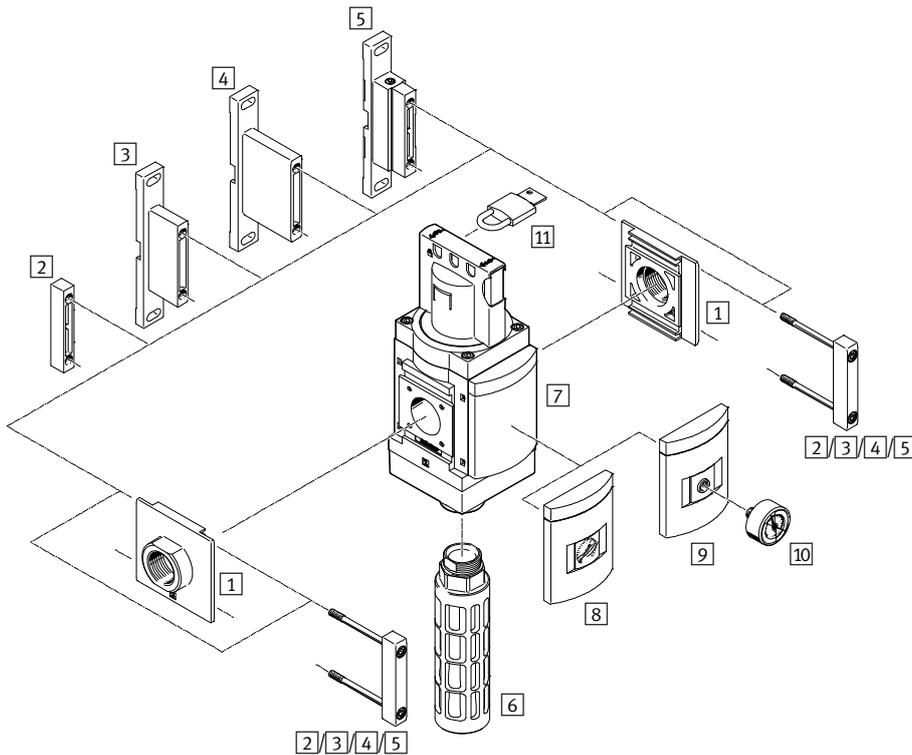


On-off valves MS-EM/EE, MS series, NPT



On-off valves MS9-EM, MS series, NPT

Peripherals overview



Note

Additional accessories:
 – Module connector for combinations with size MS6, MS9 or size MS12
 → Internet: rmv, armv

Mounting attachments and accessories				
	Individual component	Combination		→ Page/ Internet
		With female thread N $\frac{3}{4}$ or N1	With connecting plate AQ...	
1	Connecting plate-SET MS9-AQ...	-	■	ms9-aq
2	Module connector MS9-MV	-	-	ms9-mv
3	Mounting bracket MS9-WP	■	■	ms9-wp
4	Mounting bracket MS9-WPB	■	■	ms9-wp
5	Mounting bracket MS9-WPM	■	■	ms9-wp
6	Silencer U	■	■	21
7	Cover plate VS	■	■	8
8	MS pressure gauge AG/RG	■	■	8
9	Adapter plate for EN pressure gauge $\frac{1}{4}$ A4	■	■	8
10	Pressure gauge MA	■	■	21
11	Padlock LRVS-D	■	■	21

1) The screws for the wall bracket on the reverse side are partially covered by the housing of this service unit. Depending on the configuration of the service unit combination, the screws will no longer be accessible. The mounting bracket MS9-WPM is therefore recommended for wall mounting. It can be used to attach a fully assembled combination to the pre-mounted wall bracket.

On-off valves MS9-EM, MS series, NPT

Type codes

		MS	9	-	EM	-	NG	-	S	-	VS
Series											
MS	Standard service unit										
Size											
9	Grid dimension 90 mm										
Service function											
EM	Manually operated on-off valve										
Pneumatic connection											
NG	Module without connecting thread, without connecting plate										
Silencer											
S	Silencer										
Pressure gauge/pressure gauge alternatives											
VS	Cover plate										

Additional variants can be ordered using the modular system → 8

- Pneumatic connection
- Silencer
- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- Valve function
- Type of mounting
- UL certification
- Flow direction

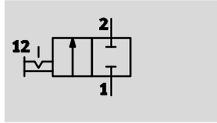
New
Variant UL1

On-off valves MS9-EM, MS series, NPT

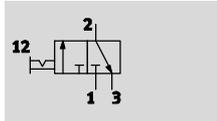
Technical data

FESTO

2/2-way valve, double solenoid



3/2-way valve, double solenoid



-  - Flow rate
8,000 ... 18,000 l/min
-  - Temperature range
-10 ... +60 °C
-  - Operating pressure
0 ... 20 bar



- Manually operated on-off valve for pressurising and venting pneumatic installations
- Ducted exhaust possible via a threaded connection with silencer
- The switching position is immediately recognisable
- Actuator secured by locking the rotary knob
- Commercially available padlock can be used for security
- Optional pressure gauge

General technical data				
Pneumatic connection 1, 2	NPT $\frac{3}{4}$ -14 (Female thread)	NPT1-11 $\frac{1}{2}$ (Female thread)	NPT $\frac{1}{2}$ -14 ... NPT1 $\frac{1}{2}$ -11 $\frac{1}{2}$ (With connecting plate AQ...)	- (Module without connecting thread, without connecting plate NG)
Pneumatic connection 3	NPT1-11 $\frac{1}{2}$			
Design	Piston spool valve			
Type of mounting	Via accessories			
	In-line installation			
Mounting position	Any			
Regulator lock	Rotary knob with detent			
Pressure display	Via pressure gauge for displaying output pressure			
	Via pressure gauge with red/green scale for displaying output pressure			
	G $\frac{3}{4}$ prepared			
Valve function	2/2-way valve, double solenoid			
	3/2-way valve, double solenoid			
Exhaust air function	No flow control			
Reset method	Forced			
Type of control	Direct			
Sealing principle	Soft			

