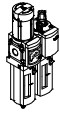
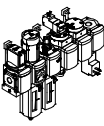


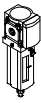
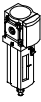



Service unit combinations MSB, MS series



# Service unit combinations MSB, MS series

Product range overview – MS series service units

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]						Grade of filtration [µm]			
				0.05 ...	0.05 ...	0.1 ...	0.3 ...	0.1 ...	0.5 ...	0.01	1	5	40
Code			AG.../AQ...	D2	D4	D5	D6	D7	D8	A	B	C	E
<b>Service unit combinations</b>													
<b>MSB-FRC</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	■	■	-	-	-	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	■	■	-	-	-	■	■
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-
<b>Service unit combinations (further variants can be ordered using the configurator → Internet: msb4, msb6 or msb9)</b>													
<b>MSB</b> 	4	G1/4	G1/8, G1/4, G3/8	-	-	-	■	■	-	-	-	■	■
	6	G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	■	■	-	-	-	■	■
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-
<b>Individual devices</b>													
<b>Filter regulators</b> <b>MS-LFR</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	■	■	■	-	-	-	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	■	■
	9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	■	■	■	■	-	-	■	■
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	■	■	■	-	-	■	■
<b>Filters</b> <b>MS-LF</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	■	■
	9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	-	-	-	■	■
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	■	■
<b>Fine and micro filters</b> <b>MS-LFM</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	■	■	-	-	-
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	■	■	-	-	-
	9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	■	■	-	-	-
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	■	■	-	-	-
<b>Activated carbon filters</b> <b>MS-LFX</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	-	-
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	-	-
	9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	-	-	-	-	-
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	-	-
<b>Water separators</b> <b>MS-LWS</b> 	4	-	-	-	-	-	-	-	-	-	-	-	-
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	-	-
	9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	-	-	-	-	-
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	-	-

# Service unit combinations MSB, MS series

Product range overview – MS series service units

Type	Size	Bowl guard		Condensate drains				Pressure indicator				Security		Options		→ Page/ Internet	
		Plastic bowl with plastic bowl guard	Metal bowl	Manual rotary	Semi-automatic	Fully automatic	External, fully automatic, electrical	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter plate for EN pressure gauge G1/8	Adapter plate for EN pressure gauge G1/4	Pressure sensor	Rotary knob with detent, lockable via accessories	Rotary knob with integrated lock	Silencer		Flow direction from right to left
Code		R	U	M	H	V	E...	VS	AG	A8	A4	AD...	AS	E11	S	Z	
<b>Service unit combinations</b>																	
MSB-FRC	4	■	-	■	-	■	-	-	■	-	-	-	■	-	-	■	msb4
	6	■	■	■	-	■	-	-	■	-	-	-	■	-	-	■	msb6
	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Service unit combinations</b>																	
MSB	4	■	■	■	-	■	-	-	■	-	-	-	■	-	-	■	8
	6	■	■	■	-	■	-	-	■	-	-	-	■	-	-	■	8
	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Individual devices</b>																	
Filter regulators MS-LFR	4	■	■	■	■	■	-	■	■	■	■	■	■	■	-	■	ms4-lfr
	6	■	■	■	■	■	■	■	■	■	■	■	■	■	-	■	ms6-lfr
	9	-	■	■	■	■	■	■	■	■	■	■	■	■	-	■	ms9-lfr
	12	-	■	■	-	■	■	■	■	■	■	■	■	■	-	■	ms12-lfr
Filters MS-LF	4	■	■	■	■	■	-	-	-	-	-	-	-	-	-	■	ms4-lf
	6	■	■	■	■	■	■	-	-	-	-	-	-	-	-	■	ms6-lf
	9	-	■	■	■	■	■	-	-	-	-	-	-	-	-	■	ms9-lf
	12	-	■	■	-	■	■	-	-	-	-	-	-	-	-	■	ms12-lf
Fine and micro filters MS-LFM	4	■	■	■	■	■	-	-	-	-	-	-	-	-	-	■	ms4-lfm
	6	■	■	■	■	■	■	-	-	-	-	-	-	-	-	■	ms6-lfm
	9	-	■	■	■	■	■	-	-	-	-	-	-	-	-	■	ms9-lfm
	12	-	■	■	-	■	■	-	-	-	-	-	-	-	-	■	ms12-lfm
Activated carbon filters MS-LFX	4	■	■	-	-	-	-	-	-	-	-	-	-	-	-	■	ms4-lfx
	6	■	■	-	-	-	-	-	-	-	-	-	-	-	-	■	ms6-lfx
	9	-	■	-	-	-	-	-	-	-	-	-	-	-	-	■	ms9-lfx
	12	-	■	-	-	-	-	-	-	-	-	-	-	-	-	■	ms12-lfx
Water separators MS-LWS	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	■	-	-	■	■	-	-	-	-	-	-	-	-	■	ms6-lws
	9	-	■	-	-	■	■	-	-	-	-	-	-	-	-	■	ms9-lws
	12	-	■	-	-	■	■	-	-	-	-	-	-	-	-	■	ms12-lws

# Service unit combinations MSB, MS series



Product range overview – MS series service units

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]						Supply voltage			
				0.05 ... 0.7	0.05 ... 2.5	0.1 ... 4	0.3 ... 7	0.1 ... 12	0.5 ... 16	24 V DC, connection pattern to EN 175301	24 V DC, connection M12 to IEC 61076-2-101	110 V AC, connection pattern to EN 175301	230 V AC, connection pattern to EN 175301
Code			AG.../AQ...	D2	D4	D5	D6	D7	D8	V24	V24P	V110	V230
<b>Individual devices</b>													
Pressure regulators <b>MS-LR</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	■	■	■	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	-
		9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	■	■	■	■	-	-	-
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	■	■	■	-	-	-
Pressure regulators <b>MS-LRB</b>		4	G1/4	G1/8, G1/4, G3/8	-	-	■	■	■	-	-	-	-
		6	G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	-
		9	-	-	-	-	-	-	-	-	-	-	-
		12	-	-	-	-	-	-	-	-	-	-	-
Precision pressure regulators <b>MS-LRP</b>		4	-	-	-	-	-	-	-	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	-	■	-	-	-	-
		9	-	-	-	-	-	-	-	-	-	-	-
		12	-	-	-	-	-	-	-	-	-	-	-
Precision pressure regulators <b>MS-LRPB</b>		4	-	-	-	-	-	-	-	-	-	-	-
		6	G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	-	■	-	-	-	-
		9	-	-	-	-	-	-	-	-	-	-	-
		12	-	-	-	-	-	-	-	-	-	-	-
Electrical pressure regulators <b>MS-LRE</b>		4	-	-	-	-	-	-	-	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	-
		9	-	-	-	-	-	-	-	-	-	-	-
		12	-	-	-	-	-	-	-	-	-	-	-
Lubricators <b>MS-LOE</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	-
		9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	-	-	-	-
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	-
On-off valves, manually actuated <b>MS-EM(1)</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	-
		9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	-	-	-	-
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	-
On-off valves, electrically actuated <b>MS-EE</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	■	-	■
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	■	-	■
		9	G3/4, G1	G1/2, G3/4, G1, G1 1/4, G1 1/2	-	-	-	-	-	-	■	■	■
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	■	■	■
Soft-start valves, pneumatically actuated <b>MS-DL</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	-
		9	-	-	-	-	-	-	-	-	-	-	-
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	-
Soft-start valves, electrically actuated <b>MS-DE</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	■	-	■
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	■	-	■
		9	-	-	-	-	-	-	-	-	-	-	-
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	■	■	■

# Service unit combinations MSB, MS series

Product range overview – MS series service units

Type	Size	Bowl guard		Pressure indicator				Security			Options		→ Page/ Internet
		Plastic bowl with plastic bowl guard	Metal bowl	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter plate for EN pressure gauge G1/8	Adapter plate for EN pressure gauge G1/4	Pressure sensor	Rotary knob with detent, lockable via accessories	Rotary knob with integrated lock	Silencer	Flow direction from right to left	
Code		R	U	VS	AG	A8	A4	AD...	AS	E11	S	Z	
<b>Individual devices</b>													
Pressure regulators <b>MS-LR</b>	4	-	-	■	■	■	■	■	■	■	-	■	ms4-lr
	6	-	-	■	■	-	■	■	■	■	-	■	ms6-lr
	9	-	-	■	■	-	■	■	■	■	-	■	ms9-lr
	12	-	-	■	■	-	■	-	■	■	-	■	ms12-lr
Pressure regulators <b>MS-LRB</b>	4	-	-	■	■	■	■	■	■	■	-	■	ms4-lrb
	6	-	-	■	■	-	■	■	■	■	-	■	ms6-lrb
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-
Precision pressure regulators <b>MS-LRP</b>	4	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	■	-	■	■	■	■	■	-	■	ms6-lrp
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-
Precision pressure regulators <b>MS-LRPB</b>	4	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	■	-	■	■	■	■	■	-	■	ms6-lrpb
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-
Electrical pressure regulators <b>MS-LRE</b>	4	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	■	■	-	■	-	-	-	-	■	ms6-lre
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-
Lubricators <b>MS-LOE</b>	4	■	■	-	-	-	-	-	-	-	-	■	ms4-loe
	6	■	■	-	-	-	-	-	-	-	-	■	ms6-loe
	9	-	■	-	-	-	-	-	-	-	-	■	ms9-loe
	12	-	■	-	-	-	-	-	-	-	-	■	ms12-loe
On-off valves, manually actuated <b>MS-EM(1)</b>	4	-	-	■	■	■	■	■	-	-	■	■	ms4-em1
	6	-	-	■	■	-	■	■	-	-	■	■	ms6-em1
	9	-	-	■	■	-	■	-	-	-	■	■	ms9-em
	12	-	-	■	■	-	■	-	-	-	■	■	ms12-em
On-off valves, electrically actuated <b>MS-EE</b>	4	-	-	■	■	■	■	■	-	-	■	■	ms4-ee
	6	-	-	■	■	-	■	■	-	-	■	■	ms6-ee
	9	-	-	■	■	-	■	■	-	-	■	■	ms9-ee
	12	-	-	■	■	-	■	-	-	-	■	■	ms12-ee
Soft-start valves, pneumatically actuated <b>MS-DL</b>	4	-	-	■	■	■	■	■	-	-	-	■	ms4-dl
	6	-	-	■	■	-	■	■	-	-	-	■	ms6-dl
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	■	■	-	■	-	-	-	-	■	ms12-dl
Soft-start valves, electrically actuated <b>MS-DE</b>	4	-	-	■	■	■	■	■	-	-	-	■	ms4-de
	6	-	-	■	■	-	■	■	-	-	-	■	ms6-de
	9	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	■	■	-	■	-	-	-	-	■	ms12-de

