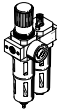
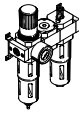
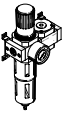
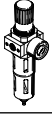
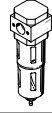
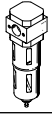
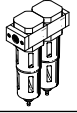
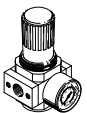


Service units FRC/FRCS, D series

FESTO



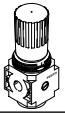
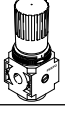
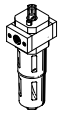
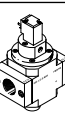
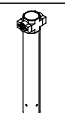
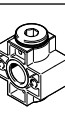
Product range overview – Service unit components, D series, metal

Type	Size	Pneumatic connection										Pressure regulation range [bar]			Grade of filtration [µm]				
		M5	M7	G1/8	G1/4	G3/8	G1/2	G3/4	G1	QS4	QS6	0.5 ... 7	0.5 ... 12	2.5 ... 12	0.01	1	5	40	
Service units																			
FRC/FRCS		Micro	■	■	■	–	–	–	–	–	■	■	■	–	–	–	–	■	–
		Mini	–	–	■	■	■	–	–	–	–	–	■	■	–	–	–	■	■
		Midi	–	–	–	■	■	■	■	–	–	–	■	■	–	–	–	■	■
		Maxi	–	–	–	–	–	■	■	■	–	–	■	■	–	–	–	■	■
FRC-K		Micro	–																
		Mini	–	–	■	■	–	–	–	–	–	–	–	■	■	–	–	–	■
		Midi	–	–	–	■	■	■	–	–	–	–	–	■	■	–	–	–	■
		Maxi	–	–	–	–	–	■	■	–	–	–	–	■	■	–	–	–	■
LFR-K LFRS-K		Micro	–																
		Mini	–	–	■	■	–	–	–	–	–	–	–	■	■	–	–	–	■
		Midi	–	–	–	■	■	■	–	–	–	–	–	■	■	–	–	–	■
		Maxi	–	–	–	–	–	■	■	–	–	–	–	■	■	–	–	–	■
Individual devices																			
Filter regulators LFR/LFRS		Micro	■	■	■	–	–	–	–	–	■	■	■	–	–	–	–	■	–
		Mini	–	–	■	■	■	–	–	–	–	–	■	■	–	–	–	■	■
		Midi	–	–	–	■	■	■	■	–	–	–	■	■	–	–	–	■	■
		Maxi	–	–	–	–	–	■	■	■	–	–	■	■	–	–	–	■	■
Filters LF		Micro	■	■	■	–	–	–	–	–	■	■	–	–	–	–	–	■	–
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	–	–	–	■	■
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	–	–	–	■	■
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	–	–	–	■	■
Fine and micro filters LFMA/LFMB		Micro	–																
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	–	■	■	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	–	■	■	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	–	■	■	–	–
Activated carbon filters LFX		Micro	–																
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	–	–	–	–	–
Filter combinations LFMBA		Micro	–																
		Mini	–	–	■	■	■	–	–	–	–	–	–	–	–	■	■	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–	–	■	■	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–	–	■	■	–	–
Pressure regulators LR/LRS		Micro	■	■	■	–	–	–	–	–	■	■	■	–	–	–	–	–	–
		Mini	–	–	■	■	■	–	–	–	–	–	■	■	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	■	■	–	–	–	–	–

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

Type	Size	Bowl guard		Condensate drain			Pressure indicator		Actuator lock		Supply voltage			Options			→ Page/ Internet	
		Metal bowl guard	Plastic bowl	Manual	Semi-automatic	Fully automatic	With pressure gauge	Without pressure gauge	Rotary knob with latch	Rotary knob with integrated lock	24 V DC	110 V AC	230 V AC	Directly actuated pressure regulator with integrated return flow function	Pilot actuated pressure regulator with integrated return flow function	Differential pressure display		
Service units																		
FRC/FRCS	Micro	–	■	■	■	–	■	■	■	–	–	–	–	–	–	–	6	
	Mini	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–		
	Midi	■	–	■	–	■	■	■	■	■	–	–	–	–	–	–		
	Maxi	■	–	■	–	■	■	■	■	■	–	–	–	■	■	–		
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	■	–	■	–	■	–	–	–	–	–	–	–	–	–	■		
Activated 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	–	–	–	–	–	■	■	■	■	–	–	–	■	■	–		

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

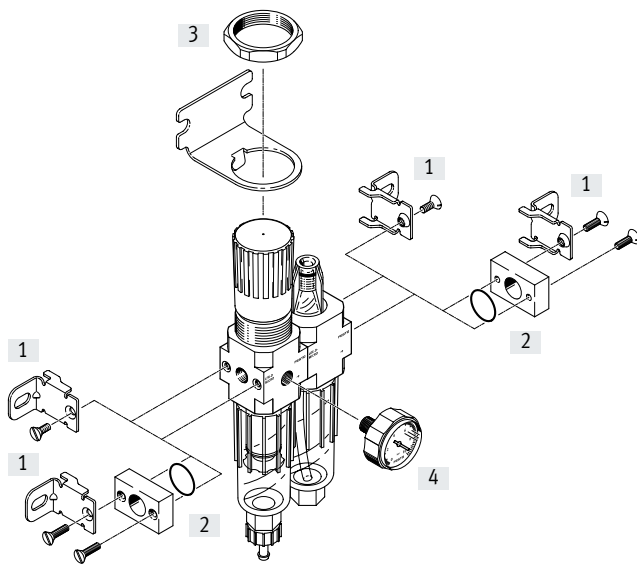
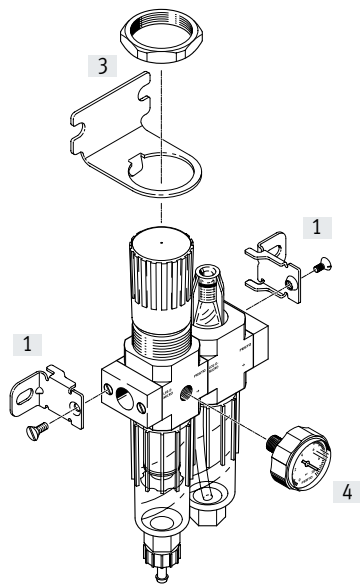
Type	Size	Pneumatic connection											Pressure regulation range [bar]	
													0.5 ... 7	0.5 ... 12
Individual devices														
Pressure regulators LRB/LRBS		Micro	–											
		Mini	–	–	–	■	–	–	–	–	–	–	■	■
		Midi	–	–	–	–	■	–	–	–	–	–	■	■
		Maxi	–											
Pressure regulator manifolds LRB-K		Micro	–											
		Mini	–	–	–	■	■	–	–	–	–	–	■	■
		Midi	–	–	–	–	■	■	–	–	–	–	■	■
		Maxi	–											
Lubricators LOE		Micro	■	■	■	–	–	–	–	–	■	■	–	–
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
On/off valves HE		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
On/off valves HEE		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
On/off valves HEP		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Soft-start valves HEL		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Membrane air dryers LDM1		Micro	–											
		Mini	–											
		Midi	–											
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Branching modules FRM		Micro	–											
		Mini	–	–	■	■	■	–	–	–	–	–	–	–
		Midi	–	–	–	■	■	■	■	–	–	–	–	–
		Maxi	–	–	–	–	–	■	■	■	–	–	–	–
Distributor blocks FRZ		Micro	–	–	–	–	–	–	–	–	–	–	–	–
		Mini	–	–	–	–	–	–	–	–	–	–	–	–
		Midi	–	–	–	–	–	–	–	–	–	–	–	–
		Maxi	–	–	–	–	–	–	–	–	–	–	–	–

