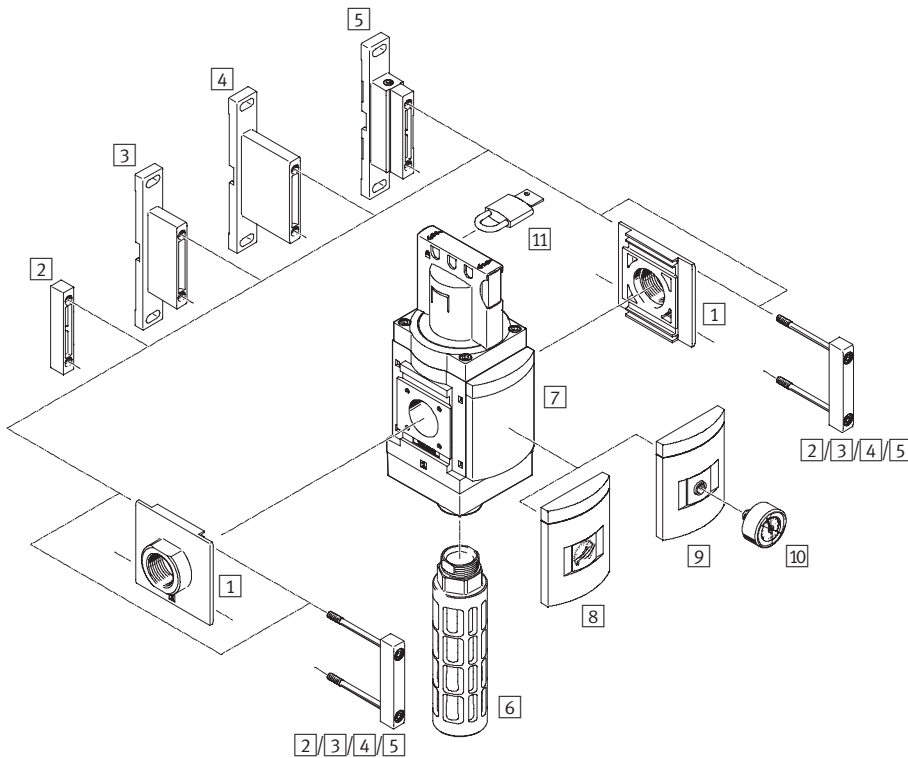


On-off valves MS-EM/EE, MS series, NPT



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

Peripherals overview



Note

Additional accessories:

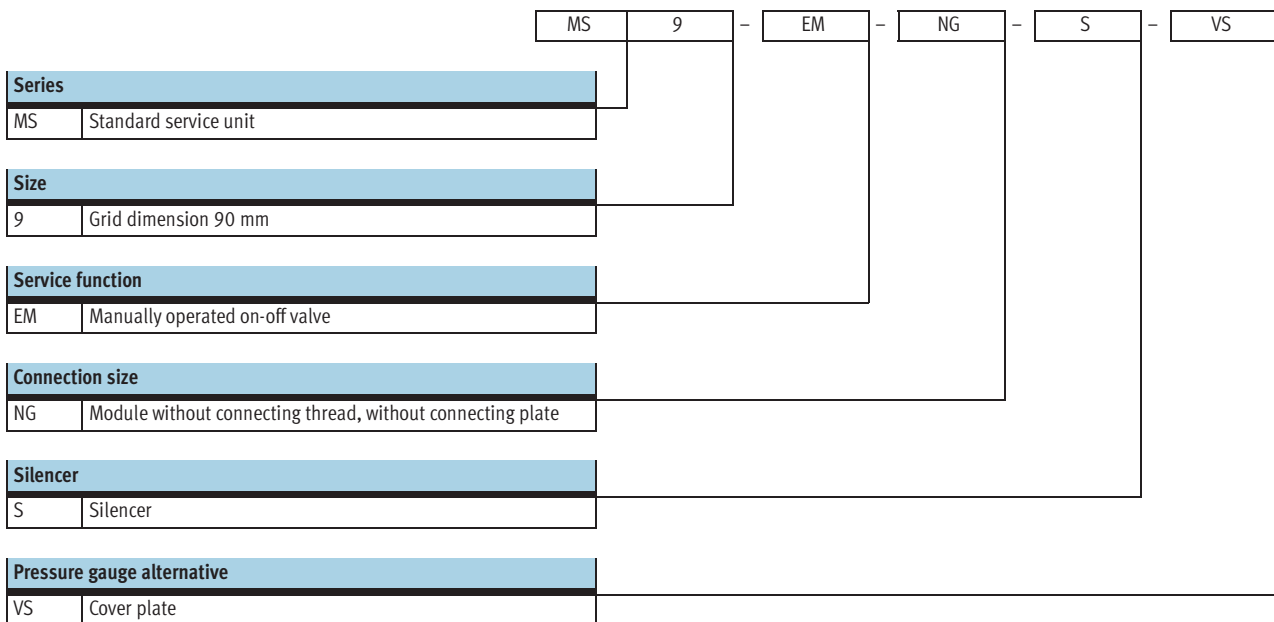
- Module connector for combinations with size MS6, MS9 or size MS12

