

FRC Filter/Regulator-Lubricators – D Series, NPT

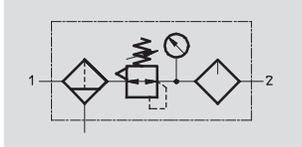
Technical Data

Function

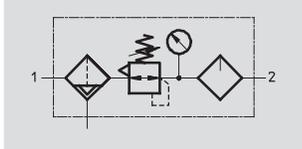
FRC...-D-...

Condensate drain

manual



semi- or fully automatic



Flow rate

90 ... 8700 l/min

Temperature range

-10 ... +60 °C

Input pressure

1 ... 16 bar



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

General technical data										
Size	Micro	Mini			Midi			Maxi		
Pneumatic connection	1/8 NPT	1/8 NPT	1/4 NPT	1/8 NPT	3/8 NPT	1/2 NPT	3/4 NPT	3/4 NPT	1 NPT	
Operating medium	Compressed air									
Design	Filter regulator									
	Proportional standard mist lubricator									
Type of mounting	Via accessories									
	In-line installation									
Assembly position	Vertical ±5°									
Grade of filtration [µm]	5	5 or 40								
Max. hysteresis [bar]	0.3	0.2						0.4		
Pressure regulation range [bar]	0.5 ... 7		0.5 ... 7			0.5 ... 12				
	Via pressure gauge									
Pressure indication	Port connection		M5	G1/8			G1/4		G1/4	
	Max. condensate volume [cm ³]		3	22			43		80	
Input pressure [bar]										
Condensate drain	manual	1 ... 10	1 ... 16							
	semiautomatic	1 ... 10	-							
	fully automatic	-	2 ... 12							

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

FRC Filter/Regulator-Lubricators – D Series, NPT

Technical Data

Standard nominal flow rate ¹⁾ qnN [l/min]	
Connection	Port block 1/8 NPT
Micro	
FRC	140

- 1) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.
A minimum flow rate of 125 l/min is required for flawless functioning.

Standard nominal flow rate ²⁾ qnN [l/min]						
Connection	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT	3/4 NPT	1 NPT
Mini						
FRC-...-D-...(-A)	700	1000	1200	–	–	–
FRC-...-D-7-...(-A)	800	1300	1500	–	–	–
FRC-...-D-5M-...(-A)	600	850	1050	–	–	–
Midi						
FRC-...-D-...(-A)	–	1500	2000	2600	2600	–
FRC-...-D-7-...(-A)	–	1700	2000	2800	2800	–
FRC-...-D-5M-...(-A)	–	1300	1700	1800	2100	–
Maxi						
FRC-...-D-...(-A)	–	–	–	7600	8300	8500
FRC-...-D-7-...(-A)	–	–	–	7700	8500	8700
FRC-...-D-5M-...(-A)	–	–	–	6800	7000	7200

- 2) Measured at p₁ = 10 bar, p₂ = 6 bar and Δp = 1 bar.
A minimum flow rate of 125 l/min is required for flawless functioning.

Screw-in depth of connecting thread [mm]	
Connection	1/8 NPT
Micro	
In housing	–
In connecting plates	8

Ambient conditions					
Size		Micro	Mini	Midi	Maxi
Ambient temperature	[°C]	–10 ... +60			
Temperature of medium	[°C]	–10 ... +60			
Corrosion resistance class	CRC ³⁾	2			

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

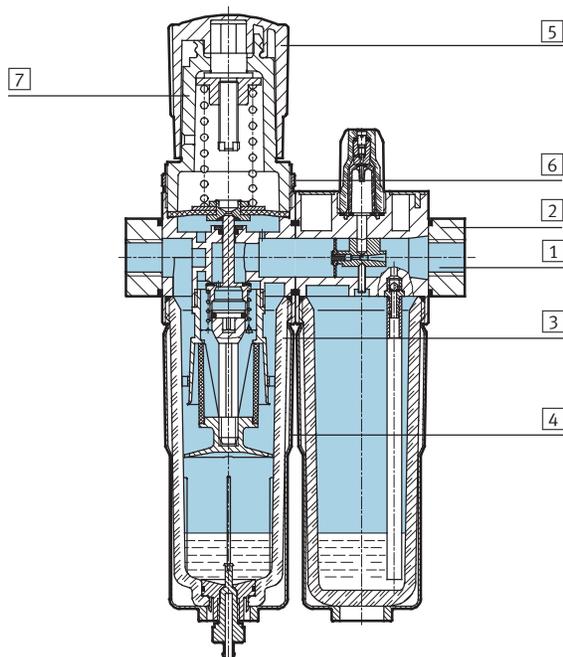
FRC Filter/Regulator-Lubricators – D Series, NPT

Technical Data

Weight [g]						
Size	Micro		Mini	Midi	Maxi	
	Female thread	Connecting plate			Connection 1/2 NPT, 3/4 NPT	Connection 1 NPT
With pressure gauge						
FRC-...	113	133	660	1440	2390	2520
Without pressure gauge						
FRC-...	103	123	600	1350	2280	2460

