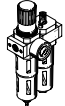


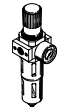
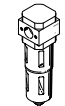
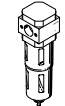
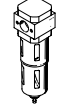
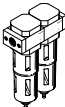
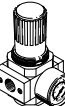


Filters LF/LFMA/LFMB/LFX/LFMBA, D series

FESTO



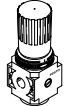
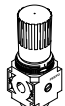
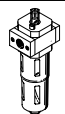
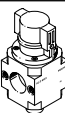

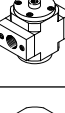

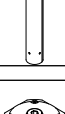
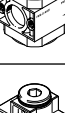

Product range overview – Service unit components, D series, metal

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	-	-	-	-	-	■	■	■	-	-	■	■	-	-	-	■	■
 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	-	-	-	-	-	■	■	■	-	-	-	-	-	■	■	-	-
 Activated carbon filters LFX	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mini	-	-	■	■	■	-	-	-	-	-	-	-	-	-	-	-	-
	Midi	-	-	-	■	■	■	■	-	-	-	-	-	-	-	-	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	-	-	-	-	-	-	-
 Filter combinations LFMBBA	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mini	-	-	■	■	■	-	-	-	-	-	-	-	-	■	■	-	-
	Midi	-	-	-	■	■	■	■	-	-	-	-	-	-	■	■	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	-	-	-	■	■	-	-
 Pressure regulators LR/LRS	Micro	■	■	■	-	-	-	-	-	■	■	■	-	-	-	-	-	-
	Mini	-	-	■	■	■	-	-	-	-	■	■	-	-	-	-	-	-
	Midi	-	-	-	■	■	■	■	-	-	■	■	-	-	-	-	-	-
	Maxi	-	-	-	-	-	■	■	■	-	-	■	■	-	-	-	-	-

Product range overview – Service unit components, D series, metal

Type	Size	Bowl guard		Condensate drain			Pressure indicator		Actuator lock		Supply voltage			Options			→ Page/ Internet
		Metal bowl guard	Plastic bowl	Manual	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 display	
Service units																	
FRC/FRCS	Micro	-	■	■	■	-	■	■	■	-	-	-	-	-	-	-	frc
	Mini	■	-	■	-	■	■	■	■	■	-	-	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	-	-	-	■	■	-	
FRC-K	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	frc
	Mini	■	-	■	-	■	■	-	■	-	■	-	-	-	-	-	
	Midi	■	-	■	-	■	■	-	■	-	■	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	-	■	-	-	■	■	-	
LFR-K LFRS-K	Micro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	frc
	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	■	-	■	-	■	-	-	-	-	-	-	-	-	-	■	
Activated 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	-	-	-	-	-	■	■	■	■	-	-	-	■	■	-	

Product range overview – Service unit components, D series, metal

Type	Size	Pneumatic connection										Pressure regulation range [bar]		
		M5	M7	G1/8	G1/4	G3/8	G1/2	G3/4	G1	QS4	QS6	0.5 ... 7	0.5 ... 12	
Individual devices														
Pressure regulators LRB/LRBS		Micro	-	-	-	■	-	-	-	-	-	-	■	■
		Mini	-	-	-	■	-	-	-	-	-	-	■	■
		Midi	-	-	-	-	■	-	-	-	-	-	■	■
		Maxi	-	-	-	-	-	-	-	-	-	-	-	-
Pressure regulator manifolds LRB-K		Micro	-	-	-	■	■	-	-	-	-	-	■	■
		Mini	-	-	-	-	■	■	-	-	-	-	■	■
		Midi	-	-	-	-	■	■	-	-	-	-	■	■
		Maxi	-	-	-	-	-	-	-	-	-	-	-	-
Lubricators LOE		Micro	■	■	■	-	-	-	-	-	■	■	-	-
		Mini	-	-	■	■	■	-	-	-	-	-	-	-
		Midi	-	-	-	■	■	■	■	-	-	-	-	-
		Maxi	-	-	-	-	-	■	■	■	-	-	-	-
On/off valves HE		Micro	-	-	-	-	-	-	-	-	-	-	-	
		Mini	-	-	■	■	■	-	-	-	-	-	-	
		Midi	-	-	-	■	■	■	■	-	-	-	-	
		Maxi	-	-	-	-	-	■	■	■	-	-	-	
On/off valves HEE		Micro	-	-	-	-	-	-	-	-	-	-	-	
		Mini	-	-	■	■	■	-	-	-	-	-	-	
		Midi	-	-	-	■	■	■	■	-	-	-	-	
		Maxi	-	-	-	-	-	■	■	■	-	-	-	
On/off valves 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	-	-	-	-	-	-	-	-	-	-	-	

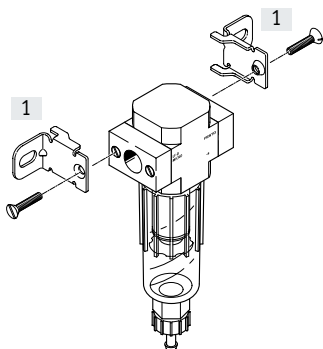
Product range overview – Service unit components, D series, metal

Type	Size	Bowl guard		Pressure indicator		Actuator lock		Supply voltage			Options		→ Page/ Internet
		Metal bowl guard	Plastic bowl	With pressure gauge	Without pressure gauge	Rotary knob with latch	Rotary knob with integrated lock	24 V DC	110 V AC	230 V AC	With non-return function	Pressure switch	
Individual devices													
Pressure regulators LRB/LRBS	Micro	-	-	-	■	■	■	-	-	-	-	-	lrb
	Mini	-	-	-	■	■	■	-	-	-	-	-	
	Midi	-	-	-	■	■	■	-	-	-	-	-	
	Maxi	-	-	-	■	■	■	-	-	-	-	-	
Pressure regulator manifolds LRB-K	Micro	-	-	-	■	■	-	-	-	-	-	-	lrb
	Mini	-	-	-	■	■	-	-	-	-	-	-	
	Midi	-	-	-	■	■	-	-	-	-	-	-	
	Maxi	-	-	-	■	■	-	-	-	-	-	-	
Lubricators LOE	Micro	-	■	-	■	-	-	-	-	-	-	-	loe
	Mini	■	-	-	■	-	-	-	-	-	-	-	
	Midi	■	-	-	■	-	-	-	-	-	-	-	
	Maxi	■	-	-	■	-	-	-	-	-	-	-	
On/off valves HE	Micro	-	-	-	■	■	-	-	-	-	-	-	he
	Mini	-	-	-	■	■	-	-	-	-	-	-	
	Midi	-	-	-	■	■	-	-	-	-	-	-	
	Maxi	-	-	-	■	■	-	-	-	-	-	-	
On/off valves HEE	Micro	-	-	-	■	-	-	■	■	■	-	-	hee
	Mini	-	-	-	■	-	-	■	■	■	-	-	
	Midi	-	-	-	■	-	-	■	■	■	-	-	
	Maxi	-	-	-	■	-	-	■	■	■	-	-	
On/off valves HEP	Micro	-	-	-	■	-	-	-	-	-	-	-	hep
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	-	-	-	■	-	-	-	-	-	-	-	
Soft-start valves HEL	Micro	-	-	-	■	-	-	-	-	-	-	-	hel
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	-	-	-	■	-	-	-	-	-	-	-	
Membrane air dryers LDM1	Micro	-	-	-	-	-	-	-	-	-	-	-	ldm1
	Mini	-	-	-	-	-	-	-	-	-	-	-	
	Midi	-	-	-	-	-	-	-	-	-	-	-	
	Maxi	■	-	-	■	-	-	-	-	-	-	-	
Branching modules FRM	Micro	-	-	-	■	-	-	-	-	-	■	■	frm
	Mini	-	-	-	■	-	-	-	-	-	■	■	
	Midi	-	-	-	■	-	-	-	-	-	■	■	
	Maxi	-	-	-	■	-	-	-	-	-	■	■	
Distributor block FRZ	Micro	-	-	-	■	-	-	-	-	-	-	-	frz
	Mini	-	-	-	■	-	-	-	-	-	-	-	
	Midi	-	-	-	■	-	-	-	-	-	-	-	
	Maxi	-	-	-	■	-	-	-	-	-	-	-	

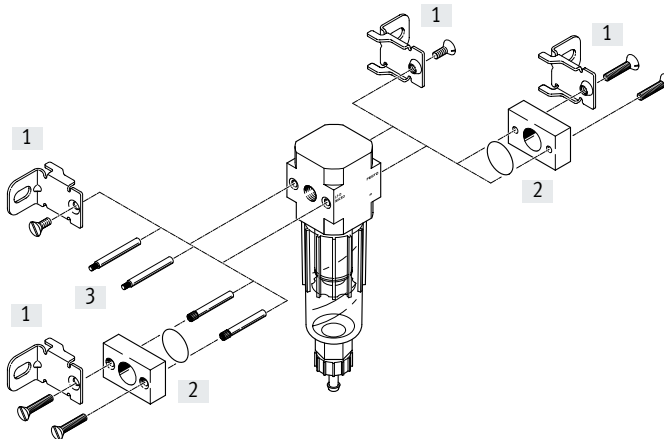
Peripherals overview

Micro

Individual unit with connecting plates, connection size G1/8, QS-4 or QS-6



Individual unit without connecting plates, for service unit component combination
Connecting thread M5 or M7 in the housing

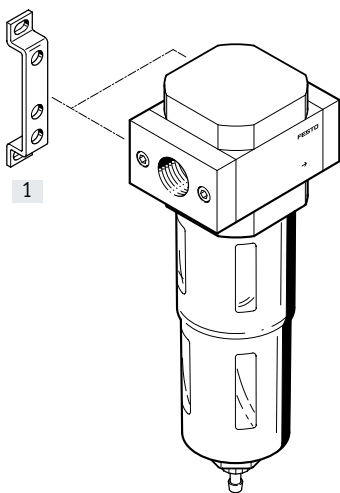


Mounting attachments and accessories

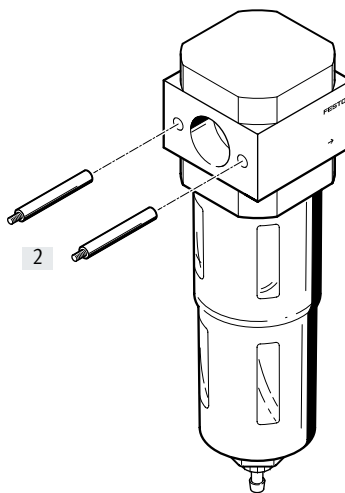
	Individual device		Combination		→ Page/Internet
	With connecting plates	Without connecting plates	With connecting plates	Without connecting plates	
[1] Mounting bracket HFOE	■	■	■	■	hfoe-d
[2] Connection set PBL	-	■	-	■	pbl
[3] Threaded bolt FRB	-	-	■	■	frb-d