→ Internet: rmv, armv

Mounting attachments and accessories				
	Individual component	Combination		→ Page/Internet
		Without connecting thread	With connecting thread NPT $\frac{3}{4}$ -14 or NPT1-11 $\frac{1}{2}$	
1	Connecting plate 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

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

Type codes



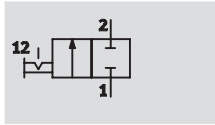
Additional variants can be ordered using the modular system → 8

- Connecting plates
- Silencer
- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- Valve function
- Type of mounting
- Alternative flow direction

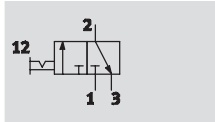
On-off valves MS9-EM, MS series, NPT

Technical data

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	NPT3/4-14	NPT1-11½	NPT1/2-14 ... NPT1½-11½ (with connecting plate AQ...)	- (without connecting thread NG)
Pneumatic connection 3	NPT1-11½			
Design	Piston spool valve			
Type of mounting	Via accessories			
Mounting position	In-line installation			
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			
	G¼ 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

FESTO

Flow rate characteristic values								
Pneumatic connection	Connecting 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	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 μ m
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
CE mark (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
ATEX	Specified types \rightarrow www.festo.com

1) Corrosion resistance class 2 according to Festo standard 940 070

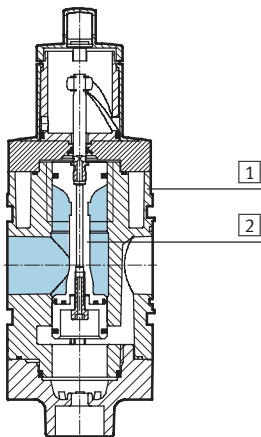
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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

