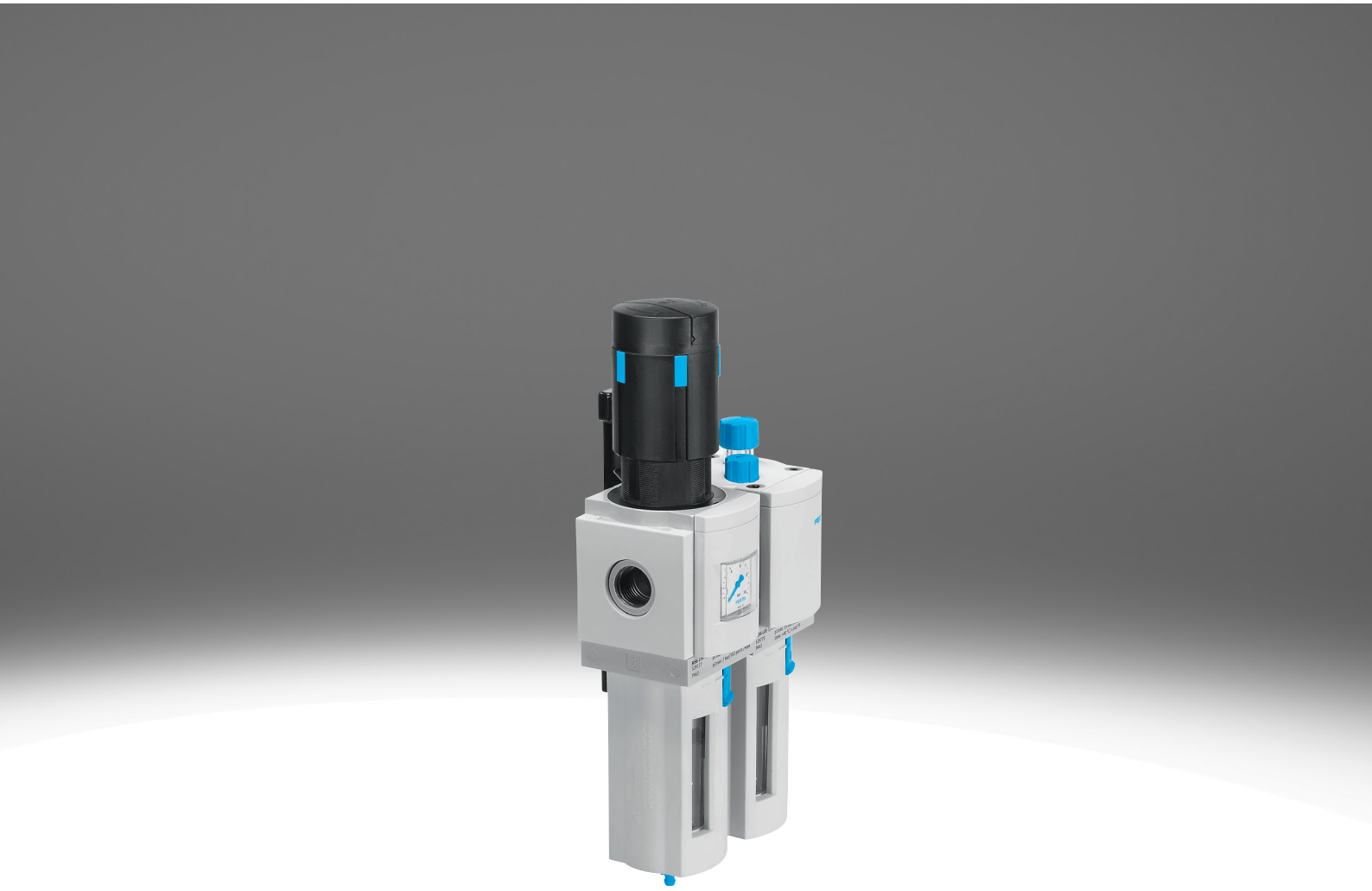
Service unit combination MSB6-FRC

FESTO



Characteristics

At a glance

Combination of filter regulator and lubricator.

