

Filter MS12N-LF

FESTO



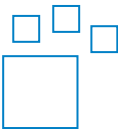
Characteristics

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 [ms12n-lf](#)



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

Size

- Width dimension: 124 mm
Standard nominal flow rate:
- 11500 ... 14000 l/min (grade of filtration 5 µm)
 - 12500 ... 16000 l/min (grade of filtration 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

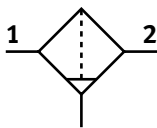
Shell protection by means of integrated metal shell.

Condensate drains

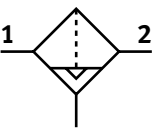
The following functions can be selected:

- Manual
- Fully automatic

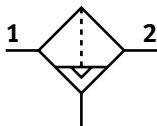
[M] Manual



[V] Automatic



[VC] Fully automatic, normally closed



Characteristics

Type of mounting

[WP] Mounting bracket standard design



- Mounting attachment and connector for air preparation unit combination or for individual device with port plates
- For size 4, 6, 9 or 12

EX certification EU

Optional device variant EX4 for use in potentially explosive areas of zones 1, 2, 21 and 22

UL certification

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

Flow direction

Available with opposite flow direction.

Type code

001	Series	
MS	MS series	

002	Size	
12	Width dimension 124 mm	

003	Thread type	
N	NPT thread	

004	Function	
LF	Filter	

005	Pneumatic connection, inch	
AQT	Sub-base NPT1	
AQU	Sub-base NPT11/4	
AQV	Sub-base NPT11/2	
AQW	Sub-base NPT2	
G	Module without connecting thread, without sub-base	

006	Filter design	
C	5 µm	
E	40 µm	

007	Bowl type	
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	
M	Manual	
V	Fully automatic, normally open	
VC	Fully automatic, normally closed	

009	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket standard design	

010	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data

Pneumatic connection 1	Internal
Pneumatic connection 2	Internal
Size	12
Structural design	Sinter filter with centrifugal separator
Type of mounting	Alternatively: In-line installation With accessories
Mounting position	Vertical $\pm 5^\circ$
Condensate drain	Fully automatic Fully automatic, electrically controlled Manual, non-detenting Manual, rotating
Degree of condensate separation	>75%

Standard nominal flow rate q_{nN}

Pneumatic connection, port 1	1 NPT		1 1/4 NPT		1 1/2 NPT		2 NPT	
Grade of filtration	5 μm	40 μm	5 μm	40 μm	5 μm	40 μm	5 μm	40 μm
Standard nominal flow rate (standardised to DIN 1343) ¹⁾	11,500 l/min	12,500 l/min	12,500 l/min	13,000 l/min	13,500 l/min	14,000 l/min	14,000 l/min	16,000 l/min

1) Measured at $p_1 = 6$ bar and $\Delta p = 0,5$ bar

Operating and environmental conditions

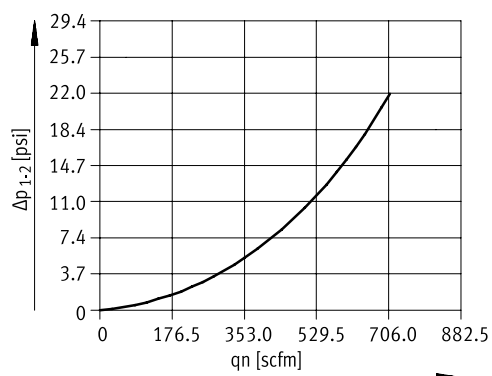
Condensate drain	Fully automatic, Fully automatic, electrically controlled, Manual, non-detenting, Manual, rotating
Operating pressure	0.8 ... 20 bar
Operating medium ¹⁾	Compressed air as per ISO 8573-1:2010 [-:9:-] Compressed air as per ISO 8573-1:2010 [7:9:-] Inert gases
Ambient temperature	-10 ... 60°C
Temperature of medium	-10 ... 60°C
Storage temperature	-10 ... 60°C

