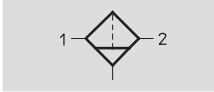


LF Filters – D Series, NPT

Technical Data

Function
Condensate drain
turned manually



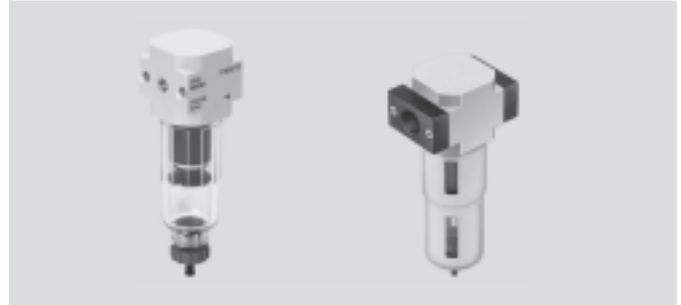
semi- or fully automatic



Flow rate
170 ... 5300 l/min

Temperature range
-10 ... +60 °C

Pressure
0 ... 16 bar



- Good particle and condensate separation
- High flow rate with minimal pressure drop
- With manual, semiautomatic, or fully automatic condensate drain
- Choice of filter cartridges: 5 µm or 40 µm → lfp

General technical data									
Size	Micro			Mini			Midi		Maxi
Pneumatic connection	1/8 NPT	1/8 NPT	1/4 NPT	3/8 NPT	3/8 NPT	1/2 NPT	3/4 NPT	3/4 NPT	1 NPT
Operating medium	Compressed air								
Design	Sintered filter with centrifugal separation								
Type of mounting	Via accessories In-line installation								
Assembly position	Vertical ±5°								
Grade of filtration [µm]	5	5 or 40							
Max. condensate volume [cm ³]	3	22			43		80		
Input pressure [bar]									
Condensate drain	manual	0 ... 10	0 ... 16						
	semiautomatic	1 ... 10	-						
	fully automatic	-	2 ... 12						

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

Standard nominal flow rate ¹⁾ qnN [l/min]	
Connection	Port block 1/8 NPT
Micro	
LF	290

Standard nominal flow rate ¹⁾ qnN [l/min]						
Connection	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT	3/4 NPT	1 NPT
Mini						
LF-...-D-...(-A)	1000	1200	1400	-	-	-
LF-...-D-5M-...(-A)	800	950	1100	-	-	-
Midi						
LF-...-D-...(-A)	-	1900	2700	3000	3000	-
LF-...-D-5M-...(-A)	-	1600	1800	2000	2000	-
Maxi						
LF-...-D-...(-A)	-	-	-	4400	5000	5300
LF-...-D-5M-...(-A)	-	-	-	3700	3600	3800

1) Measured at p₁ = 6 bar and Δp = 1 bar. A minimum flow rate of 125 l/min is required for flawless functioning.

LF Filters – D Series, NPT

Technical Data



Screw-in depth of connecting thread [mm]					
Connection	M5	M7	G1/8	QS4	QS6
Micro					
In housing	5	6	–	–	–
In port blocks	–	–	8	–	–

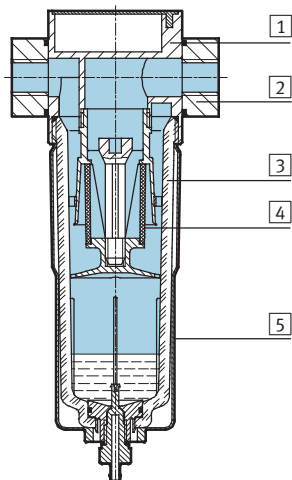
Ambient conditions					
Size	Micro	Mini	Midi	Maxi	
Ambient temperature [°C]	–10 ... +60				
Temperature of medium [°C]	–10 ... +60				
Corrosion resistance class CRC ²⁾	2				

2) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. 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	Port block			Connection 3/4 NPT	Connection 1 NPT
LF-...	44	64	250	700	1340	1440

Materials

Sectional view

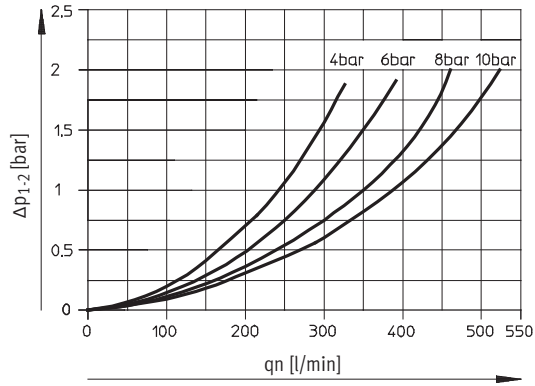


Filter	Micro	Mini/Midi/Maxi
1 Housing	Wrought aluminum alloy	Die-cast zinc
2 Port blocks	Wrought aluminum alloy	Die-cast zinc/aluminum
3 Bowl	Polycarbonate	Polycarbonate
4 Filter cartridge	Polyethylene	Polyethylene
5 Metal bowl guard	–	Aluminum
– Seals	Nitrile rubber	Nitrile rubber

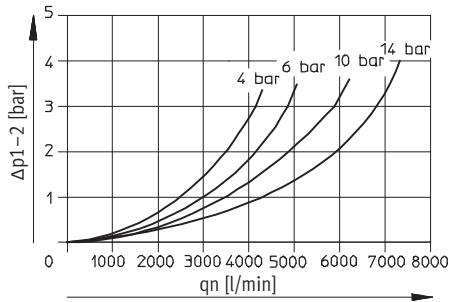
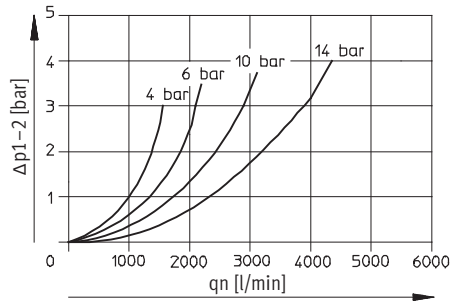
LF Filters – D Series, NPT

Technical Data

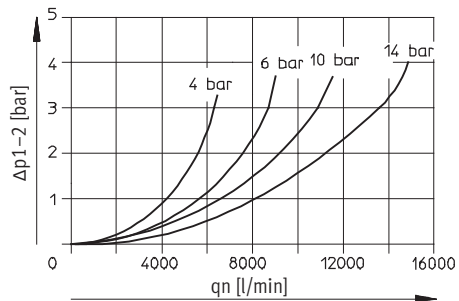
Standard flow rate q_n as a function of the differential pressure Δp_{1-2}
 LF-1/8...-MICRO



