

Service unit combinations FRC-K, D series

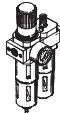
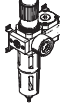
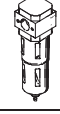
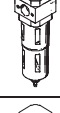
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Service unit combinations FRC-K, D series, metal design

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Product range overview D series service units, metal design

Type		Size	Pneumatic connection										Pressure regulation range [bar]			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	–	–	–	–	–	■	■	■	–	–	–	■	–	–	–	■	■
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 FRC-K, D series, metal design

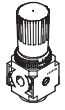
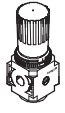
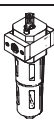
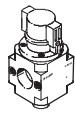
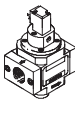
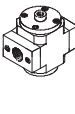
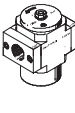
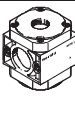
Product range overview D series service units, metal design

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	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 indicator	
Service units																	
FRC/FRCS	Micro	–	■	■	■	–	■	■	■	–	–	–	–	–	–	–	frc
	Mini	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Midi	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	■	■	■	–	–	–	■	■	–	
Service unit combinations																	
FRC-K	Micro	–															6
	Mini	■	–	■	–	■	■	–	■	–	–	–	–	–	–	–	
	Midi	■	–	■	–	■	■	–	■	–	–	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	–	■	–	–	–	–	■	■	–	
LFR-K LFRS-K	Micro	–															lfr
	Mini	■	–	■	–	■	■	–	■	■	■	–	–	–	–	–	
	Midi	■	–	■	–	■	■	–	■	■	■	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	–	■	■	■	–	–	■	■	–	
Individual devices																	
Filter regulators LFR/LFRS	Micro	–	■	■	■	–	■	■	■	–	–	–	–	–	–	–	lfr
	Mini	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Midi	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	■	■	■	–	–	–	■	■	–	
Filters LF	Micro	–	■	■	■	–	–	–	–	–	–	–	–	–	–	–	lf
	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 FRC-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	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 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 FRC-K, D series, metal design

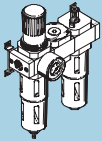
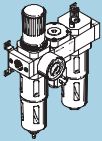
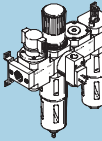
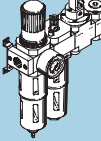
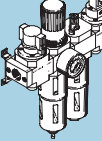
Product range overview D series service units, metal design

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 V AC	230 V AC	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	-	-	-	■	-	-	-	-	-	-	-		

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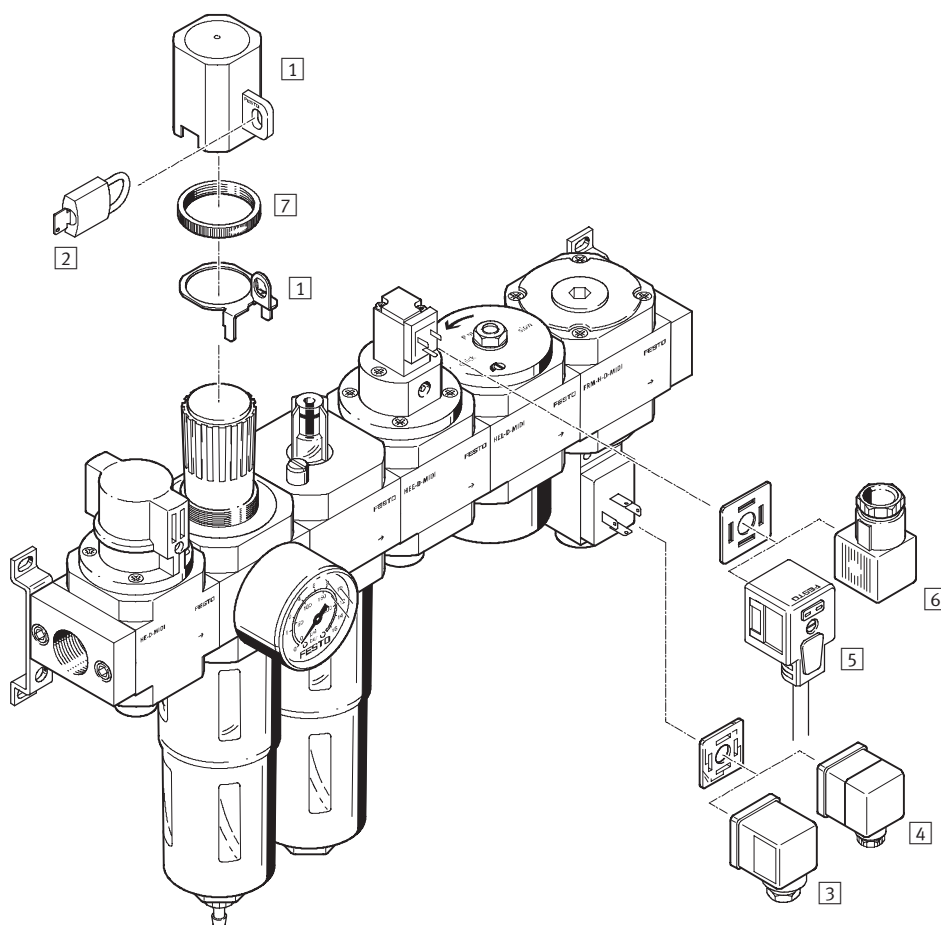
Product range overview

FRC Rotary knob with detent	 KA	 KB	 KC	 KE	 KF
Individual devices					
On-off valve, manual	–	–	■	–	■
Filter regulator with pressure gauge	■	■	■	■	■
Branching module	■	–	–	–	–
Branching module with pressure switch	–	■	■	–	■
Lubricator	■	■	■	■	■
On-off valve with solenoid coil 24 V DC	–	–	–	■	■
Soft-start valve	–	–	–	■	■
Mounting bracket	■	■	■	■	■
➔ Page/Internet	9	12	15	18	21

Service unit combinations FRC-K, D series, metal design

Peripherals overview

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 Note

The choice of accessories depends on the selected service unit combination. The example shows the service unit combination FRC-KF.

