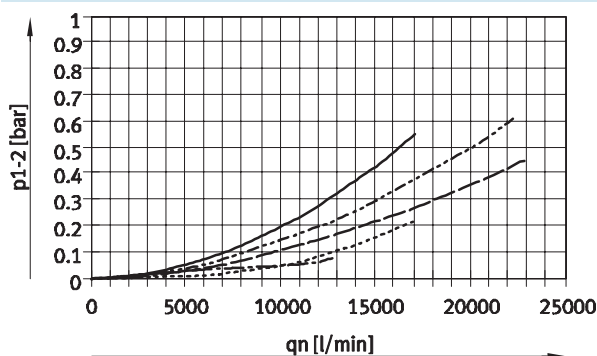
With connecting plate MS12-AGF, Pneumatic connection G1



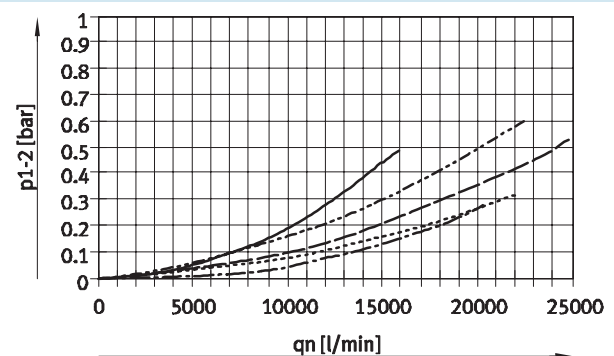
With connecting plate MS12-AGG, Pneumatic connection G1¼



