

10

Compressed air preparation



Highlights



Service unit combinations, MS series

MSB

+ Combinations of filter regulator,
filter, lubricator, on/off valve and
soft-start valve

+ Sizes: 4, 6

→ 272



Filter regulators, MS Basic series

MS-LFR-B

+ Size 2, 4, 6

+ Flow rate 140 ... 5300 l/min

+ Pressure gauge with bar, psi, MPa

→ 276



Pressure regulators, MS Basic series

MS-LR-B

+ Size 2, 4, 6

+ Flow rate 170 ... 6000 l/min

+ Pressure gauge with bar, psi, MPa

→ 280

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Product overview

Software-Tools

Air consumption		Calculate your system's air consumption quickly and conveniently. Simply enter all the drives and tubing, set the cycle times and working pressure and the air consumption per minute and per day will be calculated for you. It includes a feature for exporting the input table together with the result directly to Excel. This tool can be found at www.festo.com/x/air-consumption
Configurator for service unit combinations		Design a product with numerous features reliably and quickly with the help of the configurator. Select all the required product features step by step. The use of logic checks ensures that only correct configurations are available for selection. A dynamic graphic generated on the basis of the configuration provides a visual aid for selecting the correct product features. This tool can be found at www.festo.com/x/service-unit-sizing

Service units >

MS series

 Service unit combinations MSB4, MSB6, MSB9		 Energy efficiency modules MSE6-E2M
Pneumatic connection 1	G1/8, G1/4, G1/2, G3/4, G1, G1 1/4, G1 1/2, 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT	G1/2
Standard nominal flow rate	750 ... 18000 l/min	
Flow measuring range final value		5000 l/min
Pressure regulation range	0.5 ... 16 bar	
Operating pressure	0 ... 20 bar	3.5 ... 10 bar
Grade of filtration	0.01 ... 40 µm	
Fieldbus interface		2x socket, M12x1, 4-pin, D-coded, 2x RJ45 push-pull socket, AIDA, 2x SCRJ push-pull socket, AIDA, Sub-D socket, 9-pin
Description	- Combination of filter regulator, filter, lubricator, on/off valve, soft-start valve - Grid dimensions 40, 62, 90 mm (size 4, 6, 9)	- Intelligent service unit component for optimising the use of compressed air as an energy medium in industrial automation technology - Combination of stop valve, flow sensor, pressure sensor and fieldbus node - Identification of machine downtimes and leakages - User-controlled shut-off and pressurisation - Equipped with measuring, control and diagnostic functions - Fieldbus connection (PROFIBUS DP, PROFINET IO, EtherNet/IP or EtherCAT) via integrated fieldbus nodes enables connection to a higher-level controller - Grid dimensions 62 mm (size 6)
→ Page/online	272	mse6

Service units >

D series, polymer

	 Service unit combinations with lubricator FRC-K	 Service unit combinations without lubricator LFR-DB
Pneumatic connection 1	G1/4	G1/4
Standard nominal flow rate	400 ... 700 l/min	1900 l/min
Pressure regulation range	0.5 ... 7 bar	0.5 ... 7 bar
Operating pressure	1.5 ... 10 bar	1.5 ... 10 bar
Grade of filtration	40 µm	40 µm
Description	• Combination of on/off valve, filter regulator, distributor module and lubricator • Size mini	• Combination of on/off valve, filter regulator and distributor module • Size mini
→ Page/online	frc	lfr

Filter regulators/lubricators >

MS series

	 Service unit combinations MSB4-FRC, MSB6-FRC
Pneumatic connection 1	G1/2, G1/4, G1/8, G3/8
Standard nominal flow rate	850 ... 4800 l/min
Pressure regulation range	0.3 ... 12 bar
Operating pressure	0.8 ... 20 bar
Grade of filtration	5 µm, 40 µm
Description	• Filter, regulator and lubricator functions in a single unit • High flow rate and highly efficient in removing contaminants • Good regulation characteristics with minimal pressure hysteresis • Grid dimensions 40, 62 mm (size 4, 6)
→ Page/online	274

Product overview

Filter regulators/lubricators ›

D series, polymer

	 Service units FRC-DB
Pneumatic connection 1	G1/4
Standard nominal flow rate	≥550 l/min
Pressure regulation range	0.5 ... 7 bar
Operating pressure	1.5 ... 10 bar
Grade of filtration	5 ... 40 µm
Description	• Filter, regulator and lubricator functions in a single unit • With manual or semi-automatic condensate drain • Size mini
→ Page/ online	frc

Filter regulators ›

MS Basic series

	 Filter regulators MS2-LFR-B, MS4-LFR-B, MS6-LFR-B
Pneumatic connection 1	G1/2, G1/4, M5, QS-6
Standard nominal flow rate	140 ... 5300 l/min
Pressure regulation range	With MS2: 0.5 ... 7 bar, with MS4/MS6: 0.3 ... 7 bar
Operating pressure	1 ... 10 bar
Grade of filtration	5 µm, 40 µm
Description	• Very compact and extremely lightweight series for use close to the process directly in the machine • Stable control behaviour • With secondary exhausting • Integrated secondary exhaust and primary exhaust with return flow function • The rotary knob locks into place to prevent unintentional rotation • MS2-LFR-B: filter regulator with or without pressure gauge, MS4-LFR, MS6-LFR: filter regulator with or without pressure gauge, directly actuated piston regulator • Grid dimensions 25, 40, 62 mm (size 2, 4, 6)
→ Page/ online	276

Filter regulators >

MS series

 Filter regulators MS4-LFR, MS6-LFR, MS9-LFR, MS12-LFR	
Pneumatic connection 1	G1/4, G1/8, G3/8, G1/2, G1, G1 1/4, G1 1/2, G2
Standard nominal flow rate	850 ... 24000 l/min
Pressure regulation range	0,3 ... 16 bar
Operating pressure	0,8 ... 20 bar
Grade of filtration	5 µm, 40 µm
Description	• MS4-LFR, MS6-LFR: directly actuated diaphragm regulator, MS9-LFR: piloted or directly actuated filter-diaphragm regulator, MS12-LFR: piloted diaphragm regulator without internal air consumption • Good regulation characteristics with minimal pressure hysteresis and primary pressure compensation • Good particle and condensate separation • With or without secondary venting • High flow rate • Available with manual, fully automatic or fully automatic, electrically actuated condensate drain • Variants to EU Explosion Protection Directive (ATEX) • Grid dimensions 40, 62, 90, 124 mm (size 4, 6, 9, 12)
→ Page/online	278

Filter regulators >

D series, polymer

 Filter regulators LFR-DB	
Pneumatic connection 1	G1/4
Standard nominal flow rate	≥1000 l/min
Pressure regulation range	0.5 ... 7 bar
Operating pressure	1.5 ... 10 bar
Grade of filtration	5 ... 40 µm
Description	• With manual or semi-automatic condensate drain • Size mini
→ Page/online	lfr

Product overview

Filter regulators >

Individual devices

	 Filter regulators PCR
Pneumatic connection 1	1/4 NPT, 1/2 NPT, G1/2, G1/4, NPT1/2-14, NPT1/4-18
Standard nominal flow rate	1920 ... 4115 l/min
Pressure regulation range	0.5 ... 12 bar
Operating pressure	1 ... 20 bar
Grade of filtration	5 µm, 40 µm
Description	• Robust housing for the specific requirements of process automation • Suitable for use outdoors and at temperatures down to -60 °C • Resistant to UV radiation and corrosive environments • With manual condensate drain, rotating • Size 44, 64
→ Page/online	386

Pressure regulators >

MS Basic series

	 Pressure regulators MS2-LR-B, MS4-LR-B, MS6-LR-B
Pneumatic connection 1	M5, QS-6, G1/4, G1/2
Standard nominal flow rate	170 ... 6000 l/min
Pressure regulation range	0.3 ... 7 bar
Operating pressure	1 ... 10 bar
Description	• Competitively priced basic component focused on the most important technical functions • Lightweight and sturdy thanks to modern polymer materials • Compatible with the MS series for the ideal combination of low-cost basic functionality and high-end functional requirements • Stable control behaviour • With integrated secondary exhausting and primary exhausting with return flow function • Rotary knob with detent • Grid dimensions 25, 40, 62 mm (sizes 2, 4, 6)
→ Page/online	280

Pressure regulators >

MS series

		
	Pressure regulators MS4-LR, MS6-LR, MS9-LR	Pressure regulators MS12-LR
Pneumatic connection 1	G1/4, G1/8, G3/8, G1/2, G3/4, G1	Connecting plate
Standard nominal flow rate	170 ... 30000 l/min	12000 ... 22000 l/min
Pressure regulation range	0.3 ... 16 bar	0.15 ... 16 bar
Operating pressure	0.8 ... 20 bar	0.8 ... 21 bar
Description	• High flow rate with minimal pressure drop • Good regulation characteristics with minimal pressure hysteresis and primary pressure compensation • With or without secondary venting • Lockable rotary knob • Optional pressure sensor and rotary knob pressure gauge • Grid dimensions 40, 62, 90 mm (size 4, 6, 9)	• High flow rate with minimal pressure drop • Good regulation characteristics with minimal pressure hysteresis and primary pressure compensation • With secondary exhausting • Lockable rotary knob • MS12-LR-...-PO: pneumatically actuated (pressure range determined via pilot control) • MS12-LR-...-PE6: electrically actuated (pilot control via proportional pressure regulator) • Grid dimensions 124 mm (size 12)
→ Page/ online	282	282

Pressure regulators >

D series, polymer

		
	Pressure regulators LR-DB	Pressure regulator manifolds LRB-DB
Pneumatic connection 1	G1/4	G1/2
Standard nominal flow rate	≥1300 l/min	≥1000 l/min
Pressure regulation range	0.5 ... 7 bar	0.5 ... 7 bar
Operating pressure	1.5 ... 10 bar	1.5 ... 10 bar
Description	• Set values are secured by locking the rotary knob • Available with pressure gauge • Size mini	• Regulator manifold with through air supply for pressure ranges that can be adjusted independently of one another • Set values are secured by locking the rotary knob • Without pressure gauge • Size mini
→ Page/ online	lr-db	lrb-db

Product overview

On/off and soft-start valves >

MS Basic series

	 On/off valves MS4-EE-B, MS6-EE-B	 Soft-start valves MS4-EDE-B, MS6-EDE-B
Pneumatic connection 1	G1/2, G1/4	G1/2, G1/4
Standard nominal flow rate	1400 ... 3000 l/min	1400 ... 3000 l/min
Operating pressure	3 ... 7 bar	3 ... 7 bar
Actuation type	Electrical	Electrical
Description	• Very compact and extremely lightweight series for use close to the process directly in the machine • Electrically actuated 3/2-way valve for pressurising and exhausting pneumatic systems • Ducted exhaust possible via a threaded connection with silencer • Grid dimensions 40, 62 mm (size 4, 6)	• Very compact and extremely lightweight series for use close to the process directly in the machine • Electrically operated 3/2-way valve for slowly pressurising and exhausting pneumatic systems • The switching pressure can be precisely controlled with a solenoid valve • Adjustable switching time delay • Built-in connections into which the tubing can be directly inserted • Grid dimensions 40, 62 mm (size 4, 6)
→ Page/online	284	284