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	24
4	Angled plug socket PEV-...-WD-LED	24
5	Plug socket with cable KMEB-1	24
6	Plug socket MSSD-EB	24
7	Knurled nut (included in scope of delivery) HMR	—

Service unit combinations FRC-K, D series, metal design

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Type codes

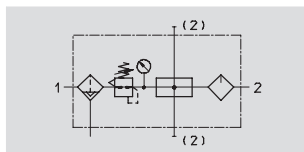
		FRC	–	1/2	–	D	–	DI	–	MAXI	–	KA	–	A
Basic function														
FRC	Service unit combination													
Pneumatic connection														
1/8	Thread G1/8													
1/4	Thread G1/4													
3/8	Thread G3/8													
1/2	Thread G1/2													
3/4	Thread G3/4													
Series														
D	Series													
Function (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 and lubricator													
KB	Filter regulator, branching module with pressure switch and lubricator													
KC	On-off valve, filter regulator, branching module with pressure switch and lubricator													
KE	Filter regulator, lubricator, on-off valve with solenoid coil 24 V DC, soft-start valve													
KF	On-off valve, filter regulator, lubricator, 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 FRC-KA, D series, metal design

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Technical data combination FRC-KA

Function



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

- Flow rate
650 ... 8200 l/min
- Temperature range
–10 ... +60 °C
- Input pressure
1 ... 16 bar



- For lubricated and unlubricated compressed air
- Two connections for unlubricated compressed air supply
- One connection for lubricated compressed air supply

General technical data							
Size	Mini		Midi			Maxi	
Pneumatic connection	G1/8	G1/4	G1/4	G3/8	G1/2	G1/2	G3/4
Operating medium	Compressed air						
Type of mounting	Via accessories						
	In-line installation						
Assembly position	Vertical ±5°						
Grade of filtration [µm]	40						
Max. hysteresis [bar]	0.25	0.2	0.25	0.35	0.3	0.1	0.2
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	1 ... 16					
	fully automatic	2 ... 12					

1) The max. condensate volume for the FRC...-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 FRC-KA, D series, metal design

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Technical data combination FRC-KA

Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G1/8	G1/4	G3/8	G1/2	G3/4
Mini					
FRC-...-D-...	650	980	–	–	–
Midi					
FRC-...-D-...	–	1400	2100	2500	–
Maxi					
FRC-...-D-...	–	–	–	7500	8200
Maxi – Directly actuated pressure regulator with integrated return flow function					
FRC-...-D-DI-...	–	–	–	5200	5800

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

Ambient conditions		
Size	Mini	Midi
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.

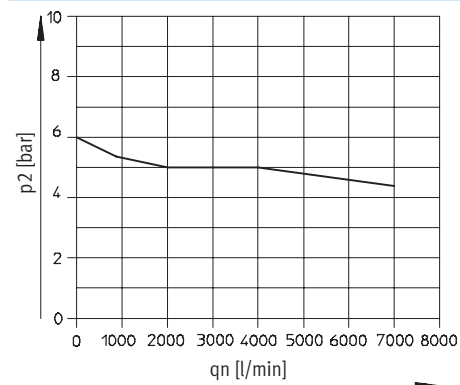
Weight [g]				
Size	Mini	Midi	Maxi	
			D	D-DI
FRC	1000	2400	3500	3700

 Note

Materials → Technical data of the individual devices

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

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



Primary pressure p1 = 10 bar

Service unit combinations FRC-KA, D series, metal design

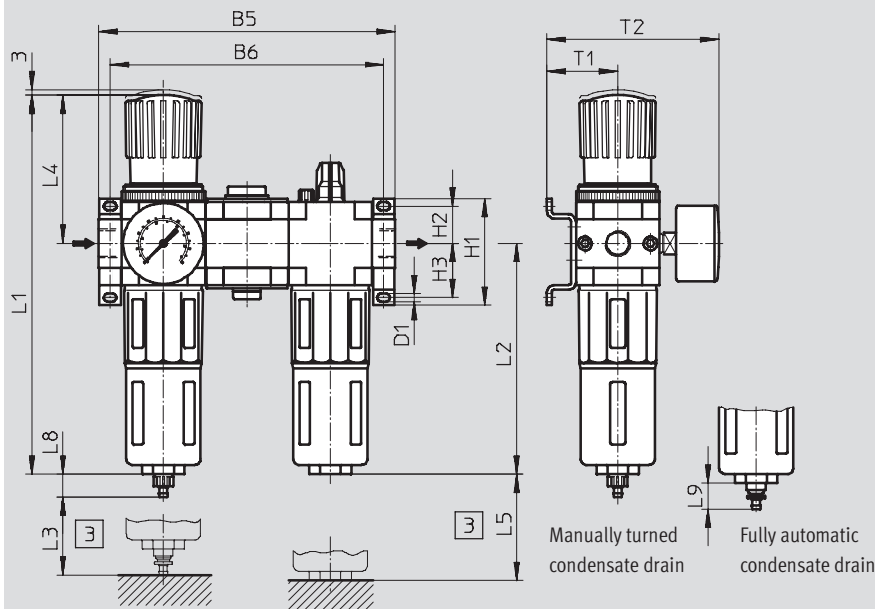
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Technical data combination FRC-KA