With connecting plate MS12-AGH, Pneumatic connection G1½



With connecting plate MS12-AGI, Pneumatic connection G2

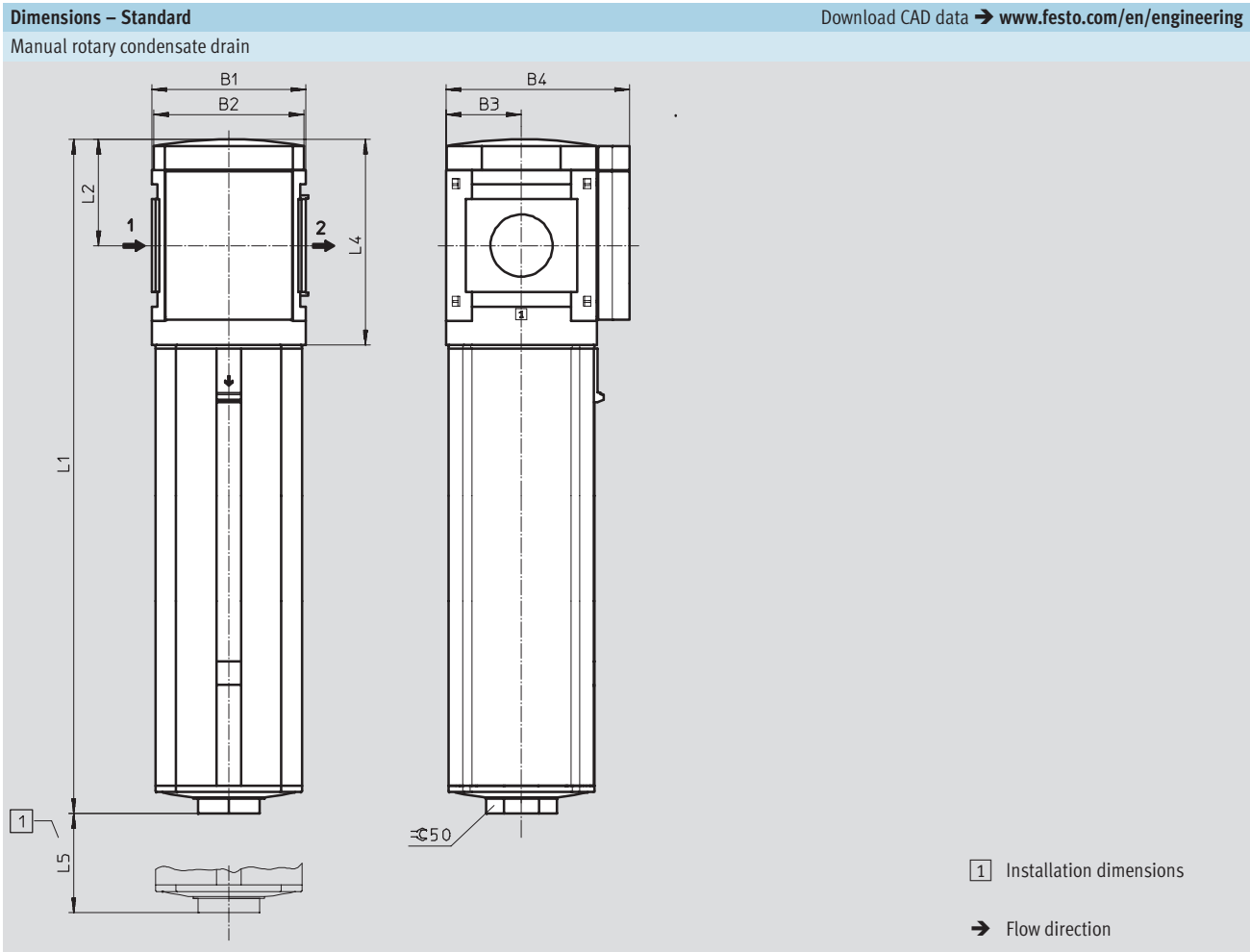


- p1: 4 bar
- - - p1: 6 bar
- p1: 8 bar
- - - p1: 10 bar
- p1: 12 bar

Active carbon filters MS12-LFX, MS series

Technical data

FESTO



Type	B1	B2	B3	B4	L1	L2	L4	L5
MS12-LFX	124	122	61	148	543	86	166	350

Ordering data			
Metal bowl			
Size	Connection	Part No.	Type
MS12	G1 ... G2 ¹⁾	537 155	MS12-LFX-G-U

1) Connecting plate must be ordered separately as an accessory → 11-2

Active carbon filters MS12-LFX, MS series

Ordering data – Modular products

FESTO

M Mandatory data						O Options	
Module No.	Series	Size	Function	Connection size	Bowl	Type of mounting	Alternative flow direction
535 043	MS	12	LFX	AGF AGG AGH AGI G	U	WP	Z
Order example							
535 043	MS	12	- LFX	- AGF	- U	- WP	- Z

Ordering table						
Grid dimension		[mm]	124	Condi- tions	Code	Enter code
M	Module No.	535 043				
	Series	Standard			MS	MS
	Size	12			12	12
	Function	Active carbon filter			-LFX	-LFX
	Connection size	Connecting plate G1			-AGF	
		Connecting plate G1¼			-AGG	
		Connecting plate G1½			-AGH	
		Connecting plate G2			-AGI	
		Module without connecting thread, without connecting plate			-G	
	Bowl	Metal bowl			-U	-U
O	Type of mounting	Mounting bracket		1	-WP	
	Alternative flow direction	Flow direction from right to left			-Z	

1 WP Only with connecting plate AGF, AGG, AGH or AGI.

Transfer order code

535 043	MS	12	- LFX	-	U	-		-	
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MS series service units

Accessories

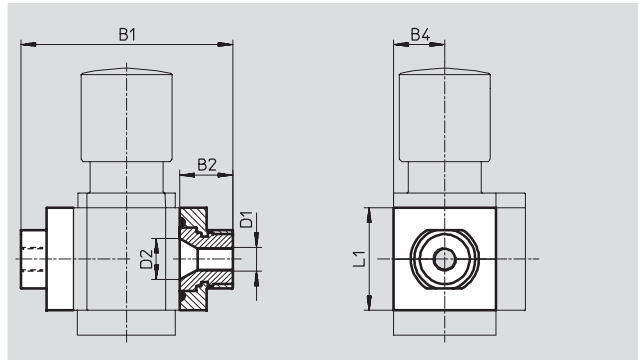
FESTO

Connecting plate MS4/6-AG...

