

## Fine filter MS12N-LFM

**FESTO**



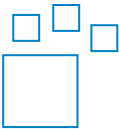
Characteristics

At a glance

- High-efficiency filter for exceptionally clean compressed air.
- Removing oil aerosols from compressed air
  - Air quality to ISO 8573-1:2010
  - Filter inserts optionally with 1 µm or 0.01 µm
  - Available with manual, semi-automatic, fully automatic, or fully automatic electrically controlled condensate drain.

Ordering data - modular system

Link [ms12n-lfm](#)



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

Pneumatic connection

Individual fittings can be connected via connecting plates with female threads.

Filter design

Filter inserts optionally with 1 µm or 0.01 µm

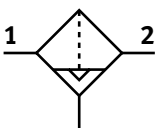
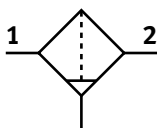
[B]	1 µm	[A]	0.01 µm
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Bowl type

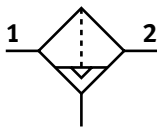
Bowl guard tanks to integrated metal bowl.

Condensate drain

[M]	Manually	[V]	Automatic
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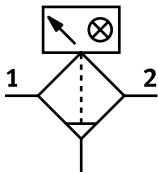
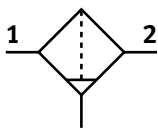
[VC]	Fully automatic, normally closed
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Filter change sensing

Optionally with differential pressure display for indicating filter contamination.

[ ]	None	[DA]	Differential pressure display, visual
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## Characteristics

### Type of mounting

[WP] Mounting bracket basic design



Mounting attachment and connector for service unit combination or for individual device with connecting plates

### Flow direction

Available with flow in the opposite direction.

## Type code

001	Series	
MS	MS series	
002	Size	
12	Grid dimension 124 mm	
003	Thread type	
N	NPT thread	
004	Function	
LFM	Fine and micro filters	
005	Pneumatic connection	
AQT	Sub-base 1 NPT	
AQU	Sub-base 1 1/4 NPT	
AQV	Sub-base 1 1/2 NPT	
AQW	Sub-base 2 NPT	
006	Filter design	
A	0.01 µm	
B	1 µm	
007	Bowl type	
U	Aluminium	

008	Condensate drain	
E2	External fully automatic condensate drain, electric, 110 V AC, terminals	
E3	External fully automatic condensate drain, electric, 230 V AC, terminals	
E4	External fully automatic condensate drain, electric, 24 V DC, terminals	
M	Manually	
V	Automatic	
009	Flow rate	
	Standard	
HF	High flow rate	
010	Filter change sensing	
	None	
DA	Differential pressure display, visual	
011	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket basic design	
013	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

# Datasheet

## General technical data

Filter design	0.01 µm [A], 1 µm [B]
Size	12
Design	Fibre filter
Type of mounting	Either: In-line installation With accessories
Mounting position	Vertical +/-5°
Bowl guard	Metal bowl
Condensate drain	Fully automatic, Fully automatic, electrically actuated, Manual, non-detenting, Manually rotating

## Standard nominal flow rate q<sub>N</sub> – Micro filter MS12-LFM-A

Pneumatic connection	1 NPT	1 1/4 NPT	1 1/2 NPT	2 NPT
Standard nominal flow rate (standardised to DIN 1343) <sup>1)</sup>	5,000 l/min	6,000 l/min	6,500 l/min	7,000 l/min
Min. standard flow rate for clean air class <sup>1)</sup>	700 l/min	700 l/min	700 l/min	700 l/min
Max. standard flow rate for clean air class <sup>1)</sup>	22,990 l/min	22,990 l/min	22,990 l/min	22,990 l/min