On-off valves MS9-EM, MS series, NPT

Technical data

Flow rate characteristic values								
Pneumatic connection	Female thread		Connecting plate					None
	NPT $\frac{3}{4}$ -14	NPT1-11 $\frac{1}{2}$	AQR	AQS	AQT	AQU	AQV	NG
Standard nominal flow rate q_{nN^1} [l/min]								
In main flow direction 1 \rightarrow 2	14,500	18,000	8,000	14,000	18,000	18,000	18,000	18,000
In relief direction 2 \rightarrow 3	14,900	14,100	16,500	14,400	13,800	13,200	13,200	14,100
C value [l/s*min]								
In main flow direction 1 \rightarrow 2	59.59	76.90	32.75	57.50	75.65	75.51	75.17	-
In relief direction 2 \rightarrow 3	55.11	53.54	56.22	54.07	52.73	51.06	51.36	-
b value								
In main flow direction 1 \rightarrow 2	0.41	0.37	0.45	0.39	0.38	0.39	0.38	-
In relief direction 2 \rightarrow 3	0.50	0.48	0.60	0.49	0.47	0.45	0.44	-

1) Measured at $p_1 = 6$ bar and $p_2 = 5$ bar, $\Delta p = 1$ bar

Operating and environmental conditions	
Operating pressure [bar]	0 ... 20
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	-10 ... +60
Temperature of medium [°C]	-10 ... +60
Corrosion resistance class CRC ¹⁾	2
Noise level [dB (A)]	93 ²⁾ with silencer
Certification (variant UL1)	cULus recognized (OL)

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

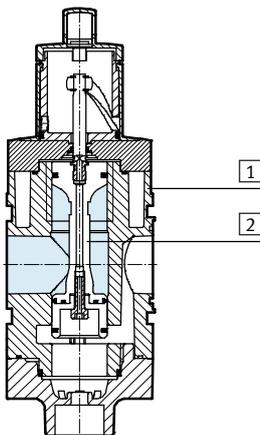
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Venting at 10 bar at a distance of 1 m.

Weight [g]	
On-off valve	2,200
On-off valve with silencer S	2,400

Materials

Sectional view



On-off valve		
1	Housing	Die-cast aluminium
2	Piston spool	POM
-	Seals	NBR
Note on materials		RoHS-compliant

New
Variant UL1

On-off valves MS9-EM, MS series, NPT

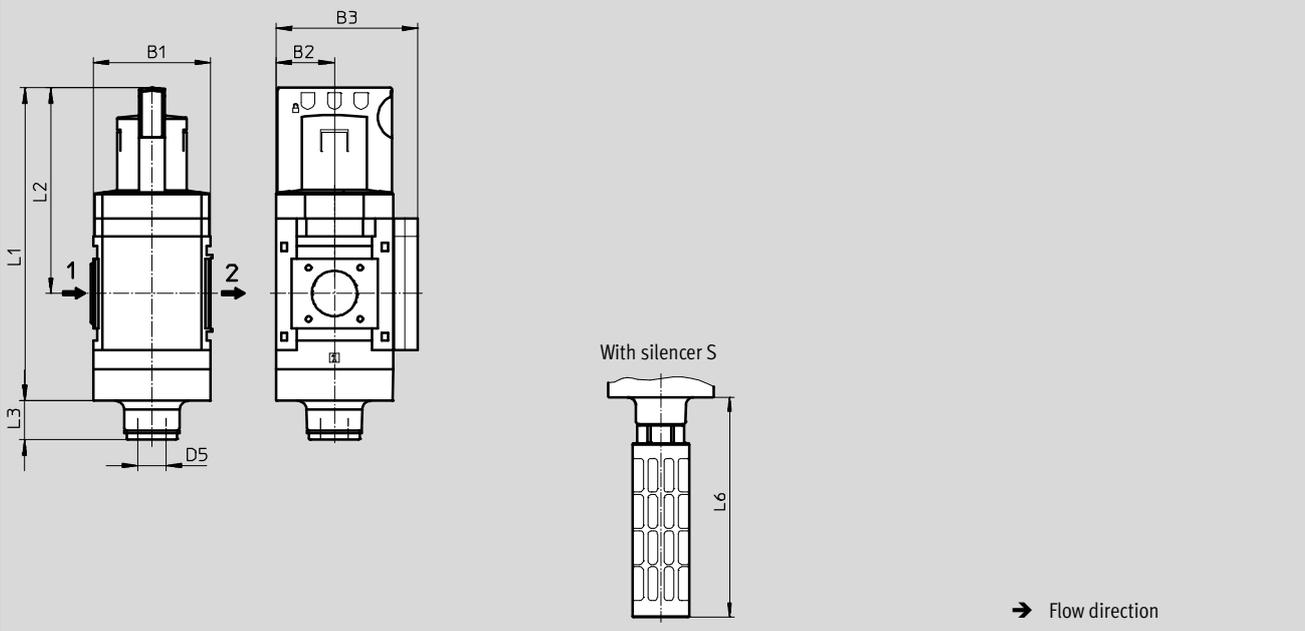
Technical data

FESTO

Dimensions – Basic version

Download CAD data → www.festo.com

Module without connecting thread, without connecting plate NG, with cover plate VS



