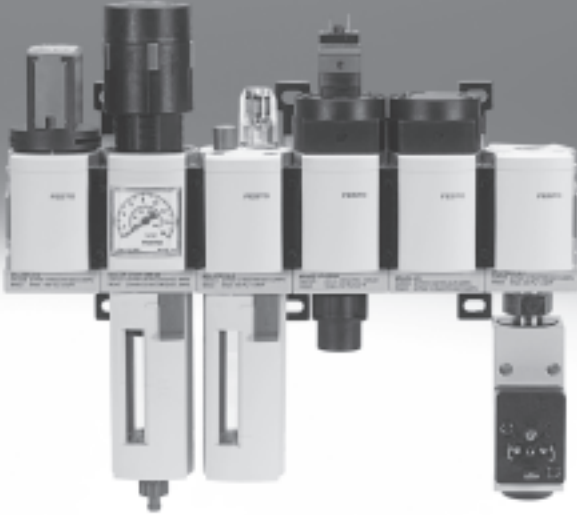
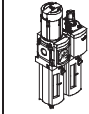
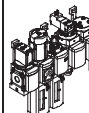
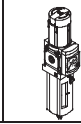
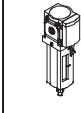
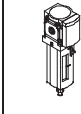
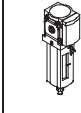
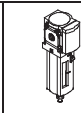


# Service unit combinations MSB, MS series



# 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...	D2	D4	D5	D6	D7	D8	A	B	C	E
<b>Service units</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>													
Filter regulators <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	-	-	-	■	■	■	-	-	■	■
Filters <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	-	-	-	-	-	-	-	-	■	■
Fine and micro filters <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	-	-	-	-	-	-	■	■	-	-
Activated carbon filters <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	-	-	-	-	-	-	-	-	-	-
Water separators <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 units</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...	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 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...	C	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-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	–							

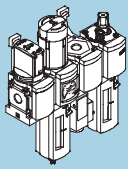
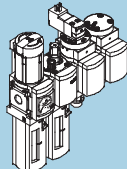
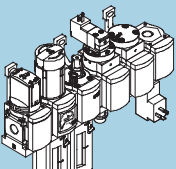
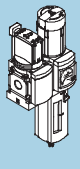
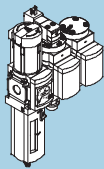
# Service unit combinations MSB, MS series

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-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

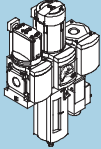
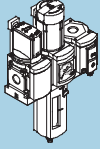
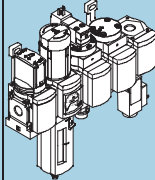
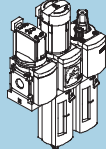
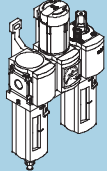
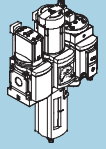
Product range overview

Combinations	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5
					
<b>Comprising:</b>					
Manually operated on-off valve EM1	■	-	■	■	-
Filter regulator with pressure gauge, lockable LFR	■	■	■	■	■
Pressure regulator with pressure gauge, lockable LR	-	-	-	-	-
Filter LF	-	-	-	-	-
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	■	■	■	■	■
Type codes → Page	11	11	11	11	11
Technical data → Page	12	15	19	23	26



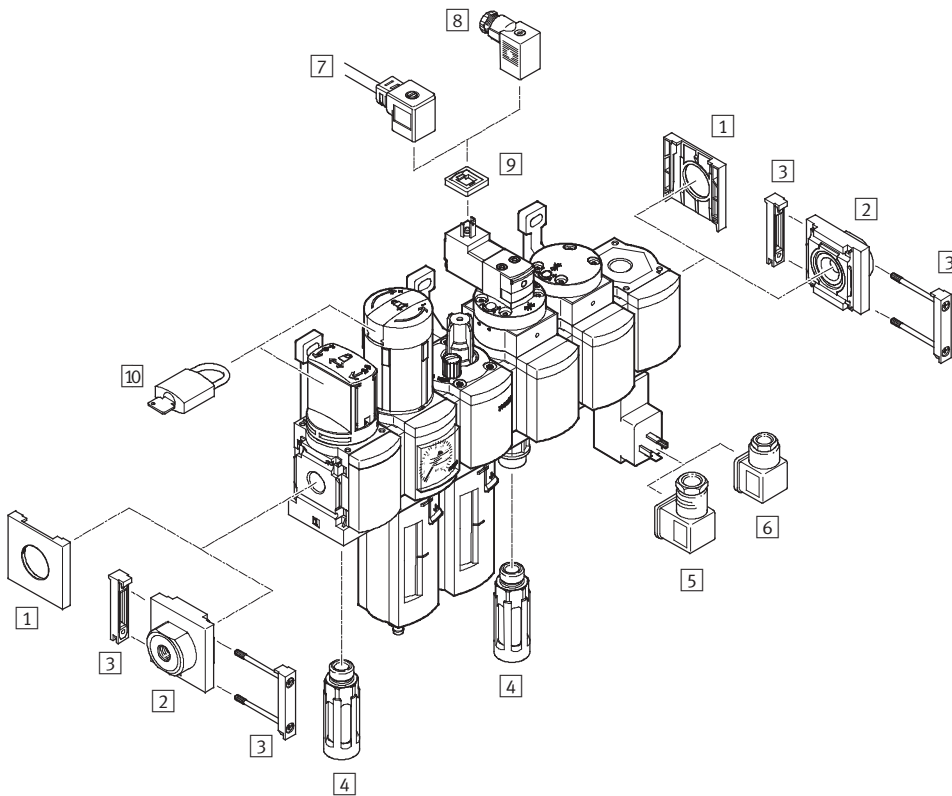
# Service unit combinations MSB4/MSB6, MS series

Product range overview

Combinations	Combination 6		Combination 7	Combination 8	Combination 9	Combination 10	
							
<b>Comprising:</b>							
Manually operated on-off valve	EM1	■	■	■	■	-	■
Filter regulator with pressure gauge, lockable	LFR	■	■	■	■	-	■
Pressure regulator with pressure gauge, lockable	LR	-	-	-	-	■	-
Filter	LF	-	-	-	-	■	-
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>		11	11	11	11	11	11
<b>Technical data → Page</b>		30	30	34	38	41	45

# Service unit combinations MSB4/MSB6, MS series

Peripherals overview



**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 MS4/6-AG...	ms4-ag, ms6-ag
3	Module connector MS4/6-MV	ms4-mv, ms6-mv
4	Silencer U	48
5	Angled socket PEV-1/4-WD-LED	48
6	Plug socket MSSD-C-4P	48
7	Plug socket with cable KMEB	48
8	Plug socket MSSD-EB	48
9	Illuminating seal MEB-LD	48
10	Padlock LRVS-D	48
-	Mounting bracket MS4/6-WP/WPB/WPE/WPM	ms4-wp, ms6-wp

# Service unit combinations MSB4/MSB6, MS series

Type codes

		MSB	6	-	1/2	:	H7	N3	M2	-	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										
Filters		→ Internet: ms4-lf, ms6-lf									
H1	MS...-LF-ERV										
H2	MS...-LF-ERM										
H3	MS...-LF-CRM										
H4	MS...-LF-CRV										
H7	MS...-LF-EUV										
H8	MS...-LF-EUM										
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										
Pressure regulator		→ Internet: ms4-lr, ms6-lr									
N2	MS...-LR-D6-AS										
N3	MS...-LR-D7-AS										
Soft-start valve		→ Internet: ms4-dl, ms6-dl									
A1	MS...-DL										
Lubricator		→ Internet: ms4-loe, ms6-loe									
M1	MS...-LOE-R										
M2	MS...-LOE-U										
On-off valve		→ Internet: ms4-ee, ms6-ee									
D1	MS...-EE-V24										
D7	MS...-EE-10V24										
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										

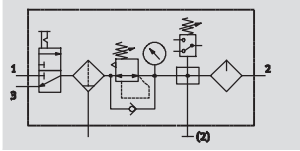
Further variants can be ordered using the modular system → [www.festo.com](http://www.festo.com)

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

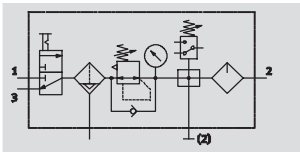
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 1

Function  
With condensate drain  
manual rotary



With condensate drain  
fully automatic



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

Flow rate  
900 ... 3,300 l/min

Temperature range  
-10 ... +60 °C

Pressure range  
1 ... 12 bar



- 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	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]	5	
	40	
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]	1 ... 12	
Pressure indicator	With pressure gauge	

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

Standard nominal flow rate qnN [l/min]			
Size		MSB4	MSB6
Grade of filtration	5 µm	900	3,200
	40 µm	950	3,300

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 1

Operating and environmental conditions				
Condensate drain	Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	1.5 ... 14	1.5 ... 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			

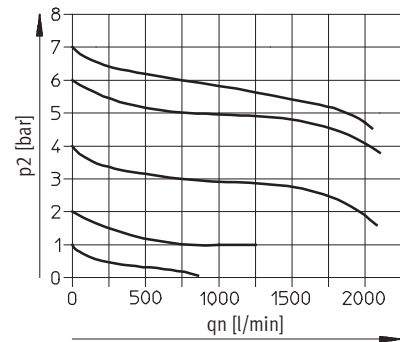
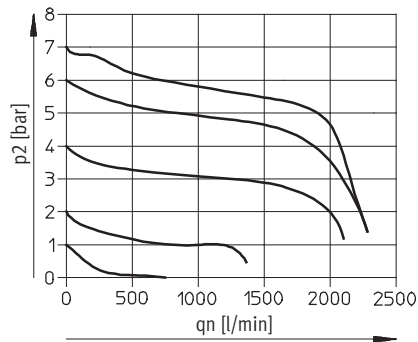
1) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]	
Size	MSB6
Service unit combination	2,550
Mounting bracket	76

**Note**  
Materials → Technical data of the individual devices

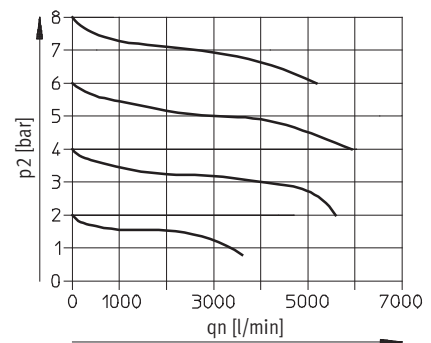
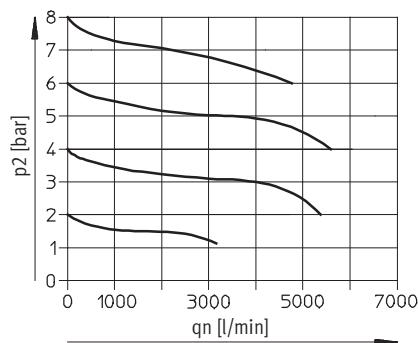
**Standard flow rate qn as a function of output pressure p2**  
 Pressure regulation range 1 ... 12 bar    Grade of filtration 5 µm    Grade of filtration 40 µm  
 MSB4-1/4

