

Service unit combination MSB4

FESTO



Characteristics

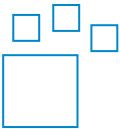
At a glance

Predefined or freely configurable service unit combinations.

- Grid dimension: 40 mm
- Depending on the application, consisting of filter regulator, filter, lubricator, on/off valve, soft-start valve, branching module

Ordering data - modular system

[Link](#)  [msb4](#)



Configurable product

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

For explanations of the type code, see the downloadable additional document.

Engineering tools

[Link](#)  [engineering tools](#)



A selection tool for sizing a suitable service unit component and the correct air purity class can be found under Engineering Tools.

Pneumatic connection

By installing connecting plates it is easier to replace the module if necessary (e.g. when using piping).

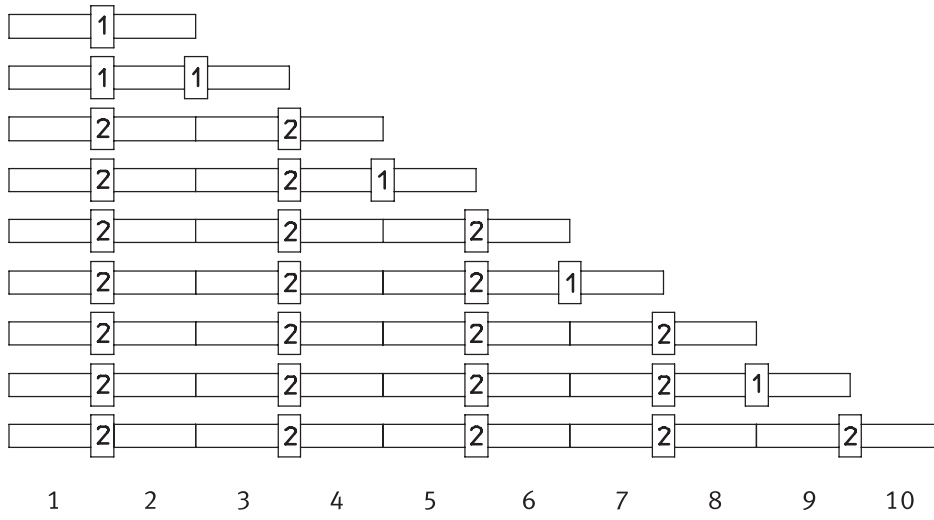
Service unit component equipment

The order of the individual service unit components within a combination is relevant for safety and functionality. The following rules must be taken into account:

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

Characteristics

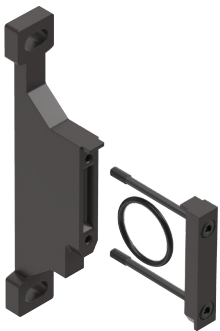
Type of mounting



Positioning of the mounting brackets:

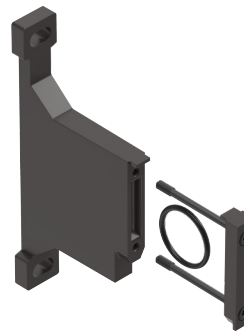
- [1] Mounting bracket WP, WPB, WPE or WPM-D
- [2] Mounting bracket WP, WPB, WPE or WPM-2D
- [3] Number of components

[WP] Mounting bracket basic design



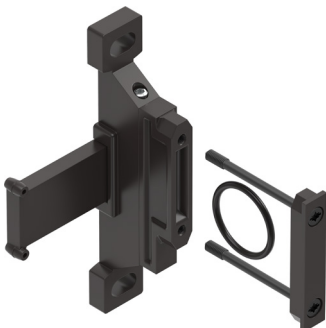
- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- In conjunction with mounting plate MS4-AEND for wall mounting of a single device
- Same wall distance for mixing combination with MS4 and MS6 series

[WPB] Mounting bracket for large wall gap



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- In conjunction with mounting plate MS4-AEND for wall mounting of a single device
- Provides large wall gap for pressure regulator

[WPM] Mounting bracket for hooking in service unit components



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- Fast hooking and unhooking
- For installing modules with the regulator knob pointing downwards

Characteristics

EU certification

Selected types in accordance with the ATEX directive for potentially explosive atmospheres can be ordered via the configurator.

UL certification

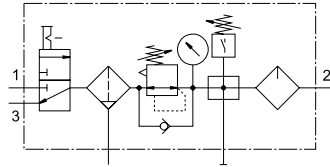
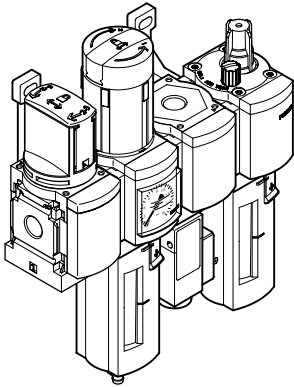
Optional device variant UL1, which meets the safety requirements for the Canadian and US markets.

Flow direction

Available with flow in the opposite direction.

Datasheet

Technical data – Combination 1



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

Setup:

- On/off valve MS4-EM1, manually operated
- Filter control valve MS4-LFR-D7 with pressure gauge
- Branching module MS4-FRM-Y with pressure switch without display
- Lubricator MS4-LOE-R
- Mounting bracket MS4-WP

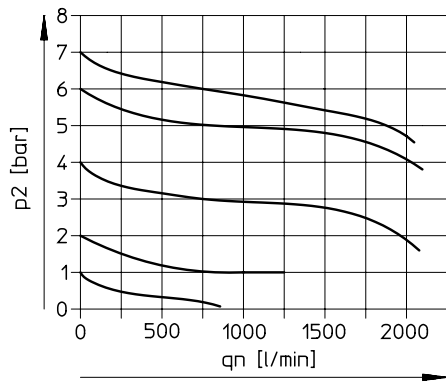
Size	4
Condensate drain	Manually rotating
Grade of filtration	40 µm
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Design	Branching module On/off valve Filter regulator with pressure gauge Standard mist lubricator
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function
Type of mounting	With accessories
Mounting position	Vertical +/-5°
Air purity class at output	Compressed air to ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard
Actuator lock	Rotary knob with detent can be closed with accessories
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	With pressure gauge
Pressure regulation range	1 ... 12 bar
Operating pressure	1.5 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Suitable for use with food ²⁾	See supplementary material information
Material housing	Die-cast aluminium
Material bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) More information www.festo.com/x/topic/kbk

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

Datasheet

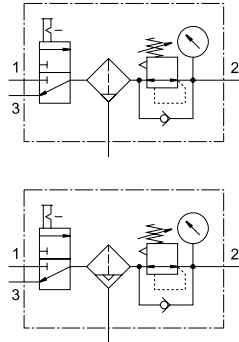
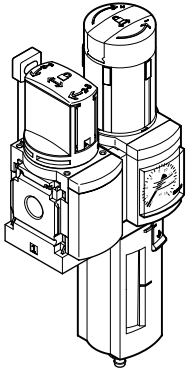
Standard flow rate q_n as a function of output pressure p_2 (combination 1)



Grade of filtration 40 μm
Pressure regulation range 1 ... 12 bar
Primary pressure $p_1 = 10$ bar

Datasheet

Technical data – Combination 2



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

Setup:

- On/off valve MS4-EM1, manually operated
- Filter regulator MS4-LFR with pressure gauge
- Mounting bracket MS4-WP

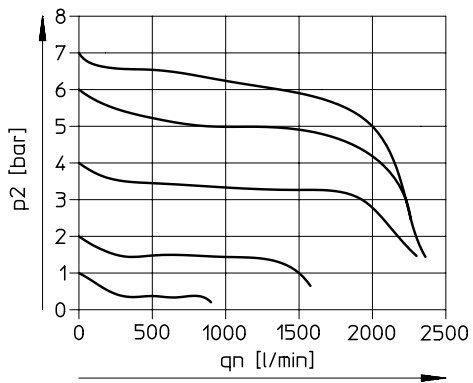
Size	4			
Condensate drain	Fully automatic		Manually rotating	
Grade of filtration	5 µm	40 µm	5 µm	40 µm
Pneumatic connection, port 1	G1/4			
Pneumatic connection, port 2	G1/4			
Design	On/off valve Filter regulator with pressure gauge			
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function			
Type of mounting	With accessories			
Mounting position	Vertical +/-5°			
Air purity class at output	Compressed air to ISO 8573-1:2010 [6:4:4]	Compressed air to ISO 8573-1:2010 [7:4:4]	Compressed air to ISO 8573-1:2010 [6:4:4]	Compressed air to 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 (ANALOG) or Pressure display (DIGITAL)	With pressure gauge			
Pressure regulation range	0.5 ... 12 bar			
Operating pressure	2 ... 12 bar		0.8 ... 14 bar	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases			
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature	5 ... 60°C		-10 ... 60°C	
Media temperature	5 ... 60°C		-10 ... 60°C	
Storage temperature	-10 ... 60°C			
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress			
Suitable for use with food ²⁾	See supplementary material information			
Material housing	Die-cast aluminium			
Material bowl	PC			
LABS (PWIS) conformity	VDMA24364-B1/B2-L			

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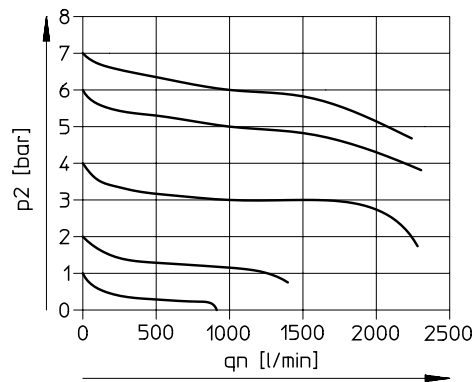
Datasheet

Standard flow rate q_n as a function of output pressure p_2 (combination 2)



Grade of filtration 5 μm
Pressure regulation range 0.5 ... 12 bar
Primary pressure $p_1 = 10$ bar

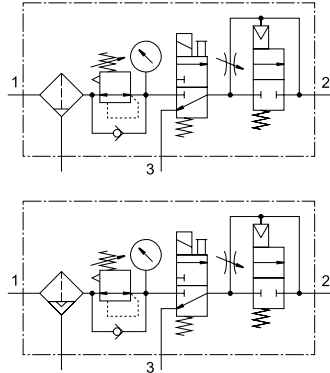
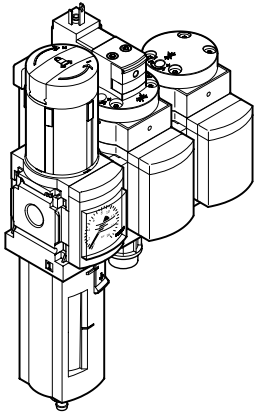
Standard flow rate q_n as a function of output pressure p_2 (combination 2)



Grade of filtration 40 μm
Pressure regulation range 0.5 ... 12 bar
Primary pressure $p_1 = 10$ bar

Datasheet

Technical data – Combination 3



- For filtered and unlubricated compressed air supply.
- Output pressure is infinitely 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 control valve MS4-LFR-D7 with pressure gauge
- On/off valve MS4-EE-V24, electrically actuated
- Soft-start valve MS4-DL, pneumatically actuated
- Mounting bracket MS4-WP

