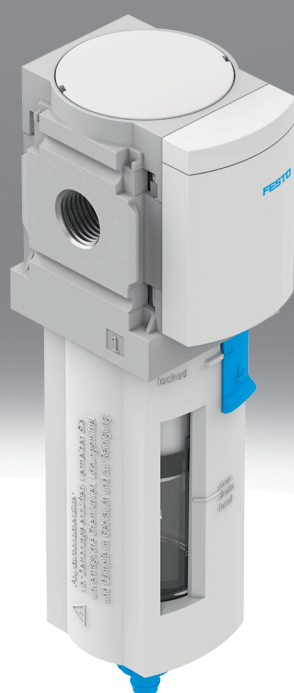


Fine filter MS4N-LFM-B

FESTO



Characteristics

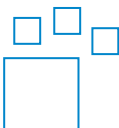
At a glance

High-efficiency filter for exceptionally clean compressed air.

- Removing oil aerosols from compressed air
- Air quality to ISO 8573-1:2010

Ordering data - modular system

Link [ms4n-lfm-b](#)



Configurable product

This product and all its product options can be ordered online via the configurator.

Size

Grid dimension: 40 mm

Standard nominal flow rate:

- 6.4 scfm

Pneumatic connection

Depending on the size, different connection types can be selected:

- Connecting plates with female thread
- Individual fittings that are fastened via a female thread

Bowl type

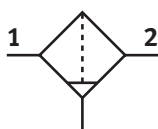
Bowl guard can be selected either as a plastic bowl guard or integrated as a metal bowl guard.

Condensate drain

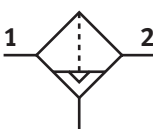
The following functions can be selected:

- Manual
- Semi-automatic
- Fully automatic

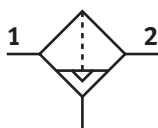
[M] Manually



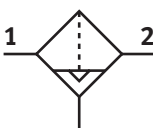
[H] Semi-automatic



[V] Automatic



[VC] Fully automatic, normally closed



Filter design

Optionally with differential pressure display for indicating filter contamination or with electronic filter contamination indicator.

Characteristics

Type of mounting

[WB] Mounting centrally at rear (wall mounting top and bottom), connecting plates not required



- For wall mounting an individual device
- For size 4 or 6

[WBM] Mounting centrally at rear (wall mounting top), connecting plates not required



- For wall mounting an individual device
- For size 4

[WP] Mounting bracket basic design



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- In conjunction with mounting plate MS4-AEND for wall mounting of a single device
- Same wall distance for mixing combination with MS4 and MS6 series

[WPM] Mounting bracket for hooking in service unit components



- Mounting attachment and connector for service unit combination
- Mount and dismount the service unit combination quickly
- Spacer for maintaining the mounting gap
- For size 4, 6, or 9

UL certification

Optional device variant UL1, which meets the safety requirements for the Canadian and US markets.

Flow direction

Available with flow in the opposite direction.

Type code

001	Series	
MS	MS series	
002	Size	
4	Grid dimension 40 mm	
003	Thread type	
N	NPT thread	
004	Function	
LFM	Fine and micro filters	
005	Pneumatic connection, inch	
1/8	Female thread NPT 1/8	
1/4	Female thread NPT 1/4	
AQK	Sub-base NPT1/8	
AQN	Sub-base NPT1/4	
AQP	Sub-base NPT3/8	
006	Filter design	
A	0.01 µm	
B	1 µm	
007	Bowl type	
R	Plastic tray with plastic basket	
U	Aluminium	