Primary pressure p1 = 10 bar



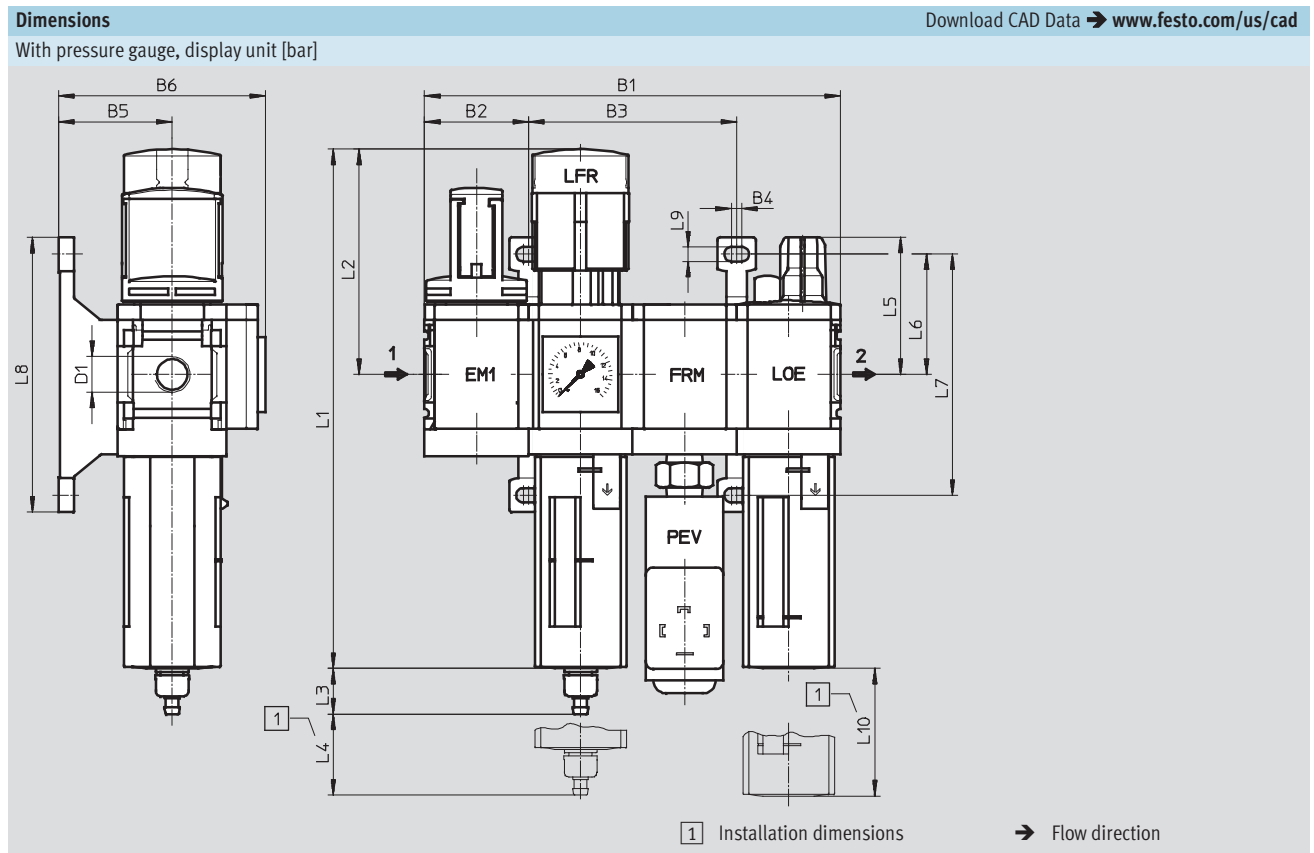
MSB6-1/2

Primary pressure p1 = 10 bar



# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 1



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
MSB6	248	62	124	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	20.4	25	53	46.5	93.2	106	5.6	80
MSB6	15.8	18.5	68	66	71	142	158	6.6	130

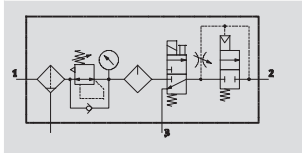
Note: This product conforms to ISO 1179-1 and ISO 228-1

Ordering data						
Pressure regulation range 1... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 $\mu$ m		Grade of filtration 40 $\mu$ m	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542307	MSB4- $\frac{1}{4}$ :C3J3F3M1-WP	542295	MSB4- $\frac{1}{4}$ :C3J1F3M1-WP
	fully automatic	G $\frac{1}{4}$	542313	MSB4- $\frac{1}{4}$ :C3J4F3M1-WP	542301	MSB4- $\frac{1}{4}$ :C3J2F3M1-WP
MSB6	manual rotary	G $\frac{1}{2}$	542283	MSB6- $\frac{1}{2}$ :C3J3F3M1-WP	542271	MSB6- $\frac{1}{2}$ :C3J1F3M1-WP
	fully automatic	G $\frac{1}{2}$	542289	MSB6- $\frac{1}{2}$ :C3J4F3M1-WP	542277	MSB6- $\frac{1}{2}$ :C3J2F3M1-WP

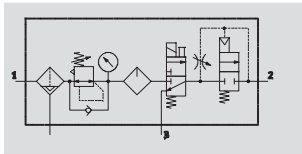
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 2

Function  
With condensate drain  
manual rotary



With condensate drain  
fully automatic



- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- On-off valve MS...-EE-10V24 or MS...-EE-V24 solenoid actuated
- Soft-start valve MS...-DL pneumatically actuated
- Mounting bracket MS...-WP

Flow rate  
550 ... 2,000 l/min

Temperature range  
-10 ... +60 °C

Pressure  
range  
4 ... 12 bar



- For filtered and lubricated 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	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]	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	
Condensate drain	Manual rotary	
	Fully automatic	
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range [bar]	4 ... 9 (with on-off valve MS...-EE-10V24)	
	4 ... 12 (with on-off valve MS...-EE-V24)	
Pressure indicator	With pressure gauge	
Coil characteristics	24 V DC	
	24 V DC: 2,5 W (pressure regulation range 4 ... 9 bar) 24 V DC: 1,5 W (pressure regulation range 4 ... 12 bar)	

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

Standard nominal flow rate qn [l/min]		
Size	MSB4	MSB6
Grade of filtration	5 µm	550
	40 µm	600
		1,900
		2,000

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 2

Operating and environmental conditions								
	Pressure regulation range 4 ... 9 bar				Pressure regulation range 4 ... 12 bar			
Condensate drain	Manual rotary		Fully automatic		Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 14	4.5 ... 18	4.5 ... 12	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:-]		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 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Temperature of medium [°C]	-10 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60		-10 ... +60	
Corrosion resistance CRC <sup>1)</sup>	2							

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]		
Size	MSB4	MSB6
Service unit combination	1,800	3,000
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

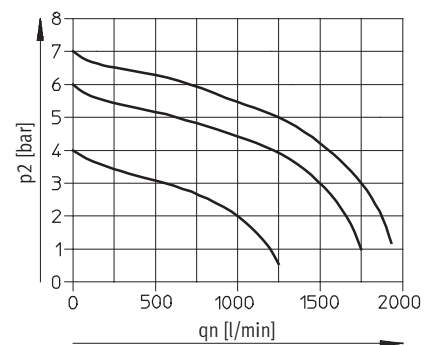
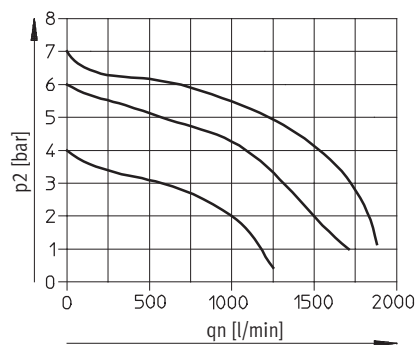
Grade of filtration 5 µm

Grade of filtration 40 µm

4 ... 9 bar / 4 ... 12 bar

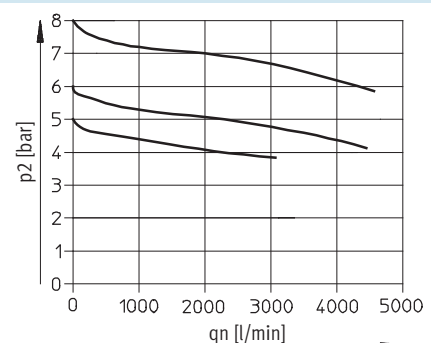
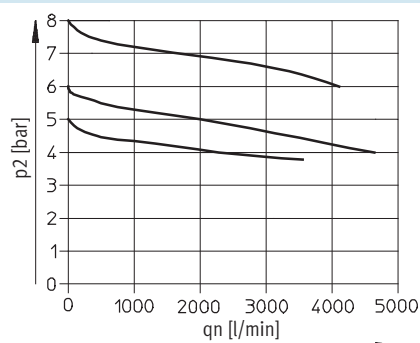
MSB4-1/4

Primary pressure p1 = 10 bar



MSB6-1/2

Primary pressure p1 = 10 bar





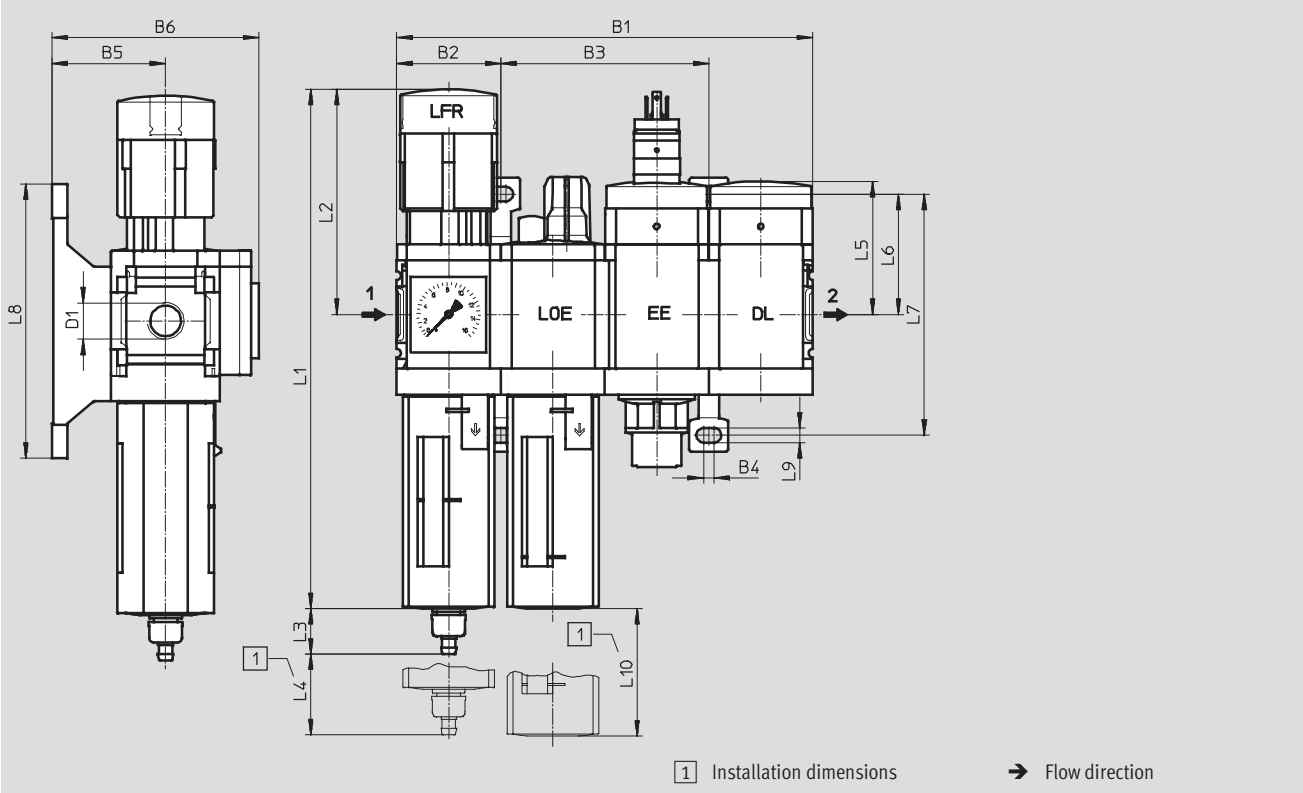
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 2

