

Service units FRC/FRCS, D series

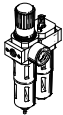
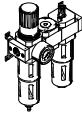
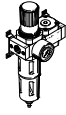
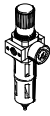
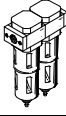
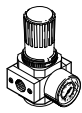
FESTO



Service units FRC/FRCS, D series, metal design

FESTO

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 units FRC/FRCS, D series, metal design

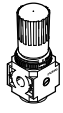
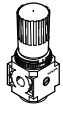
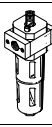
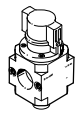
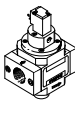
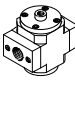
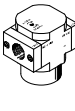
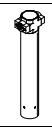
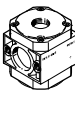
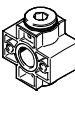
Product range overview D series service units, metal design

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	–	■	■	■	–	■	■	■	–	–	–	–	–	–	–	6
	Mini	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Midi	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–	
	Maxi	■	–	■	–	■	■	■	■	■	–	–	–	■	■	–	
Service unit combinations																	
FRC-K	Micro	–															frc
	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 units FRC/FRCS, D series, metal design

FESTO

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 units FRC/FRCS, 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	-	-	-	■	-	-	-	-	-	-	-	

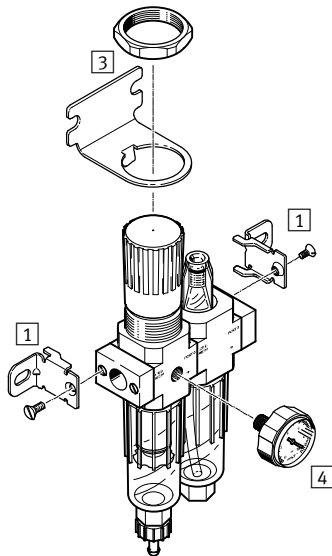
Service units FRC/FRCS, D series, metal design

Peripherals overview

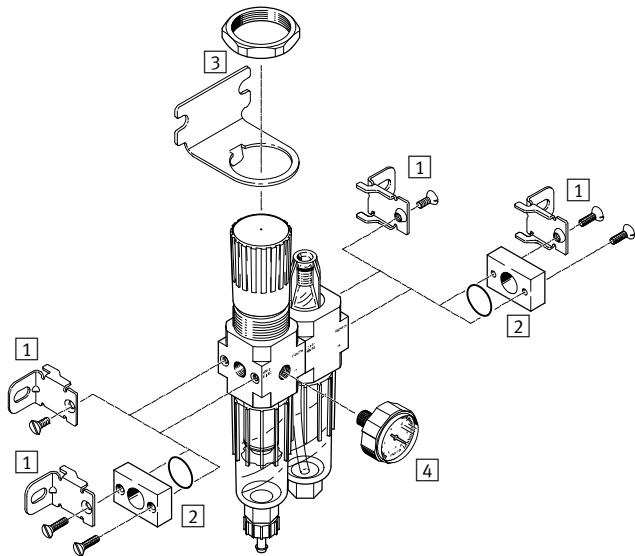
FESTO

Micro

Service unit FRC with connection plates,
connection size G $\frac{1}{8}$, QS-4 or QS-6



Service unit FRC without connection plates,
connection thread M5 or M7 in housing



Mounting attachments and accessories			
	with connection plates	without connection plates	→ Page/ Internet
[1] Mounting bracket HFOE	■	■	hfoe-d
[2] Connecting plate kit PBL	—	■	pbl
[3] Mounting bracket with hexagon nut HRS	■	■	hrs-d
[4] Pressure gauge MA-27	■	■	32

Service units FRC/FRCS, D series, metal design

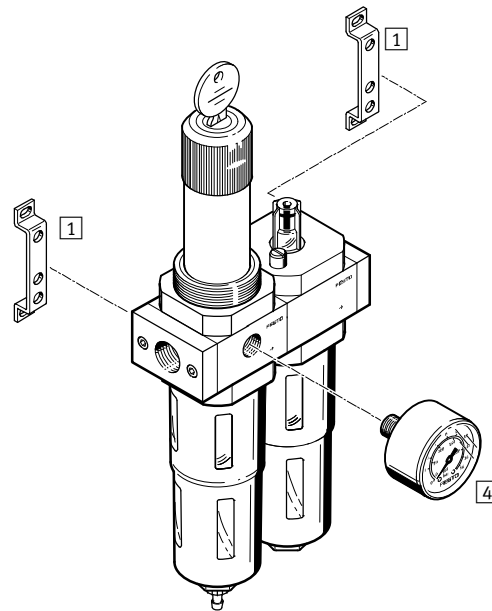
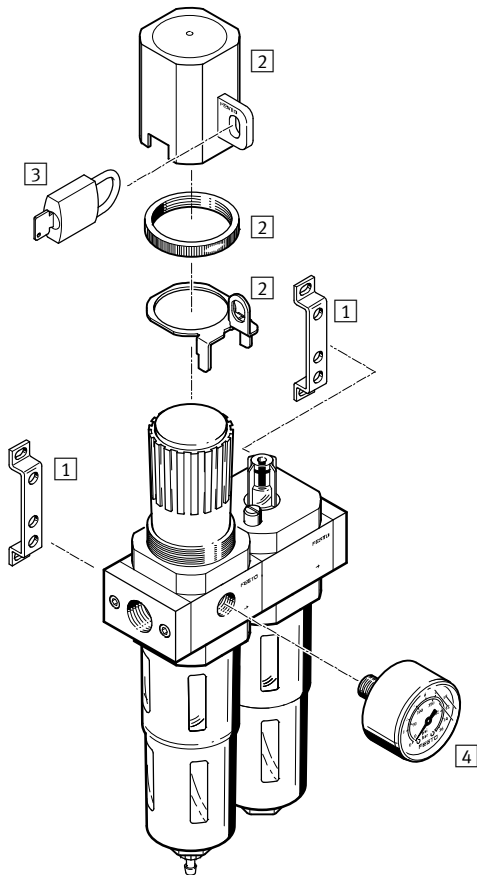
Peripherals overview

FESTO

Mini/Midi/Maxi

Service unit FRC

Service unit FRCS, lockable



Mounting attachments and accessories			
	Rotary knob with detent	Rotary knob, lockable	→ Page/ Internet
1 Mounting bracket HFOE	■	■	hfoe-d
2 Regulator lock LRVS	■	—	lrvs-d
3 Padlock LRVS-D	■	—	lrvs-d
4 Pressure gauge MA	■	■	32

Service units FRC/FRCS, D series, metal design

FESTO

Type codes

		FRC	–	¾	–	D	–		–	5M	–	O	–	DI	–	MAXI	–	A
Basic function																		
FRC	Service unit																	
FRCS	Service unit, lockable																	
Pneumatic connection																		
MICRO (FRC only)																		
M5	Connecting thread M5 in housing																	
M7	Connecting thread M7 in housing																	
1/8	Connecting plates with connecting thread G1/8																	
QS4	Connecting plates with push-in connector QS-4																	
QS6	Connecting plates with push-in connector QS-6																	
MINI																		
1/8	Connecting plates with connecting thread G1/8																	
1/4	Connecting plates with connecting thread G1/4																	
3/8	Connecting plates with connecting thread G3/8																	
MIDI																		
1/4	Connecting plates with connecting thread G1/4																	
3/8	Connecting plates with connecting thread G3/8																	
1/2	Connecting plates with connecting thread G1/2																	
3/4	Connecting plates with connecting thread G3/4																	
MAXI																		
1/2	Connecting plates with connecting thread G1/2																	
3/4	Connecting plates with connecting thread G3/4																	
1	Connecting plates with connecting thread G1																	
Series																		
D	Series																	
Pressure regulation range																		
7	0.5 ... 7 bar																	
	0.5 ... 12 bar																	
Grade of filtration																		
	40 µm																	
5M	5 µm																	
Pressure gauge																		
	With pressure gauge																	
O	Without pressure gauge																	
Function (optional)																		
DI	Directly actuated pressure regulator with integrated return flow function (FRC(S)-...-MAXI only)																	
Size																		
MICRO	Grid dimension 25 mm (without connecting plates)																	
MINI	Grid dimension 40 mm (without connecting plates)																	
MIDI	Grid dimension 55 mm (without connecting plates)																	
MAXI	Grid dimension 66 mm (without connecting plates)																	
Condensate drain																		
	Turned manually																	
H	Semi-automatic																	
A	Fully automatic																	

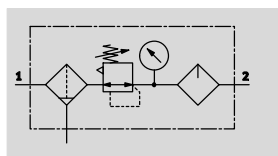
Service units FRC/FRCS, D series, metal design

FESTO

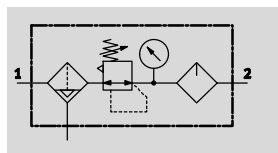
Technical data

FRC/FRCS

Manual rotary condensate drain,
with pressure gauge

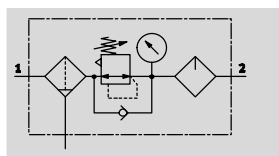


Semi or fully automatic condensate
drain, with pressure gauge

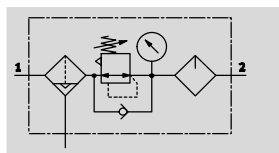


FRC/FRCS-...-DI-MAXI

Manual rotary condensate drain,
with pressure gauge



Fully automatic condensate drain,
with pressure gauge



The following oils are recommended
for Festo components:

Viscosity range to
ISO 3448 class VG 32
32 mm²/s (cSt) at 40 °C

- - Flow rate
80 ... 8,700 l/min
- - Temperature range
-10 ... +60 °C
- - Operating pressure
1 ... 16 bar
- - www.festo.com

- Filter, regulator and lubricator functions in a single unit
- High flow rate and highly efficient removal of contaminants
- Good regulating characteristics with minimal pressure hysteresis
- Setting values are secured by locking the rotary knob
- Lockable rotary knob

- Two pressure regulation ranges: 0.5 ... 7 bar and 0.5 ... 12 bar
- Two pressure gauge connections for different fitting options
- With manual, semi-automatic or fully automatic condensate drain
- Choice of filter cartridges: 5 µm or 40 µm
- New filter cartridges → 31

- Festo special oil
→ 32
- ARAL Vitam GF 32
- BP Energol HLP 32
- Esso Nuto H 32
- Mobil DTE 24
- Shell Tellus Oil DO 32

General technical data				
Size	Micro	Mini	Midi	Maxi
Pneumatic connection 1, 2 ¹⁾	M5 ²⁾ , M7 ²⁾ , G1/8, QS-4 ³⁾ , QS-6 ³⁾	G1/8, G1/4, G3/8	G1/4, G3/8, G1/2, G3/4	G1/2, G3/4, G1
Design	Filter regulator with/without pressure gauge			
	Proportional standard mist lubricator			
Type of mounting	Via accessories			
	In-line installation			
Assembly position	Vertical ±5°			
Grade of filtration [µm]	5	5		
	–	40		
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [6:8:–] (grade of filtration 5 µm)			
	–	Compressed air according to ISO 8573-1:2010 [7:8:–] (grade of filtration 40 µm)		
	–	Inert gases		
Bowl guard	–	Metal bowl guard		
Condensate drain	Manual rotary			
	Semi-automatic	Fully automatic		
Regulator lock	Rotary knob with detent			
	–	Rotary knob with integrated lock		
Pressure regulation range [bar]	0.5 ... 7	0.5 ... 7		
		0.5 ... 12		
Max. hysteresis [bar]	0.3	0.2		0.4
Pressure indication	Via pressure gauge			
	M5 prepared	G1/8 prepared	G1/4 prepared	G1/4 prepared
Max. condensate volume [cm ³]	3	22	43	80 ⁴⁾

1) Connecting plates with connecting thread

2) Without connecting plates, connecting thread in housing

3) Connecting plates with push-in connector

4) The max. condensate volume for the FRC/FRCS-...-DI-MAXI is 43 cm³.

- - Note: This product conforms to ISO 1179-1 and to ISO 228-1

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Standard nominal flow rate q _{NN} ¹⁾ [l/min]						
Size		Micro				
Pneumatic connection 1, 2		M5	M7	G ¹ / ₈	QS-4	QS-6
Pressure regulation range	0.5 ... 7 bar	80	170	160	100	160

- 1) Measured at $p_1 = 10$ bar, $p_2 = 6$ bar and $\Delta p = 1$ bar.
 - 125 l/min must be available for the semi automatic condensate drain to close correctly.

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]											
Size		Mini			Midi				Maxi		
Pneumatic connection 1, 2		G1/8	G1/4	G3/8	G1/4	G3/8	G1/2	G3/4	G1/2	G3/4	G1
Pressure regulation range, grade of filtration	0.5 ... 7 bar, 40 µm	800	1,300	1,500	1,700	2,000	2,800	2,800	7,700 (4,500) ²⁾	8,500 (5,000) ²⁾	8,700 (5,200) ²⁾
	0.5 ... 12 bar, 5 µm	600	850	1,050	1,300	1,700	1,800	2,100	6,800 (3,000) ²⁾	7,000 (3,600) ²⁾	7,200 (3,800) ²⁾
	0.5 ... 12 bar, 40 µm	700	1,000	1,200	1,500	2,000	2,600	2,600	7,600 (3,300) ²⁾	8,300 (3,800) ²⁾	8,500 (4,000) ²⁾

- 1) Measured at $p_1 = 10$ bar, $p_2 = 6$ bar and $\Delta p = 1$ bar.
 2) For the FRC/FRCS-...-DI.
 - 125 l/min must be available for the fully automatic condensate drain to close correctly.

Operating and environmental conditions				
Condensate drain	Manual rotary		Semi-automatic	Fully automatic
Size	Micro	Mini/Midi/Maxi	Micro	Mini/Midi/Maxi
Operating pressure [bar]	1 ... 10	1 ... 16	1 ... 10	2 ... 12
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [-:-:-]	Compressed air in accordance with ISO 8573-1:2010 [-:9:-]	Compressed air in accordance with ISO 8573-1:2010 [-:-:-]	Compressed air in accordance with ISO 8573-1:2010 [7:9:-]
	–	Inert gases	–	Inert gases
Note on operating/pilot medium	–	Operation with lubricated medium possible (in which case lubricated operation will always be required)	–	Operation with lubricated medium possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	–10 ... +60			
Temperature of medium [°C]	–10 ... +60			
Storage temperature [°C]	–10 ... +60			
Corrosion resistance class CRC ¹⁾	2			
Maritime classification	See certificate (only FRC, pneumatic connection G $\frac{1}{8}$... G1) ²⁾			

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
 2) Additional information www.festo.com/sp → Certificates.

Weight [g]						
Size	Micro		Mini	Midi	Maxi	
	Connecting thread	Connecting plate			Connection G $\frac{1}{2}$, G $\frac{3}{4}$	Connection G1
With pressure gauge						
FRC-...	113	149	660	1,440	2,390	2,520
FRC-...-DI	–	–	–	–	2,670	2,670
FRCS-...	–	–	760	1,680	2,490	2,620
FRCS-...-DI	–	–	–	–	2,950	2,950
Without pressure gauge						
FRC-...	103	139	600	1,350	2,280	2,460
FRC-...-DI	–	–	–	–	2,600	2,600
FRCS-...	–	–	700	1,590	2,380	2,560
FRCS-...-DI	–	–	–	–	2,880	2,880

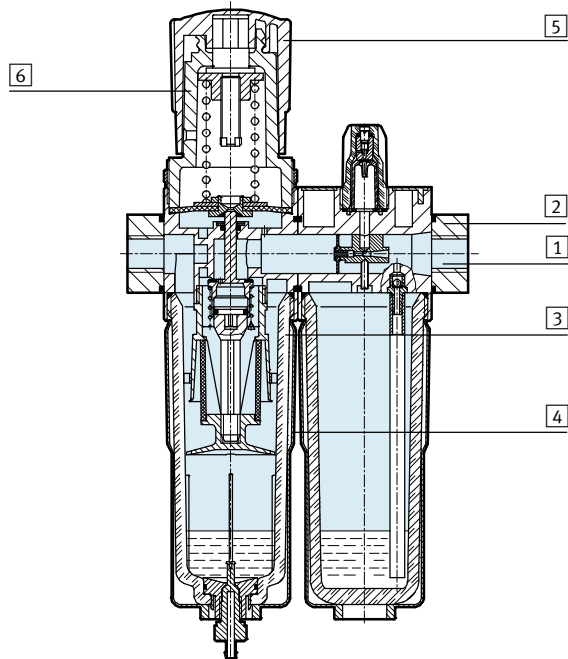
Service units FRC/FRCS, D series, metal design

Technical data

FESTO

Materials

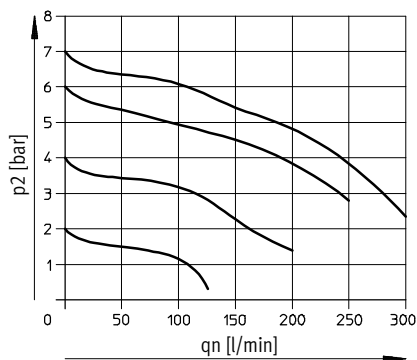
Sectional view



Size	Micro	Mini/Midi/Maxi
1 Housing	Wrought aluminium alloy	Die-cast zinc
2 Connecting plates	Wrought aluminium alloy	Die-cast zinc/aluminium
3 Bowl	PC	PC
4 Metal bowl guard	–	Aluminium
5 Regulating knob	POM	POM
6 Support	PC	–
– Seals	NBR	NBR
Note on materials	–	RoHS-compliant

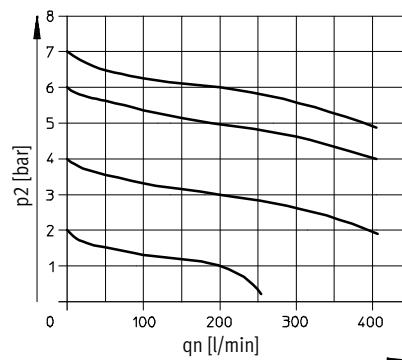
Standard flow rate q_n as a function of the output pressure p_2