1) Measured at p<sub>1</sub> = 6 bar and Δp = 0,7 bar

## Standard nominal flow rate q<sub>N</sub> – Fine filter MS12-LFM-B

Pneumatic connection	1 NPT	1 1/4 NPT	1 1/2 NPT	2 NPT
Standard nominal flow rate (standardised to DIN 1343) <sup>1)</sup>	5,200 l/min	6,200 l/min	7,500 l/min	7,600 l/min
Min. standard flow rate for clean air class <sup>1)</sup>	950 l/min	950 l/min	950 l/min	950 l/min
Max. standard flow rate for clean air class <sup>1)</sup>	22,990 l/min	22,990 l/min	22,990 l/min	22,990 l/min

1) Measured at p<sub>1</sub> = 6 bar and Δp = 0,7 bar

## Operating and environmental conditions

Operating pressure	0.08 ... 2 MPa
Operating pressure	0.8 ... 20 bar
Operating pressure	11.6 ... 290 psi
Operating medium	Compressed air to ISO 8573-1:2010 [6:::4] Inert gases
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	2 - Moderate corrosion stress

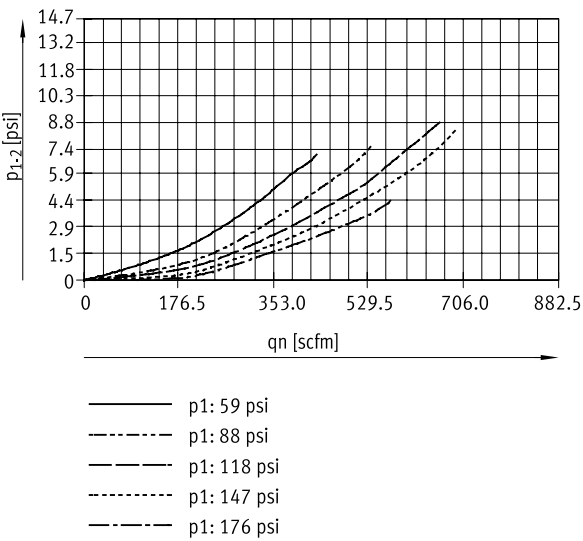
1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

## Materials

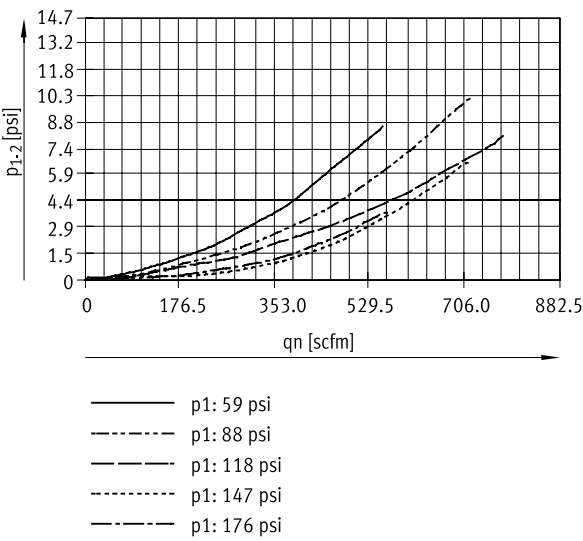
Material housing	Die-cast aluminium
Material bowl	Wrought aluminium alloy
Material filter	Borosilicate fibre
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Datasheet

Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  (with connecting plate MS12-AQT, pneumatic connection 1 NPT, grade of filtration 0,01  $\mu\text{m}$ )

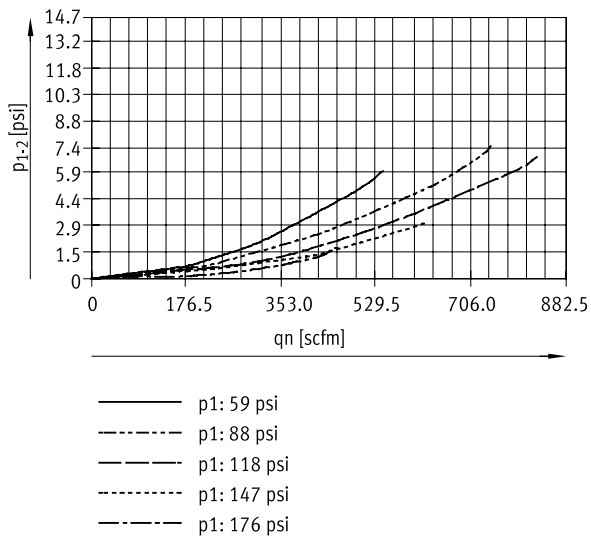


Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  (with connecting plate MS12-AGG, pneumatic connection G1 1/4)