On/off and soft-start valves >

MS series

	 On/off valves MS4-EM1, MS6-EM1, MS9-EM, MS12-EM	 On/off valves MS4-EE, MS6-EE, MS9-EE, MS12-EE	 Soft-start valves MS4-DL, MS6-DL, MS12-DL
Pneumatic connection 1	Manifold module, G1/2, G1/4, G1/8, G3/8	Manifold module, G1/2, G1/4, G1/8, G3/8	Manifold module, G1/2, G1/4, G1/8, G3/8
Standard nominal flow rate	1200 ... 32000 l/min	1000 ... 32000 l/min	1000 ... 42000 l/min
Operating pressure	0 ... 20 bar	3 ... 18 bar	2 ... 20 bar
Actuation type	Manual	Electrical	Pneumatic
Safety integrity level (SIL)			
Performance Level (PL)			
Description	• Manual 3/2-way valve for pressurising and exhausting pneumatic systems • A silencer can be attached or the exhaust air can be ducted at port 3 • Switching position is immediately recognisable • Optionally with pressure gauge and pressure sensor • Grid dimensions 40, 62, 90, 124 mm (size 4, 6, 9, 12)	• Electric 3/2-way valve for pressurising and exhausting pneumatic systems • A silencer can be attached or the exhaust air can be ducted at port 3 • Supply voltage 24 V DC, 110, 230 V AC • Optionally with pressure gauge and pressure sensor • With solenoid coil, without plug socket • Grid dimensions 40, 62, 90, 124 mm (size 4, 6, 9, 12)	• 2/2-way valve for slowly pressurising pneumatic systems (for use with on/off valves EM(1) and EE) • For building up pressure gradually • Adjustable pressure build-up time • Grid dimensions 40, 62, 124 mm (size 4, 6, 12)
→ Page/online	286	286	288

On/off and soft-start valves ›

MS series

	 Soft-start/quick exhaust valves MS6-SV-E, MS6-SV-D	 Soft-start/quick exhaust valves MS6-SV-C, MS9-SV-C
Pneumatic connection 1	G1/2	G1/2, G1/4
Standard nominal flow rate	4300 ... 5700 l/min	5700 ... 16550 l/min
Operating pressure	3.5 ... 10 bar	3 ... 16 bar
Actuation type	Electrical	Electrical
Safety integrity level (SIL)	Exhausting/SIL 3, prevention of unexpected start-up (pressurisation)/SIL 3	
Performance Level (PL)	Exhausting/category 3, Performance Level d, exhausting/up to category 4, Performance Level e, prevention of unexpected start-up (pressurisation)/category 3, Performance Level d, prevention of unexpected start-up (pressurisation)/up to category 4, Performance Level e	Exhausting/category 1, Performance Level c, exhausting/up to category 1, Performance Level c, prevention of unexpected start-up (pressurisation)/category 1, Performance Level c
Description	• With safety functions • For reducing pressure quickly and reliably and for building up pressure gradually • Adjustable pressure build-up time • Optionally with silencer • Supply voltage 24 V DC • Grid dimensions 62 mm (size 6)	• With safety functions • For reducing pressure quickly and reliably and for building up pressure gradually • Adjustable pressure build-up time • Adjustable switch-through pressure • Supply voltage 24 V DC • Grid dimensions 62, 90 mm (size 6, 9)
→ Page/online	ms6-sv-e	288

On/off and soft-start valves ›

D series, polymer

	 On/off valves HE-DB	
Pneumatic connection 1	G1/4	
Standard nominal flow rate	2300 l/min	
Operating pressure	0 ... 10 bar	
Actuation type	Manual	
Description	• 3/2-way manual on/off valve • Switching position is immediately recognisable • Commercially available padlock for security	
→ Page/online	he-db	

Product overview

Compressed air distributors ›

MS series

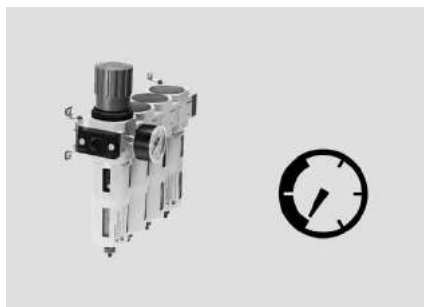
	 Branching modules MS4-FRM, MS6-FRM, MS9-FRM, MS12-FRM	 Distributor blocks MS4-FRM-FRZ, MS6-FRM-FRZ
Pneumatic connection 1	Manifold module, G1/4, G1/2, G1, G2, 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT, G1, G1 1/2, G1 1/4, G1/2, G1/4, G1/8, G3/4, G3/8	G1/4, G1/2
Standard nominal flow rate in main flow direction 1->2	1200 ... 50000 l/min	4050 ... 14600 l/min
Operating pressure	0 ... 20 bar	0 ... 20 bar
Description	- Optionally with integrated non-return function and pressure sensor - Outlet at top and bottom - Can be used as an intermediate distributor for varying air qualities - Optionally with pressure sensor - Grid dimensions 40, 62, 90, 124 mm (size 4, 6, 9, 12)	- Slim pneumatic distributor - Outlet at top and bottom - Can be used as an intermediate distributor for varying air qualities - Can be used as an adapter between two pressure regulators with large rotary knob with pressure gauge on size MS4 - Grid dimensions 40, 62 mm (size 4, 6)
→ Page/online	290	292

Accessories ›

MS series

	 Connecting plates MS4-AG..., MS6-AG...	
Pneumatic connection 1	G1/4, G3/8, G1/2, G3/4	
Pneumatic connection 2	G1/4, G3/8, G1/2, G3/4	
Description	- Accessories for size MS4, MS6 - Adapter for pneumatic connection	
→ Page/online	293	

Customised components – for your specific requirements



Components for compressed air preparation with customised designs

Can't find the compressed air preparation components you need in our catalogue?

We offer you customised components that are tailored to your specific requirements.

Common product modifications:

- Modified pressure range
- Rotary knob: in a special colour, with protection against rotation
- Fitting: integrated throttling port, special thread
- Tubing with special printing
- Pressure gauge with red-green range

Many additional variants are possible.

Ask your Festo sales engineer, who will be happy to help:

→ www.festo.com/contact

Service units > MS series >

Service unit combinations MSB4/MSB6, MS series



- For filtered and unlubricated compressed air
- Supply pressure can be opened and closed
- Output pressure is infinitely adjustable within the pressure regulation range
- Flow rate 950 ... 5500 l/min
- Operating pressure 0.8 ... 18 bar
- Grade of filtration 40 µm
- Manual condensate drain

Combinations comprising:

- ① Manually operated on/off valve, filter regulator with lockable pressure gauge, mounting bracket
- ② Manually operated on/off valve, filter regulator with lockable pressure gauge, branching module with pressure switch, mounting bracket
 - Electrical pressure monitoring with adjustable switching pressure
- ③ Manually operated on/off valve, filter regulator with lockable pressure gauge, electrically actuated on/off valve with pressure sensor for operational status indicator, mounting bracket
 - Electrical pressure monitoring with adjustable switching pressure
 - When the unit is switched off, quick exhausting ensures rapid pressure reduction

Order code – Basic design

001 002 003 004 005 006
MSB **C3** **J1** **WP**

Legend: Mandatory entry Optional entry

001	Type
MSB	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Pneumatic connection
1/4	G1/4 thread
1/2	G1/2 thread
004	Flow direction
–	From left to right

005	Service unit combination
C3	On/off valve MS4-EM1, MS6-EM1
J1	Filter regulator MS4-LFR, MS6-LFR
D14	On/off valve MS4-EE, MS6-EE
F12	Branching module MS4-FRM, MS6-FRM
006	Type of mounting
WP	Mounting bracket

Product options

- Additional connection sizes
- Connecting plates
- Grade of filtration 5 µm
- Service unit components: filter regulators, soft-start valves, lubricators, on/off valves
- Alternative flow direction
- Fully automatic condensate drain

Configurable product

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

→ www.festo.com/catalogue/...

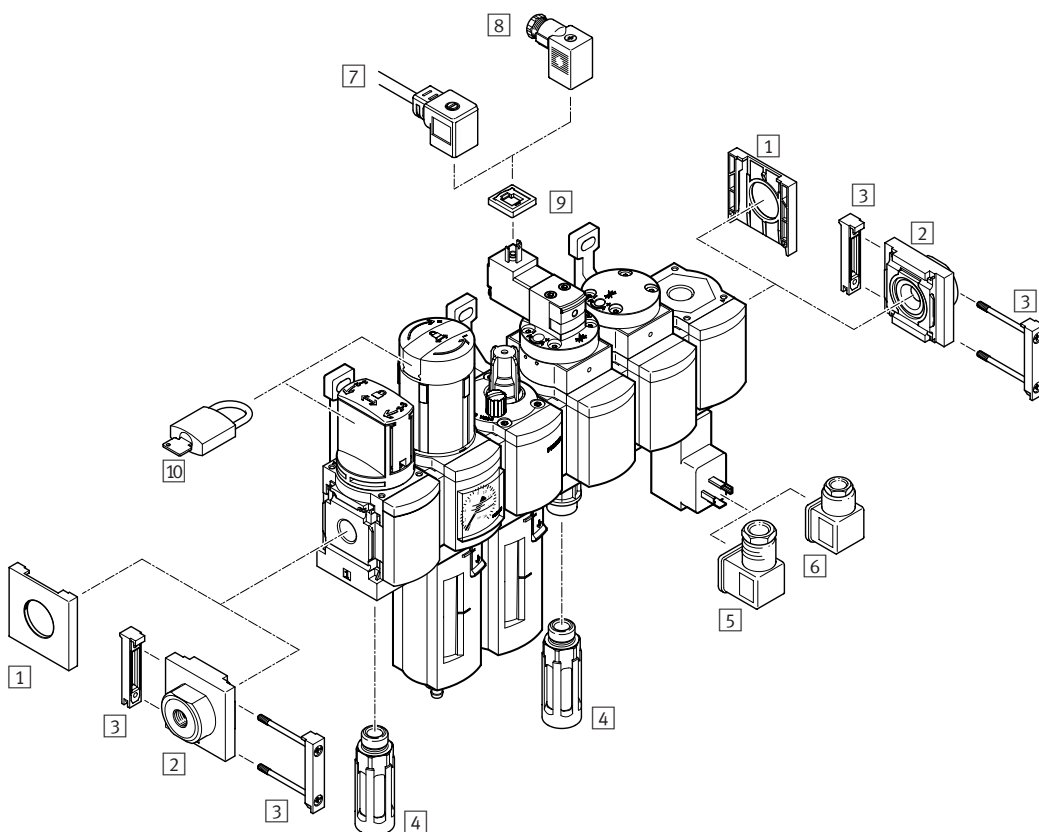
Enter the part number or the type.

