

## Service unit combinations MSB-FRC, MS series

**FESTO**



Festo core product range  
Covers 80% of your automation tasks

Worldwide:  
Superb:  
Easy:

Always in stock  
Festo quality at an attractive price  
Reduces procurement and storing complexity

★ Generally ready for shipping ex works in 24 hours  
Held in stock in 13 service centres worldwide  
More than 2200 product  
★ Generally ready for shipping ex works in 5 days  
Assembled for you in 4 service centres worldwide  
Up to  $6 \times 10^{12}$  variants per product series



# MS series service unit components

Key features



## MS series service unit components

Solutions for every application

With its large product range, highly functional components and a wide choice of services, the MS series from Festo offers a complete concept for compressed air preparation. Suitable for simple standard applications as well as application-specific solutions to the highest quality standards.

Available as individual components, pre-assembled combinations ex-stock, application-specific combinations or complete turnkey solutions. The five sizes in the MS series achieve maximum flow rates with minimum space requirements.

### Freely combinable function modules

Pressure regulators, on/off and soft-start valves with safety function, filter, pressure and flow sensors, dryers, sensors and lubricators. All these allow a suitable solution to be assembled for every task. Their modular structure means that the components

are freely combinable. A simple connection system saves time when replacing individual modules without dismantling the entire combination. What's more, many of the components are certified to UL and ATEX.

## CAD models and configurator

Convenient aids for planning and selecting application-specific individual devices and combinations. The product configurator lets you configure customised solutions quickly and transfer the order data with no hassle.

### Engineering tools

Selection tool for choosing the right service unit without oversizing, and with the right air quality class: [www.festo.com/engineering/wartungseinheit](http://www.festo.com/engineering/wartungseinheit)



## Integrated sensors

Pressure and flow sensors



- Maximum machine availability through controlled processes
- Reliable compressed air preparation and supply for systems
- Integrable or stand-alone
- Easy to connect with M8/M12 plug

### Safety functions

Soft-start/quick exhaust valves  
MS6-SV/MS9-SV



- Fast and reliable exhausting of systems up to Performance Level e, certified to EN ISO 13849-1
- Integrated soft-start function

### Energy savings

Service units MSE6



- Fully automatic monitoring and regulation of compressed air supply
- Automatic shut-off of the compressed air in stand-by mode
- Detection and notification of leakages
- Condition monitoring of relevant process data

### Intelligent mix of sizes



- Optimum flow rate with up to 18% smaller size
- Excellent energy efficiency
- Cost-optimised combinations – save up to 30%!

Size differences					
Size	MS2	MS4	MS6	MS9	MS12
Grid dimension [mm]	25	40	62	90	124
Port sizes	M5, QS-6	G1/8, G1/4, G3/8	G1/4, G3/8, G1/2, G3/4	G1/2, G3/4, G1, G1 1/4, G1 1/2	G1, G1 1/4, G1 1/2, G2
Standard nominal flow rate qnN <sup>1)</sup> [l/min]	350	1800	6500	20000	22000

1) Using pressure regulator MS-LR as an example

# MS series service unit components

Key features

**Note**  
Information

The next few pages provide a brief overview of the complete product range for the MS series service unit components.

You can find detailed information and all of the technical data in the documentation for the corresponding service unit component.

Accessories such as connection plates or mounting brackets can be ordered either via the configurator or separately.

**Structure of a service unit**

The order of the individual components within a service unit is relevant for safety and functionality. It is not possible to assemble the service unit components in any order in the flow direction. There are restrictions and rules.

The configurator for service unit MSB is a reliable and convenient way of arranging individual service unit components. This ensures that the applicable rules are complied with. As a result, you get a completely assembled combination with UL or ATEX certification if you need it. When arranging a combination of individually configured and ordered service unit components, the points on the right must be adhered to under all circumstances.

- Regulators MS-LFR/LR/LRP/LRE are only permissible in the flow direction with the same or decreasing pressure regulation range
- Filters MS-LFR/LF/LFM/LFX are only permissible in the flow direction with an increasing grade of filtration
- Lubricators MS-LOE are not permitted in the flow direction upstream of a filter MS-LFR/LFM/LF/LFX, water separator MS-LWS or membrane air dryer MS-LDM1
- A micro filter MS-LFM must be installed upstream of an activated carbon filter MS-LFX or membrane air dryer MS-LDM1 in the flow direction
- A flow sensor SFAM cannot be installed directly downstream of a regulator MS-LFR/LR; a branching module MS-FRM must be positioned between them
- A soft-start/quick exhaust valve MS-SV must be the last service unit component in the flow direction

