

Fine filter LFMB

FESTO



Characteristics

At a glance

High-efficiency filter for special requirements.

- Air quality to ISO 8573-1:2010
- With or without connecting plates

Diagrams

Link [lmb-d](#)



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

Version

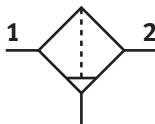
[D] D series, metal

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

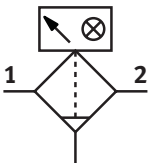
Filter change sensing

Optionally with differential pressure display for indicating filter contamination.

[] None



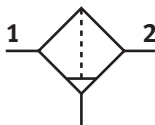
[DA] Differential pressure display, visual



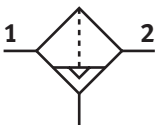
Condensate drain

Optionally with manual or fully automatic condensate drain

[] Manually rotating



[A] Fully automatic



Type code

001	Series	
LFMB	Fine 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	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)	
005	Filter change sensing	
	None	
DA	Differential pressure display, visual	
006	Condensate drain	
A	Fully automatic	
	Manually rotating	

Datasheet

General technical data

Filter change sensing	None []			Differential pressure display, visual [DA]		
Size	Maxi	Midi	Mini	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	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	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	Fibre filter					
Type of mounting	Either: In-line installation With accessories					
Mounting position	Vertical +/-5°					
Grade of filtration	1 µm					
Air purity class at output	Compressed air to ISO 8573-1:2010 [5:7:3] Inert gases			Compressed air to ISO 8573-1:2010 [5:4:3] Inert gases		
Filter efficiency	99.99%					
Bowl guard	Metal bowl guard					
Condensate drain	Fully automatic Manually rotating					
Filter efficiency, fine particles	–			99%		
Filter efficiency, oil aerosol	–			90%		
Differential pressure display	–			Visual display		
Residual oil content	0.5 mg/m³					

General technical data (NPT – not available in all markets)

Thread type	NPT thread [NPT]			None []	
Size	Maxi	Midi	Mini	Midi	Mini
Pneumatic connection, port 1	3/4 NPT, 1 NPT	3/8 NPT, 1/2 NPT, 3/4 NPT	1/8 NPT, 1/4 NPT, 3/8 NPT	–	
Pneumatic connection, port 2	3/4 NPT, 1 NPT	3/8 NPT, 1/2 NPT, 3/4 NPT	1/8 NPT, 1/4 NPT, 3/8 NPT	–	
Design	–			Fibre filter	
Type of mounting	Either: In-line installation Via mounting bracket			Either: In-line installation With accessories	
Mounting position	Vertical			Vertical +/- 5°	
Grade of filtration	1 µm				
Air purity class at output	Compressed air to ISO 8573-1:2010 [5:7:3] Inert gases			Compressed air to ISO 8573-1:2010 [5:4:3] Inert gases	
Filter efficiency	99.99%				
Condensate drain	Fully automatic Manual, non-detenting			Fully automatic Manually rotating	Manually rotating
Filter efficiency, fine particles	–			99%	
Filter efficiency, oil aerosol	–			90%	
Residual oil content	0.5 mg/m³			0.0000135 oz/yd³	

Standard nominal flow rate qnN (measured at p1 = 6 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
Max. standard flow rate for clean air class	2,400 l/min	2,220 l/min	2,780 l/min	900 l/min	1,420 l/min	1,750 l/min	1,980 l/min	500 l/min	650 l/min	675 l/min
Min. standard flow rate for clean air class	800 l/min	750 l/min	620 l/min	350 l/min	500 l/min		600 l/min	150 l/min		125 l/min

Standard nominal flow rate qnN (measured at p1 = 6 bar)

Size	Maxi		Midi			Mini			
Pneumatic connection, port 1	3/4 NPT	1 NPT	3/8 NPT	1/2 NPT	3/4 NPT	1/8 NPT	1/4 NPT	3/8 NPT	
Max. standard flow rate for clean air class	2,220 l/min	2,780 l/min	1,420 l/min	1,750 l/min	1,980 l/min	500 l/min	650 l/min	675 l/min	
Min. standard flow rate for clean air class	750 l/min	620 l/min	500 l/min		600 l/min	150 l/min		125 l/min	