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

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

Peripherals overview

Micro Service unit FRC with connecting plates, connection size G1/8, QS-4 or QS-6	Service unit FRC without connecting plates, connecting thread M5 or M7 in the housing
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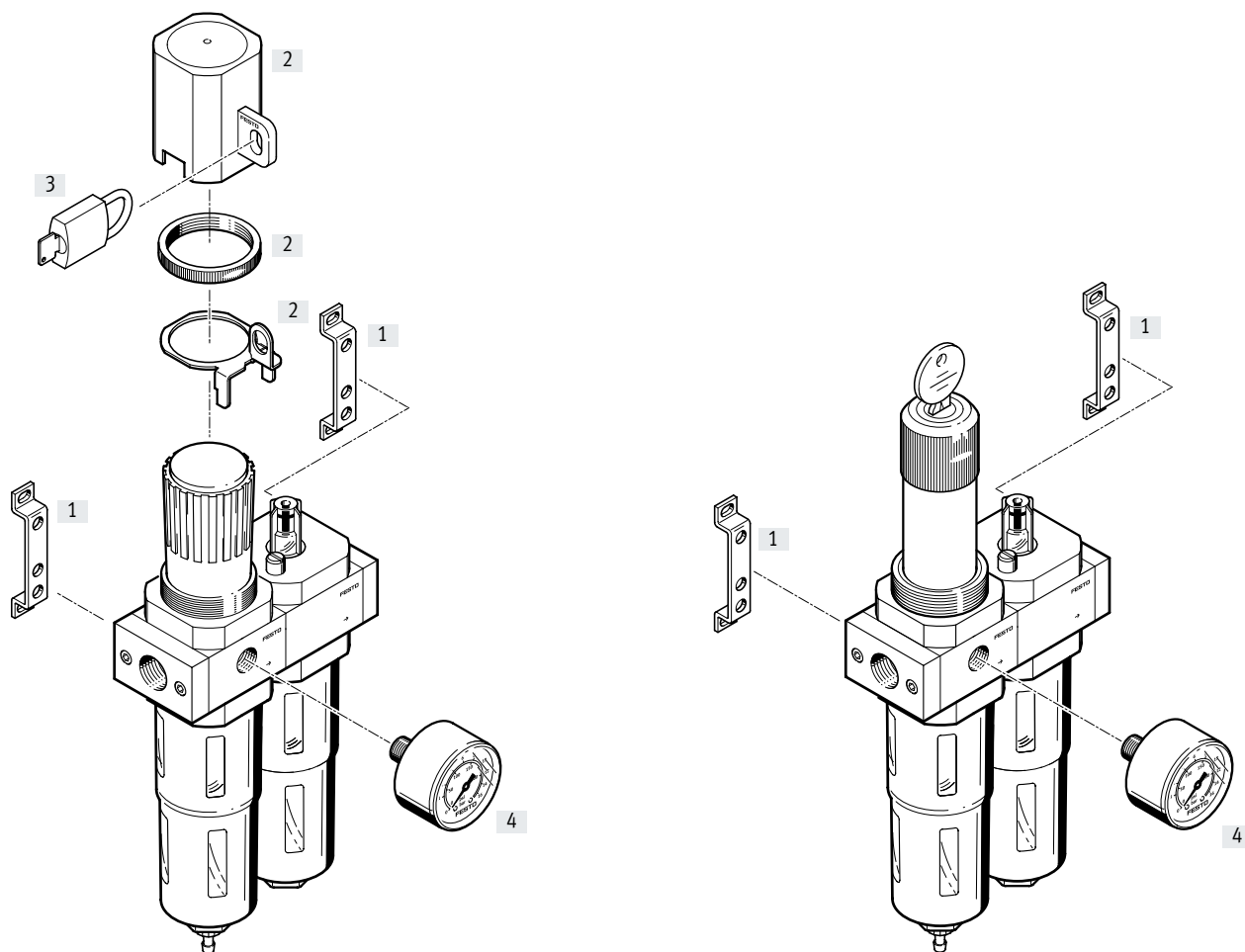
Mounting attachments and accessories		With connecting plates	Without connecting plates	→ Page/Internet
[1]	Mounting bracket HFOE	■	■	hfoe-d
[2]	Connection set PBL	-	■	pbl
[3]	Mounting bracket with hex nut HRS	■	■	hrs-d
[4]	Pressure gauge MA-27	■	■	32

Peripherals overview

Mini/Midi/Maxi

Service unit FRC

Service unit FRCS, lockable



Mounting attachments and accessories

	Rotary knob with latch	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

Type codes

001	Series	
FRC	Service unit	
FRCS	Service unit, lockable	

002	Pneumatic connection	
M5	Female thread M5	
M7	Female thread M7	
QS4	Push-in connector 4 mm	
QS6	Push-in connector 6 mm	
1/8	Female thread G1/8	
1/4	Female thread G1/4	
3/8	Female thread G3/8	
1/2	Female thread G1/2	
3/4	Female thread G3/4	
1	Female thread G1	

003	Version	
D	D series, metal	

004	Pressure regulation range	
7	0.5 ... 7 bar (0.05 ... 0.7 MPa)	
	0.5 ... 12 bar (0.05 ... 1.2 MPa)	

005	Grade of filtration	
	40 µm	
5M	5 µm	

006	Pressure gauge	
	With pressure gauge	
O	Without pressure gauge	

007	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)	

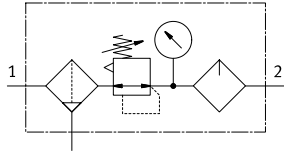
008	Condensate drain	
	Manually rotating	
H	Semi-automatic	
A	Fully automatic	

009	Display unit	
	Bar/psi/without	
B	Bar	
MPA	MPa	

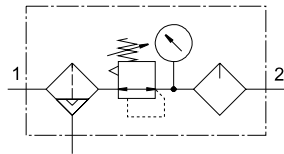
Data sheet

FRC/FRCS

Condensate drain, manual, with pressure gauge

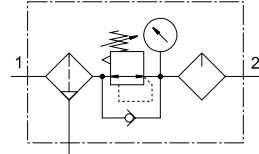


Condensate drain, semi- or fully automatic, with pressure gauge

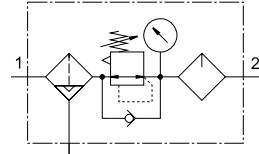


FRC/FRCS-...-DI-MAXI

Condensate drain, manual, with pressure gauge



Condensate drain, fully automatic, with pressure gauge



- Flow rate
80 ... 8700 l/min
- Temperature range
10 ... +60°C
- Operating pressure
1 ... 16 bar
(0.1 ... 1.6 MPa)
- www.festo.com

- Filter, regulator and lubricator functions in a single unit
- High flow rate and highly efficient in removing contaminants
- Good control characteristics with minimal pressure hysteresis
- Setting values are secured by latching the rotary knob
- Two pressure gauge connections for different installation options
- Lockable rotary knob
- Two pressure regulation ranges:
0.5°... 7 bar (0.05 ... 0.7 MPa) and
0.5 ... 12 bar (0.05 ... 1.2 MPa)
- Choice of manual, semi-automatic or fully automatic condensate drain
- Choice of filter inserts 5 µm or 40 µm
- New filter cartridges
→ Page 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 → Page 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	With accessories			
	In-line installation			
Mounting position	Vertical ±5°			
Grade of filtration [µm]	5	5		
	–	40		
Air quality class at the output	Compressed air to ISO 8573-1:2010 [6:8:-] (grade of filtration 5 µm)			
	–	Compressed air to ISO 8573-1:2010 [7:8:-] (grade of filtration 40 µm)		
	–	Inert gases		
Bowl guard	–	Metal bowl guard		
Condensate drain	Manual			
	Semi-automatic	Fully automatic		
Actuator lock	Rotary knob with latch			
	–	Rotary knob with integrated lock		
Pressure regulation range [bar]	0.5 ... 7 (0.05 ... 0.7 MPa)	0.5 ... 7 (0.05 ... 0.7 MPa)		
		0.5 ... 12 (0.05 ... 1.2 MPa)		
Max. pressure hysteresis [bar]	0.3 (0.03 MPa)	0.2 (0.02 MPa)		0.4 (0.04 MPa)
Pressure indicator	With pressure gauge			
	Prepared for M5	Prepared for G1/8	Prepared for G1/4	Prepared for G1/4
Max. condensate volume [cm ³]	3	22	43	80 ⁴⁾

1) Connecting plates with threaded connection
2) Without connecting plates, connection thread in the housing.
3) Connecting plates with push-in connector

4) The max. condensate volume for FRC/FRCS-...-DI-MAXI is 43 cm³.
- Note: this product conforms to ISO 1179-1 and ISO 228-1.