**Total product range for MS series service unit components**

Type	Description	Size	Pneumatic connection					
			Push-in connector	Female thread			Connection plate with thread	
				M	G	NPT	G	NPT
<b>Combinations</b>								
<b>Service units MSB-FRC</b> <span style="float: right;">Technical data → Internet: msb</span>								
	Combinations of filter regulator and lubricator	4	-	-	1/8, 1/4	-	-	-
		6	-	-	1/4, 3/8, 1/2	-	-	-
<b>Service units MSB</b> <span style="float: right;">Technical data → Internet: msb</span>								
	7 combinations, predefined	4	-	-	1/4	-	-	-
		6	-	-	1/2	-	-	-
	Combinations freely configurable	4	-	-	1/8, 1/4	-	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	-	-	1/4, 3/8, 1/2	-	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	-	-	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
<b>Service units MSE6</b> <span style="float: right;">Technical data → Internet: mse6</span>								
	Combinations with fieldbus connection for measuring pressure, flow rate and consumption	6	-	-	-	-	1/2	-

# MS series service unit components

Key features

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Total product range for MS series service unit components								
Type	Description	Size	Pneumatic connection					
			Push-in connector	Female thread			Connection plate with thread	
				M	G	NPT	G	NPT
<b>Individual devices</b>								
<b>Filter regulators MS-LFR</b>							Technical data → Internet: ms-lfr	
	Filter and pressure regulator in a single device, grade of filtration 5 or 40 µm	2	QS-6	M5	–	–	–	–
		4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Filters MS-LF</b>							Technical data → Internet: ms-lf	
	Grade of filtration 5 or 40 µm	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Fine and micro filters MS-LFM</b>							Technical data → Internet: ms-lfm	
	Grade of filtration 0.01 or 1 µm	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Activated carbon filters MS-LFX</b>							Technical data → Internet: ms-lfx	
	For removing liquid and gaseous oil particles	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Water separators MS-LWS</b>							Technical data → Internet: ms-lws	
	Remove condensed water from compressed air, maintenance-free	6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–

# MS series service unit components

Key features



Total product range for MS series service unit components								
Type	Description	Size	Pneumatic connection					
			Push-in connector	Female thread			Connection plate with thread	
				M	G	NPT	G	NPT
<b>Individual devices</b>								
<b>Pressure regulators MS-LR</b> <span style="float: right;">Technical data → Internet: ms-lr</span>								
	For setting the required operating pressure, 4 pressure regulation ranges	2	QS-6	M5	–	–	–	–
		4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Pressure regulators MS-LRB</b> <span style="float: right;">Technical data → Internet: ms-lrb</span>								
	For creating a regulator manifold with independent pressure regulation ranges. Pressure output is to the front or rear.	4	–	–	1/4	–	1/8, 1/4, 3/8	–
		6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	–
<b>Precision pressure regulators MS-LRP</b> <span style="float: right;">Technical data → Internet: ms-lrp</span>								
	For precise setting of the required operating pressure, 4 pressure regulation ranges, pressure hysteresis 0.02 bar	6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
<b>Precision pressure regulators MS-LRPB</b> <span style="float: right;">Technical data → Internet: ms-lrpb</span>								
	For configuring a regulator manifold with independent pressure regulation ranges. Pressure output is to the front or rear.	6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	–
<b>Electrical pressure regulators MS-LRE</b> <span style="float: right;">Technical data → Internet: ms-lre</span>								
	Electrically adjustable pressure regulator, 4 pressure regulation ranges	6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
<b>Lubricators MS-LOE</b> <span style="float: right;">Technical data → Internet: ms-loe</span>								
	Add a precisely adjustable amount of oil to the compressed air. The oil mist component is proportional to the compressed air flow rate.	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–

