

## On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

FESTO



Manually operated and solenoid actuated on-off valves for pressurizing and venting pneumatic installations. Pneumatic and solenoid actuated soft-start valves for slowly pressurizing and venting pneumatic installations.

- On-off valves
  - MS6N-EM1, manually operated
  - MS6N-EE, solenoid actuated
- Soft-start valves
  - MS6N-DL, pneumatically actuated
  - MS6N-DE, solenoid actuated
- Pneumatic connection: 1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT
- Operating pressure
  - EM1: 0 ... 265 psi
  - EE, DL and DE: 59 ... 265 psi
- Flow rate: 91.8 ... 307.1 scfm

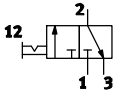
Product Range Overview														
Type	Flow rate [scfm]	Pneumatic connections		Supply voltage				Pressure indicator				Options		
				24 V DC (connection pattern to EN 175301)	24 V DC (connection pattern M12 to DESI/MA)	110 V AC (connection pattern to EN 175301)	230 V AC (connection pattern to EN 175301)	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter for pressure gauge 1/8 NPT	Adapter for pressure gauge 1/4 NPT	Pressure sensor with display	Silencer	Flow direction from right to left
MS6N		Body thread	Port plate	V24	V24P	V110	V230	VS	AG	A8	A4	AD...	S	Z
EM1	105.9 ... 307.1	1/4 NPT, 3/8 NPT, 1/2 NPT	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	-	-	-	-	■	■	-	■	■	■	■
EE	91.8 ... 247.1	1/4 NPT, 3/8 NPT, 1/2 NPT	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	■	-	■	■	■	■	-	■	■	■	■
DL	98.8... 227.7	1/4 NPT, 3/8 NPT, 1/2 NPT	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	-	-	-	-	■	■	-	■	■	-	■
DE	95.3 ... 227.7	1/4 NPT, 3/8 NPT, 1/2 NPT	1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT	■	-	■	■	■	■	-	■	■	-	■

Contents			
MS6N-EM1	MS6N-EE	MS6N-DL	MS6N-DE
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→ <a href="http://www.festo.com/catalog/msn6-em1">www.festo.com/catalog/msn6-em1</a>	→ <a href="http://www.festo.com/catalog/msn6-ee">www.festo.com/catalog/msn6-ee</a>	→ <a href="http://www.festo.com/catalog/msn6-dl">www.festo.com/catalog/msn6-dl</a>	→ <a href="http://www.festo.com/catalog/msn6-de">www.festo.com/catalog/msn6-de</a>

# On-off Valves MS6N-EM1 – Inch Series

Technical Data

ISO Symbol



- Manually operated on-off valve for pressurizing and venting pneumatic installations
- The valve is activated by turning the rotary knob
- At connection 3 there is the facility to attach a silencer and/or to duct the exhaust air
- When the valve is closed, the rotary knob can be secured with a padlock
- Optional pressure gauge
- Optional pressure sensor with display



General Technical Data			
Pneumatic connection 1, 2	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 3	1/2 NPT		
Operating pressure [psi]	0 ... 265 (Standard)		
	0 ... 147 (Pressure sensor with display AD...)		

Standard Nominal Flow Rate qnN <sup>1)</sup> [scfm]			
Pneumatic connection	1/4 NPT	3/8 NPT	1/2 NPT
In main flow direction 1 → 2	105.9	194.2	307.1
In relief direction 2 → 3	240.0	233.0	218.9

1) Measured at p1 = 88 psi and p2 = 74 psi, Δp = 15 psi

Operating and Environmental Conditions		
Variant	Standard	Pressure sensor with display AD...
Operating medium	Compressed air	Filtered compressed air, lubricated or unlubricated, filtration grade 40 μm
Exhaust function	No flow control	
Switching position display	Knob actuator direction = flow direction	
Ambient temperature [°F]	14 ... 140	32 ... 122
Temperature of medium [°F]	14 ... 140	32 ... 122
Assembly position	Any	
Corrosion resistance CRC <sup>2)</sup>	2	

2) Corrosion resistance class 2 according to Festo standard 940 070  
 Components requiring moderate corrosion resistance. 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.

Weights [lb]	
Standard	1.16
With silencer	1.31

- For spare parts go to: [www.festo.com/en/spare\\_parts\\_service](http://www.festo.com/en/spare_parts_service)

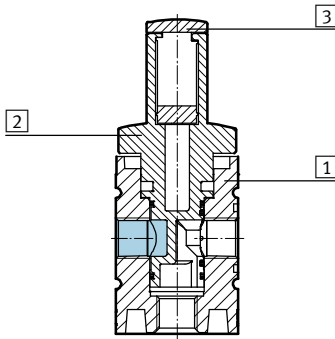
# On-off Valves MS6N-EM1 – Inch Series

Technical Data, Dimensional Drawings



## Materials

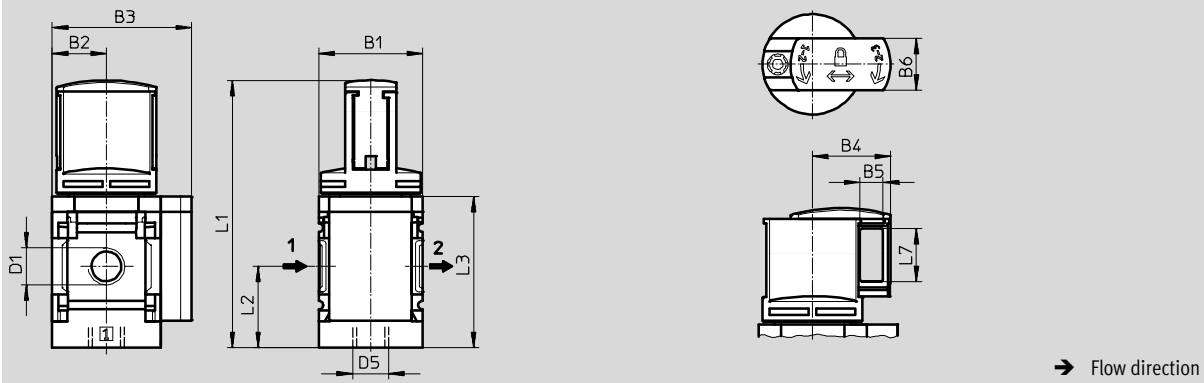
Sectional view



On-off valve		
1	Body	Die-cast aluminum
2	Rotary valve	Reinforced polyamide
3	Lock slide	Reinforced polyamide
-	Seals	Nitrile rubber, polyurethane
Note on materials		Free of copper and PTFE (not with variants AG or AD...)

## Dimensions<sup>1)</sup> – Standard

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	B1	B2	B3	B4	B5	B6	D1	D5	L1	L2	L3	L7
MS6N-EM1-1/4	2.44	1.22	2.99	1.77	0.39	0.94	1/4 NPT	1/2 NPT	5.94	1.79	3.33	1.11
MS6N-EM1-3/8							3/8 NPT					
MS6N-EM1-1/2							1/2 NPT					

1) Dimensions are in inches, unless otherwise noted.

# On-off Valves MS6N-EM1 – Inch Series

Dimensional Drawings

**Dimensions<sup>1)</sup> – Pressure Gauge Alternatives** Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Integrated MS pressure gauge AG, display unit [psi] Adapter plate A4 for EN pressure gauge 1/4, without pressure gauge

→ Flow direction

**Pressure sensor with display AD1 ... AD4** Technical data SDE1 → [www.festo.com/catalog/sde1](http://www.festo.com/catalog/sde1)

→ Flow direction

**AD1 variants:**  
SDE1-D10-G2-MS-L-P1-M8 with 3-pin plug M8x1, 1 switching output PNP

**AD2 variants:**  
SDE1-D10-G2-MS-L-N1-M8 with 3-pin plug M8x1, 1 switching output NPN

**AD3 variants:**  
SDE1-D10-G2-MS-L-PI-M12 with 4-pin plug M12x1, 1 switching output PNP and 4 ... 20 mA analog

**AD4 variants:**  
SDE1-D10-G2-MS-L-NI-M12 with 4-pin plug M12x1, 1 switching output NPN and 4 ... 20 mA analog

Type	B2	B3	D1	D4	D6	L5	L6
MS6N-EM1-1/4-...-AG	1.22	3.35	1/4 NPT	-	-	-	-
MS6N-EM1-3/8-...-AG			3/8 NPT				
MS6N-EM1-1/2-...-AG			1/2 NPT				
MS6N-EM1-1/4-...-A4	1.22	3.09	1/4 NPT	G1/4	-	-	-
MS6N-EM1-3/8-...-A4			3/8 NPT				
MS6N-EM1-1/2-...-A4			1/2 NPT				
MS6N-EM1-1/4-...-AD1/AD2	1.22	4.06	1/4 NPT	-	M8x1	1.38	1.84
MS6N-EM1-3/8-...-AD1/AD2			3/8 NPT				
MS6N-EM1-1/2-...-AD1/AD2			1/2 NPT				
MS6N-EM1-1/4-...-AD3/AD4	1.22	4.06	1/4 NPT	-	M12x1	1.38	2.20
MS6N-EM1-3/8-...-AD3/AD4			3/8 NPT				
MS6N-EM1-1/2-...-AD3/AD4			1/2 NPT				

1) Dimensions are in inches, unless otherwise noted.

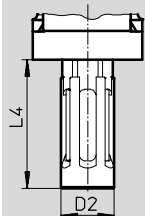
# On-off Valves MS6N-EM1 – Inch Series

Dimensional Drawings, Ordering Data – Pre-configured Products



## Dimensions<sup>1)</sup> – Silencer

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	D2	L4
MS6N-EM1-...-S	1.10	4.17

1) Dimensions are in inches, unless otherwise noted.