008	Condensate drain	
H	Semi-automatic	
M	Manually	
V	Automatic	
009	Filter change sensing	
	None	
DA	Differential pressure display, visual	
DN	Filter contamination indicator, M8 plug, NPN, 3-pin	
DNI	Filter contamination indicator, M12 plug, NPN, 4-pin, analogue output 4...20 mA	
DP	Filter contamination indicator, M8 plug, PNP, 3-pin	
DPI	Filter contamination indicator, M12 plug, PNP, 4-pin, analogue output 4...20 mA	
010	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket basic design	
WPM	Mounting bracket for hooking in service unit components	
WB	Mounting centrally at rear (wall mounting top and bottom), connecting plates not required	
WBM	Mounting centrally at rear (wall mounting top), connecting plates not required	
011	UL certification	
	None	
UL1	cULus ordinary location for Canada and USA	
012	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data		
Pneumatic connection, port 1	1/8 NPT	1/4 NPT
Pneumatic connection, port 2	1/8 NPT	1/4 NPT
Size	4	
Design	Fibre filter	
Grade of filtration	1 µm	
Type of mounting	Either: In-line installation With accessories	
Mounting position	Vertical +/-5°	
Air purity class at output	Compressed air to ISO 8573-1:2010:[5:-:3]	
Filter efficiency	99.99%	
Bowl guard	Plastic bowl guard, Integrated as metal bowl	
Condensate drain	Fully automatic, Manual, non-detenting, Manually rotating	
Max. condensate volume	19 ... 25 ml	
Differential pressure display	Visual display	
Filter efficiency, fine particles	99%	
Filter efficiency, oil aerosol	90%	

Standard nominal flow rate qnN	
Min. standard flow rate for clean air class	54 l/min
Max. standard flow rate for clean air class	360 l/min

Operating and environmental conditions		
Condensate drain	Fully automatic, Manual, non-detenting	Manually rotating
Operating pressure	2 ... 12 bar	0 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [6:-:4] Inert gases	
Ambient temperature	-10 ... 60°C	
Media temperature	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress	
Suitable for use with food ²⁾	See supplementary material information	

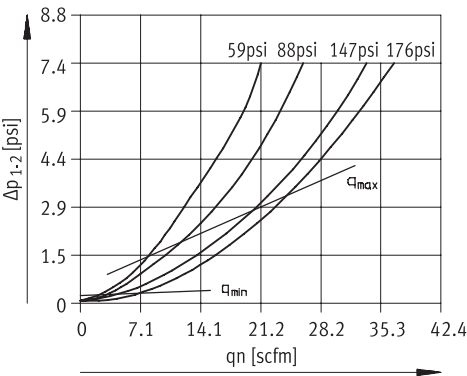
1) More information at www.festo.com/x/topic/kbk

2) More information www.festo.com/catalogue/ms4n-lfm → Support/Downloads.

Materials		
Bowl type	Plastic tray with plastic basket [R]	Aluminium [U]
Material housing	Die-cast aluminium	
Material bowl	PC	Die-cast aluminium, Wrought aluminium alloy
Material screen	—	PA
Material filter	Borosilicate fibre	
Material seals	NBR	
Note on materials	RoHS-compliant	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