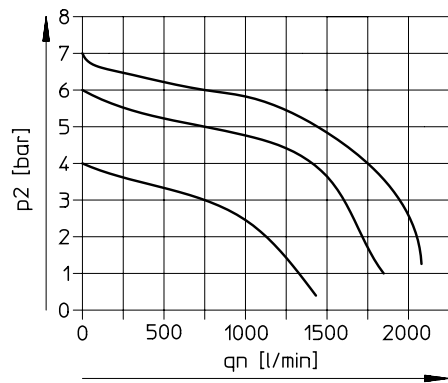
Size	4
Condensate drain	Manually rotating
Grade of filtration	40 µm
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Design	Soft-start valve On/off valve Filter regulator with pressure gauge
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function
Type of mounting	With accessories
Mounting position	Vertical +/-5°
Air purity class at output	Compressed air to 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 (ANALOG) or Pressure display (DIGITAL)	With pressure gauge
Pressure regulation range	4 ... 12 bar
Operating pressure	4.5 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [-:4:-], Inert gases
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Suitable for use with food ²⁾	See supplementary material information
Material housing	Die-cast aluminium
Material bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) More information www.festo.com/x/topic/kbk

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

Datasheet

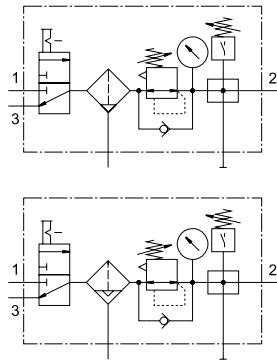
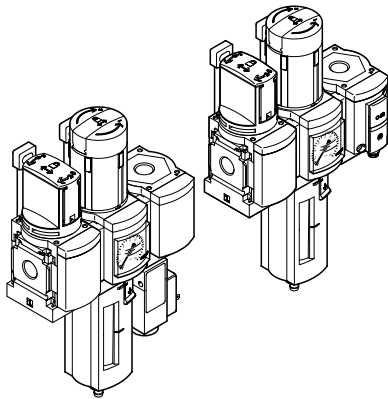
Standard flow rate q_n as a function of output pressure p_2 (combination 3)



Grade of filtration 40 μm
Pressure regulation range 4 ... 12 bar
Primary pressure $p_1 = 10$ bar

Datasheet

Technical data – Combination 4



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

Setup:

- On/off valve MS4-EM1, manually operated
- Filter regulator MS4-LFR with pressure gauge
- Branching module MS4-FRM-Y with pressure switch or MS4-FRM-AD7 with pressure sensor for switching indicator
- Mounting bracket MS4-WP

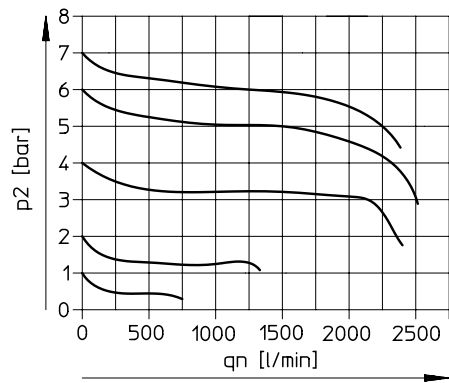
Size	4	
Condensate drain	Fully automatic	Manually rotating
Grade of filtration	40 µm	
Pneumatic connection, port 1	G1/4	
Pneumatic connection, port 2	G1/4	
Design	Branching module On/off valve Filter regulator with pressure gauge	
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function	
Type of mounting	With accessories	
Mounting position	Vertical +/-5°	
Air purity class at output	Compressed air to 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 (ANALOG) or Pressure display (DIGITAL)	With pressure gauge	
Pressure regulation range	0.5 ... 12 bar	
Operating pressure	2 ... 12 bar	0.8 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases	
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)	
Ambient temperature	5 ... 60°C	-10 ... 60°C
Media temperature	5 ... 60°C	-10 ... 60°C
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress	
Suitable for use with food ²⁾	See supplementary material information	
Material housing	Die-cast aluminium	
Material bowl	PC	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

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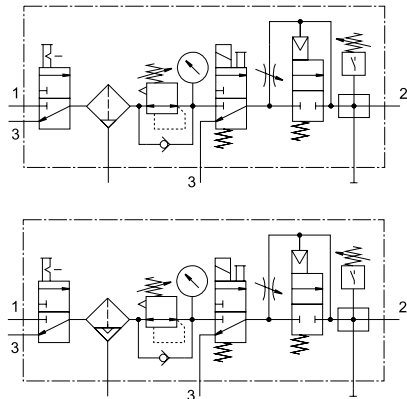
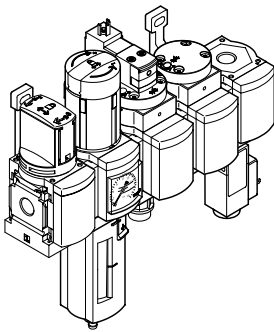
Standard flow rate q_n as a function of output pressure p_2 (Combination 4)



Grade of filtration 40 μm
Pressure regulation range 0.5 ... 12 bar
Primary pressure $p_1 = 10$ bar

Datasheet

Technical data – Combination 5



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off.
- Output pressure is infinitely adjustable within the pressure regulation range.
- A gradual pressure build-up during switch-on avoids any sudden and unpredictable movements.
- For shutting off and exhausting the downstream device or the system.
- Electrical pressure monitoring with adjustable switching pressure.

Setup:

- On/off valve MS4-EM1, manually operated
- Filter regulator MS4-LFR with pressure gauge
- On/off valve MS...-EE-V24, electrically actuated
- Soft-start valve MS...-DL, pneumatically actuated
- Branching module MS4-FRM-Y with pressure switch or MS4-FRM-AD7 with pressure sensor for switching indication
- Mounting bracket MS4-WP

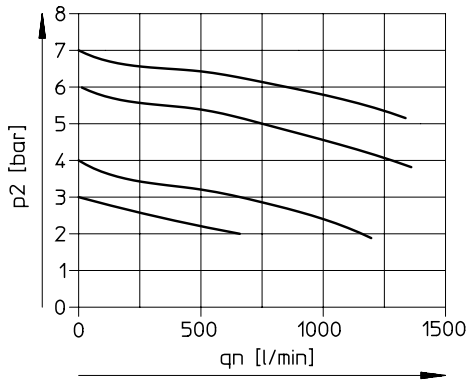
Size	4	
Condensate drain	Fully automatic	Manually rotating
Grade of filtration	40 µm	
Pneumatic connection, port 1	G1/4	
Pneumatic connection, port 2	G1/4	
Design	Branching module Soft-start valve Pressure switch On/off valve Filter regulator with pressure gauge	
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function	
Type of mounting	With accessories	
Mounting position	Vertical +/-5°	
Air purity class at output	Compressed air to 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 (ANALOG) or Pressure display (DIGITAL)	With pressure gauge	
Pressure regulation range	4 ... 12 bar	
Operating pressure	4.5 ... 12 bar	4.5 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases	
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)	
Ambient temperature	5 ... 60°C	-10 ... 60°C
Media temperature	5 ... 60°C	-10 ... 60°C
Storage temperature	-10 ... 60°C	
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress	
Suitable for use with food ²⁾	See supplementary material information	
Material housing	Die-cast aluminium	
Material bowl	PC	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	

1) More information www.festo.com/x/topic/kbk

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

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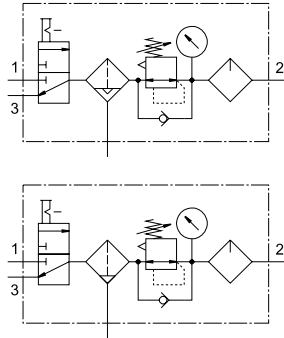
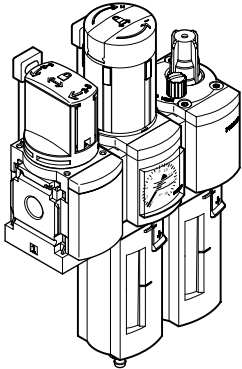
Standard flow rate q_n as a function of output pressure p_2 (combination 5)



Grade of filtration 40 μm
Pressure regulation range 4 ... 12 bar
Primary pressure $p_1 = 10$ bar

Datasheet

Technical data – Combination 6



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

Setup:

- On/off valve MS4-EM1, manually operated
- Filter control valve MS4-LFR-D7 with pressure gauge
- Lubricator MS4-LOE-R
- Mounting bracket MS4-WP

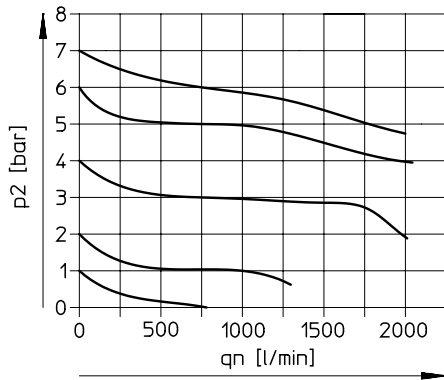
Size	4
Condensate drain	Manually rotating
Grade of filtration	40 µm
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Design	On/off valve Filter regulator with pressure gauge Standard mist lubricator
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function
Type of mounting	With accessories
Mounting position	Vertical +/-5°
Air purity class at output	Compressed air to ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard
Actuator lock	Rotary knob with detent can be closed with accessories
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	With pressure gauge
Pressure regulation range	1 ... 12 bar
Operating pressure	1.5 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Suitable for use with food ²⁾	See supplementary material information
Material housing	Die-cast aluminium
Material bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

¹⁾ More information www.festo.com/x/topic/kbk

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

Datasheet

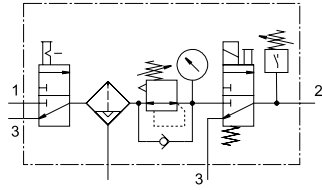
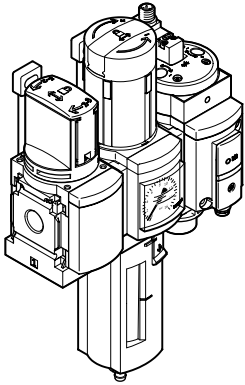
Standard flow rate q_n as a function of output pressure p_2 (combination 6)



Grade of filtration 40 μm
Pressure regulation range 1 ... 12 bar
Primary pressure $p_1 = 10$ bar

Datasheet

Technical data – Combination 7



- For filtered and unlubricated compressed air supply.
- Supply pressure can be switched on or off
- Output pressure is infinitely adjustable within the pressure regulation range
- When the unit is switched off, quick exhausting ensures rapid pressure reduction.
- Electrical pressure monitoring with adjustable switching pressure.

Setup:

- On/off valve MS4-EM1, manually operated
- Filter regulator MS4-LFR with pressure gauge
- On/off valve MS4-EE-10V24P-AD7, electrically operated, with pressure sensor for switching indicator
- Mounting bracket MS4-WP

Size	4
Condensate drain	Manually rotating
Grade of filtration	40 µm
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Design	Soft-start valve On/off valve Filter regulator with pressure gauge
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function
Type of mounting	With accessories
Mounting position	Vertical +/-5°
Air purity class at output	Compressed air to 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 (ANALOG) or Pressure display (DIGITAL)	With pressure gauge
Pressure regulation range	4 ... 10 bar
Operating pressure	4 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	0 ... 50°C
Media temperature	0 ... 50°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Suitable for use with food ²⁾	See supplementary material information
Material housing	Die-cast aluminium
Material bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) More information www.festo.com/x/topic/kbk

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

Datasheet

Technical data – Combination 8

- For graduated filtered compressed air supply.

