

Filter MS6N-LF

FESTO



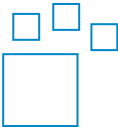
Characteristics

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 [ms6n-lf](#)



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

Size

- Width dimension: 62 mm
- Standard nominal flow rate:
- 70.6 ... 113.0 scfm (filter fineness 5 µm)
 - 88.3 ... 144.7 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.

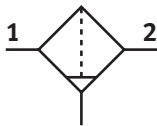
Bowl type

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

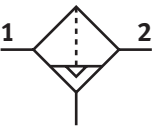
Condensate drains

- The following functions can be selected:
- Manual
 - Semi-automatic
 - Fully automatic
 - Fully automatic condensate drain with independent electrical controller

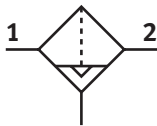
[M] Manual



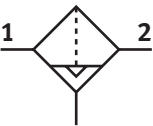
[H] Semi-automatic



[V] Automatic



[VC] Fully automatic, normally closed



Characteristics

Type of mounting

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



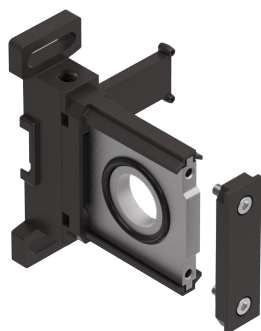
[WP] Mounting bracket standard design



For connecting the modules for wall mounting

- In conjunction with sub-base MS6-AQ... for mounting an individual device on a wall
- In conjunction with mounting plate MS4-AEND for wall mounting of a single device
- With equal wall distance for mixing combination with series MS4 and MS6

[WPM] Mounting bracket for hooking in air preparation units



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

Flow direction

Available with opposite flow direction.

Type code

001	Series	
MS	MS series	

002	Size	
6	Width dimension 62 mm	

003	Thread type	
N	NPT thread	

004	Function	
LF	Filter	

005	Pneumatic connection, inch	
1/4	Internal thread NPT 1/4	
3/8	Internal thread NPT 3/8	
1/2	Internal thread NPT 1/2	
AQN	Sub-base NPT 1/4	
AQP	Sub-base NPT 3/8	
AQR	Sub-base NPT 1/2	
AQS	Sub-base NPT 3/4	

006	Filter design	
C	5 µm	
E	40 µm	

007	Bowl type	
R	Plastic bowl with plastic bowl guard	
U	Aluminum	

008	Condensate drain	
E2	External fully automatic condensate drain, electric, 110 VAC, connection terminals	
E3	External fully automatic condensate drain, electric, 230 VAC, connection terminals	
E4	External fully automatic condensate drain, electric, 24 V DC, connection terminals	
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	
WP	Mounting bracket standard design	
WPM	Mounting bracket for hooking in air preparation units	

010	UL certification	
	None	
UL1	cULus ordinary location for Canada and USA	

011	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	1/4 NPT, 3/8 NPT, 1/2 NPT	
Pneumatic connection 2	1/4 NPT, 3/8 NPT, 1/2 NPT	
Size	6	
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	
Condensate drain	Fully automatic Manual, non-detenting Manual, rotating	
Degree of condensate separation	>75%	
Max. condensate volume	38 cm³	

Standard nominal flow rate q _N						
Pneumatic connection 1	1/4 NPT		3/8 NPT		1/2 NPT	
Grade of filtration	5 µm	40 µm	5 µm	40 µm	5 µm	40 µm
Normal nominal flow rate (normalized to DIN 1343)	2,000 l/min	2,500 l/min	3,000 l/min	3,800 l/min	3,200 l/min	4,100 l/min

Operating and environmental conditions		
Condensate drain	Fully automatic, Manual, non-detenting	Manual, rotating
Operating pressure	2 ... 12 bar	0 ... 20 bar
Operating medium ¹⁾	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 ²⁾	-10 ... 60°C	
Temperature of medium	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class (CRC) ³⁾	2 - Moderate corrosion stress	
For use in the food industry ⁴⁾	See supplementary material information	

