Micro filter LFMA

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 lfma-d

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

Version

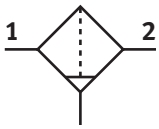
[D]	D series, metal

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

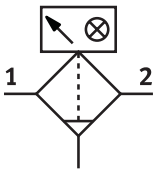
Filter change sensing

Optionally with differential pressure display for indicating filter contamination.

[_]	None



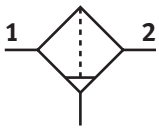
[DA]	Differential pressure display, visual



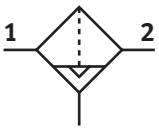
Condensate drain

Optionally with manual or fully automatic condensate drain

[_]	Manually rotating



[A]	Fully automatic



Type code

001	Series	
LFMA	Micro 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	
	Manually rotating	
A	Fully automatic	
E2	External fully automatic condensate drain, electric, 110 V AC, connection terminals	

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: Inline installation With accessories					Either: In-line installation Inline installation With accessories
Mounting position	Vertical +/-5°					
Grade of filtration	0.01 µm					
Air purity class at output	Compressed air to ISO 8573-1:2010 [1:7:2] Inert gas		Compressed air to ISO 8573-1:2010 [1:7:2] Compressed air to ISO 8573-1:2010 [3:-:2] Inert gas	Compressed air to ISO 8573-1:2010 [3:4:2] Inert gas		Compressed air to ISO 8573-1:2010 [3:4:2] Inert gas Inert gases
Filter efficiency	99.99 ... 99.9999%	99.9999%				
MPPS	0.05 µm	–		0.05 µm		
Bowl guard	Metal bowl guard					
Condensate drain	Fully automatic Manual, rotating					
Filter efficiency, fine particles	99,995%	–		99,995%		
Filter efficiency, oil aerosol	99%	–		99%		
Filter efficiency MPPS	99.95%	–		99.95%		
Differential pressure display	–			Visual indicator		Visual indicator, Visual display
Residual oil content	0.01 mg/m³					

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

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	1,500 l/min	1,900 l/min	2,200 l/min	740 l/min	880 l/min	1,120 l/min	1,110 l/min	360 l/min	410 l/min	450 l/min
Min. standard flow rate for clean air class	500 l/min		480 l/min	240 l/min	250 l/min	330 l/min	300 l/min	80 l/min	100 l/min	

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

Operating and environmental conditions

Filter change sensing	None [_]		Differential pressure display, visual [DA]	
Condensate drain	Fully automatic	Manual, rotating	Fully automatic	Manual, 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 gas		Compressed air to ISO 8573-1:2010 [6:4:4] Inert gas Inert gases	Compressed air to ISO 8573-1:2010 [6:4:4] Inert gas
Ambient temperature	-10 ... 60°C			
Media temperature	1.5 ... 60°C			
Corrosion resistance class CRC [2]	2 - Moderate corrosion stress			

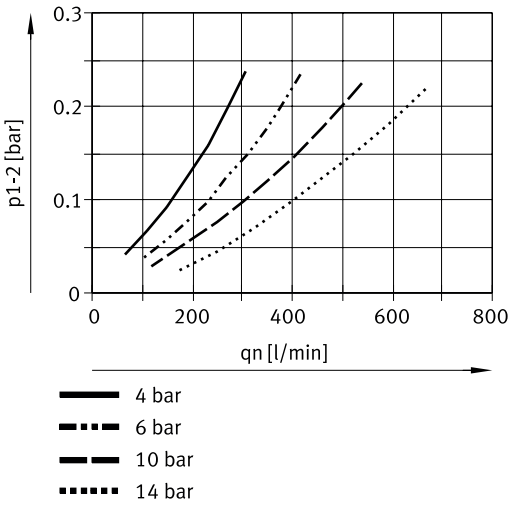
1) Compressed air according to ISO 8573-1:2010 [7:9:-] applies to fully automatic condensate drain