# MS series service unit components

Key features



Total product range for MS series service unit components								
Type	Description	Size	Pneumatic connection					
			Push-in connector	Female thread			Connection plate with thread	
				M	G	NPT	G	NPT
<b>Individual devices</b>								
<b>On/off valves MS-EM</b>							Technical data → Internet: ms-em	
	Manually operated on/off valve for pressurising and exhausting pneumatic installations.	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>On/off valves MS-EE</b>								
<b>On/off valves MS-EE</b>							Technical data → Internet: ms-ee	
	Solenoid actuated on/off valve for pressurising and exhausting pneumatic installations.	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Soft-start valves MS-DL</b>								
<b>Soft-start valves MS-DL</b>							Technical data → Internet: ms-dl	
	Pneumatically actuated soft-start valve for slowly pressurising and exhausting pneumatic installations.	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Soft-start valves MS-DE</b>								
<b>Soft-start valves MS-DE</b>							Technical data → Internet: ms-de	
	Solenoid actuated soft-start valve for slowly pressurising and exhausting pneumatic installations.	4	–	–	1/8, 1/4	–	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	–	–	1/4, 3/8, 1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		12	–	–	–	–	1, 1 1/4, 1 1/2, 2	–
<b>Soft-start/quick exhaust valves MS-SV</b>								
<b>Soft-start/quick exhaust valves MS-SV</b>							Technical data → Internet: ms-sv	
	For building up pressure gradually and reducing pressure quickly and safely in pneumatic piping systems. Up to category 1, PL c.	6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		9	–	–	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
	Up to category 3, PL d. Up to category 4, PL e in the case of optional extension.	6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
		6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	–
	Up to category 4, PL e.	6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	–
		6	–	–	1/2	–	1/4, 3/8, 1/2, 3/4	–