1) Compressed air according to ISO 8573-1:2010 [7:9:-] applies to fully automatic condensate drain

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

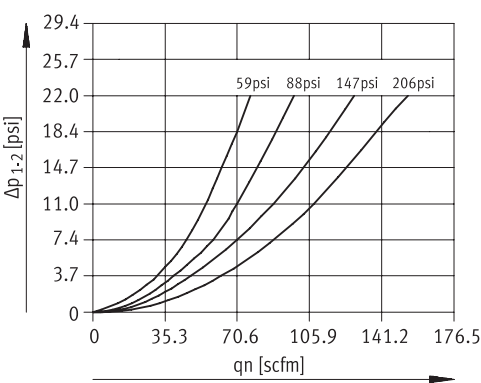
3) For more information, visit www.festo.com/x/topic/kbk

4) More information: www.festo.com/catalogue/ms6n-lr → Support/Downloads.

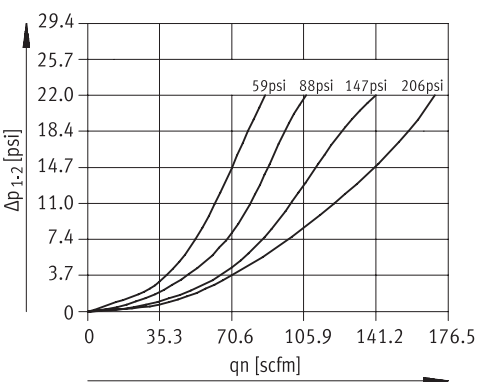
Materials		
Bowl type	Plastic bowl with plastic bowl guard [R]	Aluminum [U]
Housing material	Die-cast aluminum	
Material of bowl	PC	Wrought aluminum alloy
Compressed air filter material	Protective grounding	
Seals material	NBR	
Separating disc material	POM	
Note on materials	RoHS compliant	
LABS (PWIS)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

Datasheet

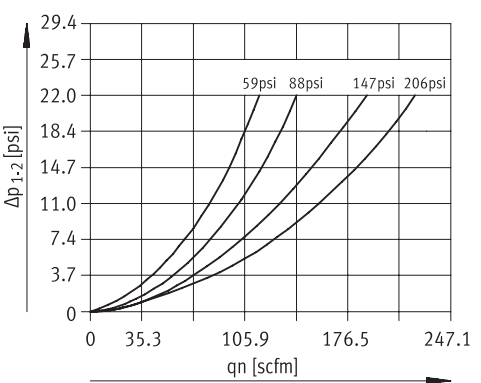
Standard flow rate qn as a function of differential pressure Δp1-2 - MS6N-LF-1/4 (grade of filtration 5 μm)



Standard flow rate qn as a function of differential pressure Δp1-2 - MS6N-LF-1/4 (grade of filtration 40 μm)

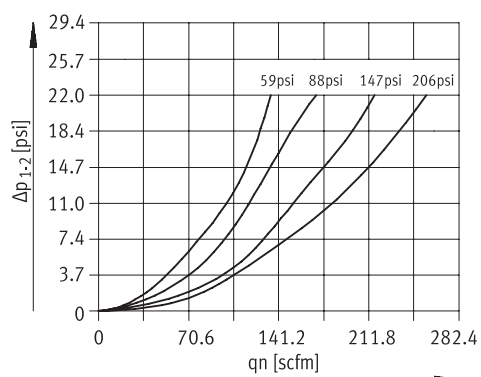


Standard flow rate qn as a function of differential pressure Δp1-2 - MS6N-LF-3/8 (grade of filtration 5 μm)