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

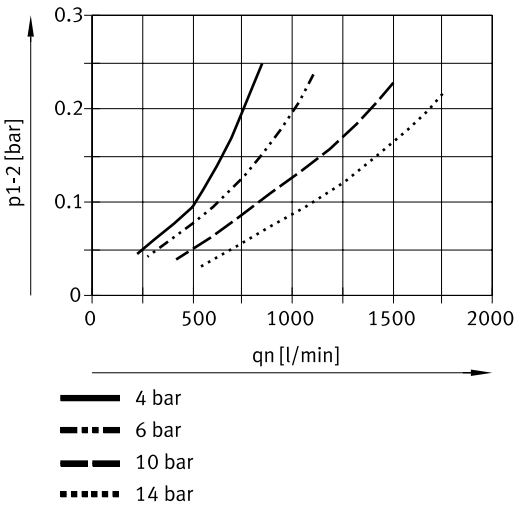
Operating and environmental conditions (NPT – not available on all markets)

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

Standard flow rate qn as a function of differential pressure Δp1-2 (LFMA-1/4-D-MINI)

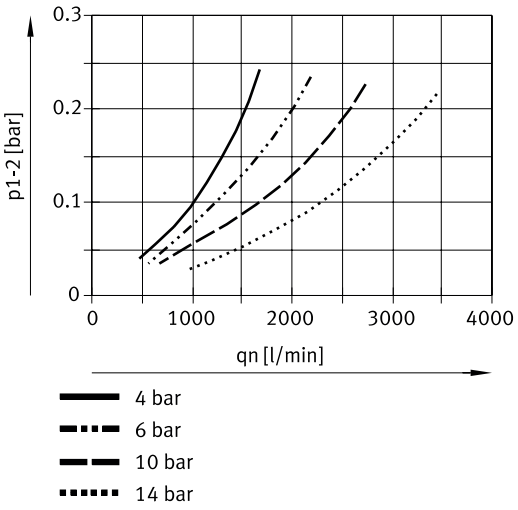


Standard flow rate qn as a function of differential pressure Δp1-2 (LFMA-1/2-D-MIDI)



Datasheet

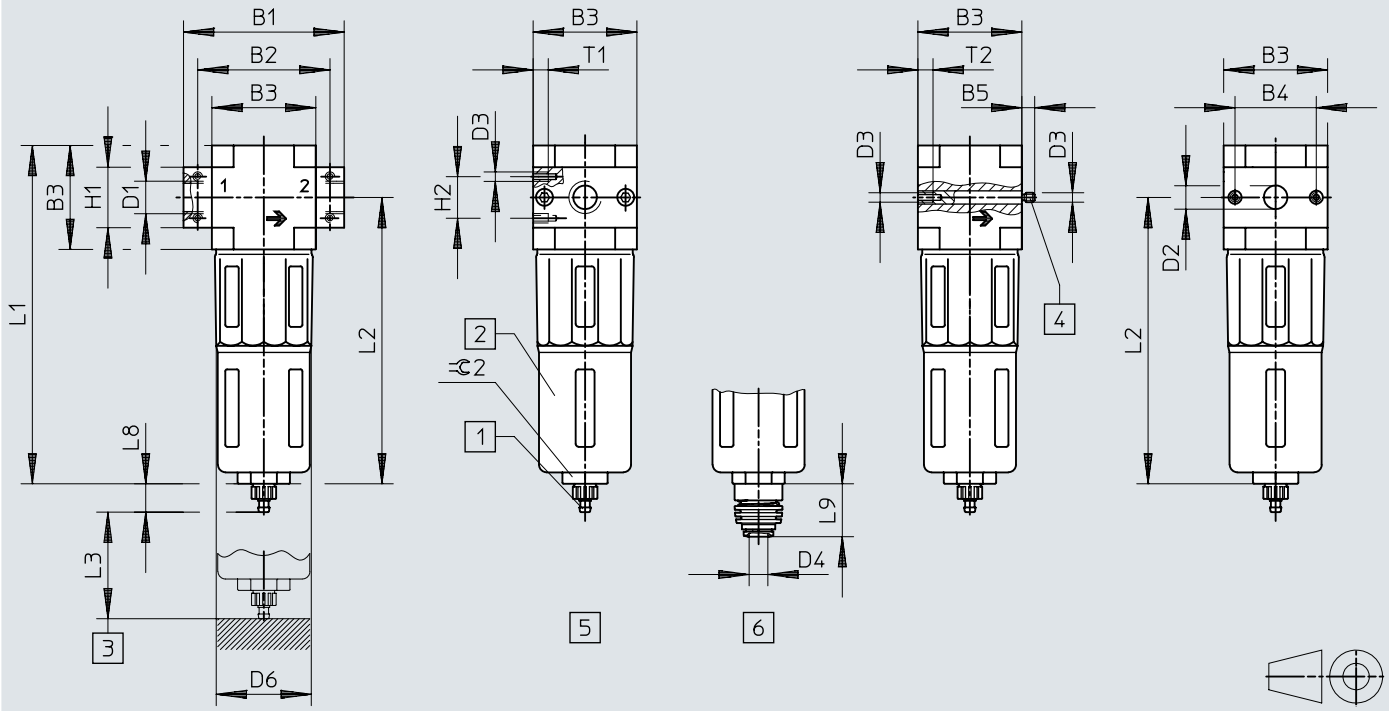
Standard flow rate qn as a function of differential pressure Δp1-2 (LFMA-1-D-MAXI)