Materials

Sectional view



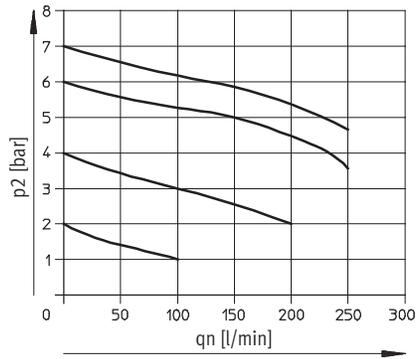
Service units	Micro	Mini/Midi/Maxi
1 Housing	Wrought aluminum alloy	Die-cast zinc
2 Port blocks	Wrought aluminum alloy	Die-cast zinc/aluminum
3 Bowl	Polycarbonate	Polycarbonate
4 Metal bowl guard	–	Aluminum
5 Regulating knob	Polyacetal	Polyacetal
6 Knurled nut	Wrought aluminum alloy	Aluminum
7 Support	Polycarbonate	–
– Seals	Nitrile rubber	Nitrile rubber

FRC Filter/Regulator-Lubricators – D Series, NPT

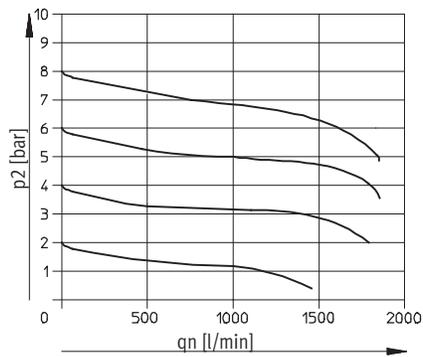
Technical Data

Standard flow rate q_n as a function of the output pressure p_2 ; primary pressure $p_1 = 10$ bar