Part no.	Type	Standard nominal flow rate	Pressure regulation range	Grade of filtration
531029	MSB4	800 ... 1400 l/min	1 ... 12 bar	0.01 ... 40 µm
531030	MSB6	1700 ... 4800 l/min	1 ... 12 bar	0.01 ... 40 µm

Ordering – Basic design

002 Size	003 Pneumatic connection	Condensate drain	Grade of filtration	Type	Part no.
① Manually operated on/off valve, filter regulator with lockable pressure gauge, mounting bracket Pressure regulation range 0.5 ... 12 bar, pressure gauge with outer scale in bar and inner scale in psi					
4	G1/4	Manual rotary	40 µm	MSB4-1/4:C3:j1-WP	8025354
6	G1/2	Manual rotary	40 µm	MSB6-1/2:C3:j1-WP	8025355
② Manually operated on/off valve, filter regulator with lockable pressure gauge, branching module with pressure switch, mounting bracket Pressure regulation range 0.5 ... 10 bar, pressure gauge with outer scale in bar and inner scale in psi					
4	G1/4	Manual rotary	40 µm	MSB4-1/4:C3j1F12-WP	8025356
6	G1/2	Manual rotary	40 µm	MSB6-1/2:C3j1F12-WP	8025357
③ Manually operated on/off valve, filter regulator with lockable pressure gauge, electrically actuated on/off valve with pressure sensor for operational status indicator, mounting bracket Pressure regulation range 0.5 ... 10 bar, pressure gauge with outer scale in bar and inner scale in psi					
4	G1/4	Manual rotary	40 µm	MSB4-1/4:C3j1D14-WP	8025358
6	G1/2	Manual rotary	40 µm	MSB6-1/2:C3j1D14-WP	8025359

Accessories



- 1 Cover cap MS4/6-END
→ [ms4-end](#)
- 2 Connecting plate kit MS4/6-AG...
→ 293
- 3 Module connector MS-MV
→ 273
- 4 Silencer U-B → 339
- 5 Angled socket PEV-1/4-WD-LED
→ [msb](#)
- 6 Plug socket MSSD-C-4P → [msb](#)
- 7 Plug socket with cable KMEB-3
→ [msb](#)
- 8 Plug socket MSSD-EB → [msb](#)
- 9 Illuminating seal MEB-LD → [msb](#)
- 10 Padlock LRV5-D → [msb](#)

Mounting bracket
MS4/MS6-WP, MS4/MS6-WPB,
MS4/MS6-WPM → 273
MS4/6-WPE → [ms4-wpe](#)

3 Module connector MS-MV		
Size	Type	Part no.
4	MS4-MV1	8119201
6	MS6-MV1	8119204

Mounting bracket MS4/6-WP		
Size	Type	Part no.
For wall mounting		
4	MS4-WP	532184
6	MS6-WP	532195

Mounting bracket MS4/6-WPB		
Size	Type	Part no.
For wall mounting		
4	MS4-WPB	526063
6	MS6-WPB	526074

Mounting bracket MS4/6-WPM		
Size	Type	Part no.
For wall mounting		
4	MS4-WPM-D	526060
6	MS6-WPM-D	526073

Filter regulators/lubricators > MS series >

Service unit combinations MSB4/MSB6-FRC, MS series



- Filter, regulator and lubricator functions in a single unit
- High flow rate and highly efficient in removing contaminants
- Good regulation characteristics with minimal pressure hysteresis
- Set values are secured by locking the rotary knob
- Flow rate 850 ... 4800 l/min
- Operating pressure 1.5 ... 20 bar
- Grade of filtration 40 µm
- Manual condensate drain

Order code – Basic design

001 002 003 004 005 006
MSB **FRC5:J1** **M1**

Legend: Mandatory entry Optional entry

001	Type
MSB	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Pneumatic connection
1/4	G1/4 thread
1/2	G1/2 thread
004	Service unit combination
FRC5:J1	• Filter regulator with pressure gauge, rotary knob with detent, can be locked using accessories • Lubricator • Pressure regulation range 0.5 ... 12 bar • Plastic bowl with plastic bowl guard • Grade of filtration 40 µm • Manual condensate drain • Pressure gauge with outer scale in bar and inner scale in psi

005	Lubricator
M1	Plastic bowl guard
006	Flow direction
–	From left to right

Product options

- Additional connection sizes
- Grade of filtration 5 µm
- Pressure regulation range 0.3 ... 7 bar
- Metal bowl guard for filter regulator and for lubricator
- Fully automatic condensate drain



Configurable product

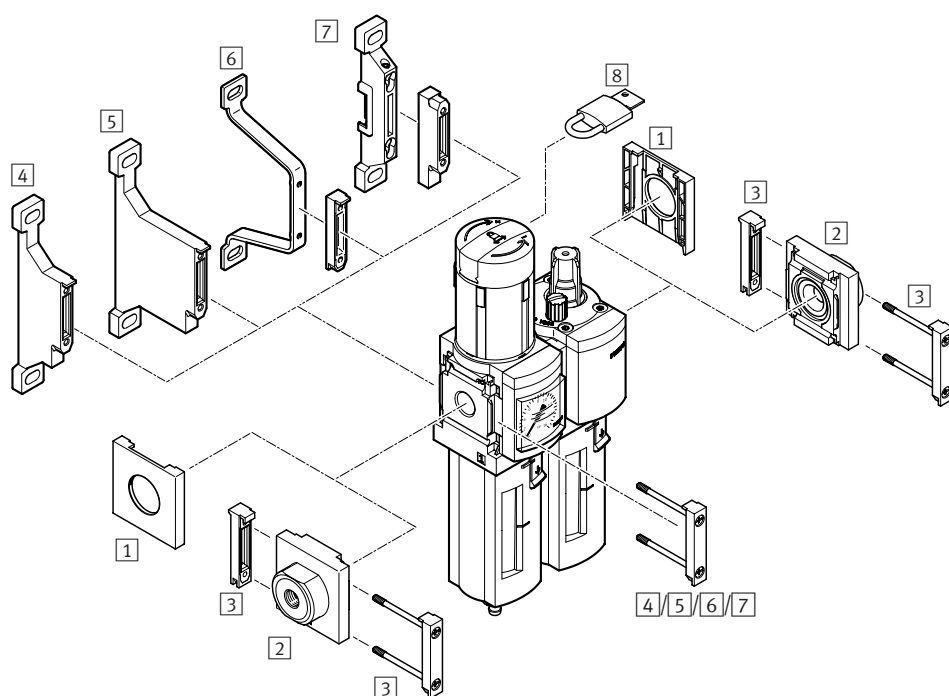
This product and all its product options can be ordered online via the configurator:

→ www.festo.com/catalogue/msb

Ordering – Basic design

002 Size	003 Pneumatic connection	Standard nominal flow rate	Pressure regulation range	Grade of filtration	Type	Part no.
Grade of filtration 40 µm, manual rotary condensate drain						
4	G1/4	900 l/min	0.5 ... 12 bar	40 µm	MSB4-1/4-FRC5:J1M1	531117
6	G1/2	3700 l/min	0.5 ... 12 bar	40 µm	MSB6-1/2-FRC5:J1M1	530244

Accessories



- 1 Cover cap MS4/6-END
→ [ms4-end](#)
- 2 Connecting plate kit MS4/6-AG...
→ 293
- 3 Module connector MS-MV
→ 275
- 4 Mounting bracket MS4/6-WP
→ 275
- 5 Mounting bracket MS4/6-WPB
→ 275
- 6 Mounting bracket MS4/6-WPE
→ [ms4-wpe](#)
- 7 Mounting bracket MS4/6-WPM
→ 275
- 8 Padlock LRVS-D → [msb](#)

3 Module connector MS-MV		
Size	Type	Part no.
4	MS4-MV1	8119201
6	MS6-MV1	8119204

4 Mounting bracket MS4/6-WP		
Size	Type	Part no.
For wall mounting		
4	MS4-WP	532184
6	MS6-WP	532195

5 Mounting bracket MS4/6-WPB		
Size	Type	Part no.
For wall mounting		
4	MS4-WPB	526063
6	MS6-WPB	526074

7 Mounting bracket MS4/6-WPM		
Size	Type	Part no.
For wall mounting		
4	MS4-WPM-D	526060
6	MS6-WPM-D	526073

Filter regulators MS2/MS4/MS6-LFR-B, MS Basic series



- Very compact and extremely light-weight series for use close to the process directly in the machine
- Filter and pressure regulator in a single unit
- For stepless, precise adjustment of the required operating pressure
- Flow rate 140 ... 5300 l/min
- Operating pressure 1 ... 10 bar
- Grade of filtration 5 µm, 40 µm
- Manual or fully automatic condensate drain

Order code – MS2-LFR-B

001	002	003	004	005	006	007	008	009	010
MS	2	LFR		D6			C	M	B

001	Type
MS	MS series service unit
002	Size
2	Grid dimensions 25 mm
003	Function
LFR	Filter regulator
004	Pneumatic connection
M5	Female thread M5
QS6	Push-in connector for tubing O.D. 6 mm
005	Pressure regulation range
D6	0.5 ... 7 bar
006	Pressure gauge alternatives
A8	Adapter plate for EN pressure gauge 1/8, without pressure gauge
AR	With pressure gauge
007	Alternative pressure gauge scale
–	None
BAR	Display unit bar/psi
MPA	Display unit MPa
008	Grade of filtration
C	5 µm
009	Condensate drain
M	Manual rotary
010	Version
B	Basic

Legend: Mandatory entry Optional entry

Order code – MS4/MS6-LFR-B

001	002	003	004	005	006	007	008	009	010	011
MS		LFR		D6		P		AG		B

001	Type
MS	MS series service unit
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Function
LFR	Filter regulator
004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2
005	Pressure regulation range
D6	0.3 ... 7 bar
006	Grade of filtration
C	5 µm
E	40 µm
007	Bowl type
P	Polymer
008	Condensate drain
M	Manual rotary
VC	Fully automatic, normally closed
009	Pressure gauge alternatives
AG	With MS pressure gauge
010	Alternative pressure gauge scale
BAR	Display unit bar/psi
MPA	Display unit MPa
011	Version
B	Basic