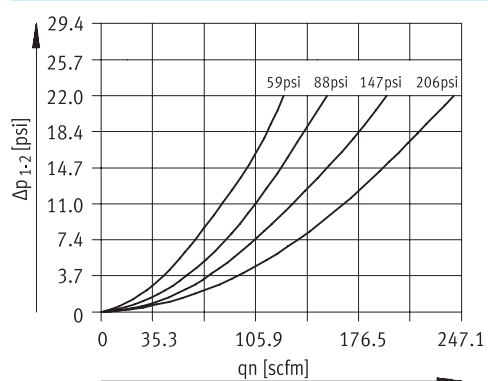


Datasheet

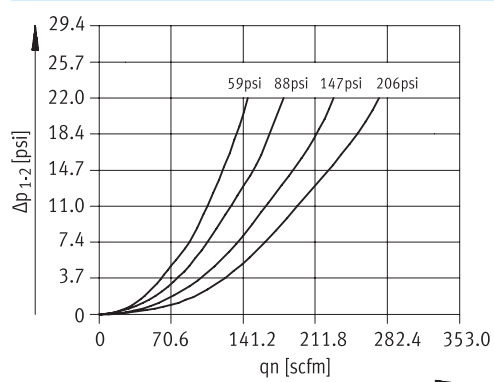
Standard flow rate q_n as a function of differential pressure Δp_{1-2} - MS6N-LF-3/8 (grade of filtration 40 μm)



Normal flow rate q_n as a function of the differential pressure Δp_{1-2} - M6N-LF-1/2 (filter fineness 5 μm)



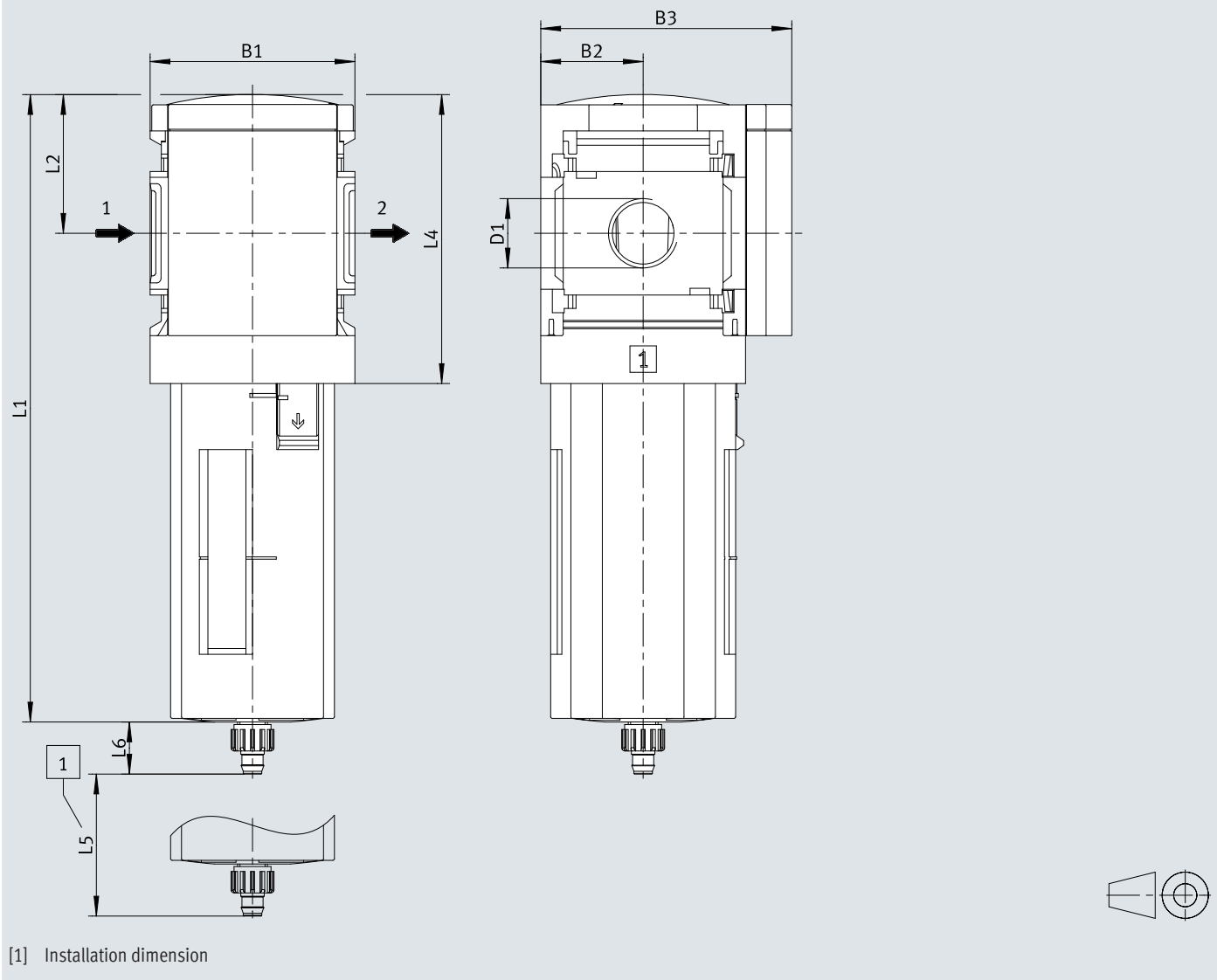
Standard flow rate q_n as a function of differential pressure Δp_{1-2} - MS6N-LF-1/2 (grade of filtration 40 μm)



