

On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

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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
 - MS6-EM1, manually operated
 - MS6-EE, solenoid actuated
- Soft-start valves
 - MS6-DL, pneumatically actuated
 - MS6-DE, solenoid actuated
- Pneumatic connection: G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$
- Operating pressure
 - EM1: 0 ... 18 bar
 - EE, DL and DE: 4 ... 18 bar
- Flow rate: 2,600 ... 8,700 l/min

Product Range Overview														
Type	Flow rate [l/min]	Pneumatic connections		Supply voltage				Pressure indicator					Options	
		Body thread	Port plate	24 V DC (connection pattern to EN 175301)	24 V DC (connection pattern M12 to DESINA)	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 G $\frac{1}{8}$	Adapter for pressure gauge G $\frac{1}{4}$	Pressure sensor with display	Silencer	Flow direction from right to left
MS6			AG...	V24	V24P	V110	V230	VS	AG	A8	A4	AD...	S	Z
EM1	3,000 ... 8,700	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$	–	–	–	–	■	■	–	■	■	■	■
EE	2,600 ... 7,000	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$	■	–	■	■	■	■	–	■	■	■	■
DL	2,800 ... 6,450	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$	–	–	–	–	■	■	–	■	■	–	■
DE	2,700 ... 6,450	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$	G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, G $\frac{3}{4}$	■	–	■	■	■	■	–	■	■	–	■

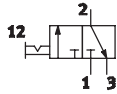
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On-off Valves MS6-EM1 – Metric Series

Technical Data

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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	G1/4	G3/8	G1/2
Pneumatic connection 3	G1/2		
Operating pressure [bar]	0 ... 18 /Standard		
	0 ... 10 (Pressure sensor with display AD...)		

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate $q_{nN}^{1)}$ [l/min]			
Pneumatic connection	G1/4	G3/8	G1/2
In main flow direction 1 → 2	3,000	5,500	8,700
In relief direction 2 → 3	6,800	6,600	6,200

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

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 [°C]	-10 ... +60	0 ... +50
Temperature of medium [°C]	-10 ... +60	0 ... +50
Assembly position	Any	
Corrosion resistance CRC ²⁾	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 [g]	
Standard	580
With silencer	655

- For spare parts go to: www.festo.com/en/spare_parts_service

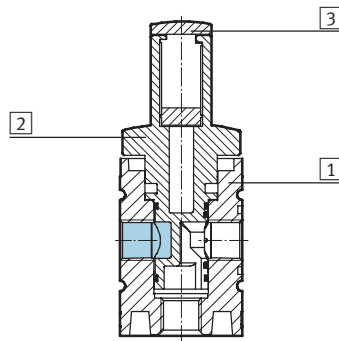
On-off Valves MS6-EM1 – Metric Series

Technical Data, Dimensional Drawings

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Materials

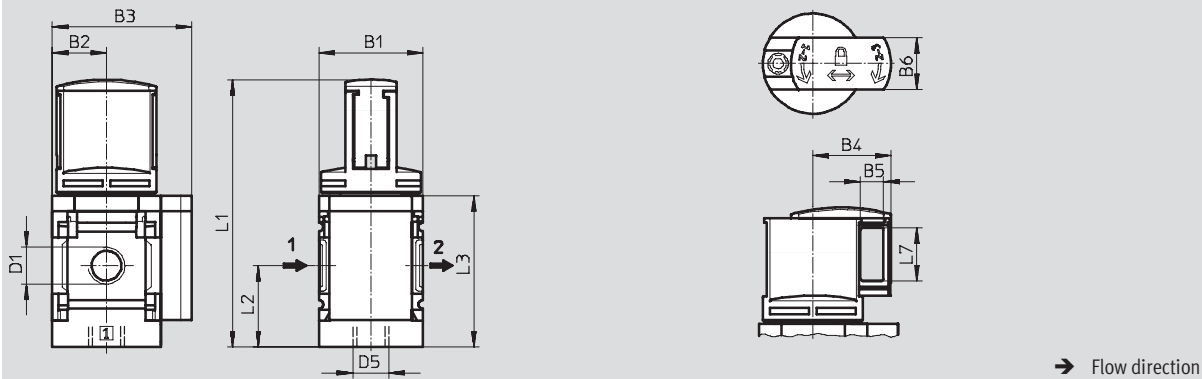
Sectional view



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...)

Dimensions¹⁾ – Standard

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



Type	B1	B2	B3	B4	B5	B6	D1	D5	L1	L2	L3	L7
MS6-EM1-1/4	62	31	76	45	10	24	G1/4	G1/2	150.9	45.5	84.5	28.2
MS6-EM1-3/8							G3/8					
MS6-EM1-1/2							G1/2					

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

On-off Valves MS6-EM1 – Metric Series

Dimensional Drawings

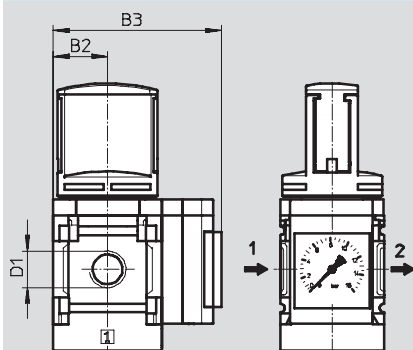
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Dimensions¹⁾ – Pressure Gauge Alternatives

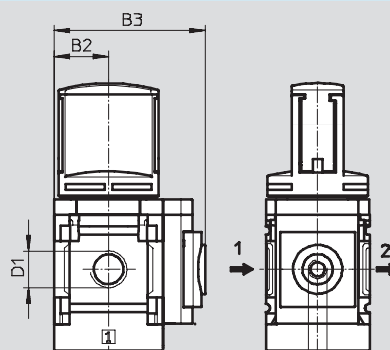
Download CAD Data → www.festo.com/us/cad

Integrated MS pressure gauge AG, display unit [bar]

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



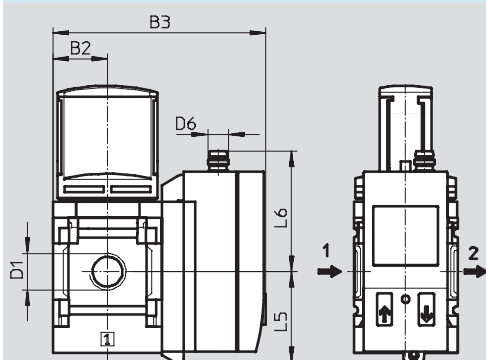
→ Flow direction



→ Flow direction

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → 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
MS6-EM1-1/4-...-AG	31	85	G1/4	-	-	-	-
MS6-EM1-3/8-...-AG			G3/8				
MS6-EM1-1/2-...-AG			G1/2				
MS6-EM1-1/4-...-A4	31	78.5	G1/4	G1/4	-	-	-
MS6-EM1-3/8-...-A4			G3/8				
MS6-EM1-1/2-...-A4			G1/2				
MS6-EM1-1/4-...-AD1/AD2	31	103	G1/4	-	M8x1	35.1	46.7
MS6-EM1-3/8-...-AD1/AD2			G3/8				
MS6-EM1-1/2-...-AD1/AD2			G1/2				
MS6-EM1-1/4-...-AD3/AD4	31	103	G1/4	-	M12x1	35.1	55.8
MS6-EM1-3/8-...-AD3/AD4			G3/8				
MS6-EM1-1/2-...-AD3/AD4			G1/2				

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

On-off Valves MS6-EM1 – Metric Series

Dimensional Drawings, Ordering Data – Pre-configured Products



Dimensions¹⁾ – Silencer
Download CAD Data → www.festo.com/us/cad

Type	D2	L4
MS6-EM1-...-S	28	106

1) Dimensions are in millimeters, unless otherwise noted.