FRC-M5-...-MICRO



Primary pressure $p_1 = 10$ bar

FRC-M7-...-MICRO B



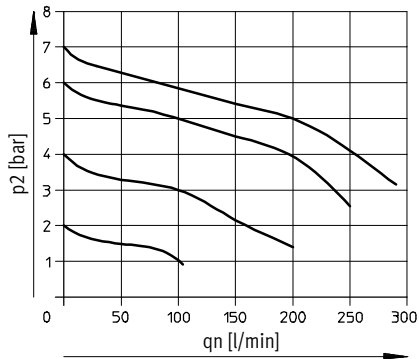
Service units FRC/FRCS, D series, metal design

Technical data

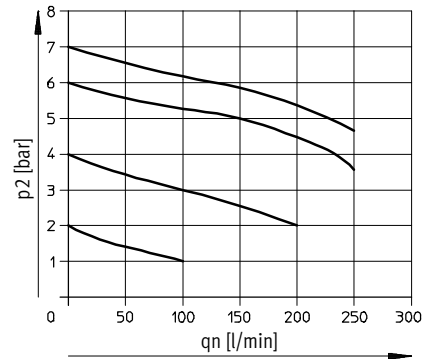
FESTO

Standard flow rate q_n as a function of the output pressure p_2

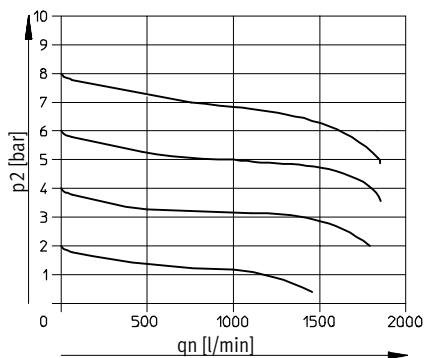
FRC-QS4-...-MICRO



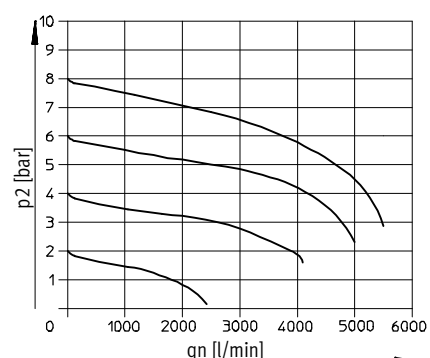
FRC-QS6-...-MICRO and FRC-1/8-...-MICRO



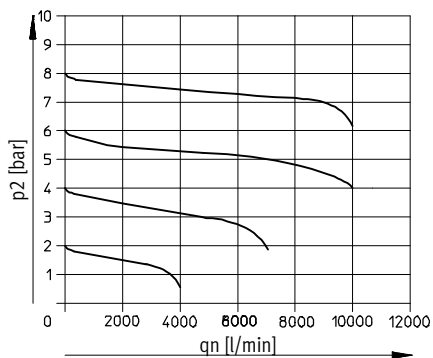
FRC/FRCS-1/4-D-MINI



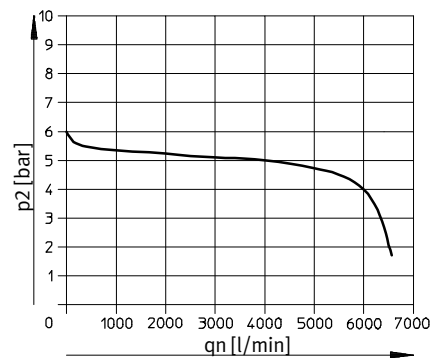
FRC/FRCS-1/2-D-MIDI



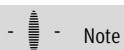
FRC/FRCS-1-D-MAXI



FRC/FRCS-1-D-DI-MAXI



Primary pressure $p_1 = 10$ bar



Note

In order to improve control behaviour, primary-pressure dependent

internal air consumption is provided on the FRC/FRCS-...-MAXI.

Service units FRC/FRCS, D series, metal design

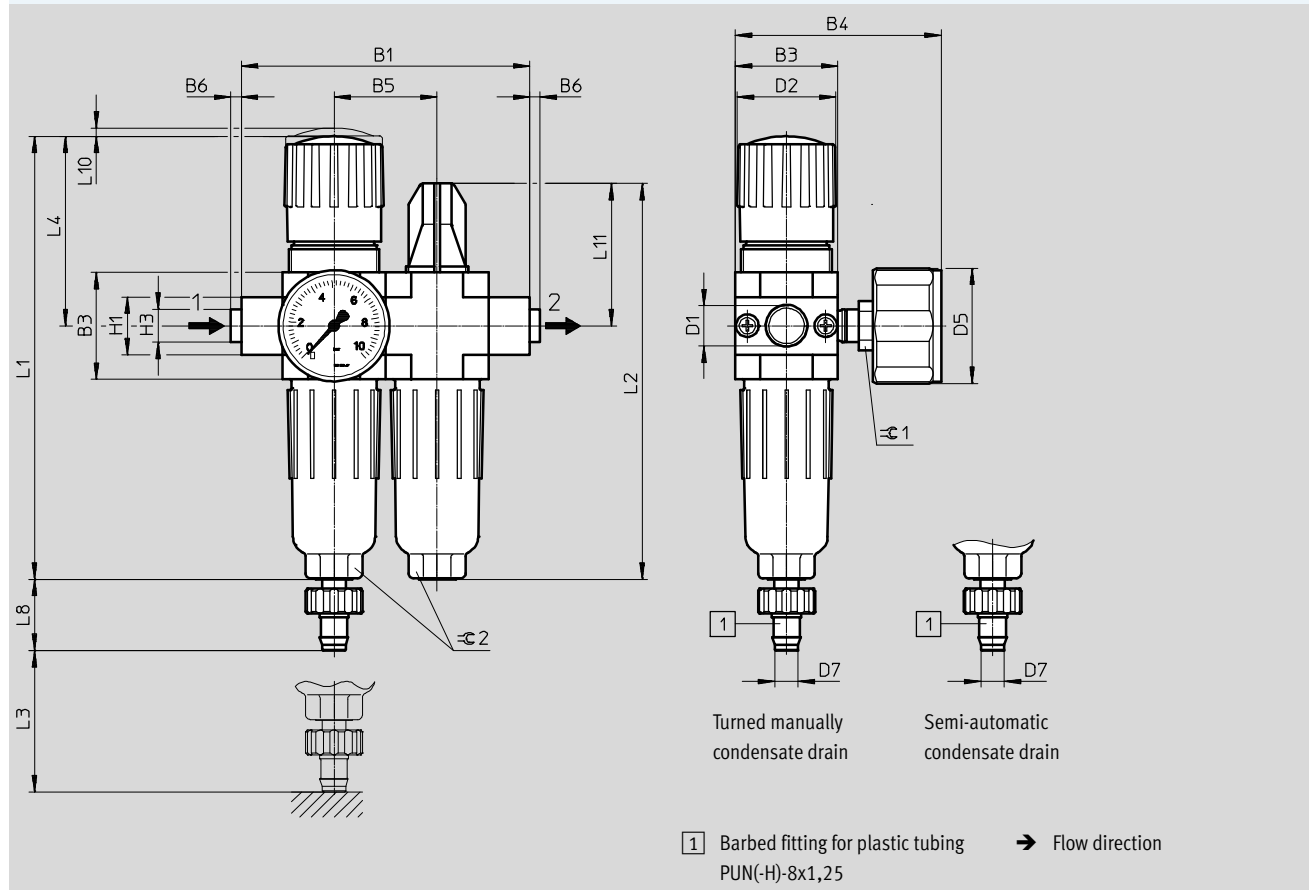
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

Micro



Type	B1	B3	B4	B5	B6	D1	D2 Ø	D5 Ø	D7 Ø	H1	H3
FRC-M5-D-7-5M-MICRO (H)	50	25	50	25	–	M5	~24	28	5.6	14	–
FRC-M7-D-7-5M-MICRO (H) B						M7					
FRC-1/8-D-7-5M-MICRO (H)	G1/8										
FRC-QS4-D-7-5M-MICRO (H)	~2.5				QS-4	~8					
FRC-QS6-D-7-5M-MICRO (H)					QS-6	~10					

Type	L1	L2	L3 min.	L4	L8	L10	L11	≙ 1	≙ 2
FRC-M5-D-7-5M-MICRO (H)	~107.5	~96	60	46	17.3	~2	~34.5	12	12
FRC-M7-D-7-5M-MICRO (H) B									
FRC-1/8-D-7-5M-MICRO (H)									
FRC-QS4-D-7-5M-MICRO (H)									
FRC-QS6-D-7-5M-MICRO (H)									