Dimensions

Dimensions – Basic type MS6N-LF, condensate drain manual, rotating with plastic bowl guard R

Download CAD data www.festo.com

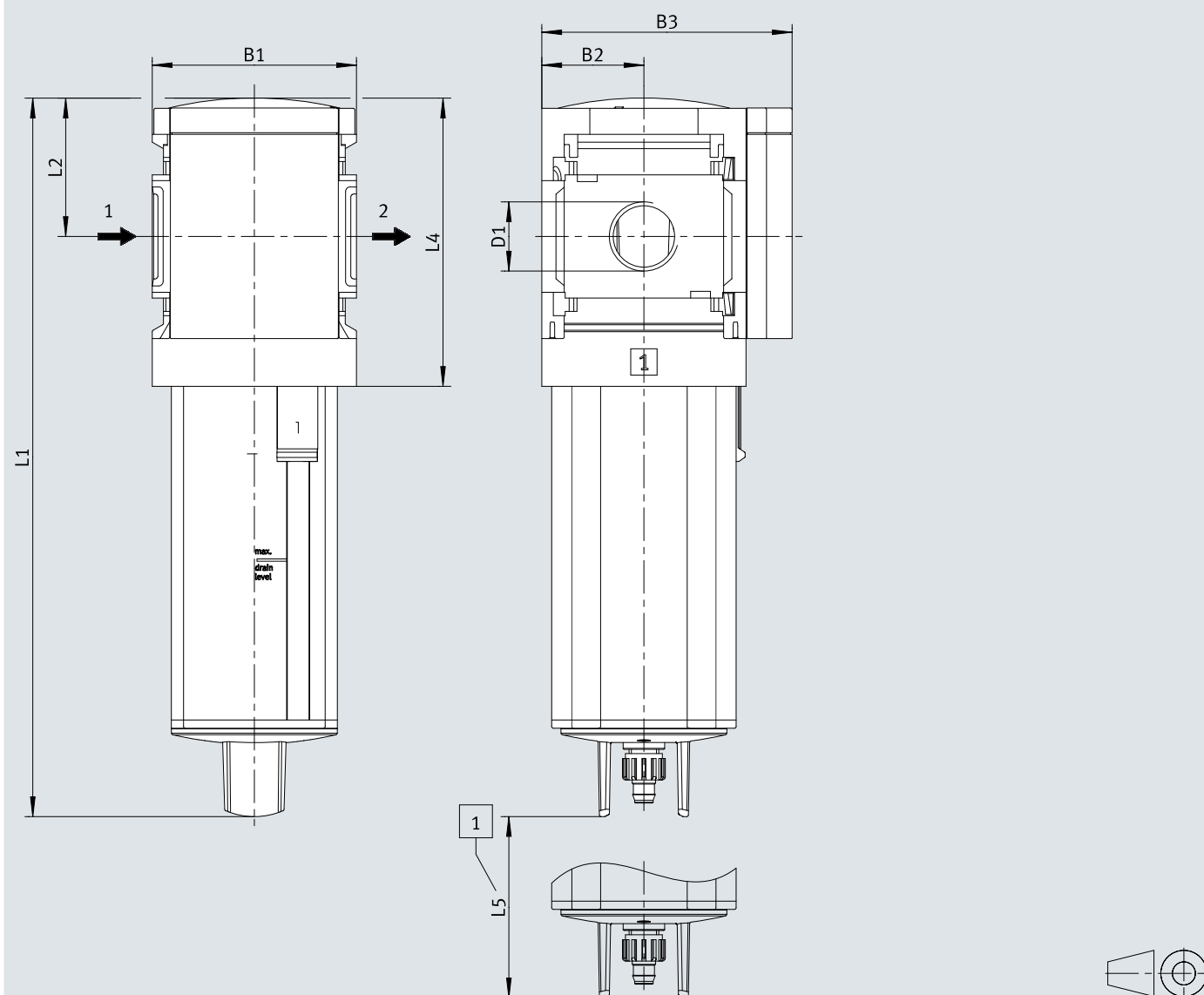


	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS6N-LF-1/4	2,44	1,22	2,99	1/4 NPT	7,56	1,65	3,43	2,68	0,62
MS6N-LF-3/8				3/8 NPT					
MS6N-LF-1/2				1/2 NPT					

Dimensions

Dimensions – Basic type MS6N-LF, condensate drain manual, rotating with metal bowl U

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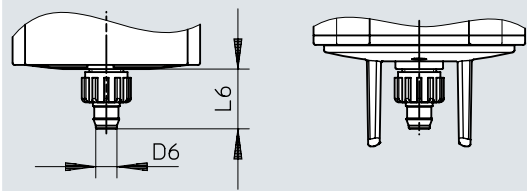
[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS6N-LF-1/4	2,44	1,22	2,99	1/4 NPT	7,80	1,65	3,43	2,68	0,75
MS6N-LF-3/8				3/8 NPT					
MS6N-LF-1/2				1/2 NPT					

Dimensions

