

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

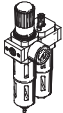
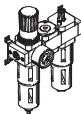
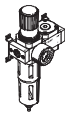
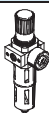
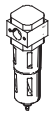
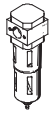
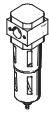
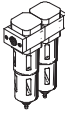
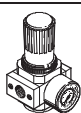
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# Filters LF/LFMA/LFMB/LFX/LFMBA, D series, metal design

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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	
Service units																			
FRC/FRCS		Micro	■	■	■	–	–	–	–	–	■	■	■	–	–	–	–	■	–
		Mini	–	–	■	■	■	–	–	–	–	■	■	–	–	–	■	■	
		Midi	–	–	–	■	■	■	■	–	–	■	■	–	–	–	■	■	
		Maxi	–	–	–	–	–	■	■	■	–	■	■	–	–	–	■	■	
Service unit combinations																			
FRC-K		Micro	–																
		Mini	–	–	■	■	–	–	–	–	–	–	■	■	–	–	–	■	
		Midi	–	–	–	■	■	■	–	–	–	–	■	■	–	–	–	■	
		Maxi	–	–	–	–	–	■	■	–	–	–	■	■	–	–	–	■	
LFR-K LFRS-K		Micro	–																
		Mini	–	–	■	■	–	–	–	–	–	–	■	■	–	–	–	■	
		Midi	–	–	–	■	■	■	–	–	–	–	■	■	–	–	–	■	
		Maxi	–	–	–	–	–	■	■	–	–	–	■	■	–	–	–	■	
Individual devices																			
Filter regulators LFR/LFRS		Micro	■	■	■	–	–	–	–	–	■	■	■	–	–	–	–	■	–
		Mini	–	–	■	■	■	–	–	–	–	■	■	–	–	–	■	■	
		Midi	–	–	–	■	■	■	■	–	–	■	■	–	–	–	■	■	
		Maxi	–	–	–	–	–	■	■	■	–	■	■	–	–	–	■	■	
Filters LF		Micro	■	■	■	–	–	–	–	–	■	■	–	–	–	–	–	■	–
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	–	–	■	■	
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	–	–	■	■	
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	–	–	■	■	
Fine and micro filters LFMA/LFMB		Micro	–																
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	■	■	–	–	
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	■	■	–	–	
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	■	■	–	–	
Active carbon filters LFX		Micro	–																
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	–	–	–	–	
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	–	–	–	–	
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	–	–	–	–	
Filter combinations LFMBA		Micro	–																
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	■	■	–	–	
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	■	■	–	–	
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	■	■	–	–	
Pressure regulators LR/LRS		Micro	■	■	■	–	–	–	–	–	■	■	■	–	–	–	–	–	–
		Mini	–	–	■	■	■	–	–	–	–	■	■	–	–	–	–	–	
		Midi	–	–	–	■	■	■	■	–	–	■	■	–	–	–	–	–	
		Maxi	–	–	–	–	–	■	■	■	–	■	■	–	–	–	–	–	

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

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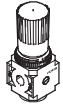
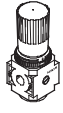
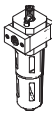
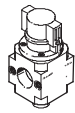
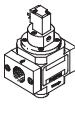
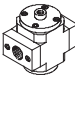
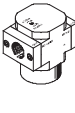

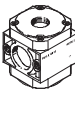
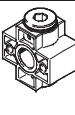
Product range overview D series service units, metal design

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	
Service units																	
FRC/FRCS	Micro	–	■	■	■	–	■	■	■	–	–	–	–	–	–	–	frc
	Mini	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Midi	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	■	■	■	–	–	–	■	■	–	
Service unit combinations																	
FRC-K	Micro	–															frc
	Mini	■	–	■	–	■	■	–	■	–	■	–	–	–	–	–	
	Midi	■	–	■	–	■	■	–	■	–	■	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	–	■	–	■	–	–	■	■	–	
LFR-K LFRS-K	Micro	–															lfr
	Mini	■	–	■	–	■	■	–	■	■	■	–	–	–	–	–	
	Midi	■	–	■	–	■	■	–	■	■	■	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	–	■	■	■	–	–	■	■	–	
Individual devices																	
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

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Product range overview D series service units, metal design

Type		Size	Pneumatic connection										Pressure regulation range [bar]	
			M5	M7	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$	G1	QS4	QS6	0.5 ... 7	0.5 ... 12
Individual devices														
Pressure regulators LRB/LRBS		Micro	–											
		Mini	–	–	–	■	–	–	–	–	–	–	■	■
		Midi	–	–	–	–	■	–	–	–	–	–	■	■
		Maxi	–											
Pressure regulator combinations LRB-K		Micro	–											
		Mini	–	–	–	■	■	–	–	–	–	–	■	■
		Midi	–	–	–	–	■	■	–	–	–	–	■	■
		Maxi	–											
Lubricators LOE		Micro	■	■	■	–	–	–	–	–	■	■	–	–
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
On-off valves HE		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
On-off valves, electrical HEE		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
On-off valves, pneumatic HEP		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Soft-start valves HEL		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Membrane air dryers LDM1		Micro	–											
		Mini	–											
		Midi	–											
		Maxi	–	–	–	–	–	–	■	■	■	–	–	–
Branching modules FRM		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Distributor block FRZ		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	
Individual devices													
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

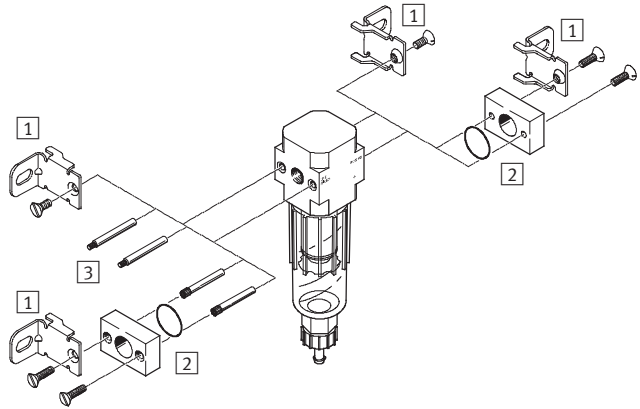
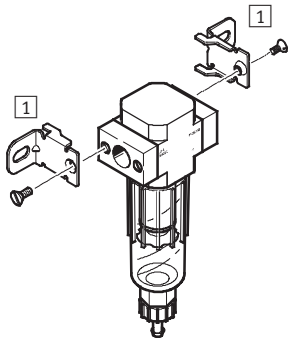
Peripherals overview

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## Micro

Individual unit with connection plates,  
connection size G $\frac{1}{8}$ , QS4 or QS6

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

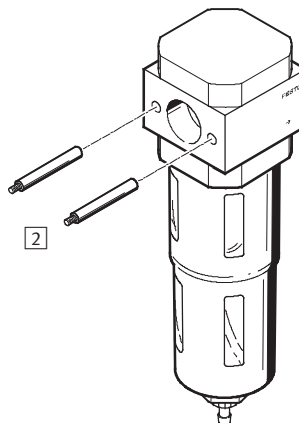
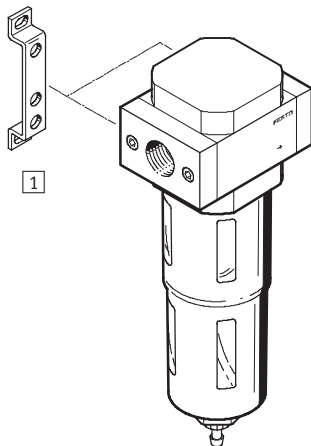


Mounting attachments and accessories					
	Individual unit		Combination		→ Page/ Internet
	with connection plates	without connection plates	with connection plates	without connection plates	
[1] Mounting bracket HFOE	■	■	■	■	hfoe-d
[2] Connecting plate kit PBL	–	■	–	■	pbl
[3] Threaded pin FRB	–	–	■	■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

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Type codes

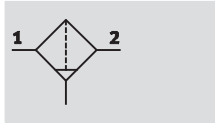
		LF	–	1/4	–	D	–	5M	–	MIDI	–	A
<b>Basic function</b>												
LF	Filter											
<b>Pneumatic connection</b>												
MINI/MIDI/MAXI												
	Without connecting plates											
MICRO												
M5	Female thread M5											
M7	Female thread M7											
1/8	Connecting plates with thread 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 thread G1/8											
1/4	Connecting plates with thread G1/4											
3/8	Connecting plates with thread G3/8											
MIDI												
1/4	Connecting plates with thread G1/4											
3/8	Connecting plates with thread G3/8											
1/2	Connecting plates with thread G1/2											
3/4	Connecting plates with thread G3/4											
MAXI												
1/2	Connecting plates with thread G1/2											
3/4	Connecting plates with thread G3/4											
1	Connecting plates with thread G1											
<b>Series</b>												
D	Series											
<b>Grade of filtration</b>												
5M	5 µm											
MINI/MIDI/MAXI												
	40 µm											
<b>Size</b>												
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)											
<b>Condensate drain</b>												
	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



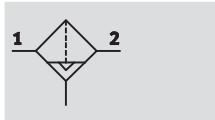
Flow rate

170 ... 5,300 l/min

Temperature range

-10 ... +60 °C

Semi or fully automatic condensate drain



Pressure

0 ... 16 bar



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

General technical data																		
Size	Micro					Mini				Midi				Maxi				
Pneumatic connection 1, 2	M5 <sup>1)</sup>	M7 <sup>1)</sup>	G1/8	QS4	QS6	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	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)																	
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) Female thread.

