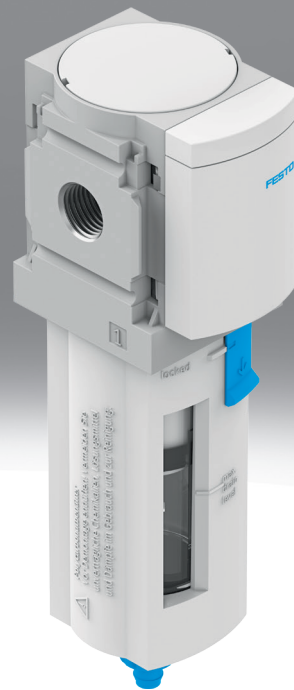


# Filter MS4N-LF

**FESTO**



## Characteristics

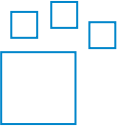
### At a glance

Sintered 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

Grid dimension: 40 mm

Standard nominal flow rate:

- 35.3 ... 45.9 scfm (grade of filtration 5 µm)
- 38.8 ... 60.0 scfm (grade of filtration 40 µm)

### Pneumatic connection

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

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

### Grade of filtration

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

### Bowl type

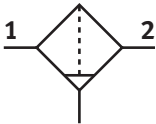
Bowl guard can be selected either as a plastic bowl guard or integrated as a metal bowl guard.

### Condensate drain

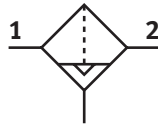
The following functions can be selected:

- Manual
- Semi-automatic
- Fully automatic

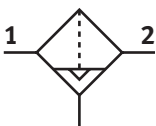
[M] Manually



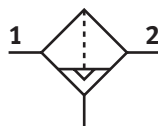
[H] Semi-automatic



[V] Automatic



[VC] Fully automatic, normally closed



## Characteristics

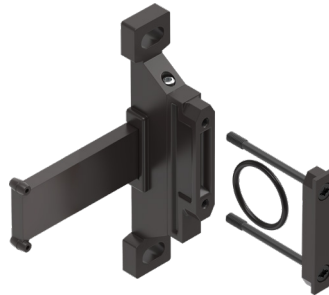
### Type of mounting

[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 mixed combination with MS4N and MS6N series

[WPM] Mounting bracket for hooking in service unit components



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- Fast hooking and unhooking
- For installing modules with the regulator knob pointing downwards

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



- For wall mounting an individual device

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



- For wall mounting an individual device

### 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
LF	Filter
005	Pneumatic connection, inch
1/8	Female thread NPT 1/8
1/4	Female thread NPT 1/4
AQK	Sub-base NPT 1/8
AQN	Sub-base NPT 1/4
AQP	Sub-base NPT 3/8
006	Filter design
C	5 µm
E	40 µm

007	Bowl type
R	Plastic tray with plastic basket
U	Aluminium
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
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
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, port 1	1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT
Pneumatic connection, port 2	1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT
Size	4			
Design	Sintered filter with centrifugal separator			
Type of mounting	Either., In-line installation, With accessories			
Mounting position	Vertical +/-5°			
Pore size	<5 µm		<40 µm	
Air purity class at output	Compressed air to ISO 8573-1:2010 [6:8:4]		Compressed air to ISO 8573-1:2010 [7:8:4]	
Bowl guard	Plastic bowl guard, Integrated as metal bowl			
Condensate drain	Fully automatic Manual, non-detenting Manually rotating			
Degree of condensate separation	>75%			

Max. condensate volume		
Bowl type	Plastic tray with plastic basket [R]	Aluminium [U]
Max. condensate volume	19 ml	25 ml

Standard nominal flow rate q <sub>N</sub>				
Pneumatic connection, port 1	1/8 NPT		1/4 NPT	
Grade of filtration	5 µm	40 µm	5 µm	40 µm
Standard nominal flow rate (standardised 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	Manually rotating
Operating pressure	2 ... 12 bar	
Operating medium	Compressed air to ISO 8573-1:2010 [7:9:-] Inert gases	Compressed air to ISO 8573-1:2010 [-:9:-] Inert gases
Ambient temperature <sup>1)</sup>	-10 ... 60°C	
Media temperature	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC <sup>2)</sup>	2 - Moderate corrosion stress	
Suitable for use with food <sup>3)</sup>	See supplementary material information	