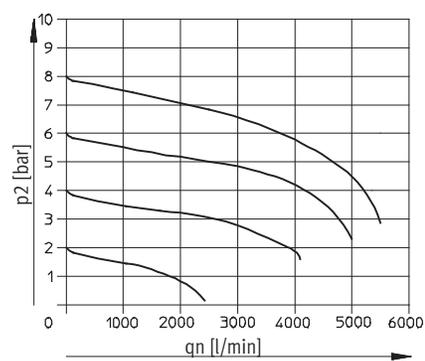
FRC-1/8...-MICRO



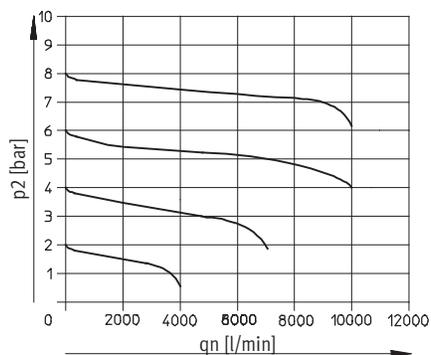
FRC-1/4-D-MINI



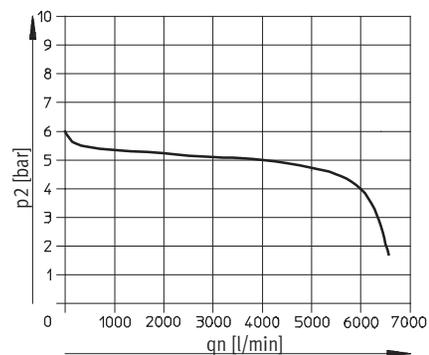
FRC-1/2-D-MIDI



FRC-1-D-MAXI



FRC-1-D-DI-MAXI



FRC Filter/Regulator-Lubricators – D Series, NPT

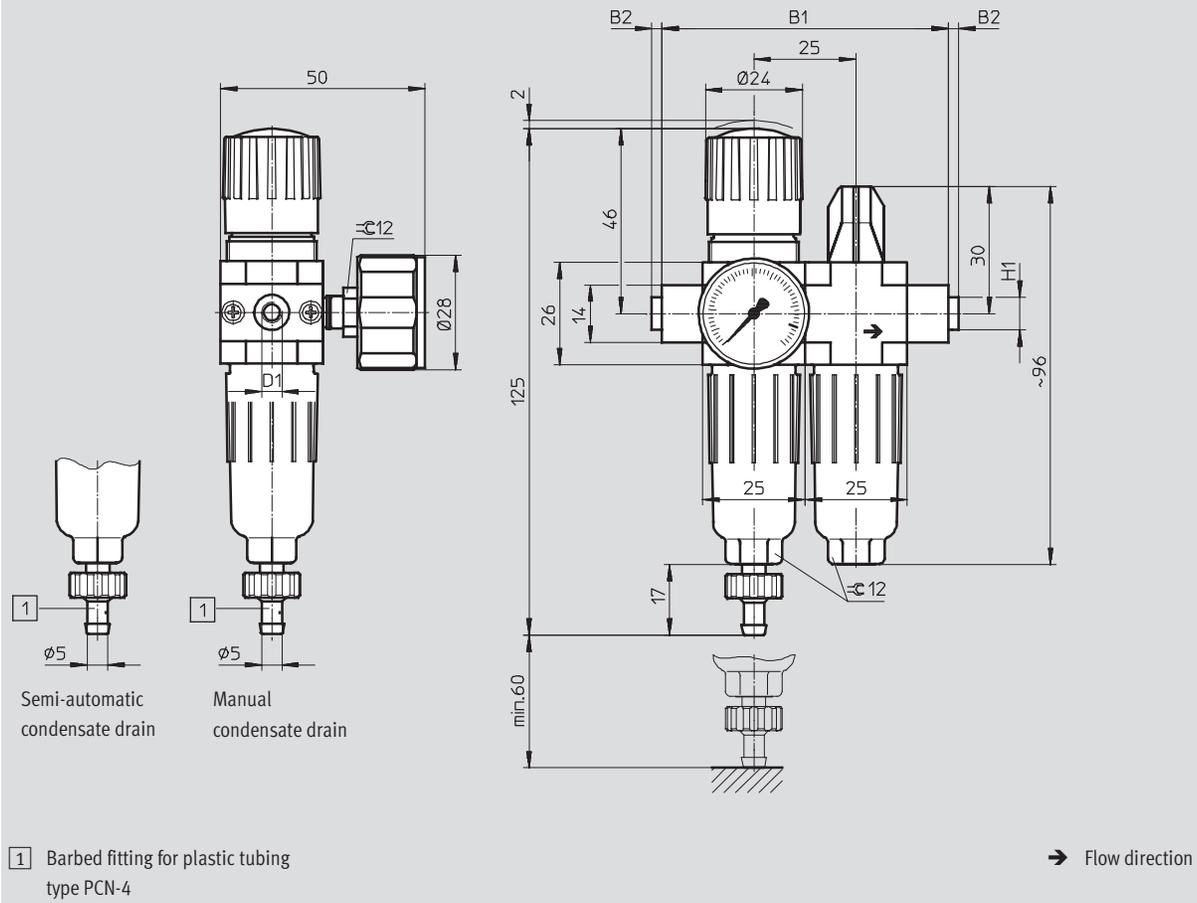
Technical Data – Dimensional Drawings



Dimensions

Download CAD Data → www.festo.com/us/cad

Micro



Type	B1	B2	D1	H1
FRC-1/8-D-7-5M-MICRO (H)	70	-	1/8 NPT	-

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

FRC Filter/Regulator-Lubricators – D Series, NPT

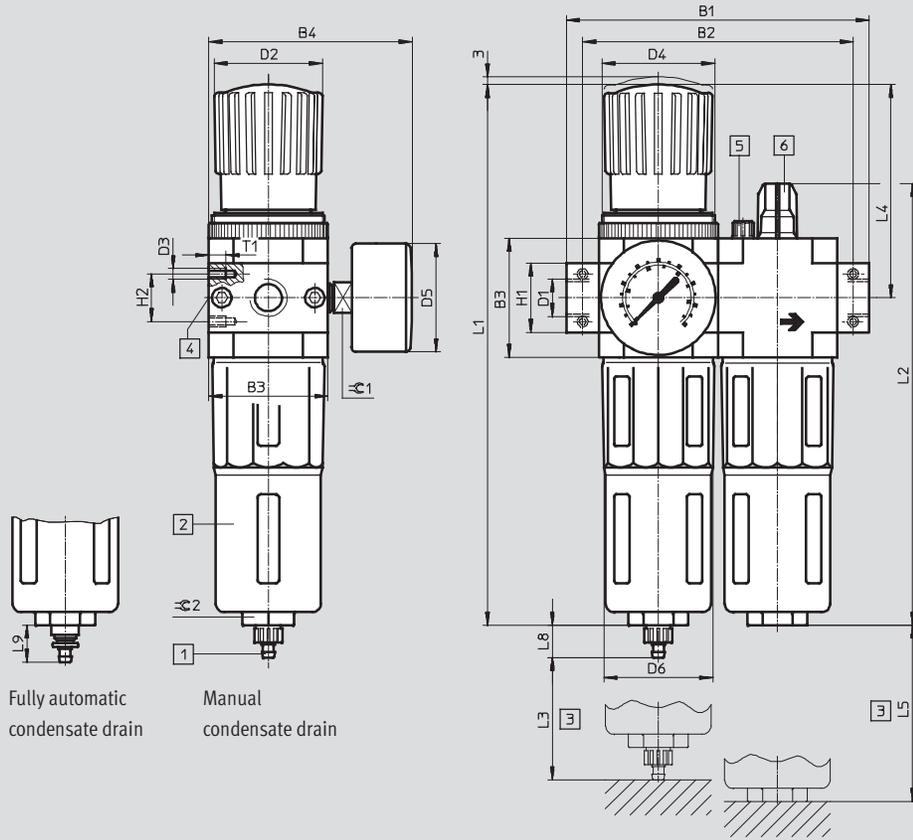
Technical Data – Dimensional Drawings

FESTO

Dimensions

Download CAD Data → www.festo.com/us/cad

Mini/Midi/Maxi



Fully automatic condensate drain
Manual condensate drain

- 1 Barbed fitting for plastic tubing type PCN-4
 - 2 Metal bowl guard
 - 3 Installation dimensions
 - 4 Second pressure gauge connection
 - 5 Bleed screw for oil reservoir
 - 6 Oil adjusting screw
- Flow direction