Datasheet

Operating and environmental conditions

Operating and environmental conditions				
Filter change sensing	None []		Differential pressure display, visual [DA]	
Condensate drain	Fully automatic	Manually rotating	Fully automatic	Manually rotating
Operating pressure	–		0.2 ... 1.2 MPa	0.1 ... 1.6 MPa
Operating pressure	2 ... 12 bar	1 ... 16 bar	2 ... 12 bar	1 ... 16 bar
Operating pressure	–		29 ... 174 psi	14.5 ... 232 psi
Operating medium ¹⁾	Compressed air to ISO 8573-1:2010 [6:8:4] Inert gases		Compressed air to ISO 8573-1:2010 [6:4:4] Inert gases	
Ambient temperature	-10 ... 60°C			
Media temperature	1.5 ... 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

Operating and environmental conditions (NPT – not available in all markets)

Operating and environmental conditions (NPT not available in all markets)				
Thread type	NPT thread [NPT]		None []	
Condensate drain	Fully automatic	Manual, non-detenting	Fully automatic	Manually rotating
Operating pressure	–		0.2 ... 1.2 MPa	0.1 ... 1.6 MPa
Operating pressure	2 ... 12 bar	1 ... 16 bar	2 ... 12 bar	1 ... 16 bar
Operating pressure	–		29 ... 174 psi	14.5 ... 232 psi
Operating medium ¹⁾	Compressed air to ISO 8573-1:2010 [6:8:4] Inert gases		Compressed air to ISO 8573-1:2010 [6:4:4] Inert gases	
Ambient temperature	-10 ... 60°C		14 ... 140°F	
Media temperature	1.5 ... 60°C		33.8 ... 140°F	
Storage temperature	–		14 ... 140°F	
Corrosion resistance class CRC ²⁾	2 - Moderate corrosion stress			

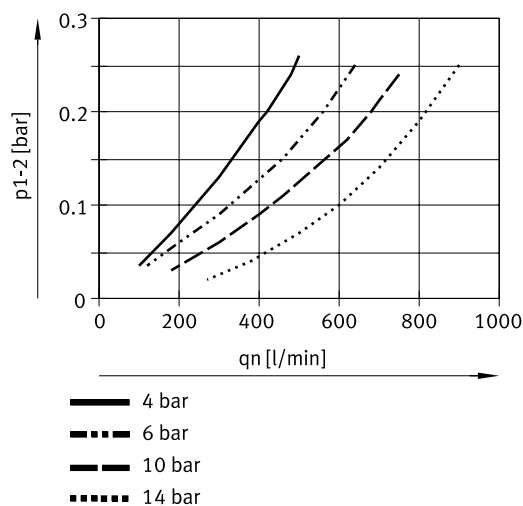
1) Compressed air according to ISO 8573-1:2010 [7:9:-] applies to fully automatic condensate drain

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

Materials

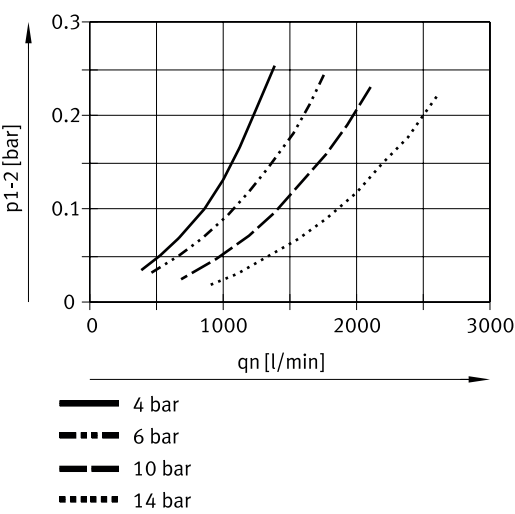
Material housing	Die-cast zinc
Material bowl	PC
Material filter	Borosilicate fibre
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