## Ordering Data

Connection	Standard			With silencer		
	Part No.	Type	LT	Part No.	Type	LT
1/4 NPT	541293	MS6N-EM1-1/4 <sup>2)</sup>	1D	541294	MS6N-EM1-1/4-S <sup>2)</sup>	1D
3/8 NPT	541297	MS6N-EM1-3/8 <sup>2)</sup>	1D	541298	MS6N-EM1-3/8-S <sup>2)</sup>	1D
1/2 NPT	541289	MS6N-EM1-1/2 <sup>2)</sup>	1D	541290	MS6N-EM1-1/2-S <sup>2)</sup>	1D

LT = Lead time

1D typically ships same day/next day

3D typically ships within 3 days

2) Free of copper and PTFE

# On-off Valves MS6N-EM1 – Inch Series



Ordering Data – Configurable Products

M Mandatory Data						O Options				
Part No.	Series	Size	Thread	Function	Connection size	Silencer	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
541301	MS	6	N	EM1	1/4, 3/8, 1/2, AQN, AQP, AQR, AQS	S	AG, A4, AD1, AD2, AD3, AD4	BAR, MPA	WP, WPM, WB	Z
<b>Order example</b>										
<b>541301</b>	<b>MS</b>	<b>6</b>	<b>N</b>	<b>EM1</b>	<b>1/4</b>	<b>S</b>	<b>AG</b>	<b>BAR</b>	<b>WB</b>	<b>Z</b>

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code
M	Part No.	541301				
	Series	Standard			MS	MS
	Size	6			6	6
	Thread	NPT thread			N	N
	Function	On-off valve, manual			-EM1	-EM1
	Connection size	Body thread 1/4 NPT			-1/4	
		Body thread 3/8 NPT			-3/8	
		Body thread 1/2 NPT			-1/2	
		Port plate 1/4 NPT (dimensions → 990)			-AQN	
		Port plate 3/8 NPT (dimensions → 990)			-AQP	
		Port plate 1/2 NPT (dimensions → 990)			-AQR	
		Port plate 3/4 NPT (dimensions → 990)			-AQS	
O	Silencer	Silencer			-S	
	Pressure gauge alternatives	MS pressure gauge, bar			-AG	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			-A4	
		Pressure sensor with display, M8 plug, 1 switching output PNP, 3-pin		1	-AD1	
		Pressure sensor with display, M8 plug, 1 switching output NPN, 3-pin		1	-AD2	
		Pressure sensor with display, M12 plug, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		1	-AD3	
		Pressure sensor with display, M12 plug, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		1	-AD4	
		Alternative pressure gauge scale	bar		2	-BAR
	MPa		2	-MPA		
	Type of mounting	Mounting bracket (dimensions → 991)		3	-WP	
		Mounting bracket (dimensions → 991)		3	-WPM	
		Mounting bracket (dimensions → 988)			-WB	
	Reverse flow direction	Flow direction from right to left			-Z	

- 1 AD1 ... AD4 Measuring range max. 147 psi
- 2 BAR, MPA Only with pressure gauge AG

- 3 WP, WPM Only with port plate AQN, AQP, AQR or AQS

**Transfer order code**

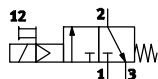
541301	MS	6	N	-	EM1	-		-		-		-		-	
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# On-off Valves MS6N-EE – Inch Series

Technical Data



ISO Symbol



- Solenoid actuated on-off valve for pressurizing and venting pneumatic installations
- Ducted exhaust possible via a threaded connection with silencer
- Pushing and detenting manual override (detenting is locked on delivery)
- Solenoid coil without plug socket, three voltage ranges available.
- Solenoid actuator can be repositioned by 180°
- Optional pressure sensor with display



General Technical Data			
Pneumatic connection 1, 2	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 3	1/2 NPT		
Operating pressure [psi]	59 ... 206 (Coil parameter V24, V110, V230)		
	59 ... 147 (Coil parameter 10V24)		
	59 ... 147 (Pressure sensor with display AD...)		

Standard Nominal Flow Rate q <sub>N</sub> <sup>1)</sup> [scfm]			
Pneumatic connection	1/4 NPT	3/8 NPT	1/2 NPT
In main flow direction 1 → 2	91.8	194.2	247.1
In relief direction 2 → 3	247.1	218.9	194.2

1) Measured at p<sub>1</sub> = 88 psi and p<sub>2</sub> = 74 psi, Δp = 15 psi

Operating and Environmental Conditions			
Variant	Coil parameter V24, V110, V230	Coil parameter 10V24	Pressure sensor with display AD...
Operating medium	Compressed air		Filtered compressed air, lubricated or unlubricated, filtration grade 40 μm
Coil characteristics	V24	24 V DC (For valves with max. inlet pressure 206 psi – only available via configurator)	
	10V24	24 V DC (For valves with max. inlet pressure 147 psi)	
	V110	110 V AC	
	V230	230 V AC	
Exhaust function	Without flow control		
Ambient temperature [°F]	14 ... 140	14 ... 122	32 ... 122
Temperature of medium [°F]	14 ... 140	14 ... 122	32 ... 122
Assembly position	Any		
Corrosion resistance CRC <sup>2)</sup>	2		

2) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. 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.

# On-off Valves MS6N-EE – Inch Series

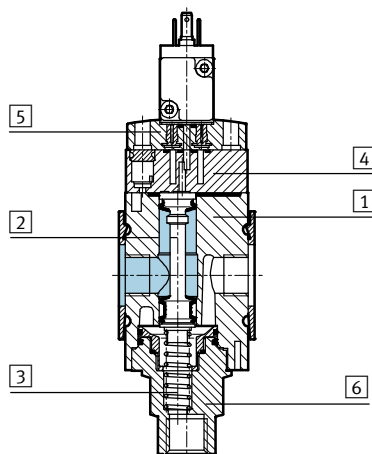
Technical Data

Weights [lb]	
Standard	1.48
With silencer	1.63

- For spare parts go to: [www.festo.com/en/spare\\_parts\\_service](http://www.festo.com/en/spare_parts_service)

## Materials

Sectional view



On-off valve		
1	Body	Die-cast aluminum
2	Piston spool	Nitrile rubber/Aluminum
3	Springs	High-alloy stainless steel
4	End cap	Polyamide
5	Top plate	Polyamide
6	Socket end connection	Polyamide
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE (not with variants AG, 10V24 or AD...)



# On-off Valves MS6N-EE – Inch Series

Dimensional Drawings



**Dimensions<sup>1)</sup> – Standard** Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

1 Plug connection to DIN EN 175 301-803

2 Solenoid actuator can be repositioned by 180°, i.e. solenoid points to the front

3 PIN only with solenoid actuators 110 V and 230 V

→ Flow direction

Type	B1	B2	B3	B4	B5	D1	D5	L1	L2	L3	L7
MS6N-EE-1/4	2.44	2.05	3.82	1.22	2.99	1/4 NPT	1/2 NPT	7.31	3.31	5.63	0.34
MS6N-EE-3/8						3/8 NPT					
MS6N-EE-1/2						1/2 NPT					

1) Dimensions are in inches, unless otherwise noted.

**Dimensions<sup>1)</sup> – Pressure Gauge Alternatives** Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Integrated MS pressure gauge AG, display unit [psi] Adapter plate A4 for EN pressure gauge 1/4, without pressure gauge

→ Flow direction

→ Flow direction

Type	B2	B3	D1	D4
MS6N-EE-1/4-...-AG	2.05	4.17	1/4 NPT	-
MS6N-EE-3/8-...-AG			3/8 NPT	
MS6N-EE-1/2-...-AG			1/2 NPT	
MS6N-EE-1/4-...-A4	2.05	3.92	1/4 NPT	G1/4
MS6N-EE-3/8-...-A4			3/8 NPT	
MS6N-EE-1/2-...-A4			1/2 NPT	

# On-off Valves MS6N-EE – Inch Series



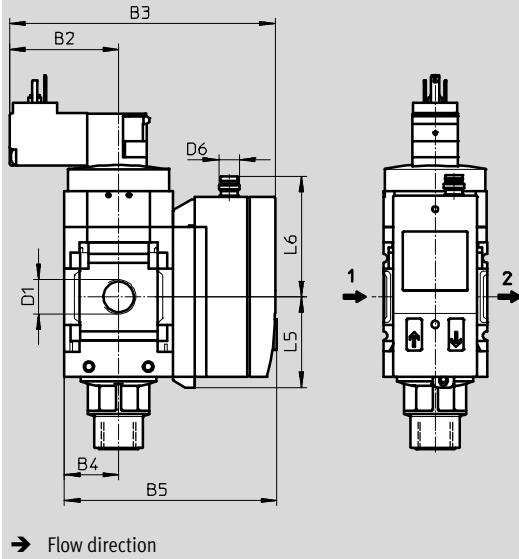
Dimensional Drawings

## Dimensions<sup>1)</sup> – Pressure Gauge Alternatives

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → [www.festo.com/catalog/sde1](http://www.festo.com/catalog/sde1)



AD1 variants:  
SDE1-D10-G2-MS-L-P1-M8 with 3-pin plug M8x1, 1 switching output PNP

AD2 variants:  
SDE1-D10-G2-MS-L-N1-M8 with 3-pin plug M8x1, 1 switching output NPN

AD3 variants:  
SDE1-D10-G2-MS-L-PI-M12 with 4-pin plug M12x1, 1 switching output PNP and 4 ... 20 mA analog

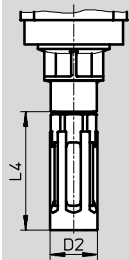
AD4 variants:  
SDE1-D10-G2-MS-L-NI-M12 with 4-pin plug M12x1, 1 switching output NPN and 4 ... 20 mA analog

Type	B2	B3	B4	B5	D1	D6	L5	L6
MS6N-EE-1/4-...-AD1/AD2	2.05	4.88	1.22	4.06	1/4 NPT	M8x1	1.38	1.84
MS6N-EE-3/8-...-AD1/AD2					3/8 NPT			
MS6N-EE-1/2-...-AD1/AD2					1/2 NPT			
MS6N-EE-1/4-...-AD3/AD4	2.05	4.88	1.22	4.06	1/4 NPT	M12x1	1.38	2.20
MS6N-EE-3/8-...-AD3/AD4					3/8 NPT			
MS6N-EE-1/2-...-AD3/AD4					1/2 NPT			

1) Dimensions are in inches, unless otherwise noted.

## Dimensions<sup>1)</sup> – Silencer

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	D2	L4
MS6N-EE-...-S	1.10	4.17

1) Dimensions are in inches, unless otherwise noted.