Ordering Data						
Connection	Standard			With silencer		
	Part No.	Type	LT	Part No.	Type	LT
G ¹ / ₄	541271	MS6-EM1- ¹ / ₄	1D	541272	MS6-EM1- ¹ / ₄ -S ¹⁾	1D
G ³ / ₈	541275	MS6-EM1- ³ / ₈	1D	541276	MS6-EM1- ³ / ₈ -S ¹⁾	1D
G ¹ / ₂	541267	MS6-EM1- ¹ / ₂	1D	541268	MS6-EM1- ¹ / ₂ -S ¹⁾	1D

LT = Lead time
1D typically ships same day/next day
1W typically ships within 1 week
Q request a quote for lead time

1) Free of copper and PTFE

On-off Valves MS6-EM1 – Metric Series

Ordering Data – Configurable Products

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M Mandatory Data					O Options				
Part No.	Series	Size	Function	Connection size	Silencer	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
541279	MS	6	EM1	1/4, 3/8, 1/2, AGB, AGC, AGD, AGE	S	AG, A4, AD1, AD2, AD3, AD4	PSI MPa	WP WPM WB	Z
Order example									
541279	MS	6	- EM1	- 1/4	- S	- AG	- PSI	- WB	- Z

Ordering Table									
Grid dimension [mm]		62					Conditions	Code	Enter code
M	Part No.	541279							
	Series	Standard						MS	MS
	Size	6						6	6
	Function	On-off valve, manual						-EM1	-EM1
	Connection size	Body thread G1/4						-1/4	
		Body thread G3/8						-3/8	
		Body thread G1/2						-1/2	
		Port plate G1/4 (dimensions → 950)						-AGB	
		Port plate G3/8 (dimensions → 950)						-AGC	
		Port plate G1/2 (dimensions → 950)						-AGD	
		Port plate G3/4 (dimensions → 950)						-AGE	
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	psi					2	-PSI	
		MPa					2	-MPA	
	Type of mounting	Mounting bracket (dimensions → 951)					3	-WP	
		Mounting bracket (dimensions → 951)					3	-WPM	
		Mounting bracket (dimensions → 948)						-WB	
	Reverse flow direction	Flow direction from right to left						-Z	

1 AD1 ... AD4 Measuring range max. 10 bar

2 PSI, MPA Only with pressure gauge AG

3 WP, WPM Only with port plate AGB, AGC, AGD or AGE

Transfer order code

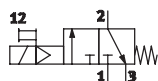
541279	MS	6	-	EM1	-		-		-		-		-		-	
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On-off Valves MS6-EE – Metric Series

Technical Data

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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	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Pneumatic connection 3	G $\frac{1}{2}$		
Operating pressure [bar]	4 ... 18 (Coil parameter V24, V110, V230)		
	4 ... 10 (Coil parameter 10V24)		
	4 ... 10 (Pressure sensor with display AD...)		

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate q_{N1} [l/min]			
Pneumatic connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$
In main flow direction 1 → 2	2,600	5,500	7,000
In relief direction 2 → 3	7,000	6,200	5,500

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

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 μ m
Coil characteristics	V24	24 V DC (For valves with max. inlet pressure 14 bar – only available via configurator)	
	10V24	24 V DC (For valves with max. inlet pressure 10 bar)	
	V110	110 V AC	
	V230	230 V AC	
Exhaust function	Without flow control		
Ambient temperature [°C]	–10 ... +60		–10 ... +50
Temperature of medium [°C]	–10 ... +60		–10 ... +50
Assembly position	Any		
Corrosion resistance CRC ²⁾	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 [g]	
Standard	740
With silencer	816

- For spare parts go to: www.festo.com/en/spare_parts_service

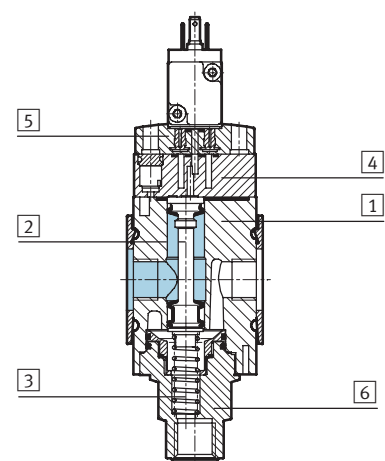
On-off Valves MS6-EE – Metric Series

Technical Data



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...)

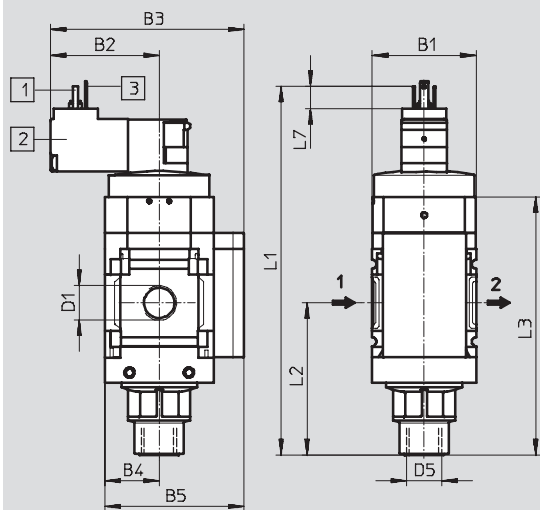
On-off Valves MS6-EE – Metric Series

Dimensional Drawings

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Dimensions¹⁾ – Standard

Download CAD Data → 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
MS6-EE-1/4	62	52	97	31	76	G1/4	G1/2	185.6	84	143	8.6
MS6-EE-3/8						G3/8					
MS6-EE-1/2						G1/2					

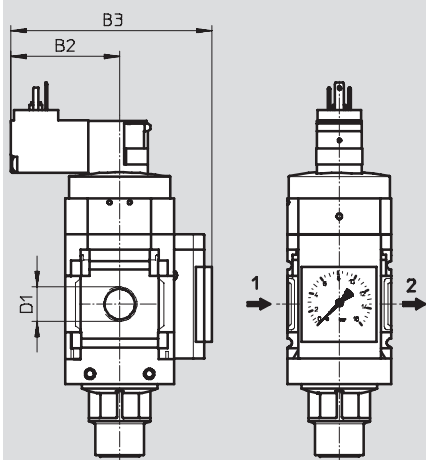
1) Dimensions are in millimeters, unless otherwise noted.

