

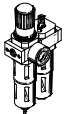

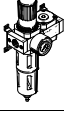
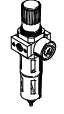
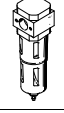
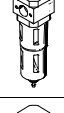
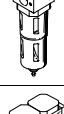


Filters LF/LFMA/LFMB/LFX/LFMBA, D series



# Filters LF/LFMA/LFMB/LFX/LFMBA, D series, metal design



Product range overview D series service units, metal design

Type	Size	Pneumatic connection										Pressure regulation range [bar]			Grade of filtration [µm]			
		M5	M7	G1/8	G1/4	G3/8	G1/2	G3/4	G1	QS4	QS6	0.5 ...	0.5 ...	2.5 ...	0.01	1	5	40
<b>Service units</b>																		
<b>FRC/FRCS</b> 	Micro	■	■	■	-	-	-	-	-	■	■	■	-	-	-	-	■	-
	Mini	-	-	■	■	■	-	-	-	-	-	■	■	-	-	-	■	■
	Midi	-	-	-	■	■	■	■	-	-	-	■	■	-	-	-	■	■
	Maxi	-	-	-	-	-	■	■	■	-	-	■	■	-	-	-	■	■
<b>Service unit combinations</b>																		
<b>FRC-K</b> 	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mini	-	-	■	■	-	-	-	-	-	-	■	■	-	-	-	-	■
	Midi	-	-	-	■	■	■	■	-	-	-	■	■	-	-	-	-	■
	Maxi	-	-	-	-	-	■	■	-	-	-	■	■	-	-	-	-	■
<b>LFR-K LFRS-K</b> 	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mini	-	-	■	■	-	-	-	-	-	-	■	■	-	-	-	-	■
	Midi	-	-	-	■	■	■	■	-	-	-	■	■	-	-	-	-	■
	Maxi	-	-	-	-	-	■	■	-	-	-	■	■	-	-	-	-	■
<b>Individual devices</b>																		
<b>Filter regulators LFR/LFRS</b> 	Micro	■	■	■	-	-	-	-	-	■	■	■	-	-	-	-	■	-
	Mini	-	-	■	■	■	-	-	-	-	-	■	■	-	-	-	■	■
	Midi	-	-	-	■	■	■	■	-	-	-	■	■	-	-	-	■	■
	Maxi	-	-	-	-	-	■	■	■	-	-	■	■	-	-	-	■	■
<b>Filters LF</b> 	Micro	■	■	■	-	-	-	-	-	■	■	-	-	-	-	-	■	-
	Mini	-	-	■	■	■	-	-	-	-	-	-	-	-	-	-	■	■
	Midi	-	-	-	■	■	■	■	-	-	-	-	-	-	-	-	■	■
	Maxi	-	-	-	-	-	■	■	■	-	-	-	-	-	-	-	■	■
<b>Fine and micro filters LFMA/LFMB</b> 	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mini	-	-	■	■	■	-	-	-	-	-	-	-	■	■	-	-	-
	Midi	-	-	-	■	■	■	■	-	-	-	-	-	■	■	-	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	-	-	■	■	-	-	-
<b>Active carbon filters LFX</b> 	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mini	-	-	■	■	■	-	-	-	-	-	-	-	-	-	-	-	-
	Midi	-	-	-	■	■	■	■	-	-	-	-	-	-	-	-	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	-	-	-	-	-	-	-
<b>Filter combinations LFMBA</b> 	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mini	-	-	■	■	■	-	-	-	-	-	-	-	■	■	-	-	-
	Midi	-	-	-	■	■	■	■	-	-	-	-	-	■	■	-	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	-	-	■	■	-	-	-
<b>Pressure regulators LRS/LRS</b> 	Micro	■	■	■	-	-	-	-	-	■	■	■	-	-	-	-	-	-
	Mini	-	-	■	■	■	-	-	-	-	-	■	■	-	-	-	-	-
	Midi	-	-	-	■	■	■	■	-	-	-	■	■	-	-	-	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	■	■	-	-	-	-	-

# Filters LF/LFMA/LFMB/LFX/LFMBA, D series, metal design

Product range overview D series service units, metal design

Type	Size	Bowl guard		Condensate drain			Pressure indication		Actuator lock		Supply voltage			Options			→ Page/ Internet
		Metal bowl guard	Plastic bowl	Manual rotary	Semi-automatic	Fully automatic	With pressure gauge	Without pressure gauge	Rotary knob with detent	Rotary knob with integrated lock	24 V DC	110 V AC	230 V AC	Directly actuated pressure regulator with integrated return flow function	Pilot actuated pressure regulator with integrated return flow function	Differential pressure indicator	
<b>Service units</b>																	
FRC/FRCS	Micro	-	■	■	■	-	■	■	■	-	-	-	-	-	-	-	frc
	Mini	■	-	■	-	■	■	■	■	■	-	-	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	-	-	-	■	■	-	
<b>Service unit combinations</b>																	
FRC-K	Micro	-															frc
	Mini	■	-	■	-	■	■	-	■	-	■	-	-	-	-	-	
	Midi	■	-	■	-	■	■	-	■	-	■	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	-	■	-	-	■	■	-	
LFR-K LFRS-K	Micro	-															lfr
	Mini	■	-	■	-	■	■	-	■	■	■	-	-	-	-	-	
	Midi	■	-	■	-	■	■	-	■	■	■	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	■	■	-	-	■	■	-	
<b>Individual devices</b>																	
Filter regulators LFR/LFRS	Micro	-	■	■	■	-	■	■	■	-	-	-	-	-	-	-	lfr
	Mini	■	-	■	-	■	■	■	■	■	-	-	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	-	-	-	■	■	-	
Filters LF	Micro	-	■	■	■	-	-	-	-	-	-	-	-	-	-	-	6
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	-	-	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	-	
Fine and micro filters LFMA/LFMB	Micro	-															14
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
Active carbon filters LFX	Micro	-															23
	Mini	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Midi	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Maxi	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Filter combinations LFMBA	Micro	-															29
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
Pressure regulators LR/LRS	Micro	-	-	-	-	-	■	■	■	-	-	-	-	-	-	-	lr
	Mini	-	-	-	-	-	■	■	■	■	-	-	-	■	-	-	
	Midi	-	-	-	-	-	■	■	■	■	-	-	-	■	-	-	
	Maxi	-	-	-	-	-	■	■	■	■	-	-	-	■	■	-	

# Filters LF/LFMA/LFMB/LFX/LFMBA, D series, metal design



Product range overview D series service units, metal design

Type	Size	Pneumatic connection										Pressure regulation range [bar]		
		M5	M7	G1/8	G1/4	G3/8	G1/2	G3/4	G1	QS4	QS6	0.5 ... 7	0.5 ... 12	
<b>Individual devices</b>														
Pressure regulators <b>LRB/LRBS</b>		Micro	-											
		Mini	-	-	-	■	-	-	-	-	-	-	■	■
		Midi	-	-	-	-	■	-	-	-	-	-	■	■
		Maxi	-											
Pressure regulator combinations <b>LRB-K</b>		Micro	-											
		Mini	-	-	-	■	■	-	-	-	-	-	■	■
		Midi	-	-	-	-	■	■	-	-	-	-	■	■
		Maxi	-											
Lubricators <b>LOE</b>		Micro	■	■	■	-	-	-	-	-	■	■	-	-
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
On-off valves <b>HE</b>		Micro	-											
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
On-off valves, electrical <b>HEE</b>		Micro	-											
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
On-off valves, pneumatic <b>HEP</b>		Micro	-											
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
Soft-start valves <b>HEL</b>		Micro	-											
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
Membrane air dryers <b>LDM1</b>		Micro	-											
		Mini	-											
		Midi	-											
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
Branching modules <b>FRM</b>		Micro	-											
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
Distributor block <b>FRZ</b>		Micro	-											
		Mini	-	-	-	-	-	-	-	-	-	-	-	-
		Midi	-	-	-	-	-	-	-	-	-	-	-	-
		Maxi	-	-	-	-	-	-	-	-	-	-	-	-

# Filters LF/LFMA/LFMB/LFX/LFMBA, D series, metal design

Product range overview D series service units, metal design

Type	Size	Bowl guard		Pressure indication		Actuator lock		Supply voltage			Options		→ Page/ Internet
		Metal bowl guard	Plastic bowl	With pressure gauge	Without pressure gauge	Rotary knob with detent	Rotary knob with integrated lock	24 V DC	110 V AC	230 V AC	Non-return function	Pressure switch	
<b>Individual devices</b>													
Pressure regulators <b>LRB/LRBS</b>	Micro	-	-	-	■	■	■	-	-	-	-	-	lrb
	Mini	-	-	-	■	■	■	-	-	-	-	-	
	Midi	-	-	-	■	■	■	-	-	-	-	-	
	Maxi	-	-	-	■	■	■	-	-	-	-	-	
Pressure regulator combinations <b>LRB-K</b>	Micro	-	-	-	■	■	-	-	-	-	-	-	lrb
	Mini	-	-	-	■	■	-	-	-	-	-	-	
	Midi	-	-	-	■	■	-	-	-	-	-	-	
	Maxi	-	-	-	■	■	-	-	-	-	-	-	
Lubricators <b>LOE</b>	Micro	-	■	-	■	-	-	-	-	-	-	-	loe
	Mini	■	-	-	■	-	-	-	-	-	-	-	
	Midi	■	-	-	■	-	-	-	-	-	-	-	
	Maxi	■	-	-	■	-	-	-	-	-	-	-	
On-off valves <b>HE</b>	Micro	-	-	-	■	■	-	-	-	-	-	-	he
	Mini	-	-	-	■	■	-	-	-	-	-	-	
	Midi	-	-	-	■	■	-	-	-	-	-	-	
	Maxi	-	-	-	■	■	-	-	-	-	-	-	
On-off valves, electrical <b>HEE</b>	Micro	-	-	-	■	-	-	■	■	■	-	-	hee
	Mini	-	-	-	■	-	-	■	■	■	-	-	
	Midi	-	-	-	■	-	-	■	■	■	-	-	
	Maxi	-	-	-	■	-	-	■	■	■	-	-	
On-off valves, pneumatic <b>HEP</b>	Micro	-	-	-	■	-	-	-	-	-	-	-	hep
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	-	-	-	■	-	-	-	-	-	-	-	
Soft-start valves <b>HEL</b>	Micro	-	-	-	■	-	-	-	-	-	-	-	hel
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	-	-	-	■	-	-	-	-	-	-	-	
Membrane air dryers <b>LDM1</b>	Micro	-	-	-	■	-	-	-	-	-	-	-	ldm1
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	■	-	-	■	-	-	-	-	-	-	-	
Branching modules <b>FRM</b>	Micro	-	-	-	■	-	-	-	-	-	■	■	frm
	Mini	-	-	-	■	-	-	-	-	-	■	■	
	Midi	-	-	-	■	-	-	-	-	-	■	■	
	Maxi	-	-	-	■	-	-	-	-	-	■	■	
Distributor block <b>FRZ</b>	Micro	-	-	-	■	-	-	-	-	-	-	-	frz
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	-	-	-	■	-	-	-	-	-	-	-	

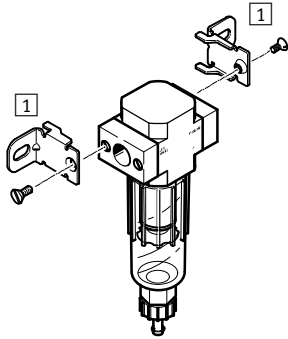
# Filters LF, D series, metal design

Peripherals overview

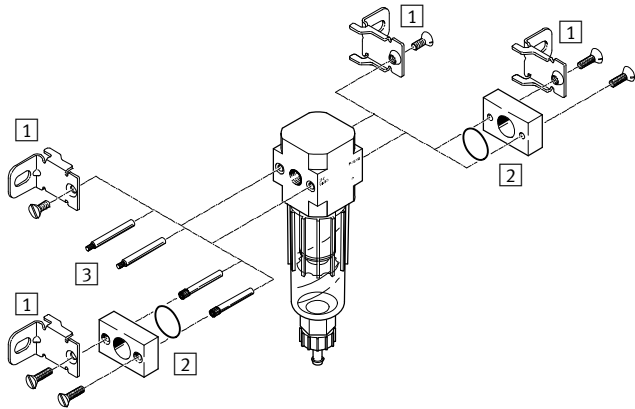


## Micro

Individual unit with connection plates,  
connection size G $\frac{1}{8}$ , QS-4 or QS-6