# On-off Valves MS6N-EE – Inch Series



Ordering Data – Pre-configured Products

Ordering Data						
Connection	Without silencer			With silencer		
	Part No.	Type	LT	Part No.	Type	LT
Supply voltage 24 V DC						
1/4 NPT	542592	MS6N-EE-1/4-10V24	1D	542614	MS6N-EE-1/4-10V24-S	Q
3/8 NPT	542594	MS6N-EE-3/8-10V24	1D	542616	MS6N-EE-3/8-10V24-S	Q
1/2 NPT	542593	MS6N-EE-1/2-10V24	1D	542612	MS6N-EE-1/2-10V24-S	Q
Supply voltage 110 V AC						
1/4 NPT	532109	MS6N-EE-1/4-V110 <sup>1)</sup>	1D	538767	MS6N-EE-1/4-V110-S <sup>1)</sup>	Q
3/8 NPT	532111	MS6N-EE-3/8-V110 <sup>1)</sup>	1D	538773	MS6N-EE-3/8-V110-S <sup>1)</sup>	Q
1/2 NPT	532110	MS6N-EE-1/2-V110 <sup>1)</sup>	1D	538761	MS6N-EE-1/2-V110-S <sup>1)</sup>	Q
Supply voltage 230 V AC						
1/4 NPT	532115	MS6N-EE-1/4-V230 <sup>1)</sup>	1D	538769	MS6N-EE-1/4-V230-S <sup>1)</sup>	Q
3/8 NPT	532117	MS6N-EE-3/8-V230 <sup>1)</sup>	1D	538775	MS6N-EE-3/8-V230-S <sup>1)</sup>	Q
1/2 NPT	532116	MS6N-EE-1/2-V230 <sup>1)</sup>	1D	538763	MS6N-EE-1/2-V230-S <sup>1)</sup>	Q

LT = Lead time      1D typically ships same day/next day      3D typically ships within 3 days

1) Free of copper and PTFE

# On-off Valves MS6N-EE – Inch Series

Ordering Data – Configurable Products



**M** Mandatory Data →

Part No.	Series	Size	Thread	Function	Connection size	Supply voltage
527683	MS	6	N	EE	1/4 3/8 1/2 AQN AQP AQR AQS	V24 10V24 V110 V230
<b>Order example</b>						
<b>527683</b>	<b>MS</b>	<b>6</b>	<b>N</b>	<b>- EE</b>	<b>- AQN</b>	<b>- V24</b>

**Ordering Table**

Grid dimension	[mm]	62	Conditions	Code	Enter code
<b>M</b> Part No.	<b>527683</b>				
Series	Standard			<b>MS</b>	MS
Size	6			<b>6</b>	6
Thread	NPT thread			<b>N</b>	N
Function	On-off valve, electrical			<b>-EE</b>	-EE
Connection size	Body thread 1/4 NPT			<b>-1/4</b>	
	Body thread 3/8 NPT			<b>-3/8</b>	
	Body thread 1/2 NPT			<b>-1/2</b>	
	Port plate 1/4 NPT (dimensions → 990)			<b>-AQN</b>	
	Port plate 3/8 NPT (dimensions → 990)			<b>-AQP</b>	
	Port plate 1/2 NPT (dimensions → 990)			<b>-AQR</b>	
	Port plate 3/4 NPT (dimensions → 990)			<b>-AQS</b>	
Supply voltage	24 V DC (connection pattern to EN 175301), 206 psi			<b>-V24</b>	
	24 V DC (connection pattern to EN 175301), 147 psi		<b>1</b>	<b>-10V24</b>	
	110 V AC (connection pattern to EN 175301), 206 psi			<b>-V110</b>	
	230 V AC (connection pattern to EN 175301), 206 psi			<b>-V230</b>	

**1** 10V24 Max. inlet pressure 147 psi

**Transfer order code**

# On-off Valves MS6N-EE – Inch Series

Ordering Data – Configurable Products

→ **0 Options**

Silencer	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
S	AG A4 AD1 AD2 AD3 AD4	BAR MPA	WP WPM WB	Z
- S	- AG	- BAR	- WP	- Z

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code
0 Silencer	Silencer				-S	
Pressure gauge alternatives	MS pressure gauge, psi				-AG	
	Adapter plate for EN pressure gauge 1/4, without pressure gauge				-A4	
	Pressure sensor with display, M8 plug, 1 switching output PNP, 3-pin		2		-AD1	
	Pressure sensor with display, M8 plug, 1 switching output NPN, 3-pin		2		-AD2	
	Pressure sensor with display, M12 plug, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		2		-AD3	
	Pressure sensor with display, M12 plug, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		2		-AD4	
Alternative pressure gauge scale	bar		3		-BAR	
	MPa		3		-MPA	
Type of mounting	Mounting bracket (dimensions → 991)		4		-WP	
	Mounting bracket (dimensions → 991)		4		-WPM	
	Mounting bracket (dimensions → 988)				-WB	
Reverse flow direction	Flow direction from right to left				-Z	

2 **AD1 ... AD4** Measuring range max. 147 psi  
 3 **BAR, MPA** Only with pressure gauge AG

4 **WP, WPM** Only with port plate AQN, AQP, AQR or AQS

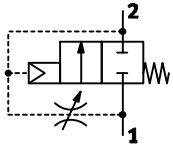
Transfer order code

-  -  -  -  -

# Soft-start Valves MS6N-DL – Inch Series

Technical Data

ISO Symbol



- Pneumatically actuated soft-start valve for slowly pressurizing and venting pneumatic installations (for use with on-off valves EM1 and EE)
- The duration of the pressure build-up is adjusted using the restrictor attached to the valve cap.
- The output pressure p2 rises slowly in accordance with the restrictor setting. The main seat opens when the switch-through pressure is reached.
- Pressure switching approx. 50% of supply pressure
- When the valve is exhausted, the main seat remains open until the switch-through pressure is reached. The rest of the exhaust procedure is performed using the restrictor.



- The cylinders advance slowly and reliably into the initial position. Sudden and erratic movements are avoided.
- Adjustable switching time delay
- Optional pressure sensor with display

General Technical Data			
Pneumatic connection 1, 2	1/4 NPT	3/8 NPT	1/2 NPT
Operating pressure [psi]	59 ... 265 (Standard)		

Standard Nominal Flow Rate qn <sup>1)</sup> [scfm]			
Pneumatic connection 1, 2	1/4 NPT	3/8 NPT	1/2 NPT
In main flow direction 1 → 2	98.8	178.3	227.7
In relief direction 2 → 1	98.8	178.3	225.9

1) Measured at p1 = 88 psi and p2 = 74 psi, Δp = 15 psi

Operating and Environmental Conditions		
Variant	Standard	Pressure sensor with display AD...
Operating medium	Compressed air	Filtered compressed air, lubricated or unlubricated, filtration grade 40 μm
Exhaust function	Flow control	
Direction of flow	Non-reversible	
Ambient temperature [°F]	14 ... 140	32 ... 122
Temperature of medium [°F]	14 ... 140	32 ... 122
Assembly position	Any	
Corrosion resistance CRC <sup>2)</sup>	2	

2) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. 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.

Weights [lb]	
Soft-start valve	1.30

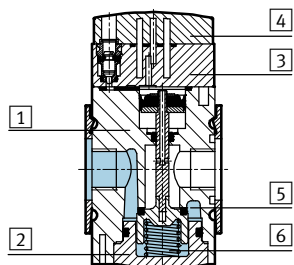
- For spare parts go to: [www.festo.com/en/spare\\_parts\\_service](http://www.festo.com/en/spare_parts_service)

# Soft-start Valves MS6N-DL – Inch Series

Technical Data

## Materials

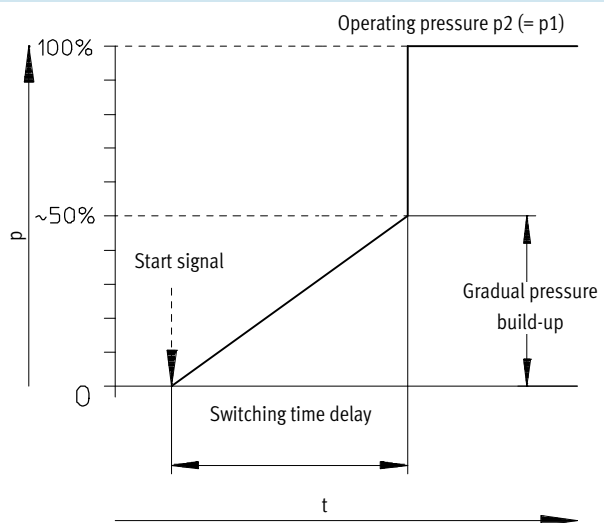
Sectional view



Soft-start valve		
1	Body	Die-cast aluminum
2	Base	Polyester
3	End cap	Polyamide
4	Top plate	Polyamide
5	Seat	Die-cast aluminum
6	Springs	Spring steel
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE (not with variants AG or AD...)

## Switching Point

Pressure p as a function of time t



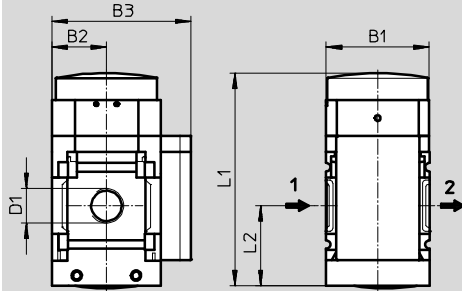
# Soft-start Valves MS6N-DL – Inch Series

Dimensional Drawings



## Dimensions<sup>1)</sup> – Standard

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



→ Flow direction

Type	B1	B2	B3	D1	L1	L2
MS6N-DL-1/4	2.44	1.22	2.99	1/4 NPT	4.57	1.77
MS6N-DL-3/8				3/8 NPT		
MS6N-DL-1/2				1/2 NPT		

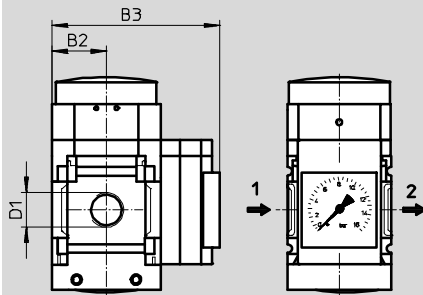
1) Dimensions are in inches, unless otherwise noted.

## Dimensions<sup>1)</sup> – Pressure Gauge Alternatives

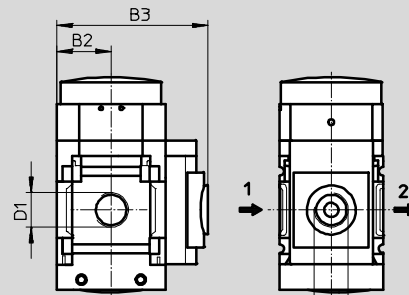
Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Integrated MS pressure gauge AG, display unit [psij]

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



→ Flow direction



→ Flow direction

Type	B2	B3	D1	D4
MS6N-DL-1/4-...-AG	1.22	3.35	1/4 NPT	-
MS6N-DL-3/8-...-AG			3/8 NPT	
MS6N-DL-1/2-...-AG			1/2 NPT	
MS6N-DL-1/4-...-A4	1.22	3.09	1/4 NPT	G1/4
MS6N-DL-3/8-...-A4			3/8 NPT	
MS6N-DL-1/2-...-A4			1/2 NPT	

1) Dimensions are in inches, unless otherwise noted.