2) Without connecting plates.

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

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]					
Size	Micro				
Pneumatic connection	M5	M7	G1/8	QS4	QS6
Grade of filtration 5 µm	170	280	290	170	280

1) Measured at  $p_1 = 6$  bar and  $\Delta p = 1$  bar.

A minimum flow rate of 125 l/min is required for correct operation.

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	
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.

A minimum flow rate of 125 l/min is required for correct operation.



# Filters LF, D series, metal design

Technical data

**FESTO**

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			
Temperature of medium [°C]	–10 ... +60			
Storage temperature [°C]	–10 ... +60			
Corrosion resistance class CRC <sup>1)</sup>	2			
Certification	Germanischer Lloyd			

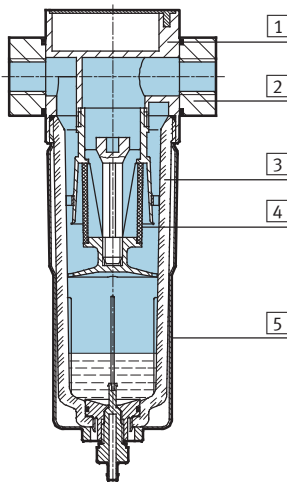
1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]						
Size	Micro		Mini	Midi	Maxi	
	Female thread	Connecting plate			Connection G1½, G¾	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	Polycarbonate	
4 Filter cartridge	Polyethylene	
5 Metal bowl guard	–	Aluminium
– Seals	Nitrile rubber	
Note on materials	RoHS-compliant	

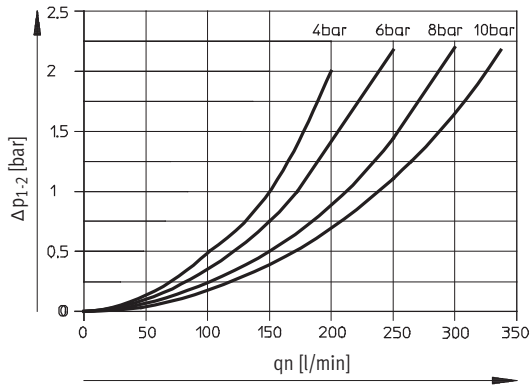
# Filters LF, D series, metal design

Technical data

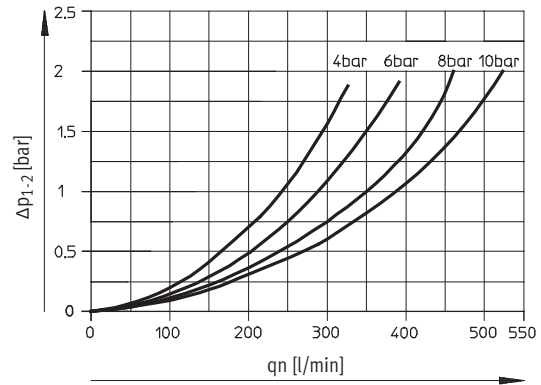
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## Standard flow rate $q_n$ as a function of differential pressure $\Delta p_{1-2}$

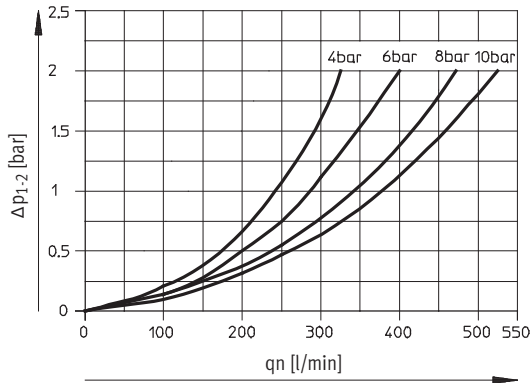
LF-M5-...-MICRO and LF-QS4-...-MICRO



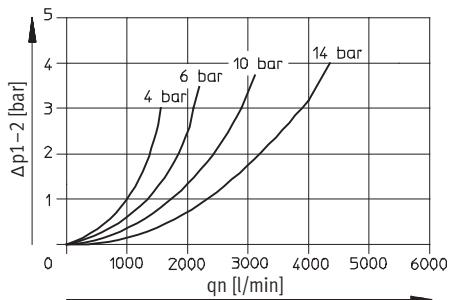
LF-1/8-...-MICRO



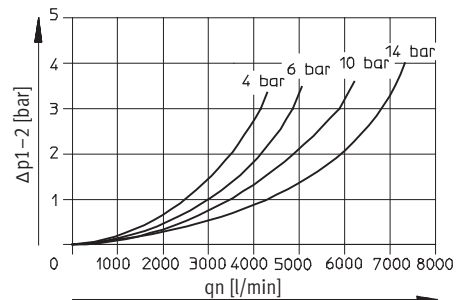
LF-M7-...-MICRO B and LF-QS6-...-MICRO



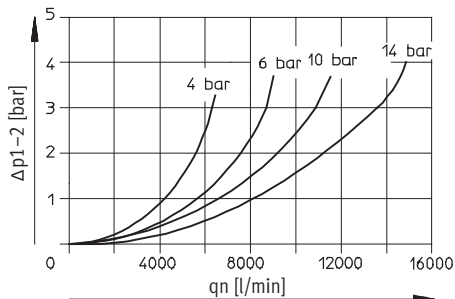
LF-1/4-D-MINI



LF-1/2-D-MIDI



LF-1-D-MAXI



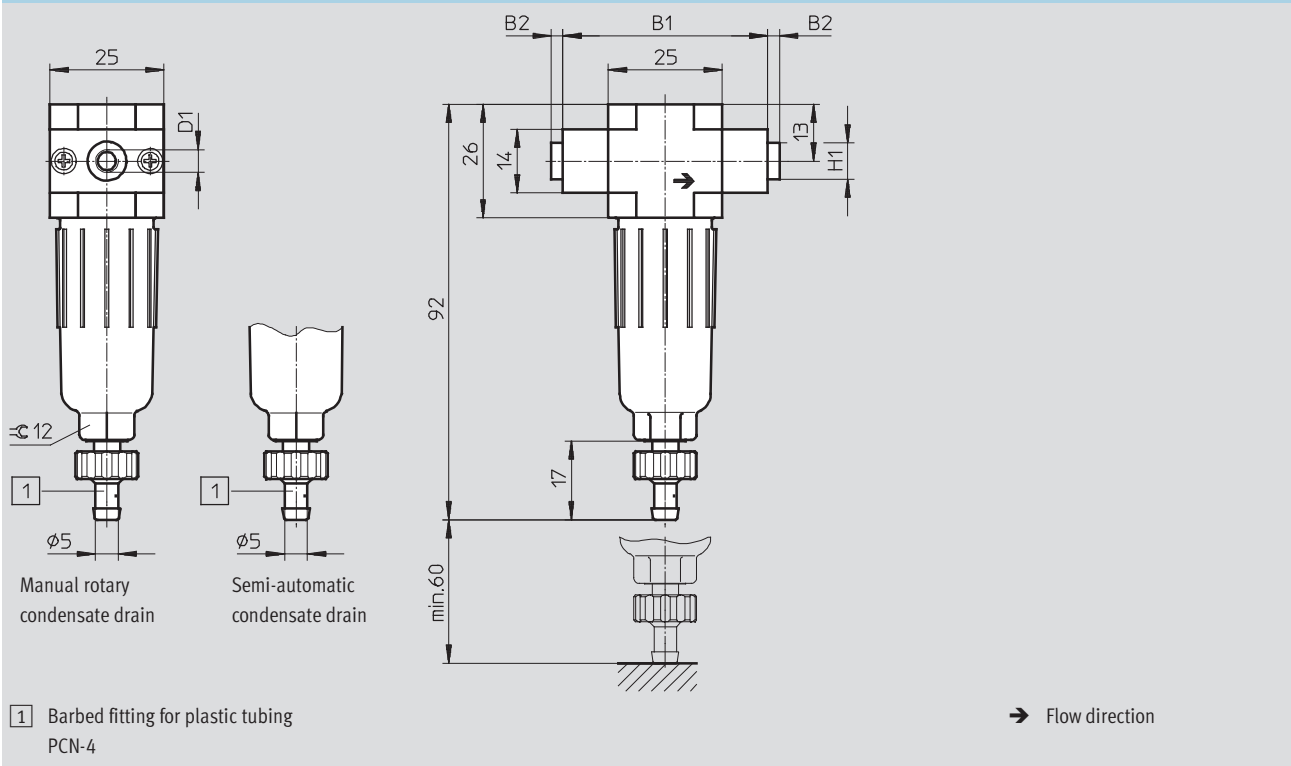
# Filters LF, D series, metal design

Technical data

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## Dimensions – Micro

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	B1	B2	D1	H1
LF-M5-D-5M-MICRO (H)	25	-	M5	-
LF-M7-D-5M-MICRO (H) B			M7	
LF-1/8-D-5M-MICRO (H)			G1/8	
LF-QS4-D-5M-MICRO (H)	45	~2.5	QS-4	~8
LF-QS6-D-5M-MICRO (H)			QS-6	~10