Ordering – MS2-LFR-B

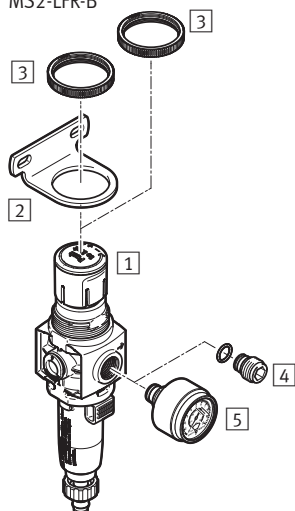
002 Size	004 Pneumatic connection	006 Pressure gauge	007 Pressure gauge scale	008 Grade of filtration	009 Condensate drain	Type	Part no.
005 Pressure regulation range 0.5 ... 7 bar							
2	M5	None	–	5 µm	Manual	MS2-LFR-M5-D6-A8-C-M-B	8086643
	QS-6					MS2-LFR-QS6-D6-A8-C-M-B	8086646
	M5	With	bar	5 µm	Manual	MS2-LFR-M5-D6-AR-BAR-C-M-B	8086641
	QS-6					MS2-LFR-QS6-D6-AR-BAR-C-M-B	8086644
	M5	With	MPa	5 µm	Manual	MS2-LFR-M5-D6-AR-MPA-C-M-B	8086642
	QS-6					MS2-LFR-QS6-D6-AR-MPA-C-M-B	8086645

Ordering – MS4/MS6-LFR-B

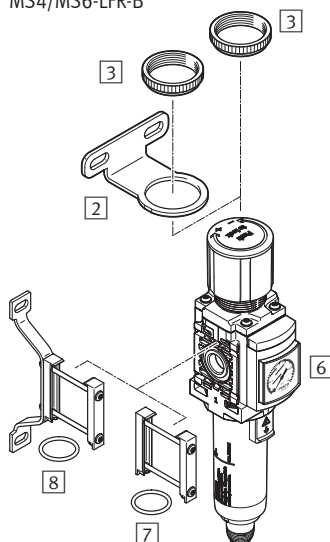
002 Size	004 Pneumatic connection	009 Pressure gauge	010 Pressure gauge scale	006 Grade of filtration	008 Condensate drain	Type	Part no.
005 Pressure regulation range 0.3 ... 7 bar							
4	G1/4	With	bar	5 µm	Manual	MS4-LFR-1/4-D6-C-P-M-AG-BAR-B	8098257
			MPa			MS4-LFR-1/4-D6-C-P-M-AG-MPA-B	8098265
		With	bar	5 µm	Fully automatic	MS4-LFR-1/4-D6-C-P-VC-AG-BAR-B	8098259
			MPa			MS4-LFR-1/4-D6-C-P-VC-AG-MPA-B	8098266
		With	bar	40 µm	Manual	MS4-LFR-1/4-D6-E-P-M-AG-BAR-B	8098258
			MPa			MS4-LFR-1/4-D6-E-P-M-AG-MPA-B	8098254
		With	bar	40 µm	Fully automatic	MS4-LFR-1/4-D6-E-P-VC-AG-BAR-B	8098264
			MPa			MS4-LFR-1/4-D6-E-P-VC-AG-MPA-B	8098256
		With	bar	5 µm	Manual	MS6-LFR-1/2-D6-C-P-M-AG-BAR-B	8098300
			MPa			MS6-LFR-1/2-D6-C-P-M-AG-MPA-B	8098310
6	G1/2	With	bar	5 µm	Fully automatic	MS6-LFR-1/2-D6-C-P-VC-AG-BAR-B	8098309
			MPa			MS6-LFR-1/2-D6-C-P-VC-AG-MPA-B	8098302
		With	bar	40 µm	Manual	MS6-LFR-1/2-D6-E-P-M-AG-BAR-B	8098304
			MPa			MS6-LFR-1/2-D6-E-P-M-AG-MPA-B	8098307
		With	bar	40 µm	Fully automatic	MS6-LFR-1/2-D6-E-P-VC-AG-BAR-B	8098312
			MPa			MS6-LFR-1/2-D6-E-P-VC-AG-MPA-B	8098305

Accessories

MS2-LFR-B



MS4/MS6-LFR-B



- 1 Filter regulator MS2-LFR-B
- 2 Mounting bracket MS-WR-B
→ 277
- 3 Nut MS-WRS → 277
- 4 Plug screw MS2-G18S → 277
- 5 Pressure gauge PAGN → 277
- 6 Filter regulator MS4/MS6-LFR-B
→ 276
- 7 Module connector MS-MV1
→ 277
- 8 Wall mounting kit MS...-WPE-B
→ 281

Filter cartridges → 277

2 Mounting bracket MS-WR-B

Size	Type	Part no.
For wall mounting, knurled nut included in the scope of delivery		
2	MS2-WR-B	8087978
4	MS4-WR-B	8149680
6	MS6-WR-B	8149681

1) Knurled nut included in the scope of delivery

3 Nut MS-WRS

Size	Type	Part no.
For front panel mounting		
2	MS2-WRS	8098037
4	MS4-WRS	532187
6	MS6-WRS	532188

4 Plug screw MS2-G18S

Size	Type	Part no.
For sealing the pressure gauge connection		
2	MS2-G18S	8095766

5 Pressure gauge PAGN

Operating pressure	Outer scale	Inner scale	Type	Part no.
0 ... 10 bar	0 ... 10 bar	0 ... 145 psi	PAGN-23-10-G18S	8088991
0 ... 1 MPa	0 ... 1 MPa	–	PAGN-23-1M-G18S	8088992

Filter cartridge LFP

Size	Grade of filtration	Type	Part no.
2	5 µm	LFP-D-MICRO-5M	526818
4	5 µm	MS4-LFP1-C	8129064
	40 µm	MS4-LFP1-E	8129062
6	5 µm	MS6-LFP1-C	8129063
	40 µm	MS6-LFP1-E	8129061

7 Module connector MS-MV1

Size	Type	Part no.
For connecting the modules for wall mounting		
4	MS4-MV1	8119201
6	MS6-MV1	8119204

Filter regulators MS4/MS6/MS12-LFR, MS series



- Filter and pressure regulator in a single unit
- Good regulation characteristics with minimal hysteresis and primary pressure compensation
- Good particle and condensate separation
- Flow rate 850 ... 17000 l/min
- Operating pressure 0.8 ... 20 bar
- Grade of filtration 5 µm, 40 µm
- Manual or fully automatic condensate drain
- Selected types in accordance with ATEX directive for potentially explosive atmospheres

→ www.festo.com/ex

Order code – Basic design

001	002	003	004	005	006	007	008	009	010
MS		LFR						AS	

Legend: Mandatory entry Optional entry

001	Type
MS	MS series service unit
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
12	Grid dimensions 124 mm
003	Function
LFR	Filter regulator
004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2
005	Pressure regulation range
D6	0.3 ... 7 bar
D7	0.5 ... 12 bar

006	Grade of filtration
C	5 µm
E	40 µm
007	Bowl guard
R	Plastic bowl guard
U	Integrated as metal bowl
008	Condensate drain
M	Manual rotary
V	Fully automatic
009	Lockable
AS	Rotary knob with detent, can be locked using accessories
010	Flow direction
–	From left to right

Product options

- Size 9, grid dimensions 90 mm
- Pneumatic connection
 - Connecting plate
 - Module without connecting thread, without connecting plate
- Pressure regulation range 0.3 ... 4 bar
- Condensate drain
 - Semi-automatic
 - External fully automatic condensate drain
- Pressure gauge alternatives
- Alternative pressure gauge scale
- Without secondary exhaust
- Long rotary knob
- Lockable
 - None
 - With integrated lock
- With mounting bracket
- EU certification: II 2GD to EU Explosion Protection Directive (ATEX)
- UL certification
- Flow direction from right to left



Configurable product

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

→ www.festo.com/catalogue/...

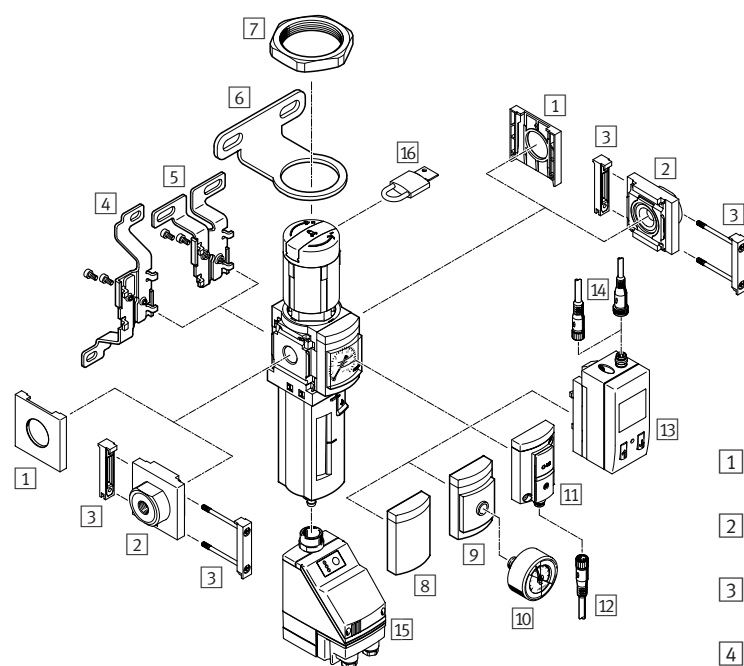
Enter the part number or the type.