Dimensions

Download CAD data → www.festo.com

FRC-...-KA



3 Installation dimensions

→ Flow direction

Type	B5	B6	D1	H1	H2	H3	L1	L2	L3	L4	L5	L8	L9	T1	T2
Mini															
FRC-...-D-MINI-KA (-A)	144	132	4.3	43	17.5	17.5	193	124	60	68	100	15	19	39	95
Midi															
FRC-...-D-MIDI-KA (-A)	195	180	5.3	70	24.5	35.5	250	152	80	99	120	15	19	47	114
Maxi															
FRC-...-D-MAXI-KA (-A)	228	212	5.3	70	24.5	35.5	252	171	90	82	150	15	19	53	126
FRC-...-D-DI-MAXI-KA (-A)							275			105					

Ordering data

Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Mini	G1/8	185 791	FRC-1/8-D-MINI-KA	185 792	FRC-1/8-D-MINI-KA-A
	G1/4	185 793	FRC-1/4-D-MINI-KA	185 794	FRC-1/4-D-MINI-KA-A
Midi	G1/4	185 795	FRC-1/4-D-MIDI-KA	185 796	FRC-1/4-D-MIDI-KA-A
	G3/8	185 797	FRC-3/8-D-MIDI-KA	185 798	FRC-3/8-D-MIDI-KA-A
	G1/2	185 799	FRC-1/2-D-MIDI-KA	185 800	FRC-1/2-D-MIDI-KA-A
	G3/4	185 801	FRC-3/4-D-MIDI-KA	185 802	FRC-3/4-D-MIDI-KA-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 468	FRC-1/2-D-DI-MAXI-KA	192 478	FRC-1/2-D-DI-MAXI-KA-A
	G3/4	192 473	FRC-3/4-D-DI-MAXI-KA	192 483	FRC-3/4-D-DI-MAXI-KA-A

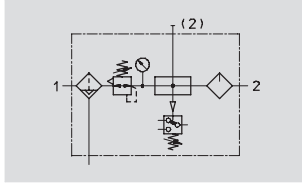
• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations FRC-KB, D series, metal design

FESTO

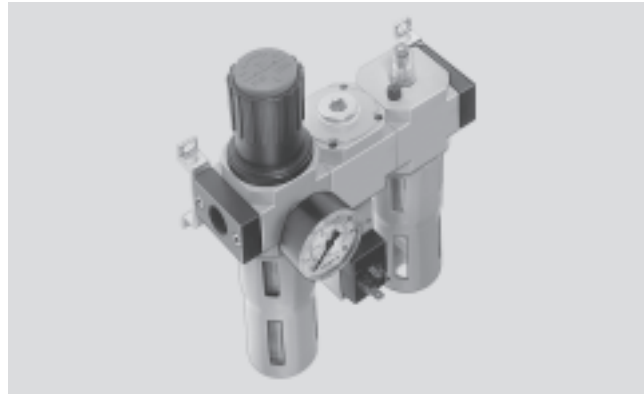
Technical data combination FRC-KB

Function



- - Flow rate
650 ... 8200 l/min
- - Temperature range
-10 ... +60 °C
- - Input pressure
1 ... 16 bar

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



- Electrical pressure monitoring with adjustable switching pressure
- For lubricated and unlubricated compressed air
- One connection for unlubricated compressed air supply
- One connection for lubricated compressed air supply

General technical data							
Size	Mini		Midi			Maxi	
Pneumatic connection	G1/8	G1/4	G1/4	G3/8	G1/2	G1/2	G3/4
Operating medium	Compressed air						
Type of mounting	Via accessories						
	In-line installation						
Assembly position	Vertical ±5°						
Grade of filtration [µm]	40						
Max. hysteresis [bar]	0.25	0.2	0.25	0.35	0.35	0.1	0.2
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	1 ... 16					
	fully automatic	2 ... 12					

1) The max. condensate volume for the FRC...-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 FRC-KB, D series, metal design

FESTO

Technical data combination FRC-KB

Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$
Mini					
FRC-...-D-...	650	980	–	–	–
Midi					
FRC-...-D-...	–	1400	2100	2500	–
Maxi					
FRC-...-D-...	–	–	–	7500	8200
Maxi – Directly actuated pressure regulator with integrated return flow function					
FRC-...-D-DI-...	–	–	–	5000	6000

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

Ambient conditions			
Size	Mini	Midi	Maxi
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
FRC	1200	2600	3500	3700