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

# Filters LF, D series, metal design

Technical data

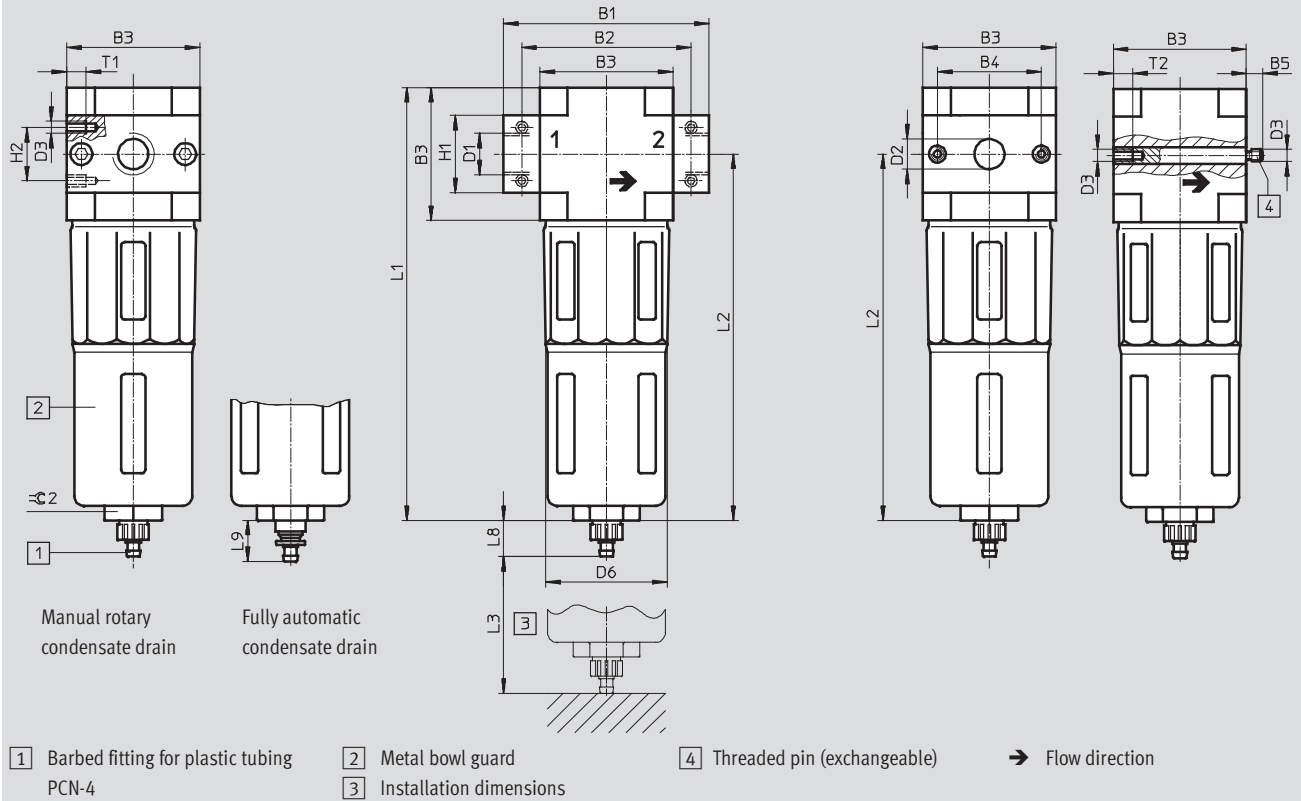
FESTO

## Dimensions – Mini/Midi/Maxi

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Connecting plates with thread

Without connecting plates



Type	B1	B2	B3	B4	B5	D1	D2 Ø	D3	D6 Ø	H1	H2	L1	L2	L3	L8	L9	T1	T2	≈G 2
Mini																			
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						G1/4													
LF-3/8-D-MINI	70					G3/8													
LF-D-MINI	-	-			5.8	-	11			-	-						-	10	
Midi																			
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	
Maxi																			
LF-1/2-D-MAXI	96	80	66	46	-	G1/2	-	M5	65	32	22	203	170	90	15	19	8	-	24
LF3/4-D-MAXI						G3/4													
LF-1-D-MAXI	116	91				G1				40									
LF-D-MAXI	-	-			6.8	-	30			-	-						-	11	

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

# Filters LF, D series, metal design

Technical data

**FESTO**

Ordering data – Micro				
Size	Condensate drain	Connection	Grade of filtration 5 µm	
			Part No.	Type
Female thread				
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 thread				
Micro	Manual rotary	G1/8	526299	LF-1/8-D-5M-MICRO
	Semi-automatic	G1/8	526300	LF-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 thread						
Mini	Manual rotary	G1/8	162610	LF-1/8-D-5M-MINI	159612	LF-1/8-D-MINI
		G1/4	162611	LF-1/4-D-5M-MINI	159613	LF-1/4-D-MINI
		G3/8	162612	LF-3/8-D-5M-MINI	162606	LF-3/8-D-MINI
	Fully automatic	G1/8	162618	LF-1/8-D-5M-MINI-A	159616	LF-1/8-D-MINI-A
		G1/4	162619	LF-1/4-D-5M-MINI-A	159617	LF-1/4-D-MINI-A
		G3/8	162620	LF-3/8-D-5M-MINI-A	162608	LF-3/8-D-MINI-A
Midi	Manual rotary	G1/4	186460	LF-1/4-D-5M-MIDI	186459	LF-1/4-D-MIDI
		G3/8	162613	LF-3/8-D-5M-MIDI	159576	LF-3/8-D-MIDI
		G1/2	162614	LF-1/2-D-5M-MIDI	159578	LF-1/2-D-MIDI
		G3/4	162615	LF-3/4-D-5M-MIDI	162607	LF-3/4-D-MIDI
	Fully automatic	G1/4	186462	LF-1/4-D-5M-MIDI-A	186461	LF-1/4-D-MIDI-A
		G3/8	162621	LF-3/8-D-5M-MIDI-A	159577	LF-3/8-D-MIDI-A
		G1/2	162622	LF-1/2-D-5M-MIDI-A	159579	LF-1/2-D-MIDI-A
		G3/4	162623	LF-3/4-D-5M-MIDI-A	162609	LF-3/4-D-MIDI-A
Maxi	Manual rotary	G1/2	186464	LF-1/2-D-5M-MAXI	186463	LF-1/2-D-MAXI
		G3/4	162616	LF-3/4-D-5M-MAXI	159614	LF-3/4-D-MAXI
		G1	162617	LF-1-D-5M-MAXI	159615	LF-1-D-MAXI
	Fully automatic	G1/2	186466	LF-1/2-D-5M-MAXI-A	186465	LF-1/2-D-MAXI-A
		G3/4	162624	LF-3/4-D-5M-MAXI-A	159618	LF-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