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

Materials

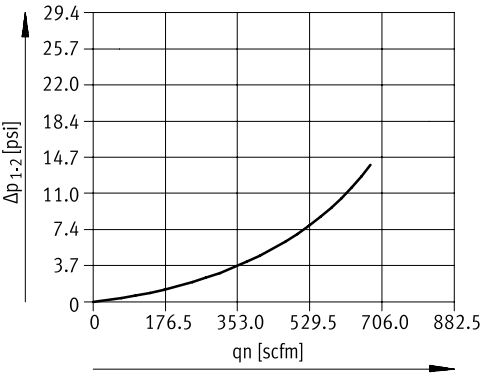
Housing material	Die-cast aluminum
Material of bowl	Wrought aluminum alloy
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Normal flow rate q_n as a function of the differential pressure Δp_{1-2} - with sub-base MS12-AGF, pneumatic connection G1 (filter fineness 5 μm)

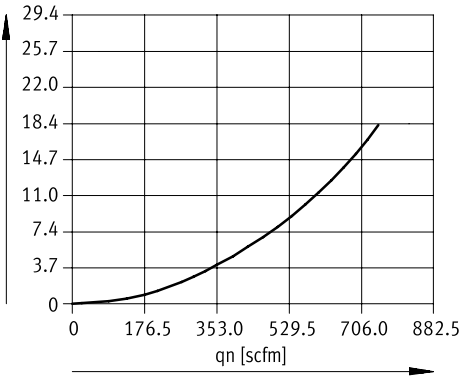


Datasheet

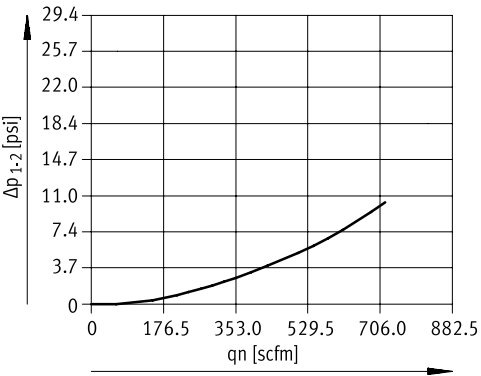
Normal flow rate q_n as a function of the differential pressure Δp_{1-2} - with sub-base MS12-AGI, pneumatic connection G2 (filter fineness 5 μm)



Normal flow rate q_n as a function of the differential pressure Δp_{1-2} - with sub-base MS12-AGF, pneumatic connection G1 (filter fineness 40 μm)