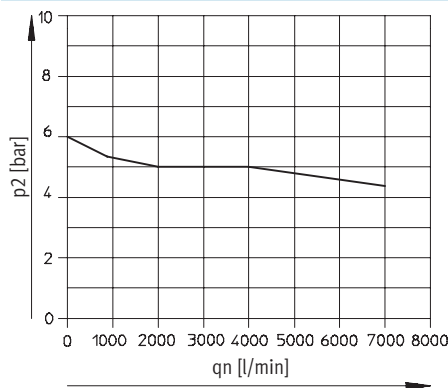


Note

Materials → Technical data of the individual devices

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

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

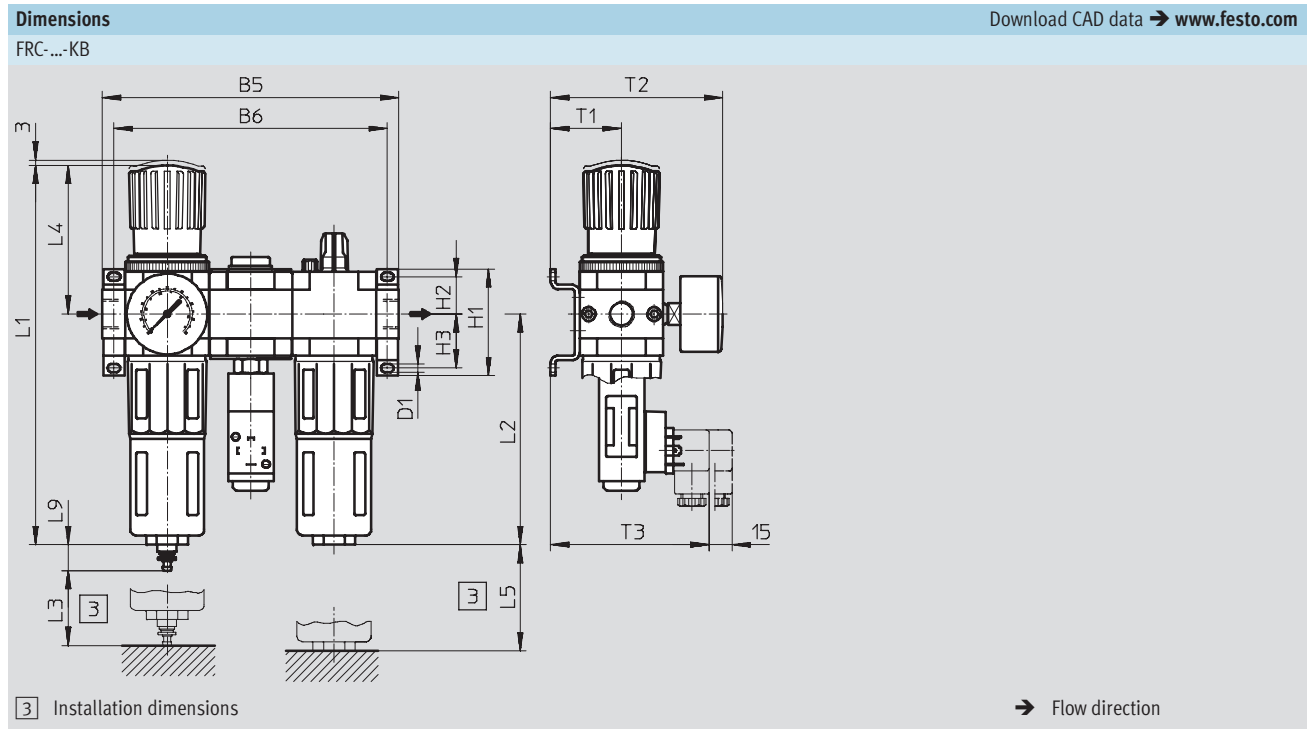


Primary pressure p₁ = 10 bar

Service unit combinations FRC-KB, D series, metal design

FESTO

Technical data combination FRC-KB



Type	B5	B6	D1	H1	H2	H3	L1	L2	L3	L4	L5	L9	T1	T2	T3
Mini															
FRC-...-D-MINI-KB (-A)	144	132	4.3	43	17.5	17.5	193	124	60	68	100	19	39	95	97
Midi															
FRC-...-D-MIDI-KB (-A)	195	180	5.3	70	24.5	35.5	250	152	80	99	120	19	47	114	105
Maxi															
FRC-...-D-MAXI-KB (-A)	228	212	5.3	70	24.5	35.5	252	171	90	82	150	19	53	126	111
FRC-...-D-DI-MAXI-KB (-A)							275			105					

Ordering data					
Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Mini	G $\frac{1}{8}$	185 803	FRC- $\frac{1}{8}$ -D-MINI-KB	185 804	FRC- $\frac{1}{8}$ -D-MINI-KB-A
	G $\frac{1}{4}$	185 805	FRC- $\frac{1}{4}$ -D-MINI-KB	185 806	FRC- $\frac{1}{4}$ -D-MINI-KB-A
Midi	G $\frac{1}{4}$	185 807	FRC- $\frac{1}{4}$ -D-MIDI-KB	185 808	FRC- $\frac{1}{4}$ -D-MIDI-KB-A
	G $\frac{3}{8}$	185 809	FRC- $\frac{3}{8}$ -D-MIDI-KB	185 810	FRC- $\frac{3}{8}$ -D-MIDI-KB-A
	G $\frac{1}{2}$	185 811	FRC- $\frac{1}{2}$ -D-MIDI-KB	185 812	FRC- $\frac{1}{2}$ -D-MIDI-KB-A
Maxi	G $\frac{1}{2}$	186 055	FRC- $\frac{1}{2}$ -D-MAXI-KB	186 056	FRC- $\frac{1}{2}$ -D-MAXI-KB-A
	G $\frac{3}{4}$	185 813	FRC- $\frac{3}{4}$ -D-MAXI-KB	185 814	FRC- $\frac{3}{4}$ -D-MAXI-KB-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G $\frac{1}{2}$	192 469	FRC- $\frac{1}{2}$ -D-DI-MAXI-KB	192 479	FRC- $\frac{1}{2}$ -D-DI-MAXI-KB-A
	G $\frac{3}{4}$	192 474	FRC- $\frac{3}{4}$ -D-DI-MAXI-KB	192 484	FRC- $\frac{3}{4}$ -D-DI-MAXI-KB-A

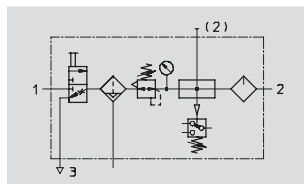
· $\parallel$ · Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations FRC-KC, D series, metal design