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

2) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

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

Certification	
Approval <sup>1)</sup>	c UL us - Recognized (OL)

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

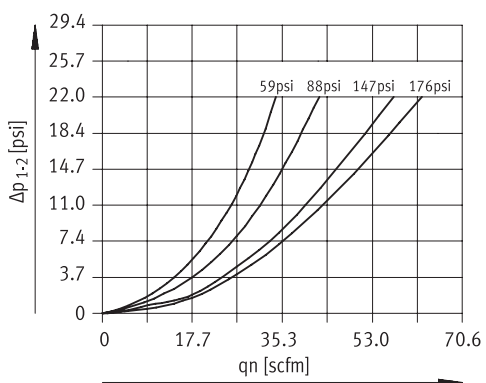
ATEX	
ATEX category gas	II 2G
Explosion ignition protection type for gas	Ex h IIC T6 Gb X
ATEX category dust	II 2D
Explosion ignition protection type for dust	Ex h IIIC T60°C Db X
Explosion ambient temperature	-10°C ≤ Ta ≤ +60°C
CE mark (see declaration of conformity) <sup>1)</sup>	To EU Explosion Protection Directive (ATEX)

1) More information [www.festo.com/catalogue/ms-lr](http://www.festo.com/catalogue/ms-lr) → Support/Downloads.

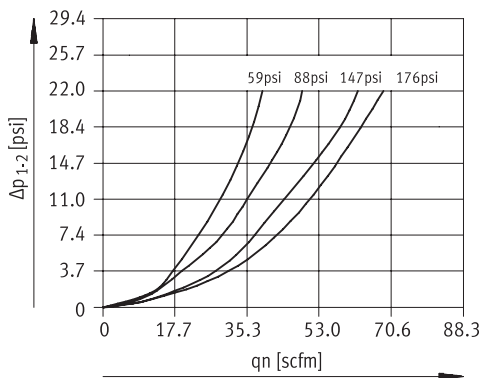
## Datasheet

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	PE	
Material seals	NBR	
Material separating plate	POM	
Note on materials	RoHS-compliant	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

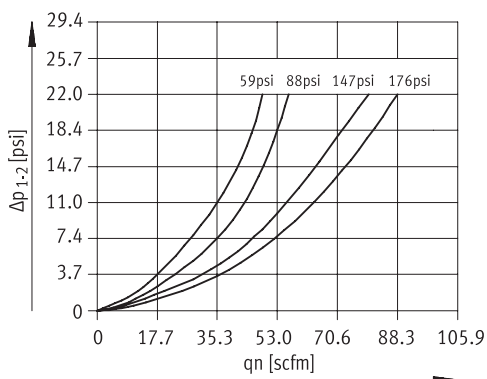
### Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$ – MS4N-LF-1/8 (grade of filtration 5 $\mu\text{m}$ )



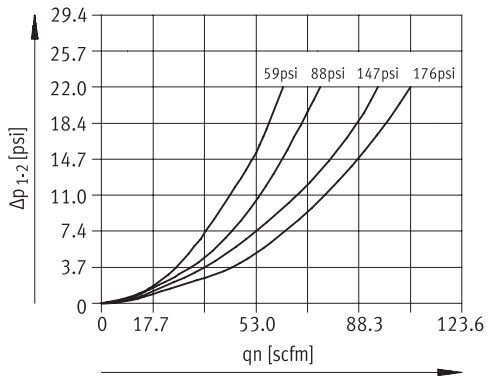
### Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$ – MS4N-LF-1/8 (grade of filtration 40 $\mu\text{m}$ )



### Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$ – MS4N-LF-1/4 (grade of filtration 5 $\mu\text{m}$ )



