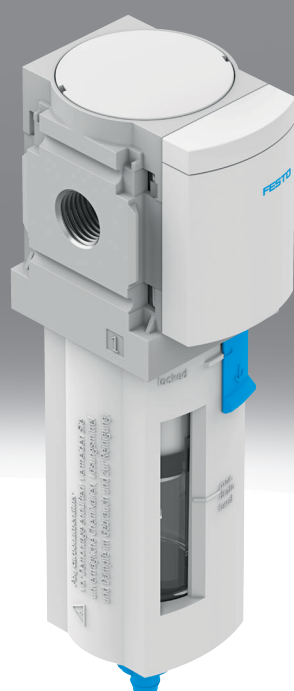


Filter MS4N-LF

FESTO



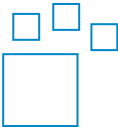
Characteristics

At a glance

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

Ordering data - modular system

Link [ms4n-lf](#)



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

Size

- Width dimension: 40 mm
Standard nominal flow rate:
- 35.3 ... 45.9 scfm (filter fineness 5 µm)
 - 38.8 ... 60.0 scfm (filter fineness 40 µm)

Pneumatic connection

The installation of connection plates makes it easier to replace the module if necessary (e.g., when using piping).

Grade of filtration

Grade of filtration of 5 µm or 40 µm can be selected.

Bowl type

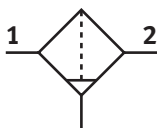
Shell guard selectable either as plastic bowl guard or integrated as metal shell.

Condensate drains

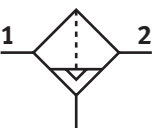
The following functions can be selected:

- Manual
- Semi-automatic
- Fully automatic

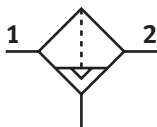
[M] Manual



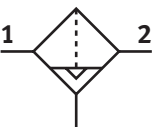
[H] Semi-automatic



[V] Automatic



[VC] Fully automatic, normally closed



Characteristics

Type of mounting

[WP] Mounting bracket standard design



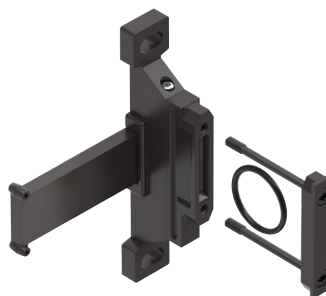
- For connecting the modules for wall mounting
- In conjunction with sub-base MS4-AG... for wall mounting of an individual device
- In conjunction with mounting plate MS4-AEND for wall mounting of a single device
- With equal wall distance for mixing combination with MS4N and MS6N series

[WB] Mounting centrally at rear (wall mounting top and bottom), sub-bases not required



- For wall mounting an individual device

[WPM] Mounting bracket for hooking in air preparation units



- For connecting the modules for wall mounting
- In conjunction with sub-base MS4-AG... for wall mounting of an individual device
- Fast hooking and unhooking
- For installing modules with regulator knob pointing downwards

[WBM] Mounting centrally at rear (wall mounting top), sub-bases not required



- For wall mounting an individual device

Flow direction

Available with opposite flow direction.

Type code

001	Series	
MS	MS series	
002	Size	
4	Width dimension 40 mm	
003	Thread type	
N	NPT thread	
004	Function	
LF	Filter	
005	Pneumatic connection, inch	
1/8	Internal thread NPT 1/8	
1/4	Internal thread NPT 1/4	
AQK	Sub-base NPT1/8	
AQN	Sub-base NPT1/4	
AQP	Sub-base NPT3/8	
006	Filter design	
C	5 µm	
E	40 µm	