Dimensions¹⁾ – Pressure Gauge Alternatives

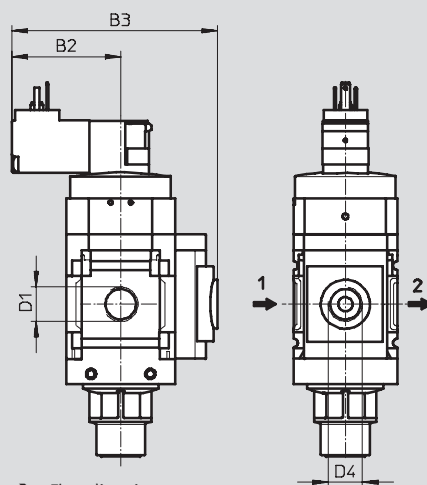
Download CAD Data → www.festo.com/us/cad

Integrated MS pressure gauge AG, display unit [bar]

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



→ Flow direction



→ Flow direction

Type	B2	B3	D1	D4
MS6-EE-1/4-...-AG	52	106	G1/4	-
MS6-EE-3/8-...-AG			G3/8	
MS6-EE-1/2-...-AG			G1/2	
MS6-EE-1/4-...-A4	52	99.6	G1/4	G1/4
MS6-EE-3/8-...-A4			G3/8	
MS6-EE-1/2-...-A4			G1/2	

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

2007/10 – Subject to change – MS Series

On-off Valves MS6-EE – Metric Series

Dimensional Drawings

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Dimensions¹⁾ – Pressure Gauge Alternatives

Pressure sensor with display AD1 ... AD4

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

Technical data SDE1 → 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
MS6-EE-1/4-...-AD1/AD2	52	124	31	103	G1/4	M8x1	35.1	46.7
MS6-EE-3/8-...-AD1/AD2					G3/8			
MS6-EE-1/2-...-AD1/AD2					G1/2			
MS6-EE-1/4-...-AD3/AD4	52	124	31	103	G1/4	M12x1	35.1	55.8
MS6-EE-3/8-...-AD3/AD4					G3/8			
MS6-EE-1/2-...-AD3/AD4					G1/2			

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Dimensions¹⁾ – Silencer

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

Type	D2	L4
MS6-EE-...-S	28	106

1) Dimensions are in millimeters, unless otherwise noted.

On-off Valves MS6-EE – Metric Series

Ordering Data – Pre-configured Products

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Ordering Data						
Connection	Without silencer			With silencer		
	Part No.	Type	LT	Part No.	Type	LT
Supply voltage 24 V DC						
G $\frac{1}{4}$	542584	MS6-EE- $\frac{1}{4}$ -10V24	1D	542604	MS6-EE- $\frac{1}{4}$ -10V24-S	Q
G $\frac{3}{8}$	542586	MS6-EE- $\frac{3}{8}$ -10V24	1D	542606	MS6-EE- $\frac{3}{8}$ -10V24-S	Q
G $\frac{1}{2}$	542582	MS6-EE- $\frac{1}{2}$ -10V24	1D	542602	MS6-EE- $\frac{1}{2}$ -10V24-S	Q
Supply voltage 110 V AC						
G $\frac{1}{4}$	529829	MS6-EE- $\frac{1}{4}$ -V110 ¹⁾	1D	538737	MS6-EE- $\frac{1}{4}$ -V110-S ¹⁾	Q
G $\frac{3}{8}$	529835	MS6-EE- $\frac{3}{8}$ -V110 ¹⁾	1D	538743	MS6-EE- $\frac{3}{8}$ -V110-S ¹⁾	Q
G $\frac{1}{2}$	529823	MS6-EE- $\frac{1}{2}$ -V110 ¹⁾	1D	538731	MS6-EE- $\frac{1}{2}$ -V110-S ¹⁾	Q
Supply voltage 230 V AC						
G $\frac{1}{4}$	529831	MS6-EE- $\frac{1}{4}$ -V230 ¹⁾	1D	538739	MS6-EE- $\frac{1}{4}$ -V230-S ¹⁾	Q
G $\frac{3}{8}$	529837	MS6-EE- $\frac{3}{8}$ -V230 ¹⁾	1D	538745	MS6-EE- $\frac{3}{8}$ -V230-S ¹⁾	Q
G $\frac{1}{2}$	529825	MS6-EE- $\frac{1}{2}$ -V230 ¹⁾	1D	538733	MS6-EE- $\frac{1}{2}$ -V230-S ¹⁾	Q

LT = Lead time

1D typically ships same day/next day

1W typically ships within 1 week

Q request a quote for lead time

1) Free of copper and PTFE

On-off Valves MS6-EE – Metric Series

Ordering Data – Configurable Products



Mandatory Data →

Part No.	Series	Size	Function	Connection size	Supply voltage
527682	MS	6	EE	1/4 3/8 1/2 AGB AGC AGD AGE	V24 10V24 V110 V230
Order example					
527682	MS	6	- EE	- AGB	- V24

Ordering Table					
Grid dimension		[mm]	62	Conditions	Code
Part No.		527682			
Series		Standard			MS
Size		6			6
Function		On-off valve, electrical			-EE
Connection size		Body thread G1/4			-1/4
		Body thread G3/8			-3/8
		Body thread G1/2			-1/2
		Port plate G1/4 (dimensions → 950)			-AGB
		Port plate G3/8 (dimensions → 950)			-AGC
		Port plate G1/2 (dimensions → 950)			-AGD
		Port plate G3/4 (dimensions → 950)			-AGE
Supply voltage		24 V DC (connection pattern to EN 175301), 14 bar			-V24
		24 V DC (connection pattern to EN 175301), 10 bar		1	-10V24
		110 V AC (connection pattern to EN 175301), 14 bar			-V110
		230 V AC (connection pattern to EN 175301), 14 bar			-V230

1 10V24 Max. inlet pressure 10 bar

Transfer order code

527682	MS	6	- EE	-		-	
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On-off Valves MS6-EE – Metric Series

Ordering Data – Configurable Products

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→ 0 Options

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

Ordering Table							
Grid dimension		[mm]	62	Conditions	Code		Enter code
0	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		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	psi		3	-PSI		
		MPa		3	-MPA		
	Type of mounting	Mounting bracket (dimensions ➔ 951)		4	-WP		
		Mounting bracket (dimensions ➔ 951)		4	-WPM		
		Mounting bracket (dimensions ➔ 948)			-WB		
	Reverse flow direction	Flow direction from right to left			-Z		

- 2 **AD1 ... AD4** Measuring range max. 10 bar
 3 **PSI, MPA** Only with pressure gauge AG

- 4 **WP, WPM** Only with port plate AGB, AGC, AGD or AGE

Transfer order code

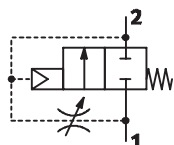
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Soft-start Valves MS6-DL – Metric Series

Technical Data

FESTO

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	G1/4	G3/8	G1/2
Operating pressure [bar]	4 ... 18 (Standard)		
	4 ... 10 (Pressure sensor with display AD...)		

