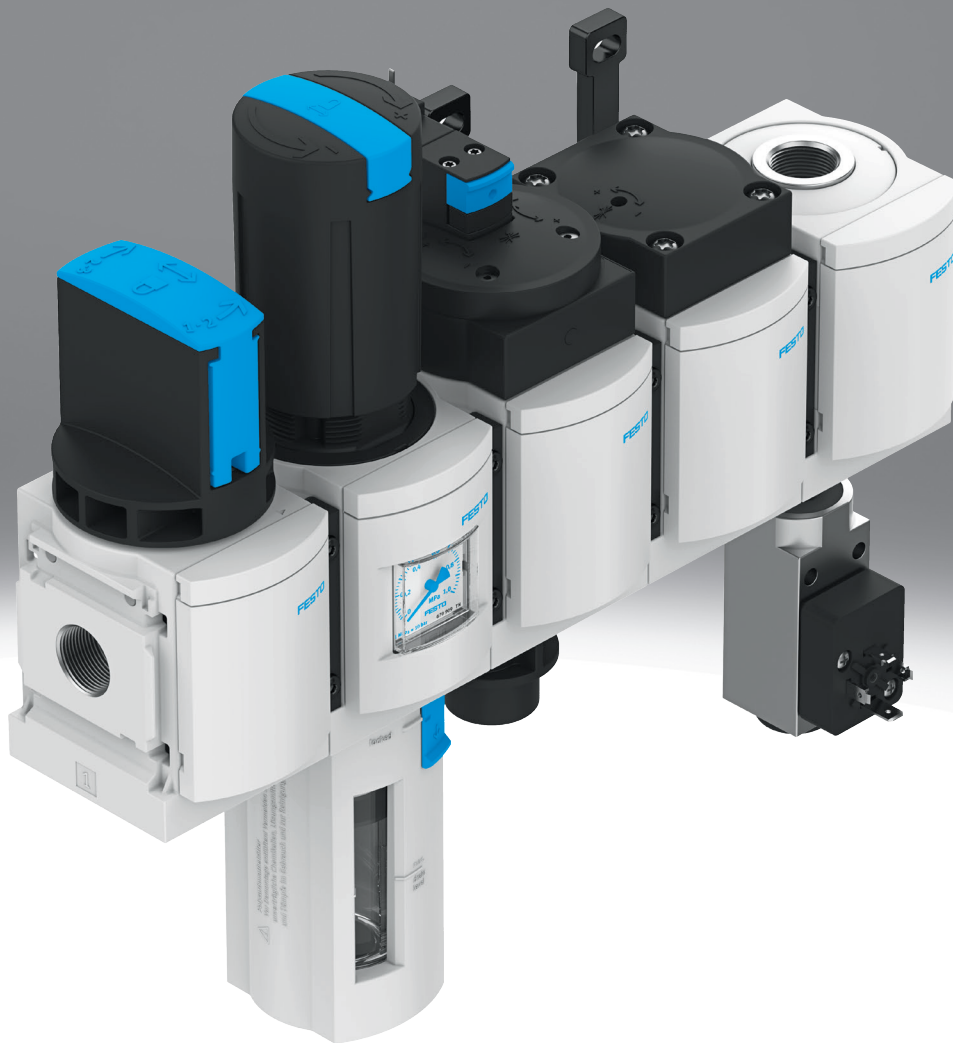


Air preparation combination unit MSB6N

FESTO



Characteristics

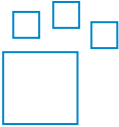
At a glance

Predefined or freely configurable service unit combinations.

- Width dimension: 62 mm
- Depending on the application, combination of filter regulator, filter, lubricator, on/off valve, soft-start valve, branching module

Ordering data - modular system

Link [msb6n](#)



Configurable product

This product and all its product options can be ordered online via the configurator.

Engineering Tools

Link [engineering tools](#)



A selection tool for suitable air preparation unit dimensioning and the correct air purity class can be found under Engineering Tools.

Pneumatic connection

Individual fittings can be connected via connecting plates with internal threads.

UL certification

Optional device variant UL1, which meets the safety requirements for the Canadian and US markets.

Flow direction

Available with opposite flow direction.

Air preparation unit equipment

The order of the individual air preparation units within a combination is relevant for safety and functionality. The following rules must be observed:

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

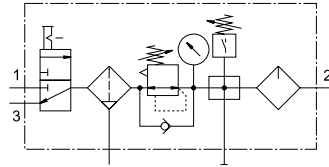
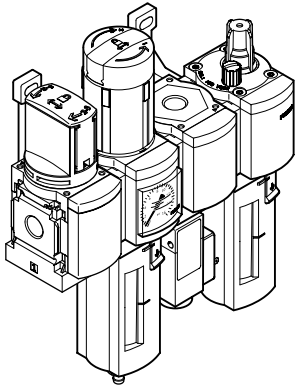
Type code

001	Series	
MSB	Air preparation combination unit, MS series	
002	Size	
6	Width dimension 62 mm	
003	Pneumatic connection	
004	Air preparation unit equipment	
...	For selection, see overview list	

005	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket standard design	
WPB	Mounting bracket for large wall gap	
WPM	Mounting bracket for hooking in air preparation units	
006	EX certification EU	
007	UL certification	
	None	
UL1	cULus ordinary location for Canada and USA	
008	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

Technical data – Combination 1



- For filtered and lubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is continuously adjustable within the pressure regulation range.
- The system is exhausted when it is switched off
- Electrical pressure monitoring with adjustable switching pressure.
- Tapping of filtered and unlubricated compressed air at the connections of the branching module.

Structure:

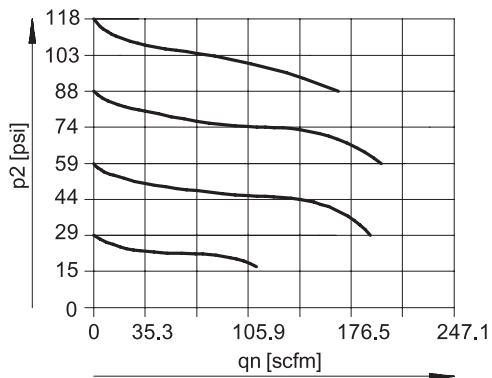
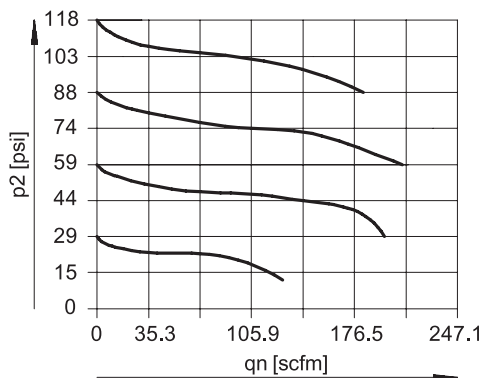
- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Branching module MS...-FRM-Y with pressure switch, without display
- Lubricator MS...-LOE-R
- Mounting bracket MS...-WP

Size	6	
Condensate drain	Fully automatic	Manual, rotating
Grade of filtration	40 µm	
Pneumatic connection 1	1/2 NPT	
Pneumatic connection 2	1/2 NPT	
Pneumatic connection 3	G1/2	
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic	
Type of mounting	With accessories	
Mounting position	Vertical ±5°	
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [7:4:-]	
Bowl guard	Plastic bowl guard	
Actuator lock	Rotary knob with detent can be closed with accessories	
Pressure gauge	with pressure gauge	
Pressure regulation range	1 ... 12 bar	4 ... 12 bar
Operating pressure	2 ... 12 bar	4.5 ... 18 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases	
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)	
Ambient temperature	-10 ... 60°C	
Temperature of medium	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress	
For use in the food industry ²⁾	See supplementary material information	
Housing material	Die-cast aluminum	
Material of bowl	PC	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

1) For more information, visit www.festo.com/x/topic/kbk

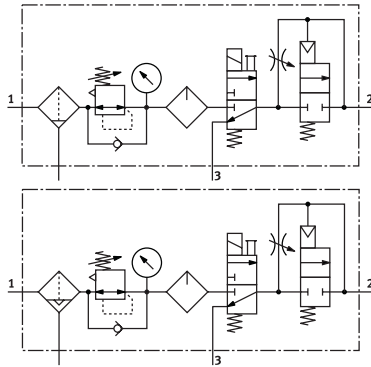
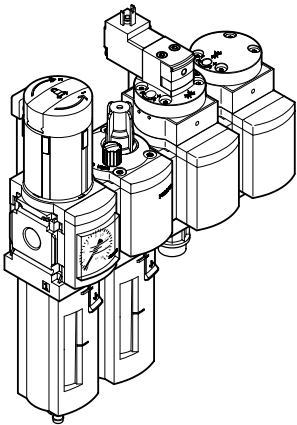
2) Further information: www.festo.com/catalogue/msb4 → Support/Downloads.

Datasheet

Standard flow rate q_n as a function of the outlet pressure p_2 (combination 1, filter fineness 5 μm)Standard flow rate q_n as a function of the outlet pressure p_2 (combination 1, filter fineness 40 μm)

Datasheet

Technical data – Combination 2



- For filtered and lubricated compressed air supply.
- Output pressure is continuously adjustable within the pressure regulation range.
- Gradual pressure build-up prevents sudden, unpredictable movements.
- When the unit is switched off, quick exhausting ensures rapid pressure reduction.