Mini/Midi/Maxi

Individual unit with connecting plates



Individual unit without connecting plates, for service unit component combination



Mounting attachments and accessories

	Individual device		Combination		→ Page/Internet
	With connecting plates	Without connecting plates	With connecting plates	Without connecting plates	
[1] Mounting bracket HFOE	■	-	■	-	hfoe-d
[2] Threaded bolt (included in scope of delivery) FRB	-	-	■	■	frb-d

Type codes

001	Series
LF	Filter

002	Pneumatic connection
	None
M5	Female thread M5
M7	Female thread M7
QS4	Push-in connector 4 mm
QS6	Push-in connector 6 mm
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

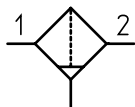
004	Grade of filtration
	40 µm
5M	5 µm

005	Size
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)

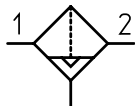
006	Condensate drain
	Manually rotating
H	Semi-automatic
A	Fully automatic


Datasheet


Condensate drain, manual




Condensate drain, semi- or fully automatic



-  - Flow rate
170 ... 5300 l/min

-  - Temperature range
-10 ... +60°C

-  - Operating pressure
0 ... 16 bar



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

General technical data		Micro	Mini	Midi	Maxi
Size					
Pneumatic connection 1, 2 ¹⁾		M5 ²⁾ , M7 ²⁾ , G1/8, QS-4 ³⁾ , QS-6 ³⁾	G1/8, G1/4, G3/8, - ⁴⁾	G1/4, G3/8, G1/2, G3/4, - ⁴⁾	G1/2, G3/4, G1, - ⁴⁾
Design		Sintered filter with centrifugal separator			
Type of mounting		With accessories In-line installation			
Mounting position		Vertical ±5°			
Grade of filtration [µm]		5	5 40		
Air quality class at the output		Compressed air to ISO 8573-1:2010 [6:8:4] (grade of filtration 5 µm)			
			Compressed air to ISO 8573-1:2010 [7:8:4] (grade of filtration 40 µm)		
		Inert gases			
Bowl guard			Metal bowl guard		
Condensate drain		Manual Semi-automatic Fully automatic			
Max. condensate volume [cm ³]		3	22	43	80

1) Connecting plates with threaded connection

2) Without connecting plates, connecting thread in housing.

3) Connecting plates with push-in connector

4) Without connecting plates.

† - Note: this product conforms to ISO 1179-1 and ISO 228-1.

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]		Micro				
Size						
Pneumatic connection		M5	M7	G1/8	QS-4	QS-6
Grade of filtration 5 µm		170	280	290	170	280

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

† - 125 l/min must be available for the fully automatic condensate drain to close fully.

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]		Mini			Midi			Maxi			
Size											
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	1100	1600	1800	2000	2000	3700	3600	3800
40 µm		1000	1200	1400	1900	2700	3000	3000	4400	5000	5300

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

† - 125 l/min must be available for the fully automatic condensate drain to close correctly.

Datasheet

Operating and environmental conditions				
Condensate drain	Manual		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 to ISO 8573-1:2010 [–:9:–]	Compressed air to ISO 8573-1:2010 [–:9:–]	Compressed air to ISO 8573-1:2010 [–:9:–]	Compressed air to ISO 8573-1:2010 [7:9:–]
	Inert gases			
Ambient temperature [°C]	–10 ... +60			+5 ... +60
Temperature of medium [°C]	–10 ... +60			+5 ... +60
Storage temperature [°C]	–10 ... +60			
Corrosion resistance class CRC ¹⁾	2			

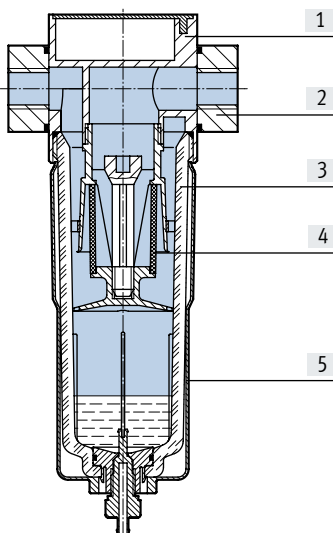
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Weights [g]						
Size	Micro		Mini	Midi	Maxi	
	Connecting thread	Connecting plate			Connection G1/2, G3/4	Connection G1
Filters	44	64	250	700	1340	1440

Materials

Sectional view

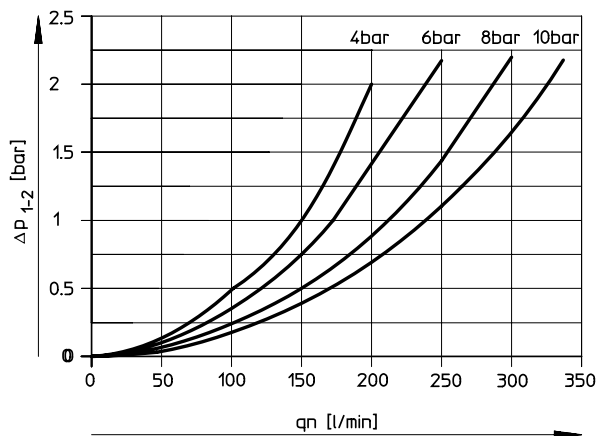


Filters	Micro	Mini/Midi/Maxi
[1] Housing	Wrought aluminium alloy	Die-cast zinc
[2] Connecting plates	Wrought aluminium alloy	Die-cast zinc/aluminium
[3] Bowl	PC	
[4] Filter cartridge	PE	
[5] Metal bowl guard	–	Aluminium
– Seals	NBR	
Note on materials	RoHS-compliant	