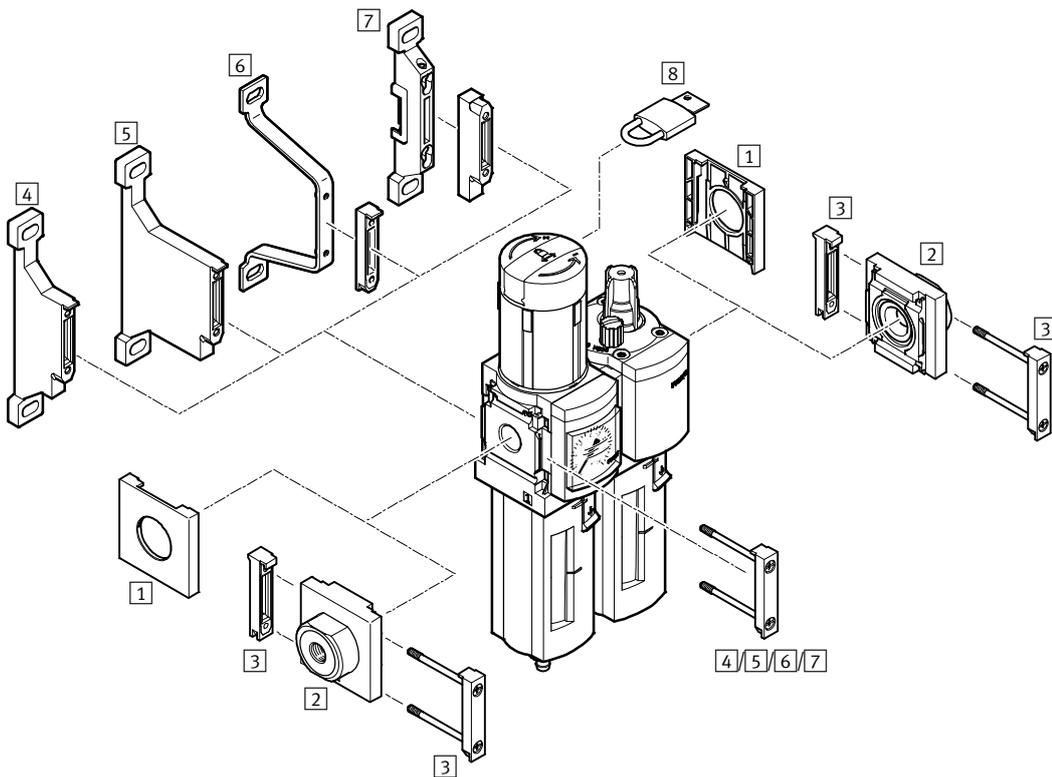
# MS series service unit components

Key features

Total product range for MS series service unit components								
Type	Description	Size	Pneumatic connection					
			Push-in connector	Female thread			Connection plate with thread	
				M	G	NPT	G	NPT
<b>Individual devices</b>								
<b>Membrane air dryers MS-LDM1</b>							Technical data → Internet: ms-ldm	
	Wear-free membrane dryer with internal air consumption	4	-	-	1/8, 1/4	-	1/8, 1/4, 3/8	1/8, 1/4, 3/8
		6	-	-	1/4, 3/8, 1/2	-	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2, 3/4
<b>Branching modules MS-FRM</b>								
							Technical data → Internet: ms-frm	
	Compressed air distributor with 4 connections	4	-	-	1/8, 1/4	-	1/8, 1/4, 3/8	-
		6	-	-	1/4, 3/8, 1/2	-	1/4, 3/8, 1/2, 3/4	-
		9	-	-	3/4, 1	3/4, 1	1/2, 3/4, 1, 1 1/4, 1 1/2	1/2, 3/4, 1, 1 1/4, 1 1/2
		12	-	-	-	-	1, 1 1/4, 1 1/2, 2	-
<b>Distributor blocks MS-FRM-FRZ</b>								
							Technical data → Internet: ms-frm-frz	
	Compressed air distributor with 4 connections and half the grid dimension width	4	-	-	-	-	-	-
		6	-	-	-	-	-	-
<b>Flow sensors SFAM</b>								
							Technical data → Internet: sfam	
	For absolute flow rate information and accumulated air consumption measurement	6	-	-	-	-	1/2	1/2
		9	-	-	-	-	1, 1 1/2	1, 1 1/2

# Service unit combinations MSB4/MSB6-FRC, MS series

Peripherals overview



Mounting attachments and accessories		→ Page/Internet
1	Cover cap MS4/6-END	ms4-end, ms6-end
2	Connecting plate-SET MS4/6-AG...	ms4-ag, ms6-ag
3	Module connector MS4/6-MV	ms4-mv, ms6-mv
4	Mounting bracket MS4/6-WP	ms4-wp, ms6-wp
5	Mounting bracket MS4/6-WPB	ms4-wp, ms6-wp
6	Mounting bracket MS4/6-WPE	ms4-wp, ms6-wp
7	Mounting bracket MS4/6-WPM	ms4-wp, ms6-wp
8	Padlock LRVS-D	16

# Service unit combinations MSB4/MSB6-FRC, MS series

Type codes

MSB 6 - 3/8 - FRC5:J1 M1

Series	
MSB	Service unit combination

Size	
4	Grid dimension 40 mm
6	Grid dimension 62 mm

Pneumatic connection	
MSB4	
1/8	Thread G1/8
1/4	Thread G1/4
MSB6	
1/4	Thread G1/4
3/8	Thread G3/8
1/2	Thread G1/2

- Service unit combination consisting of:**
- Filter regulator with pressure gauge, rotary knob with detent, lockable via accessories
  - Lubricator

Pressure regulation range 0.3 ... 7 bar	
Plastic bowl guard	
FRC1:J5	Grade of filtration 40 µm, manual rotary condensate drain, pressure gauge with outer scale in bar and inner scale in psi
FRC13:J120	Grade of filtration 40 µm, manual rotary condensate drain, pressure gauge with outer scale in MPa

Pressure regulation range 0.5 ... 12 bar	
Plastic bowl guard	
FRC7:J3	Grade of filtration 5 µm, manual rotary condensate drain, pressure gauge with outer scale in bar and inner scale in psi
FRC5:J1	Grade of filtration 40 µm, manual rotary condensate drain, pressure gauge with outer scale in bar and inner scale in psi
FRC6:J2	Grade of filtration 40 µm, fully automatic condensate drain, pressure gauge with outer scale in bar and inner scale in psi

Metal bowl	
FRC11:J9	Grade of filtration 5 µm, manual rotary condensate drain, pressure gauge with outer scale in bar and inner scale in psi
FRC12:J10	Grade of filtration 5 µm, fully automatic condensate drain, pressure gauge with outer scale in bar and inner scale in psi
FRC9:J11	Grade of filtration 40 µm, manual rotary condensate drain, pressure gauge with outer scale in bar and inner scale in psi
FRC10:J12	Grade of filtration 40 µm, fully automatic condensate drain, pressure gauge with outer scale in bar and inner scale in psi

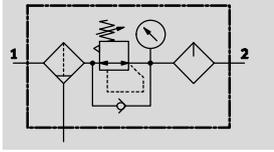
Lubricators	
M1	Plastic bowl guard
M2	Metal bowl

# Service unit combinations MSB4/MSB6-FRC, MS series

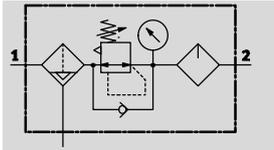
Technical data

Function

With condensate drain  
manual rotary



With condensate drain  
fully automatic



-  - Flow rate  
850 ... 4,800 l/min
-  - Temperature range  
-10 ... +60 °C
-  - Operating pressure  
1.5 ... 20 bar
-  - [www.festo.com](http://www.festo.com)



- Filter, regulator and lubricator function 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: 0.3 ... 7 bar and 0.5 ... 12 bar
- With manual or integrated, fully automatic condensate drain
- Choice of filter cartridges: 5 µm or 40 µm
- New filter cartridges → 16, Festo special oil → 16