LF-1/4-D-MINI LF-1/2-D-MIDI



LF-1-D-MAXI



LF Filters – D Series, NPT

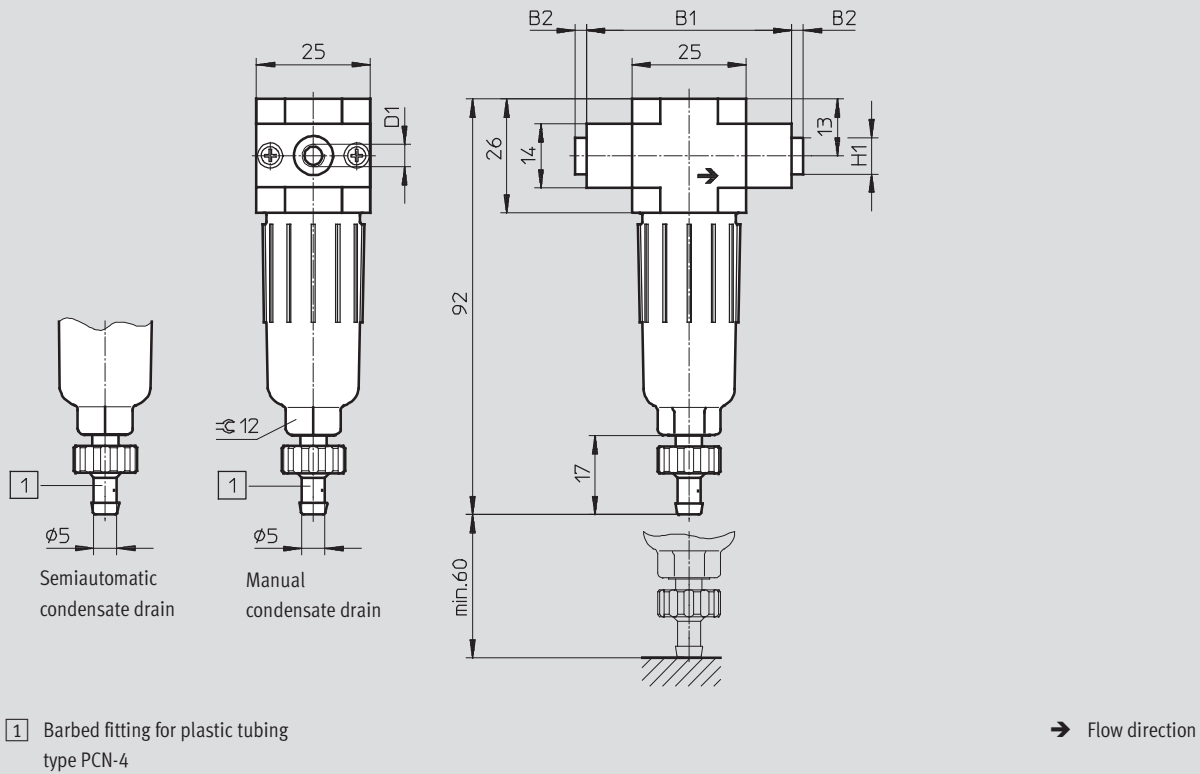
Technical Data – Dimensional Drawings



Dimensions

Download CAD Data → www.festo.com/us/cad

Micro



Type	B1	B2	D1	H1
LF-N $\frac{1}{8}$ -D-5M-MICRO	45	-	$\frac{1}{8}$ NPT	-

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

LF Filters – D Series, NPT

Technical Data – Dimensional Drawings



Download CAD Data → www.festo.com/us/cad

Mini/Midi/Maxi

With threaded port blocks Without threaded port blocks

Fully automatic condensate drain Manual condensate drain

- 1 Barbed fitting for plastic tubing type PCN-4
- 2 Metal bowl guard
- 3 Installation dimensions
- 4 Threaded bolt (exchangeable)

→ Flow direction

Type	B1	B2	B3	B4	B5	D1	D2 Ø	D3	D6 Ø	H1	H2	L1	L2	L3	L8	L9	T1	T2	⊖ 2
Mini																			
LF-1/8-D-MINI	64	52	40	30	-	1/8 NPT	-	M4	38	20	11	144	124	60	15	19	7	-	22
LF-1/4-D-MINI	-	-			3/4 NPT	-													
LF-3/8-D-MINI	70	-			3/8 NPT	-													
LF-D-MINI	-	-	-	-	5.8	-	11	-	-	-	-	-	-	-	-	-	-	10	-
Midi																			
LF-3/8-D-MIDI	85	70	55	43	-	3/8 NPT	-	M5	52	32	22	179	151	80	15	19	8	-	24
LF-1/2-D-MIDI					1/2 NPT	-													
LF-3/4-D-MIDI					3/4 NPT	-													
LF-D-MIDI	-	-	-	-	6.8	-	24	-	-	-	-	-	-	-	-	-	-	11	-
Maxi																			
LF3/4-D-MAXI	96	80	66	46	-	3/4 NPT	-	M5	65	32	22	203	170	90	15	19	8	-	24
LF-1-D-MAXI	116	91			1 NPT	-													
LF-D-MAXI	-	-			6.8	-	30												

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

LF Filters – D Series, NPT

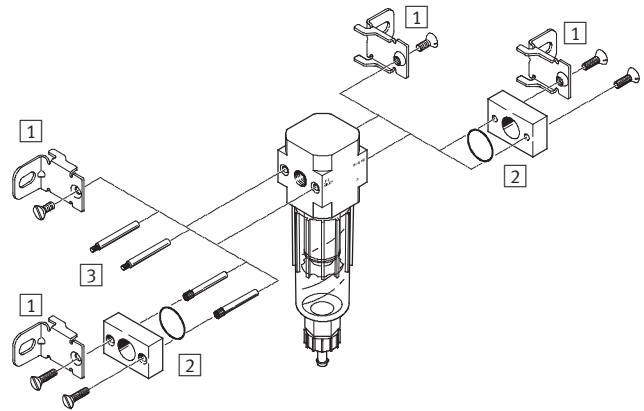
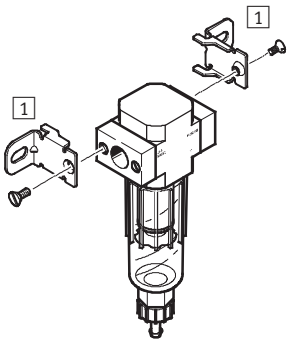
Accessories Overview



Micro

Individual unit with port blocks, connection size 1/8" NPT

Individual unit without port blocks, for combination unit connection size M5 or M7 in housing



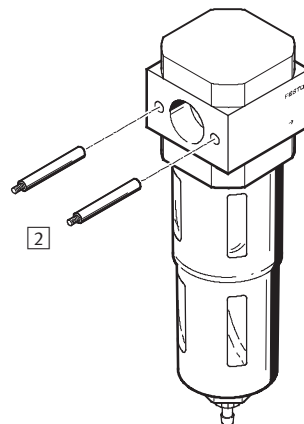
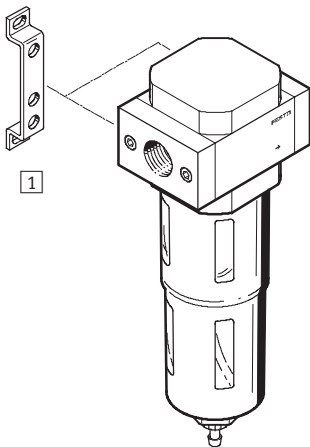
Mounting attachments and accessories

	Individual unit		Combination		→ Page/Internet
	with port blocks	without port blocks	with port blocks	without port blocks	
1 Mounting bracket HFOE	■	■	■	■	hfoe
2 Port block kit PBL	-	■	-	■	pbl
3 Threaded bolt FRB	-	-	■	■	frb

Mini/Midi/Maxi

Individual unit with port blocks

Individual unit without port blocks, for combination unit



Mounting attachments and accessories

	Individual unit		Combination		→ Page/Internet
	with port blocks	without port blocks	with port blocks	without port blocks	
1 Mounting bracket HFOE	■	-	■	-	hfoe
2 Threaded bolt FRB (must be ordered separately)	-	-	■	■	frb

Note

For Custom Combinations → FAST Program Selector Guide starting page 9

LF Filters – D Series, NPT

Type Codes



Basic function	
LF	Filter

Pneumatic connection	
N $\frac{1}{8}$	$\frac{1}{8}$ NPT Thread (for Micro only)
$\frac{1}{8}$	$\frac{1}{8}$ NPT Thread
$\frac{1}{4}$	$\frac{1}{4}$ NPT Thread
$\frac{3}{8}$	$\frac{3}{8}$ NPT Thread
$\frac{1}{2}$	$\frac{1}{2}$ NPT Thread
$\frac{3}{4}$	$\frac{3}{4}$ NPT Thread
1	1 NPT Thread