# Soft-start Valves MS6N-DL – Inch Series

Dimensional Drawings, Ordering Data – Pre-configured Products



**Dimensions<sup>1)</sup> – Pressure Gauge Alternatives** Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)  
 Pressure sensor with display AD1 ... AD4 Technical data SDE1 → [www.festo.com/catalog/sde1](http://www.festo.com/catalog/sde1)

AD1 variants:  
SDE1-D10-G2-MS-L-P1-M8 with 3-pin plug M8x1, 1 switching output PNP

AD2 variants:  
SDE1-D10-G2-MS-L-N1-M8 with 3-pin plug M8x1, 1 switching output NPN

AD3 variants:  
SDE1-D10-G2-MS-L-PI-M12 with 4-pin plug M12x1, 1 switching output PNP and 4 ... 20 mA analog

AD4 variants:  
SDE1-D10-G2-MS-L-NI-M12 with 4-pin plug M12x1, 1 switching output NPN and 4 ... 20 mA analog

→ Flow direction

Type	B2	B3	D1	D6	L5	L6
MS6N-DL-1/4-...-AD1/AD2	1.22	4.06	1/4 NPT	M8x1	1.38	1.84
MS6N-DL-3/8-...-AD1/AD2			3/8 NPT			
MS6N-DL-1/2-...-AD1/AD2			1/2 NPT			
MS6N-DL-1/4-...-AD3/AD4	1.22	4.06	1/4 NPT	M12x1	1.38	2.20
MS6N-DL-3/8-...-AD3/AD4			3/8 NPT			
MS6N-DL-1/2-...-AD3/AD4			1/2 NPT			

1) Dimensions are in inches, unless otherwise noted.

Ordering Data			
Connection	Part No.	Type	LT
1/4 NPT	532023	MS6N-DL-1/4 <sup>1)</sup>	1D
3/8 NPT	532025	MS6N-DL-3/8 <sup>1)</sup>	1D
1/2 NPT	532024	MS6N-DL-1/2 <sup>1)</sup>	1D

LT = Lead time      1D typically ships same day/next day      3D typically ships within 3 days

1) Free of copper and PTFE

# Soft-start Valves MS6N-DL – Inch Series



Ordering Data – Configurable Products

M Mandatory Data					O Options				
Part No.	Series	Size	Thread	Function	Connection size	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
527685	MS	6	N	DL	1/4, 3/8, 1/2, AQN, AQP, AQR, AQS	AG, A4, AD1, AD2, AD3, AD4	BAR, MPA	WP, WPM, WB	Z
<b>Order example</b>									
<b>527685</b>	<b>MS</b>	<b>6</b>	<b>N</b>	<b>-DL</b>	<b>-AQN</b>	<b>-AG</b>	<b>-BAR</b>	<b>-WB</b>	<b>-Z</b>

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code
M	Part No.	527685				
	Series	Standard			MS	MS
	Size	6			6	6
	Thread	NPT thread			N	N
	Function	Soft-start valve, pneumatic			-DL	-DL
	Connection size	Body thread 1/4 NPT			-1/4	
		Body thread 3/8 NPT			-3/8	
		Body thread 1/2 NPT			-1/2	
		Port plate 1/4 NPT (dimensions → 990)			-AQN	
		Port plate 3/8 NPT (dimensions → 990)			-AQP	
		Port plate 1/2 NPT (dimensions → 990)			-AQR	
		Port plate 3/4 NPT (dimensions → 990)			-AQS	
O	Pressure gauge alternatives	MS pressure gauge, psi			-AG	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			-A4	
		Pressure sensor with display, M8 plug, 1 switching output PNP, 3-pin		1	-AD1	
		Pressure sensor with display, M8 plug, 1 switching output NPN, 3-pin		1	-AD2	
		Pressure sensor with display, M12 plug, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		1	-AD3	
		Pressure sensor with display, M12 plug, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		1	-AD4	
		Alternative pressure gauge scale	bar		2	-BAR
	MPa		2	-MPA		
	Type of mounting	Mounting bracket (dimensions → 991)		3	-WP	
		Mounting bracket (dimensions → 991)		3	-WPM	
		Mounting bracket (dimensions → 988)			-WB	
	Reverse flow direction	Flow direction from right to left			-Z	

1 AD1 ... AD4 Measuring range max. 147 psi

2 BAR, MPA Only with pressure gauge AG

3 WP, WPM Only with port plate AQN, AQP, AQR or AQS

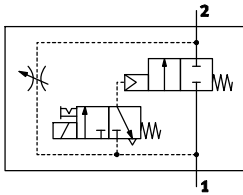
### Transfer order code

527685	MS	6	N	-DL	-		-		-		-	
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# Soft-start Valves MS6N-DE – Inch Series

Technical Data

ISO Symbol



- Solenoid actuated soft-start valve for slowly pressurizing and venting pneumatic installations
- The duration of the pressure build-up is adjusted using the restrictor attached to the valve cap.
- The output pressure p2 rises slowly in accordance with the restrictor setting. Only the air flow via the restrictor is available when the solenoid valve is not actuated. The main seat is only opened by energizing the solenoid valve.
- When the solenoid valve is switched off, the main seat is closed and only the air flow via the flow control valve is available.
- The solenoid valve should remain switched on in order to vent a system as this increases the flow rate from 2 to 1 and reduces the exhaust time.



- The cylinders advance slowly and reliably into the initial position. Sudden and erratic movements are avoided.
- Solenoid coil without plug socket, three voltage ranges available
- Solenoid actuator can be repositioned by 180°
- Switch-through pressure can be precisely controlled using a solenoid valve
- Adjustable switching time delay
- Pushing and detenting manual override (detenting is locked on delivery)
- Optional pressure sensor with display

General Technical Data			
Pneumatic connection 1, 2	1/4 NPT	3/8 NPT	1/2 NPT
Operating pressure [psi]	59 ... 206 (Coil parameter V24, V110, V230)		
	59 ... 147 (Coil parameter 10V24)		
	59 ... 147 (Pressure sensor with display AD...)		

Standard Nominal Flow Rate qnN <sup>1)</sup> [scfm]			
Pneumatic connection 1, 2	1/4 NPT	3/8 NPT	1/2 NPT
In main flow direction 1 → 2	95.3	178.3	227.7
In relief direction 2 → 1 <sup>2)</sup>	91.8	178.3	225.9

1) Measured at p1 = 88 psi and p2 = 74 psi Δp = 15 psi  
 2) For energized solenoid valve.

# Soft-start Valves MS6N-DE – Inch Series

Technical Data

Operating and Environmental Conditions				
Variant		Coil parameter V24, V110, V230	Coil parameter 10V24	Pressure sensor with display AD...
Operating medium		Compressed air		Filtered compressed air, lubricated or unlubricated, filtration grade 40 µm
Coil characteristics	V24	24 V DC (For valves with max. inlet pressure 206 psi – only available via configurator)		
	10V24	24 V DC (For valves with max. inlet pressure 147 psi)		
	V110	110 V AC		
	V230	230 V AC		
Exhaust function		Flow control		
Direction of flow		Non-reversible		
Ambient temperature	[°F]	14 ... 140	14 ... 122	32 ... 122
Temperature of medium	[°F]	14 ... 140	14 ... 122	32 ... 122
Assembly position		Any		
Corrosion resistance	CRC <sup>1)</sup>	2		

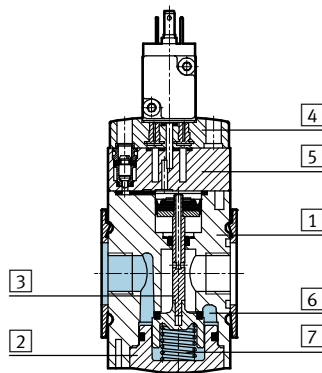
1) Corrosion resistance class 2 according to Festo standard 940 070  
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [lb]	
Soft-start valve	1.36

- For spare parts go to: [www.festo.com/en/spare\\_parts\\_service](http://www.festo.com/en/spare_parts_service)

## Materials

Sectional view



Soft-start valve		
1	Body	Die-cast aluminum
2	Base	Polyamide
3	Valve stem	Steel
4	End cap	Polyamide
5	Top plate	Polyamide
6	Seat	Aluminum/nitrile rubber
7	Springs	Spring steel
-	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE (not with variants AG, 10V24 or AD...)

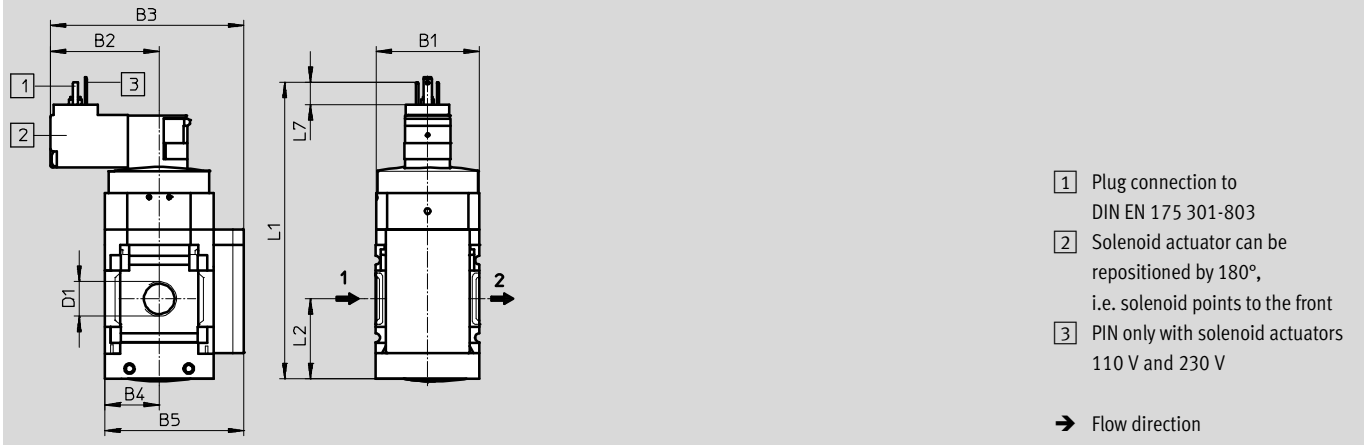
# Soft-start Valves MS6N-DE – Inch Series

Dimensional Drawings



## Dimensions<sup>1)</sup> – Standard

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	B1	B2	B3	B4	B5	D1	L1	L2	L7
MS6N-DE-1/4	2.44	2.05	3.82	1.22	2.99	1/4 NPT	5.79	1.79	0.34
MS6N-DE-3/8						3/8 NPT			
MS6N-DE-1/2						1/2 NPT			