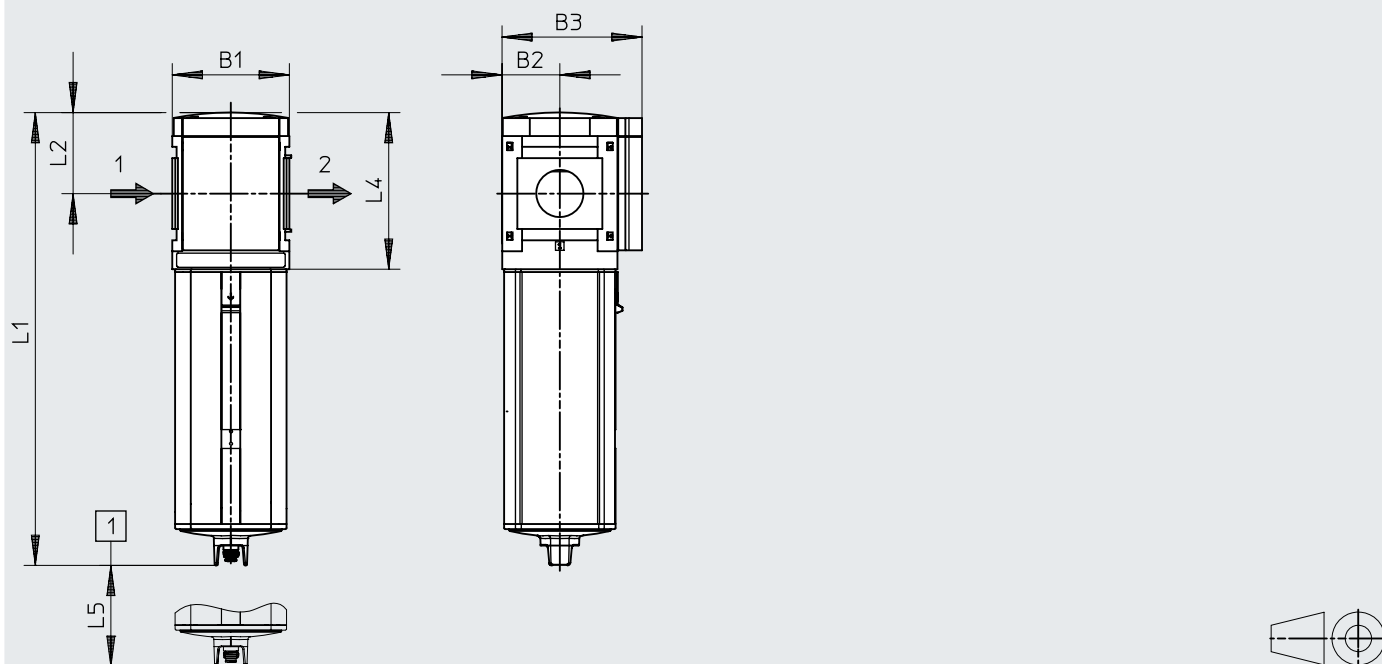


Normal flow rate q_n as a function of the differential pressure Δp_{1-2} - with sub-base MS12-AGI, pneumatic connection G2 (filter fineness 40 μm)



Dimensions

Dimensions – Basic type

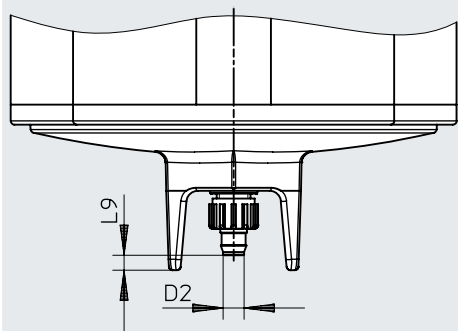
[Download CAD data](#) www.festo.com


[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]
MS12N-LF	4,88	2,40	5,83	18,881	3,39	6,54	9,84

Dimensions

Dimensions – Condensate drain, manual rotary [Download CAD data](#) www.festo.com