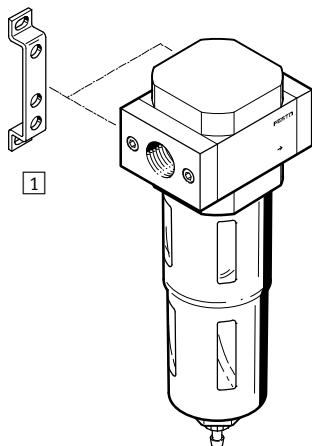
Individual unit without connection plates, for service unit combination  
connection thread M5 or M7 in housing



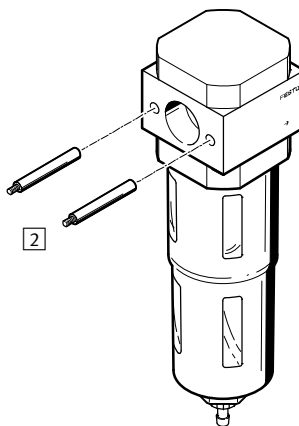
Mounting attachments and accessories					
	Individual unit		Combination		→ Page/ Internet
	with connection plates	without connection plates	with connection plates	without connection plates	
1 Mounting bracket HFOE	■	■	■	■	hfoe-d
2 Connecting plate kit PBL	-	■	-	■	pbl
3 Threaded pin FRB	-	-	■	■	frb-d

## Mini/Midi/Maxi

Individual unit with connection plates



Individual unit without connection plates, for service unit combination



Mounting attachments and accessories					
	Individual unit		Combination		→ Page/ Internet
	with connection plates	without connection plates	with connection plates	without connection plates	
1 Mounting bracket HFOE	■	-	■	-	hfoe-d
2 Threaded pin (included in scope of delivery) FRB	-	-	■	■	frb-d

# Filters LF, D series, metal design

Type codes

LF – 1/4 – D – 5M – MIDI – A

### Basic function

LF	Filter
----	--------

### Pneumatic connection

#### MINI/MIDI/MAXI

	Without connecting plates
--	---------------------------

#### MICRO

M5	Connecting thread M5 in housing
----	---------------------------------

M7	Connecting thread M7 in housing
----	---------------------------------

1/8	Connecting plates with connecting thread G1/8
-----	---

QS4	Connecting plates with push-in connector QS-4
-----	---

QS6	Connecting plates with push-in connector QS-6
-----	---

#### MINI

1/8	Connecting plates with connecting thread G1/8
-----	---

1/4	Connecting plates with connecting thread G1/4
-----	---

3/8	Connecting plates with connecting thread G3/8
-----	---

#### MIDI

1/4	Connecting plates with connecting thread G1/4
-----	---

3/8	Connecting plates with connecting thread G3/8
-----	---

1/2	Connecting plates with connecting thread G1/2
-----	---

3/4	Connecting plates with connecting thread G3/4
-----	---

#### MAXI

1/2	Connecting plates with connecting thread G1/2
-----	---

3/4	Connecting plates with connecting thread G3/4
-----	---

1	Connecting plates with connecting thread G1
---	---

### Series

D	Series
---	--------

### Grade of filtration

5M	5 µm
----	------

#### MINI/MIDI/MAXI

	40 µm
--	-------

### Size

MICRO	Grid dimension 25 mm (without connecting plates)
-------	--

MINI	Grid dimension 40 mm (without connecting plates)
------	--

MIDI	Grid dimension 55 mm (without connecting plates)
------	--

MAXI	Grid dimension 66 mm (without connecting plates)
------	--

### Condensate drain

	Manual rotary
--	---------------

#### MICRO

H	Semi-automatic
---	----------------

#### MINI/MIDI/MAXI

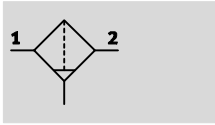
A	Fully automatic
---	-----------------

# Filters LF, D series, metal design

Technical data

FESTO

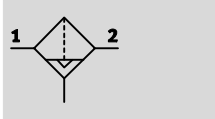
Manual rotary condensate drain



- - Flow rate  
170 ... 5,300 l/min

- - Temperature range  
-10 ... +60 °C

Semi or fully automatic condensate drain



- - Operating pressure  
0 ... 16 bar



- Good particle and condensate separation
- High flow rate with minimal pressure drop
- With or without connecting plates
- Choice of filter cartridges:  
5 µm or 40 µm
- With manual or fully automatic condensate drain
- New filter cartridges → 37

General technical data				
Size	Micro	Mini	Midi	Maxi
Pneumatic connection 1, 2 <sup>1)</sup>	M5 <sup>2)</sup> , M7 <sup>2)</sup> , G1/8, QS-4 <sup>3)</sup> , QS-6 <sup>3)</sup>	G1/8, G1/4, G3/8, - <sup>4)</sup>	G1/4, G3/8, G1/2, G3/4, - <sup>4)</sup>	G1/2, G3/4, G1, - <sup>4)</sup>
Design	Sintered filter with centrifugal separator			
Type of mounting	Via accessories			
	In-line installation			
Mounting position	Vertical ±5°			
Grade of filtration [µm]	5	5 40		
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [6:8:4] (grade of filtration 5 µm)			
	Compressed air according to ISO 8573-1:2010 [7:8:4] (grade of filtration 40 µm)			
	Inert gases			
Bowl guard	- Metal bowl guard			
Condensate drain	Manual rotary			
	Semi-automatic		Fully automatic	
Max. condensate volume [cm <sup>3</sup> ]	3	22	43	80

- 1) Connecting plates with connecting thread  
 2) Without connecting plates, connecting thread in housing  
 3) Connecting plates with push-in connector  
 4) Without connecting plates.  
 - - Note: This product conforms to ISO 1179-1 and to ISO 228-1

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]					
Size	Micro				
Pneumatic connection	M5	M7	G1/8	QS-4	QS-6
Grade of filtration 5 µm	170	280	290	170	280

- 1) Measured at  $p_1 = 6$  bar and  $\Delta p = 1$  bar.  
 - - 125 l/min must be available for the semi automatic condensate drain to close correctly.

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]										
Size	Mini			Midi				Maxi		
Pneumatic connection	G1/8	G1/4	G3/8	G1/4	G3/8	G1/2	G3/4	G1/2	G3/4	G1
Grade of filtration 5 µm	800	950	1,100	1,600	1,800	2,000	2,000	3,700	3,600	3,800
Grade of filtration 40 µm	1,000	1,200	1,400	1,900	2,700	3,000	3,000	4,400	5,000	5,300

- 1) Measured at  $p_1 = 6$  bar and  $\Delta p = 1$  bar.  
 - - 125 l/min must be available for the fully automatic condensate drain to close correctly.



# Filters LF, D series, metal design

Technical data

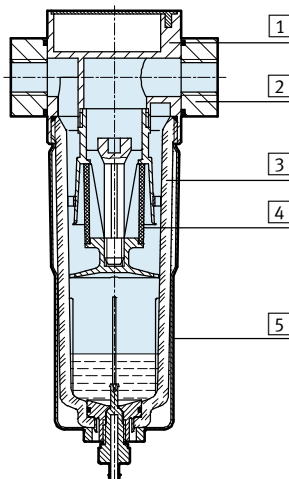
Operating and environmental conditions				
Condensate drain	Manual rotary		Semi-automatic	Fully automatic
Size	Micro	Mini/Midi/Maxi	Micro	Mini/Midi/Maxi
Operating pressure [bar]	0 ... 10	0 ... 16	1 ... 10	2 ... 12
Operating medium	Compressed air according to ISO 8573-1:2010 [–:9:–]	Compressed air according to ISO 8573-1:2010 [–:9:–]	Compressed air according to ISO 8573-1:2010 [–:9:–]	Compressed air according to ISO 8573-1:2010 [7:9:–]
	Inert gases			
Ambient temperature [°C]	–10 ... +60			+5 ... +60
Temperature of medium [°C]	–10 ... +60			+5 ... +60
Storage temperature [°C]	–10 ... +60			
Corrosion resistance class CRC <sup>1)</sup>	2			
Maritime classification	See certificate (pneumatic connection G1/8 ... G1) <sup>2)</sup>			

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
- 2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Weight [g]						
Size	Micro		Mini	Midi	Maxi	
	Connecting thread	Connecting plate			Connection G1/2, G3/4	Connection G1
Filter	44	64	250	700	1,340	1,440

## Materials

Sectional view



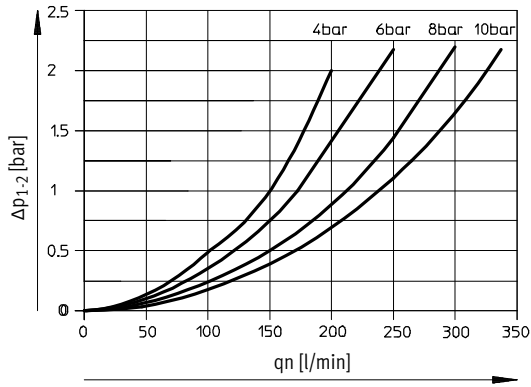
Filter	Micro	Mini/Midi/Maxi
1 Housing	Wrought aluminium alloy	Die-cast zinc
2 Connecting plates	Wrought aluminium alloy	Die-cast zinc/aluminium
3 Bowl	PC	
4 Filter cartridge	PE	
5 Metal bowl guard	–	Aluminium
– Seals	NBR	
Note on materials	RoHS-compliant	