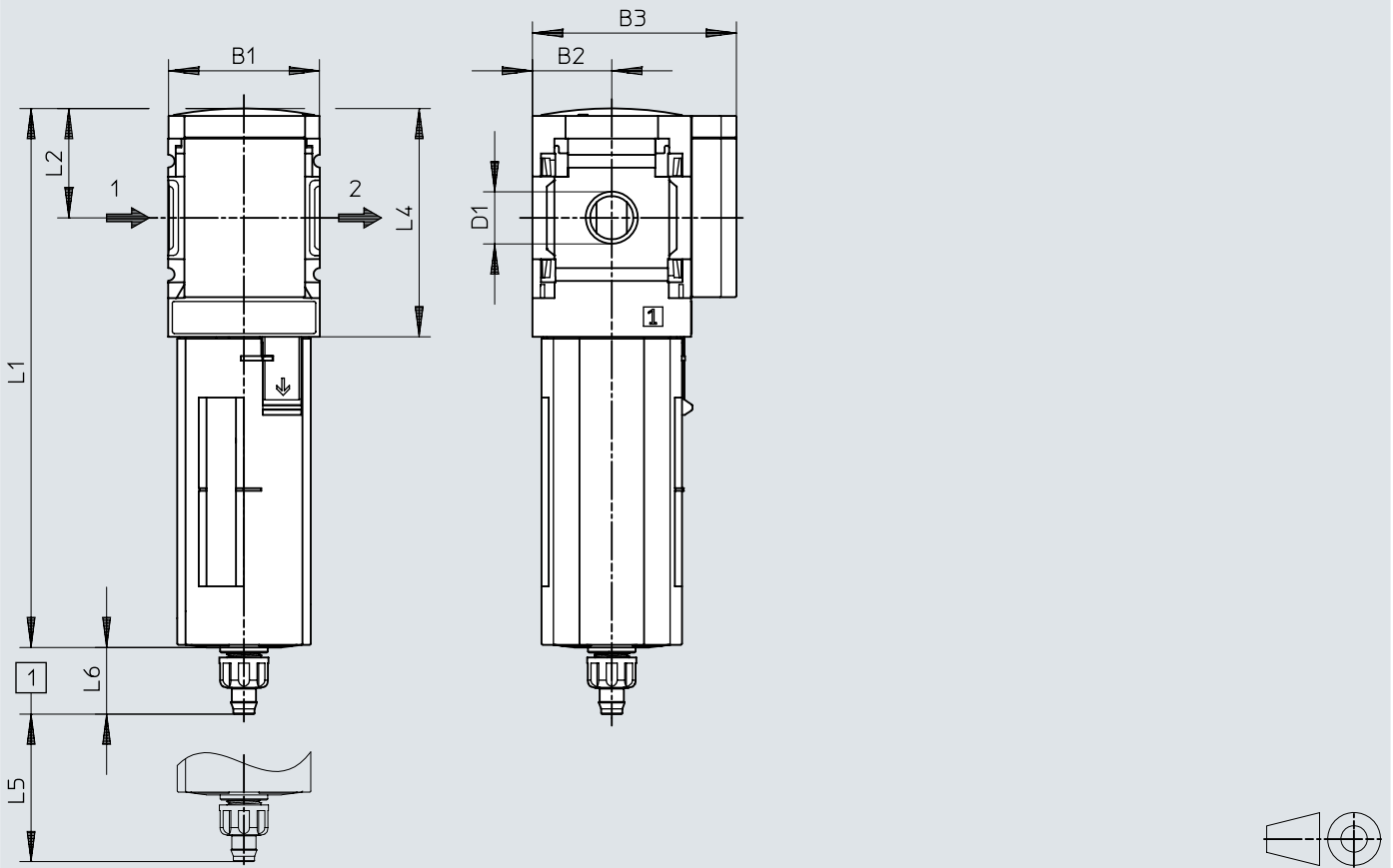
## Datasheet

Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  – MS4N-LF-1/4 (grade of filtration 40  $\mu\text{m}$ )

## Dimensions

Dimensions – Basic type MS4N-LF, manual condensate drain with plastic bowl guard R

Download CAD data [www.festo.com](http://www.festo.com)