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

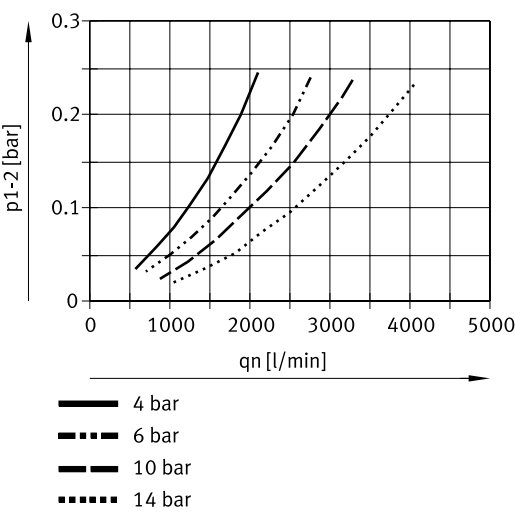


Datasheet

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

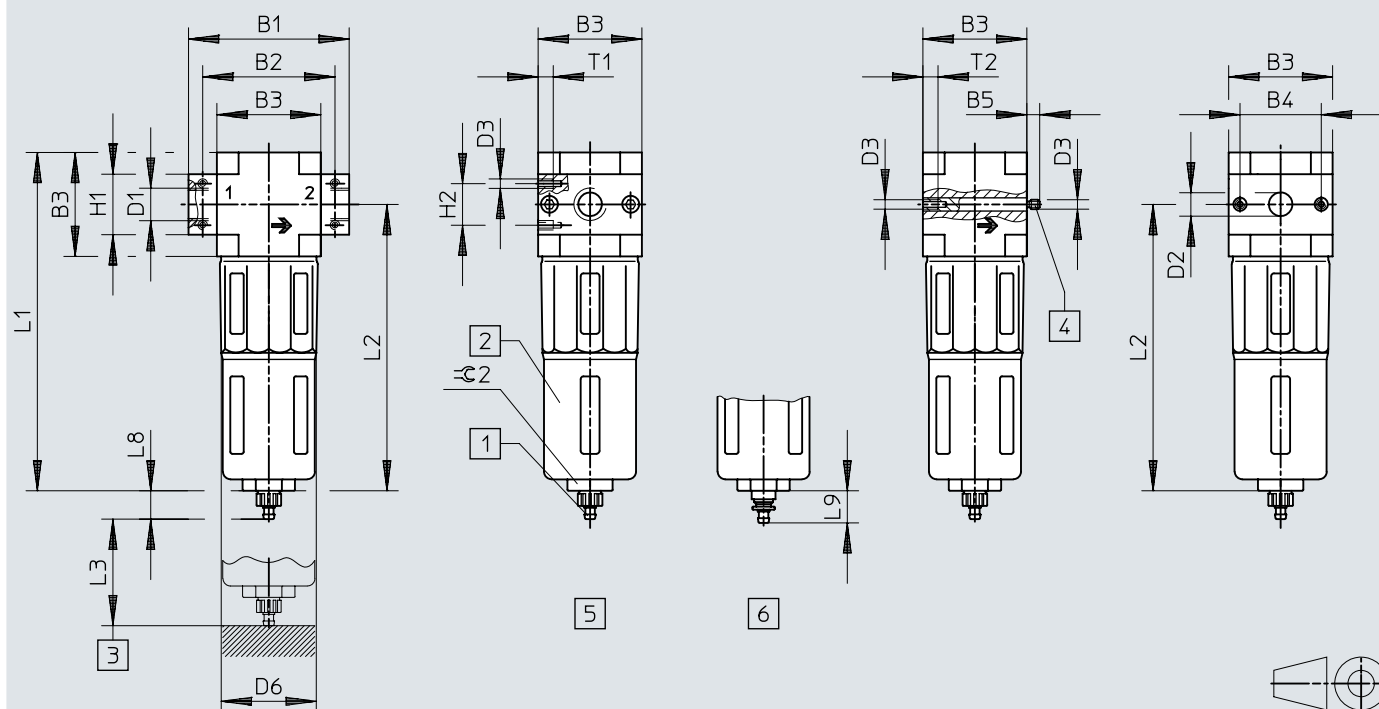


Standard flow rate q_n as a function of differential pressure Δp_{1-2} (LFMB-1-D-MAXI)