- Grid dimension: 62 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 msb6-frc

You can find the diagrams via the following link:
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	
6	Grid dimension 62 mm	

003	Pneumatic connection	
1/4	Female thread G1/4	
3/8	Female thread G3/8	
1/2	Female thread G1/2	

004	Function	
FRC	Service unit combination	

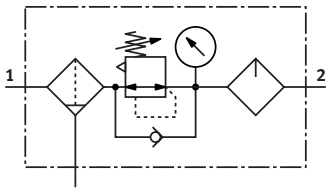
005	Service unit component equipment	
J1	Filter regulator, 0.5 ... 12 bar, 40 µm, plastic bowl with plastic bowl guard, manual condensate drain, lockable rotary knob	
J2	Filter regulator, 0.5 ... 12 bar, 40 µm, plastic bowl with plastic bowl guard, fully automatic condensate drain, lockable rotary knob	
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	
J9	Filter regulator, 0.5 ... 12 bar, 5 µm, metal bowl with manual condensate drain, lockable rotary knob	
J10	Filter regulator, 0.5 ... 12 bar, 5 µm, metal bowl with fully automatic condensate drain, lockable rotary knob	
J11	Filter regulator, 0.5 ... 12 bar, 40 µm, metal bowl with manual condensate drain, lockable rotary knob	
J12	Filter regulator, 0.5 ... 12 bar, 40 µm, metal bowl with fully automatic 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	
M2	Lubricator, metal bowl	

006	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

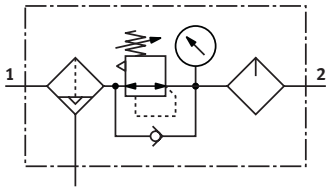
Datasheet

General technical data		
Grade of filtration	5	40
Pneumatic connection, port 1	G1/2	G1/4, G3/8, G1/2
Pneumatic connection, port 2	G1/2	G1/4, G3/8, G1/2
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 Integrated as metal bowl	
Condensate drain	Fully automatic Manually rotating	
Actuator lock	Rotary knob with integrated lock	Rotary knob with detent Rotary knob with integrated lock 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	G1/4	G3/8	G1/2			
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)]	1,900 l/min	3,500 l/min	3,600 l/min	3,700 l/min	4,800 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	5 µm	40 µm	5 µm	40 µm		
Operating pressure	1.5 ... 12 bar		1.5 ... 20 bar			0.8 ... 18 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					
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/msb6-frc → Support/Downloads.

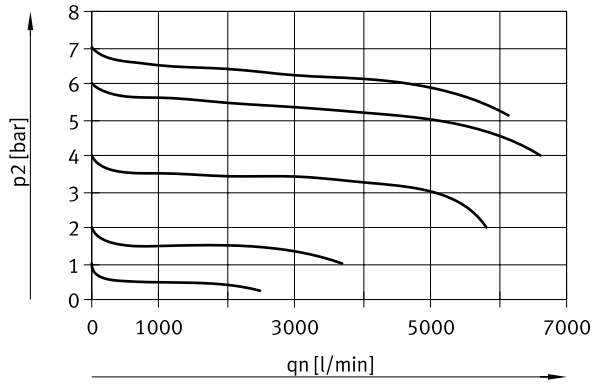
Weight

Bowl guard	Plastic bowl guard	Integrated as metal bowl
Product weight	1,500 g	1,700 g