007	Bowl type	
R	Plastic bowl with plastic bowl guard	
U	Aluminum	
008	Condensate drain	
H	Semi-automatic	
M	Manual	
V	Fully automatic, normally open	
VC	Fully automatic, normally closed	
009	Type of mounting	
	Without mounting bracket	
WB	Mounting centrally at rear (wall mounting top and bottom), sub-bases not required	
WBM	Mounting centrally at rear (wall mounting top), sub-bases not required	
WP	Mounting bracket standard design	
WPM	Mounting bracket for hooking in air preparation units	
010	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data				
Grade of filtration	5 µm		40 µm	
Pneumatic connection 1	1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT
Pneumatic connection 2	1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT
Size	4			
Structural design	Sinter filter with centrifugal separator			
Type of mounting	Alternatively, In-line installation, With accessories			
Mounting position	Vertical ±5°			
Pore size	<5 µm		<40 µm	
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [6:8:4]		Compressed air as per ISO 8573-1:2010 [7:8:4]	
Bowl guard	Plastic bowl guard, Integrated as metal bowl		Plastic bowl guard	Plastic bowl guard, Integrated as metal bowl
Condensate drain	Fully automatic Manual, non-detenting Manual, rotating			
Degree of condensate separation	>75%			

Max. condensate volume		
Bowl type	Plastic bowl with plastic bowl guard [R]	Aluminum [U]
Max. condensate volume	19 ml	25 ml

Standard nominal flow rate qnN				
Pneumatic connection 1	1/8 NPT		1/4 NPT	
Grade of filtration	5 µm	40 µm	5 µm	40 µm
Normal nominal flow rate (normalized to DIN 1343)	1,000 l/min	1,100 l/min	1,300 l/min	1,700 l/min

Operating and environmental conditions		
Condensate drain	Fully automatic, Manual, non-detenting	Manual, rotating
Operating pressure	2 ... 12 bar	
Operating medium	Compressed air as per ISO 8573-1:2010 [7:9:-] Inert gases	Compressed air as per ISO 8573-1:2010 [-:9:-] Inert gases
Ambient temperature ¹⁾	-10 ... 60°C	
Temperature of medium	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class (CRC) ²⁾	2 - Moderate corrosion stress	
For use in the food industry ³⁾	See supplementary material information	

1) Ambient, medium and storage temperature at [E2], [E3], [E4]: +1 ... +60°C

2) For more information, visit www.festo.com/x/topic/kbk

3) More information: www.festo.com/catalogue/ms4n-lr → Support/Downloads.

Certification	
Certification ¹⁾	c UL us - recognized (OL)

1) More information: www.festo.com/catalogue/ms4n-lr → Support/Downloads.

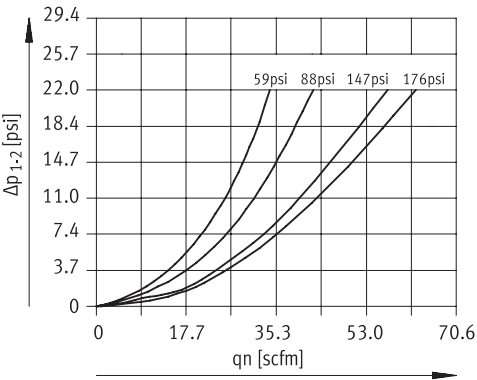
ATEX	
ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T6 Gb X
ATEX category for dust	II 2D
Type of (ignition) protection for dust	Ex h IIIC T60°C Db X
Explosive ambient temperature	-10°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity) ¹⁾	as per EU explosion protection directive (ATEX)

1) More information www.festo.com/catalogue/ms-lr → Support/Downloads.

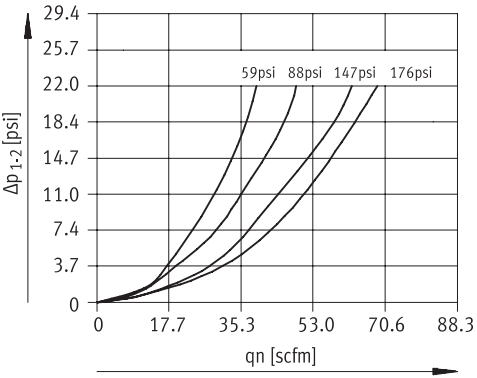
Datasheet

Materials		
Bowl type	Plastic bowl with plastic bowl guard [R]	Aluminum [U]
Housing material	Die-cast aluminum	
Material of bowl	PC	Die-cast aluminum, Wrought aluminum alloy
Inspection window material	–	PA
Compressed air filter material	Protective grounding	
Seals material	NBR	
Separating disc material	POM	
Note on materials	RoHS compliant	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