Series	
D	Series

Grade of filtration	
5M	5 μ m
	40 μ m

Size	
MICRO	Grid dimension 25 mm (without port blocks)
MINI	Grid dimension 40 mm (without port blocks)
MIDI	Grid dimension 55 mm (without port blocks)
MAXI	Grid dimension 66 mm (without port blocks)

Condensate drain	
	Turned manually
A	Fully automatic

NPT connection (where available)	
NPT	NPT threaded connection (not in type code for Micro)

LF Filters – D Series, NPT

Ordering Data



Ordering data					
Input pressure 1 ... 10 bar					
Condensate drain	Size	Connection	Grade of filtration 5 µm		
			Part No.	Type	
Turned manually	Micro	With threaded port blocks			
		1/8 NPT	526301	LF-N1/8-D-5M-MICRO	
Semiautomatic	Micro	With threaded port blocks			
		1/8 NPT	526302	LF-N1/8-D-5M-MICRO-H	

Ordering data					
Input pressure 0 ... 16 bar, metal bowl guard					
Condensate drain	Size	Grade of filtration 5 µm		Grade of filtration 40 µm	
		Part No.	Type	Part No.	Type
Without threaded port blocks					
Turned manually	Mini	192557	LF-D-5M-MINI	192551	LF-D-MINI
	Midi	192558	LF-D-5M-MIDI	192552	LF-D-MIDI
	Maxi	192559	LF-D-5M-MAXI	192553	LF-D-MAXI
Fully automatic	Mini	192560	LF-D-5M-MINI-A	192554	LF-D-MINI-A
	Midi	192561	LF-D-5M-MIDI-A	192555	LF-D-MIDI-A
	Maxi	192562	LF-D-5M-MAXI-A	192556	LF-D-MAXI-A

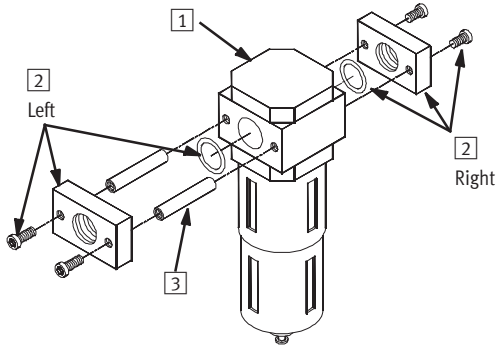
Ordering data						
Input pressure 0 ... 16 bar, metal bowl guard						
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With threaded port blocks						
Turned manually	Mini	1/8 NPT	173678	LF-1/8-D-5M-MINI-NPT	173676	LF-1/8-D-MINI-NPT
		1/4 NPT	173682	LF-1/4-D-5M-MINI-NPT	173680	LF-1/4-D-MINI-NPT
		3/8 NPT	173686	LF-3/8-D-5M-MINI-NPT	173684	LF-3/8-D-MINI-NPT
	Midi	3/8 NPT	173690	LF-3/8-D-5M-MIDI-NPT	173688	LF-3/8-D-MIDI-NPT
		1/2 NPT	173694	LF-1/2-D-5M-MIDI-NPT	173692	LF-1/2-D-MIDI-NPT
		3/4 NPT	173698	LF-3/4-D-5M-MIDI-NPT	173696	LF-3/4-D-MIDI-NPT
	Maxi	3/4 NPT	173702	LF-3/4-D-5M-MAXI-NPT	173700	LF-3/4-D-MAXI-NPT
		1 NPT	173706	LF-1-D-5M-MAXI-NPT	173704	LF-1-D-MAXI-NPT
	Fully automatic	Mini	1/8 NPT	173679	LF-1/8-D-5M-MINI-A-NPT	173677
1/4 NPT			173683	LF-1/4-D-5M-MINI-A-NPT	173681	LF-1/4-D-MINI-A-NPT
3/8 NPT			173687	LF-3/8-D-5M-MINI-A-NPT	173685	LF-3/8-D-MINI-A-NPT
Midi		3/8 NPT	173691	LF-3/8-D-5M-MIDI-A-NPT	173689	LF-3/8-D-MIDI-A-NPT
		1/2 NPT	173695	LF-1/2-D-5M-MIDI-A-NPT	173693	LF-1/2-D-MIDI-A-NPT
		3/4 NPT	173699	LF-3/4-D-5M-MIDI-A-NPT	173697	LF-3/4-D-MIDI-A-NPT
Maxi		3/4 NPT	173703	LF-3/4-D-5M-MAXI-A-NPT	173701	LF-3/4-D-MAXI-A-NPT
		1 NPT	173707	LF-1-D-5M-MAXI-A-NPT	173705	LF-1-D-MAXI-A-NPT

FAST* Program – LF Filter Selector Guide

LF Filters – D Series, NPT



*FAST = Festo Assured Shipping Time. Ordering via the FAST program means same day / next day shipping from our warehouse of the parts required to assemble a complete air preparation unit.



A complete filter assembly consists of the following items:

Item	Description	Qty Required per Assy
1	Main Unit	1
2	Port Block Kit	2 (one left, one right)
3	Single Unit Joining Rod	2
4	Mounting Bracket Kit (Optional) (Not shown)	1

Step 1: Based upon the required Port Size, Maximum Flow, Filtration Level, Drain Type, and Thread Type, select the Main Unit [Item 1] and the Left and Right Port Block Kits (Item 2).

Port size	Max. Flow (l/min/scfm)	Filtration Level (µm)	Drain	Product Type / Description	Item		BSP Thread						
					Main Unit	NPT Thread		BSP Thread					
						Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit				
1/8	1000/35.3	40	Man.	LF-...-D-MINI-...	546428	546520	546521	546495	546496				
			Auto		546429								
	800/28.3	5	Man.		546451								
			Auto		546453								
1/4	1200/42.4	40	Man.		546428	546522	546523	546497	546498				
			Auto		546429								
			Man.	LF-...-D-MIDI-...	546422					546538	546537	546532	546533
			Auto		546423								
	950/33.5	5	Man.	LF-...-D-MINI-...	546451	546522	546532	546497	3546498				
			Auto		546453								
			Man.	LF-...-D-MIDI-...	546453					546536	546537	546532	546533
			Auto		546459								
3/8	1400/49.4	40	Man.	LF-...-D-MINI-...	546428	546524	546525	546499	546500				
			Auto		546429								
			Man.	LF-...-D-MIDI-...	546422					546530	546531	546501	546502
			Auto		546423								
	2700/95.4	5	Man.	LF-...-D-MINI-...	546451	546524	546525	546499	546500				
			Auto		546543								
			Man.	LF-...-D-MIDI-...	546459					546530	546531	546501	546502
			Auto		548460								

FAST Program – LF Filter Selector Guide

LF Filters – D Series, NPT



				Item					
				[1]		[2]			
Port size	Max. Flow (l/min/scfm)	Filtration Level (µm)	Drain	Product Type / Description	Main Unit	NPT Thread		BSP Thread	
						Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit
½	3000/105.9	40	Man.	LF-...-D-MIDI-...	546422	546526	546527	546503	546504
			Auto		546423				
	4400/155.4	5	Man.	LF-...-D-MAXI-...	546434	546538	546539	546534	546535
			Auto		546435				
	2000/70.6	5	Man.	LF-...-D-MIDI-...	546459	546526	546527	546503	546504
			Auto		546460				
3600/127.1	5	Man.	LF-...-D-MAXI-...	546466	546538	546539	546534	546535	
		Auto		546467					
¾	3000/105.9	40	Man.	LF-...-D-MIDI-...	546422	546528	546529	546505	546506
			Auto		546423				
	5000/176.6	5	Man.	LF-...-D-MAXI-...	546434	546490	546492	546507	546508
			Auto		546435				
	2000/70.6	5	Man.	LF-...-D-MIDI-...	546459	546528	546529	546505	546506
			Auto		546460				
3700/130.7	5	Man.	LF-...-D-MAXI-...	546466	546490	546492	546507	546508	
		Auto		546467					
1	5300/187.2	40	Man.		546434	546491	546493	546509	546510
			Auto		546435				
	3800/134.2	5	Man.		546466				
			Auto		546467				

Step 2: Based upon the Product Type/Description from Step 1, select the Joining Rods (Item [3]) and the (optional) Mounting Bracket Kit (Item [4]).