# Service unit combinations MSB, MS series

Product range overview – MS series service units

Type	Size	Pneumatic connection in housing	Connecting plate	Performance Level			Supply voltage				
				Category 1, 1-channel	Category 3, 2-channel	Category 4, 2-channel with self-monitoring	24 V DC, connection pattern to EN 175301	24 V DC, connection M12 to IEC 61076-2-101/ to EN 60947-5-2	110 V AC, connection pattern to EN 175301	230 V AC, connection pattern to EN 175301	
Code			AG.../AQ...	C	D	E	V24	V24P	V110	V230	
<b>Individual devices</b>											
Soft start and exhaust valves <b>MS-SV-C</b>		4	–								
		6	G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	■	–	–	■	■	■	■
		9	G $\frac{3}{4}$ , G1	G $\frac{1}{2}$ , G $\frac{3}{4}$ , G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$	■	–	–	■	■	■	■
		12	–								
Soft start and exhaust valves <b>MS-SV-D</b>		4	–								
		6	G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	■	–	■	■	–	–
		9	–								
		12	–								
Soft start and exhaust valves <b>MS-SV-E</b>		4	–								
		6	G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	■	■	–	–	–
		9	–								
		12	–								
Membrane air dryers <b>MS-LDM1</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	–	–	–
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	–	–	–
		9	–								
		12	–								
Branching modules <b>MS-FRM</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	–	–	–
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	–	–	–
		9	G $\frac{3}{4}$ , G1	G $\frac{1}{2}$ , G $\frac{3}{4}$ , G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$	–	–	–	–	–	–	–
		12	–	G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$ , G2	–	–	–	–	–	–	–
Distributor blocks <b>MS-FRM-FRZ</b>		4	G $\frac{1}{4}$	–	–	–	–	–	–	–	–
		6	G $\frac{1}{2}$	–	–	–	–	–	–	–	–
		9	–								
		12	–								
Flow sensors <b>SFAM</b>		4	–								
		6	G $\frac{1}{2}$	G $\frac{1}{2}$	–	–	–	–	–	–	–
		9	–	G1, G1 $\frac{1}{2}$	–	–	–	–	–	–	–
		12	–								

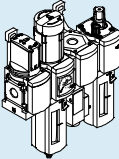
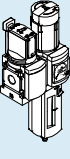
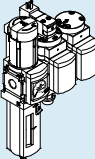
# Service unit combinations MSB, MS series

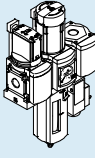
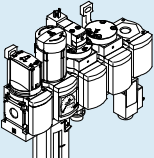
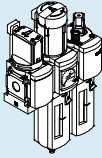
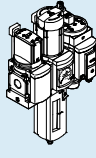
Product range overview – MS series service units

Type	Size	Bowl guard		Pressure indicator					Switch output			Options		→ Page/ Internet
		Plastic bowl with plastic bowl guard	Metal bowl	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter plate for EN pressure gauge G1/8	Adapter plate for EN pressure gauge G1/4	Pressure sensor	2x PNP or NPN, 1 analogue output 4 ... 20 mA	2x PNP or NPN, 1 analogue output 0 ... 10 V	Silencer	Flow direction from right to left		
Code		R	U	VS	AG	A8	A4	AD...	2SA	2SV	S	Z/R		
<b>Individual devices</b>														
Soft start and exhaust valves <b>MS-SV-C</b>	4	-											-	
	6	-	-	■	■	-	■	■	-	-	■	■	ms6-sv	
	9	-	-	■	■	-	■	■	-	-	■	■	ms9-sv	
	12	-											-	
Soft start and exhaust valves <b>MS-SV-D</b>	4	-											-	
	6	-	-	■	■	-	■	■	-	-	■	■	ms6-sv	
	9	-											-	
	12	-											-	
Soft start and exhaust valves <b>MS-SV-E</b>	4	-											-	
	6	-	-	■	■	-	■	■	-	-	■	■	ms6-sv	
	9	-											-	
	12	-											-	
Membrane air dryers <b>MS-LDM1</b>	4	-	■	-	-	-	-	-	-	-	-	■	ms4-ldm1	
	6	-	■	-	-	-	-	-	-	-	-	■	ms6-ldm1	
	9	-											-	
	12	-											-	
Branching modules <b>MS-FRM</b>	4	-	-	■	■	■	■	■	-	-	-	■	ms4-frm	
	6	-	-	■	■	-	■	■	-	-	-	■	ms6-frm	
	9	-	-	■	■	-	■	■	-	-	-	■	ms9-frm	
	12	-	-	■	-	-	-	-	-	-	-	-	ms12-frm	
Distributor blocks <b>MS-FRM-FRZ</b>	4	-	-	-	-	-	-	-	-	-	-	■	ms4-frm	
	6	-	-	-	-	-	-	-	-	-	-	■	ms6-frm	
	9	-											-	
	12	-											-	
Flow sensors <b>SFAM</b>	4	-											-	
	6	-	-	-	-	-	-	-	■	■	-	■	sfam-62	
	9	-	-	-	-	-	-	-	■	■	-	■	sfam-90	
	12	-											-	

# Service unit combinations MSB4/MSB6, MS series

Product range overview

Combinations	Combination 1		Combination 2		Combination 3	
						
<b>Comprising:</b>						
Manually operated on-off valve	EM1	■	■	■	-	-
Filter regulator with pressure gauge, lockable	LFR	■	■	■	■	■
Lubricator	LOE	■	-	-	-	-
Solenoid actuated on-off valve	EE	-	-	-	■	■
Solenoid actuated on-off valve, with pressure sensor	EE	-	-	-	-	-
Pneumatically actuated soft-start valve	DL	-	-	-	■	■
Branching module with pressure switch	FRM	■	-	-	-	-
Branching module with pressure sensor	FRM	-	-	-	-	-
Mounting bracket	WP	■	■	■	■	■
<b>Type codes → Page</b>		10	10	10	10	10
<b>Technical data → Page</b>		11	14	14	17	17

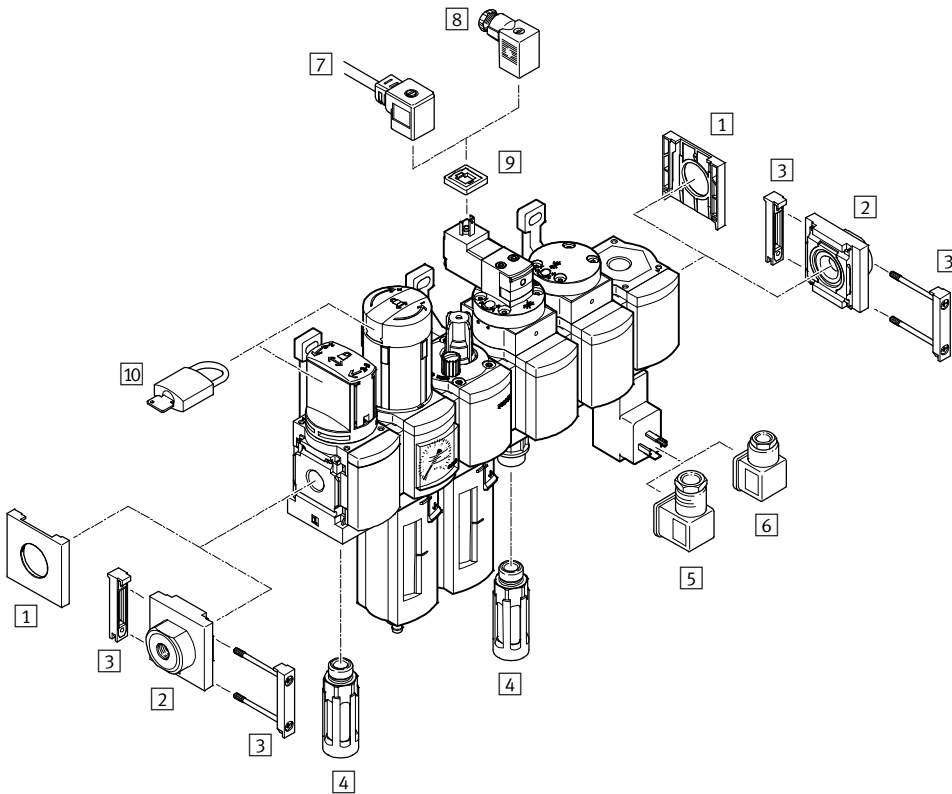
Combinations	Combination 4		Combination 5		Combination 6		Combination 7	
								
<b>Comprising:</b>								
Manually operated on-off valve	EM1	■	■	■	■	■	■	■
Filter regulator with pressure gauge, lockable	LFR	■	■	■	■	■	■	■
Lubricator	LOE	-	-	-	■	-	-	-
Solenoid actuated on-off valve	EE	-	-	■	-	-	-	-
Solenoid actuated on-off valve, with pressure sensor	EE	-	-	-	-	-	■	■
Pneumatically actuated soft-start valve	DL	-	-	■	-	-	-	-
Branching module with pressure switch	FRM	■	-	■	-	-	-	-
Branching module with pressure sensor	FRM	-	■	-	-	-	-	-
Mounting bracket	WP	■	■	■	■	■	■	■
<b>Type codes → Page</b>		10	10	10	10	10	10	10
<b>Technical data → Page</b>		20	20	24	27	27	30	30




# Service unit combinations MSB4/MSB6, MS series

Peripherals overview

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 Note  
 The choice of accessories depends on the selected service unit combination.  
 Range of accessories  
 → Peripherals pages of the individual devices

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	Silencer U	33
5	Angled socket PEV-¼-WD-LED	33
6	Plug socket MSSD-C-4P	33
7	Plug socket with cable KMEB	33
8	Plug socket MSSD-EB	33
9	Illuminating seal MEB-LD	33
10	Padlock LRVS-D	33
-	Mounting bracket MS4/6-WP/WPB/WPE/WPM	ms4-wp, ms6-wp

 **New**  
**MSB4/6-...J120**

**Service unit combinations MSB4/MSB6, MS series**

**FESTO**

Type codes

		MSB	6	-	1/2	:	C3	J1	D1	A1	F3	-	WP
<b>Series</b>													
MSB	Service unit combination												
<b>Size</b>													
4	Grid dimension 40 mm												
6	Grid dimension 62 mm												
<b>Pneumatic connection</b>													
MSB4													
1/4	Thread G1/4												
MSB6													
1/2	Thread G1/2												
<b>Service unit combination</b>													
On-off valve		→ Internet: ms4-em1, ms6-em1											
C3	MS...-EM1												
Filter regulator		→ Internet: ms4-lfr, ms6-lfr											
J1	MS...-LFR-D7-ERM-AS												
J2	MS...-LFR-D7-ERV-AS												
J3	MS...-LFR-D7-CRM-AS												
J4	MS...-LFR-D7-CRV-AS												
J120	MS...-LFR-D6-ERM-MPAAS												
Soft-start valve		→ Internet: ms4-dl, ms6-dl											
A1	MS...-DL												
Lubricator		→ Internet: ms4-loe, ms6-loe											
M1	MS...-LOE-R												
On-off valve		→ Internet: ms4-ee, ms6-ee											
D1	MS...-EE-V24												
D14	MS...-EE-10V24P-AD7												
Branching module		→ Internet: ms4-frm, ms6-frm											
F3	MS...-FRM-Y												
F12	MS...-FRM-AD7												
<b>Type of mounting</b>													
WP	Mounting bracket												

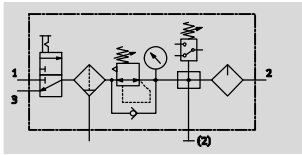
Further variants can be ordered using the modular system → [www.festo.com](http://www.festo.com)