Setup:

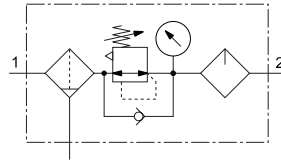
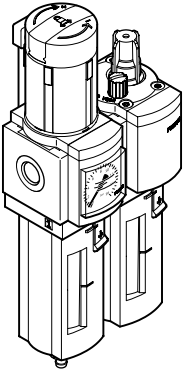
- Fine filter MS4-LFM-BRM, grade of filtration 1 µm, plastic bowl with plastic bowl guard, manual condensate drain
- Micro filter MS4-LFM-ARM, grade of filtration 0.01 µm, plastic bowl with plastic bowl guard, manual condensate drain
- Module connector MS4-MV1

Size	4
Condensate drain	Manually rotating
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Design	Fibre filter
Type of mounting	With accessories
Mounting position	Vertical +/-5°
Air purity class at output	Compressed air to ISO 8573-1:2010:[5::-3]
Bowl guard	Plastic bowl guard
Operating pressure	0 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [6::-4], Inert gases
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Material housing	Die-cast aluminium
Material bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) More information www.festo.com/x/topic/kbk

Datasheet

Technical data – Combination 9



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

Setup:

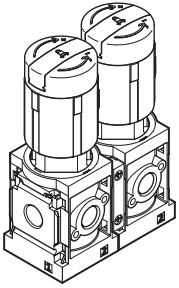
- Filter regulator MS4-LFR with pressure gauge
- Lubricator MS4-LOE-R
- Module connector MS4-MV1

Size	4			
Condensate drain	Fully automatic		Manually rotating	
Grade of filtration	5 µm	40 µm	5 µm	40 µm
Pneumatic connection, port 1	G1/4	G1/8	G1/8, G1/4, G3/8	
Pneumatic connection, port 2	G1/4	G1/8	G1/8, G1/4, G3/8	
Design	Filter/Closed-loop controller/lubricator			
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function			
Type of mounting	With accessories		Via mounting bracket	Via mounting bracket, With accessories
Mounting position	Vertical +/-5°			
Air purity class at output	Compressed air to ISO 8573-1:2010 [6:4:-]	Compressed air to ISO 8573-1:2010 [7:4:-]	Compressed air to ISO 8573-1:2010 [6:4:-]	Compressed air to ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard			
Actuator lock	Rotary knob with detent can be closed with accessories			
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	With pressure gauge			
Pressure regulation range	2 ... 12 bar	1 ... 12 bar	1 ... 7 bar	1 ... 14 bar
Operating pressure	2 ... 12 bar		1.5 ... 14 bar	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:-], Inert gases		Compressed air to ISO 8573-1:2010 [-:4:-], Inert gases	
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature	-10 ... 60°C			
Media temperature	-10 ... 60°C			
Storage temperature	-10 ... 60°C			
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress			
Material housing	Die-cast aluminium			
Material bowl	PC			
Note on materials	-	RoHS-compliant	-	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L			

1) More information www.festo.com/x/topic/kbk

Datasheet

Technical data – Combination 10



- For configuring a regulator manifold with independent pressure regulation ranges.

Setup:

- Pressure regulator for manifold mounting MS4-LRB
- Pressure regulator for manifold mounting MS4-LRB
- Module connector MS4-MV1

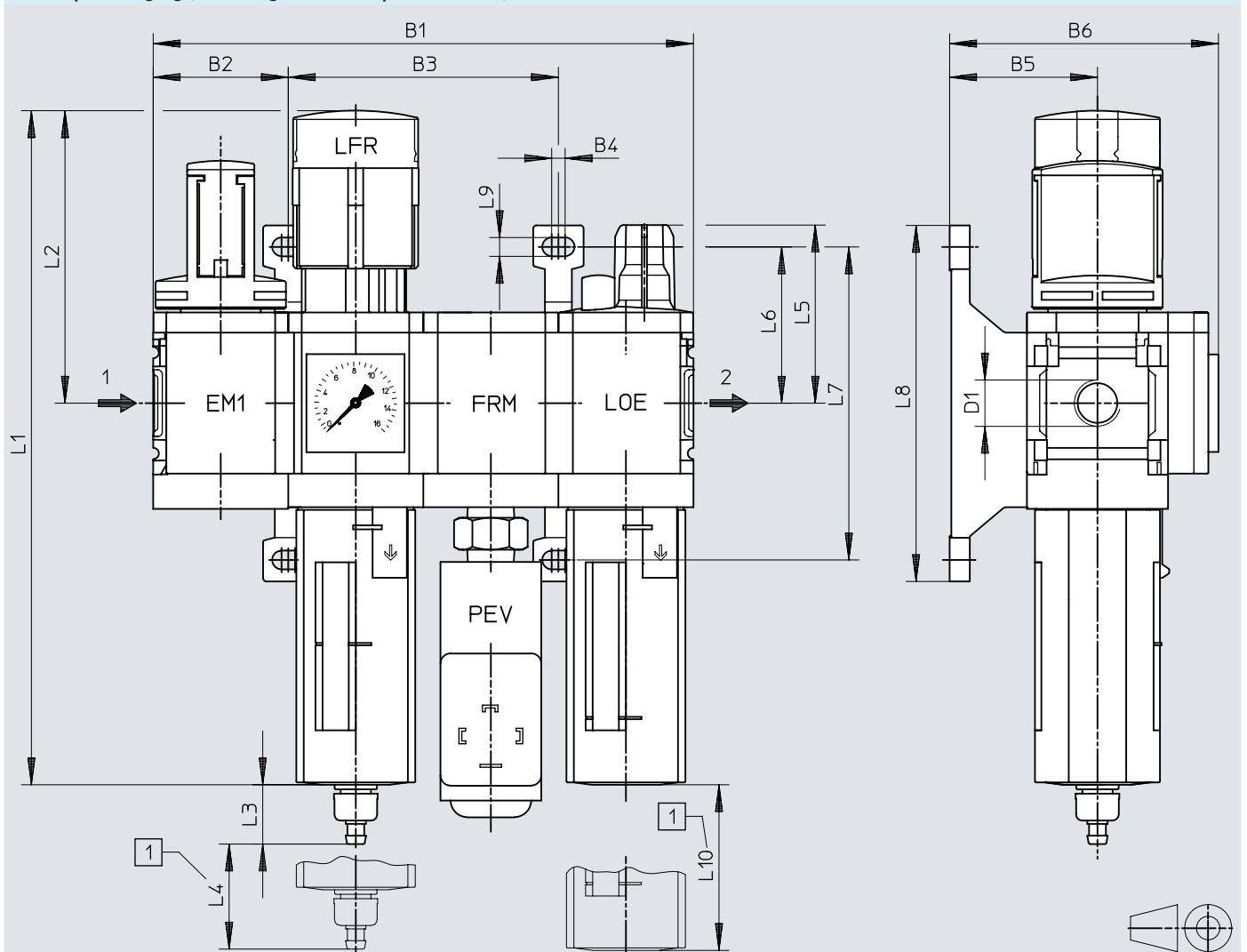
Size	4
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Design	Pressure regulator without pressure gauge
Controller function	Output pressure constant Via primary pressure compensation With secondary venting With return flow function
Type of mounting	Via mounting bracket
Actuator lock	Rotary knob with detent can be closed with accessories
Pressure regulation range	0.3 ... 12 bar
Operating pressure	0.8 ... 14 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Material housing	Die-cast aluminium
LABS (PWS) conformity	VDMA24364-B1/B2-L

1) More information www.festo.com/x/topic/kbk

Dimensions

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

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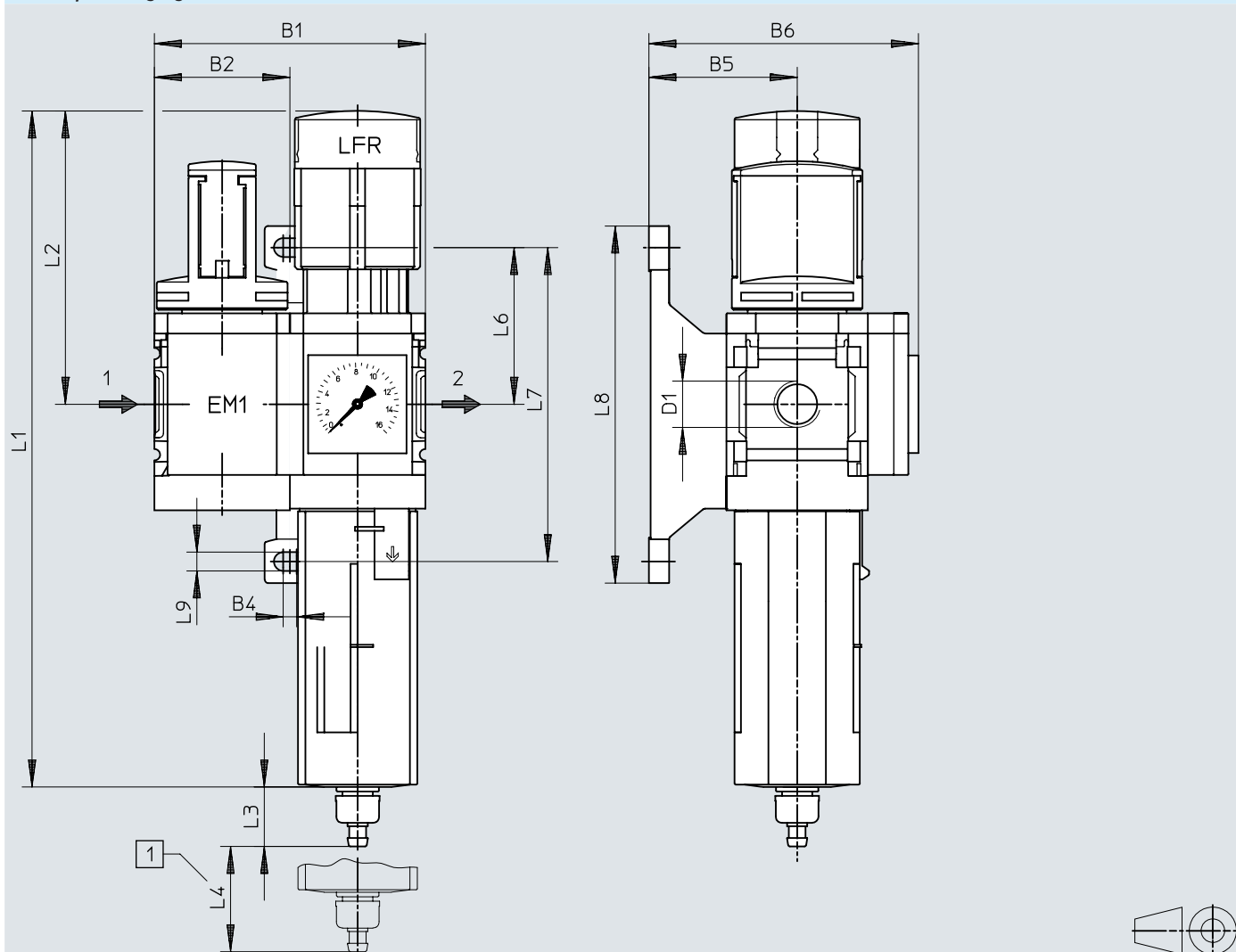
[1] Installation dimension