FESTO

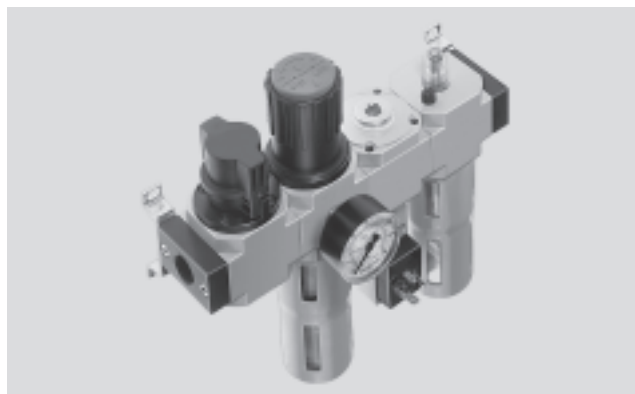
Technical data combination FRC-KC

Function



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

- Flow rate
640 ... 7800 l/min
- Temperature range
–10 ... +60 °C
- Input pressure
1 ... 16 bar



- To ensure safe venting of the system, an additional quick exhaust valve is necessary at the output of the service unit combination
- Electrical pressure monitoring with adjustable switching pressure
- The system is vented when supply air is closed
- For lubricated and unlubricated compressed air
- One connection for unlubricated compressed air supply
- One connection for lubricated compressed air supply

General technical data							
Size	Mini		Midi			Maxi	
Pneumatic connection	G1/8	G1/4	G1/4	G3/8	G1/2	G1/2	G3/4
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	0.4	0.3	0.3	0.15	0.15
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	1 ... 16					
	fully automatic	1.5 ... 12					

1) The max. condensate volume for the FRC-...-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 FRC-KC, D series, metal design

FESTO

Technical data combination FRC-KC

Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$
Mini					
FRC-...-D-...	640	870	–	–	–
Midi					
FRC-...-D-...	–	1320	1870	2400	–
Maxi					
FRC-...-D-...	–	–	–	6600	7800
Maxi – Directly actuated pressure regulator with integrated return flow function					
FRC-...-D-DI-...	–	–	–	4800	5400

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

Ambient conditions		
Size	Mini	Midi
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.

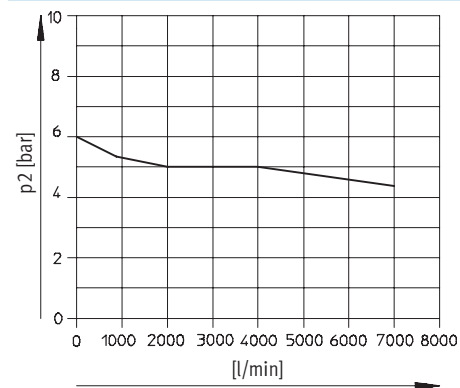
Weight [g]				
Size	Mini	Midi	Maxi	
			D	D-DI
FRC	1400	3000	4600	4800

 Note

Materials → Technical data of the individual devices

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

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



Primary pressure p₁ = 10 bar

Service unit combinations FRC-KC, D series, metal design

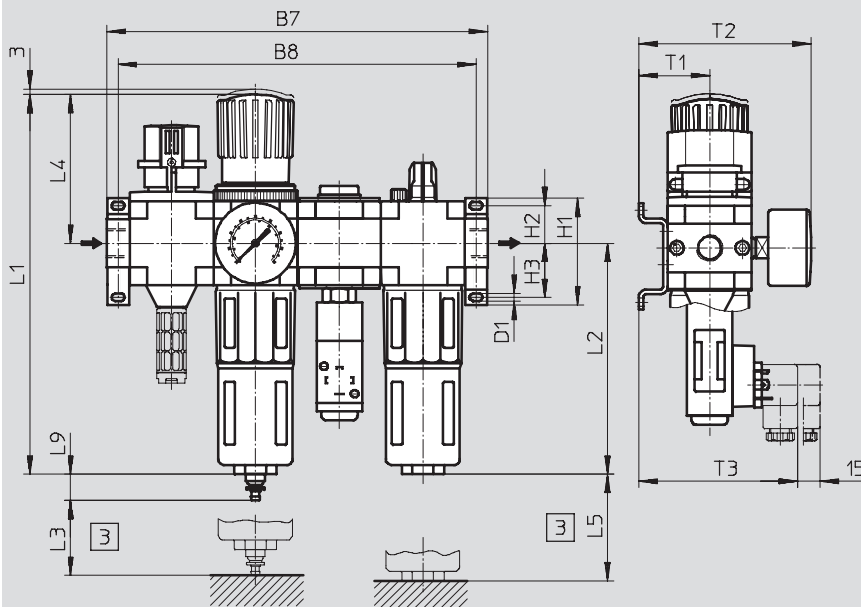
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Technical data combination FRC-KC

Dimensions

Download CAD data → www.festo.com

FRC-...-KC



3 Installation dimensions

→ Flow direction

Type	B7	B8	D1	H1	H2	H3	L1	L2	L3	L4	L5	L9	T1	T2	T3
Mini															
FRC-...-D-MINI-KC (-A)	184	172	4.3	43	17.5	17.5	193	124	60	68	100	19	39	95	97
Midi															
FRC-...-D-MIDI-KC (-A)	250	235	5.3	70	24.5	35.5	250	152	80	99	120	19	47	114	105
Maxi															
FRC-...-D-MAXI-KC (-A)	294	278	5.3	70	24.5	35.5	252	171	90	82	150	19	53	126	111
FRC-...-D-DI-MAXI-KC (-A)							275			105					

