

Service unit combinations LFR-K/LFRS-K, D series

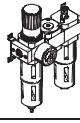
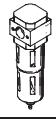
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Service unit combinations LFR-K/LFRS-K, D series, metal design

Product range overview D series service units, metal design

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Type	Size	Pneumatic connection										Pressure regulation range [bar]			Grade of filtration [μm]									
		M5	M7	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$	G1	QS4	QS6	0.5	0.5	2.5	...	7	12	12	0.01	1	5	40		
Service units																								
FRC/FRCS		Micro	■	■	■	—	—	—	—	■	■	■	—	—	—	—	—	—	■	—	—	—	—	
		Mini	—	—	■	■	■	—	—	—	—	—	—	—	—	—	■	—	—	■	—	■	■	
		Midi	—	—	—	■	■	■	—	—	—	—	—	—	—	—	■	—	—	■	—	■	■	
		Maxi	—	—	—	—	—	■	■	■	■	—	—	—	—	—	■	—	—	■	—	■	■	
Service unit combinations																								
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	—	—	—	—	—	—	■	■	■	■	—	—	—	—	—	■	■	—	—	■	■	—
Active carbon filters LFX		Micro	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Mini	—	—	■	■	■	■	■	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	■	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Maxi	—	—	—	—	—	—	■	■	■	■	—	—	—	—	—	—	—	—	—	—	—	—
Filter combinations LFMBA		Micro	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Mini	—	—	■	■	■	■	■	—	—	—	—	—	—	—	—	■	■	—	—	■	■	—
		Midi	—	—	—	■	■	■	■	■	—	—	—	—	—	—	—	■	■	—	—	■	■	—
		Maxi	—	—	—	—	—	—	■	■	■	■	—	—	—	—	—	■	■	—	—	■	■	—
Pressure regulators LR/LRS		Micro	■	■	■	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Mini	—	—	■	■	■	■	■	—	—	—	—	—	—	—	—	■	■	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	■	—	—	—	—	—	—	—	■	■	—	—	—	—	—
		Maxi	—	—	—	—	—	—	■	■	■	■	—	—	—	—	—	■	■	—	—	—	—	—

Service unit combinations LFR-K/LFRS-K, D series, metal design

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Product range overview D series service units, metal design

Type	Size	Bowl guard		Condensate drain		Pressure indication		Actuator lock	Supply voltage		Options			➔ Page/ Internet	
		Metal bowl guard	Plastic bowl	Manual rotary	Semi-automatic	Fully automatic	With pressure gauge		24 V DC	110 VAC	230 VAC	Directly actuated pressure regulator with integrated return flow function	Pilot actuated pressure regulator with integrated return flow function	Differential pressure indicator	
Service units															
FRC/FRCS	Micro	-	■	■	■	■	-	■	■	■	-	-	-	-	frc
	Mini	■	-	■	-	■	■	■	■	■	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	-	-	■	■	
Service unit combinations															6
FRC-K	Micro	-													
	Mini	■	-	■	-	■	■	-	■	-	-	-	-	-	
	Midi	■	-	■	-	■	■	-	■	-	-	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	-	-	-	■	■	
LFR-K LFRS-K	Micro	-													lfr
	Mini	■	-	■	-	■	■	-	■	■	■	-	-	-	
	Midi	■	-	■	-	■	■	-	■	■	■	-	-	-	
	Maxi	■	-	■	-	■	■	-	■	■	■	-	■	■	
Individual devices															lf
Filter regulators LFR/LFRS	Micro	-	■	■	■	■	-	■	■	■	-	-	-	-	
	Mini	■	-	■	-	■	■	■	■	■	-	-	-	-	
	Midi	■	-	■	-	■	■	■	■	■	-	-	-	-	
	Maxi	■	-	■	-	■	■	■	■	■	-	-	■	■	
Filters LF	Micro	-	■	■	■	■	-	-	-	-	-	-	-	-	lfma, lfmb
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	
Fine and micro filters LFMA/LFMB	Micro	-													lfma, lfmb
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	-	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	-	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	-	
Active carbon filters LFX	Micro	-													lfx
	Mini	■	-	-	-	-	-	-	-	-	-	-	-	-	
	Midi	■	-	-	-	-	-	-	-	-	-	-	-	-	
	Maxi	■	-	-	-	-	-	-	-	-	-	-	-	-	
Filter combinations LFMBA	Micro	-													lfmba
	Mini	■	-	■	-	■	-	-	-	-	-	-	-	■	
	Midi	■	-	■	-	■	-	-	-	-	-	-	-	■	
	Maxi	■	-	■	-	■	-	-	-	-	-	-	-	■	
Pressure regulators LR/LRS	Micro	-	-	-	-	-	■	■	■	■	-	-	-	-	lr
	Mini	-	-	-	-	-	■	■	■	■	-	-	■	-	
	Midi	-	-	-	-	-	■	■	■	■	-	-	■	-	
	Maxi	-	-	-	-	-	■	■	■	■	-	-	■	-	

Service unit combinations LFR-K/LFRS-K, D series, metal design

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Product range overview D series service units, metal design

Type	Size	Pneumatic connection										Pressure regulation range [bar]	
		M5	M7	G ¹ / ₈	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ³ / ₄	G1	QS4	QS6	0.5	0.5
												0.5	0.5
Individual devices													
Pressure regulators LRB/LRBS		Micro	—									■	■
		Mini	—	—	—	■	—	—	—	—	—	■	■
		Midi	—	—	—	—	■	—	—	—	—	■	■
		Maxi	—										
Pressure regulator combinations LRB-K		Micro	—									■	■
		Mini	—	—	—	■	■	—	—	—	—	■	■
		Midi	—	—	—	—	■	■	—	—	—	■	■
		Maxi	—										
Lubricators LOE		Micro	■	■	■	—	—	—	—	■	■	—	—
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	—	—	—
On-off valves HE		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	—	—	—
On-off valves, electrical HEE		Micro	—										
		Mini	—	—	■	■	■	—	—	—	—	—	—
		Midi	—	—	—	■	■	■	■	—	—	—	—
		Maxi	—	—	—	—	—	■	■	■	—	—	—
On-off valves, pneumatic 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	—	—	—	—	—	—	—	—	—	—	—

Service unit combinations LFR-K/LFRS-K, D series, metal design

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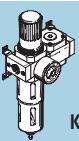
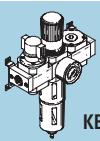
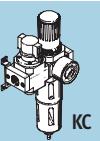
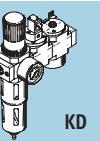
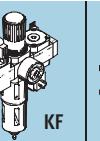
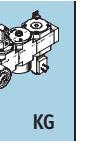
Product range overview D series service units, metal design

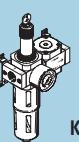
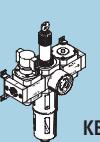
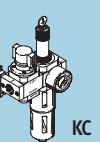
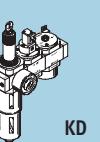
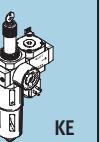
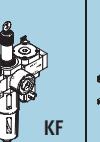
Type	Size	Bowl guard		Pressure indication		Actuator lock		Supply voltage			Options		➔ Page/ Internet
		Metal bowl guard	Plastic bowl	With pressure gauge	Without pressure gauge	Rotary knob with detent	Rotary knob with integrated lock	24 V DC	110 VAC	230 VAC	Non-return function	Pressure switch	
Individual devices													
Pressure regulators LRB/LRBS	Micro	–											lrb
	Mini	–	–	–	■	■	■	–	–	–	–	–	
	Midi	–	–	–	■	■	■	–	–	–	–	–	
	Maxi	–	–										
Pressure regulator combinations 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, electrical HEE	Micro	–											hee
	Mini	–	–	–	■	–	–	■	■	■	–	–	
	Midi	–	–	–	■	–	–	■	■	■	–	–	
	Maxi	–	–	–	■	–	–	■	■	■	–	–	
On-off valves, pneumatic 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	–	–	–	■	–	–	–	–	–	–	–	

Service unit combinations LFR-K/LFRS-K, D series, metal design

Product range overview

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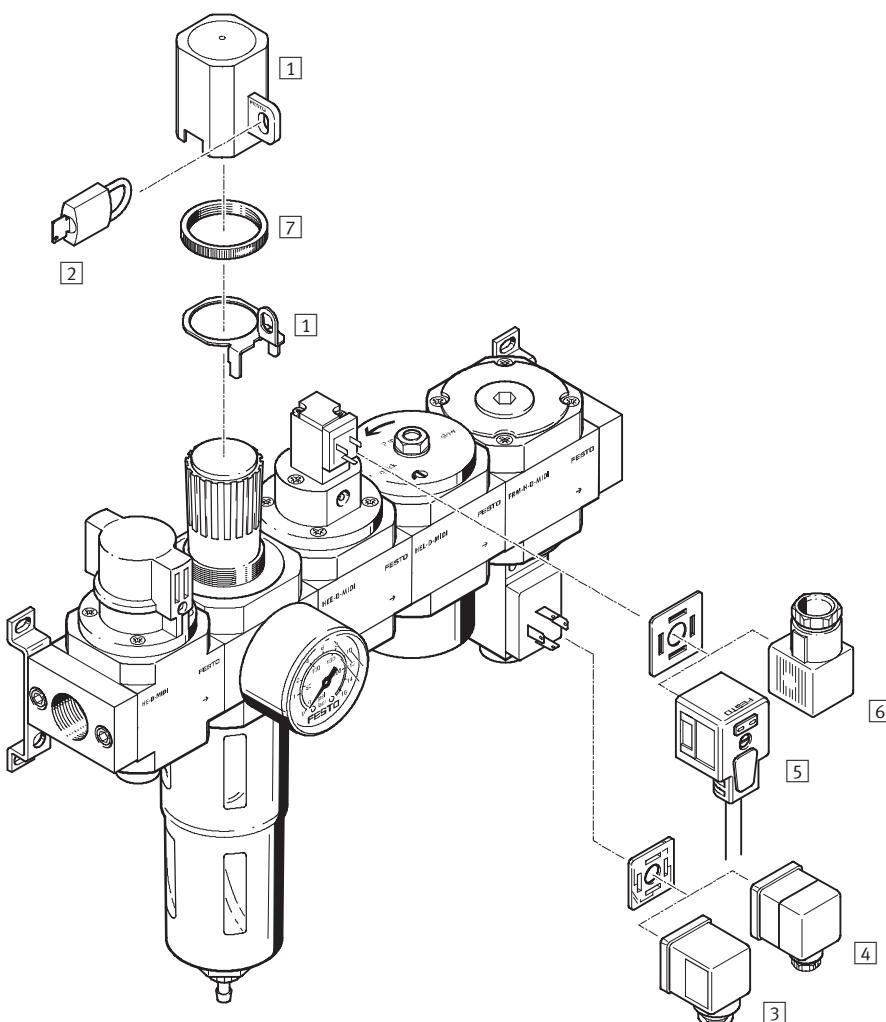
LFR Rotary knob with detent	 KA	 KB	 KC	 KD	 KE	 KF	 KG
Individual devices							
On-off valve, manual	-	■	■	-	-	■	■
Filter regulator with pressure gauge	■	■	■	■	■	■	■
Branching module	■	■	-	-	-	-	-
On-off valve with solenoid coil 24 V DC	-	-	-	■	-	-	■
Soft-start valve	-	-	-	■	-	-	■
Branching module with pressure switch	-	-	-	-	■	■	■
Mounting bracket	■	■	■	■	■	■	■
➔ Page/Internet	9	13	17	21	25	29	33