**Dimensions**

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



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
MSB6	248	62	124	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	20.4	25	51.7	46.5	93.2	106	5.6	80
MSB6	15.8	18.5	68	71	71	142	158	6.6	130

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

## Service unit combinations MSB4/MSB6, MS series

FESTO

Technical data – Combination 2

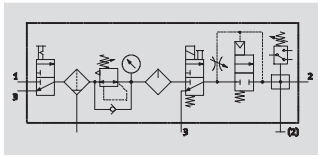
Ordering data						
Pressure regulation range 4 ... 9 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G <sup>1</sup> / <sub>4</sub>	542632	MSB4- <sup>1</sup> / <sub>4</sub> :J3M1D7A1-WP	542628	MSB4- <sup>1</sup> / <sub>4</sub> :J1M1D7A1-WP
	fully automatic	G <sup>1</sup> / <sub>4</sub>	542634	MSB4- <sup>1</sup> / <sub>4</sub> :J4M1D7A1-WP	542630	MSB4- <sup>1</sup> / <sub>4</sub> :J2M1D7A1-WP
MSB6	manual rotary	G <sup>1</sup> / <sub>2</sub>	542648	MSB6- <sup>1</sup> / <sub>2</sub> :J3M1D7A1-WP	542644	MSB6- <sup>1</sup> / <sub>2</sub> :J1M1D7A1-WP
	fully automatic	G <sup>1</sup> / <sub>2</sub>	542650	MSB6- <sup>1</sup> / <sub>2</sub> :J4M1D7A1-WP	542646	MSB6- <sup>1</sup> / <sub>2</sub> :J2M1D7A1-WP

Ordering data						
Pressure regulation range 4 ... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G <sup>1</sup> / <sub>4</sub>	531106	MSB4- <sup>1</sup> / <sub>4</sub> :J3M1D1A1-WP	531102	MSB4- <sup>1</sup> / <sub>4</sub> :J1M1D1A1-WP
	fully automatic	G <sup>1</sup> / <sub>4</sub>	531108	MSB4- <sup>1</sup> / <sub>4</sub> :J4M1D1A1-WP	531104	MSB4- <sup>1</sup> / <sub>4</sub> :J2M1D1A1-WP
MSB6	manual rotary	G <sup>1</sup> / <sub>2</sub>	530227	MSB6- <sup>1</sup> / <sub>2</sub> :J3M1D1A1-WP	530223	MSB6- <sup>1</sup> / <sub>2</sub> :J1M1D1A1-WP
	fully automatic	G <sup>1</sup> / <sub>2</sub>	530229	MSB6- <sup>1</sup> / <sub>2</sub> :J4M1D1A1-WP	530225	MSB6- <sup>1</sup> / <sub>2</sub> :J2M1D1A1-WP

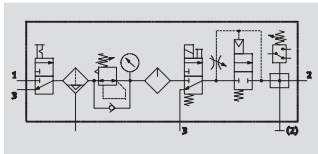
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 3

Function  
With condensate drain  
manual rotary



With condensate drain  
fully automatic



- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- On-off valve MS...-EE-10V24 or 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

Flow rate  
550 ... 2,300 l/min

Temperature range  
-10 ... +60 °C

Pressure range  
4 ... 12 bar



- For filtered and lubricated 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	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]	5 40	
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 ... 9 (with on-off valve MS...-EE-10V24) 4 ... 12 (with on-off valve MS...-EE-V24)	
Pressure indicator	With pressure gauge	
Coil characteristics	24 V DC	24 V DC: 2,5 W (pressure regulation range 4 ... 9 bar) 24 V DC: 1,5 W (pressure regulation range 4 ... 12 bar)

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Grade of filtration	550	2,100
	600	2,300

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 3

Operating and environmental conditions								
	Pressure regulation range 4 ... 9 bar				Pressure regulation range 4 ... 12 bar			
Condensate drain	Manual rotary		Fully automatic		Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 10	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 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Temperature of medium [°C]	-10 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60		-10 ... +60	
Corrosion resistance CRC <sup>1)</sup>	2							

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]		
Size	MSB4	MSB6
Service unit combination	2,200	4,000
Mounting bracket	40	76

### Note

Materials → Technical data of the individual devices

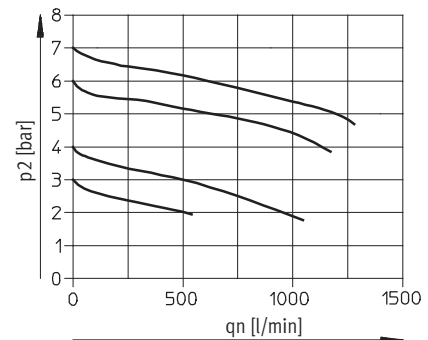
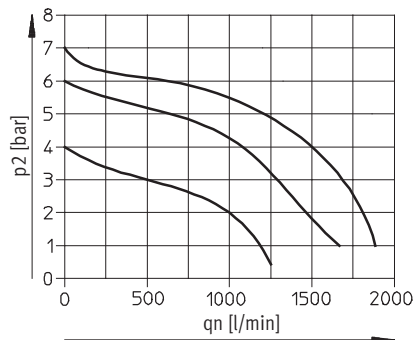
### Standard flow rate qn as a function of output pressure p2

Pressure regulation range  
4 ... 9 bar / 4 ... 12 bar  
MSB4-1/4

Grade of filtration 5 µm

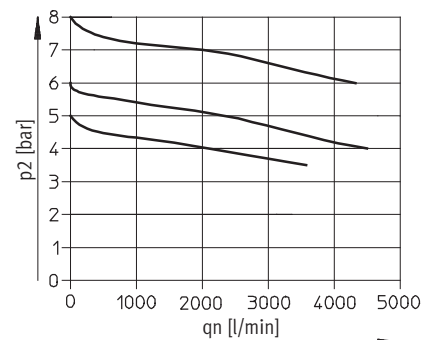
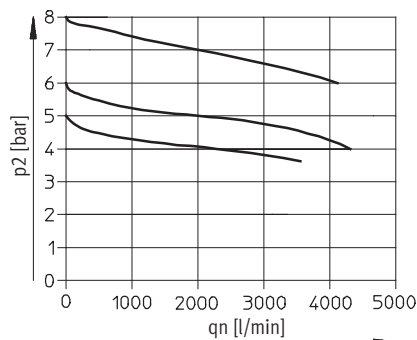
Grade of filtration 40 µm

Primary pressure p1 = 10 bar



### MSB6-1/2

Primary pressure p1 = 10 bar



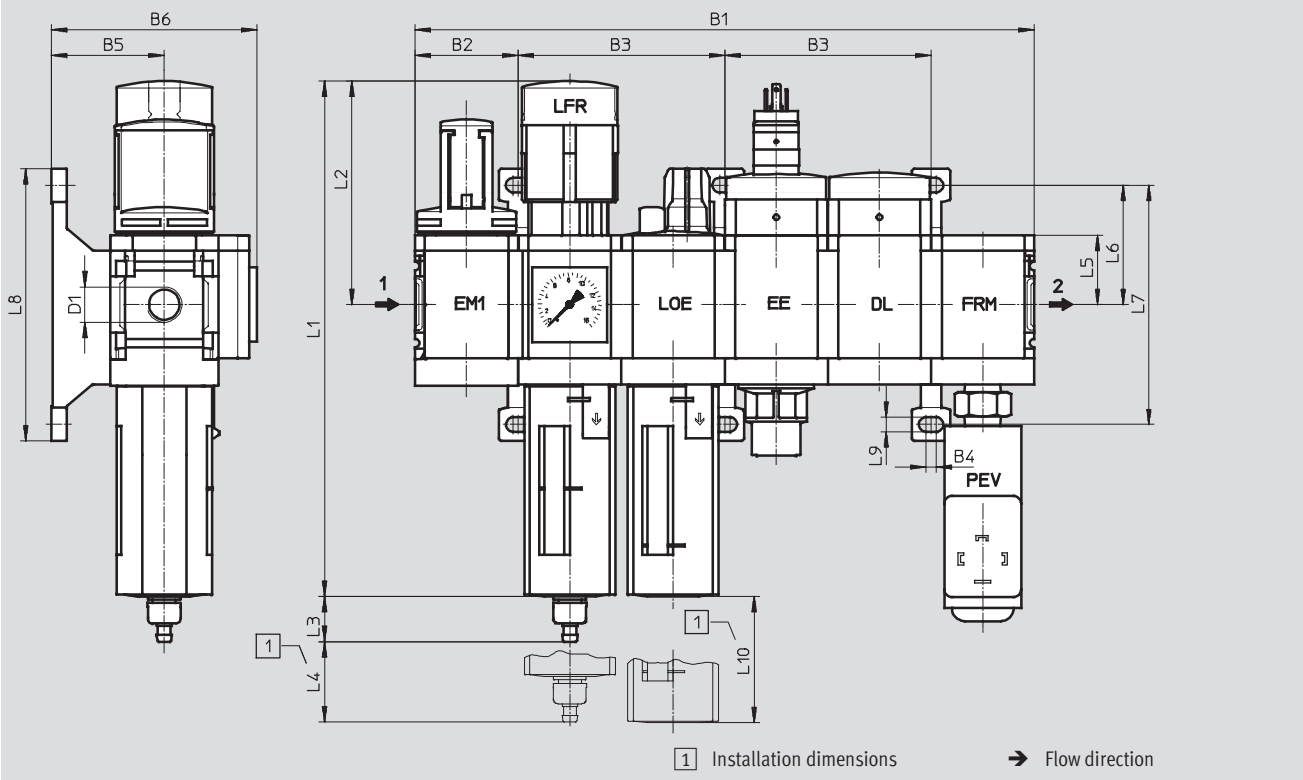
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 3

**Dimensions**

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	241.2	40.2	80.4	4	44	80	G1/4	201	87
MSB6	372	62	124	4.5	54	100	G1/2	285	134.5

Type	L3 Condensate drain		L4	L5	L6	L7	L8	L9	L10
	manual rotary	fully automatic							
MSB4	17.7	20.4	25	27	46.5	93.2	106	5.6	80
MSB6	15.8	18.5	68	39	71	142	158	6.6	130

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

## Service unit combinations MSB4/MSB6, MS series

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Technical data – Combination 3

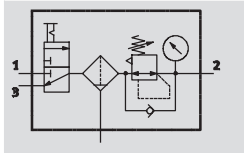
Ordering data						
Pressure regulation range 4 ... 9 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542624	MSB4- $\frac{1}{4}$ :C3J3M1D7A1F3-WP	542619	MSB4- $\frac{1}{4}$ :C3J1M1D7A1F3-WP
	fully automatic	G $\frac{1}{4}$	542626	MSB4- $\frac{1}{4}$ :C3J4M1D7A1F3-WP	542622	MSB4- $\frac{1}{4}$ :C3J2M1D7A1F3-WP
MSB6	manual rotary	G $\frac{1}{2}$	542640	MSB6- $\frac{1}{2}$ :C3J3M1D7A1F3-WP	542636	MSB6- $\frac{1}{2}$ :C3J1M1D7A1F3-WP
	fully automatic	G $\frac{1}{2}$	542642	MSB6- $\frac{1}{2}$ :C3J4M1D7A1F3-WP	542638	MSB6- $\frac{1}{2}$ :C3J2M1D7A1F3-WP

Ordering data						
Pressure regulation range 4 ... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542309	MSB4- $\frac{1}{4}$ :C3J3M1D1A1F3-WP	542297	MSB4- $\frac{1}{4}$ :C3J1M1D1A1F3-WP
	fully automatic	G $\frac{1}{4}$	542315	MSB4- $\frac{1}{4}$ :C3J4M1D1A1F3-WP	542303	MSB4- $\frac{1}{4}$ :C3J2M1D1A1F3-WP
MSB6	manual rotary	G $\frac{1}{2}$	542285	MSB6- $\frac{1}{2}$ :C3J3M1D1A1F3-WP	542273	MSB6- $\frac{1}{2}$ :C3J1M1D1A1F3-WP
	fully automatic	G $\frac{1}{2}$	542291	MSB6- $\frac{1}{2}$ :C3J4M1D1A1F3-WP	542279	MSB6- $\frac{1}{2}$ :C3J2M1D1A1F3-WP