- ≙ - Note: This product conforms to ISO 1179-1 and to ISO 228-1

Service units FRC/FRCS, D series, metal design

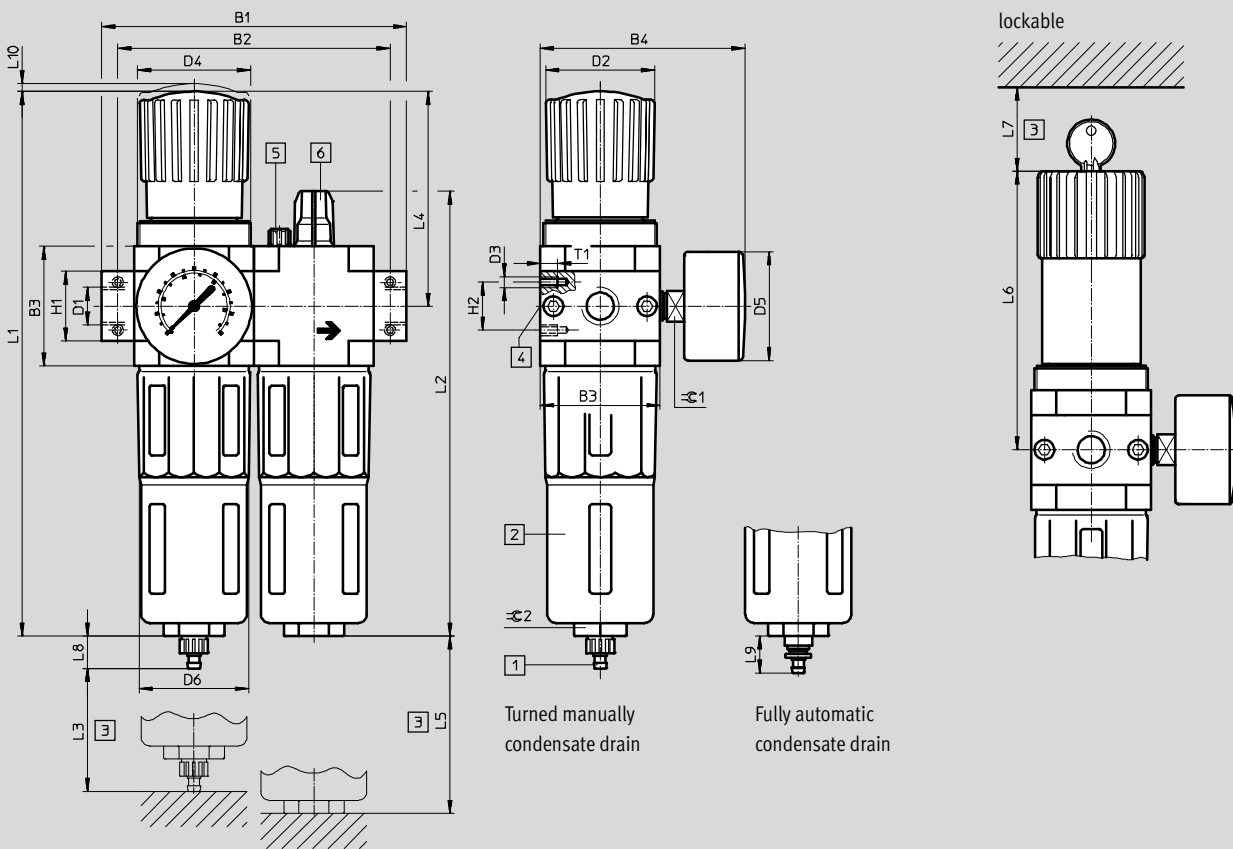
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

Mini/Midi/Maxi



- 1 Barbed fitting for plastic tubing PUN(-H)-8x1,25
- 2 Metal bowl guard
- 3 Installation dimensions
- 4 Second pressure gauge connection
- 5 Bleed screw for oil reservoir
- 6 Oil adjusting screw
- Flow direction

Type	B1	B2	B3	B4	D1	D2 Ø	D3	D4	D5 Ø	D6 Ø
Mini										
FRC/FRCS-1⁄8-D-MINI	104	92	40	76	G1⁄8	31	M4	M36x1.5	41	38
FRC/FRCS-1⁄4-D-MINI					G1⁄4					
FRC/FRCS-3⁄8-D-MINI	110				G3⁄8					
Midi										
FRC/FRCS-1⁄4-D-MIDI	140	125	55	95	G1⁄4	50	M5	M52x1.5	50	52
FRC/FRCS-3⁄8-D-MIDI					G3⁄8					
FRC/FRCS-1⁄2-D-MIDI					G1⁄2					
FRC/FRCS-3⁄4-D-MIDI					G3⁄4					
Maxi										
FRC/FRCS-1⁄2-D-MAXI	162	146	66	107	G1⁄2	31	M5	M36x1.5	50	65
FRC/FRCS-1⁄2-D-DI-MAXI						49		M52x1.5		
FRC/FRCS-3⁄4-D-MAXI					G3⁄4	31		M36x1.5		
FRC/FRCS-3⁄4-D-DI-MAXI						49		M52x1.5		
FRC/FRCS-1-D-MAXI	182	157			G1	31		M36x1.5		
FRC/FRCS-1-D-DI-MAXI						49		M52x1.5		

• Note: This product conforms to ISO 1179-1 and to ISO 228-1

Service units FRC/FRCS, D series, metal design

Technical data

Type	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	T1	⇨ 1	⇨ 2
Mini															
FRC/FRCS-1⁄8-D-MINI	20	11	193	169	60	69	100	98	60	15	19	3	7	14	22
FRC/FRCS-1⁄4-D-MINI															
FRC/FRCS-3⁄8-D-MINI															
Midi															
FRC/FRCS-1⁄4-D-MIDI	32	22	250	204	80	99	120	130	60	15	19	3	8	14	24
FRC/FRCS-3⁄8-D-MIDI															
FRC/FRCS-1⁄2-D-MIDI															
FRC/FRCS-3⁄4-D-MIDI															
Maxi															
FRC/FRCS-1⁄2-D-MAXI	32	22	252	228	90	82	150	111	60	15	19	3	8	14	24
FRC/FRCS-1⁄2-D-DI-MAXI			275			105		135							
FRC/FRCS-3⁄4-D-MAXI			252			82		111							
FRC/FRCS-3⁄4-D-DI-MAXI			275			105		135							
FRC/FRCS-1-D-MAXI	40		252			82		111							
FRC/FRCS-1-D-DI-MAXI		275	105	135											

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data			
Pressure regulation range 0.5 ... 7 bar			
Condensate drain	Size	Connection	Grade of filtration 5 µm
			Part No. Type
With pressure gauge, outer scale in bar			
Turned manually	Micro	Without connecting plates, connecting thread in housing	
		M5	527860 FRC-M5-D-7-5M-MICRO
		M7	534189 FRC-M7-D-7-5M-MICRO-B
		Connecting plates with connecting thread	
		G1/8	527864 FRC-1/8-D-7-5M-MICRO
		Connecting plates with push-in connector	
		QS-4	527876 FRC-QS4-D-7-5M-MICRO
		QS-6	527880 FRC-QS6-D-7-5M-MICRO
Semi-automatic	Micro	Without connecting plates, connecting thread in housing	
		M5	527861 FRC-M5-D-7-5M-MICRO-H
		M7	534190 FRC-M7-D-7-5M-MICRO-H-B
		Connecting plates with connecting thread	
		G1/8	527865 FRC-1/8-D-7-5M-MICRO-H
		Connecting plates with push-in connector	
		QS-4	527877 FRC-QS4-D-7-5M-MICRO-H
		QS-6	527881 FRC-QS6-D-7-5M-MICRO-H
Without pressure gauge			
Turned manually	Micro	Without connecting plates, connecting thread in housing	
		M5	527862 FRC-M5-D-7-O-5M-MICRO
		M7	534191 FRC-M7-D-7-O-5M-MICRO-B
		Connecting plates with connecting thread	
		G1/8	527866 FRC-1/8-D-7-O-5M-MICRO
		Connecting plates with push-in connector	
		QS-4	527878 FRC-QS4-D-7-O-5M-MICRO
		QS-6	527882 FRC-QS6-D-7-O-5M-MICRO
Semi-automatic	Micro	Without connecting plates, connecting thread in housing	
		M5	527863 FRC-M5-D-7-O-5M-MICRO-H
		M7	534192 FRC-M7-D-7-O-5M-MICRO-H-B
		Connecting plates with connecting thread	
		G1/8	527867 FRC-1/8-D-7-O-5M-MICRO-H
		Connecting plates with push-in connector	
		QS-4	527879 FRC-QS4-D-7-O-5M-MICRO-H
		QS-6	527883 FRC-QS6-D-7-O-5M-MICRO-H