	B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
MSB4	160,8	40,2	80,4	4	44	80	G1/4	201	87	17,7	25	53	46,5	93,2	106	5,6	80

Dimensions

Dimensions – Combination 2 – Manually operated on/off valve, filter regulator with pressure gauge

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[1] Installation dimension

	B1	B2	B4	B5	B6	D1	L1	L2
MSB4	80,4	40,2	4	44	80	G1/4	201	87

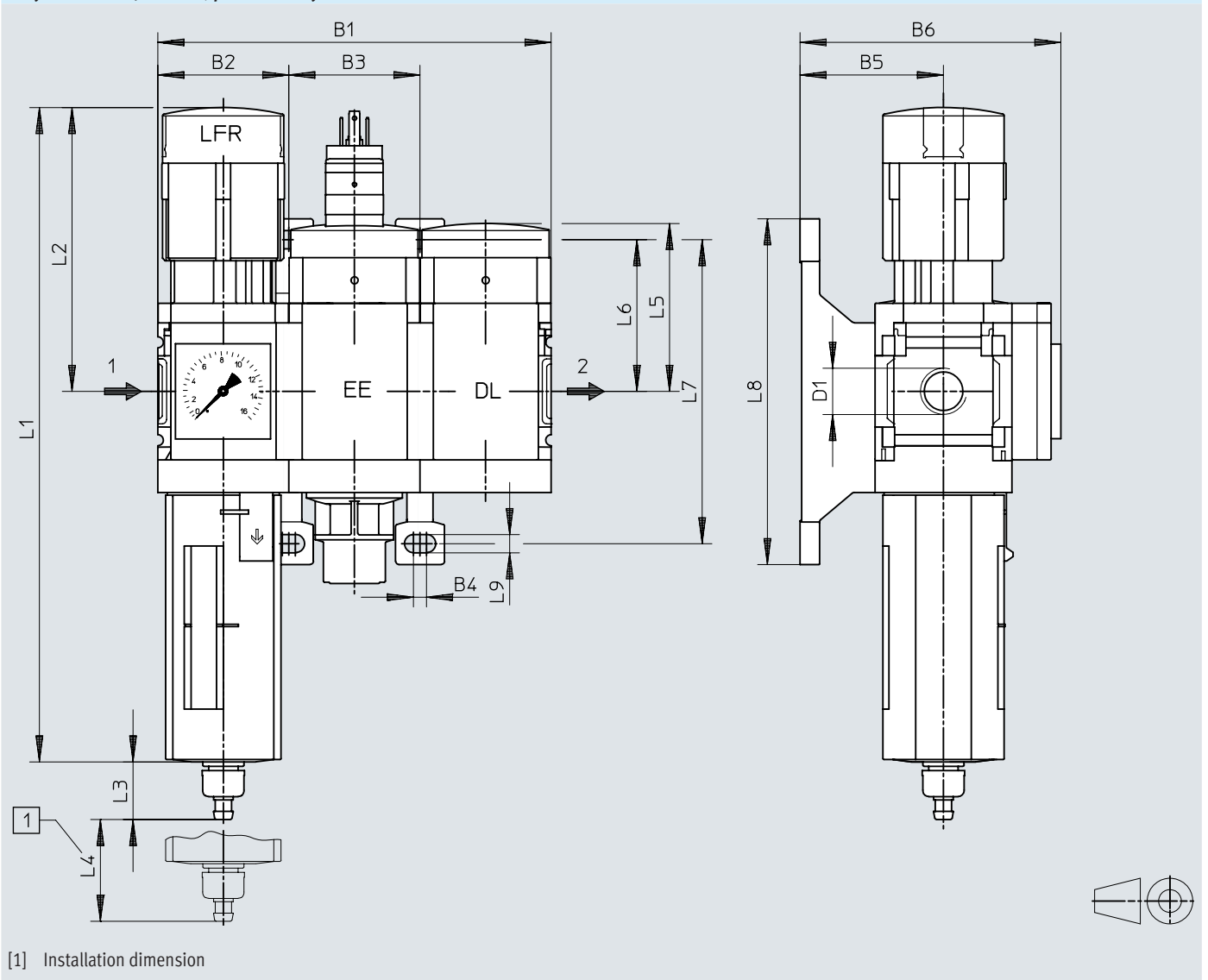
	L3		L4	L6	L7	L8	L9
	1)	2)					
MSB4	17,7	20,4	25	46,5	93,2	106	5,6

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

Dimensions

Dimensions – Combination 3 – Filter regulator with pressure gauge, electrically actuated on/off valve, pneumatically actuated soft-start valve

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	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	120,6	40,2	40,2	4	44	80	G1/4	201	87

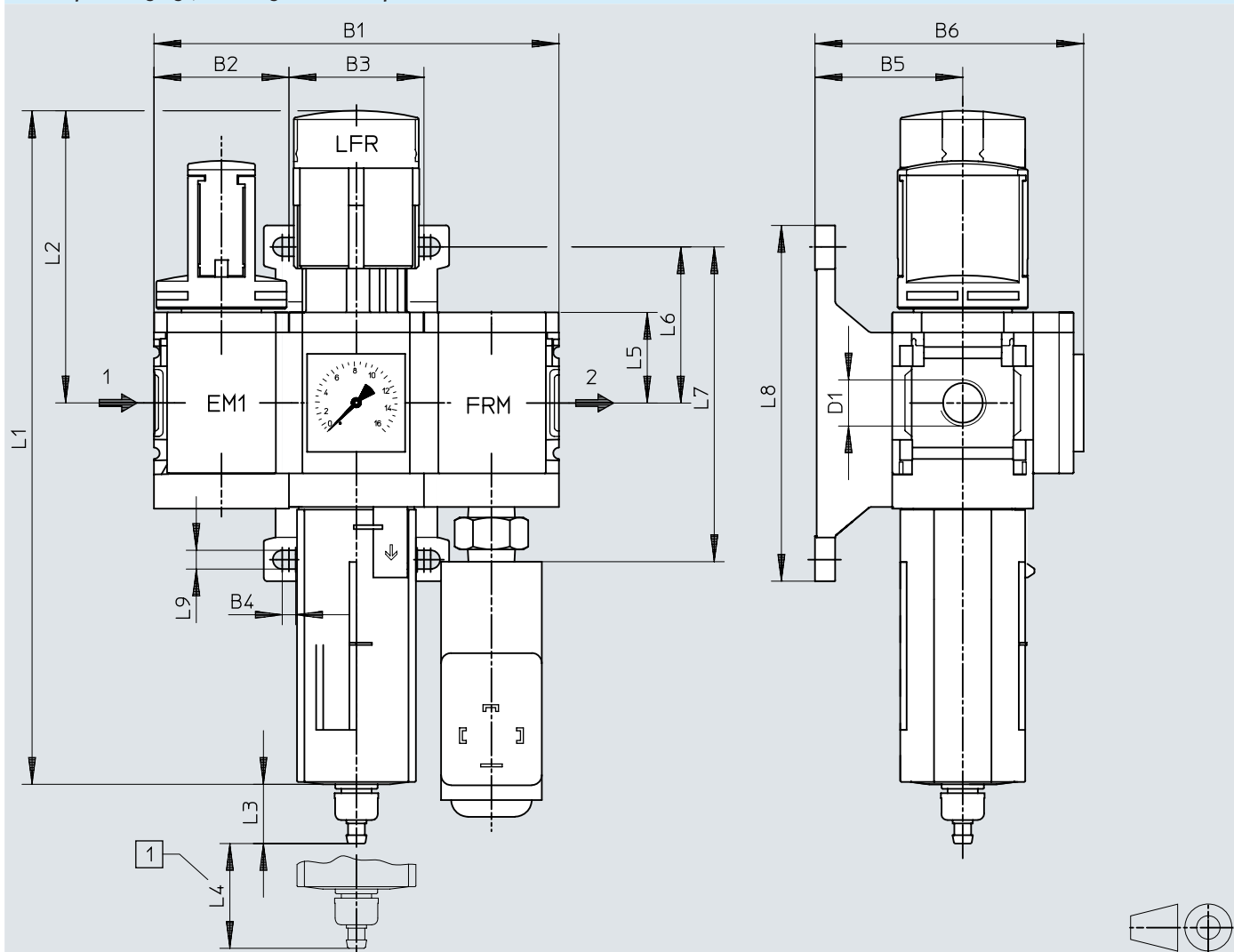
	L3		L4	L5	L6	L7	L8	L9
	1)	2)						
MSB4	17,7	–	25	51,7	46,5	93,2	106	5,6

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

Dimensions

Dimensions – Combination 4 – Manually operated on/off valve, filter regulator with pressure gauge, branching module with pressure switch

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[1] Installation dimension

	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	120,6	40,2	40,2	4	44	80	G1/4	201	87

