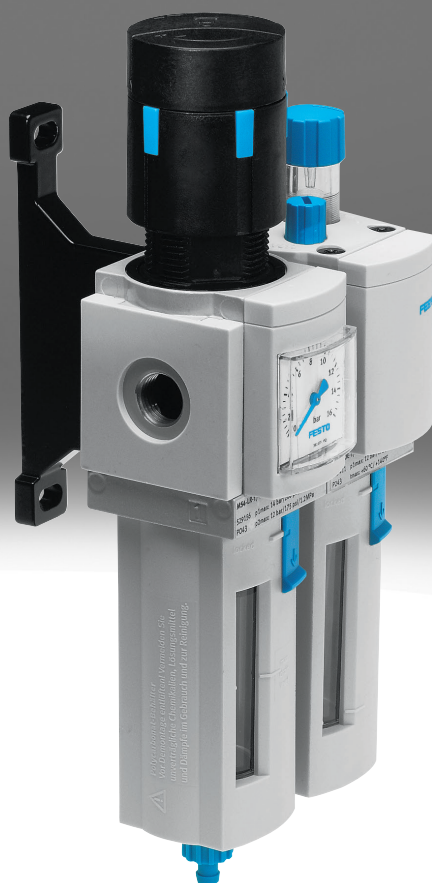


Service unit combination MSB4-FRC

FESTO



Characteristics

At a glance

Combination of filter regulator and lubricator.

- Grid dimension: 40 mm
- High flow rate and extremely efficient in removing contaminants
- Good regulation characteristics with minimal pressure hysteresis
- Setting values are secured by locking the rotary knob
- Lockable rotary knob
- Two pressure regulation ranges: 0.5...7 bar and 0.5...12 bar
- Optionally with manual or fully automatic condensate drain
- Choice of filter inserts 5 µm or 40 µm
- Available with flow in the opposite direction.
- Product complies with ISO 1179-1 and ISO 228-1

Product segmentation



Festo Core Range

Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery. the Core Range offers you the best value with the expected high Festo quality.

- Quickest delivery, worldwide – wherever, whenever
- Expected high Festo quality
- Easy and fast to select


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.

Diagrams

[Link](#)  [msb4-frc](#)



The diagrams shown in this document are also available online. These can be used to display precise values.

Type code

001	Series	
MSB	Service unit component MS series	
002	Size	
4	Grid dimension 40 mm	
003	Pneumatic connection	
1/8	Female thread G1/8	
1/4	Female thread G1/4	
004	Function	
FRC	Service unit combination	
005	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

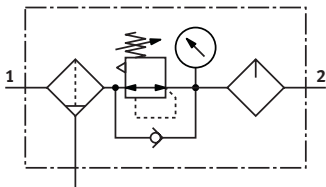
006	Service unit component equipment	
J1	Filter regulator, 0.5 ... 12 bar, 40 µm, plastic bowl with plastic bowl guard, manual condensate drain, lockable rotary knob	
J2	Filter regulator, 0.5 ... 12 bar, 40 µm, plastic bowl with plastic bowl guard, fully automatic condensate drain, lockable rotary knob	
J3	Filter regulator, 0.5 ... 12 bar, 5 µm, plastic bowl with plastic bowl guard, manual condensate drain, lockable rotary knob	
J5	Filter regulator, 0.3 ... 7 bar, 40 µm, plastic bowl with plastic bowl guard, manual condensate drain, lockable rotary knob	
J120	Filter regulator, lockable, 0.3 ... 7 bar, 40 µm, plastic bowl with plastic bowl guard, manual condensate drain, MPa, lockable rotary knob	
M1	Lubricator, plastic bowl with plastic bowl guard	