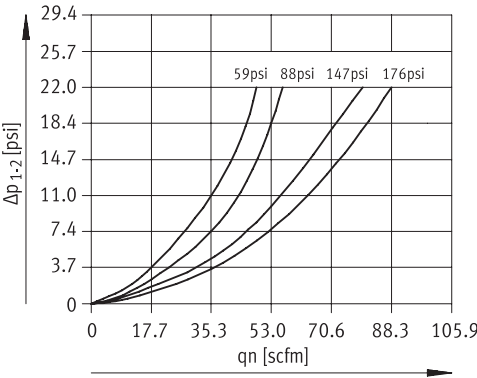
Normal flow rate qn as a function of differential pressure Δp1-2 - MS6-LF-3/8 (grade of filtration 5 μm)



Normal flow rate qn as a function of differential pressure Δp1-2 - MS6-LF-3/8 (grade of filtration 40 μm)

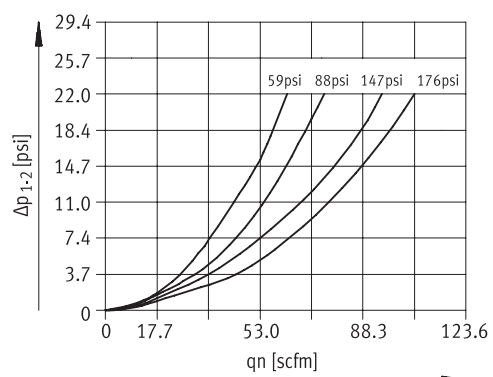


Normal flow rate qn as a function of differential pressure Δp1-2 - MS6-LF-3/8 (grade of filtration 5 μm)