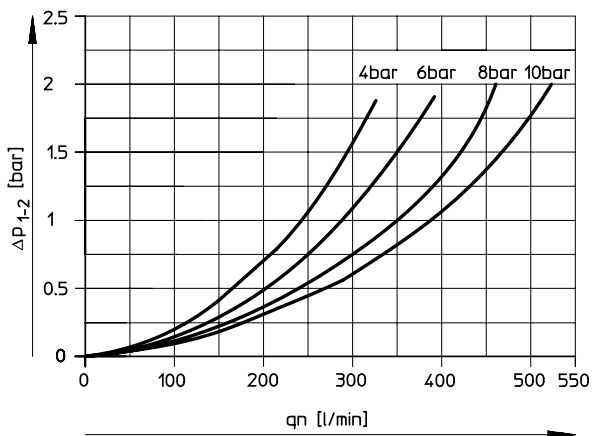
Datasheet

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

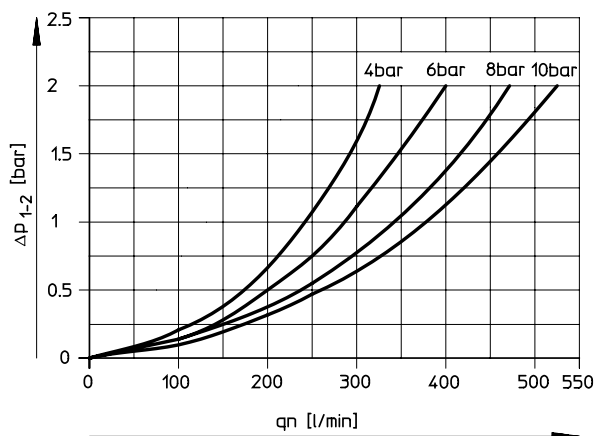
LF-M5...-MICRO and LF-QS4...-MICRO



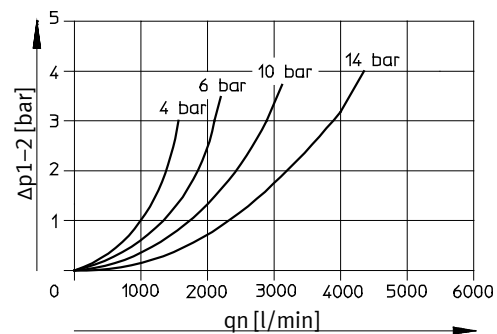
LF-1/8...-MICRO



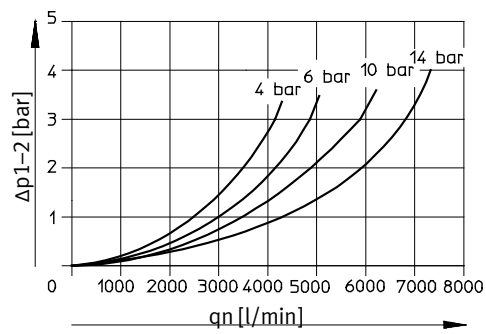
LF-M7...-MICRO B and LF-QS6...-MICRO



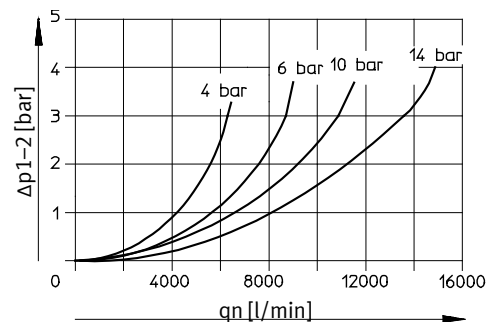
LF-1/4-D-MINI



LF-1/2-D-MIDI



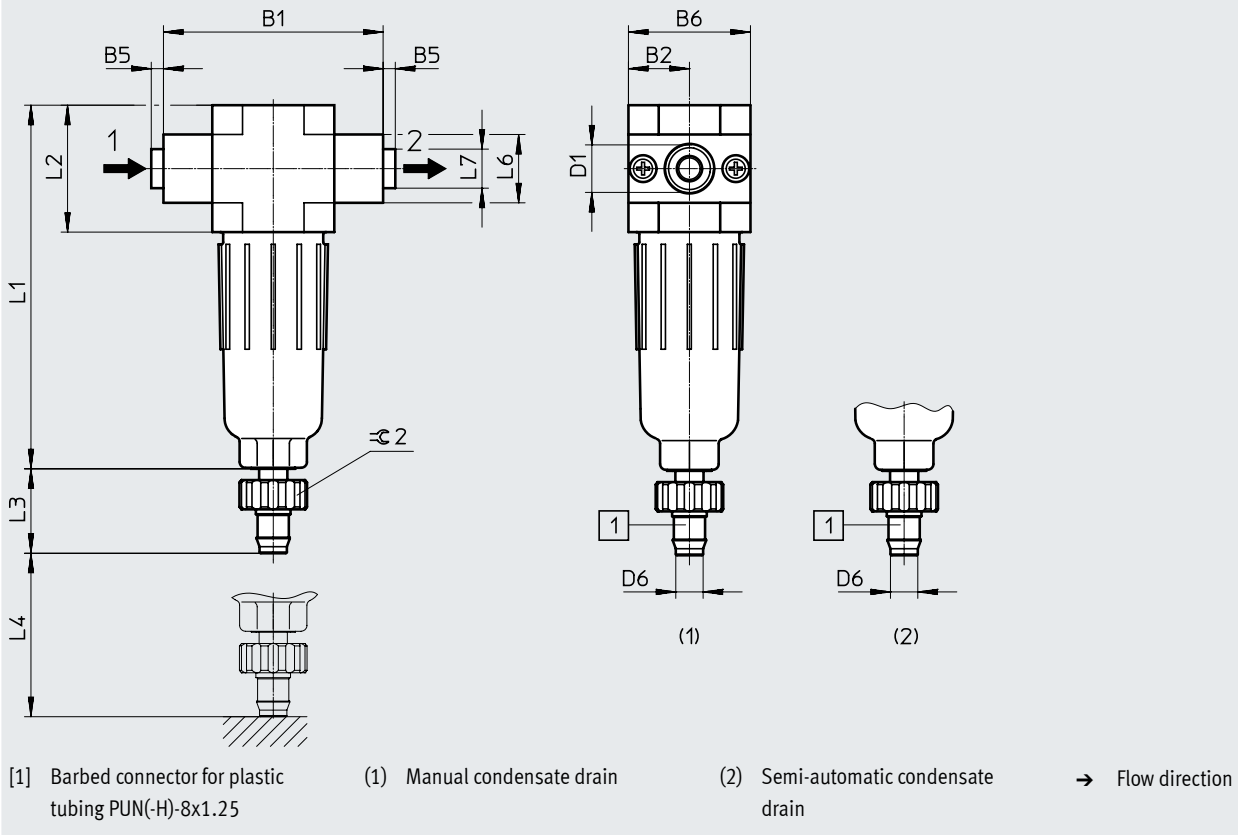
LF-1-D-MAXI



Datasheet

Dimensions – Micro

Download CAD data → www.festo.com



Type	B1	B2	B5	B6	D1	D6 ø	L1	L2	L3	L4 min.	L6	L7	±0.2
LF-M5-D-5M-MICRO (H)	25	12.5	-	25	M5	5.6	74.5	26	~17.3	60	14	-	12
LF-M7-D-5M-MICRO (H) B	M7												
LF-1/8-D-5M-MICRO (H)	45				G1/8								
LF-QS4-D-5M-MICRO (H)			~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.

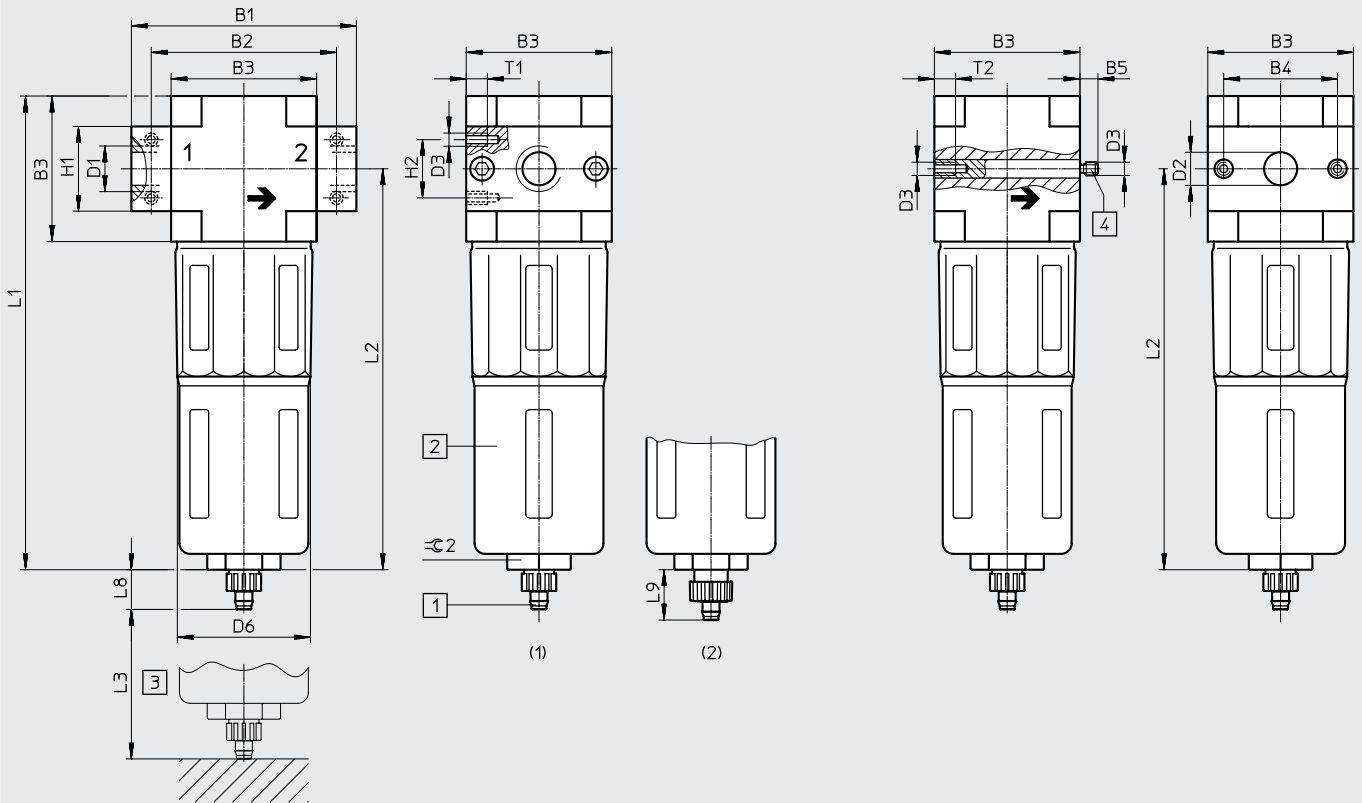
Datasheet

Dimensions – Mini/Midi/Maxi

Download CAD data → www.festo.com

Connecting plates with threaded connection

Without connecting plates



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

Type	B1	B2	B3	B4	B5	D1	D2 ∅	D3	D6 ∅	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						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.

Datasheet

Ordering data – Micro							
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm		
			Part no.	Type	Part no.	Type	
Without connecting plates, connecting thread in housing							
Micro	Manual	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 threaded connection							
Micro	Manual	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	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	–	192557	LF-D-5M-MINI	192551	LF-D-MINI	
	Fully automatic	–	192560	LF-D-5M-MINI-A	192554	LF-D-MINI-A	
Midi	Manual	–	192558	LF-D-5M-MIDI	192552	LF-D-MIDI	
	Fully automatic	–	192561	LF-D-5M-MIDI-A	192555	LF-D-MIDI-A	
Maxi	Manual	–	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 threaded connection							
Mini	Manual	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	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
Fully automatic		G3/4	162615	LF-3/4-D-5M-MIDI	162607	LF-3/4-D-MIDI	
		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	
Maxi	Manual	G1/2	186464	LF-1/2-D-5M-MAXI	159579	LF-1/2-D-MIDI-A	
		G3/4	162616	LF-3/4-D-5M-MAXI	162609	LF-3/4-D-MIDI-A	
		G1	162617	LF-1-D-5M-MAXI	186463	LF-1/2-D-MAXI	
	Fully automatic	G1/2	186466	LF-1/2-D-5M-MAXI-A	159614	LF-3/4-D-MAXI	
		G3/4	162624	LF-3/4-D-5M-MAXI-A	159615	LF-1-D-MAXI	
		G1	162625	LF-1-D-5M-MAXI-A	186465	LF-1/2-D-MAXI-A	
				159618	LF-3/4-D-MAXI-A		
				159619	LF-1-D-MAXI-A		

Peripherals overview

Mini/Midi/Maxi

Individual unit with connecting plates

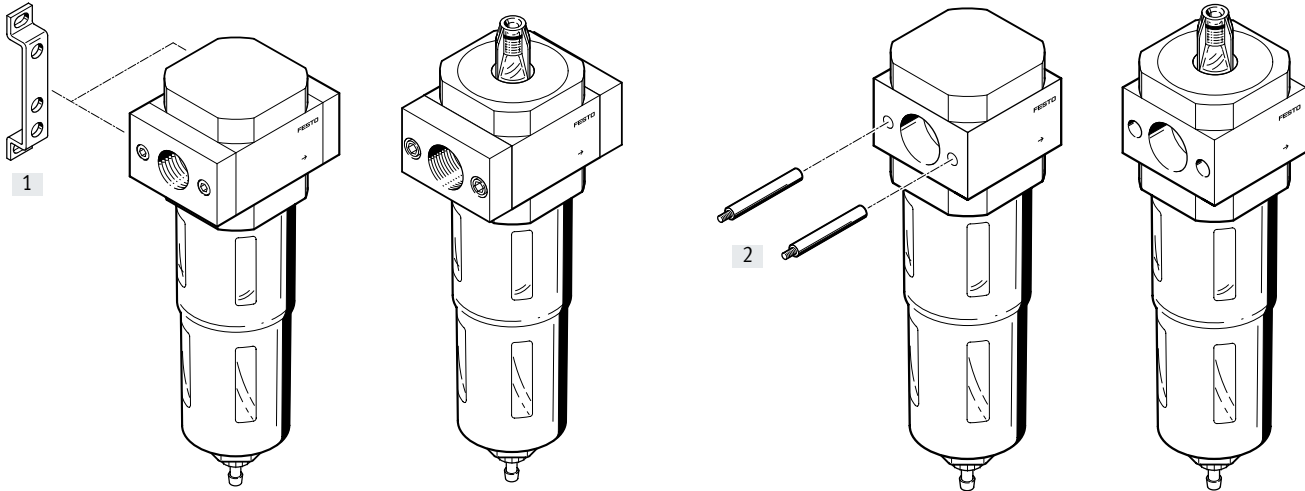
Without differential pressure display

With differential pressure display

Individual unit without connecting plates, for service unit component combination