		Item	
		[3]	[4] (Not shown)
Product Type / Description		Single Unit Joining Rod	Mounting Bracket Kit (Optional)
LF-...-D-MINI-...		546483	159638
LF-...-D-MINI-...		546489	159593
LF-...-D-MINI-...		546494	

Step 3: Determine the appropriate quantity of each Item.

Ordering Example:

Required: ¼ port size, 1100 l/min flow, 40 µm filtration, automatic drain, BSP threads, and mounting bracket kit.

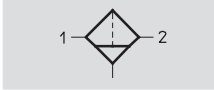
	Item	Part No.	Qty	Description
Order:	[1]	546429	1	Main Unit
	[2]	546497	1	Left Port Block Kit
		546498	1	Right Port Block Kit
	[3]	546483	2	Single Unit Joining Rod
	[4]	159638	1	Mounting Bracket Kit

LFMB/LFMA Fine and Micro Filters – D Series, NPT

Technical Data

Function

Condensate drain manual
without differential pressure indicator



Condensate drain fully automatic
without differential pressure indicator



Flow rate

130 ... 1250 l/min

Temperature range

-10 ... +60 °C

Input pressure

1 ... 16 bar



- High efficiency filter for special requirements
- Air quality to DIN ISO 8573-1
- With or without threaded port blocks
- Choice of filter cartridges: 0.01 µm or 1 µm
- Filter cartridges → lfp

LFMA:

ISO class 1 for particles:
max. particle density 0.1 mg/m³
ISO class 2 for oil aerosols:
max. oil concentration 0.1 mg/m³
Filter efficiency 99.9999%

LFMB:

ISO class 2 for particles:
max. particle density 1 mg/m³
ISO class 3 for oil aerosols:
max. oil concentration 1 mg/m³
Filter efficiency 99.99%

General technical data								
Size	Mini			Midi			Maxi	
Pneumatic connection	1/8 NPT	1/4 NPT	3/8 NPT	3/8 NPT	1/2 NPT	3/4 NPT	3/4 NPT	1 NPT
Design	Fibre filter							
Type of mounting	Via accessories In-line installation							
Assembly position	Vertical ±5°							
Operating medium								
Micro filter LFMA	Filtered compressed air, lubricated or unlubricated, grade of filtration 1 µm							
Fine filter LFMB	Filtered compressed air, lubricated or unlubricated, grade of filtration 5 µm							
Grade of filtration	[µm]							
Micro filter LFMA	0.01							
Fine filter LFMB	1							
Air purity class at the output								
Grade of filtration	0.01 µm	1.7.2 to DIN ISO 8573-1						
	1 µm	2.7.3 to DIN ISO 8573-1						
Residual oil content	[mg/m ³]							
Micro filter LFMA	≤0.01							
Fine filter LFMB	≤0.5							
Input pressure	[bar]							
Condensate drain	Manual	1 ... 16						
	Fully automatic	1.5 ... 12						
Max. condensate volume	[cm ³]							
Micro filter LFMA/fine filter LFMB	22	43				80		

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

LFMB/LFMA Fine and Micro Filters – D Series, NPT

Technical Data

Standard nominal flow rate ¹⁾ q _N [l/min]								
Connection	Mini			Midi			Maxi	
	1/8 NPT	1/4 NPT	3/8 NPT	3/8 NPT	1/2 NPT	3/4 NPT	3/4 NPT	1 NPT
Micro filter LFMA	130	160	180	380	400	460	900	950
Fine filter LFMB	250	300	310	700	900	1000	1200	1250

1) Measured at p₁ = 6 bar and Δp = 70 mbar.
A minimum flow rate of 125 l/min is required for flawless functioning.

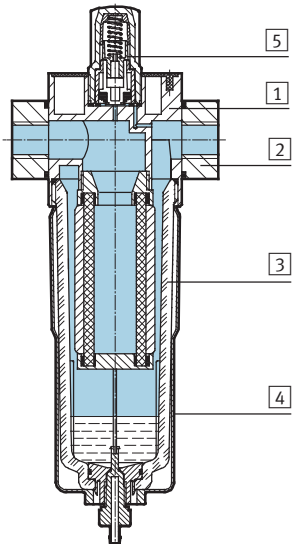
Ambient conditions				
Size		Mini	Midi	Maxi
Ambient temperature	[°C]	-10 ... +60		
Temperature of medium	[°C]	+1.5 ... +60		
Corrosion resistance class	CRC ¹⁾	2		

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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	1200
With differential pressure indicator	368	834	1340

Materials

Sectional view



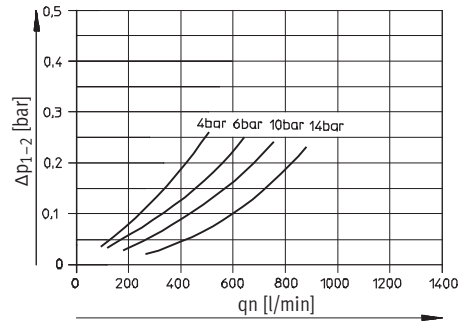
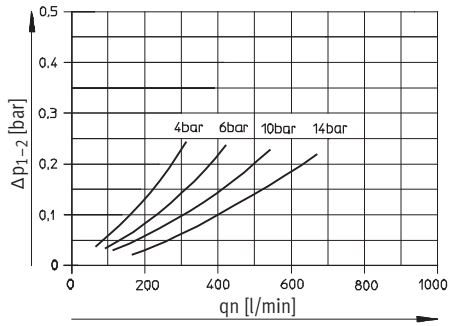
Fine and micro filters		
1	Housing	Die-cast zinc
2	Port blocks	Aluminum
3	Bowl	Polycarbonate
4	Metal bowl guard	Aluminum
5	Housing for version with differential pressure indicator	Polycarbonate
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE

LFMB/LFMA Fine and Micro Filters – D Series, NPT

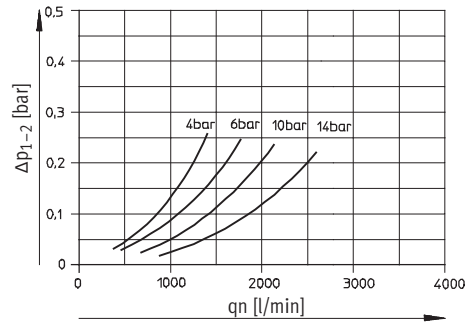
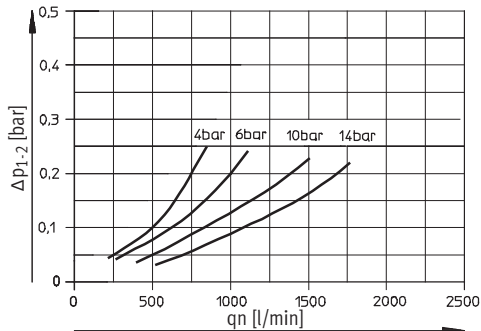
Technical Data

Standard flow rate q_n as a function of the differential pressure Δp_{1-2}
 Grade of filtration 0.01 μm Grade of filtration 1 μm