FRC Filter/Regulator-Lubricators – D Series, NPT

Technical Data – Dimensional Drawings

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

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

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

FRC Filter/Regulator-Lubricators – D Series, NPT

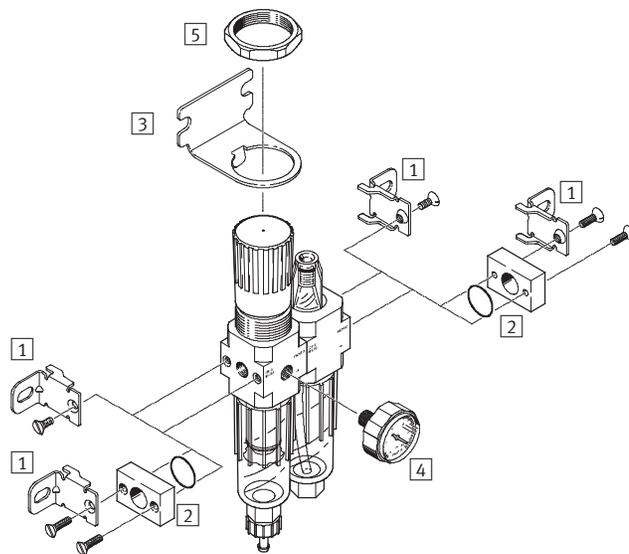
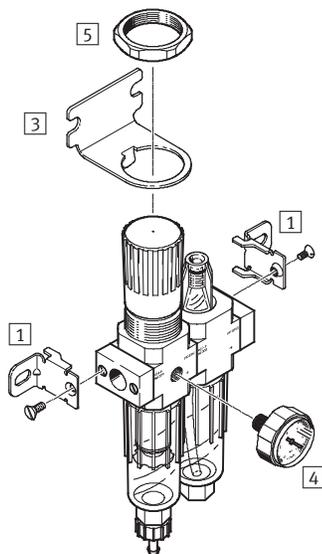
Accessories Overview



Micro

FRC filter/regulator-lubricator with port blocks, connection size 1/8 NPT

FRC filter/regulator-lubricator without port blocks, connection size M5 or M7 in housing



Mounting attachments and accessories

	with port blocks	without port blocks	→ Page/Internet
1 Mounting bracket HFOE	■	■	hfoe
2 Connecting plate kit PBL	-	■	pbl
3 Mounting bracket HRS	■	■	hrs
4 Pressure gauge MA-27	■	■	ma
5 Hexagon nut (included in scope of delivery) HMR	■	■	hmr

Note

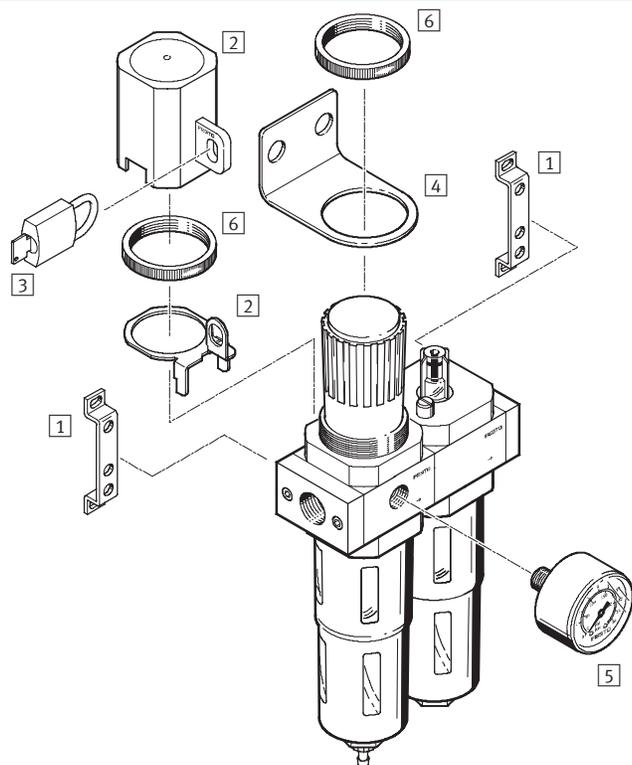
For Custom Combinations → FAST Program Selector Guide starting page 13

FRC Filter/Regulator-Lubricators – D Series, NPT

Accessories Overview

Mini/Midi/Maxi

FRC filter/regulator-lubricator



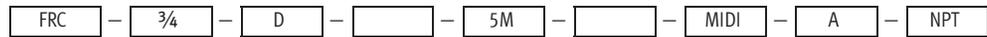
Mounting attachments and accessories		Rotary knob with detent	→ Page/Internet
1	Mounting bracket HFOE	■	hfoe
2	Regulator lock LRVS	■	lrvs
3	Padlock LRVS-D	■	Lrvs-d
4	Mounting bracket HR-D	■	hr
5	Pressure gauge MA	■	ma
6	Knurled nut (included in scope of delivery) HMR	■	hmr

Note

For Custom Combinations → FAST Program Selector Guide starting page 13

FRC Filter/Regulator-Lubricators – D Series, NPT

Type Codes



Basic function	
FRC	Filter/regulator-lubricator

Pneumatic connection	
N ¹ / ₈	1/8 NPT Thread (for Micro only)
1/8	1/8 NPT Thread
1/4	1/4 NPT Thread
3/8	3/8 NPT Thread
1/2	1/2 NPT Thread
3/4	3/4 NPT Thread
1	1 NPT Thread