- Connection size
- Connecting plates
- Service unit equipment
- Alternative flow direction

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 1

Function  
With condensate drain  
manual rotary



- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7 with pressure gauge
- Branching module MS...-FRM-Y with pressure switch without display
- Lubricator MS...-LOE-R
- Mounting bracket MS...-WP

- - Flow rate  
950 l/min
- - Temperature range  
-10 ... +60 °C
- - Pressure regulation range  
1 ... 12 bar
- - [www.festo.com](http://www.festo.com)



- For filtered and lubricated compressed air
- Supply pressure can be opened and closed
- Output pressure is infinitely adjustable within the pressure regulation range
- The unit is vented when switched off
- Electrical pressure monitoring with adjustable switching pressure
- Removal of filtered and unlubricated compressed air at the branching module connections

General technical data	
Size	MSB4
Pneumatic connection 1, 2, 3	G $\frac{1}{4}$
Regulating function	Output pressure constant, with primary pressure compensation, with return flow function, with secondary venting
Type of mounting	Via accessories
Assembly position	Vertical $\pm 5^\circ$
Grade of filtration [ $\mu\text{m}$ ]	40
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [7:4:4] (grade of filtration 40 $\mu\text{m}$ )
Bowl guard	Plastic bowl guard
Condensate drain	Manual rotary
Actuator lock	Rotary knob with detent, lockable with accessories
Pressure regulation range [bar]	1 ... 12
Pressure indicator	With pressure gauge

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	
Grade of filtration	40 $\mu\text{m}$	950


# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 1

Operating and environmental conditions		
Condensate drain		Manual rotary
Size		MSB4
Operating pressure	[bar]	1.5 ... 14
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
		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
Temperature of medium	[°C]	-10 ... +60
Storage temperature	[°C]	-10 ... +60
Corrosion resistance	CRC <sup>1)</sup>	2

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

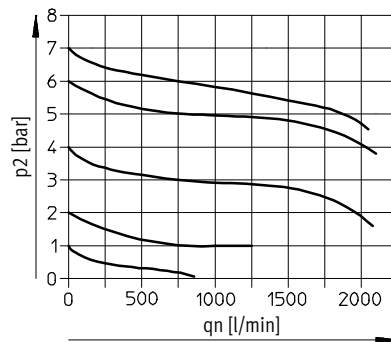
Weights [g]	
Size	MSB4
Service unit combination	1,700
Mounting bracket	40

-  - Note  
 Materials → Technical data of the individual devices

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

Pressure regulation range 1 ... 12 bar    Grade of filtration 40  $\mu\text{m}$   
 MSB4-1/4

Primary pressure  $p_1 = 10$  bar



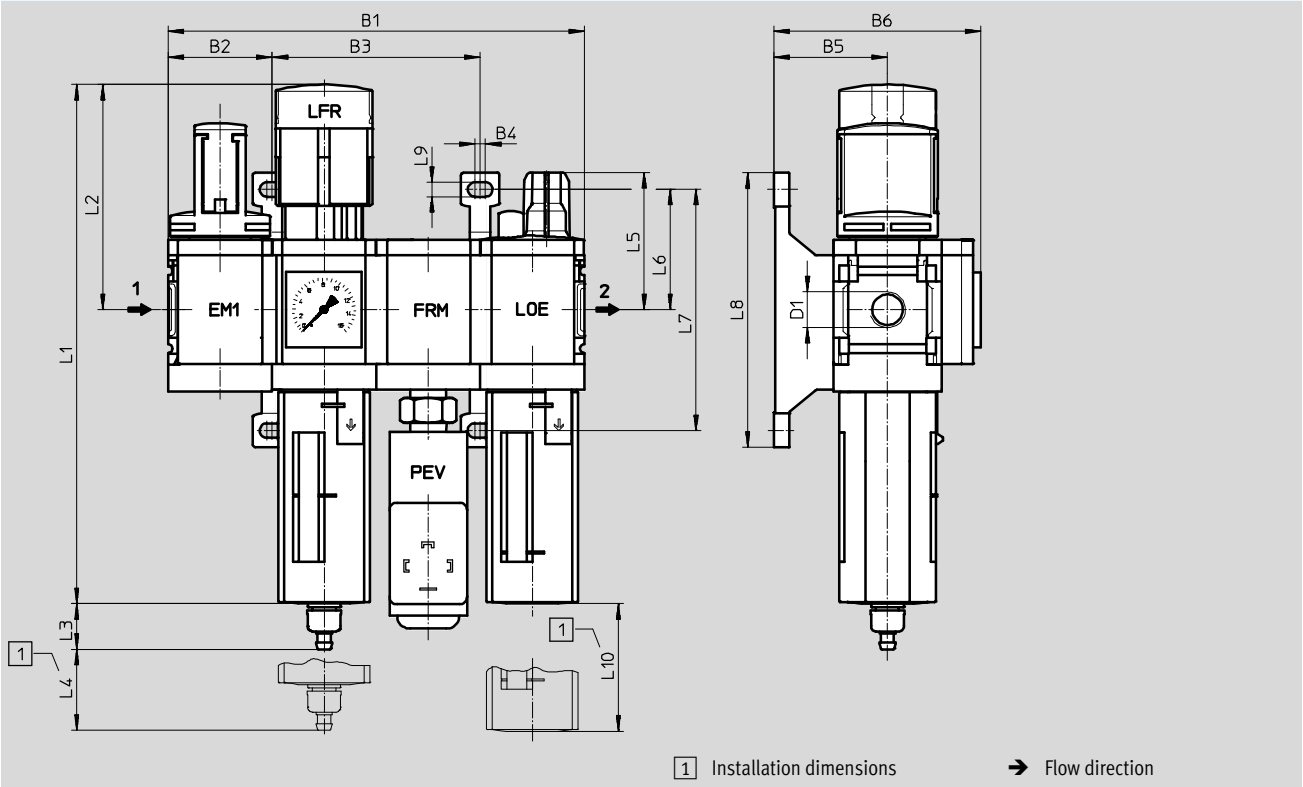
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 1

**Dimensions**

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

Manually actuated on-off valve, filter regulator with pressure gauge, branching module with pressure switch, lubricator



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	160.8	40.2	80.4	4	44	80	G $\frac{1}{4}$	201	87

Type	L3	L4	L5	L6	L7	L8	L9	L10
MSB4	17.7	25	53	46.5	93.2	106	5.6	80

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

**Ordering data**

Size	Condensate drain	Connection	Grade of filtration 40 $\mu$ m
			Part No. Type
Pressure regulation range 1 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi			
MSB4	manual rotary	G $\frac{1}{4}$	542295 MSB4- $\frac{1}{4}$ :C3J1F3M1-WP

**New**  
**MSB4/6-...J120**

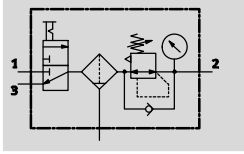
**FESTO**

**Service unit combinations MSB4/MSB6, MS series**

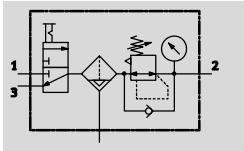
Technical data – Combination 2

**Function**

With condensate drain  
manual rotary



With condensate drain  
fully automatic



- Flow rate  
950 ... 5,500 l/min
- Temperature range  
-10 ... +60 °C
- Pressure regulation  
range  
0.5 ... 12 bar
- [www.festo.com](http://www.festo.com)



- For filtered and unlubricated compressed air
- Output pressure is infinitely adjustable within the pressure regulation range
- Supply pressure can be opened and closed

- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR with pressure gauge
- Mounting bracket MS...-WP

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2, 3	G $\frac{1}{4}$	G $\frac{1}{2}$
Regulating function	Output pressure constant, with primary pressure compensation, with return flow function, with secondary venting	
Type of mounting	Via accessories	
Assembly position	Vertical $\pm 5^\circ$	
Grade of filtration $[\mu\text{m}]$	5 40	
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [6:4:4] (grade of filtration 5 $\mu\text{m}$ ) Compressed air in accordance with ISO 8573-1:2010 [7:4:4] (grade of filtration 40 $\mu\text{m}$ )	
Bowl guard	Plastic bowl guard	
Condensate drain	Manual rotary Fully automatic	
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range [bar]	0.5 ... 7 0.5 ... 12	
Pressure indicator	With pressure gauge	

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

Standard nominal flow rate $q_{nN}$ [l/min]					
Condensate drain	Manual rotary			Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6	
Pressure regulation range 0.5 ... 7 bar					
Grade of filtration 40 $\mu\text{m}$	1,150	5,500	–	–	
Pressure regulation range 0.5 ... 12 bar					
Grade of filtration 5 $\mu\text{m}$	950	4,800	950	4,800	
Grade of filtration 40 $\mu\text{m}$	1,700	5,100	1,000	5,100	

## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 2

Operating and environmental conditions				
Condensate drain	Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	0.8 ... 14	0.8 ... 18	2 ... 12	2 ... 12
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]			
	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 CRC <sup>1)</sup>	2			

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Weights [g]		
Size	MSB4	MSB6
Service unit combination	1,300	1,100
Mounting bracket	40	76

Note

Materials → Technical data of the individual devices

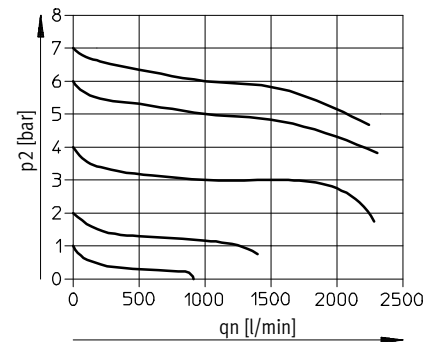
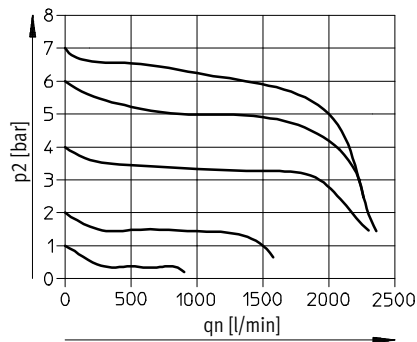
### Standard flow rate $q_n$ as a function of output pressure $p_2$

Pressure regulation range 0.5 ... 12 bar Grade of filtration 5  $\mu\text{m}$

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

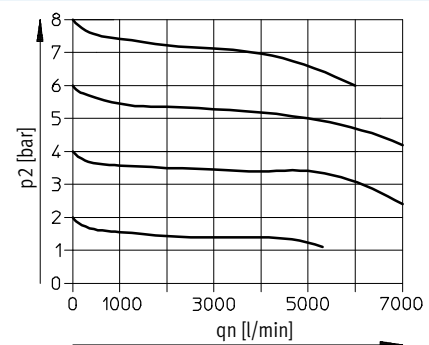
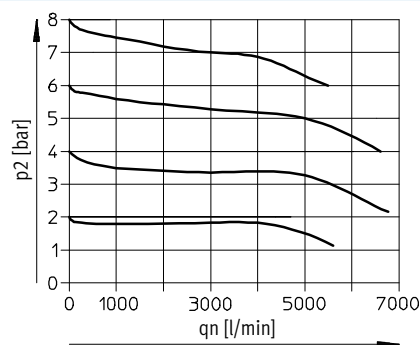
MSB4-1/4