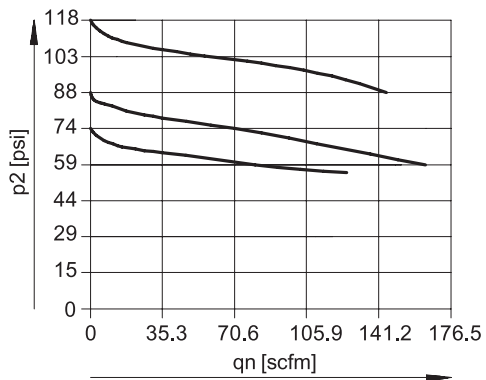
Setup:

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

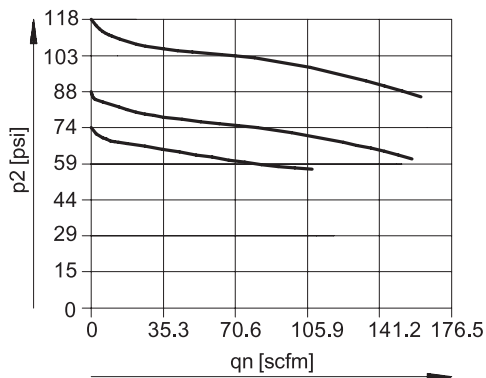
Size	6		
Condensate drain	Fully automatic	Manual, rotating	
Grade of filtration	5 µm		40 µm
Pneumatic connection 1	1/2 NPT		
Pneumatic connection 2	1/2 NPT		
Pneumatic connection 3	G1/2		
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic		
Type of mounting	With accessories		
Mounting position	Vertical ±5°		
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [6:4:-]		Compressed air as per ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard		
Actuator lock	Rotary knob with detent can be closed with accessories		
Pressure gauge	with pressure gauge		
Pressure regulation range	4 ... 9 bar		4 ... 12 bar
Operating pressure	4.5 ... 10 bar		4.5 ... 18 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:-], Inert gases		Compressed air as per ISO 8573-1:2010 [-:4:-], Inert gases
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Ambient temperature	5 ... 50°C	-10 ... 50°C	-10 ... 60°C
Temperature of medium	5 ... 50°C	-10 ... 50°C	-10 ... 60°C
Storage temperature	-10 ... 60°C		
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress		
For use in the food industry ²⁾	See supplementary material information		
Housing material	Die-cast aluminum		
Material of bowl	PC		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

1) For more information, visit www.festo.com/x/topic/kbk2) For more information, visit www.festo.com/catalogue/msb4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 2, filter fineness 5 μm)Grade of filtration 5 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

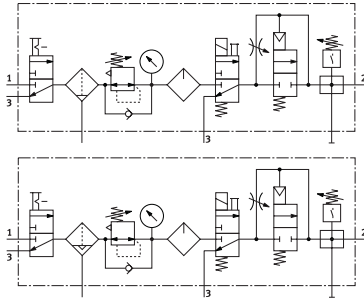
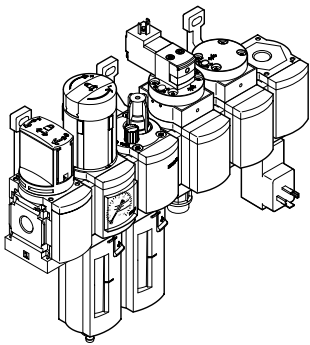
Primary pressure $p_1 = 147$ psiNormal flow q_n as a function of the outlet pressure p_2 (combination 1, filter fineness 40 μm)Grade of filtration 40 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

Primary pressure $p_1 = 147$ psi

Datasheet

Technical data – Combination 3



- For filtered and lubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is continuously adjustable within the pressure regulation range.
- Gradual pressure build-up prevents sudden, unpredictable movements.
- For shutting off and venting the downstream device or system.
- Electrical pressure monitoring with adjustable switching pressure.

Structure:

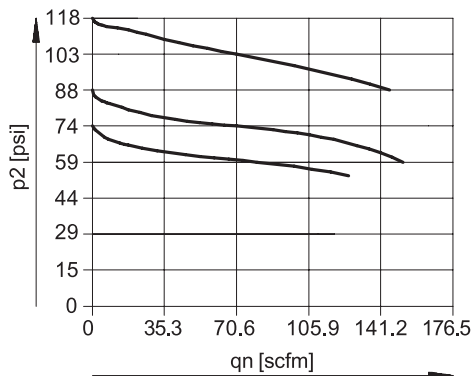
- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- On/off valve MS...-EE-10V24 or MS...-EE-V24, electrically operated
- Soft-start valve MS...-DL, pneumatically actuated
- Branching module MS...-FRM-Y with pressure switch, without display
- Mounting bracket MS...-WP

Size	6		
Condensate drain	Fully automatic	Manual, rotating	
Grade of filtration	40 µm	5 µm	40 µm
Pneumatic connection 1	1/2 NPT		
Pneumatic connection 2	1/2 NPT		
Pneumatic connection 3	G1/2		
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic		
Type of mounting	With accessories		
Mounting position	Vertical ±5°		
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [7:4:-]	Compressed air as per ISO 8573-1:2010 [6:4:-]	Compressed air as per ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard		
Actuator lock	Rotary knob with detent can be closed with accessories		
Pressure gauge	with pressure gauge		
Pressure regulation range	4 ... 9 bar	4 ... 12 bar	
Operating pressure	4.5 ... 10 bar	4.5 ... 18 bar	
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases		
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Ambient temperature	5 ... 50°C	-10 ... 50°C	-10 ... 60°C
Temperature of medium	5 ... 50°C	-10 ... 50°C	-10 ... 60°C
Storage temperature	-10 ... 60°C		
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress		
For use in the food industry ²⁾	See supplementary material information		
Housing material	Die-cast aluminum		
Material of bowl	PC		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

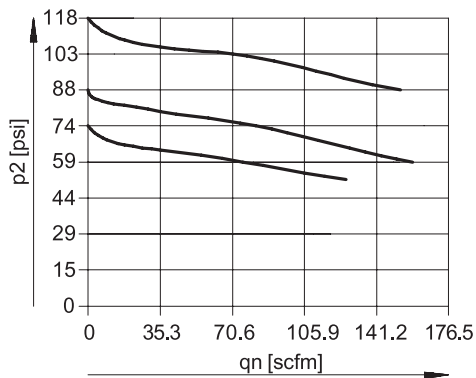
1) For more information, visit www.festo.com/x/topic/GBK

2) Further information: www.festo.com/catalogue/MSB4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 3, filter fineness 5 μm)Grade of filtration 5 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

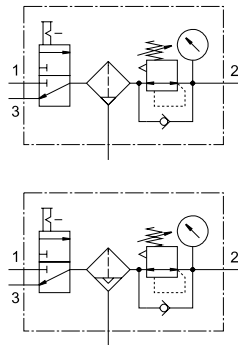
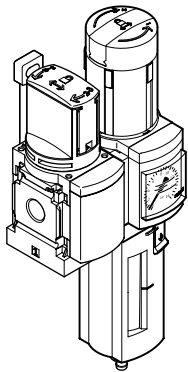
Primary pressure $p_1 = 147$ psiNormal flow q_n as a function of the outlet pressure p_2 (combination 3, filter fineness 40 μm)Grade of filtration 40 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

Primary pressure $p_1 = 147$ psi

Datasheet

Technical data – Combination 4



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is continuously adjustable within the pressure regulation range.

Structure:

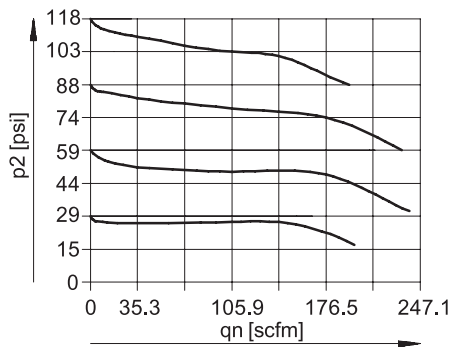
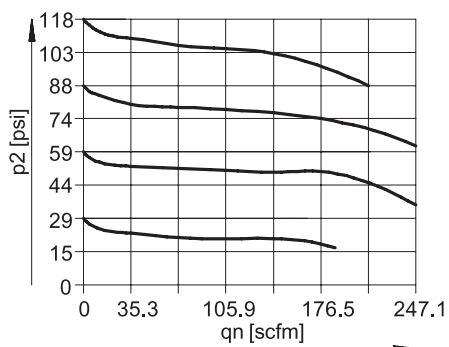
- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Mounting bracket MS...-WP

Size	6			
Condensate drain	Fully automatic		Manual, rotating	
Grade of filtration	5 µm	40 µm	5 µm	40 µm
Pneumatic connection 1	1/2 NPT			
Pneumatic connection 2	1/2 NPT			
Pneumatic connection 3	G1/2			
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic			
Type of mounting	With accessories			
Mounting position	Vertical ±5°			
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [6:4:4]	Compressed air as per ISO 8573-1:2010 [7:4:4]	Compressed air as per ISO 8573-1:2010 [6:4:4]	Compressed air as per ISO 8573-1:2010 [7:4:4]
Bowl guard	Plastic bowl guard			
Actuator lock	Rotary knob with detent can be closed with accessories			
Pressure gauge	with pressure gauge			
Pressure regulation range	0.5 ... 12 bar	1 ... 12 bar	0.5 ... 12 bar	4 ... 12 bar
Operating pressure	2 ... 12 bar		1.5 ... 18 bar	4.5 ... 18 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases			
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)			
Ambient temperature	5 ... 60°C		-10 ... 60°C	
Temperature of medium	5 ... 60°C		-10 ... 60°C	
Storage temperature	-10 ... 60°C			
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress			
For use in the food industry ²⁾	See supplementary material information			
Housing material	Die-cast aluminum			
Material of bowl	PC			
LABS (PWIS) conformity	VDMA24364-B1/B2-L			