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Peripherals overview

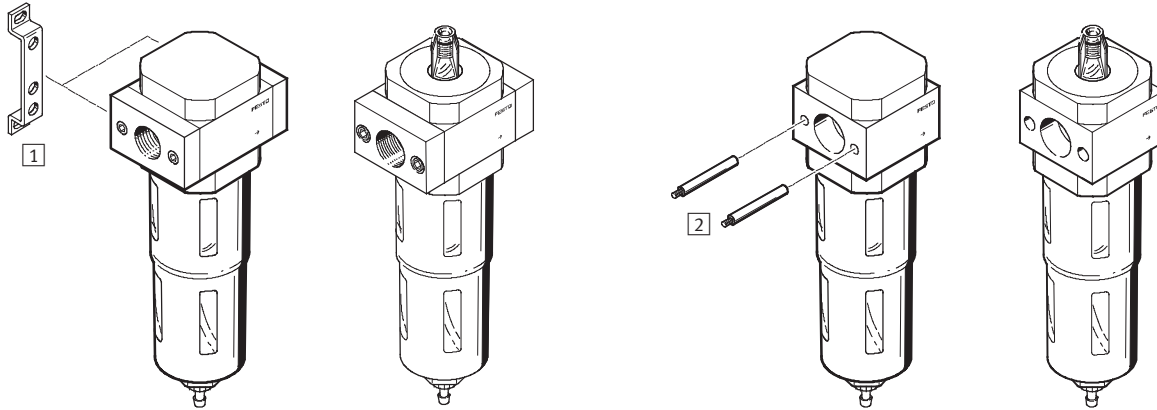
### Mini/Midi/Maxi

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

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

FESTO

Type codes

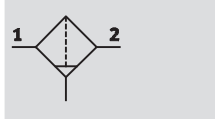
	LFMB	–	1/4	–	D	–	MIDI	–	DA	–	A
<b>Basic function</b>											
LFMA	Micro filter with grade of filtration 0.01 µm										
LFMB	Fine filter with grade of filtration 1 µm										
<b>Pneumatic connection</b>											
MINI/MIDI/MAXI											
	Without connecting plates										
MINI											
1/8	Connecting plates with thread G 1/8										
1/4	Connecting plates with thread G 1/4										
3/8	Connecting plates with thread G 3/8										
MIDI											
1/4	Connecting plates with thread G 1/4										
3/8	Connecting plates with thread G 3/8										
1/2	Connecting plates with thread G 1/2										
3/4	Connecting plates with thread G 3/4										
MAXI											
1/2	Connecting plates with thread G 1/2										
3/4	Connecting plates with thread G 3/4										
1	Connecting plates with thread G 1										
<b>Series</b>											
D	Series										
<b>Size</b>											
MINI	Grid dimension 40 mm (without connecting plates)										
MIDI	Grid dimension 55 mm (without connecting plates)										
MAXI	Grid dimension 66 mm (without connecting plates)										
<b>Filter contamination sensing</b>											
	Without differential pressure indicator										
DA	With differential pressure indicator										
<b>Condensate drain</b>											
	Manual rotary										
A	Fully automatic										

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

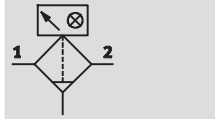
FESTO

Technical data

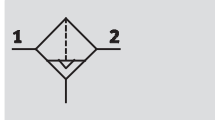
Manual rotary condensate drain,  
without differential pressure indicator



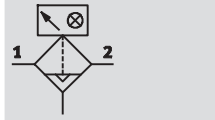
with differential pressure indicator



Fully automatic condensate drain,  
without differential pressure indicator



with differential pressure indicator



Flow rate  
80 ... 2,780 l/min

Temperature range  
-10 ... +60 °C

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	G <sup>1</sup> / <sub>8</sub>	G <sup>1</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>8</sub>	– <sup>1)</sup>	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>	– <sup>1)</sup>	G <sup>1</sup> / <sub>2</sub>	G <sup>3</sup> / <sub>4</sub>	G1	– <sup>1)</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 [2:7:3] (fine filter LFMB)												
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/m <sup>3</sup> ]	≤0.01 (micro filter LFMA)												
	≤0.5 (fine filter LFMB)												
Max. condensate volume [cm <sup>3</sup> ]	22				43					80			

1) Without connecting plates.

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



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

FESTO

Technical data

Standard flow rate $q_n^{(1)}$ [l/min]										
Connection	Mini			Midi				Maxi		
	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
Micro filter LFMA										
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
Fine filter LFMB										
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.

-  $\downarrow$  - 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).

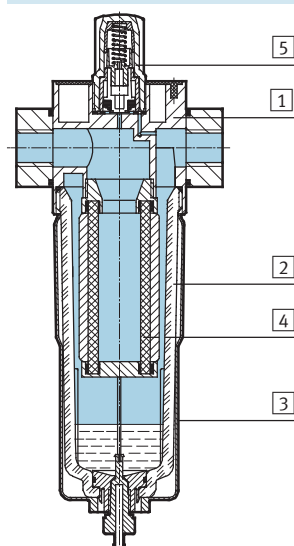
2) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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	Polycarbonate
3	Metal bowl guard	Aluminium
4	Filter	Borosilicate fibre
5	Housing for version with differential pressure indicator	Polycarbonate
-	Seals	Nitrile rubber
Note on materials		RoHS-compliant
		Free of copper and PTFE

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

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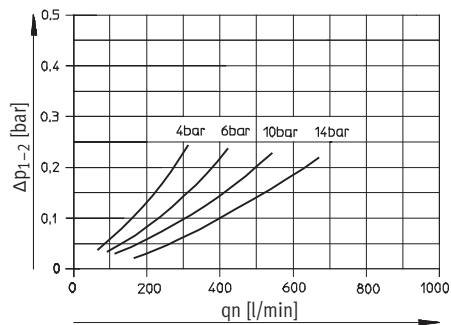
Technical data