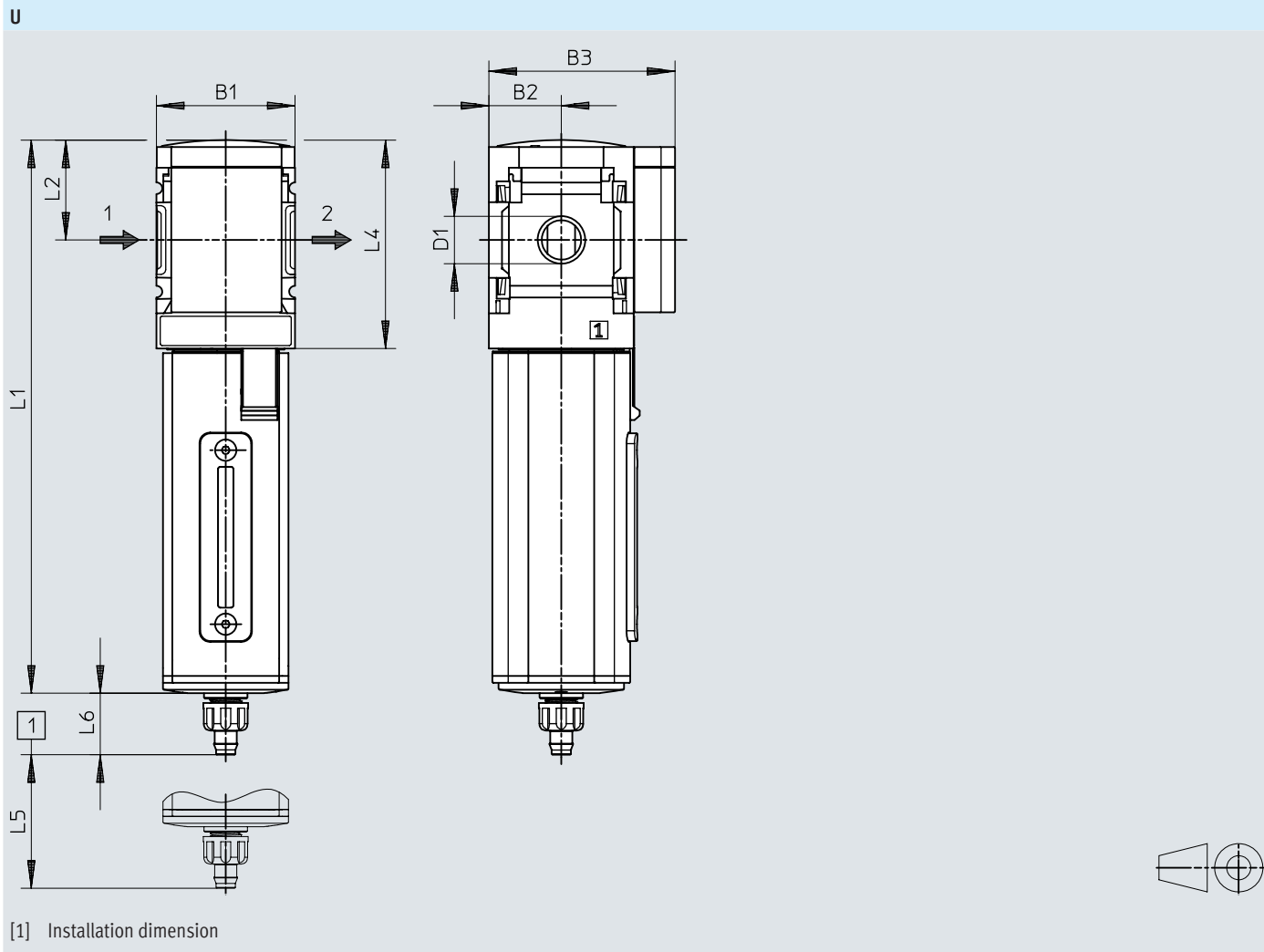
[1] Installation dimension

	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 MS4N-LF, manual condensate drain with metal bowl

Download CAD data [www.festo.com](http://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					

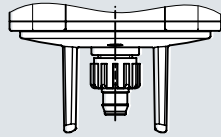
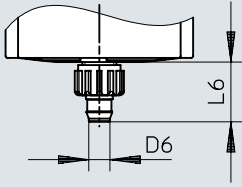
## Dimensions