Datasheet

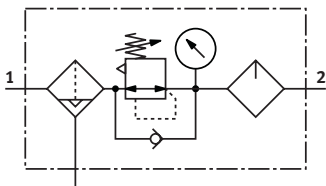
General technical data

Grade of filtration	5	40
Pneumatic connection, port 1	G1/4	G1/8, G1/4
Pneumatic connection, port 2	G1/4	G1/8, G1/4
Design	Filter regulator with pressure gauge, Proportional 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 [6:4:-]	Compressed air to ISO 8573-1:2010 [7:4:-]
Bowl guard	Plastic bowl guard	
Condensate drain	Manually rotating	Fully automatic Manually rotating
Actuator lock	Rotary knob with detent can be closed with accessories	
Pressure regulation range	0.5 ... 12 bar	0.3 ... 12 bar
Pressure gauge (ANALOG) or Pressure display (DIGITAL)	With pressure gauge	

Function (with manual condensate drain)



Function (with fully automatic condensate drain)



Standard nominal flow rate (measured at p1 = 10 bar, p2 = 6 bar and Δp = 1 bar)

Pneumatic connection, port 1	G1/8	G1/4	
Grade of filtration	40 μm	5 μm	40 μm
Pressure regulation range	0.5 ... 12 bar	0.3 ... 7 bar	0.5 ... 7 bar
Standard nominal flow rate (standardised to DIN 1343) ¹⁾	850 l/min	900 l/min	1,400 l/min

¹⁾ 125 l/min must be available for the fully automatic condensate drain to close correctly.

Datasheet

Operating and environmental conditions

Condensate drain	Fully automatic	Manually rotating		
Pressure regulation range	0.5 ... 12 bar		0.3 ... 7 bar	0.5 ... 7 bar
Grade of filtration	40 µm	5 µm	40 µm	
Operating pressure	1.5 ... 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		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

1) Further information www.festo.com/x/topic/crc

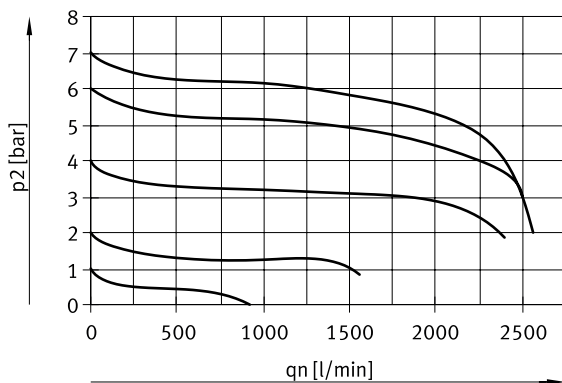
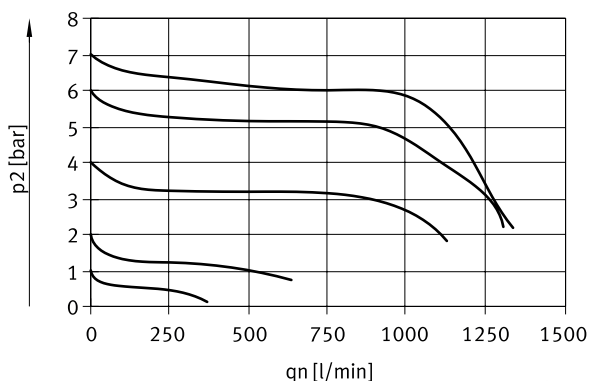
2) Further information: www.festo.com/catalogue/msb4-frc → Support/Downloads.

Weight

Product weight	500 g
----------------	-------

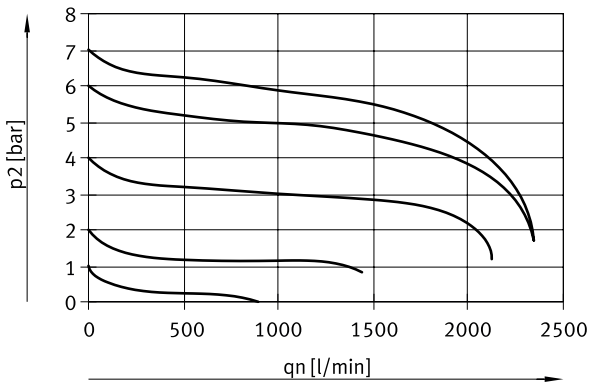
Materials

Material housing	Die-cast aluminium
Material bowl	PC
LABS (PWIS) conformity	VDMA24364-B1/B2-L