Primary pressure  $p_1 = 10$  bar



MSB6-1/2

Primary pressure  $p_1 = 10$  bar



**New**  
**MSB4/6-...J120**

**Service unit combinations MSB4/MSB6, MS series**

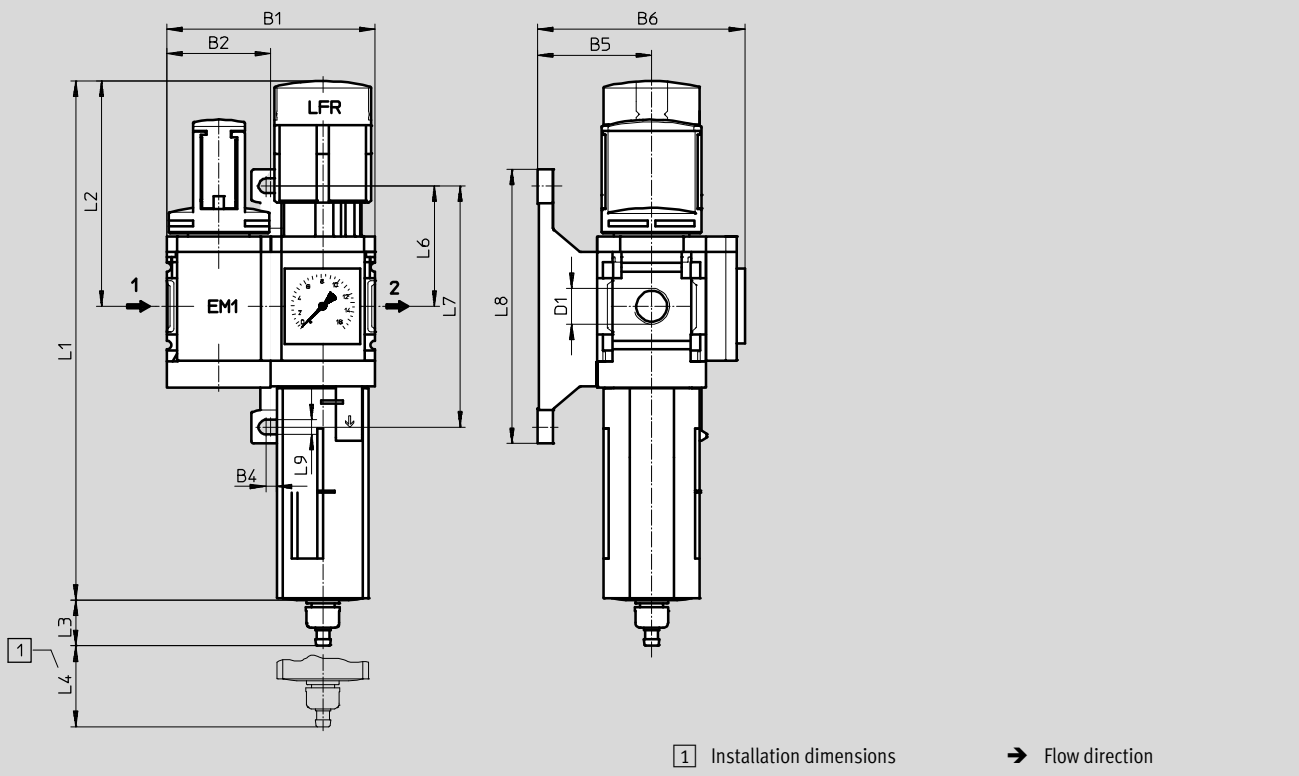
Technical data – Combination 2

**FESTO**

**Dimensions**

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

Manually actuated on-off valve, filter regulator with pressure gauge



Type	B1	B2	B4	B5	B6	D1	L1	L2
MSB4	80.4	40.2	4	44	80	G $\frac{1}{4}$	201	87
MSB6	124	62	4.5	54	100	G $\frac{1}{2}$	285	134.5

Type	L3 Condensate drain		L4	L6	L7	L8	L9
	manual rotary	fully automatic					
MSB4	17.7	20.4	25	46.5	93.2	106	5.6
MSB6	15.8	18.5	68	71	142	158	6.6

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

**Ordering data**

Size	Condensate drain	Connection	Grade of filtration 5 $\mu$ m		Grade of filtration 40 $\mu$ m	
			Part No.	Type	Part No.	Type
Pressure regulation range 0.5 ... 7 bar, pressure gauge with outer scale in MPa						
MSB4	manual rotary	G $\frac{1}{4}$	–	–	8042668	MSB4- $\frac{1}{4}$ :C3J120-WP
MSB6	manual rotary	G $\frac{1}{2}$	–	–	8042672	MSB6- $\frac{1}{2}$ :C3J120-WP
Pressure regulation range 0.5 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi						
MSB4	manual rotary	G $\frac{1}{4}$	542304	MSB4- $\frac{1}{4}$ :C3J3-WP	8025354	MSB4- $\frac{1}{4}$ :C3J1-WP
	fully automatic	G $\frac{1}{4}$	542310	MSB4- $\frac{1}{4}$ :C3J4-WP	542298	MSB4- $\frac{1}{4}$ :C3J2-WP
MSB6	manual rotary	G $\frac{1}{2}$	542280	MSB6- $\frac{1}{2}$ :C3J3-WP	8025355	MSB6- $\frac{1}{2}$ :C3J1-WP
	fully automatic	G $\frac{1}{2}$	542286	MSB6- $\frac{1}{2}$ :C3J4-WP	542274	MSB6- $\frac{1}{2}$ :C3J2-WP

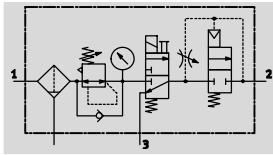


# Service unit combinations MSB4/MSB6, MS series

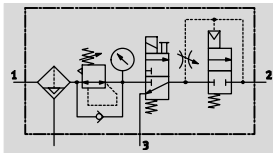
Technical data – Combination 3

**Function**

With condensate drain  
manual rotary



With condensate drain  
fully automatic



- Filter regulator MS...-LFR-D7 with pressure gauge
- On-off valve MS...-EE-V24 solenoid actuated
- Soft-start valve MS...-DL pneumatically actuated
- Mounting bracket MS...-WP

- - Flow rate  
750 ... 3,100 l/min
- - Temperature range  
-10 ... +60 °C
- - Pressure regulation range  
4 ... 12 bar
- - [www.festo.com](http://www.festo.com)



- For filtered and unlubricated compressed air
- Output pressure is infinitely adjustable within the pressure regulation range
- Gradual pressure build-up prevents sudden, unpredictable movements
- When supply pressure is closed, quick venting ensures rapid pressure reduction

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2, 3	G $\frac{1}{4}$	G $\frac{1}{2}$
Regulating function	Output pressure constant, with primary pressure compensation, with return flow function, with secondary venting	
Type of mounting	Via accessories	
Assembly position	Vertical $\pm 5^\circ$	
Grade of filtration [µm]	40	
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [7:4:-] (grade of filtration 40 µm)	
Bowl guard	Plastic bowl guard	
Condensate drain	Manual rotary	
	-	Fully automatic
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range [bar]	4 ... 12	
Pressure indicator	With pressure gauge	
Coil characteristics	24 V DC: 1.5 W	24 V DC: 1.5 W

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Grade of filtration 40 µm	750	3,100


# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 3

Operating and environmental conditions			
Condensate drain	Manual rotary		Fully automatic
Size	MSB4	MSB6	MSB6
Operating pressure [bar]	4.5 ... 14	4.5 ... 18	4.5 ... 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 CRC <sup>1)</sup>	2		

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

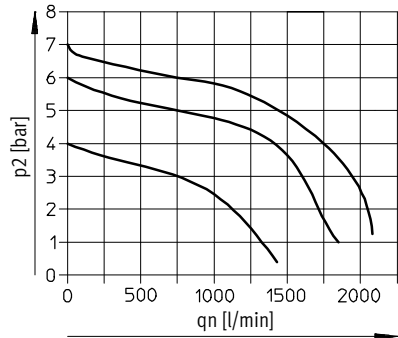
Weights [g]		
Size	MSB4	MSB6
Service unit combination	1,600	2,400
Mounting bracket	40	76

-  - Note  
Materials → Technical data of the individual devices

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

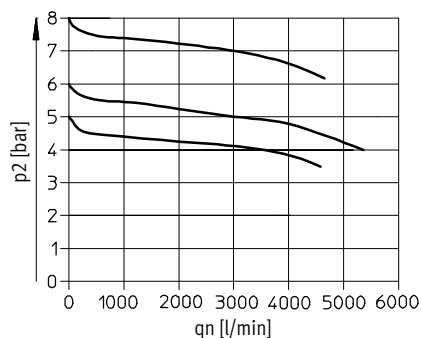
Pressure regulation range 4 ... 12 bar  
Grade of filtration 40 µm  
MSB4-1/4

Primary pressure p1 = 10 bar



## MSB6-1/2

Primary pressure p1 = 10 bar



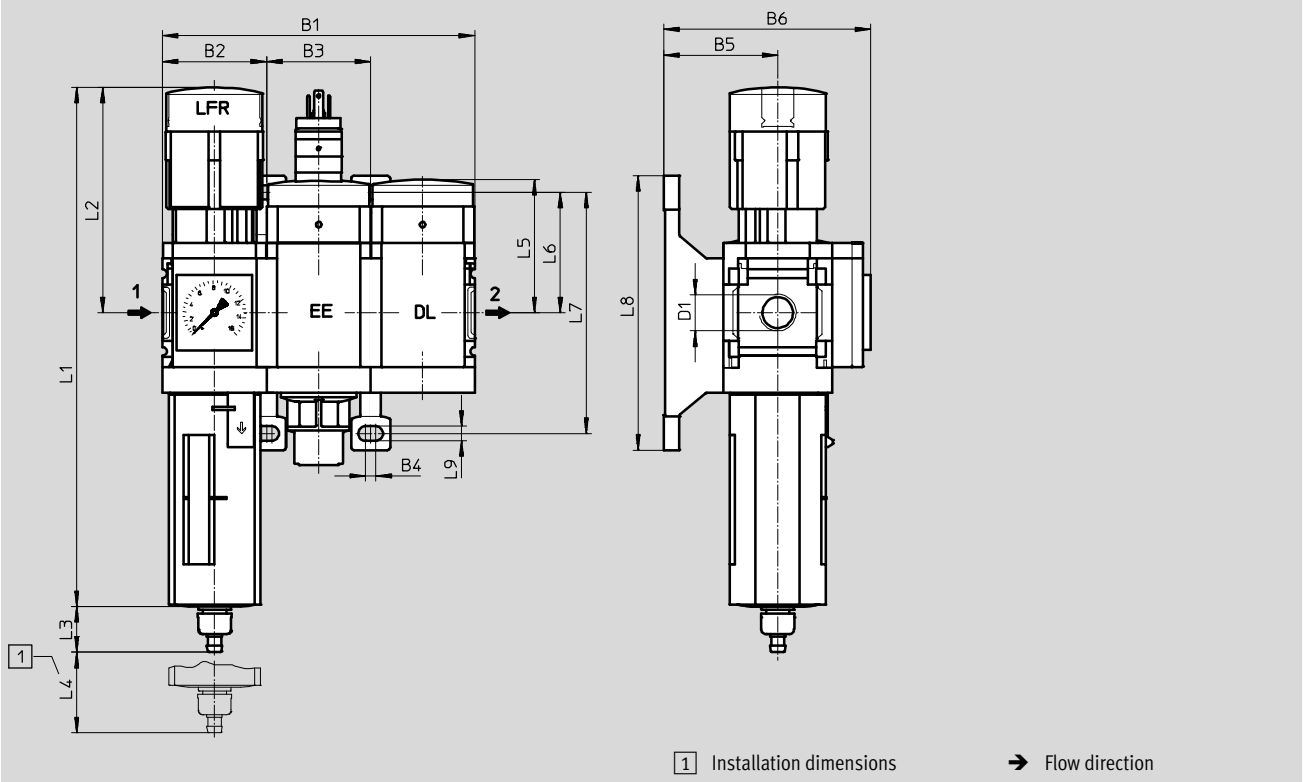
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 3