Without differential pressure display

With differential pressure display



Mounting attachments and accessories

		Individual device		Combination		→ Page/Internet
		With connecting plates	Without connecting plates	With connecting plates	Without connecting plates	
[1]	Mounting bracket HFOE	■	–	■	–	hfoe-d
[2]	Threaded bolt (included in scope of delivery) FRB	–	–	■	■	frb-d

Type codes

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

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)

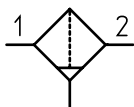
005 Filter change sensing	
	None
DA	Differential pressure display, visual

006 Condensate drain	
	Manually rotating
A	Fully automatic

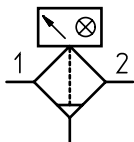
Datasheet

Condensate drain, manual

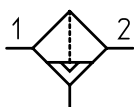
Without differential pressure display



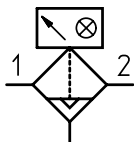
With differential pressure display






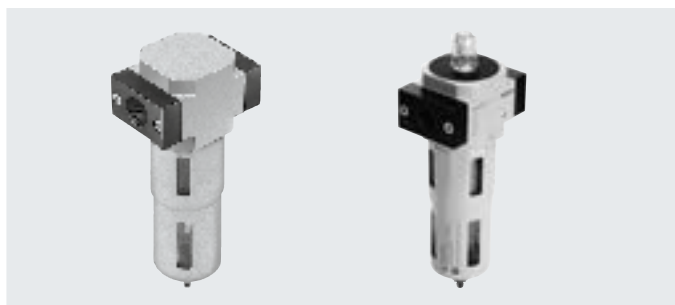
Condensate drain fully automatic,
without differential pressure display



With differential pressure display



-  Flow rate
80 ... 2780 l/min
-  Temperature range
-10 ... +60°C
-  Operating 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 display for visual indication of filter contamination
- Choice of filter inserts 0.01 µm or 1 µm
- New filter cartridges → Page 37

General technical data

Size	Mini	Midi	Maxi
Pneumatic connection 1, 2 ¹⁾	G1/8, G1/4, G3/8, – ²⁾	G1/4, G3/8, G1/2, G3/4, – ²⁾	G1/2, G3/4, G1, – ²⁾
Design	Fibre filter		
Type of mounting	With accessories In-line installation		
Mounting position	Vertical ±5°		
Grade of filtration [µm]	0.01 (micro filter LFMA) 1 (fine filter LFMB)		
Air quality class at the output	Compressed air to ISO 8573-1:2010 [1:7:2] (micro filter LFMA) Compressed air to ISO 8573-1:2010 [5:7:3] (fine filter LFMB) Inert gases		
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 Fully automatic		
Differential pressure display	Visual indicator		
Residual oil content [mg/m ³]	≤0.01 (micro filter LFMA) ≤0.5 (fine filter LFMB)		
Max. condensate volume [cm ³]	22	43	80

1) Connecting plates with threaded connection

2) Without connecting plates.

– † – Note: this product conforms to ISO 1179-1 and ISO 228-1.

Datasheet

Standard flow rate $q_n^{(1)}$ [l/min]										
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
Micro filter LFMA										
Max. standard flow rate for air purity class $q_{n \max}$	360	410	450	740	880	1120	1110	1500	1900	2200
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	1420	1750	1980	2400	2220	2780
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.

↓ 125 l/min must be available for the fully automatic condensate drain to close correctly.

Operating and environmental conditions		
Condensate drain	Manual	Fully automatic
Operating pressure [bar]	1 ... 16	2 ... 12
Operating medium	Compressed air to ISO 8573-1:2010 [6:8:4] ¹⁾	
	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 ²⁾	2	

1) Prefiltering the compressed air for the micro filter LFMA with a fine filter LFMB (grade of filtration 1 µm) is recommended.

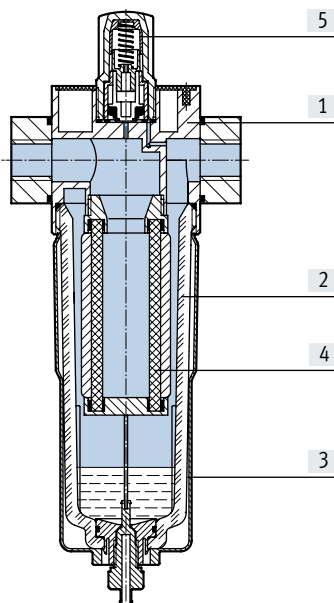
2) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Weights [g]			
Size	Mini	Midi	Maxi
Without differential pressure display	250	650	1200
With differential pressure display	368	834	1340

Materials

Sectional view



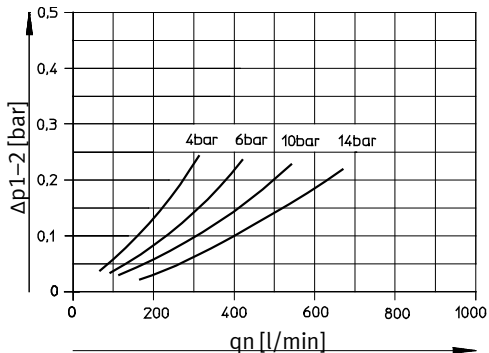
Fine and micro filters		
[1]	Housing	Die-cast zinc
[2]	Bowl	PC
[3]	Metal bowl guard	Aluminium
[4]	Filters	Borosilicate fibre
[5]	Housing for version with differential pressure display	PC
-	Seals	NBR
Note on materials		RoHS-compliant
		Free of copper and PTFE