Part no.	Type	Standard nominal flow rate	Pressure regulation range	Grade of filtration
526489	MS4-LFR	850 ... 1800 l/min	0.3 ... 12 bar	5 µm, 40 µm
526490	MS6-LFR	2000 ... 7200 l/min	0.3 ... 16 bar	5 µm, 40 µm
535022	MS12-LFR	11000 ... 17000 l/min	0.3 ... 16 bar	5 µm, 40 µm

Ordering – Basic design

			006 Grade of filtration 5 µm		006 Grade of filtration 40 µm	
002 Size	004 Pneumatic connection	008 Condensate drain	Type	Part no.	Type	Part no.
Pressure regulation range 0.3 ... 7 bar, integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories, plastic bowl guard						
4	G1/4	Manual rotary	MS4-LFR-1/4-D6-CRM-AS	529144	MS4-LFR-1/4-D6-ERM-AS	529148
		Fully automatic	MS4-LFR-1/4-D6-CRV-AS	529146	MS4-LFR-1/4-D6-ERV-AS	529150
6	G1/2	Manual rotary	MS6-LFR-1/2-D6-CRM-AS	529176	MS6-LFR-1/2-D6-ERM-AS	529180
		Fully automatic	MS6-LFR-1/2-D6-CRV-AS	529178	MS6-LFR-1/2-D6-ERV-AS	529182
Pressure regulation range 0.5 ... 12 bar, integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories, plastic bowl guard						
4	G1/4	Manual rotary	MS4-LFR-1/4-D7-CRM-AS	529152	MS4-LFR-1/4-D7-ERM-AS	529156
		Fully automatic	MS4-LFR-1/4-D7-CRV-AS	529154	MS4-LFR-1/4-D7-ERV-AS	529158
6	G1/2	Manual rotary	MS6-LFR-1/2-D7-CRM-AS	529184	MS6-LFR-1/2-D7-ERM-AS	529188
		Fully automatic	MS6-LFR-1/2-D7-CRV-AS	529186	MS6-LFR-1/2-D7-ERV-AS	529190
Pressure regulation range 0.5 ... 12 bar, integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories, integrated as metal bowl						
4	G1/4	Manual rotary			MS4-LFR-1/4-D7-EUM-AS	535724
		Fully automatic	MS4-LFR-1/4-D7-CUV-AS	535720	MS4-LFR-1/4-D7-EUV-AS	535722
6	G1/2	Manual rotary	MS6-LFR-1/2-D7-CUM-AS	530338	MS6-LFR-1/2-D7-EUM-AS	529192
		Fully automatic	MS6-LFR-1/2-D7-CUV-AS	530340	MS6-LFR-1/2-D7-EUV-AS	529194

Accessories



- 6 Mounting bracket MS4/6-WR → 279
- 7 Hex nut MS4/6-WRS → [ms4-wrs](#)
- 8 Cover plate VS → [ms4-lfr](#)
- 9 Adapter plate for EN pressure gauge → [ms4-lfr](#)
- 10 Pressure gauge MA → [ms4-lfr](#)
- 11 Pressure sensor without display → [ms4-lfr](#)
- 12 Connecting cable NEBU-M8...-LE3 → 301
- 13 Pressure sensor with display → [ms4-lfr](#)
- 14 Connecting cable NEBU-M8...-LE3/NEBU-M12...-LE4 → 301
- 15 Fully automatic condensate drain, electrically actuated → [ms4-lfr](#)
- 16 Padlock LRVS-D → [ms4-lfr](#)

- 1 Cover cap MS4/6-END → [ms4-end](#)
- 2 Connecting plate kit MS4/6-AG... → 293
- 3 Module connector MS-MV → 279
- 4 Mounting bracket MS4/6-WB → 279
- 5 Mounting bracket MS4/6-WBM → [ms4-wbm](#)

Mounting bracket
MS4/MS6-WP, MS4/MS6-WPB,
MS4/MS6-WPM → 279
MS4/6-WPE → [ms4-wpe](#)
Filter cartridge MS-LFP → 279

3 Module connector MS-MV		
Size	Type	Part no.
4	MS4-MV1	8119201
6	MS6-MV1	8119204

Module connector MS-MVM		
Size	Type	Part no.
For installing modules with regulator knob pointing downwards		
4	MS4-MVM	532800
6	MS6-MVM	532801

4 Mounting bracket MS-WB		
Size	Type	Part no.
For wall mounting		
4	MS4-WB	532185
6	MS6-WB	532196

6 Mounting bracket MS-WR		
Size	Type	Part no.
For wall mounting		
4	MS4-WR	526064
6	MS6-WR	526075

Mounting bracket MS-WP		
Size	Type	Part no.
For wall mounting		
4	MS4-WP	532184
6	MS6-WP	532195

Mounting bracket MS-WPB		
Size	Type	Part no.
For wall mounting		
4	MS4-WPB	526063
6	MS6-WPB	526074

Mounting bracket MS-WPM		
Size	Type	Part no.
For wall mounting		
4	MS4-WPM-D	526060
6	MS6-WPM-D	526073

Filter cartridge MS-LFP		
Size	Type	Part no.
Grade of filtration 5 µm		
4	MS4-LFP-C	534501
6	MS6-LFP-E	534499

Pressure regulators MS2/MS4/MS6-LR-B, MS Basic series



- Very compact and extremely light-weight series for use close to the process directly in the machine
- Maintains a constant working pressure independent of pressure fluctuations and air consumption
- Stable control behaviour
- Integrated secondary exhaust and primary exhaust with return flow function
- Flow rate 170 ... 6000 l/min
- Operating pressure 1 ... 10 bar

Order code

001	002	003	004	005	006	007	008
MS		LR		D6			B

Legend: Mandatory entry Optional entry

001	Type
MS	MS series
002	Size
2	Grid dimensions 25 mm
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Function
LR	Pressure regulator
004	Pneumatic connection
M5	Female thread M5
QS6	Push-in connector for tubing O.D. 6 mm
1/4	Female thread G1/4
1/2	Female thread G1/2

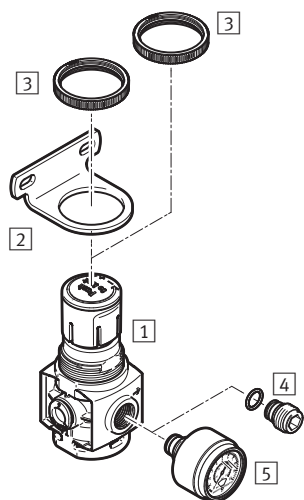
005	Pressure regulation range
D6	Pressure regulation range 0.3 ... 7 bar
006	Pressure gauge alternatives
A8	With adapter plate for EN pressure gauge □, without pressure gauge
AR	With pressure gauge
AG	MS pressure gauge
007	Alternative pressure gauge scale
–	None
BAR	Display unit [bar/psi]
MPA	Display unit [MPa]
008	Version
B	Basic

Ordering

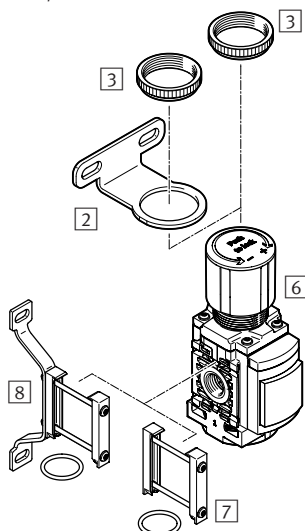
005 Pressure regulation range 0.5 ... 7 bar, rotary knob with detent					
002 Size	004 Pneumatic connection	006 Pressure gauge	007 Pressure gauge scale	Type	Part no.
2	M5	None	–	MS2-LR-M5-D6-A8-B	8086637
	QS-6			MS2-LR-QS6-D6-A8-B	8086640
	M5	With	bar	MS2-LR-M5-D6-AR-BAR-B	8086628
	QS-6			MS2-LR-QS6-D6-AR-BAR-B	8086638
	M5	With	MPa	MS2-LR-M5-D6-AR-MPA-B	8086636
	QS-6			MS2-LR-QS6-D6-AR-MPA-B	8086639
4	G1/4	With	bar	MS4-LR-1/4-D6-AG-BAR-B	8099358
			MPa	MS4-LR-1/4-D6-AG-MPA-B	8099359
6	G1/2	With	bar	MS6-LR-1/2-D6-AG-BAR-B	8099205
			MPa	MS6-LR-1/2-D6-AG-MPA-B	8099204

Accessories

MS2-LR-B



MS4/MS6-LR-B



- 1 Pressure regulator MS2-LR-B
→ 280
- 2 Mounting bracket MS2-WR
→ 281
- 3 Nut MS-WRS → 281
- 4 Plug screw MS2-G18S → 281
- 5 Pressure gauge PAGN → 281
- 6 Pressure regulator MS4/MS6-LR-B
→ 280
- 7 Module connector MS-MV1
→ 281
- 8 Wall mounting kit MS...-WPE-B
→ 281

2 Mounting bracket MS-WR

Size	Type	Part no.
For wall mounting, knurled nut included in the scope of delivery		
2	MS2-WR-B	8087978
4	MS4-WR-B	8149680
6	MS6-WR-B	8149681

3 Nut MS-WRS

Size	Type	Part no.
For front panel mounting		
2	MS2-WRS	8098037
4	MS4-WRS	532187
6	MS6-WRS	532188

4 Plug screw MS2-G18S

Size	Type	Part no.
For sealing the pressure gauge connection		
2	MS2-G18S	8095766

5 Pressure gauge PAGN

Operating pressure	Outer scale	Inner scale	Type	Part no.
0 ... 10 bar	0 ... 10 bar	0 ... 145 psi	PAGN-23-10-G18S	8088991
0 ... 1 MPa	0 ... 1 MPa	–	PAGN-23-1M-G18S	8088992

7 Module connector MS-MV1

Size	Type	Part no.
For connecting the modules for wall mounting		
4	MS4-MV1	8119201
6	MS6-MV1	8119204

8 Wall mounting kit MS...-WPE-B

Size	Type	Part no.
For wall mounting		
4	MS4-WPE-B	8118600
6	MS6-WPE-B	8118599

Pressure regulators MS4/MS6/MS12-LR, MS series



- Maintains a constant working pressure independent of pressure fluctuations and air consumption
- High flow rate with minimal pressure drop
- Flow rate 1000 ... 22000 l/min
- Operating pressure 0.8 ... 20 bar
- Selected types in accordance with ATEX directive for potentially explosive atmospheres

→ www.festo.com/ex

Order code – Basic design

001	002	003	004	005	006	007
MS		LR			AS	

Legend: Mandatory entry Optional entry

001	Type
MS	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
12	Grid dimensions 124 mm
003	Function
LR	Pressure regulator
004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2

005	Pressure regulation range
D5	0.3 ... 4 bar, manually actuated
D6	0.3 ... 7 bar, manually actuated
D7	0.5 ... 12 bar, manually actuated
006	Lockable
AS	Standard rotary knob with detent, can be locked using accessories
007	Flow direction
–	From left to right

Product options

- Size 9, grid dimensions 90 mm
- Pneumatic connection
 - Female thread G1/8, G3/8, G3/4, G1
 - Connecting plate
 - Module without connecting thread, without connecting plate
- Pressure regulation range
 - 0.5 ... 16 bar
 - Max. 16 bar, pneumatically actuated
 - 0.15 ... 6 bar, electrically actuated
- Regulator type: directly actuated
- Pressure gauge alternatives
- Alternative pressure gauge scale
- Without secondary exhaust
- Rotary knob alternatives
 - Rotary knob underneath
 - Long rotary knob
 - Rotary knob pressure gauge, small
 - Rotary knob pressure gauge, large
- Lockable
 - None
 - With integrated lock
- With mounting bracket
- EU certification: II 2GD to EU Explosion Protection Directive (ATEX)
- UL certification
- Flow direction from right to left

Configurable product

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

→ www.festo.com/catalogue/...