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

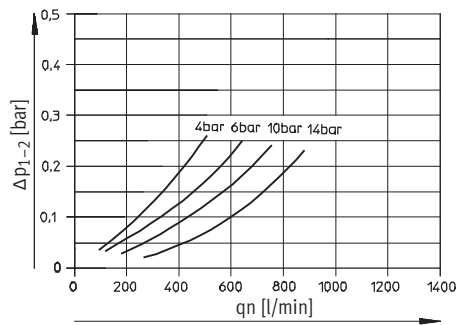
Grade of filtration 0.01  $\mu\text{m}$

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

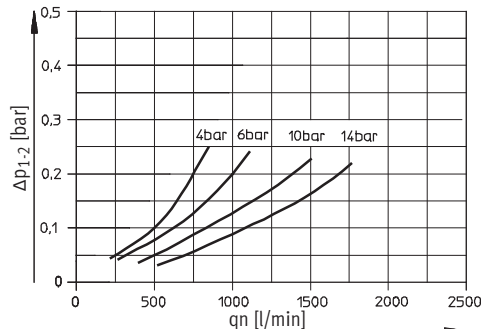
LFMA-1/4-D-MINI



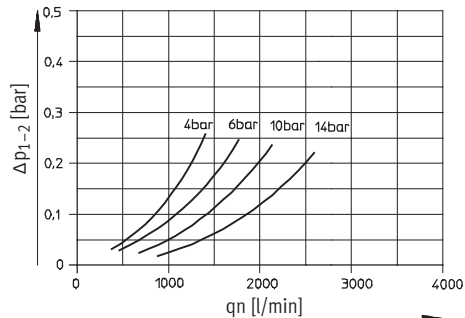
LFMB-1/4-D-MINI



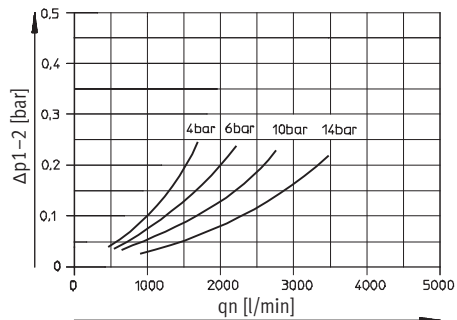
LFMA-1/2-D-MIDI



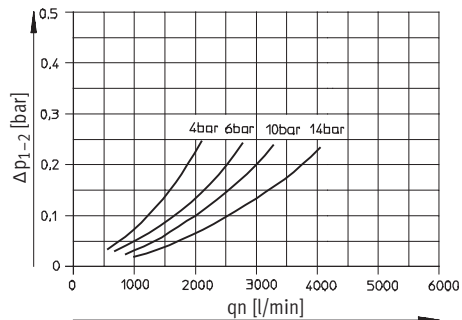
LFMB-1/2-D-MIDI



LFMA-1-D-MAXI



LFMB-1-D-MAXI



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

FESTO

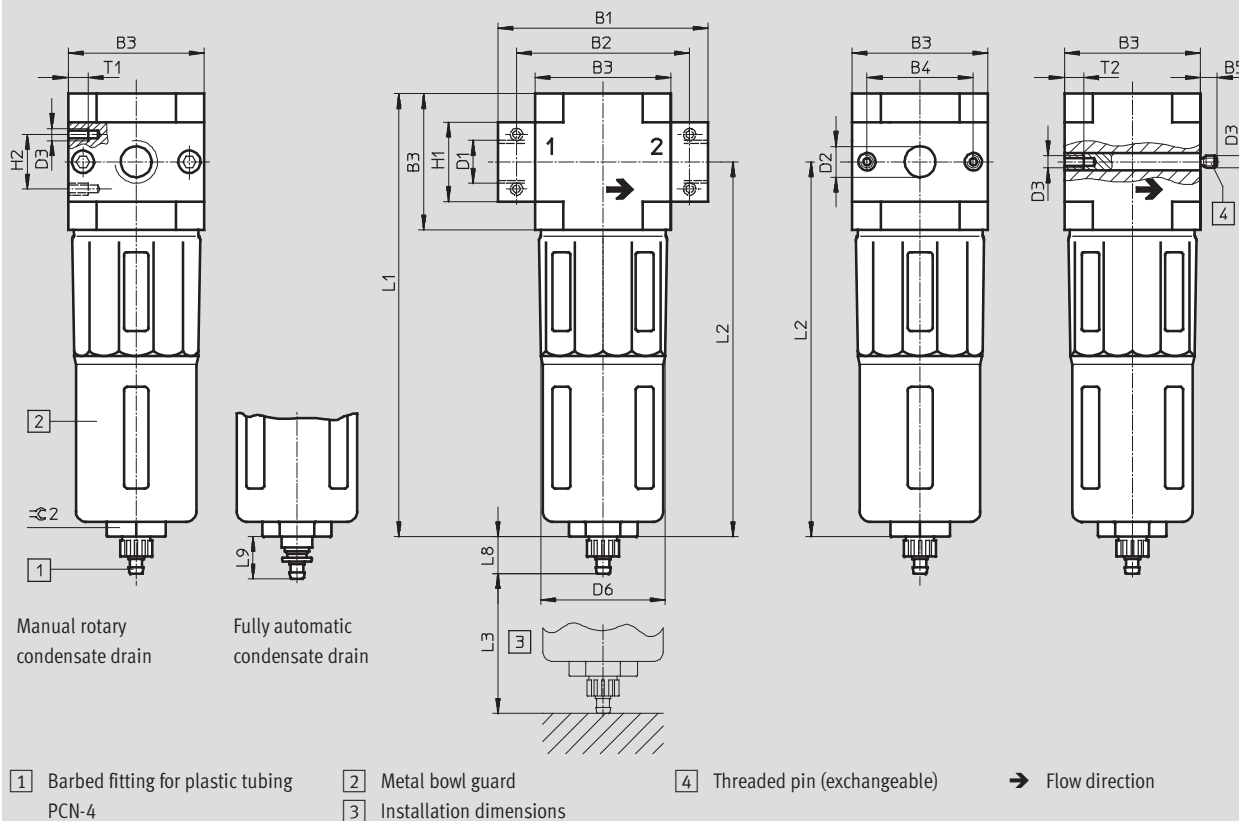
Technical data

## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Connecting plates with thread

Without connecting plates



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	70					G1/4													
LFMB/A-3/8-D-MINI						G3/8													
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				40									
LFMB/A-1-D-MAXI	116	91				G1				-	-						-	11	
LFMB/A-D-MAXI	-	-			6.8	-	30												

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

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

Technical data

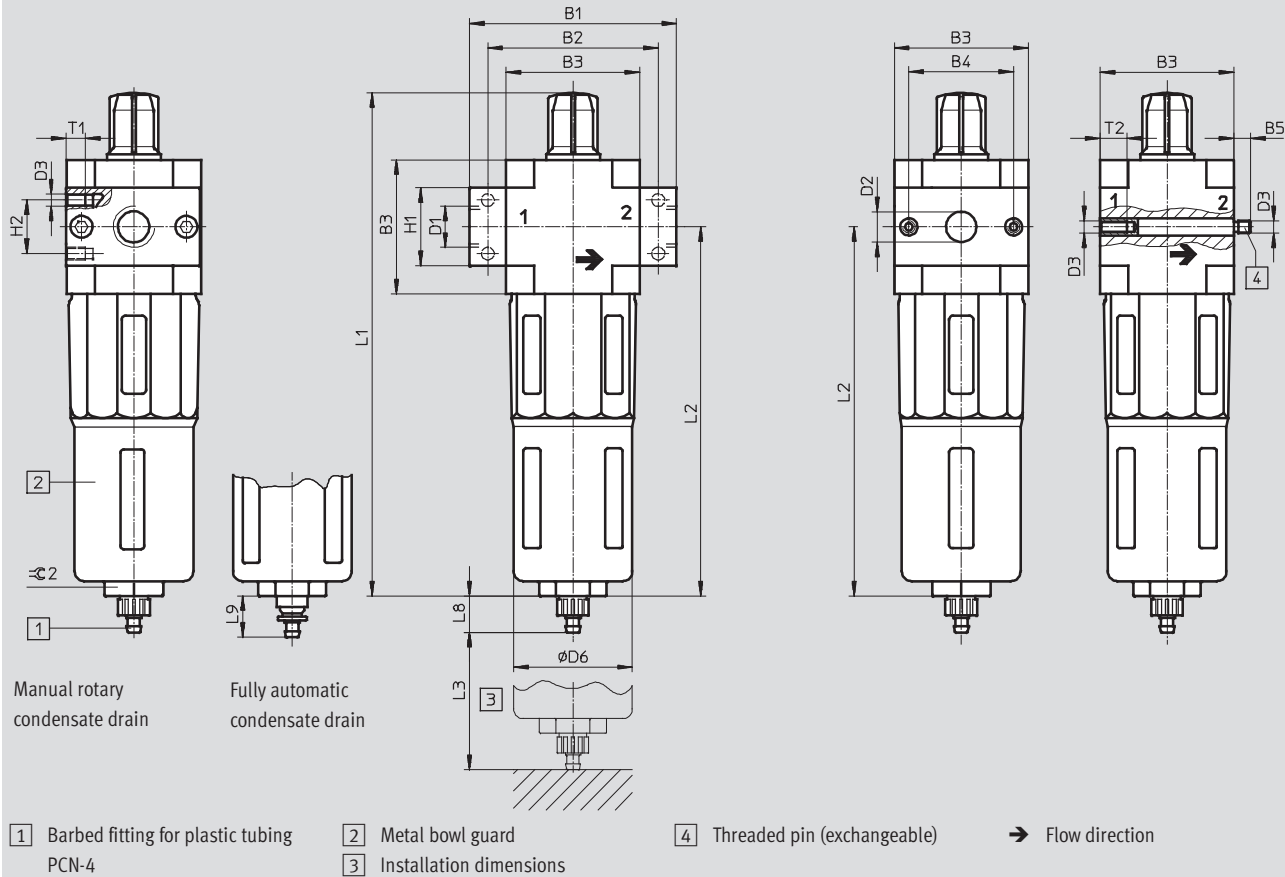
**FESTO**

Dimensions with differential pressure indicator DA

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Connecting plates with thread

Without connecting plates



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						G3/4													
LFMB/A-3/8-D-MINI-DA						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						G1													
LFMB/A-D-MAXI-DA	-	-			6.8	-	30			-	-						-	11	

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

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

**FESTO**

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 thread					
Mini	G1/8	162642	LFMA-1/8-D-MINI	162650	LFMA-1/8-D-MINI-A
	G1/4	162643	LFMA-1/4-D-MINI	162651	LFMA-1/4-D-MINI-A
	G3/8	162644	LFMA-3/8-D-MINI	162652	LFMA-3/8-D-MINI-A
Midi	G1/4	186469	LFMA-1/4-D-MIDI	186470	LFMA-1/4-D-MIDI-A
	G3/8	162645	LFMA-3/8-D-MIDI	162653	LFMA-3/8-D-MIDI-A
	G1/2	162646	LFMA-1/2-D-MIDI	162654	LFMA-1/2-D-MIDI-A
	G3/4	162647	LFMA-3/4-D-MIDI	162655	LFMA-3/4-D-MIDI-A
Maxi	G1/2	186476	LFMA-1/2-D-MAXI	186475	LFMA-1/2-D-MAXI-A
	G3/4	162648	LFMA-3/4-D-MAXI	162656	LFMA-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 thread					
Mini	G1/8	162626	LFMB-1/8-D-MINI	162634	LFMB-1/8-D-MINI-A
	G1/4	162627	LFMB-1/4-D-MINI	162635	LFMB-1/4-D-MINI-A
	G3/8	162628	LFMB-3/8-D-MINI	162636	LFMB-3/8-D-MINI-A
Midi	G1/4	186467	LFMB-1/4-D-MIDI	186468	LFMB-1/4-D-MIDI-A
	G3/8	162629	LFMB-3/8-D-MIDI	162637	LFMB-3/8-D-MIDI-A
	G1/2	162630	LFMB-1/2-D-MIDI	162638	LFMB-1/2-D-MIDI-A
	G3/4	162631	LFMB-3/4-D-MIDI	162639	LFMB-3/4-D-MIDI-A
Maxi	G1/2	186473	LFMB-1/2-D-MAXI	186474	LFMB-1/2-D-MAXI-A
	G3/4	162632	LFMB-3/4-D-MAXI	162640	LFMB-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 thread					
Mini	G1/8	532843	LFMA-1/8-D-MINI-DA	532853	LFMA-1/8-D-MINI-DA-A
	G1/4	532844	LFMA-1/4-D-MINI-DA	532854	LFMA-1/4-D-MINI-DA-A
	G3/8	532845	LFMA-3/8-D-MINI-DA	532855	LFMA-3/8-D-MINI-DA-A
Midi	G1/4	532846	LFMA-1/4-D-MIDI-DA	532856	LFMA-1/4-D-MIDI-DA-A
	G3/8	532847	LFMA-3/8-D-MIDI-DA	532857	LFMA-3/8-D-MIDI-DA-A
	G1/2	532848	LFMA-1/2-D-MIDI-DA	532858	LFMA-1/2-D-MIDI-DA-A
	G3/4	532849	LFMA-3/4-D-MIDI-DA	532859	LFMA-3/4-D-MIDI-DA-A
Maxi	G1/2	532850	LFMA-1/2-D-MAXI-DA	532860	LFMA-1/2-D-MAXI-DA-A
	G3/4	532851	LFMA-3/4-D-MAXI-DA	532861	LFMA-3/4-D-MAXI-DA-A
	G1	532852	LFMA-1-D-MAXI-DA	532862	LFMA-1-D-MAXI-DA-A