Datasheet

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

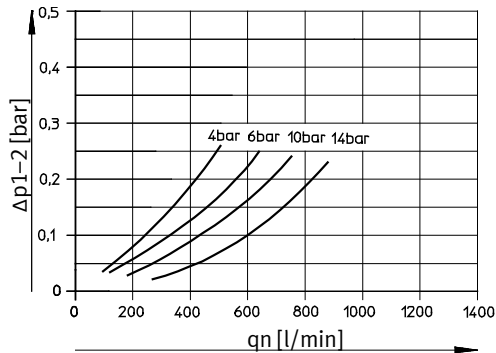
Grade of filtration 0.01 μm

LFMA-1/4-D-MINI

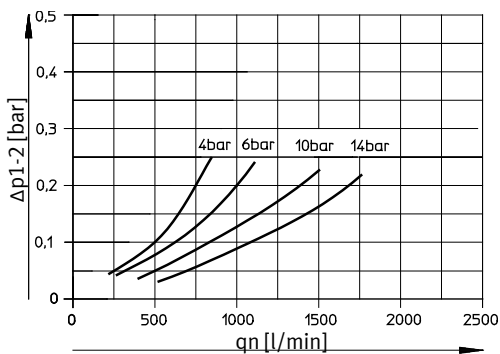


Grade of filtration 1 μm

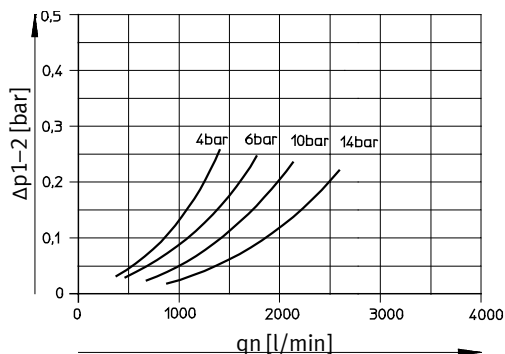
LFMB-1/4-D-MINI



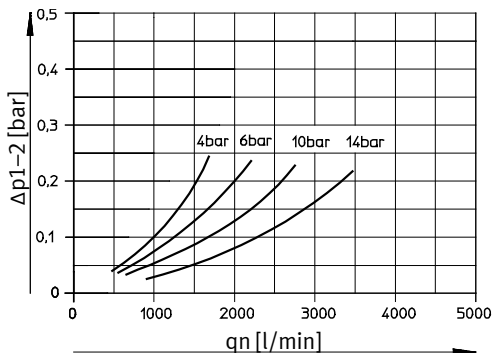
LFMA-1/2-D-MIDI



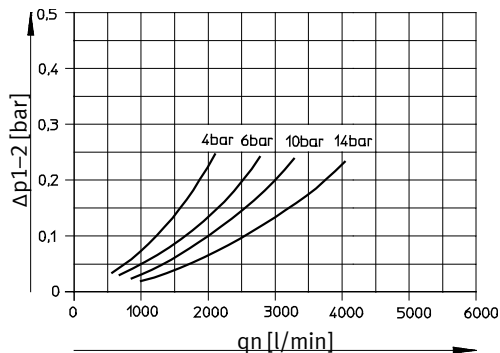
LFMB-1/2-D-MIDI



LFMA-1-D-MAXI



LFMB-1-D-MAXI



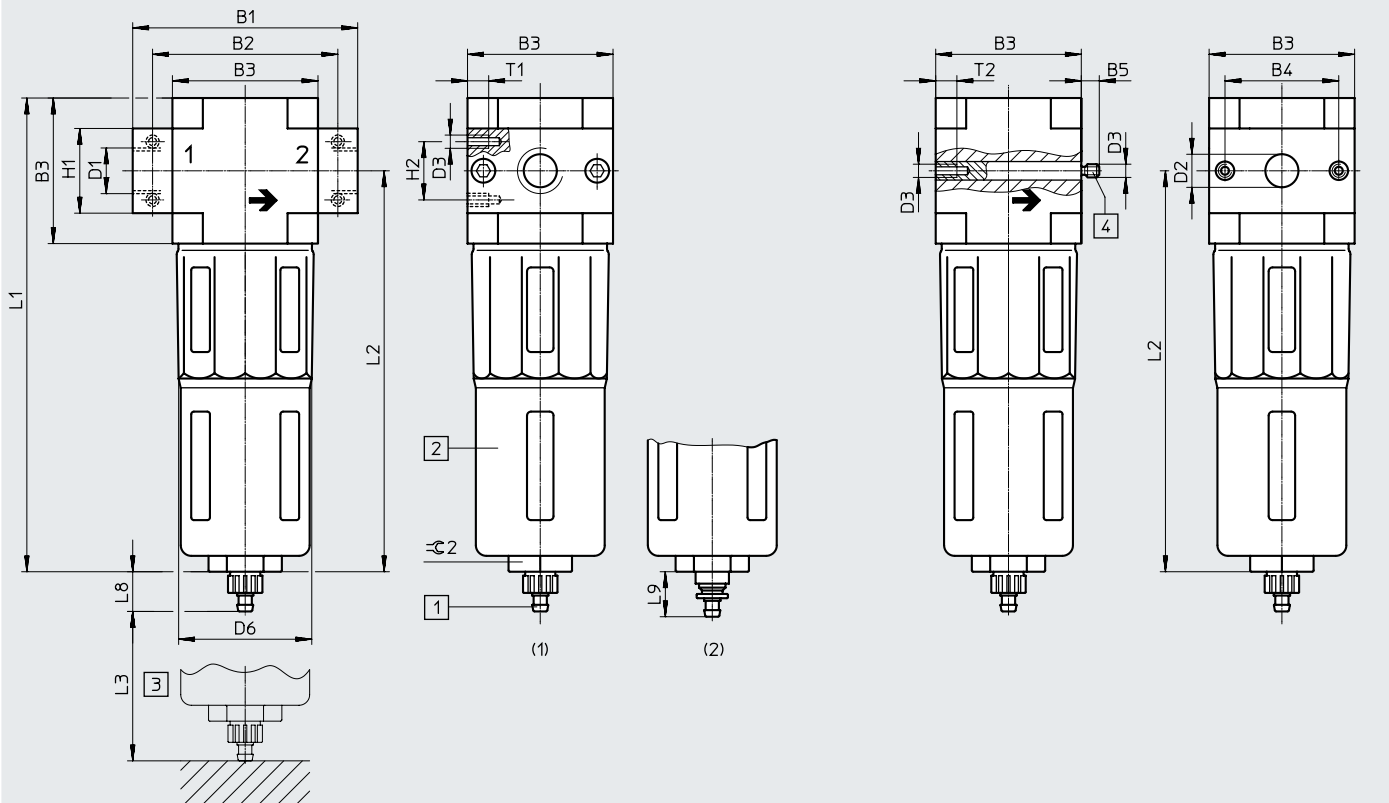
Datasheet

Dimensions

Download CAD data → www.festo.com

Connecting plates with threaded connection

Without connecting plates



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

Type	B1	B2	B3	B4	B5	D1	D2 ∅	D3	D6 ∅	H1	H2	L1	L2	L3	L8	L9	T1	T2	∅ 2
Mini																			
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						G1/4													
LFMB/A-3/8-D-MINI	70					G3/8													
LFMB/A-D-MINI	-	-			5.8	-	11			-	-						-	10	
Midi																			
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	
Maxi																			
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													
LFMB/A-1-D-MAXI	116	91				G1				40									
LFMB/A-D-MAXI	-	-			6.8	-	30			-	-						-	11	

Note: this product conforms to ISO 1179-1 and ISO 228-1.

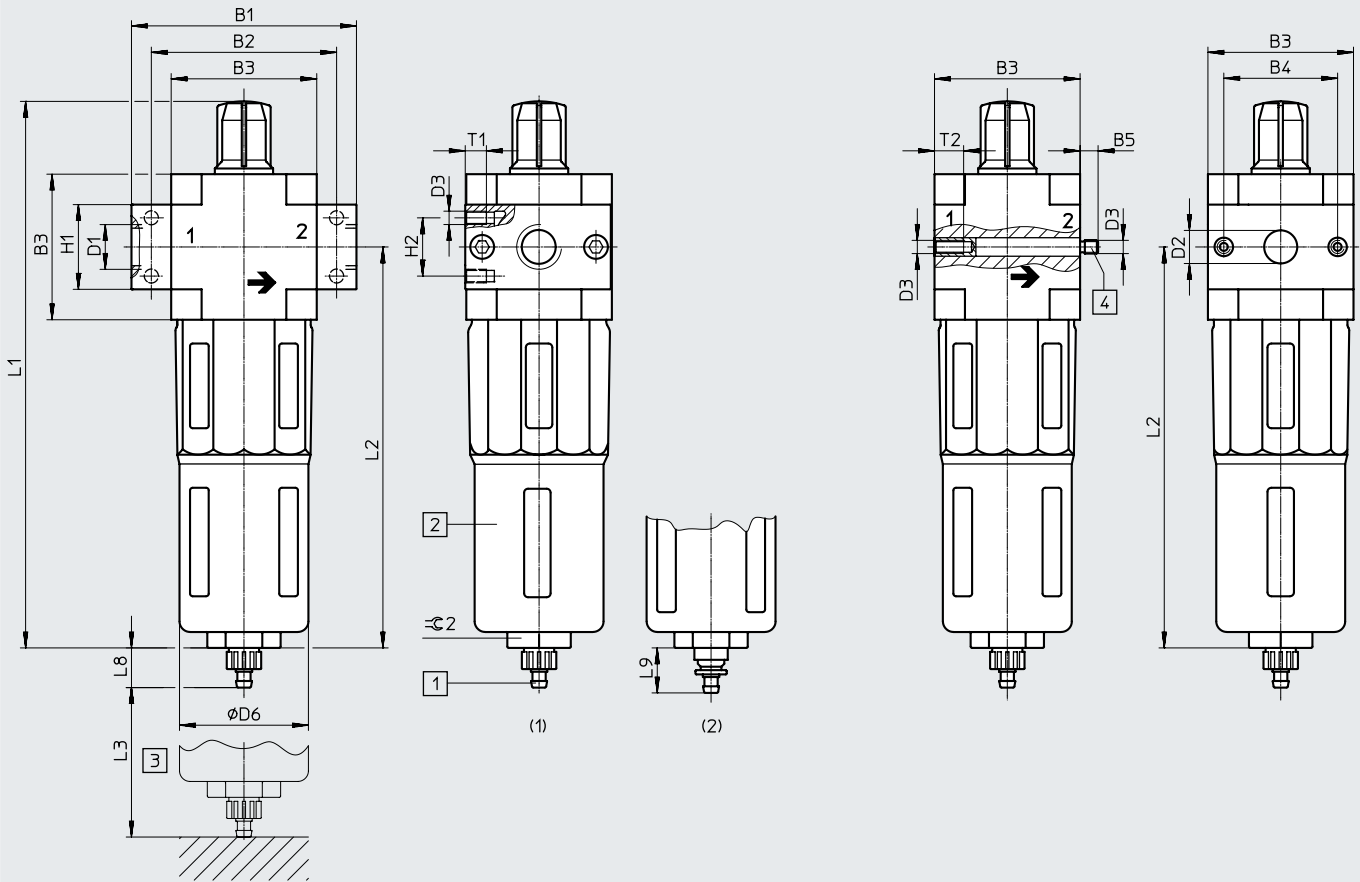
Datasheet

Dimensions with differential pressure display DA

Download CAD data → www.festo.com

Connecting plates with threaded connection

Without connecting plates



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

Type	B1	B2	B3	B4	B5	D1	D2 ∅	D3	D6 ∅	H1	H2	L1	L2	L3	L8	L9	T1	T2	≙ 2
Mini																			
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						G1/4													
LFMB/A-3/8-D-MINI-DA	70					G3/8													
LFMB/A-D-MINI-DA	-	-			5.8	-	11			-	-						-	10	
Midi																			
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	
Maxi																			
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	116	91				G1				40									
LFMB/A-D-MAXI-DA	-	-			6.8	-	30			-	-						-	11	

Note: this product conforms to ISO 1179-1 and ISO 228-1.

Datasheet

Ordering data – Micro filter LFMA

Grade of filtration 0.01 µm, metal bowl guard

Size	Connection	Condensate drain		Condensate drain	
		Manual		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 threaded connection

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		Condensate drain	
		Manual		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 threaded connection

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

Datasheet

Ordering data – micro filter LFMA with differential pressure display DA

Grade of filtration 0.01 µm, metal bowl guard

Size	Connection	Condensate drain		Condensate drain	
		Manual		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 threaded connection

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 display DA

Grade of filtration 1 µm, metal bowl guard

Size	Connection	Condensate drain		Condensate drain	
		Manual		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 threaded connection

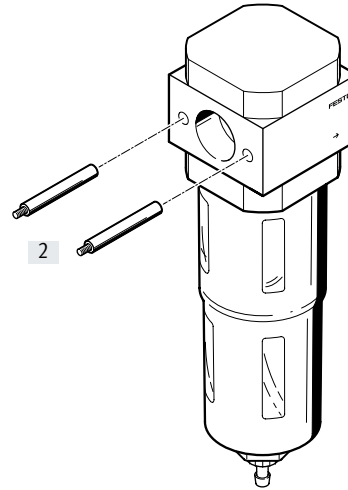
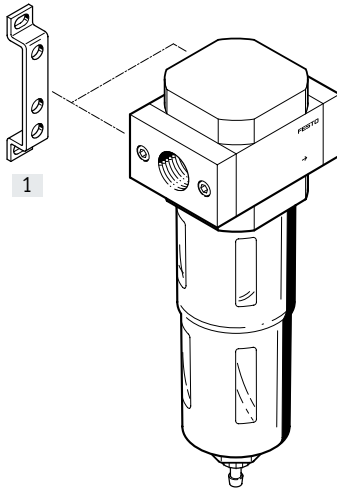
Mini	G1/8	532817	LFMB-1/8-D-MINI-DA	532827	LFMB-1/8-D-MINI-DA-A
	G1/4	532818	LFMB-1/4-D-MINI-DA	532828	LFMB-1/4-D-MINI-DA-A
	G3/8	532819	LFMB-3/8-D-MINI-DA	532829	LFMB-3/8-D-MINI-DA-A
Midi	G1/4	532820	LFMB-1/4-D-MIDI-DA	532830	LFMB-1/4-D-MIDI-DA-A
	G3/8	532821	LFMB-3/8-D-MIDI-DA	532831	LFMB-3/8-D-MIDI-DA-A
	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

Peripherals overview

Mini/Midi/Maxi

Individual unit with connecting plates

Individual unit without connecting plates, for service unit component combination



Mounting attachments and accessories

	Individual device		Combination		→ Page/Internet
	With connecting plates	Without connecting plates	With connecting plates	Without connecting plates	
[1] Mounting bracket HFOE	■	–	■	–	hfoe-d
[2] Threaded bolt (included in scope of delivery) FRB	–	–	■	■	frb-d

Type codes

001	Series
LFX	Activated carbon filter

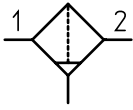
002	Pneumatic connection
	None
1/8	Female thread G1/8
1/4	Female thread G1/4
3/8	Female thread G3/8
1/2	Female thread G1/2
3/4	Female thread G3/4
1	Female thread G1




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)

Datasheet

Function



-  - Flow rate
360 ... 1100 l/min
-  - Temperature range
-10 ... +60°C
-  - Operating pressure
0 ... 16 bar



- Removes 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 → Page 37

General technical data

Size	Mini	Midi	Maxi
Pneumatic connection 1, 2 ¹⁾	G1/8, G1/4, G3/8, - ²⁾	G1/4, G3/8, G1/2, G3/4, - ²⁾	G1/2, G3/4, G1, - ²⁾
Design	Fibre filter (filter fabric made of activated carbon)		
Type of mounting	With accessories In-line installation		
Mounting position	Vertical ±5°		
Air quality class at the output	Compressed air to ISO 8573-1:2010 [1:4:1] Inert gases		
Bowl guard	Metal bowl guard		
Residual oil content [mg/m ³]	≤0.003		

1) Connecting plates with threaded connection

2) Without connecting plates.