Datasheet

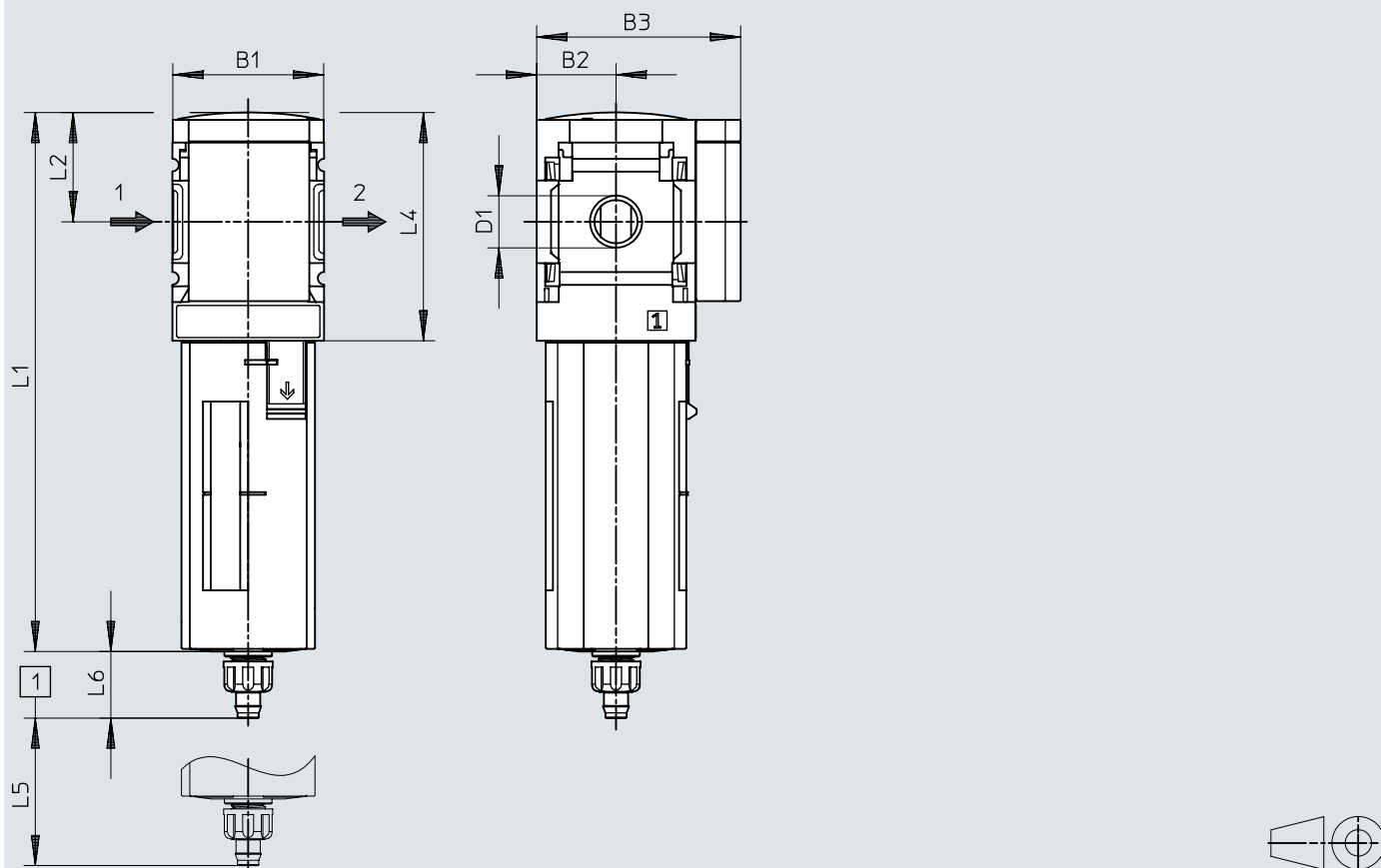
Normal flow rate q_n as a function of the differential pressure Δp_{1-2} (MS4N-LFM-1/8; MS4N-LFM-1/4)