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2	G <sup>1</sup> / <sub>8</sub>	-
	G <sup>1</sup> / <sub>4</sub>	G <sup>1</sup> / <sub>4</sub>
	-	G <sup>3</sup> / <sub>8</sub>
	-	G <sup>1</sup> / <sub>2</sub>
Design	Filter regulator with pressure gauge	
	Proportional standard mist lubricator	
Regulating function	Output pressure constant, with primary pressure compensation, with return flow function, with secondary venting	
Type of mounting	Via accessories	
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 [6:4:-] (grade of filtration 5 µm)	
	Compressed air in accordance with ISO 8573-1:2010 [7:4:-] (grade of filtration 40 µm)	
Bowl guard	Plastic bowl guard	Plastic bowl guard
	-	Integrated as metal bowl
Condensate drains	Manual rotary	
	Fully automatic	
Actuator lock	Rotary knob with detent, lockable via accessories	
Pressure regulation range [bar]	0.3 ... 7	
	0.5 ... 12	
Pressure indicator	With pressure gauge	

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

# Service unit combinations MSB4/MSB6-FRC, MS series

Technical data

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]						
Size	MSB4			MSB6		
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	
Pressure regulation range 0.3... 7 bar						
Grade of filtration	40 $\mu$ m	–	1,400	–	–	4,800
Pressure regulation range 0.5... 12 bar						
Grade of filtration	5 $\mu$ m	–	850	–	–	3,600
	40 $\mu$ m	850	900	1,900	3,500	3,700

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

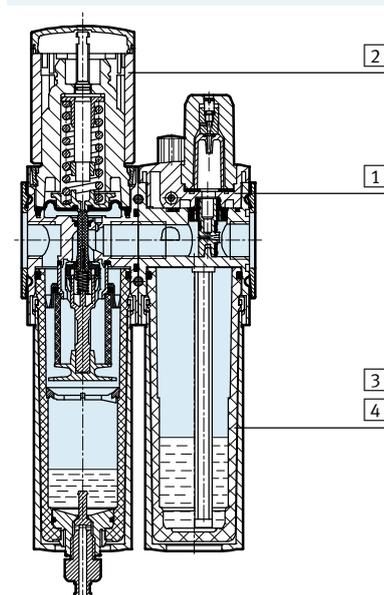
Operating and environmental conditions					
Condensate drain		Manual rotary		Fully automatic	
Size		MSB4	MSB6	MSB4	MSB6
Operating pressure	[bar]	1.5 ... 14	1.5 ... 20	2 ... 12	2 ... 12
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [-:4:-]		Compressed air in accordance with ISO 8573-1:2010 [7:4:-]	
		Inert gases			
Note on operating/pilot medium		Operation with lubricated medium possible (in which case lubricated operation will always be required)			
Ambient temperature	[°C]	-10 ... +60		+5 ... +60	
Temperature of medium	[°C]	-10 ... +60		+5 ... +60	
Storage temperature	[°C]	-10 ... +60		-10 ... +60	
Corrosion resistance class CRC <sup>1)</sup>		2			
Food-safe <sup>2)</sup>		See supplementary material information			

- 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](http://www.festo.com/sp) → Certificates.

Weights [g]		
Size	MSB4	MSB6
With plastic bowl guard	500	1,495
With metal bowl	–	1,713

## Materials

Sectional view



Service unit		
1	Body	Die-cast aluminium
2	Regulating knob	PA/POM
3	Plastic bowl guard	PC
4	Metal bowl	Wrought aluminium alloy
–	Seals	NBR

# Service unit combinations MSB4/MSB6-FRC, MS series

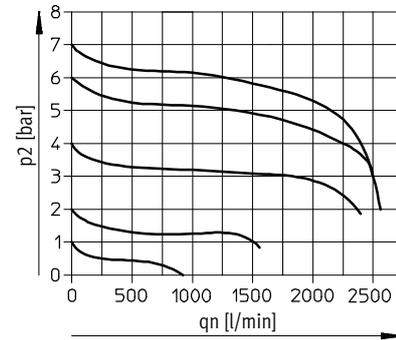
Technical data

## Standard flow rate $q_n$ as a function of output pressure $p_2$

Pressure regulation range 0.3 ... 7 bar    Grade of filtration 5  $\mu\text{m}$   
MSB4-1/4