# Filters LF, D series, metal design

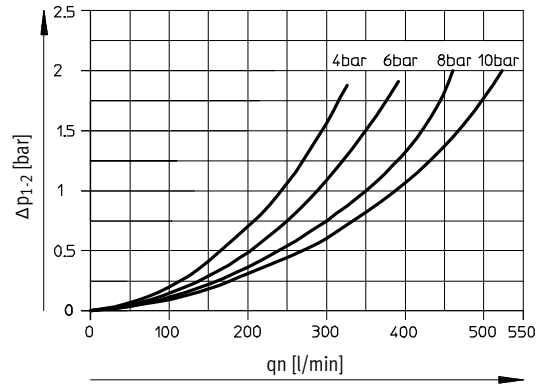
Technical data

## Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$

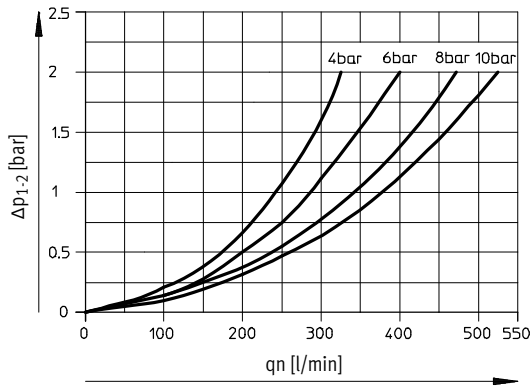
LF-M5-...-MICRO and LF-QS4-...-MICRO



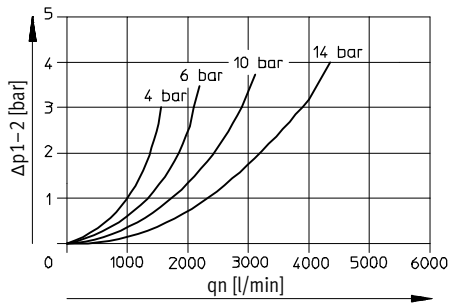
LF-1/8-...-MICRO



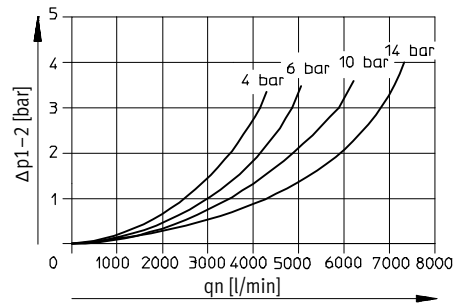
LF-M7-...-MICRO B and LF-QS6-...-MICRO



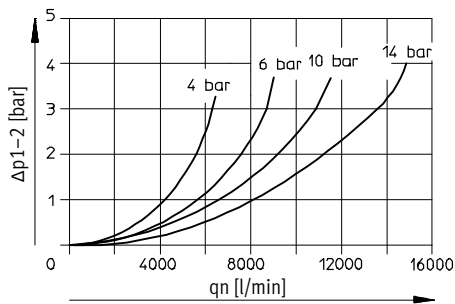
LF-1/4-D-MINI



LF-1/2-D-MIDI



LF-1-D-MAXI

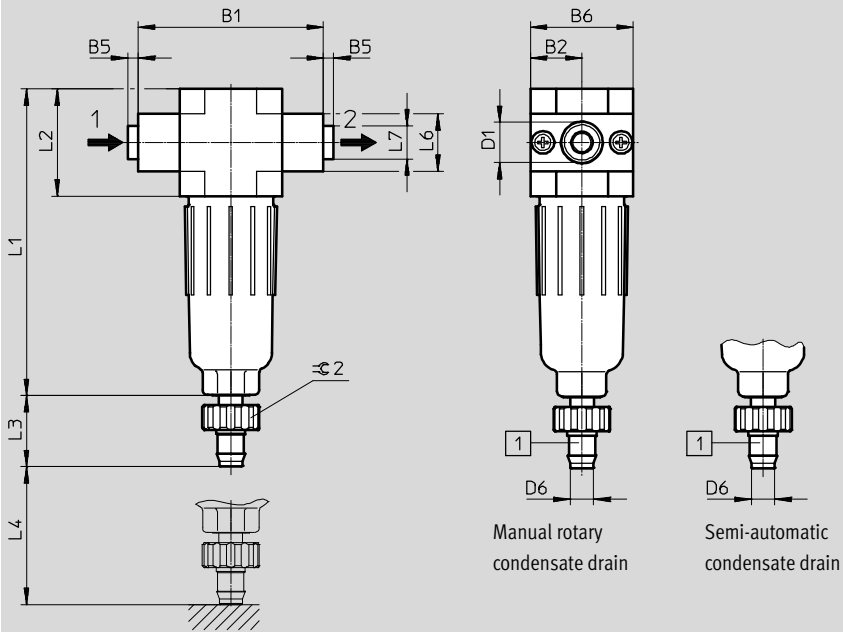


# Filters LF, D series, metal design

Technical data

Dimensions – Micro

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



1 Barbed fitting for plastic tubing  
PUN(-H)-8x1,25

→ Flow direction

Type	B1	B2	B5	B6	D1	D6 Ø	L1	L2	L3	L4 min.	L6	L7	≈ 2
LF-M5-D-5M-MICRO (H)	25	12.5	-	25	M5	5.6	74.5	26	~17.3	60	14	-	12
LF-M7-D-5M-MICRO (H) B					M7								
LF-1/8-D-5M-MICRO (H)	45	12.5	~2.5	25	G1/8	5.6	74.5	26	~17.3	60	14	~8	12
LF-QS4-D-5M-MICRO (H)					QS-4							~10	
LF-QS6-D-5M-MICRO (H)					QS-6							~10	

- Note: This product conforms to ISO 1179-1 and to ISO 228-1

# Filters LF, D series, metal design

Technical data

FESTO

Dimensions – Mini/Midi/Maxi Download CAD data → [www.festo.com](http://www.festo.com)

Connecting plates with connecting thread Without connecting plates

1 Barbed fitting for plastic tubing PUN(-H)-8x1,25      2 Metal bowl guard      4 Threaded pin (exchangeable)      → Flow direction

3 Installation dimensions

Type	B1	B2	B3	B4	B5	D1	D2	D3	D6	H1	H2	L1	L2	L3	L8	L9	T1	T2	⊕ 2
<b>Mini</b>																			
LF-1/8-D-MINI	64	52	40	30	-	G1/8	-	M4	38	20	11	144	124	60	15	19	7	-	22
LF-1/4-D-MINI	70					G3/8											-	-	
LF-3/8-D-MINI	-	-	-	-	5.8	-	11	-	-	-	-	-	-	-	-	-	-	10	-
LF-D-MINI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Midi</b>																			
LF-1/4-D-MIDI	85	70	55	43	-	G1/4	-	M5	52	32	22	179	151	80	15	19	8	-	24
LF-3/8-D-MIDI						G3/8													
LF-1/2-D-MIDI						G1/2													
LF-3/4-D-MIDI						G3/4													
LF-D-MIDI	-	-	-	-	6.8	-	24	-	-	-	-	-	-	-	-	-	-	11	-
<b>Maxi</b>																			
LF-1/2-D-MAXI	96	80	66	46	-	G1/2	-	M5	65	32	22	203	170	90	15	19	8	-	24
LF-3/4-D-MAXI	116	91				G3/4													
LF-1-D-MAXI	-	-				G1													
LF-D-MAXI	-	-	-	-	6.8	-	30	-	-	-	-	-	-	-	-	-	-	11	-

◆ Note: This product conforms to ISO 1179-1 and to ISO 228-1

# Filters LF, D series, metal design

Technical data

Ordering data – Micro					
Size	Condensate drain	Connection	Grade of filtration 5 µm		
			Part No.	Type	
Without connecting plates, connecting thread in housing					
Micro	Manual rotary	M5	526297	LF-M5-D-5M-MICRO	
		M7	534182	LF-M7-D-5M-MICRO-B	
	Semi-automatic	M5	526298	LF-M5-D-5M-MICRO-H	
		M7	534183	LF-M7-D-5M-MICRO-H-B	
Connecting plates with connecting thread					
Micro	Manual rotary	G $\frac{1}{8}$	526299	LF- $\frac{1}{8}$ -D-5M-MICRO	
	Semi-automatic	G $\frac{1}{8}$	526300	LF- $\frac{1}{8}$ -D-5M-MICRO-H	
Connecting plates with push-in connector					
Micro	Manual rotary	QS-4	526305	LF-QS4-D-5M-MICRO	
		QS-6	526307	LF-QS6-D-5M-MICRO	
	Semi-automatic	QS-4	526306	LF-QS4-D-5M-MICRO-H	
		QS-6	526308	LF-QS6-D-5M-MICRO-H	

Ordering data – Mini/Midi/Maxi						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Without connecting plates						
Mini	Manual rotary	–	192557	LF-D-5M-MINI	192551	LF-D-MINI
	Fully automatic	–	192560	LF-D-5M-MINI-A	192554	LF-D-MINI-A
Midi	Manual rotary	–	192558	LF-D-5M-MIDI	192552	LF-D-MIDI
	Fully automatic	–	192561	LF-D-5M-MIDI-A	192555	LF-D-MIDI-A
Maxi	Manual rotary	–	192559	LF-D-5M-MAXI	192553	LF-D-MAXI
	Fully automatic	–	192562	LF-D-5M-MAXI-A	192556	LF-D-MAXI-A
Connecting plates with connecting thread						
Mini	Manual rotary	G $\frac{1}{8}$	162610	LF- $\frac{1}{8}$ -D-5M-MINI	159612	LF- $\frac{1}{8}$ -D-MINI
		G $\frac{1}{4}$	162611	LF- $\frac{1}{4}$ -D-5M-MINI	159613	LF- $\frac{1}{4}$ -D-MINI
		G $\frac{3}{8}$	162612	LF- $\frac{3}{8}$ -D-5M-MINI	162606	LF- $\frac{3}{8}$ -D-MINI
	Fully automatic	G $\frac{1}{8}$	162618	LF- $\frac{1}{8}$ -D-5M-MINI-A	159616	LF- $\frac{1}{8}$ -D-MINI-A
		G $\frac{1}{4}$	162619	LF- $\frac{1}{4}$ -D-5M-MINI-A	159617	LF- $\frac{1}{4}$ -D-MINI-A
		G $\frac{3}{8}$	162620	LF- $\frac{3}{8}$ -D-5M-MINI-A	162608	LF- $\frac{3}{8}$ -D-MINI-A
Midi	Manual rotary	G $\frac{1}{4}$	186460	LF- $\frac{1}{4}$ -D-5M-MIDI	186459	LF- $\frac{1}{4}$ -D-MIDI
		G $\frac{3}{8}$	162613	LF- $\frac{3}{8}$ -D-5M-MIDI	159576	LF- $\frac{3}{8}$ -D-MIDI
		G $\frac{1}{2}$	162614	LF- $\frac{1}{2}$ -D-5M-MIDI	159578	LF- $\frac{1}{2}$ -D-MIDI
		G $\frac{3}{4}$	162615	LF- $\frac{3}{4}$ -D-5M-MIDI	162607	LF- $\frac{3}{4}$ -D-MIDI
	Fully automatic	G $\frac{1}{4}$	186462	LF- $\frac{1}{4}$ -D-5M-MIDI-A	186461	LF- $\frac{1}{4}$ -D-MIDI-A
		G $\frac{3}{8}$	162621	LF- $\frac{3}{8}$ -D-5M-MIDI-A	159577	LF- $\frac{3}{8}$ -D-MIDI-A
		G $\frac{1}{2}$	162622	LF- $\frac{1}{2}$ -D-5M-MIDI-A	159579	LF- $\frac{1}{2}$ -D-MIDI-A
		G $\frac{3}{4}$	162623	LF- $\frac{3}{4}$ -D-5M-MIDI-A	162609	LF- $\frac{3}{4}$ -D-MIDI-A
Maxi	Manual rotary	G $\frac{1}{2}$	186464	LF- $\frac{1}{2}$ -D-5M-MAXI	186463	LF- $\frac{1}{2}$ -D-MAXI
		G $\frac{3}{4}$	162616	LF- $\frac{3}{4}$ -D-5M-MAXI	159614	LF- $\frac{3}{4}$ -D-MAXI
		G1	162617	LF-1-D-5M-MAXI	159615	LF-1-D-MAXI
	Fully automatic	G $\frac{1}{2}$	186466	LF- $\frac{1}{2}$ -D-5M-MAXI-A	186465	LF- $\frac{1}{2}$ -D-MAXI-A
		G $\frac{3}{4}$	162624	LF- $\frac{3}{4}$ -D-5M-MAXI-A	159618	LF- $\frac{3}{4}$ -D-MAXI-A
		G1	162625	LF-1-D-5M-MAXI-A	159619	LF-1-D-MAXI-A

# Fine and micro filters LFMA/LFMB, D series, metal design

Peripherals overview

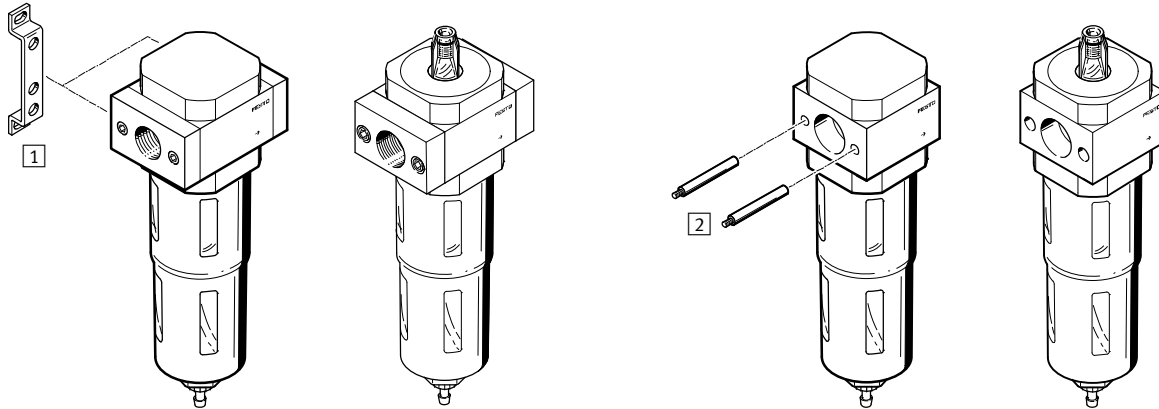
## Mini/Midi/Maxi

Individual unit with connection plates without differential pressure indicator

with differential pressure indicator

Individual unit without connection plates, for service unit combination without differential pressure indicator

with differential pressure indicator



Mounting attachments and accessories					
	Individual unit		Combination		→ Page/ Internet
	with connection plates	without connection plates	with connection plates	without connection plates	
1 Mounting bracket HFOE	■	-	■	-	hfoe-d
2 Threaded pin (included in scope of delivery) FRB	-	-	■	■	frb-d

# Fine and micro filters LFMA/LFMB, D series, metal design

Type codes

LFMB – 1/4 – D – MIDI – DA – A

**Basic function**

LFMA	Micro filter with grade of filtration 0.01 µm
LFMB	Fine filter with grade of filtration 1 µm

**Pneumatic connection**

MINI/MIDI/MAXI	
	Without connecting plates

**MINI**

1/8	Connecting plates with connecting thread G1/8
1/4	Connecting plates with connecting thread G1/4
3/8	Connecting plates with connecting thread G3/8

**MIDI**

1/4	Connecting plates with connecting thread G1/4
3/8	Connecting plates with connecting thread G3/8
1/2	Connecting plates with connecting thread G1/2
3/4	Connecting plates with connecting thread G3/4

**MAXI**

1/2	Connecting plates with connecting thread G1/2
3/4	Connecting plates with connecting thread G3/4
1	Connecting plates with connecting thread G1

**Series**

D	Series
---	--------

**Size**

MINI	Grid dimension 40 mm (without connecting plates)
MIDI	Grid dimension 55 mm (without connecting plates)
MAXI	Grid dimension 66 mm (without connecting plates)