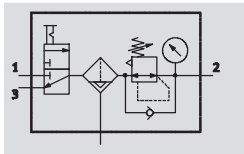
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 4

Function  
With condensate drain  
manual rotary



With condensate drain  
fully automatic



- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7
- Mounting bracket MS...-WP

Flow rate  
950 ... 5,100 l/min

Temperature range  
-10 ... +60 °C

Pressure  
range  
0.5 ... 12 bar



- For filtered and unlubricated 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]	5	
	40	
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]	0.5 ... 12	
Pressure indicator	With pressure gauge	

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Grade of filtration	5 µm	950
	40 µm	1,000 / 1,700
		4,800
		5,100

# 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
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 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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

### Note

Materials → Technical data of the individual devices

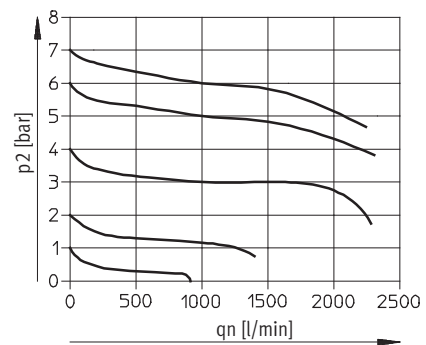
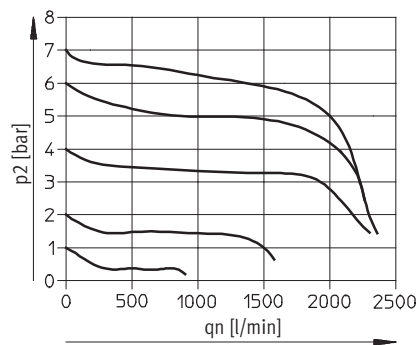
### Standard flow rate qn as a function of output pressure p2

Pressure regulation range 0.5 ... 12 bar Grade of filtration 5 µm

Grade of filtration 40 µm

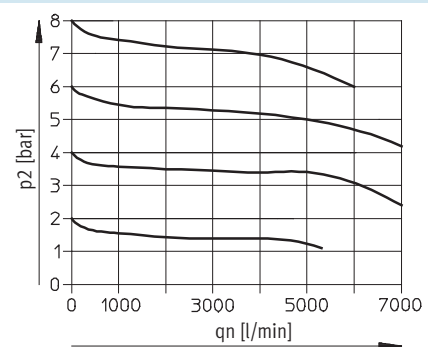
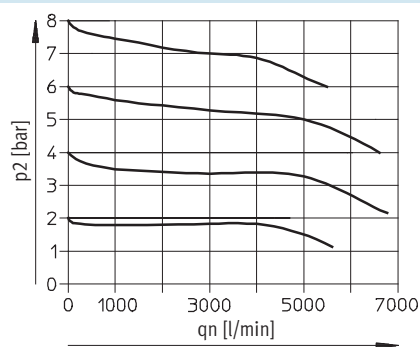
MSB4-1/4

Primary pressure p1 = 10 bar



MSB6-1/2

Primary pressure p1 = 10 bar





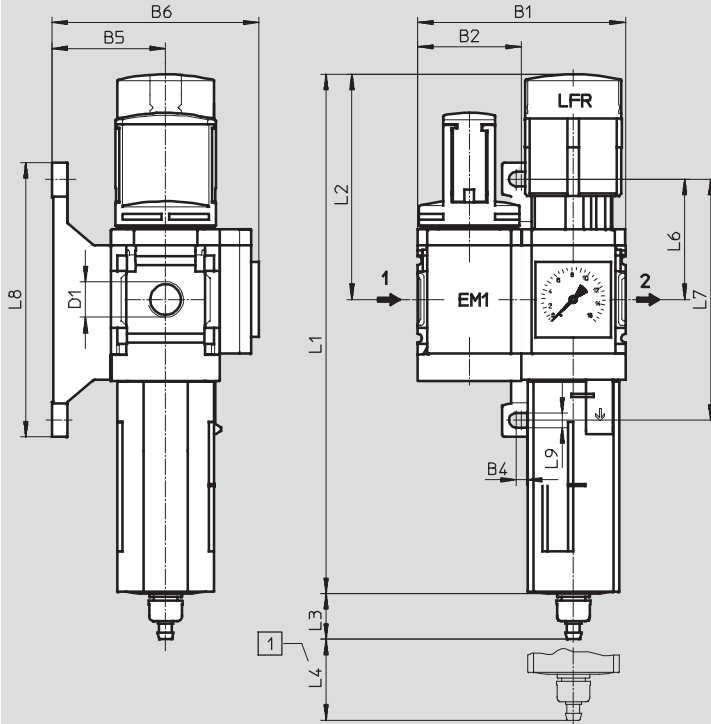
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 4

## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



1 Installation dimensions

→ Flow direction

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 ISO 228-1

## Ordering data

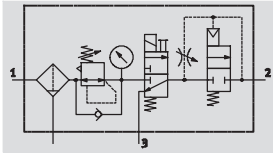
Pressure regulation range 0.5 ... 12 bar

Size	Condensate drain	Connection	Grade of filtration 5 $\mu$ m		Grade of filtration 40 $\mu$ m	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542304	MSB4- $\frac{1}{4}$ :C3J3-WP	542292	MSB4- $\frac{1}{4}$ :C3J1-WP
		G $\frac{1}{4}$	-	-	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	542268	MSB6- $\frac{1}{2}$ :C3J1-WP
		G $\frac{1}{2}$	-	-	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

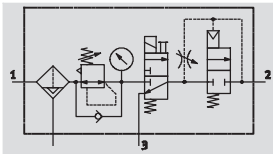
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 5

Function  
With condensate drain  
manual rotary



With condensate drain  
fully automatic



- Filter regulator MS...-LFR-D7
- On-off valve MS...-EE-10V24 or MS...-EE-V24 solenoid actuated
- Soft-start valve MS...-DL pneumatically actuated
- Mounting bracket MS...-WP

Flow rate  
700 ... 3,100 l/min

Temperature range  
-10 ... +60 °C

Pressure range  
4 ... 12 bar



- 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	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]	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	
Condensate drain	Manual rotary Fully automatic	
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range [bar]	4 ... 9 (with on-off valve MS...-EE-10V24)	
[bar]	4 ... 12 (with on-off valve MS...-EE-V24)	
Pressure indicator	With pressure gauge	
Coil characteristics	24 V DC	24 V DC: 2,5 W (pressure regulation range 4 ... 9 bar) 24 V DC: 1,5 W (pressure regulation range 4 ... 12 bar)

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

Standard nominal flow rate qnN [l/min]			
Size		MSB4	MSB6
Grade of filtration	5 µm	700	3,000
	40 µm	750	3,100

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 5

Operating and environmental conditions								
	Pressure regulation range 4 ... 9 bar				Pressure regulation range 4 ... 12 bar			
Condensate drain	Manual rotary		Fully automatic		Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 14	4.5 ... 18	4.5 ... 12	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:-]		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 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Temperature of medium [°C]	-10 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60		-10 ... +60	
Corrosion resistance CRC <sup>1)</sup>	2							

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

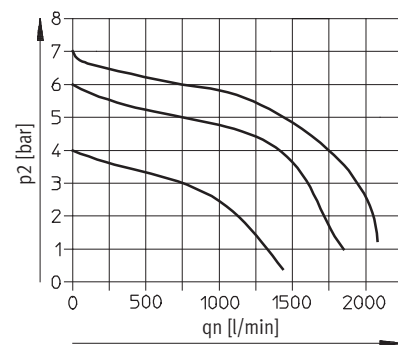
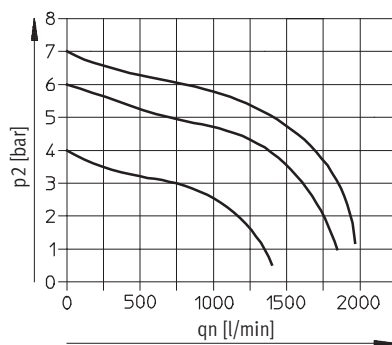
Weights [g]		
Size	MSB4	MSB6
Service unit combination	1,600	2,400
Mounting bracket	40	76

**Note**  
 Materials → Technical data of the individual devices

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

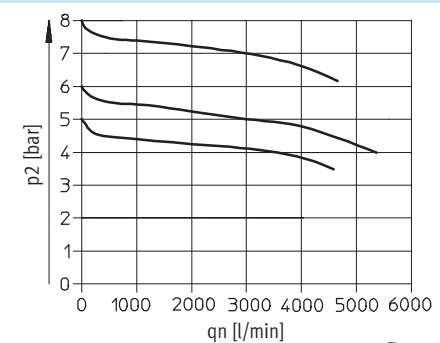
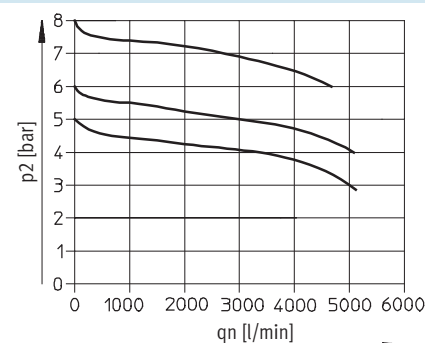
Pressure regulation range 4 ... 9 bar / 4 ... 12 bar  
 MSB4-1/4

Primary pressure p1 = 10 bar



## MSB6-1/2

Primary pressure p1 = 10 bar



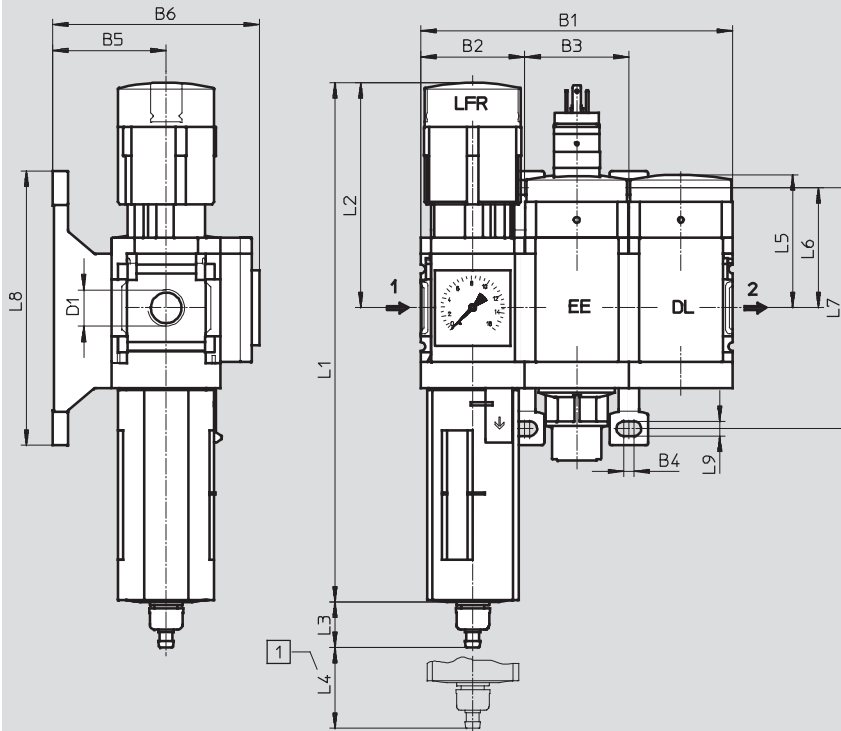
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 5

