

Filter LF

FESTO



Characteristics

At a glance

- Good particle and condensate separation
- High flow rate with minimal pressure drop

Diagrams

[Link](#)  [lf-d](#)

The diagrams shown in this document are also available online. These can be used to display precise values.

Version

[D] D series, metal

Sturdy in full metal design for the specific requirements of the process automation industry

Grade of filtration

Choice of filter inserts 5 µm or 40 µm

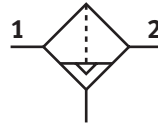
Condensate drain

Optionally with manual or fully automatic condensate drain

[] Manually rotating



[A] Fully automatic



Type code

001	Series
LF	Filter

002	Pneumatic connection
	None
1/8	Female thread G1/8
1/4	Female thread G1/4
3/8	Female thread G3/8
1/2	Female thread G1/2
3/4	Female thread G3/4
1	Female thread G1

003	Version
D	D series, metal

004	Grade of filtration
	40 µm
5M	5 µm

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

006	Condensate drain
	Manually rotating
A	Fully automatic

Datasheet

General technical data

Size	Maxi	Midi	Mini
Pneumatic connection, port 1	Sub-base, G1/2, G3/4, G1	Sub-base, G1/4, G3/8, G1/2, G3/4	Sub-base, G1/8, G1/4, G3/8
Pneumatic connection, port 2	Sub-base, G1/2, G3/4, G1	Sub-base, G1/4, G3/8, G1/2, G3/4	Sub-base, G1/8, G1/4, G3/8
Design	Sintered filter with centrifugal separator		
Type of mounting	In-line installation With accessories		
Mounting position	Vertical +/-5°		
Grade of filtration	5 µm 40 µm		
Air purity class at output	Compressed air to ISO 8573-1:2010 [6:8:4] Compressed air to ISO 8573-1:2010 [7:8:4] Inert gases		
Bowl guard	Metal bowl guard		
Condensate drain	Fully automatic Manually rotating		
Max. condensate volume	80 cm ³	43 cm ³	22 cm ³

Standard nominal flow rate q_N (grade of filtration 5 µm; measured at p₁ = 6 bar and Δp = 1 bar)

Size	Maxi			Midi				Mini		
Pneumatic connection, port 1	G1/2	G3/4	G1	G1/4	G3/8	G1/2	G3/4	G1/8	G1/4	G3/8
Standard nominal flow rate (standardised to DIN 1343)	3,700 l/min	3,600 l/min	3,800 l/min	1,600 l/min	1,800 l/min	2,000 l/min		800 l/min	950 l/min	1,100 l/min

Standard nominal flow rate q_N (grade of filtration 40 µm; measured at p₁ = 6 bar and Δp = 1 bar)

Size	Maxi			Midi				Mini		
Pneumatic connection, port 1	G1/2	G3/4	G1	G1/4	G3/8	G1/2	G3/4	G1/8	G1/4	G3/8
Standard nominal flow rate (standardised to DIN 1343)	4,400 l/min	5,000 l/min	5,300 l/min	1,900 l/min	2,700 l/min	3,000 l/min		1,000 l/min	1,200 l/min	1,400 l/min

Operating and environmental conditions

Condensate drain	Fully automatic	Manually rotating
Operating pressure	2 ... 12 bar	0 ... 16 bar
Operating medium ¹⁾	Compressed air to ISO 8573-1:2010 [7:9:-] Inert gases	Compressed air to ISO 8573-1:2010 [-:9:-] Inert gases
Ambient temperature	-10 ... 60°C	
Media temperature	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC ²⁾	2 - Moderate corrosion stress	