**Filter contamination sensing**

	Without differential pressure indicator
DA	With differential pressure indicator

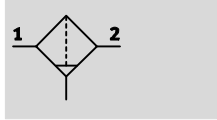
**Condensate drain**

	Manual rotary
A	Fully automatic

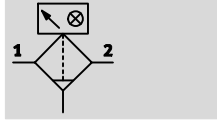
# Fine and micro filters LFMA/LFMB, D series, metal design

Technical data

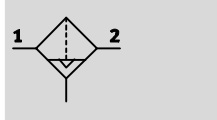
Manual rotary condensate drain,  
without differential pressure indicator



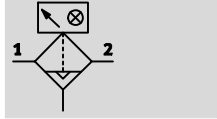
with differential pressure indicator






Fully automatic condensate drain,  
without differential pressure indicator



with differential pressure indicator



-  Flow rate  
80 ... 2,780 l/min
-  Temperature range  
-10 ... +60 °C
-  Operating pressure  
1 ... 16 bar




- High-efficiency filter for special requirements
- Air quality to ISO 8573-1:2010
- With or without connecting plates
- Version with differential pressure indicator for optical indication of filter contamination
- Choice of filter cartridges: 0.01 µm or 1 µm
- New filter cartridges → 37

General technical data			
Size	Mini	Midi	Maxi
Pneumatic connection 1, 2 <sup>1)</sup>	G1/8, G1/4, G3/8, - <sup>2)</sup>	G1/4, G3/8, G1/2, G3/4, - <sup>2)</sup>	G1/2, G3/4, G1, - <sup>2)</sup>
Design	Fibre filter		
Type of mounting	Via accessories In-line installation		
Mounting position	Vertical ±5°		
Grade of filtration [µm]	0.01 (micro filter LFMA) 1 (fine filter LFMB)		
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [1:7:2] (micro filter LFMA) Compressed air according to ISO 8573-1:2010 [5:7:3] (fine filter LFMB) Inert gases		
Filter efficiency [%]	99.9999 (grade of filtration 0.01 µm, micro filter LFMA) 99.99 (grade of filtration 1 µm, fine filter LFMB)		
Bowl guard	Metal bowl guard		
Condensate drain	Manual rotary Fully automatic		
Differential pressure indicator	Visual indicator		
Residual oil content [mg/m³]	≤0.01 (micro filter LFMA) ≤0.5 (fine filter LFMB)		
Max. condensate volume [cm³]	22	43	80

1) Connecting plates with connecting thread

2) Without connecting plates.

-  Note: This product conforms to ISO 1179-1 and to ISO 228-1



# Fine and micro filters LFMA/LFMB, D series, metal design

Technical data

Standard flow rate $q_n^{1)}$ [l/min]										
Size	Mini			Midi				Maxi		
Pneumatic connection 1, 2	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$	G $\frac{1}{2}$	G $\frac{3}{4}$	G1
<b>Micro filter LFMA</b>										
Max. standard flow rate for air purity class $q_{n \max}$	360	410	450	740	880	1,120	1,110	1,500	1,900	2,200
Min. standard flow rate for air purity class $q_{n \min}$	80	100	100	240	250	330	300	500	500	480
<b>Fine filter LFMB</b>										
Max. standard flow rate for air purity class $q_{n \max}$	500	650	675	900	1,420	1,750	1,980	2,400	2,220	2,780
Min. standard flow rate for air purity class $q_{n \min}$	150	150	125	350	500	500	600	800	750	620

1) Measured at  $p_1 = 6$  bar.

-  $\ddagger$  - 125 l/min must be available for the fully automatic condensate drain to close correctly.

Operating and environmental conditions		
Condensate drain	Manual rotary	Fully automatic
Operating pressure [bar]	1 ... 16	2 ... 12
Operating medium	Compressed air according to ISO 8573-1:2010 [6:8:4] <sup>1)</sup>	
	Inert gases	
Ambient temperature [°C]	-10 ... +60	+5 ... +60
Temperature of medium [°C]	+1.5 ... +60	+5 ... +60
Storage temperature [°C]	-10 ... +60	
Corrosion resistance class CRC <sup>2)</sup>	2	

1) It is recommended to prefilter the compressed air for the micro filter LFMA using a fine filter LFMB (grade of filtration 1  $\mu$ m).

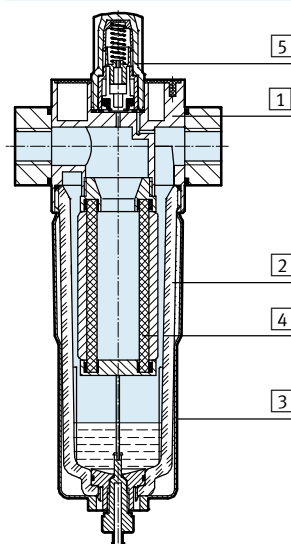
2) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Weight [g]			
Size	Mini	Midi	Maxi
Without differential pressure indicator	250	650	1,200
With differential pressure indicator	368	834	1,340

## Materials

Sectional view



Fine and micro filters		
1	Housing	Die-cast zinc
2	Bowl	PC
3	Metal bowl guard	Aluminium
4	Filter	Borosilicate fibre
5	Housing for version with differential pressure indicator	PC
-	Seals	NBR
Note on materials		RoHS-compliant
		Free of copper and PTFE

# Fine and micro filters LFMA/LFMB, D series, metal design

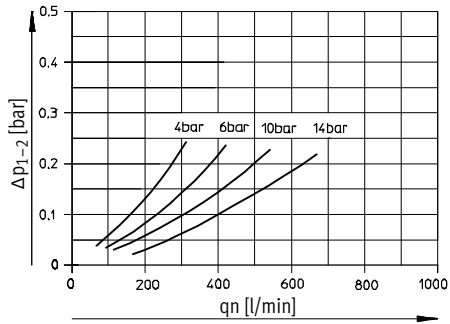
Technical data

## Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$

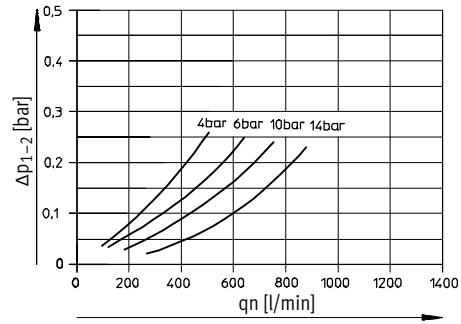
Grade of filtration 0.01  $\mu\text{m}$

Grade of filtration 1  $\mu\text{m}$

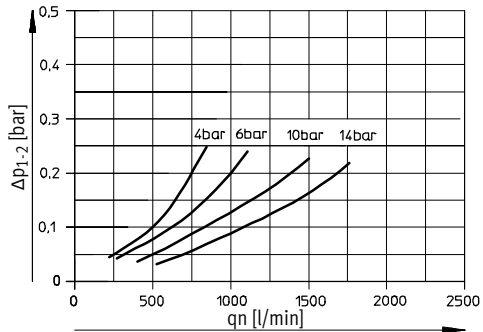
### LFMA-1/4-D-MINI



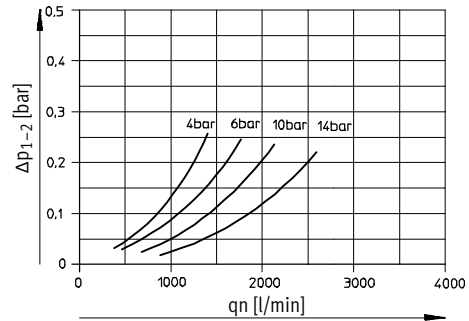
### LFMB-1/4-D-MINI



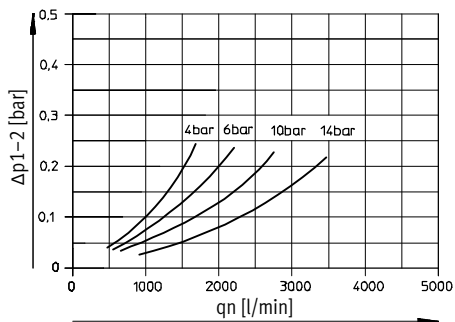
### LFMA-1/2-D-MIDI



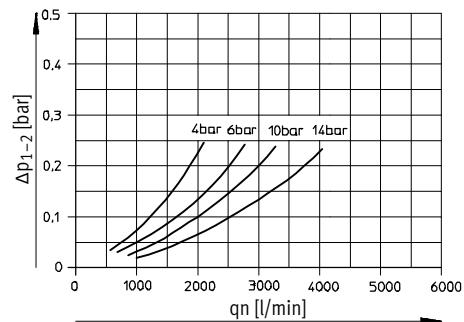
### LFMB-1/2-D-MIDI



### LFMA-1-D-MAXI



### LFMB-1-D-MAXI



# Fine and micro filters LFMA/LFMB, D series, metal design

Technical data

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

Connecting plates with connecting thread Without connecting plates

1 Barbed fitting for plastic tubing PUN(-H)-8x1,25    2 Metal bowl guard    4 Threaded pin (exchangeable)    → Flow direction

3 Installation dimensions

Type	B1	B2	B3	B4	B5	D1	D2	D3	D6	H1	H2	L1	L2	L3	L8	L9	T1	T2	∅ 2
<b>Mini</b>																			
LFMB/A-1/8-D-MINI	64	52	40	30	-	G1/8	-	M4	38	20	11	144	124	60	15	19	7	-	22
LFMB/A-1/4-D-MINI						G3/8													
LFMB/A-3/8-D-MINI	70																		
LFMB/A-D-MINI	-	-			5.8	-	11											10	
<b>Midi</b>																			
LFMB/A-1/4-D-MIDI	85	70	55	43	-	G1/4	-	M5	52	32	22	179	151	80	15	19	8	-	24
LFMB/A-3/8-D-MIDI						G3/8													
LFMB/A-1/2-D-MIDI						G1/2													
LFMB/A-3/4-D-MIDI						G3/4													
LFMB/A-D-MIDI	-	-			6.8	-	24											11	
<b>Maxi</b>																			
LFMB/A-1/2-D-MAXI	96	80	66	46	-	G1/2	-	M5	65	32	22	203	170	90	15	19	8	-	24
LFMB/A-3/4-D-MAXI						G3/4													
LFMB/A-1-D-MAXI	116	91								40									
LFMB/A-D-MAXI	-	-			6.8	-	30											11	

• Note: This product conforms to ISO 1179-1 and to ISO 228-1

# Fine and micro filters LFMA/LFMB, D series, metal design

Technical data

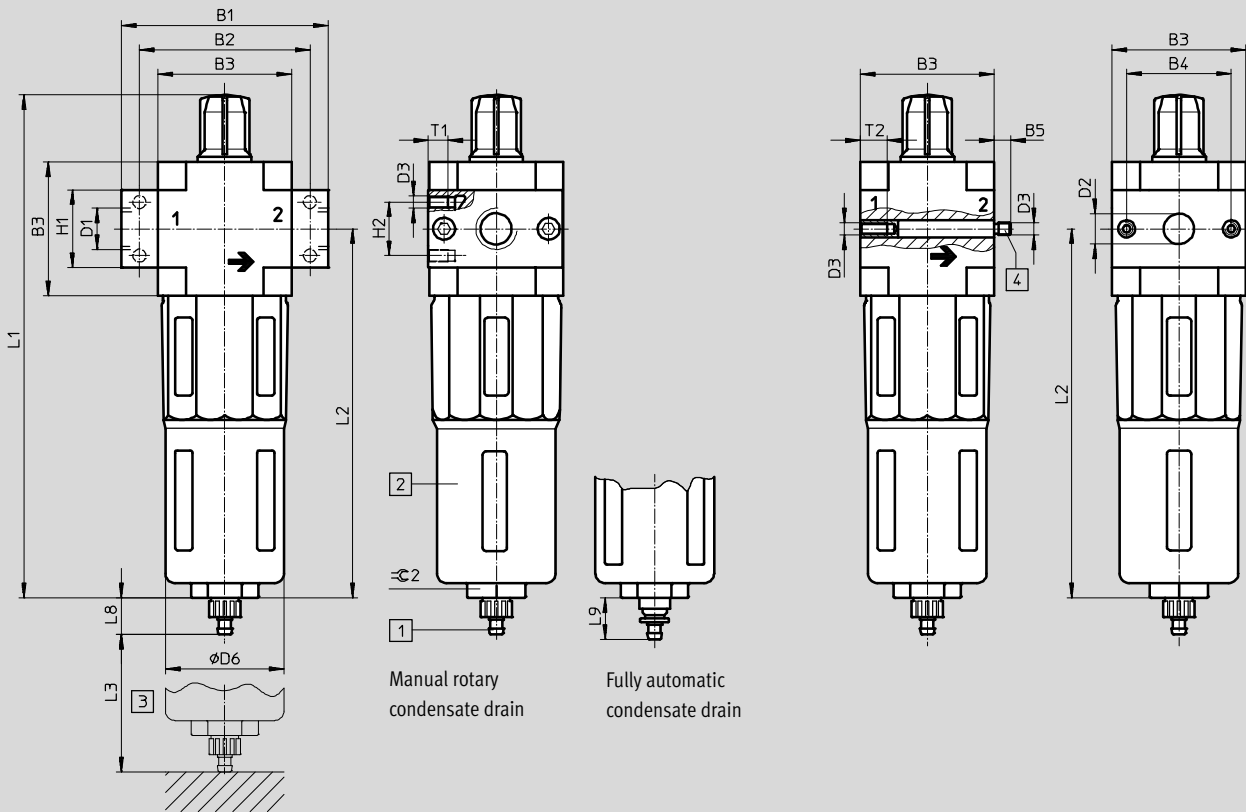
FESTO

Dimensions with differential pressure indicator DA

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

Connecting plates with connecting thread

Without connecting plates



- 1 Barbed fitting for plastic tubing PUN(-H)-8x1,25
- 2 Metal bowl guard
- 3 Installation dimensions
- 4 Threaded pin (exchangeable)
- Flow direction