Datasheet

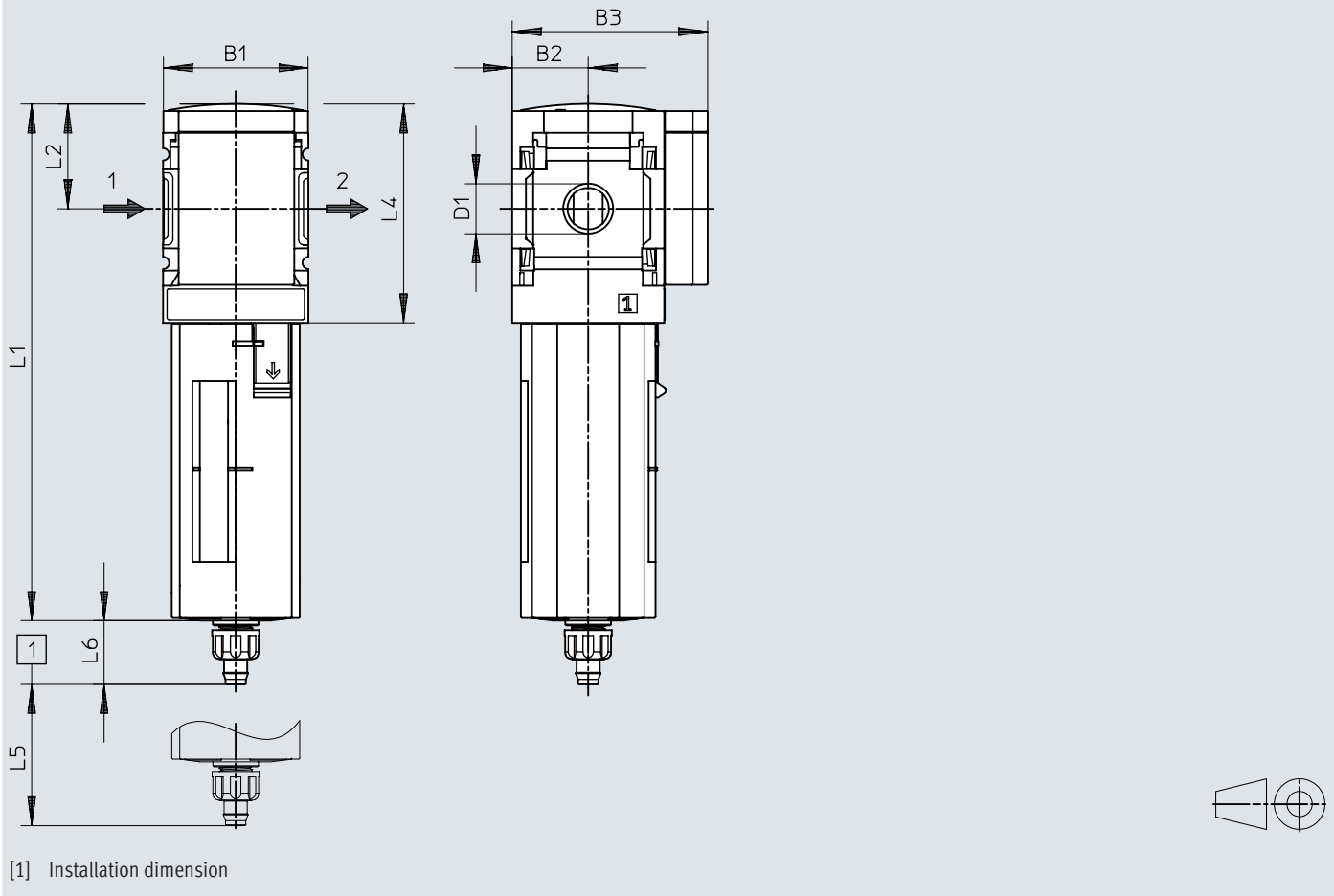
Normal flow rate q_n as a function of differential pressure Δp_{1-2} - MS6-LF-3/8 (grade of filtration 40 μm)



Dimensions

Dimensions – Basic type MS4-LF, condensate drain manually rotating with plastic bowl guard R