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data						
Pressure regulation range 0.5 ... 12 bar, rotary knob with detent, connecting plates with connecting thread						
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi						
Turned manually	Mini	G1/8	162770	FRC-1/8-D-5M-MINI	159604	FRC-1/8-D-MINI
		G1/4	162771	FRC-1/4-D-5M-MINI	159605	FRC-1/4-D-MINI
		G3/8	162772	FRC-3/8-D-5M-MINI	162734	FRC-3/8-D-MINI
	Midi	G1/4	186499	FRC-1/4-D-5M-MIDI	186497	FRC-1/4-D-MIDI
		G3/8	162773	FRC-3/8-D-5M-MIDI	159588	FRC-3/8-D-MIDI
		G1/2	162774	FRC-1/2-D-5M-MIDI	159590	FRC-1/2-D-MIDI
		G3/4	162775	FRC-3/4-D-5M-MIDI	162735	FRC-3/4-D-MIDI
	Maxi	G1/2	186507	FRC-1/2-D-5M-MAXI	186505	FRC-1/2-D-MAXI
		G3/4	162776	FRC-3/4-D-5M-MAXI	159606	FRC-3/4-D-MAXI
		G1	162777	FRC-1-D-5M-MAXI	159607	FRC-1-D-MAXI
Fully automatic	Mini	G1/8	162778	FRC-1/8-D-5M-MINI-A	159608	FRC-1/8-D-MINI-A
		G1/4	162779	FRC-1/4-D-5M-MINI-A	159609	FRC-1/4-D-MINI-A
		G3/8	162780	FRC-3/8-D-5M-MINI-A	162736	FRC-3/8-D-MINI-A
	Midi	G1/4	186502	FRC-1/4-D-5M-MIDI-A	186500	FRC-1/4-D-MIDI-A
		G3/8	162781	FRC-3/8-D-5M-MIDI-A	159589	FRC-3/8-D-MIDI-A
		G1/2	162782	FRC-1/2-D-5M-MIDI-A	159591	FRC-1/2-D-MIDI-A
		G3/4	162783	FRC-3/4-D-5M-MIDI-A	162737	FRC-3/4-D-MIDI-A
	Maxi	G1/2	186510	FRC-1/2-D-5M-MAXI-A	186508	FRC-1/2-D-MAXI-A
		G3/4	162784	FRC-3/4-D-5M-MAXI-A	159610	FRC-3/4-D-MAXI-A
		G1	162785	FRC-1-D-5M-MAXI-A	159611	FRC-1-D-MAXI-A
Without pressure gauge						
Turned manually	Mini	G1/8	192650	FRC-1/8-D-5M-O-MINI	162738	FRC-1/8-D-O-MINI
		G1/4	192651	FRC-1/4-D-5M-O-MINI	162739	FRC-1/4-D-O-MINI
		G3/8	192652	FRC-3/8-D-5M-O-MINI	162740	FRC-3/8-D-O-MINI
	Midi	G1/4	192653	FRC-1/4-D-5M-O-MIDI	186498	FRC-1/4-D-O-MIDI
		G3/8	192654	FRC-3/8-D-5M-O-MIDI	162741	FRC-3/8-D-O-MIDI
		G1/2	192655	FRC-1/2-D-5M-O-MIDI	162742	FRC-1/2-D-O-MIDI
		G3/4	192656	FRC-3/4-D-5M-O-MIDI	162743	FRC-3/4-D-O-MIDI
	Maxi	G1/2	192657	FRC-1/2-D-5M-O-MAXI	186506	FRC-1/2-D-O-MAXI
		G3/4	192658	FRC-3/4-D-5M-O-MAXI	162744	FRC-3/4-D-O-MAXI
		G1	192659	FRC-1-D-5M-O-MAXI	162745	FRC-1-D-O-MAXI
Fully automatic	Mini	G1/8	192660	FRC-1/8-D-5M-O-MINI-A	162746	FRC-1/8-D-O-MINI-A
		G1/4	192661	FRC-1/4-D-5M-O-MINI-A	162747	FRC-1/4-D-O-MINI-A
		G3/8	192662	FRC-3/8-D-5M-O-MINI-A	162748	FRC-3/8-D-O-MINI-A
	Midi	G1/4	192663	FRC-1/4-D-5M-O-MIDI-A	186501	FRC-1/4-D-O-MIDI-A
		G3/8	192664	FRC-3/8-D-5M-O-MIDI-A	162749	FRC-3/8-D-O-MIDI-A
		G1/2	192665	FRC-1/2-D-5M-O-MIDI-A	162750	FRC-1/2-D-O-MIDI-A
		G3/4	192666	FRC-3/4-D-5M-O-MIDI-A	162751	FRC-3/4-D-O-MIDI-A
	Maxi	G1/2	192667	FRC-1/2-D-5M-O-MAXI-A	186509	FRC-1/2-D-O-MAXI-A
		G3/4	192668	FRC-3/4-D-5M-O-MAXI-A	162752	FRC-3/4-D-O-MAXI-A
	G1	192669	FRC-1-D-5M-O-MAXI-A	162753	FRC-1-D-O-MAXI-A	

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data				
Pressure regulation range 0.5 ... 7 bar, rotary knob with detent, connecting plates with connecting thread				
Condensate drain	Size	Connection	Grade of filtration 40 µm	
			Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi				
Turned manually	Mini	G1/8	162754	FRC-1/8-D-7-MINI
		G1/4	162755	FRC-1/4-D-7-MINI
		G3/8	162756	FRC-3/8-D-7-MINI
	Midi	G1/4	186503	FRC-1/4-D-7-MIDI
		G3/8	162757	FRC-3/8-D-7-MIDI
		G1/2	162758	FRC-1/2-D-7-MIDI
		G3/4	162759	FRC-3/4-D-7-MIDI
	Maxi	G1/2	186511	FRC-1/2-D-7-MAXI
		G3/4	162760	FRC-3/4-D-7-MAXI
		G1	162761	FRC-1-D-7-MAXI
Fully automatic	Mini	G1/8	162762	FRC-1/8-D-7-MINI-A
		G1/4	162763	FRC-1/4-D-7-MINI-A
		G3/8	162764	FRC-3/8-D-7-MINI-A
	Midi	G1/4	186504	FRC-1/4-D-7-MIDI-A
		G3/8	162765	FRC-3/8-D-7-MIDI-A
		G1/2	162766	FRC-1/2-D-7-MIDI-A
		G3/4	162767	FRC-3/4-D-7-MIDI-A
	Maxi	G1/2	186512	FRC-1/2-D-7-MAXI-A
		G3/4	162768	FRC-3/4-D-7-MAXI-A
		G1	162769	FRC-1-D-7-MAXI-A
Without pressure gauge				
Turned manually	Mini	G1/8	192630	FRC-1/8-D-7-O-MINI
		G1/4	192631	FRC-1/4-D-7-O-MINI
		G3/8	192632	FRC-3/8-D-7-O-MINI
	Midi	G1/4	192633	FRC-1/4-D-7-O-MIDI
		G3/8	192634	FRC-3/8-D-7-O-MIDI
		G1/2	192635	FRC-1/2-D-7-O-MIDI
		G3/4	192636	FRC-3/4-D-7-O-MIDI
	Maxi	G1/2	192637	FRC-1/2-D-7-O-MAXI
		G3/4	192638	FRC-3/4-D-7-O-MAXI
		G1	192639	FRC-1-D-7-O-MAXI
Fully automatic	Mini	G1/8	192640	FRC-1/8-D-7-O-MINI-A
		G1/4	192641	FRC-1/4-D-7-O-MINI-A
		G3/8	192642	FRC-3/8-D-7-O-MINI-A
	Midi	G1/4	192643	FRC-1/4-D-7-O-MIDI-A
		G3/8	192644	FRC-3/8-D-7-O-MIDI-A
		G1/2	192645	FRC-1/2-D-7-O-MIDI-A
		G3/4	192646	FRC-3/4-D-7-O-MIDI-A
	Maxi	G1/2	192647	FRC-1/2-D-7-O-MAXI-A
		G3/4	192648	FRC-3/4-D-7-O-MAXI-A
		G1	192649	FRC-1-D-7-O-MAXI-A

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data							
Pressure regulation range 0.5 ... 12 bar, directly actuated pressure regulator with integrated return flow function, rotary knob with detent, connecting plates with connecting thread							
Condensate drain	Size	Connection	Grade of filtration 5 µm			Grade of filtration 40 µm	
			Part No.	Type		Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi							
Turned manually	Maxi	G½	192406	FRC-½-D-5M-DI-MAXI		192404	FRC-½-D-DI-MAXI
		G¾	192412	FRC-¾-D-5M-DI-MAXI		192410	FRC-¾-D-DI-MAXI
		G1	192418	FRC-1-D-5M-DI-MAXI		192416	FRC-1-D-DI-MAXI
Fully automatic	Maxi	G½	192424	FRC-½-D-5M-DI-MAXI-A		192422	FRC-½-D-DI-MAXI-A
		G¾	192430	FRC-¾-D-5M-DI-MAXI-A		192428	FRC-¾-D-DI-MAXI-A
		G1	192436	FRC-1-D-5M-DI-MAXI-A		192434	FRC-1-D-DI-MAXI-A
Without pressure gauge							
Turned manually	Maxi	G½	192407	FRC-½-D-5M-O-DI-MAXI		192405	FRC-½-D-O-DI-MAXI
		G¾	192413	FRC-¾-D-5M-O-DI-MAXI		192411	FRC-¾-D-O-DI-MAXI
		G1	192419	FRC-1-D-5M-O-DI-MAXI		192417	FRC-1-D-O-DI-MAXI
Fully automatic	Maxi	G½	192425	FRC-½-D-5M-O-DI-MAXI-A		192423	FRC-½-D-O-DI-MAXI-A
		G¾	192431	FRC-¾-D-5M-O-DI-MAXI-A		192429	FRC-¾-D-O-DI-MAXI-A
		G1	192437	FRC-1-D-5M-O-DI-MAXI-A		192435	FRC-1-D-O-DI-MAXI-A