Dimensions

Dimensions – Connecting plates with threaded connection, without connecting plates

Download CAD data www.festo.com

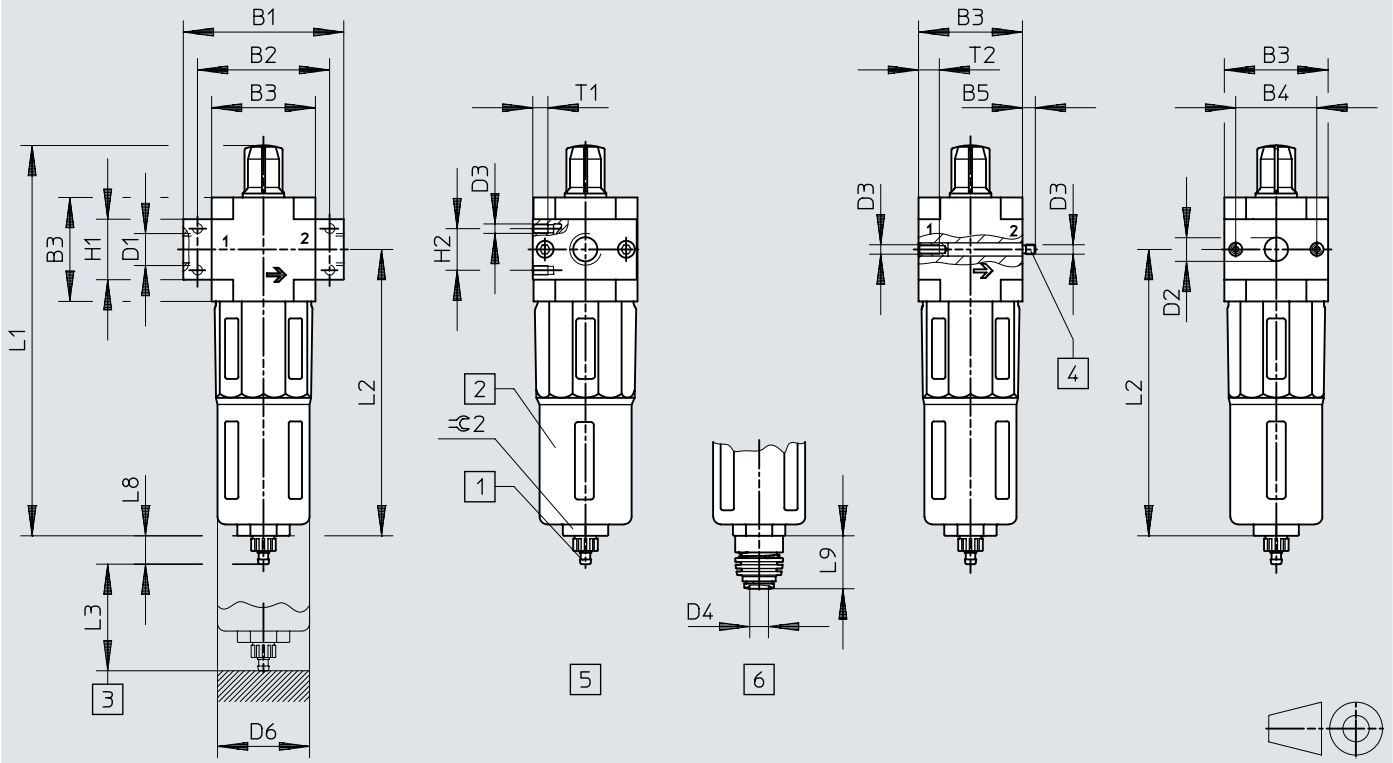


[1] Barbed connector for plastic tubing PUN(-H)-8x1.25
[2] Metal bowl guard
[3] Installation dimension
[4] Threaded bolt (exchangeable)
[5] Manual condensate drain
[6] Fully automatic condensate drain for plastic tubing PUN-6/PAN-6

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

Dimensions

Dimensions – With differential pressure display DA 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] 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																			
LFMA-1/8-D-MINI-DA	64	52	40	30	–	G1/8	–	M4	38	20	11	173	124	60	15	19	7	–	22
LFMA-1/4-D-MINI-DA						G1/4													
LFMA-3/8-D-MINI-DA	70					G3/8													
LFMA-D-MINI-DA	–	–			5,8	–	11			–	–						–	10	
Midi																			
LFMA-1/4-D-MIDI-DA	85	70	55	43	–	G1/4	–	M5	52	32	22	207	151	80	15	19	8	–	24
LFMA-3/8-D-MIDI-DA						G3/8													
LFMA-1/2-D-MIDI-DA						G1/2													
LFMA-3/4-D-MIDI-DA						G3/4													
LFMA-D-MIDI-DA	–	–			6,8	–	24			–	–						–	11	
Maxi																			
LFMA-1/2-D-MAXI-DA	96	80	66	46	–	G1/2	–	M5	65	32	22	232	170	90	15	19	8	–	24
LFMA-3/4-D-MAXI-DA						G3/4													
LFMA-1-D-MAXI-DA	116	91				G1				40									