Ordering data

Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Mini	G1/8	185 815	FRC-1/8-D-MINI-KC	185 816	FRC-1/8-D-MINI-KC-A
	G1/4	185 817	FRC-1/4-D-MINI-KC	185 818	FRC-1/4-D-MINI-KC-A
Midi	G1/4	185 819	FRC-1/4-D-MIDI-KC	185 820	FRC-1/4-D-MIDI-KC-A
	G3/8	185 821	FRC-3/8-D-MIDI-KC	185 822	FRC-3/8-D-MIDI-KC-A
	G1/2	185 823	FRC-1/2-D-MIDI-KC	185 824	FRC-1/2-D-MIDI-KC-A
Maxi	G1/2	186 057	FRC-1/2-D-MAXI-KC	186 058	FRC-1/2-D-MAXI-KC-A
	G3/4	185 825	FRC-3/4-D-MAXI-KC	185 826	FRC-3/4-D-MAXI-KC-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 470	FRC-1/2-D-DI-MAXI-KC	192 480	FRC-1/2-D-DI-MAXI-KC-A
	G3/4	192 475	FRC-3/4-D-DI-MAXI-KC	192 485	FRC-3/4-D-DI-MAXI-KC-A

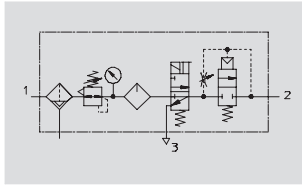
• • Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations FRC-KE, D series, metal design

FESTO

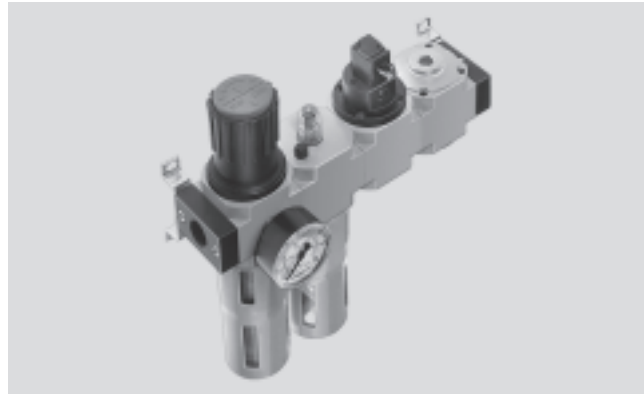
Technical data combination FRC-KE

Function



-  Flow rate
550 ... 6000 l/min
-  Temperature range
-10 ... +60 °C
-  Input pressure
3 ... 16 bar

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



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

General technical data							
Size	Mini		Midi			Maxi	
Pneumatic connection	G1/8	G1/4	G1/4	G3/8	G1/2	G1/2	G3/4
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	0.18	0.25	0.35	0.4	0.3	0.3
Pressure regulation range [bar]	2.5 ... 12						
Pressure indication	Via pressure gauge						
Max. condensate volume [cm³]	22		43			80 ¹⁾	
Input pressure [bar]							
Condensate drain	turned manually	3 ... 16					
	fully automatic	3 ... 12					

1) The max. condensate volume for the FRC-...-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 FRC-KE, D series, metal design

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Technical data combination FRC-KE

Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$
Mini					
FRC-...-D-...	550	650	–	–	–
Midi					
FRC-...-D-...	–	1100	1420	1590	–
Maxi					
FRC-...-D-...	–	–	–	3500	3800
Maxi – Directly actuated pressure regulator with integrated return flow function					
FRC-...-D-DI-...	–	–	–	5000	6000

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

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

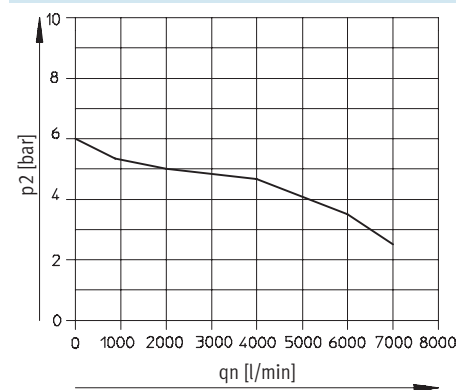
1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weight [g]				
Size	Mini	Midi	Maxi	
			D	D-DI
FRC	1200	2800	4200	4400

 Note
Materials → Technical data of the individual devices

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

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



Primary pressure p₁ = 10 bar

Service unit combinations FRC-KE, D series, metal design

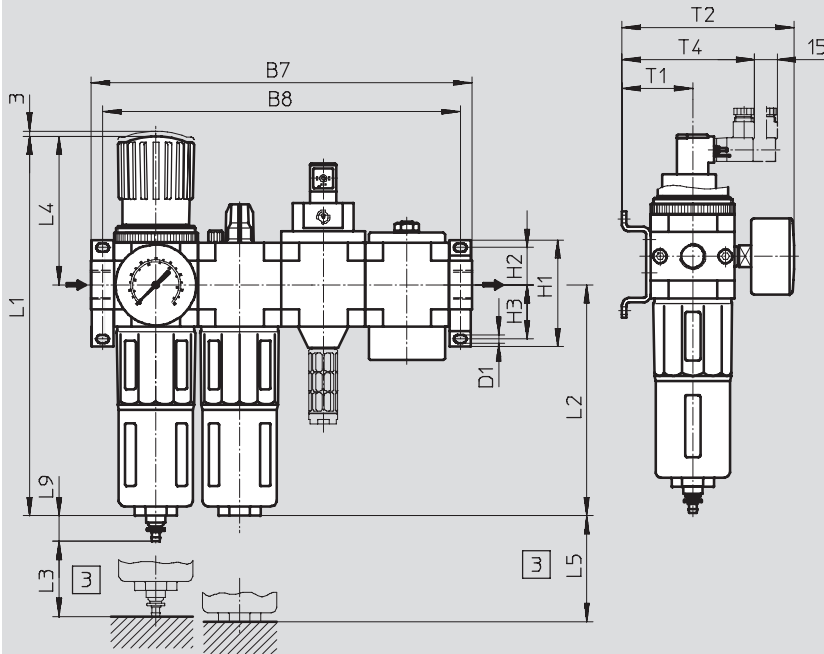
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Technical data combination FRC-KE