LFRS Rotary knob with integrated lock	 KA	 KB	 KC	 KD	 KE	 KF	 KG
Individual devices							
On-off valve, manual	-	■	■	-	-	■	■
Filter regulator with pressure gauge	■	■	■	■	■	■	■
Branching module	■	■	-	-	-	-	-
On-off valve with solenoid coil 24 V DC	-	-	-	■	-	-	■
Soft-start valve	-	-	-	■	-	-	■
Branching module with pressure switch	-	-	-	-	■	■	■
Mounting bracket	■	■	■	■	■	■	■
➔ Page/Internet	9	13	17	21	25	29	33

Service unit combinations LFR-K/LFRS-K, D series, metal design

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Peripherals overview



- - Note

The choice of accessories depends on the selected service unit combination. The example shows the service unit combination LFR-KG. This combination can also be obtained with a lockable rotary regulator as service unit combination LFRS-KG.

Range of accessories

→ Peripherals pages of the individual devices

Mounting attachments and accessories		➔ Page/ Internet
[1]	Regulator lock LRVS	lrvs-d
[2]	Padlock LRVS	lrvs-d
[3]	Plug socket MSSD-C	37
[4]	Angled plug socket PEV...-WD-LED	37
[5]	Plug socket with cable KMEB-1	37
[6]	Plug socket MSSD-EB	37
[7]	Knurled nut (included in scope of delivery) HMR	-

Service unit combinations LFR-K/LFRS-K, D series, metal design

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Type codes

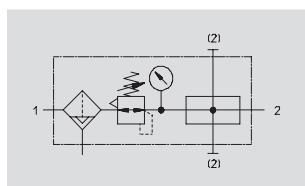
LFR	1/2	D	DI	MAXI	KA	A
Basic function						
LFR	Service unit combination					
LFRS	Service unit combination, lockable					
Pneumatic connection						
1/8	Thread G1/8					
1/4	Thread G1/4					
3/8	Thread G3/8					
1/2	Thread G1/2					
3/4	Thread G3/4					
Series						
D	Series					
Function (LFR and MAXI size only)						
DI	Directly actuated pressure regulator with integrated return flow function					
Size						
MINI	Grid dimension for individual device 40 mm (without connecting plates)					
MIDI	Grid dimension for individual device 55 mm (without connecting plates)					
MAXI	Grid dimension for individual device 66 mm (without connecting plates)					
Options for service unit combinations						
KA	Filter regulator, branching module					
KB	On-off valve, filter regulator, branching module					
KC	On-off valve, filter regulator					
KD	Filter regulator, on-off valve with solenoid coil 24 V DC, soft-start valve					
KE	Filter regulator, branching module with pressure switch					
KF	On-off valve, filter regulator, branching module with pressure switch					
KG	On-off valve, filter regulator, on-off valve with solenoid coil 24 V DC, soft- start valve, branching module with pressure switch					
Condensate drain						
	Turned manually					
A	Fully automatic					

Service unit combinations LFR-KA/LFRS-KA, D series, metal design

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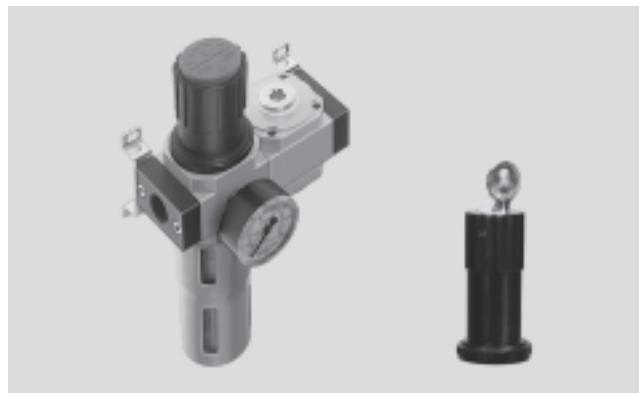
Technical data combination LFR-KA/LFRS-KA

Function



- Filter regulator LFR/LFRS
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent or lockable rotary knob
 - pressure gauge
- Branching module FRM
- Mounting accessories

- Flow rate
720 ... 9400 l/min
- Temperature range
-10 ... +60 °C
- Input pressure
1 ... 16 bar



- For unlubricated compressed air supply
- Three branch connections are available

General technical data

Size	Mini	Midi	Maxi
Pneumatic connection	G1/8	G1/4	G1/4
Operating medium	Compressed air		
Type of mounting	Via accessories		
	In-line installation		
Assembly position	Vertical ±5°		
Grade of filtration [µm]	40		
Max. hysteresis [bar]	0.15	0.15	0.25
Pressure regulation range [bar]	0.5 ... 12		
Pressure indication	Via pressure gauge		
Max. condensate volume [cm³]	22	43	80 ¹⁾
Input pressure [bar]			
Condensate drain	turned manually fully automatic	1 ... 16 2 ... 12	

1) The max. condensate volume for the LFR-...-DI-MAXI-KA is 43 cm³.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KA/LFRS-KA, D series, metal design

Technical data combination LFR-KA/LFRS-KA

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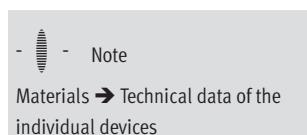
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	720	1140	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1850	2620	3050	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	9200	9400
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	5200	5800

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

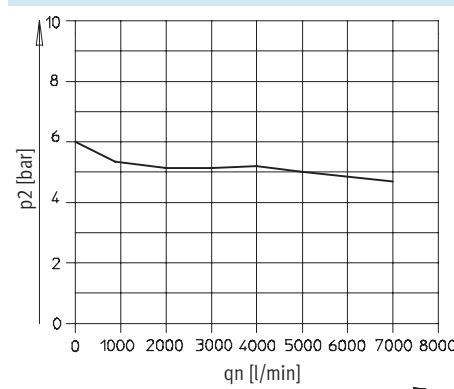
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	800	1800	2400	2600	
LFRS	900	2040	2500	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KA(-A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KA/LFRS-KA, D series, metal design

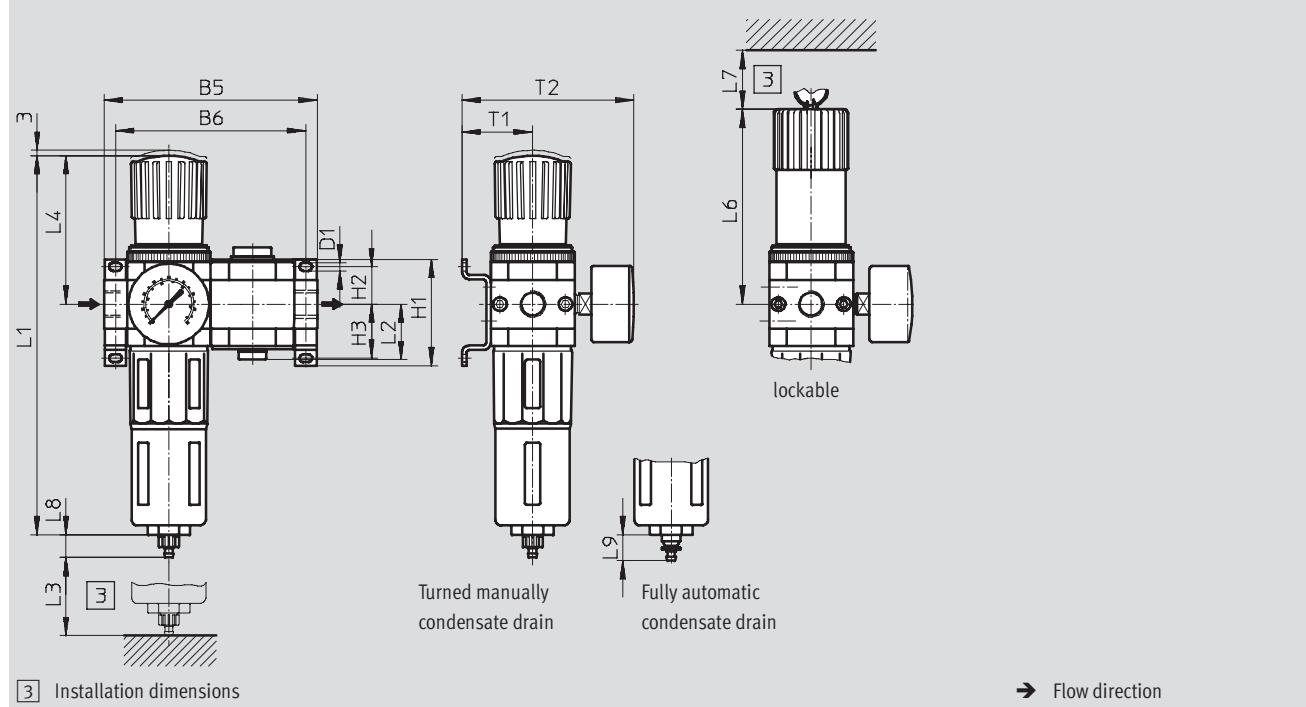
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Technical data combination LFR-KA/LFRS-KA

Dimensions

LFR/LFRS-...-KA

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Type	B5	B6	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L8	L9	T1	T2
Mini																	
LFR-...-D-MINI-KA (A)	104	92	4.3	43	17.5	17.5	193	28	60	68	100	98	60	15	19	39	95
LFRS-...-D-MINI-KA (A)																	
Midi																	
LFR-...-D-MIDI-KA (A)	140	125	5.3	70	24.5	35.5	250	36.5	80	99	120	130	60	15	19	47	114
LFRS-...-D-MIDI-KA (A)																	
Maxi																	
LFR-...-D-MAXI-KA (A)	162	146	5.3	70	24.5	35.5	252	42	90	82	150	111	60	15	19	53	126
LFRS-...-D-MAXI-KA (A)																	
LFR-...-D-DI-MAXI-KA (A)																	