(order code: AG...)

- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection G $\frac{3}{4}$

Material:
Aluminium



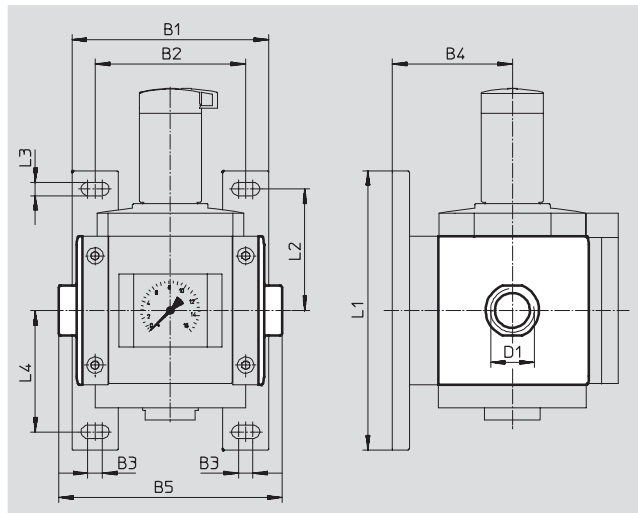
Dimensions and ordering data									
Size	B1	B2	B4	D1	D2	L1	Weight [g]	Part No.	Type
MS4	83.5	21.5	21	G $\frac{1}{8}$	16.8	42	128	526 068	MS4-AGA
				G $\frac{1}{4}$				526 069	MS4-AGB
				G $\frac{3}{8}$				526 070	MS4-AGC
MS6	115	26.5	31	G $\frac{1}{4}$	24	62	300	526 080	MS6-AGB
				G $\frac{3}{8}$				526 081	MS6-AGC
				G $\frac{1}{2}$				526 082	MS6-AGD
				G $\frac{3}{4}$				526 083	MS6-AGE

Connecting plate MS12-AG...

(order code: AG...)

- Adapter for pneumatic connection

Material:
Die-cast aluminium
Free of copper and PTFE



Dimensions and ordering data												
Size	B1	B2	B3	B4	B5	D1	L1	L2	L3	L4	Weight [g]	Part No. Type
MS12	162	124	12	99	184	G1	230	100	11	100	1,300	537 135 MS12-AGF
					184	G1 $\frac{1}{4}$						537 136 MS12-AGG
					184	G1 $\frac{1}{2}$						537 137 MS12-AGH
					196	G2						537 138 MS12-AGI

MS series service units

Accessories

FESTO

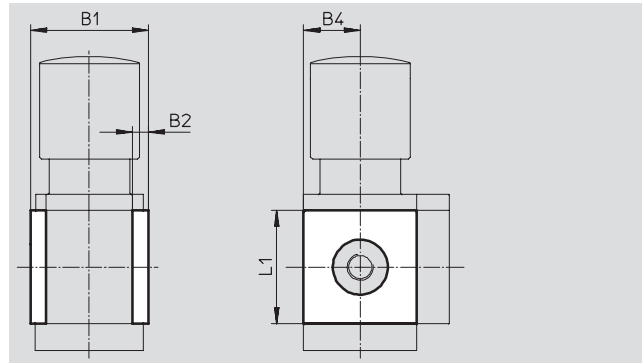
Cover cap MS4/6-END

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

Material:

Reinforced polyamide

Free of copper and PTFE



Dimensions and ordering data						
Size	B1	B2	B4	L1	Part No.	Type
MS4	43.6	6	21	42	538 779	MS4-END
MS6	67	8	31	62	538 780	MS6-END