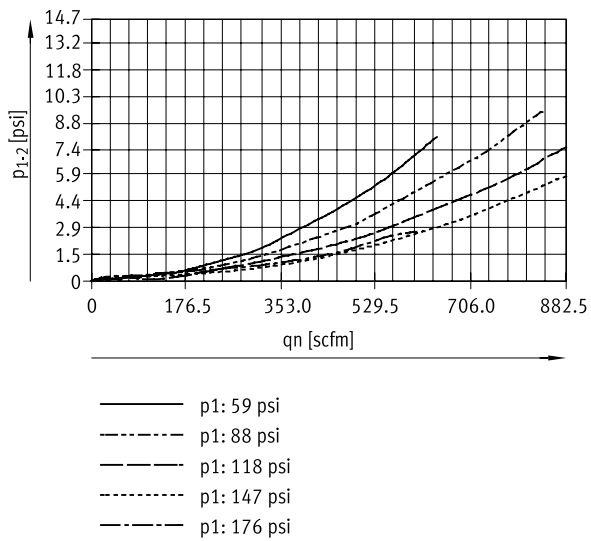


# Datasheet

Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  (with connecting plate MS12-AGH, pneumatic connection G1 1/2)

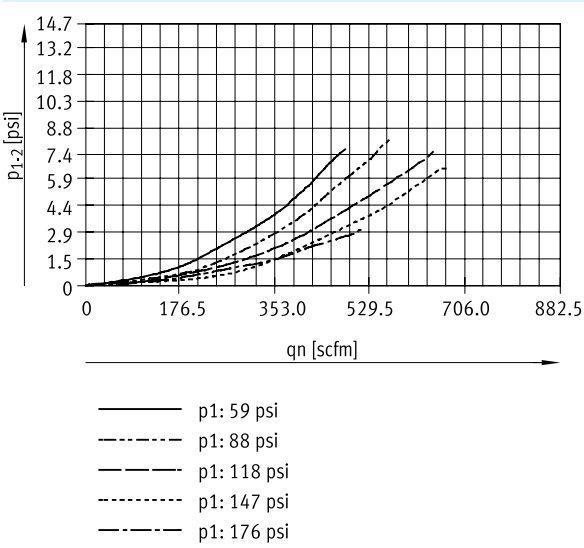


Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  (with connecting plate MS12-AGI, pneumatic connection G2)

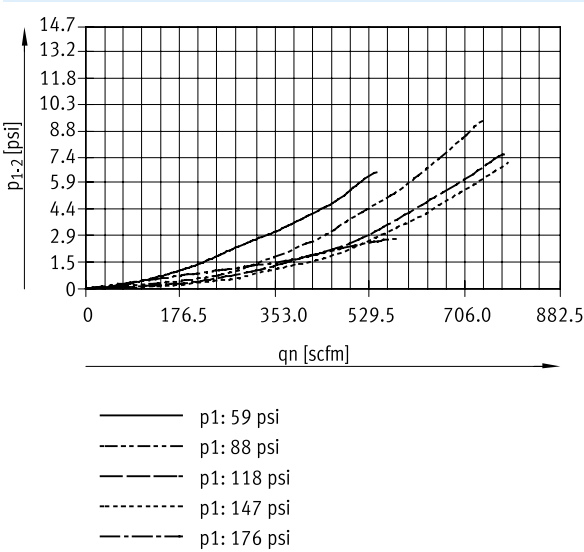


Datasheet

Standard flow rate qn as a function of differential pressure Δp1-2 (with connecting plate MS12-AGF, pneumatic connection G1)