1) For more information, visit www.festo.com/x/topic/kbk

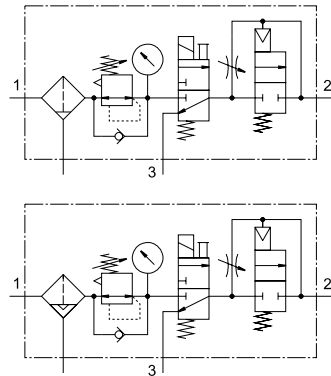
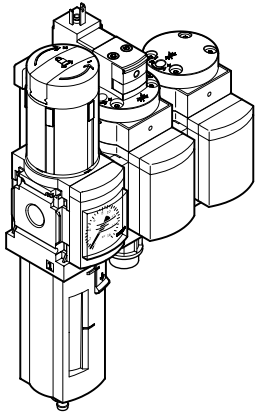
2) Further information: www.festo.com/catalogue/msb4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 4, filter fineness 5 μm)Normal flow q_n as a function of the outlet pressure p_2 (combination 4, filter fineness 40 μm)

Datasheet

Technical data – Combination 5



- For filtered and unlubricated compressed air supply.
- Output pressure is continuously adjustable within the pressure regulation range.
- Gradual pressure build-up prevents sudden, unpredictable movements.
- When the unit is switched off, quick exhausting ensures rapid pressure reduction.

Structure:

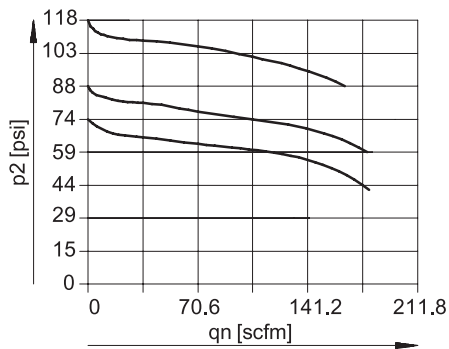
- Filter regulator MS...-LFR-D7
- On/off valve MS...-EE-10V24 or MS...-EE-V24, electrically operated
- Soft-start valve MS...-DL, pneumatically actuated
- Mounting bracket MS...-WP

Size	6
Condensate drain	Manual, rotating
Grade of filtration	40 µm
Pneumatic connection 1	1/2 NPT
Pneumatic connection 2	1/2 NPT
Pneumatic connection 3	G1/2
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic
Type of mounting	With accessories
Mounting position	Vertical ±5°
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [7:4:4]
Bowl guard	Plastic bowl guard
Actuator lock	Rotary knob with detent can be closed with accessories
Pressure gauge	with pressure gauge
Pressure regulation range	4 ... 9 bar
Operating pressure	4.5 ... 10 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [-:4:-], Inert gases
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Ambient temperature	-10 ... 50°C
Temperature of medium	-10 ... 50°C
Storage temperature	-10 ... 60°C
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress
For use in the food industry ²⁾	See supplementary material information
Housing material	Die-cast aluminum
Material of bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

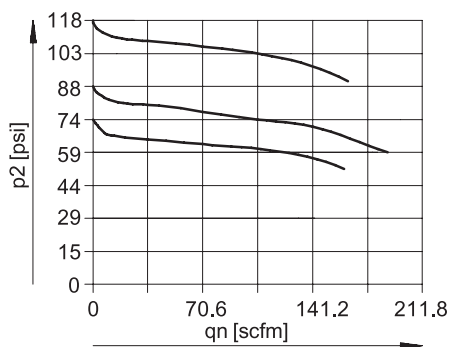
1) For more information, visit www.festo.com/x/topic/kbk

2) Further information: www.festo.com/catalogue/msb4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 5, filter fineness 5 μm)Grade of filtration 5 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

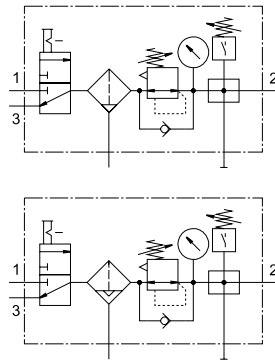
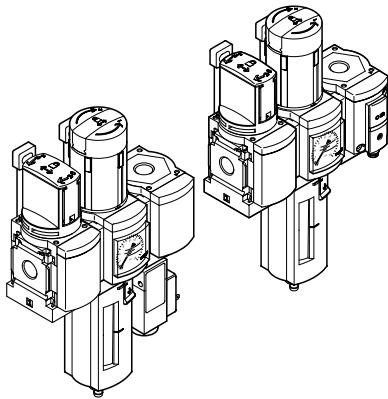
Primary pressure $p_1 = 147$ psiNormal flow q_n as a function of the outlet pressure p_2 (combination 5, filter fineness 40 μm)Grade of filtration 40 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

Primary pressure $p_1 = 147$ psi

Datasheet

Technical data – Combination 6



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is continuously adjustable within the pressure regulation range.
- Electrical pressure monitoring with adjustable switching pressure.

Structure:

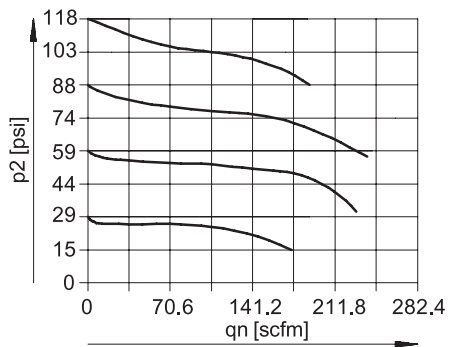
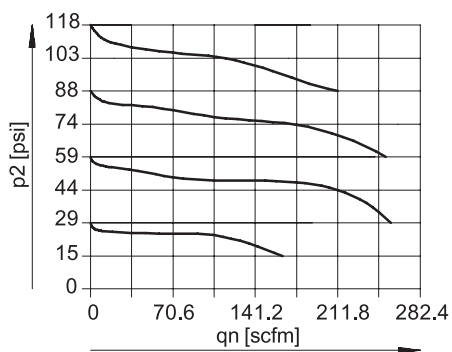
- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Branching module MS...-FRM-Y with pressure switch, without display
- Mounting bracket MS...-WP

Size	6	
Condensate drain	Manual, rotating	
Grade of filtration	5 µm	40 µm
Pneumatic connection 1	1/2 NPT	
Pneumatic connection 2	1/2 NPT	
Pneumatic connection 3	G1/2	
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic	
Type of mounting	With accessories	
Mounting position	Vertical ±5°	
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [6:4:4]	Compressed air as per ISO 8573-1:2010 [7:4:4]
Bowl guard	Plastic bowl guard	
Actuator lock	Rotary knob with detent can be closed with accessories	
Pressure gauge	with pressure gauge	
Pressure regulation range	0.5 ... 12 bar	4 ... 12 bar
Operating pressure	1.5 ... 18 bar	4.5 ... 18 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases	
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)	
Ambient temperature	-10 ... 60°C	
Temperature of medium	-10 ... 60°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress	
For use in the food industry ²⁾	See supplementary material information	
Housing material	Die-cast aluminum	
Material of bowl	PC	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

¹⁾ For more information, visit www.festo.com/x/topic/kbk

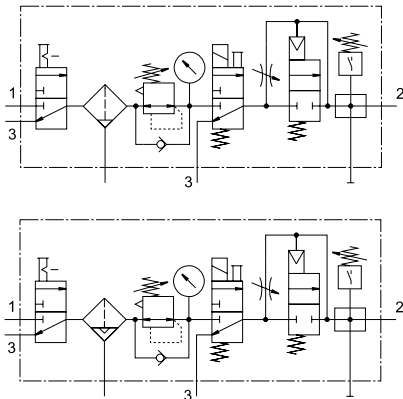
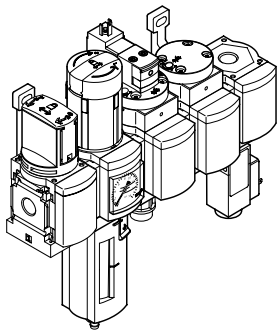
²⁾ Further information: www.festo.com/catalogue/msb4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 6, filter fineness 5 μm)Normal flow q_n as a function of the outlet pressure p_2 (combination 6, filter fineness 40 μm)

Datasheet

Technical data – Combination 7



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is continuously adjustable within the pressure regulation range.
- Gradual pressure build-up prevents sudden, unpredictable movements.
- For shutting off and venting the downstream device or system.
- Electrical pressure monitoring with adjustable switching pressure.