Series	
D	Series

Pressure regulation range	
	0.5 ... 12 bar
7	0.5 ... 7 bar

Grade of filtration	
	40 μm
5M	5 μm

Pressure gauge	
	With pressure gauge
0	Without pressure gauge

Size	
MICRO	Grid dimension 25 mm (without port blocks)
MINI	Grid dimension 40 mm (without port blocks)
MIDI	Grid dimension 55 mm (without port blocks)
MAXI	Grid dimension 66 mm (without port blocks)

Condensate Drain	
	Manual
A	Fully automatic

NPT Connection (where available)	
NPT	NPT threaded connection (not part of Micro type code)

FRC Filter/Regulator-Lubricators – D Series, NPT



Ordering Data – Micro

Ordering data				
Pressure regulation range 0.5 ... 7 bar				
Condensate drain	Size	Connection	Grade of filtration 5 µm	
			Part No.	Type
With pressure gauge				
Manual	Micro	1/8 NPT	527868	FRC-N1/8-D-7-5M-MICRO
Semiautomatic	Micro	1/8 NPT	527869	FRC-N1/8-D-7-5M-MICRO-H
Without pressure gauge				
Manual	Micro	1/8 NPT	527870	FRC-N1/8-D-7-0-5M-MICRO
Semiautomatic	Micro	1/8 NPT	527871	FRC-N1/8-D-7-0-5M-MICRO-H

FRC Filter/Regulator-Lubricators – D Series, NPT



Ordering Data – Mini/Midi/Maxi

Ordering data								
Pressure regulation range 0.5 ... 12 bar, metal bowl guard								
Condensate drain	Size	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm			
			Part No.	Type	Part No.	Type		
With pressure gauge						Without pressure gauge		
Manual	Mini	1/8 NPT	173832	FRC-1/8-D-5M-MINI-NPT	173828	FRC-1/8-D-MINI-NPT	173830	FRC-1/8-D-O-MINI-NPT
		1/4 NPT	173840	FRC-1/4-D-5M-MINI-NPT	173836	FRC-1/4-D-MINI-NPT	173838	FRC-1/4-D-O-MINI-NPT
		3/8 NPT	173848	FRC-3/8-D-5M-MINI-NPT	173844	FRC-3/8-D-MINI-NPT	173846	FRC-3/8-D-O-MINI-NPT
	Midi	3/8 NPT	173856	FRC-3/8-D-5M-MIDI-NPT	173852	FRC-3/8-D-MIDI-NPT	173854	FRC-3/8-D-O-MIDI-NPT
		1/2 NPT	173864	FRC-1/2-D-5M-MIDI-NPT	173860	FRC-1/2-D-MIDI-NPT	173862	FRC-1/2-D-O-MIDI-NPT
		3/4 NPT	173872	FRC-3/4-D-5M-MIDI-NPT	173868	FRC-3/4-D-MIDI-NPT	173870	FRC-3/4-D-O-MIDI-NPT
	Maxi	3/4 NPT	173880	FRC-3/4-D-5M-MAXI-NPT	173876	FRC-3/4-D-MAXI-NPT	173878	FRC-3/4-D-O-MAXI-NPT
		1 NPT	173888	FRC-1-D-5M-MAXI-NPT	173884	FRC-1-D-MAXI-NPT	-	-
	Fully automatic	Mini	1/8 NPT	173833	FRC-1/8-D-5M-MINI-A-NPT	173829	FRC-1/8-D-MINI-A-NPT	173831
1/4 NPT			173841	FRC-1/4-D-5M-MINI-A-NPT	173837	FRC-1/4-D-MINI-A-NPT	173839	FRC-1/4-D-O-MINI-A-NPT
3/8 NPT			173849	FRC-3/8-D-5M-MINI-A-NPT	173845	FRC-3/8-D-MINI-A-NPT	173847	FRC-3/8-D-O-MINI-A-NPT
Midi		3/8 NPT	173857	FRC-3/8-D-5M-MIDI-A-NPT	173853	FRC-3/8-D-MIDI-A-NPT	173855	FRC-3/8-D-O-MIDI-A-NPT
		1/2 NPT	173865	FRC-1/2-D-5M-MIDI-A-NPT	173861	FRC-1/2-D-MIDI-A-NPT	173863	FRC-1/2-D-O-MIDI-A-NPT
		3/4 NPT	173873	FRC-3/4-D-5M-MIDI-A-NPT	173869	FRC-3/4-D-MIDI-A-NPT	173871	FRC-3/4-D-O-MIDI-A-NPT
Maxi		3/4 NPT	173881	FRC-3/4-D-5M-MAXI-A-NPT	173877	FRC-3/4-D-MAXI-A-NPT	173879	FRC-3/4-D-O-MAXI-A-NPT
		1 NPT	173889	FRC-1-D-5M-MAXI-A-NPT	173885	FRC-1-D-MAXI-A-NPT	-	-