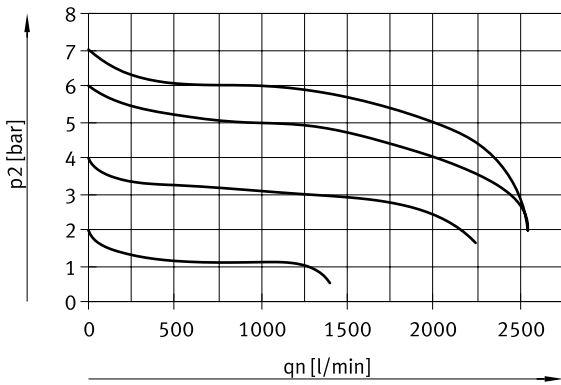
Standard flow rate q_n as a function of output pressure p_2 (MSB4-1/8; pressure regulation range 0.3 ... 7 bar; grade of filtration 40 µm)Standard flow rate q_n as a function of output pressure p_2 (MSB4-1/8; pressure regulation range 0.5 ... 12 bar; grade of filtration 40 µm)

Datasheet

Standard flow rate q_n as a function of output pressure p_2 (MSB4-1/4; pressure regulation range 0.5 ... 12 bar; grade of filtration 5 μm)



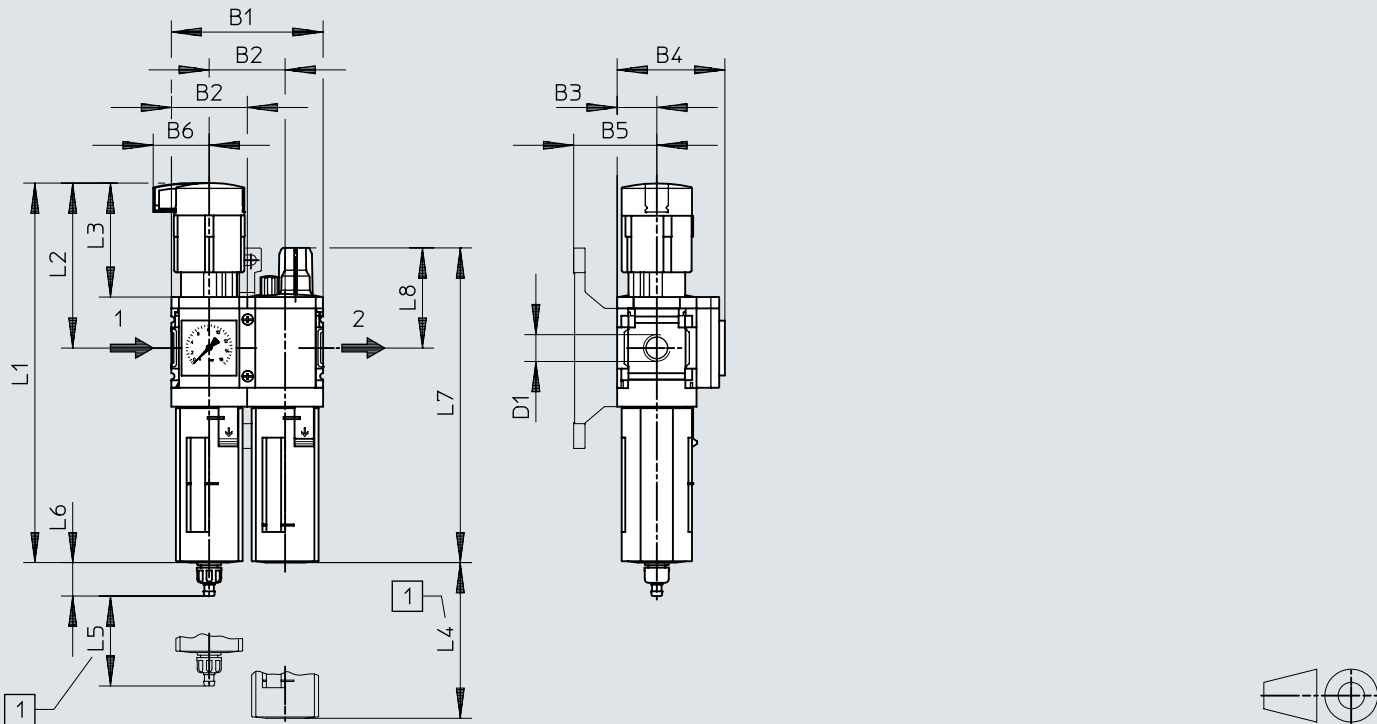
Standard flow rate q_n as a function of output pressure p_2 (MSB4-1/4; pressure regulation range 0.5 ... 12 bar; grade of filtration 40 μm)