**Dimensions**

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



1 Installation dimensions

→ Flow direction

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	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 ISO 228-1

## Service unit combinations MSB4/MSB6, MS series

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Technical data – Combination 5

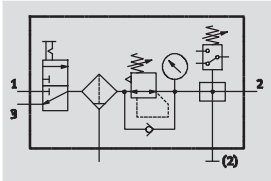
Ordering data						
Pressure regulation range 4 ... 9 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542631	MSB4- $\frac{1}{4}$ :J3D7A1-WP	542627	MSB4- $\frac{1}{4}$ :J1D7A1-WP
	fully automatic	G $\frac{1}{4}$	542633	MSB4- $\frac{1}{4}$ :J4D7A1-WP	542629	MSB4- $\frac{1}{4}$ :J2D7A1-WP
MSB6	manual rotary	G $\frac{1}{2}$	542647	MSB6- $\frac{1}{2}$ :J3D7A1-WP	542643	MSB6- $\frac{1}{2}$ :J1D7A1-WP
	fully automatic	G $\frac{1}{2}$	542649	MSB6- $\frac{1}{2}$ :J4D7A1-WP	542645	MSB6- $\frac{1}{2}$ :J2D7A1-WP

Ordering data						
Pressure regulation range 4 ... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	531105	MSB4- $\frac{1}{4}$ :J3D1A1-WP	531101	MSB4- $\frac{1}{4}$ :J1D1A1-WP
	fully automatic	G $\frac{1}{4}$	531107	MSB4- $\frac{1}{4}$ :J4D1A1-WP	531103	MSB4- $\frac{1}{4}$ :J2D1A1-WP
MSB6	manual rotary	G $\frac{1}{2}$	530226	MSB6- $\frac{1}{2}$ :J3D1A1-WP	530222	MSB6- $\frac{1}{2}$ :J1D1A1-WP
	fully automatic	G $\frac{1}{2}$	530228	MSB6- $\frac{1}{2}$ :J4D1A1-WP	530224	MSB6- $\frac{1}{2}$ :J2D1A1-WP

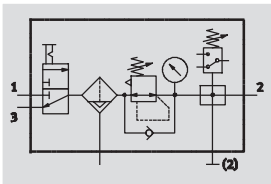
## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 6

Function  
With condensate drain,  
manual rotary



With condensate drain,  
fully automatic



Flow rate  
1,250 ... 4,500 l/min

Temperature range  
-10 ... +60 °C

Pressure  
0.5 ... 12 bar



- Manually operated on-off valve MS...-EM1
- Filter regulator MS...-LFR-D7 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	G1/4		G1/2	
Regulator function	Output pressure constant, with primary pressure compensation, with return flow, with secondary venting			
Type of mounting	Via accessories			
Mounting position	Vertical ±5°			
Grade of filtration [µm]	5	–	5	–
	40	40	40	40
Air purity class at the output	Compressed air according to ISO 8573-1:2010 [6:4:4] (grade of filtration 5 µm)	–	Compressed air according to ISO 8573-1:2010 [6:4:4] (grade of filtration 5 µm)	–
	Compressed air according to ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm)	Compressed air according to ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm)	Compressed air according to ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm)	Compressed air according to ISO 8573-1:2010 [7:4:4] (grade of filtration 40 µm)
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 ... 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 ISO 228-1

Standard nominal flow rate qnN [l/min]				
Size	MSB4		MSB6	
Branching module with	Pressure switch	Pressure sensor	Pressure switch	Pressure sensor
Grade of filtration	5 µm	1,250	–	4,400
	40 µm	1,300	1,600	4,500

## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 6

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	MSB4	MSB6
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	5 ... +60	-10 ... +60	5 ... +60	+5 ... +60	
Storage temperature [°C]	-10 ... +60				-10 ... +60	
Corrosion resistance class	CRC <sup>1)</sup>	2				

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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

### Note

Materials → Technical data of the individual devices

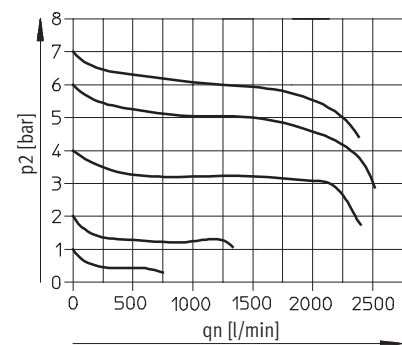
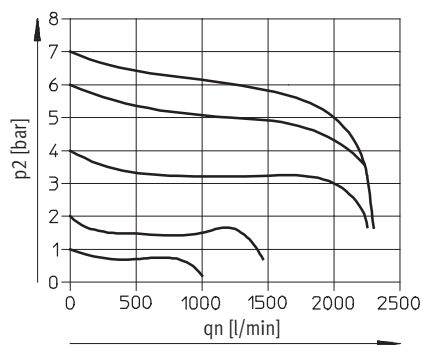
### Standard flow rate $q_n$ as a function of output pressure $p_2$

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

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

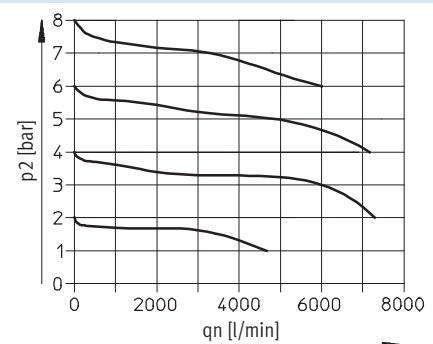
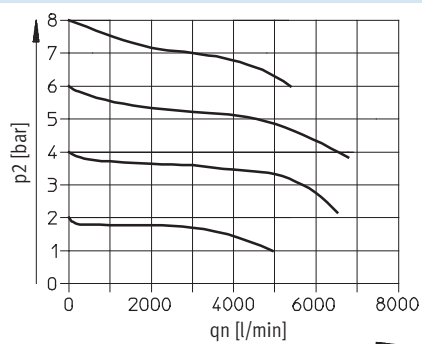
MSB4-1/4

Primary pressure  $p_1 = 10$  bar



MSB6-1/2

Primary pressure  $p_1 = 10$  bar



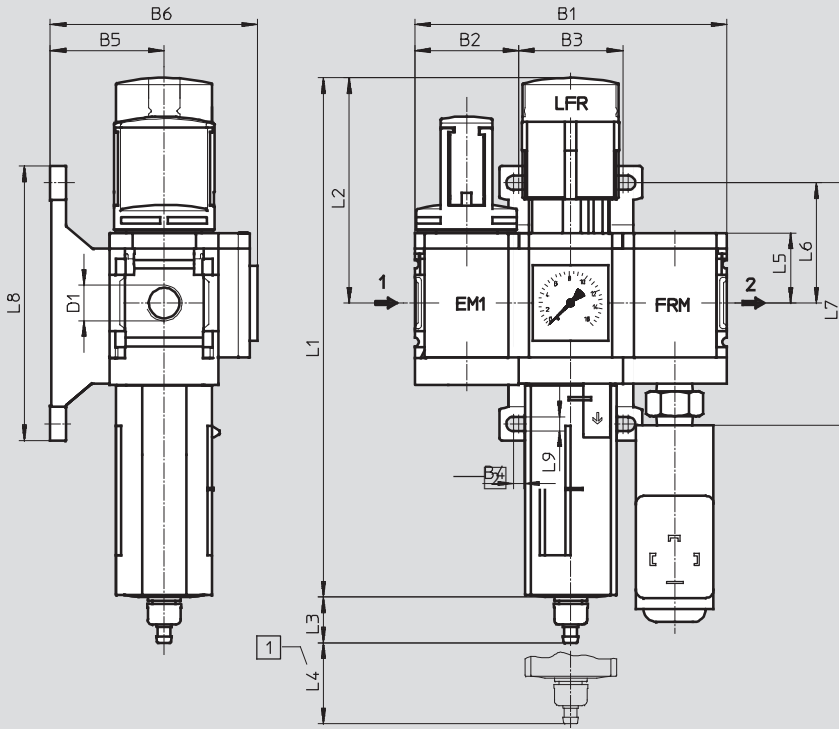
## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 6

### Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Manually operated on-off valve, filter regulator with pressure gauge, display unit [bar], branching module with pressure switch



- 1 Installation dimensions
- 2 Pressure switch PEV-1/4-B-0D with adjustable pressure switching point; plug, square design to EN 175 301, type A  
→ Internet: pev

→ Flow direction

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 ISO 228-1



## Service unit combinations MSB4/MSB6, MS series

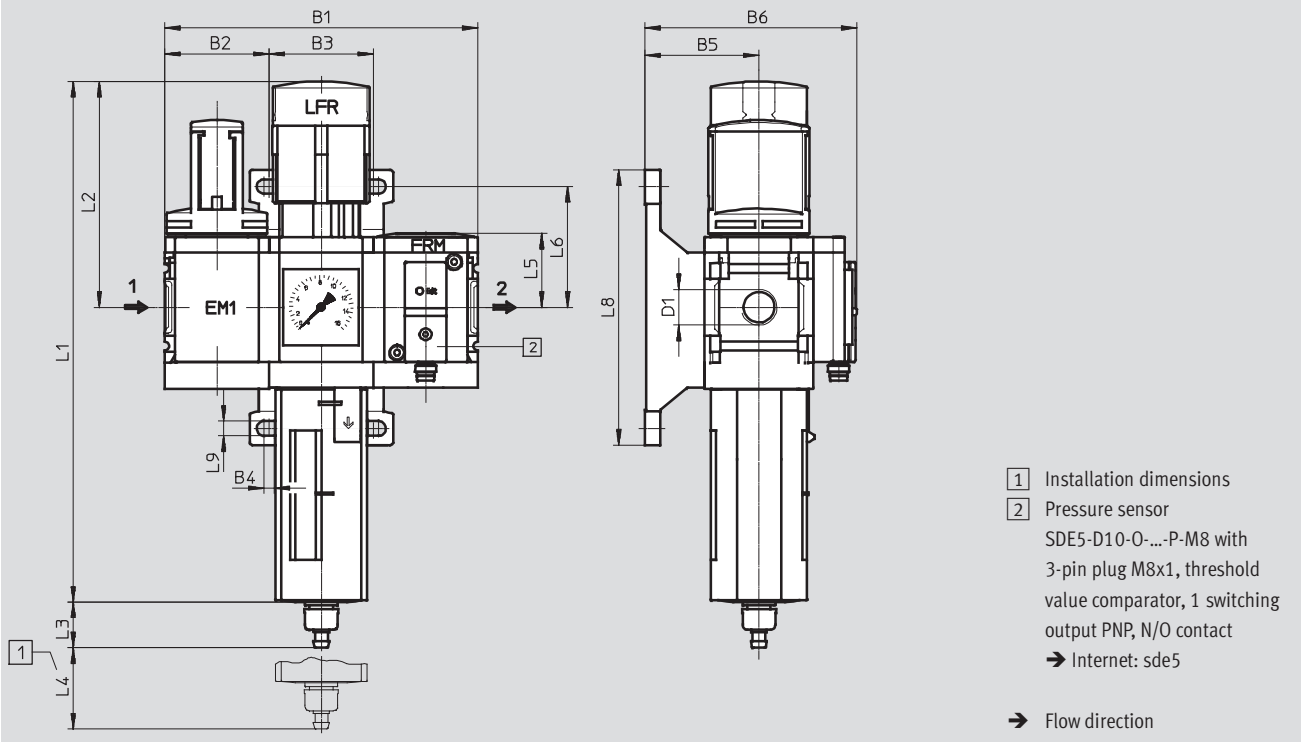
Technical data – Combination 6

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### Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Manually operated on-off valve, filter regulator with pressure gauge, display unit [bar], 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 ISO 228-1

