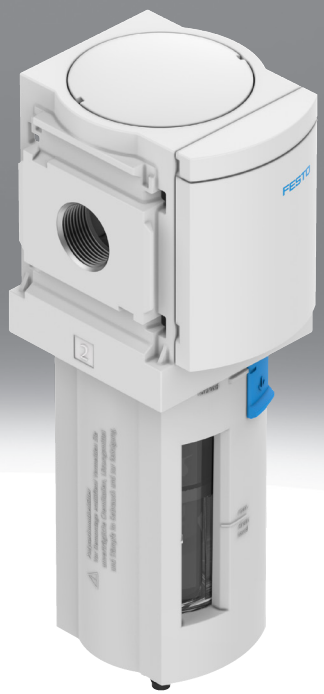
Filter MS6N-LF



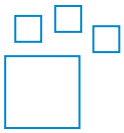
Characteristics

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 ms6n-lf



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

Size

Grid dimension: 62 mm
Standard nominal flow rate:
- 70.6 ... 113.0 scfm (grade of filtration5 µm)
- 88.3 ... 144.7 scfm (grade of filtration40 µm)

Pneumatic connection

By installing connecting plates it is 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.

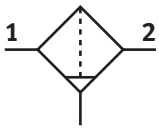
Bowl type

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

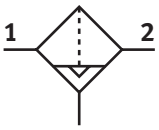
Condensate drain

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

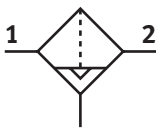
[M]	Manually



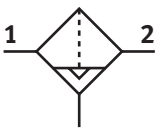
[H]	Semi-automatic



[V]	Automatic



[VC]	Fully automatic, normally closed



Characteristics

Type of mounting

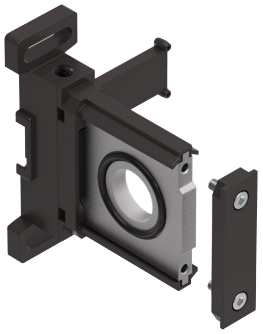
[WB] Mounting centrally at rear (wall mounting top and bottom), connecting plates not required

[WP] Mounting bracket basic design

For connecting the modules for wall mounting

- In combination with connecting plate MS6-AQ... for mounting an individual device on a wall
- In combination with mounting plate MS6-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

Flow direction

Available with flow in the opposite direction.

Type code

001	Series	
MS	MS series	

002	Size	
6	Grid dimension 62 mm	

003	Thread type	
N	NPT thread	

004	Function	
LF	Filter	

005	Pneumatic connection, inch	
1/4	Female thread NPT 1/4	
3/8	Female thread NPT 3/8	
1/2	Female thread NPT 1/2	
AQN	Sub-base NPT1/4	
AQP	Sub-base NPT3/8	
AQR	Sub-base NPT1/2	
AQS	Sub-base NPT3/4	

006	Filter design	
C	5 µm	
E	40 µm	

007	Bowl type	
R	Plastic tray with plastic basket	
U	Aluminium	

008	Condensate drain	
E2	External fully automatic condensate drain, electric, 110 V AC, connection terminals	
E3	External fully automatic condensate drain, electric, 230 V AC, 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), connecting plates not required	
WP	Mounting bracket basic design	
WPM	Mounting bracket for hooking in service unit components	

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, port 1	1/4 NPT, 3/8 NPT, 1/2 NPT	
Pneumatic connection, port 2	1/4 NPT, 3/8 NPT, 1/2 NPT	
Size	6	
Design	Sintered filter with centrifugal separator	
Type of mounting	Either:, Inline 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 Manual, rotating	
Degree of condensate separation	>75%	
Max. condensate volume	38 cm³	

Standard nominal flow rate qnN						
Pneumatic connection, port 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
Standard nominal flow rate (standardised 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 to ISO 8573-1:2010 [7:9:-] Inert gas	Compressed air to ISO 8573-1:2010 [-:9:-] Inert gas
Ambient temperature [2]	-10 ... 60°C	
Media temperature	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC [3]	2 - Moderate corrosion stress	
Suitable for use with food [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