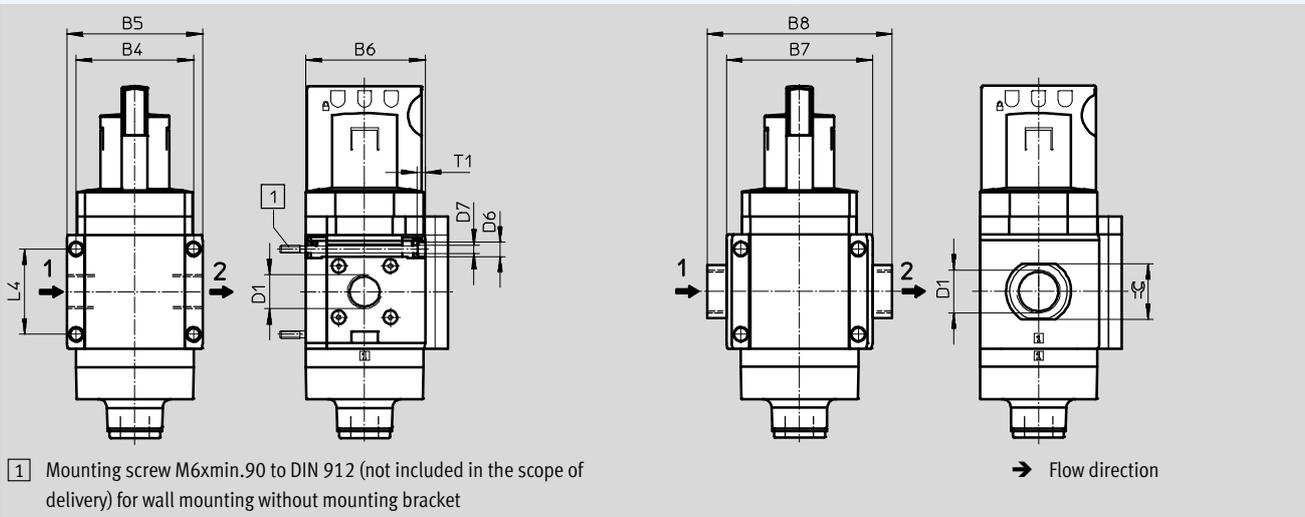
Type	B1	B2	B3	D5	L1	L2	L3		L6
							2/2-way valve	3/2-way valve	
MS9-EM-NG	90	45	109	NPT1-11½	242	159	30	23	189

Dimensions – Connecting thread/connecting plate

Download CAD data → www.festo.com

With female thread N¾ or N1

With connecting plate AQ...



1 Mounting screw M6xmin.90 to DIN 912 (not included in the scope of delivery) for wall mounting without mounting bracket

Type	B4	B5	B6	B7	B8	D1	D6	D7	L4	T1	⌀
MS9-EM-N¾	90	104	91.5	-	-	NPT¾-14	11	6.5	66	6	-
MS9-EM-N1						NPT1-11½					
MS9-EM-AQR	-	-	-	112	132	NPT½-14	-	-	-	-	30
MS9-EM-AQS					132	NPT¾-14					36
MS9-EM-AQT					142	NPT1-11½					41
MS9-EM-AQU					162	NPT1¼-11½					50
MS9-EM-AQV					176	NPT1½-11½					55

On-off valves MS9-EM, MS series, NPT

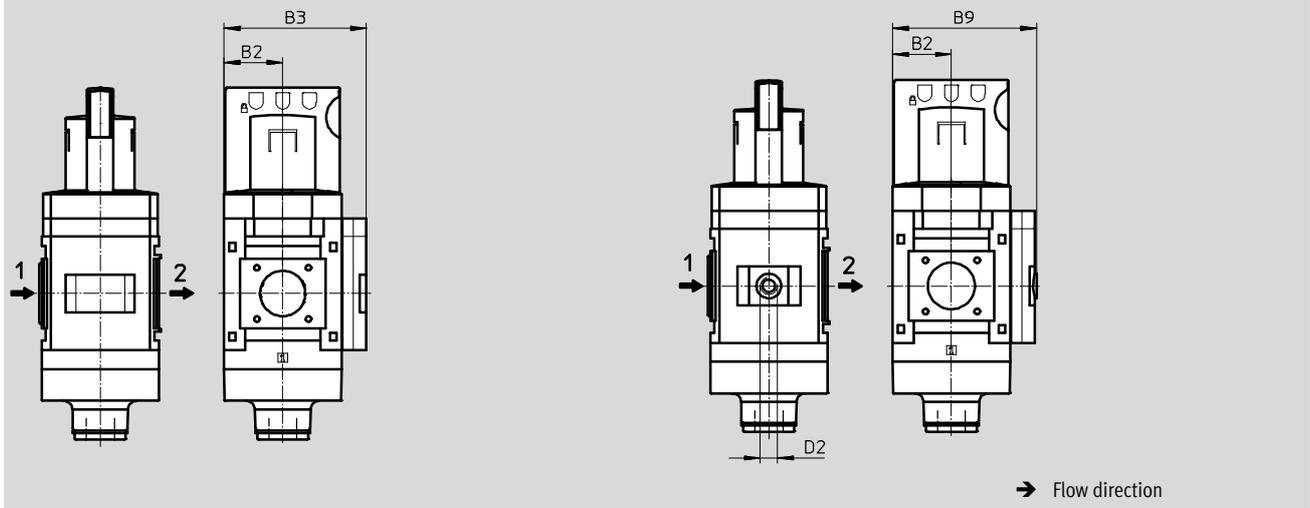
Technical data

Dimensions – Pressure gauge/pressure gauge alternatives

Download CAD data → www.festo.com

Integrated MS pressure gauge with standard scale AG or red/green scale RG

Adapter plate A4 for EN pressure gauge 1/4, without pressure gauge



Type	B2	B3	B9	D2
MS9-EM-...-AG/RG	45	109	-	-
MS9-EM-...-A4		-	110	G1/4

Ordering data

3/2-way valve, with silencer

Size	Connection	Part No.	Type
MS9	-	562954	MS9-EM-NG-S-VS

 **New
Variant UL1**

On-off valves MS9-EM, MS series, NPT

FESTO

Ordering data – Modular products

M Mandatory data				
Module No.	Series	Size	Function	Pneumatic connection
562178	MS	9	EM	N $\frac{3}{4}$, N1, AQR, AQS, AQT, AQU, AQV, NG
Ordering example				
562178	MS	9	- EM	- NG