Ordering data						
Pressure regulation range 0.5 ... 7 bar, directly actuated pressure regulator with integrated return flow function, rotary knob with detent, connecting plates with connecting thread						
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi						
Turned manually	Maxi	G1½	–		192408	FRC-½-D-7-DI-MAXI
		G¾	–		192414	FRC-¾-D-7-DI-MAXI
		G1	–		192420	FRC-1-D-7-DI-MAXI
Fully automatic	Maxi	G1½	–		192426	FRC-½-D-7-DI-MAXI-A
		G¾	–		192432	FRC-¾-D-7-DI-MAXI-A
		G1	–		192438	FRC-1-D-7-DI-MAXI-A
Without pressure gauge						
Turned manually	Maxi	G1½	–		192409	FRC-½-D-7-O-DI-MAXI
		G¾	–		192415	FRC-¾-D-7-O-DI-MAXI
		G1	–		192421	FRC-1-D-7-O-DI-MAXI
Fully automatic	Maxi	G1½	–		192427	FRC-½-D-7-O-DI-MAXI-A
		G¾	–		192433	FRC-¾-D-7-O-DI-MAXI-A
		G1	–		192439	FRC-1-D-7-O-DI-MAXI-A

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data						
Pressure regulation range 0.5 ... 12 bar, rotary knob with integrated lock, connecting plates with connecting thread						
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi						
Turned manually	Mini	G1/8	194860	FRCS-1/8-D-5M-MINI	194852	FRCS-1/8-D-MINI
		G1/4	194872	FRCS-1/4-D-5M-MINI	194864	FRCS-1/4-D-MINI
		G3/8	194884	FRCS-3/8-D-5M-MINI	194876	FRCS-3/8-D-MINI
	Midi	G1/4	194896	FRCS-1/4-D-5M-MIDI	194888	FRCS-1/4-D-MIDI
		G3/8	194908	FRCS-3/8-D-5M-MIDI	194900	FRCS-3/8-D-MIDI
		G1/2	194920	FRCS-1/2-D-5M-MIDI	194912	FRCS-1/2-D-MIDI
		G3/4	194932	FRCS-3/4-D-5M-MIDI	194924	FRCS-3/4-D-MIDI
	Maxi	G1/2	194944	FRCS-1/2-D-5M-MAXI	194936	FRCS-1/2-D-MAXI
		G3/4	194956	FRCS-3/4-D-5M-MAXI	194948	FRCS-3/4-D-MAXI
		G1	194968	FRCS-1-D-5M-MAXI	194960	FRCS-1-D-MAXI
Fully automatic	Mini	G1/8	194862	FRCS-1/8-D-5M-MINI-A	194853	FRCS-1/8-D-MINI-A
		G1/4	194874	FRCS-1/4-D-5M-MINI-A	194865	FRCS-1/4-D-MINI-A
		G3/8	194886	FRCS-3/8-D-5M-MINI-A	194877	FRCS-3/8-D-MINI-A
	Midi	G1/4	194898	FRCS-1/4-D-5M-MIDI-A	194889	FRCS-1/4-D-MIDI-A
		G3/8	194910	FRCS-3/8-D-5M-MIDI-A	194901	FRCS-3/8-D-MIDI-A
		G1/2	194922	FRCS-1/2-D-5M-MIDI-A	194913	FRCS-1/2-D-MIDI-A
		G3/4	194934	FRCS-3/4-D-5M-MIDI-A	194925	FRCS-3/4-D-MIDI-A
	Maxi	G1/2	194946	FRCS-1/2-D-5M-MAXI-A	194937	FRCS-1/2-D-MAXI-A
		G3/4	194958	FRCS-3/4-D-5M-MAXI-A	194949	FRCS-3/4-D-MAXI-A
		G1	194970	FRCS-1-D-5M-MAXI-A	194961	FRCS-1-D-MAXI-A
Without pressure gauge						
Turned manually	Mini	G1/8	194861	FRCS-1/8-D-5M-O-MINI	194854	FRCS-1/8-D-O-MINI
		G1/4	194873	FRCS-1/4-D-5M-O-MINI	194866	FRCS-1/4-D-O-MINI
		G3/8	194885	FRCS-3/8-D-5M-O-MINI	194878	FRCS-3/8-D-O-MINI
	Midi	G1/4	194897	FRCS-1/4-D-5M-O-MIDI	194890	FRCS-1/4-D-O-MIDI
		G3/8	194909	FRCS-3/8-D-5M-O-MIDI	194902	FRCS-3/8-D-O-MIDI
		G1/2	194921	FRCS-1/2-D-5M-O-MIDI	194914	FRCS-1/2-D-O-MIDI
		G3/4	194933	FRCS-3/4-D-5M-O-MIDI	194926	FRCS-3/4-D-O-MIDI
	Maxi	G1/2	194945	FRCS-1/2-D-5M-O-MAXI	194938	FRCS-1/2-D-O-MAXI
		G3/4	194957	FRCS-3/4-D-5M-O-MAXI	194950	FRCS-3/4-D-O-MAXI
		G1	194969	FRCS-1-D-5M-O-MAXI	194962	FRCS-1-D-O-MAXI
Fully automatic	Mini	G1/8	194863	FRCS-1/8-D-5M-O-MINI-A	194855	FRCS-1/8-D-O-MINI-A
		G1/4	194875	FRCS-1/4-D-5M-O-MINI-A	194867	FRCS-1/4-D-O-MINI-A
		G3/8	194887	FRCS-3/8-D-5M-O-MINI-A	194879	FRCS-3/8-D-O-MINI-A
	Midi	G1/4	194899	FRCS-1/4-D-5M-O-MIDI-A	194891	FRCS-1/4-D-O-MIDI-A
		G3/8	194911	FRCS-3/8-D-5M-O-MIDI-A	194903	FRCS-3/8-D-O-MIDI-A
		G1/2	194923	FRCS-1/2-D-5M-O-MIDI-A	194915	FRCS-1/2-D-O-MIDI-A
	G3/4	194935	FRCS-3/4-D-5M-O-MIDI-A	194927	FRCS-3/4-D-O-MIDI-A	
	Maxi	G1/2	194947	FRCS-1/2-D-5M-O-MAXI-A	194939	FRCS-1/2-D-O-MAXI-A
		G3/4	194959	FRCS-3/4-D-5M-O-MAXI-A	194951	FRCS-3/4-D-O-MAXI-A
G1		194971	FRCS-1-D-5M-O-MAXI-A	194963	FRCS-1-D-O-MAXI-A	

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data				
Pressure regulation range 0.5 ... 7 bar, rotary knob with integrated lock, connecting plates with connecting thread				
Condensate drain	Size	Connection	Grade of filtration 40 µm	
			Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi				
Turned manually	Mini	G1⁄8	194856	FRCS-1⁄8-D-7-MINI
		G1⁄4	194868	FRCS-1⁄4-D-7-MINI
		G3⁄8	194880	FRCS-3⁄8-D-7-MINI
	Midi	G1⁄4	194892	FRCS-1⁄4-D-7-MIDI
		G3⁄8	194904	FRCS-3⁄8-D-7-MIDI
		G1⁄2	194916	FRCS-1⁄2-D-7-MIDI
		G3⁄4	194928	FRCS-3⁄4-D-7-MIDI
	Maxi	G1⁄2	194940	FRCS-1⁄2-D-7-MAXI
		G3⁄4	194952	FRCS-3⁄4-D-7-MAXI
G1		194964	FRCS-1-D-7-MAXI	
Fully automatic	Mini	G1⁄8	194858	FRCS-1⁄8-D-7-MINI-A
		G1⁄4	194870	FRCS-1⁄4-D-7-MINI-A
		G3⁄8	194882	FRCS-3⁄8-D-7-MINI-A
	Midi	G1⁄4	194894	FRCS-1⁄4-D-7-MIDI-A
		G3⁄8	194906	FRCS-3⁄8-D-7-MIDI-A
		G1⁄2	194918	FRCS-1⁄2-D-7-MIDI-A
		G3⁄4	194930	FRCS-3⁄4-D-7-MIDI-A
	Maxi	G1⁄2	194942	FRCS-1⁄2-D-7-MAXI-A
		G3⁄4	194954	FRCS-3⁄4-D-7-MAXI-A
G1		194966	FRCS-1-D-7-MAXI-A	
Without pressure gauge				
Turned manually	Mini	G1⁄8	194857	FRCS-1⁄8-D-7-O-MINI
		G1⁄4	194869	FRCS-1⁄4-D-7-O-MINI
		G3⁄8	194881	FRCS-3⁄8-D-7-O-MINI
	Midi	G1⁄4	194893	FRCS-1⁄4-D-7-O-MIDI
		G3⁄8	194905	FRCS-3⁄8-D-7-O-MIDI
		G1⁄2	194917	FRCS-1⁄2-D-7-O-MIDI
		G3⁄4	194929	FRCS-3⁄4-D-7-O-MIDI
	Maxi	G1⁄2	194941	FRCS-1⁄2-D-7-O-MAXI
		G3⁄4	194953	FRCS-3⁄4-D-7-O-MAXI
G1		194965	FRCS-1-D-7-O-MAXI	
Fully automatic	Mini	G1⁄8	194859	FRCS-1⁄8-D-7-O-MINI-A
		G1⁄4	194871	FRCS-1⁄4-D-7-O-MINI-A
		G3⁄8	194883	FRCS-3⁄8-D-7-O-MINI-A
	Midi	G1⁄4	194895	FRCS-1⁄4-D-7-O-MIDI-A
		G3⁄8	194907	FRCS-3⁄8-D-7-O-MIDI-A
		G1⁄2	194919	FRCS-1⁄2-D-7-O-MIDI-A
		G3⁄4	194931	FRCS-3⁄4-D-7-O-MIDI-A
	Maxi	G1⁄2	194943	FRCS-1⁄2-D-7-O-MAXI-A
		G3⁄4	194955	FRCS-3⁄4-D-7-O-MAXI-A
G1		194967	FRCS-1-D-7-O-MAXI-A	