Dimensions

Dimensions – Condensate drain, manual, rotary, with plastic bowl guard R

Download CAD data www.festo.com

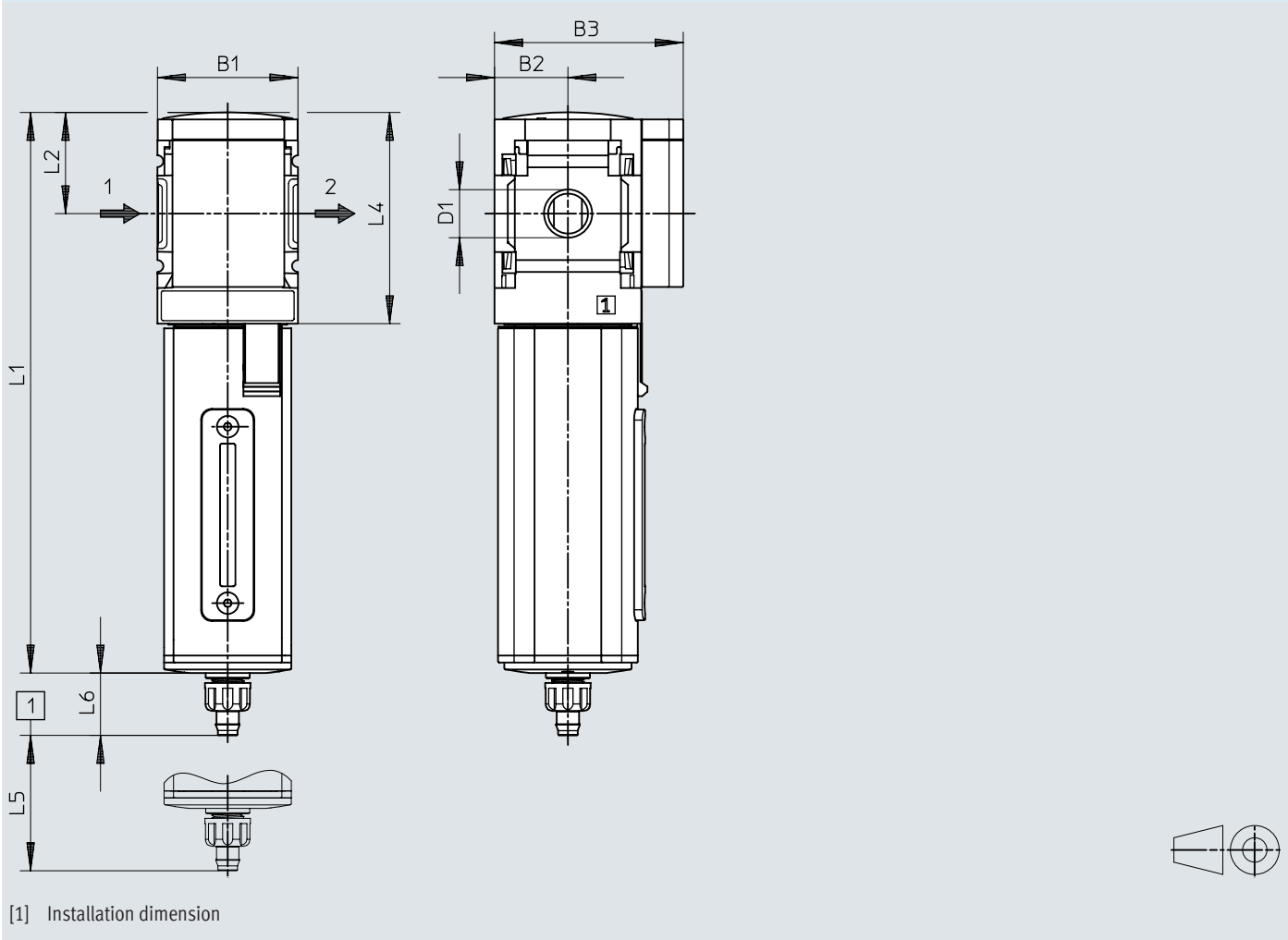


[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS4N-LFM-1/8	1,58	0,83	2,13	1/8 NPT	5,58	1,14	2,38	2,36	0,70
MS4N-LFM-1/4				1/4 NPT					

Dimensions

Dimensions – Condensate drain, manual, rotary, with metal bowl U Download CAD data www.festo.com