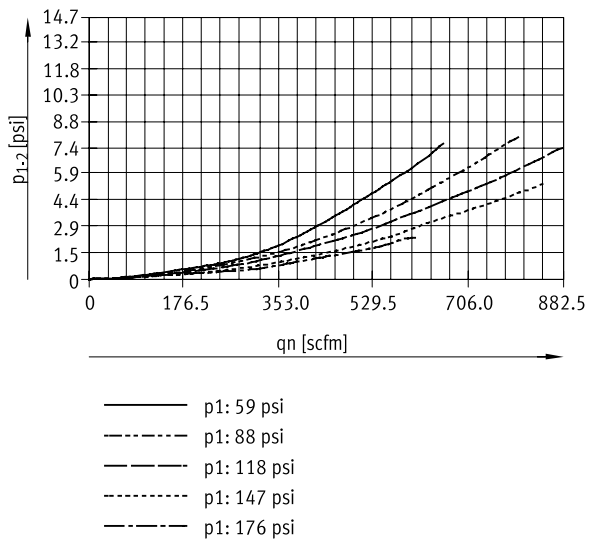
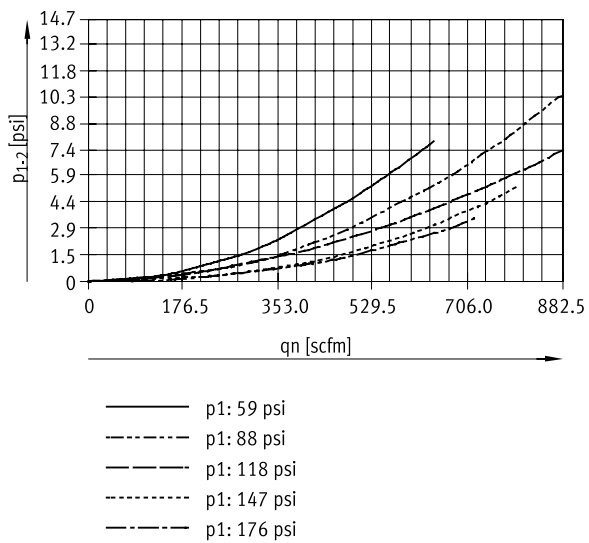


Standard flow rate qn as a function of differential pressure Δp1-2 (with connecting plate MS12-AGG, pneumatic connection G1 1/4)