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

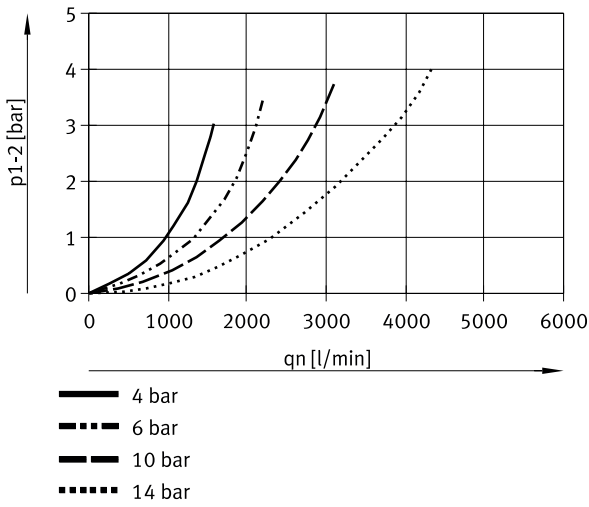
2) More information www.festo.com/x/topic/crc

Materials

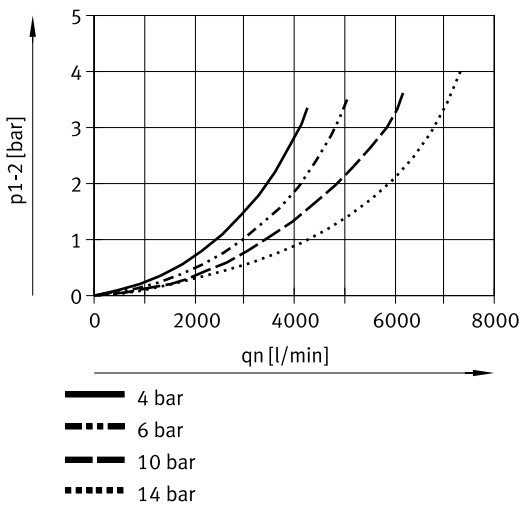
Material housing	Die-cast zinc
Material bowl	PC
Material filter	PE
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Datasheet

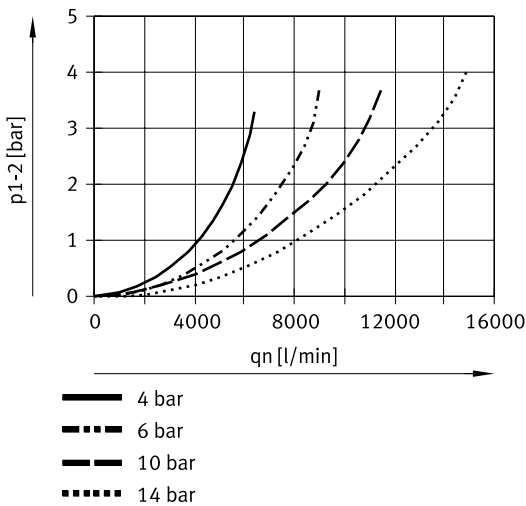
Standard flow rate q_n as a function of differential pressure Δp_{1-2} (LF-1/4-D-MINI)



Standard flow rate q_n as a function of differential pressure Δp_{1-2} (LF-1/2-D-MIDI)