Dimensions

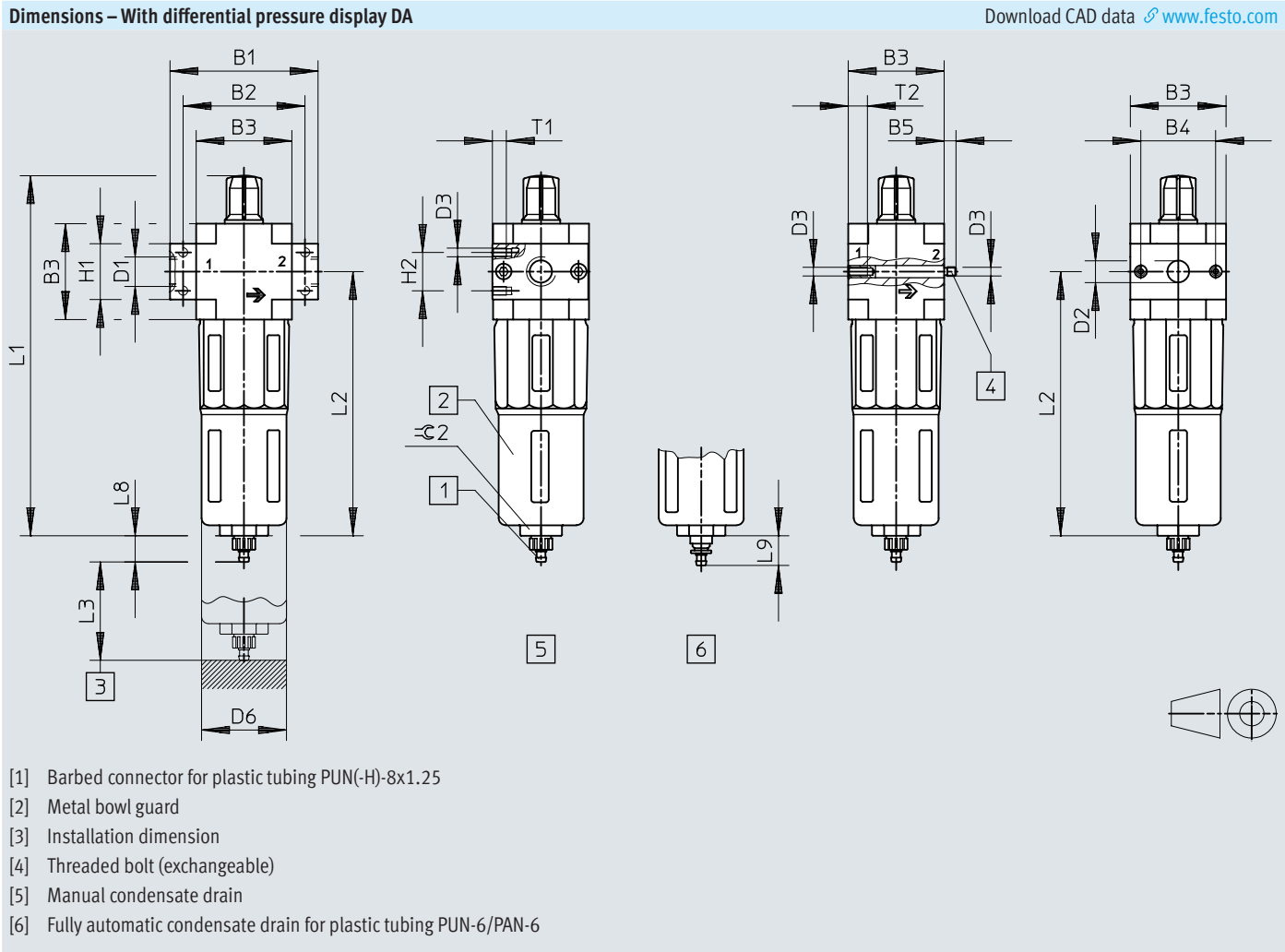
Dimensions – Sub-bases with threaded connection, without sub-bases

[Download CAD data](http://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] Fully automatic condensate drain for plastic tubing PUN-6/PAN-6

	B1	B2	B3	B4	B5	D1	D2 ø	D3	D6 ø	H1	H2	L1	L2	L3	L8	L9	T1	T2	≅ 2
Mini																			
LFMB-1/8-D-MINI	64	52	40	30	-	G1/8	-	M4	38	20	11	144	124	60	15	19	7	-	22
LFMB-1/4-D-MINI						G1/4											-	-	
LFMB-3/8-D-MINI	70					G3/8											-	10	
LFMB-D-MINI	-	-			5,8	-	11			-	-						-	-	
Midi																			
LFMB-1/4-D-MIDI	85	70	55	43	-	G1/4	-	M5	52	32	22	179	151	80	15	19	8	-	24
LFMB-3/8-D-MIDI						G3/8											-	-	
LFMB-1/2-D-MIDI						G1/2											-	-	
LFMB-3/4-D-MIDI						G3/4											-	11	
LFMB-D-MIDI	-	-			6,8	-	24			-	-						-	-	
Maxi																			
LFMB-1/2-D-MAXI	96	80	66	46	-	G1/2	-	M5	65	32	22	203	170	90	15	19	8	-	24
LFMB-3/4-D-MAXI						G3/4											-	-	
LFMB-1-D-MAXI	116	91				G1											-	-	
LFMB-D-MAXI	-	-				6,8	-	30		-	-						-	11	