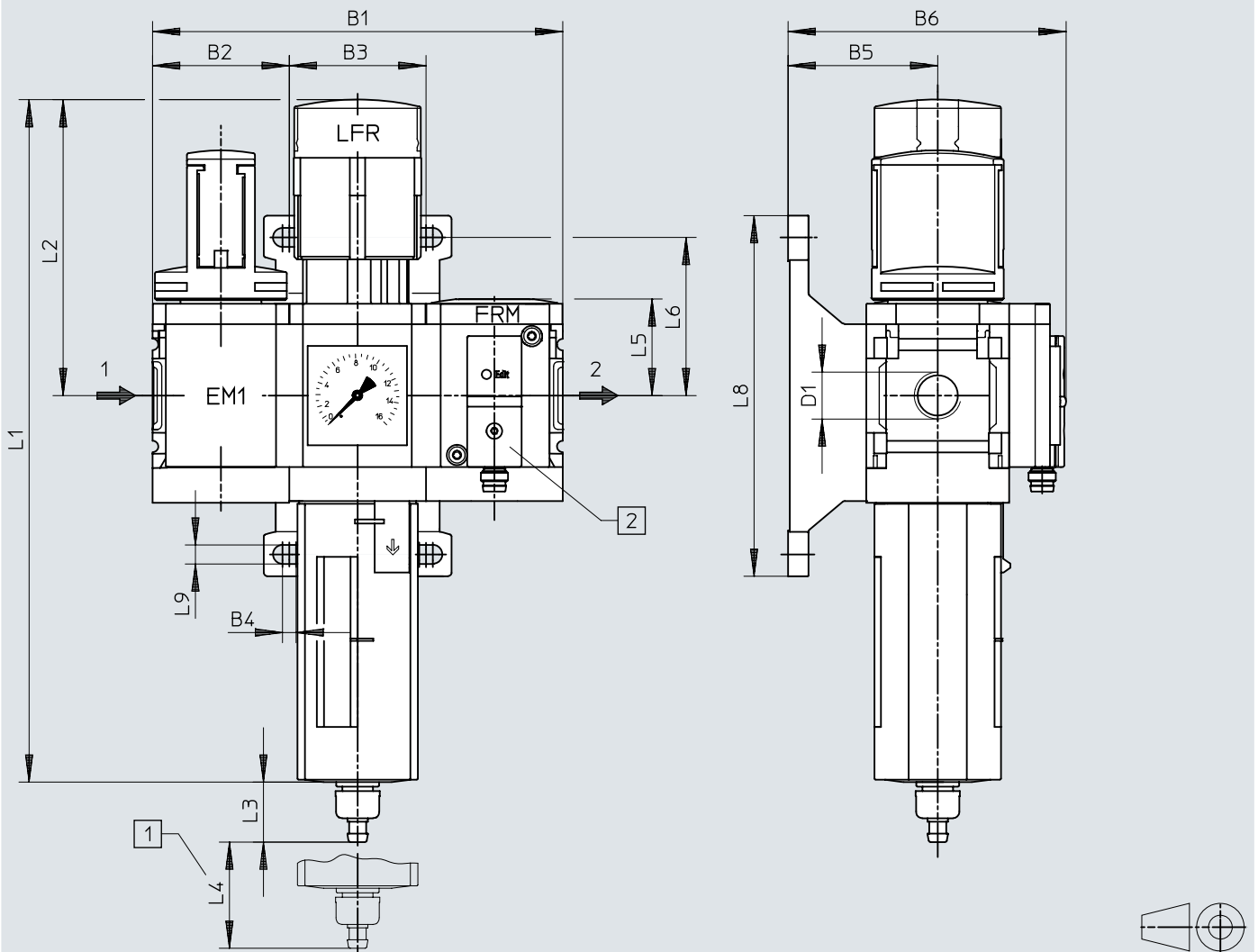
	L3		L4	L5	L6	L7	L8	L9
	1)	2)						
MSB4	17,7	20,4	25	27	46,5	93,2	106	5,6

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

Dimensions

Dimensions – Combination 4 – Manually operated on/off valve, filter regulator with pressure gauge, branching module with pressure sensor

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[1] Installation dimension

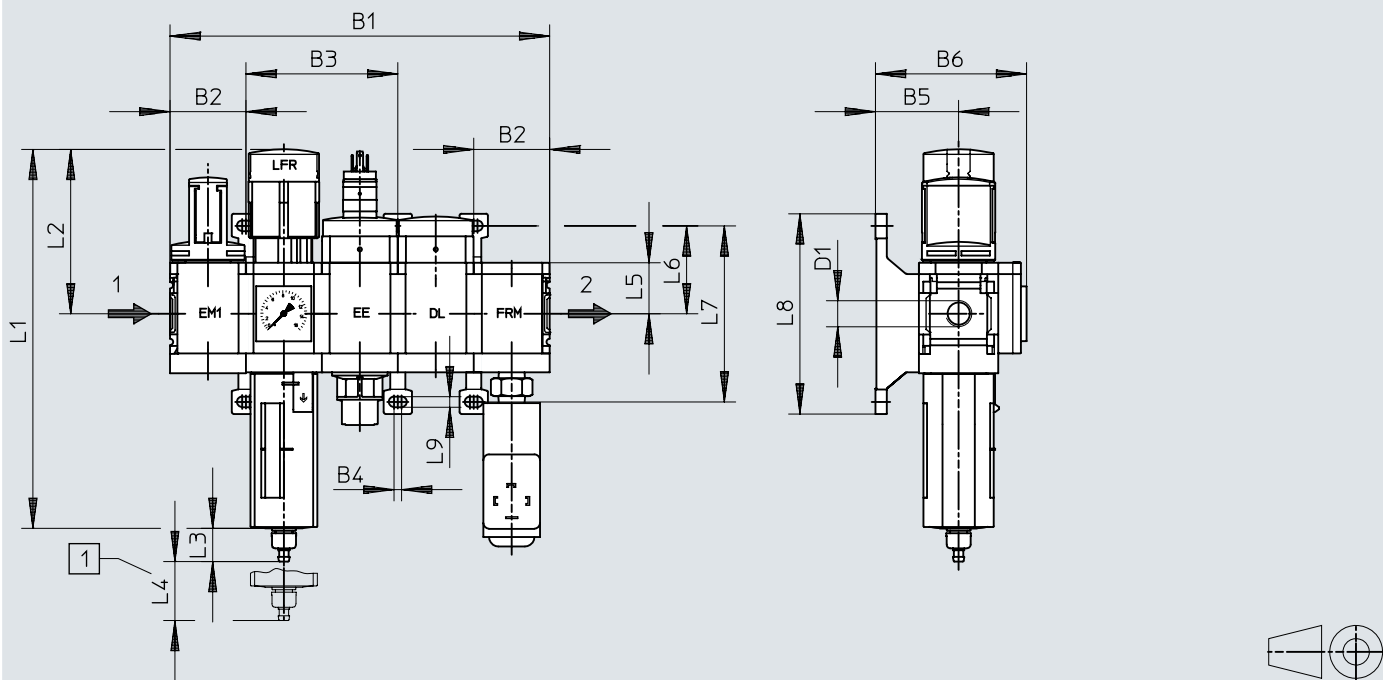
[2] Pressure sensor SDE5-D10-O-...-P-M8 with 3-pin plug M8x1, threshold value comparator, 1 switching output PNP, N/O contact

	B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4	L5	L6	L8	L9
MSB4	120,6	40,2	40,2	4	44	82	G1/4	201	87	17,7	25	29,4	46,5	106	5,6

Dimensions

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

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[1] Installation dimension

	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	201	40,2	80,4	4	44	80	G1/4	201	87

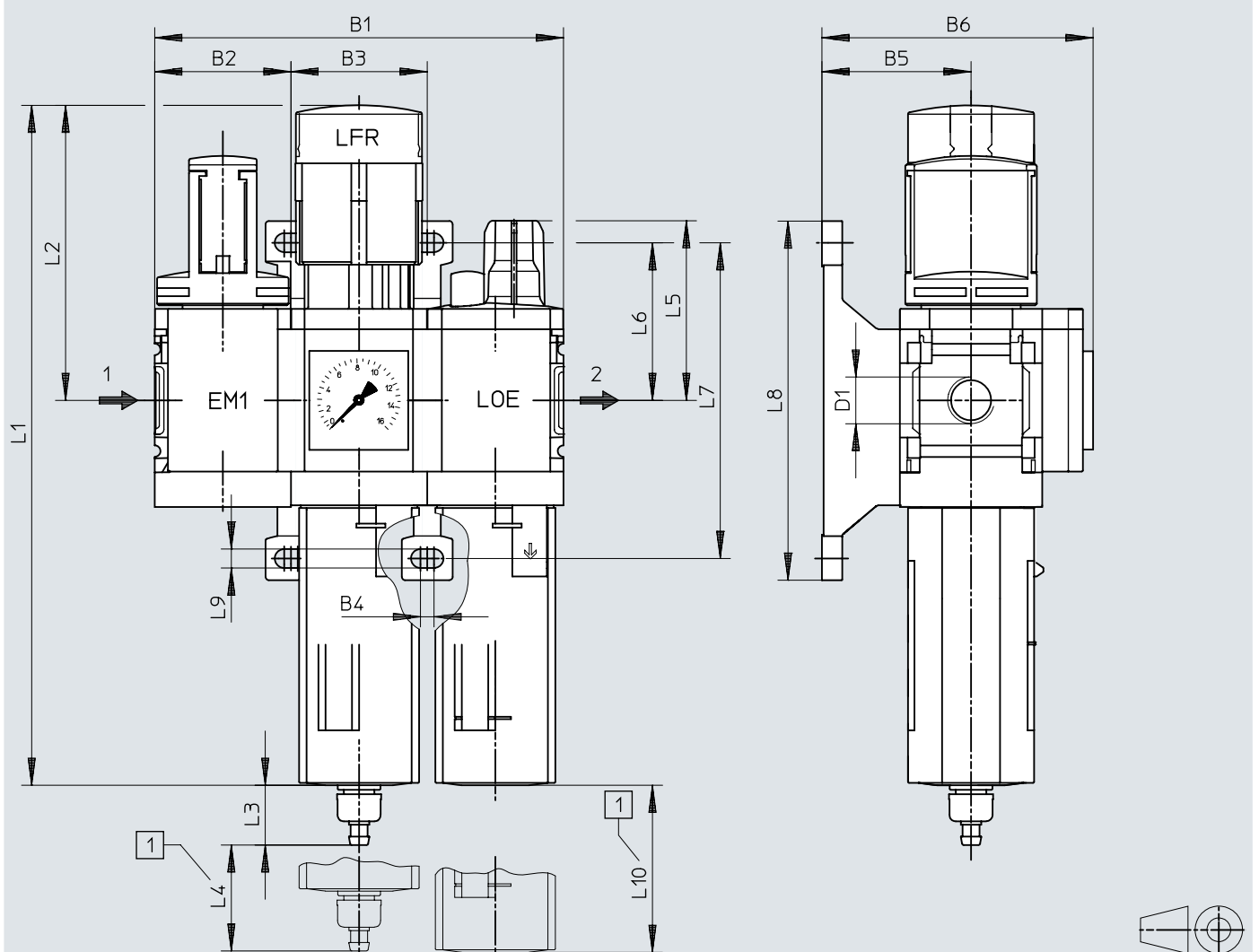
	L3		L4	L5	L6	L7	L8	L9
	1)	2)						
MSB4	17,7	20,4	25	27	46,5	93,2	106	5,6

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

Dimensions

Dimensions – Combination 6 – Manually operated on/off valve, filter regulator with pressure gauge, lubricator

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[1] Installation dimension

	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	120,6	40,2	40,2	4	44	80	G1/4	201	87