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KA/LFRS-KA, D series, metal design

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Technical data combination LFR-KA/LFRS-KA

Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Filter regulator, branching module					
Mini	G1/8	185 707	LFR-1/8-D-MINI-KA	185 708	LFR-1/8-D-MINI-KA-A
	G1/4	185 709	LFR-1/4-D-MINI-KA	185 710	LFR-1/4-D-MINI-KA-A
Midi	G1/4	185 711	LFR-1/4-D-MIDI-KA	185 712	LFR-1/4-D-MIDI-KA-A
	G3/8	185 713	LFR-3/8-D-MIDI-KA	185 714	LFR-3/8-D-MIDI-KA-A
	G1/2	185 715	LFR-1/2-D-MIDI-KA	185 716	LFR-1/2-D-MIDI-KA-A
Maxi	G1/2	186 039	LFR-1/2-D-MAXI-KA	186 040	LFR-1/2-D-MAXI-KA-A
	G3/4	185 717	LFR-3/4-D-MAXI-KA	185 718	LFR-3/4-D-MAXI-KA-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 440	LFR-1/2-D-DI-MAXI-KA	192 454	LFR-1/2-D-DI-MAXI-KA-A
	G3/4	192 447	LFR-3/4-D-DI-MAXI-KA	192 461	LFR-3/4-D-DI-MAXI-KA-A

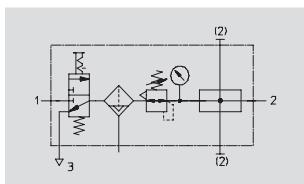
Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Filter regulator, branching module					
Mini	G1/8	195 008	LFRS-1/8-D-MINI-KA	195 009	LFRS-1/8-D-MINI-KA-A
	G1/4	195 022	LFRS-1/4-D-MINI-KA	195 023	LFRS-1/4-D-MINI-KA-A
Midi	G1/4	195 036	LFRS-1/4-D-MIDI-KA	195 037	LFRS-1/4-D-MIDI-KA-A
	G3/8	195 050	LFRS-3/8-D-MIDI-KA	195 051	LFRS-3/8-D-MIDI-KA-A
	G1/2	195 064	LFRS-1/2-D-MIDI-KA	195 065	LFRS-1/2-D-MIDI-KA-A
Maxi	G1/2	195 078	LFRS-1/2-D-MAXI-KA	195 079	LFRS-1/2-D-MAXI-KA-A
	G3/4	195 092	LFRS-3/4-D-MAXI-KA	195 093	LFRS-3/4-D-MAXI-KA-A

Service unit combinations LFR-KB/LFRS-KB, D series, metal design

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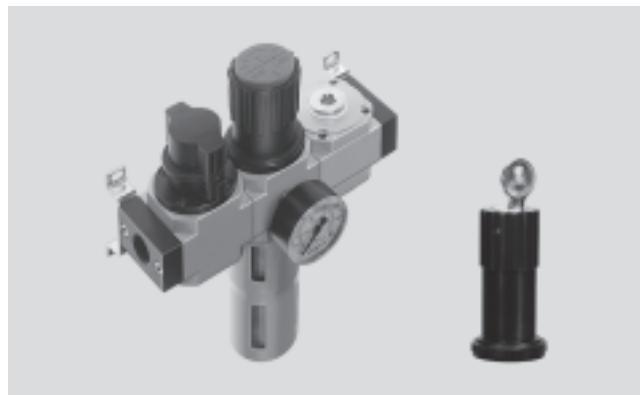
Technical data combination LFR-KB/LFRS-KB

Function



- On-off valve HE
 - manually actuated
- Filter regulator LFR/LFRS
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent or lockable rotary knob
 - pressure gauge
- Branching module FRM
- Mounting accessories

- - Flow rate
700 ... 8400 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
1 ... 16 bar



- For unlubricated compressed air supply
- Supply pressure can be opened and closed
- Three branch connections are available
- To ensure safe venting of the system, an additional quick exhaust valve is necessary at the output of the service unit combination

General technical data

Size	Mini		Midi			Maxi						
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{2}$	G $\frac{3}{4}$					
Operating medium	Compressed air											
Type of mounting	Via accessories In-line installation											
Assembly position	Vertical ±5°											
Grade of filtration [µm]	40											
Max. hysteresis [bar]	0.2	0.2	0.25	0.3	0.25	0.2	0.2					
Pressure regulation range [bar]	0.5 ... 12											
Pressure indication	Via pressure gauge											
Max. condensate volume [cm ³]	22		43		80 ¹⁾							
Input pressure [bar]												
Condensate drain	turned manually		1 ... 16									
	fully automatic		2 ... 12									

1) The max. condensate volume for the LFR-...-DI-MAXI-KB is 43 cm³.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KB/LFRS-KB, D series, metal design

Technical data combination LFR-KB/LFRS-KB

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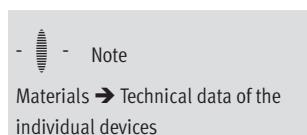
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	700	1050	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1720	2420	2920	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	8000	8400
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	5400	7000

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

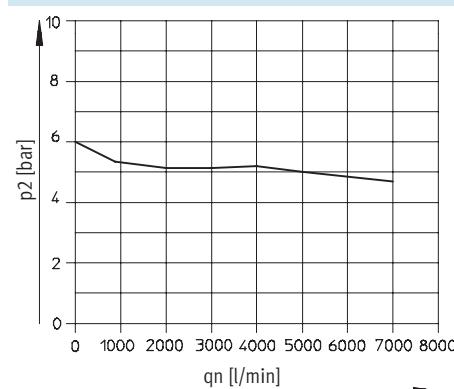
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	1000	2200	3300	3500	
LFRS	1100	2440	3400	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KB(-A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KB/LFRS-KB, D series, metal design

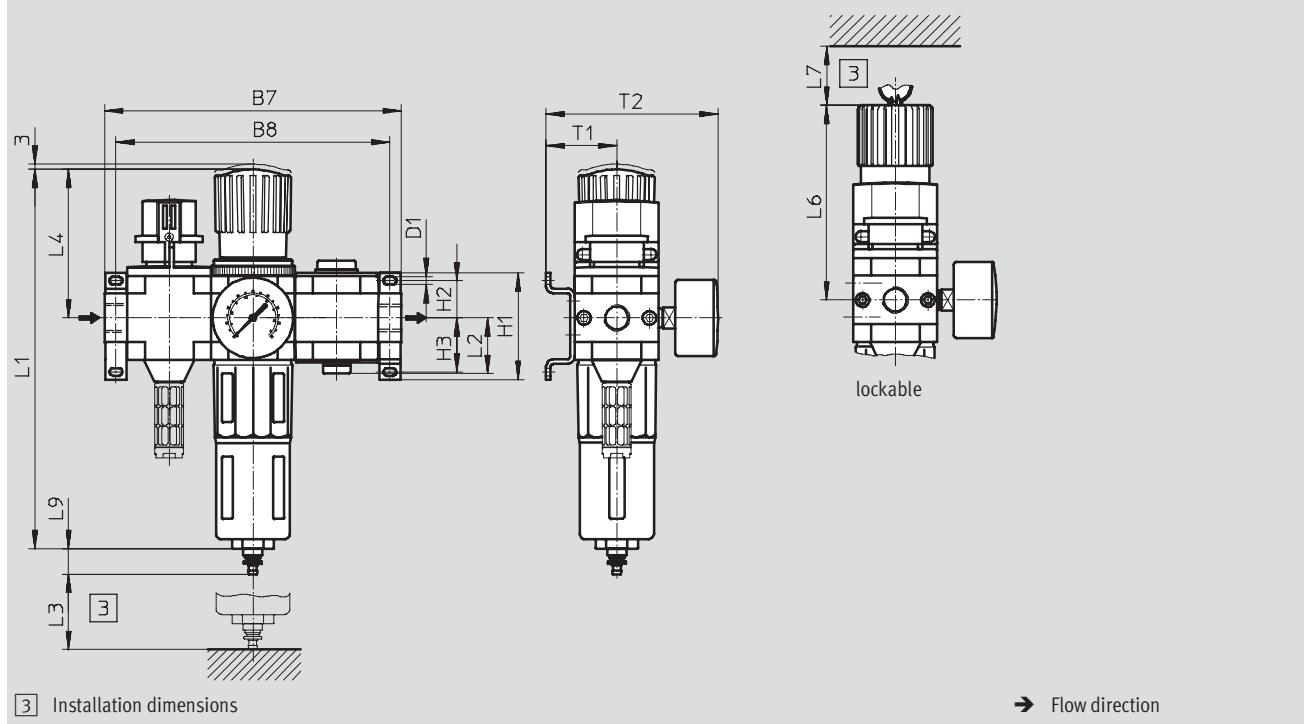
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Technical data combination LFR-KB/LFRS-KB

Dimensions

LFR/LFRS-...-KB

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Type	B7	B8	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L9	T1	T2
Mini																
LFR-...-D-MINI-KB (A)	144	132	4.3	43	17.5	17.5	193	28	60	68	100	98	60	19	39	95
LFRS-...-D-MINI-KB (A)																
Midi																
LFR-...-D-MIDI-KB (A)	195	180	5.3	70	24.5	35.5	250	36.5	80	99	120	130	60	19	47	114
LFRS-...-D-MIDI-KB (A)																
Maxi																
LFR-...-D-MAXI-KB (A)	228	212	5.3	70	24.5	35.5	252	42	90	82	150	111	60	19	53	126
LFRS-...-D-MAXI-KB (A)							275			105		135				
LFR-...-D-DI-MAXI-KB (A)																

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KB/LFRS-KB, D series, metal design

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Technical data combination LFR-KB/LFRS-KB

Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
On-off valve, filter regulator, branching module					
Mini	G1/8	185 719	LFR-1/8-D-MINI-KB	185 720	LFR-1/8-D-MINI-KB-A
	G1/4	185 721	LFR-1/4-D-MINI-KB	185 722	LFR-1/4-D-MINI-KB-A
Midi	G1/4	185 723	LFR-1/4-D-MIDI-KB	185 724	LFR-1/4-D-MIDI-KB-A
	G3/8	185 725	LFR-3/8-D-MIDI-KB	185 726	LFR-3/8-D-MIDI-KB-A
	G1/2	185 727	LFR-1/2-D-MIDI-KB	185 728	LFR-1/2-D-MIDI-KB-A
Maxi	G1/2	186 041	LFR-1/2-D-MAXI-KB	186 042	LFR-1/2-D-MAXI-KB-A
	G3/4	185 729	LFR-3/4-D-MAXI-KB	185 730	LFR-3/4-D-MAXI-KB-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 441	LFR-1/2-D-DI-MAXI-KB	192 455	LFR-1/2-D-DI-MAXI-KB-A
	G3/4	192 448	LFR-3/4-D-DI-MAXI-KB	192 462	LFR-3/4-D-DI-MAXI-KB-A