Data sheet

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]						
Size		Micro				
Pneumatic connection 1, 2		M5	M7	G1/8	QS-4	QS-6
Pressure regulation range	0.5 ... 7 bar (0.05 ... 0.7 MPa)	80	170	160	100	160

1) Measured at $p_1 = 10$ bar (1 MPa), $p_2 = 6$ bar (0.6 MPa) and $\Delta p = 1$ bar (0.1 MPa).

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

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 (0.05 ... 0.7 MPa), 40 μ m	800	1300	1500	1700	2000	2800	2800	7700 (4500) ²⁾	8500 (5000) ²⁾	8700 (5200) ²⁾
	0.5 ... 12 bar (0.05 ... 1.2 MPa), 5 μ m	600	850	1050	1300	1700	1800	2100	6800 (3000) ²⁾	7000 (3600) ²⁾	7200 (3800) ²⁾
	0.5 ... 12 bar (0.05 ... 1.2 MPa), 40 μ m	700	1000	1200	1500	2000	2600	2600	7600 (3300) ²⁾	8300 (3800) ²⁾	8500 (4000) ²⁾

1) Measured at $p_1 = 10$ bar (1 MPa), $p_2 = 6$ bar (0.6 MPa) and $\Delta p = 1$ bar (0.1 MPa).

2) With 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		Semi-automatic	Fully automatic
Size	Micro		Micro	Mini/Midi/Maxi
Operating pressure [bar]	1 ... 10 (0.1 ... 1 MPa)		1 ... 10 (0.1 ... 1 MPa)	2 ... 12 (0.2 ... 1.2 MPa)
Operating medium	Compressed air to ISO 8573-1:2010 [-:-:-]		Compressed air to ISO 8573-1:2010 [-:-:-]	Compressed air to ISO 8573-1:2010 [7:9:-]
	–		–	Inert gases
Note on operating/pilot medium	–		–	Lubricated operation 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			

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

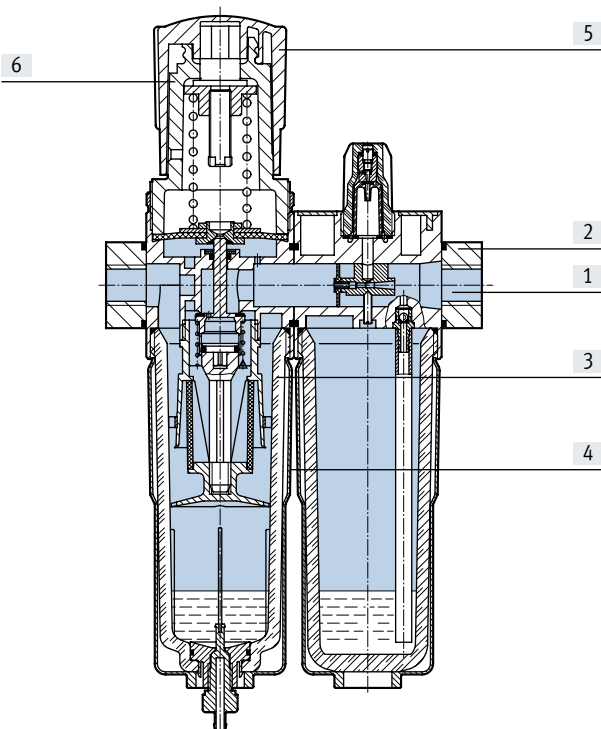
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Weights [g]						
Size		Micro		Mini	Midi	Maxi
		Connecting thread	Connecting plate			Connection G1/2, G3/4
With pressure gauge						
FRC-...		113	149	660	1440	2390
FRC-...-DI		–	–	–	–	2670
FRCS-...		–	–	760	1680	2490
FRCS-...-DI		–	–	–	–	2950
Without pressure gauge						
FRC-...		103	139	600	1350	2280
FRC-...-DI		–	–	–	–	2600
FRCS-...		–	–	700	1590	2380
FRCS-...-DI		–	–	–	–	2880

Data sheet

Materials

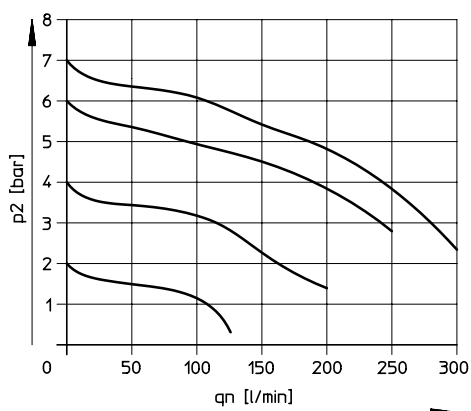
Sectional view



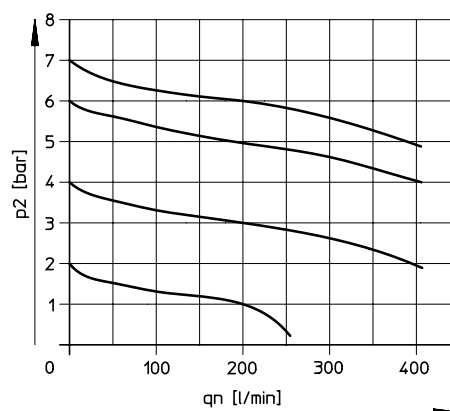
Size	Micro	Mini/Midi/Maxi
[1] Housing	Wrought aluminium alloy	Die-cast zinc
[2] Connecting plates	Wrought aluminium alloy	Die-cast zinc/aluminium
[3] Bowl	PC	PC
[4] Metal bowl guard	–	Aluminium
[5] Rotary knob	POM	POM
[6] Carrier	PC	–
– Seals	NBR	NBR
Note on materials	–	RoHS-compliant