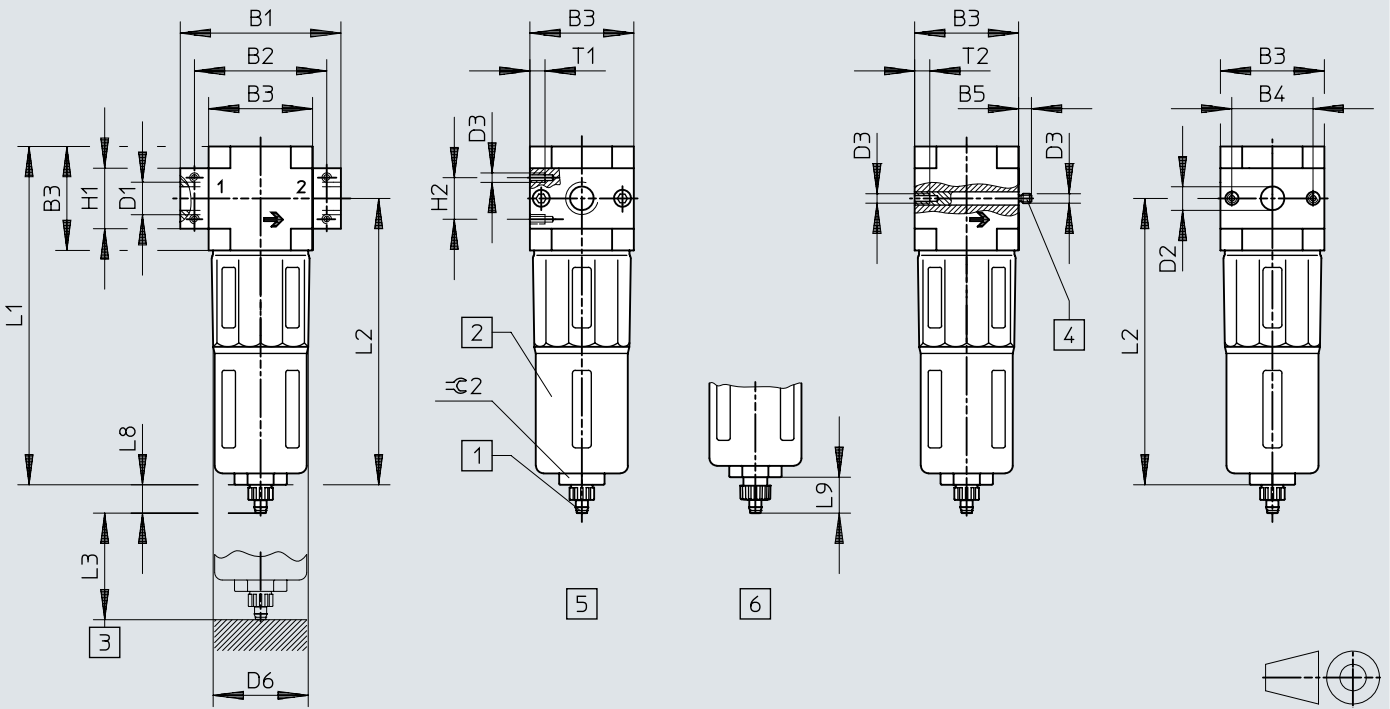
Standard flow rate q_n as a function of differential pressure Δp_{1-2} (LF-1-D-MAXI)



Dimensions

Dimensions – Connecting plates with threaded connection/without connecting plates

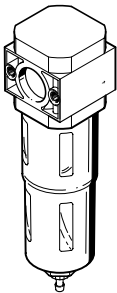
Download CAD data www.festo.com

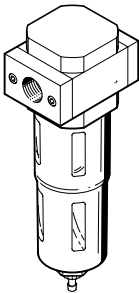


- [1] Barbed connector for plastic tubing PUN(-H)-8x1.25
- [2] Metal bowl guard
- [3] Installation dimension
- [4] Threaded bolt (exchangeable)
- [5] Manual condensate drain
- [6] Semi-automatic condensate drain

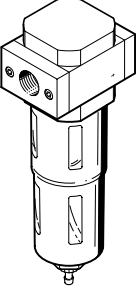
	B1	B2	B3	B4	B5	D1	D2 ø	D3	D6 ø	H1	H2	L1	L2	L3	L8	L9	T1	T2	⌀ 2
Mini																			
LF-1/8-D-MINI	64	52	40	30	-	G1/8	-	M4	38	20	11	144	124	60	15	19	7	-	22
LF-1/4-D-MINI	70					G3/8											-	-	
LF-3/8-D-MINI	70	-	-	-	5,8	-	11	-	-	-	-	-	-	-	-	-	-	10	-
LF-D-MINI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	116	91				G3/4				-							40	-	
LF-1-D-MAXI	-	-				G1				-							-	-	
LF-D-MAXI	-	-				6,8				-							30	-	