Type	B1	B2	B3	B4	B5	D1	D2	D3	D6	H1	H2	L1	L2	L3	L8	L9	T1	T2	≈C 2
<b>Mini</b>																			
LFMB/A-1/8-D-MINI-DA	64	52	40	30	-	G1/8	-	M4	38	20	11	173	124	60	15	19	7	-	22
LFMB/A-1/4-D-MINI-DA					G3/8														
LFMB/A-3/8-D-MINI-DA	70					G3/8													
LFMB/A-D-MINI-DA	-	-			5.8	-	11			-	-						-	10	
<b>Midi</b>																			
LFMB/A-1/4-D-MIDI-DA	85	70	55	43	-	G1/4	-	M5	52	32	22	207	151	80	15	19	8	-	24
LFMB/A-3/8-D-MIDI-DA					G3/8														
LFMB/A-1/2-D-MIDI-DA					G1/2														
LFMB/A-3/4-D-MIDI-DA					G3/4														
LFMB/A-D-MIDI-DA	-	-			6.8	-	24			-	-						-	11	
<b>Maxi</b>																			
LFMB/A-1/2-D-MAXI-DA	96	80	66	46	-	G1/2	-	M5	65	32	22	232	170	90	15	19	8	-	24
LFMB/A-3/4-D-MAXI-DA					G3/4														
LFMB/A-1-D-MAXI-DA	116	91				G1				40									
LFMB/A-D-MAXI-DA	-	-			6.8	-	30			-	-						-	11	

• Note: This product conforms to ISO 1179-1 and to ISO 228-1

# Fine and micro filters LFMA/LFMB, D series, metal design

Technical data

Ordering data – Micro filter LFMA					
Grade of filtration 0.01 µm, metal bowl guard					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Without connecting plates					
Mini	–	192563	LFMA-D-MINI	192566	LFMA-D-MINI-A
Midi	–	192564	LFMA-D-MIDI	192567	LFMA-D-MIDI-A
Maxi	–	192565	LFMA-D-MAXI	192568	LFMA-D-MAXI-A
Connecting plates with connecting thread					
Mini	G $\frac{1}{8}$	162642	LFMA- $\frac{1}{8}$ -D-MINI	162650	LFMA- $\frac{1}{8}$ -D-MINI-A
	G $\frac{1}{4}$	162643	LFMA- $\frac{1}{4}$ -D-MINI	162651	LFMA- $\frac{1}{4}$ -D-MINI-A
	G $\frac{3}{8}$	162644	LFMA- $\frac{3}{8}$ -D-MINI	162652	LFMA- $\frac{3}{8}$ -D-MINI-A
Midi	G $\frac{1}{4}$	186469	LFMA- $\frac{1}{4}$ -D-MIDI	186470	LFMA- $\frac{1}{4}$ -D-MIDI-A
	G $\frac{3}{8}$	162645	LFMA- $\frac{3}{8}$ -D-MIDI	162653	LFMA- $\frac{3}{8}$ -D-MIDI-A
	G $\frac{1}{2}$	162646	LFMA- $\frac{1}{2}$ -D-MIDI	162654	LFMA- $\frac{1}{2}$ -D-MIDI-A
	G $\frac{3}{4}$	162647	LFMA- $\frac{3}{4}$ -D-MIDI	162655	LFMA- $\frac{3}{4}$ -D-MIDI-A
Maxi	G $\frac{1}{2}$	186476	LFMA- $\frac{1}{2}$ -D-MAXI	186475	LFMA- $\frac{1}{2}$ -D-MAXI-A
	G $\frac{3}{4}$	162648	LFMA- $\frac{3}{4}$ -D-MAXI	162656	LFMA- $\frac{3}{4}$ -D-MAXI-A
	G1	162649	LFMA-1-D-MAXI	162657	LFMA-1-D-MAXI-A

Ordering data – Fine filter LFMB					
Grade of filtration 1 µm, metal bowl guard					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Without connecting plates					
Mini	–	192569	LFMB-D-MINI	192572	LFMB-D-MINI-A
Midi	–	192570	LFMB-D-MIDI	192573	LFMB-D-MIDI-A
Maxi	–	192571	LFMB-D-MAXI	192574	LFMB-D-MAXI-A
Connecting plates with connecting thread					
Mini	G $\frac{1}{8}$	162626	LFMB- $\frac{1}{8}$ -D-MINI	162634	LFMB- $\frac{1}{8}$ -D-MINI-A
	G $\frac{1}{4}$	162627	LFMB- $\frac{1}{4}$ -D-MINI	162635	LFMB- $\frac{1}{4}$ -D-MINI-A
	G $\frac{3}{8}$	162628	LFMB- $\frac{3}{8}$ -D-MINI	162636	LFMB- $\frac{3}{8}$ -D-MINI-A
Midi	G $\frac{1}{4}$	186467	LFMB- $\frac{1}{4}$ -D-MIDI	186468	LFMB- $\frac{1}{4}$ -D-MIDI-A
	G $\frac{3}{8}$	162629	LFMB- $\frac{3}{8}$ -D-MIDI	162637	LFMB- $\frac{3}{8}$ -D-MIDI-A
	G $\frac{1}{2}$	162630	LFMB- $\frac{1}{2}$ -D-MIDI	162638	LFMB- $\frac{1}{2}$ -D-MIDI-A
	G $\frac{3}{4}$	162631	LFMB- $\frac{3}{4}$ -D-MIDI	162639	LFMB- $\frac{3}{4}$ -D-MIDI-A
Maxi	G $\frac{1}{2}$	186473	LFMB- $\frac{1}{2}$ -D-MAXI	186474	LFMB- $\frac{1}{2}$ -D-MAXI-A
	G $\frac{3}{4}$	162632	LFMB- $\frac{3}{4}$ -D-MAXI	162640	LFMB- $\frac{3}{4}$ -D-MAXI-A
	G1	162633	LFMB-1-D-MAXI	162641	LFMB-1-D-MAXI-A

# Fine and micro filters LFMA/LFMB, D series, metal design

FESTO

Technical data

Ordering data – Micro filter LFMA with differential pressure indicator DA					
Grade of filtration 0.01 µm, metal bowl guard					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Without connecting plates					
Mini	–	532837	LFMA-D-MINI-DA	532840	LFMA-D-MINI-DA-A
Midi	–	532838	LFMA-D-MIDI-DA	532841	LFMA-D-MIDI-DA-A
Maxi	–	532839	LFMA-D-MAXI-DA	532842	LFMA-D-MAXI-DA-A
Connecting plates with connecting thread					
Mini	G $\frac{1}{8}$	532843	LFMA- $\frac{1}{8}$ -D-MINI-DA	532853	LFMA- $\frac{1}{8}$ -D-MINI-DA-A
	G $\frac{1}{4}$	532844	LFMA- $\frac{1}{4}$ -D-MINI-DA	532854	LFMA- $\frac{1}{4}$ -D-MINI-DA-A
	G $\frac{3}{8}$	532845	LFMA- $\frac{3}{8}$ -D-MINI-DA	532855	LFMA- $\frac{3}{8}$ -D-MINI-DA-A
Midi	G $\frac{1}{4}$	532846	LFMA- $\frac{1}{4}$ -D-MIDI-DA	532856	LFMA- $\frac{1}{4}$ -D-MIDI-DA-A
	G $\frac{3}{8}$	532847	LFMA- $\frac{3}{8}$ -D-MIDI-DA	532857	LFMA- $\frac{3}{8}$ -D-MIDI-DA-A
	G $\frac{1}{2}$	532848	LFMA- $\frac{1}{2}$ -D-MIDI-DA	532858	LFMA- $\frac{1}{2}$ -D-MIDI-DA-A
	G $\frac{3}{4}$	532849	LFMA- $\frac{3}{4}$ -D-MIDI-DA	532859	LFMA- $\frac{3}{4}$ -D-MIDI-DA-A
Maxi	G $\frac{1}{2}$	532850	LFMA- $\frac{1}{2}$ -D-MAXI-DA	532860	LFMA- $\frac{1}{2}$ -D-MAXI-DA-A
	G $\frac{3}{4}$	532851	LFMA- $\frac{3}{4}$ -D-MAXI-DA	532861	LFMA- $\frac{3}{4}$ -D-MAXI-DA-A
	G1	532852	LFMA-1-D-MAXI-DA	532862	LFMA-1-D-MAXI-DA-A

Ordering data – Fine filter LFMB with differential pressure indicator DA					
Grade of filtration 1 µm, metal bowl guard					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Without connecting plates					
Mini	–	532811	LFMB-D-MINI-DA	532814	LFMB-D-MINI-DA-A
Midi	–	532812	LFMB-D-MIDI-DA	532815	LFMB-D-MIDI-DA-A
Maxi	–	532813	LFMB-D-MAXI-DA	532816	LFMB-D-MAXI-DA-A
Connecting plates with connecting thread					
Mini	G $\frac{1}{8}$	532817	LFMB- $\frac{1}{8}$ -D-MINI-DA	532827	LFMB- $\frac{1}{8}$ -D-MINI-DA-A
	G $\frac{1}{4}$	532818	LFMB- $\frac{1}{4}$ -D-MINI-DA	532828	LFMB- $\frac{1}{4}$ -D-MINI-DA-A
	G $\frac{3}{8}$	532819	LFMB- $\frac{3}{8}$ -D-MINI-DA	532829	LFMB- $\frac{3}{8}$ -D-MINI-DA-A
Midi	G $\frac{1}{4}$	532820	LFMB- $\frac{1}{4}$ -D-MIDI-DA	532830	LFMB- $\frac{1}{4}$ -D-MIDI-DA-A
	G $\frac{3}{8}$	532821	LFMB- $\frac{3}{8}$ -D-MIDI-DA	532831	LFMB- $\frac{3}{8}$ -D-MIDI-DA-A
	G $\frac{1}{2}$	532822	LFMB- $\frac{1}{2}$ -D-MIDI-DA	532832	LFMB- $\frac{1}{2}$ -D-MIDI-DA-A
	G $\frac{3}{4}$	532823	LFMB- $\frac{3}{4}$ -D-MIDI-DA	532833	LFMB- $\frac{3}{4}$ -D-MIDI-DA-A
Maxi	G $\frac{1}{2}$	532824	LFMB- $\frac{1}{2}$ -D-MAXI-DA	532834	LFMB- $\frac{1}{2}$ -D-MAXI-DA-A
	G $\frac{3}{4}$	532825	LFMB- $\frac{3}{4}$ -D-MAXI-DA	532835	LFMB- $\frac{3}{4}$ -D-MAXI-DA-A
	G1	532826	LFMB-1-D-MAXI-DA	532836	LFMB-1-D-MAXI-DA-A

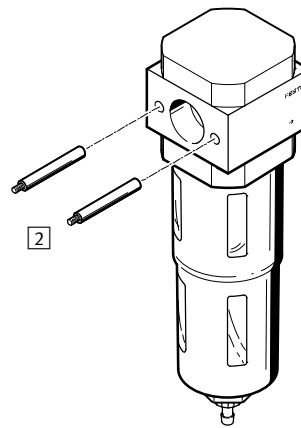
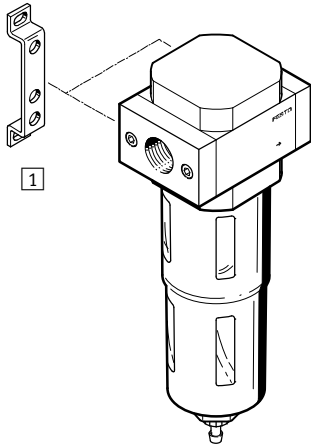
# Active carbon filters LFX, D series, metal design