Ordering table					
Grid dimension	[mm]	90	Condi- tions	Code	Enter code
M	Module No.	562178			
	Series	Standard		MS	MS
	Size	9		9	9
	Function	Manual on-off valve		-EM	-EM
	Pneumatic connection	Female thread NPT $\frac{3}{4}$		-N$\frac{3}{4}$	
		Female thread NPT1		-N1	
		Connecting plate NPT $\frac{1}{2}$		-AQR	
		Connecting plate NPT $\frac{3}{4}$		-AQS	
		Connecting plate NPT1		-AQT	
		Connecting plate NPT1 $\frac{1}{4}$		-AQU	
		Connecting plate NPT1 $\frac{1}{2}$		-AQV	
		Module without connecting thread, without connecting plate		-NG	

Transfer order code

562178	MS	9	- EM	
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On-off valves MS9-EM, MS series, NPT

Ordering data – Modular products

0	M	0 Options				
Silencer	Pressure gauge/pressure gauge alternatives	Alternative pressure gauge scale	Valve function	Type of mounting	UL certification	Flow direction
S	AG, VS, A4, RG	PSI, MPA, BAR	- 2	WP, WPM, WPB	UL1	Z
- S	- AG	-	-	-	-	-

Ordering table		Grid dimension [mm]	90	Condi-tions	Code	Enter code
0	Silencer	Silencer			-S	
M	Pressure gauge/pressure gauge alternatives	MS pressure gauge			-AG	
		Cover plate			-VS	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			-A4	
		Integrated pressure gauge, red/green scale		1	-RG	
0	Alternative pressure gauge scale	Psi		2	-PSI	
		MPa		2	-MPA	
		Bar		2	-BAR	
	Valve function	Standard (3/2-way valve)			-	
		2/2-way valve		3	-2	
	Type of mounting	Mounting bracket		4	-WP	
		Mounting bracket		4	-WPM	
		Mounting bracket for large wall gap		4	-WPB	
	UL certification	cULus, ordinary location for Canada and USA			-UL1	
	Flow direction	Flow direction from right to left			-Z	

- 1 RG** Not with alternative pressure gauge scale PSI
PSI scale serves only as an auxiliary scale
- 2 PSI, MPA, BAR** Not with pressure gauge/pressure gauge alternatives VS, A4

- 3 2** Not with silencer S
- 4 WP, WPM, WPB** Not with module NG

Transfer order code

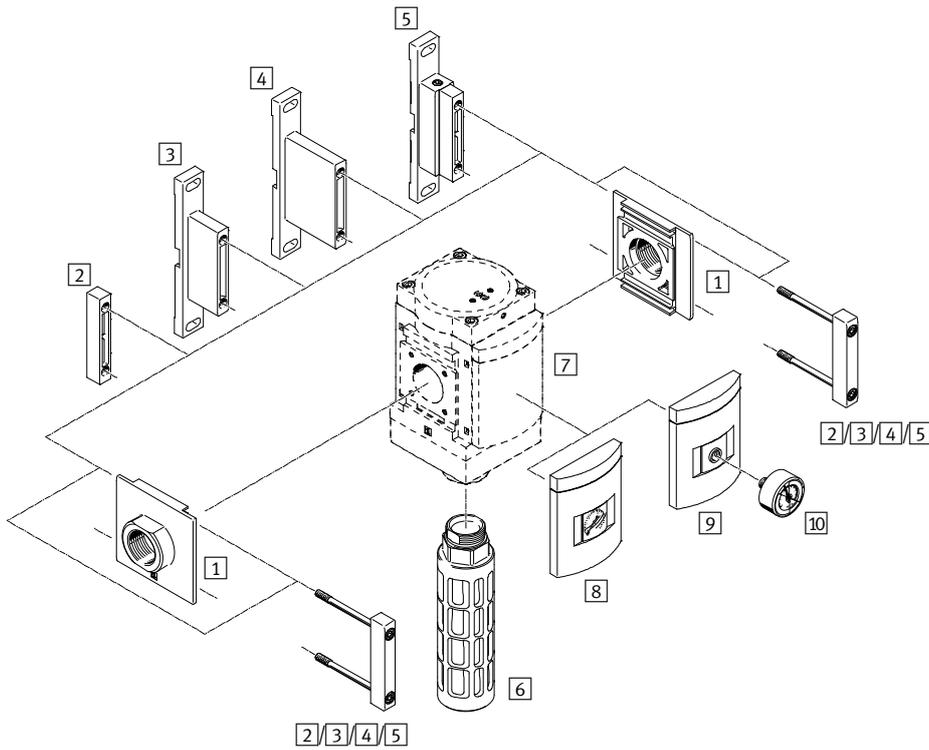
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New
Variant UL1

On-off valves MS9-EE, MS series, NPT

Peripherals overview

FESTO

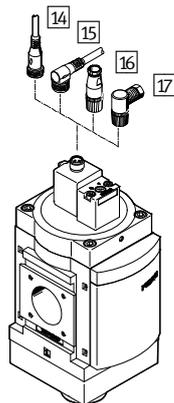
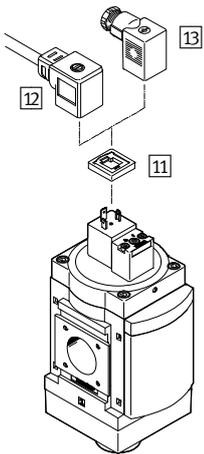


-  - Note

Additional accessories:
 - Module connector for combinations with size MS6, MS9 or size MS12
 → Internet: rmv, armv