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate qnN ¹⁾ [l/min]			
Pneumatic connection 1, 2	G1/4	G3/8	G1/2
In main flow direction 1 → 2	2,800	5,050	6,450
In relief direction 2 → 1	2,800	5,050	6,400

1) Measured at p1 = 6 bar and p2 = 5 bar, Δp = 1 bar

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 [°C]	–10 ... +60	0 ... +50
Temperature of medium [°C]	–10 ... +60	0 ... +50
Assembly position	Any	
Corrosion resistance CRC ²⁾	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 [g]	
Soft-start valve	650

- For spare parts go to: www.festo.com/en/spare_parts_service

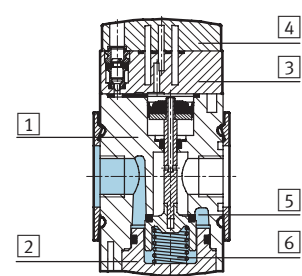
Soft-start Valves MS6-DL – Metric Series

Technical Data



Materials

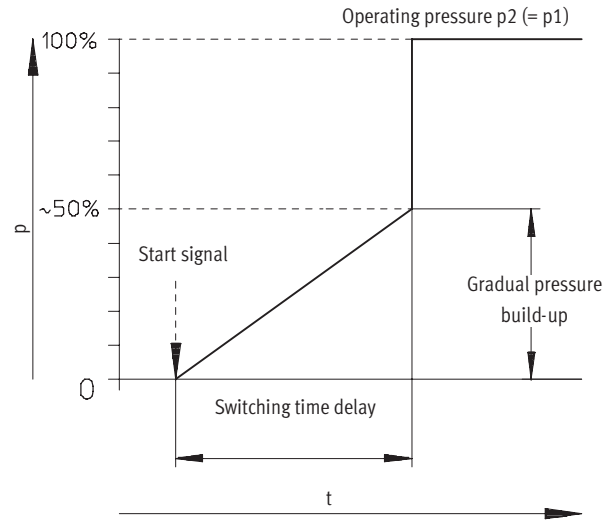
Sectional view



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 MS6-DL – Metric Series

Dimensional Drawings

FESTO

Dimensions¹⁾ – Standard

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

→ Flow direction

Type	B1	B2	B3	D1	L1	L2
MS6-DL-1/4	62	31	76	G1/4	116	45
MS6-DL-3/8				G3/8		
MS6-DL-1/2				G1/2		

1) Dimensions are in millimeters, unless otherwise noted.

Dimensions¹⁾ – Pressure Gauge Alternatives

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

Integrated MS pressure gauge AG, display unit [bar]

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

→ Flow direction

Type	B2	B3	D1	D4
MS6-DL-1/4-...-AG	31	85	G1/4	–
MS6-DL-3/8-...-AG			G3/8	
MS6-DL-1/2-...-AG			G1/2	
MS6-DL-1/4-...-A4	31	78.5	G1/4	G1/4
MS6-DL-3/8-...-A4			G3/8	
MS6-DL-1/2-...-A4			G1/2	

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Soft-start Valves MS6-DL – Metric Series

Dimensional Drawings, Ordering Data – Pre-configured Products

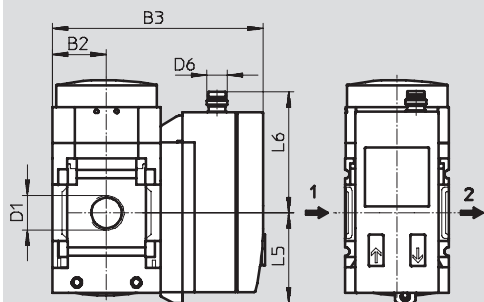
FESTO

Dimensions¹⁾ – Pressure Gauge Alternatives

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

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → 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	D6	L5	L6
MS6-DL-1/4-...-AD1/AD2	31	103	G1/4	M8x1	35.1	46.7
MS6-DL-3/8-...-AD1/AD2			G3/8			
MS6-DL-1/2-...-AD1/AD2			G1/2			
MS6-DL-1/4-...-AD3/AD4	31	103	G1/4	M12x1	35.1	55.8
MS6-DL-3/8-...-AD3/AD4			G3/8			
MS6-DL-1/2-...-AD3/AD4			G1/2			

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Ordering Data

Connection	Part No.	Type	LT
G1/4	529819	MS6-DL-1/4 ²⁾	1D
G3/8	529821	MS6-DL-3/8 ²⁾	1D
G1/2	529817	MS6-DL-1/2 ²⁾	1D

LT = Lead time

1D typically ships same day/next day

1W typically ships within 1 week

Q request a quote for lead time

2) Free of copper and PTFE

Soft-start Valves MS6-DL – Metric Series

Ordering Data – Configurable Products

FESTO

M Mandatory Data					O Options			
Part No.	Series	Size	Function	Connection size	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
527684	MS	6	DL	1/4, 3/8, 1/2, AGB, AGC, AGD, AGE	AG, A4, AD1, AD2, AD3, AD4	PSI MPa	WP WPM WB	Z
Order example								
527684	MS	6	- DL	- AGB	- AG	- PSI	- WB	- Z

Ordering Table						
Grid dimension		[mm]	62	Conditions	Code	Enter code
M	Part No.	527684				
	Series	Standard			MS	MS
	Size	6			6	6
	Function	Soft-start valve, pneumatic			-DL	-DL
	Connection size	Body thread G1/4			-1/4	
		Body thread G3/8			-3/8	
		Body thread G1/2			-1/2	
		Port plate G1/4 (dimensions → 950)			-AGB	
		Port plate G3/8 (dimensions → 950)			-AGC	
		Port plate G1/2 (dimensions → 950)			-AGD	
	Port plate G3/4 (dimensions → 950)			-AGE		
O	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	psi		2	-PSI	
		MPa		2	-MPA	
	Type of mounting	Mounting bracket (dimensions → 951)		3	-WP	
		Mounting bracket (dimensions → 951)		3	-WPM	
		Mounting bracket (dimensions → 948)			-WB	
	Reverse flow direction	Flow direction from right to left			-Z	

1 AD1 ... AD4 Measuring range max. 10 bar

2 PSI, MPA Only with pressure gauge AG

3 WP, WPM Only with port plate AGB, AGC, AGD or AGE

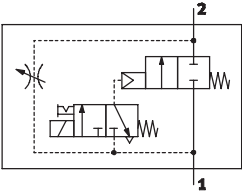
Transfer order code

527684	MS	6	- DL	-		-		-		-	
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Soft-start Valves MS6-DE – Metric 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 and 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	G1/4	G3/8	G1/2
Operating pressure [bar]	4 ... 14 (Coil parameter V24, V110, V230)		
	4 ... 10 (Coil parameter 10V24)		
	4 ... 10 (Pressure sensor with display AD...)		

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate qnN ¹⁾ [l/min]			
Pneumatic connection 1, 2	G1/4	G3/8	G1/2
In main flow direction 1 → 2	2,700	5,050	6,450
In relief direction 2 → 1 ²⁾	2,600	5,050	6,400

1) Measured at p1 = 6 bar and p2 = 5 bar, Δp = 1 bar
2) For energized solenoid valve.

Soft-start Valves MS6-DE – Metric Series

Technical Data

FESTO

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 14 bar – only available via configurator)			
	10V24	24 V DC (For valves with max. inlet pressure 10 bar)			
	V110	110 V AC			
	V230	230 V AC			
Exhaust function		Flow control			
Direction of flow		Non-reversible			
Ambient temperature	[°C]	–10 ... +60	–10 ... +50	0 ... +50	
Temperature of medium	[°C]	–10 ... +60	–10 ... +50	0 ... +50	
Assembly position		Any			
Corrosion resistance	CRC ¹⁾	2			

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

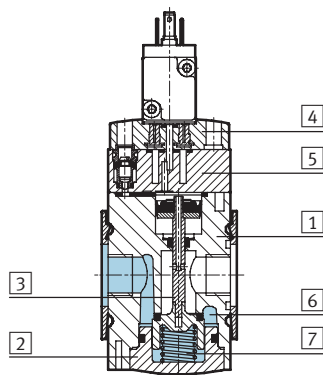
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [g]	
Soft-start valve	680

- For spare parts go to: 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...)