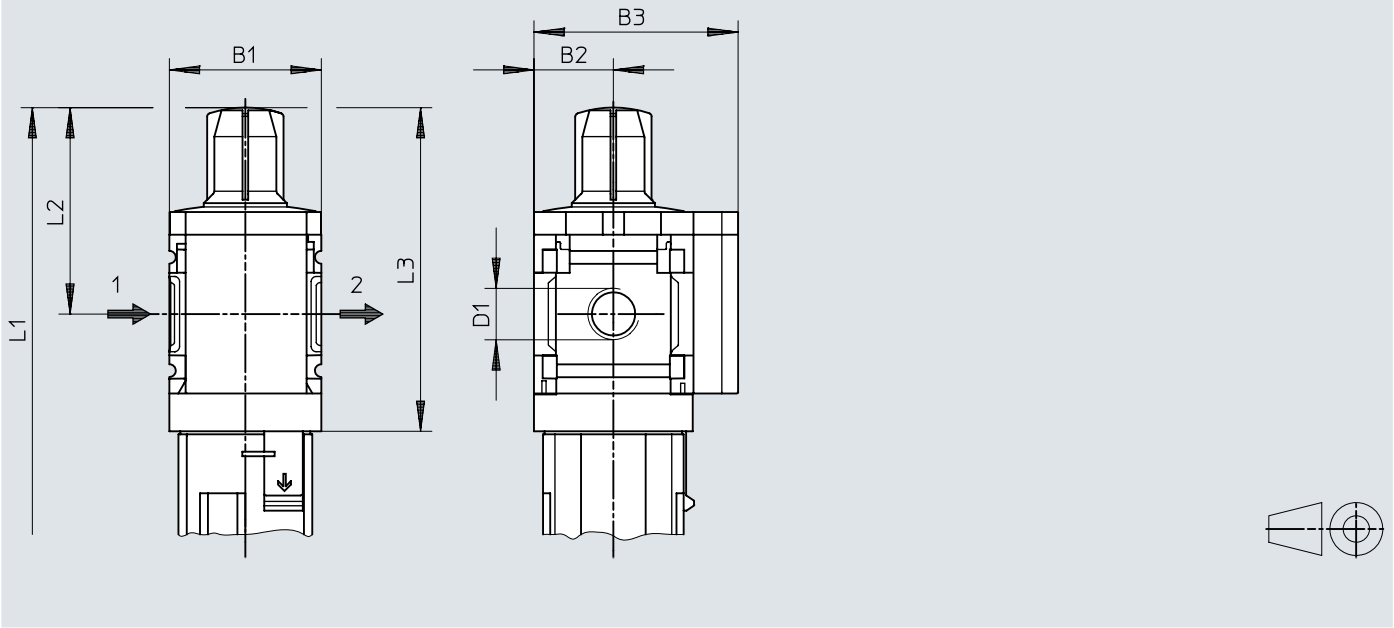


	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS4N-LFM-1/8	1,58	0,83	2,13	1/8 NPT	6,29	1,14	2,38	2,36	0,70
MS4N-LFM-1/4				1/4 NPT					