Supply voltage
V24/V110/V230

Supply voltage
V24P



On-off valves MS9-EE, MS series, NPT

Peripherals overview

Mounting attachments and accessories					
		Individual component		Combination	→ Page/ Internet
		With female thread N $\frac{3}{4}$ or N1	With connecting plate AQ...	Module without connecting thread, without connecting plate NG	
1	Connecting plate-SET MS9-AQ...	-	■	■	ms9-aq
2	Module connector MS9-MV	-	-	■	ms9-mv
3	Mounting bracket MS9-WP	■	■	■ ¹⁾	ms9-wp
4	Mounting bracket MS9-WPB	■	■	■ ¹⁾	ms9-wp
5	Mounting bracket MS9-WPM	■	■	■	ms9-wp
6	Silencer U	■	■	■	21
7	Cover plate VS	■	■	■	18
8	MS pressure gauge AG/RG	■	■	■	18
9	Adapter plate for EN pressure gauge $\frac{1}{4}$ A4	■	■	■	18
10	Pressure gauge MA	■	■	■	21
11	Illuminating seal MC-LD	■	■	■	20
12	Plug socket with cable KMC	■	■	■	20
13	Plug socket MSSD-C	■	■	■	20
14	Connecting cable NEBU-M12G5	■	■	■	21
15	Connecting cable NEBU-M12W5	■	■	■	21
16	Sensor socket SIE-GD	■	■	■	21
17	Angled plug socket SIE-WD	■	■	■	21

1) The screws for the wall bracket on the reverse side are partially covered by the housing of this service unit. Depending on the configuration of the service unit combination, the screws will no longer be accessible. The mounting bracket MS9-WPM is therefore recommended for wall mounting. It can be used to attach a fully assembled combination to the pre-mounted wall bracket.

On-off valves MS9-EE, MS series, NPT

Type codes

FESTO

		MS	9	-	EE	-	NG	-	V24	-	S	-	VS
Series													
MS	Standard service unit												
Size													
9	Grid dimension 90 mm												
Service function													
EE	Solenoid actuated on-off valve												
Pneumatic connection													
NG	Module without connecting thread, without connecting plate												
Supply voltage													
V24	Supply voltage 24 V DC												
Silencer													
S	Silencer												
Pressure gauge/pressure gauge alternatives													
VS	Cover plate												

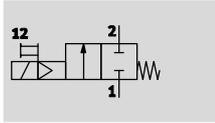
Additional variants can be ordered using the modular system → 18

- Pneumatic connection
- Supply voltage
- Silencer
- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- Valve function
- Type of mounting
- UL certification
- Flow direction

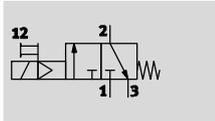
On-off valves MS9-EE, MS series, NPT

Technical data

2/2-way valve, single solenoid, closed



3/2-way valve, single solenoid, closed



-  - Flow rate
8,000 ... 18,000 l/min
-  - Temperature range
-10 ... +60 °C
-  - Operating pressure
3.5 ... 16 bar



- Solenoid actuated on-off valve for pressurising and venting pneumatic installations
- Ducted exhaust possible via a threaded connection with silencer
- With solenoid coil without plug socket
- 3 voltage ranges can be selected
- Non-detenting or detenting manual override
- Optional pressure gauge socket

General technical data				
Pneumatic connection 1, 2	NPT3/4-14 (Female thread)	NPT1-11 1/2 (Female thread)	NPT1/2-14 ... NPT1 1/2-11 1/2 (With connecting plate AQ...)	- (Module without connecting thread, without connecting plate NG)
Pneumatic connection 3	NPT1-11 1/2			
Design	Piston spool valve			
Type of mounting	Via accessories			
	In-line installation			
Mounting position	Any			
Pressure display	Via pressure gauge for displaying output pressure			
	Via pressure gauge with red/green scale for displaying output pressure			
	G 1/4 prepared			
Valve function	2/2-way valve, single solenoid, closed			
	3/2-way valve, single solenoid, closed			
Exhaust air function	No flow control			
Reset method	Mechanical spring			
Type of control	Piloted			
Pilot air supply	Internal			
Sealing principle	Soft			

Electrical data		
Coil characteristics	V24/V24P	24 V DC: 4.5 W; perm. voltage fluctuations ±10%
	V110	110 V AC: 50 Hz; pick-up power 11.5 W; holding power 8.9 W; perm. voltage fluctuations ±10% 110 V AC: 60 Hz; pick-up power 9.5 W; holding power 6.2 W; perm. voltage fluctuations ±10%
	V230	230 V AC: 50 Hz; pick-up power 11.5 W; holding power 9.1 W; perm. voltage fluctuations ±10% 230 V AC: 60 Hz; pick-up power 9.5 W; holding power 6.4 W; perm. voltage fluctuations ±10%
Electrical connection	V24/V110/V230	Plug socket, square design to EN 175301-803, type A
	V24P	Plug M12, 4-pin to DESINA
Protection class for solenoid coil	IP65	
Duty cycle	[%]	100

On-off valves MS9-EE, MS series, NPT

Technical data

Flow rate characteristic values								
Pneumatic connection	Female thread		Connecting plate					None
	NPT $\frac{3}{4}$ -14	NPT1-11 $\frac{1}{2}$	AQR	AQS	AQT	AQU	AQV	NG
Standard nominal flow rate $q_{nN}^{1)}$ [l/min]								
In main flow direction 1 \rightarrow 2	14,500	18,000	8,000	14,000	18,000	18,000	18,000	18,000
In relief direction 2 \rightarrow 3	14,900	14,100	16,500	14,400	13,800	13,200	13,200	14,100
C value [l/s*min]								
In main flow direction 1 \rightarrow 2	59.59	76.90	32.75	57.50	75.65	75.51	75.17	–
In relief direction 2 \rightarrow 3	55.11	53.54	56.22	54.07	52.73	51.06	51.36	–
b value								
In main flow direction 1 \rightarrow 2	0.41	0.37	0.45	0.39	0.38	0.39	0.38	–
In relief direction 2 \rightarrow 3	0.50	0.48	0.60	0.49	0.47	0.45	0.44	–

1) Measured at $p_1 = 6$ bar and $p_2 = 5$ bar, $\Delta p = 1$ bar

Operating and environmental conditions	
Operating pressure [bar]	3.5 ... 16
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	-10 ... +60
Temperature of medium [°C]	-10 ... +60
Corrosion resistance class CRC ¹⁾	2
Noise level [dB (A)]	93 ²⁾ with silencer
Certification (variant UL1)	cULus recognized (OL)

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

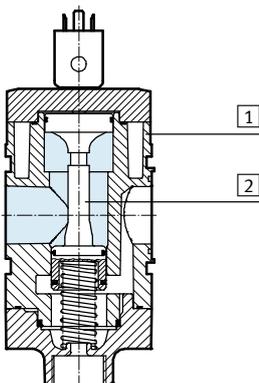
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Venting at 10 bar at a distance of 1 m.