Primary pressure  $p_1 = 10$  bar

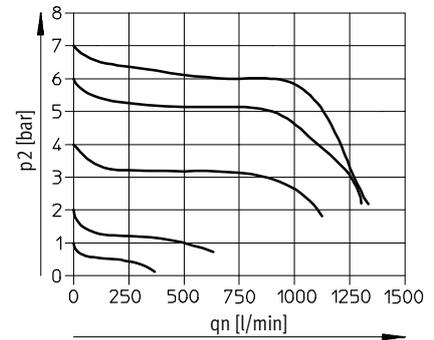
Grade of filtration 40  $\mu\text{m}$



Pressure regulation range 0.5 ... 12 bar    Grade of filtration 5  $\mu\text{m}$   
MSB4-1/8

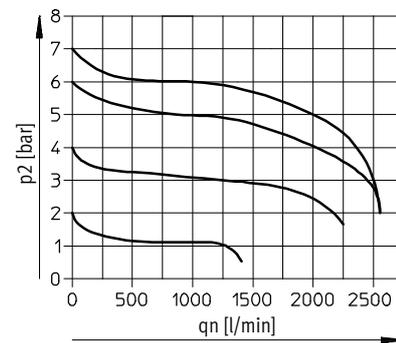
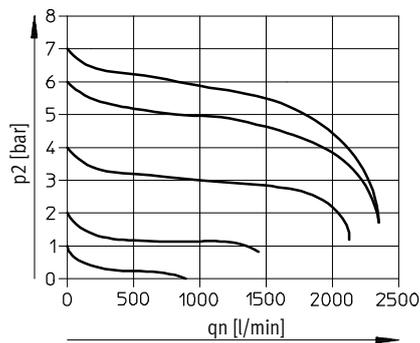
Primary pressure  $p_1 = 10$  bar

Grade of filtration 40  $\mu\text{m}$



MSB4-1/4

Primary pressure  $p_1 = 10$  bar



# Service unit combinations MSB4/MSB6-FRC, MS series

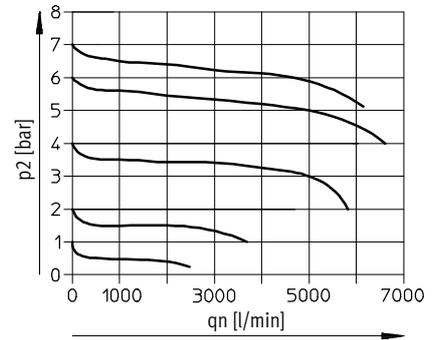
Technical data

## Standard flow rate $q_n$ as a function of output pressure $p_2$

Pressure regulation range 0.3 ... 7 bar    Grade of filtration 5  $\mu\text{m}$   
MSB6-1/2

Grade of filtration 40  $\mu\text{m}$

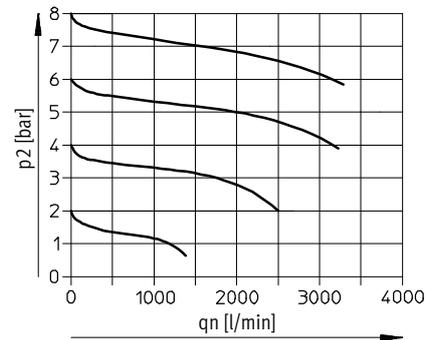
Primary pressure  $p_1 = 10$  bar



Pressure regulation range 0.5 ... 12 bar    Grade of filtration 5  $\mu\text{m}$   
MSB6-1/4

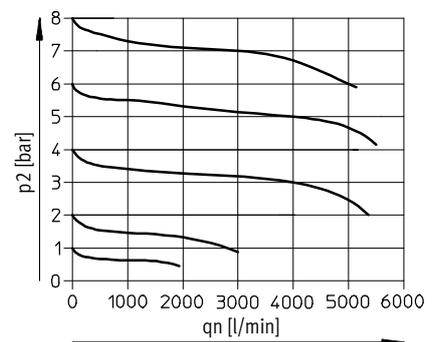
Grade of filtration 40  $\mu\text{m}$

Primary pressure  $p_1 = 10$  bar



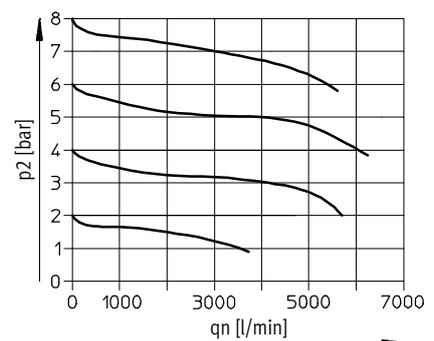
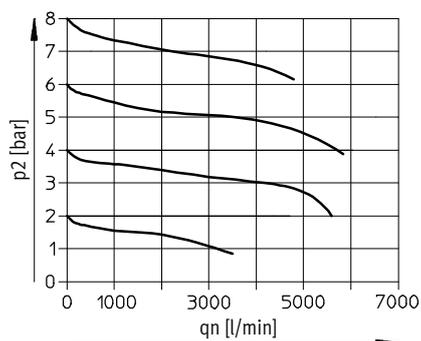
MSB6-3/8