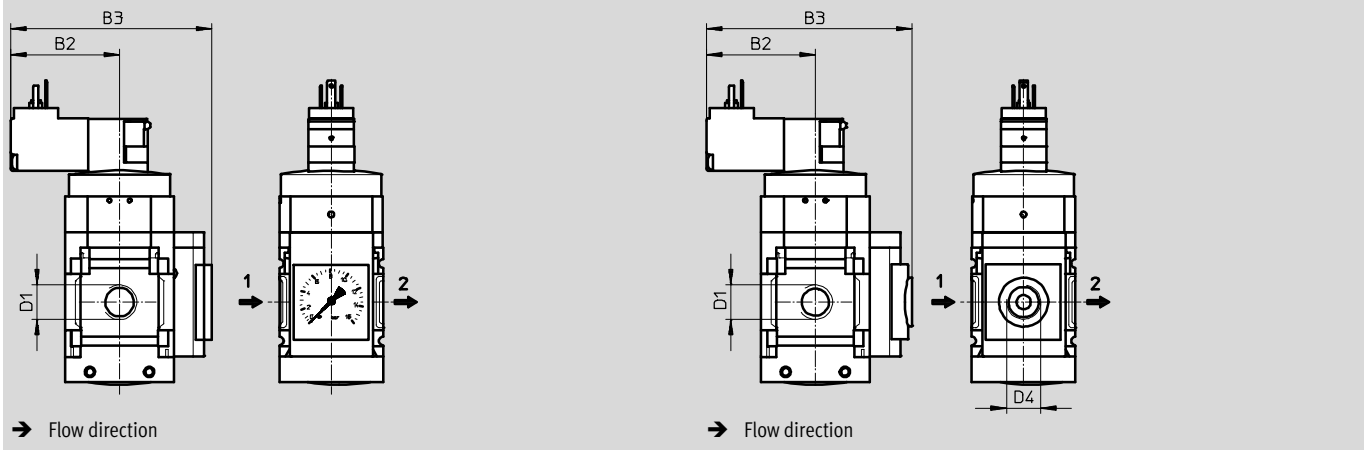
1) Dimensions are in inches, unless otherwise noted.

## Dimensions<sup>1)</sup> – Pressure Gauge Alternatives

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Integrated MS pressure gauge AG, display unit [psi]

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



Type	B2	B3	D1	D4
MS6N-DE-1/4-...-AG	2.05	4.17	1/4 NPT	-
MS6N-DE-3/8-...-AG			3/8 NPT	
MS6N-DE-1/2-...-AG			1/2 NPT	
MS6N-DE-1/4-...-A4	2.05	3.92	1/4 NPT	G1/4
MS6N-DE-3/8-...-A4			3/8 NPT	
MS6N-DE-1/2-...-A4			1/2 NPT	

1) Dimensions are in inches, unless otherwise noted.

# Soft-start Valves MS6N-DE – Inch Series

Dimensional Drawings, Ordering Data – Pre-configured Products

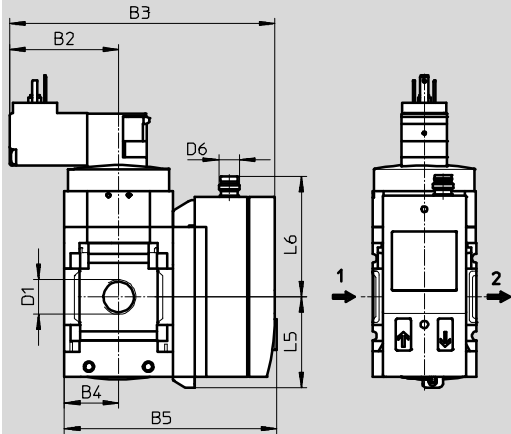


## Dimensions<sup>1)</sup> – Pressure Gauge Alternatives

Pressure sensor with display AD1 ... AD4

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Technical data SDE1 → [www.festo.com/catalog/sde1](http://www.festo.com/catalog/sde1)



→ Flow direction

AD1 variants:  
SDE1-D10-G2-MS-L-P1-M8 with 3-pin plug M8x1, 1 switching output PNP

AD2 variants:  
SDE1-D10-G2-MS-L-N1-M8 with 3-pin plug M8x1, 1 switching output NPN

AD3 variants:  
SDE1-D10-G2-MS-L-PI-M12 with 4-pin plug M12x1, 1 switching output PNP and 4 ... 20 mA analog

AD4 variants:  
SDE1-D10-G2-MS-L-NI-M12 with 4-pin plug M12x1, 1 switching output NPN and 4 ... 20 mA analog

Type	B2	B3	B4	B5	D1	D6	L5	L6
MS6N-DE-1/4-...-AD1/AD2	2.05	4.88	1.22	4.06	1/4 NPT	M8x1	1.38	1.84
MS6N-DE-3/8-...-AD1/AD2					3/8 NPT			
MS6N-DE-1/2-...-AD1/AD2					1/2 NPT			
MS6N-DE-1/4-...-AD3/AD4	2.05	4.88	1.22	4.06	1/4 NPT	M12x1	1.38	2.20
MS6N-DE-3/8-...-AD3/AD4					3/8 NPT			
MS6N-DE-1/2-...-AD3/AD4					1/2 NPT			

1) Dimensions are in inches, unless otherwise noted.

Ordering Data			
Connection	Part No.	Type	LT
Supply voltage 24 V DC			
1/4 NPT	542572	MS6N-DE-1/4-10V24	1D
3/8 NPT	542574	MS6N-DE-3/8-10V24	1D
1/2 NPT	542573	MS6N-DE-1/2-10V24	1D
Supply voltage 110 V AC			
1/4 NPT	532041	MS6N-DE-1/4-V110 <sup>1)</sup>	1D
3/8 NPT	532043	MS6N-DE-3/8-V110 <sup>1)</sup>	1D
1/2 NPT	532042	MS6N-DE-1/2-V110 <sup>1)</sup>	1D
Supply voltage 230 V AC			
1/4 NPT	532047	MS6N-DE-1/4-V230 <sup>1)</sup>	1D
3/8 NPT	532049	MS6N-DE-3/8-V230 <sup>1)</sup>	1D
1/2 NPT	532048	MS6N-DE-1/2-V230 <sup>1)</sup>	1D

LT = Lead time      1D typically ships same day/next day      3D typically ships within 3 days

1) Free of copper and PTFE

# Soft-start Valves MS6N-DE – Inch Series

Ordering Data – Configurable Products

M Mandatory Data							O Options			
Part No.	Series	Size	Thread	Function	Connection size	Supply voltage	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
527687	MS	6	N	DE	1/4, 3/8, 1/2, AQN, AQP, AQR, AQS	V24 10V24 V110 V230	AG, A4, AD1, AD2, AD3, AD4	BAR MPA	WP WPM WB	Z
<b>Order example</b>										
<b>527687</b>	<b>MS</b>	<b>6</b>	<b>N</b>	<b>- DE</b>	<b>- AQN</b>	<b>- V110</b>	<b>- AG</b>	<b>- BAR</b>	<b>- WP</b>	<b>- Z</b>

Ordering Table		Grid dimension [mm]	62	Conditions	Code	Enter code
M	Part No.	<b>527687</b>				
	Series	Standard			<b>MS</b>	MS
	Size	6			<b>6</b>	6
	Thread	NPT thread			<b>N</b>	N
	Function	Soft-start valve, electrical			<b>-DE</b>	-DE
	Connection size	Body thread 1/4 NPT			<b>-1/4</b>	
		Body thread 3/8 NPT			<b>-3/8</b>	
		Body thread 1/2 NPT			<b>-1/2</b>	
		Port plate 1/4 NPT (dimensions → 990)			<b>-AQN</b>	
		Port plate 3/8 NPT (dimensions → 990)			<b>-AQP</b>	
		Port plate 1/2 NPT (dimensions → 990)			<b>-AQR</b>	
		Port plate 3/4 NPT (dimensions → 990)			<b>-AQS</b>	
	Supply voltage	24 V DC (connection pattern to EN 175301), 206 psi			<b>-V24</b>	
		24 V DC (connection pattern to EN 175301), 147 psi		1	<b>-10V24</b>	
		110 V AC (connection pattern to EN 175301), 206 psi			<b>-V110</b>	
		230 V AC (connection pattern to EN 175301), 206 psi			<b>-V230</b>	
	Pressure gauge alternatives	MS pressure gauge, psi			<b>-AG</b>	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			<b>-A4</b>	
		Pressure sensor with display, M8 plug, 1 switching output PNP, 3-pin		2	<b>-AD1</b>	
		Pressure sensor with display, M8 plug, 1 switching output NPN, 3-pin		2	<b>-AD2</b>	
		Pressure sensor with display, M12 plug, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		2	<b>-AD3</b>	
		Pressure sensor with display, M12 plug, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		2	<b>-AD4</b>	
	Alternative pressure gauge scale	bar		3	<b>-BAR</b>	
		MPa		3	<b>-MPA</b>	
	Type of mounting	Mounting bracket (dimensions → 991)		4	<b>-WP</b>	
		Mounting bracket (dimensions → 991)		4	<b>-WPM</b>	
		Mounting bracket (dimensions → 988)			<b>-WB</b>	
	Reverse flow direction	Flow direction from right to left			<b>-Z</b>	

- 1 **10V24** Max. inlet pressure 147 psi
- 2 **AD1 ... AD4** Measuring range max. 147 psi

- 3 **BAR, MPA** Only with pressure gauge AG
- 4 **WP, WPM** Only with port plate AQN, AQP, AQR or AQS

**Transfer order code**

<b>527687</b>	<b>MS</b>	<b>6</b>	<b>N</b>	<b>- DE</b>	-		-		-		-		-		-	
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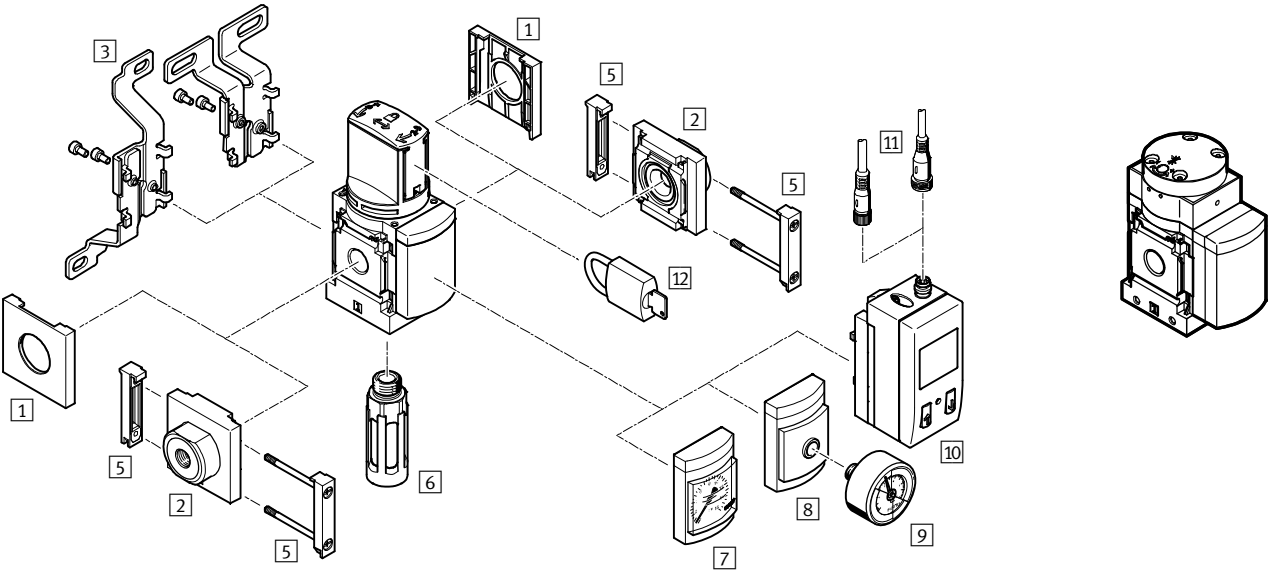
# On-off/Soft-start Valves MS6N-EM1/DL – Inch Series