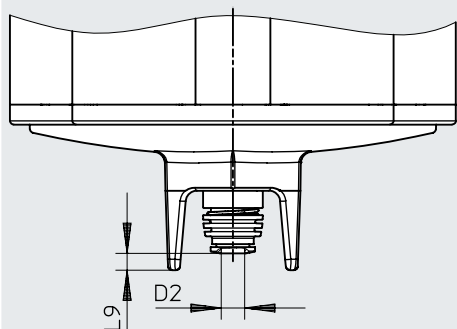


	D2 Ø [inch]	L9 [inch]
MS12M-LF-...-M	0,197	0,43

Dimensions

Dimensions – Condensate drain, fully automatic

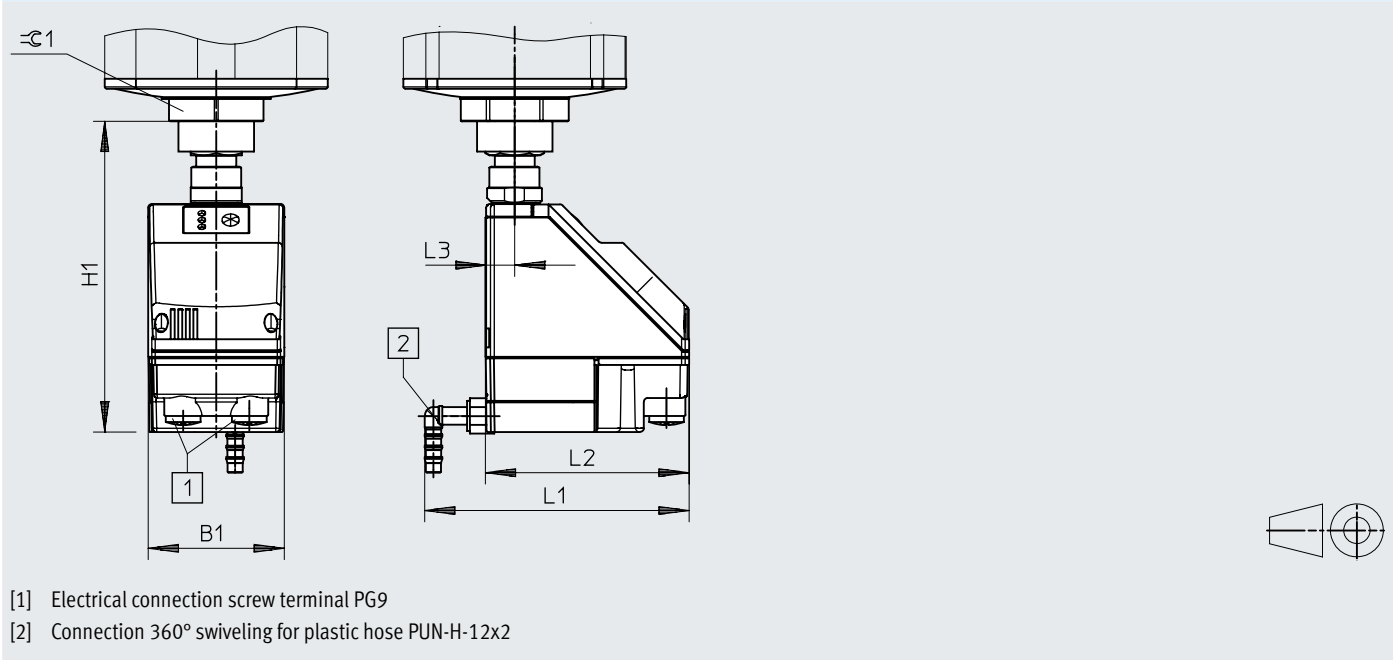
Download CAD data www.festo.com



	D2 Ø [inch]	L9 [inch]
MS12N-LF-...-V	0,197	0,51

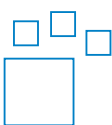
Dimensions

Dimensions – Condensate drain fully automatic, electrically controlled Download CAD data www.festo.com