Structure:

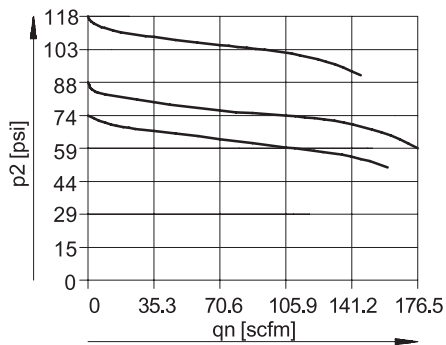
- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- On/off valve MS...-EE-10V24 or MS...-EE-V24, electrically operated
- Soft-start valve MS...-DL, pneumatically actuated
- Branching module MS...-FRM-Y with pressure switch, without display
- Mounting bracket MS...-WP

Size	6	
Condensate drain	Manual, rotating	
Grade of filtration	5 µm	40 µm
Pneumatic connection 1	1/2 NPT	
Pneumatic connection 2	1/2 NPT	
Pneumatic connection 3	G1/2	
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic	
Type of mounting	With accessories	
Mounting position	Vertical ±5°	
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [6:4:4]	Compressed air as per ISO 8573-1:2010 [7:4:4]
Bowl guard	Plastic bowl guard	
Actuator lock	Rotary knob with detent can be closed with accessories	
Pressure gauge	with pressure gauge	
Pressure regulation range	4 ... 9 bar	
Operating pressure	4.5 ... 10 bar	
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases	
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)	
Ambient temperature	-10 ... 50°C	
Temperature of medium	-10 ... 50°C	
Storage temperature	-10 ... 60°C	
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress	
For use in the food industry ²⁾	See supplementary material information	
Housing material	Die-cast aluminum	
Material of bowl	PC	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

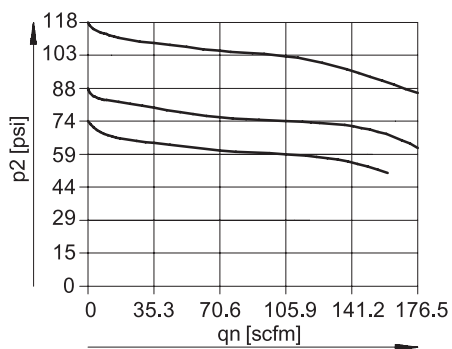
1) For more information, visit www.festo.com/x/topic/mbk

2) Further information: www.festo.com/catalogue/mb4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 7, filter fineness 5 μm)Grade of filtration 5 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

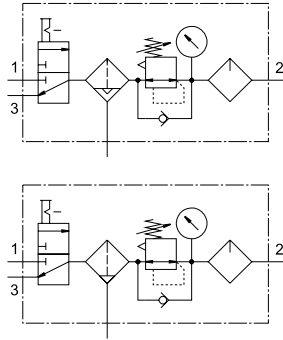
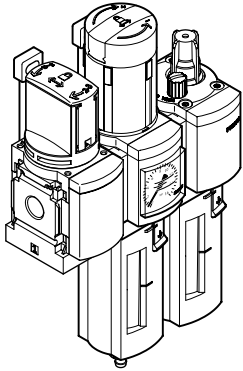
Primary pressure $p_1 = 147$ psiNormal flow q_n as a function of the outlet pressure p_2 (combination 7, filter fineness 40 μm)Grade of filtration 40 μm

Pressure regulation range 59 ... 132 psi / 59 ... 176 psi

Primary pressure $p_1 = 147$ psi

Datasheet

Technical data – Combination 8



- For filtered and lubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is continuously adjustable within the pressure regulation range.

Setup:

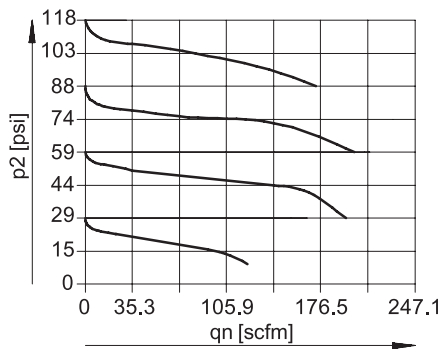
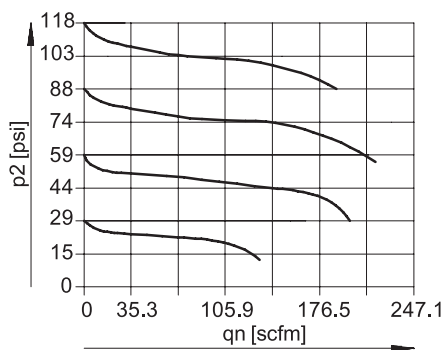
- On/off valve MS...-EM1, manually operated
- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- Mounting bracket MS...-WP

Size	6		
Condensate drain	Fully automatic	Manual, rotating	
Grade of filtration	40 µm	5 µm	40 µm
Pneumatic connection 1	1/2 NPT		
Pneumatic connection 2	1/2 NPT		
Pneumatic connection 3	G1/2		
Controller function	Constant output pressure With primary pressure compensation With secondary exhausting With return flow characteristic		
Type of mounting	With accessories		
Mounting position	Vertical ±5°		
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [7:4:-]	Compressed air as per ISO 8573-1:2010 [6:4:-]	Compressed air as per ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard		
Actuator lock	Rotary knob with detent can be closed with accessories		
Pressure gauge	with pressure gauge		
Pressure regulation range	1 ... 12 bar	0.5 ... 12 bar	4 ... 12 bar
Operating pressure	2 ... 12 bar	1.5 ... 18 bar	4.5 ... 18 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases		
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Ambient temperature	5 ... 60°C	-10 ... 60°C	
Temperature of medium	5 ... 60°C	-10 ... 60°C	
Storage temperature	-10 ... 60°C		
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress		
For use in the food industry ²⁾	See supplementary material information		
Housing material	Die-cast aluminum		
Material of bowl	PC		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

1) For more information, visit www.festo.com/x/topic/kbk

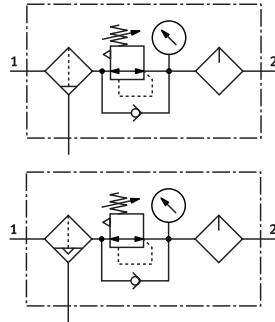
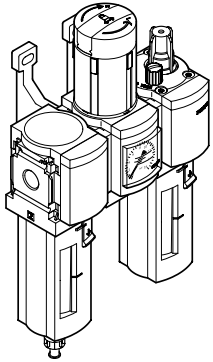
2) For more information, visit www.festo.com/catalogue/msb4 → Support/Downloads.

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 8, filter fineness 5 μm)Normal flow q_n as a function of the outlet pressure p_2 (combination 8, filter fineness 40 μm)

Datasheet

Technical data – Combination 9



- For filtered and lubricated compressed air supply.
- Output pressure is continuously adjustable within the pressure regulation range.

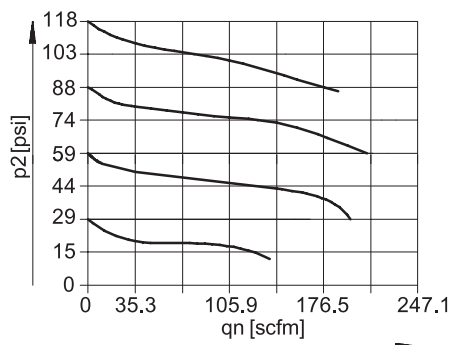
Structure:

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

Size	6	
Condensate drain	Fully automatic	
Grade of filtration	5 µm	40 µm
Pneumatic connection 1	1/2 NPT	
Pneumatic connection 2	1/2 NPT	
Type of mounting	With accessories	
Mounting position	Vertical ±5°	
Air quality class at the output	Compressed air as per ISO 8573-1:2010 [6:4:-]	Compressed air as per ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard	
Actuator lock	Rotary knob with detent can be closed with accessories	
Pressure gauge	with pressure gauge	
Pressure regulation range	1 ... 12 bar	
Operating pressure	2 ... 12 bar	
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:-], Inert gases	
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)	
Ambient temperature	–	
Temperature of medium	–	
Storage temperature	-10 ... 60°C	
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress	
For use in the food industry ²⁾	See supplementary material information	
Housing material	Die-cast aluminum	
Material of bowl	PC	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

1) For more information, visit www.festo.com/x/topic/kbk

2) Further information: www.festo.com/catalogue/msb4 → Support/Downloads.

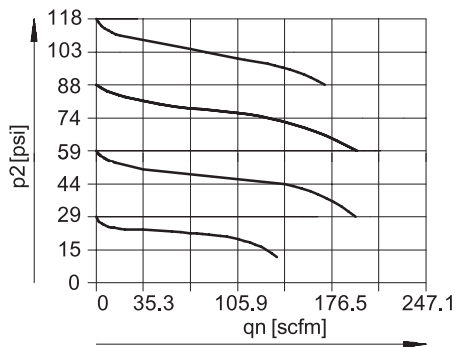
Normal flow q_n as a function of the outlet pressure p_2 (combination 9, filter fineness 5 µm)

Grade of filtration 5 µm

Pressure regulation range 15 ... 176 psi

Primary pressure p_1 = 147 psi

Datasheet

Normal flow q_n as a function of the outlet pressure p_2 (combination 9, filter fineness $40\ \mu\text{m}$)Grade of filtration $40\ \mu\text{m}$