† Note: this product conforms to ISO 1179-1 and ISO 228-1.

Standard flow rate q_n ³⁾ [l/min]

Size	Mini	Midi	Maxi
Max. standard flow rate for air purity class $q_{n \max}$	360	900	1100

1) Measured at $p_1 = 6$ bar.

Operating and environmental conditions

Operating pressure [bar]	0 ... 16
Operating medium	Compressed air 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 ¹⁾	2

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

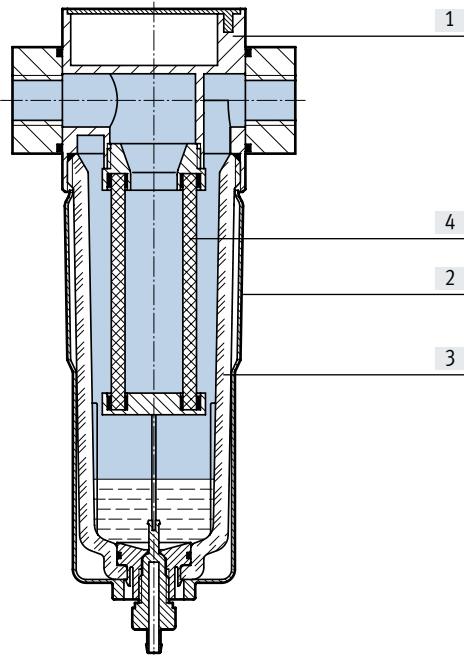
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Datasheet

Weights [g]			
Size	Mini	Midi	Maxi
With connecting plates	376	816	1191
Without connecting plates	283	600	921

Materials

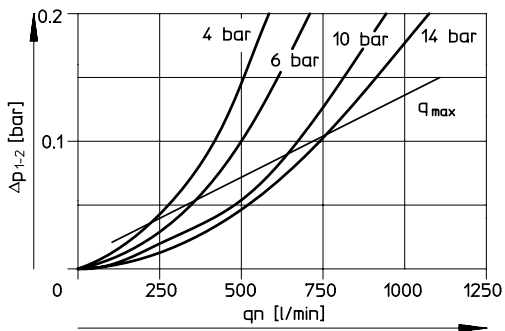
Sectional view



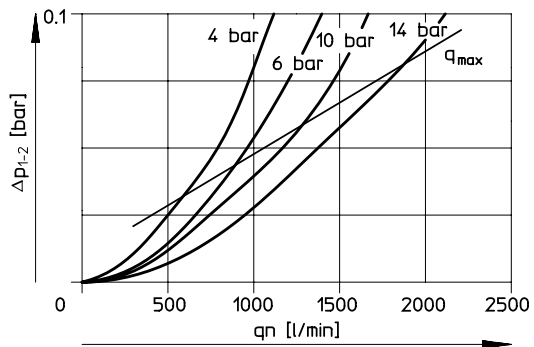
Activated carbon filters		
[1]	Housing	Die-cast zinc
[2]	Bowl	PC
[3]	Metal bowl guard	Aluminium
[4]	Filters	Filter fabric made of activated carbon
-	Seals	NBR
Note on materials		RoHS-compliant
		Free of copper and PTFE

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

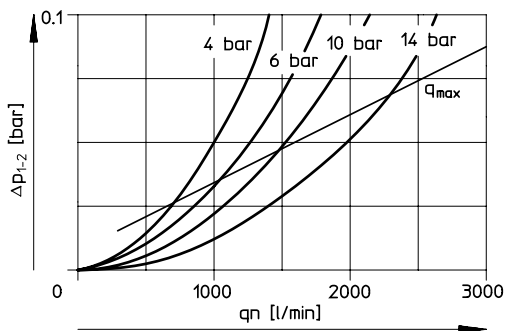
LFX-1/4-D-MINI



LFX-1/2-D-MIDI



LFX-1-D-MAXI



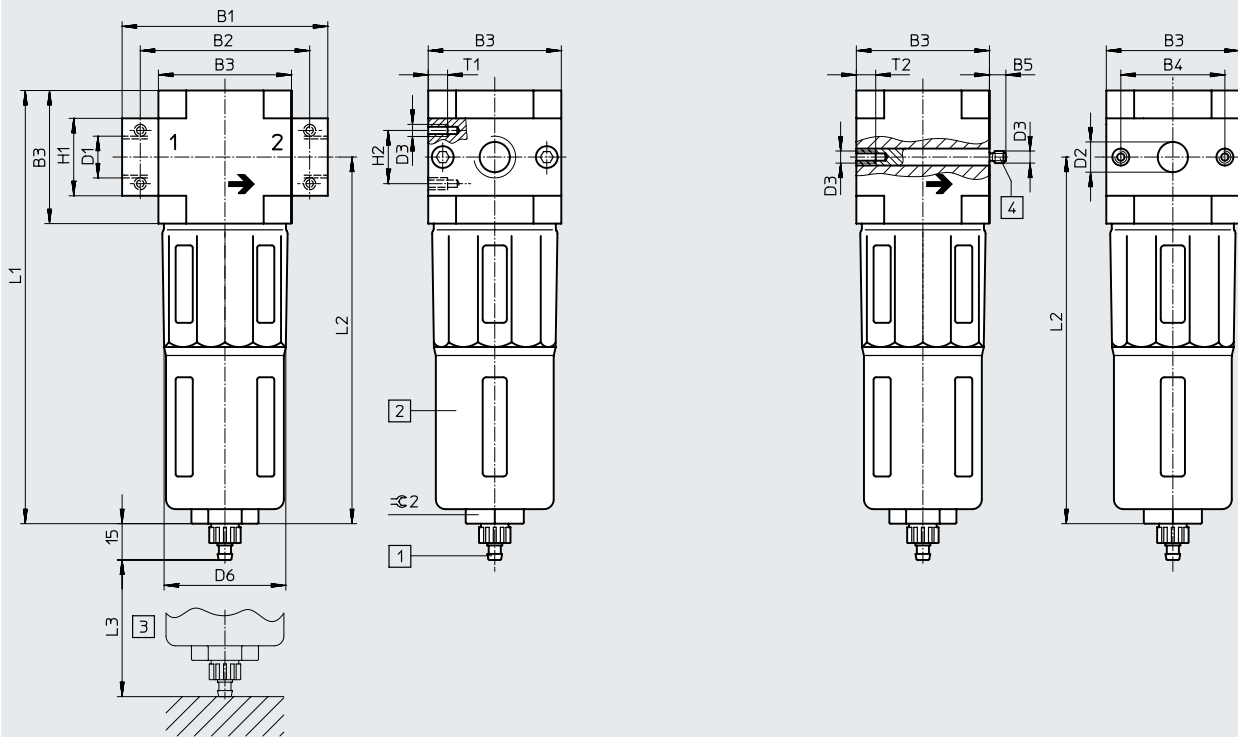
Datasheet

Dimensions

Download CAD data → www.festo.com

Connecting plates with threaded connection

Without connecting plates



- [1] Barbed connector for plastic tubing PUN(-H)-8x1.25
- [2] Metal bowl guard
- [3] Installation dimension
- [4] Threaded bolt (exchangeable)
- Flow direction

Type	B1	B2	B3	B4	B5	D1	D2 ∅	D3	D6 ∅	H1	H2	L1	L2	L3	T1	T2	±0.2
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	70					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.