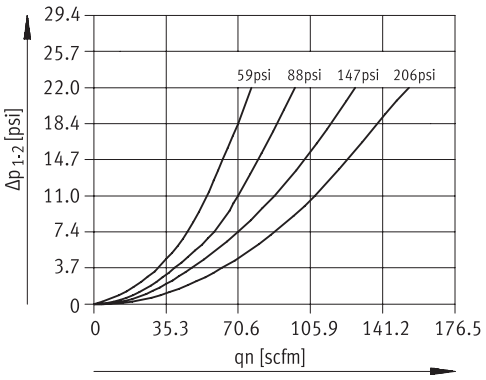
3) More information www.festo.com/x/topic/crc

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

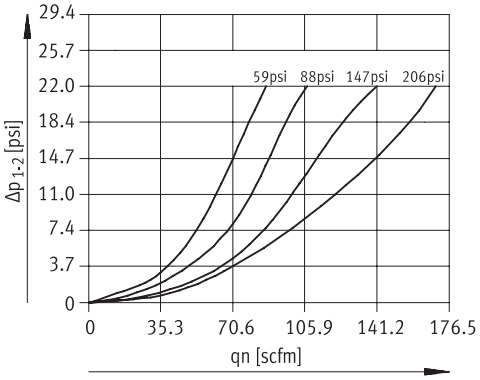
Materials		
Bowl type	Plastic tray with plastic basket [R]	Aluminium [U]
Material housing	Die-cast aluminium	
Material bowl	Makrolon®	Wrought aluminium alloy
Material filter	Packaging unit	
Material seals	NBR	
Material separating plate	POM	
Note on materials	RoHS compliant	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

Datasheet

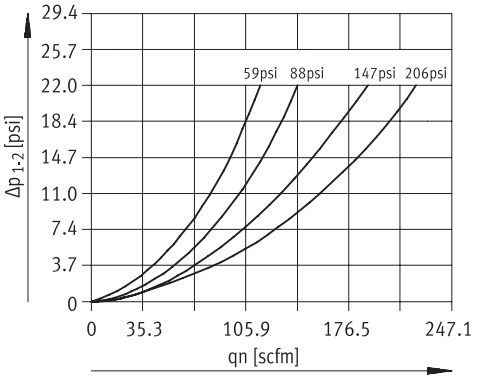
Standard flow rate qn as a function of differential pressure Δp1-2 – MS6N-LF-1/4 (grade of filtration 5 µm)



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

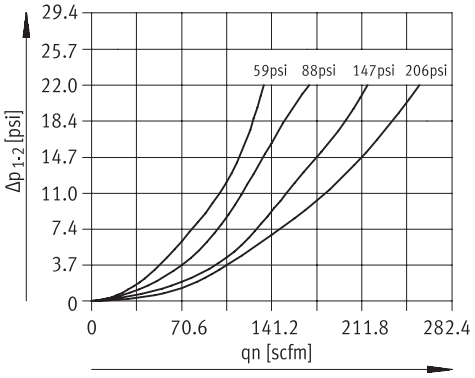


Standard flow rate qn as a function of differential pressure Δp1-2 – MS6N-LF-3/8 (grade of filtration 5 µm)

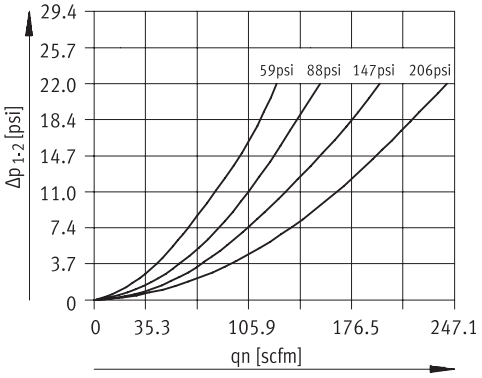


Datasheet

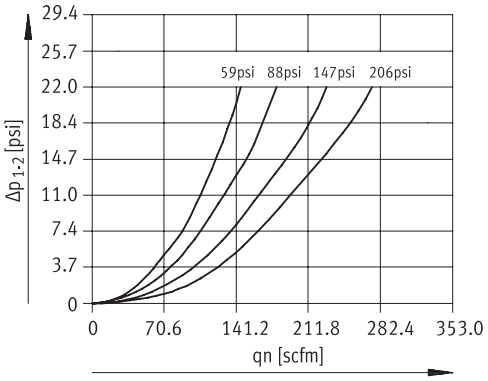
Standard flow rate qn as a function of differential pressure Δp1-2 – MS6N-LF-3/8 (grade of filtration 40 µm)