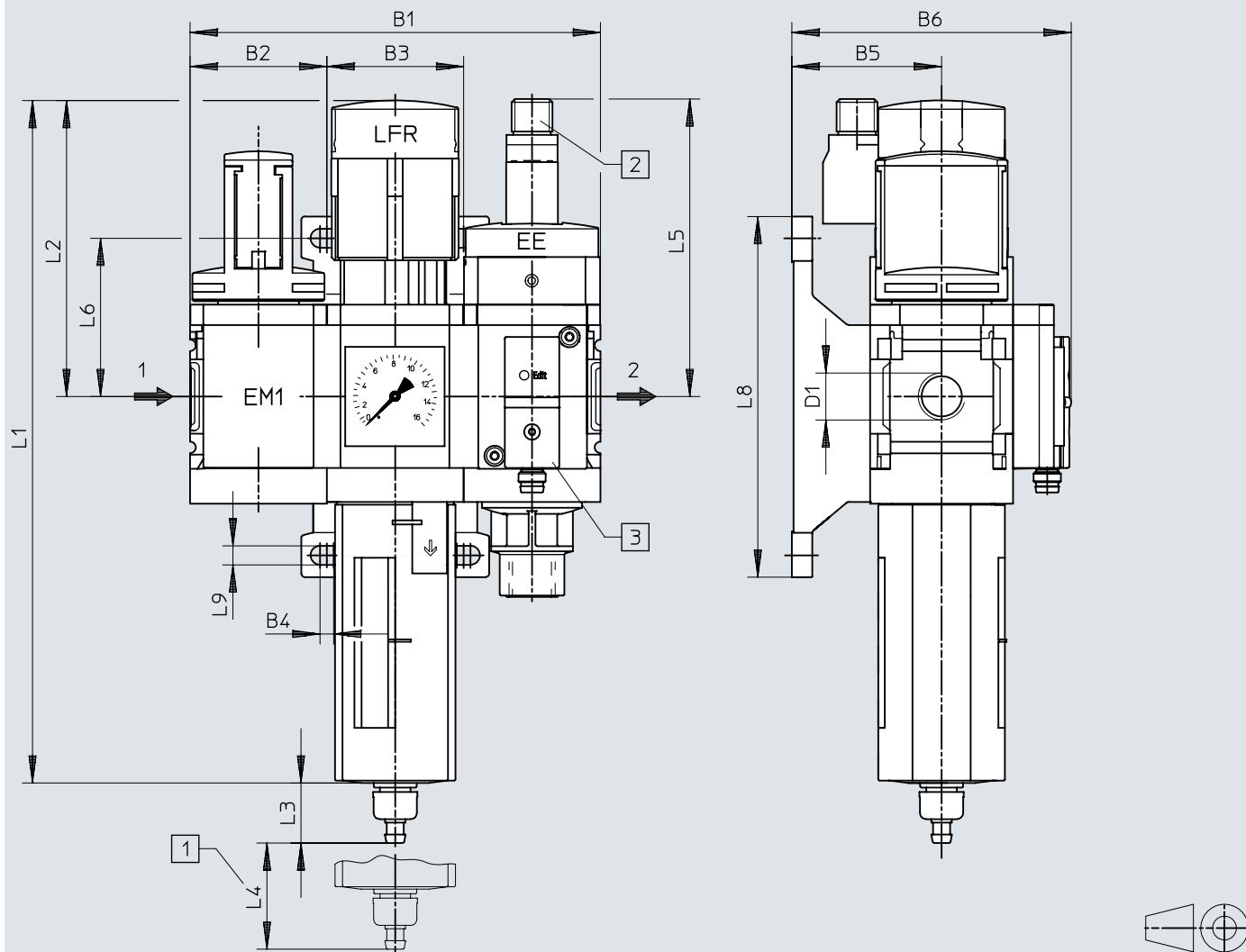
	L3		L4	L5	L6	L7	L8	L9	L10
	1)	2)							
MSB4	17,7	–	25	53	46,5	93,2	106	5,6	80

- 1) Manual 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 with pressure sensor

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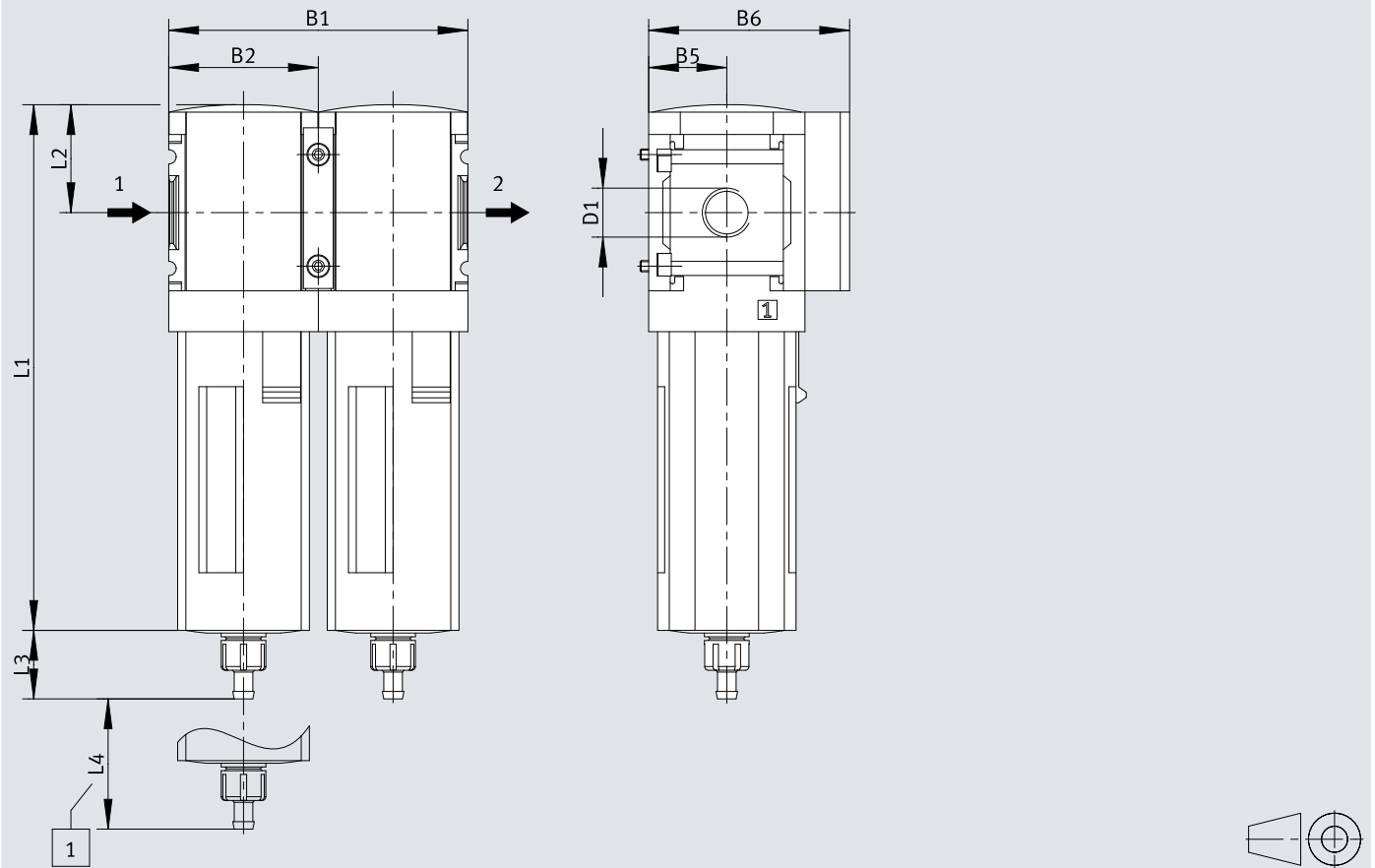


- [1] Installation dimension
- [2] Electrical connection according to IEC 61076-2-101, plug M12x1, 2-pin for NEBA-M12
- [3] Pressure sensor SDE5-D10-O-...-P-M8 with 3-pin plug M8x1, threshold value comparator, 1 switching output PNP, N/O contact

	B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4	L5	L6	L8	L9
MSB4	120,6	40,2	40,2	4	44	82	G1/4	201	87	17,7	25	86,3	46,5	106	5,6

Dimensions

Dimensions – Combination 8 – Fine filter (1 µm), micro filter (0.01 µm)

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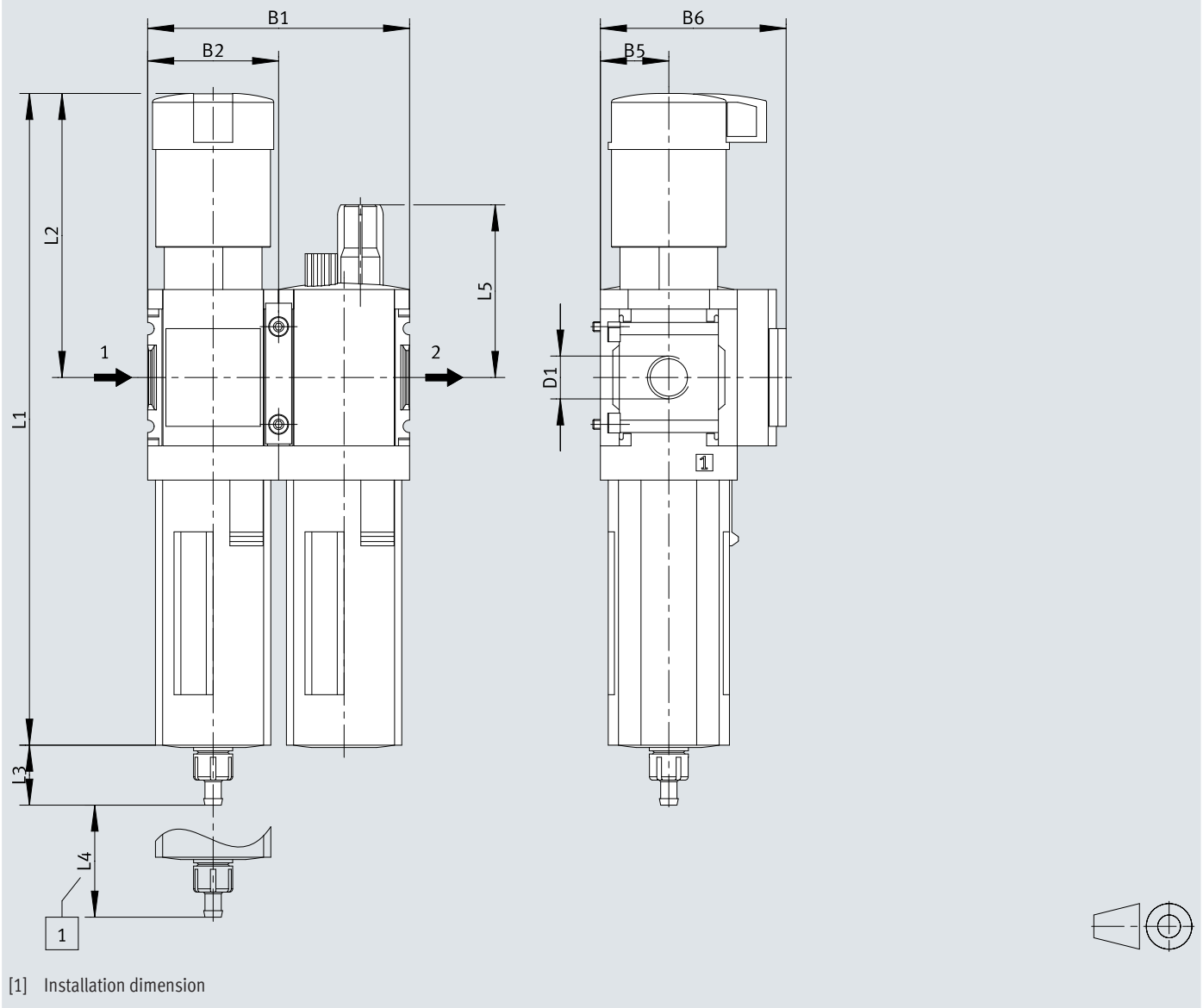
[1] Installation dimension