Accessories Overview

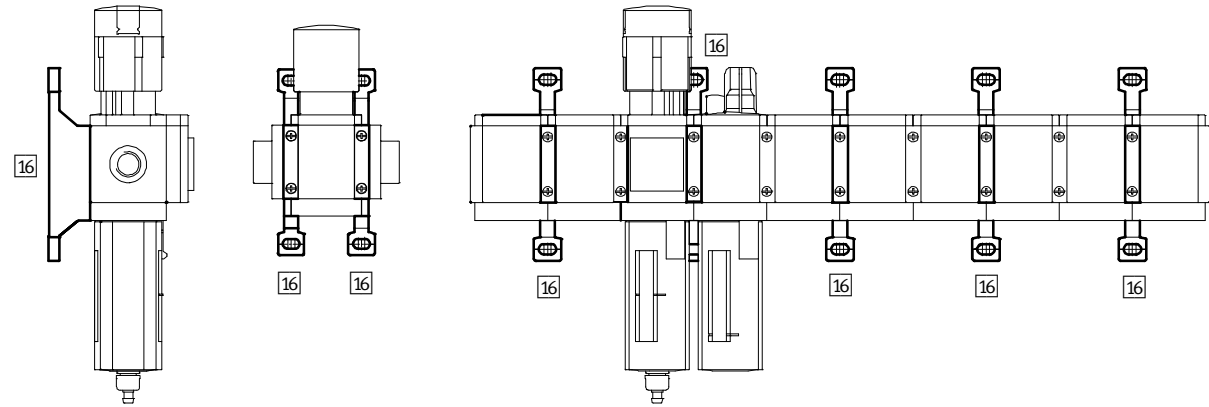
**Mounting Attachments and Accessories**

On-off Valve EM1 – manually actuated

Soft-start Valve DL – pneumatically actuated



Single unit and combination unit mounting brackets.





# On-off/Soft-start Valves MS6N-EM1/DL – Inch Series

Accessories Overview

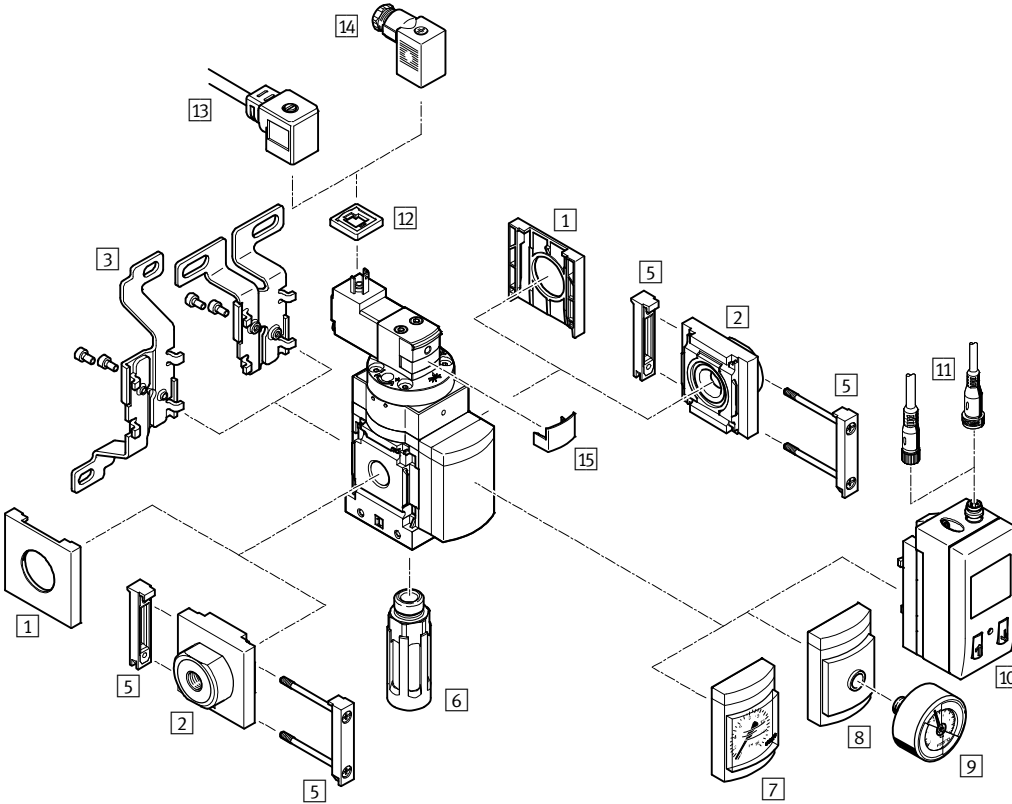
Mounting Attachments and Accessories						
		Single unit		Combination unit → 3.1-49		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	-	■	-	989
2	Port plate MS6N-AQ...	-	■	-	■	990
3	Mounting bracket MS6-WB	■	■	-	-	988
5	Body connector MS6-MV	-	■	■	■	990
6	Silencer U	■ with EM1	■ with EM1	■ with EM1	■ with EM1	995
7	MS pressure gauge AG	■	■	■	■	EM1 966 DL 978
8	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	EM1 966 DL 978
9	Pressure gauge MA	■	■	■	■	995
10	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	EM1 966 DL 978
11	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	994
12	Padlock LRVS-D	■	■	■	■	995
16	Mounting bracket MS6-WP/WPB/WPM	-	■	■	■	991

# On-off/Soft-start Valves MS6N-EE/DE – Inch Series

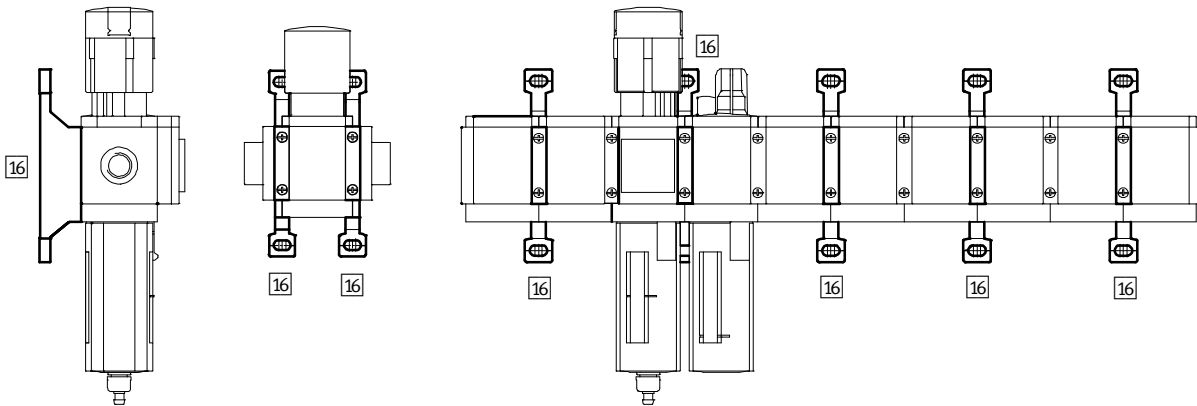
Accessories Overview

## Mounting Attachments and Accessories

On-off/Soft-start Valve EE/DE – solenoid actuated



Single unit and combination unit mounting brackets.



# On-off/Soft-start Valves MS6N-EE/DE – Inch Series

Accessories Overview

Mounting Attachments and Accessories						
		Single unit		Combination unit → 3.1-49		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	-	■	-	989
2	Port plate MS6N-AQ...	-	■	-	■	990
3	Mounting bracket MS6-WB	■	■	-	-	988
5	Body connector MS6-MV	-	■	■	■	990
6	Silencer U	■ with EE	■ with EE	■ with EE	■ with EE	995
7	Pressure gauge MS AG	■	■	■	■	EE 972 DE 983
8	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	EE 972 DE 983
9	Pressure gauge MA	■	■	■	■	995
10	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	EE 972 DE 983
11	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	994
12	Illuminating seal MEB-LD	■	■	■	■	994
13	Plug socket with cable KMEB	■	■	■	■	994
14	Plug socket MSSD-EB	■	■	■	■	994
15	Locking clip CPV18-HV	■	■	■	■	994
16	Mounting bracket MS6-WP/WPB/WPM	-	■	■	■	991

# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series



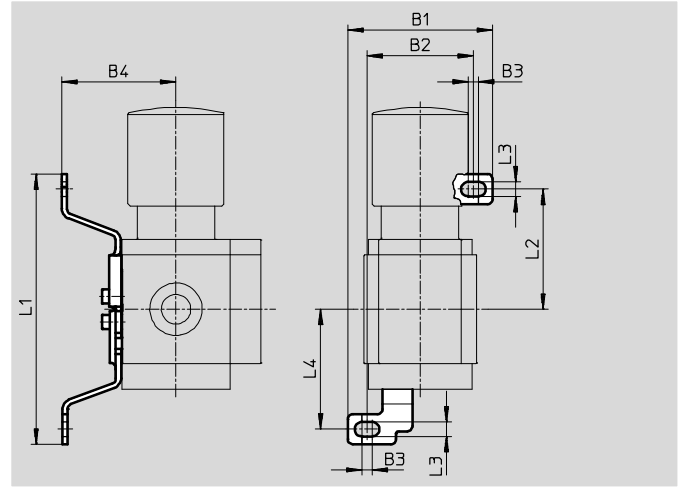
Accessories

## 3 Mounting bracket MS6-WB

- For wall mounting

Material:

Steel



Dimensions and Ordering Data										
B1	B2	B3	B4	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.13	2.44	0.18	2.17	6.20	2.80	0.26	2.80	0.24	532196	MS6-WB

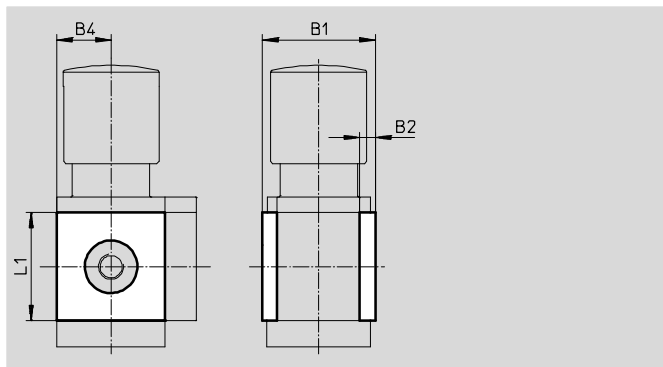
# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

Accessories

## 1 Cover cap MS6-END

- Can be used to cover the body sides of the first and last module if port plates are not used.