Materials

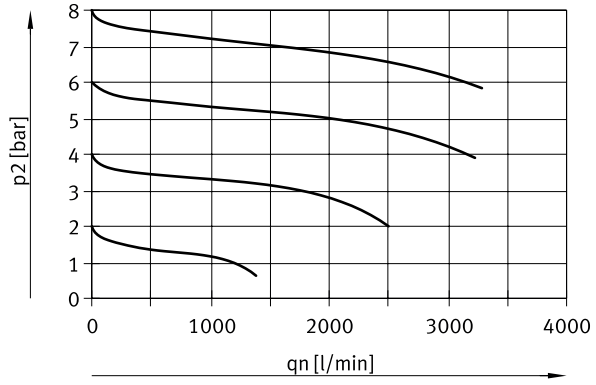
Material housing	Die-cast aluminium
Material bowl	PC
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Standard flow rate qn as a function of output pressure p2 (MSB6-1/2; pressure regulation range 0.3 ... 7 bar; grade of filtration 40 µm)



Input pressure p1 = 10 bar

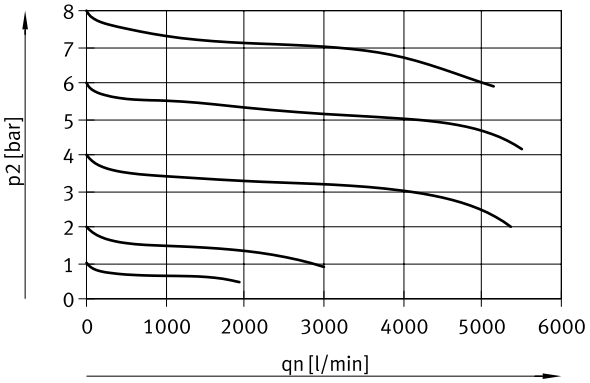
Standard flow rate qn as a function of output pressure p2 (MSB6-1/4; pressure regulation range 0.5 ... 12 bar; grade of filtration 40 µm)



Input pressure p1 = 10 bar

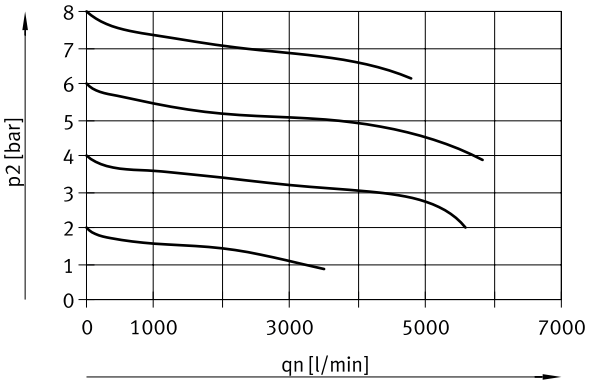
Datasheet

Standard flow rate qn as a function of output pressure p2 (MSB6-3/8; pressure regulation range 0.5 ... 12 bar; grade of filtration 40 µm)



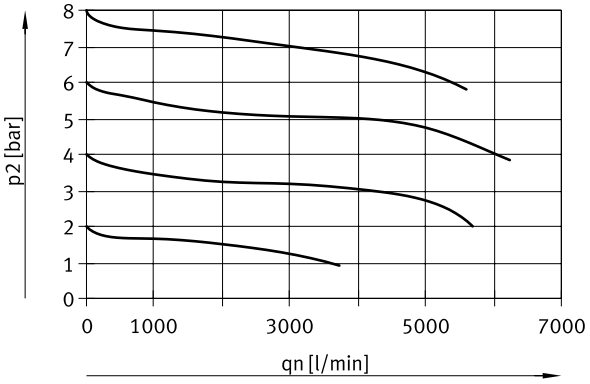
Input pressure p1 = 10 bar

Standard flow rate qn as a function of output pressure p2 (MSB6-1/2; pressure regulation range 0.5 ... 12 bar; grade of filtration 5 µm)