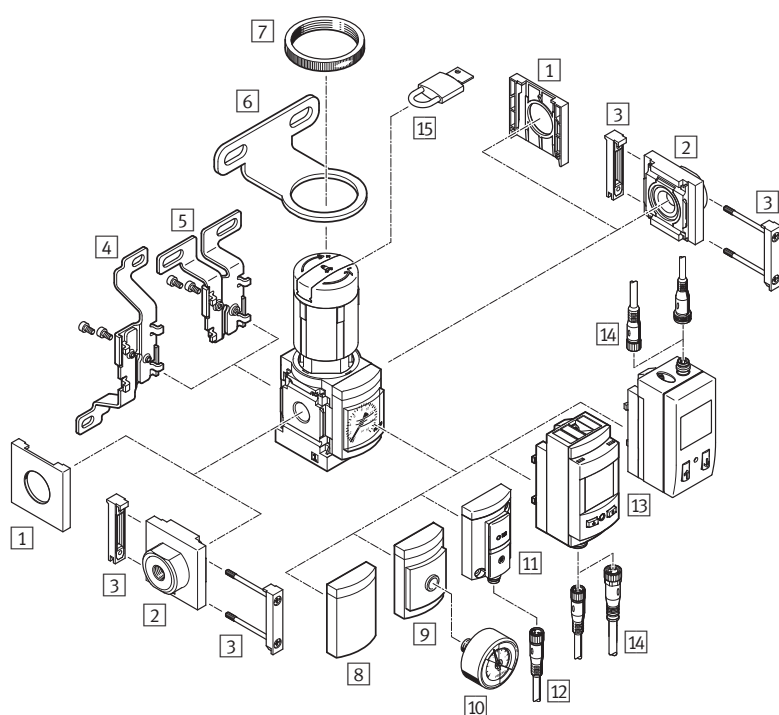
Enter the part number or the type.

Part no.	Type	Standard nominal flow rate	Pressure regulation range
527690	MS4-LR	1000 ... 2100 l/min	0.3 ... 12 bar
527663	MS6-LR	2200 ... 7500 l/min	0.3 ... 16 bar
535021	MS12-LR	12000 ... 22000 l/min	0.15 ... 16 bar

Ordering – Basic design

		005 Pressure regulation range 0.3 ... 4 bar		005 Pressure regulation range 0.3 ... 7 bar		005 Pressure regulation range 0.5 ... 12 bar	
002 Size	004 Pneumatic connection	Type	Part no.	Type	Part no.	Type	Part no.
Integrated MS pressure gauge with standard scale, display unit [bar], rotary knob with latch, can be locked using accessories							
4	G1/4	MS4-LR-1/4-D5-AS	529415	MS4-LR-1/4-D6-AS	529417	MS4-LR-1/4-D7-AS	529419
6	G1/2	MS6-LR-1/2-D5-AS	529989	MS6-LR-1/2-D6-AS	529991	MS6-LR-1/2-D7-AS	529993

Accessories



- 1 Cover cap MS4/6-END → [ms4-end](#)
- 2 Connecting plate kit MS4/6-AG... → 293
- 3 Module connector MS-MV → 283
- 4 Mounting bracket MS4/6-WB → 283
- 5 Mounting bracket MS4/6-WBM → [ms4-wbm](#)
- 6 Mounting bracket MS4/6-WR → 283
- 7 Knurled nut MS-LR (included in the scope of delivery)
- 8 Cover plate VS → [ms4-lr](#)
- 9 Adapter plate for EN pressure gauge → [ms4-lr](#)
- 10 Pressure gauge MA → [ms4-lr](#)
- 11 Pressure sensor without display → [ms4-lr](#)
- 12 Connecting cable NEBU-M8...-LE3 → 301
- 13 Pressure sensor with LCD display → [ms4-lr](#)
- 14 Connecting cable NEBU-M8...-LE3/ NEBU-M12...-LE4 → 301
- 15 Padlock LRVS-D → [ms4-lr](#)

Mounting bracket
MS4/MS6-WP, MS4/MS6-WPB, MS4/MS6-WPM
→ 283
MS4/6-WPE → [ms4-wpe](#)

3 Module connector MS-MV		
Size	Type	Part no.
4	MS4-MV1	8119201
6	MS6-MV1	8119204

Module connector MS-MVM		
Size	Type	Part no.
For installing modules with regulator knob pointing downwards		
4	MS4-MVM	532800
6	MS6-MVM	532801

4 Mounting bracket MS-WB		
Size	Type	Part no.
For wall mounting		
4	MS4-WB	532185
6	MS6-WB	532196

6 Mounting bracket MS-WR		
Size	Type	Part no.
For wall mounting		
4	MS4-WR	526064
6	MS6-WR	526075

Mounting bracket MS-WP		
Size	Type	Part no.
For wall mounting		
4	MS4-WP	532184
6	MS6-WP	532195

Mounting bracket MS-WPB		
Size	Type	Part no.
For wall mounting		
4	MS4-WPB	526063
6	MS6-WPB	526074

Mounting bracket MS-WPM		
Size	Type	Part no.
For wall mounting		
4	MS4-WPM-D	526060
6	MS6-WPM-D	526073



- Very compact and extremely light-weight series for use close to the process directly in the machine
- Detenting and non-detenting manual override
- Connection G1/4, G1/2
- Flow rate 1400, 3000 l/min
- Operating pressure 3 ... 7 bar

Order code

001002003004005006

MS- - -V24-B

Legend: Mandatory entry

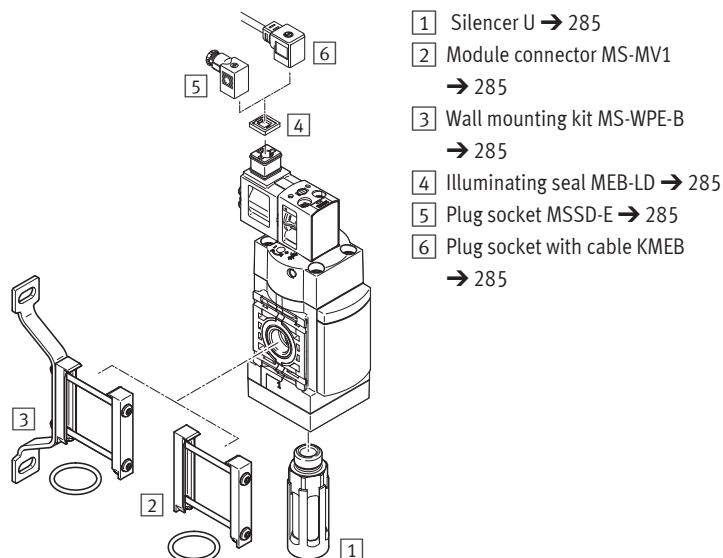
001	Type
MS	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Function
EE	Electrically actuated on/off valve
EDE	Soft-start valve, electrically actuated
004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2

005	Supply voltage
V24	24 V DC (plug pattern to EN 175301)
006	Version
B	Basic

Ordering

002 Size	004 Pneumatic connection	003 Function	Type	Part no.
003 Manually operated on/off valve, 3/2-way valve, bistable, closed				
005 Supply voltage 24 V DC				
4	G1/4	For pressurising and exhausting pneumatic systems	MS4-EE-1/4-V24-B	8091771
6	G1/2		MS6-EE-1/2-V24-B	8091578
003 Soft-start valve, electrically actuated, 3/2-way valve, single solenoid, closed				
005 Supply voltage 24 V DC				
4	G1/4	For slowly pressurising and exhausting pneumatic systems	MS4-EDE-1/4-V24-B	8080815
6	G1/2		MS6-EDE-1/2-V24-B	8080855

Accessories



- 1 Silencer U → 285
- 2 Module connector MS-MV1
→ 285
- 3 Wall mounting kit MS-WPE-B
→ 285
- 4 Illuminating seal MEB-LD → 285
- 5 Plug socket MSSD-E → 285
- 6 Plug socket with cable KMEB
→ 285

1 Silencer U

Size	Type	Part no.
4	U-1/4-B	6842
6	U-1/2-B	6844

5 Plug socket MSSD-E

Electrical connection	Cable connection	Type	Part no.
3-pin	Screw terminal	MSSD-EB	151687
4-pin		MSSD-EB-S-M14	192745

2 Module connector MS-MV1

Size	Type	Part no.
For connecting the modules for wall mounting		
4	MS4-MV1	8119201
6	MS6-MV1	8119204

6 Plug socket with cable KMEB

Electrical connection	Cable length	Type	Part no.
24 V DC, with LED			
3-pin	2.5 m	KMEB-1-24-2.5-LED	151688
	5 m	KMEB-1-24-5-LED	151689
	10 m	KMEB-1-24-10-LED	193457

3 Wall mounting kit MS-WPE-B

Size	Type	Part no.
For wall mounting		
4	MS4-WPE-B	8118600
6	MS6-WPE-B	8118599

4 Illuminating seal MEB-LD

Operating voltage range	Type	Part no.
For plug socket with cable KMEB and plug socket MSSD-EB		
12 ... 24 V DC	MEB-LD-12-24DC	151717

On/off valves and soft-start valves > MS series > Manually/electrically actuated on/off valves >

On/off valves MS4/MS6-EM1, MS4/MS6-EE, MS series



- For pressurising and exhausting pneumatic systems
- Connection G1/4, G1/2
- Flow rate 1000 ... 8700 l/min
- Operating pressure 0 ... 18 bar
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/ex

Order code – Basic design

001	002	003	004	005	006
MS					

Legend: Mandatory entry Optional entry

001	Type
MS	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Function
EM1	Manually operated on/off valve
EE	Electrically actuated on/off valve
004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2

005	Supply voltage
–	Without (manually operated on/off valve)
10V24	24 V DC
006	Silencers
–	Without silencer
S	With silencer

Product options

- Size
 - 9, grid dimensions 90 mm
 - 12, grid dimensions 124 mm
- Additional connection sizes
- Pressure gauge alternatives
- Alternative pressure gauge scale
- Additional supply voltages
- With mounting bracket
- Other valve functions
- EU certification
- UL certification
- Flow direction from right to left