Ordering data

Without connecting plates						
	Pneumatic connection, port 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	Sub-base	5 µm	Fully automatic		192562	LF-D-5M-MAXI-A
				250 g	192560	LF-D-5M-MINI-A
				700 g	192561	LF-D-5M-MIDI-A
			Manually rotating		192559	LF-D-5M-MAXI
				250 g	192557	LF-D-5M-MINI
				700 g	192558	LF-D-5M-MIDI
		40 µm	Fully automatic		192556	LF-D-MAXI-A
				250 g	192554	LF-D-MINI-A
				700 g	192555	LF-D-MIDI-A
			Manually rotating		192553	LF-D-MAXI
				250 g	192551	LF-D-MINI
				700 g	192552	LF-D-MIDI

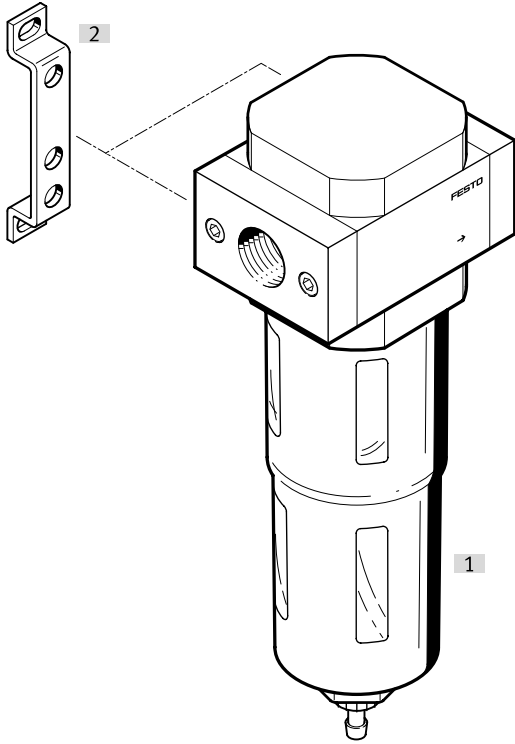
Connecting plates with threaded connection						
	Pneumatic connection, port 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	G1/8	5 µm	Fully automatic	250 g	162618	LF-1/8-D-5M-MINI-A
			Manually rotating		162610	LF-1/8-D-5M-MINI
		40 µm	Fully automatic		159616	LF-1/8-D-MINI-A
			Manually rotating		159612	LF-1/8-D-MINI
	G1/4	5 µm	Fully automatic		162619	LF-1/4-D-5M-MINI-A
				700 g	186462	LF-1/4-D-5M-MIDI-A
			Manually rotating	250 g	162611	LF-1/4-D-5M-MINI
				700 g	186460	LF-1/4-D-5M-MIDI
		40 µm	Fully automatic	250 g	159617	LF-1/4-D-MINI-A
				700 g	186461	LF-1/4-D-MIDI-A
			Manually rotating	250 g	159613	LF-1/4-D-MINI
				700 g	186459	LF-1/4-D-MIDI
	G3/8	5 µm	Fully automatic	250 g	162620	LF-3/8-D-5M-MINI-A
				700 g	162621	LF-3/8-D-5M-MIDI-A
			Manually rotating	250 g	162612	LF-3/8-D-5M-MINI
				700 g	162613	LF-3/8-D-5M-MIDI
		40 µm	Fully automatic	250 g	162608	LF-3/8-D-MINI-A
				700 g	159577	LF-3/8-D-MIDI-A
			Manually rotating	250 g	162606	LF-3/8-D-MINI
				700 g	159576	LF-3/8-D-MIDI
	G1/2	5 µm	Fully automatic		162622	LF-1/2-D-5M-MIDI-A
				1,340 g	186466	LF-1/2-D-5M-MAXI-A
			Manually rotating	700 g	162614	LF-1/2-D-5M-MIDI
				1,340 g	186464	LF-1/2-D-5M-MAXI
40 µm		Fully automatic	700 g	159579	LF-1/2-D-MIDI-A	
			1,340 g	186465	LF-1/2-D-MAXI-A	
		Manually rotating	700 g	159578	LF-1/2-D-MIDI	
			1,340 g	186463	LF-1/2-D-MAXI	
G3/4	5 µm	Fully automatic	700 g	162623	LF-3/4-D-5M-MIDI-A	
			1,340 g	162624	LF-3/4-D-5M-MAXI-A	
		Manually rotating	700 g	162615	LF-3/4-D-5M-MIDI	
	40 µm	Fully automatic	1,340 g	162616	LF-3/4-D-5M-MAXI	
			700 g	162609	LF-3/4-D-MIDI-A	