**Dimensions**

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

Filter regulator with pressure gauge, solenoid actuated on-off valve, pneumatically actuated soft-start valve



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	120.6	40.2	40.2	4	44	80	G $\frac{1}{4}$	201	87
MSB6	186	62	62	4.5	54	100	G $\frac{1}{2}$	285	134.5

Type	L3 Condensate drain		L4	L5	L6	L7	L8	L9
	manual rotary	fully automatic						
MSB4	17.7	–	25	51.7	46.5	93.2	106	5.6
MSB6	15.8	18.5	68	71	71	142	158	6.6

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

**Ordering data**

Size	Condensate drain	Connection	Grade of filtration 40 µm	
			Part No.	Type
Pressure regulation range 4 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi				
MSB4	manual rotary	G $\frac{1}{4}$	<b>531101</b>	<b>MSB4-<math>\frac{1}{4}</math>:J1D1A1-WP</b>
MSB6	manual rotary	G $\frac{1}{2}$	<b>530222</b>	<b>MSB6-<math>\frac{1}{2}</math>:J1D1A1-WP</b>
	fully automatic	G $\frac{1}{2}$	<b>530224</b>	<b>MSB6-<math>\frac{1}{2}</math>:J2D1A1-WP</b>

**New**  
**MSB4/6-...J120**

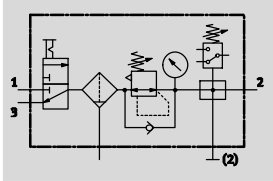
**Service unit combinations MSB4/MSB6, MS series**



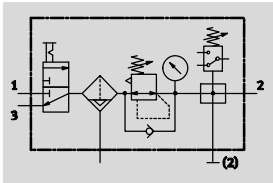
Technical data – Combination 4

**Function**

With condensate drain,  
manual rotary



With condensate drain,  
fully automatic



- - Flow rate  
1,300 ... 5,300 l/min
- - Temperature range  
-10 ... +60 °C
- - Pressure regulation range  
0.5 ... 12 bar
- - [www.festo.com](http://www.festo.com)



- Manually operated on-off valve MS...-EM1
- Filter regulator MS...-LFR with pressure gauge
- Branching module MS...-FRM-Y with pressure switch or MS...-FRM-AD7 with pressure sensor for displaying output pressure via operational status indicator
- Mounting bracket MS...-WP

- For filtered and unlubricated compressed air supply
- Supply pressure can be opened and closed
- Output pressure is infinitely adjustable within the pressure regulation range
- Electrical pressure monitoring with adjustable switching pressure

General technical data				
Size	MSB4		MSB6	
Branching module with	Pressure switch	Pressure sensor	Pressure switch	Pressure sensor
Pneumatic connection 1, 2, 3	G $\frac{1}{4}$		G $\frac{1}{2}$	
Regulator function	Output pressure constant, with primary pressure compensation, with return flow, with secondary venting			
Type of mounting	Via accessories			
Mounting position	Vertical $\pm 5^\circ$			
Grade of filtration $[\mu\text{m}]$	40			
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [7:4:4] (grade of filtration 40 $\mu\text{m}$ )			
Bowl guard	Plastic bowl guard			
Condensate drain	Manual rotary	Manual rotary	Manual rotary	Manual rotary
	Fully automatic	-	Fully automatic	-
Actuation security	Rotary knob with detent, can be locked using accessories			
Pressure regulation range [bar]	-	0.5 ... 7	-	0.5 ... 7
	0.5 ... 12	0.5 ... 10	0.5 ... 12	0.5 ... 10
Pressure indication	Via pressure gauge for displaying output pressure			

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

Standard nominal flow rate $q_{nN}$ [l/min]				
Size	MSB4		MSB6	
Branching module with	Pressure switch	Pressure sensor	Pressure switch	Pressure sensor
Pressure regulation range 0.5 ... 7 bar				
Grade of filtration 40 $\mu\text{m}$	-	1,750	-	5,300
Pressure regulation range 0.5 ... 10 bar				
Grade of filtration 40 $\mu\text{m}$	-	1,600	-	4,500
Pressure regulation range 0.5 ... 12 bar				
Grade of filtration 40 $\mu\text{m}$	1,300	-	4,500	-

## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 4

Operating and environmental conditions						
Condensate drain	Manual rotary				Fully automatic	
Size	MSB4		MSB6		MSB4	MSB6
Branching module with	Pressure switch	Pressure sensor	Pressure switch	Pressure sensor	Pressure switch	Pressure switch
Operating pressure [bar]	0.8 ... 14		0.8 ... 18		2 ... 12	2 ... 12
Operating medium	Compressed air according to ISO 8573-1:2010 [7:4:4]					
	Inert gases					
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)					
Ambient temperature [°C]	-10 ... +60	0 ... +50	-10 ... +60	0 ... +50	+5 ... +60	
Temperature of medium [°C]	-10 ... +60	0 ... +50	-10 ... +60	0 ... +50	+5 ... +60	
Storage temperature [°C]	-10 ... +60				-10 ... +60	
Corrosion resistance class CRC <sup>1)</sup>	2					

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Weight [g]		
Size	MSB4	MSB6
Service unit combination	1,500	2,000
Mounting bracket	40	76

-  - Note

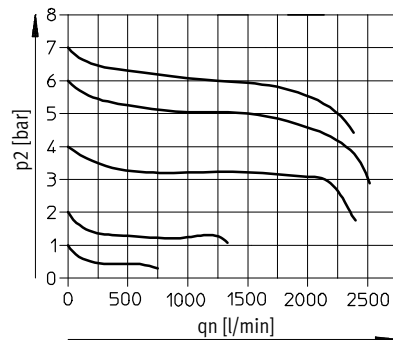
Materials → Technical data of the individual devices

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

Pressure regulation range 0.5 ... 12 bar Grade of filtration 40 µm

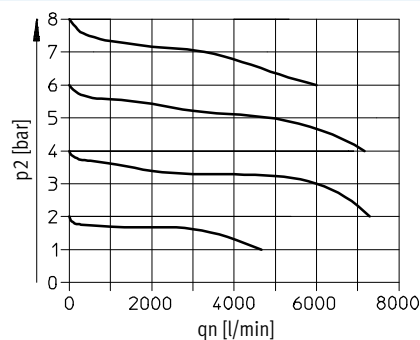
MSB4-1/4

Primary pressure p1 = 10 bar



MSB6-1/2

Primary pressure p1 = 10 bar



**New**  
**MSB4/6-...J120**

**Service unit combinations MSB4/MSB6, MS series**

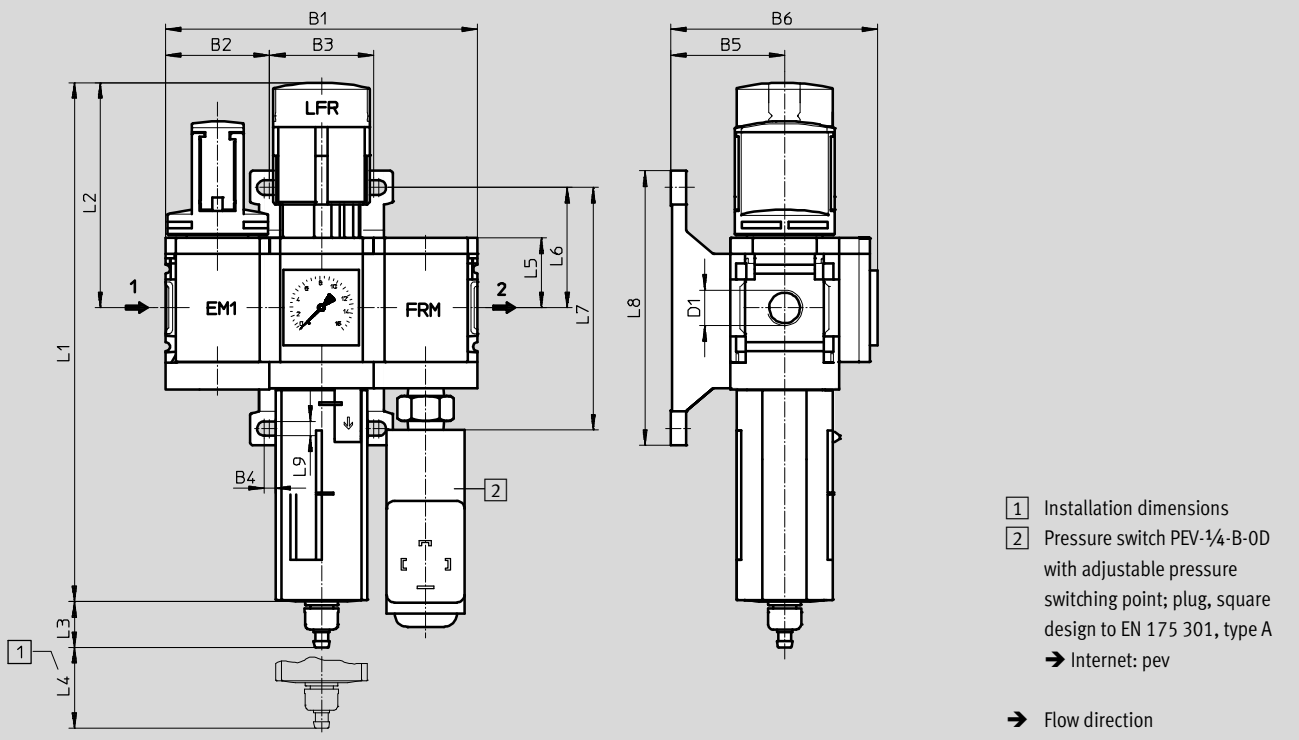
Technical data – Combination 4

**FESTO**

**Dimensions**

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

Manually actuated on-off valve, filter regulator with pressure gauge, branching module with pressure switch



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	120.6	40.2	40.2	4	44	80	G $\frac{1}{4}$	201	87
MSB6	186	62	62	4.5	54	100	G $\frac{1}{2}$	285	134.5