Datasheet

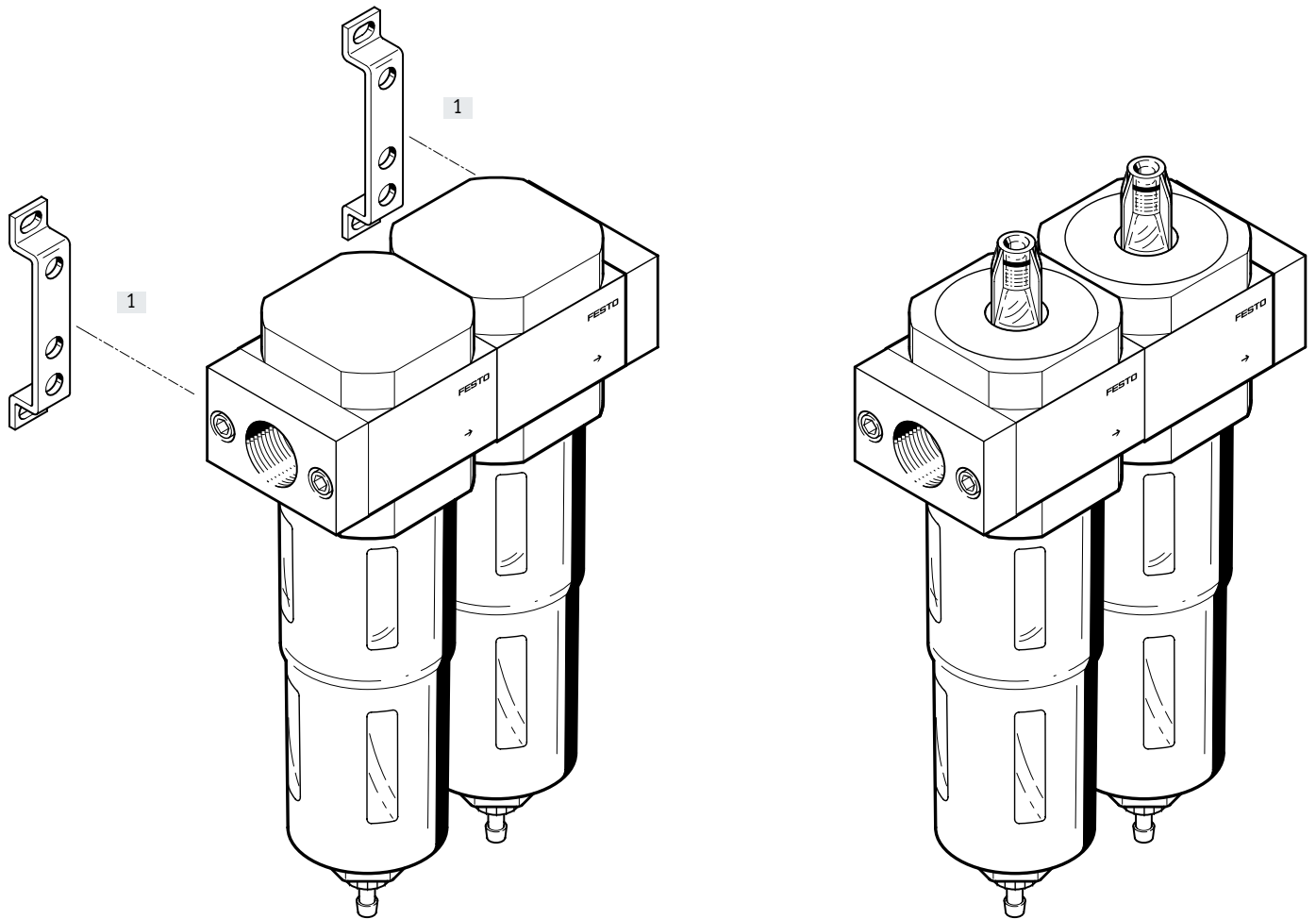
Ordering data			
Size	Connection	Part no.	Type
Without connecting plates			
Mini	–	532776	LFX-D-MINI
Midi	–	532777	LFX-D-MIDI
Maxi	–	532778	LFX-D-MAXI
Connecting plates with threaded connection			
Mini	G1/8	532779	LFX-1/8-D-MINI
	G1/4	532802	LFX-1/4-D-MINI
	G3/8	532780	LFX-3/8-D-MINI
Midi	G1/4	532781	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

Peripherals overview

Mini/Midi/Maxi

Without differential pressure display

With differential pressure display



Mounting attachments

→ Page/Internet

[1] Mounting bracket
HFOE

hfoe-d

Type codes

001	Series
LFMBA	Fine filter combination

002	Pneumatic connection
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

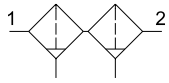
004	Size
MINI	Grid dimension 40 mm (without connecting plates)
MIDI	Grid dimension 55 mm (without connecting plates)
MAXI	Grid dimension 66 mm (without connecting plates)

005	Filter change sensing
	None
DA	Differential pressure display, visual

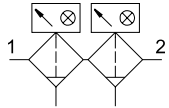
006	Condensate drain
	Manually rotating
A	Fully automatic

Datasheet

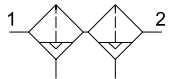
Condensate drain, manual
Without differential pressure display



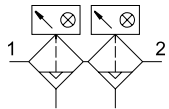
With differential pressure display



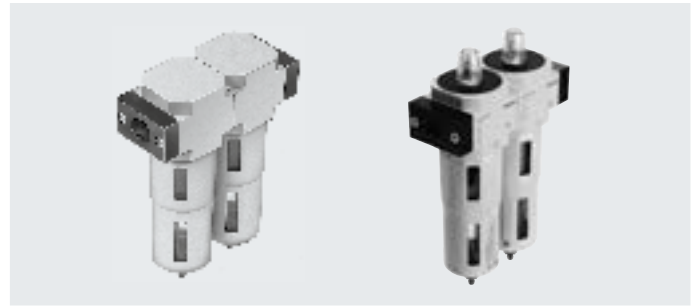
Condensate drain fully automatic,
without differential pressure display



With differential pressure display



- - Flow rate
125 ... 600 l/min
- - Temperature range
-10 ... +60°C
- - Input pressure
1 ... 16 bar



- High-efficiency filter for special requirements
- Air quality to ISO 85731:2010
- Available as pre-assembled filter combination
- Version with differential pressure display for visual indication of filter contamination
- Filter cartridges with 1 µm and 0.01 µm
- New filter cartridges → Page 37

General technical data			
Size	Mini	Midi	Maxi
Pneumatic connection 1, 2 ¹⁾	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	With accessories In-line installation		
Mounting position	Vertical ±5°		
Grade of filtration [µm]	1 and 0.01		
Air quality class at the output	Compressed air to ISO 8573-1:2010 [1:7:2] Inert gases		
Filter efficiency [%]	99.9999		
Bowl guard	Metal bowl guard		
Condensate drain	Manual Fully automatic		
Differential pressure display	Visual indicator		
Residual oil content [mg/m ³]	≤0.01		
Max. condensate volume [ml]	22	43	80

1) Connecting plates with threaded connection

† Note: this product conforms to ISO 1179-1 and ISO 228-1.

Standard nominal flow rate ¹⁾ qnN [l/min]										
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
LFMBA	125	130	140	300	350	350	350	550	550	600

1) Measured at p₁ = 6 bar and Δp = 70 mbar.

† 125 l/min must be available for the fully automatic condensate drain to close correctly.

Datasheet

Operating and environmental conditions		
Condensate drain	Manual	Fully automatic
Operating pressure [bar]	1 ... 16	2 ... 12
Operating medium	Compressed air 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 ¹⁾	2	

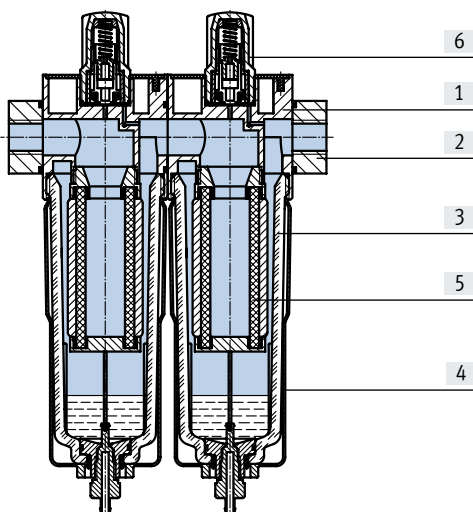
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Weights [g]			
Size	Mini	Midi	Maxi
Without differential pressure display	500	1300	2400
With differential pressure display	651	1429	2362

Materials

Sectional view

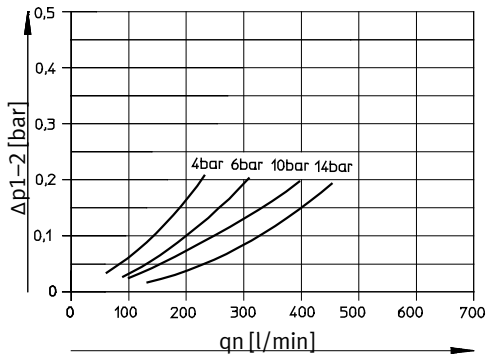


Filter combination		
[1]	Housing	Die-cast zinc
[2]	Connecting plates	Die-cast zinc
[3]	Bowl	PC
[4]	Metal bowl guard	Aluminium
[5]	Filters	Borosilicate fibre
[6]	Housing for version with differential pressure display	PC
-	Seals	NBR
Note on materials		RoHS-compliant
		Free of copper and PTFE