Dimensions – Condensate drain manual, rotating (with push-in fitting for plastic tubing PCN-4) Download CAD data www.festo.com

MS6 – . . . -R-M MS6 – . . . -U-M



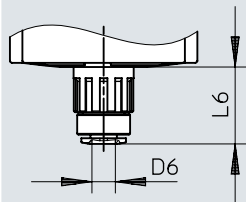
	D6 Ø [inch]	L6 [inch]
MS6N-LF-...-R-M	0,197	0,62
MS6N-LF-...-U-M	0,197	0,75

Dimensions

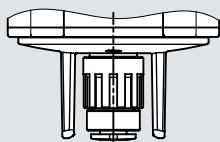
Dimensions – Condensate drain, semi-automatic (with QS fitting for plastic tubing PUN-6/PAN-6)

Download CAD data www.festo.com

MS6-...-R-H



MS6-...-U-H

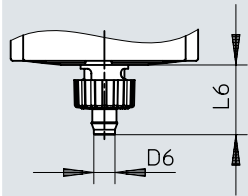


	D6 ø [inch]	L6 [inch]
MS6N-LF-...-R-H	0,236	0,80
MS6N-LF-...-U-H	0,236	0,90

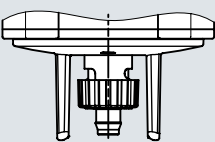
Dimensions

Dimensions – Condensate drain, fully automatic (with push-in fitting for plastic tubing PCN-4) [Download CAD data](http://www.festo.com)