Standard flow rate q_n as a function of output pressure p_2

FRC-M5-...-MICRO

Primary pressure $p_1 = 10 \text{ bar (1 MPa)}$

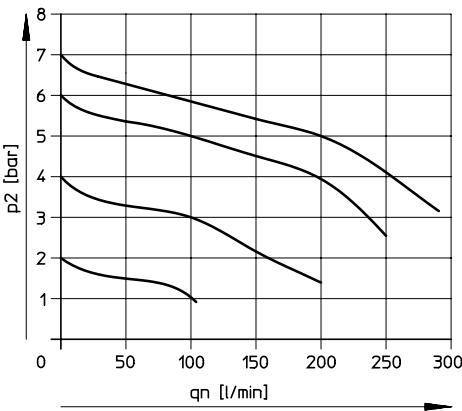
FRC-M7-...-MICRO B



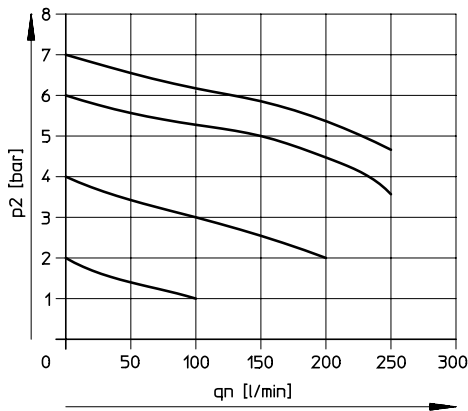
Data sheet

Standard flow rate q_n as a function of output pressure p_2

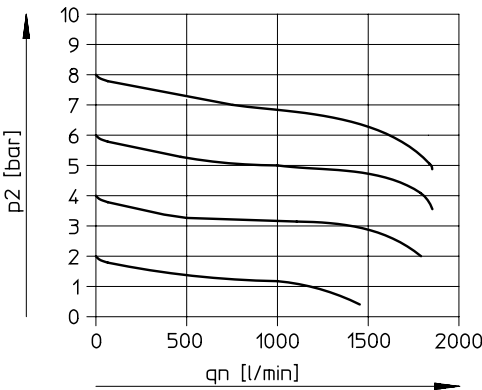
FRC-QS4-...-MICRO



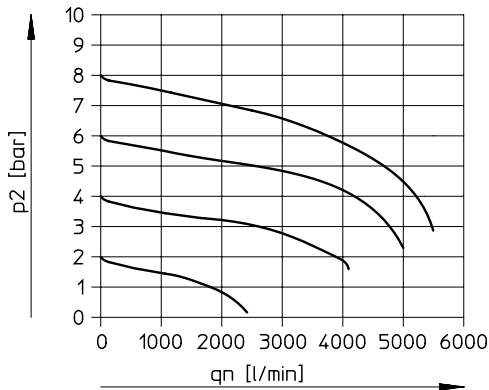
FRC-QS6-...-MICRO and FRC-1/8-...-MICRO



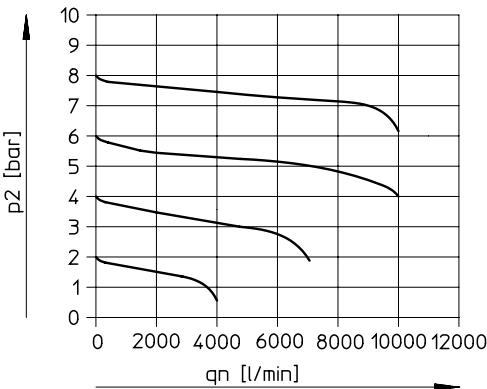
FRC/FRCS-1/4-D-MINI



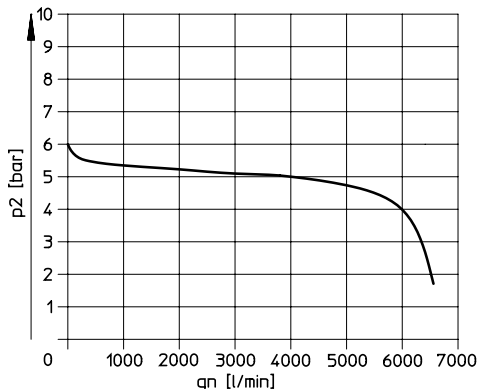
FRC/FRCS-1/2-D-MIDI



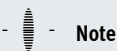
FRC/FRCS-1-D-MAXI



FRC/FRCS-1-D-DI-MAXI



Primary pressure $p_1 = 10 \text{ bar (1 MPa)}$



Note

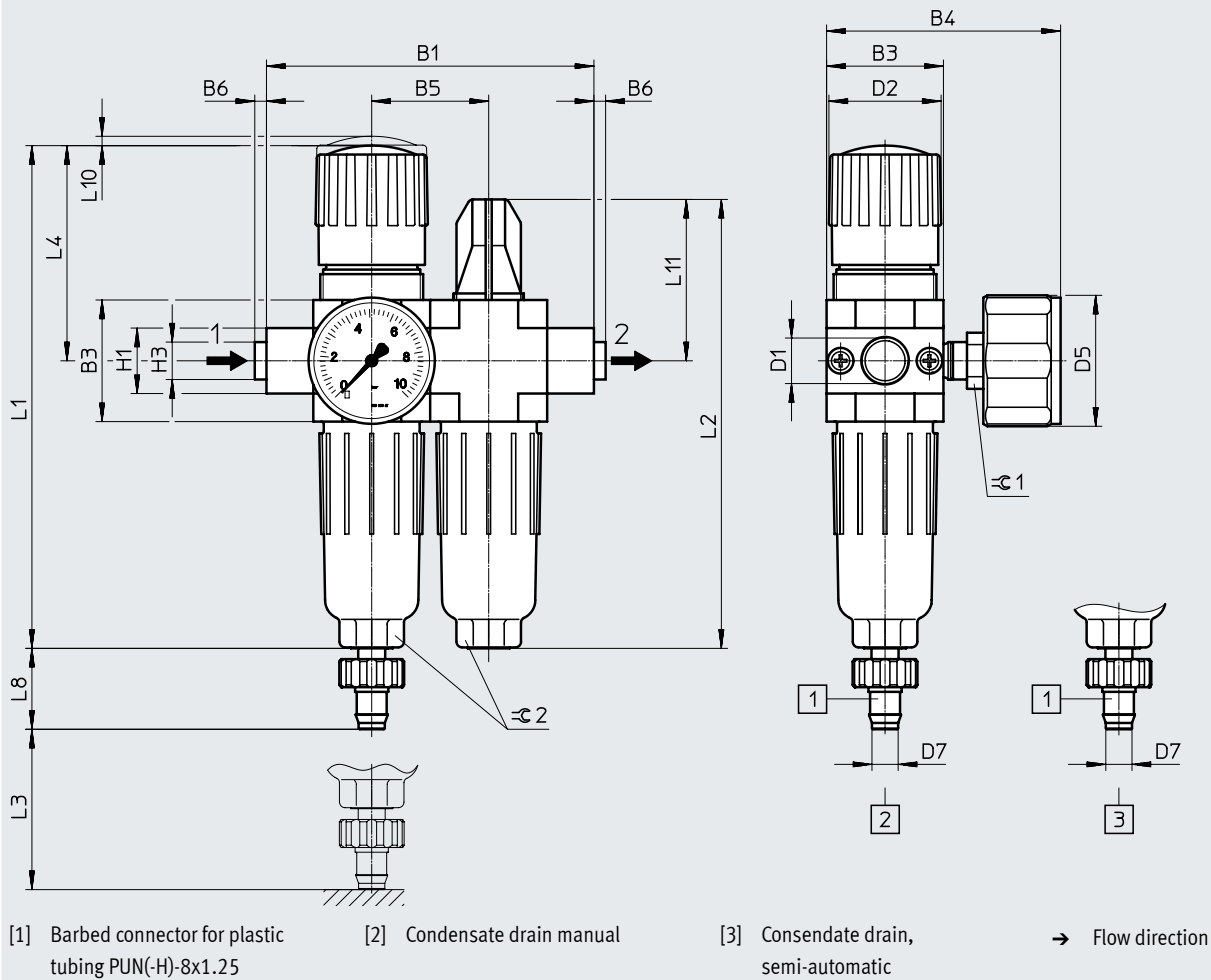
In order to improve the control performance, internal air consumption depending on the primary pressure is integrated into the design with the FRC/FRCS-...-MAXI.