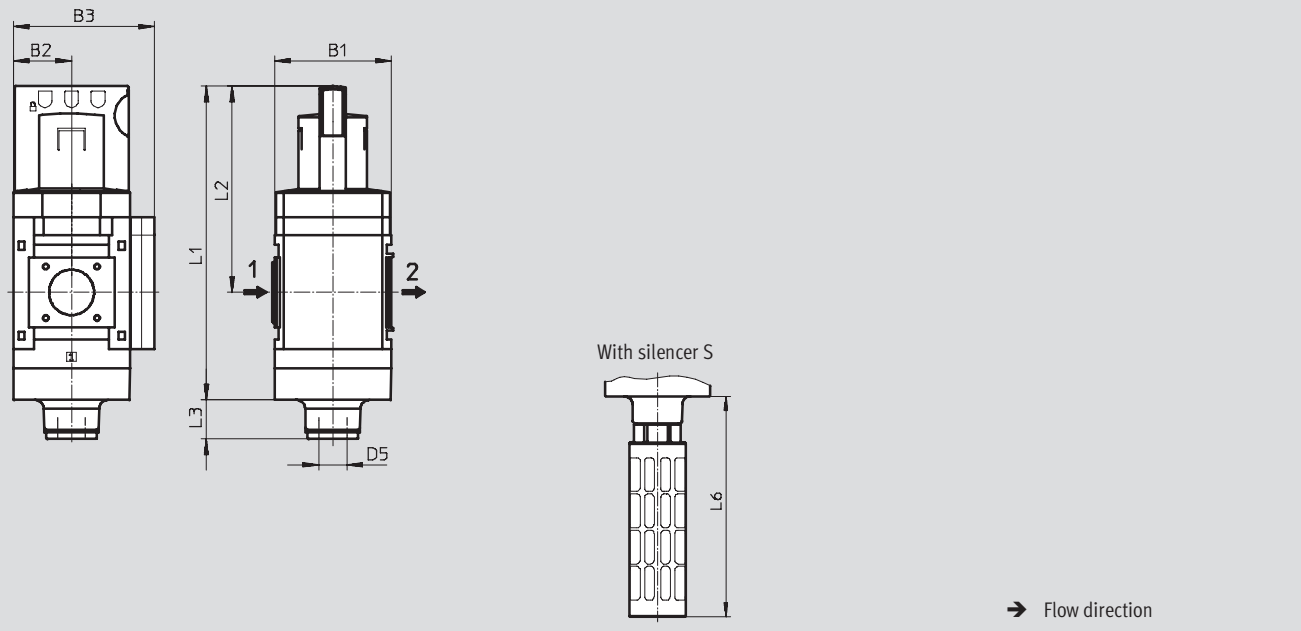
On-off valves MS9-EM, MS series, NPT

Technical data

Dimensions – Basic version

Download CAD Data → www.festo.com/us/cad

Without connecting thread NG, with cover plate VS



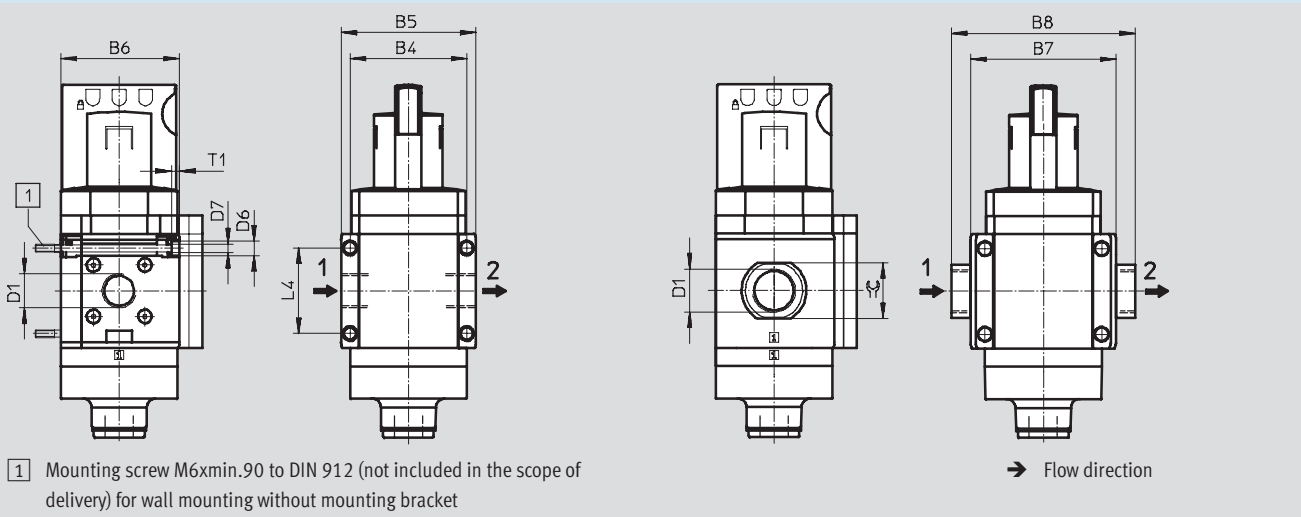
Type	B1	B2	B3	D5	L1	L2	L3		L6
							2/2-way valve	3/2-way valve	
MS9-EM-NG	90	45	109	NPT1-11½	242	159	30	23	189

Dimensions – Connecting thread/connecting plate

Download CAD Data → www.festo.com/us/cad

With connecting thread N¾ or N1

With connecting plate AQ...