MS6 – . . . –R–V



MS6 – . . . –U–V

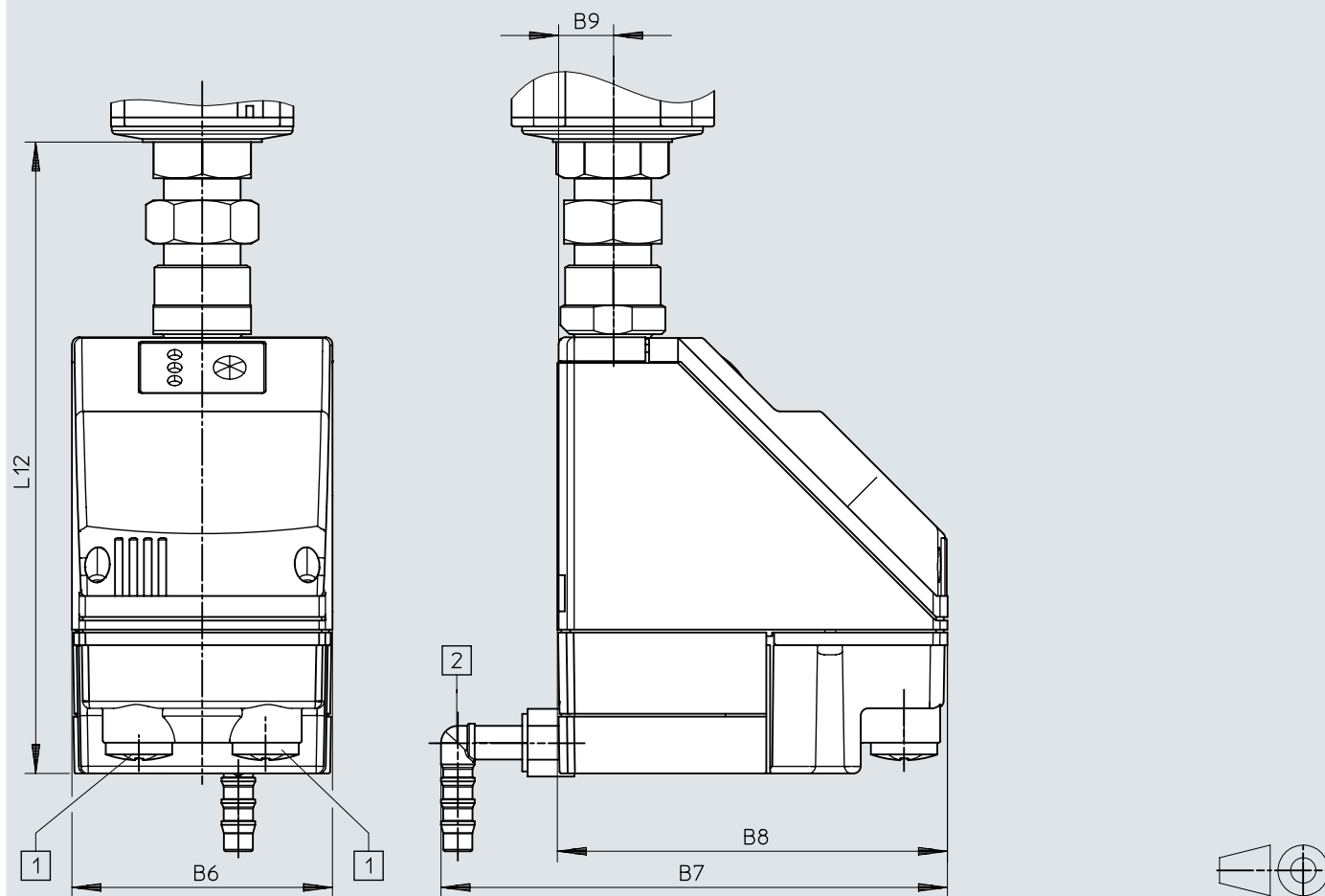


	D6 ø [inch]	L6 [inch]
MS6N-LF-...-R-V	0,197	0,73
MS6N-LF-...-U-V	0,197	0,87

Dimensions

Dimensions – Condensate drain fully automatic, electrically controlled

Download CAD data www.festo.com



- [1] Electrical connection screw terminal PG9
 [2] Connection 360° swiveling for plastic hose PUN-H-12x2

	B6 [inch]	B7 [inch]	B8 [inch]	B9 [inch]	L12 [inch]
MS6N-LF-...-E2, E3, E4	2,835	5,512	4,252	0,591	6,868

Ordering data

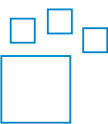
Ordering data - with plastic protective cage