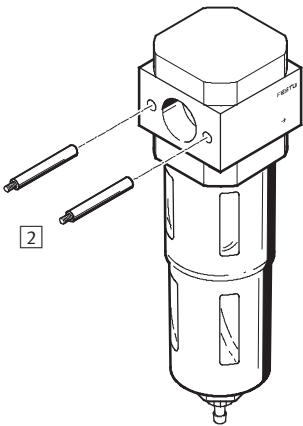
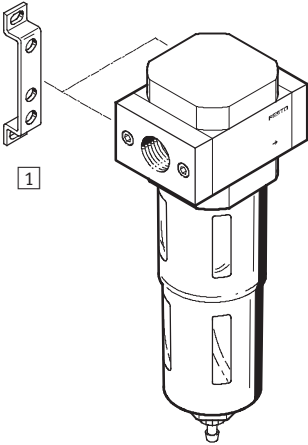
Ordering data – Fine filter LFMB with differential pressure indicator DA					
Grade of filtration 1 µm, metal bowl guard					
Size	Connection	Condensate drain, manual rotary		Condensate drain, fully automatic	
		Part No.	Type	Part No.	Type
Without connecting plates					
Mini	–	532811	LFMB-D-MINI-DA	532814	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 thread					
Mini	G1/8	532817	LFMB-1/8-D-MINI-DA	532827	LFMB-1/8-D-MINI-DA-A
	G1/4	532818	LFMB-1/4-D-MINI-DA	532828	LFMB-1/4-D-MINI-DA-A
	G3/8	532819	LFMB-3/8-D-MINI-DA	532829	LFMB-3/8-D-MINI-DA-A
Midi	G1/4	532820	LFMB-1/4-D-MIDI-DA	532830	LFMB-1/4-D-MIDI-DA-A
	G3/8	532821	LFMB-3/8-D-MIDI-DA	532831	LFMB-3/8-D-MIDI-DA-A
	G1/2	532822	LFMB-1/2-D-MIDI-DA	532832	LFMB-1/2-D-MIDI-DA-A
	G3/4	532823	LFMB-3/4-D-MIDI-DA	532833	LFMB-3/4-D-MIDI-DA-A
Maxi	G1/2	532824	LFMB-1/2-D-MAXI-DA	532834	LFMB-1/2-D-MAXI-DA-A
	G3/4	532825	LFMB-3/4-D-MAXI-DA	532835	LFMB-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

FESTO

Type codes

	LFX	–	1/4	–	D	–	MIDI
<b>Basic function</b>							
LFX	Activated carbon filter						
<b>Pneumatic connection</b>							
MINI/MIDI/MAXI							
	Without connecting plates						
MINI							
1/8	Connecting plates with thread G1/8						
1/4	Connecting plates with thread G1/4						
3/8	Connecting plates with thread G3/8						
MIDI							
1/4	Connecting plates with thread G1/4						
3/8	Connecting plates with thread G3/8						
1/2	Connecting plates with thread G1/2						
3/4	Connecting plates with thread G3/4						
MAXI							
1/2	Connecting plates with thread G1/2						
3/4	Connecting plates with thread G3/4						
1	Connecting plates with thread G1						
<b>Series</b>							
D	Series						
<b>Size</b>							
MINI	Grid dimension 40 mm (without connecting plates)						
MIDI	Grid dimension 55 mm (without connecting plates)						
MAXI	Grid dimension 66 mm (without connecting plates)						

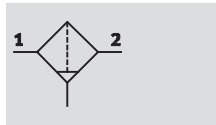


# Activated carbon filters LFX, D series, metal design

FESTO

Technical data

Function



Flow rate

360 ... 1,100 l/min

Temperature range

-10 ... +60 °C

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	G1/8	G1/4	G3/8	— <sup>1)</sup>	G1/4	G3/8	G1/2	G3/4	— <sup>1)</sup>	G1/2	G3/4	G1	— <sup>1)</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]												
Bowl guard	Metal bowl guard												
Residual oil content [mg/m³]	≤0.003												

1) Without connecting plates.

Note: This product conforms to ISO 1179-1 and 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 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# Activated carbon filters LFX, D series, metal design

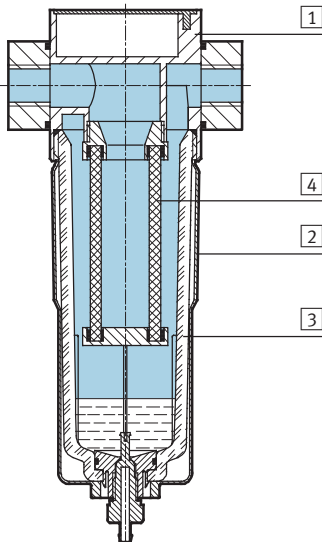
FESTO

Technical data

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

## Materials

Sectional view

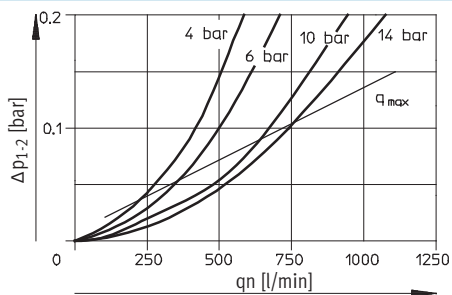


## Activated carbon filter

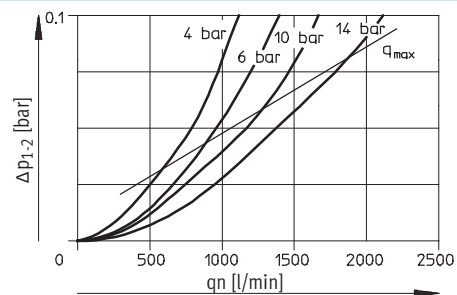
1	Housing	Die-cast zinc
2	Bowl	Polycarbonate
3	Metal bowl guard	Aluminium
4	Filter	Filter fabric made of activated carbon
-	Seals	Nitrile rubber
Note on materials		RoHS-compliant
		Free of copper and PTFE

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

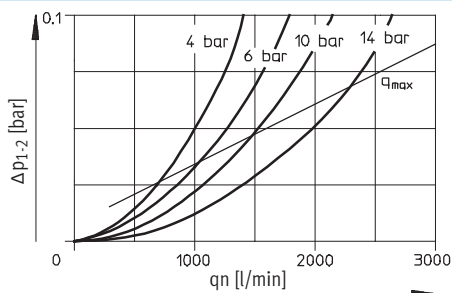
LFX-1/4-D-MINI



LFX-1/2-D-MIDI



LFX-1-D-MAXI



# Activated carbon filters LFX, D series, metal design

Technical data

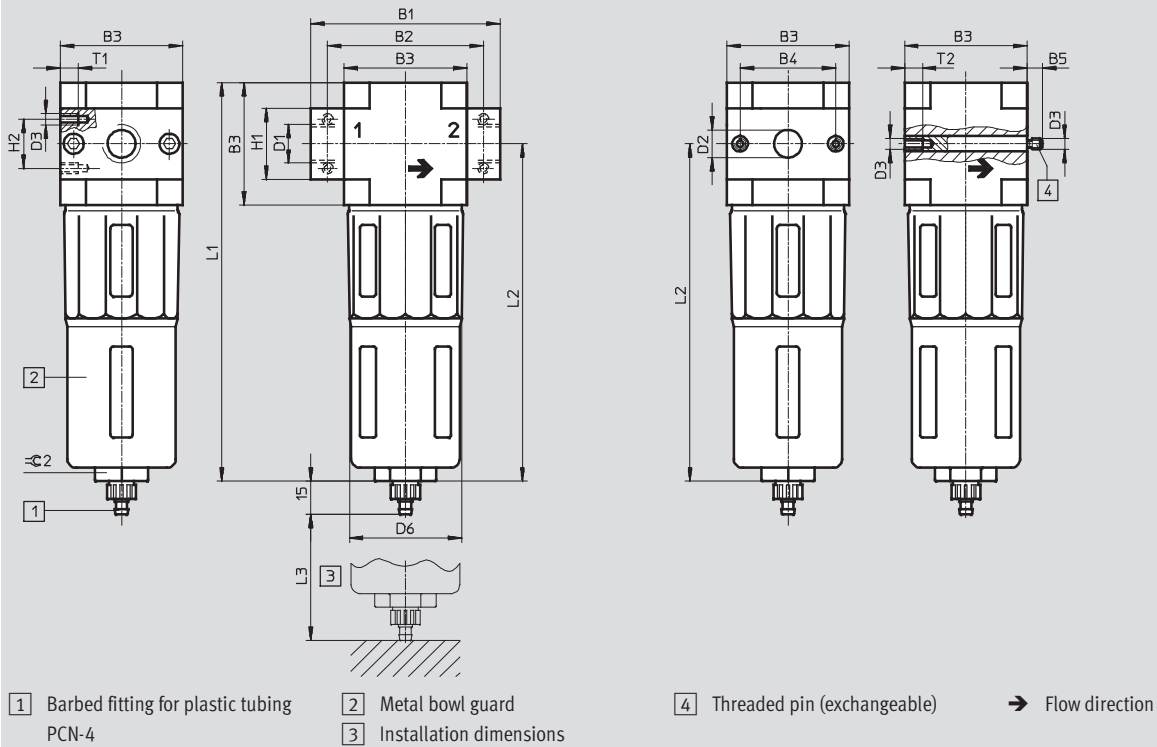
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## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Connecting plates with thread