Ordering data						
Pressure regulation range 0.5 ... 7 bar, metal bowl guard						
Condensate drain	Size	Connection	Grade of filtration 40 µm			
			Part No.	Type	Part No.	Type
With pressure gauge						
Manual	Mini	1/8 NPT	173834	FRC-1/8-D-7-MINI-NPT		
		1/4 NPT	173842	FRC-1/4-D-7-MINI-NPT		
		3/8 NPT	173850	FRC-3/8-D-7-MINI-NPT		
	Midi	3/8 NPT	173858	FRC-3/8-D-7-MIDI-NPT		
		1/2 NPT	173866	FRC-1/2-D-7-MIDI-NPT		
		3/4 NPT	173874	FRC-3/4-D-7-MIDI-NPT		
	Maxi	3/4 NPT	173882	FRC-3/4-D-7-MAXI-NPT		
		1 NPT	173890	FRC-1-D-7-MAXI-NPT		
	Fully automatic	Mini	1/8 NPT	173835	FRC-1/8-D-7-MINI-A-NPT	
1/4 NPT			173843	FRC-1/4-D-7-MINI-A-NPT		
3/8 NPT			173851	FRC-3/8-D-7-MINI-A-NPT		
Midi		3/8 NPT	173859	FRC-3/8-D-7-MIDI-A-NPT		
		1/2 NPT	173867	FRC-1/2-D-7-MIDI-A-NPT		
		3/4 NPT	173875	FRC-3/4-D-7-MIDI-A-NPT		
Maxi		3/4 NPT	173883	FRC-3/4-D-7-MAXI-A-NPT		
		1 NPT	173891	FRC-1-D-7-MAXI-A-NPT		

FAST* Program – Custom Combination Selector Guide

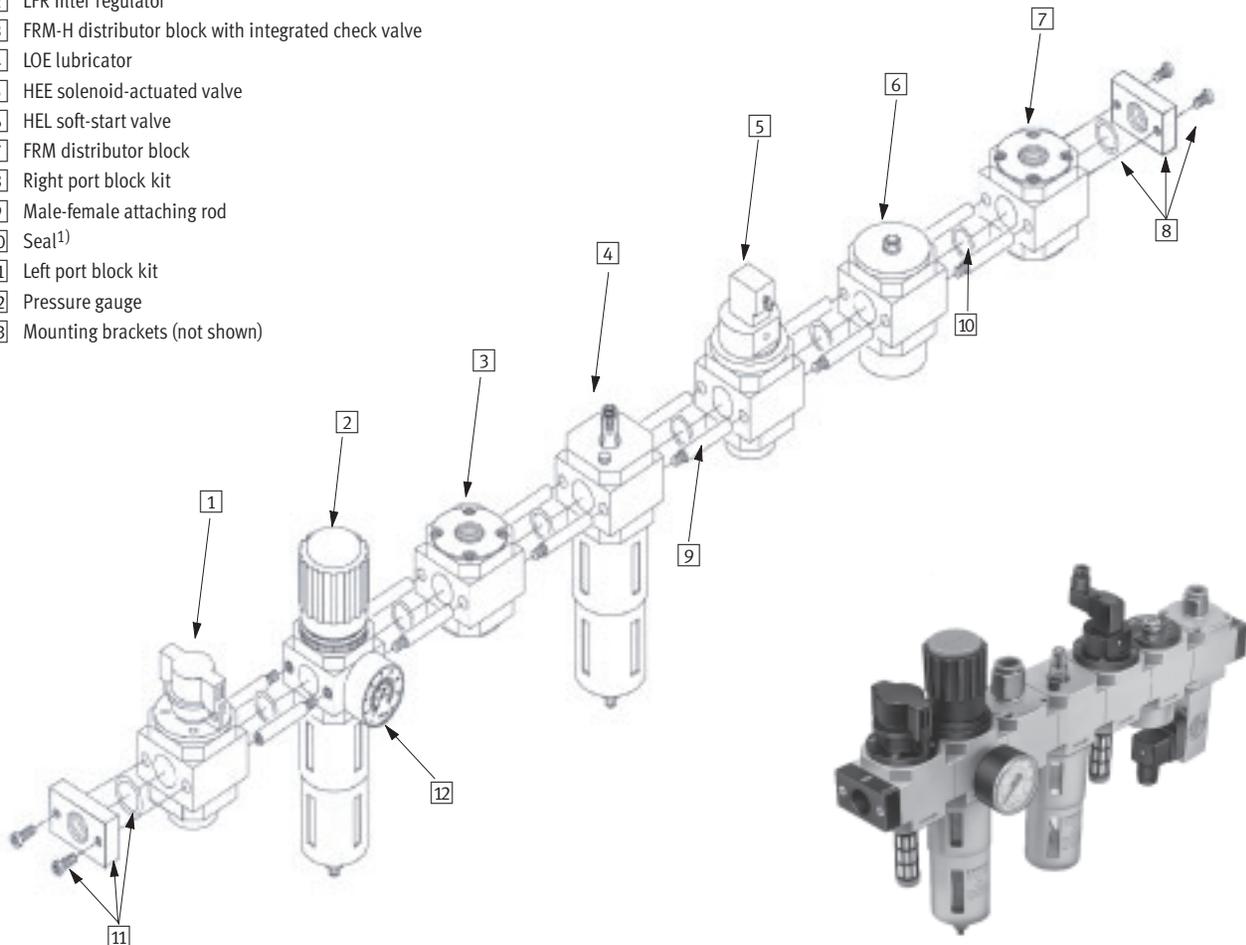
Custom Combinations– D Series, NPT

*FAST = Festo Assured Shipping Time

Custom combinations can be delivered same day / next day as separate parts for assembly at the site. Available parts are listed in this section. Factory assembled custom combinations are also available. Contact your local Festo representative for details.