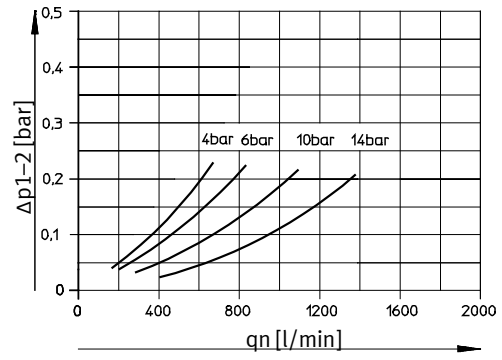
Datasheet

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

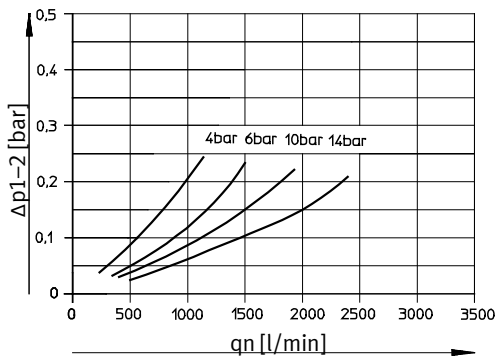
LFMBA-1/4-D-MINI



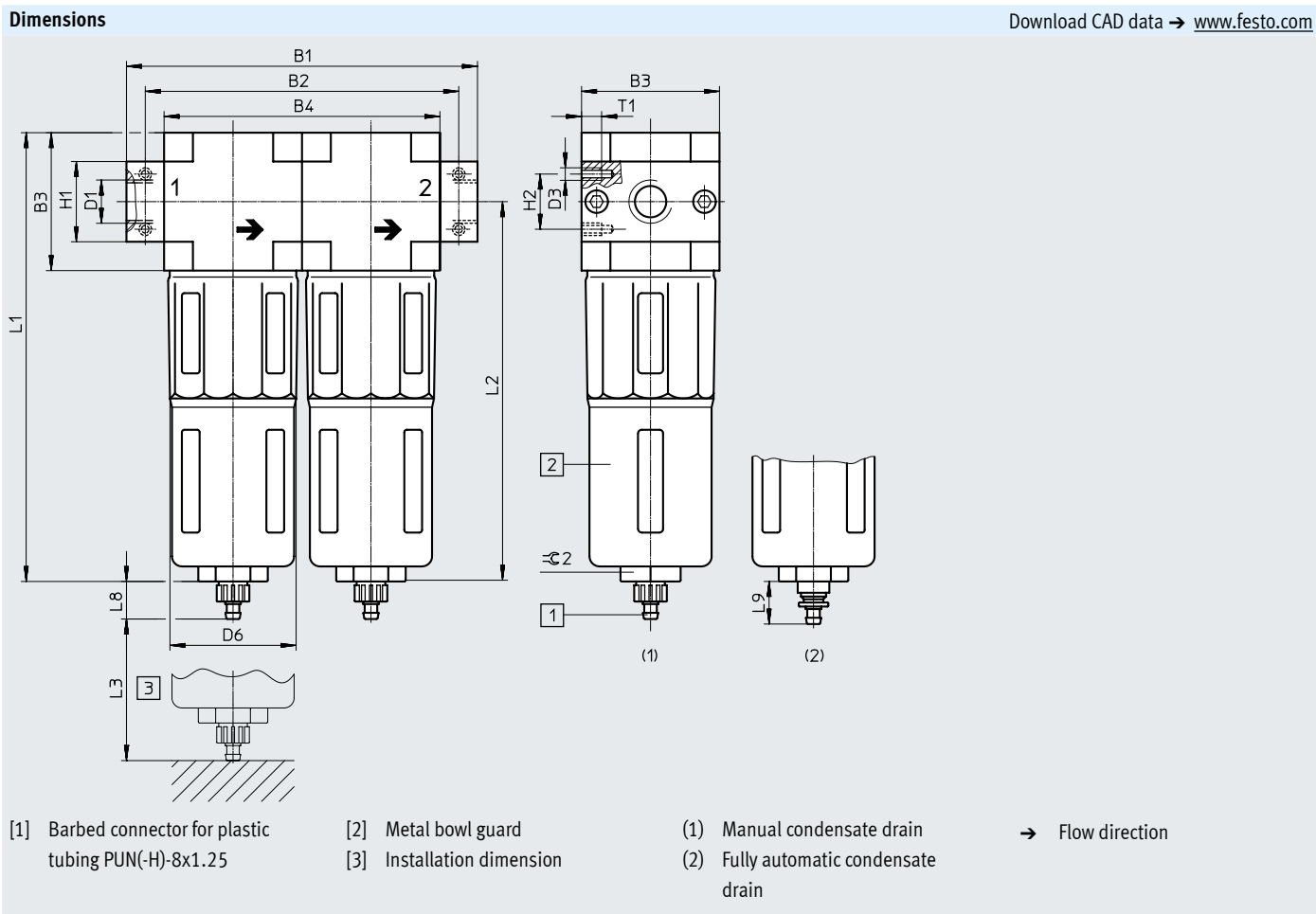
LFMBA-1/2-D-MID



LFMBA-1-D-MAXI



Datasheet



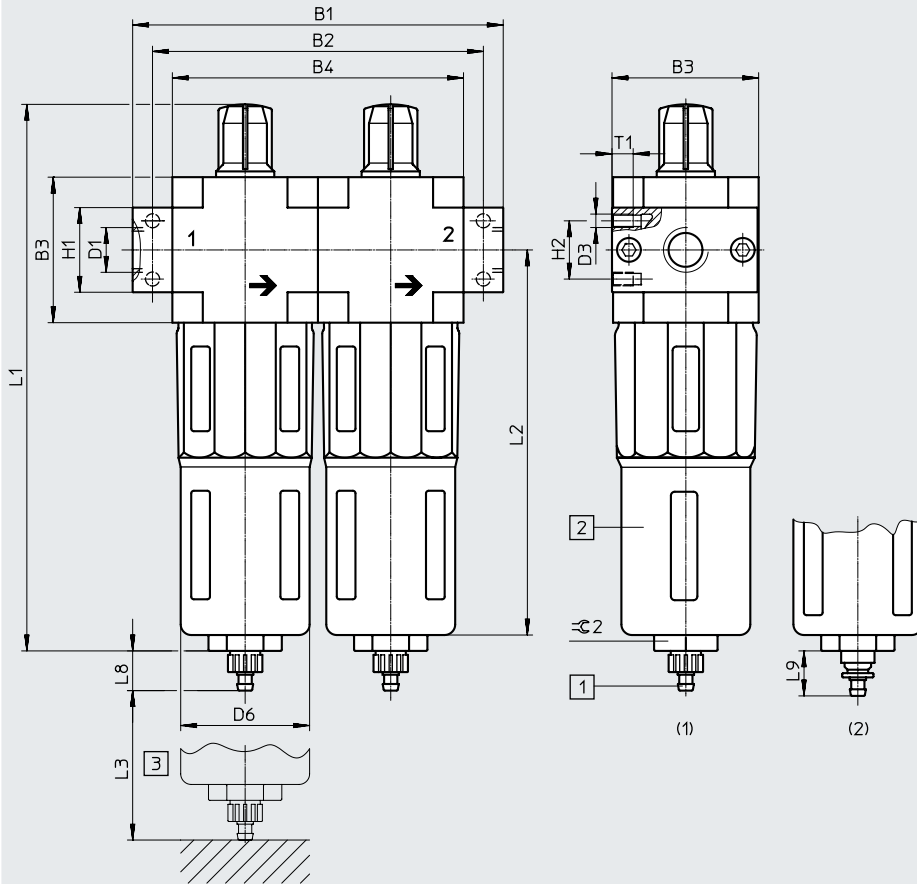
Type	B1	B2	B3	B4	D1	D3	D6 ∅	H1	H2	L1	L2	L3	L8	L9	T1	≅ 2
Mini																
LFMBA-1/8-D-MINI	104	92	40	80	G1/8	M4	38	20	11	144	124	60	15	19	7	22
LFMBA-1/4-D-MINI					G1/4											
LFMBA-3/8-D-MINI	110				G3/8											
Midi																
LFMBA-1/4-D-MIDI	140	125	55	110	G1/4	M5	52	32	22	179	151	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	182	157			G1			40								

† Note: this product conforms to ISO 1179-1 and ISO 228-1.

Datasheet

Dimensions with differential pressure display

Download CAD data → www.festo.com



- [1] Barbed connector for plastic tubing PUN(-H)-8x1.25
- [2] Metal bowl guard
- [3] Installation dimension
- (1) Manual condensate drain
- (2) Fully automatic condensate drain
- Flow direction

Type	B1	B2	B3	B4	D1	D3	D6 ∅	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											
LFMBA-1-D-MAXI-DA	182	157			G1			40								

† Note: this product conforms to ISO 1179-1 and ISO 228-1.

Datasheet

Ordering data – Filter combination LFMBA					
Size	Connection	Condensate drain		Condensate drain	
		Manual		Fully automatic	
		Part no.	Type	Part no.	Type
Mini	G1/8	162658	LFMBA-1/8-D-MINI	162666	LFMBA-1/8-D-MINI-A
	G1/4	162659	LFMBA-1/4-D-MINI	162667	LFMBA-1/4-D-MINI-A
	G3/8	162660	LFMBA-3/8-D-MINI	162668	LFMBA-3/8-D-MINI-A
Midi	G1/4	186471	LFMBA-1/4-D-MIDI	186472	LFMBA-1/4-D-MIDI-A
	G3/8	162661	LFMBA-3/8-D-MIDI	162669	LFMBA-3/8-D-MIDI-A
	G1/2	162662	LFMBA-1/2-D-MIDI	162670	LFMBA-1/2-D-MIDI-A
	G3/4	162663	LFMBA-3/4-D-MIDI	162671	LFMBA-3/4-D-MIDI-A
Maxi	G1/2	186477	LFMBA-1/2-D-MAXI	186478	LFMBA-1/2-D-MAXI-A
	G3/4	162664	LFMBA-3/4-D-MAXI	162672	LFMBA-3/4-D-MAXI-A
	G1	162665	LFMBA-1-D-MAXI	162673	LFMBA-1-D-MAXI-A

Ordering data – Filter combination LFMBA with differential pressure display DA					
Size	Connection	Condensate drain		Condensate drain	
		Manual		Fully automatic	
		Part no.	Type	Part no.	Type
Mini	G1/8	532863	LFMBA-1/8-D-MINI-DA	532873	LFMBA-1/8-D-MINI-DA-A
	G1/4	532864	LFMBA-1/4-D-MINI-DA	532874	LFMBA-1/4-D-MINI-DA-A
	G3/8	532865	LFMBA-3/8-D-MINI-DA	532875	LFMBA-3/8-D-MINI-DA-A
Midi	G1/4	532866	LFMBA-1/4-D-MIDI-DA	532876	LFMBA-1/4-D-MIDI-DA-A
	G3/8	532867	LFMBA-3/8-D-MIDI-DA	532877	LFMBA-3/8-D-MIDI-DA-A
	G1/2	532868	LFMBA-1/2-D-MIDI-DA	532878	LFMBA-1/2-D-MIDI-DA-A
	G3/4	532869	LFMBA-3/4-D-MIDI-DA	532879	LFMBA-3/4-D-MIDI-DA-A
Maxi	G1/2	532870	LFMBA-1/2-D-MAXI-DA	532880	LFMBA-1/2-D-MAXI-DA-A
	G3/4	532871	LFMBA-3/4-D-MAXI-DA	532881	LFMBA-3/4-D-MAXI-DA-A
	G1	532872	LFMBA-1-D-MAXI-DA	532882	LFMBA-1-D-MAXI-DA-A

Accessories

Filter cartridges, D series, metal



Ordering data				
Size	Filter cartridge	Grade of filtration [µm]	Part no.	Type
Micro	Filter cartridge	5	526818	MS2/LFP-D-MICRO-5M
Mini	Micro-filter cartridge	0.01	162674	MS4/D-MINI-LFM-A ¹⁾²⁾
	Fine-filter cartridge	1	162677	MS4/D-MINI-LFM-B ¹⁾²⁾
	Filter cartridge (colour: blue)	5	159640	LFP-D-MINI-5M
	Filter cartridge (colour: white)	40	363665	LFP-D-MINI-40M ²⁾
	Activated carbon filter cartridge	–	532912	MS4/D-MINI-LFX
Midi	Micro-filter cartridge	0.01	162675	LFMAP-D-MIDI ¹⁾
	Fine-filter cartridge	1	162678	LFMBP-D-MIDI ¹⁾
	Filter cartridge (colour: blue)	5	159594	LFP-D-MIDI-5M ¹⁾
	Filter cartridge (colour: white)	40	363667	LFP-D-MIDI-40M ²⁾
	Activated carbon filter cartridge	–	532788	LFACP-MIDI
Maxi	Micro-filter cartridge	0.01	162676	LFMAP-D-MAXI ¹⁾
	Fine-filter cartridge	1	162679	LFMBP-D-MAXI ¹⁾
	Filter cartridge (colour: blue)	5	159641	LFP-D-MAXI-5M
	Filter cartridge (colour: white)	40	363664	LFP-D-MAXI-40M ²⁾
	Activated carbon filter cartridge	–	532789	LFACP-MAXI

[1] Free of copper and PTFE

[2] RoHS-compliant