Mounting plate MS6-AEND

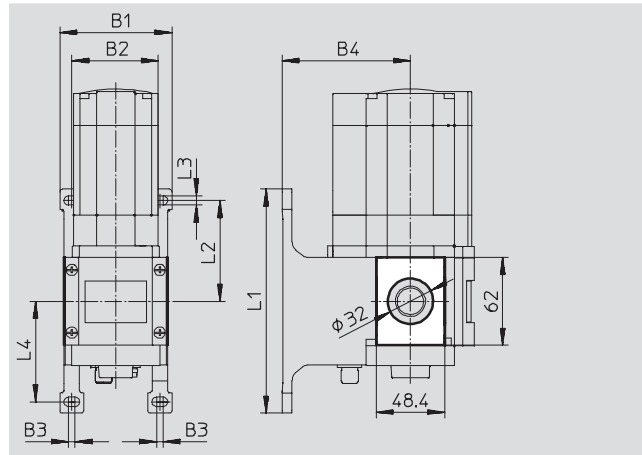
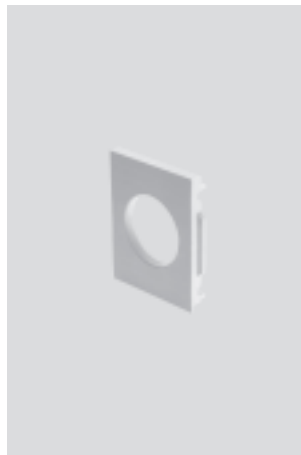
(order code: WBE; scope of delivery includes wall mounting plate MS6-WPB)

- In combination with wall mounting plate MS6-WP or MS6-WPB for mounting an individual unit on a wall with direct thread

Material:

Reinforced polyamide

Free of copper and PTFE



Dimensions and ordering data											
Size	B1	B2	B3	B4	L1	L2	L3	L4	CRC ¹⁾	Weight [g]	Part No. Type
MS6	79	62	4.5	90.5	158	71	6.6	71	2	17	535 408 MS6-AEND  New

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.

MS series service units

Accessories

FESTO

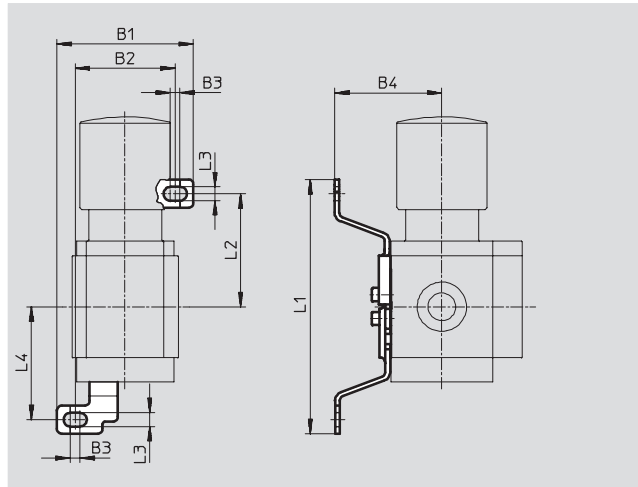
Mounting bracket MS4/6-WB

(order code: WB)

- For wall mounting

Material:

Steel



Dimensions and ordering data											
Size	B1	B2	B3	B4	L1	L2	L3	L4	Weight [g]	Part No.	Type
MS4	56.2	41.2	4	44.2	104.6	46.6	5.6	46.5	46	532 185	MS4-WB
MS6	79.4	61.9	4.5	55	157.6	71	6.6	71	121	532 196	MS6-WB

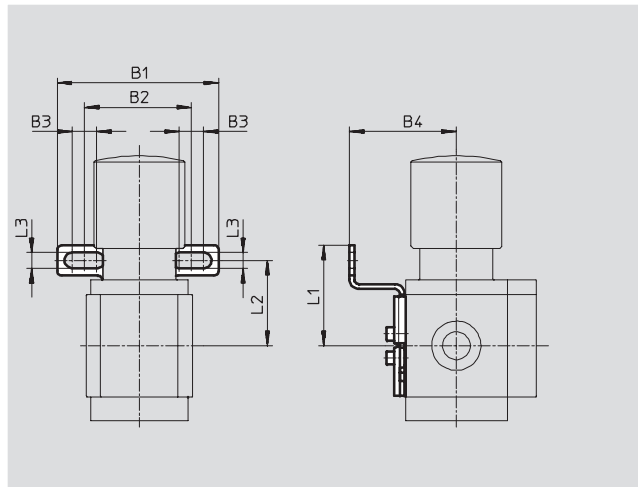
Mounting bracket MS4-WBM

(order code: WBM)

- For wall mounting

Material:

Steel



Dimensions and ordering data										
Size	B1	B2	B3	B4	L1	L2	L3	Weight [g]	Part No.	Type
MS4	66.5	44	10	44	41.3	35	6.5	48	526 062	MS4-WBM

MS series service units

Accessories

FESTO

Mounting bracket MS4/6-WP...