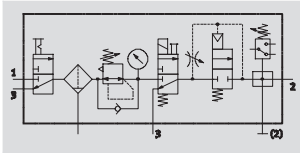
### Ordering data

Size	Condensate drain	Connection	Grade of filtration 5 $\mu$ m		Grade of filtration 40 $\mu$ m	
			Part No.	Type	Part No.	Type
<b>Branching module with pressure switch</b>						
MSB4	Manual rotary	G $\frac{1}{4}$	542306	MSB4- $\frac{1}{4}$ :C3J3F3-WP	542294	MSB4- $\frac{1}{4}$ :C3J1F3-WP
	Fully automatic	G $\frac{1}{4}$	542312	MSB4- $\frac{1}{4}$ :C3J4F3-WP	542300	MSB4- $\frac{1}{4}$ :C3J2F3-WP
MSB6	Manual rotary	G $\frac{1}{2}$	542282	MSB6- $\frac{1}{2}$ :C3J3F3-WP	542270	MSB6- $\frac{1}{2}$ :C3J1F3-WP
	Fully automatic	G $\frac{1}{2}$	542288	MSB6- $\frac{1}{2}$ :C3J4F3-WP	542276	MSB6- $\frac{1}{2}$ :C3J2F3-WP
<b>Branching module with pressure sensor</b>						
MSB4	Manual rotary	G $\frac{1}{4}$	–	–	8025356	MSB4- $\frac{1}{4}$ :C3J1F12-WP 
MSB6	Manual rotary	G $\frac{1}{2}$	–	–	8025357	MSB6- $\frac{1}{2}$ :C3J1F12-WP 

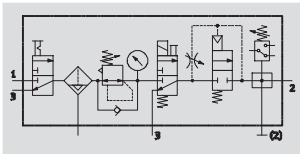
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 7

Function  
With condensate drain  
manual rotary



With condensate drain  
fully automatic



Flow rate  
700 ... 3,100 l/min

Temperature range  
-10 ... +60 °C

Pressure  
range  
4 ... 12 bar



- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7
- On-off valve MS...-EE-10V24 or 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]	5 40	
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 ... 9 (with on-off valve MS...-EE-10V24)	
[bar]	4 ... 12 (with on-off valve MS...-EE-V24)	
Pressure indicator	With pressure gauge	
Coil characteristics	24 V DC	24 V DC: 2,5 W (pressure regulation range 4 ... 9 bar) 24 V DC: 1,5 W (pressure regulation range 4 ... 12 bar)

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
Grade of filtration 5 µm	700	3,000
40 µm	750	3,100

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 7

Operating and environmental conditions								
	Pressure regulation range 4 ... 9 bar				Pressure regulation range 4 ... 12 bar			
Condensate drain	Manual rotary		Fully automatic		Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 10	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 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Temperature of medium [°C]	-10 ... +50		+5 ... +50		-10 ... +60		+5 ... +60	
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60		-10 ... +60	
Corrosion resistance CRC <sup>1)</sup>	2							

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

Weights [g]		
Size	MSB4	MSB6
Service unit combination	2,200	3,500
Mounting bracket	40	76

**Note**  
Materials → Technical data of the individual devices

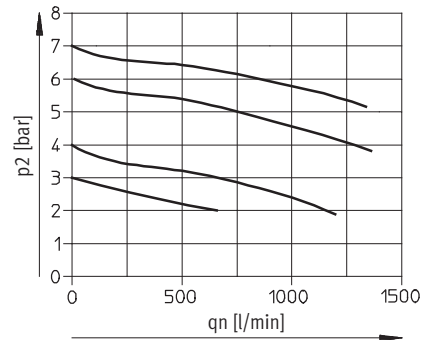
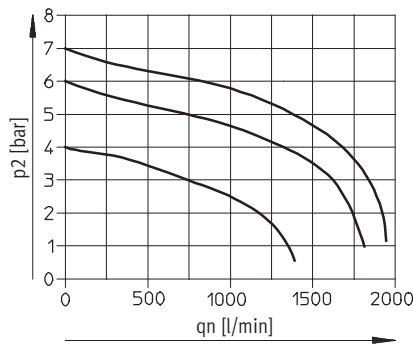
## Standard flow rate qn as a function of output pressure p2

Pressure regulation range 4 ... 9 bar / 4 ... 12 bar  
MSB4-1/4

Primary pressure p1 = 10 bar

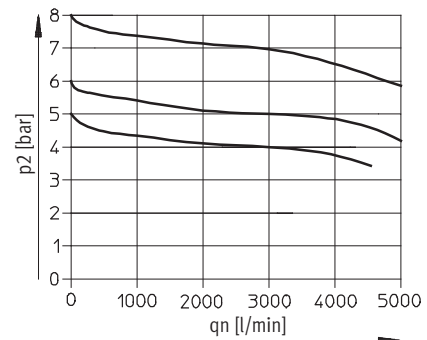
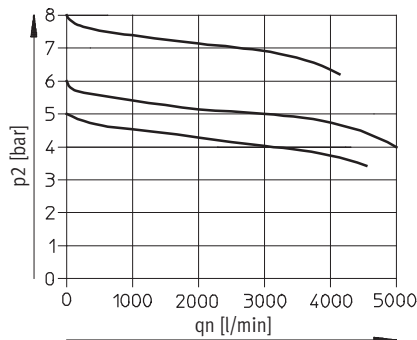
Grade of filtration 5 µm

Grade of filtration 40 µm



## MSB6-1/2

Primary pressure p1 = 10 bar



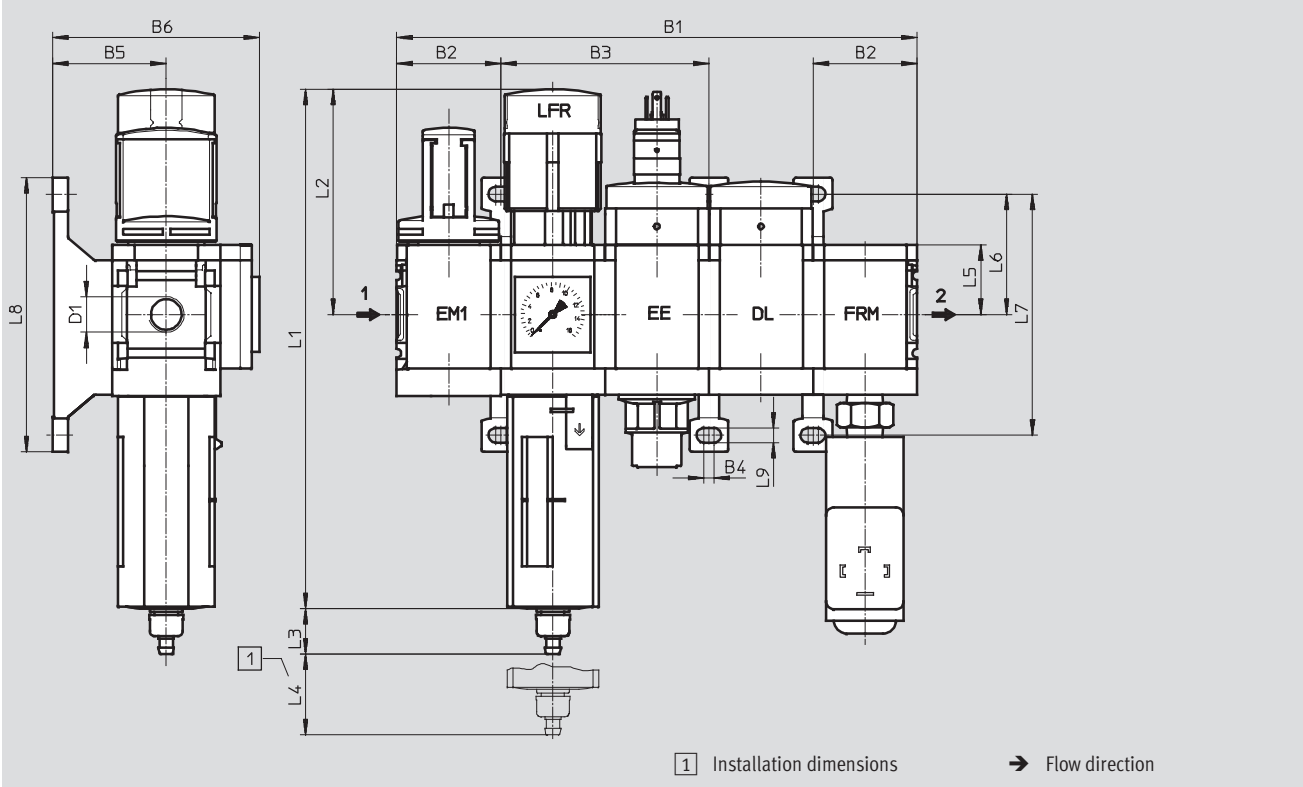
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 7

**Dimensions**

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



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 ISO 228-1

## Service unit combinations MSB4/MSB6, MS series

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Technical data – Combination 7

Ordering data						
Pressure regulation range 4 ... 9 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542623	MSB4- $\frac{1}{4}$ :C3J3D7A1F3-WP	542618	MSB4- $\frac{1}{4}$ :C3J1D7A1F3-WP
	fully automatic	G $\frac{1}{4}$	542625	MSB4- $\frac{1}{4}$ :C3J4D7A1F3-WP	542621	MSB4- $\frac{1}{4}$ :C3J2D7A1F3-WP
MSB6	manual rotary	G $\frac{1}{2}$	542639	MSB6- $\frac{1}{2}$ :C3J3D7A1F3-WP	542635	MSB6- $\frac{1}{2}$ :C3J1D7A1F3-WP
	fully automatic	G $\frac{1}{2}$	542641	MSB6- $\frac{1}{2}$ :C3J4D7A1F3-WP	542637	MSB6- $\frac{1}{2}$ :C3J2D7A1F3-WP

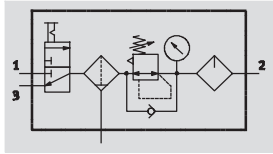
Ordering data						
Pressure regulation range 4 ... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542305	MSB4- $\frac{1}{4}$ :C3J3D1A1F3-WP	542293	MSB4- $\frac{1}{4}$ :C3J1D1A1F3-WP
	fully automatic	G $\frac{1}{4}$	542311	MSB4- $\frac{1}{4}$ :C3J4D1A1F3-WP	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

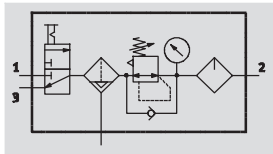
Technical data – Combination 8

**Function**

With condensate drain  
manual rotary



With condensate drain  
fully automatic



**Flow rate**

700 ... 3,100 l/min

**Temperature range**

-10 ... +60 °C

**Pressure**

range

1 ... 12 bar



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

- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- 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 [µm]	5 40	
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]	1 ... 12	
Pressure indicator	With pressure gauge	

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

Standard nominal flow rate qnN [l/min]			
Size		MSB4	MSB6
Grade of filtration	5 µm	700	3,000
	40 µm	750	3,100

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 8

Operating and environmental conditions				
Condensate drain	Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	1.5 ... 14	1.5 ... 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 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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 qn as a function of output pressure p2**