Type	B4	B5	B6	B7	B8	D1	D6	D7	L4	T1	∅C
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

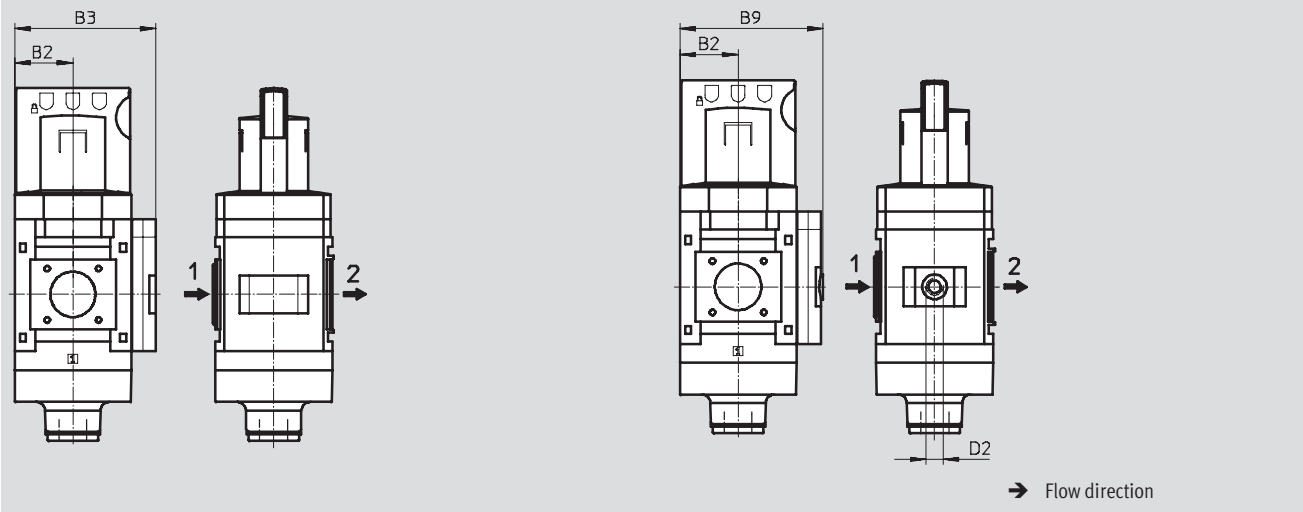
Technical data

Dimensions – Pressure gauge alternatives

Download CAD Data → www.festo.com/us/cad

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

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

Ordering data – Modular products

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

Ordering table					
Grid dimension	[mm]	90	Condition s	Code	Enter code
M	Module No.	562178			
	Series	Standard		MS	MS
	Size	9		9	9
	Function	Manual on-off valve		-EM	-EM
	Connection size	Thread N $\frac{3}{4}$		-N $\frac{3}{4}$	
		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	

Transfer order code

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

Ordering data – Modular products

Options		Mandatory data		Options		
Silencer	Pressure gauge/pressure gauge alternatives	Alternative pressure gauge scale	Valve function	Type of mounting	Alternative flow direction	
S	AG, VS, A4, RG	PSI, MPA, BAR	- 2	WP, WPM, WPB	Z	
- S	- AG	- BAR	-	-	-	

Ordering table					
Grid dimension	[mm]		Condition s	Code	Enter code
Options	Silencer	Silencer		-S	
Mandatory data	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	
Alternative pressure gauge scale	Psi		2	-PSI	
	MPa		2	-MPA	
	Bar		2	-BAR	
Options	Valve function	Standard (3/2-way valve)		-	
		2/2-way valve	3	-2	
Type of mounting	Mounting bracket	Mounting bracket	4	-WP	
		Mounting bracket	4	-WPM	
		Mounting bracket for large wall gap	4	-WPB	
Alternative flow direction	Flow direction from right to left			-Z	