Weight [g]	
On-off valve	2,100
On-off valve with silencer S	2,300

Materials

Sectional view



On-off valve		
1	Housing	Die-cast aluminium
2	Piston spool	POM
–	Seals	NBR
Note on materials		RoHS-compliant

On-off valves MS9-EE, MS series, NPT

Technical data

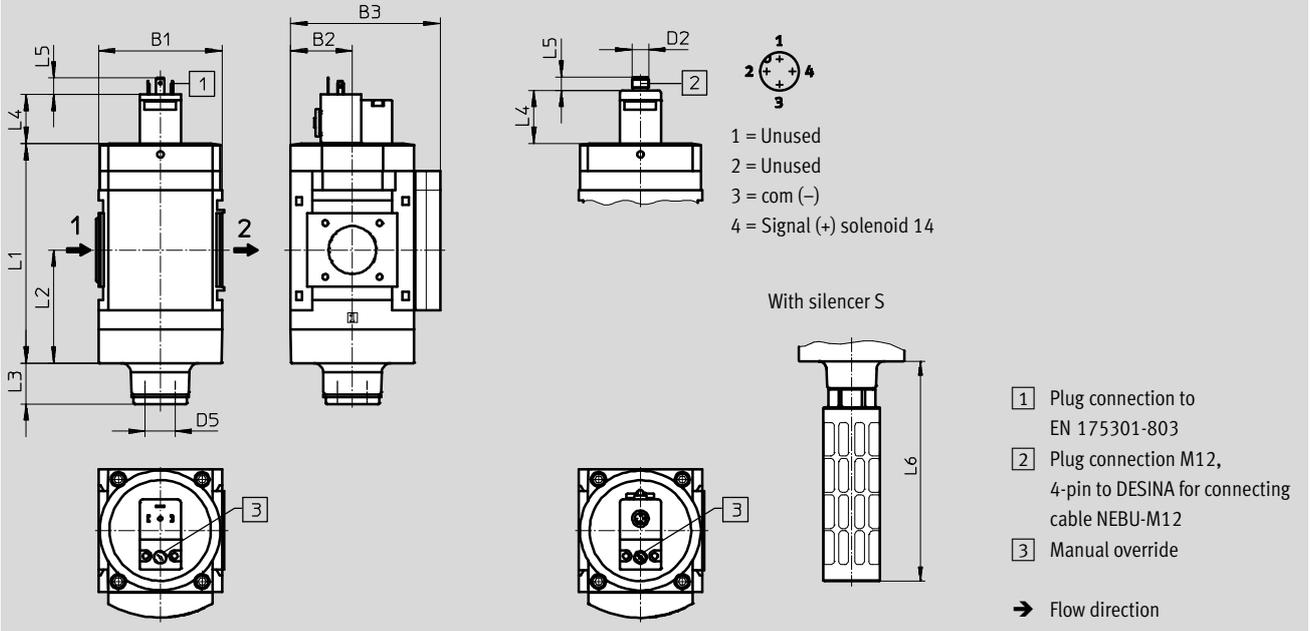
Dimensions – Basic version

Download CAD data → www.festo.com

Module without connecting thread, without connecting plate NG, with cover plate VS

Supply voltage V24/V110/V230

Supply voltage V24P



Type	B1	B2	B3	D2	D5	L1	L2	L3		L4	L5	L6
								2/2-way valve	3/2-way valve			
MS9-EE-NG-V24/V110/V230	90	45	109	-	NPT1-11½	161	83	30	23	36	12	189
MS9-EE-NG-V24P				M12x1						39	10	

On-off valves MS9-EE, MS series, NPT

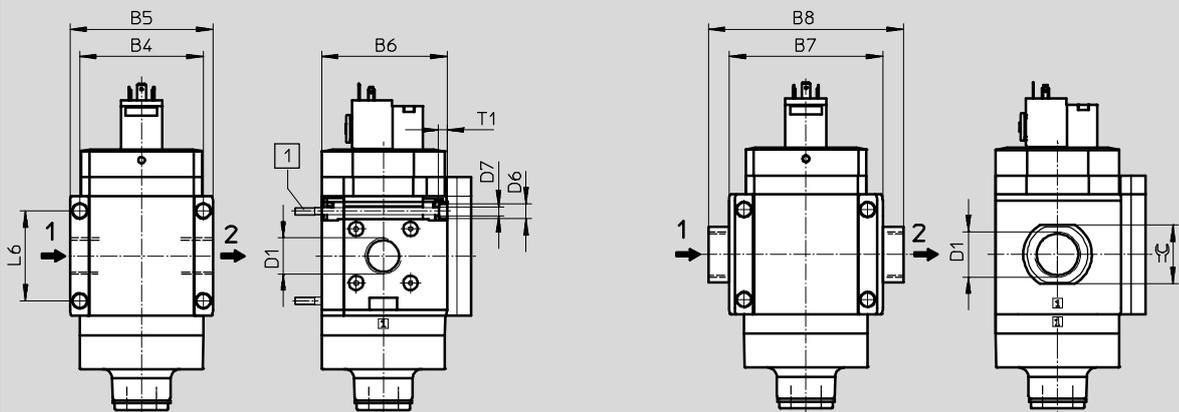
Technical data

Dimensions – Connecting thread/connecting plate

Download CAD data → www.festo.com

With female thread N $\frac{3}{4}$ or N1

With connecting plate AQ...