Type	L3 Condensate drain		L4	L5	L6	L7	L8	L9
	Manual rotary	Fully automatic						
MSB4	17.7	20.4	25	27	46.5	93.2	106	5.6
MSB6	15.8	18.5	68	39	71	142	158	6.6

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

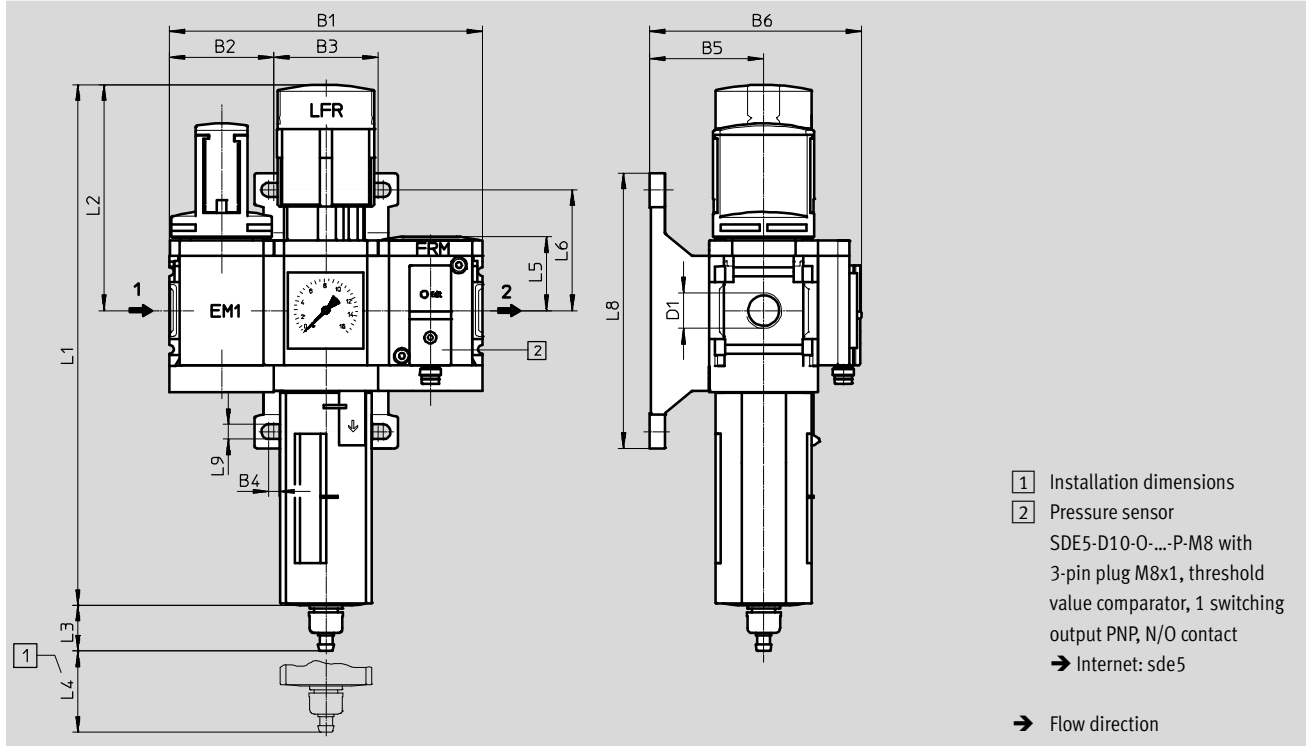
**Service unit combinations MSB4/MSB6, MS series**

Technical data – Combination 4

**Dimensions**

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

Manually actuated on-off valve, filter regulator with pressure gauge, branching module with pressure sensor



Type	B1	B2	B3	B4	B5	B6	D1
MSB4	120.6	40.2	40.2	4	44	82	G $\frac{1}{4}$
MSB6	186	62	62	4.5	54	102	G $\frac{1}{2}$

Type	L1	L2	L3	L4	L5	L6	L8	L9
MSB4	201	87	17.7	25	29.4	46.5	106	5.6
MSB6	285	134.5	15.8	68	41.7	71	158	6.6

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

**Ordering data**

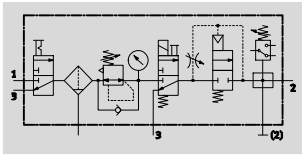
Size	Condensate drain	Connection	Grade of filtration 40 $\mu$ m			
			Branching module with pressure switch		Branching module with pressure sensor	
			Part No.	Type	Part No.	Type
Pressure regulation range 0.5 ... 7 bar, pressure gauge with outer scale in MPa						
MSB4	Manual rotary	G $\frac{1}{4}$	–	–	8042667	MSB4- $\frac{1}{4}$ :C3:J120:F12-WP
MSB6	Manual rotary	G $\frac{1}{2}$	–	–	8042671	MSB6- $\frac{1}{2}$ :C3:J120:F12-WP
Pressure regulation range 0.5 ... 10 bar, pressure gauge with outer scale in bar and inner scale in psi						
MSB4	Manual rotary	G $\frac{1}{4}$	–	–	8025356	MSB4- $\frac{1}{4}$ :C3:J1:F12-WP
MSB6	Manual rotary	G $\frac{1}{2}$	–	–	8025357	MSB6- $\frac{1}{2}$ :C3:J1:F12-WP
Pressure regulation range 0.5 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi						
MSB4	Manual rotary	G $\frac{1}{4}$	542294	MSB4- $\frac{1}{4}$ :C3J1F3-WP	–	–
	Fully automatic	G $\frac{1}{4}$	542300	MSB4- $\frac{1}{4}$ :C3J2F3-WP	–	–
MSB6	Manual rotary	G $\frac{1}{2}$	542270	MSB6- $\frac{1}{2}$ :C3J1F3-WP	–	–
	Fully automatic	G $\frac{1}{2}$	542276	MSB6- $\frac{1}{2}$ :C3J2F3-WP	–	–

# Service unit combinations MSB4/MSB6, MS series

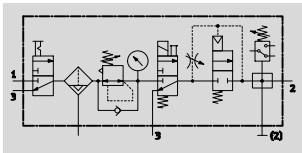
Technical data – Combination 5

**Function**

With condensate drain  
manual rotary



With condensate drain  
fully automatic



- - Flow rate  
750 ... 3,100 l/min
- - Temperature range  
-10 ... +60 °C
- - Pressure regulation range  
4 ... 12 bar
- - [www.festo.com](http://www.festo.com)



- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7 with pressure gauge
- On-off valve MS...-EE-V24 solenoid actuated
- Soft-start valve MS...-DL pneumatically actuated
- Branching module MS...-FRM-Y with pressure switch without display
- Mounting bracket MS...-WP

- For filtered and unlubricated compressed air
- Supply pressure can be opened and closed
- Output pressure is infinitely adjustable within the pressure regulation range
- Gradual pressure build-up prevents sudden, unpredictable movements
- To shut-off and vent the following device or the system
- Electrical pressure monitoring with adjustable switching pressure

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2, 3	G1/4	G1/2
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]	- 40	5
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [6:4:4] (grade of filtration 5 µm) Compressed air in accordance with ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm)	
Bowl guard	Plastic bowl guard	
Condensate drain	Manual rotary Fully automatic	
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range [bar]	4 ... 12	
Pressure indicator	With pressure gauge	
Coil characteristics	24 V DC: 1.5 W	24 V DC: 1.5 W

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Grade of filtration 5 µm	-	3,000
40 µm	750	3,100



# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 5

Operating and environmental conditions				
Condensate drain	Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	4.5 ... 14	4.5 ... 18	4.5 ... 12	4.5 ... 12
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]			
	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 CRC <sup>1)</sup>	2			

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

Weights [g]	
Size	MSB6
Service unit combination	3,500
Mounting bracket	76

Note  
 Materials → Technical data of the individual devices

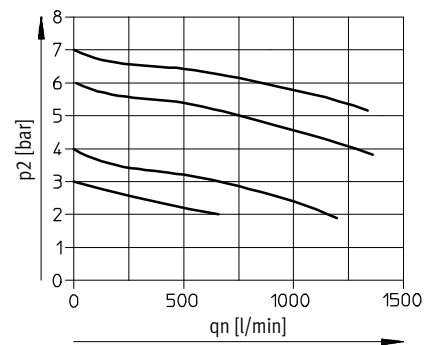
## Standard flow rate qn as a function of output pressure p2

Pressure regulation range 4 ... 12 bar  
 MSB4-1/4

Primary pressure p1 = 10 bar

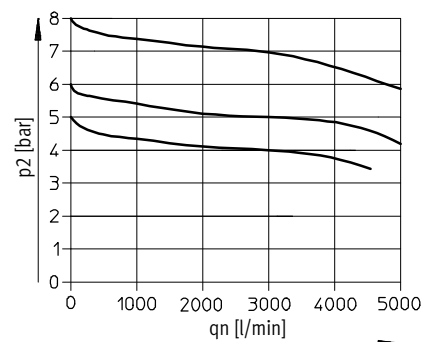
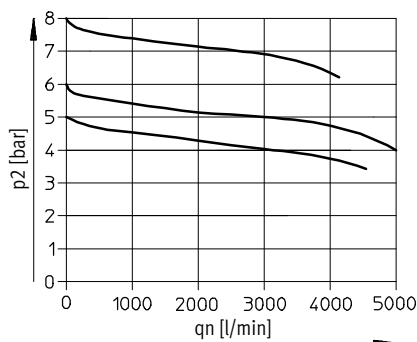
Grade of filtration 5 µm

Grade of filtration 40 µm



## MSB6-1/2

Primary pressure p1 = 10 bar



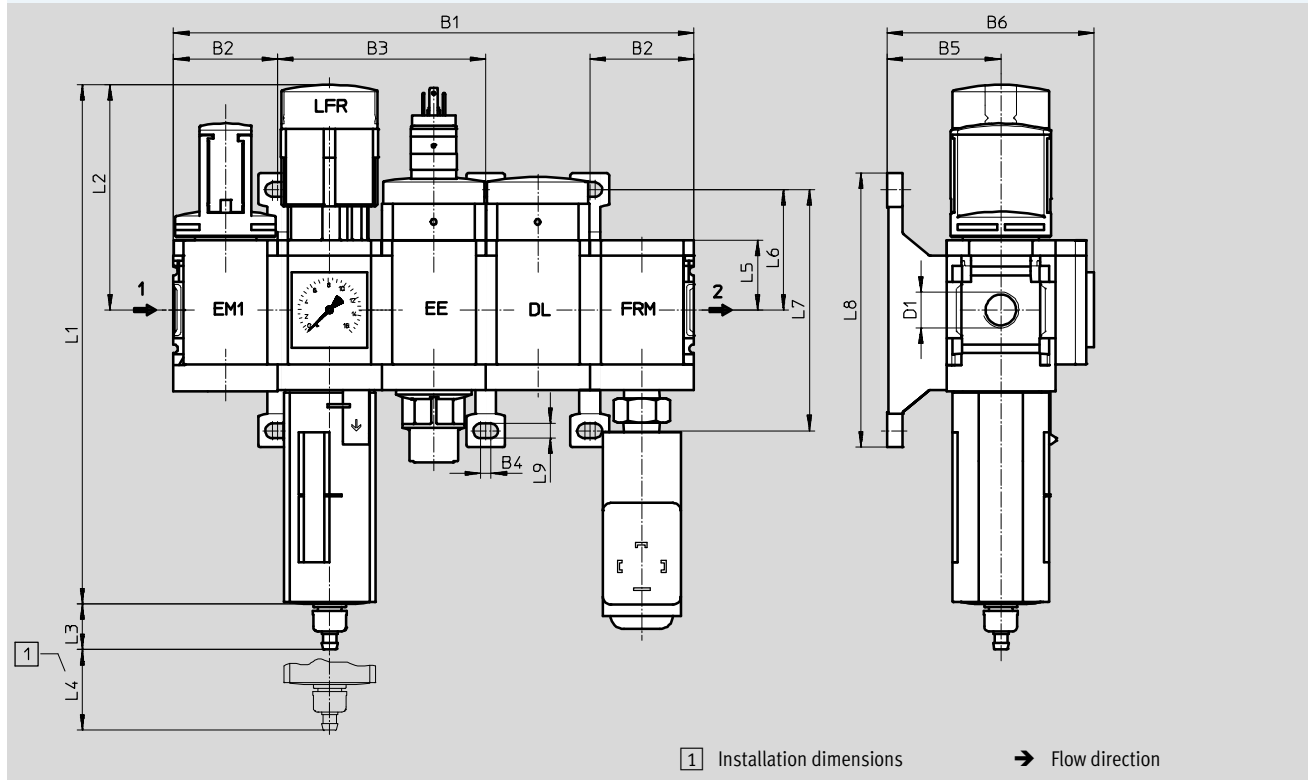
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 5