Clearances for mounting service unit combinations

1 unit

MS4-...: 40 mm

MS6-...: 62 mm

2 units

MS4-...: 80 mm

MS6-...: 124 mm with WP, WPB

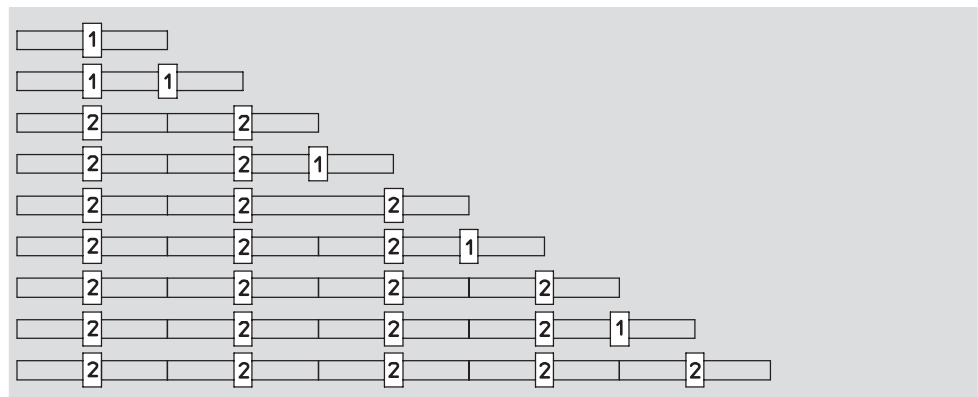
138 mm with WPM-2D

1 Mounting bracket WP, WPB or WPM-D

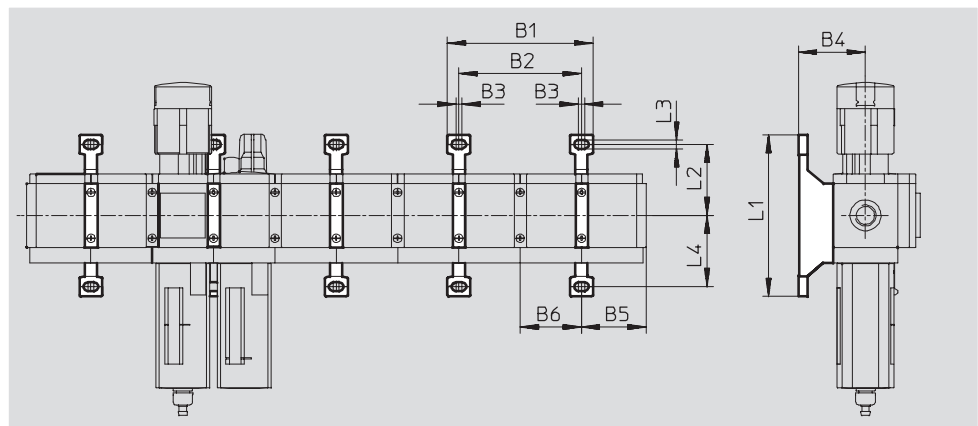
2 Mounting bracket WP, WPB or WPM-2D

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
MS4-WP	95.2	80	4	44	41.9	40	106	46.5	5.6	46.7
MS4-WPB				66						
MS4-WPM-...D				44			92.8	34.8		40
MS6-WP	141	124	4.5	54	64.5	62	158	71	6.6	71
MS6-WPB				90.5						
MS6-WPM-...D				54			98.6	41.3		41.3