Dimensions



	B1	B2	B3	B4	B5	D1	D2 Ø	D3	D6 Ø	H1	H2	L1	L2	L3	L8	L9	T1	T2	≈G 2
Mini																			
LFMB-1/8-D-MINI-DA	64	52	40	30	–	G1/8	–	M4	38	20	11	173	124	60	15	19	7	–	22
LFMB-1/4-D-MINI-DA						G1/4													
LFMB-3/8-D-MINI-DA	70					G3/8													
LFMB-D-MINI-DA	–	–			5,8	–	11			–	–						–	10	
Midi																			
LFMB-1/4-D-MIDI-DA	85	70	55	43	–	G1/4	–	M5	52	32	22	207	151	80	15	19	8	–	24
LFMB-3/8-D-MIDI-DA						G3/8													
LFMB-1/2-D-MIDI-DA						G1/2													
LFMB-3/4-D-MIDI-DA						G3/4													
LFMB-D-MIDI-DA	–	–			6,8	–	24			–	–						–	11	
Maxi																			
LFMB-1/2-D-MAXI-DA	96	80	66	46	–	G1/2	–	M5	65	32	22	232	170	90	15	19	8	–	24
LFMB-3/4-D-MAXI-DA						G3/4													
LFMB-1-D-MAXI-DA	116	91				G1													
LFMB-D-MAXI-DA	–	–			6,8	–	30			–	–						–	11	

Ordering data

Fine filter LFMB						
	Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type
	Maxi	Sub-base	Fully automatic	1,200 g	192574	LFMB-D-MAXI-A
			Manually rotating		192571	LFMB-D-MAXI
		G1/2	Fully automatic		186474	LFMB-1/2-D-MAXI-A
			Manually rotating		186473	LFMB-1/2-D-MAXI
		G3/4	Fully automatic		162640	LFMB-3/4-D-MAXI-A
			Manually rotating		162632	LFMB-3/4-D-MAXI
		G1	Fully automatic		162641	LFMB-1-D-MAXI-A
			Manually rotating		162633	LFMB-1-D-MAXI
	Midi	Sub-base	Fully automatic	650 g	192573	LFMB-D-MIDI-A
			Manually rotating		192570	LFMB-D-MIDI
		G1/4	Fully automatic		186468	LFMB-1/4-D-MIDI-A
			Manually rotating		186467	LFMB-1/4-D-MIDI
		G3/8	Fully automatic		162637	LFMB-3/8-D-MIDI-A
			Manually rotating		162629	LFMB-3/8-D-MIDI
		G1/2	Fully automatic		162638	LFMB-1/2-D-MIDI-A
			Manually rotating		162630	LFMB-1/2-D-MIDI
		G3/4	Fully automatic		162639	LFMB-3/4-D-MIDI-A
			Manually rotating		162631	LFMB-3/4-D-MIDI
	Mini	Sub-base	Fully automatic	250 g	192572	LFMB-D-MINI-A
			Manually rotating		192569	LFMB-D-MINI
		G1/8	Fully automatic		162634	LFMB-1/8-D-MINI-A
			Manually rotating		162626	LFMB-1/8-D-MINI
		G1/4	Fully automatic		162635	LFMB-1/4-D-MINI-A
			Manually rotating		162627	LFMB-1/4-D-MINI
		G3/8	Fully automatic		162636	LFMB-3/8-D-MINI-A
			Manually rotating		162628	LFMB-3/8-D-MINI