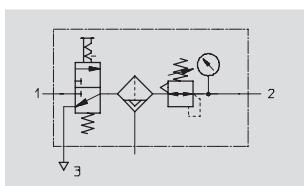
Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
On-off valve, filter regulator, branching module					
Mini	G1/8	195 010	LFRS-1/8-D-MINI-KB	195 011	LFRS-1/8-D-MINI-KB-A
	G1/4	195 024	LFRS-1/4-D-MINI-KB	195 025	LFRS-1/4-D-MINI-KB-A
Midi	G1/4	195 038	LFRS-1/4-D-MIDI-KB	195 039	LFRS-1/4-D-MIDI-KB-A
	G3/8	195 052	LFRS-3/8-D-MIDI-KB	195 053	LFRS-3/8-D-MIDI-KB-A
	G1/2	195 066	LFRS-1/2-D-MIDI-KB	195 067	LFRS-1/2-D-MIDI-KB-A
Maxi	G1/2	195 080	LFRS-1/2-D-MAXI-KB	195 081	LFRS-1/2-D-MAXI-KB-A
	G3/4	195 094	LFRS-3/4-D-MAXI-KB	195 095	LFRS-3/4-D-MAXI-KB-A

Service unit combinations LFR-KC/LFRS-KC, D series, metal design

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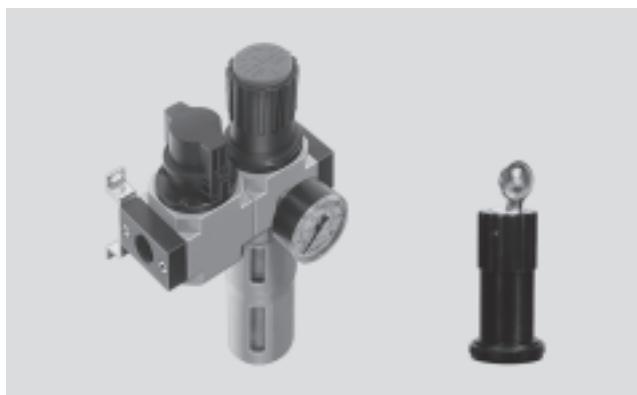
Technical data combination LFR-KC/LFRS-KC

Function



- On-off valve HE
 - manually actuated
- Filter regulator LFR/LFRS
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent or lockable rotary knob
 - pressure gauge
- Mounting accessories

- Flow rate
750 ... 8400 l/min
- Temperature range
-10 ... +60 °C
- Input pressure
1 ... 16 bar



- For unlubricated compressed air
- Supply pressure can be opened and closed
- To ensure safe venting of the system, an additional quick exhaust valve is necessary at the output of the service unit combination

General technical data

Size	Mini	Midi	Maxi
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$ G $\frac{3}{8}$ G $\frac{1}{2}$ G $\frac{1}{2}$ G $\frac{3}{4}$
Operating medium	Compressed air		
Type of mounting	Via accessories In-line installation		
Assembly position	Vertical ±5°		
Grade of filtration [µm]	40		
Max. hysteresis [bar]	0.2	0.2	0.2
Pressure regulation range [bar]	0.5 ... 12		
Pressure indication	Via pressure gauge		
Max. condensate volume [cm ³]	22	43	80 ¹⁾
Input pressure [bar]			
Condensate drain	turned manually fully automatic		
	1 ... 16	2 ... 12	

1) The max. condensate volume for the LFR-...-DI-MAXI-KC is 43 cm³.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KC/LFRS-KC, D series, metal design

Technical data combination LFR-KC/LFRS-KC

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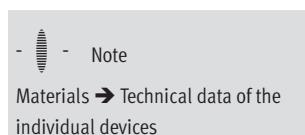
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	750	1150	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1900	2700	3150	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	8100	8400
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	4800	5400

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

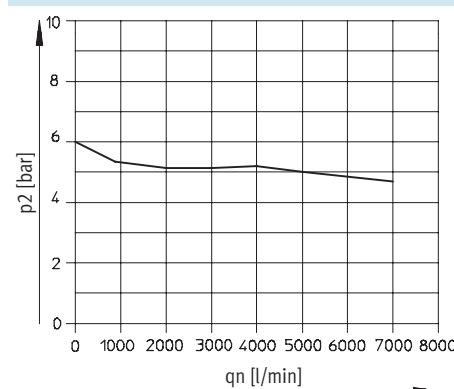
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	700	1600	2300	2600	
LFRS	1000	1840	2400	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KC(-A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KC/LFRS-KC, D series, metal design

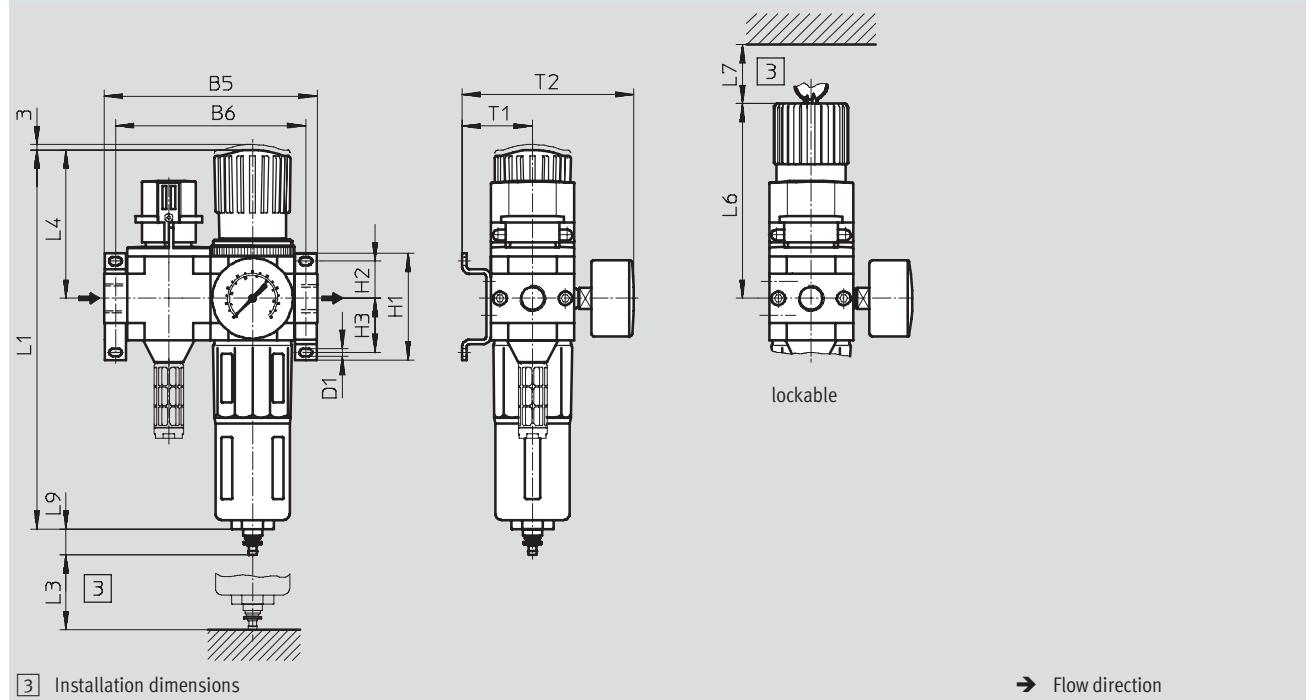
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Technical data combination LFR-KC/LFRS-KC

Dimensions

LFR/LFRS-...-KC

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Type	B5	B6	D1	H1	H2	H3	L1	L3	L4	L5	L6	L7	L9	T1	T2
Mini															
LFR-...-D-MINI-KC (A)	104	92	4.3	43	17.5	17.5	193	60	68	100	98	60	19	39	95
LFRS-...-D-MINI-KC (A)															
Midi															
LFR-...-D-MIDI-KC (A)	140	125	5.3	70	24.5	35.5	250	80	99	120	130	60	19	47	114
LFRS-...-D-MIDI-KC (A)															
Maxi															
LFR-...-D-MAXI-KC (A)	162	146	5.3	70	24.5	35.5	252	90	82	150	111	60	19	53	126
LFRS-...-D-MAXI-KC (A)							275		105		135				
LFR-...-D-DI-MAXI-KC (A)															

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KC/LFRS-KC, D series, metal design

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Technical data combination LFR-KC/LFRS-KC

Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
On-off valve, filter regulator					
Mini	G1/8	185 731	LFR-1/8-D-MINI-KC	185 732	LFR-1/8-D-MINI-KC-A
	G1/4	185 733	LFR-1/4-D-MINI-KC	185 734	LFR-1/4-D-MINI-KC-A
Midi	G1/4	185 735	LFR-1/4-D-MIDI-KC	185 736	LFR-1/4-D-MIDI-KC-A
	G3/8	185 737	LFR-3/8-D-MIDI-KC	185 738	LFR-3/8-D-MIDI-KC-A
	G1/2	185 739	LFR-1/2-D-MIDI-KC	185 740	LFR-1/2-D-MIDI-KC-A
Maxi	G1/2	186 043	LFR-1/2-D-MAXI-KC	186 044	LFR-1/2-D-MAXI-KC-A
	G3/4	185 741	LFR-3/4-D-MAXI-KC	185 742	LFR-3/4-D-MAXI-KC-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 442	LFR-1/2-D-DI-MAXI-KC	192 456	LFR-1/2-D-DI-MAXI-KC-A
	G3/4	192 449	LFR-3/4-D-DI-MAXI-KC	192 463	LFR-3/4-D-DI-MAXI-KC-A