Dimensions

Dimensions – with pressure gauge, display unit [bar]

Download CAD data www.festo.com




[1] Installation dimension

	B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4	L5	L6		L7	L8
													1)	2)		
MSB4-1/8	80,4	40,2	21	57	44	29,7	G1/8	201	87	60	80	25	17,7	20,4	167	53
MSB4-1/4							G1/4									

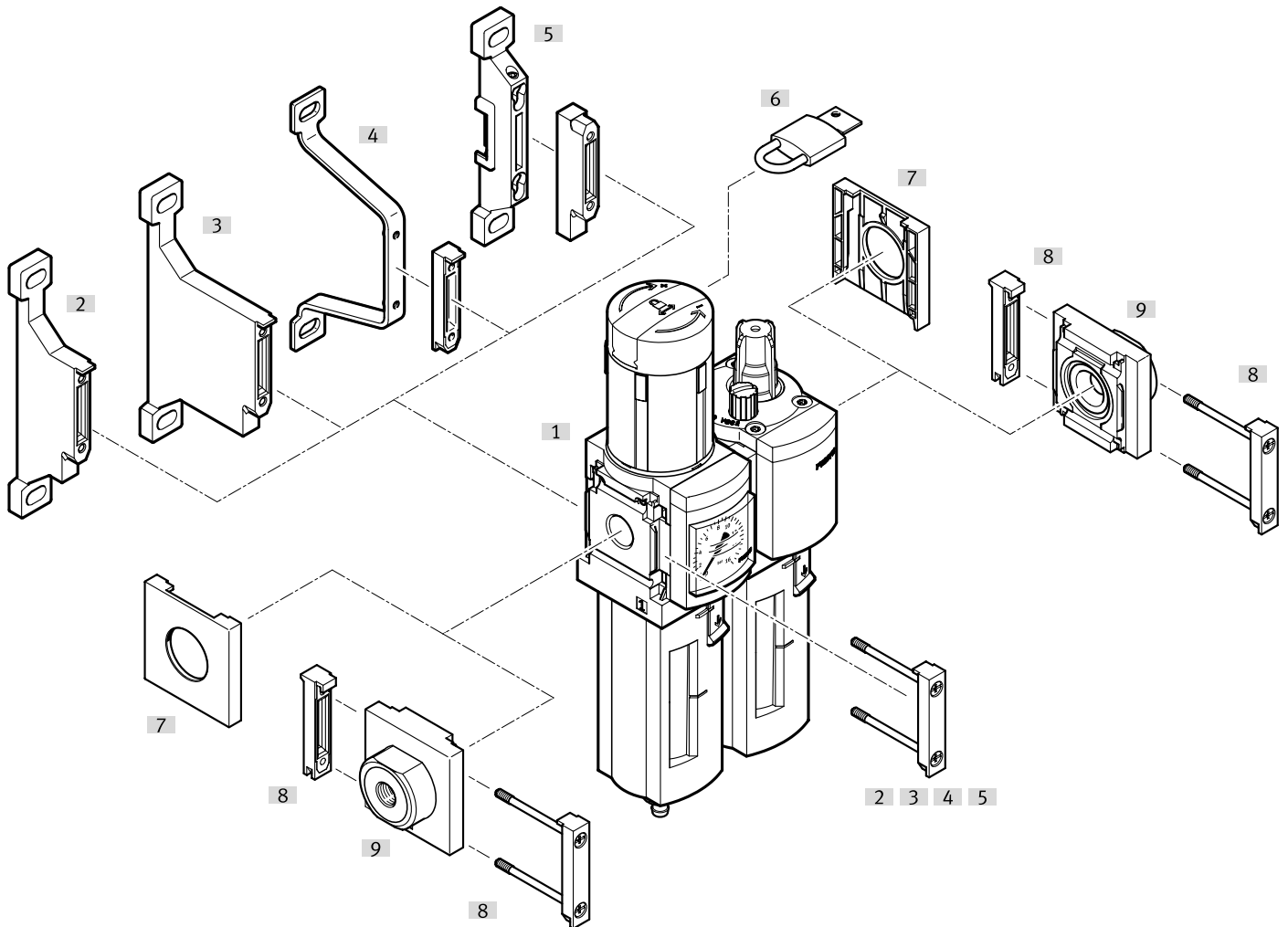
- 1) Manual condensate drain
- 2) Fully automatic condensate drain