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



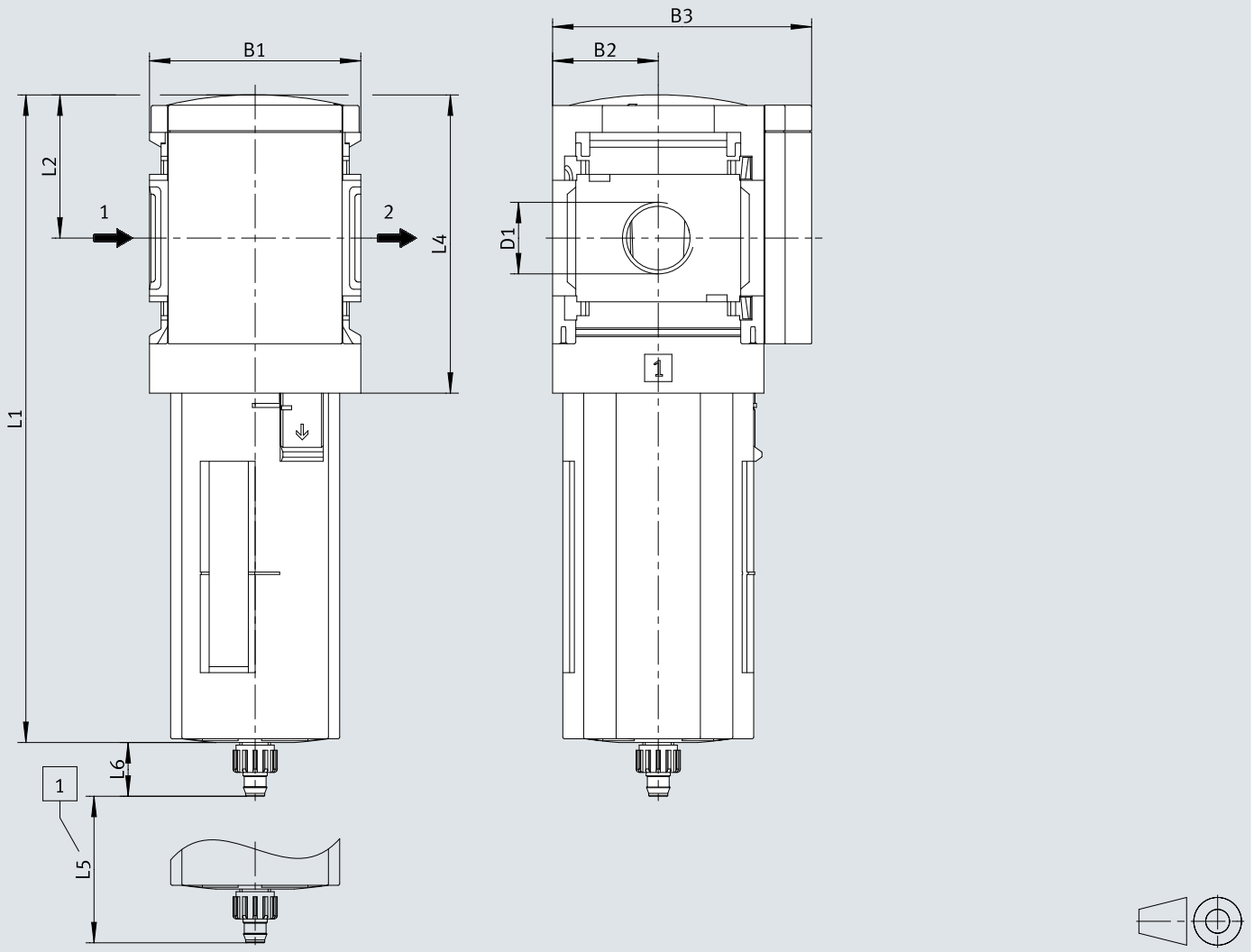
Standard flow rate qn as a function of differential pressure Δp1-2 – MS6N-LF-1/2 (grade of filtration 40 µm)