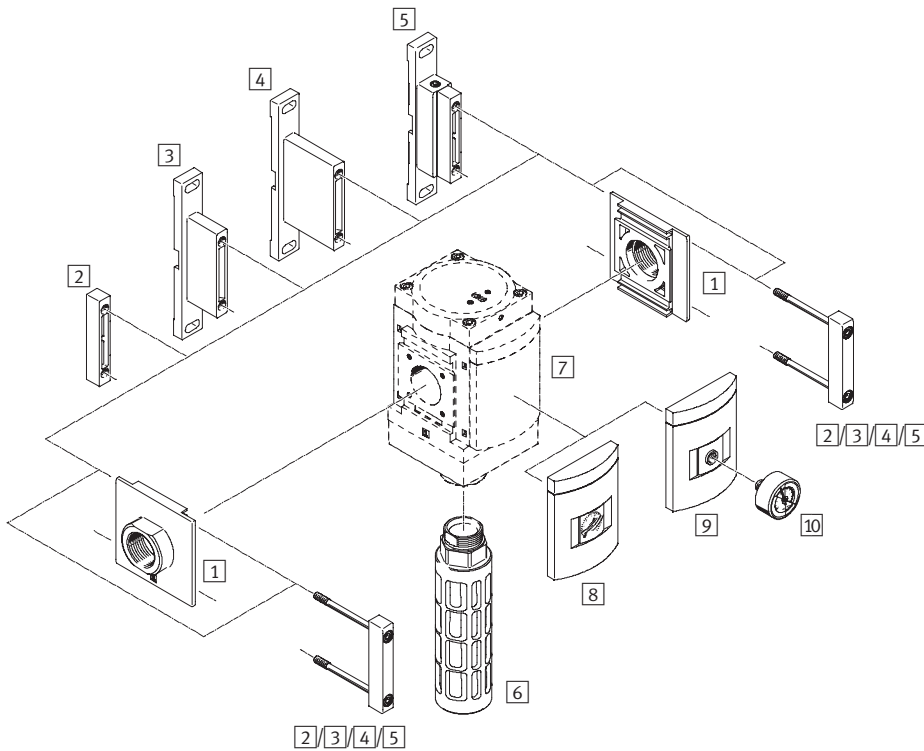
- 1 **RG** Not with alternative pressure gauge scale PSI
PSI scale serves only as an auxiliary scale
- 2 **PSI, MPA, BAR** Not with pressure gauge alternative VS, A4
- 3 **2** Not with silencer S
- 4 **WP, WPM, WPB** Not with module NG

Transfer order code

- - - - - -

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

Peripherals overview



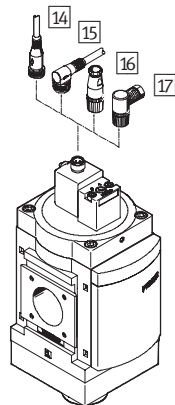
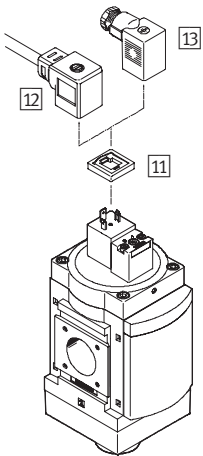
Note

Additional accessories:

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

Supply voltage
V24/V110/V230

Supply voltage
V24P



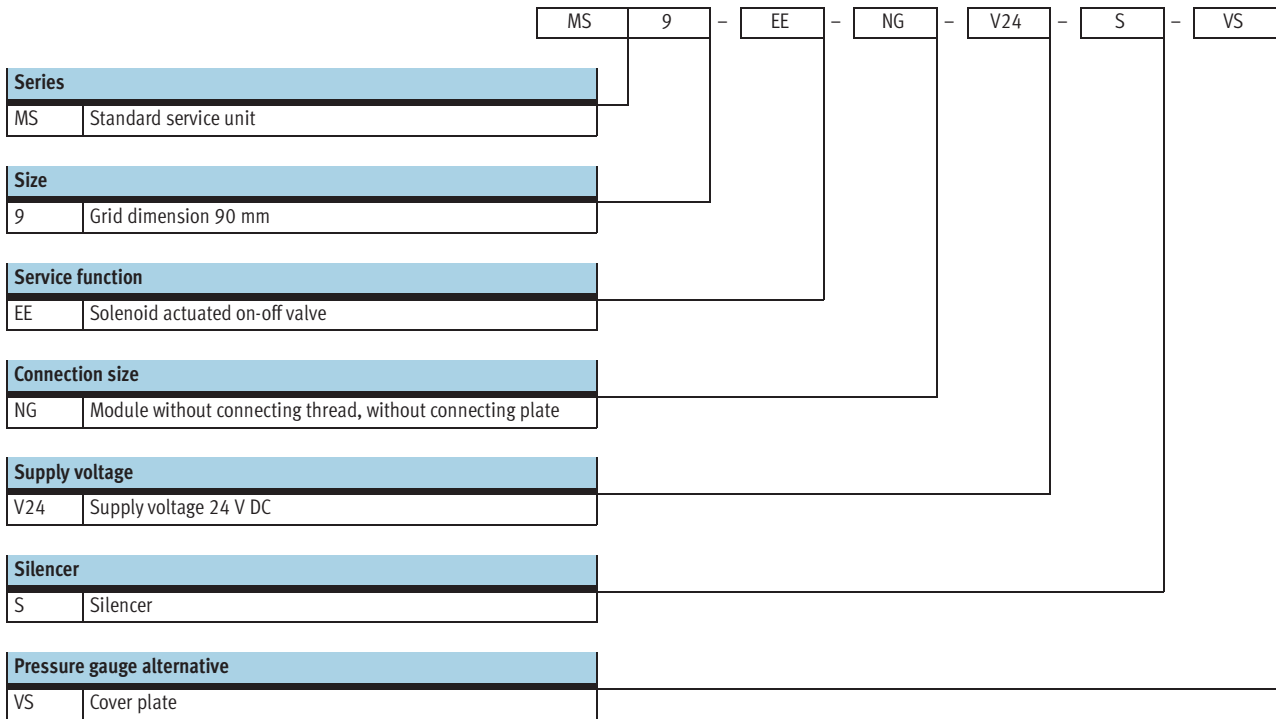
On-off valves MS9-EE, MS series, NPT

Peripherals overview

Mounting attachments and accessories					
		Individual component		Combination	→ Page/Internet
		Without connecting thread	With connecting thread NPT $\frac{3}{4}$ -14 or NPT1-11 $\frac{1}{2}$		
1	Connecting plate 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	■	■	■	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

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

Type codes



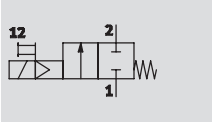
Additional variants can be ordered using the modular system → 18

- Connecting plates
- Supply voltage
- Silencer
- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- Valve function
- Type of mounting
- Alternative flow direction

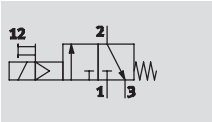
On-off valves MS9-EE, MS series, NPT

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 ... 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	NPT1-11½	NPT½-14 ... NPT1½-11½ (with connecting plate AQ...)	– (without connecting thread NG)
Pneumatic connection 3	NPT1-11½			
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			
	G¼ 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%
	V230	110 V AC: 60 Hz; pick-up power 9.5 W; holding power 6.2 W; perm. voltage fluctuations ±10%
		230 V AC: 50 Hz; pick-up power 11.5 W; holding power 9.1 W; perm. voltage fluctuations ±10%
Electrical connection	V24/V110/V230	Plug socket, square design to DIN 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	Connecting 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	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 μ m
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
CE mark (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
ATEX	Specified types \rightarrow www.festo.com

1) Corrosion resistance class 2 according to Festo standard 940 070

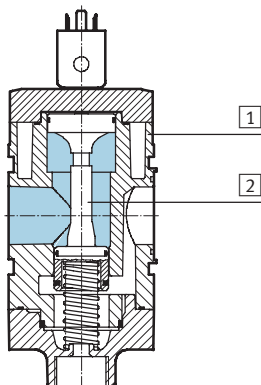
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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