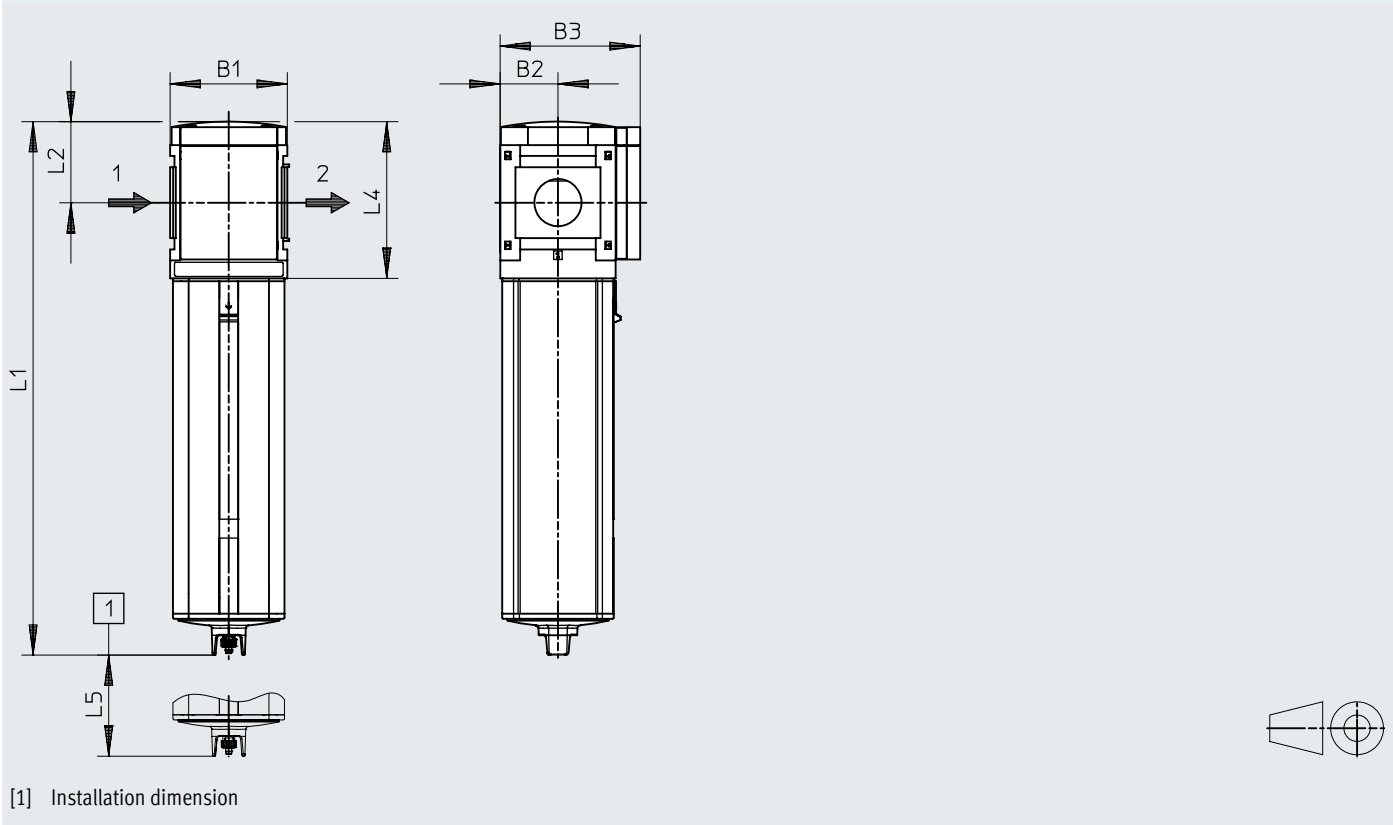


## Datasheet

Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  (with connecting plate MS12-AGH, pneumatic connection G1 1/2)Standard flow rate  $q_n$  as a function of differential pressure  $\Delta p_{1-2}$  (with connecting plate MS12-AGI, pneumatic connection G2)