Download CAD data www.festo.com

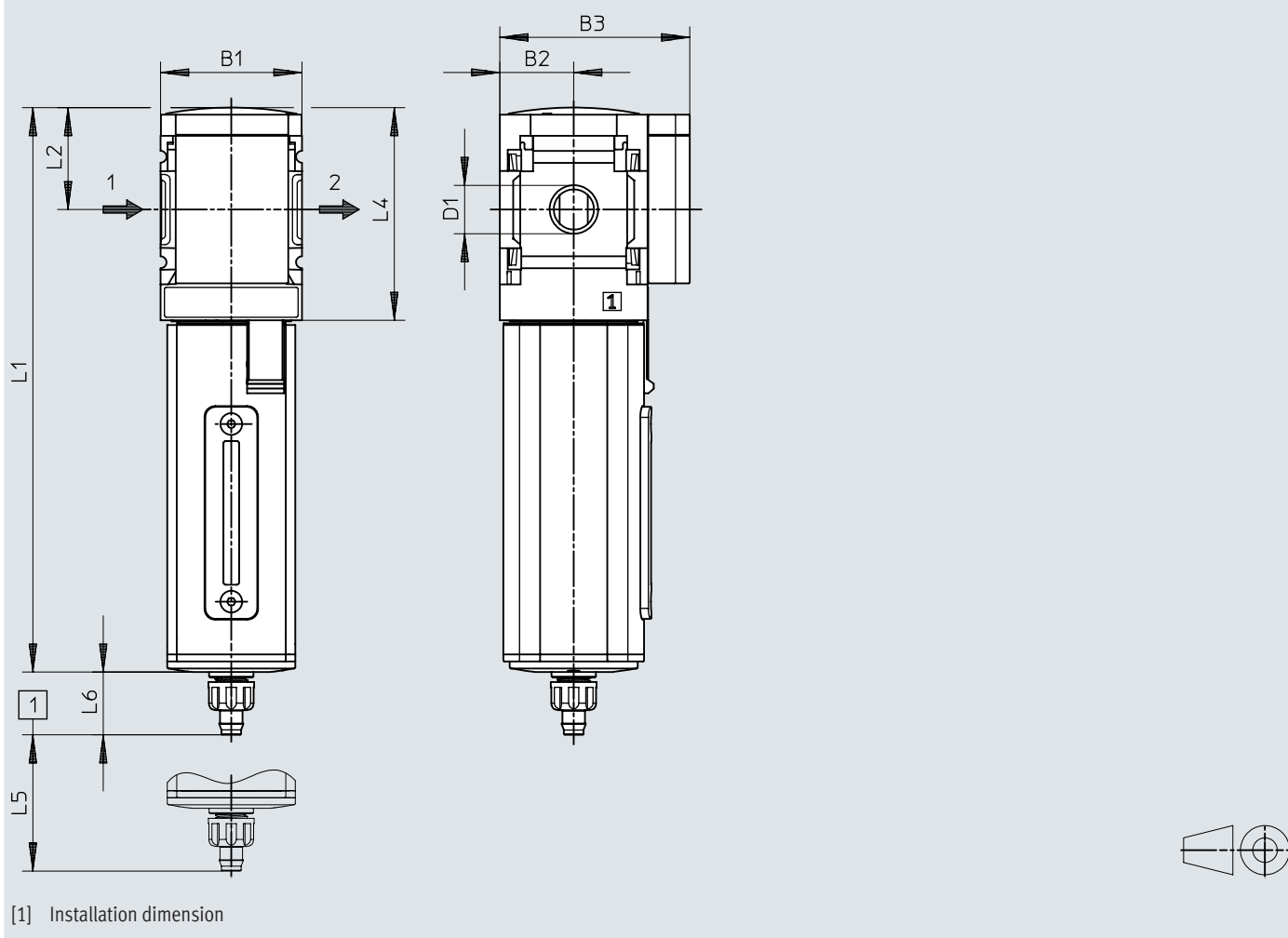


	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS4N-LF-1/8	1,58	0,83	2,13	1/8 NPT	5,62	1,14	2,38	2,36	0,70
MS4N-LF-1/4				1/4 NPT					

Dimensions

Dimensions – Basic type MS6-LF, condensate drain manually rotating with metal bowl guard U

Download CAD data www.festo.com

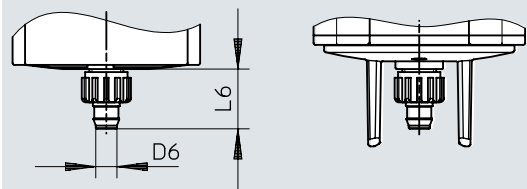


	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS4N-LF-1/8	1,58	0,83	2,13	1/8 NPT	6,26	1,14	2,38	2,36	0,70
MS4N-LF-1/4				1/4 NPT					

Dimensions

Dimensions – Condensate drain, manual rotary Download CAD data www.festo.com

MS4 – . . . -R-M MS4 – . . . -U-M



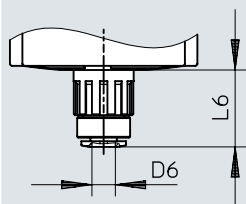
	D6 Ø [inch]	L6 [inch]
MS4N-LFM-...-R-M	0,197	0,70
MS4N-LFM-...-U-M	0,197	0,70

Dimensions

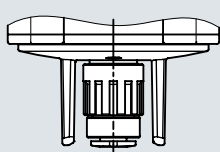
Dimensions – Condensate drain, semiautomatic