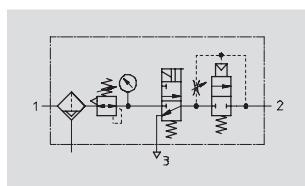
Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
On-off valve, filter regulator					
Mini	G1/8	195 012	LFRS-1/8-D-MINI-KC	195 013	LFRS-1/8-D-MINI-KC-A
	G1/4	195 026	LFRS-1/4-D-MINI-KC	195 027	LFRS-1/4-D-MINI-KC-A
Midi	G1/4	195 040	LFRS-1/4-D-MIDI-KC	195 041	LFRS-1/4-D-MIDI-KC-A
	G3/8	195 054	LFRS-3/8-D-MIDI-KC	195 055	LFRS-3/8-D-MIDI-KC-A
	G1/2	195 068	LFRS-1/2-D-MIDI-KC	195 069	LFRS-1/2-D-MIDI-KC-A
Maxi	G1/2	195 082	LFRS-1/2-D-MAXI-KC	195 083	LFRS-1/2-D-MAXI-KC-A
	G3/4	195 096	LFRS-3/4-D-MAXI-KC	195 097	LFRS-3/4-D-MAXI-KC-A

Service unit combinations LFR-KD/LFRS-KD, D series, metal design

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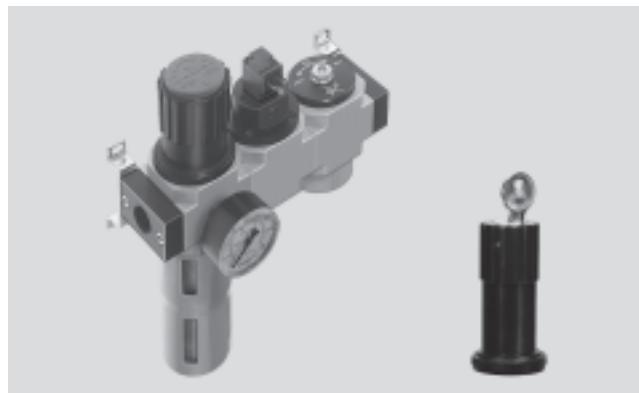
Technical data combination LFR-KD/LFRS-KD

Function



- Filter regulator LFR/LFRS
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent or lockable rotary knob
 - pressure gauge
- On-off valve HEE
 - solenoid actuated
 - 24 V DC
- Soft-start valve HEL
 - pneumatically actuated
- Mounting accessories

- - Flow rate
595 ... 5000 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
3 ... 16 bar



- For unlubricated compressed air
- When supply pressure is closed, quick venting ensures rapid pressure reduction
- Gradual pressure build-up prevents sudden, unpredictable movements

General technical data

Size	Mini		Midi			Maxi	
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{2}$	G $\frac{3}{4}$
Operating medium	Compressed air						
Type of mounting	Via accessories						
	In-line installation						
Assembly position	Vertical ±5°						
Grade of filtration [µm]	40						
Max. hysteresis [bar]	0.15	0.15	0.25	0.25	0.25	0.3	0.2
Pressure regulation range [bar]	2.5 ... 12						
Pressure indication	Via pressure gauge						
Max. condensate volume [cm ³]	22		43			80 ¹⁾	
Input pressure [bar]							
Condensate drain	turned manually	3 ... 16					
	fully automatic	3 ... 12					

1) The max. condensate volume for the LFR-...-DI-MAXI-KD is 43 cm³.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KD/LFRS-KD, D series, metal design

Technical data combination LFR-KD/LFRS-KD

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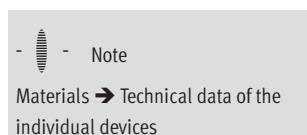
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	595	730	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1440	1890	2000	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	4300	5000
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	3000	2800

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

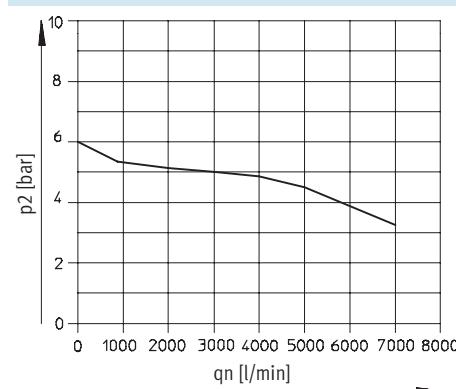
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	900	2100	3100	3300	
LFRS	1000	2340	3200	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KD(-A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KD/LFRS-KD, D series, metal design

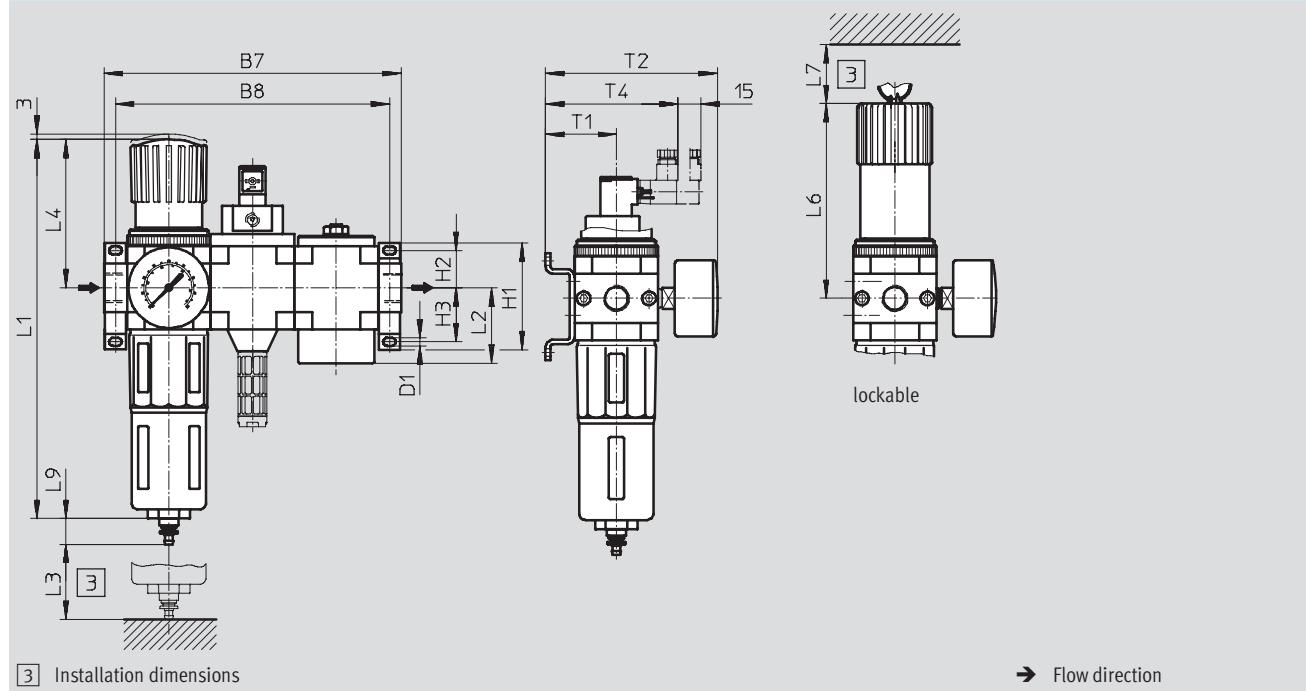
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Technical data combination LFR-KD/LFRS-KD

Dimensions

LFR/LFRS-...-KD

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Type	B7	B8	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L9	T1	T2	T4
Mini																	
LFR-...-D-MINI-KD (A)	144	132	4.3	43	17.5	17.5	193	36	60	68	100	98	60	19	39	95	78
Midi																	
LFR-...-D-MIDI-KD (A)	195	180	5.3	70	24.5	35.5	250	49.5	80	99	120	130	60	19	47	114	86
Maxi																	
LFR-...-D-MAXI-KD (A)	228	212	5.3	70	24.5	35.5	252	56.4	90	82	150	111	60	19	53	126	92
LFRS-...-D-MAXI-KD (A)							275			105		135					
LFR-...-D-DI-MAXI-KD (A)																	

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KD/LFRS-KD, D series, metal design

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Technical data combination LFR-KD/LFRS-KD

Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Filter regulator, on-off valve with solenoid coil 24 V DC, soft-start valve					
Mini	G1/8	185 743	LFR-1/8-D-MINI-KD	185 744	LFR-1/8-D-MINI-KD-A
	G1/4	185 745	LFR-1/4-D-MINI-KD	185 746	LFR-1/4-D-MINI-KD-A
Midi	G1/4	185 747	LFR-1/4-D-MIDI-KD	185 748	LFR-1/4-D-MIDI-KD-A
	G3/8	185 749	LFR-3/8-D-MIDI-KD	185 750	LFR-3/8-D-MIDI-KD-A
	G1/2	185 751	LFR-1/2-D-MIDI-KD	185 752	LFR-1/2-D-MIDI-KD-A
Maxi	G1/2	186 045	LFR-1/2-D-MAXI-KD	186 046	LFR-1/2-D-MAXI-KD-A
	G3/4	185 753	LFR-3/4-D-MAXI-KD	185 754	LFR-3/4-D-MAXI-KD-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 443	LFR-1/2-D-DI-MAXI-KD	192 457	LFR-1/2-D-DI-MAXI-KD-A
	G3/4	192 450	LFR-3/4-D-DI-MAXI-KD	192 464	LFR-3/4-D-DI-MAXI-KD-A

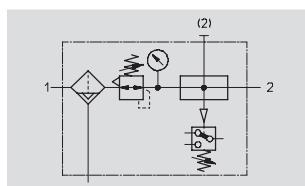
Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Filter regulator, on-off valve with solenoid coil 24 V DC, soft-start valve					
Mini	G1/8	195 014	LFRS-1/8-D-MINI-KD	195 015	LFRS-1/8-D-MINI-KD-A
	G1/4	195 028	LFRS-1/4-D-MINI-KD	195 029	LFRS-1/4-D-MINI-KD-A
Midi	G1/4	195 042	LFRS-1/4-D-MIDI-KD	195 043	LFRS-1/4-D-MIDI-KD-A
	G3/8	195 056	LFRS-3/8-D-MIDI-KD	195 057	LFRS-3/8-D-MIDI-KD-A
	G1/2	195 070	LFRS-1/2-D-MIDI-KD	195 071	LFRS-1/2-D-MIDI-KD-A
Maxi	G1/2	195 084	LFRS-1/2-D-MAXI-KD	195 085	LFRS-1/2-D-MAXI-KD-A
	G3/4	195 098	LFRS-3/4-D-MAXI-KD	195 099	LFRS-3/4-D-MAXI-KD-A

Service unit combinations LFR-KE/LFRS-KE, D series, metal design

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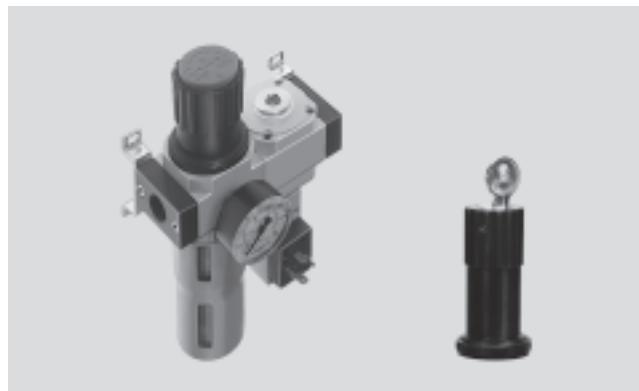
Technical data combination LFR-KE/LFRS-KE