Primary pressure  $p_1 = 10$  bar



MSB6-1/2

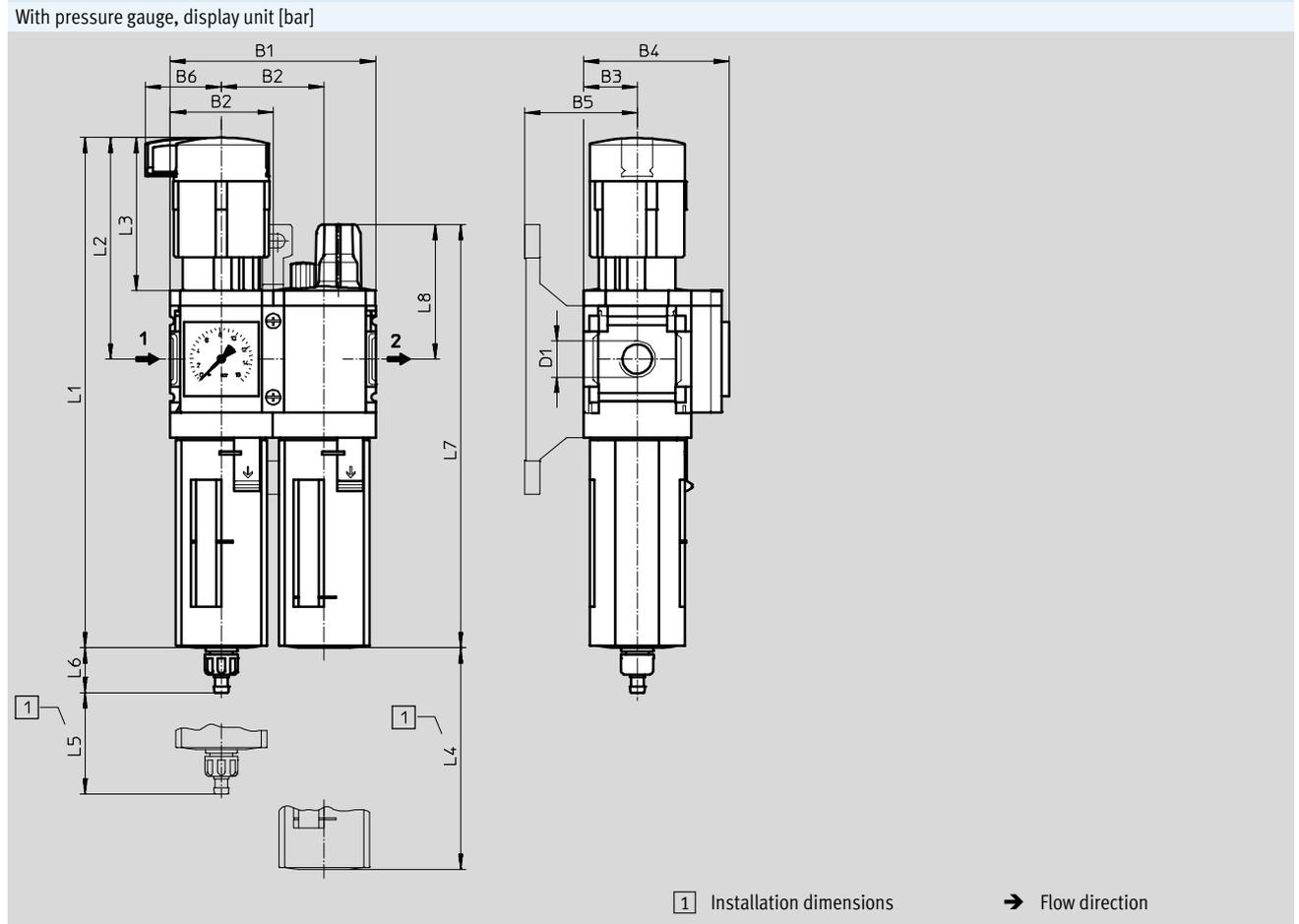
Primary pressure  $p_1 = 10$  bar



# Service unit combinations MSB4/MSB6-FRC, MS series

Technical data

Dimensions Download CAD data → [www.festo.com](http://www.festo.com)