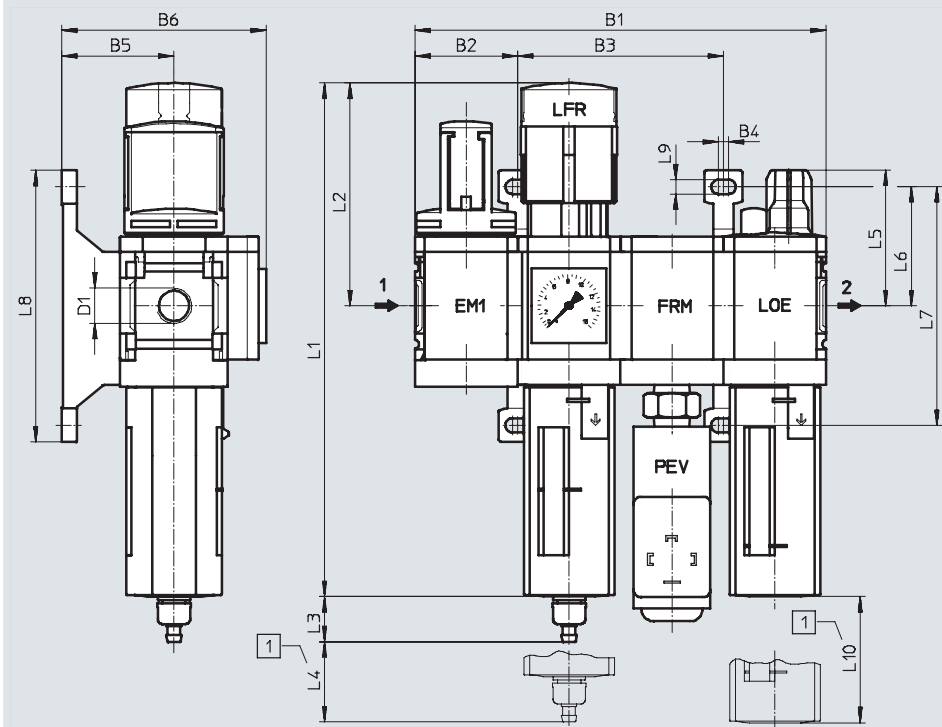
Pressure regulation range 15 ... 176 psi

Primary pressure $p_1 = 147$ psi

Dimensions

Dimensions – Combination 1 – on/off valve manually operated, filter regulator with pressure gauge, branching module with pressure switch, lubricator

Download CAD data www.festo.com



[1] Installation dimension

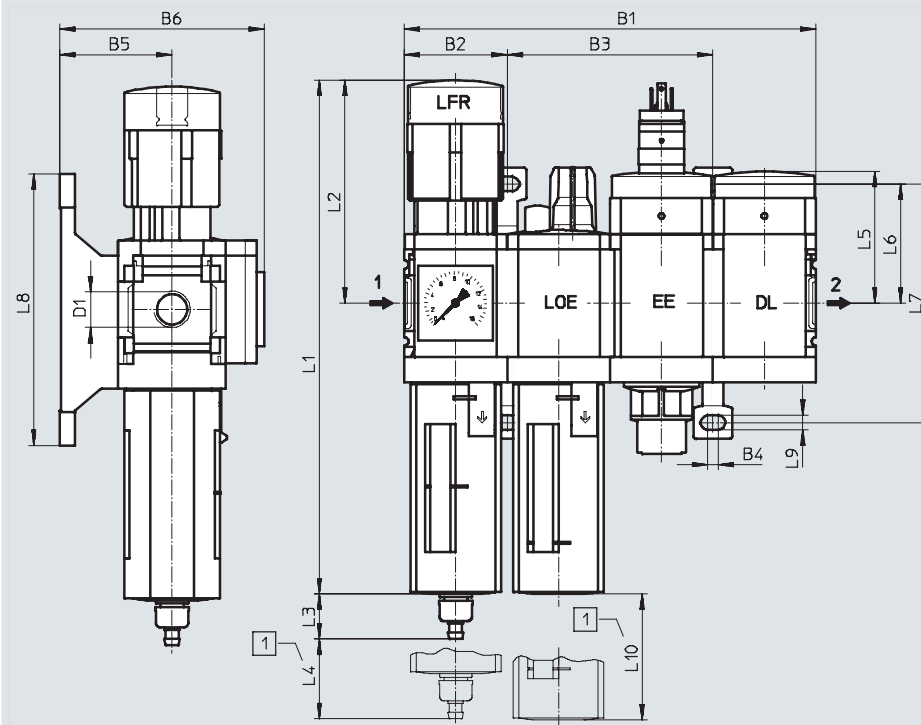
	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	9,76	2,44	4,88	0,18	2,13	3,94	1/2 NPT	11,22	5,3

	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]	L10 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	2,6	2,8	5,59	6,22	0,26	5,12

Dimensions

Dimensions – Combination 2 – Filter regulator with pressure gauge, lubricator, manually operated on/off valve, pneumatically operated soft-start valve

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[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	9,76	2,44	4,88	0,18	2,13	3,94	1/2 NPT	11,22	5,3

	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]	L10 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	2,8	2,8	5,59	6,22	0,26	5,12

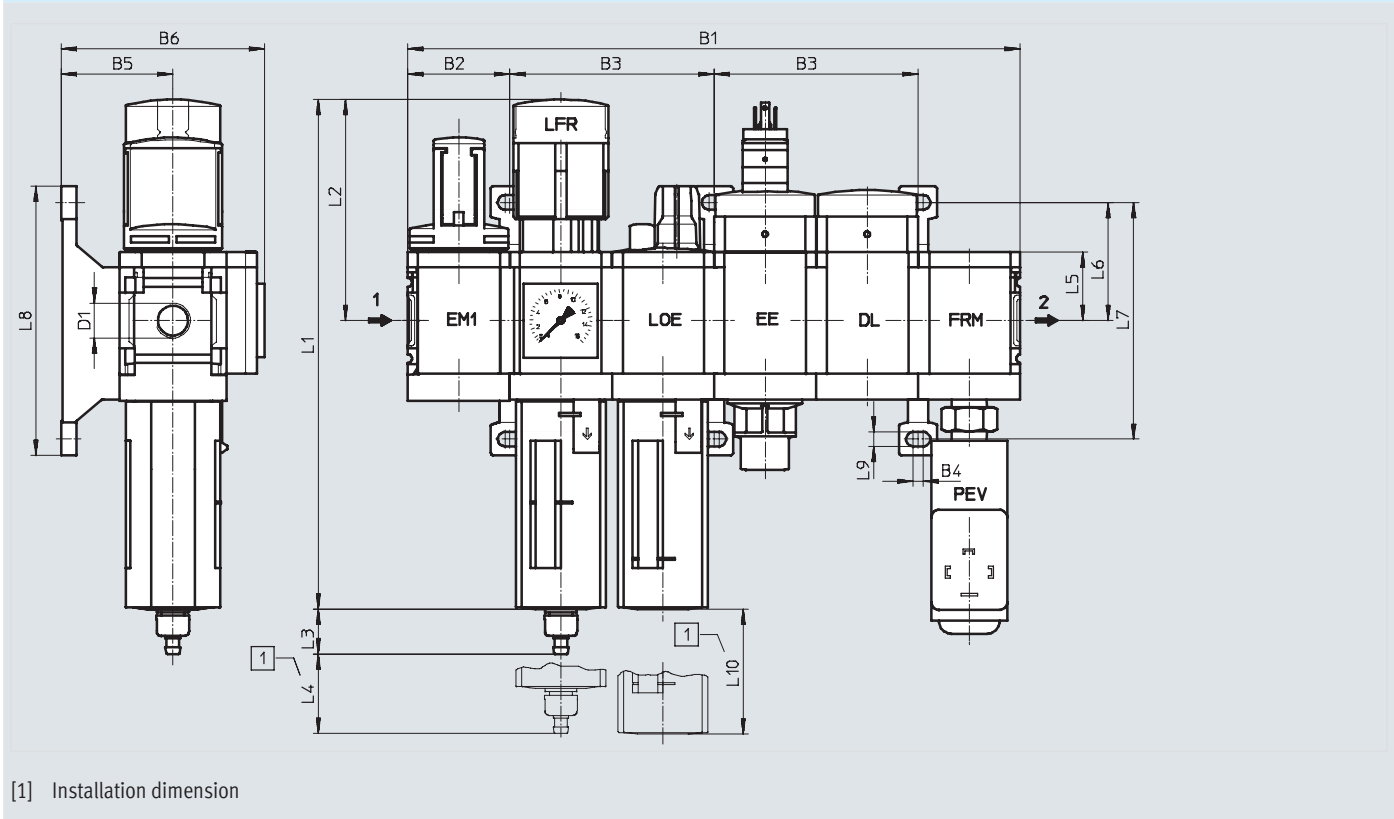
1) Manual rotary condensate drain

2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 3 – manually operated on/off valve, filter regulator with pressure gauge, lubricator, electrically operated on/off valve, pneumatically operated soft-start valve, branching module with pressure switch

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	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	14,65	2,44	4,88	0,18	2,13	3,94	1/2 NPT	11,22	5,3

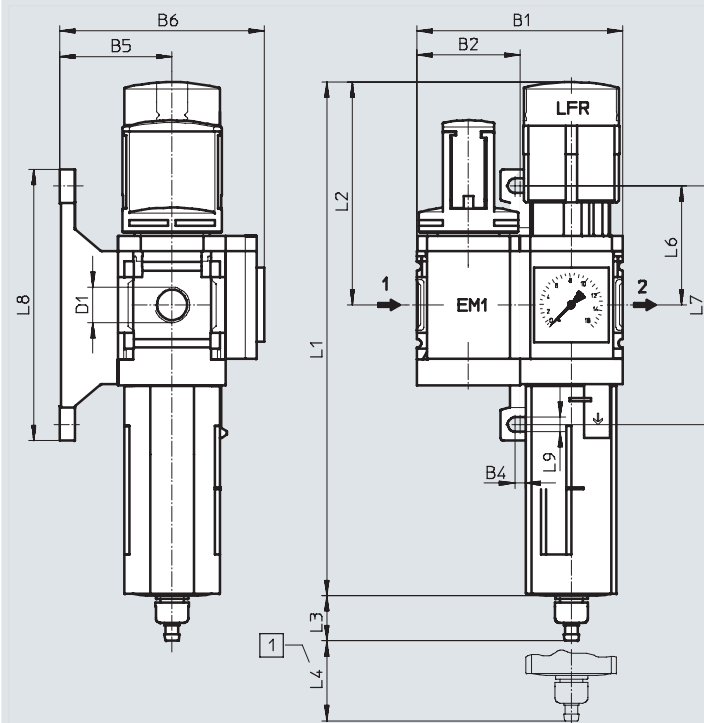
	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]	L10 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	1,54	2,8	5,59	6,22	0,26	5,12