## Dimensions

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

Manually actuated on-off valve, filter regulator with pressure gauge, solenoid actuated on-off valve, pneumatically actuated soft-start valve, branching module with pressure switch



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	201	40.2	80.4	4	44	80	G $\frac{1}{4}$	201	87
MSB6	310	62	124	4.5	54	100	G $\frac{1}{2}$	285	134.5

Type	L3 Condensate drain		L4	L5	L6	L7	L8	L9
	manual rotary	fully automatic						
MSB4	17.7	20.4	25	27	46.5	93.2	106	5.6
MSB6	15.8	18.5	68	39	71	142	158	6.6

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

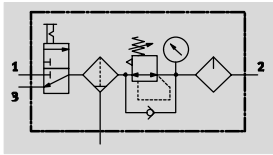
Ordering data						
Size	Condensate drain	Connection	Grade of filtration 5 $\mu$ m		Grade of filtration 40 $\mu$ m	
			Part No.	Type	Part No.	Type
Pressure regulation range 4 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi						
MSB4	manual rotary	G $\frac{1}{4}$	–	–	542293	MSB4- $\frac{1}{4}$ :C3J1D1A1F3-WP
	fully automatic	G $\frac{1}{4}$	–	–	542299	MSB4- $\frac{1}{4}$ :C3J2D1A1F3-WP
MSB6	manual rotary	G $\frac{1}{2}$	542281	MSB6- $\frac{1}{2}$ :C3J3D1A1F3-WP	542269	MSB6- $\frac{1}{2}$ :C3J1D1A1F3-WP
	fully automatic	G $\frac{1}{2}$	542287	MSB6- $\frac{1}{2}$ :C3J4D1A1F3-WP	542275	MSB6- $\frac{1}{2}$ :C3J2D1A1F3-WP

# Service unit combinations MSB4/MSB6, MS series

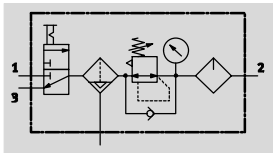
Technical data – Combination 6

**Function**

With condensate drain  
manual rotary



With condensate drain  
fully automatic



- - Flow rate  
750 ... 3,100 l/min
- - Temperature range  
-10 ... +60 °C
- - Pressure regulation range  
1 ... 12 bar
- - [www.festo.com](http://www.festo.com)



- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7 with pressure gauge
- Lubricator MS...-LOE-R
- Mounting bracket MS...-WP

- For filtered and lubricated compressed air
- Supply pressure can be opened and closed
- Output pressure is infinitely adjustable within the pressure regulation range

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2, 3	G1/4	G1/2
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]	40	
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm)	
Bowl guard	Plastic bowl guard	
Condensate drain	Manual rotary	
	-	Fully automatic
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range [bar]	1 ... 12	
Pressure indicator	With pressure gauge	

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Grade of filtration 40 µm	750	3,100


# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 6

Operating and environmental conditions			
Condensate drain	Manual rotary		Fully automatic
Size	MSB4	MSB6	MSB6
Operating pressure [bar]	1.5 ... 14	1.5 ... 18	2 ... 12
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]		
	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 CRC <sup>1)</sup>	2		

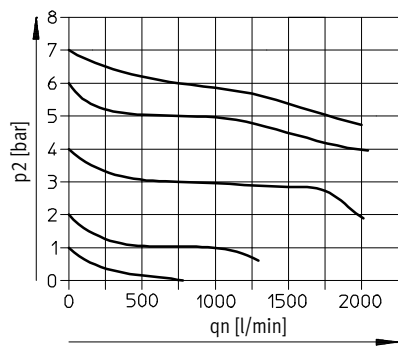
1) Corrosion resistance class CRC 2 to Festo standard FN 940070  
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial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

Weights [g]		
Size	MSB4	MSB6
Service unit combination	1,500	1,750
Mounting bracket	40	76

-  - Note  
 Materials → Technical data of the individual devices

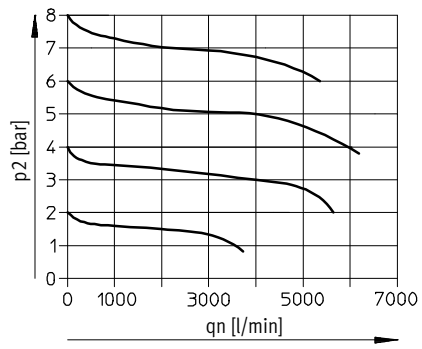
**Standard flow rate  $q_n$  as a function of output pressure  $p_2$**   
 Pressure regulation range 1 ... 12 bar      Grade of filtration 40  $\mu\text{m}$       Grade of filtration 5  $\mu\text{m}$   
 MSB4-1/4

Primary pressure  $p_1 = 10$  bar



MSB6-1/2

Primary pressure  $p_1 = 10$  bar



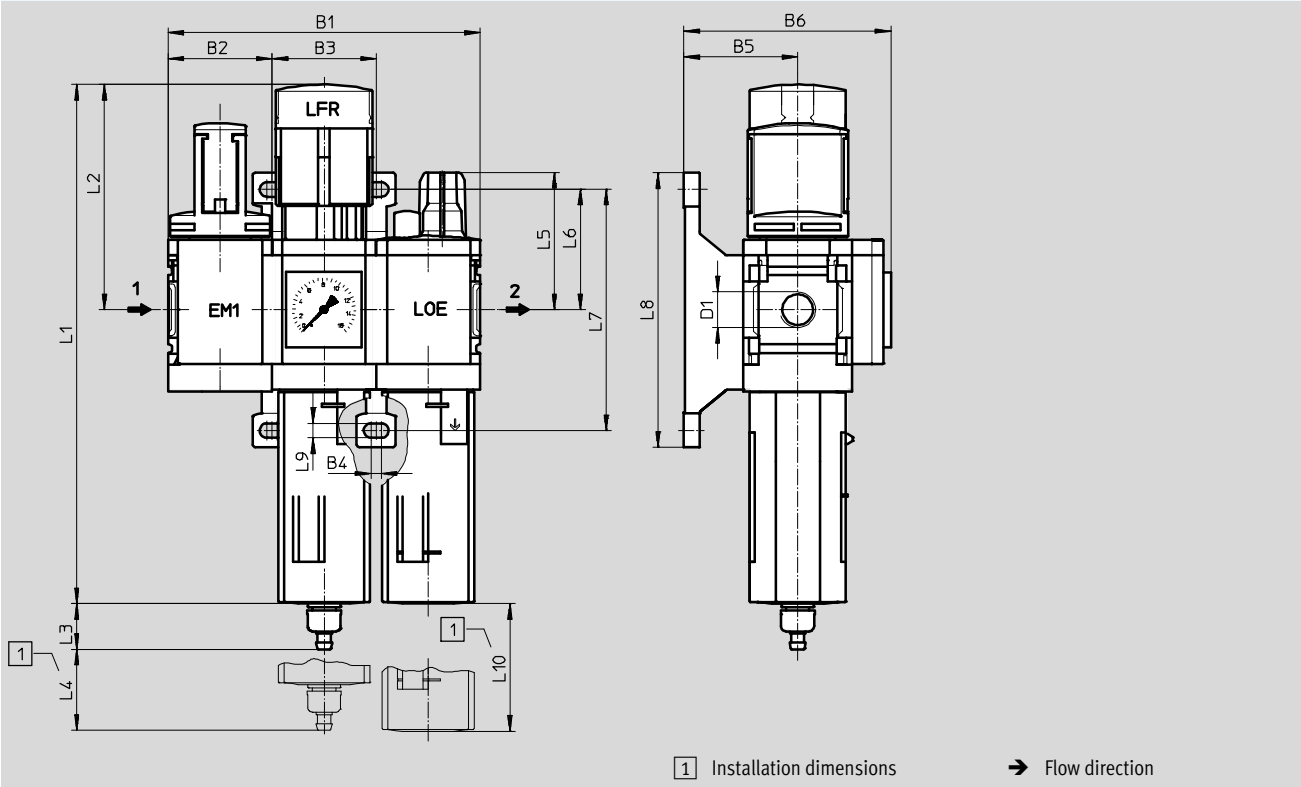
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 6

## Dimensions

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

Manually actuated on-off valve, filter regulator with pressure gauge, lubricator



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	120.6	40.2	40.2	4	44	80	G $\frac{1}{4}$	201	87
MSB6	186	62	62	4.5	54	100	G $\frac{1}{2}$	285	134.5

Type	L3 Condensate drain		L4	L5	L6	L7	L8	L9	L10
	manual rotary	fully automatic							
MSB4	17.7	–	25	53	46.5	93.2	106	5.6	80
MSB6	15.8	18.5	68	66	71	142	158	6.6	130

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

## Ordering data

Size	Condensate drain	Connection	Grade of filtration 40 $\mu$ m	
			Part No.	Type
Pressure regulation range 1 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi				
MSB4	manual rotary	G $\frac{1}{4}$	542296	MSB4- $\frac{1}{4}$ :C3J1M1-WP
MSB6	manual rotary	G $\frac{1}{2}$	542272	MSB6- $\frac{1}{2}$ :C3J1M1-WP
	fully automatic	G $\frac{1}{2}$	542278	MSB6- $\frac{1}{2}$ :C3J2M1-WP

**New**  
**MSB4/6-...J120**

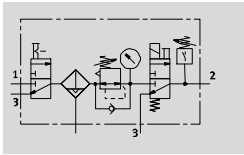
**Service unit combinations MSB4/MSB6, MS series**