Without connecting plates



Type	B1	B2	B3	B4	B5	D1	D2	D3	D6	H1	H2	L1	L2	L3	T1	T2	∅ 2
Mini																	
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	
Midi																	
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	
Maxi																	
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				G1				40							
LFX-D-MAXI	-	-			6.8	-	30			-	-				-	11	

Note: This product conforms to ISO 1179-1 and 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 thread			
Mini	G1/8	532779	LFX-1/8-D-MINI
	G1/4	532802	LFX-1/4-D-MINI
	G3/8	532780	LFX-3/8-D-MINI
Midi	G1/4	532781	LFX-1/4-D-MIDI
	G3/8	532782	LFX-3/8-D-MIDI
	G1/2	532783	LFX-1/2-D-MIDI
	G3/4	532784	LFX-3/4-D-MIDI
Maxi	G1/2	532785	LFX-1/2-D-MAXI
	G3/4	532786	LFX-3/4-D-MAXI
	G1	532787	LFX-1-D-MAXI

## Filter combinations LFMBA, D series, metal design

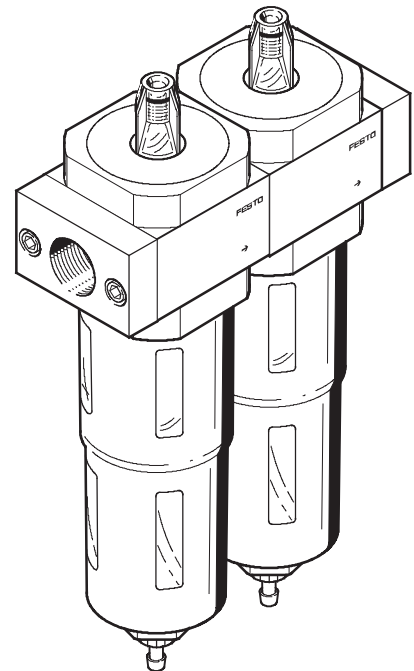
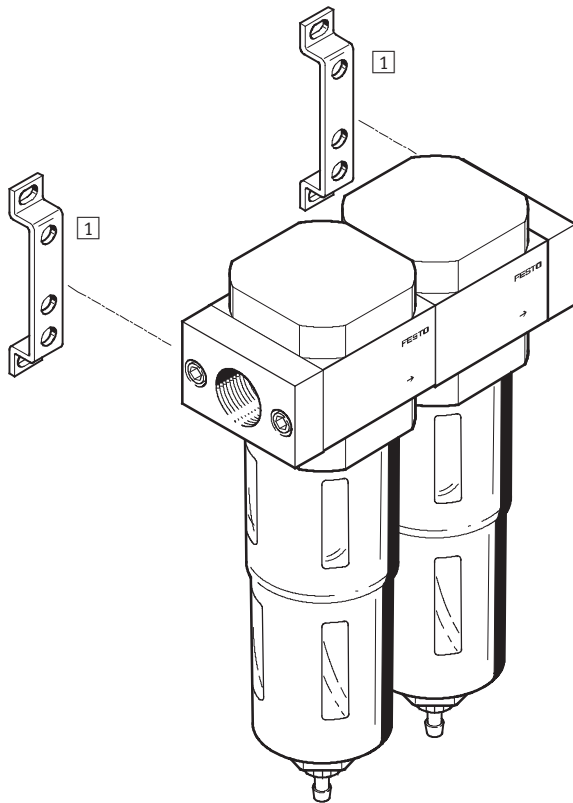
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Peripherals overview

### 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

FESTO

Type codes

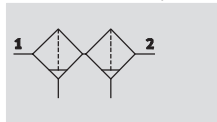
		LFMBA	–	1/4	–	D	–	MIDI	–	DA	–	A
<b>Basic function</b>												
LFMBA	Filter combination											
<b>Pneumatic connection</b>												
<b>MINI</b>												
1/8	Connecting plates with thread G1/8											
1/4	Connecting plates with thread G1/4											
3/8	Connecting plates with thread G3/8											
<b>MIDI</b>												
1/4	Connecting plates with thread G1/4											
3/8	Connecting plates with thread G3/8											
1/2	Connecting plates with thread G1/2											
3/4	Connecting plates with thread G3/4											
<b>MAXI</b>												
1/2	Connecting plates with thread G1/2											
3/4	Connecting plates with thread G3/4											
1	Connecting plates with thread G1											
<b>Series</b>												
D	Series											
<b>Size</b>												
MINI	Grid dimension 40 mm (without connecting plates)											
MIDI	Grid dimension 55 mm (without connecting plates)											
MAXI	Grid dimension 60 mm (without connecting plates)											
<b>Filter contamination sensing</b>												
	Without differential pressure indicator											
DA	With differential pressure indicator											
<b>Condensate drain</b>												
	Manual rotary											
A	Fully automatic											

# Filter combinations LFMBA, D series, metal design

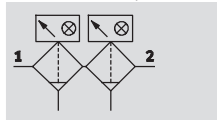
FESTO

Technical data

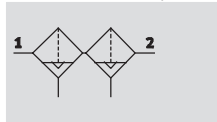
Manual rotary condensate drain,  
without differential pressure indicator



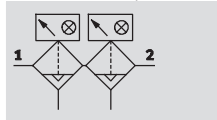
with differential pressure indicator



Fully automatic condensate drain,  
without differential pressure indicator



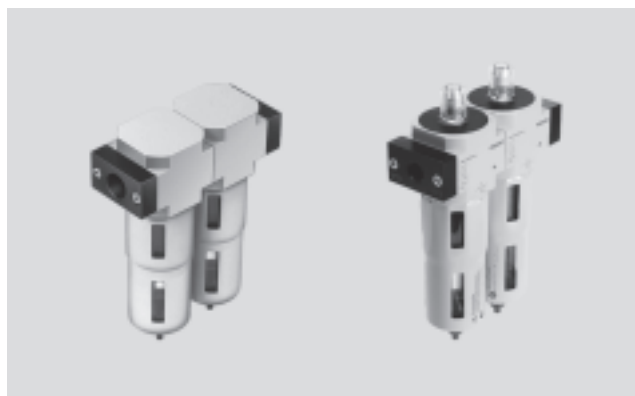
with differential pressure indicator



Flow rate  
125 ... 600 l/min

Temperature range  
-10 ... +60 °C

Pressure  
1 ... 16 bar



- 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	G1/8	G1/4	G3/8	G1/4	G3/8	G1/2	G3/4	G1/2	G3/4	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]										
Filter efficiency [%]	99.9999										
Bowl guard	Metal bowl guard										
Condensate drain	Manual rotary										
	Fully automatic										
Differential pressure indicator	Visual indicator										
Residual oil content [mg/m³]	≤0.01										
Max. condensate volume [ml]	22			43				80			

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

Standard nominal flow rate <sup>1)</sup> q <sub>N</sub> [l/min]											
Connection	Mini			Midi				Maxi			
	G1/8	G1/4	G3/8	G1/4	G3/8	G1/2	G3/4	G1/2	G3/4	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.  
A minimum flow rate of 125 l/min is required for correct operation.