Ordering data

Connecting plates with threaded connection						
	Pneumatic connection, port 1	Grade of filtration	Condensate drain	Product weight	Part no.	Type
	G3/4	40 µm	Fully automatic	1,340 g	159618	LF-3/4-D-MAXI-A
			Manually rotating	700 g	162607	LF-3/4-D-MIDI
				1,340 g	159614	LF-3/4-D-MAXI
	G1	5 µm	Fully automatic	1,440 g	162625	LF-1-D-5M-MAXI-A
			Manually rotating		162617	LF-1-D-5M-MAXI
		40 µm	Fully automatic		159619	LF-1-D-MAXI-A
			Manually rotating		159615	LF-1-D-MAXI

Peripherals

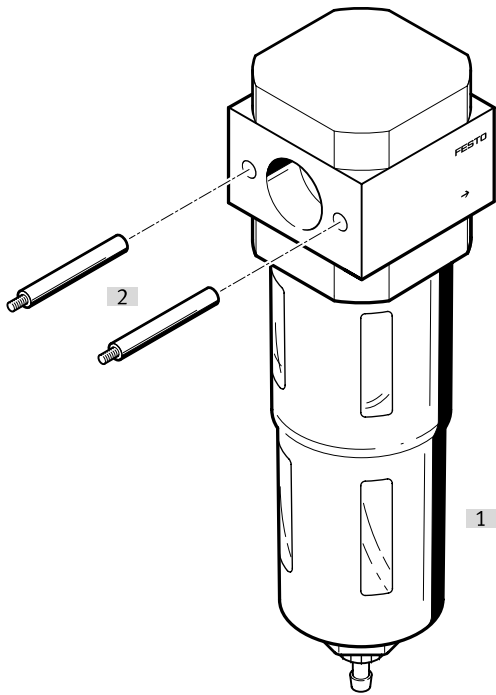
Peripherals overview – single unit with connecting plates



Accessories		→ Link
Type/order code	Description	
[1] Filter LF-D		lf-d
[2] Mounting bracket HFOE-D		11

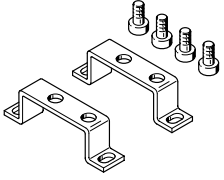
Peripherals


Peripherals overview – individual unit without connecting plates, for service unit component combination

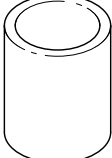


Accessories			→ Link
Type/order code	Description		
[1] Filter LF-D			lf-d
[2] Threaded bolt FRB-D	Included in the scope of delivery		11

Accessories

Mounting bracket MS4-WP...				
	Short type code	Corrosion resistance class CRC	Part no.	Type
	HFOE	2 - Moderate corrosion stress	159638	HFOE-D-MINI
			159593	HFOE-D-MIDI/MAXI

Mounting bracket MS4-WB				
	Short type code	Corrosion resistance class CRC	Part no.	Type
	FRB	2 - Moderate corrosion stress	159595	FRB-D-MIDI
			159643	FRB-D-MAXI
			159642	FRB-D-MINI

Filter cartridges				
	Size	Grade of filtration	Part no.	Type
	Maxi	5 µm	159641	LFP-D-MAXI-5M
	Midi		159594	LFP-D-MIDI-5M
	Mini		159640	LFP-D-MINI-5M