1 Mounting screw M6xmin.90 to DIN 912 (not included in the scope of delivery) for wall mounting without mounting bracket

→ Flow direction

Type	B4	B5	B6	B7	B8	D1	D6	D7	L6	T1	⊖
MS9-EE-N $\frac{3}{4}$	90	104	91.5	-	-	NPT $\frac{3}{4}$ -14	11	6.5	66	6	-
MS9-EE-N1						NPT1-11 $\frac{1}{2}$					
MS9-EE-AQR	-	-	-	112	132	NPT $\frac{1}{2}$ -14	-	-	-	-	30
MS9-EE-AQS					132	NPT $\frac{3}{4}$ -14					36
MS9-EE-AQT					142	NPT1-11 $\frac{1}{2}$					41
MS9-EE-AQU					162	NPT1 $\frac{1}{4}$ -11 $\frac{1}{2}$					50
MS9-EE-AQV					176	NPT1 $\frac{1}{2}$ -11 $\frac{1}{2}$					55

On-off valves MS9-EE, MS series, NPT

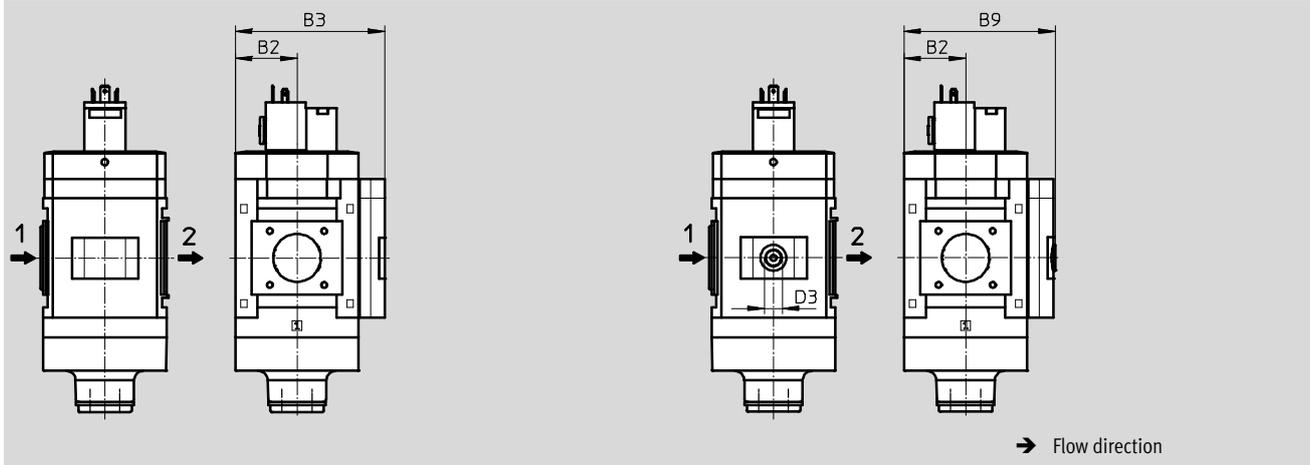
Technical data

Dimensions – Pressure gauge/pressure gauge alternatives

Download CAD data → www.festo.com

Integrated MS pressure gauge with standard scale AG or red/green scale RG

Adapter plate A4 for EN pressure gauge 1/4, without pressure gauge



Type	B2	B3	B9	D3
MS9-EE-...-AG/RG	45	109	–	–
MS9-EE-...-A4		–	110	G1/4

Ordering data

3/2-way valve, with silencer, supply voltage 24 V DC

Size	Connection	Part No.	Type
MS9	–	562946	MS9-EE-NG-V24-S-VS

 **New
Variant UL1**

On-off valves MS9-EE, MS series, NPT

Ordering data – Modular products

FESTO

M Mandatory data →

Module No.	Series	Size	Function	Pneumatic connection	Supply voltage
562177	MS	9	EE	N $\frac{3}{4}$, N1, AQR, AQS, AQT, AQU, AQV, NG	V24, V24P, V110, V230
Ordering example					
562177	MS	9	- EE	- N1	- V24

Ordering table

Grid dimension	[mm]	90	Condi- tions	Code	Enter code
M Module No.		562177			
Series		Standard		MS	MS
Size		9		9	9
Function		Electrical on-off valve		-EE	-EE
Pneumatic connection		Female thread N $\frac{3}{4}$		-N$\frac{3}{4}$	
		Female thread N1		-N1	
		Connecting plate N $\frac{1}{2}$		-AQR	
		Connecting plate N $\frac{3}{4}$		-AQS	
		Connecting plate N1		-AQT	
		Connecting plate N1 $\frac{1}{4}$		-AQU	
		Connecting plate N1 $\frac{1}{2}$		-AQV	
		Module without connecting thread, without connecting plate		-NG	
Supply voltage		24 V DC (pin allocation to EN 175301), 16 bar		V24	
		24 V DC plug (connection pattern M12 to DESINA), 16 bar		V24P	
		110 V AC (pin allocation to EN 175301), 16 bar		V110	
		230 V AC (pin allocation to EN 175301), 16 bar		V230	

Transfer order code

562177	MS	9	- EE	-		-	
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On-off valves MS9-EE, MS series, NPT

Ordering data – Modular products

0	M	0 Options				
Silencer	Pressure gauge/pressure gauge alternatives	Alternative pressure gauge scale	Valve function	Type of mounting	UL certification	Flow direction
S	AG, VS, A4, RG	PSI, MPA, BAR	- 2	WP, WPM, WPB	UL1	Z
- S	- AG	-	-	-	-	-

Ordering table		Grid dimension [mm]	90	Condi-tions	Code	Enter code
0	Silencer	Silencer			-S	
M	Pressure gauge/pressure gauge alternatives	MS pressure gauge			-AG	
		Cover plate			-VS	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			-A4	
		Integrated pressure gauge, red/green scale		1	-RG	
0	Alternative pressure gauge scale	Psi		2	-PSI	
		MPa		2	-MPA	
		Bar		2	-BAR	
	Valve function	Standard (3/2-way valve)			-	
		2/2-way valve		3	-2	
	Type of mounting	Mounting bracket		4	-WP	
		Mounting bracket		4	-WPM	
		Mounting bracket for large wall gap		4	-WPB	
	UL certification	cULus, ordinary location for Canada and USA		5	-UL1	
	Flow direction	Flow direction from right to left			-Z	