Data sheet

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	≈C 1	≈C 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)									

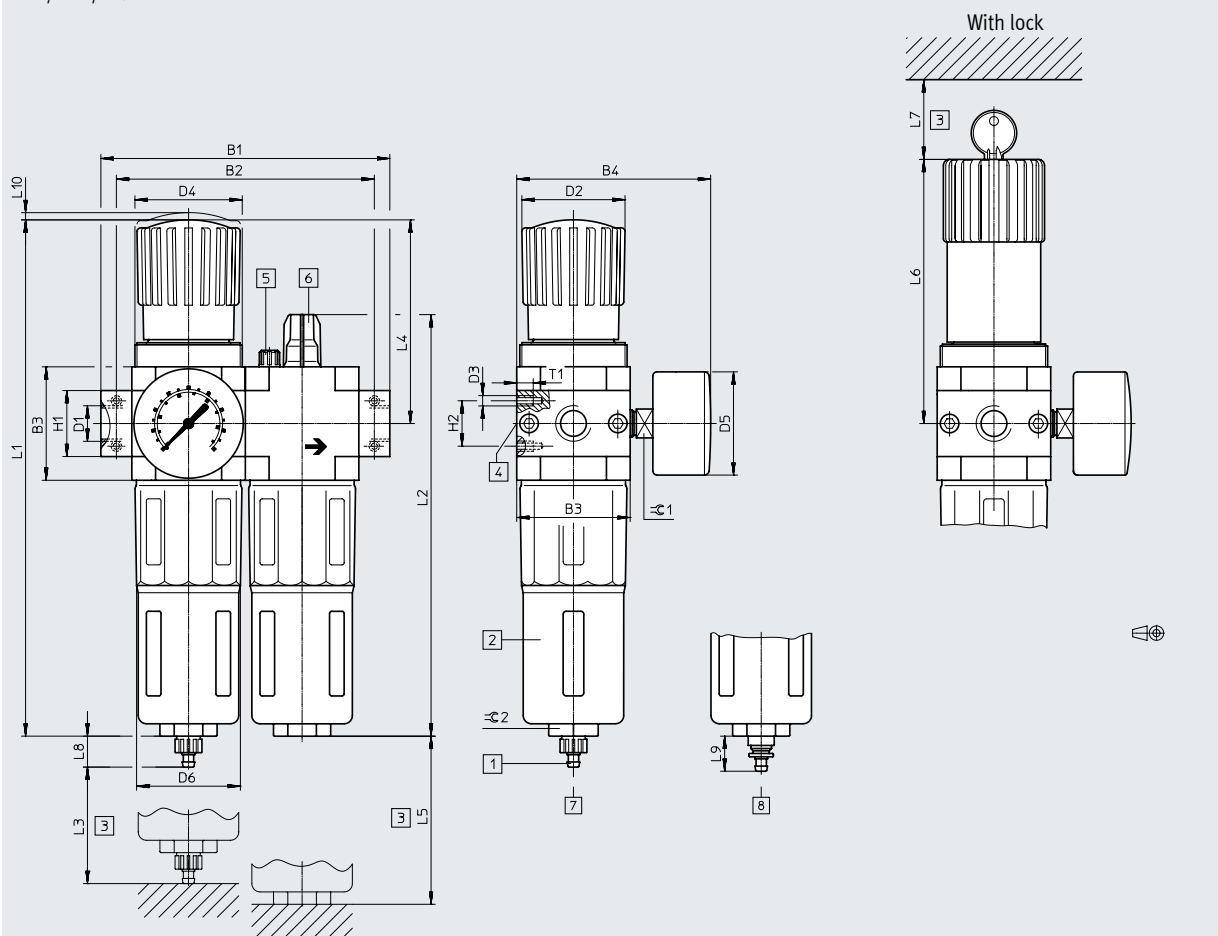
• Note: this product conforms to ISO 1179-1 and ISO 228-1.

Data sheet

Dimensions

Download CAD data → www.festo.com

Mini/Midi/Maxi



[1] Barbed connector for plastic tubing PUN(-H)-8x1.25

[2] Metal bowl guard

[3] Installation dimension

[4] Second pressure gauge connection

[5] Vent screw for oil reservoir

[6] Oil adjusting screw

[7] Manual condensate drain

[8] Fully automatic condensate drain

→ 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	39	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	39 (49) ¹⁾	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	106	G1/2	31	M5	M36x1.5	39 (49) ¹⁾	65
FRC/FRCS-1/2-D-DI-MAXI				105		49		M52x1.5		
FRC/FRCS-3/4-D-MAXI				106	G3/4	31		M36x1.5		
FRC/FRCS-3/4-D-DI-MAXI				105		49		M52x1.5		
FRC/FRCS-1-D-MAXI	182	157		106	G1	31	M36x1.5			
FRC/FRCS-1-D-DI-MAXI				105		49	M52x1.5			

1) Pressure gauge with outer scale in MPa and inner scale in bar

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

Data sheet

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	32		275			105		135							
FRC/FRCS-3/4-D-MAXI	32		252			82		111							
FRC/FRCS-3/4-D-DI-MAXI	36		275			105		135							
FRC/FRCS-1-D-MAXI	40		252			82		111							
FRC/FRCS-1-D-DI-MAXI	41		275			105		135							

Data sheet

Ordering data				
Pressure regulation range 0.5 ... 7 bar (0.05 ... 0.7 MPa)				
Condensate drain	Size	Connection	Grade of filtration 5 µm	
			Part no.	Type
With pressure gauge, outer scale in bar				
Manual	Micro	Without connecting plates, connection thread in the housing		
		M5	527860	FRC-M5-D-7-5M-MICRO
		M7	534189	FRC-M7-D-7-5M-MICRO-B
		Connecting plates with threaded connection		
		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, connection thread in the housing		
		M5	527861	FRC-M5-D-7-5M-MICRO-H
		M7	534190	FRC-M7-D-7-5M-MICRO-H-B
		Connecting plates with threaded connection		
		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				
Manual	Micro	Without connecting plates, connection thread in the housing		
		M5	527862	FRC-M5-D-7-O-5M-MICRO
		M7	534191	FRC-M7-D-7-O-5M-MICRO-B
		Connecting plates with threaded connection		
		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, connection thread in the 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 threaded connection		
		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

Data sheet

Ordering data

Pressure regulation range 0.5 ... 12 bar (0.05 ... 1.2 MPa), rotary knob with latch, connecting plates with threaded connection

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	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	
With pressure gauge, outer scale in MPa, inner scale in bar							
Manual	Mini	G1/8	8002352	FRC-1/8-D-5M-MINI-MPA	8002266	FRC-1/8-D-MINI-MPA	
		G1/4	8002353	FRC-1/4-D-5M-MINI-MPA	8002267	FRC-1/4-D-MINI-MPA	
		G3/8	8002354	FRC-3/8-D-5M-MINI-MPA	8002332	FRC-3/8-D-MINI-MPA	
	Midi	G1/4	8002380	FRC-1/4-D-5M-MIDI-MPA	8002379	FRC-1/4-D-MIDI-MPA	
		G3/8	8002355	FRC-3/8-D-5M-MIDI-MPA	8002262	FRC-3/8-D-MIDI-MPA	
		G1/2	8002356	FRC-1/2-D-5M-MIDI-MPA	8002264	FRC-1/2-D-MIDI-MPA	
		G3/4	8002357	FRC-3/4-D-5M-MIDI-MPA	8002333	FRC-3/4-D-MIDI-MPA	
	Maxi	G1/2	8002385	FRC-1/2-D-5M-MAXI-MPA	8002384	FRC-1/2-D-MAXI-MPA	
		G3/4	8002358	FRC-3/4-D-5M-MAXI-MPA	8002268	FRC-3/4-D-MAXI-MPA	
		G1	8002359	FRC-1-D-5M-MAXI-MPA	8002269	FRC-1-D-MAXI-MPA	
Fully automatic	Mini	G1/8	8002360	FRC-1/8-D-5M-MINI-A-MPA	8002270	FRC-1/8-D-MINI-A-MPA	
		G1/4	8002361	FRC-1/4-D-5M-MINI-A-MPA	8002271	FRC-1/4-D-MINI-A-MPA	
		G3/8	8002362	FRC-3/8-D-5M-MINI-A-MPA	8002334	FRC-3/8-D-MINI-A-MPA	
	Midi	G1/4	–		8002381	FRC-1/4-D-MIDI-A-MPA	
		G3/8	8002363	FRC-3/8-D-5M-MIDI-A-MPA	8002263	FRC-3/8-D-MIDI-A-MPA	
		G1/2	8002364	FRC-1/2-D-5M-MIDI-A-MPA	8002265	FRC-1/2-D-MIDI-A-MPA	
		G3/4	8002365	FRC-3/4-D-5M-MIDI-A-MPA	8002335	FRC-3/4-D-MIDI-A-MPA	
	Maxi	G1/2	8002387	FRC-1/2-D-5M-MAXI-A-MPA	8002386	FRC-1/2-D-MAXI-A-MPA	
		G3/4	8002366	FRC-3/4-D-5M-MAXI-A-MPA	8002272	FRC-3/4-D-MAXI-A-MPA	
		G1	8002367	FRC-1-D-5M-MAXI-A-MPA	8002273	FRC-1-D-MAXI-A-MPA	