Peripherals overview

**Mini/Midi/Maxi**

Individual unit with connection plates

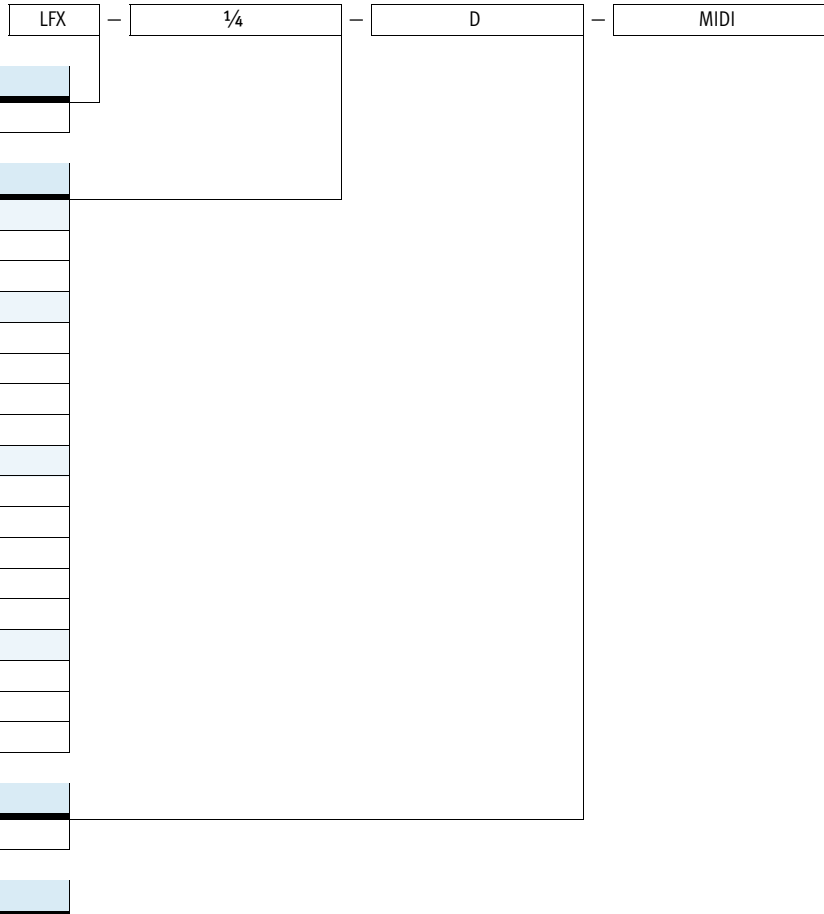
Individual unit without connection plates, for service unit combination



Mounting attachments and accessories					
	Individual unit		Combination		→ Page/ Internet
	with connection plates	without connection plates	with connection plates	without connection plates	
1 Mounting bracket HFOE	■	-	■	-	hfoe-d
2 Threaded pin (included in scope of delivery) FRB	-	-	■	■	frb-d

# Activated carbon filters LFX, D series, metal design

Type codes



Basic function	
LFX	Activated carbon filter

Pneumatic connection	
MINI/MIDI/MAXI	
	Without connecting plates
MINI	
1/8	Connecting plates with connecting thread G1/8
1/4	Connecting plates with connecting thread G1/4
3/8	Connecting plates with connecting thread G3/8
MIDI	
1/4	Connecting plates with connecting thread G1/4
3/8	Connecting plates with connecting thread G3/8
1/2	Connecting plates with connecting thread G1/2
3/4	Connecting plates with connecting thread G3/4
MAXI	
1/2	Connecting plates with connecting thread G1/2
3/4	Connecting plates with connecting thread G3/4
1	Connecting plates with connecting thread G1

Series	
D	Series

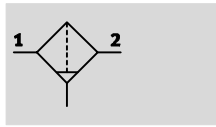
Size	
MINI	Grid dimension 40 mm (without connecting plates)
MIDI	Grid dimension 55 mm (without connecting plates)
MAXI	Grid dimension 66 mm (without connecting plates)



# Activated carbon filters LFX, D series, metal design

Technical data

Function



- - Flow rate  
360 ... 1,100 l/min
- - Temperature range  
-10 ... +60 °C
- - Operating pressure  
0 ... 16 bar



- Removal of liquid and gaseous oil particles from compressed air using activated carbon
- Activated carbon filter cartridges provide odour and oil-free air to food industry standard
- With or without connecting plates
- Prefiltration down to a particle size of 0.01 µm is recommended
- New filter cartridges → 37

General technical data			
Size	Mini	Midi	Maxi
Pneumatic connection 1, 2 <sup>1)</sup>	G1/8, G1/4, G3/8, - <sup>2)</sup>	G1/4, G3/8, G1/2, G3/4, - <sup>2)</sup>	G1/2, G3/4, G1, - <sup>2)</sup>
Design	Fibre filter (filter fabric made of activated carbon)		
Type of mounting	Via accessories In-line installation		
Mounting position	Vertical ±5°		
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [1:4:1] Inert gases		
Bowl guard	Metal bowl guard		
Residual oil content [mg/m <sup>3</sup> ]	≤0.003		

1) Connecting plates with connecting thread

2) Without connecting plates.

- - Note: This product conforms to ISO 1179-1 and to ISO 228-1

Standard flow rate $q_n^{1)}$ [l/min]			
Size	Mini	Midi	Maxi
Max. standard flow rate for air purity class $q_n^{max}$	360	900	1,100

1) Measured at  $p_1 = 6$  bar.

Operating and environmental conditions	
Operating pressure [bar]	0 ... 16
Operating medium	Compressed air according to ISO 8573-1:2010 [1:4:2] Inert gases
Ambient temperature [°C]	-10 ... +60
Temperature of medium [°C]	+5 ... +30
Storage temperature [°C]	-10 ... +60
Corrosion resistance class CRC <sup>1)</sup>	2

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

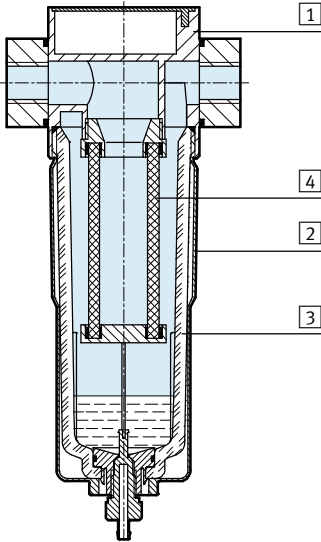
# Activated carbon filters LFX, D series, metal design

Technical data

Weight [g]			
Size	Mini	Midi	Maxi
With connecting plates	376	816	1,191
Without connecting plates	283	600	921

## Materials

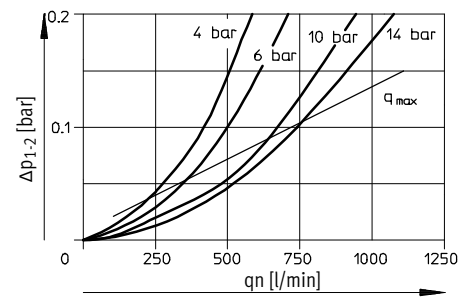
Sectional view



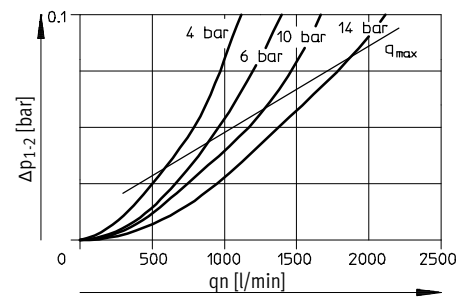
Activated carbon filter		
1	Housing	Die-cast zinc
2	Bowl	PC
3	Metal bowl guard	Aluminium
4	Filter	Filter fabric made of activated carbon
-	Seals	NBR
Note on materials		RoHS-compliant
		Free of copper and PTFE

## Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$

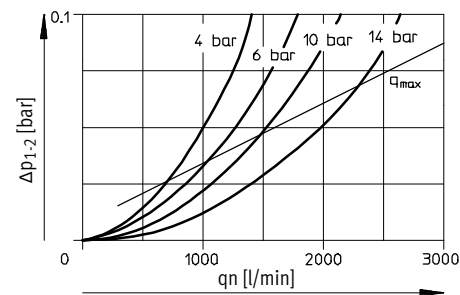
LFX-1/4-D-MINI



LFX-1/2-D-MIDI



LFX-1-D-MAXI



# Activated carbon filters LFX, D series, metal design

Technical data

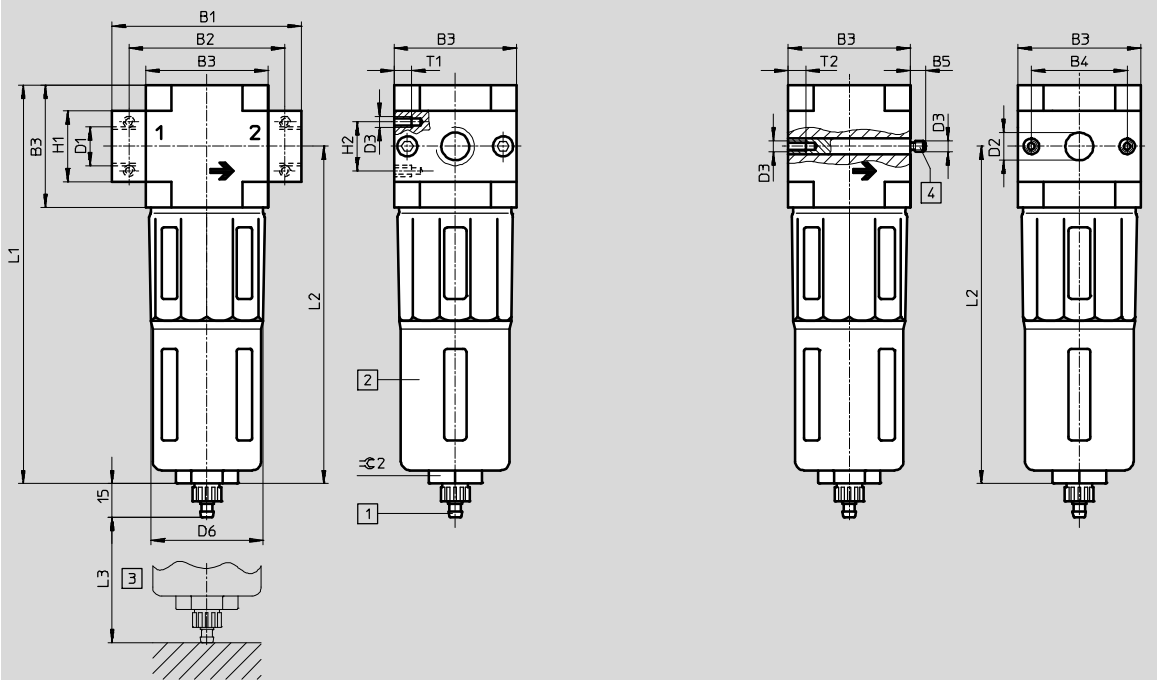
FESTO

## Dimensions

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

Connecting plates with connecting thread

Without connecting plates



- 1 Barbed fitting for plastic tubing PUN(-H)-8x1,25    
 2 Metal bowl guard    
 4 Threaded pin (exchangeable)    
 → Flow direction

Type	B1	B2	B3	B4	B5	D1	D2	D3	D6	H1	H2	L1	L2	L3	T1	T2	∅ 2
<b>Mini</b>																	
LFX-1/8-D-MINI	64	52	40	30	-	G1/8	-	M4	38	20	11	144	124	60	7	-	22
LFX-1/4-D-MINI						G1/4											
LFX-3/8-D-MINI						G3/8											
LFX-D-MINI	-	-	-	-	5.8	-	11	-	-	-	-	-	-	-	-	10	-
<b>Midi</b>																	
LFX-1/4-D-MIDI	85	70	55	43	-	G1/4	-	M5	52	32	22	179	151	80	8	-	24
LFX-3/8-D-MIDI						G3/8											
LFX-1/2-D-MIDI						G1/2											
LFX-3/4-D-MIDI						G3/4											
LFX-D-MIDI	-	-	-	-	6.8	-	24	-	-	-	-	-	-	-	-	11	-
<b>Maxi</b>																	
LFX-1/2-D-MAXI	96	80	66	46	-	G1/2	-	M5	65	32	22	203	170	90	8	-	24
LFX-3/4-D-MAXI						G3/4											
LFX-1-D-MAXI	116	91				-				-	6.8						
LFX-D-MAXI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