1) Manual rotary condensate drain
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 4 – manually operated on/off valve, filter regulator with pressure gauge

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[1] Installation dimension

	B1 [inch]	B2 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	4,88	2,44	0,18	2,13	3,94	1/2 NPT	11,22	5,3

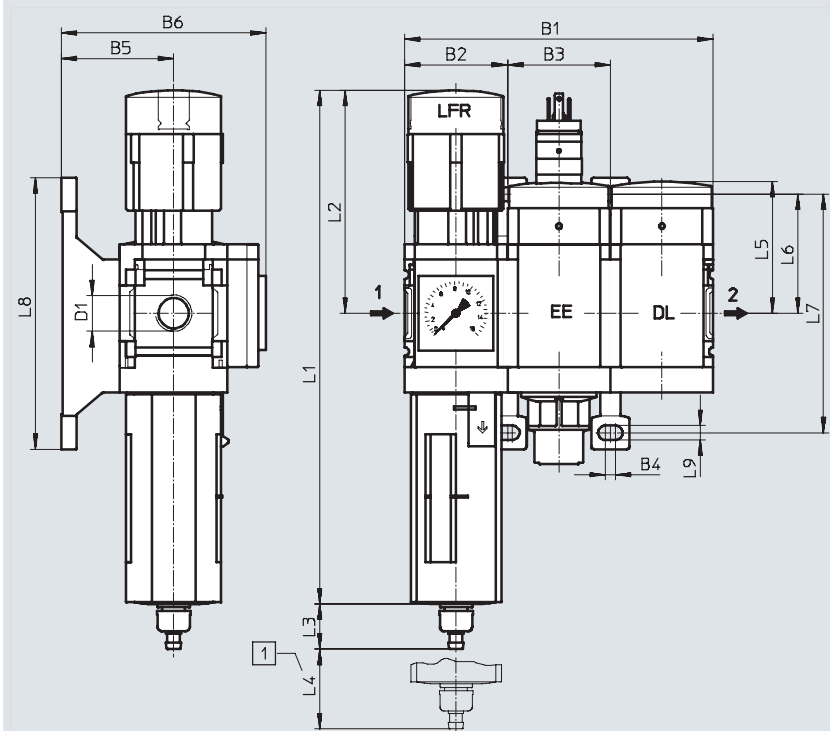
	L3 [inch]	L4 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	2,8	5,59	6,22

- 1) Manual rotary condensate drain
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 5 – filter regulator with pressure gauge, electrically operated on/off valve, pneumatically operated soft-start valve

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[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	7,32	2,44	2,44	0,18	2,13	3,94	1/2 NPT	11,22	5,3

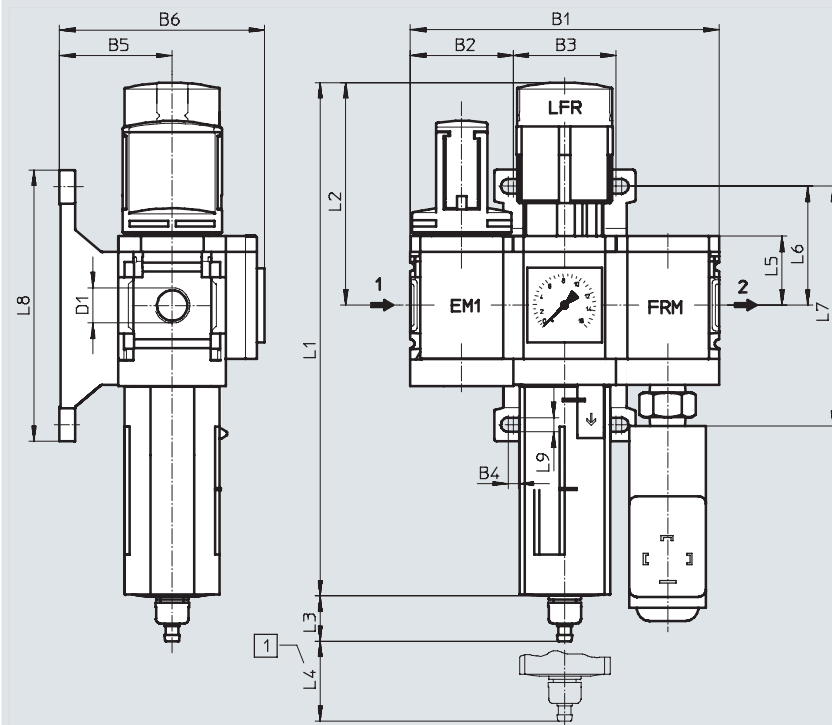
	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	2,8	2,8	5,59	6,22	0,26

- 1) Manual rotary condensate drain
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 6 – manually operated on/off valve, filter regulator with pressure gauge, branching module with pressure switch

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[1] Installation dimension

	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	7,32	2,44	2,44	0,18	2,13	3,94	1/2 NPT	11,22	5,3

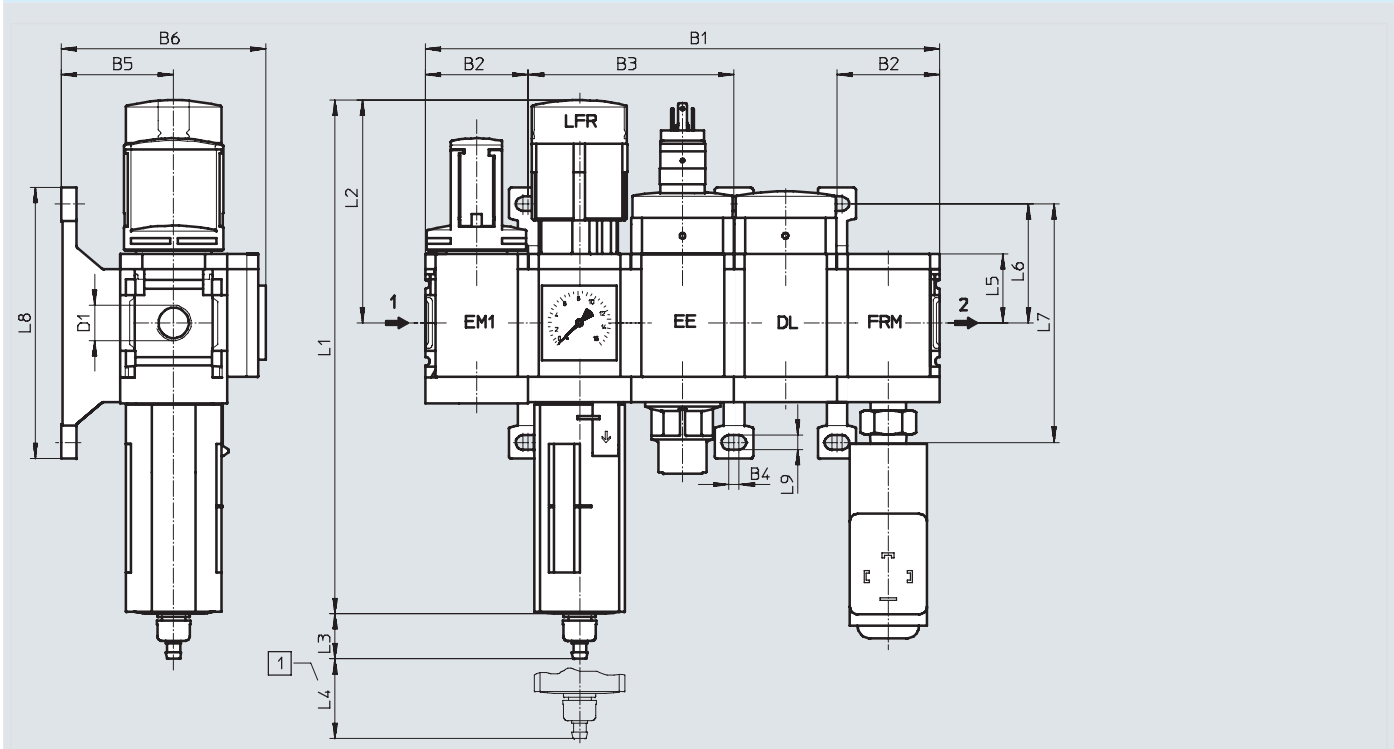
	L3		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]
	[inch]							
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	1,54	2,8	5,59	6,22	0,26

- 1) Manual rotary condensate drain
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 7 – manually operated on/off valve, filter regulator with pressure gauge, electrically operated on/off valve, pneumatically operated soft-start valve, branching module with pressure switch

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- [1] Installation dimension
- [2] Electrical connection to IEC 61076-2-101, M12x1 plug, 2-pin, for NEBA-M12
- [3] Pressure sensor SDE5-D10-O-...-P-M8 with 3-pin plug M8x1, threshold value comparator, 1 switching output PNP, N/O contact