MS series service units

Accessories

FESTO

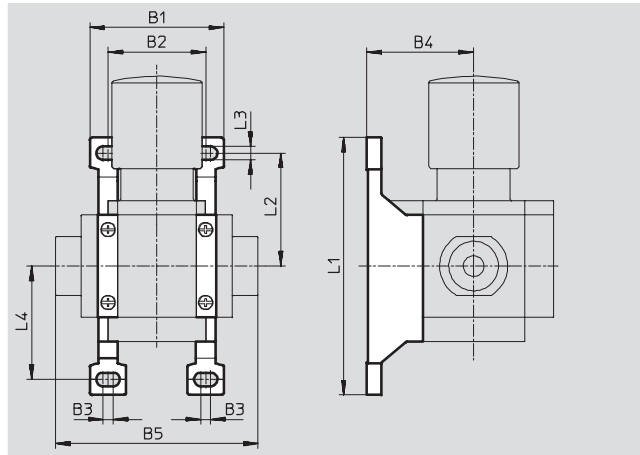
Mounting bracket MS4/6-WP

(order code: WP)

- For connecting the modules for wall mounting
- In combination with a connecting plate MS4/6-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS6-AEND or for mounting an individual unit with direct thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:

Die-cast aluminium



Dimensions and ordering data												
Size	B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No.	Type
MS4	55.2	40.2	4	44	83.4	106	46.5	5.6	46.7	39	532 184	MS4-WP
MS6	79	62	4.5	54	115	158	71	6.6	71	76	532 195	MS6-WP

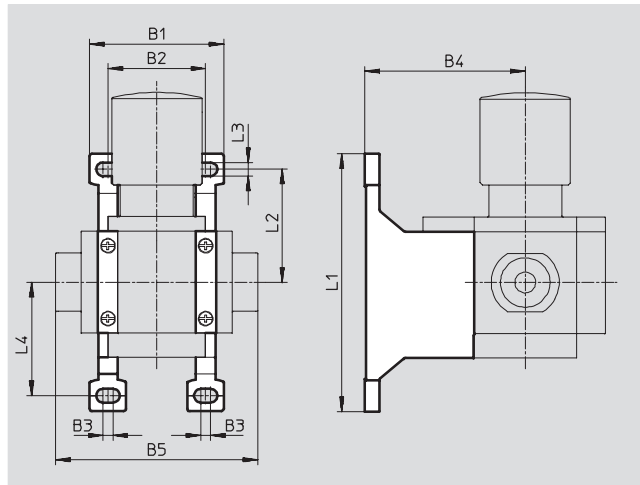
Mounting bracket MS4/6-WPB

(order code: WPB)

- For connecting the modules for wall mounting
- In combination with a connecting plate MS4/6-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS6-AEND or for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:

Die-cast aluminium



Dimensions and ordering data												
Size	B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No.	Type
MS4	55.2	40.2	4	66	83.4	106	46.5	5.6	46.7	55	526 063	MS4-WPB
MS6	79	62	4.5	90.5	115	158	71	6.6	71	115	526 074	MS6-WPB