Dimensions

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

Download CAD data www.festo.com



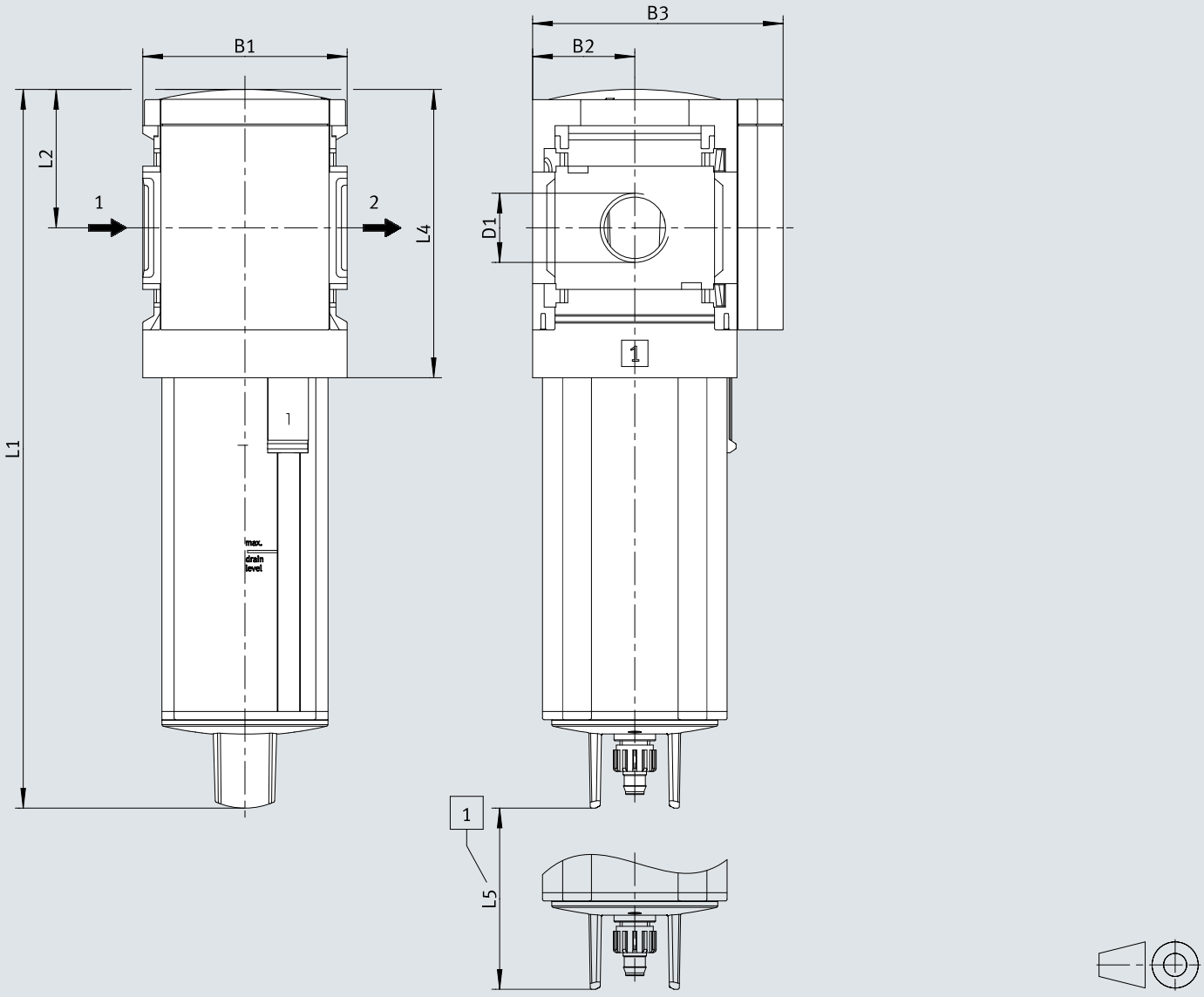
[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
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, rotary, with metal bowl U