LFMA-D-MAXI-DA	–	–			6,8	–	30			–	–						–	11	

Ordering data

Micro filter LFMA



Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type
Maxi	Sub-base	Fully automatic		192568	LFMA-D-MAXI-A
		Manual, rotating		192565	LFMA-D-MAXI
	G1/2	Fully automatic		186475	LFMA-1/2-D-MAXI-A
		Manual, rotating		186476	LFMA-1/2-D-MAXI
	G3/4	Fully automatic	1,200 g	162656	LFMA-3/4-D-MAXI-A
		Manual, rotating		162648	LFMA-3/4-D-MAXI
	G1	Fully automatic		162657	LFMA-1-D-MAXI-A
		Manual, rotating		162649	LFMA-1-D-MAXI
Midi	Sub-base	Fully automatic		192567	LFMA-D-MIDI-A
		Manual, rotating		192564	LFMA-D-MIDI
	G1/4	Fully automatic		186470	LFMA-1/4-D-MIDI-A
		Manual, rotating		186469	LFMA-1/4-D-MIDI
	G3/8	Fully automatic	650 g	162653	LFMA-3/8-D-MIDI-A
		Manual, rotating		162645	LFMA-3/8-D-MIDI
	G1/2	Fully automatic		162654	LFMA-1/2-D-MIDI-A
		Manual, rotating		162646	LFMA-1/2-D-MIDI
	G3/4	Fully automatic		162655	LFMA-3/4-D-MIDI-A
		Manual, rotating		162647	LFMA-3/4-D-MIDI
Mini	Sub-base	Fully automatic		192566	LFMA-D-MINI-A
		Manual, rotating		192563	LFMA-D-MINI
	G1/8	Fully automatic	250 g	162650	LFMA-1/8-D-MINI-A
		Manual, rotating		162642	LFMA-1/8-D-MINI
	G1/4	Fully automatic		162651	LFMA-1/4-D-MINI-A
		Manual, rotating		162643	LFMA-1/4-D-MINI
	G3/8	Fully automatic		162652	LFMA-3/8-D-MINI-A
		Manual, rotating		162644	LFMA-3/8-D-MINI