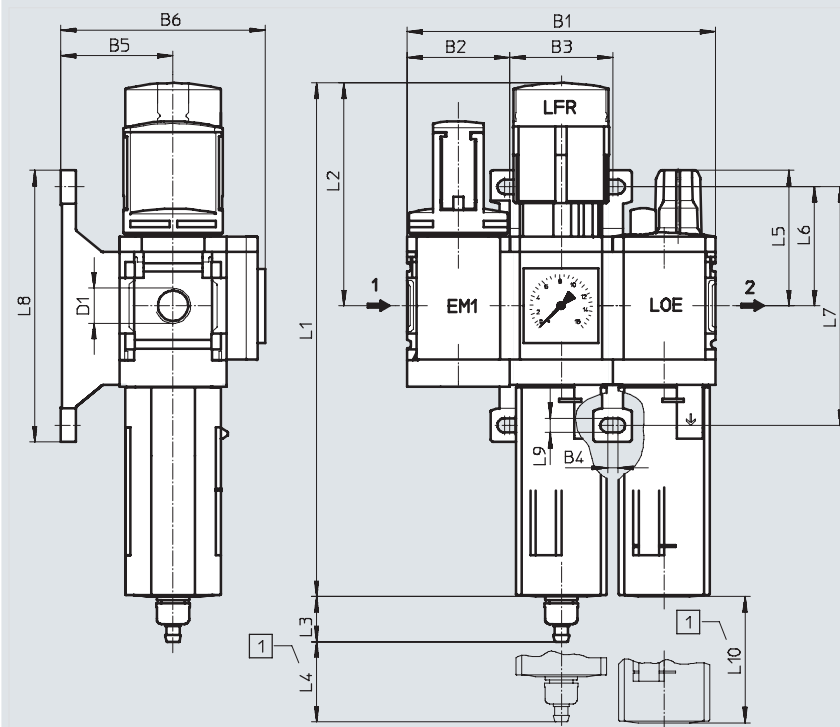
	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	12,2	2,44	4,88	0,18	2,13	3,94	1/2 NPT	11,22	5,3

	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	1,54	2,8	5,59	6,22	0,26

Dimensions

Dimensions – Combination 8 – manually operated on/off valve, filter regulator with pressure gauge, lubricator

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[1] Installation dimension

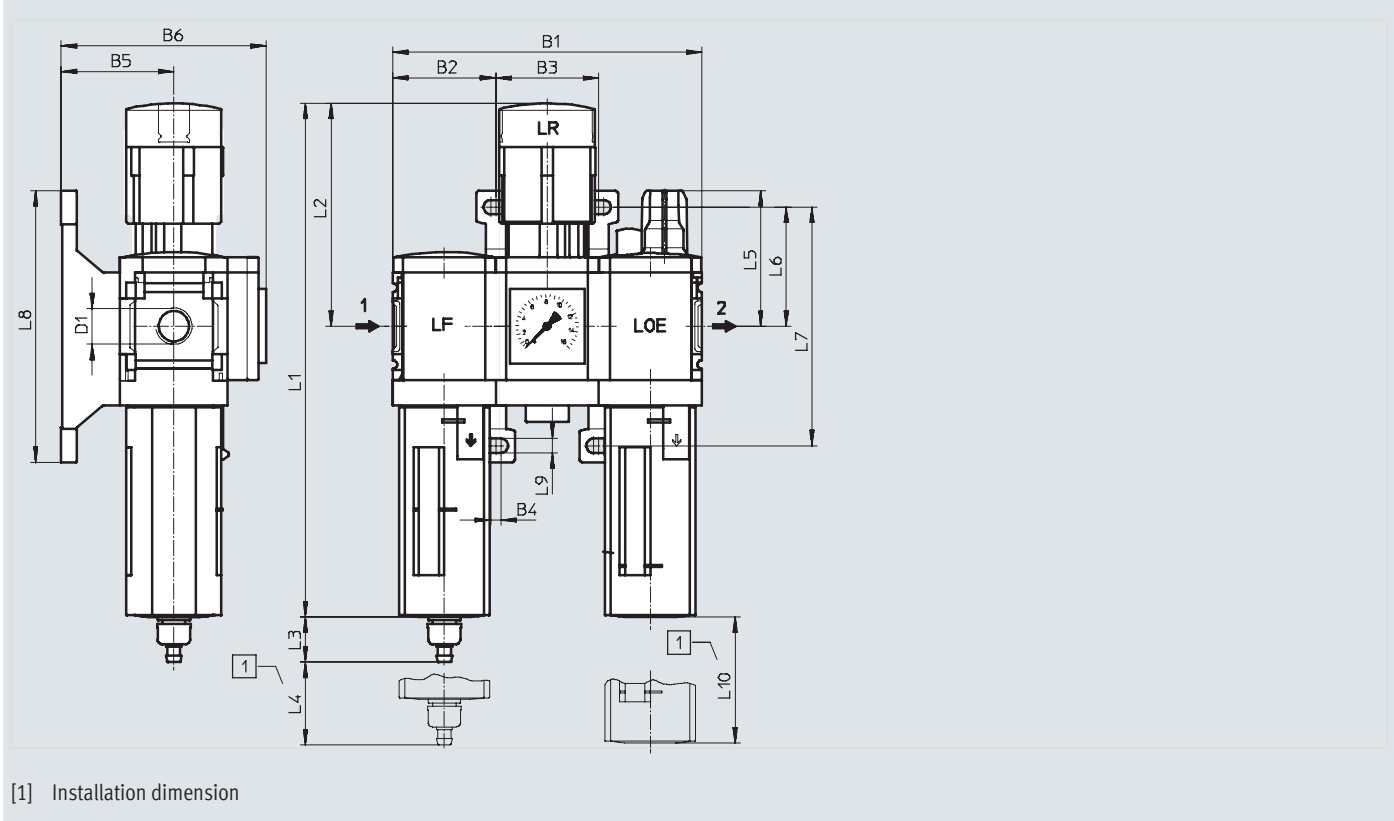
	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	7,32	2,44	2,44	0,18	2,13	3,94	1/2 NPT	11,22	5,3

	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]	L10 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	2,6	2,8	5,59	6,22	0,26	5,12

- 1) Manual rotary condensate drain
2) Fully automatic condensate drain

Dimensions

Dimensions – Combination 9 – Filter, pressure regulator, lubricator www.festo.com



	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D1	L1 [inch]	L2 [inch]
MSB6N	7,32	2,44	2,44	0,18	2,13	3,94	1/2 NPT	11,22	5,3

	L3 [inch]		L4 [inch]	L5 [inch]	L6 [inch]	L7 [inch]	L8 [inch]	L9 [inch]	L10 [inch]
MSB6N	0,62 ¹⁾	0,73 ²⁾	2,68	2,6	2,8	5,59	6,22	0,26	5,12

1) Manual rotary condensate drain
2) Fully automatic condensate drain

Ordering data

Ordering data – Combination 1

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	1 ... 12 bar	Fully automatic	40 µm	2,550 g	543579	MSB6N-1/2:C3J2F3M1-WP
	4 ... 12 bar	Manual, rotating			543573	MSB6N-1/2:C3J1F3M1-WP

Ordering data – Combination 2

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	4 ... 9 bar	Fully automatic	5 µm	3,000 g	550514	MSB6N-1/2:J4M1D7A1-WP
		Manual, rotating			550512	MSB6N-1/2:J3M1D7A1-WP
	4 ... 12 bar		40 µm		541472	MSB6N-1/2:J1M1D1A1-WP

Ordering data – Combination 3

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	4 ... 9 bar	Fully automatic	40 µm	4,000 g	550502	MSB6N-1/2:C3J2M1D7A1F3-WP
		Manual, rotating	5 µm		550504	MSB6N-1/2:C3J3M1D7A1F3-WP
			40 µm		550500	MSB6N-1/2:C3J1M1D7A1F3-WP
	4 ... 12 bar				543575	MSB6N-1/2:C3J1M1D1A1F3-WP

Ordering data – Combination 4

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	0.5 ... 12 bar	Fully automatic	5 µm	1,100 g	543595	MSB6N-1/2:C3J4-WP
		Manual, rotating			543589	MSB6N-1/2:C3J3-WP
	1 ... 12 bar	Fully automatic	40 µm		543583	MSB6N-1/2:C3J2-WP
	4 ... 12 bar	Manual, rotating			543577	MSB6N-1/2:C3J1-WP

Ordering data

Ordering data – Combination 5

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	4 ... 9 bar	Manual, rotating	40 µm	2,400 g	550507	MSB6N-1/2:J1D7A1-WP

Ordering data – Combination 6

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	0.5 ... 12 bar	Manual, rotating	5 µm	2,000 g	543586	MSB6N-1/2:C3J3F3-WP
	4 ... 12 bar		40 µm		543574	MSB6N-1/2:C3J1F3-WP

Ordering data – Combination 7

	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	4 ... 9 bar	Manual, rotating	5 µm	3,500 g	550503	MSB6N-1/2:C3J3D7A1F3-WP
			40 µm		550499	MSB6N-1/2:C3J1D7A1F3-WP

Ordering data - Combination 8

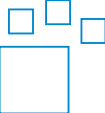
	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	0.5 ... 12 bar	Manual, rotating	5 µm	1,750 g	543588	MSB6N-1/2:C3J3M1-WP
	1 ... 12 bar	Fully automatic	40 µm		543582	MSB6N-1/2:C3J2M1-WP
	4 ... 12 bar	Manual, rotating			543576	MSB6N-1/2:C3J1M1-WP