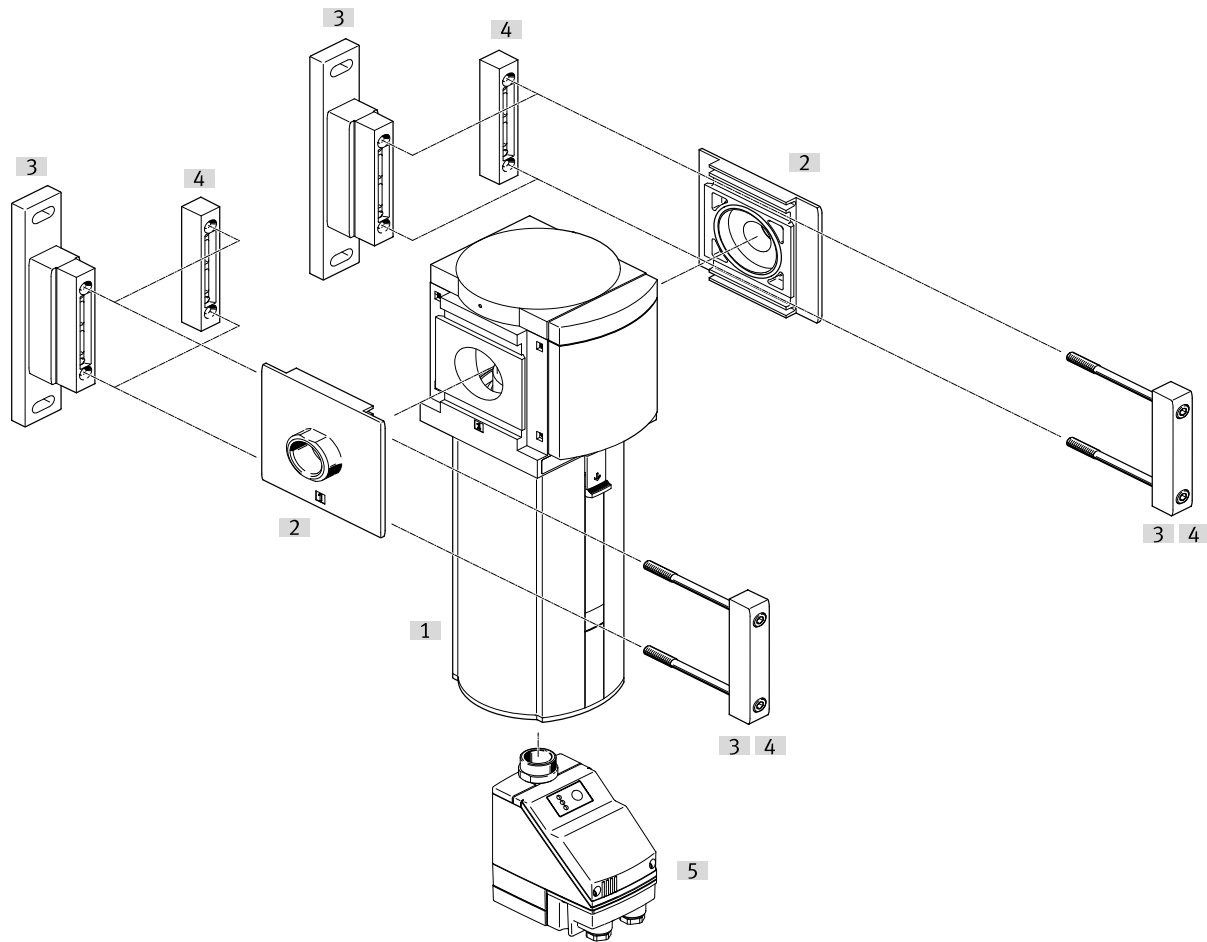
	B1 [inch]	H1 [inch]	L1 [inch]	L2 [inch]	L3 [inch]	≈ 1 [inch]
MS12N-LF-...-E2, E3, E4	2,835	6,477	5,51	4,252	0,606	2,0

Ordering data

Ordering data – Modular product system			
	Type code	Part no.	Type
	MS12	535026	MS12N-LF

Peripherals overview

Peripherals overview



Accessories		→ Page/Internet
Type/order code	Description	
[1] Filter regulator MS12-LFR		ms12n-lf
[2] Sub-base-SET MS12-AQ...	Order code [AG...]; for device combinations	13
[3] Mounting bracket MS12-WP	Order code [WP]; for single device	13
[4] Module connector MS12-MV	For device combinations and individual devices with sub-base	13
[5] Condensate drain fully automatic, electrically controlled E2, E3, E4	Order code [E2], [E3], [E4]	pwea
[6] Filter cartridge MS-LFP	no illustration	13

Accessories

Filter cartridge MS12-LFP					
	Grade of filtration	Compressed air filter material	LABS (PWIS) conformity	Part no.	Type
	5 µm	Sintered bronze	VDMA24364-B1/B2-L	537143	MS12-LFP-C
	40 µm			537144	MS12-LFP-E

Module connector MS6-MV1					
	Plate material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L	500 g	537134	MS12-MV

Mounting bracket MS6-WP...					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L	700 g	537133	MS12-WP

Sub-base SET MS12-AG...						
	Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1 NPT	Die-cast aluminum	VDMA24364-B1/B2-L	1,300 g	537139	MS12-AQT
	1 1/4 NPT		VDMA24364-B2-L		537140	MS12-AQU
	1 1/2 NPT		VDMA24364-B1/B2-L		537141	MS12-AQV
	2 NPT				537142	MS12-AQW