Micro filter LFMA with differential pressure display



Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type
Maxi	Sub-base	Fully automatic		532842	LFMA-D-MAXI-DA-A
		Manual, rotating		532839	LFMA-D-MAXI-DA
	G1/2	Fully automatic	1,340 g	532860	LFMA-1/2-D-MAXI-DA-A
		Manual, rotating		532850	LFMA-1/2-D-MAXI-DA
	G3/4	Fully automatic		532861	LFMA-3/4-D-MAXI-DA-A
		Manual, rotating		532851	LFMA-3/4-D-MAXI-DA
	G1	Fully automatic		532862	LFMA-1-D-MAXI-DA-A
		Manual, rotating		532852	LFMA-1-D-MAXI-DA
Midi	Sub-base	Fully automatic		532841	LFMA-D-MIDI-DA-A
		Manual, rotating		532838	LFMA-D-MIDI-DA
	G1/4	Fully automatic	834 g	532856	LFMA-1/4-D-MIDI-DA-A
		Manual, rotating		532846	LFMA-1/4-D-MIDI-DA
	G3/8	Fully automatic		532857	LFMA-3/8-D-MIDI-DA-A
		Manual, rotating		532847	LFMA-3/8-D-MIDI-DA
	G1/2	Fully automatic		532858	LFMA-1/2-D-MIDI-DA-A
		Manual, rotating		532848	LFMA-1/2-D-MIDI-DA
	G3/4	Fully automatic		532859	LFMA-3/4-D-MIDI-DA-A

Ordering data

Micro filter LFMA with differential pressure display



Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type
Midi	G3/4	Manual, rotating	834 g	**532849**	**LFMA-3/4-D-MIDI-DA**
Mini	Sub-base	Fully automatic		**532840**	**LFMA-D-MINI-DA-A**
		Manual, rotating		**532837**	**LFMA-D-MINI-DA**
	G1/8	Fully automatic	368 g	**532853**	**LFMA-1/8-D-MINI-DA-A**
		Manual, rotating		**532843**	**LFMA-1/8-D-MINI-DA**
	G1/4	Fully automatic		**532854**	**LFMA-1/4-D-MINI-DA-A**
		Manual, rotating		**532844**	**LFMA-1/4-D-MINI-DA**
	G3/8	Fully automatic		**532855**	**LFMA-3/8-D-MINI-DA-A**
		Manual, rotating		**532845**	**LFMA-3/8-D-MINI-DA**

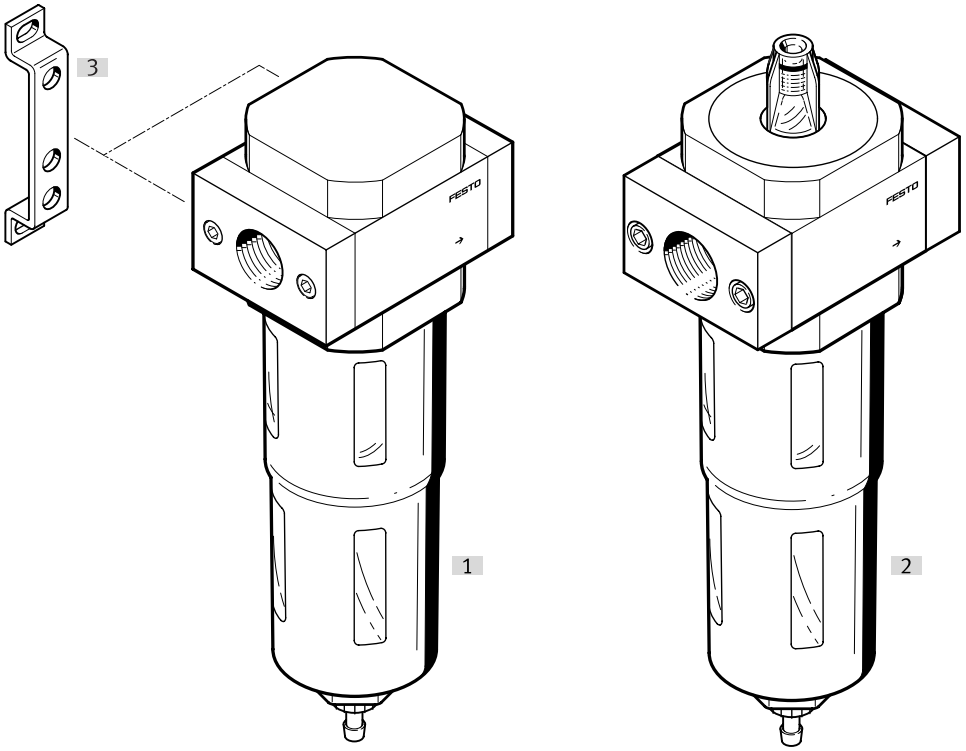
Fine filter LFMA (NPT – not available on all markets)