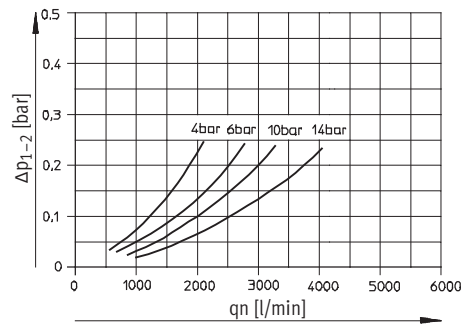
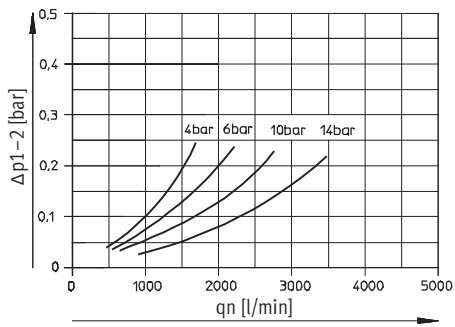
LFMA-1/4-D-MINI and LFMA-1/4-D-MINI-A **LFMB-1/4-D-MINI and LFMB-1/4-D-MINI-A**



LFMA-1/2-D-MIDI and LFMA-1/2-D-MIDI-A **LFMB-1/2-D-MIDI and LFMB-1/2-D-MIDI-A**



LFMA-1-D-MAXI and LFMA-1-D-MAXI-A **LFMB-1-D-MAXI and LFMB-1-D-MAXI-A**



LFMB/LFMA Fine and Micro Filters – D Series, NPT

Technical Data – Dimensional Drawings



Dimensions

With threaded port blocks

Download CAD Data → www.festo.com/us/cad

Without threaded port blocks

1 Barbed fitting for plastic tubing type PCN-4
 2 Metal bowl guard
 3 Installation dimensions
 4 Threaded bolt (exchangeable)
 → Flow direction

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

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

LFMB/LFMA Fine and Micro Filters – D Series, NPT

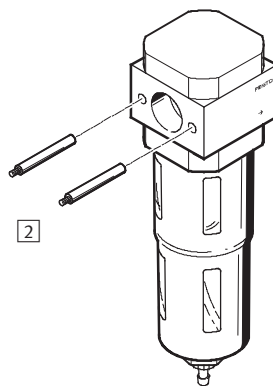
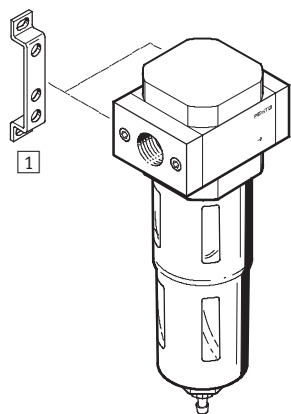
Accessories Overview



Mini/Midi/Maxi

Individual unit with port blocks

Individual unit without port blocks, for air preparation unit combination



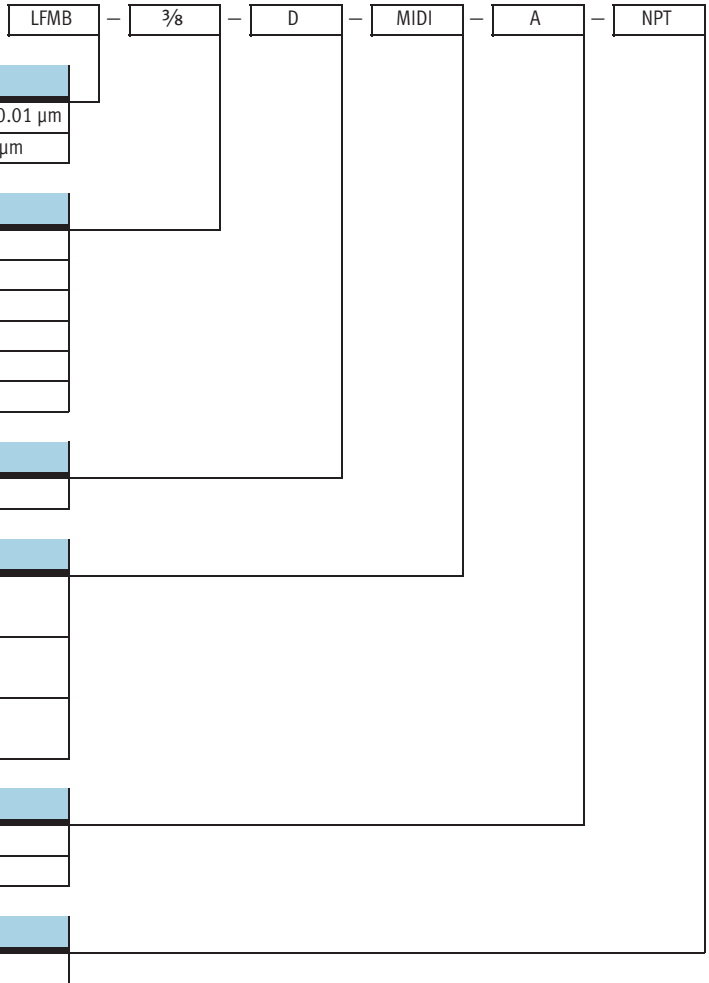
Mounting attachments and accessories					
	Individual unit		Combination		→ Page/Internet
	with port blocks	without port blocks	with port blocks	without port blocks	
1 Mounting bracket HFOE	■	-	■	-	hfoe
2 Threaded bolt (must be ordered separately) FRB	-	-	■	■	frb

Note

For Custom Combinations → FAST Program Selector Guide starting page 18

LFMB/LFMA Fine and Micro Filters – D Series, NPT

Type Codes



LFMB/LFMA Fine and Micro Filters

Ordering Data



Ordering data – LFMA Micro filter					
Grade of filtration 0.01 µm, metal bowl guard					
Size	Connection	Input pressure 1 ... 16 bar		Input pressure 1.5 ... 12 bar	
		Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Without threaded 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
With threaded connecting plates					
Mini	1/8 NPT	173724	LFMA-1/8-D-MINI-NPT	173723	LFMA-1/8-D-MINI-A-NPT
	1/4 NPT	173726	LFMA-1/4-D-MINI-NPT	173727	LFMA-1/4-D-MINI-A-NPT
	3/8 NPT	173728	LFMA-3/8-D-MINI-NPT	173729	LFMA-3/8-D-MINI-A-NPT
Midi	3/8 NPT	173730	LFMA-3/8-D-MIDI-NPT	173731	LFMA-3/8-D-MIDI-A-NPT
	1/2 NPT	173732	LFMA-1/2-D-MIDI-NPT	173733	LFMA-1/2-D-MIDI-A-NPT
	3/4 NPT	173734	LFMA-3/4-D-MIDI-NPT	173735	LFMA-3/4-D-MIDI-A-NPT
Maxi	3/4 NPT	173736	LFMA-3/4-D-MAXI-NPT	173737	LFMA-3/4-D-MAXI-A-NPT
	1 NPT	173738	LFMA-1-D-MAXI-NPT	173739	LFMA-1-D-MAXI-A-NPT