Dimensions

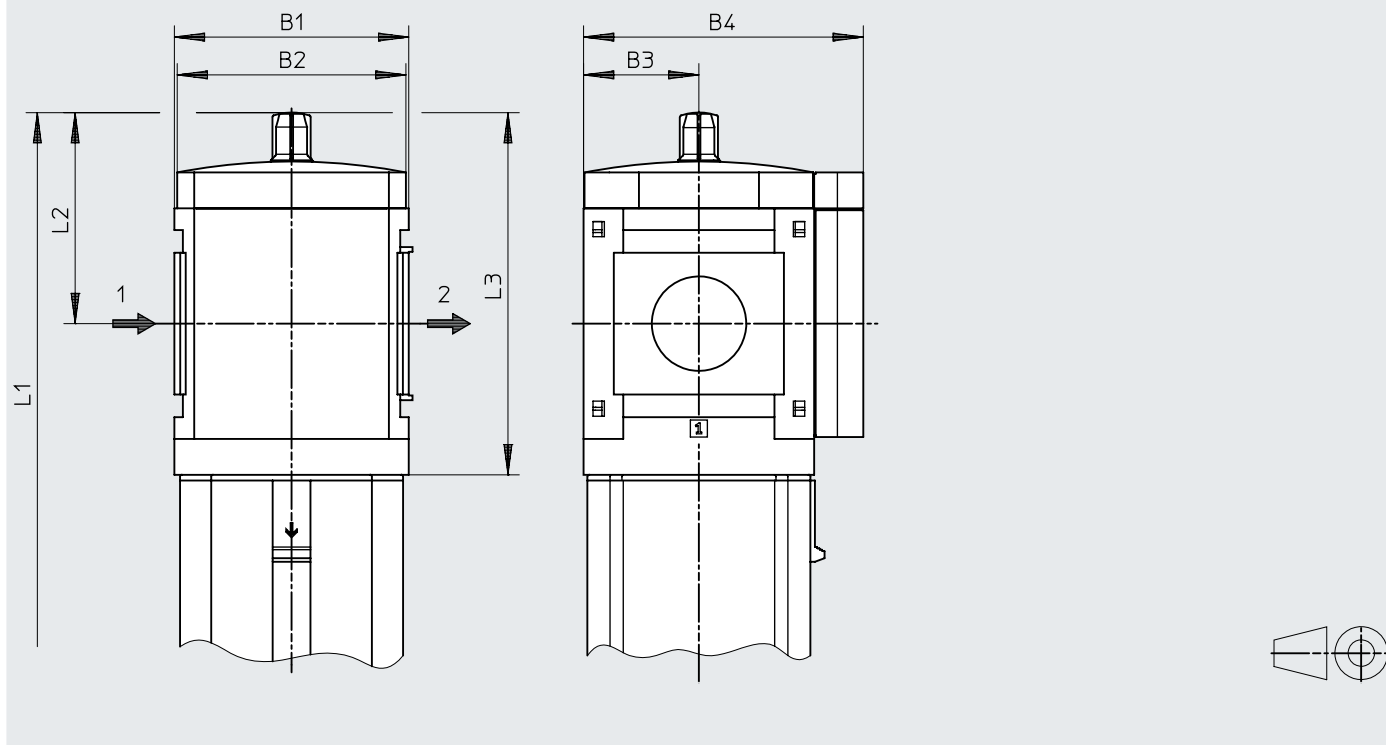
Dimensions – Basic type Download CAD data [www.festo.com](http://www.festo.com)



	B1 [inch]	B2 [inch]	B3 [inch]	L1 [inch]	L2 [inch]	L4 [inch]	L5 [inch]
MS12N-LFM	4,882	2,413	5,839	22,227	3,369	6,519	13,766

## Dimensions

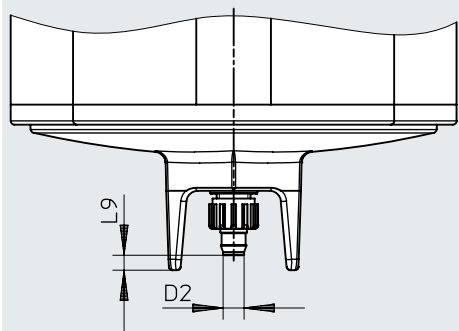
### Dimensions – Differential pressure display

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


	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	L1 [inch]	L2 [inch]	L3 [inch]
MS12N-LFM-...-DA	4,882	4,803	2,413	5,839	23,247	4,397	7,559

Dimensions

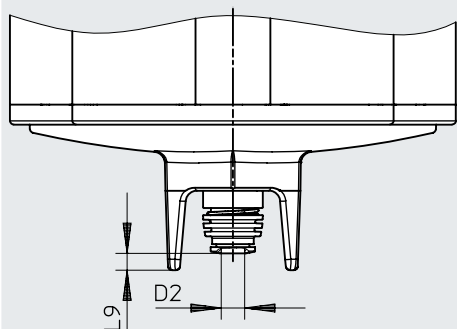
Dimensions – Condensate drain, manual, rotary Download CAD data [www.festo.com](http://www.festo.com)