Data sheet

Ordering data

Pressure regulation range 0.5 ... 7 bar (0.05 ... 0.7 MPa), rotary knob with latch, connecting plates with threaded connection

Condensate drain	Size	Connection	Grade of filtration 40 μm	
			Part no.	Type
With pressure gauge, outer scale in bar, inner scale in psi				
Manual	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
With pressure gauge, outer scale in MPa, inner scale in bar				
Manual	Mini	G1/8	8002336	FRC-1/8-D-7-MINI-MPA
		G1/4	8002337	FRC-1/4-D-7-MINI-MPA
		G3/8	8002338	FRC-3/8-D-7-MINI-MPA
	Midi	G1/4	8002382	FRC-1/4-D-7-MIDI-MPA
		G3/8	8002339	FRC-3/8-D-7-MIDI-MPA
		G1/2	8002340	FRC-1/2-D-7-MIDI-MPA
		G3/4	8002341	FRC-3/4-D-7-MIDI-MPA
	Maxi	G3/4	8002342	FRC-3/4-D-7-MAXI-MPA
		G1	8002343	FRC-1-D-7-MAXI-MPA
Fully automatic	Mini	G1/8	8002344	FRC-1/8-D-7-MINI-A-MPA
		G1/4	8002345	FRC-1/4-D-7-MINI-A-MPA
		G3/8	8002346	FRC-3/8-D-7-MINI-A-MPA
	Midi	G1/4	8002383	FRC-1/4-D-7-MIDI-A-MPA
		G3/8	8002347	FRC-3/8-D-7-MIDI-A-MPA
		G1/2	8002348	FRC-1/2-D-7-MIDI-A-MPA
		G3/4	8002349	FRC-3/4-D-7-MIDI-A-MPA
	Maxi	G3/4	8002350	FRC-3/4-D-7-MAXI-A-MPA
		G1	8002351	FRC-1-D-7-MAXI-A-MPA

Data sheet

Ordering data

Pressure regulation range 0.5 ... 12 bar (0.05 ... 1.2 MPa), rotary knob with latch, connecting plates with threaded connection

Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part no.	Type	Part no.	Type
Without pressure gauge						
Manual	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

Ordering data

Pressure regulation range 0.5 ... 7 bar (0.05 ... 0.7 MPa), rotary knob with latch, connecting plates with threaded connection

Condensate drain	Size	Connection	Grade of filtration 40 µm	
			Part no.	Type
Without pressure gauge				
Manual	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

Data sheet

Ordering data

Pressure regulation range 0.5 ... 12 bar (0.05 ... 1.2 MPa), directly actuated pressure regulator with integrated return flow function, rotary knob with latch, connecting plates with threaded connection

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	Maxi	G1/2	192406	FRC-1/2-D-5M-DI-MAXI	192404	FRC-1/2-D-DI-MAXI
		G3/4	192412	FRC-3/4-D-5M-DI-MAXI	192410	FRC-3/4-D-DI-MAXI
		G1	192418	FRC-1-D-5M-DI-MAXI	192416	FRC-1-D-DI-MAXI
Fully automatic	Maxi	G1/2	192424	FRC-1/2-D-5M-DI-MAXI-A	192422	FRC-1/2-D-DI-MAXI-A
		G3/4	192430	FRC-3/4-D-5M-DI-MAXI-A	192428	FRC-3/4-D-DI-MAXI-A
		G1	192436	FRC-1-D-5M-DI-MAXI-A	192434	FRC-1-D-DI-MAXI-A

Without pressure gauge

Manual	Maxi	G1/2	192407	FRC-1/2-D-5M-O-DI-MAXI	192405	FRC-1/2-D-O-DI-MAXI
		G3/4	192413	FRC-3/4-D-5M-O-DI-MAXI	192411	FRC-3/4-D-O-DI-MAXI
		G1	192419	FRC-1-D-5M-O-DI-MAXI	192417	FRC-1-D-O-DI-MAXI
Fully automatic	Maxi	G1/2	192425	FRC-1/2-D-5M-O-DI-MAXI-A	192423	FRC-1/2-D-O-DI-MAXI-A
		G3/4	192431	FRC-3/4-D-5M-O-DI-MAXI-A	192429	FRC-3/4-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 (0.05 ... 0.7 MPa), directly actuated pressure regulator with integrated return flow function, rotary knob with latch, connecting plates with threaded connection

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	Maxi	G1/2	–	192408	FRC-1/2-D-7-DI-MAXI
		G3/4	–	192414	FRC-3/4-D-7-DI-MAXI
		G1	–	192420	FRC-1-D-7-DI-MAXI
Fully automatic	Maxi	G1/2	–	192426	FRC-1/2-D-7-DI-MAXI-A
		G3/4	–	192432	FRC-3/4-D-7-DI-MAXI-A
		G1	–	192438	FRC-1-D-7-DI-MAXI-A

Without pressure gauge

Manual	Maxi	G1/2	–	192409	FRC-1/2-D-7-O-DI-MAXI
		G3/4	–	192415	FRC-3/4-D-7-O-DI-MAXI
		G1	–	192421	FRC-1-D-7-O-DI-MAXI
Fully automatic	Maxi	G1/2	–	192427	FRC-1/2-D-7-O-DI-MAXI-A
		G3/4	–	192433	FRC-3/4-D-7-O-DI-MAXI-A
		G1	–	192439	FRC-1-D-7-O-DI-MAXI-A

Data sheet

Ordering data

Pressure regulation range 0.5 ... 12 bar (0.05 ... 1.2 MPa), rotary knob with integrated lock, connecting plates with threaded connection

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	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							
Manual	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	

Data sheet

Ordering data				
Pressure regulation range 0.5 ... 7 bar (0.05 ... 0.7 MPa), rotary knob with integrated lock, connecting plates with threaded connection				
Condensate drain	Size	Connection	Grade of filtration 40 µm	
			Part no.	Type
With pressure gauge, outer scale in bar, inner scale in psi				
Manual	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				
Manual	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

Data sheet

Ordering data

Pressure regulation range 0.5 ... 12 bar (0.05 ... 1.2 MPa), directly actuated pressure regulator with integrated return flow function, rotary knob with integrated lock, connecting plates with threaded connection

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	Maxi	G1/2	–		194972	FRCS-1/2-D-DI-MAXI
		G1	–		194984	FRCS-1-D-DI-MAXI
Fully automatic	Maxi	G1/2	–		194990	FRCS-1/2-D-DI-MAXI-A