Input pressure p1 = 10 bar

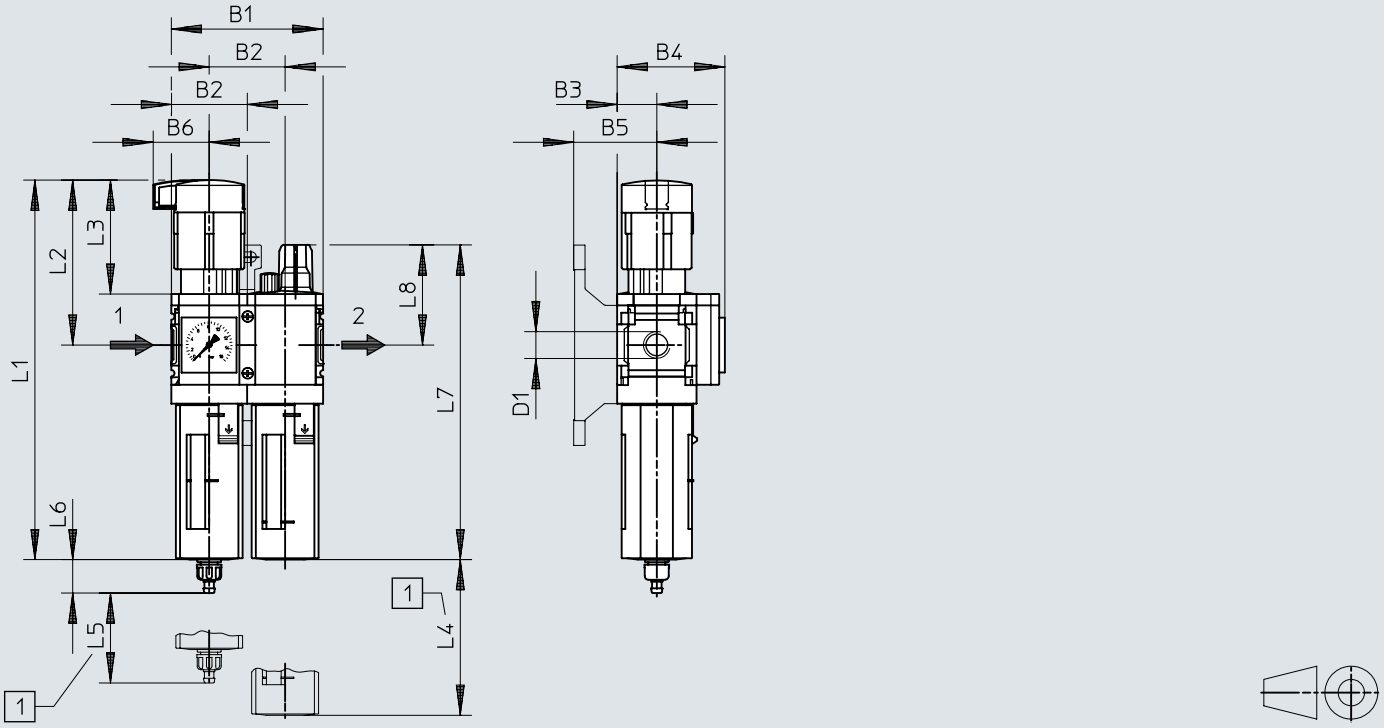
Standard flow rate qn as a function of output pressure p2 (MSB6-1/2; pressure regulation range 0.5 ... 12 bar; grade of filtration 40 µm)



Input pressure p1 = 10 bar

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)		
MSB6-1/4	124	62	31	77	54	38,8	G1/4	284,8	134,5	95.5	130	68	15,8	18,5	215,3	65,6
MSB6-3/8							G3/8									
MSB6-1/2							G1/2									