Dimensions

Dimensions – Differential pressure display DA

Download CAD data www.festo.com

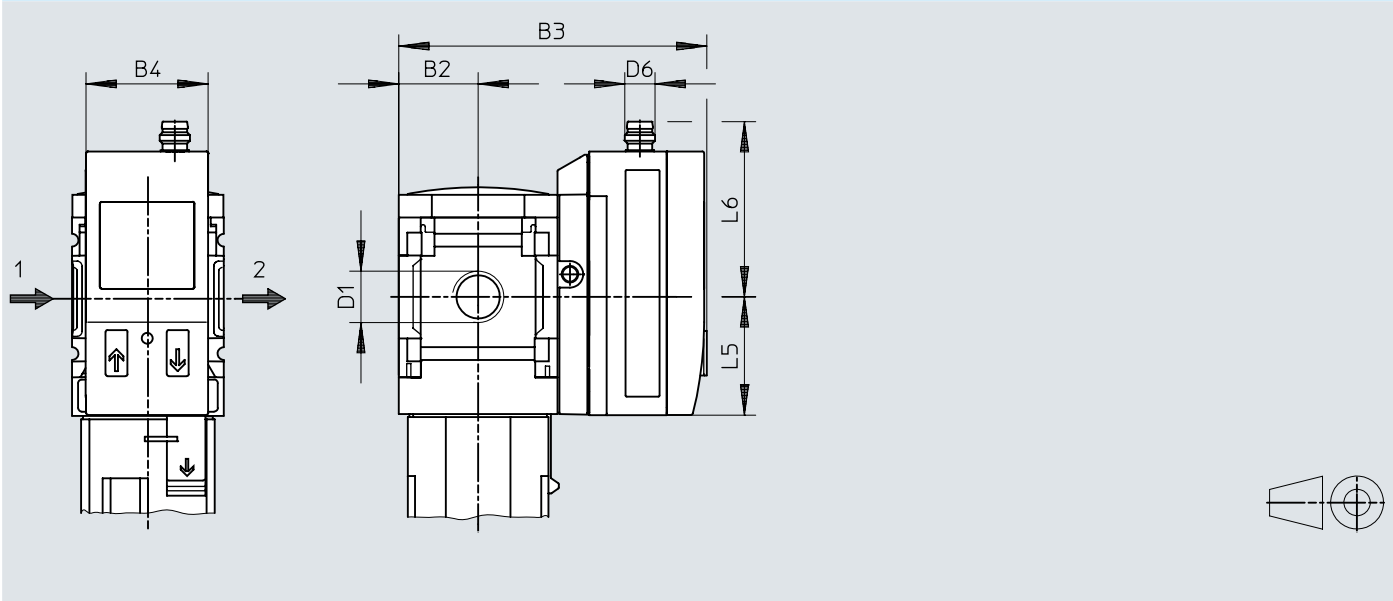


	B1	B2	B3	D1	L1		L2	L3
	[inch]	[inch]	[inch]		1) [inch]	2) [inch]	[inch]	[inch]
MS4-LFM-1/8-...-DA	1,57	0,83	2,13	1/8 NPT	6,61	7,32	2,17	3,39
MS4-LFM-1/4-...-DA				1/4 NPT				

- 1) Bowl guard, polymer
- 2) Bowl guard, metal

Dimensions

Dimensions – Filter contamination indicator DP, DN, DPI, DNI [Download CAD data](http://www.festo.com) www.festo.com



	B2	B3	B4	D1	D6	L5	L6
MS4-LFM-1/8-...-DP/DN	21	82,6	32,3	G1/8	M8x1	35,1	46,7
MS4-LFM-1/4-...-DP/DN				G1/4			
MS4-LFM-1/8-...-DPI/DNI	21	82,6	32,3	G1/8	M12x1	35,1	55,8
MS4-LFM-1/4-...-DPI/DNI				G1/4			

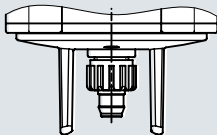
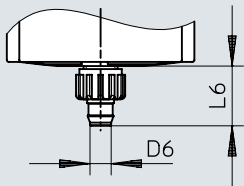
Dimensions

Dimensions – Condensate drain, manual, rotary

Download CAD data www.festo.com

MS4-...-R-M

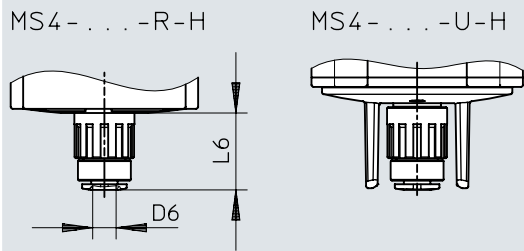
MS4-...-U-M



	D6 ø [inch]	L6 [inch]
MS4N-LFM-...-R-M	0,197	0,70
MS4N-LFM-...-U-M	0,197	0,70

Dimensions

Dimensions – Condensate drain, semi-automatic Download CAD data www.festo.com



	D6 Ø [inch]	L6 [inch]
MS4N-LFM-...-R-H	0,236	0,87
MS4N-LFM-...-U-H	0,236	0,87

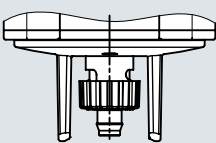
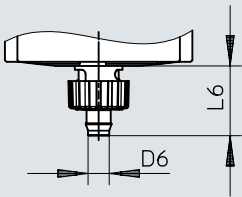
Dimensions