MS series service units

Accessories

FESTO

Mounting bracket MS4/6-WPM

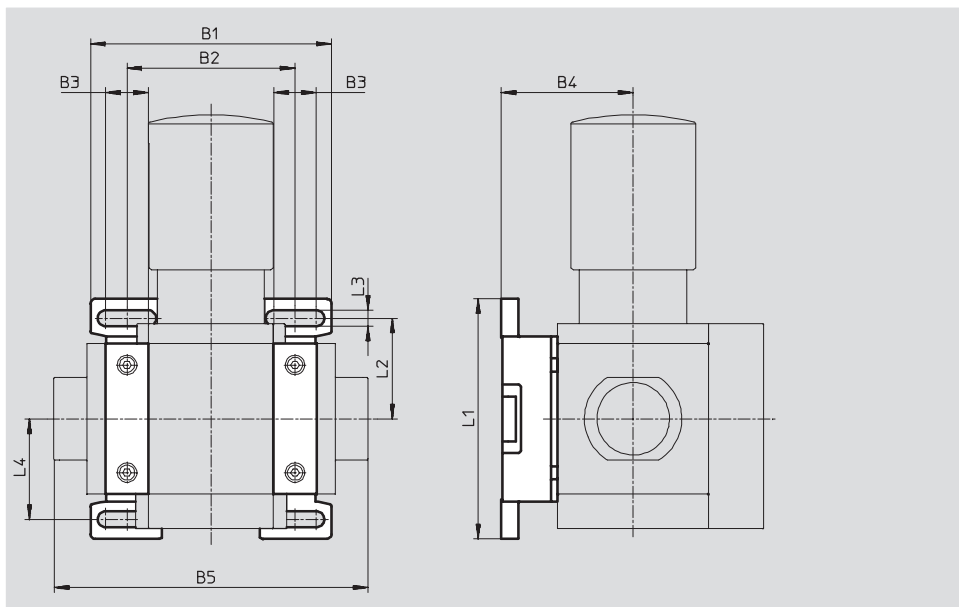
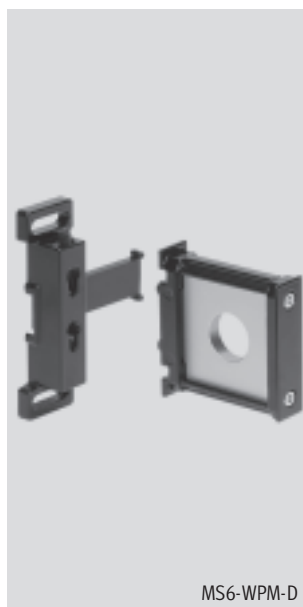
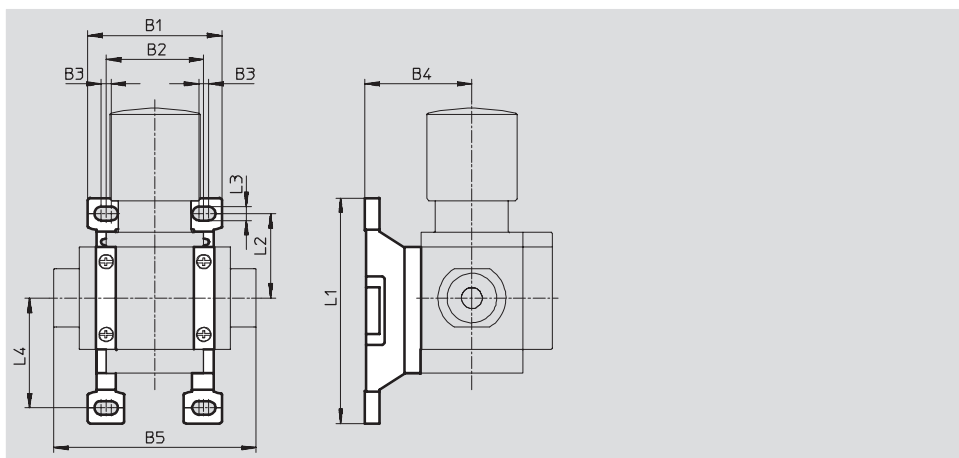
(order code: WPM)

- For connecting the modules for wall mounting
- In combination with a connecting plate MS4/6-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 aluminium



Dimensions and ordering data													
Size	B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [g]	Part No.	Type
MS4	55.2	40	4	44	83.4	92.8	34.8	5.6	45.2	40	45	526 060	MS4-WPM-D
	95.2	80			123.4					80	55	526 061	MS4-WPM-2D
MS6	99	69	17.5	54	129	98.6	41.3	6.6	41.3	62	144	526 073	MS6-WPM-D
	168	138			198					124	154	532 186	MS6-WPM-2D