Service units FRC/FRCS, D series, metal design

FESTO

Technical data

Ordering data						
Pressure regulation range 0.5 ... 12 bar, directly actuated pressure regulator with integrated return flow function, rotary knob with integrated lock, connecting plates with connecting thread						
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi						
Turned manually	Maxi	G½	–		194972	FRCS-½-D-DI-MAXI
		G1	–		194984	FRCS-1-D-DI-MAXI
Fully automatic	Maxi	G½	–		194990	FRCS-½-D-DI-MAXI-A
Without pressure gauge						
Fully automatic	Maxi	G¾	194999	FRCS-¾-D-5M-O-DI-MAXI-A		–

Ordering data						
Pressure regulation range 0.5 ... 7 bar, directly actuated pressure regulator with integrated return flow function, rotary knob with integrated lock, connecting plates with connecting thread						
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi						
Fully automatic	Maxi	G¾	–		195000	FRCS-¾-D-7-DI-MAXI-A
		G1	–		195006	FRCS-1-D-7-DI-MAXI-A
Without pressure gauge						
Fully automatic	Maxi	G½	–		194995	FRCS-½-D-7-O-DI-MAXI-A

Service units FRC/FRCS, D series, metal design

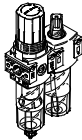
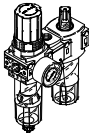
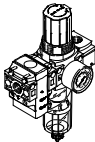
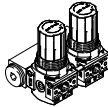
Technical data

FESTO

Service units FRC, D series, polymer

Product range overview D series service units, polymer

FESTO

Type		Size	Pneumatic connection		Pressure regulation range [bar]	Grade of filtration [µm]	
			G¼	G½	0.5 ... 7	5	40
Service units							
FRC		Mini	■	–	■	■	■
Service unit combinations							
FRC-K		Mini	■	–	■	–	■
LFR-K		Mini	■	–	■	–	■
Individual devices							
Filter regulators LFR		Mini	■	–	■	■	■
Pressure regulators LR		Mini	■	–	■	–	–
Pressure regulator combinations LRB-K		Mini	–	■	■	–	–
On-off valves HE		Mini	■	–	–	–	–

Service units FRC, D series, polymer

Product range overview D series service units, polymer

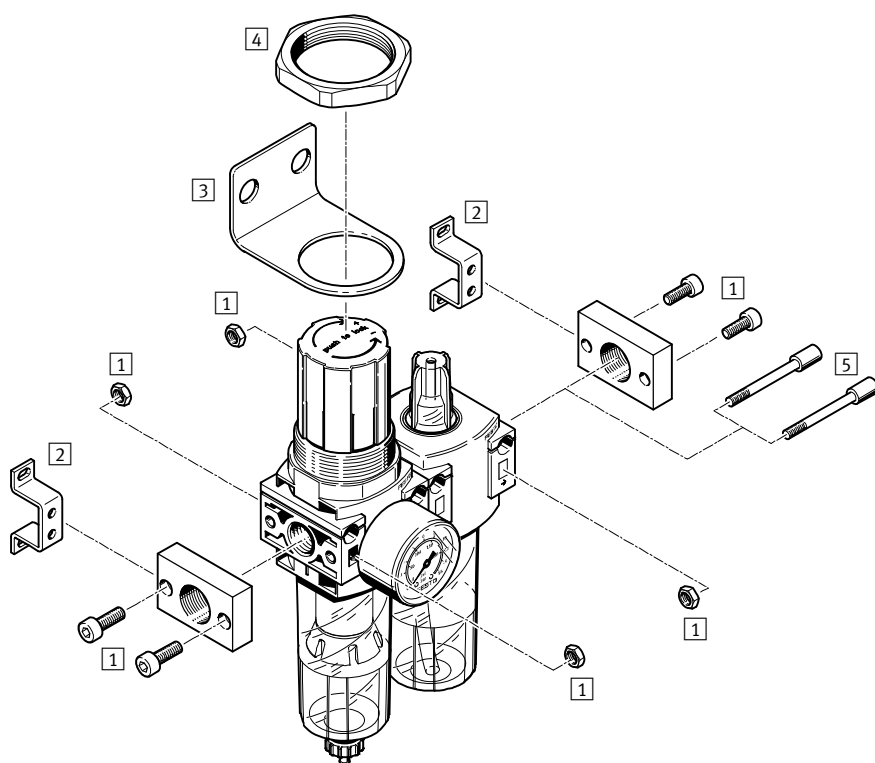
FESTO

Type	Size	Condensate drain		Pressure display		Actuator lock	Regulating functions		→ Page/ Internet
		Manual rotary	Semi-automatic	With pressure gauge	Without pressure gauge	Rotary knob with detent	With secondary venting	With return flow function	
Service units									
FRC	Mini	■	■	■	-	■	■	■	26
Service unit combinations									
FRC-K	Mini	■	-	■	-	■	■	■	frc
LFR-K	Mini	■	-	■	-	■	■	■	lfr
Individual devices									
Filter regulators LFR	Mini	■	■	■	■	■	■	■	lfr
Pressure regulators LR	Mini	-	-	■	■	■	■	■	lr
Pressure regulator combinations LRB-K	Mini	-	-	-	■	■	■	■	lrb
On-off valves HE	Mini	-	-	-	■	-	-	-	he

Service units FRC, D series, polymer

Peripherals overview

FESTO



Mounting attachments and accessories		→ Page/ Internet
1	Connecting plate kit PBL	pbl
2	Mounting bracket HFOE	hfoe-d
3	Mounting bracket HR-D	hr-d
4	Hex nut HMR	hmr-d
5	Threaded pin FRB	frb-db

Service units FRC, D series, polymer

FESTO

Type codes

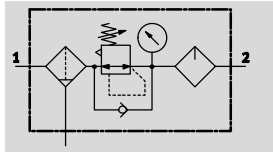
		FRC	–	1/4	–	DB	–	7	–	5M	–	MINI	–	H	
Basic function															
FRC	Service unit														
Pneumatic connection															
1/4	Thread G1/4														
Series															
DB	Series														
Pressure regulation range															
7	0.5 ... 7 bar														
Grade of filtration															
	40 µm														
5M	5 µm														
Size															
	MINI														
Condensate drain															
	Manual rotary														
H	Semi-automatic														

Service units FRC, D series, polymer

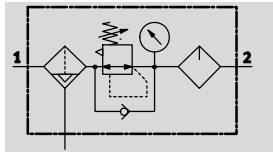
Technical data

FESTO

Manual rotary condensate drain



Semi-automatic condensate drain



- - Flow rate
400 ... 650 l/min
- - Temperature range
-5 ... +50 °C
- - Operating pressure
1.5 ... 10 bar

- - www.festo.com



- Filter, regulator and lubricator functions in a single unit
- High flow rate and highly efficient removal of contaminants
- Good regulating characteristics with minimal pressure hysteresis
- Setting values are secured by means of the rotary knob with detent
- With manual or semi-automatic condensate drain
- New filter cartridges → 31

The following oils are recommended for Festo components:

Viscosity range to
ISO 3448 class VG 32
32 mm²/s (cSt) at 40 °C

- Festo special oil
→ 32
- ARAL Vitam GF 32
- BP Energol HLP 32
- Esso Nuto H 32
- Mobil DTE 24
- Shell Tellus Oil DO 32

General technical data		
Size	Mini	
Pneumatic connection	G ¹ / ₄	
Design	Filter/regulator/lubricator	
Regulating function	With return flow function, with secondary venting	
Type of mounting	Inline installation	
	Via through-holes	
	Via mounting bracket	
Assembly position	Vertical ±5°	
Grade of filtration	[µm]	5
		40
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [6:8:–] (Grade of filtration 5 µm)	
	Compressed air in accordance with ISO 8573-1:2010 [7:8:–] (Grade of filtration 40 µm)	
	Inert gases	
Condensate drain	Manual rotary	
	Semi-automatic	
Regulator lock	Rotary knob with detent	
Pressure regulation range	[bar]	0.5 ... 7
Max. hysteresis	[bar]	0.5
Pressure indication	Via pressure gauge	
Pressure gauge connection	G ¹ / ₈	