	Pneumatic connection 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/4 NPT	5 µm	Fully automatic, Manual, non-de-tenting	600 g	531531	MS6N-LF-1/4-CRV
			Manual, rotating		531525	MS6N-LF-1/4-CRM
		40 µm			531519	MS6N-LF-1/4-ERM
	3/8 NPT	5 µm	Fully automatic, Manual, non-de-tenting		531533	MS6N-LF-3/8-CRV
			Manual, rotating		531527	MS6N-LF-3/8-CRM
		40 µm	Fully automatic, Manual, non-de-tenting		531515	MS6N-LF-3/8-ERV
			Manual, rotating		531521	MS6N-LF-3/8-ERM
					531532	MS6N-LF-1/2-CRV
	1/2 NPT	5 µm	Fully automatic, Manual, non-de-tenting		531526	MS6N-LF-1/2-CRM
			Manual, rotating		531514	MS6N-LF-1/2-ERV
		40 µm	Fully automatic, Manual, non-de-tenting		531520	MS6N-LF-1/2-ERM

Ordering data - with metal shell

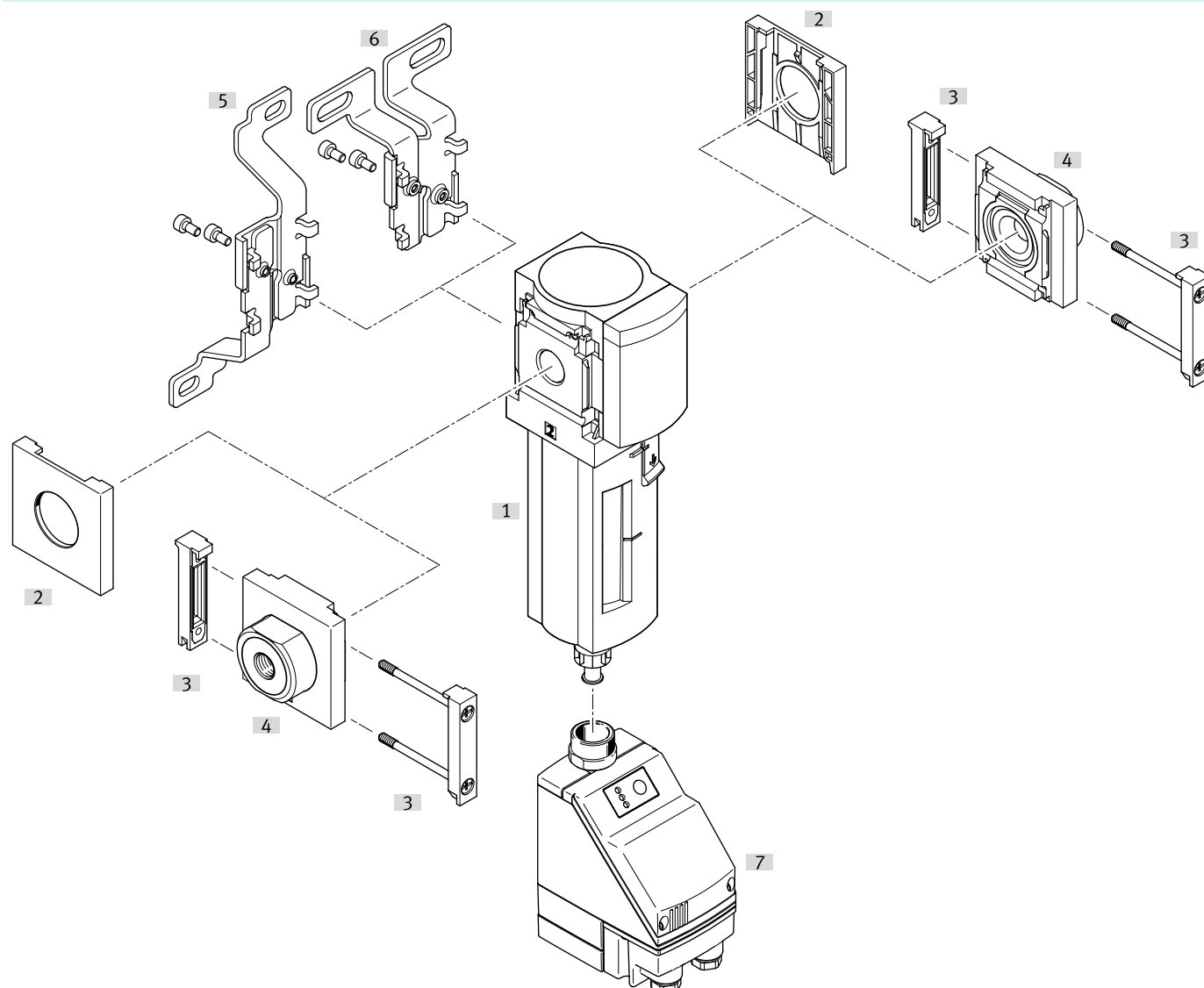
Ordering data - with metal shell		Pneumatic connection 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/4 NPT	5 µm	Manual, rotating	820 g	531537	MS6N-LF-1/4-CUM	
	3/8 NPT				40 µm	531539	MS6N-LF-3/8-CUM
		531557				MS6N-LF-3/8-EUM	
	1/2 NPT	5 µm	Fully automatic, Manual, non-de-tenting		531544	MS6N-LF-1/2-CUV	
			Manual, rotating				531538
		40 µm	Fully automatic, Manual, non-de-tenting		531550	MS6N-LF-1/2-EUV	
			Manual, rotating		531556	MS6N-LF-1/2-EUM	