	B1	B2	B5	B6	D1	L1	L2	L3	L4 min.
MSB4	80,4	40,2	21	54	G1/4	141,6	29	18,4	25

Dimensions

Dimensions – Combination 9 – Filter regulator with pressure gauge, lubricator

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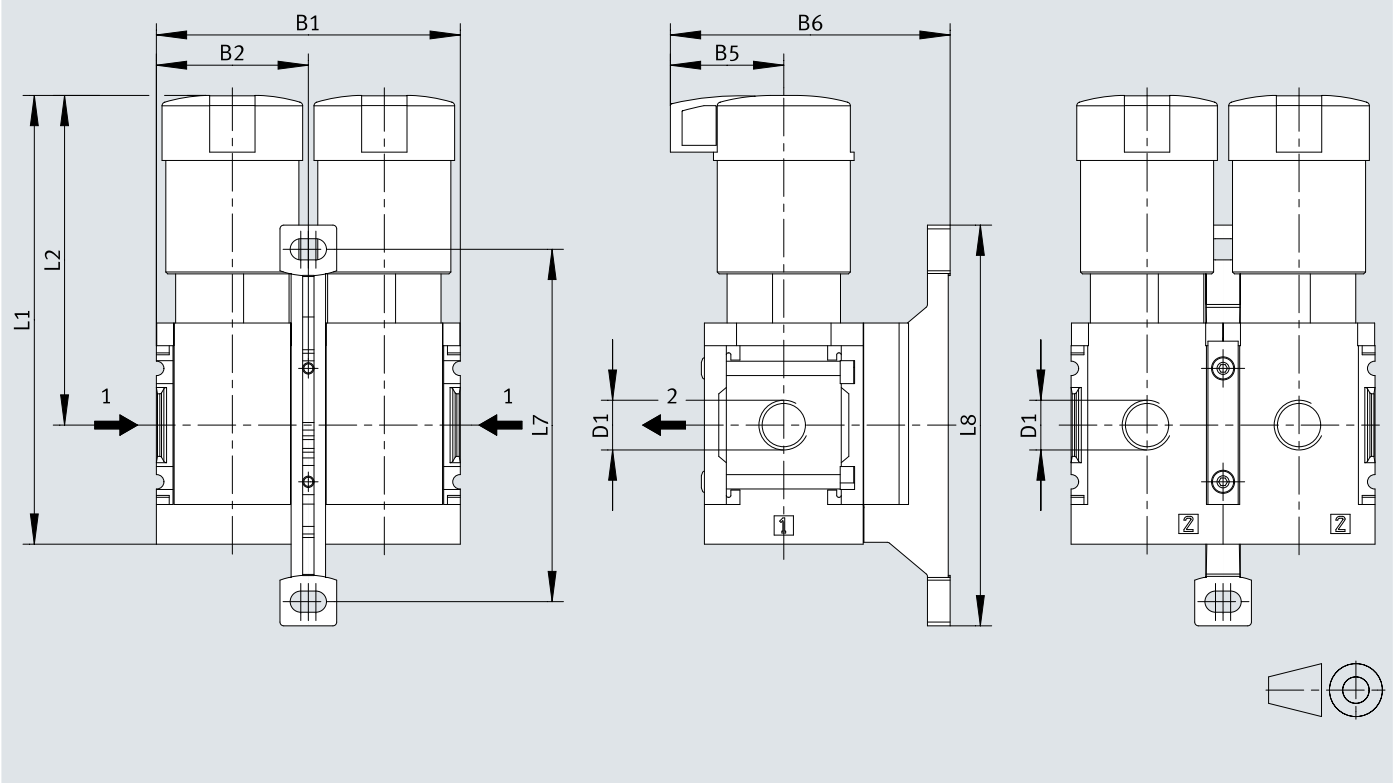


	B1	B2	B5	B6	D1	L1	L2	L3	L4 min.	L5
MSB4	80,4	40,2	21	57	G1/4	200,1	87,2	18,4	25	53

Dimensions

Dimensions – Combination 10 – Pressure regulators for manifold assembly

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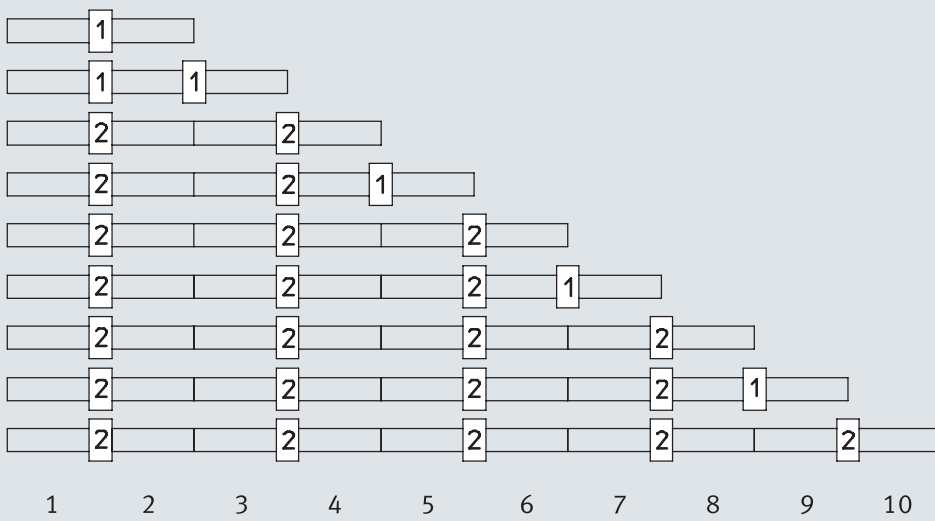
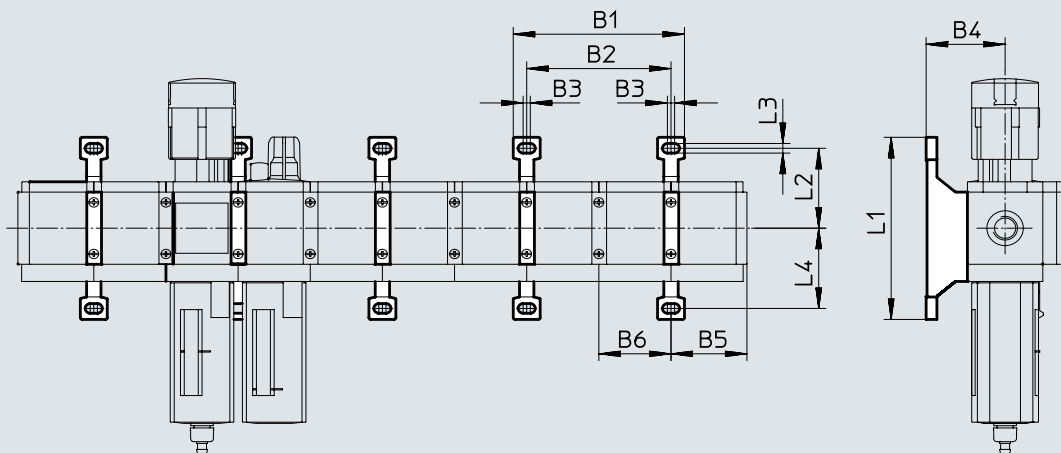


	B1	B2	B5	B6	D1	L1	L2	L7	L8
MSB4	80,4	40,2	30	74	G1/4	118,7	87,2	93,2	106

Dimensions

Dimensions –

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Positioning of the mounting brackets:


- [1] Mounting bracket WP, WPB, WPE or WPM-D
- [2] Mounting bracket WP, WPB, WPE or WPM-2D
- [3] Number of components


	B1 ¹⁾	B2 ¹⁾	B3	B4	B5 ¹⁾²⁾	B6 ¹⁾	L1	L2	L3	L4
MS4-WP	95,4	80,4	4	44	41,9	40,2	106	46,5	5,6	46,7
MS4-WPB/WPE				66						45,2
MS4-WPM-...D				44						45,2

Ordering data

Ordering data – Combination 1							
	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/4	1 ... 12 bar	Manually rotating	40 µm	1,700 g	542295	MSB4-1/4:C3J1F3M1-WP


Ordering data – Combination 2							
	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/8	0.5 ... 12 bar	Fully automatic	40 µm	510 g	8233014	MSB4-1/8:C3J2-WP
	G1/4	0.5 ... 7 bar	Manually rotating		5 µm 40 µm	1,300 g	8042668
		0.5 ... 12 bar	Fully automatic	5 µm		542310	MSB4-1/4:C3J4-WP
			Fully automatic	40 µm		542298	MSB4-1/4:C3J2-WP
		Manually rotating	5 µm	542304		MSB4-1/4:C3J3-WP	
	Manually rotating	40 µm	8025354	MSB4-1/4:C3J1-WP			

Ordering data – Combination 3							
	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/4	4 ... 12 bar	Manually rotating	40 µm	1,600 g	531101	MSB4-1/4:J1D1A1-WP


Ordering data – Combination 4							
	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/4	0.5 ... 7 bar	Manually rotating	40 µm	1,500 g	8042667	MSB4-1/4:C3J120:F12-WP

Ordering data


Ordering data – Combination 4

	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type	
	G1/4	0.5 ... 10 bar	Manually rotating	40 µm	1,500 g	8025356	MSB4-1/4:C3:J1:F12-WP	
			Fully automatic			542300	MSB4-1/4:C3:J2F3-WP	
				Manually rotating		710 g	8233005	MSB4-1/4:C3:J1:F1-WP
						1,500 g	542294	MSB4-1/4:C3:J1F3-WP


Ordering data – Combination 5

	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type	
	G1/8	4 ... 12 bar	Manually rotating	40 µm	1,500 g	8233012	MSB4-1/8:C3:J1:D1:A1:F3-WP	
	G1/4		Fully automatic			2,000 g	542299	MSB4-1/4:C3:J2D1A1F3-WP
			Manually rotating			542293	MSB4-1/4:C3:J1D1A1F3-WP	

Ordering data – Combination 6


	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/4	1 ... 12 bar	Manually rotating	40 µm	1,500 g	542296	MSB4-1/4:C3:J1M1-WP

Ordering data – Combination 7


	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/4	4 ... 7 bar	Manually rotating	40 µm	1,600 g	8042666	MSB4-1/4:C3:J120:D14-WP

Ordering data


Ordering data – Combination 7

	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/4	4 ... 10 bar	Manually rotating	40 µm	1,600 g	8025358	MSB4-1/4:C3:J1:D14-WP


Ordering data – Combination 8

	Pneumatic connection, port 1	Design	Condensate drain	Bowl guard	Product weight	Part no.	Type
	G1/4	Fibre filter	Manually rotating	Plastic bowl guard	400 g	8233006	MSB4-1/4:I1:I3


Ordering data – Combination 9

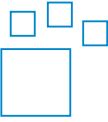
	Pneumatic connection, port 1	Pressure regulation range	Condensate drain	Grade of filtration	Product weight	Part no.	Type
	G1/8	1 ... 7 bar	Manually rotating	5 µm	690 g	8233018	MSB4-AGA:J124:M1-WP
				40 µm	490 g	8233016	MSB4-1/8:J5:M1
		1 ... 12 bar	Fully automatic		490 g	8233017	MSB4-AGA:J120:M1-WP
					490 g	8233015	MSB4-1/8:J2:M1
	G1/4	1.5 ... 14 bar	Manually rotating	5 µm	480 g	8233008	MSB4-1/4:J120:M1-WP
		2 ... 12 bar	Fully automatic		490 g	8233009	MSB4-1/4:J4:M1
	G3/8	1 ... 7 bar	Manually rotating	40 µm	650 g	8233021	MSB4-AGC:J5:M1
					690 g	8233019	MSB4-AGC:J120:M1-WP