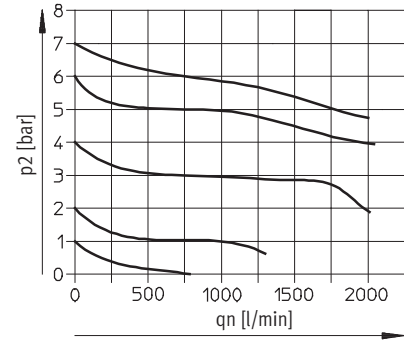
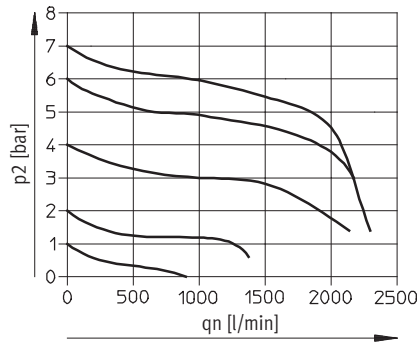
Pressure regulation range 1 ... 12 bar

Grade of filtration 5 µm

Grade of filtration 40 µm

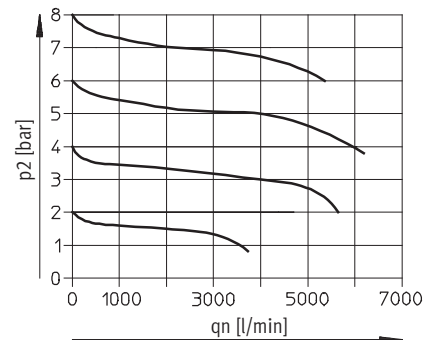
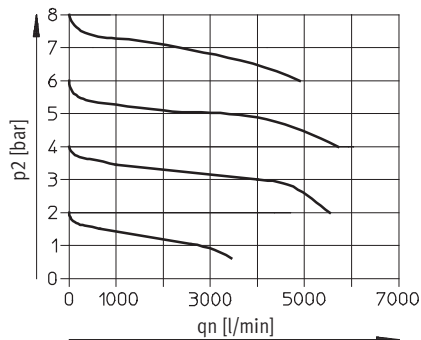
MSB4-1/4

Primary pressure p1 = 10 bar



MSB6-1/2

Primary pressure p1 = 10 bar



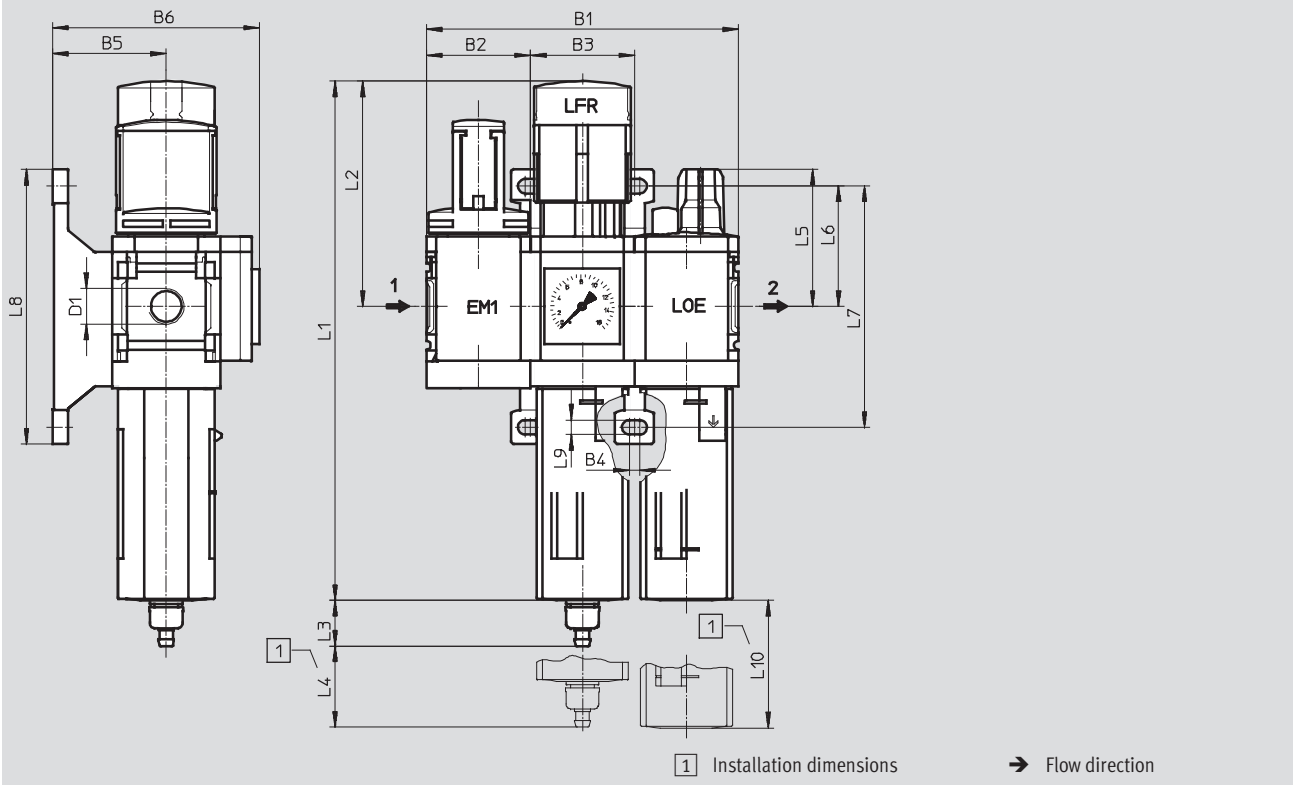
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 8

## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



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	20.4	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 ISO 228-1

## Ordering data

Pressure regulation range 1 ... 12 bar

Size	Condensate drain	Connection	Grade of filtration 5 $\mu$ m		Grade of filtration 40 $\mu$ m	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542308	MSB4- $\frac{1}{4}$ :C3J3M1-WP	542296	MSB4- $\frac{1}{4}$ :C3J1M1-WP
	fully automatic	G $\frac{1}{4}$	542314	MSB4- $\frac{1}{4}$ :C3J4M1-WP	542302	MSB4- $\frac{1}{4}$ :C3J2M1-WP
MSB6	manual rotary	G $\frac{1}{2}$	542284	MSB6- $\frac{1}{2}$ :C3J3M1-WP	542272	MSB6- $\frac{1}{2}$ :C3J1M1-WP
	fully automatic	G $\frac{1}{2}$	542290	MSB6- $\frac{1}{2}$ :C3J4M1-WP	542278	MSB6- $\frac{1}{2}$ :C3J2M1-WP

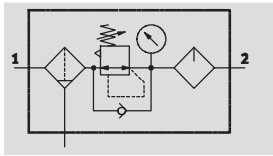


# Service unit combinations MSB4/MSB6, MS series

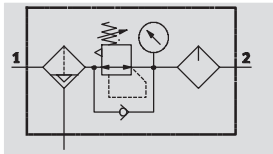
Technical data – Combination 9

**Function**

With condensate drain  
manual rotary



With condensate drain  
fully automatic



**Flow rate**

700 ... 4,700 l/min

**Temperature range**

-10 ... +60 °C

**Pressure**

range  
1 ... 12 bar



- For filtered and lubricated compressed air
- Output pressure is infinitely adjustable within the pressure regulation range

- Filter MS...-LF
- Pressure regulator MS...-LR
- Lubricator MS...-LOE
- Mounting bracket MS...-WP

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2	G1/4	G1/2
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	
	Integrated as metal bowl	
Condensate drain	Manual rotary	
	Fully automatic	
Actuator lock	Rotary knob with detent, lockable with accessories	
Pressure regulation range	N2 [bar]	1 ... 7
	N3 [bar]	1 ... 12
Pressure indicator	With pressure gauge	

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

Standard nominal flow rate qnN [l/min]		
Size	MSB4	MSB6
N2 – Pressure regulation range 1 ... 7 bar		
Grade of filtration 40 µm	1,300	4,700
N3 – Pressure regulation range 1 ... 12 bar		
Grade of filtration	5 µm	700
	40 µm	800
		3,500

# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 9

Operating and environmental conditions				
Condensate drain	Manual rotary		Fully automatic	
Size	MSB4	MSB6	MSB4	MSB6
Operating pressure [bar]	1.5 ... 14	1.5 ... 18	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 CRC <sup>1)</sup>	2			

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]		
Size	MSB4	MSB6
Service unit combination		
With plastic bowl guard	1,000	2,000
With metal bowl	-	2,400
Mounting bracket		
	40	76

### Note

Materials → Technical data of the individual devices

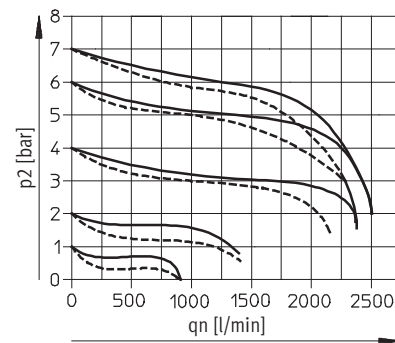
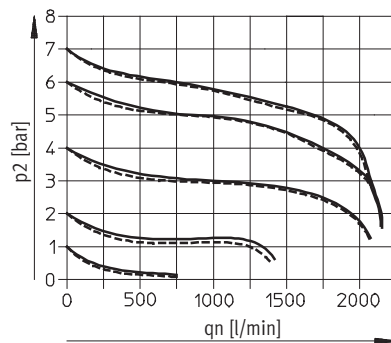
### Standard flow rate qn as a function of output pressure p2

Pressure regulation range N2 or N3  
MSB4-1/4

Grade of filtration 5 µm

Grade of filtration 40 µm

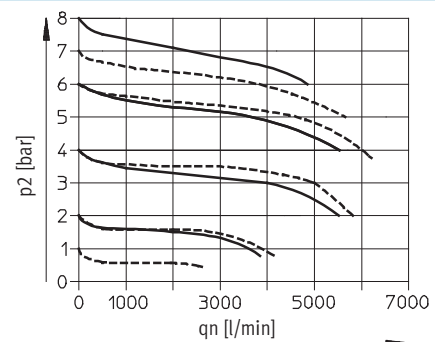
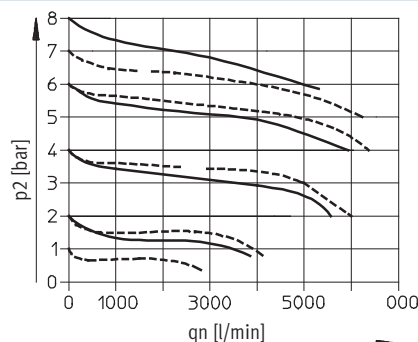
Primary pressure p1 = 10 bar