Function



- Filter regulator LFR/LFRS
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent or lockable rotary knob
 - pressure gauge
- Branching module FRM
 - pressure switch without display
- Mounting accessories

- Flow rate
720 ... 9400 l/min
- Temperature range
-10 ... +60 °C
- Input pressure
1 ... 16 bar



- For unlubricated compressed air
- Two branch connections are available
- Electrical pressure monitoring with adjustable switching pressure

General technical data

Size	Mini	Midi	Maxi
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$ G $\frac{3}{8}$ G $\frac{1}{2}$ G $\frac{1}{2}$ G $\frac{3}{4}$
Operating medium	Compressed air		
Type of mounting	Via accessories In-line installation		
Assembly position	Vertical ±5°		
Grade of filtration [µm]	40		
Max. hysteresis [bar]	0.15	0.15	0.25 0.2 0.2 0.3
Pressure regulation range [bar]	0.5 ... 12		
Pressure indication	Via pressure gauge		
Max. condensate volume [cm ³]	22	43	80 ¹⁾
Input pressure [bar]			
Condensate drain	turned manually fully automatic		
	1 ... 16	2 ... 12	

1) The max. condensate volume for the LFR-...-DI-MAXI-KE is 43 cm³.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KE/LFRS-KE, D series, metal design

Technical data combination LFR-KE/LFRS-KE

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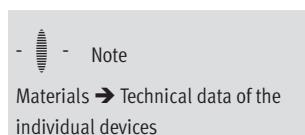
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	720	1140	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1850	2620	3050	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	9200	9400
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	5000	6000

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

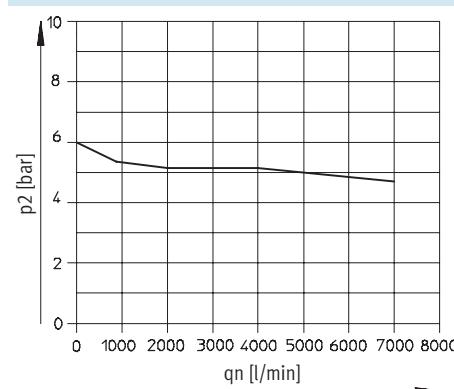
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	1000	2000	2400	2600	
LFRS	1100	2240	2500	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KE(-A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KE/LFRS-KE, D series, metal design

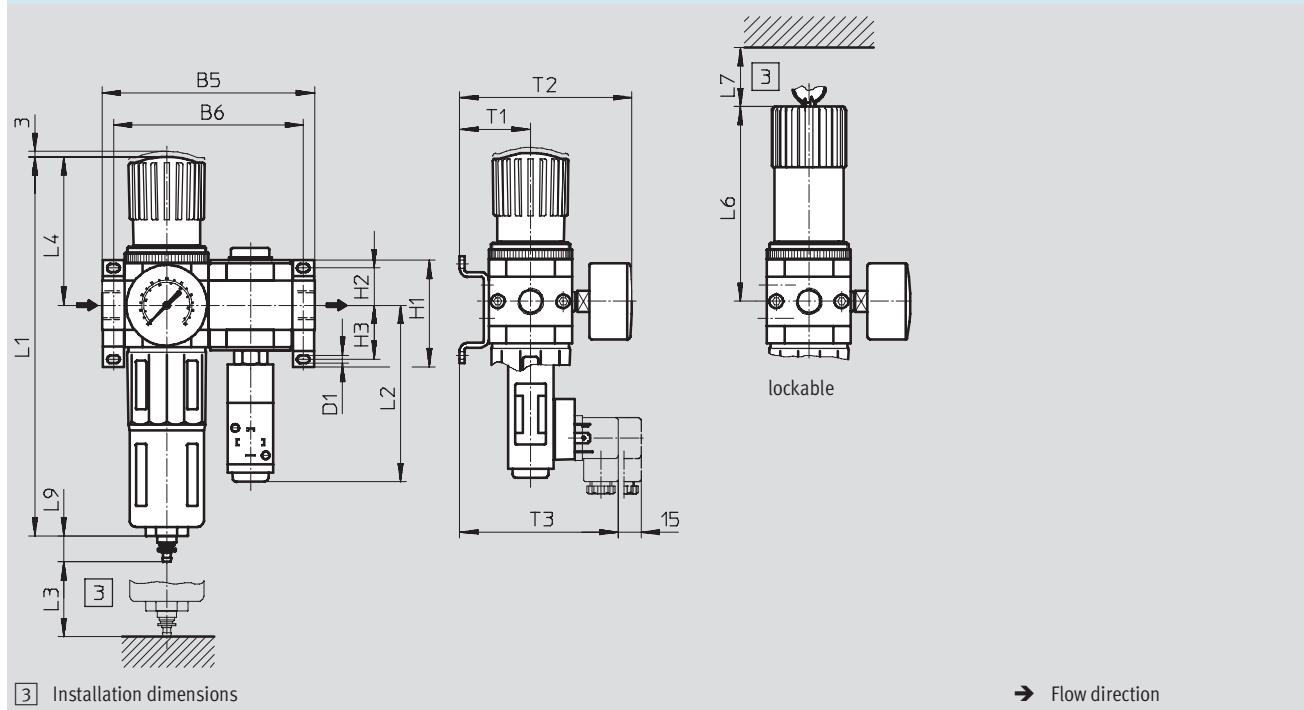
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Technical data combination LFR-KE/LFRS-KE

Dimensions

LFR/LFRS-...-KE

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Type	B5	B6	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L9	T1	T2	T3
Mini																	
LFR-...-D-MINI-KE (A)	104	92	4.3	43	17.5	17.5	193	108	60	68	100	98	60	19	39	95	97
LFRS-...-D-MINI-KE (A)																	
Midi																	
LFR-...-D-MIDI-KE (A)	140	125	5.3	70	24.5	35.5	250	117	80	99	120	130	60	19	47	114	109
LFRS-...-D-MIDI-KE (A)																	
Maxi																	
LFR-...-D-MAXI-KE (A)	162	146	5.3	70	24.5	35.5	252	122	90	82	150	111	60	19	53	126	111
LFRS-...-D-MAXI-KE (A)																	
LFR-...-D-DI-MAXI-KE (A)							275			105		135					

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KE/LFRS-KE, D series, metal design

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Technical data combination LFR-KE/LFRS-KE

Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Filter regulator, branching module with pressure switch					
Mini	G1/8	185 755	LFR-1/8-D-MINI-KE	185 756	LFR-1/8-D-MINI-KE-A
	G1/4	185 757	LFR-1/4-D-MINI-KE	185 758	LFR-1/4-D-MINI-KE-A
Midi	G1/4	185 759	LFR-1/4-D-MIDI-KE	185 760	LFR-1/4-D-MIDI-KE-A
	G3/8	185 761	LFR-3/8-D-MIDI-KE	185 762	LFR-3/8-D-MIDI-KE-A
	G1/2	185 763	LFR-1/2-D-MIDI-KE	185 764	LFR-1/2-D-MIDI-KE-A
Maxi	G1/2	186 047	LFR-1/2-D-MAXI-KE	186 048	LFR-1/2-D-MAXI-KE-A
	G3/4	185 765	LFR-3/4-D-MAXI-KE	185 766	LFR-3/4-D-MAXI-KE-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 444	LFR-1/2-D-DI-MAXI-KE	192 458	LFR-1/2-D-DI-MAXI-KE-A
	G3/4	192 451	LFR-3/4-D-DI-MAXI-KE	192 465	LFR-3/4-D-DI-MAXI-KE-A

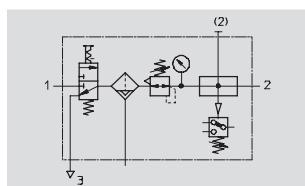
Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Filter regulator, branching module with pressure switch					
Mini	G1/8	195 016	LFRS-1/8-D-MINI-KE	195 017	LFRS-1/8-D-MINI-KE-A
	G1/4	195 030	LFRS-1/4-D-MINI-KE	195 031	LFRS-1/4-D-MINI-KE-A
Midi	G1/4	195 044	LFRS-1/4-D-MIDI-KE	195 045	LFRS-1/4-D-MIDI-KE-A
	G3/8	195 058	LFRS-3/8-D-MIDI-KE	195 059	LFRS-3/8-D-MIDI-KE-A
	G1/2	195 072	LFRS-1/2-D-MIDI-KE	195 073	LFRS-1/2-D-MIDI-KE-A
Maxi	G1/2	195 086	LFRS-1/2-D-MAXI-KE	195 087	LFRS-1/2-D-MAXI-KE-A
	G3/4	195 100	LFRS-3/4-D-MAXI-KE	195 101	LFRS-3/4-D-MAXI-KE-A

Service unit combinations LFR-KF/LFRS-KF, D series, metal design

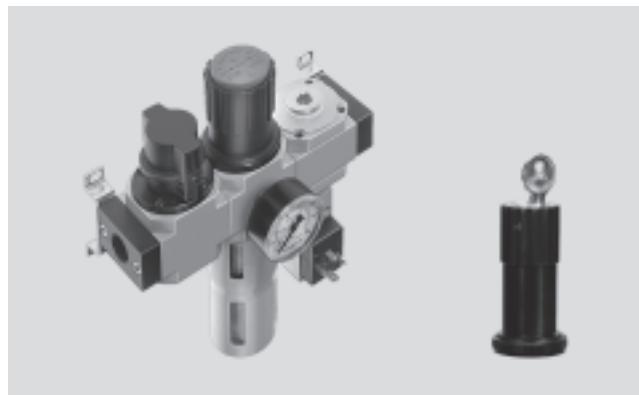
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Technical data combination LFR-KF/LFRS-KF

Function



- - On-off valve HE
– manually actuated
- - Filter regulator LFR/LFRS
– grade of filtration 40 µm
– metal bowl guard
– condensate drain,
turned manually or
fully automatic
– rotary knob with detent or
lockable rotary knob
– pressure gauge
- - Branching module FRM
– pressure switch without display
- - Mounting accessories



- - Flow rate
700 ... 8400 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
1 ... 16 bar
- For unlubricated compressed air
- Supply pressure can be opened and closed
- Two branch connections are available
- Electrical pressure monitoring with adjustable switching pressure
- To ensure safe venting of the system, an additional quick exhaust valve is necessary at the output of the service unit combination