Download CAD data www.festo.com



[1] Installation dimension

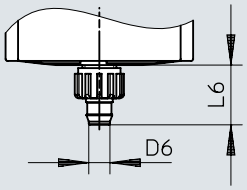
	B1 [inch]	B2 [inch]	B3 [inch]	D1	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]	L6 [inch]
MS6N-LF-1/4	2,44	1,22	2,99	1/4 NPT	7,80	1,65	3,43	2,68	0,75
MS6N-LF-3/8				3/8 NPT					
MS6N-LF-1/2				1/2 NPT					

Dimensions

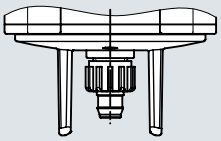
Dimensions – Condensate drain, manual, rotary (with push-in fitting for plastic tubing PCN-4)

Download CAD data www.festo.com

MS6-...-R-M



MS6-...-U-M



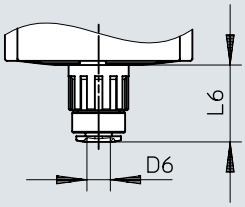
	D6 ø [inch]	L6 [inch]
MS6N-LF-...-R-M	0,197	0,62
MS6N-LF-...-U-M	0,197	0,75

Dimensions

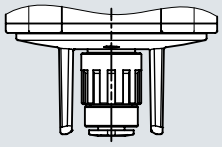
Dimensions – Condensate drain, semi-automatic (with QS fitting for plastic tubing PUN-6/PAN-6)

Download CAD data www.festo.com

MS6-...-R-H



MS6-...-U-H



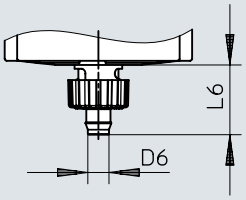
	D6 ø [inch]	L6 [inch]
MS6N-LF-...-R-H	0,236	0,80
MS6N-LF-...-U-H	0,236	0,90

Dimensions

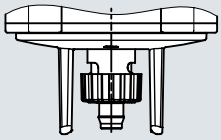
Dimensions – Condensate drain, fully automatic (with push-in fitting for plastic tubing PCN-4)