**Dimensions – Condensate drain, manual, rotary**

Download CAD data [www.festo.com](http://www.festo.com)

MS4-...-R-M

MS4-...-U-M



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

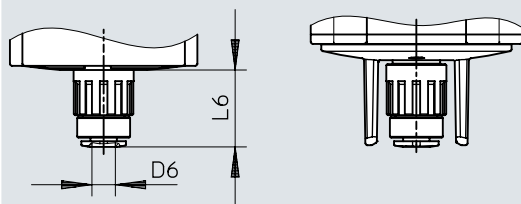
## Dimensions

## Dimensions – Condensate drain, semi-automatic

Download CAD data [www.festo.com](http://www.festo.com)

MS4-...-R-H

MS4-...-U-H



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

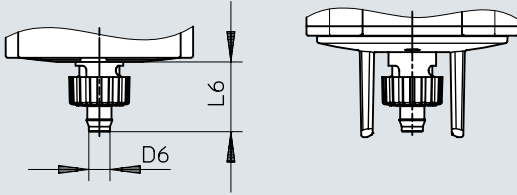
## Dimensions

### Dimensions – Condensate drain, fully automatic

Download CAD data [www.festo.com](http://www.festo.com)


MS4- . . . -R-V


MS4- . . . -U-V



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

## Ordering data

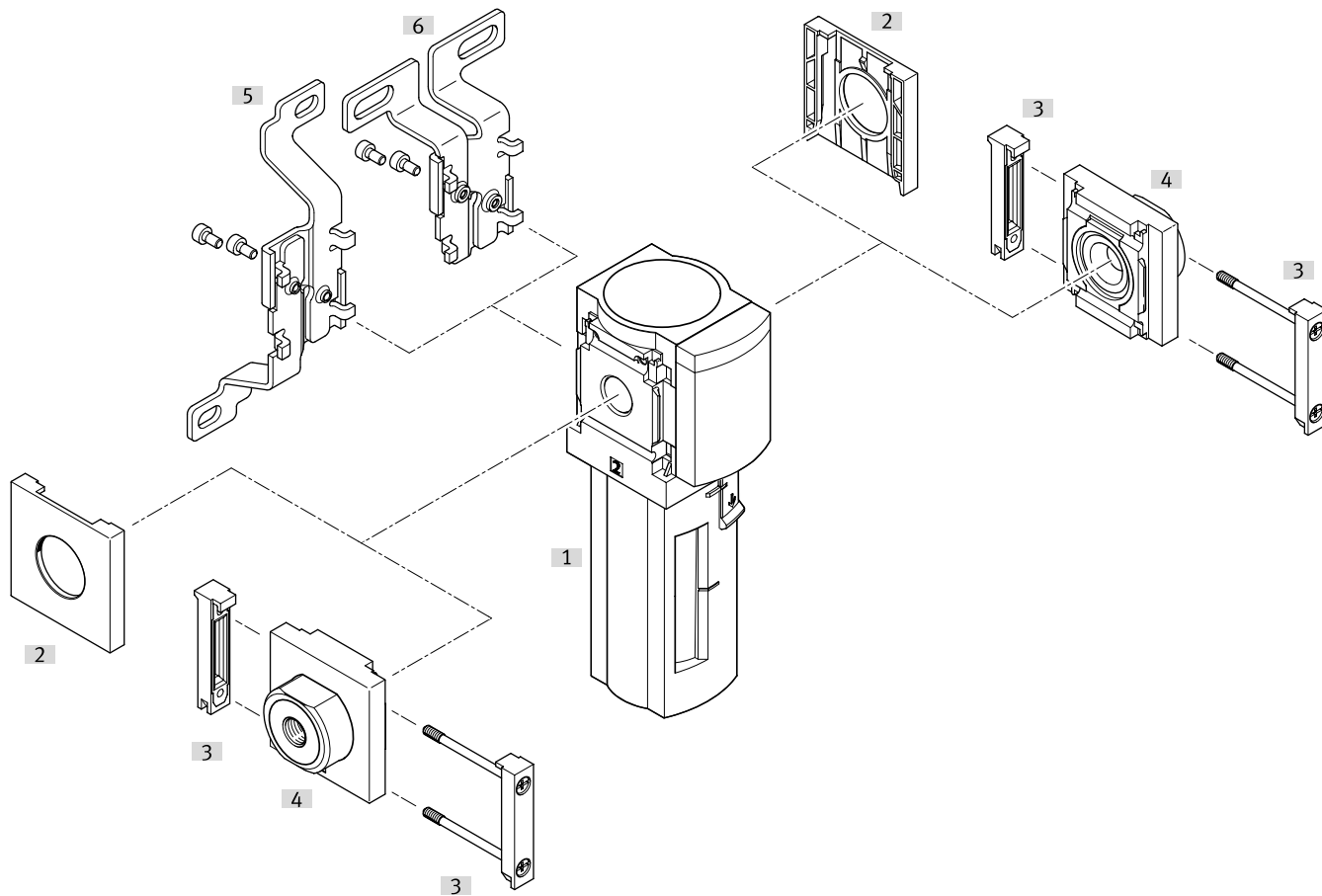
Ordering data – With plastic bowl guard						
	Pneumatic connection, port 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/8 NPT	5 µm	Fully automatic, Manual, non-de-tenting	189 g	531494	MS4N-LF-1/8-CRV
			Manually rotating		531490	MS4N-LF-1/8-CRM
		40 µm	Fully automatic, Manual,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