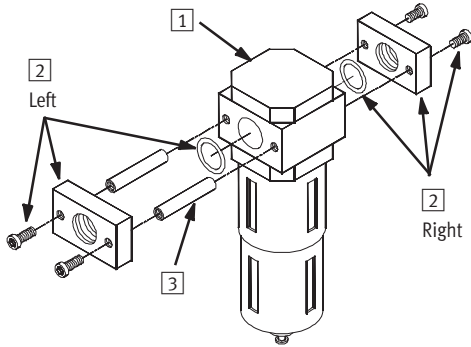
Ordering data – LFMB Fine filter					
Grade of filtration 1 µm, metal bowl guard					
Size	Connection	Input pressure 1 ... 16 bar		Input pressure 1.5 ... 12 bar	
		Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Without threaded connecting plates					
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
With threaded connecting plates					
Mini	1/8 NPT	173708	LFMB-1/8-D-MINI-NPT	173709	LFMB-1/8-D-MINI-A-NPT
	1/4 NPT	173710	LFMB-1/4-D-MINI-NPT	173711	LFMB-1/4-D-MINI-A-NPT
	3/8 NPT	173712	LFMB-3/8-D-MINI-NPT	17713	LFMB-3/8-D-MINI-A-NPT
Midi	3/8 NPT	173714	LFMB-3/8-D-MIDI-NPT	173715	LFMB-3/8-D-MIDI-A-NPT
	1/2 NPT	173716	LFMB-1/2-D-MIDI-NPT	173717	LFMB-1/2-D-MIDI-A-NPT
	3/4 NPT	173718	LFMB-3/4-D-MIDI-NPT	173719	LFMB-3/4-D-MIDI-A-NPT
Maxi	3/4 NPT	173720	LFMB-3/4-D-MAXI-NPT	173721	LFMB-3/4-D-MAXI-A-NPT
	1 NPT	173722	LFMB-1-D-MAXI-NPT	173723	LFMB-1-D-MAXI-A-NPT

FAST* Program – LFMB Fine Filter / LFMA Micro Filter Selection Guide



LFMB / LFMA Fine and Micro Filters – D Series, NPT

*FAST = Festo Assured Shipping Time. Ordering via the FAST program means same day / next day shipping from our warehouse of the parts required to assemble a complete air preparation unit.



A complete filter assembly consists of the following items:

Item	Description	Qty Required per Assy
1	Main Unit	1
2	Port Block	2 (one left, one right)
3	Single Unit Joining Rod	2
4	Mounting Bracket Kit (Optional) (Not shown)	1

Step 1: Based upon the required Port Size, Maximum Flow, Filtration Level, Drain Type, and Thread Type, select the Main Unit (Item 1) and the Left and Right Port Block Kits (Item 2).

					Item					
					1	2				
Port size	Max. Flow (l/min/scfm)	Filtration Level (µm)	Drain	Product Type / Description	Main Unit	NPT Thread		BSP Thread		
						Left Port Block	Right Port Block	Left Port Block	Right Port Block	
1/8	130/4.6	0.01	Man.	LFMA-...-D-MINI-...	546439	546520	546521	546495	546496	
			Auto		546441					
	250/8.8	1	Man.	LFMB-...-D-MINI-...	546440					
			Auto		546442					
1/4	160/5.7	0.01	Man.	LFMA-...-D-MINI-...	546439	546522	546523	546497	546498	
			Auto		546441					
	350/12.4		Man.	LFMA-...-D-MIDI-...	546443	546536	546537	546532	546533	
			Auto		546446					
	300/10.6	1		Man.	LFMB-...-D-MINI-...	546440	546522	546523	546497	546498
				Auto		546442				
		500/17.6		Man.	LFMB-...-D-MIDI-...	546444	546536	546537	546532	546533
				Auto		546445				
3/8	180/6.4	0.01	Man.	LFMA-...-D-MINI-...	546439	546524	546525	546499	546500	
			Auto		546441					
	380/13.4		Man.	LFMA-...-D-MIDI-...	546443	546530	546531	546501	546502	
			Auto		546446					
	310/10.9	1		Man.	LFMB-...-D-MINI-...	546440	546524	546525	546499	546500
				Auto		546442				
		700/24.7		Man.	LFMB-...-D-MIDI-...	546444	546530	546531	546501	546502
				Auto		546445				

FAST Program – LFMB Fine Filter / LFMA Micro Filter Selection Guide



LFMB/LFMA Fine and Micro Filters – D Series, NPT

Port size	Max. Flow (l/min/scfm)	Filtration Level (µm)	Drain	Product Type / Description	Item		NPT Thread		BSP Thread		
					Main Unit	[2]	Left Port Block	Right Port Block	Left Port Block	Right Port Block	
½	400/14.1	0.01	Man.	LFMA-...-D-MIDI-...	546443	[2]	546526	546527	546503	546504	
			Auto		546446						
	750/24.5		Man.	LFMA-...-D-MAXI-...	546447	[2]	546538	546539	546534	546535	
			Auto		546449						
	900/31.8	1	Man.	LFMB-...-D-MIDI-...	546444	[2]	546526	546527	546503	546504	
			Auto		546445						
			1150/40.6	Man.	LFMB-...-D-MAXI-...	546448	[2]	546538	546539	546534	546535
				Auto		546450					
¾	460/16.2	0.01	Man.	LFMA-...-D-MIDI-...	545443	[2]	546528	546529	546505	546506	
			Auto		545446						
	900/31.8		Man.	LFMA-...-D-MAXI-...	546447	[2]	546490	546492	546507	546508	
			Auto		546449						
	1000/35.3	1	Man.	LFMB-...-D-MIDI-...	546444	[2]	546528	546529	546505	506506	
			Auto		546445						
			1200/42.4	Man.	LFMB-...-D-MAXI-...	546448	[2]	546490	546492	546507	546508
				Auto		546450					
1	950/33.5	0.01	Man.	LFMA-...-D-MAXI-...	546447	[2]	546491	546493	546509	546510	
			Auto		546449						
	1250/44.1		1	Man.	LFMB-...-D-MAXI-...	546448	[2]	546491	546493	546509	546510
				Auto		546450					

Step 2: Based upon the Product Type/Description from Step 1, select the Joining Rods (Item [3]) and the (optional) Mounting Bracket Kit (Item [4]).

Product Type/Description	Item	
	[2]	[4] [Not shown]
	Single Unit Joining Rod	Mounting Bracket Kit (Optional)
LFMA-...-D-MINI-...	546483	159638
LFMB-...-D-MINI-...		
LFMA-...-D-MIDI-...	546489	159593
LFMB-...-D-MIDI-...		
LFMA-...-D-MAXI-...	546494	159593
LFMB-...-D-MAXI-...		

Step 3: Determine the appropriate quantity of each Item.

Ordering Example:

Required: ¼ port size, 1100 l/min flow, 1 µm filtration, automatic drain, BSP threads, and mounting bracket kit.

	Item	Part No.	Qty	Description
Order:	[1]	546442	1	Main Unit
	[2]	546497	1	Left Port Block Kit
		546498	1	Right Port Block Kit
	[3]	546483	2	Single Unit Joining Rod
	[4]	159638	1	Mounting Bracket Kit

LFMBA Filter Combination – D Series, NPT

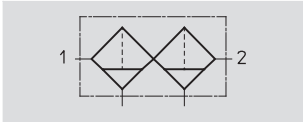
Technical Data

Function

Flow rate

125 ... 600 l/min

Condensate drain turned manually



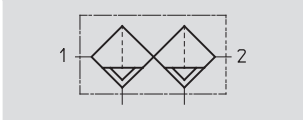
Temperature range

-10 ... +60 °C

Pressure

1 ... 16 bar

Condensate drain fully automatic



- High efficiency filter for special requirements
- Air quality to DIN ISO 8573-1
- Available as preassembled filter combination
- Version with differential pressure indicator for optical indication of filter pollution
- Filter cartridges with 1 µm and 0.01 µm
- Filter cartridges → lfp
ISO class 1 for particles:
max. particle density 0.1 mg/m³
ISO class 2 for oil aerosols:
max. oil concentration 0.1 mg/m³
Filter efficiency 99.9999%

General technical data								
Size	Mini			Midi			Maxi	
Pneumatic connection	1/8 NPT	1/4 NPT	3/8 NPT	3/8 NPT	1/2 NPT	3/4 NPT	3/4 NPT	1 NPT
Operating medium	Filtered compressed air, lubricated or unlubricated (grade of filtration: 5 µm)							
Design	Fiber filter							
Type of mounting	Via accessories In-line installation							
Assembly position	Vertical ±5°							
Grade of filtration [µm]	0.01 and 1							
Residual oil content [mg/m ³]	≤0.01							
Max. condensate volume [cm ³]	22			43			80	
Input pressure [bar]	1 ... 16							
Condensate drain	Manual Fully automatic							
	1 ... 16			1.5 ... 12				

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

Standard nominal flow rate ¹⁾ qnN [l/min]								
Connection	Mini			Midi			Maxi	
	1/8 NPT	1/4 NPT	3/8 NPT	3/8 NPT	1/2 NPT	3/4 NPT	3/4 NPT	1 NPT
LFMBA	125	130	140	350	350	350	550	600

1) Measured at p₁ = 6 bar and Δp = 70 mbar.
A minimum flow rate of 125 l/min is required for flawless functioning.