Fine filter LFMB with differential pressure display						
	Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type
	Maxi	Sub-base	Fully automatic	1,021 g	532816	LFMB-D-MAXI-DA-A
			Manually rotating		532813	LFMB-D-MAXI-DA
		G1/2	Fully automatic	1,340 g	532834	LFMB-1/2-D-MAXI-DA-A
			Manually rotating		532824	LFMB-1/2-D-MAXI-DA
		G3/4	Fully automatic		532835	LFMB-3/4-D-MAXI-DA-A
			Manually rotating		532825	LFMB-3/4-D-MAXI-DA
		G1	Fully automatic		532836	LFMB-1-D-MAXI-DA-A
			Manually rotating		532826	LFMB-1-D-MAXI-DA
	Midi	Sub-base	Fully automatic	595 g	532815	LFMB-D-MIDI-DA-A
			Manually rotating		532812	LFMB-D-MIDI-DA
		G1/4	Fully automatic	834 g	532830	LFMB-1/4-D-MIDI-DA-A
			Manually rotating		532820	LFMB-1/4-D-MIDI-DA
		G3/8	Fully automatic		532831	LFMB-3/8-D-MIDI-DA-A
			Manually rotating		532821	LFMB-3/8-D-MIDI-DA
		G1/2	Fully automatic		532832	LFMB-1/2-D-MIDI-DA-A
			Manually rotating		532822	LFMB-1/2-D-MIDI-DA
		G3/4	Fully automatic		532833	LFMB-3/4-D-MIDI-DA-A
			Manually rotating		532823	LFMB-3/4-D-MIDI-DA
	Mini	Sub-base	Fully automatic	283 g	532814	LFMB-D-MINI-DA-A

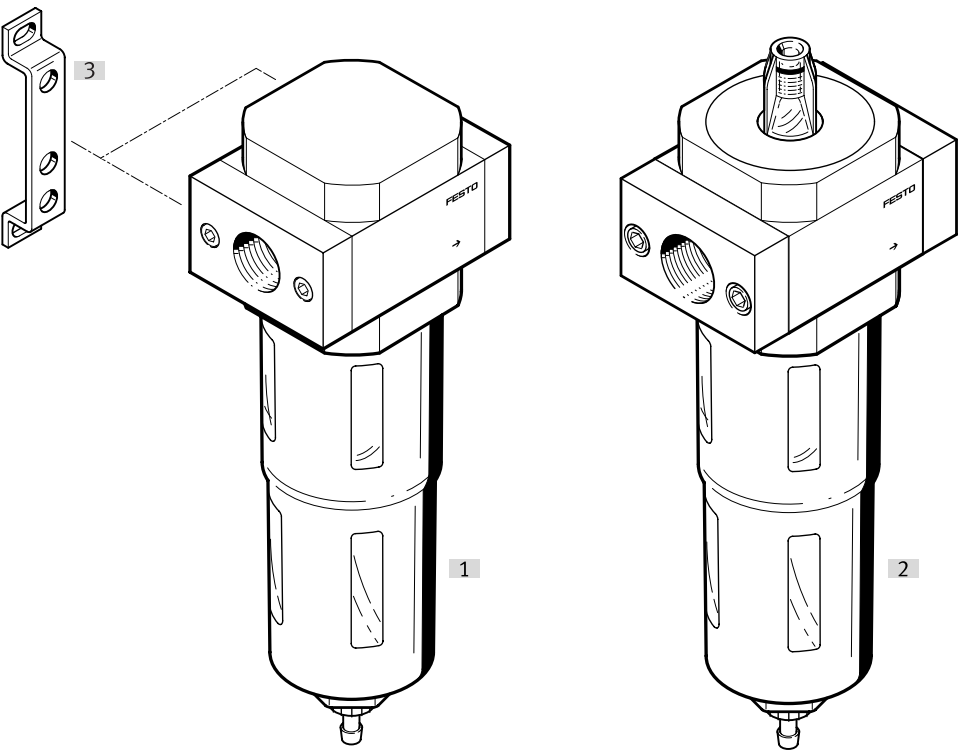
Ordering data

Fine filter LFMB with differential pressure display						
	Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type
	Mini	Sub-base	Manually rotating	283 g	532811	LFMB-D-MINI-DA
		G1/8	Fully automatic	368 g	532827	LFMB-1/8-D-MINI-DA-A
			Manually rotating		532817	LFMB-1/8-D-MINI-DA
		G1/4	Fully automatic		532828	LFMB-1/4-D-MINI-DA-A
			Manually rotating		532818	LFMB-1/4-D-MINI-DA
		G3/8	Fully automatic		532829	LFMB-3/8-D-MINI-DA-A
			Manually rotating		532819	LFMB-3/8-D-MINI-DA