Configurable product

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

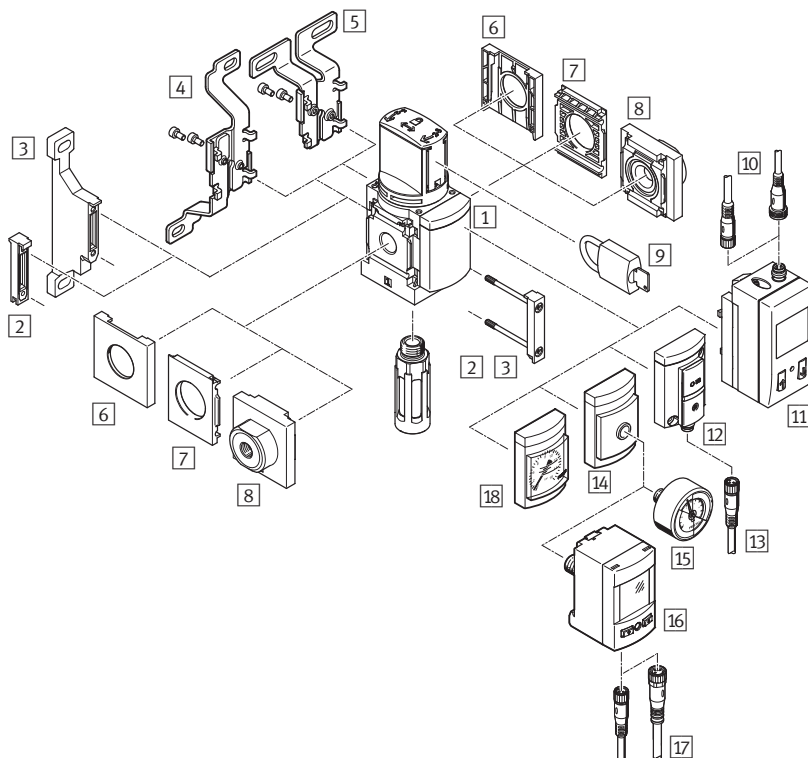
→ www.festo.com/catalogue/ms-e

Ordering – Basic design

		006 Without silencer		006 With silencer	
002 Size	004 Pneumatic connection	Type	Part no.	Type	Part no.
003 Manually operated on/off valve, 3/2-way valve, bistable					
4	G1/4	MS4-EM1-1/4	541258	MS4-EM1-1/4-S	541259
6	G1/2	MS6-EM1-1/2	541267	MS6-EM1-1/2-S	541268
003 Electrically actuated on/off valve, 3/2-way valve, single solenoid, closed					
005 Supply voltage 24 V DC					
4	G1/4	MS4-EE-1/4-10V24	542578	MS4-EE-1/4-10V24-S	542598
6	G1/2	MS6-EE-1/2-10V24	542582	MS6-EE-1/2-10V24-S	542602

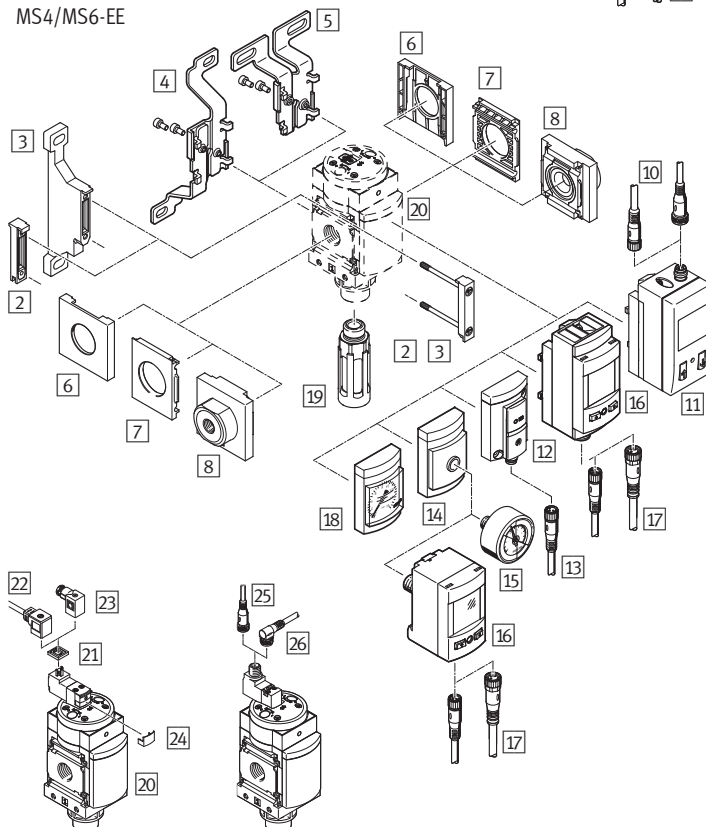
Accessories

MS4/MS6-EM1



- 1 On/off valve MS4/6-EM1
- 2 Module connector MS-MV → 279
- 3 Mounting bracket MS4/6-WP → 279
- 4 Mounting bracket MS4/6-WB → 279
- 5 Mounting bracket MS4-WBM → [ms4-wbm](#)
- 6 Cover cap MS4/6-END → [ms4-end](#)
- 7 Mounting plate MS4/6-AEND → [ms4-aend](#)
- 8 Connecting plate kit MS4/6-AG... → 293
- 9 Padlock LRVS-D → [ms4-e](#)
- 10 Connecting cable NEBU-M8...-LE3, NEBU-M12...-LE4 → 301
- 11 Pressure sensor SDE1 with LCD display → [ms4-e](#)
- 12 Pressure sensor SDE5 with status indicator → [ms-e](#)
- 13 Connecting cable NEBU-M8...-LE3 → 301
- 14 Adapter plate for EN pressure gauge → [ms4-e](#)
- 15 Pressure gauge MA → [ms4-e](#)
- 16 Pressure sensor SPAU → [ms4-e](#)
- 17 Connecting cable NEBU-M8...-LE4, NEBU-M12...-LE4 → 301
- 18 MS pressure gauge → [ms4-e](#)
- 19 Silencer U → 339

MS4/MS6-EE



- 20 On/off valve MS4/6-EE
- 21 Illuminating seal MEB-LD → [ms4-e](#)
- 22 Plug socket with cable KMEB → [ms4-e](#)
- 23 Plug socket MSSD-EB → [ms4-e](#)
- 24 Locking clip CPV18-HV → [ms4-e](#)
- 25 Connecting cable NEBU-M12G5 → 301
- 26 Connecting cable NEBU-M12W5 → [ms4-e](#)

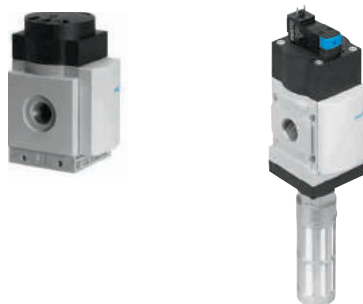
Mounting bracket

MS4/MS6-WPB, MS4/MS6-WPM → 279

MS4/6-WPE → [ms4-wpe](#)

On/off and soft-start valves > MS series >

Soft-start/quick exhaust valves MS4/MS6-DL, MS6-SV, MS series



MS-DL:

- For slowly pressurising and exhausting pneumatic systems (for use with on/off valves EM1 and EE)

MS-SV-C:

- For the gradual pressurisation and quick exhausting of system components (single channel)

- Connection G1/4, G1/2
- Flow rate 1000 ... 6450 l/min
- Operating pressure 3 ... 18 bar
- Selected types in accordance with ATEX directive for potentially explosive atmospheres

→ www.festo.com/ex

Order code – Basic design

001	002	003	004	005	006	007
MS						

Legend: ☐ Mandatory entry ☐ Optional entry

001	Type
MS	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Service function
DL	Pneumatically actuated soft-start valve
SV	Soft-start/quick exhaust valve
004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2

005	Performance Level
–	None
C	Category 1, to EN ISO 13849-1
006	Supply voltage
–	Without (pneumatically actuated soft-start valve)
10V24	24 V DC, 10 bar, connection pattern to EN 175301
007	Silencer
–	Without silencer
S	With silencer

Product options

- Size
 - 12, grid dimensions 124 mm
- Additional connection sizes
- Additional supply voltages
- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- With mounting bracket
- With tamper protection
- EU certification
- UL certification
- Flow direction from right to left

Configurable product

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

→ www.festo.com/catalogue/ms-dl

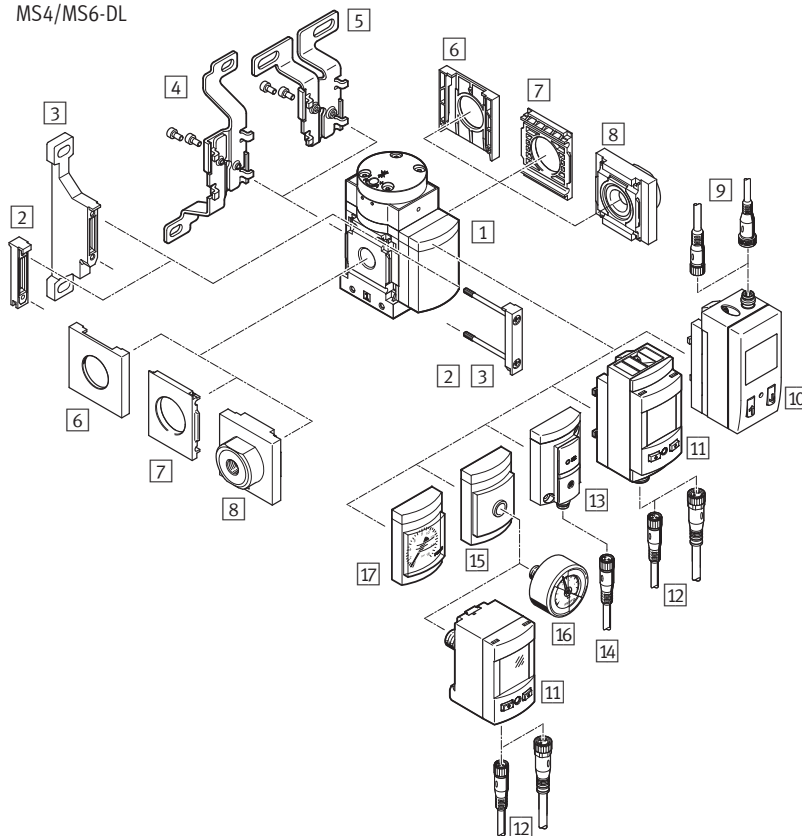
→ www.festo.com/catalogue/ms-sv

Ordering – Basic design

002 Size	004 Pneumatic connection	007 Silencer	Type	Part no.
003 Pneumatically actuated soft-start valve, 2/2-way valve				
4	G1/4	–	MS4-DL-1/4	529531
6	G1/2	–	MS6-DL-1/2	529817
003 Electro-pneumatically actuated soft-start/quick exhaust valve, 3/2-way valve, single solenoid, closed				
6	G1/2	With	MS6-SV-1/2-C-10V24-S	8001469