**FESTO**

Technical data – Combination 7

Function

With condensate drain,  
manual rotary



- - Flow rate  
1,400 ... 4,400 l/min
- - Temperature range  
0 ... +50 °C
- - Pressure regulation range  
0.5 ... 10 bar



- Manually operated on-off valve  
MS...-EM1
- Filter regulator MS...-LFR with  
pressure gauge
- Solenoid actuated on-off valve  
MS...-EE-10V24P-AD7, with  
pressure sensor for displaying  
output pressure via operational  
status indicator
- Mounting bracket MS...-WP

- For filtered and unlubricated  
compressed air supply
- Supply pressure can be opened and  
closed
- Output pressure is infinitely  
adjustable within the pressure  
regulation range
- When the supply pressure is closed,  
quick venting ensures rapid  
pressure reduction
- Electrical pressure monitoring with  
adjustable switching pressure

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2, 3	G $\frac{1}{4}$	G $\frac{1}{2}$
Regulator function	Output pressure constant, with primary pressure compensation, with return flow, with secondary venting	
Type of mounting	Via accessories	
Mounting position	Vertical $\pm 5^\circ$	
Grade of filtration [ $\mu\text{m}$ ]	40	
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [7:4:4]	
Bowl guard	Plastic bowl guard	
Condensate drain	Manual rotary	
Actuation security	Rotary knob with detent, can be locked using accessories	
Pressure regulation range [bar]	0.5 ... 7	
	0.5 ... 10	
Pressure indication	Via pressure sensor for displaying output pressure via operational status indicator and electrical output	
	Via pressure gauge for displaying output pressure	

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

Electrical data – On-off valve MS...-EE-10V24P-AD7	
Coil characteristics	24 V DC: 1.8 W; permissible voltage fluctuations $-15\%/+10\%$
Electrical connection	M12x1 to IEC 61076-2-101
Protection class for solenoid coil	IP65
Duty cycle [%]	100

## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 7


Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Pressure regulation range 0.5 ... 7 bar		
Grade of filtration	40 µm	1,600
Pressure regulation range 0.5 ... 10 bar		
Grade of filtration	40 µm	1,400

Operating and environmental conditions		
Condensate drain	Manual rotary	
Size	MSB4	MSB6
Operating pressure [bar]	0.8 ... 14	0.8 ... 18
Operating medium	Compressed air according to ISO 8573-1:2010 [7:4:4] Inert gases	
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)	
Ambient temperature [°C]	0 ... +50	
Temperature of medium [°C]	0 ... +50	
Storage temperature [°C]	-10 ... +60	
Corrosion resistance class CRC <sup>1)</sup>	2	

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Weight [g]		
Size	MSB4	MSB6
Service unit combination	1,600	2,000
Mounting bracket	40	76

 Note

Materials → Technical data of the individual devices

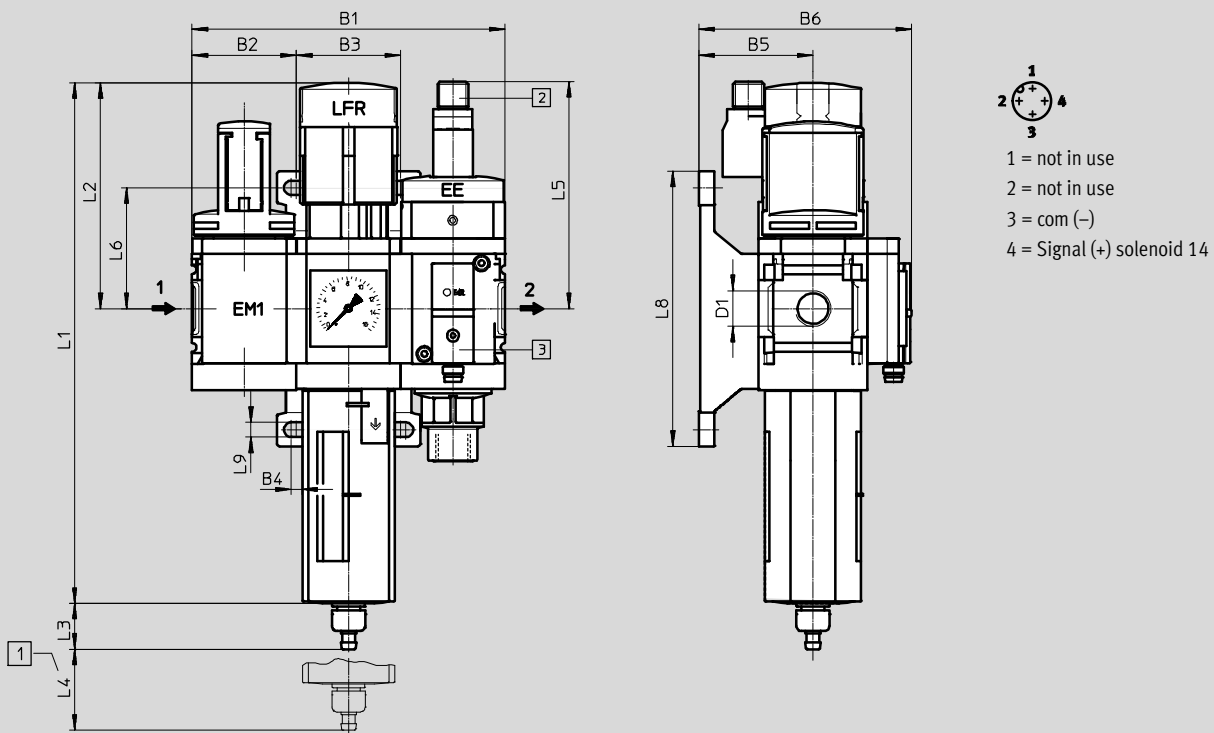
**Service unit combinations MSB4/MSB6, MS series**

Technical data – Combination 7

**Dimensions**

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

Manually actuated on-off valve, filter regulator with pressure gauge, solenoid actuated on-off valve with pressure sensor



1 Installation dimensions  
2 Electrical connection to IEC 61076-2-101, plug M12x1, 2-pin for NEBU-M12

3 Pressure sensor SDE5-D10-O-...-P-M8 with 3-pin plug M8x1, threshold value comparator, 1 switching output PNP, N/O contact  
→ Internet: sde5

→ Flow direction

Type	B1	B2	B3	B4	B5	B6	D1
MSB4	120.6	40.2	40.2	4	44	82	G $\frac{1}{4}$
MSB6	186	62	62	4.5	54	102	G $\frac{1}{2}$

Type	L1	L2	L3	L4	L5	L6	L8	L9
MSB4	201	87	17.7	25	86.3	46.5	106	5.6
MSB6	285	134.5	15.8	68	104	71	158	6.6

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


Ordering data							
Size	Condensate drain	Connection	Grade of filtration 40 µm				
			Part No.	Type			
Pressure regulation range 0.5 ... 7 bar, pressure gauge with outer scale in MPa							
MSB4	Manual rotary	G $\frac{1}{4}$	8042666	MSB4- $\frac{1}{4}$ :C3:J120:D14-WP			
MSB6	Manual rotary	G $\frac{1}{2}$	8042670	MSB6- $\frac{1}{2}$ :C3:J120:D14-WP			
Pressure regulation range 0.5 ... 10 bar, pressure gauge with outer scale in bar and inner scale in psi							
MSB4	Manual rotary	G $\frac{1}{4}$	8025358	MSB4- $\frac{1}{4}$ :C3:J1:D14-WP			
MSB6	Manual rotary	G $\frac{1}{2}$	8025359	MSB6- $\frac{1}{2}$ :C3:J1:D14-WP			





## Service unit combinations MSB, MS series

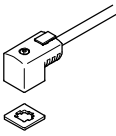
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Accessories


Ordering data – Silencer U				Technical data → Internet: u	
	Description	Pneumatic connection	Part No.	Type	
	for MS4-EM1/EE	G $\frac{1}{4}$	<b>6842</b>	U- $\frac{1}{4}$ -B	
	for MS6-EM1/EE	G $\frac{1}{2}$	<b>6844</b>	U- $\frac{1}{2}$ -B	

Ordering data – Angled socket PEV					Technical data → Internet: pev	
	Description	Operating voltage range	Electrical connection	Switching status display	Part No.	Type
	for PEV- $\frac{1}{4}$ -...-OD	15 ... 30 V DC	4-pin	Yellow LED	<b>164274</b>	PEV- $\frac{1}{4}$ -WD-LED-24
		≤ 230 V AC	4-pin	Yellow LED	<b>164275</b>	PEV- $\frac{1}{4}$ -WD-LED-230
		≤ 180 V DC				

Ordering data – Plug socket MSSD					Technical data → Internet: mssd	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type
	for PEV- $\frac{1}{4}$ -...-OD for MS4/6-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	<b>171157</b>	MSSD-C-4P
			3-pin	Clamping screws	<b>151687</b>	MSSD-EB
			4-pin	Insulation displacement technology	<b>192745</b>	MSSD-EB-S-M14

Ordering data – Plug socket with cable KMEB						Technical data → Internet: kmeb	
	Description	Operating voltage range	Electrical connection	Switching status display	Cable length [m]	Part No.	Type
	for MS4/6-EE/DE	24 V DC	2-pin	LED	2.5	<b>547268</b>	KMEB-3-24-2,5-LED
					5	<b>547269</b>	KMEB-3-24-5-LED
					2.5	<b>547270</b>	KMEB-3-24-2,5
			5	<b>547271</b>	KMEB-3-24-5		
			3-pin	LED	2.5	<b>151688</b>	KMEB-1-24-2,5-LED
					5	<b>151689</b>	KMEB-1-24-5-LED
		10			<b>193457</b>	KMEB-1-24-10-LED	
		230 V AC	3-pin	-	2.5	<b>151690</b>	KMEB-1-230AC-2,5
					5	<b>151691</b>	KMEB-1-230AC-5



Ordering data – Illuminating seal MEB-LD				Technical data → Internet: meb	
	Description	Operating voltage range	Part No.	Type	
	for plug socket with cable KMEB and plug socket MSSD-EB	12 ... 24 V DC	<b>151717</b>	MEB-LD-12-24DC	
		230 V DC/AC ±10%	<b>151718</b>	MEB-LD-230AC	



Ordering data – Padlock LRVS-D			
	Description	Weight [g]	Part No. Type
	for filter or pressure regulators	120	<b>193786</b> LRVS-D

## Service unit combinations MSB, MS series

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Accessories

Ordering data – Connecting cable NEBU-M8				Technical data → Internet: nebu	
	Electrical connection	Number of wires	Cable length [m]	Part No.	Type
	M8x1, straight socket	3	2.5	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	M8x1, angled socket	3	2.5	541338	NEBU-M8W3-K-2.5-LE3
			5	541341	NEBU-M8W3-K-5-LE3

Ordering data – Connecting cable NEBU-M12				Technical data → Internet: nebu	
	Electrical connection	Number of wires	Cable length [m]	Part No.	Type
	M12x1, straight socket	4	2.5	550326	NEBU-M12G5-K-2.5-LE4
			5	541328	NEBU-M12G5-K-5-LE4
	M12x1, angled socket	4	2.5	550325	NEBU-M12W5-K-2.5-LE4
			5	541329	NEBU-M12W5-K-5-LE4