Material:  
Reinforced polyamide  
Free of copper and PTFE



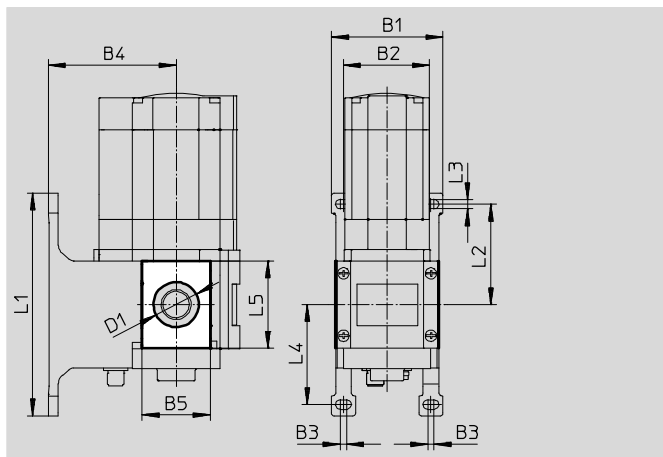
Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
2.64	0.31	1.22	2.44	538780	MS6-END	

## Mounting plate MS6-AEND

(order code: WBE; scope of delivery includes mounting bracket MS6-WPB)

- In combination with mounting bracket MS-WP or MS-WPB for mounting an individual unit on a wall with body thread

Material:  
Reinforced polyamide  
Conforms to RoHS  
Free of copper and PTFE



Dimensions and Ordering Data															
B1	B2	B3	B4		B5	D1 ∅	L1	L2	L3	L4	L5	CRC <sup>1)</sup>	Weight [lb]	Part No.	Type
			WP	WPB											
3.11	2.44	0.18	2.13	3.56	1.91	1.26	6.22	2.80	0.26	2.80	2.44	2	0.03	535408	MS6-AEND

1) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. 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.

## On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

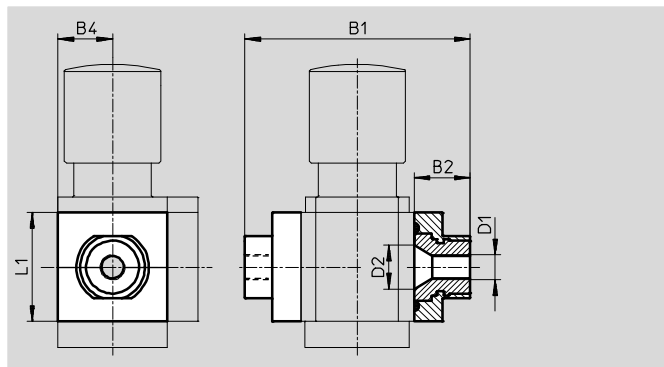
FESTO

Accessories

### 2 Port plate MS6N-AQ...

- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection 3/4 NPT

Material:  
Aluminum



Dimensions and Ordering Data								
B1	B2	B4	D1	D2	L1	Weight [lb]	Part No.	Type
4.53	1.04	1.22	1/4 NPT	0.94	2.44	0.60	526076	MS6N-AQN
			3/8 NPT				526077	MS6N-AQP
			1/2 NPT				526078	MS6N-AQR
			3/4 NPT				526079	MS6N-AQS

### 5 Body connector MS...-MV

- For connecting modules

Material:  
Stainless steel/polyacetate



Ordering Data		
Weight [lb]	Part No.	Type
0.11	532799	MS6-MV

# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

Accessories

## 16 Mounting Bracket MS6-WP...

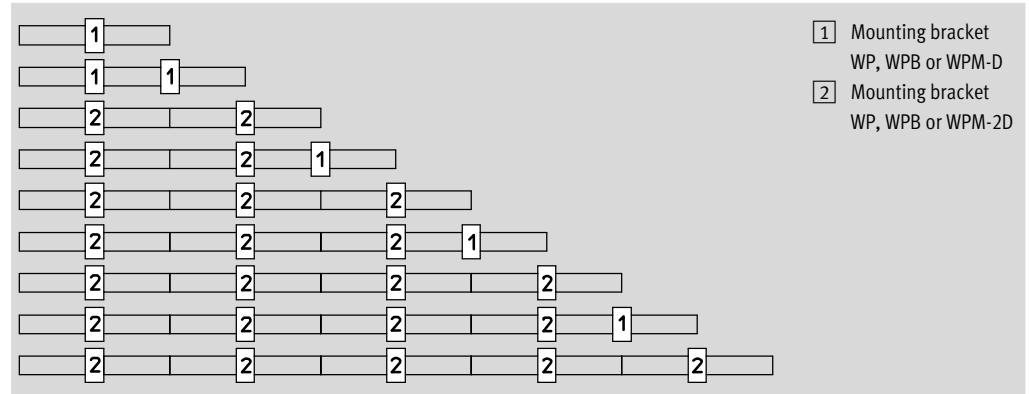
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 2.44 in with WP, WPB  
2.715 in with WPM-D

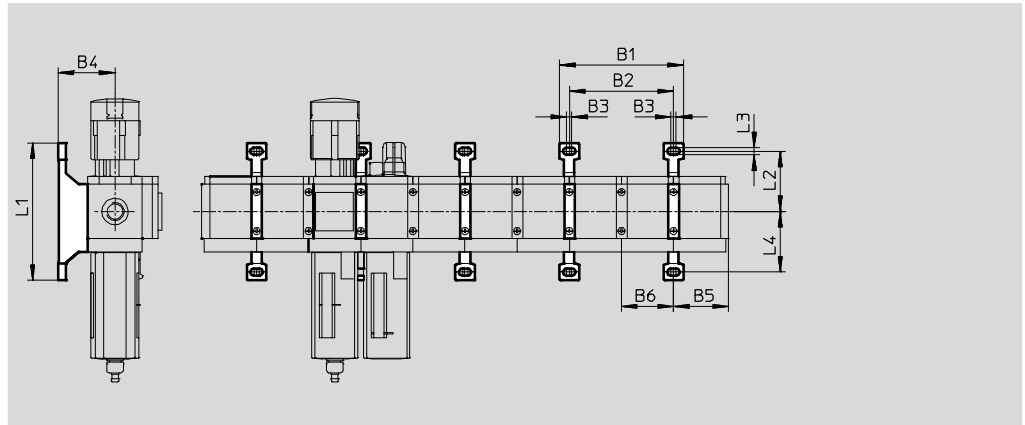
2 units: 4.88 in with WP, WPB  
5.43 in with WPM-2D

Number of units

1 2 3 4 5 6 7 8 9 10



## Mounting dimensions



Type	B1	B2	B3	B4	B5	B6	L1	L2	L3	L4
MS6-WP	5.55	4.88	0.18	2.13	2.54	2.44	6.22	2.80	0.26	2.80
MS6-WPB				3.56						
MS6-WPM-...D	6.61	5.43	0.69	2.13	2.58	2.72	3.88	1.63		1.63

# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

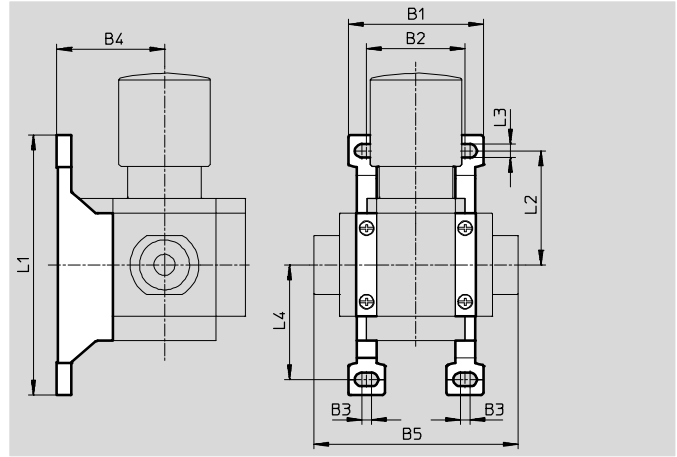


Accessories

## Mounting bracket MS6-WP

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with body thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:  
Die-cast aluminum

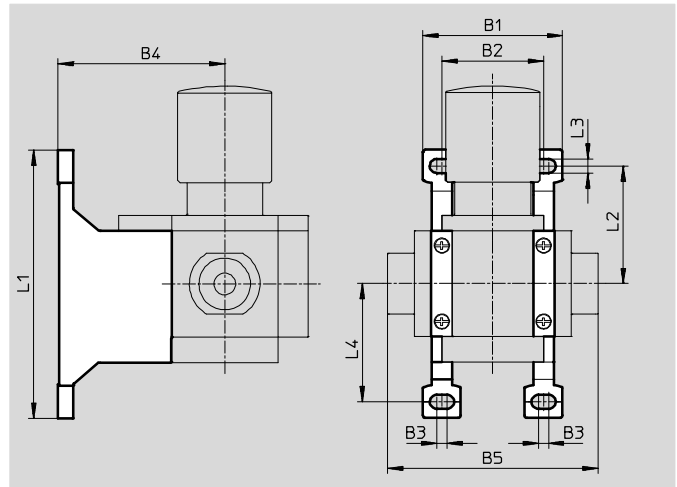


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	2.13	4.53	6.22	2.80	0.26	2.80	0.15	532195	MS6-WP

## Mounting bracket MS6-WPB

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:  
Die-cast aluminum



Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
3.11	2.44	0.18	3.56	4.53	6.22	2.80	0.26	2.80	0.23	526074	MS6-WPB



# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

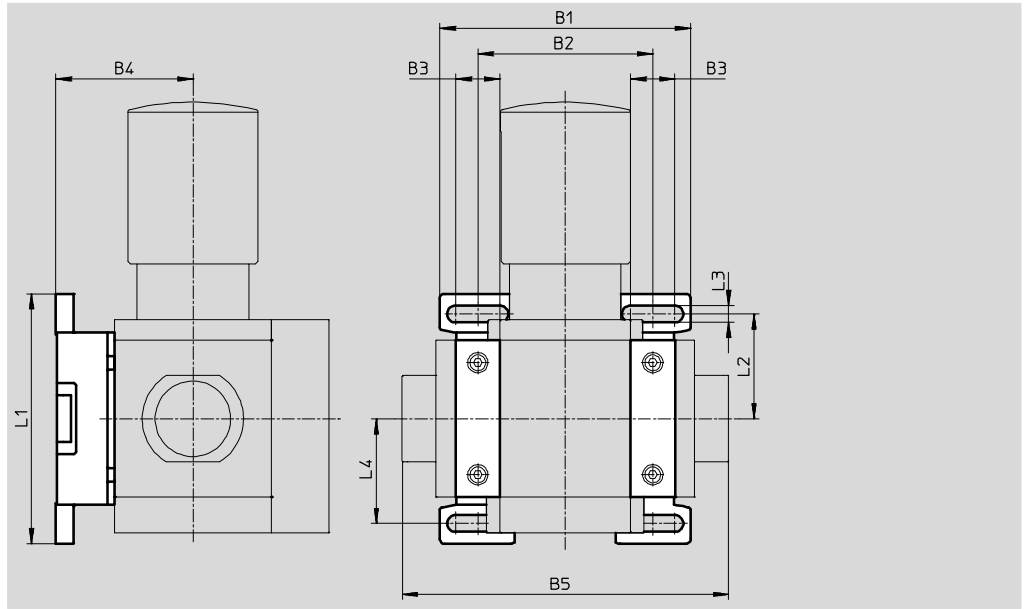
Accessories

## Mounting bracket MS6-WPM

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- Speedy attachment and detachment
- For installation of modules with regulating knob pointing downwards

The distance piece D or 2D (designated in the type code) is included in the scope of delivery and ensures the correct clearance

Material:  
Die-cast aluminum



Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [lb]	Part No.	Type
3.90	2.72	0.69	2.13	5.08	3.88	1.63	0.26	1.63	2.44	0.29	526073	MS6-WPM-D
6.61	5.43			7.80					4.88			

## Body connector MS6-MVM

- For installation of modules with regulating knob pointing downwards

Material:  
Die-cast aluminum





Ordering Data		
Size	Part No.	Type
MS6	532801	MS6-MVM


# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series




Accessories



14 Ordering Data – Plug Socket MSSD					Technical data → <a href="http://www.festo.com/catalog/mssd">www.festo.com/catalog/mssd</a>	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type
	for MS6N-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	151687	MSSD-EB
			4-pin	Insulation displacement technology	192745	MSSD-EB-S-M14



13 Ordering Data – Plug Socket with Cable KMEB					Technical data → <a href="http://www.festo.com/catalog/kmeb">www.festo.com/catalog/kmeb</a>	
	Description	Operating voltage range	Switching status display	Cable length [ft]	Part No.	Type
	for MS6N-EE/DE	24 V DC	LED	8.2	151688	KMEB-1-24-2,5-LED
		24 V DC	LED	16.4	151689	KMEB-1-24-5-LED
		24 V DC	LED	32.8	193457	KMEB-1-24-10-LED
		230 V AC	–	8.2	151690	KMEB-1-230AC-2,5
		230 V AC	–	16.4	151691	KMEB-1-230AC-5

12 Ordering Data – Illuminating Seal MEB-LD			Technical data → <a href="http://www.festo.com/catalog/meb-ld">www.festo.com/catalog/meb-ld</a>		
	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	

15 Ordering Data – Locking Clip CPV18-HV				Technical data → <a href="http://www.festo.com/catalog/cpv18-hv">www.festo.com/catalog/cpv18-hv</a>	
	Description		Part No.	Type	PU <sup>1)</sup>
	for MS6N-EE/DE...-V24	Cover for manual override, the clip prevents actuation	530056	CPV18-HV	10

1) Packaging unit quantity


11 Ordering Data – Plug Socket with Cable SIM-M8				Technical data → <a href="http://www.festo.com/catalog/sim-m8">www.festo.com/catalog/sim-m8</a>	
	Electrical connection	Cable length [ft]	Part No.	Type	
	M8x1, 3-pin	8.2	159420	SIM-M8-3GD-2,5-PU	
		16.4	159421	SIM-M8-3GD-5-PU	
		32.8	192964	SIM-M8-3GD-10-PU	
	M8x1, 3-pin	8.2	159422	SIM-M8-3WD-2,5-PU	
		16.4	159423	SIM-M8-3WD-5-PU	
		32.8	192965	SIM-M8-3WD-10-PU	


Ordering Data – Plug Socket with Cable SIM-M12			Technical data → <a href="http://www.festo.com/catalog/sim-m12">www.festo.com/catalog/sim-m12</a>		
	Electrical connection	Cable length [ft]	Part No.	Type	
	M12x1, 4-pin	16.4	164259	SIM-M12-4GD-5-PU	
	M12x1, 4-pin	16.4	164258	SIM-M12-4WD-5-PU	


# On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series



Accessories

9 Ordering Data – Pressure Gauge MA					Technical data → <a href="http://www.festo.com/catalog/ma">www.festo.com/catalog/ma</a>	
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type
			[bar]	[psi]		
	Pressure gauge MA, DIN EN 837-1					
	1.57	¼ NPT	0 ... 16	0 ... 232	<b>183908</b>	<b>MA-40-16-N¼-EN</b>
	Pressure gauge MA, DIN EN 837-1, with red-green range					
	1.97	¼ NPT	–	0 ... 232	<b>530391</b>	<b>MA-50-232-N¼-PSI-E-RG</b>

6 Ordering Data – Silencer U				Technical data → <a href="http://www.festo.com/catalog/u">www.festo.com/catalog/u</a>	
	Description	Pneumatic connection	Part No.	Type	
	for MS6N-EM1/EE	½ NPT	<b>12741</b>	<b>U-½-B-NPT</b>	

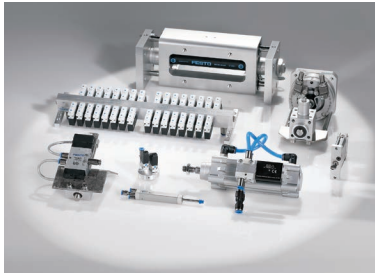
Ordering Data – Padlock LRV5-D				
	Description	Weight [lb]	Part No.	Type
	for regulators, filter/regulators and manual on-off valves	0.24	<b>193786</b>	<b>LRV5-D</b>



# Product Range and Company Overview

## A Complete Suite and Company Overview

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**Custom Automation Components**  
Complete custom engineered solutions



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Comprehensive engineering support and on-site services



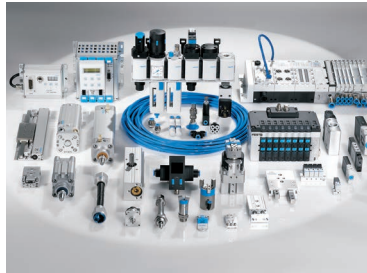
**Complete Systems**  
Shipment, stocking and storage services

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With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



**Electromechanical**  
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**Pneumatics**  
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Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 16,000 employees in 60 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.

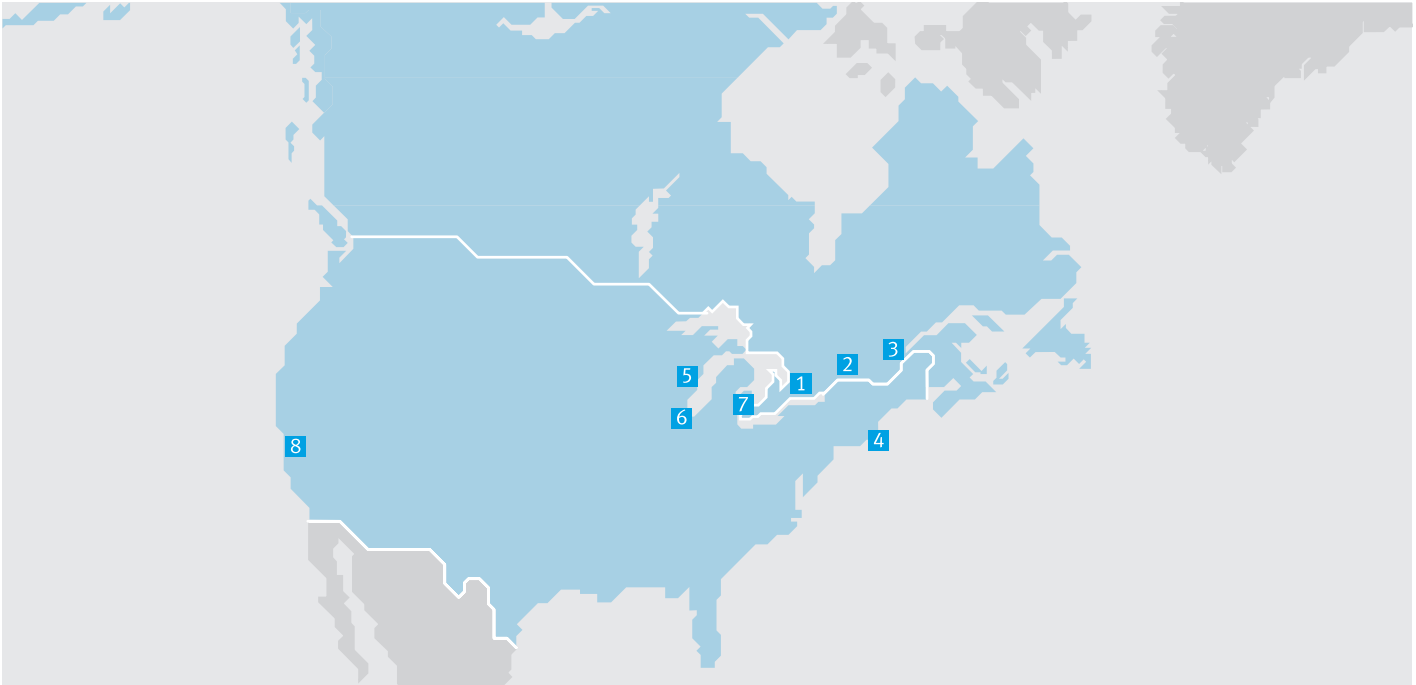


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