Dimensions – Condensate drain, fully automatic

Download CAD data www.festo.com

MS4-...-R-V

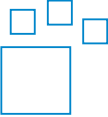
MS4-...-U-V



	D6 ø [inch]	L6 [inch]
MS4N-LFM-...-R-V	0,197	0,80
MS4N-LFM-...-U-V	0,197	0,80

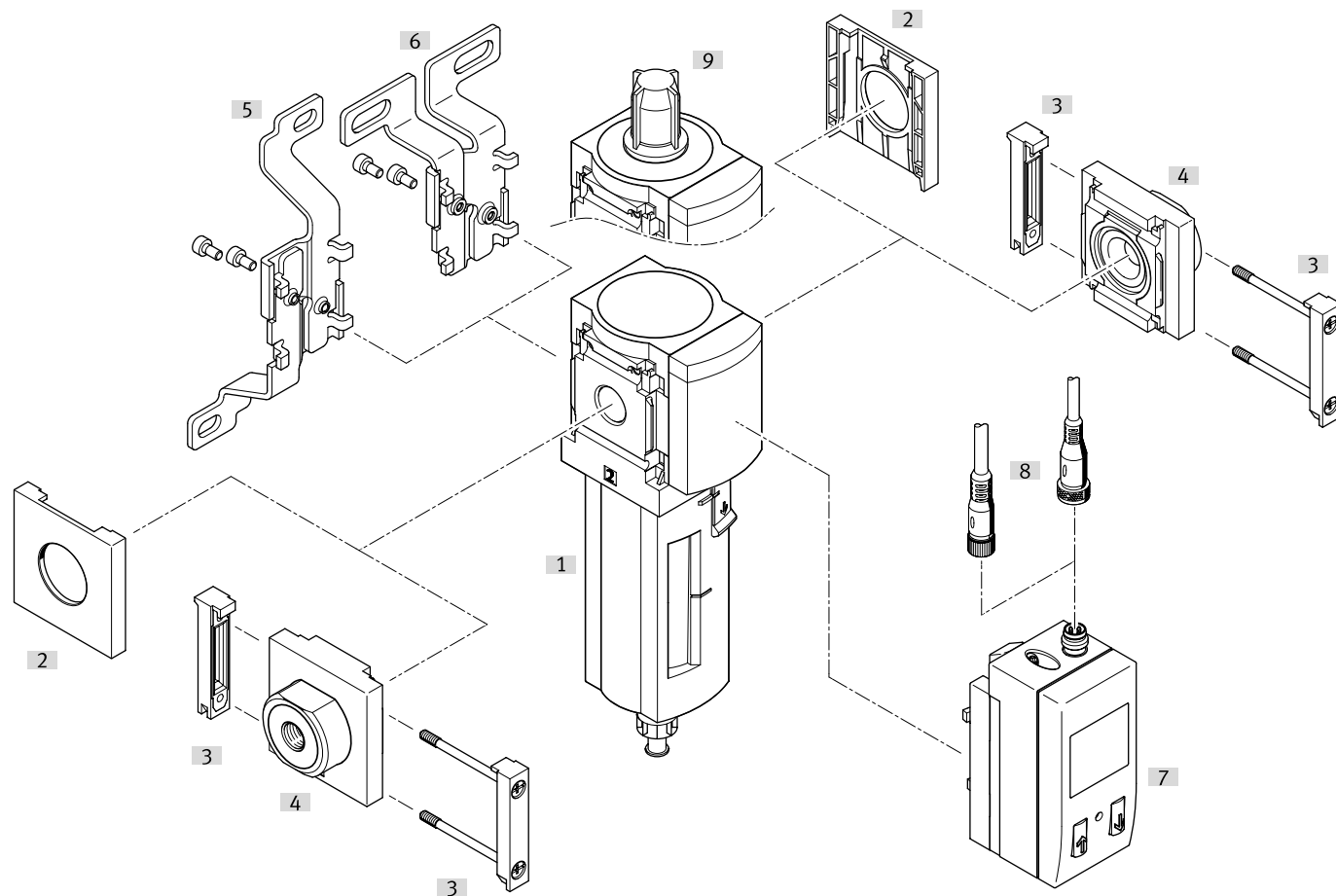
Ordering data

Ordering data						
	Pneumatic connection, port 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/8 NPT	1 µm	Fully automatic, Manual, non-de-tenting	350 g	537217	MS4N-LFM-1/8-BUV-DA
					539206	MS4N-LFM-1/8-BUV
			Manually rotating	190 g	536825	MS4N-LFM-1/8-BRM-DA
					536699	MS4N-LFM-1/8-BRM
	1/4 NPT		Fully automatic, Manual, non-de-tenting	350 g	535774	MS4N-LFM-1/4-BUV
					537218	MS4N-LFM-1/4-BUV-DA
			Manually rotating	190 g	536826	MS4N-LFM-1/4-BRM-DA
					531810	MS4N-LFM-1/4-BRM

Ordering data – Modular product system			
	Short type code	Part no.	Type
	MS4N-LFM	527698	MS4N-LFM

Peripherals

Peripherals overview

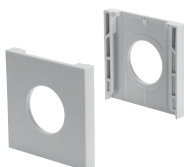


Accessories		→ Link
Type/order code	Description	
[1] Fine filter M4N-LFM-B		ms4n-lfm-b
[2] Cover cap MS4-END	For devices without connecting plate	16
[3] Module connector MS4-MV	For device combinations and individual devices with connecting plate	16
[4] Connecting plate SET MS4-AQ...	Order code [AQ...]; for device combinations	16
[5] Mounting bracket MS4-WB	For individual device	16
[6] Mounting bracket MS4-WBM	For individual device	16