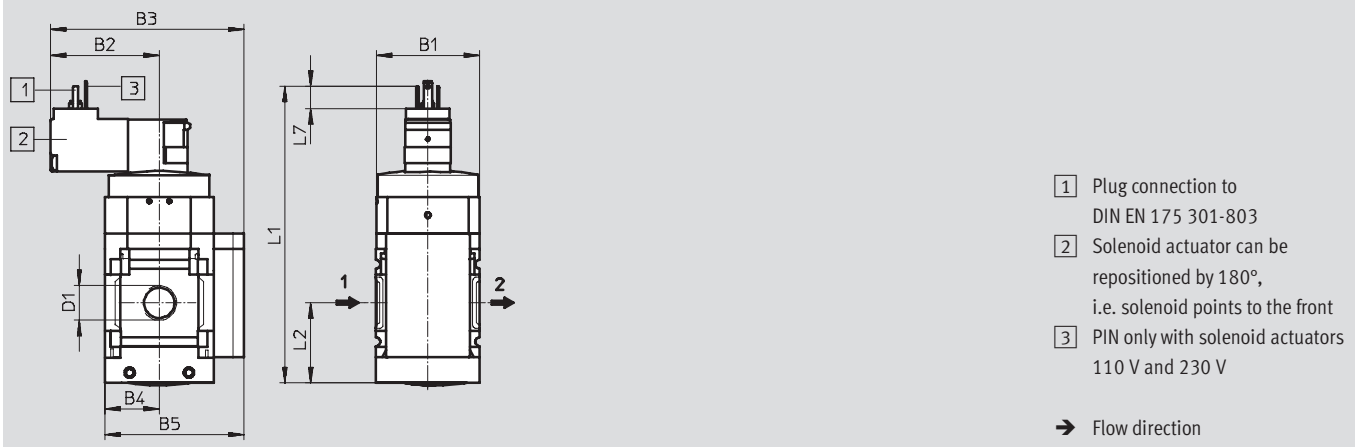
Soft-start Valves MS6-DE – Metric Series

Dimensional Drawings

FESTO

Dimensions¹⁾ – Standard

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



Type	B1	B2	B3	B4	B5	D1	L1	L2	L7
MS6-DE-1/4	62	52	97	31	76	G1/4	147	45.5	8.6
MS6-DE-3/8						G3/8			
MS6-DE-1/2						G1/2			

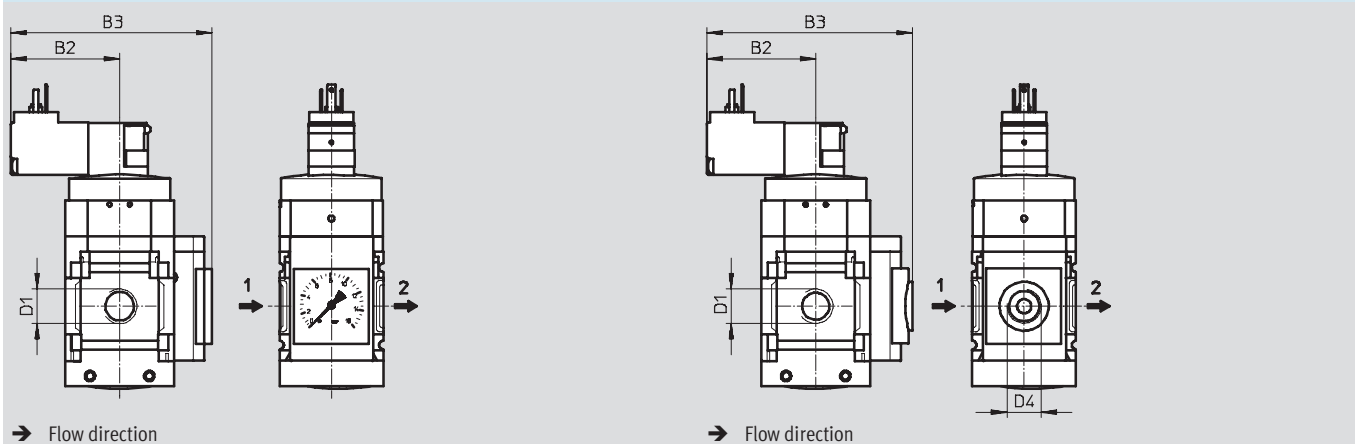
1) Dimensions are in millimeters, unless otherwise noted.

Dimensions¹⁾ – Pressure Gauge Alternatives

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

Integrated MS pressure gauge AG, display unit [bar]

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



Type	B2	B3	D1	D4
MS6-DE-1/4-...-AG	52	106	G1/4	-
MS6-DE-3/8-...-AG			G3/8	
MS6-DE-1/2-...-AG			G1/2	
MS6-DE-1/4-...-A4	52	99.6	G1/4	G1/4
MS6-DE-3/8-...-A4			G3/8	
MS6-DE-1/2-...-A4			G1/2	

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Soft-start Valves MS6-DE – Metric Series

Dimensional Drawings, Ordering Data – Pre-configured Products

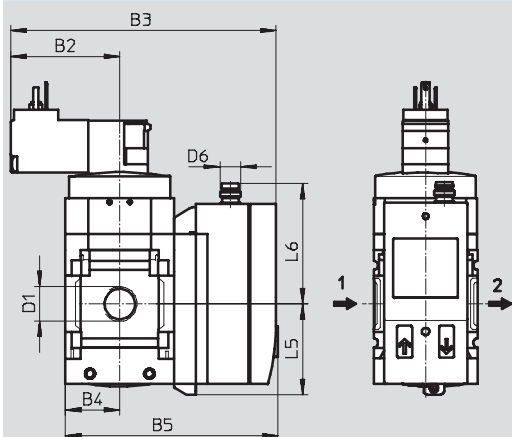
FESTO

Dimensions¹⁾ – Pressure Gauge Alternatives

Pressure sensor with display AD1 ... AD4

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

Technical data SDE1 → 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
MS6-DE-1/4-...-AD1/AD2	52	124	31	103	G1/4	M8x1	35.1	46.7
MS6-DE-3/8-...-AD1/AD2					G3/8			
MS6-DE-1/2-...-AD1/AD2					G1/2			
MS6-DE-1/4-...-AD3/AD4	52	124	31	103	G1/4	M12x1	35.1	55.8
MS6-DE-3/8-...-AD3/AD4					G3/8			
MS6-DE-1/2-...-AD3/AD4					G1/2			

1) Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Ordering Data			
Connection	Part No.	Type	LT
Supply voltage 24 V DC			
G1/4	542564	MS6-DE-1/4-10V24	1D
G3/8	542566	MS6-DE-3/8-10V24	1D
G1/2	542562	MS6-DE-1/2-10V24	1D
Supply voltage 110 V AC			
G1/4	529805	MS6-DE-1/4-V110 ¹⁾	1D
G3/8	529811	MS6-DE-3/8-V110 ¹⁾	1D
G1/2	529799	MS6-DE-1/2-V110 ¹⁾	1D
Supply voltage 230 V AC			
G1/4	529807	MS6-DE-1/4-V230 ¹⁾	1D
G3/8	529813	MS6-DE-3/8-V230 ¹⁾	1D
G1/2	529801	MS6-DE-1/2-V230 ¹⁾	1D

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

1) Free of copper and PTFE

Soft-start Valves MS6-DE – Metric Series

Ordering Data – Configurable Products

FESTO

M Mandatory Data						O Options			
Part No.	Series	Size	Function	Connection size	Supply voltage	Pressure gauge alternatives	Alternative pressure gauge scale	Type of mounting	Reverse flow direction
527686	MS	6	DE	1/4, 3/8, 1/2, AGB, AGC, AGD, AGE	V24 10V24 V110 V230	AG, A4, AD1, AD2, AD3, AD4	PSI MPa	WP WPM WB	Z
Order example									
527686	MS	6	- DE	- AGB	- V110	- AG	- PSI	- WP	- Z

Ordering Table									
Grid dimension [mm]		62				Conditions	Code	Enter code	
M	Part No.	527686							
	Series	Standard					MS		MS
	Size	6					6		6
	Function	Soft-start valve, electrical					-DE		-DE
	Connection size	Body thread G1/4					-1/4		
		Body thread G3/8					-3/8		
		Body thread G1/2					-1/2		
		Port plate G1/4 (dimensions → 950)					-AGB		
		Port plate G3/8 (dimensions → 950)					-AGC		
		Port plate G1/2 (dimensions → 950)					-AGD		
		Port plate G3/4 (dimensions → 950)					-AGE		
	Supply voltage	24 V DC (connection pattern to EN 175301), 14 bar					-V24		
		24 V DC (connection pattern to EN 175301), 10 bar				1	-10V24		
		110 V AC (connection pattern to EN 175301), 14 bar					-V110		
		230 V AC (connection pattern to EN 175301), 14 bar					-V230		
O	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				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	psi				3	-PSI		
		MPa				3	-MPa		
	Type of mounting	Mounting bracket (dimensions → 951)				4	-WP		
		Mounting bracket (dimensions → 951)				4	-WPM		
		Mounting bracket (dimensions → 948)					-WB		
	Reverse flow direction	Flow direction from right to left					-Z		

- 1 10V24 Max. inlet pressure 10 bar
2 AD1 ... AD4 Measuring range max. 10 bar

- 3 PSI, MPa Only with pressure gauge AG
4 WP, WPM Only with port plate AGB, AGC, AGD or AGE

Transfer order code

527686	MS	6	- DE	-		-		-		-		-		-		-		-	
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On-off/Soft-start Valves MS6-EM1/DL – Metric Series

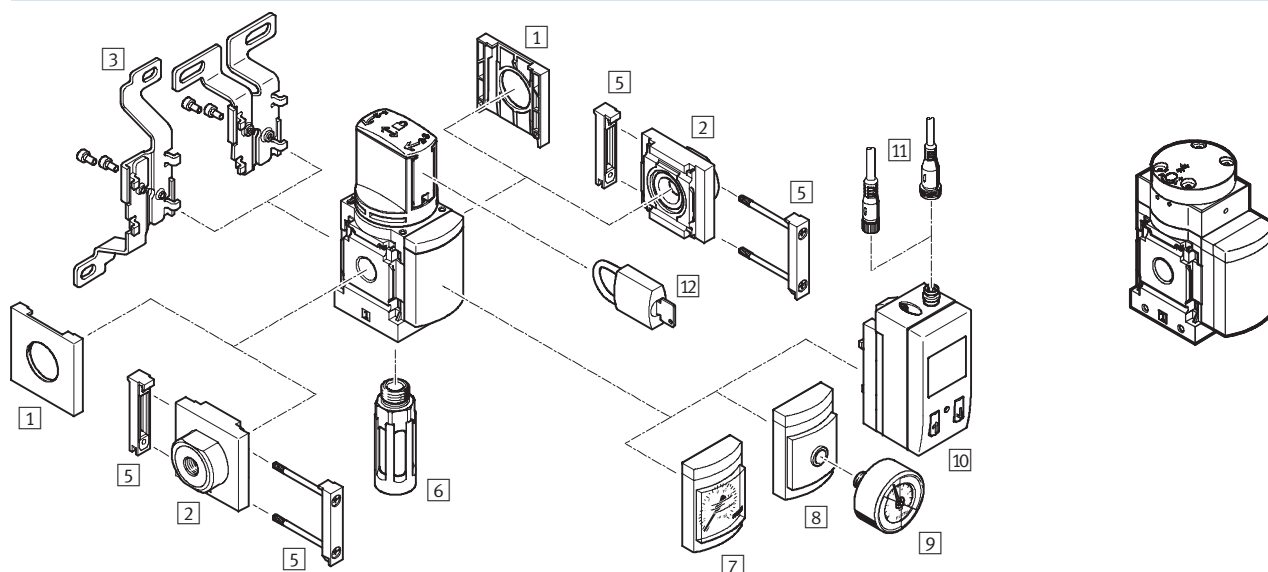
Accessories Overview

FESTO

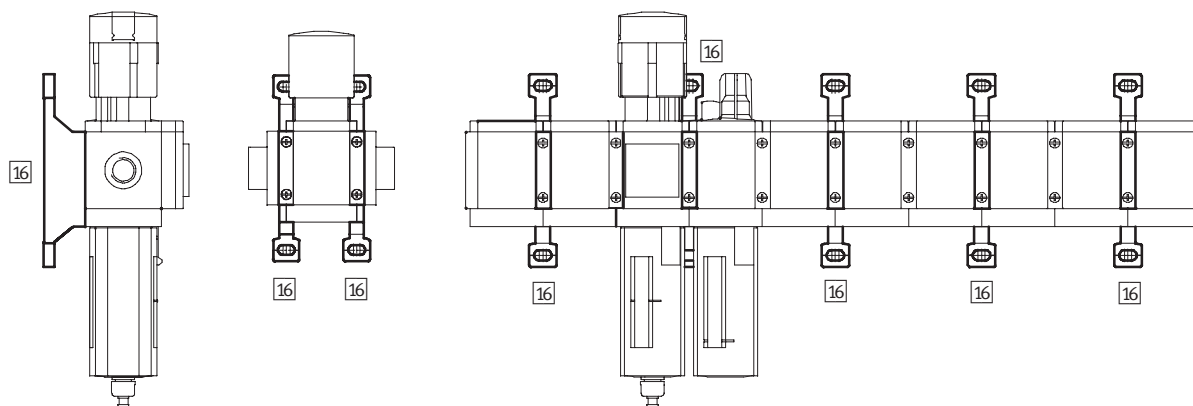
Mounting Attachments and Accessories

On-off Valve EM1 – manually actuated

Soft-start Valve DL – pneumatically actuated



Single unit and combination unit mounting brackets.