Ambient conditions			
Size	Mini	Midi	Maxi
Ambient temperature [°C]	-10 ... +60		
Temperature of medium [°C]	+1.5 ... +60		
Corrosion resistance class CRC ¹⁾	2		

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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.

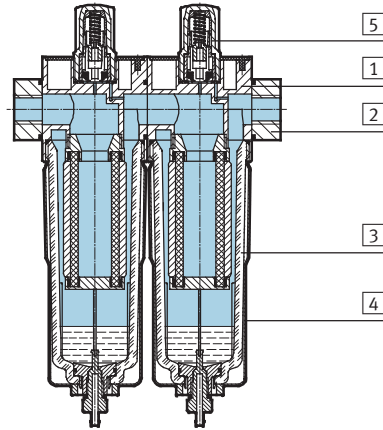
LFMBA Filter Combination – D Series, NPT

Technical Data

Weight [g]			
Size	Mini	Midi	Maxi
Without differential pressure indicator	500	1300	2400

Materials

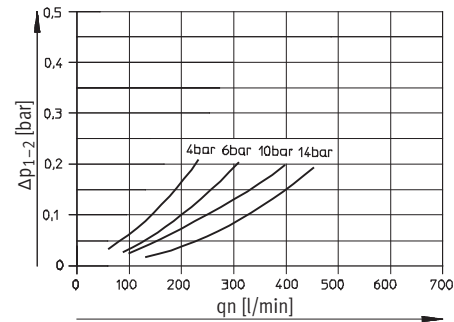
Sectional view



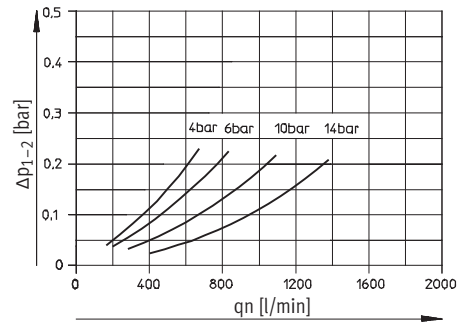
Filter combination		
1	Housing	Die-cast zinc
2	Port blocks	Die-cast zinc
3	Bowl	Polycarbonate
4	Bowl guard	Aluminum
5	Housing for version with differential pressure indicator	Polycarbonate
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE

Standard flow rate q_n as a function of the differential pressure Δp_{1-2}

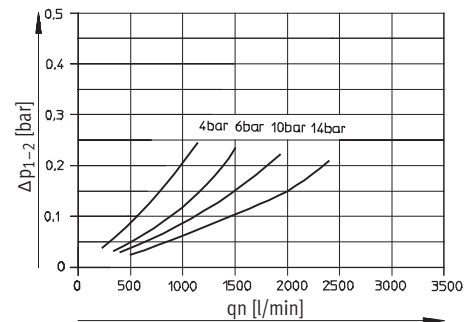
LFMBA-1/4-D-MINI and LFMBA-1/4-D-MINI-A



LFMBA-1/2-D-MIDI and LFMBA-1/2-D-MIDI-A

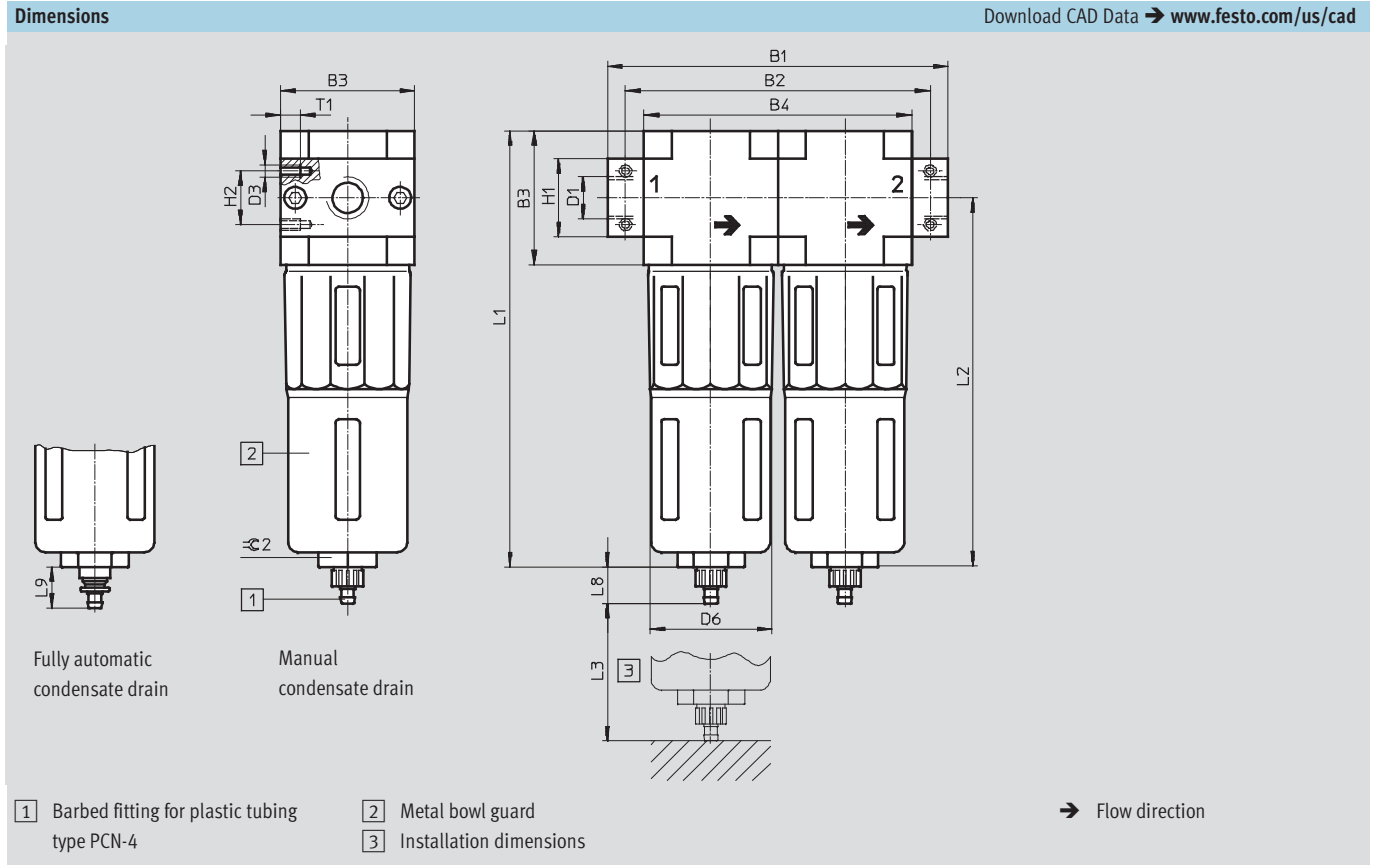


LFMBA-1-D-MAXI and LFMBA-1-D-MAXI-A



LFMBA Filter Combination – D Series, NPT

Technical Data – Dimensional Drawings



Type	B1	B2	B3	B4	D1	D3	D6	H1	H2	L1	L2	L3	L8	L9	T1	≈ 2
Mini																
LFMBA-1/8-D-MINI	104	92	40	80	1/8 NPT	M4	38	20	11	144	124	60	15	19	7	22
LFMBA-1/4-D-MINI					1/4 NPT											
LFMBA-3/8-D-MINI					3/8 NPT											
Midi																
LFMBA-3/8-D-MIDI	140	125	55	110	3/8 NPT	M5	52	32	22	179	151	80	15	19	8	24
LFMBA-1/2-D-MIDI					1/2 NPT											
LFMBA-3/4-D-MIDI					3/4 NPT											
Maxi																
LFMBA-3/4-D-MAXI	162	146	66	132	3/4 NPT	M5	65	32	22	203	170	90	15	19	8	24
LFMBA-1-D-MAXI	182	157			40											