Micro filter LFMB (NPT – not available in all markets)							
	Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type	
	Maxi	3/4 NPT	Fully automatic		173721	LFMB-3/4-D-MAXI-A-NPT	
			Manual, non-de-tenting		173720	LFMB-3/4-D-MAXI-NPT	
		1 NPT	Fully automatic		173723	LFMB-1-D-MAXI-A-NPT	
			Manual, non-de-tenting		173722	LFMB-1-D-MAXI-NPT	
	Midi		Fully automatic	644.962 oz	546445	LFMB-D-MIDI-A-U	
			Manually rotating		546444	LFMB-D-MIDI-U	
		3/8 NPT	Manual, non-de-tenting		173714	LFMB-3/8-D-MIDI-NPT	
		1/2 NPT	Fully automatic		173717	LFMB-1/2-D-MIDI-A-NPT	
		3/4 NPT	Manual, non-de-tenting		173719	LFMB-3/4-D-MIDI-A-NPT	
					173718	LFMB-3/4-D-MIDI-NPT	
	Mini		Manually rotating	248.062 oz	546440	LFMB-D-MINI-U	
		1/8 NPT	Manual, non-de-tenting		173708	LFMB-1/8-D-MINI-NPT	
		1/4 NPT	Fully automatic		173711	LFMB-1/4-D-MINI-A-NPT	
			Manual, non-de-tenting		173710	LFMB-1/4-D-MINI-NPT	
		3/8 NPT	Fully automatic		173713	LFMB-3/8-D-MINI-A-NPT	

Peripherals

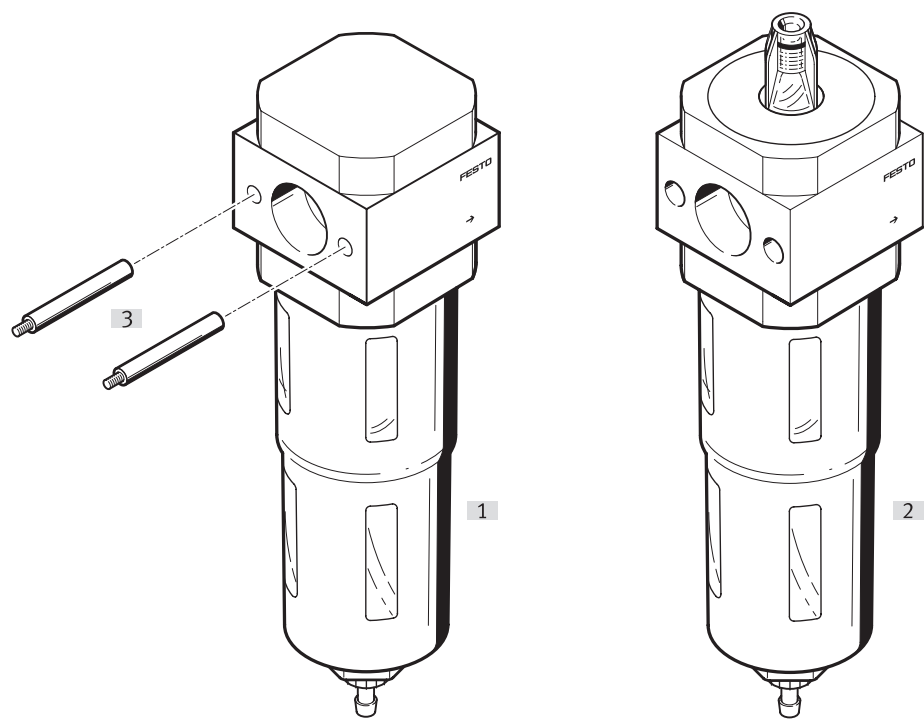
Peripherals overview – single unit with connecting plates



Accessories		→ Link
Type/order code	Description	
[1] Fine filter LFMB-D		lfmb-d
[2] Fine filter LFMB-D	With differential pressure indication	lfmb-d
[3] Mounting bracket HFOE-D		13

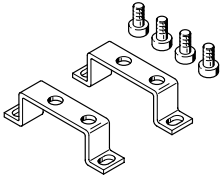
Peripherals

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

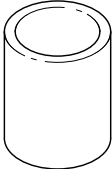


Accessories		→ Link
Type/order code	Description	
[1] Fine filter LFMB-D		lfmb-d
[2] Fine filter LFMB-D	With differential pressure indication	lfmb-d
[3] Threaded bolt FRB-D	Included in the scope of delivery	13

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

Fine-filter cartridges				
	Size	Grade of filtration ¹⁾	Part no.	Type
	Maxi	1 µm	162679	LFMBP-D-MAXI
	Midi		162678	LFMBP-D-MIDI
	Mini		★ 162677	MS4/D-MINI-LFM-B