1) Manual condensate drain
2) Fully automatic condensate drain

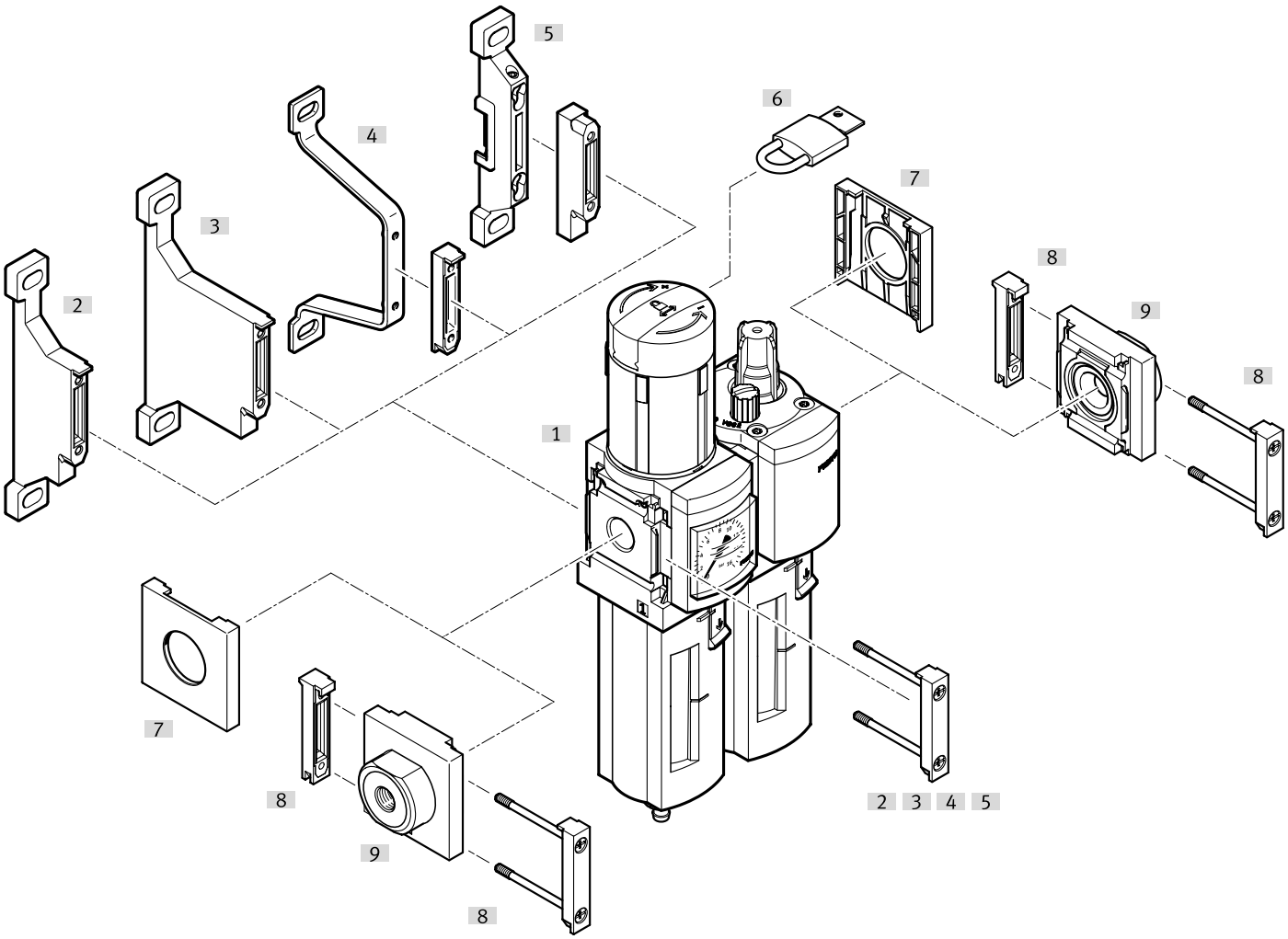
Ordering data

Ordering data

	Pneumatic connection, port 1	Condensate drain	Grade of filtration	Pressure regulation range	Part no.	Type
	G1/4	Manually rotating	40 µm	0.5 ... 12 bar	★ 530268	MSB6-1/4-FRC5:J1M1
	G3/8				★ 530292	MSB6-3/8-FRC5:J1M1
	G1/2	Fully automatic	5 µm		530236	MSB6-1/2-FRC12:J10M2
			40 µm		★ 530232	MSB6-1/2-FRC10:J12M2
					★ 530246	MSB6-1/2-FRC6:J2M1
		Manually rotating	5 µm		★ 530248	MSB6-1/2-FRC7:J3M1
					530234	MSB6-1/2-FRC11:J9M2
			40 µm	0.3 ... 7 bar	★ 530230	MSB6-1/2-FRC1:J5M1
				0.5 ... 7 bar	8042673	MSB6-1/2-FRC13:J120M1
				0.5 ... 12 bar	530252	MSB6-1/2-FRC9:J11M2
					★ 530244	MSB6-1/2-FRC5:J1M1
					530245	MSB6-1/2-FRC5:J1M1-Z

Peripherals

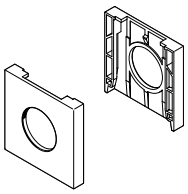
Peripherals overview



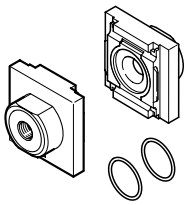
Accessories			→ Link
	Type/order code	Description	
[1]	Service unit component combination MSB6-FRC		msb4-frc
[2]	Mounting bracket MS6-WP		10
[3]	Mounting bracket MS6-WPB		10
[4]	Mounting bracket MS6-WPE		10
[5]	Mounting bracket MS6-WPM		10
[6]	Padlock LRVS		11
[7]	Cover cap MS6-END		10
[8]	Module connector MS6-MV1		10