Dimensions

Download CAD data → www.festo.com

FRC-...-KE



3 Installation dimensions

→ Flow direction

Type	B7	B8	D1	H1	H2	H3	L1	L2	L3	L4	L5	L9	T1	T2	T4
Mini															
FRC-...-D-MINI-KE (-A)	184	172	4.3	43	17.5	17.5	193	124	60	68	100	19	39	95	78
Midi															
FRC-...-D-MIDI-KE (-A)	250	235	5.3	70	24.5	35.5	250	152	80	99	120	19	47	114	86
Maxi															
FRC-...-D-MAXI-KE (-A)	294	278	5.3	70	24.5	35.5	252	171	90	82	150	19	53	126	92
FRC-...-D-DI-MAXI-KE (-A)							275			105					

Ordering data

Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Mini	G1/8	185 827	FRC-1/8-D-MINI-KE	185 828	FRC-1/8-D-MINI-KE-A
	G1/4	185 829	FRC-1/4-D-MINI-KE	185 830	FRC-1/4-D-MINI-KE-A
Midi	G1/4	185 831	FRC-1/4-D-MIDI-KE	185 832	FRC-1/4-D-MIDI-KE-A
	G3/8	185 833	FRC-3/8-D-MIDI-KE	185 834	FRC-3/8-D-MIDI-KE-A
	G1/2	185 835	FRC-1/2-D-MIDI-KE	185 836	FRC-1/2-D-MIDI-KE-A
Maxi	G1/2	186 059	FRC-1/2-D-MAXI-KE	186 060	FRC-1/2-D-MAXI-KE-A
	G3/4	185 837	FRC-3/4-D-MAXI-KE	185 838	FRC-3/4-D-MAXI-KE-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G1/2	192 471	FRC-1/2-D-DI-MAXI-KE	192 481	FRC-1/2-D-DI-MAXI-KE-A
	G3/4	192 476	FRC-3/4-D-DI-MAXI-KE	192 486	FRC-3/4-D-DI-MAXI-KE-A

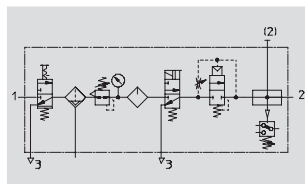
• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Service unit combinations FRC-KF, D series, metal design

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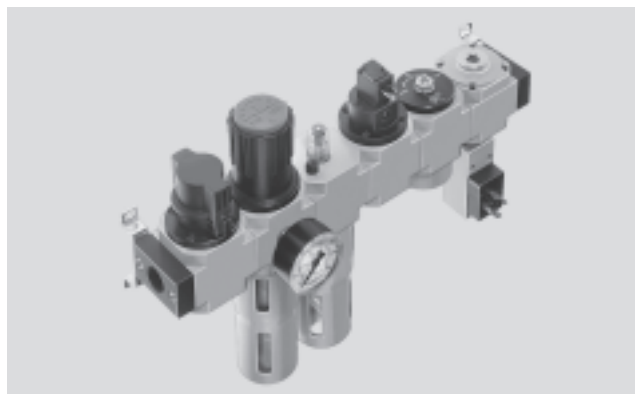
Technical data combination FRC-KF

Function



- On-off valve HE
 - manually actuated
- Filter regulator LFR
 - grade of filtration 40 µm
 - metal bowl guard
 - condensate drain, turned manually or fully automatic
 - rotary knob with detent
 - pressure gauge
- Lubricator LOE
 - metal bowl guard
- 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
530 ... 6000 l/min
- Temperature range
-10 ... +60 °C
- Input pressure
3 ... 16 bar



- Gradual pressure build-up prevents sudden, unpredictable movements
- To ensure safe venting of the system, an additional quick exhaust valve is necessary at the output of the service unit combination
- For lubricated compressed air
- Two branch connections are available
- Supply pressure can be opened and closed

General technical data								
Size		Mini		Midi		Maxi		
Pneumatic connection		G1/8	G1/4	G1/4	G3/8	G1/2	G1/2	G3/4
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	0.3	0.4	0.3	0.35	0.25	0.3
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 FRC...-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 FRC-KF, D series, metal design

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Technical data combination FRC-KF

Standard nominal flow rate ¹⁾ qnN [l/min]					
Connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$
Mini					
FRC-...-D-...	530	620	–	–	–
Midi					
FRC-...-D-...	–	1060	1150	1220	–
Maxi					
FRC-...-D-...	–	–	–	3400	3700
Maxi – Directly actuated pressure regulator with integrated return flow function					
FRC-...-D-DI-...	–	–	–	5000	6000

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

Ambient conditions		
Size	Mini	Midi
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.