• Note: This product conforms to ISO 1179-1 and to ISO 228-1

## Activated carbon filters LFX, D series, metal design

FESTO

Technical data

Ordering data			
Size	Connection	Part No.	Type
Without connecting plates			
Mini	–	532776	LFX-D-MINI
Midi	–	532777	LFX-D-MIDI
Maxi	–	532778	LFX-D-MAXI
Connecting plates with connecting thread			
Mini	G $\frac{1}{8}$	532779	LFX- $\frac{1}{8}$ -D-MINI
	G $\frac{1}{4}$	532802	LFX- $\frac{1}{4}$ -D-MINI
	G $\frac{3}{8}$	532780	LFX- $\frac{3}{8}$ -D-MINI
Midi	G $\frac{1}{4}$	532781	LFX- $\frac{1}{4}$ -D-MIDI
	G $\frac{3}{8}$	532782	LFX- $\frac{3}{8}$ -D-MIDI
	G $\frac{1}{2}$	532783	LFX- $\frac{1}{2}$ -D-MIDI
	G $\frac{3}{4}$	532784	LFX- $\frac{3}{4}$ -D-MIDI
Maxi	G $\frac{1}{2}$	532785	LFX- $\frac{1}{2}$ -D-MAXI
	G $\frac{3}{4}$	532786	LFX- $\frac{3}{4}$ -D-MAXI
	G1	532787	LFX-1-D-MAXI

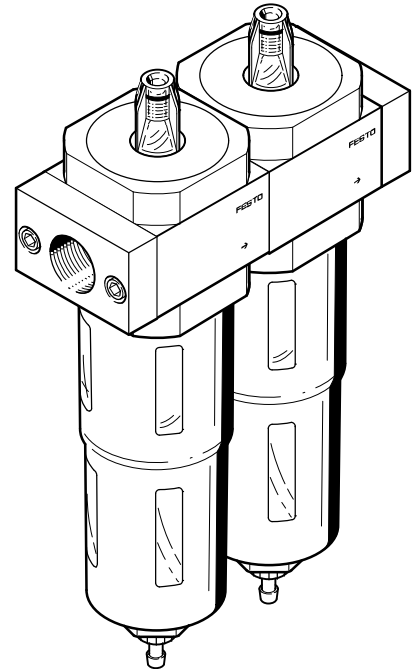
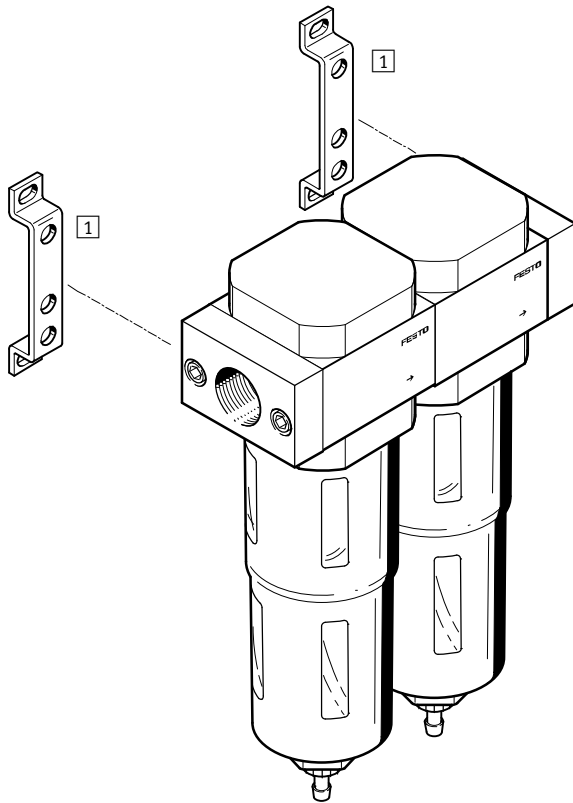
# Filter combinations LFMBA, D series, metal design

Peripherals overview

**Mini/Midi/Maxi**

without differential pressure indicator

with differential pressure indicator



**Mounting components**

→ Page/  
Internet

**1** Mounting bracket  
HFOE

hfoe-d

# Filter combinations LFMBA, D series, metal design

Type codes

LFMBA – 1/4 – D – MIDI – DA – A

### Basic function

LFMBA	Filter combination
-------	--------------------

### Pneumatic connection

#### MINI

1/8	Connecting plates with connecting thread G1/8
1/4	Connecting plates with connecting thread G1/4
3/8	Connecting plates with connecting thread G3/8

#### MIDI

1/4	Connecting plates with connecting thread G1/4
3/8	Connecting plates with connecting thread G3/8
1/2	Connecting plates with connecting thread G1/2
3/4	Connecting plates with connecting thread G3/4

#### MAXI

1/2	Connecting plates with connecting thread G1/2
3/4	Connecting plates with connecting thread G3/4
1	Connecting plates with connecting thread G1

### Series

D	Series
---	--------

### Size

MINI	Grid dimension 40 mm (without connecting plates)
MIDI	Grid dimension 55 mm (without connecting plates)
MAXI	Grid dimension 60 mm (without connecting plates)

### Filter contamination sensing

	Without differential pressure indicator
DA	With differential pressure indicator

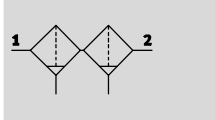
### Condensate drain

	Manual rotary
A	Fully automatic

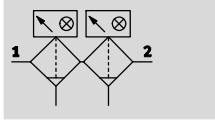
# Filter combinations LFMBA, D series, metal design


Technical data


Manual rotary condensate drain,  
without differential pressure indicator




with differential pressure indicator



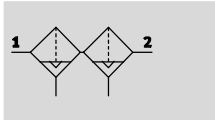
-  - Flow rate  
125 ... 600 l/min

-  - Temperature range  
-10 ... +60 °C

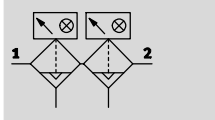
-  - Supply pressure  
1 ... 16 bar



Fully automatic condensate drain,  
without differential pressure indicator




with differential pressure indicator



- High-efficiency filter for special requirements
- Air quality to ISO 8573-1:2010
- Available as pre-assembled filter combination
- Version with differential pressure indicator for optical indication of filter contamination
- Filter cartridges with 1 µm and 0.01 µm
- New filter cartridges → 37


General technical data			
Size	Mini	Midi	Maxi
Pneumatic connection 1, 2 <sup>1)</sup>	G <sup>1</sup> / <sub>8</sub> , G <sup>1</sup> / <sub>4</sub> , G <sup>3</sup> / <sub>8</sub>	G <sup>1</sup> / <sub>4</sub> , G <sup>3</sup> / <sub>8</sub> , G <sup>1</sup> / <sub>2</sub> , G <sup>3</sup> / <sub>4</sub>	G <sup>1</sup> / <sub>2</sub> , G <sup>3</sup> / <sub>4</sub> , G1
Design	Fibre filter		
Type of mounting	Via accessories In-line installation		
Mounting position	Vertical ±5°		
Grade of filtration [µm]	1 and 0.01		
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [1:7:2] Inert gases		
Filter efficiency [%]	99.9999		
Bowl guard	Metal bowl guard		
Condensate drain	Manual rotary Fully automatic		
Differential pressure indicator	Visual indicator		
Residual oil content [mg/m <sup>3</sup> ]	≤0.01		
Max. condensate volume [ml]	22	43	80

1) Connecting plates with connecting thread

-  - Note: This product conforms to ISO 1179-1 and to ISO 228-1

Standard nominal flow rate <sup>1)</sup> q <sub>nN</sub> [l/min]											
Size	Mini			Midi				Maxi			
Pneumatic connection 1, 2	G <sup>1</sup> / <sub>8</sub>	G <sup>1</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>8</sub>	G <sup>1</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>8</sub>	G <sup>1</sup> / <sub>2</sub>	G <sup>3</sup> / <sub>4</sub>	G <sup>1</sup> / <sub>2</sub>	G <sup>3</sup> / <sub>4</sub>	G1	
LFMBA	125	130	140	300	350	350	350	550	550	600	

1) Measured at p<sub>1</sub> = 6 bar and Δp = 70 mbar.

-  - 125 l/min must be available for the fully automatic condensate drain to close correctly.

# Filter combinations LFMB, D series, metal design

Technical data

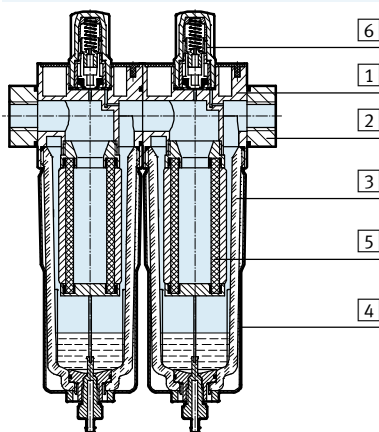
Operating and environmental conditions		
Condensate drain	Manual rotary	Fully automatic
Operating pressure [bar]	1 ... 16	2 ... 12
Operating medium	Compressed air according to ISO 8573-1:2010 [6:8:4]	
	Inert gases	
Ambient temperature [°C]	-10 ... +60	+5 ... +60
Temperature of medium [°C]	+1.5 ... +60	+5 ... +60
Storage temperature [°C]	-10 ... +60	
Corrosion resistance class CRC <sup>1)</sup>	2	

1) Corrosion resistance class CRC 2 to Festo standard FN 940070  
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Weight [g]			
Size	Mini	Midi	Maxi
Without differential pressure indicator	500	1,300	2,400
With differential pressure indicator	651	1,429	2,362

## Materials

Sectional view



Filter combination	
1	Housing Die-cast zinc
2	Connecting plates Die-cast zinc
3	Bowl PC
4	Metal bowl guard Aluminium
5	Filter Borosilicate fibre
6	Housing for version with differential pressure indicator PC
-	Seals NBR
Note on materials	
RoHS-compliant	
Free of copper and PTFE	