General technical data

Size	Mini		Midi			Maxi				
Pneumatic connection	G ¹ / ₈	G ¹ / ₄	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ¹ / ₂	G ³ / ₄			
Operating medium	Compressed air									
Type of mounting	Via accessories In-line installation									
Assembly position	Vertical ±5°									
Grade of filtration [µm]	40									
Max. hysteresis [bar]	0.2	0.2	0.25	0.3	0.25	0.2	0.2			
Pressure regulation range [bar]	0.5 ... 12									
Pressure indication	Via pressure gauge									
Max. condensate volume [cm ³]	22		43		80 ¹⁾					
Input pressure [bar]										
Condensate drain	turned manually	1 ... 16								
	fully automatic	2 ... 12								

1) The max. condensate volume for the LFR-...-DI-MAXI-KF is 43 cm³,

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KF/LFRS-KF, D series, metal design

Technical data combination LFR-KF/LFRS-KF

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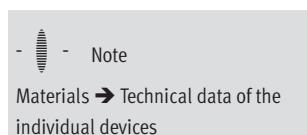
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	700	1050	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1720	2420	2920	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	8000	8400
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	5000	6000

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

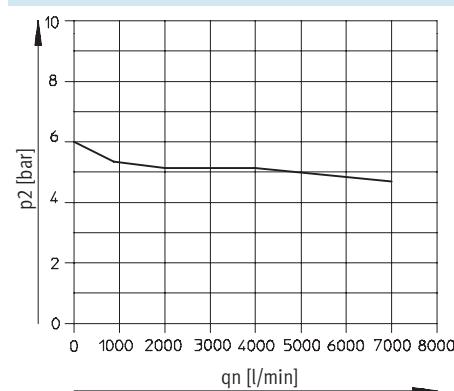
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	1200	2400	3300	3500	
LFRS	1300	2640	3400	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KF(A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KF/LFRS-KF, D series, metal design

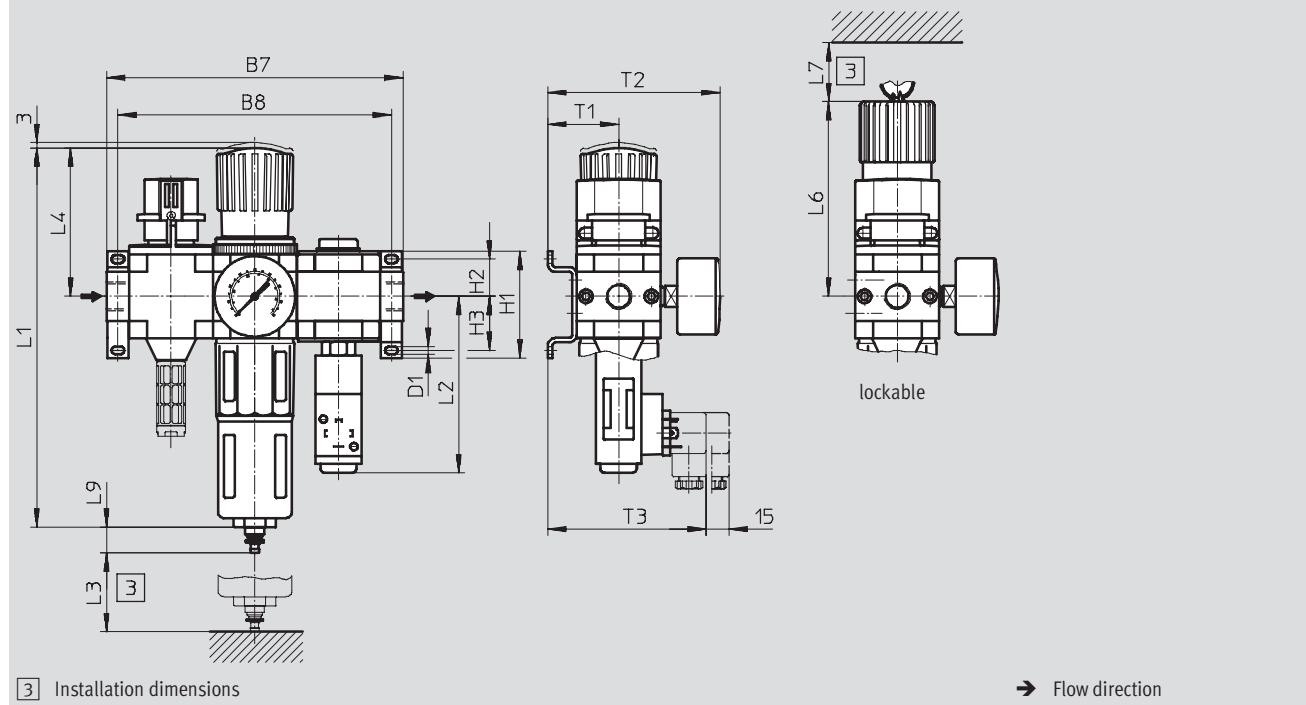
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Technical data combination LFR-KF/LFRS-KF

Dimensions

LFR/LFRS-...-KF

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Type	B7	B8	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L9	T1	T2	T3
Mini																	
LFR-...-D-MINI-KF (A)	144	132	4.3	43	17.5	17.5	193	108	60	68	100	98	60	19	39	95	97
LFRS-...-D-MINI-KF (A)																	
Midi																	
LFR-...-D-MIDI-KF (A)	195	180	5.3	70	24.5	35.5	250	117	80	99	120	130	60	19	47	114	105
LFRS-...-D-MIDI-KF (A)																	
Maxi																	
LFR-...-D-MAXI-KF (A)	228	212	5.3	70	24.5	35.5	252	122	90	82	150	111	60	19	53	126	111
LFRS-...-D-MAXI-KF (A)							275			105		135					
LFR-...-D-DI-MAXI-KF (A)																	

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KF/LFRS-KF, D series, metal design

FESTO

Technical data combination LFR-KF/LFRS-KF

Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	Part No. Type
		Part No.	Type		
On-off valve, filter regulator, branching module with pressure switch					
Mini	G1/8	185 767	LFR-1/8-D-MINI-KF	185 768	LFR-1/8-D-MINI-KF-A
	G1/4	185 769	LFR-1/4-D-MINI-KF		185 770 LFR-1/4-D-MINI-KF-A
Midi	G1/4	185 771	LFR-1/4-D-MIDI-KF	185 772	LFR-1/4-D-MIDI-KF-A
	G3/8	185 773	LFR-3/8-D-MIDI-KF	185 774	LFR-3/8-D-MIDI-KF-A
	G1/2	185 775	LFR-1/2-D-MIDI-KF	185 776	LFR-1/2-D-MIDI-KF-A
Maxi	G1/2	186 049	LFR-1/2-D-MAXI-KF	186 050	LFR-1/2-D-MAXI-KF-A
	G3/4	185 777	LFR-3/4-D-MAXI-KF		185 778 LFR-3/4-D-MAXI-KF-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 445	LFR-1/2-D-DI-MAXI-KF	192 459	LFR-1/2-D-DI-MAXI-KF-A
	G3/4	192 452	LFR-3/4-D-DI-MAXI-KF		192 466 LFR-3/4-D-DI-MAXI-KF-A

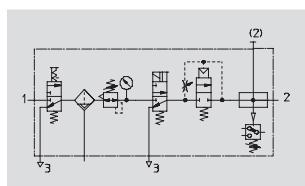
Ordering data					
Pressure regulation range 0.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	Part No. Type
		Part No.	Type		
On-off valve, filter regulator, branching module with pressure switch					
Mini	G1/8	195 018	LFRS-1/8-D-MINI-KF	195 019	LFRS-1/8-D-MINI-KF-A
	G1/4	195 032	LFRS-1/4-D-MINI-KF		195 033 LFRS-1/4-D-MINI-KF-A
Midi	G1/4	195 046	LFRS-1/4-D-MIDI-KF	195 047	LFRS-1/4-D-MIDI-KF-A
	G3/8	195 060	LFRS-3/8-D-MIDI-KF	195 061	LFRS-3/8-D-MIDI-KF-A
	G1/2	195 074	LFRS-1/2-D-MIDI-KF	195 075	LFRS-1/2-D-MIDI-KF-A
Maxi	G1/2	195 088	LFRS-1/2-D-MAXI-KF	195 089	LFRS-1/2-D-MAXI-KF-A
	G3/4	195 102	LFRS-3/4-D-MAXI-KF	195 103	LFRS-3/4-D-MAXI-KF-A

Service unit combinations LFR-KG/LFRS-KG, D series, metal design

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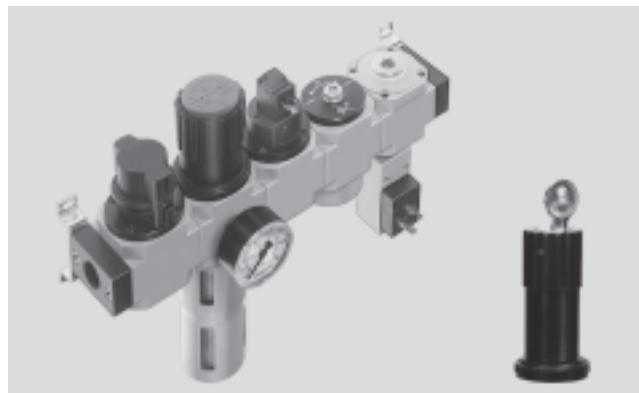
Technical data combination LFR-KG/LFRS-KG

Function



- On-off valve HE
 - manually actuated
- Filter regulator LFR/LFRS
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent or lockable rotary knob
 - pressure gauge
- On-off valve HEE
 - solenoid actuated
 - 24 V DC
- Soft-start valve HEL
 - pneumatically actuated
- Branching module FRM
 - pressure switch without display
- Mounting accessories

- Flow rate
575 ... 4900 l/min
- Temperature range
-10 ... +60 °C
- Input pressure
3 ... 16 bar



- For unlubricated compressed air
- To ensure safe venting of the system, an additional quick exhaust valve is necessary at the output of the service unit combination
- Two branch connections are available
- Gradual pressure build-up prevents sudden, unpredictable movements
- Electrical pressure monitoring with adjustable switching pressure

General technical data

Size	Mini		Midi			Maxi						
Pneumatic connection	G ¹ / ₈	G ¹ / ₄	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ¹ / ₂	G ³ / ₄					
Operating medium	Compressed air											
Type of mounting	Via accessories		In-line installation									
Assembly position	Vertical ±5°											
Grade of filtration [µm]	40											
Max. hysteresis [bar]	0.15	0.15	0.25	0.2	0.2	0.25	0.25					
Pressure regulation range [bar]	2.5 ... 12											
Pressure indication	Via pressure gauge											
Max. condensate volume [cm ³]	22		43			80 ¹⁾						
Input pressure [bar]												
Condensate drain	turned manually		3 ... 16									
	fully automatic		3 ... 12									

1) The max. condensate volume for the LFR-...-DI-MAXI-KG is 43 cm³.