A combination is an assembly which combines different air preparation functions into a single unit. An example would be as follows

- 1 HE on/off valve
- 2 LFR filter regulator
- 3 FRM-H distributor block with integrated check valve
- 4 LOE lubricator
- 5 HEE solenoid-actuated valve
- 6 HEL soft-start valve
- 7 FRM distributor block
- 8 Right port block kit
- 9 Male-female attaching rod
- 10 Seal¹⁾
- 11 Left port block kit
- 12 Pressure gauge
- 13 Mounting brackets (not shown)



¹⁾ Note: For MAXI sizes only, 2 seals are required.

Example of an assembled D Series combination

Selecting Components for Combinations

The following steps can be used to select the component part numbers and determine quantities needed to assemble a combination.

As an example within each step, the above unit will be used with these requirements:

- Maximum pressure: 7 bar
- Minimum filtration: 40 µm
- Automatic drain filter
- Flow: 2000 l/min
- NPT thread
- 24 V DC system

Parts selected for the example will be highlighted like this.

FAST Program – Custom Combination Selector Guide



Custom Combinations– D Series, NPT

Step 1: Based upon the required functions and flow for a given port, determine the port size and unit type (MINI, MIDI, or MAXI). The flow for an assembly of units will be approximately 80 % of the lowest flow unit selected (as shown in the chart).

Example:

Based upon the functions required, and a flow of 2000 l/min, the minimum suggested port size and unit type is a 3/8 MIDI. The appropriate maximum flow will be 2480 l/min based on the flow rate of the lowest flow component.

80 % of Maximum Flow Per Unit Type (l/min / scfm)

Function	Type	1/8		3/8	
		MINI	MINI	MIDI	MIDI
On/Off Valve	HE, HEE, HEL	800/28.2	1,200/42.4	2,080/73.4	2,560/90.4
Filter Regulator	LFR (40 µm)	600/21.2	1,200/42.4	1,600/56.5	2,480/87.5
	LFR (5 µm)	520/18.4	960/33.9	1,280/45.2	1,920/67.8
Regulator	LR	800/28.2	1,280/45.2	1,760/62.1	1,440/50.8
Filter	LF (40 µm)	800/28.2	960/33.9	1,520/53.7	2,160/76.2
	LF (5 µm)	640/22.6	760/26.8	1,280/45.2	880/31.1
Micro Filter	LFMA (0.01 µm)	104/3.7	128/4.5	280/9.9	304/10.7
Fine Filter	LFMB (1 µm)	200/7.1	240/8.5	400/14.1	560/19.8
Lubicator	LOE	1,040/36.7	1,840/65.0	2,240/79.1	4,400/153.3
Distribution Block	FRM	1,200/42.4	2,640/93.2	2,800/98.8	5,600/197.7
	FRM-H w/check valve	1,040/36.7	1,600/56.5	2,720/96.0	4,400/155.3

Function	Type	1/2		3/4		1
		MIDI	MAXI	MIDI	MAXI	MAXI
On/Off Valve	HE, HEE, HEL	2,880/101.7	4,480/158.1	3,040/107.3	4,800/169.4	5,200/183.6
Filter Regulator	LFR (40 µm)	2,720/96.0	7,520/265.5	2,720/96.0	7,760/273.9	8,000/282.4
	LFR (5 µm)	2,000/70.6	6,064/214.1	2,080/73.4	6,080/214.6	6,400/225.9
Regulator	LR	3,200/113.0	8,560/302.2	3,600/127.1	9,600/338.9	10,000/353.0
Filter	LF (40 µm)	2,400/84.7	3,520/124.3	2,400/84.7	4,000/141.2	4,240/149.7
	LF (5 µm)	1,600/56.5	2,960/104.5	1,600/56.5	2,880/101.7	3,040/107.3
Micro Filter	LFMA (0.01 µm)	720/25.4	920/32.5	800/28.2	960/33.9	1,000/35.3
Fine Filter	LFMB (1 µm)	320/11.3	600/21.2	368/13.0	720/25.4	760/26.8
Lubicator	LOE	4,880/172.3	6,640/234.4	5,040/177.9	6,720/273.3	7,200/254.2
Distribution Block	FRM	6,560/231.2	9,360/330.4	7,040/248.5	16,000/564.8	13,920/491.4
	FRM-H w/check valve	4,480/158.1	7,680/271.1	4,400/155.3	12,000/423.6	10,720/378.4

FAST Program – Custom Combination Selector Guide

Custom Combinations – D Series, NPT



Step 2: Using this chart, select the Main Unit component part numbers by unit type (MINI, MIDI, or MAXI).

Example:

Based upon the requirements and unit type selected in step 1 (MIDI), the Main Unit(items **1** - **7**) part numbers can be selected.