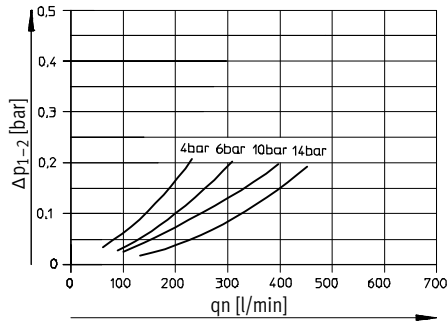


# Filter combinations LFMBA, D series, metal design

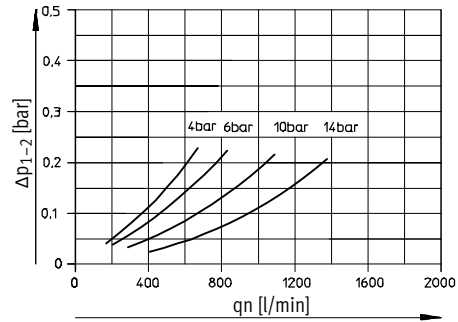
Technical data

## Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$

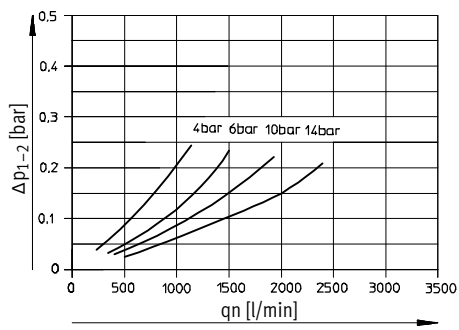
LFMBA-1/4-D-MINI



LFMBA-1/2-D-MID



LFMBA-1-D-MAXI



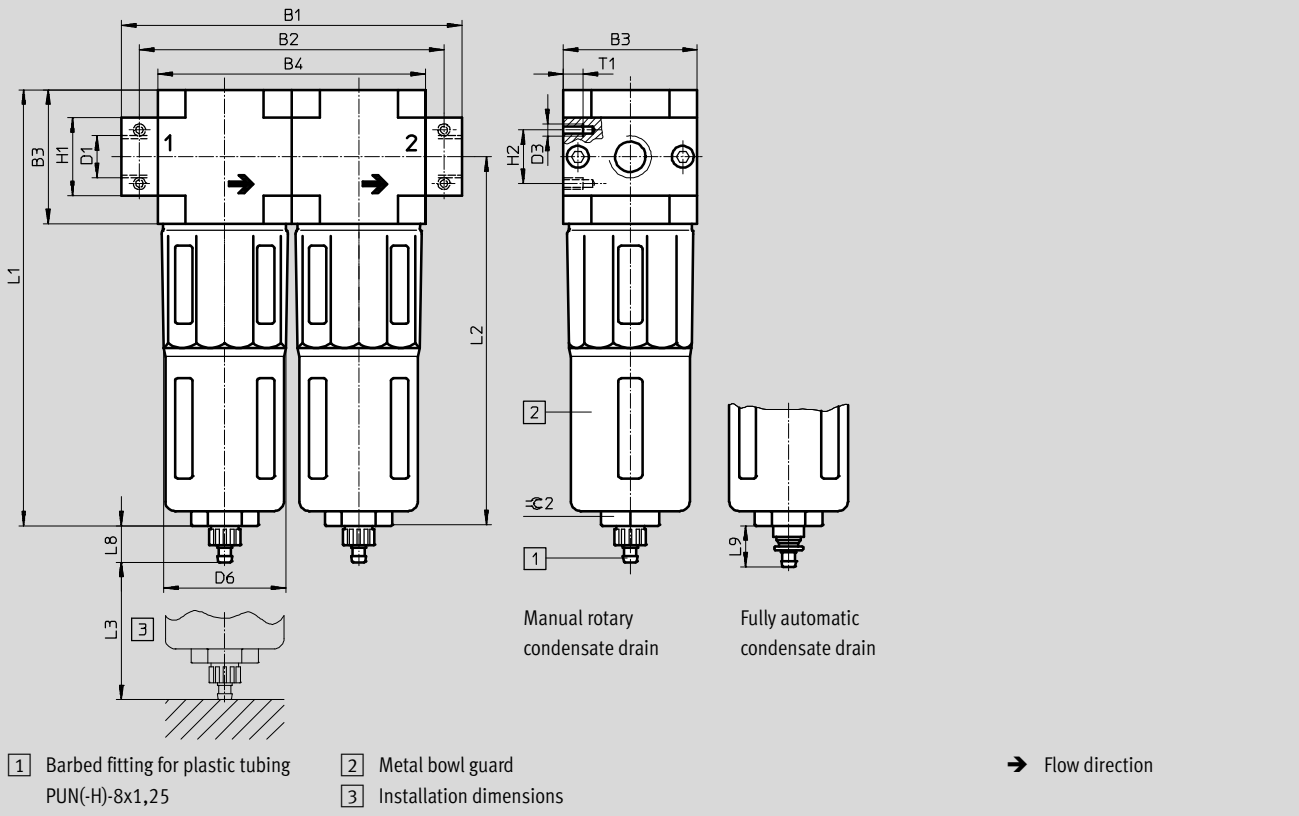
# Filter combinations LFMBA, D series, metal design

Technical data

FESTO

## Dimensions

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



Type	B1	B2	B3	B4	D1	D3	D6	H1	H2	L1	L2	L3	L8	L9	T1	≈ 2
<b>Mini</b>																
LFMBA-1/8-D-MINI	104	92	40	80	G1/8	M4	38	20	11	144	124	60	15	19	7	22
LFMBA-1/4-D-MINI					G1/4											
LFMBA-3/8-D-MINI					G3/8											
<b>Midi</b>																
LFMBA-1/4-D-MIDI	140	125	55	110	G1/4	M5	52	32	22	179	151	80	15	19	8	24
LFMBA-3/8-D-MIDI					G3/8											
LFMBA-1/2-D-MIDI					G1/2											
LFMBA-3/4-D-MIDI					G3/4											
<b>Maxi</b>																
LFMBA-1/2-D-MAXI	162	146	66	132	G1/2	M5	65	32	22	203	170	90	15	19	8	24
LFMBA-3/4-D-MAXI					G3/4											
LFMBA-1-D-MAXI					G1											

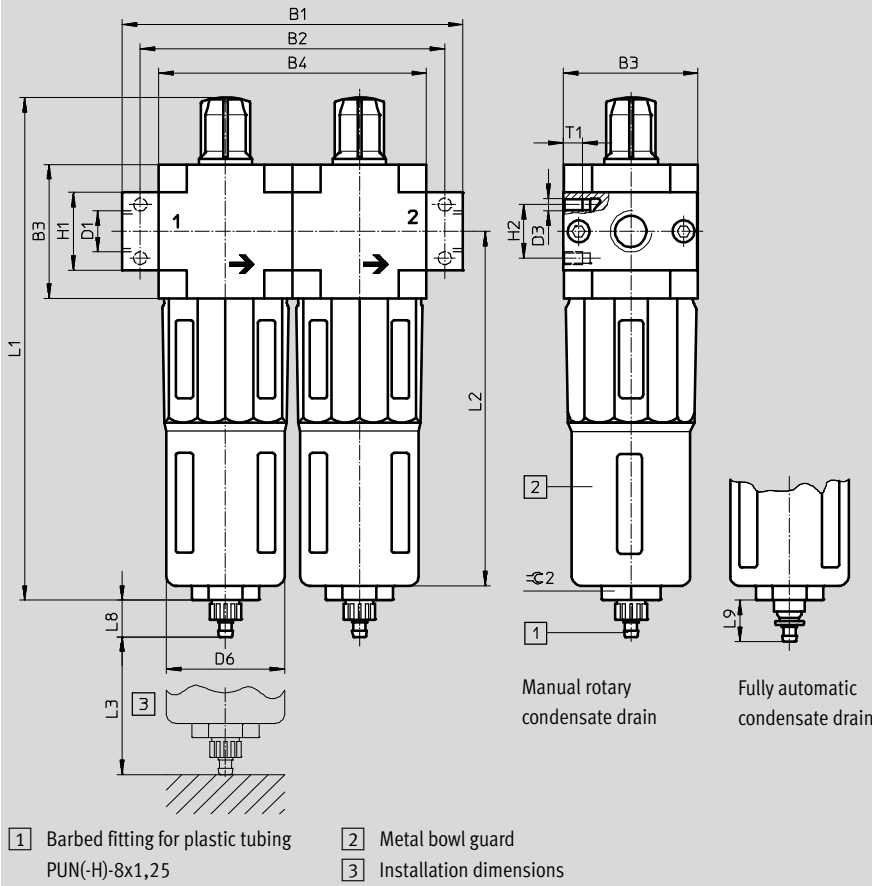
– Note: This product conforms to ISO 1179-1 and to ISO 228-1

# Filter combinations LFMBA, D series, metal design

Technical data

## Dimensions with differential pressure indicator

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



Type	B1	B2	B3	B4	D1	D3	D6	H1	H2	L1	L2	L3	L8	L9	T1	∅ 2
<b>Mini</b>																
LFMBA-1/8-D-MINI-DA	104	92	40	80	G1/8	M4	38	20	11	173	124	60	15	19	7	22
LFMBA-1/4-D-MINI-DA					G1/4											
LFMBA-3/8-D-MINI-DA					G3/8											
<b>Midi</b>																
LFMBA-1/4-D-MIDI-DA	140	125	55	110	G1/4	M5	52	32	22	206	151	80	15	19	8	24
LFMBA-3/8-D-MIDI-DA					G3/8											
LFMBA-1/2-D-MIDI-DA					G1/2											
LFMBA-3/4-D-MIDI-DA					G3/4											
<b>Maxi</b>																
LFMBA-1/2-D-MAXI-DA	162	146	66	132	G1/2	M5	65	32	22	231	170	90	15	19	8	24
LFMBA-3/4-D-MAXI-DA					G3/4											
LFMBA-1-D-MAXI-DA					G1											

• - Note: This product conforms to ISO 1179-1 and to ISO 228-1

## Filter combinations LFMBA, D series, metal design

FESTO

Technical data

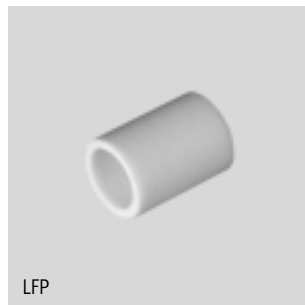
Ordering data – Filter combination LFMBA					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Mini	G $\frac{1}{8}$	162658	LFMBA- $\frac{1}{8}$ -D-MINI	162666	LFMBA- $\frac{1}{8}$ -D-MINI-A
	G $\frac{1}{4}$	162659	LFMBA- $\frac{1}{4}$ -D-MINI	162667	LFMBA- $\frac{1}{4}$ -D-MINI-A
	G $\frac{3}{8}$	162660	LFMBA- $\frac{3}{8}$ -D-MINI	162668	LFMBA- $\frac{3}{8}$ -D-MINI-A
Midi	G $\frac{1}{4}$	186471	LFMBA- $\frac{1}{4}$ -D-MIDI	186472	LFMBA- $\frac{1}{4}$ -D-MIDI-A
	G $\frac{3}{8}$	162661	LFMBA- $\frac{3}{8}$ -D-MIDI	162669	LFMBA- $\frac{3}{8}$ -D-MIDI-A
	G $\frac{1}{2}$	162662	LFMBA- $\frac{1}{2}$ -D-MIDI	162670	LFMBA- $\frac{1}{2}$ -D-MIDI-A
	G $\frac{3}{4}$	162663	LFMBA- $\frac{3}{4}$ -D-MIDI	162671	LFMBA- $\frac{3}{4}$ -D-MIDI-A
Maxi	G $\frac{1}{2}$	186477	LFMBA- $\frac{1}{2}$ -D-MAXI	186478	LFMBA- $\frac{1}{2}$ -D-MAXI-A
	G $\frac{3}{4}$	162664	LFMBA- $\frac{3}{4}$ -D-MAXI	162672	LFMBA- $\frac{3}{4}$ -D-MAXI-A
	G1	162665	LFMBA-1-D-MAXI	162673	LFMBA-1-D-MAXI-A

Ordering data – Filter combination LFMBA with differential pressure indicator DA					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Mini	G $\frac{1}{8}$	532863	LFMBA- $\frac{1}{8}$ -D-MINI-DA	532873	LFMBA- $\frac{1}{8}$ -D-MINI-DA-A
	G $\frac{1}{4}$	532864	LFMBA- $\frac{1}{4}$ -D-MINI-DA	532874	LFMBA- $\frac{1}{4}$ -D-MINI-DA-A
	G $\frac{3}{8}$	532865	LFMBA- $\frac{3}{8}$ -D-MINI-DA	532875	LFMBA- $\frac{3}{8}$ -D-MINI-DA-A
Midi	G $\frac{1}{4}$	532866	LFMBA- $\frac{1}{4}$ -D-MIDI-DA	532876	LFMBA- $\frac{1}{4}$ -D-MIDI-DA-A
	G $\frac{3}{8}$	532867	LFMBA- $\frac{3}{8}$ -D-MIDI-DA	532877	LFMBA- $\frac{3}{8}$ -D-MIDI-DA-A
	G $\frac{1}{2}$	532868	LFMBA- $\frac{1}{2}$ -D-MIDI-DA	532878	LFMBA- $\frac{1}{2}$ -D-MIDI-DA-A
	G $\frac{3}{4}$	532869	LFMBA- $\frac{3}{4}$ -D-MIDI-DA	532879	LFMBA- $\frac{3}{4}$ -D-MIDI-DA-A
Maxi	G $\frac{1}{2}$	532870	LFMBA- $\frac{1}{2}$ -D-MAXI-DA	532880	LFMBA- $\frac{1}{2}$ -D-MAXI-DA-A
	G $\frac{3}{4}$	532871	LFMBA- $\frac{3}{4}$ -D-MAXI-DA	532881	LFMBA- $\frac{3}{4}$ -D-MAXI-DA-A
	G1	532872	LFMBA-1-D-MAXI-DA	532882	LFMBA-1-D-MAXI-DA-A

# Filters LF/LFMA/LFMB/LFX/LFMBA, D series, metal design

Accessories

Filter cartridges, D series, metal design



Ordering data				
Size	Filter cartridge	Grade of filtration [µm]	Part No.	Type
Micro	Filter cartridge	5	526818	LFP-D-MICRO-5M
Mini	Micro-filter cartridge	0.01	162674	MS4/D-MINI-LFM-A
	Fine-filter cartridge	1	162677	MS4/D-MINI-LFM-B
	Filter cartridge (colour: blue)	5	159640	LFP-D-MINI-5M
	Filter cartridge (colour: white)	40	363665	LFP-D-MINI-40M
	Active carbon filter cartridge	-	532912	MS4/D-MINI-LFX
Midi	Micro-filter cartridge	0.01	162675	LFMAP-D-MIDI
	Fine-filter cartridge	1	162678	LFMBP-D-MIDI
	Filter cartridge (colour: blue)	5	159594	LFP-D-MIDI-5M
	Filter cartridge (colour: white)	40	363667	LFP-D-MIDI-40M
	Active carbon filter cartridge	-	532788	LFACP-MIDI
Maxi	Micro-filter cartridge	0.01	162676	LFMAP-D-MAXI
	Fine-filter cartridge	1	162679	LFMBP-D-MAXI
	Filter cartridge (colour: blue)	5	159641	LFP-D-MAXI-5M
	Filter cartridge (colour: white)	40	363664	LFP-D-MAXI-40M
	Active carbon filter cartridge	-	532789	LFACP-MAXI