Download CAD data www.festo.com

MS6-...-R-V



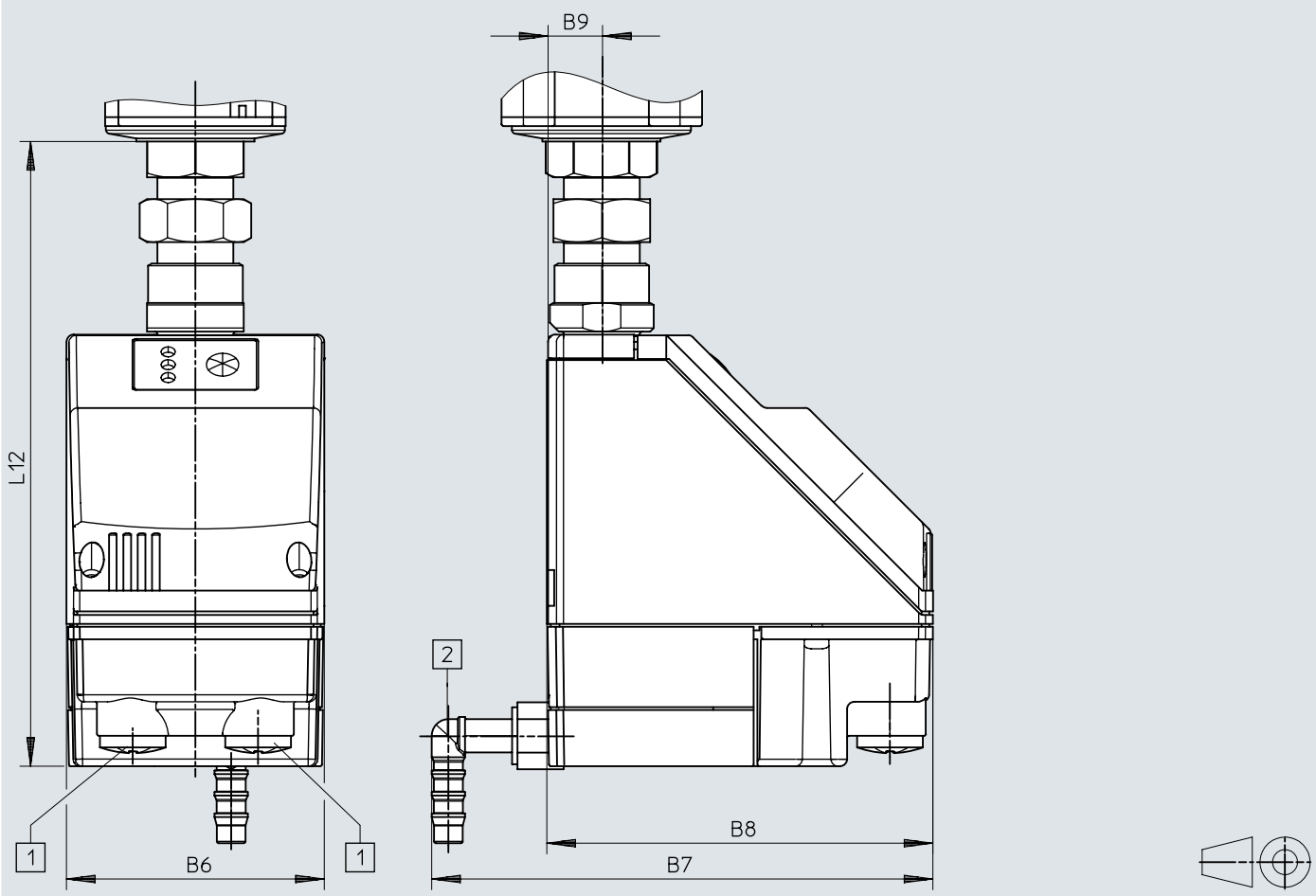
MS6-...-U-V



	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 can be rotated 360° for plastic tubing 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

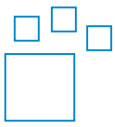
Ordering data – With plastic bowl guard

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

Ordering data – With metal bowl

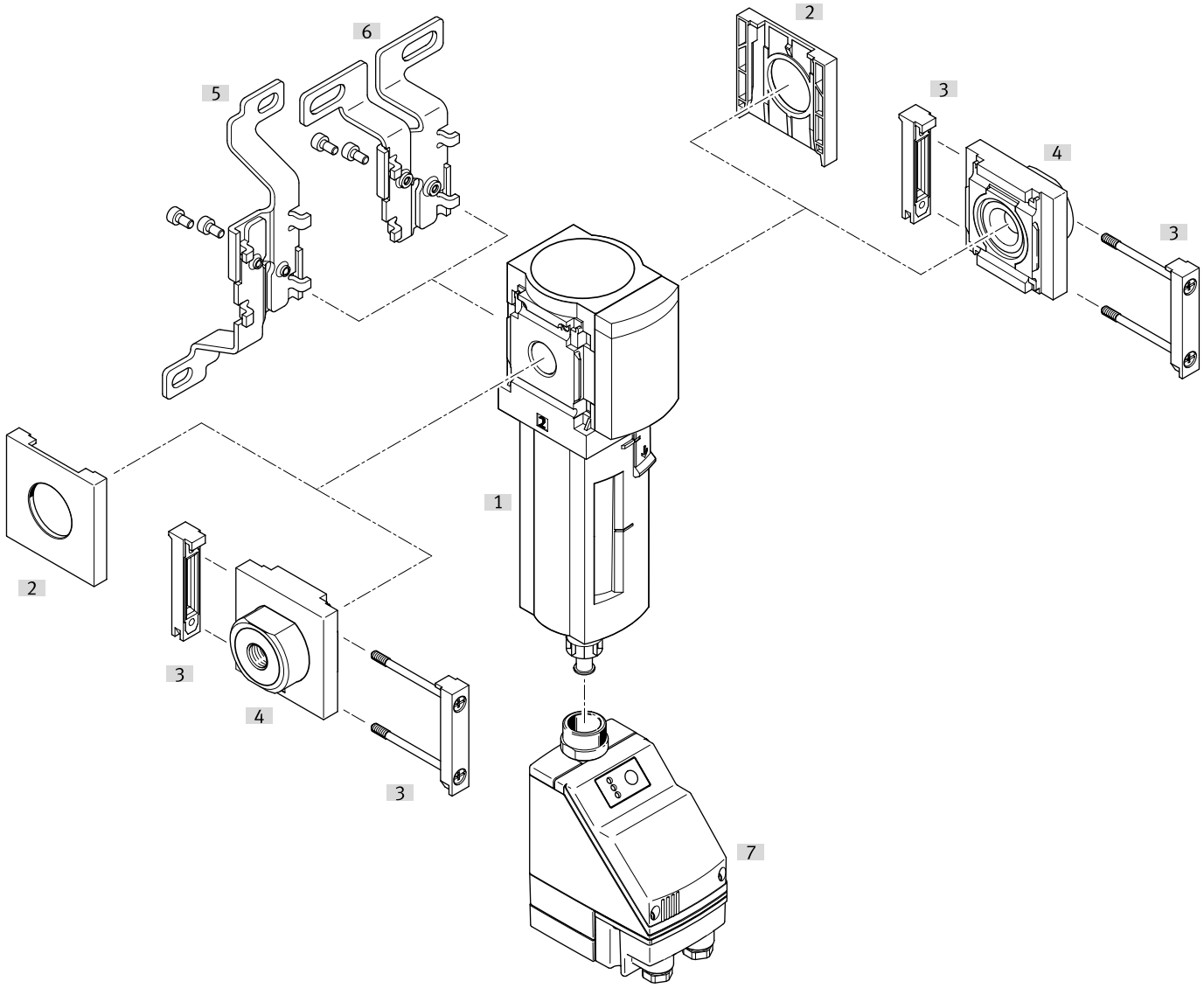
	Pneumatic connection, port 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	1/4 NPT	5 µm	Manual, rotating	820 g	**531537**	**MS6N-LF-1/4-CUM**
	3/8 NPT				**531539**	**MS6N-LF-3/8-CUM**
		40 µm			**531557**	**MS6N-LF-3/8-EUM**
	1/2 NPT	5 µm	Fully automatic, Manual, non-detenting	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