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4	L5	L6		L7	L8
													Condensate drain manual rotary	Condensate drain fully auto- matic		
MSB4-1/8	80.4	40.2	21	57	44	29.7	G1/8	201	87	60	80	25	17.7	20.4	167	53
MSB4-1/4							G1/4									
MSB6-1/4	124	62	31	77	54	38.8	G1/4	284.8	134.5	95.5	130	68	15.8	18.5	215.3	65.6
MSB6-3/8							G3/8									
MSB6-1/2							G1/2									

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

## Service unit combinations MSB4/MSB6-FRC, MS series

FESTO

Technical data

### ★ Core product range

Ordering data					
Size	Connection	Condensate drain	Grade of filtration [µm]	Part No.	Type
Pressure regulation range 0.5 ... 12 bar, plastic bowl guard, pressure gauge with outer scale in bar and inner scale in psi					
MSB4	G $\frac{1}{4}$	Manual rotary	40	★ 531117	MSB4- $\frac{1}{4}$ -FRC5:J1M1
MSB6	G $\frac{1}{2}$	Manual rotary	40	★ 530244	MSB6- $\frac{1}{2}$ -FRC5:J1M1

Ordering data					
Size	Connection	Condensate drain	Grade of filtration [µm]	Part No.	Type
Pressure regulation range 0.3 ... 7 bar, plastic bowl guard, pressure gauge with outer scale in MPa					
MSB4	G $\frac{1}{4}$	Manual rotary	40	8042669	MSB4- $\frac{1}{4}$ -FRC13:J120M1
MSB6	G $\frac{1}{2}$	Manual rotary	40	8042673	MSB6- $\frac{1}{2}$ -FRC13:J120M1
Pressure regulation range 0.3 ... 7 bar, plastic bowl guard, pressure gauge with outer scale in bar and inner scale in psi					
MSB4	G $\frac{1}{4}$	Manual rotary	40	531109	MSB4- $\frac{1}{4}$ -FRC1:J5M1
MSB6	G $\frac{1}{2}$	Manual rotary	40	530230	MSB6- $\frac{1}{2}$ -FRC1:J5M1
Pressure regulation range 0.5 ... 12 bar, plastic bowl guard, pressure gauge with outer scale in bar and inner scale in psi					
MSB4	G $\frac{1}{8}$	Manual rotary	40	531133	MSB4- $\frac{1}{8}$ -FRC5:J1M1
	G $\frac{1}{4}$		5	531121	MSB4- $\frac{1}{4}$ -FRC7:J3M1
	G $\frac{1}{4}$	Fully automatic	40	531119	MSB4- $\frac{1}{4}$ -FRC6:J2M1
MSB6	G $\frac{1}{4}$	Manual rotary	40	530268	MSB6- $\frac{1}{4}$ -FRC5:J1M1
	G $\frac{3}{8}$		40	530292	MSB6- $\frac{3}{8}$ -FRC5:J1M1
	G $\frac{1}{2}$	Fully automatic	5	530248	MSB6- $\frac{1}{2}$ -FRC7:J3M1
	G $\frac{1}{2}$		40	530246	MSB6- $\frac{1}{2}$ -FRC6:J2M1
Pressure regulation range 0.5 ... 12 bar, metal bowl, pressure gauge with outer scale in bar and inner scale in psi					
MSB6	G $\frac{1}{2}$	Manual rotary	40	530252	MSB6- $\frac{1}{2}$ -FRC9:J11M2
			5	530234	MSB6- $\frac{1}{2}$ -FRC11:J9M2
		Fully automatic	40	530232	MSB6- $\frac{1}{2}$ -FRC10:J12M2
			5	530236	MSB6- $\frac{1}{2}$ -FRC12:J10M2

Festo core product range

★ Generally ready for shipping ex works in 24 hours

☆ Generally ready for shipping ex works in 5 days

## Service unit combinations MSB-FRC, MS series

Accessories

### Filter cartridges



Ordering data			
Size	Grade of filtration [µm]	Part No.	Type
MS4	5 (colour: blue)	534501	MS4-LFP-C
	40 (colour: white)	534502	MS4-LFP-E
MS6	5 (colour: blue)	534499	MS6-LFP-C
	40 (colour: white)	534500	MS6-LFP-E

### Special oil



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

Ordering data – Padlock LRV5-D			
	Weight [g]	Part No.	Type
	120	193786	LRV5-D