Ordering data – Modular product system

	Type code	Part no.	Type
	MS6N-LF	527669	MS6N-LF

Peripherals overview

Peripherals overview



Accessories			→ Page/Internet
Type/order code	Description		
[1] Filter MS6N-LF	Illustration based on MS4N-LF as an example		ms6-lfr
[2] Mounting bracket MS6-WB	for single device		16
[2] Cover cap MS6-END	For devices without sub-base		17
[3] Module connector MS6-MV1	For device combinations and individual devices with sub-base		16
[4] Sub-base-SET MS6-AQ...	Order code [AG...]; for device combinations		17
[6] Connecting cable NEBA-M8...-LE4, NEBA-M12...-LE4			17
[7] Condensate drain PWEA	Order code [E2], [E3], [E4]		pwea
[8] Filter cartridge MS-LFP	no illustration		16
[9] Mounting bracket MS6-WP/WPB/WPE/WPM	Not shown		16

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	534499	MS6-LFP-C
	40 µm			534500	MS6-LFP-E

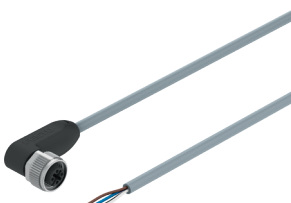
Module connector MS6-MV1					
	Module connector material	LABS (PWIS) conformity	Product weight	Part no.	Type
	POM, high-alloy stainless steel	VDMA24364-B1/B2-L	33 g	8119204	MS6-MV1

Mounting bracket MS6-WP...					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L		1025936	MS6-WPE
			76 g	532195	MS6-WP
			115 g	526074	MS6-WPB
			144 g	526073	MS6-WPM-D
			154 g	532186	MS6-WPM-2D

Mounting bracket MS6-WB					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	121 g	532196	MS6-WB

Accessories

Connecting cables NEBA, straight						
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per 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 as per 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, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type	
	M12x1 A-coded as per 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 as per 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	

Sub-base SET MS6N-AQ...						
	Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1/4 NPT	Die-cast aluminum	VDMA24364-B1/B2-L	300 g	526076	MS6N-AQN
	3/8 NPT				526077	MS6N-AQP
	1/2 NPT				526078	MS6N-AQR
	3/4 NPT				526079	MS6N-AQS

Cover cap MS6-END				
	Housing material	LABS (PWIS) conformity	Part no.	Type
	PA-reinforced	VDMA24364-B1/B2-L	538780	MS6-END