## Filter combinations LFMBA, D series, metal design

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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	

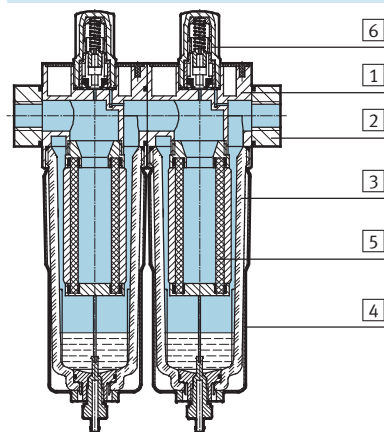
1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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	Polycarbonate
4	Metal bowl guard	Aluminium
5	Filter	Borosilicate fibre
6	Housing for version with differential pressure indicator	Polycarbonate
–	Seals	Nitrile rubber
Note on materials		RoHS-compliant
		Free of copper and PTFE



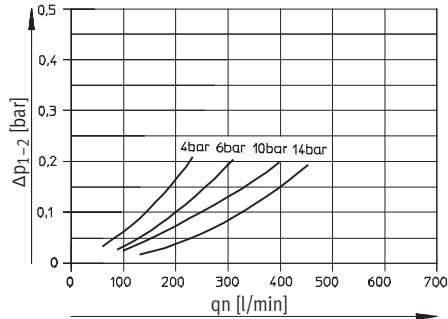
# Filter combinations LFMBA, D series, metal design

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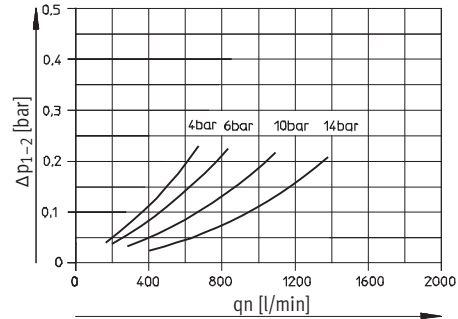
Technical data

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

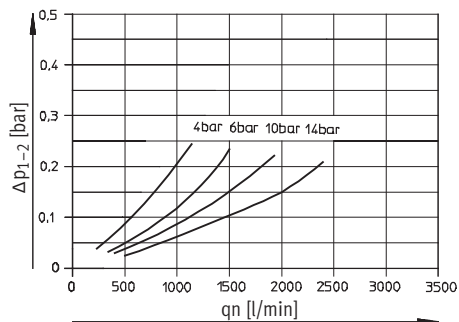
LFMBA-1/4-D-MINI



LFMBA-1/2-D-MID



LFMBA-1-D-MAXI



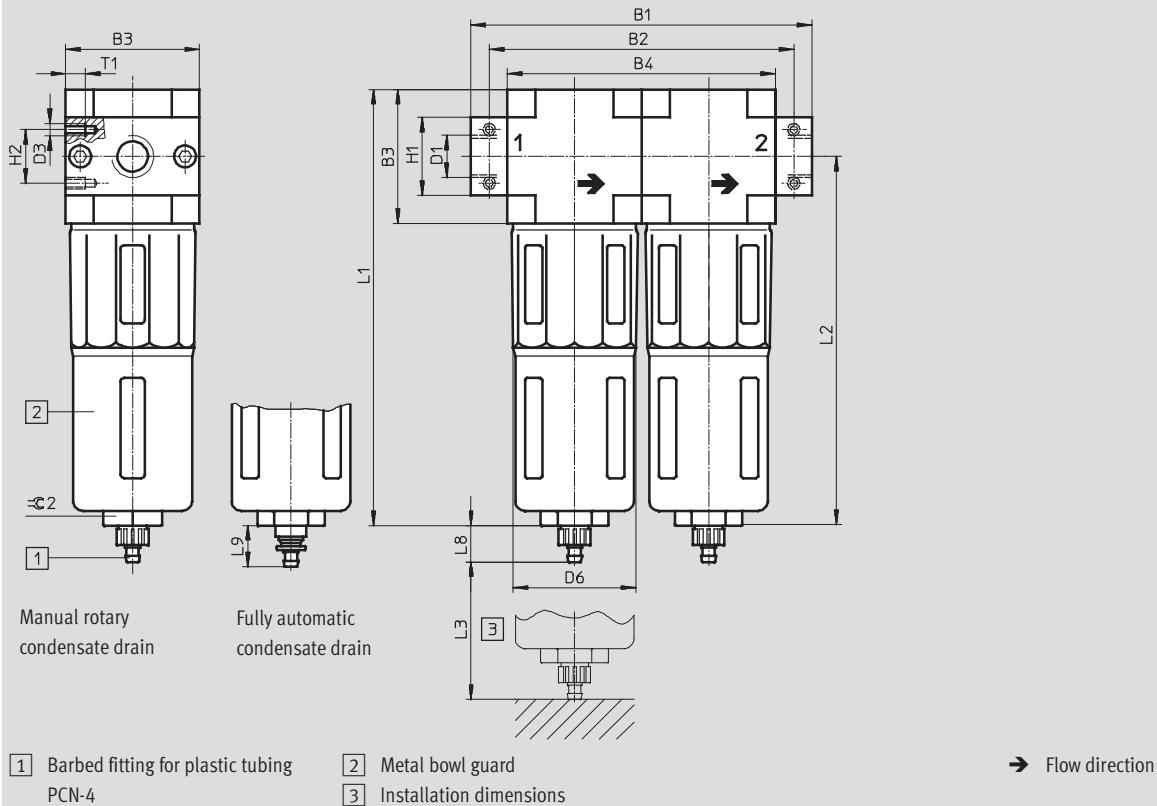
# Filter combinations LFMBA, D series, metal design

Technical data

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## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	B1	B2	B3	B4	D1	D3	D6 Ø	H1	H2	L1	L2	L3	L8	L9	T1	≈ 2
Mini																
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											
Midi																
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											
Maxi																
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			40								

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

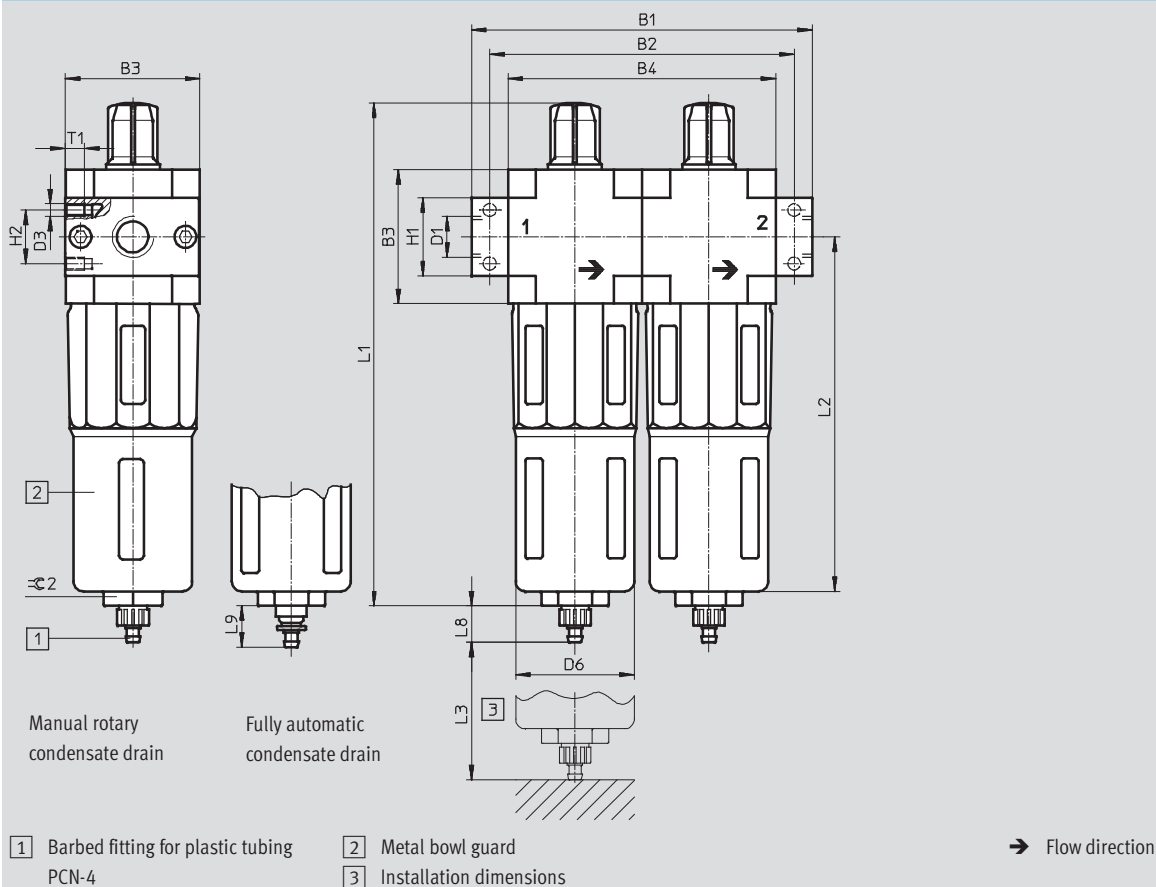
# Filter combinations LFMBA, D series, metal design

FESTO

Technical data

Dimensions with differential pressure indicator

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	B1	B2	B3	B4	D1	D3	D6 Ø	H1	H2	L1	L2	L3	L8	L9	T1	≈ 2
Mini																
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	110				G3⁄8											
Midi																
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											
Maxi																
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			40								
LFMBA-1-D-MAXI-DA	182	157			G1											

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

## Filter combinations LF MBA, D series, metal design

**FESTO**

Technical data

Ordering data – Filter combination LF MBA					
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 LF MBA 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

**FESTO**

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

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