Ordering data

Ordering data						
	Pneumatic connection, port 1	Condensate drain	Grade of filtration	Pressure regulation range	Part no.	Type
	G1/8	Manually rotating	40 µm	0.5 ... 12 bar	★ 531133	MSB4-1/8-FRC5:J1M1
	G1/4	Fully automatic				★ 531119
		Manually rotating	5 µm		★ 531121	MSB4-1/4-FRC7:J3M1
			40 µm	0.3 ... 7 bar	★ 531109	MSB4-1/4-FRC1:J5M1
				0.5 ... 7 bar	8042669	MSB4-1/4-FRC13:J120M1
				0.5 ... 12 bar	★ 531117	MSB4-1/4-FRC5:J1M1
					531118	MSB4-1/4-FRC5:J1M1-Z

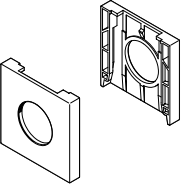
Peripherals

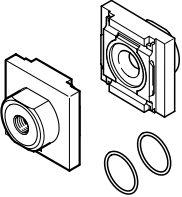
Peripherals overview

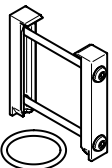


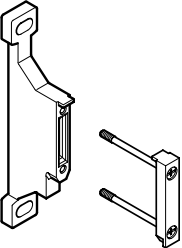
Accessories		→ Link
Type/order code	Description	
[1]	Service unit combination MSB4-FRC	msb4-frc
[2]	Mounting bracket MS4-WP	10
[3]	Mounting bracket MS4-WPB	10
[4]	Mounting bracket MS4-WPE	10
[5]	Mounting bracket MS4-WPM	10
[6]	Padlock LRVS-D	11
[7]	Cover cap MS4-END	10
[8]	Module connector MS4-MV1	10
[9]	Connecting plate SET MS4-AG...	10

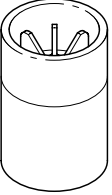
Accessories

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

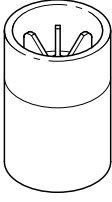
Connecting plate-SET MS4-AG...				
	Size	Pneumatic connection, port 1	Part no.	Type
	4	G1/8	526068	MS4-AGA
			541549	MS4-AGA-EX
		G1/4	★ 526069	MS4-AGB
			541550	MS4-AGB-EX
		G3/8	526070	MS4-AGC
			541551	MS4-AGC-EX

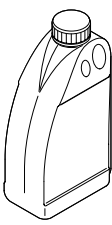
Module connector MS4-MV1				
	Size	Product weight	Part no.	Type
	4	13 g	★ 8119201	MS4-MV1

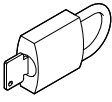
Mounting bracket MS4-WP...				
	Size	Product weight	Part no.	Type
	4	39 g	541554	MS4-WP-EX
			★ 532184	MS4-WP
		45 g	526060	MS4-WPM-D
		55 g	526063	MS4-WPB
			541552	MS4-WPB-EX
			526061	MS4-WPM-2D

Filter cartridge MS-LFP				
	Size	Grade of filtration	Part no.	Type
	4	5 µm	★ 534501	MS4-LFP-C

Accessories

Filter cartridge MS-LFP				
	Size	Grade of filtration	Part no.	Type
	4	40 µm	★ 534502	MS4-LFP-E

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

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