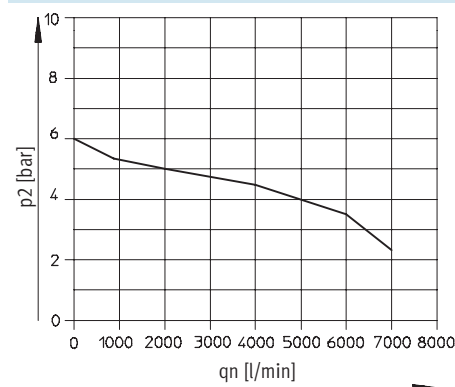
Weight [g]				
Size	Mini	Midi	Maxi	
			D	D-DI
FRC	1800	4000	6300	6500

 Note

Materials → Technical data of the individual devices

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

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



Primary pressure p₁ = 10 bar

Service unit combinations FRC-KF, D series, metal design

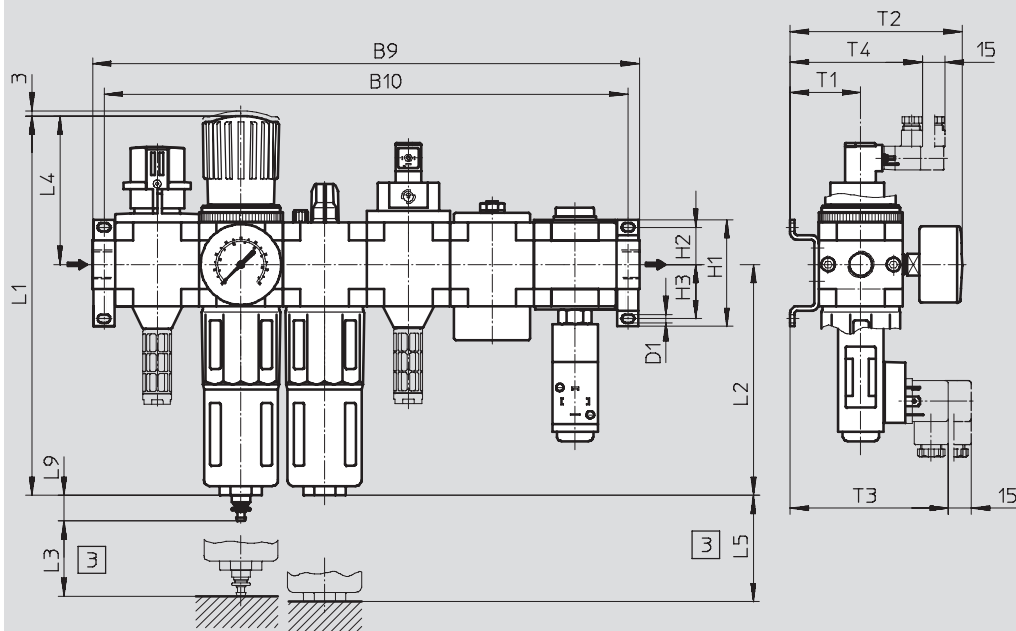
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Technical data combination FRC-KF

Dimensions

Download CAD data → www.festo.com

FRC-...-KF



3 Installation dimensions

→ Flow direction

Type	B9	B10	D1	H1	H2	H3	L1	L2	L3	L4	L5	L9	T1	T2	T3	T4
Mini																
FRC-...-D-MINI-KF (-A)	264	252	4.3	43	17.5	17.5	193	124	60	68	100	19	39	95	97	78
Midi																
FRC-...-D-MIDI-KF (-A)	360	344	5.3	70	24.5	35.5	250	152	80	99	120	19	47	114	105	86
Maxi																
FRC-...-D-MAXI-KF (-A)	426	410	5.3	70	24.5	35.5	252	171	90	82	150	19	53	126	111	92
FRC-...-D-DI-MAXI-KF (-A)							275			105						

Ordering data

Size	Connection	Condensate drain turned manually		Condensate drain fully automatic	
		Part No.	Type	Part No.	Type
Mini	G $\frac{1}{8}$	185 839	FRC- $\frac{1}{8}$ -D-MINI-KF	185 840	FRC- $\frac{1}{8}$ -D-MINI-KF-A
	G $\frac{1}{4}$	185 841	FRC- $\frac{1}{4}$ -D-MINI-KF	185 842	FRC- $\frac{1}{4}$ -D-MINI-KF-A
Midi	G $\frac{1}{4}$	185 843	FRC- $\frac{1}{4}$ -D-MIDI-KF	185 844	FRC- $\frac{1}{4}$ -D-MIDI-KF-A
	G $\frac{3}{8}$	185 845	FRC- $\frac{3}{8}$ -D-MIDI-KF	185 846	FRC- $\frac{3}{8}$ -D-MIDI-KF-A
	G $\frac{1}{2}$	185 847	FRC- $\frac{1}{2}$ -D-MIDI-KF	185 848	FRC- $\frac{1}{2}$ -D-MIDI-KF-A
Maxi	G $\frac{1}{2}$	186 061	FRC- $\frac{1}{2}$ -D-MAXI-KF	186 062	FRC- $\frac{1}{2}$ -D-MAXI-KF-A
	G $\frac{3}{4}$	185 849	FRC- $\frac{3}{4}$ -D-MAXI-KF	185 850	FRC- $\frac{3}{4}$ -D-MAXI-KF-A
Directly actuated pressure regulator with integrated return flow function					
Maxi	G $\frac{1}{2}$	192 472	FRC- $\frac{1}{2}$ -D-DI-MAXI-KF	192 482	FRC- $\frac{1}{2}$ -D-DI-MAXI-KF-A
	G $\frac{3}{4}$	192 477	FRC- $\frac{3}{4}$ -D-DI-MAXI-KF	192 487	FRC- $\frac{3}{4}$ -D-DI-MAXI-KF-A

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

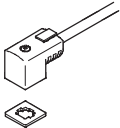
Service unit combinations FRC-K, D series

Accessories

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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	4-pin	Yellow LED	164 275	PEV-1/4-WD-LED-230
		≤ 180 V DC				

Ordering data – Plug socket MSSD					Technical data → Internet: mssd	
	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
	for on-off valve HEE	≤ 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