[9]	Connecting plate MS6-AG...		10

Accessories

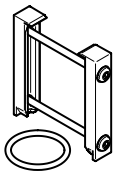
Cover cap MS6-END

	Size	Part no.	Type
	6	**538780**	**MS6-END**

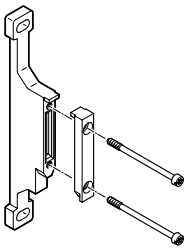
Connecting plate-SET MS6-AG...

	Size	Pneumatic connection, port 1	Part no.	Type
	6	G1/4	**526080**	**MS6-AGB**
			541538	**MS6-AGB-EX**
		G3/8	**526081**	**MS6-AGC**
			541539	**MS6-AGC-EX**
		G1/2	★ **526082**	**MS6-AGD**
			541540	**MS6-AGD-EX**
		G3/4	**526083**	**MS6-AGE**
			541541	**MS6-AGE-EX**

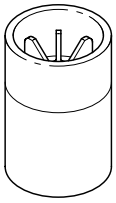
Module connector MS6-MV1

	Size	Product weight	Part no.	Type
	6	33 g	★ **8119204**	**MS6-MV1**

Mounting bracket MS6-WP...

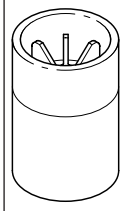
	Size	Part no.	Type
	6	★ **532195**	**MS6-WP**
		532186	**MS6-WPM-2D**
		526073	**MS6-WPM-D**
		★ **526074**	**MS6-WPB**
		541542	**MS6-WPB-EX**
		541544	**MS6-WP-EX**

Filter cartridge MS-LFP

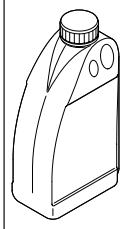
	Size	Grade of filtration	Part no.	Type
	6	5 µm	★ **534499**	**MS6-LFP-C**

Accessories

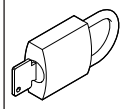
Filter cartridge MS-LFP

	Size	Grade of filtration	Part no.	Type
	6	40 µm	★ **534500**	**MS6-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**