On-off/Soft-start Valves MS6-EM1/DL – Metric Series

Accessories Overview

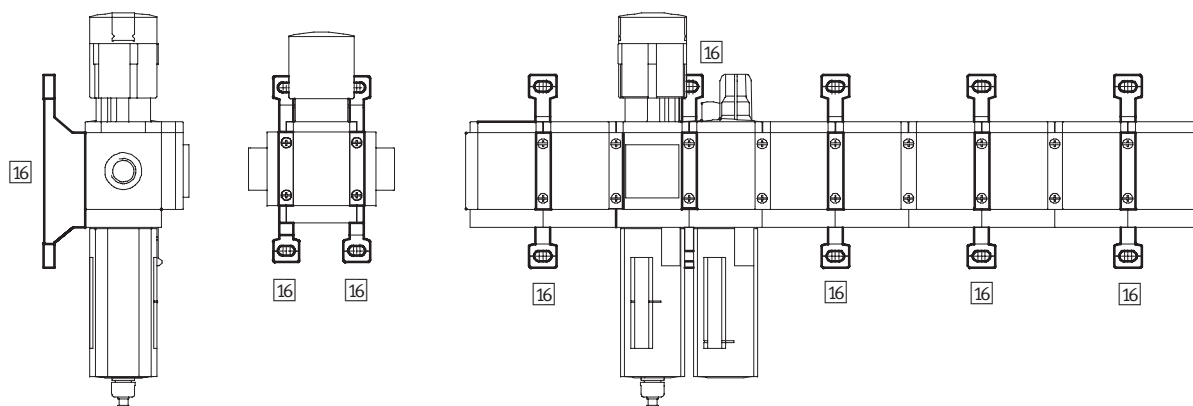
FESTO

Mounting Attachments and Accessories						
		Single unit		Combination unit → 3.1-1		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	–	■	–	949
2	Port plate MS6-AG...	–	■	–	■	950
3	Mounting bracket MS6-WB	■	■	–	–	948
5	Body connector MS6-MV	–	■	■	■	950
6	Silencer U	■ with EM1	■ with EM1	■ with EM1	■ with EM1	955
7	MS pressure gauge AG	■	■	■	■	EM1 926 DL 938
8	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	EM1 926 DL 938
9	Pressure gauge MA	■	■	■	■	955
10	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	EM1 926 DL 938
11	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	954
12	Padlock LRVS-D	■	■	■	■	955
16	Mounting bracket MS6-WP/WPB/WPM	–	■	■	■	951

FESTO

Mounting Attachments and Accessories

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



On-off/Soft-start Valves MS6-EE/DE – Metric Series

Accessories Overview

FESTO

Mounting Attachments and Accessories						
		Single unit		Combination unit → 3.1-1		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS6-END	■	–	■	–	949
2	Port plate MS6-AG...	–	■	–	■	950
3	Mounting bracket MS6-WB	■	■	–	–	948
5	Body connector MS6-MV	–	■	■	■	950
6	Silencer U	■ with EE	■ with EE	■ with EE	■ with EE	955
7	Pressure gauge MS AG	■	■	■	■	EE 932 DE 943
8	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	EE 932 DE 943
9	Pressure gauge MA	■	■	■	■	955
10	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	EE 932 DE 943
11	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	954
12	Illuminating seal MEB-LD	■	■	■	■	954
13	Plug socket with cable KMEB	■	■	■	■	954
14	Plug socket MSSD-EB	■	■	■	■	954
15	Locking clip CPV18-HV	■	■	■	■	954
16	Mounting bracket MS6-WP/WPB/WPM	–	■	■	■	951

On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

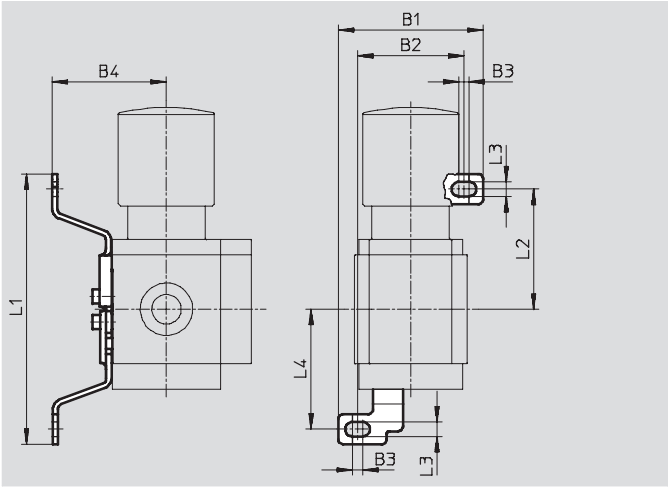


Accessories

3 Mounting bracket MS6-WB

- For wall mounting

Material:
Steel



Dimensions and Ordering Data										
B1	B2	B3	B4	L1	L2	L3	L4	Weight [g]	Part No.	Type
79.4	61.9	4.5	55	157.6	71	6.6	71	121	532196	MS6-WB

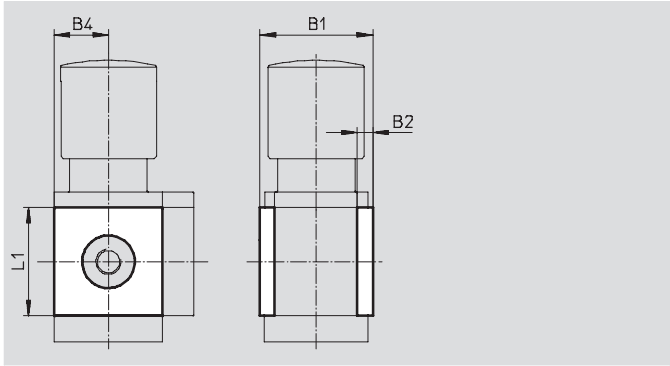
On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

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



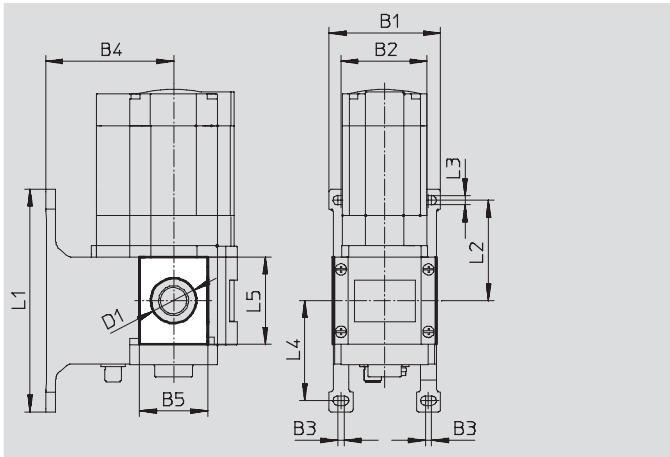
Dimensions and Ordering Data					
B1	B2	B4	L1	Part No.	Type
67	8	31	62	538780	MS6-END

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 Ø	L1	L2	L3	L4	L5	CRC ⁽¹⁾	Weight [g]	Part No.	Type
			WP	WPB											
79	62	4.5	54	90.5	48.4	32	158	71	6.6	71	62	2	17	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 MS6-EM1/EE/DL/DE – Metric Series