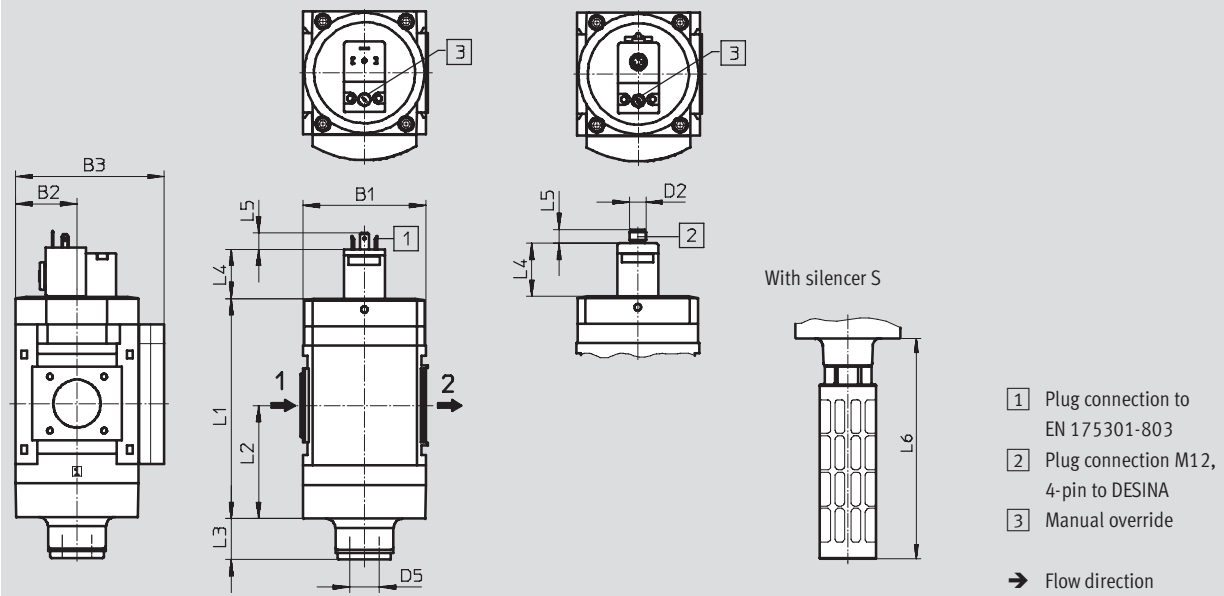
Dimensions – Basic version

Download CAD Data → www.festo.com/us/cad

Without connecting thread 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

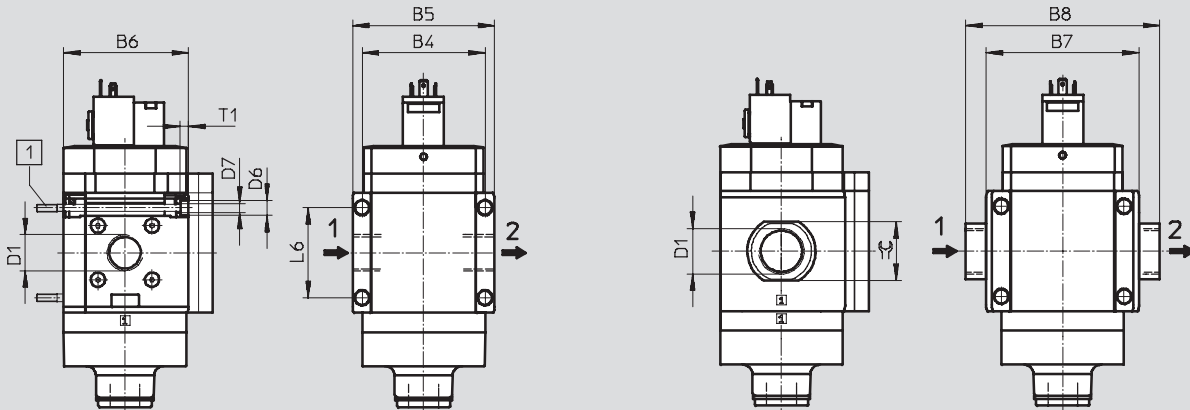
Technical data

Dimensions – Connecting thread/connecting plate

Download CAD Data → www.festo.com/us/cad

With connecting 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

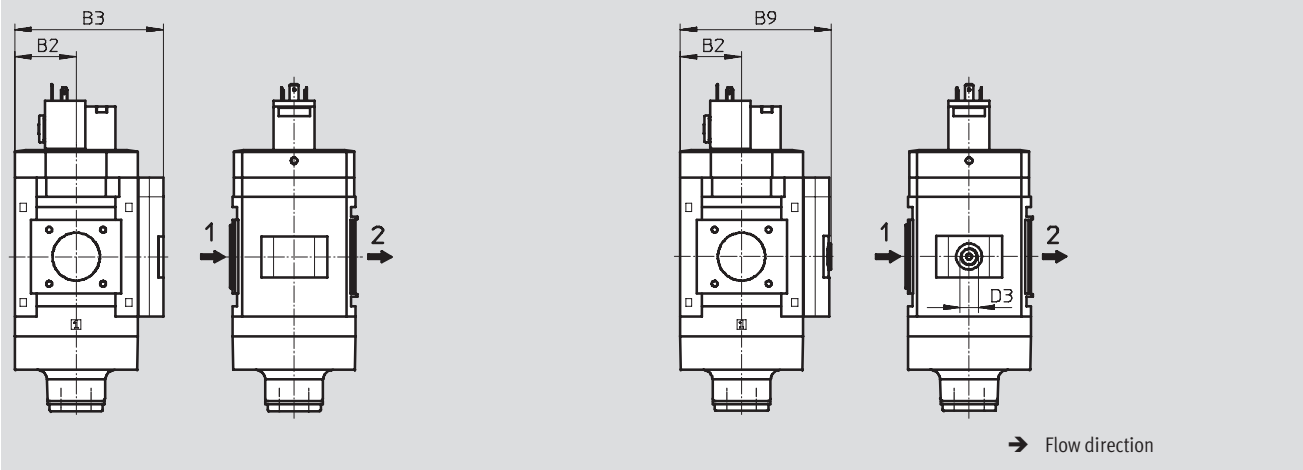
Technical data

Dimensions – Pressure gauge alternatives

Download CAD Data → www.festo.com/us/cad

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

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

Ordering data – Modular products

M Mandatory data →

Module No.	Series	Size	Function	Connection size	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	Condition s	Code	Enter code
M	Module No.	562177					
	Series	Standard				MS	MS
	Size	9				9	9
	Function	Electrical on-off valve				-EE	-EE
	Connection size	Thread N $\frac{3}{4}$				-N$\frac{3}{4}$	
		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

Options		Mandatory data		Options		
Silencer	Pressure gauge/pressure gauge alternatives	Alternative pressure gauge scale	Valve function	Type of mounting	Alternative flow direction	
S	AG, VS, A4, RG	PSI, MPA, BAR	- 2	WP, WPM, WPB	Z	
- S	- AG	- BAR	-	-	-	

Ordering table					
Grid dimension	[mm]		Condition s	Code	Enter code
Options	Silencer	Silencer		-S	
Mandatory data	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	
Alternative pressure gauge scale	Psi		2	-PSI	
	MPa		2	-MPA	
	Bar		2	-BAR	
Options	Valve function	Standard (3/2-way valve)		-	