[7] Filter contamination indicator DP/DN/DPI/DNI	Order code [DP], [DN], [DPI], [DNI]	ms4n-lfm-b
[8] Connecting cable NEBA-M8...-LE3, NEBA-M12...-LE4		17
[9] Differential pressure display DA	Order code [DA]	ms4n-lfm-b

Accessories

Fine-filter cartridges					
	Size	Grade of filtration	Note on materials	Part no.	Type
	Mini	1 µm	RoHS-compliant	162677	MS4/D-MINI-LFM-B

Module connector MS4-MV1				
	Size	Part no.	Type	
	4	8119201	MS4-MV1	

Cover cap MS4-END				
	Size	Part no.	Type	
	4	538779	MS4-END	

Mounting bracket MS4-WB				
	Size	Part no.	Type	
	4	532185	MS4-WB	

Mounting bracket MS4-WBM				
	Size	Part no.	Type	
	4	526062	MS4-WBM	

Connecting plate SET MS4-AQ...				
	Size	Pneumatic connection, port 1	Part no.	Type
	4	1/8 NPT	526065	MS4N-AQK

Accessories

Connecting plate SET MS4-AQ...

	Size	Pneumatic connection, port 1	Part no.	Type
	4	1/4 NPT	526066	MS4N-AQN
		3/8 NPT	526067	MS4N-AQP

Connecting cables NEBA, straight

	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	4	2.5 m	8078239	NEBA-M12G5-U-2.5-N-LE4
				5 m	8078240	NEBA-M12G5-U-5-N-LE4
	M8x1, A-coded, to EN 61076-2-104		3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cables NEBA, angled

	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	4	2.5 m	8078248	NEBA-M12W5-U-2.5-N-LE4
				5 m	8078249	NEBA-M12W5-U-5-N-LE4
	M8x1, A-coded, to EN 61076-2-104		3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3