[Download CAD data](#) www.festo.com

MS4-...-R-H



MS4-...-U-H

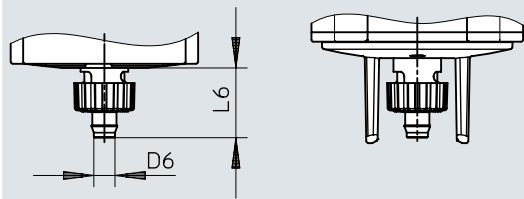


	D6 ø [inch]	L6 [inch]
MS4N-LFM-...-R-H	0,236	0,87
MS4N-LFM-...-U-H	0,236	0,87

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

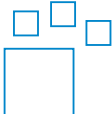
Ordering data - with plastic protective cage

	Pneumatic connection 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/8 NPT	5 µm	Fully automatic, Manual, non-de-tenting	189 g	531494	MS4N-LF-1/8-CRV
			Manual, rotating		531490	MS4N-LF-1/8-CRM
		40 µm	Fully automatic, Manual, non-de-tenting		531482	MS4N-LF-1/8-ERV
			Manual, rotating		531486	MS4N-LF-1/8-ERM
	1/4 NPT	5 µm	Fully automatic, Manual, non-de-tenting		531493	MS4N-LF-1/4-CRV
			Manual, rotating		531489	MS4N-LF-1/4-CRM
		40 µm	Fully automatic, Manual, non-de-tenting		531481	MS4N-LF-1/4-ERV
			Manual, rotating		531485	MS4N-LF-1/4-ERM

Ordering data - with metal shell

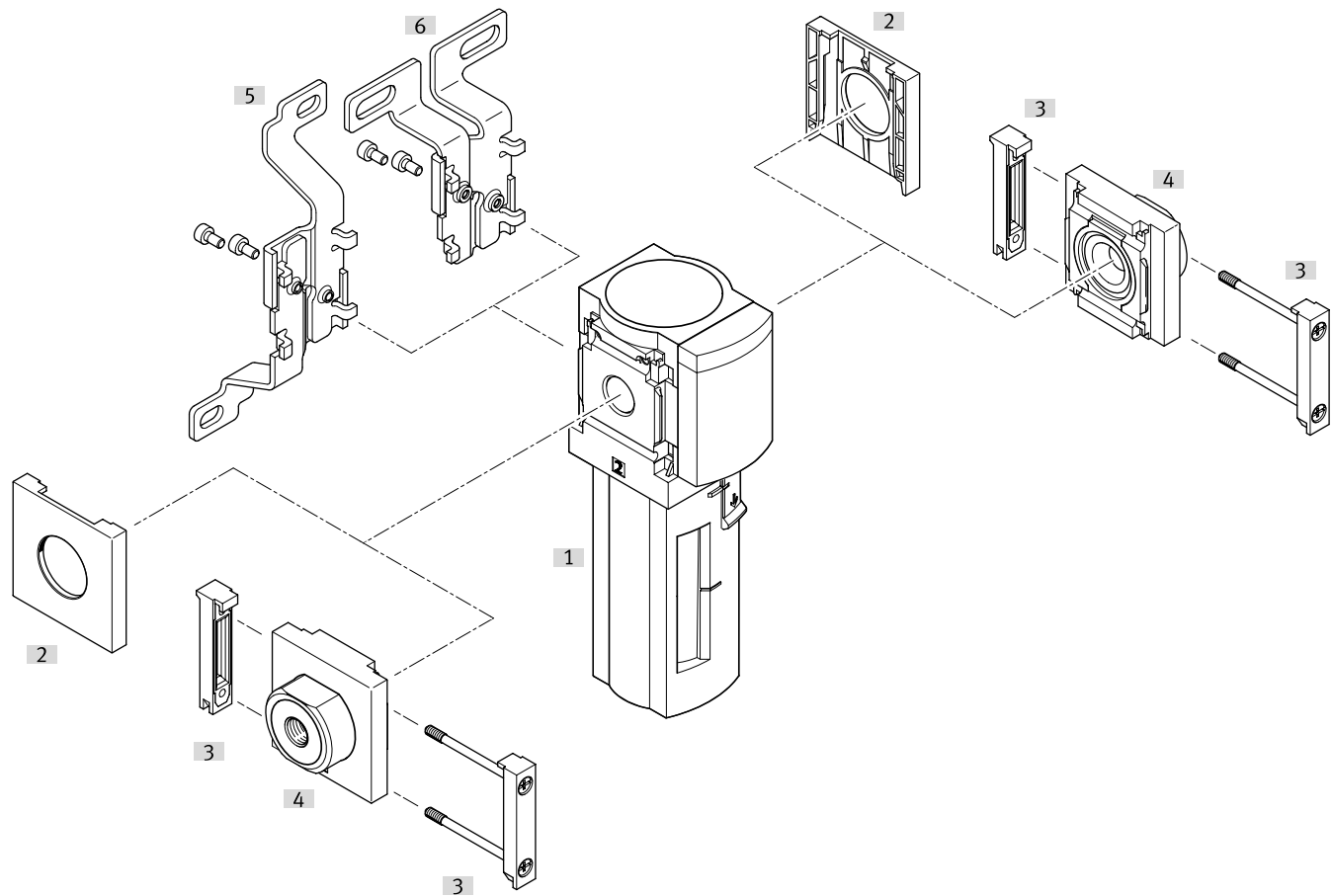
	Pneumatic connection 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/8 NPT	5 µm	Fully automatic, Manual, non-de-tenting	349 g	535672	MS4N-LF-1/8-CUV
	1/4 NPT		Manual, rotating		535688	MS4N-LF-1/4-CUV
					535686	MS4N-LF-1/4-CUM
	40 µm	Fully automatic, Manual, non-de-tenting	535690		MS4N-LF-1/4-EUV	
		Manual, rotating	535692		MS4N-LF-1/4-EUM	