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KG/LFRS-KG, D series, metal design

Technical data LFR-KG/LFRS-KG

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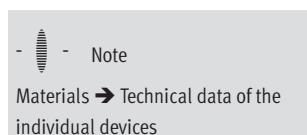
Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
LFR/LFRS-...-D-...	575	715	-	-	-
Midi					
LFR/LFRS-...-D-...	-	1370	1680	1740	-
Maxi					
LFR/LFRS-...-D-...	-	-	-	4200	4900
Maxi – Directly actuated pressure regulator with integrated return flow function					
LFR-...-D-...	-	-	-	2500	3000

1) Measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar.

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

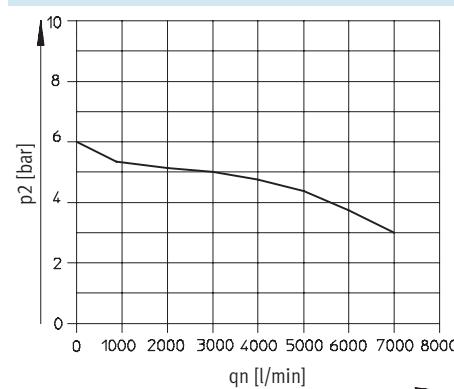
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]					
Size	Mini	Midi	Maxi	D	D-DI
LFR	1500	3400	5200	5400	
LFRS	1600	3640	5300	-	



Standard flow rate qn as a function of the output pressure p2

LFR-1/2-D-DI-MAXI-KG(-A)



Primary pressure p1 = 10 bar

Service unit combinations LFR-KG/LFRS-KG, D series, metal design

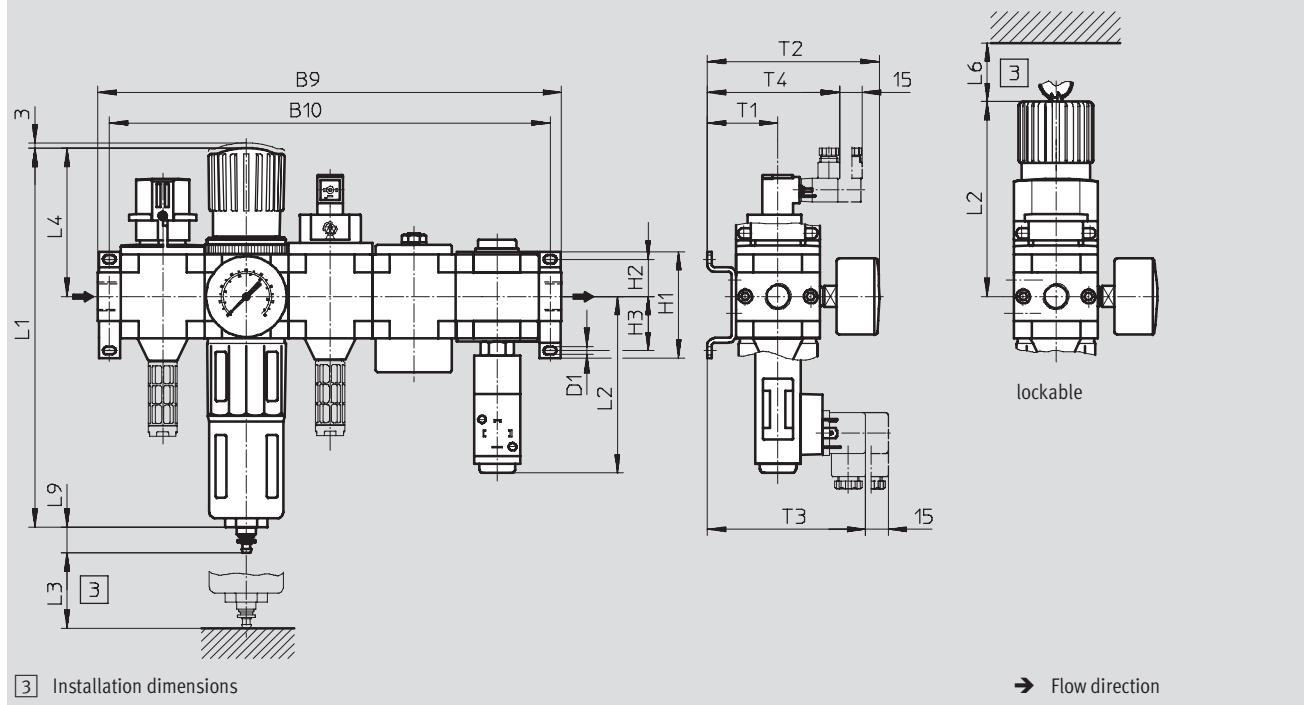
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Technical data LFR-KG/LFRS-KG

Dimensions

LFR/LFRS-...-KG

Download CAD data → www.festo.com



Type	B9	B10	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L9	T1	T2	T3	T4
Mini																		
LFR-...-D-MINI-KG (A)	244	212	4.3	43	17.5	17.5	193	108	60	68	100	98	60	19	39	95	97	78
LFRS-...-D-MINI-KG (A)																		
Midi																		
LFR-...-D-MIDI-KG (A)	305	290	5.3	70	24.5	35.5	250	117	80	99	120	130	60	19	47	114	105	86
LFRS-...-D-MIDI-KG (A)																		
Maxi																		
LFR-...-D-MAXI-KG (A)	360	344	5.3	70	24.5	35.5	252	122	90	82	150	111	60	19	53	126	111	92
LFRS-...-D-MAXI-KG (A)							275			105		135						
LFR-...-D-DI-MAXI-KG (A)																		

• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations LFR-KG/LFRS-KG, D series, metal design

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Technical data LFR-KG/LFRS-KG

Ordering data					
Pressure regulation range 2.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	Part No. Type
		Part No.	Type		
On-off valve, filter regulator, on-off valve with solenoid coil 24 V DC, soft-start valve, branching module with pressure switch					
Mini	G1/8	185 779	LFR-1/8-D-MINI-KG	185 780	LFR-1/8-D-MINI-KG-A
	G1/4	185 781	LFR-1/4-D-MINI-KG		185 782 LFR-1/4-D-MINI-KG-A
Midi	G1/4	185 783	LFR-1/4-D-MIDI-KG	185 784	LFR-1/4-D-MIDI-KG-A
	G3/8	185 785	LFR-3/8-D-MIDI-KG	185 786	LFR-3/8-D-MIDI-KG-A
	G1/2	185 787	LFR-1/2-D-MIDI-KG	185 788	LFR-1/2-D-MIDI-KG-A
Maxi	G1/2	186 051	LFR-1/2-D-MAXI-KG	186 052	LFR-1/2-D-MAXI-KG-A
	G3/4	185 789	LFR-3/4-D-MAXI-KG		185 790 LFR-3/4-D-MAXI-KG-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 446	LFR-1/2-D-DI-MAXI-KG	192 460	LFR-1/2-D-DI-MAXI-KG-A
	G3/4	192 453	LFR-3/4-D-DI-MAXI-KG		192 467 LFR-3/4-D-DI-MAXI-KG-A

Ordering data					
Pressure regulation range 2.5 ... 12 bar, grade of filtration 40 µm, mounting bracket and metal bowl guard, lockable					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	Part No. Type
		Part No.	Type		
On-off valve, filter regulator, on-off valve with solenoid coil 24 V DC, soft-start valve, branching module with pressure switch					
Mini	G1/8	195 020	LFRS-1/8-D-MINI-KG	195 021	LFRS-1/8-D-MINI-KG-A
	G1/4	195 034	LFRS-1/4-D-MINI-KG		195 035 LFRS-1/4-D-MINI-KG-A
Midi	G1/4	195 048	LFRS-1/4-D-MIDI-KG	195 049	LFRS-1/4-D-MIDI-KG-A
	G3/8	195 062	LFRS-3/8-D-MIDI-KG	195 063	LFRS-3/8-D-MIDI-KG-A
	G1/2	195 076	LFRS-1/2-D-MIDI-KG	195 077	LFRS-1/2-D-MIDI-KG-A
Maxi	G1/2	195 090	LFRS-1/2-D-MAXI-KG	195 091	LFRS-1/2-D-MAXI-KG-A
	G3/4	195 104	LFRS-3/4-D-MAXI-KG	195 105	LFRS-3/4-D-MAXI-KG-A

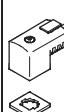
Service unit combinations LFR-K/LFRS-K, D series

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Accessories

Ordering data – Angled socket PEV						Technical data → Internet: pev-1/4	
	Description	Operating voltage range	Electrical connection	Switching status display	Part No.	Type	
	for PEV-1/4-...-OD	15 30 V DC	4-pin	Yellow LED	164 274	PEV-1/4-WD-LED-24	
		≤ 230 V AC ≤ 180 V DC	4-pin	Yellow LED	164 275	PEV-1/4-WD-LED-230	

Ordering data – Plug socket MSSD						Technical data → Internet: msssd	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type	
	for PEV-1/4-...-OD	≤ 250 V AC/DC	3-pin	Clamping screws	171 157	MSSD-C-4P	
		≤ 250 V AC/DC	3-pin	Clamping screws	151 687	MSSD-EB	
			4-pin	Insulation displacement technology	192 745	MSSD-EB-S-M14	

Ordering data – Plug socket with cable KMEB						Technical data → Internet: kmeb		
	Description	Operating voltage range	Electrical connection	Switching status display	Cable length [m]	Part No.	Type	
	for on-off valve HEE	24 V DC	3-pin	LED	2.5	151 688	KMEB-1-24-2,5-LED	
					5	151 689	KMEB-1-24-5-LED	
					10	193 457	KMEB-1-24-10-LED	
		230 V AC	3-pin		2.5	151 690	KMEB-1-230AC-2,5	
					5	151 691	KMEB-1-230AC-5	

Ordering data – Illuminating seal MEB-LD				Technical data → Internet: meb	
	Description	Operating voltage range	Part No.	Type	
	for plug socket with cable KMEB and plug socket MSSD-EB	12 ... 24 V DC	151 717	MEB-LD-12-24DC	
		230 V DC/AC ±10%	151 718	MEB-LD-230AC	