----- N2: 1 ... 7 bar  
——— N3: 1 ... 12 bar

### MSB6-1/2

Primary pressure p1 = 10 bar



----- N2: 1 ... 7 bar  
——— N3: 1 ... 12 bar

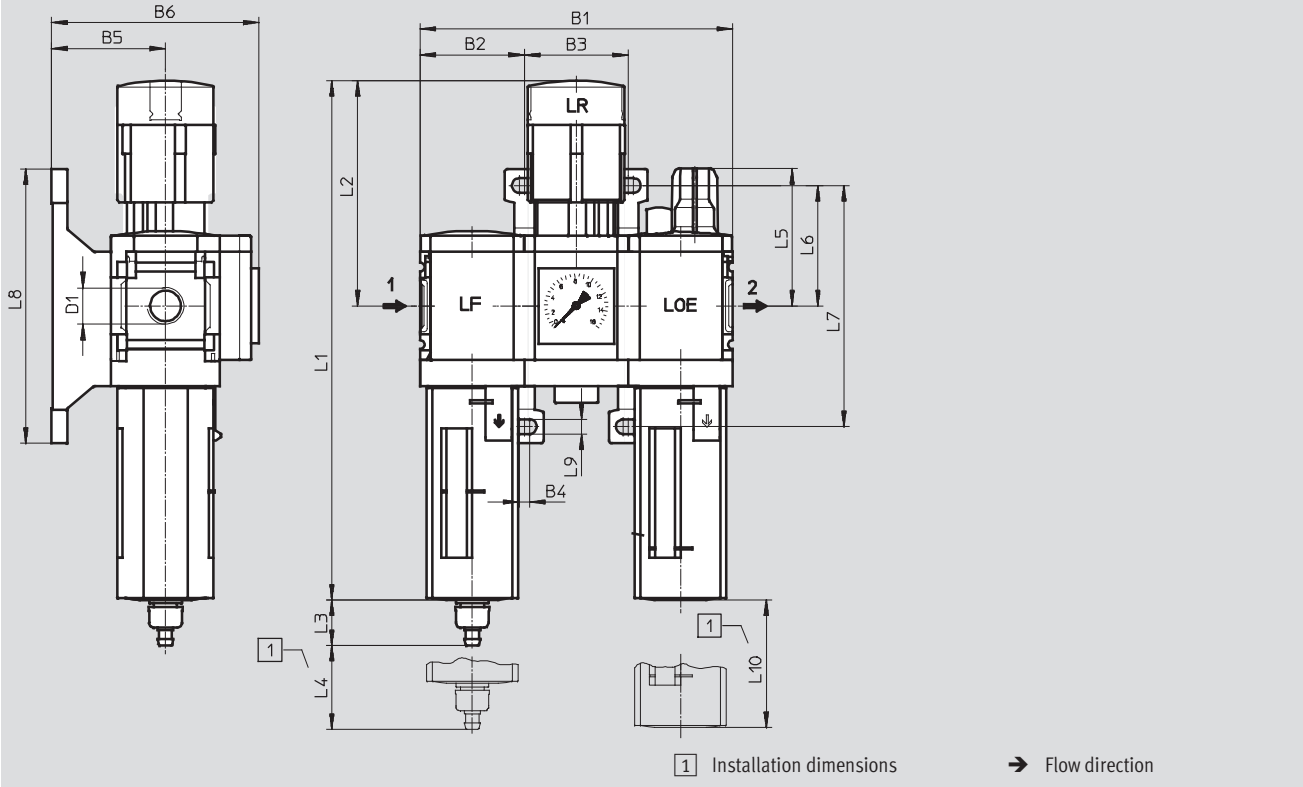
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 9

## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With pressure gauge, display unit [bar]



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	20.4	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 ISO 228-1

## Service unit combinations MSB4/MSB6, MS series

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Technical data – Combination 9

Ordering data				
Pressure regulation range 1 ... 7 bar				
Size	Condensate drain	Connection	Grade of filtration 40 µm	
			Part No.	Type
Plastic bowl guard				
MSB4	manual rotary	G $\frac{1}{4}$	531091	MSB4- $\frac{1}{4}$ :H2N2M1-WP
	fully automatic	G $\frac{1}{4}$	531085	MSB4- $\frac{1}{4}$ :H1N2M1-WP
MSB6	manual rotary	G $\frac{1}{2}$	530212	MSB6- $\frac{1}{2}$ :H2N2M1-WP
	fully automatic	G $\frac{1}{2}$	530206	MSB6- $\frac{1}{2}$ :H1N2M1-WP

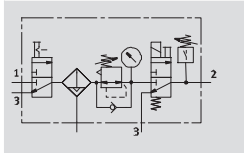
Ordering data						
Pressure regulation range 1 ... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	531097	MSB4- $\frac{1}{4}$ :H3N3M1-WP	531093	MSB4- $\frac{1}{4}$ :H2N3M1-WP
	fully automatic	G $\frac{1}{4}$	531099	MSB4- $\frac{1}{4}$ :H4N3M1-WP	531087	MSB4- $\frac{1}{4}$ :H1N3M1-WP
MSB6	manual rotary	G $\frac{1}{2}$	530218	MSB6- $\frac{1}{2}$ :H3N3M1-WP	530214	MSB6- $\frac{1}{2}$ :H2N3M1-WP
	fully automatic	G $\frac{1}{2}$	530220	MSB6- $\frac{1}{2}$ :H4N3M1-WP	530208	MSB6- $\frac{1}{2}$ :H1N3M1-WP
Metal bowl						
MSB4	manual rotary	G $\frac{1}{4}$	-		531095	MSB4- $\frac{1}{4}$ :H8N3M2-WP
	fully automatic	G $\frac{1}{4}$	-		531089	MSB4- $\frac{1}{4}$ :H7N3M2-WP
MSB6	manual rotary	G $\frac{1}{2}$	-		530216	MSB6- $\frac{1}{2}$ :H8N3M2-WP
	fully automatic	G $\frac{1}{2}$	-		530210	MSB6- $\frac{1}{2}$ :H7N3M2-WP

## Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 10

### Function

With condensate drain,  
manual rotary



- Manually operated on-off valve MS...-EM1
- Filter regulator MS...-LFR-D7
- Solenoid actuated on-off valve MS...-EE-10V24P-AD7, with pressure sensor for displaying output pressure via operational status indicator
- Mounting bracket MS...-WP

### Flow rate

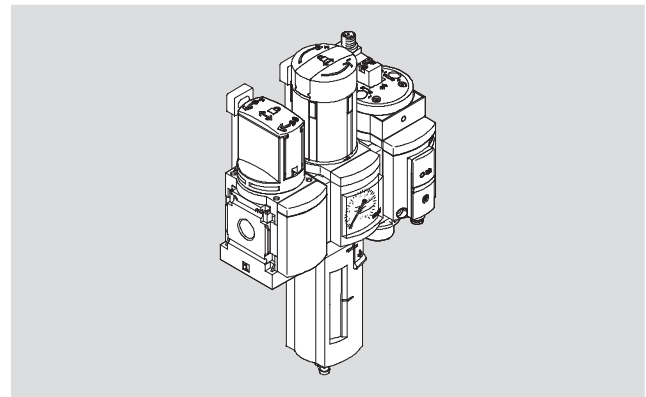
1,400 ... 4,000 l/min

### Temperature range

-10 ... +60 °C

### Pressure

0.5 ... 10 bar



- 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 [µm]	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 ... 10	
Pressure indication	Via pressure sensor for displaying output pressure via operational status indicator and electrical output	
	Via pressure gauge for displaying output pressure	

Note: This product conforms to ISO 1179-1 and 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 10

Standard nominal flow rate $q_{nN}$ [l/min]		
Size	MSB4	MSB6
Grade of filtration	40 $\mu$ m	1,400
		4,000

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 ... +60	
Temperature of medium [°C]	+5 ... +60	
Storage temperature [°C]	-10 ... +60	
Corrosion resistance class	CRC <sup>1)</sup>	2

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

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

### Note

Materials → Technical data of the individual devices

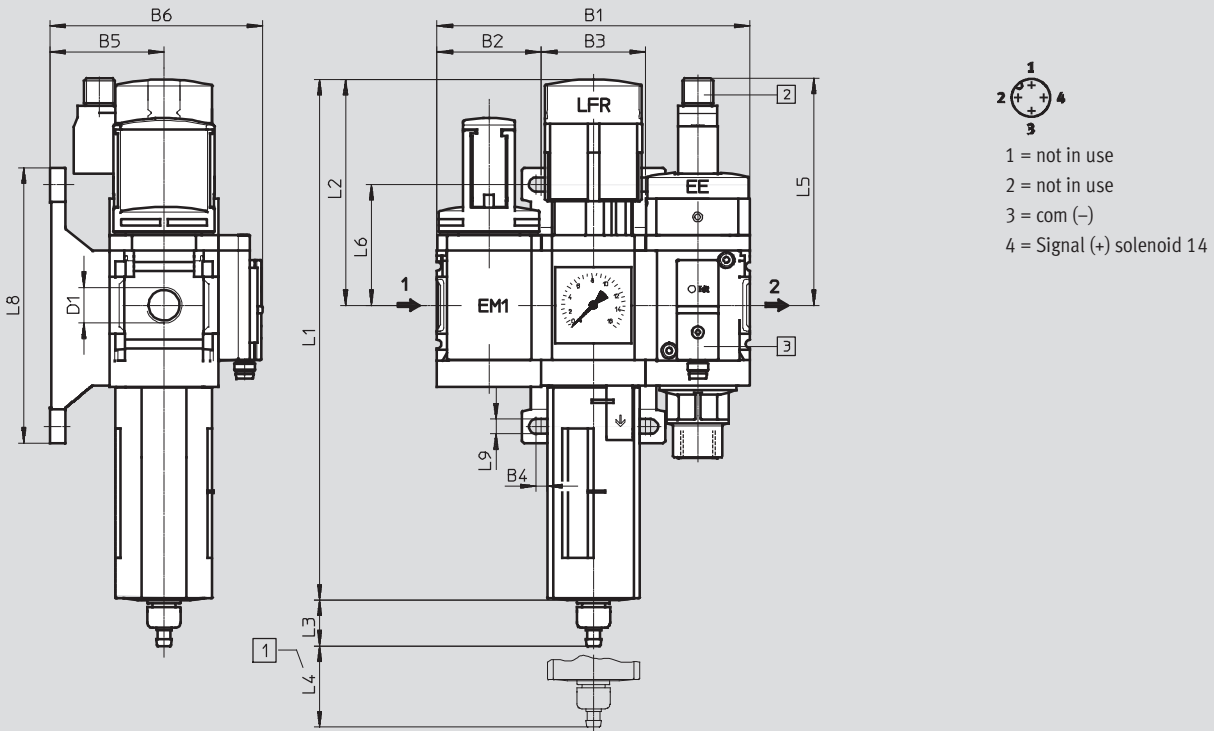
# Service unit combinations MSB4/MSB6, MS series

Technical data – Combination 10

**Dimensions**

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Manually operated on-off valve, filter regulator with pressure gauge, display unit [bar], 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 ISO 228-1


**Ordering data**


Size	Condensate drain	Connection	Grade of filtration 40 µm	
			Part No.	Type
MSB4	Manual rotary	G $\frac{1}{4}$	8025358	MSB4- $\frac{1}{4}$ :C3J1D14-WP
MSB6	Manual rotary	G $\frac{1}{2}$	8025359	MSB6- $\frac{1}{2}$ :C3J1D14-WP


## Service unit combinations MSB, MS series

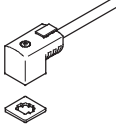
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
Accessories


Ordering data – Silencer U				Technical data → Internet: u	
	Description	Pneumatic connection	Part No.	Type	
	for MS4-EM1/EE	G $\frac{1}{4}$	6842	U- $\frac{1}{4}$ -B	
	for MS6-EM1/EE	G $\frac{1}{2}$	6844	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	164274	PEV- $\frac{1}{4}$ -WD-LED-24
		≤ 230 V AC ≤ 180 V DC	4-pin	Yellow LED	164275	PEV- $\frac{1}{4}$ -WD-LED-230

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	≤ 250 V AC/DC	3-pin	Clamping screws	171157	MSSD-C-4P
	for MS4/6-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	151687	MSSD-EB
			4-pin	Insulation displacement technology	192745	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	547268	KMEB-3-24-2,5-LED
					5	547269	KMEB-3-24-5-LED
					2.5	547270	KMEB-3-24-2,5
			5	547271	KMEB-3-24-5		
			3-pin	LED	2.5	151688	KMEB-1-24-2,5-LED
					5	151689	KMEB-1-24-5-LED
		10			193457	KMEB-1-24-10-LED	
		230 V AC	3-pin	-	2.5	151690	KMEB-1-230AC-2,5
					5	151691	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	151717	MEB-LD-12-24DC	
		230 V DC/AC ±10%	151718	MEB-LD-230AC	

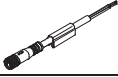

Ordering data – Padlock LRVS-D			
	Description	Weight [g]	Part No. Type
	for filter or pressure regulators	120	193786 LRVS-D

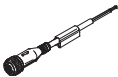



## Service unit combinations MSB, MS series

Accessories

**FESTO**

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

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