Application	Description	Type	MINI	MIDI	Item No.	MAXI	
Control Function	Manual On/Off Valve	HE-...	170681	170682	1	170683	
	Solenoid Actuated On/Off Valve	HEE-...	24 V DC	172956	172959	5	172962
			110 V AC	172957	172960		172963
			230 V AC	172958	172961		172964
	Soft-start Valve	HEL-...	170690	170691	6	170692	
Filtration / Pressure Regulation	Filter / Pressure Regulator Unit	LFR-...	7 bar, 40 µm, Manual Drain	546456	546463		546470
			7 bar, 40 µm, Auto Drain	546457	546463	2	546471
			12 bar, 40 µm, Manual Drain	546432	546425		546537
			12 bar, 40 µm, Auto Drain	546433	546426		546438
			12 bar, 5 µm, Manual Drain	546454	546461		546468
			12 bar, 5 µm, Auto Drain	546455	546462		546469
Pressure Regulation	Pressure Regulator Unit	LR-...	7 bar	546452	546458		546465
			12 bar	546430	546424		546436
Filtration	Filter Unit	LF-...	40 µm, Manual Drain	546428	546422		546434
			40 µm, Auto Drain	546429	546423		546435
			5 µm, Manual Drain	546451	546459		546466
			5 µm, Auto Drain	546453	546460		546467
	Micro Filter Unit	LFMA-...	0.01 µm, Manual Drain	546439	546443		546447
			0.01 µm, Auto Drain	546441	546446		546449
	Fine Filter Unit	LFMB-...	1 µm, Manual Drain	546440	546444		546448
			1 µm, Auto Drain	546442	546445		546450
Lubrication	Lubricator Unit	LOE-...	546431	546427	4	546517	
Distribution	Distributor Block w/ Threads	FRM-...	170684	170685	7	170686	
	Distributor Block w/ Check Valve	FRM-H-...	170687	170688	3	170689	
	Distributor Block w/o Port Blocks	FRZ	162786	159582		162787	

Step3: Based upon the type and number of Main Units being joined, choose the part number and quantity of attaching rods and seals.

Example:

n = 7

Unit Type	Male-Female Attaching Rod	Item No.	Female-Female Attaching Rod	Item No.	Seals	Item No.
MINI	546481 (set of 2)		546483 (set of 2)		546478	
MIDI	546480 (set of 2)	9	546489	N/A	546474	10
MAXI	546476 (set of 2)		546494		546477 (set of 2)	

n = number of Main Units to be assembled	Qty of Male-Female Attaching Rods	Qty of Female-Female Attaching Rods	Number of Seals
Without an LFR or LR	$(n - 1) \times 2$	2	n - 1
With an LFR or LR	$(n - 1) \times 2$	0	n - 1
	$(7 - 1) \times 2$	0	7 - 1 = 6
	$(6) \times 2 = 12$		

FAST Program – Custom Combination Selector Guide



Custom Combinations – D Series, NPT

Step 4: Use this chart to select the Port Block Kit part numbers by unit type (MINI, MIDI, or MAXI) based upon the size and type.

Example:

3/8 NPT MIDI

Type	1/8 NPT		1/4 NPT		3/8 NPT			1/2 NPT		3/4 NPT		1 NPT		
	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Item No.	Right Port Block Kit	Item No.	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit
Mini	546520	546521	546522	546523	546524		546525		–	–	–	–	–	–
Midi	–	–	546536	546537	546530	11	546531	8	546526	546527	546528	546529	–	–
Maxi	–	–	–	–	–		–		546538	546539	546490	546492	546491	546493

Metric / BSP (G)

Type	G1/8		G1/4		G3/8		G1/2		G3/4		G1	
	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit	Left Port Block Kit	Right Port Block Kit
Mini	546495	546496	546497	546498	546499	546500	–	–	–	–	–	–
Midi	–	–	546532	546533	546501	546502	546503	546504	546505	546506	–	–
Maxi	–	–	–	–	–	–	546534	546535	546507	546508	546509	546510

Step 5: Use this chart to select the Gauge (if required) and the (optional) Mounting Brackets by unit type (MINI, MIDI, or MAXI).

Example:

MIDI size

Gauge Selection (if required)

Type	7 bar	Item	12 bar
Mini	546485		546479
Midi	546484	12	546482
Maxi	546484		546482

Mounting Brackets (2 brackets included)

Type	Mounting Brackets	Item
Mini	159638	
Midi	159593	13
Maxi	159593	

Example:

Result:

Item	Part No.	Qty	
1	HE On/Off Valve	170682	1
2	LFR Filter Regulator	546464	1
3	FRM-H Distributor Block with Integrated Check Valve	170688	1
4	LOE Lubricator	546427	1
5	HEE Solenoid Actuated On-Off Valve	172959	1
6	HEL Soft-start Valve	170691	1
7	FRM Distributor Block	170685	1
8	Right Port Block Kit	546531	1
9	Male-Female Attaching Rod	546480	6
10	Seal	546474	6
11	Left Port Block Kit	546530	1
12	MA Pressure Gauge	546484	1
13	Mounting Brackets (not shown)	159593	1

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