- | | | | |
|-------------------------------|----------------------------------------------------------------------------------------------|------------------------------|------------------------------------|
| 1 RG | Not with alternative pressure gauge scale PSI
PSI scale serves only as an auxiliary scale | 3 2 | Not with silencer S |
| 2 PSI, MPA, BAR | Not with pressure gauge/pressure gauge alternatives VS, A4 | 4 WP, WPM, WPB | Not with module NG |
| | | 5 UL1 | Not with supply voltage V110, V230 |

Transfer order code

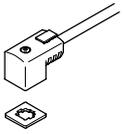
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On-off valves MS-EM/EE, MS series, NPT

Accessories

FESTO

Ordering data – Plug socket MSSD					Technical data → Internet: mssd	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type
	for MS4/6-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	151687	MSSD-EB
			4-pin	Insulation displacement technology	192745	MSSD-EB-S-M14
	for MS9-EE, for MS12-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	34583	MSSD-C
			4-pin	Insulation displacement technology	192748	MSSD-C-S-M16

Ordering data – Plug socket with cable KMEB/KMC						Technical data → Internet: kmeb, kmc	
	Description	Operating voltage range	Electrical connection	Switching status display	Cable length [m]	Part No.	Type
	for MS4/6-EE/DE	24 V DC	2-pin	LED	2.5	547268	KMEB-3-24-2,5-LED
				–	5	547269	KMEB-3-24-5-LED
				–	2.5	547270	KMEB-3-24-2,5
			–	5	547271	KMEB-3-24-5	
			3-pin	LED	2.5	151688	KMEB-1-24-2,5-LED
				–	5	151689	KMEB-1-24-5-LED
		–		10	193457	KMEB-1-24-10-LED	
		230 V AC	3-pin	–	2.5	151690	KMEB-1-230AC-2,5
				–	5	151691	KMEB-1-230AC-5
			3-pin	LED	2.5	30931	KMC-1-24DC-2,5-LED
–	5			30933	KMC-1-24DC-5-LED		
230 V AC	3-pin	–	2.5	193459	KMC-1-24-10-LED		
		–	2.5	30932	KMC-1-230AC-2,5		
					5	30934	KMC-1-230AC-5

Ordering data – Illuminating seal MEB-LD/MC-LD				Technical data → Internet: meb, mc	
	Description	Operating voltage range	Part No.	Type	
	for plug socket with cable KMEB and plug socket MSSD-EB	12 ... 24 V DC	151717	MEB-LD-12-24DC	
		230 V DC/AC ±10%	151718	MEB-LD-230AC	
	for plug socket with cable KMC and plug socket MSSD-C	12 ... 24 V DC	19145	MC-LD-12-24DC	
		230 V DC/AC ±10%	19146	MC-LD-230AC	

Ordering data – Locking clip CPV18-HV				Technical data → Internet: cpv18-hv	
	Description	Part No.	Type	PU ¹⁾	
	for MS4/6-EE/DE...-V24			530056	CPV18-HV
	Cover for manual override, the clip prevents actuation				10

1) Packaging unit quantity

On-off valves MS-EM/EE, MS series, NPT

Accessories

Ordering data – Connecting cable NEBU-M8				Technical data → Internet: nebu	
	Electrical connection	Number of wires	Cable length [m]	Part No.	Type
	M8x1, straight socket	3	2.5	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	M8x1, angled socket	3	2.5	541338	NEBU-M8W3-K-2.5-LE3
			5	541341	NEBU-M8W3-K-5-LE3

Ordering data – Connecting cable NEBU-M12				Technical data → Internet: nebu	
	Electrical connection	Number of wires	Cable length [m]	Part No.	Type
	M12x1, straight socket	4	2.5	550326	NEBU-M12G5-K-2.5-LE4
			5	541328	NEBU-M12G5-K-5-LE4
	M12x1, angled socket	4	2.5	550325	NEBU-M12W5-K-2.5-LE4
			5	541329	NEBU-M12W5-K-5-LE4

Ordering data – Sensor socket SIE-GD			Technical data → Internet: sie-gd	
	Electrical connection		Part No.	Type
	M12x1, 4-pin		18494	SIE-GD

Ordering data – Angled plug socket SIE-WD			Technical data → Internet: sie-wd	
	Electrical connection		Part No.	Type
	M12x1, 4-pin		12956	SIE-WD-TR

Ordering data – Silencer U			Technical data → Internet: u	
	Description	Pneumatic connection	Part No.	Type
	for MS4-EM1/EE	G $\frac{1}{4}$	6842	U- $\frac{1}{4}$ -B
	for MS6-EM1/EE	G $\frac{1}{2}$	6844	U- $\frac{1}{2}$ -B
	for MS9/12-EM/EE	G1	151990	U-1-B

Ordering data – Pressure gauge MA							
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type	
			[bar]	[psi]			
	Pressure gauge MA, EN 837-1					Technical data → Internet: ma	
	40	R $\frac{1}{4}$	0 ... 16	0 ... 232	187080	MA-40-16-R $\frac{1}{4}$ -EN	
		G $\frac{1}{4}$	0 ... 16	0 ... 232	183901	MA-40-16-G $\frac{1}{4}$ -EN	
	Pressure gauge MA, EN 837-1, with red-green range					Technical data → Internet: ma	
40	R $\frac{1}{8}$	0 ... 16	–	525726	MA-40-16-R $\frac{1}{8}$ -E-RG		
50	R $\frac{1}{4}$	0 ... 16	–	525729	MA-50-16-R $\frac{1}{4}$ -E-RG		

Ordering data – Padlock LRV5-D		
	Weight [g]	Part No. Type
	120	193786 LRV5-D