Size	Pneumatic connection, port 1	Condensate drain	Product weight	Part no.	Type

Peripherals

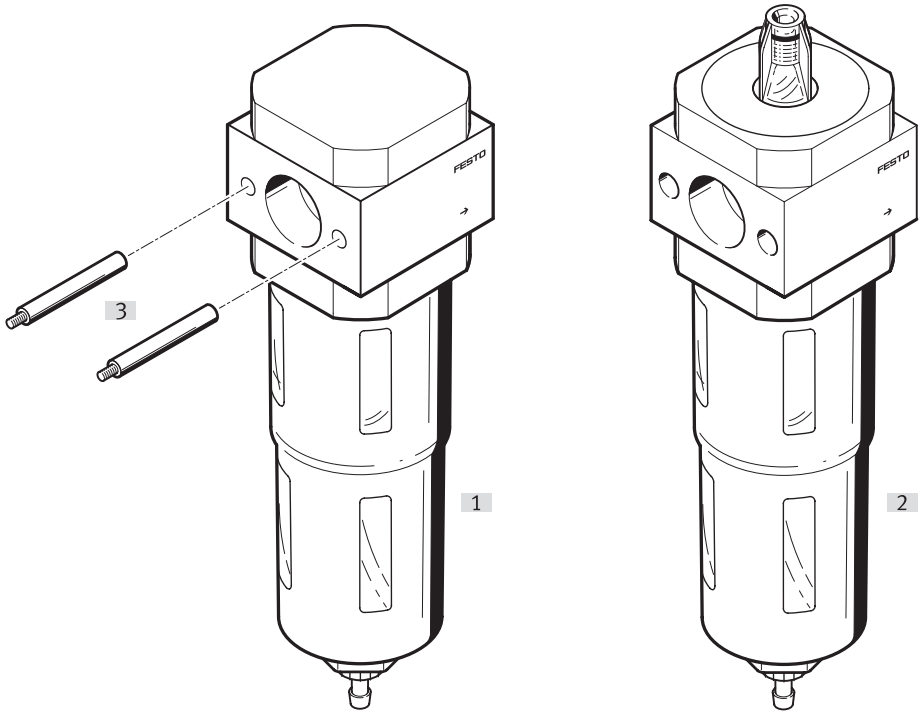
Peripherals overview – single unit with connecting plates



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

Peripherals

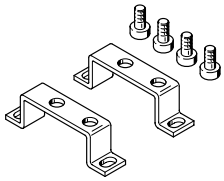
Peripherals overview – individual unit without connecting plates, for service unit component combination



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

Accessories

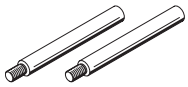
Mounting bracket HFOE-D



Short type code	Corrosion resistance class CRC [1]	Part no.	Type
HFOE	2 - Moderate corrosion stress	**159638**	**HFOE-D-MINI**
		159593	**HFOE-D-MIDI/MAXI**

1) More information www.festo.com/x/topic/kbk

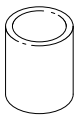
Threaded bolt FRB-D



Short type code	Corrosion resistance class CRC [1]	Part no.	Type
FRB	2 - Moderate corrosion stress	**159595**	**FRB-D-MIDI**
		159643	**FRB-D-MAXI**
		159642	**FRB-D-MINI**

1) More information www.festo.com/x/topic/kbk

Fine-filter cartridges



Size	Grade of filtration	Part no.	Type
Maxi	0.01 µm	**162676**	**LFMAP-D-MAXI**
Midi		**162675**	**LFMAP-D-MIDI**
Mini		**162674**	**MS4/D-MINI-LFM-A**