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

## Dimensions

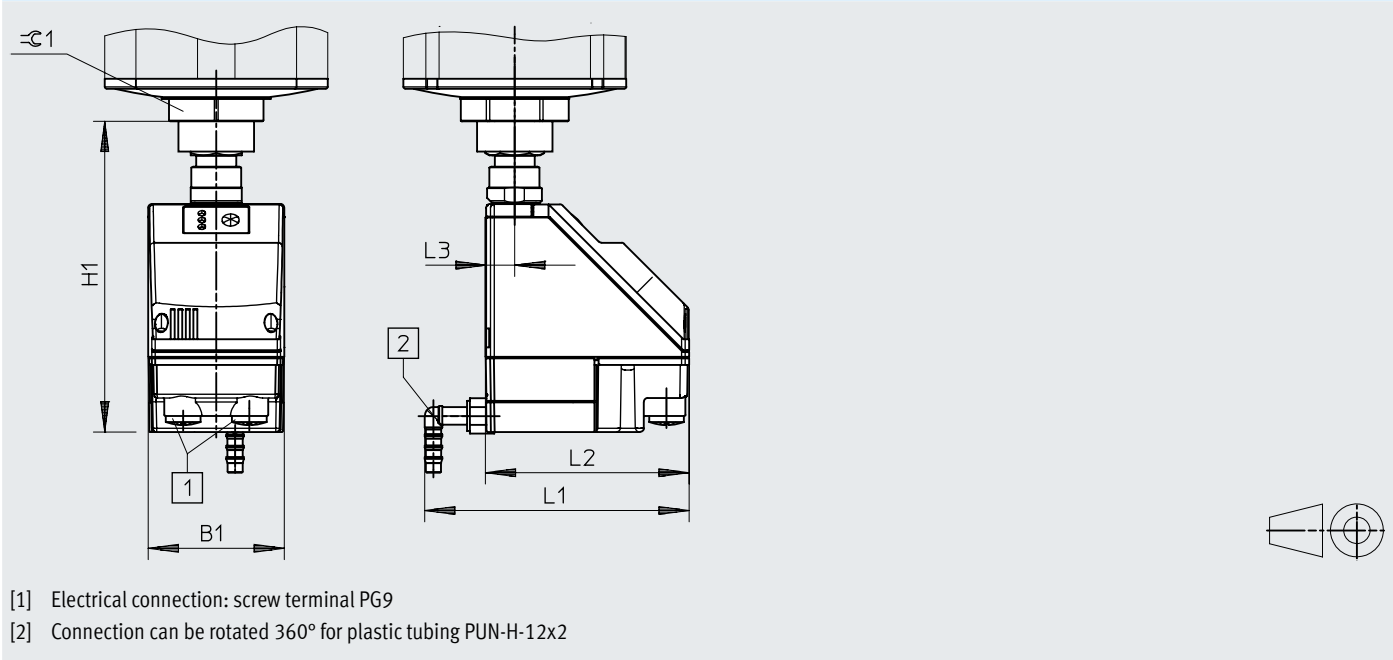
### Dimensions – Condensate drain, fully automatic

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


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

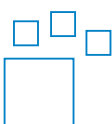
Dimensions

Dimensions – Condensate drain fully automatic, electrically controlled Download CAD data [www.festo.com](http://www.festo.com)