Standard nominal flow rate ¹⁾ qnN [l/min]		
Size	Mini	
Grade of filtration	5 µm	≥ 550
	40 µm	≥ 650

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

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

Service units FRC, D series, polymer

FESTO

Technical data

Operating and environmental conditions	
Size	Mini
Operating pressure [bar]	1.5 ... 10
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [–:–:–] Inert gases
Ambient temperature [°C]	–5 ... +50
Temperature of medium [°C]	–5 ... +50
Storage temperature [°C]	–5 ... +50
Corrosion resistance class CRC ¹⁾	1

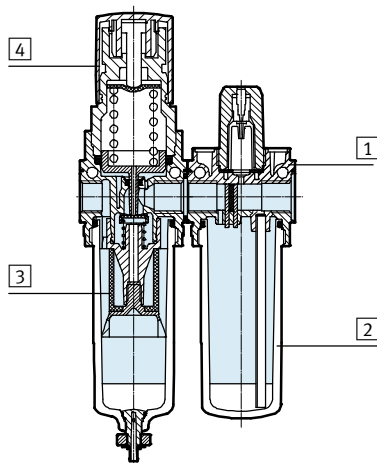
1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Weight [g]	
Size	Mini
Service unit	300

Materials

Sectional view



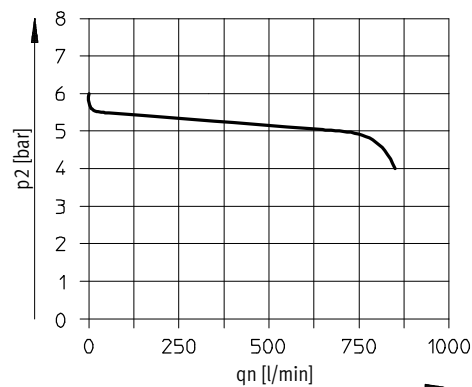
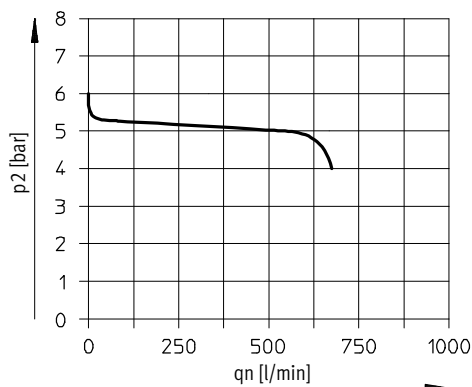
Size	Mini
1 Housing	PA, reinforced
2 Bowl	PC
3 Filter	PE
4 Rotary knob	POM
– Seals	NBR

Standard flow rate q_n as a function of output pressure p_2

Grade of filtration 5 μm

Grade of filtration 40 μm

Operating pressure $p_1 = 10$ bar



- Note

Slight leakage at the output has been taken into account in the design. It improves the control behaviour of the non pre-pressure

compensated controller. In a few cases leakage may amount to 500 l/h.

Service units FRC, D series, polymer

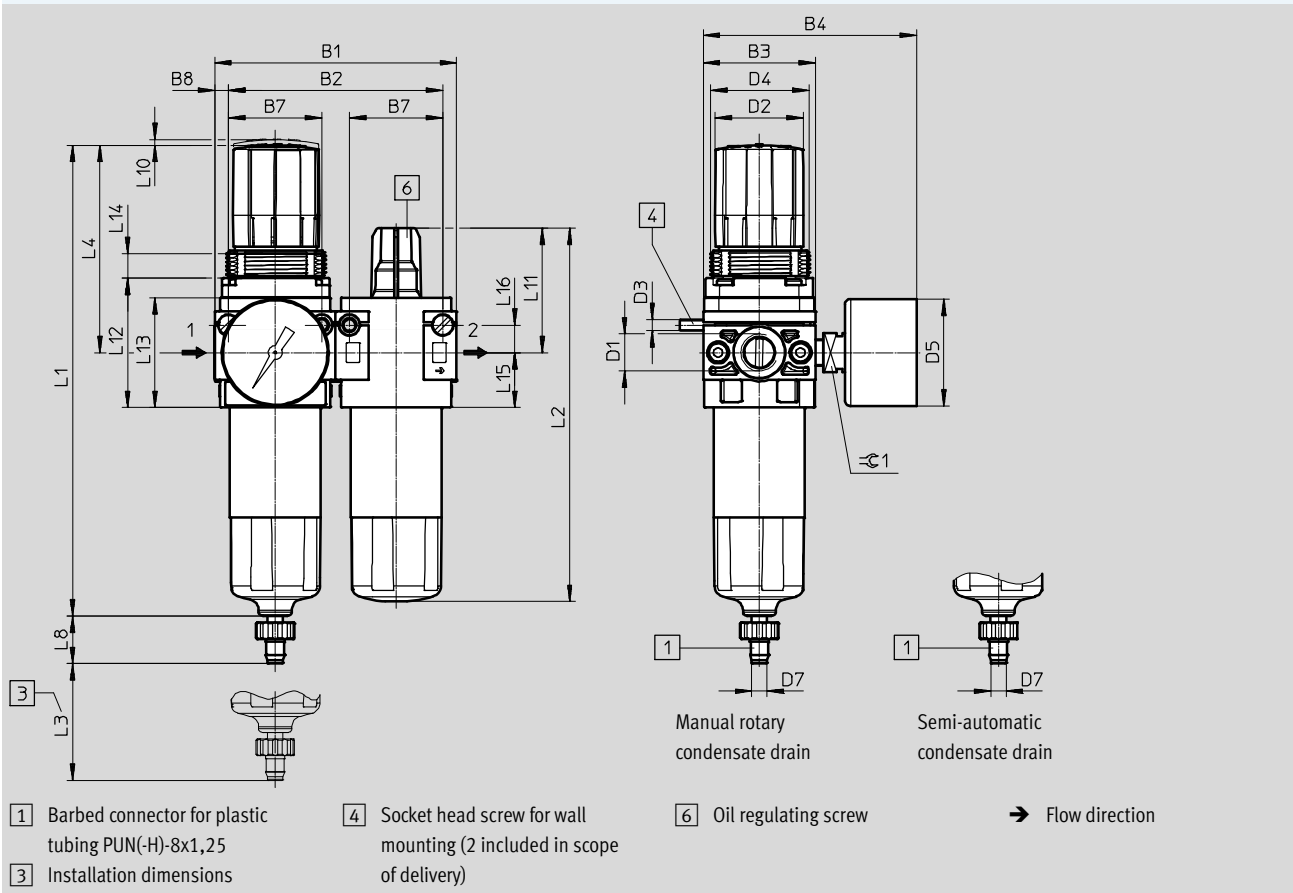
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

Mini



Type	B1	B2	B3	B4	B7	B8	D1	D2 Ø	D3	D4	D5 Ø	D7 Ø
FRC-1/4-DB	88	78	41	78	34	5	G1/4	32	M4	M36x1.5	39	5.6

Type	L1	L2	L3 min.	L4	L8	L10	L11	L12	L13	L14	L15	L16	±1
FRC-1/4-DB	171.7	136	12	76	17.3	2	45	47	40	9	20	10	14

Ordering data

Pressure regulation range 0.5 ... 7 bar

Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
With pressure gauge, outer scale in bar, inner scale in psi						
Manual rotary	Mini	G1/4	537658	FRC-1/4-DB-7-5M-MINI	537654	FRC-1/4-DB-7-MINI
Semi-automatic	Mini	G1/4	537660	FRC-1/4-DB-7-5M-MINI-H	537656	FRC-1/4-DB-7-MINI-H

Service units FRC/FRCS, D series

Accessories

FESTO

Filter cartridges, D series, metal design



Ordering data			
Size	Grade of filtration [μm]	Part No.	Type
Micro	5	526818	LFP-D-MICRO-5M
Mini	5 (colour: blue)	159640	LFP-D-MINI-5M
	40 (colour: white)	363665	LFP-D-MINI-40M
Midi	5 (colour: blue)	159594	LFP-D-MIDI-5M
	40 (colour: white)	363667	LFP-D-MIDI-40M
Maxi	5 (colour: blue)	159641	LFP-D-MAXI-5M
	40 (colour: white)	363664	LFP-D-MAXI-40M

Filter cartridges, D series, polymer



Ordering data			
Size	Grade of filtration [μm]	Part No.	Type
Mini	5	547957	LFP-DB-MINI-5M
	40	534502	MS4-LFP-E

Service units FRC/FRCS, D series

Accessories

FESTO

Special oil



Ordering data		
Scope of delivery	Part No.	Type
1 litre	152811	OFSW-32

Ordering data – Pressure gauge MA						
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type
			[bar]	[psi]		
	Pressure gauge MA					Technical data ➔ Internet: ma
	27	M5	0 ... 10	–	526323	MA-27-10-M5
	40	G1/8	0 ... 10	0 ... 145	359874	MA-40-10-1/4
			0 ... 16	0 ... 232	345395	MA-40-16-1/4
	50	G1/4	0 ... 10	0 ... 145	359873	MA-50-10-1/4
			0 ... 16	0 ... 232	356759	MA-50-16-1/4