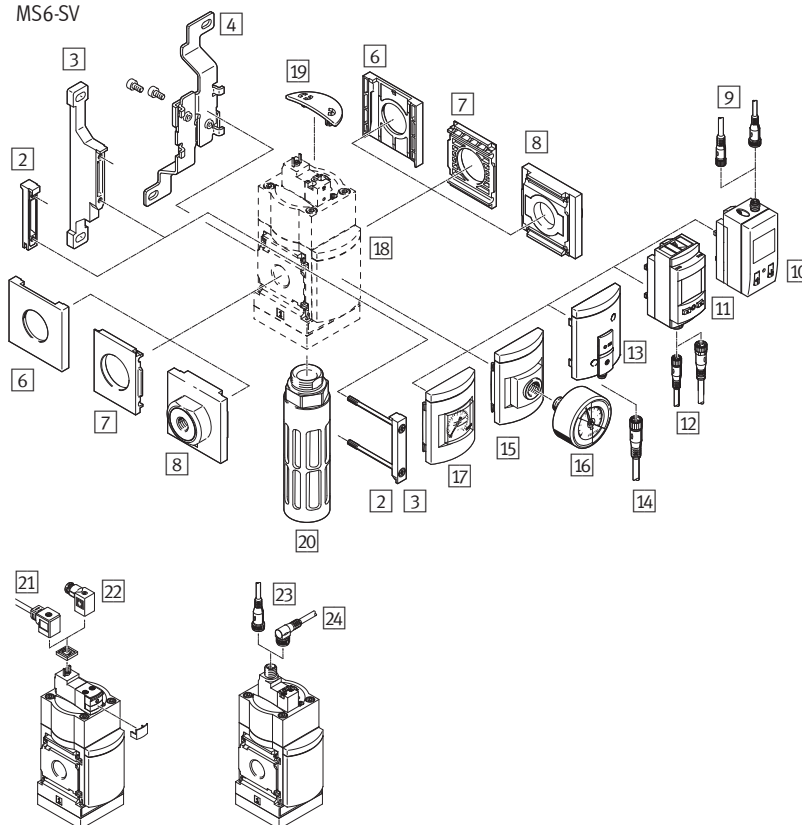
Accessories

MS4/MS6-DL



- 1 Soft-start valve MS4/6-DL
- 2 Module connector MS-MV → 279
- 3 Mounting bracket MS-WP → 279
- 4 Mounting bracket MS-WB → 279
- 5 Mounting bracket MS-WBM → [ms4-wbm](#)
- 6 Cover cap MS-END → [ms4-end](#)
- 7 Mounting plate MS6-AEND → [ms6-aend](#)
- 8 Connecting plate kit MS4/6-AG... → 293
- 9 Connecting cable NEBU-M8...-LE3/NEBU-M12...-LE4 → 301
- 10 Pressure sensor SDE1 with LCD display → [ms4-dl](#)
- 11 Pressure sensor SPAU with LCD display → [ms4-dl](#)
- 12 Connecting cable NEBU-M8...-LE4, NEBU-M12...-LE4 → 301
- 13 Pressure sensor SDE5 with status indicator → [ms4-dl](#)
- 14 Connecting cable NEBU-M8...-LE3 → 301
- 15 Adapter plate for EN pressure gauge → [ms4-dl](#)
- 16 Pressure gauge MA → [ms4-dl](#)
- 17 MS pressure gauge → [ms4-dl](#)

MS6-SV



- 18 Soft-start/quick exhaust valve MS6-SV-C
- 19 Cover MS6-SV-C-MK → [ms6-sv](#)
- 20 Silencer U-3/4-B → [ms6-sv](#)
- 21 Plug socket with cable KMEB → [ms6-sv](#)
- 22 Plug socket MSSD-EB → [ms6-sv](#)
- 23 Connecting cable NEBU-M12G5 → 301
- 24 Connecting cable NEBU-M12W5 → [ms6-sv](#)

Mounting bracket

MS4/MS6-WPM → 279

MS4/6-WPE → [ms4-wpe](#)

Branching modules MS4/MS6-FRM, MS series



- Compressed air distributors with 4 connections
- Can be used as an intermediate distributor for varying air qualities
- Outlet at top and bottom
- Flow rate 1200 ... 14700 l/min
- Operating pressure 0 ... 20 bar

Order code – Basic design

001	002	003	004	005
MS		FRM		

Legend: ☐ Mandatory entry ☐ Optional entry

001	Series
MS	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Service function
FRM	Branching module

004	Pneumatic connection
1/4	Female thread G1/4
1/2	Female thread G1/2
005	Non-return function/pressure switch
–	Standard

Product options

- Size
 - 12, grid dimensions 124 mm
- Additional connection sizes
- With integrated non-return function
- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- With pressure switch
- With mounting bracket
- EU certification
- UL certification
- Flow direction from right to left

Configurable product

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

→ www.festo.com/catalogue/...

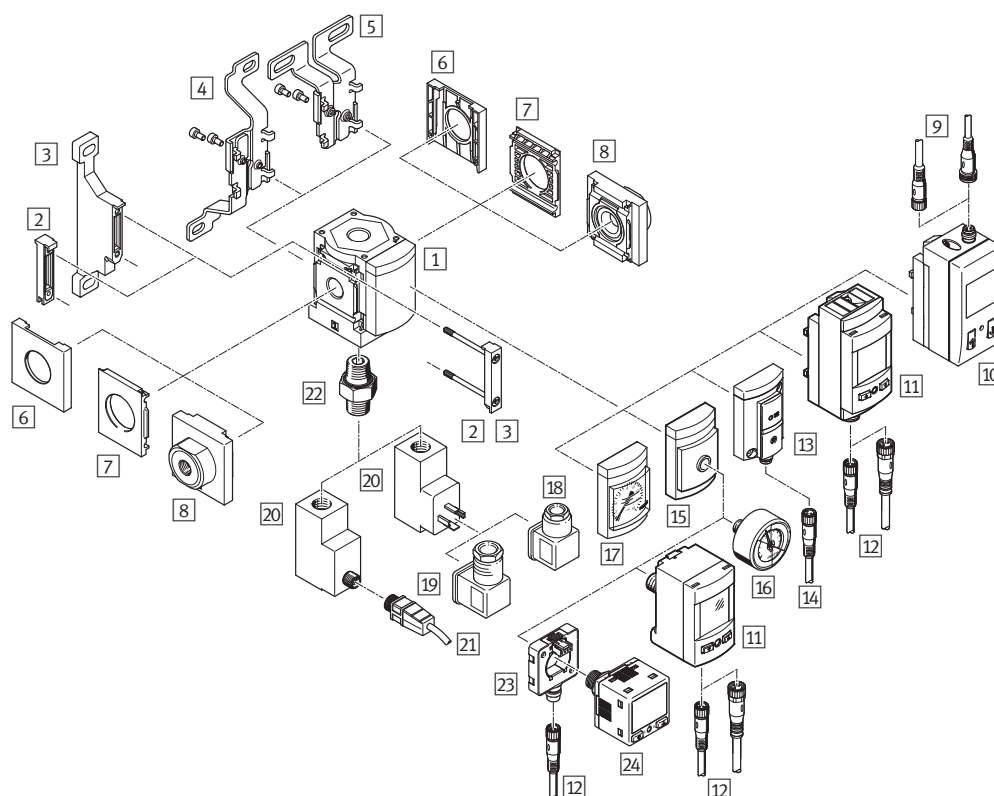
Enter the part number or the type.

Part no.	Type	Standard nominal flow rate	Operating pressure
527703	MS4-FRM	1200 ... 4600 l/min	0 ... 14 bar
527676	MS6-FRM	3200 ... 14700 l/min	0 ... 20 bar

Ordering – Basic design

002 Size	004 Pneumatic connection	Type	Part no.
6	G1/4	MS6-FRM-1/4	529857
6	G1/2	MS6-FRM-1/2	529853

Accessories



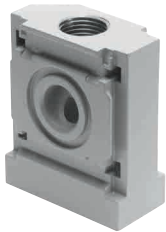
- 1 Branching module MS4/6-FRM
- 2 Module connector MS-MV → 279
- 3 Mounting bracket MS4/6-WP
→ [ms4-wp](#)
- 4 Mounting bracket MS4/6-WB → 279
- 5 Mounting bracket MS4/6-WM
→ [ms4-wbm](#)
- 6 Cover cap MS4/6-END → [ms4-end](#)
- 7 Mounting plate MS4/6-AEND
→ [ms4-aend](#)
- 8 Connecting plate kit MS4/6-AG...
→ 293
- 9 Connecting cable NEBU-M8...-LE3,
NEBU-M12...-LE4 → 301
- 10 Pressure sensor SDE1 with LCD display
→ [ms4-frm](#)
- 11 Pressure sensor SPAU → [ms4-frm](#)
- 12 Connecting cable NEBU-M8...-LE4,
NEBU-M12...-LE4 → 301
- 13 Pressure sensor SDE5 with status indi-
cator → [ms4-frm](#)
- 14 Connecting cable NEBU-M8...-LE3
→ 301
- 15 Adapter for EN pressure gauge
→ [ms4-frm](#)
- 16 Pressure gauge MA → [ms4-frm](#)
- 17 MS pressure gauge → [ms4-frm](#)
- 18 Plug socket MSSD-C-4P → [ms4-frm](#)
- 19 Angled socket PEV-1/4-WD-LED
→ [ms4-frm](#)
- 20 Pressure switch PEV → [ms4-frm](#)
- 21 Connecting cable NEBU-M12...-LE4
→ 301
- 22 Double nipple ESK → [ms4-frm](#)
- 23 Electrical adapter SASC → [ms4-frm](#)
- 24 Pressure sensor SPAN → [ms4-frm](#)

Mounting bracket

MS4/MS6-WPM → 279

MS4/6-WPE → [ms4-wpe](#)

Distributor blocks MS4/MS6-FRM-FRZ, MS series



- Compressed air distributors with 4 connections
- Can be used as an intermediate distributor for varying air qualities
- Outlet at top and bottom
- Flow rate 2900 ... 14600 l/min
- Operating pressure 0 ... 20 bar

Order code

001

002

003

MS

FRM

FRZ

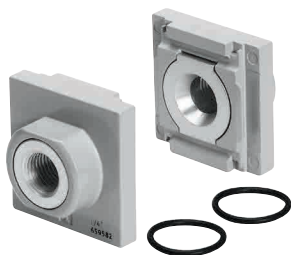
Legend:

Mandatory entry

001	Series
MS	MS series
002	Size
4	Grid dimensions 40 mm
6	Grid dimensions 62 mm
003	Service function
FRM-FRZ	Distributor block

Ordering

002 Size	Pneumatic connection 3, 4	Type	Part no.
4	G1/4	MS4-FRM-FRZ	549336
6	G1/2	MS6-FRM-FRZ	549337

Accessories for compressed air preparation ›
Connecting plate kit MS4/MS6-AG...

- MS series
- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection G3/4

Ordering

Size	Pneumatic connection	Type	Part no.
4	G1/4	MS4-AGB	526069
4	G3/8	MS4-AGC	526070
6	G1/2	MS6-AGD	526082
6	G3/4	MS6-AGE	526083