Ordering data – Combination 10

	Pneumatic connection, port 1	Pressure regulation range	Design	Product weight	Part no.	Type
	G1/4	0.3 ... 7 bar	Pressure regulator without pressure gauge	490 g	8233010	MSB4-1/4:O2:O2-WP-Z

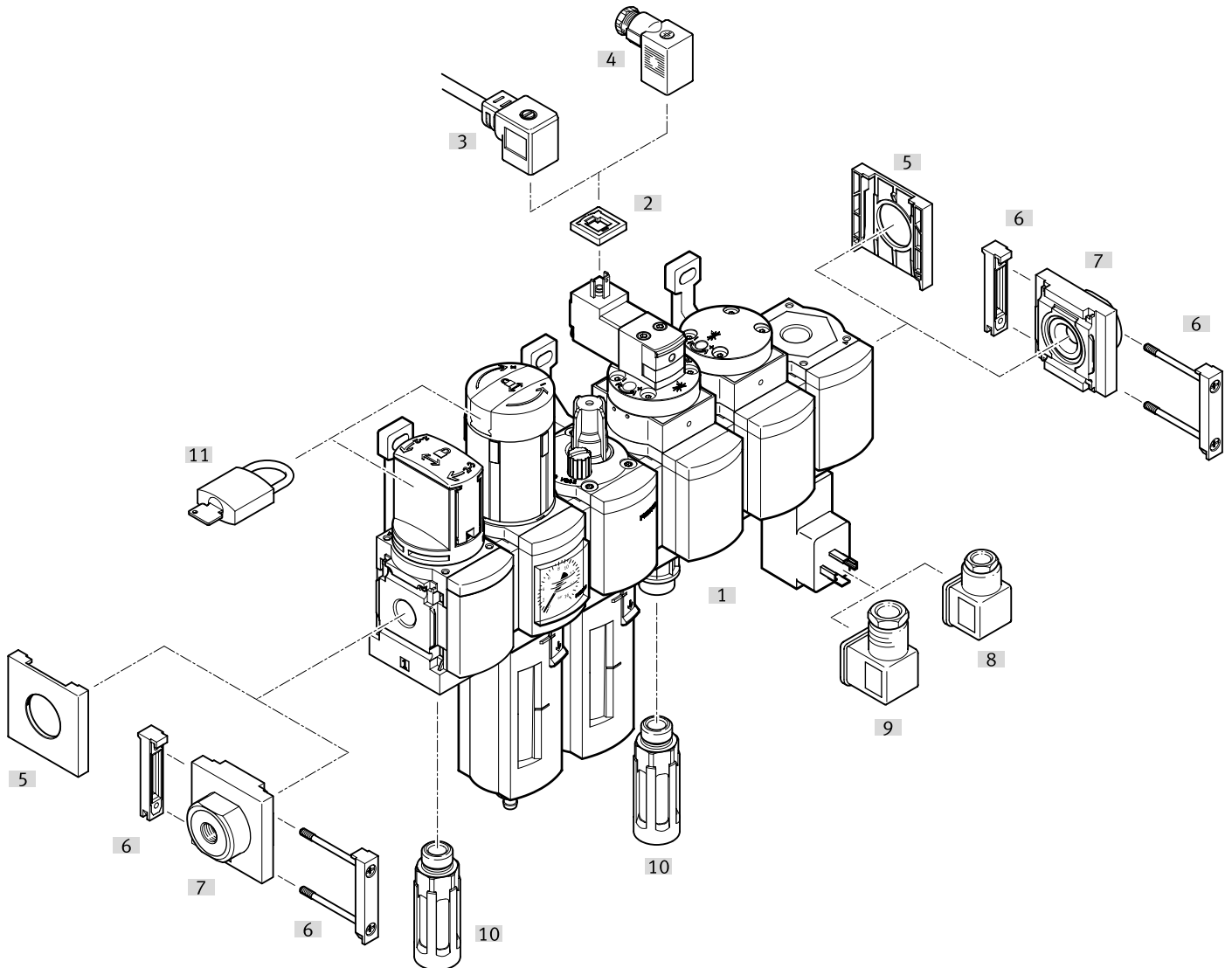
Ordering data

Ordering data – Combination 10						
	Pneumatic connection, port 1	Pressure regulation range	Design	Product weight	Part no.	Type
	G1/4	0.5 ... 12 bar	Pressure regulator without pressure gauge	490 g	8233011	MSB4-1/4:03:03-WP-Z

Ordering information – Modular product system			
	Short type code	Part no.	Type
	MSB4	531029	MSB4


Peripherals


Peripherals overview





Accessories		→ Link
Type/order code	Description	
[1]	Service unit combination MSB4	msb4
[2]	Illuminating seal MEB-LD	39
[3]	Plug socket with cable KMEB	39
[4]	Plug socket MSSD-EB	39
[5]	Cover cap MS4-END	38
[6]	Module connector MS4-MV1	38
[7]	Connecting plate SET MS4-AG...	Order code [AG...] 38
[8]	Plug socket MSSD-C-4P	39
[9]	Angled plug socket PEV-1/4-WD-LED	38
[10]	Silencer	38
[11]	Padlock LRVS-D	40
[12]	Mounting bracket MS4-WP...	Order code [WP...] (not shown) 40


Accessories

Cover cap MS4-END			
	Size	Part no.	Type
	4	538779	MS4-END

Connecting plate-SET MS4-AG...				
	Size	Pneumatic connection, port 1	Part no.	Type
	4	G1/8	526068	MS4-AGA
			541549	MS4-AGA-EX
		G1/4	526069	MS4-AGB
			541550	MS4-AGB-EX
		G3/8	526070	MS4-AGC
			541551	MS4-AGC-EX


Module connector MS4-MV1				
	Size	Product weight	Part no.	Type
	4	13 g	8119201	MS4-MV1

Silencer U				
	Pneumatic connection	Sound pressure level	Part no.	Type
	G1/4	76 dB(A)	2316	U-1/4
		80 dB(A)	6842	U-1/4-B
		83 dB(A)	1205861	AMTE-M-LH-G14


Angled plug socket PEV-1/4-WD-LED- ...						
	Electrical connection 1, used connections/cores	Switching status indication	Operational voltage range AC	Operational voltage range DC	Part no.	Type
	4	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

Accessories


Plug socket MSSD-C-4P

	Electrical connection	Cable fitting	Cable diameter	Product weight	Part no.	Type
	3-pin, Angled socket, Type A, To DIN EN 175301-803, Square design MSC, Square design MSN1	Pg 9	6 ... 8 mm	22 g	171157	MSSD-C-4P


Plug socket with cable KMEB 230V AC

	Nominal operating voltage AC	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	230 V	3	2.5 m	151690	KMEB-1-230AC-2.5
			5 m	151691	KMEB-1-230AC-5


Plug socket with cable KMEB 24V DC

	Nominal operating voltage DC	Electrical connection 2, number of connections/cores	Signal status display	Cable length	Part no.	Type
	24 V	2	Yellow LED	2.5 m	547270	KMEB-3-24-2.5
				5 m	547271	KMEB-3-24-5
				2.5 m	547268	KMEB-3-24-2.5-LED
				5 m	547269	KMEB-3-24-5-LED
		3	2.5 m	151688	KMEB-1-24-2.5-LED	
			5 m	151689	KMEB-1-24-5-LED	
			5 m	193457	KMEB-1-24-10-LED	
			10 m	193457	KMEB-1-24-10-LED	


Plug socket MSSD-EB

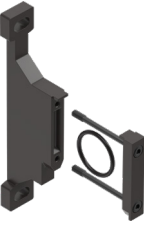
	Electrical connection	Cable fitting	Part no.	Type
	3-pin, Socket, Angled socket, Type C, To DIN EN 175301-803, To DIN EN 61984, Square design MSEB, Square design MSN2	M12x1.5	570367	MSSD-EB-M12-24VDC-SD-EX
		Pg7	539712	MSSD-EB-M12
			151687	MSSD-EB

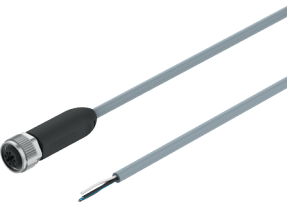
Illuminating seal MEB-LD

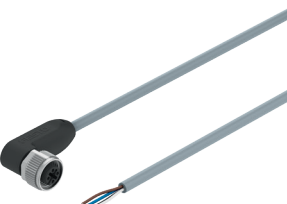
	Operational voltage range DC	Nominal operating voltage AC	Part no.	Type
		230 V	151718	MEB-LD-230AC
	12 ... 24 V		151717	MEB-LD-12-24DC

Accessories


Padlock LRVS-D				
	Short type code	Product weight	Part no.	Type
	LRVS-D	120 g	193786	LRVS-D


Mounting bracket MS4-WP...				
	Size	Product weight	Part no.	Type
	4	39 g	541554	MS4-WP-EX
			532184	MS4-WP
		45 g	526060	MS4-WPM-D
			526063	MS4-WPB
			541552	MS4-WPB-EX
				526061


Connecting cables NEBA, straight						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M8x1, A-coded, to EN 61076-2-104	Open end	3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3


Connecting cables NEBA, angled						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M8x1, A-coded, to EN 61076-2-104	Open end	3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3


Accessories

Filter cartridge MS-LFP						
	Size	Grade of filtration	Material filter	LABS (PWIS) conformity	Part no.	Type
	4	5 µm	PE	VDMA24364-B1/ B2-L	534501	MS4-LFP-C
		40 µm			534502	MS4-LFP-E

Special oil OPSW-32 (1 litre)			
	Short type code	Part no.	Type
	OFSW	152811	OFSW-32

Blanking plug						
	Pneumatic connection, port 1	Type of mounting	Material blanking plug	Size of pack	Part no.	Type
	Male thread G1/4	Internal hexagon, size 6 mm	Galvanised steel	10	3569	B-1/4

Push-in fitting						
	Design	Nominal size	Pneumatic connection, port 1	Size of pack	Part no.	Type
	Straight shape	8.5 mm	Male thread G1/4	10	186350	QS-G1/4-12
	L-shape	8 mm			186351	QSL-G1/4-12

Tubing PUN-H						
	Outside diameter	Colour	Material tubing	Packaging unit [m] ¹⁾	Part no.	Type
	10 mm	Blue	TPE-U(PU)	Standard	197386	PUN-H-10X1,5-BL
		Natural			197379	PUN-H-10X1,5-NT
		Black			197393	PUN-H-10X1,5-SW
		Translucent blue			8048701	PUN-H-10X1,5-TBL
	12 mm	Blue			197387	PUN-H-12X2-BL
		Natural			197380	PUN-H-12X2-NT
		Black			197394	PUN-H-12X2-SW
		Translucent blue			8048711	PUN-H-12X2-TBL

1) Standard: 50 m