Ordering data – With metal bowl						
	Pneumatic connection, port 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
			Manually rotating		535670	MS4N-LF-1/8-CUM
		40 µm	Fully automatic, Manual, non-de-tenting		535674	MS4N-LF-1/8-EUV
			Manually rotating		535676	MS4N-LF-1/8-EUM
	1/4 NPT	5 µm	Fully automatic, Manual, non-de-tenting		535688	MS4N-LF-1/4-CUV
			Manually rotating		535686	MS4N-LF-1/4-CUM
		40 µm	Fully automatic, Manual, non-de-tenting		535690	MS4N-LF-1/4-EUV
			Manually rotating		535692	MS4N-LF-1/4-EUM

Ordering data – Modular product system			
	Short type code	Part no.	Type
	MS4N-LF	527696	MS4N-LF


## Peripherals


### Peripherals overview

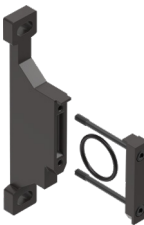



Accessories		→ Link
Type/order code	Description	
[1] Filter MS4N-LF		<a href="#">ms4n-lf</a>
[2] Cover cap MS4-END	For devices without connecting plate	<a href="#">16</a>
[3] Module connector MS4-MV	For device combinations and individual devices with connecting plate	<a href="#">15</a>
[4] Connecting plate SET MS4-AQ..	Order code [AQ..]; for device combinations	<a href="#">16</a>
[5] Mounting bracket MS4-WB	Order code [WB]; for single device	<a href="#">15</a>
[6] Mounting bracket MS4-WBM	Order code [WBM]; for single device	<a href="#">15</a>
[7] Mounting bracket MS6-WP/WPB/WPE/WPM	Not shown	<a href="#">15</a>


## Accessories

Filter cartridge MS-LFP						
	Size	Grade of filtration	Material filter	LABS (PWIS) conformity	Part no.	Type
	4	5 µm	PE	VDMA24364-B1/ B2-L	534501	MS4-LFP-C
		40 µm			534502	MS4-LFP-E


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


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

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

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

## Accessories

Cover cap MS4-END				
	Size	Part no.	Type	
	4	<b>538779</b>	<b>MS4-END</b>	

Connecting plate SET MS4N-AQ...					
	Size	Pneumatic connection, port 1	Product weight	Part no.	Type
	4	1/8 NPT	128 g	<b>526065</b>	<b>MS4N-AQK</b>
		1/4 NPT		<b>526066</b>	<b>MS4N-AQN</b>
		3/8 NPT		<b>526067</b>	<b>MS4N-AQP</b>