MS series service units

Accessories

FESTO

Wall mounting plate MS12-WP

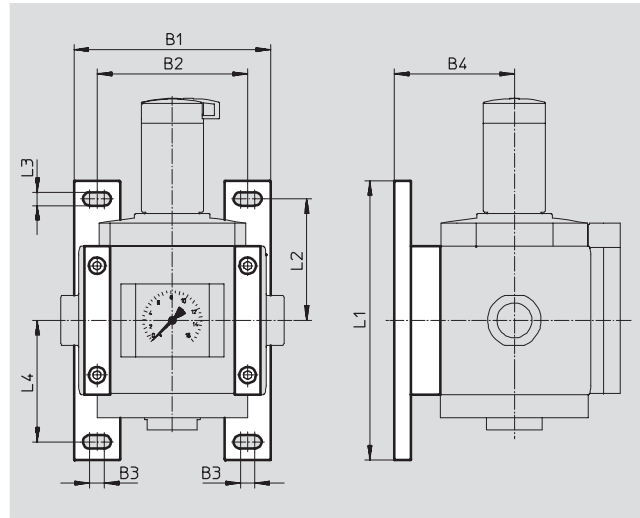
(order code: WP)

- For connecting the modules for wall mounting
- In combination with a connecting plate for mounting an individual unit on a wall

Material:

Die-cast aluminium

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	537 133	MS12-WP

Module connector MS...-MV

- For connecting modules

Material:

MS4/6: Stainless steel/polyacetate

MS12: Die-cast aluminium,

free of copper and PTFE



MS4/6



MS12

Ordering data

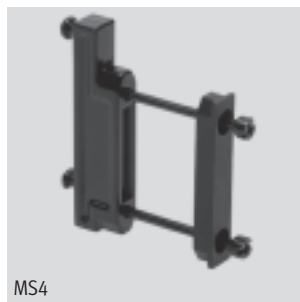
Size	Weight [g]	Part No.	Type
MS4	36	532 798	MS4-MV
MS6	54	532 799	MS6-MV
MS12	500	537 134	MS12-MV

Module connector MS4/6-MVM

- For installation of modules with regulating knob pointing downwards

Material:

Die-cast aluminium



MS4



MS6

Ordering data

Size	Part No.	Type
MS4	532 800	MS4-MVM
MS6	532 801	MS6-MVM

MS series service units

Accessories

FESTO

Filter cartridge MS4/6-LF...



MS...-LFM



MS...-LFP



MS...-LFX

Ordering data				
Size		Grade of filtration [μm]	Part No.	Type
MS4	Micro-filter cartridge	0.01	162 674	MS4/D-MINI-LFM-A
	Fine-filter cartridge	1	162 677	MS4/D-MINI-LFM-B
	Filter cartridge	5	534 501	MS4-LFP-C
	Filter cartridge	40	534 502	MS4-LFP-E
	Active carbon filter cartridge	Residual oil content ≤ 0.003 mg/m ³	532 912	MS4/D-MINI-LFX
MS6	Micro-filter cartridge	0.01	532 909	MS6-LFM-A
	Fine-filter cartridge	1	532 910	MS6-LFM-B
	Filter cartridge	5	534 499	MS6-LFP-C
	Filter cartridge	40	534 500	MS6-LFP-E
	Active carbon filter cartridge	Residual oil content ≤ 0.003 mg/m ³	532 911	MS6-LFX

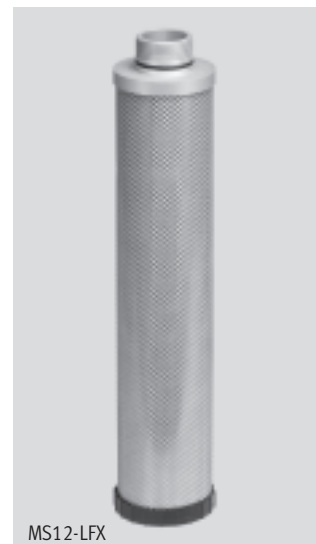
Filter cartridge MS12-LF...



MS12-LFM-B



MS12-LFM-A



MS12-LFX

Ordering data				
Size		Grade of filtration [μm]	Part No.	Type
MS12	Micro-filter cartridge	0.01	537 146	MS12-LFM-A
	Fine-filter cartridge	1	537 145	MS12-LFM-B
	Filter cartridge	5	537 143	MS12-LFP-C
	Filter cartridge	40	537 144	MS12-LFP-E
	Active carbon filter cartridge	Residual oil content ≤ 0.003 mg/m ³	537 147	MS12-LFX