Ordering data

Ordering data – Combination 9

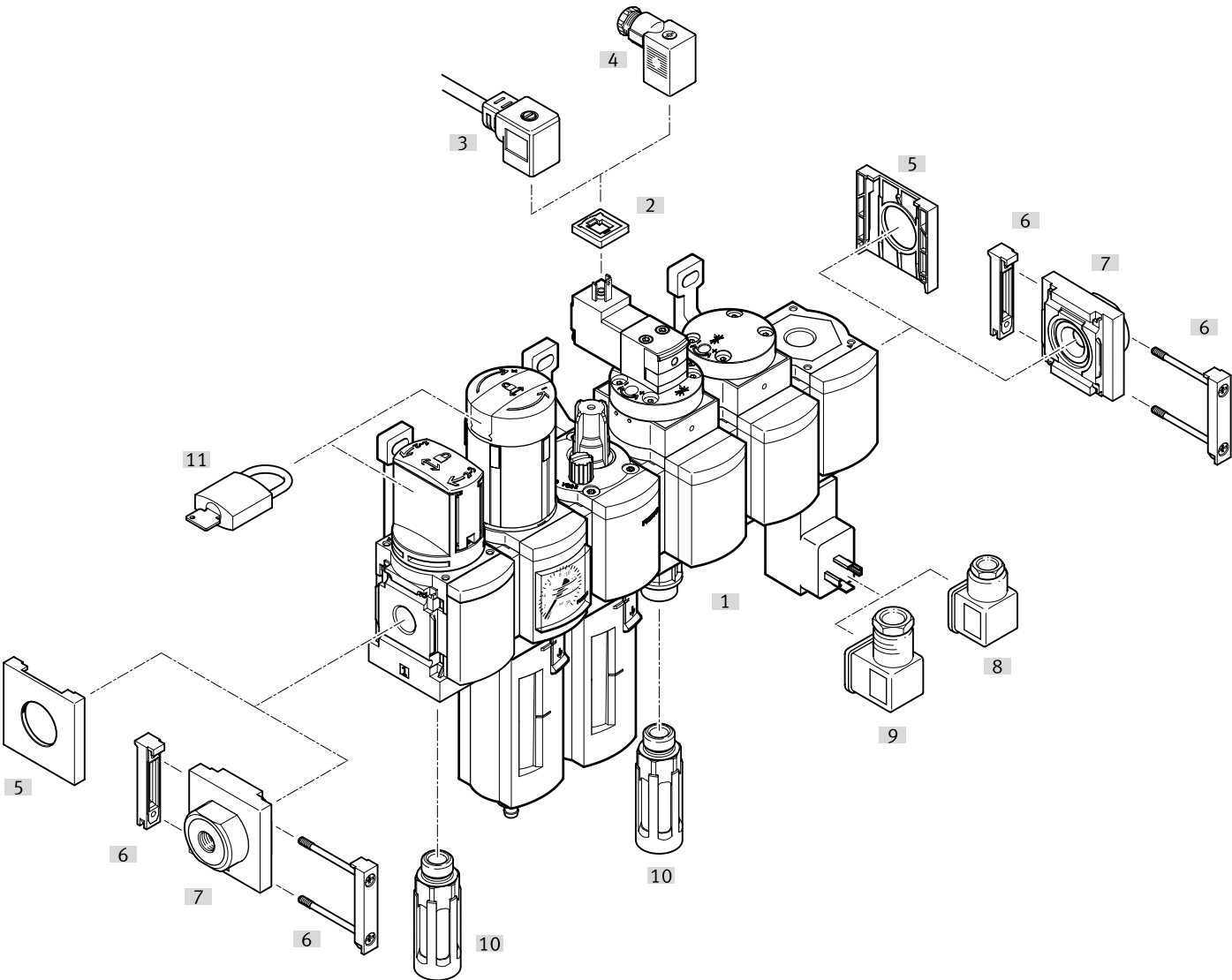
	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	1 ... 12 bar	Fully automatic	5 µm	1,000 g	541470	MSB6N-1/2:H4N3M1-WP
			40 µm	2,000 g	541467	MSB6N-1/2:H1N3M1-WP

Ordering data– Modular product system

	Type code	Part no.	Type
	MSB6N	532307	MSB6N

Peripherals overview

Peripherals overview



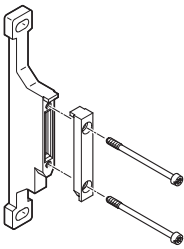
Accessories		→ Page/Internet
Type/order code	Description	
[1] Service unit combination MSB6	Illustration using MSB4 as an example	msb6n
[2] Illuminating seal MEB-LD		36
[3] Plug socket with cable KMEB		37
[4] Plug socket MSSD-EB		37
[5] Cover cap MS6-END		35
[6] Module connector MS6-MV1		35
[7] Sub-base SET MS6-AG...	Order code [AG...]	
[8] Plug socket MSSD-C-4P		37
[9] Angled plug socket PEV-1/4-WD-LED		37
[10] Silencer U		37
[11] Padlock LRVS-D		38
[12] Mounting bracket MS6-WP...	Order code [WP...] (not shown)	35

Accessories

Module connector MS6-MV1						
	Size	Module connector material	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	POM, high-alloy stainless steel	VDMA24364-B1/B2-L	33 g	8119204	MS6-MV1

Cover cap MS6-END						
	Size	Housing material	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	PA-reinforced	VDMA24364-B1/B2-L		538780	MS6-END

Sub-base SET MS6-AQ...						
	Size	Pneumatic connection 1	Material of sub-base	Product weight	Part no.	Type
	6	1/4 NPT	Die-cast aluminum	300 g	526076	MS6N-AQN
		3/8 NPT			526077	MS6N-AQP
		1/2 NPT			526078	MS6N-AQR
		3/4 NPT			526079	MS6N-AQS

Mounting bracket MS6-WP...						
	Size				Part no.	Type
	6				532195	MS6-WP
					532186	MS6-WPM-2D
					526073	MS6-WPM-D
					526074	MS6-WPB
					541542	MS6-WPB-EX
					541544	MS6-WP-EX

Connecting cable NEBA, straight						
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per EN 61076-2-101	Open end	4	2.5 m	8078239	NEBA-M12G5-U-2.5-N-LE4

Accessories

Connecting cable NEBA, straight

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per EN 61076-2-101	Open end	4	5 m	8078240	NEBA-M12G5-U-5-N-LE4
	M8x1 A-coded as per EN 61076-2-104		3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cable NEBA, angled

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type	
	M12x1 A-coded as per EN 61076-2-101	Open end	4	2.5 m	8078248	NEBA-M12W5-U-2.5-N-LE4	
				5 m	8078249	NEBA-M12W5-U-5-N-LE4	
	M8x1 A-coded as per EN 61076-2-104		3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3	
				5 m	8078231	NEBA-M8W3-U-5-N-LE3	

Illuminating seal MEB-LD

	DC operating voltage range	Nominal operating voltage AC	Product weight	Part no.	Type
		230 V	0.6 g	151718	MEB-LD-230AC
	12 ... 24 V			151717	MEB-LD-12-24DC

Plug socket with cable KMEB 230V AC

	Nominal operating voltage AC	Cable length	Product weight	Part no.	Type
	230 V	2.5 m	125 g	151690	KMEB-1-230AC-2.5
		5 m	230 g	151691	KMEB-1-230AC-5

Accessories

Plug socket with cable KMEB 24 VDC					
	Nominal operating voltage DC	Cable length	Product weight	Part no.	Type
	24 V	2.5 m	120 g	547268	KMEB-3-24-2.5-LED
				547270	KMEB-3-24-2.5
		5 m	125 g	151688	KMEB-1-24-2.5-LED
				547271	KMEB-3-24-5
				151689	KMEB-1-24-5-LED
				547269	KMEB-3-24-5-LED
		10 m	460 g	193457	KMEB-1-24-10-LED

Plug socket MSSD-EB					
	Electrical connection	Cable fitting	Product weight	Part no.	Type
	3-pin, Socket, Angled socket, Type C, As per DIN EN 175301-803, As per DIN EN 61984, Rectangular design MSEB, Rectangular design MSN2	M12x1.5		570367	MSSD-EB-M12-24VDC-SD-EX
		Pg7	11 g	539712	MSSD-EB-M12
				151687	MSSD-EB

Plug socket MSSD-C-4P						
	Electrical connection	Cable fitting	Cable diameter	Product weight	Part no.	Type
	3-pin, Angled socket, Type A, As per DIN EN 175301-803, Rectangular design MSC, Rectangular design MSN1	Pg9	6 ... 8 mm	22 g	171157	MSSD-C-4P

Angled plug socket PEV-1/4-WD-LED-...						
	Electrical connection	Switching status indication	Operating voltage range AC	DC operating voltage range	Part no.	Type
		Yellow LED, Green LED		15 ... 30 V	164274	PEV-1/4-WD-LED-24
			150 ... 230 V	140 ... 180 V	164275	PEV-1/4-WD-LED-230

Muffler U						
	Pneumatic connection	Flow rate with respect to atmosphere	Noise level	Product weight	Part no.	Type
	G1/2	7,500 l/min	81 dB(A)	75 g	6844	U-1/2-B
		10,300 l/min	82 dB(A)	58.2 g	2310	U-1/2

Accessories

Padlock LRV5-D				
	LABS (PWIS) conformity	Product weight	Part no.	Type
	VDMA24364-B1/B2-L	120 g	193786	LRVS-D