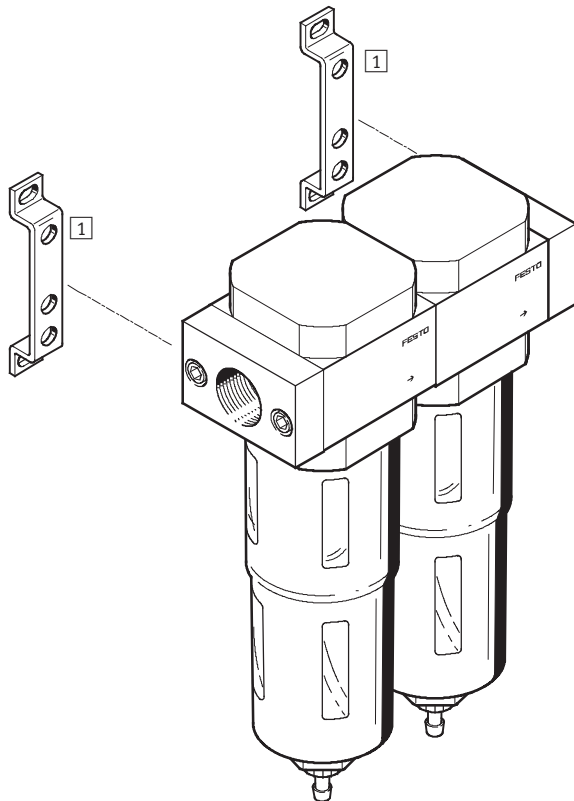
Note: This product conforms to ISO 1179-1 and ISO 228-1

LFMBA Filter Combinations – D Series, NPT

Accessories Overview

Mini/Midi/Maxi

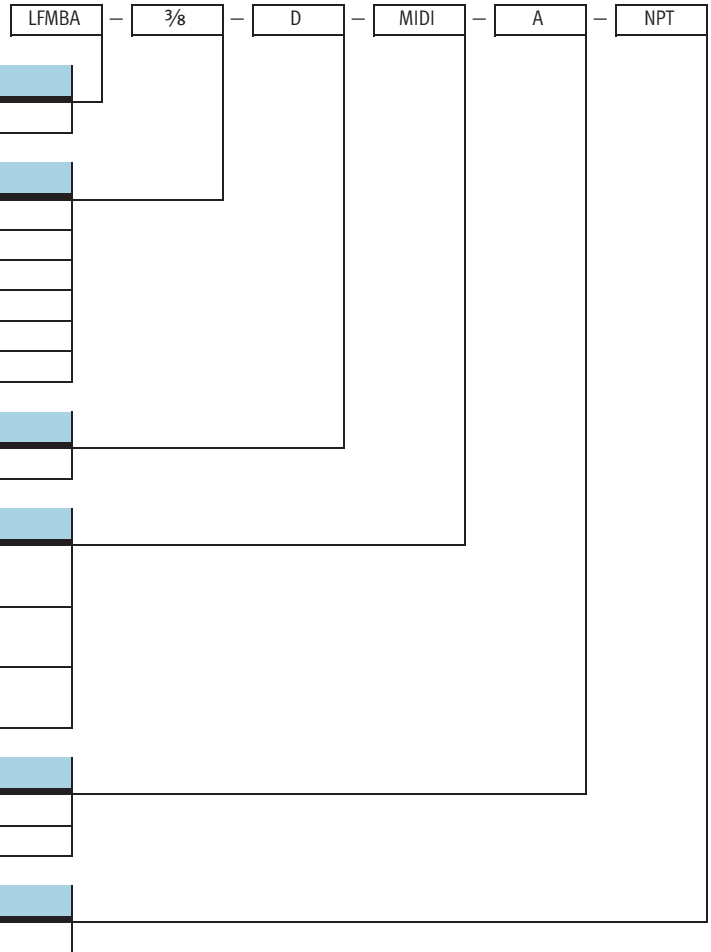
without differential pressure indicator



Mounting components		→ Page/Internet
1	Mounting bracket HFOE	hfoe

LFMBA Filter Combinations – D Series, NPT

Type Codes



Basic function	
LFMBA	Filter combination

Pneumatic connection	
1/8	1/8 NPT Thread
1/4	1/4 NPT Thread
3/8	3/8 NPT Thread
1/2	1/2 NPT Thread
3/4	3/4 NPT Thread
1	1 NPT Thread

Series	
D	Series

Size	
MINI	Grid dimension 40 mm (without port blocks)
MIDI	Grid dimension 55 mm (without port blocks)
MAXI	Grid dimension 60 mm (without port blocks)

Condensate drain	
	Manual
A	Fully automatic

NPT Connection (where available)	
NPT	NPT threaded connection

LFMBA Filter Combinations – D Series, NPT

Ordering Data

FESTO

Ordering data – LFMBA Filter combination					
Grade of filtration 1 µm and 0.01 µm, metal bowl guard					
Size	Connection	Input pressure 1 ... 16 bar		Input pressure 1.5 ... 12 bar	
		Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Mini	1/8 NPT	173740	LFMBA-1/8-D-MINI-NPT	173741	LFMBA-1/8-D-MINI-A-NPT
	1/4 NPT	173742	LFMBA-1/4-D-MINI-NPT	173743	LFMBA-1/4-D-MINI-A-NPT
	3/8 NPT	173744	LFMBA-3/8-D-MINI-NPT	173745	LFMBA-3/8-D-MINI-A-NPT
Midi	3/8 NPT	173746	LFMBA-3/8-D-MIDI-NPT	173747	LFMBA-3/8-D-MIDI-A-NPT
	1/2 NPT	173748	LFMBA-1/2-D-MIDI-NPT	173749	LFMBA-1/2-D-MIDI-A-NPT
	3/4 NPT	173750	LFMBA-3/4-D-MIDI-NPT	173751	LFMBA-3/4-D-MIDI-A-NPT
Maxi	3/4 NPT	173752	LFMBA-3/4-D-MAXI-NPT	173753	LFMBA-3/4-D-MAXI-A-NPT
	1 NPT	173754	LFMBA-1-D-MAXI-NPT	173755	LFMBA-1-D-MAXI-A-NPT

Product Range and Company Overview

A Complete Suite of Automation Services

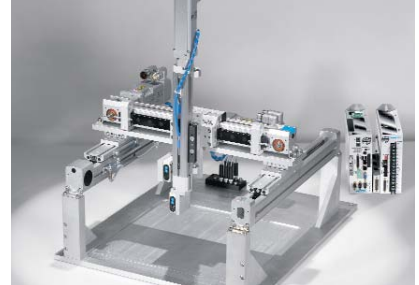
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