		2/2-way valve	3	-2	
Type of mounting	Mounting bracket	Mounting bracket	4	-WP	
		Mounting bracket	4	-WPM	
		Mounting bracket for large wall gap	4	-WPB	
Alternative 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 alternative VS, A4
- 3 **2** Not with silencer S
- 4 **WP, WPM, WPB** Not with module NG

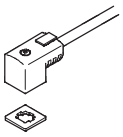
Transfer order code


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

Accessories

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	
			3-pin	LED	2.5	547271	KMEB-3-24-5	
				–	5	151688	KMEB-1-24-2,5-LED	
				–	5	151689	KMEB-1-24-5-LED	
for MS9-EE, for MS12-EE/DE	24 V DC	3-pin	LED	2.5	193457	KMEB-1-24-10-LED		
			–	5	151690	KMEB-1-230AC-2,5		
			–	5	151691	KMEB-1-230AC-5		
		3-pin	LED	2.5	30931	KMEC-1-24DC-2,5-LED		
			–	5	30933	KMEC-1-24DC-5-LED		
			–	10	193459	KMC-1-24-10-LED		
230 V AC	3-pin	–	2.5	30932	KMC-1-230AC-2,5			
		–	5	30934	KMC-1-230AC-5			
		–	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		Cover for manual override, the clip prevents actuation	530056	CPV18-HV	10



1) Packaging unit quantity

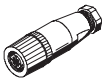
On-off valves MS-EM/EE, MS series, NPT


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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, DIN EN 837-1				Technical data → Internet: ma	
	40	G $\frac{1}{4}$	0 ... 16	0 ... 232	183901	MA-40-16-G $\frac{1}{4}$ -EN
	Pressure gauge MA, DIN 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 LRVS-D		
	Weight [g]	Part No. Type
	120	193786 LRVS-D

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