Ordering data – Modular product system

	Short type code	Part no.	Type
	MS6N-LF	**527669**	**MS6N-LF**

Peripherals

Peripherals overview



Accessories			➔ Link
	Type/order code	Description	
[1]	Filter MS6N-LF	Illustration based on MS4N-LF as an example	🔗 ms6-lfr
[2]	Mounting bracket MS6-WB	For individual device	16
[2]	Cover cap MS6-END	For devices without connecting plate	17
[3]	Module connector MS6-MV1	For device combinations and individual devices with connecting plate	16
[4]	Connecting plate 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	Material filter	LABS (PWIS) conformity	Part no.	Type
	5 µm	Packaging unit	VDMA24364-B1/B2-L	**534499**	**MS6-LFP-C**
	40 µm			**534500**	**MS6-LFP-E**

Module connector MS6-MV1

	Material module connector	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...

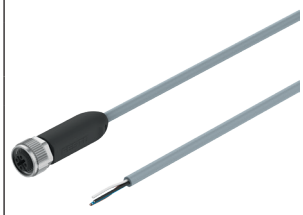
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
		VDMA24364-B1/B2-L		**1025936**	**MS6-WPE**
	Die-cast aluminium		76 g	**532195**	**MS6-WP**
			115 g	**526074**	**MS6-WPB**
			144 g	**526073**	**MS6-WPM-D**
			154 g	**532186**	**MS6-WPM-2D**

Mounting bracket MS6-WB

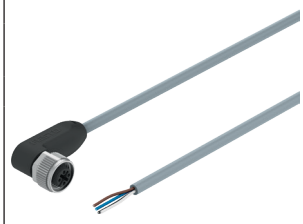
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	121 g	**532196**	**MS6-WB**

Accessories

Connecting cables NEBA, straight

	Electrical connection 1, 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**

Connecting plate SET MS6N-AQ...

	Pneumatic connection, port 1	Material sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1/4 NPT	Die-cast aluminium	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

	Material housing	LABS (PWIS) conformity	Part no.	Type
	Reinforced PA	VDMA24364-B1/B2-L	**538780**	**MS6-END**