Ordering data – Modular product system

	Type code	Part no.	Type
	MS4N-LF	527696	MS4N-LF

Peripherals overview

Peripherals overview

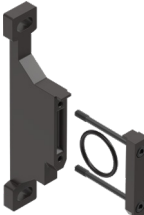


Accessories		→ Page/Internet
Type/order code	Description	
[1] Filter MS4N-LF		ms4n-lf
[2] Cover cap MS4-END	For devices without sub-base	16
[3] Module connector MS4-MV	for device combinations and individual devices with sub-base	15
[4] Sub-base-SET MS4-AQ...	Order code [AQ...]; for device combinations	16
[5] Mounting bracket MS4-WB	Order code [WB]; for single device	15
[6] Mounting bracket MS4-WBM	Order code [WBM]; for single device	15
[7] Mounting bracket MS6-WP/WPB/WPE/WPM	Not shown	15

Accessories

Filter cartridge MS-LFP					
	Grade of filtration	Compressed air filter material	LABS (PWIS) conformity	Part no.	Type
	5 µm	Protective grounding	VDMA24364-B1/B2-L	534501	MS4-LFP-C
	40 µm			534502	MS4-LFP-E

Module connector MS4-MV1					
	Module connector material	LABS (PWIS) conformity	Product weight	Part no.	Type
	POM, high-alloy stainless steel	VDMA24364-B1/B2-L	13 g	8119201	MS4-MV1

Mounting bracket MS4-WP...					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L		558869	MS4-WPE
			39 g	541554	MS4-WP-EX
				532184	MS4-WP
			45 g	526060	MS4-WPM-D
			55 g	526063	MS4-WPB
				541552	MS4-WPB-EX
				526061	MS4-WPM-2D

Mounting bracket MS4-WB					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	46 g	532185	MS4-WB

Mounting bracket MS4-WBM					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	48 g	526062	MS4-WBM

Accessories

Cover cap MS4-END					
	Housing material	LABS (PWIS) conformity	Part no.	Type	
	PA-reinforced	VDMA24364-B1/B2-L	538779	MS4-END	

Sub-base-SET MS4N-AQ...						
	Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1/8 NPT	Die-cast aluminum	VDMA24364-B1/B2-L	128 g	526065	MS4N-AQK
	1/4 NPT				526066	MS4N-AQN
	3/8 NPT				526067	MS4N-AQP