Without pressure gauge

Fully automatic	Maxi	G3/4	194999	FRCS-3/4-D-5M-O-DI-MAXI-A		–
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Ordering data

Pressure regulation range 0.5 ... 7 bar (0.05 ... 0.7 MPa), directly actuated pressure regulator with integrated return flow function, rotary knob with integrated lock, connecting plates with threaded connection

Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part no.	Type	Part no.	Type

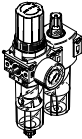
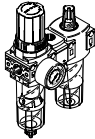
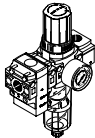
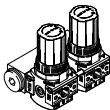
With pressure gauge, outer scale in bar, inner scale in psi

Fully automatic	Maxi	G3/4	–		195000	FRCS-3/4-D-7-DI-MAXI-A
		G1	–		195006	FRCS-1-D-7-DI-MAXI-A

Without pressure gauge

Fully automatic	Maxi	G1/2	–		194995	FRCS-1/2-D-7-O-DI-MAXI-A
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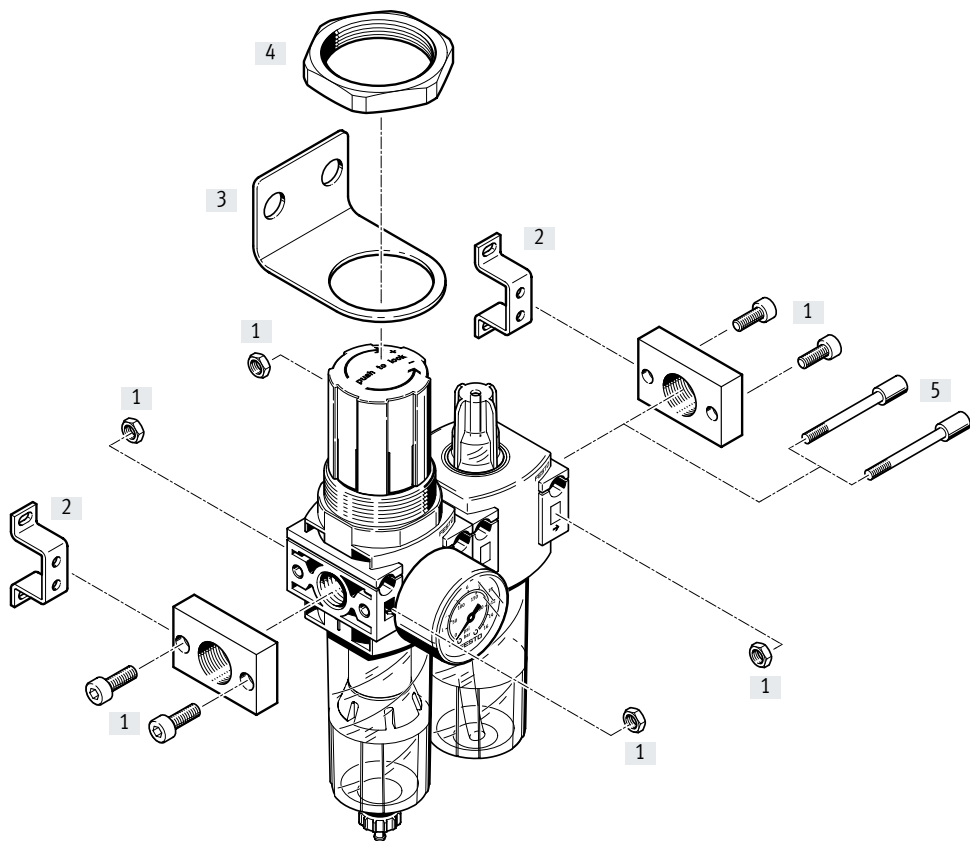
Product range overview – Service unit components, D series, polymer

Type	Size	Pneumatic connection		Pressure regulation range [bar]	Grade of filtration		
					[µm]		
		G1/4	G1/2	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 manifolds LRB-K		Mini	–	■	■	–	–
On/off valves HE		Mini	■	–	–	–	–

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

Type	Size	Condensate drain		Pressure indicator		Actuator lock	Regulating functions		→ Page/ Internet
		Manual	Semi-automatic	With pressure gauge	Without pressure gauge	Rotary knob with latch	With secondary exhausting	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 manifolds LRB-K	Mini	–	–	–	■	■	■	■	lrb
On/off valves HE	Mini	–	–	–	■	–	–	–	he

Peripherals overview



Mounting attachments and accessories		→ Page/Internet
[1]	Connection set PBL	pbl
[2]	Mounting bracket HFOE	hfoe-d
[3]	Mounting bracket HR-D	hr-d
[4]	Hex nut HMR	hmr-d
[5]	Threaded bolt FRB	frb-db

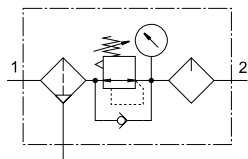
Type codes

001	Series	
FRC	Service unit	
002	Pneumatic connection	
1/4	Female thread G1/4	
003	Version	
DB	D series, polymer	
004	Pressure regulation range	
7	0.5 ... 7 bar (0.05 ... 0.7 MPa)	

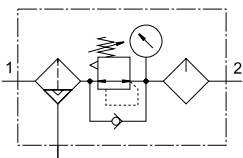
005	Grade of filtration	
	40 µm	
5M	5 µm	
006	Size	
MINI	Grid dimension 40 mm (without connecting plates)	
007	Condensate drain	
	Manually rotating	
H	Semi-automatic	

Data sheet

Condensate drain, manual



Condensate drain, semi-automatic



-  - Flow rate
400 ... 650 l/min
-  - Temperature range
-5 ... +50°C
-  - Operating pressure
1.5 ... 10 bar
(0.15 ... 1 MPa)
-  - www.festo.com



- Filter, regulator and lubricator functions in a single unit
- High flow rate and highly efficient in removing contaminants
- Good control characteristics with minimal pressure hysteresis
- Setting values are locked by the rotary knob with latch
- Choice of manual or semi-automatic condensate drain
- New filter cartridges
→ Page 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 → Page 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 1, 2	G1/4
Design	Filter regulators/lubricators
Regulator function	With return flow function, with secondary exhaust
Type of mounting	In-line installation With through-hole With mounting bracket
Mounting position	Vertical ±5°
Grade of filtration [µm]	5 40
Air quality class at the output	Compressed air to ISO 8573-1:2010 [6:8:-] (grade of filtration 5 µm) Compressed air to ISO 8573-1:2010 [7:8:-] (grade of filtration 40 µm) Inert gases
Condensate drain	Manual Semi-automatic
Actuator lock	Rotary knob with latch
Pressure regulation range [bar]	0.5 ... 7 (0.05 ... 0.7 MPa)
Max. pressure hysteresis [bar]	0.5 (0.05 MPa)
Pressure indicator	With pressure gauge
Pressure gauge connection	G1/8

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 (1 MPa), p₂ = 6 bar (0.6 MPa) and Δp = 1 bar (0.1 MPa).

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

Data sheet

Operating and environmental conditions		
Size	Mini	
Operating pressure [bar]	1.5 ... 10 (0.15 ... 1 MPa)	
Operating medium	Compressed air to 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	

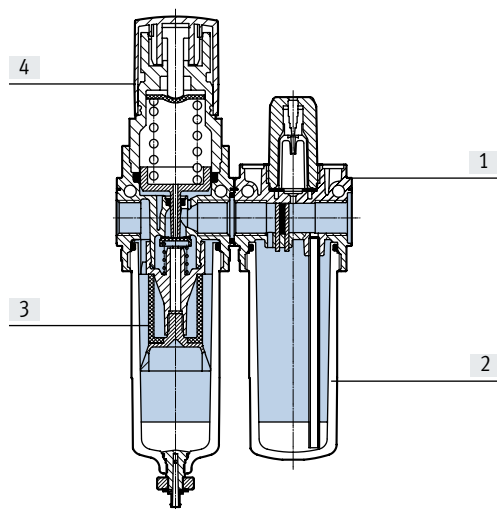
1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry internal application 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).