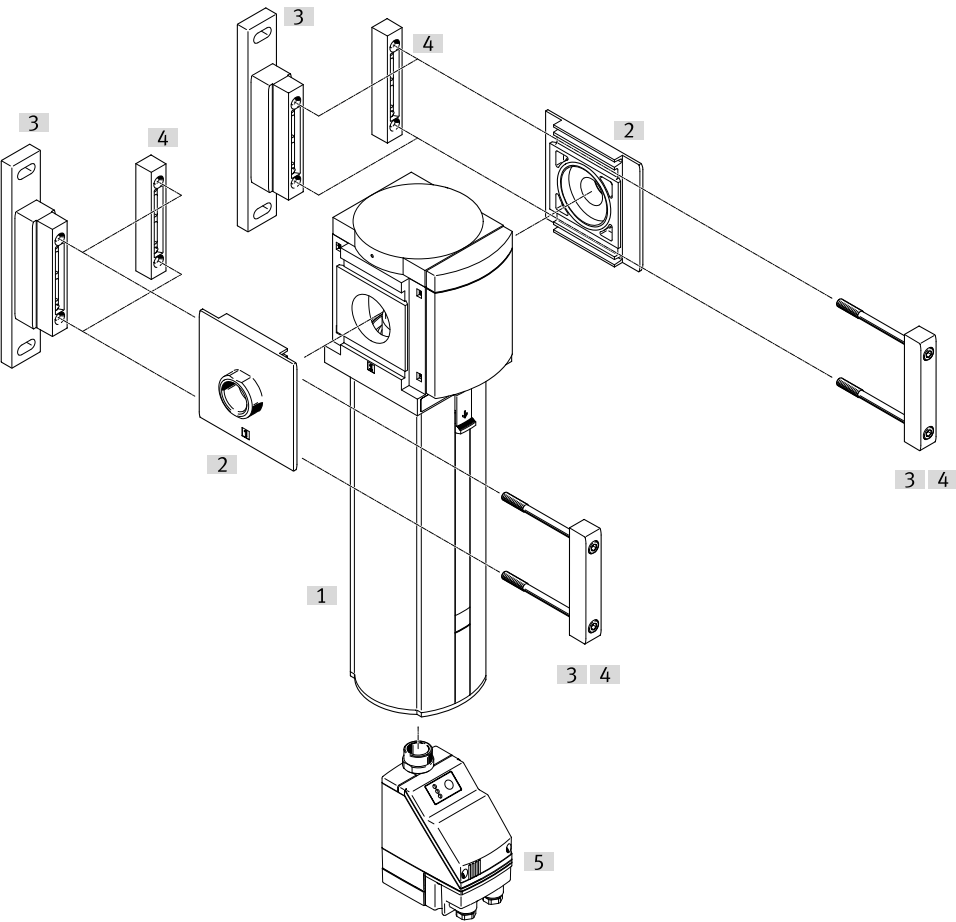
	B1 [inch]	H1 [inch]	L1 [inch]	L2 [inch]	L3 [inch]	$\approx \varnothing 1$ [inch]
MS12N-LF-...-E2, E3, E4	2,835	6,477	5,51	4,252	0,606	2,0

## Ordering data

Ordering data – Modular product system			
	Short type code	Part no.	Type
	MS12	535045	MS12N-LFM

Peripherals


Peripherals overview




Accessories		→ Link
Type/order code	Description	
[1] Fine/micro filter M12N-LFM-A/B		<a href="#">ms12n-lfm</a>
[2] Connecting plate SET MS12-AQ...	Order code [AQ...]; for device combinations	17
[3] Mounting bracket MS12-WP	For individual device	17
[4] Module connector MS12-MV	For device combinations and individual devices with connecting plate	17
[5] Fully automatic condensate drain, electrically actuated	Order code [E2], [E3], [E4]	<a href="#">pwea</a>
[6] Filter cartridge MS12-LFM-A/B	Not shown	17




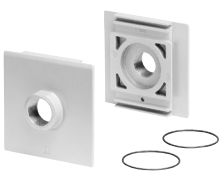
## Accessories

Filter cartridge MS12-LFM-A/B						
	Grade of filtration	Material filter	Corrosion resistance class CRC <sup>1)</sup>	Product weight	Part no.	Type
	0.01 µm	Borosilicate fibre	2 - Moderate corrosion stress	425 g	<b>537146</b>	<b>MS12-LFM-A</b>
	1 µm			395 g	<b>537145</b>	<b>MS12-LFM-B</b>

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

Module connector MS6-MV1				
	Size	Product weight	Part no.	Type
	12	500 g	<b>537134</b>	<b>MS12-MV</b>

Mounting bracket MS12-WP				
	Size	Product weight	Part no.	Type
	12	700 g	<b>537133</b>	<b>MS12-WP</b>

	Size	Pneumatic connection, port 1	Product weight	Part no.	Type
	12	1 NPT	1,300 g	<b>537139</b>	<b>MS12-AQT</b>
		1 1/4 NPT		<b>537140</b>	<b>MS12-AQU</b>
		1 1/2 NPT		<b>537141</b>	<b>MS12-AQV</b>
		2 NPT		<b>537142</b>	<b>MS12-AQW</b>