Weights [g]	
Size	Mini
Service unit	300

Materials

Sectional view



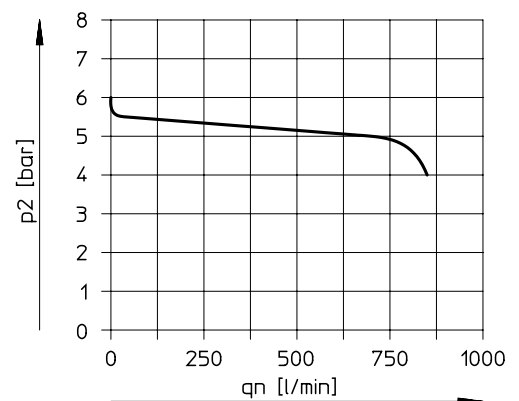
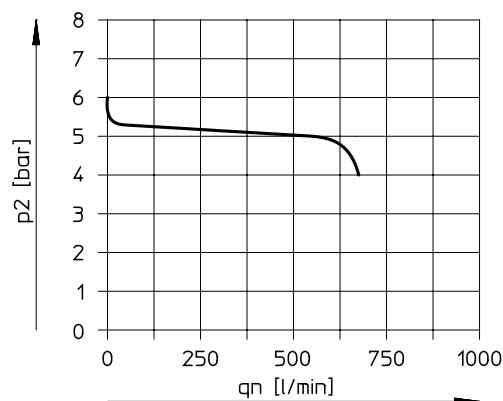
Size	Mini
[1] Housing	PA-reinforced
[2] Bowl	PC
[3] Filters	PE
[4] Rotary knob	POM
– Seals	NBR

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

Minor leakage at the output is intended by design. It improves the control behaviour of the regulator which is not compensated for input pressure.

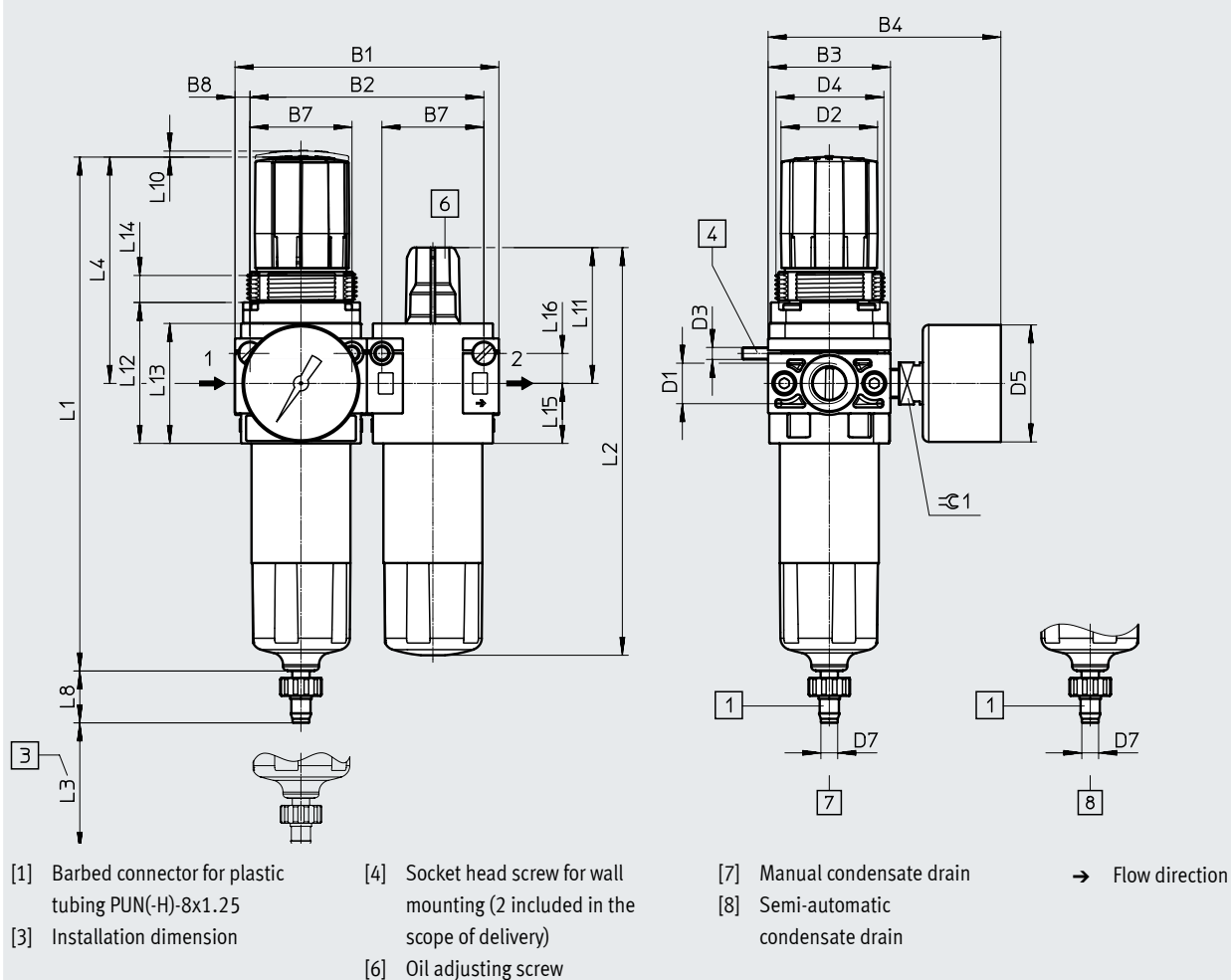
In rare cases, however, the leakage can sporadically be up to 500 l/h.

Data sheet

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 (0.05 ... 0.7 MPa)

Condensate drain	Size	Connection	Grade of filtration 5 µm Part no.	Type	Grade of filtration 40 µm Part no.	Type
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With pressure gauge, outer scale in bar, inner scale in psi

Manual	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

Accessories

Filter cartridges, D series, metal



Ordering data			
Size	Grade of filtration [μm]	Part no.	Type
Micro	5	526818	MS2/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

Accessories

Special oil



Ordering data

Scope of delivery

1 litre	Part no.	Type
	152811	OFSW-32

Ordering data – Pressure gauge MA

	Nominal size	Pneumatic connection	Display range		Part no.	Type
			Outer scale	Inner scale		
	Pressure gauge MA				Data sheets → Internet: ma	
	27	M5	0 ... 10 bar	–	526323	MA-27-10-M5
	40	G1/8	0 ... 10 bar	0 ... 145 psi	359874	MA-40-10-1/8
			0 ... 16 bar	0 ... 232 psi	345395	MA-40-16-1/8
	50	G1/4	0 ... 10 bar	0 ... 145 psi	359873	MA-50-10-1/4
			0 ... 16 bar	0 ... 232 psi	356759	MA-50-16-1/4
	Pressure gauge MA				Data sheets → Internet: ma	
	40	G1/8	0 ... 1 MPa	–	192732	MA-40-1-G1/8-MPA
			0 ... 1.6 MPa	–	192733	MA-40-1.6-G1/8-MPA
	50	G1/4	0 ... 1 MPa	–	192734	MA-50-1-G1/4-MPA
			0 ... 1.6 MPa	–	192735	MA-50-1.6-G1/4-MPA