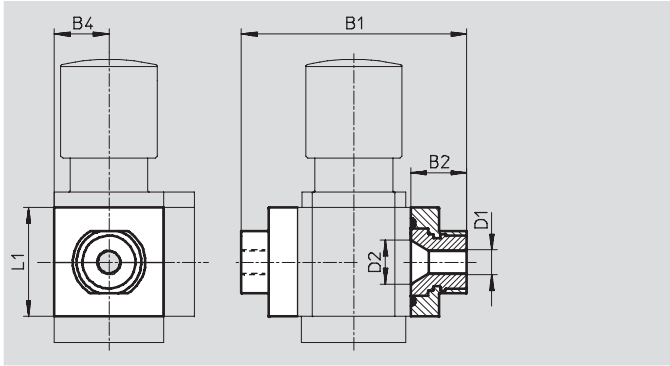


Accessories

2 Port plate MS6-AG...

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

Material:
Aluminum



Dimensions and Ordering Data								
B1	B2	B4	D1	D2	L1	Weight [g]	Part No.	Type
115	26.5	31	G1/4	24	62	300	526080	MS6-AGB
			G3/8				526081	MS6-AGC
			G1/2				526082	MS6-AGD
			G3/4				526083	MS6-AGE

5 Body connector MS...-MV

- For connecting modules

Material:
Stainless steel/polyacetate



Ordering Data		
Weight [g]	Part No.	Type
54	532799	MS6-MV

On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

Accessories

FESTO

16 Mounting Bracket MS6-WP...

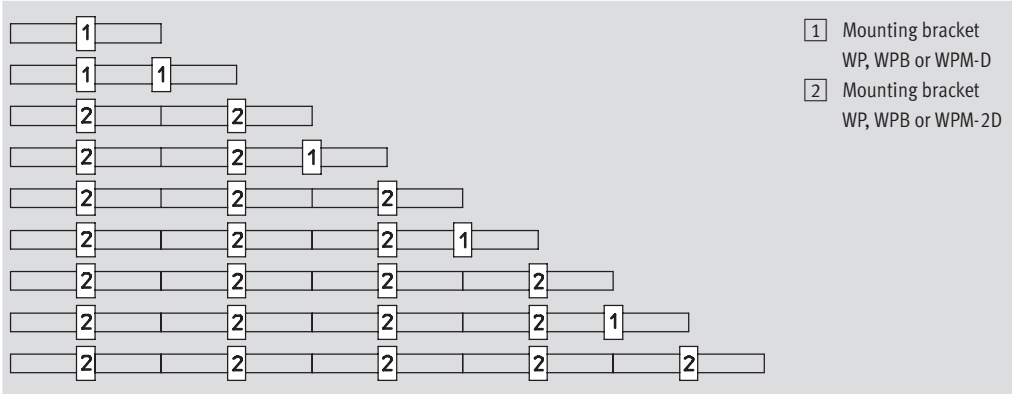
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 62 mm with WP, WPB
69 mm with WPM-D

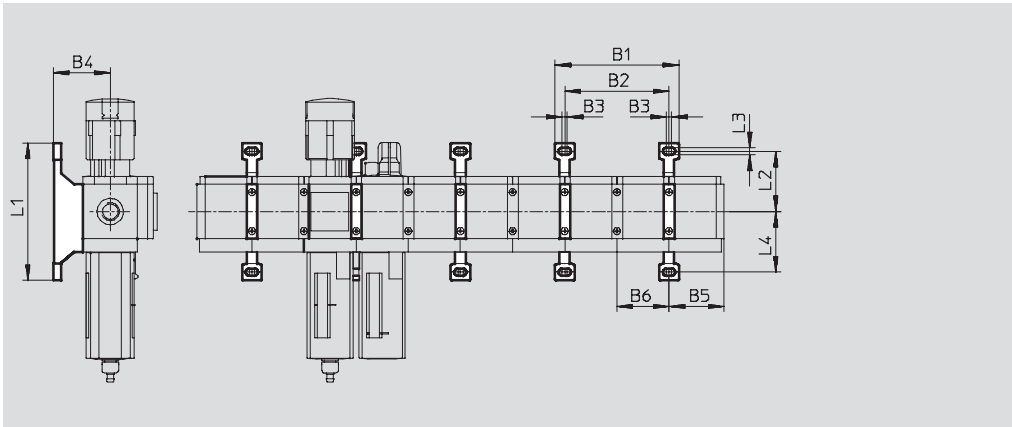
Number of units

1 2 3 4 5 6 7 8 9 10

2 units: 124 mm with WP, WPB
138 mm with WPM-2D



Mounting dimensions



Type	B1	B2	B3	B4	B5	B6	L1	L2	L3	L4
MS6-WP	141	124	4.5	54	64.5	62	158	71	6.6	71
MS6-WPB				90.5						
MS6-WPM-...D	168	138	17.5	54	65.5	69	98.6	41.3		41.3

On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

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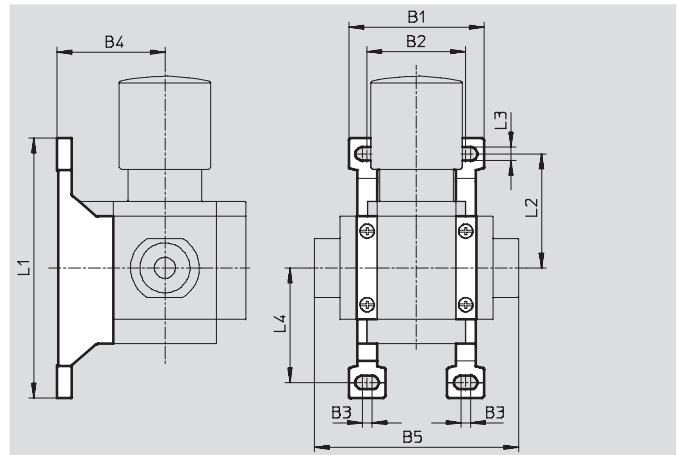
Accessories

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

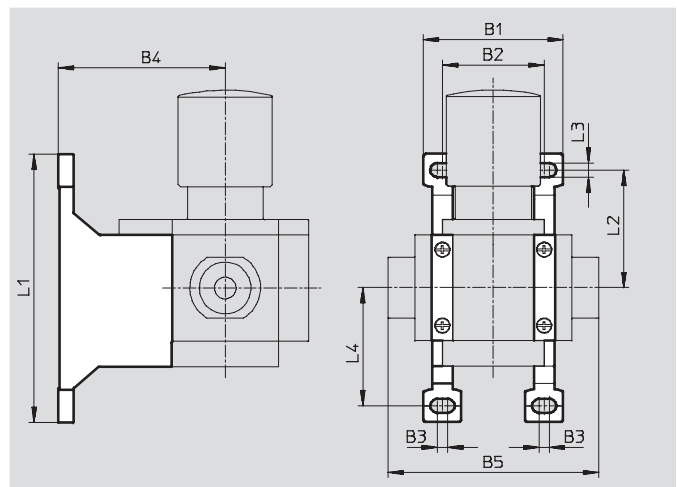
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No.	Type
79	62	4.5	54	115	158	71	6.6	71	76	532195	MS6-WP

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 [g]	Part No.	Type
79	62	4.5	90.5	115	158	71	6.6	71	115	526074	MS6-WPB

On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

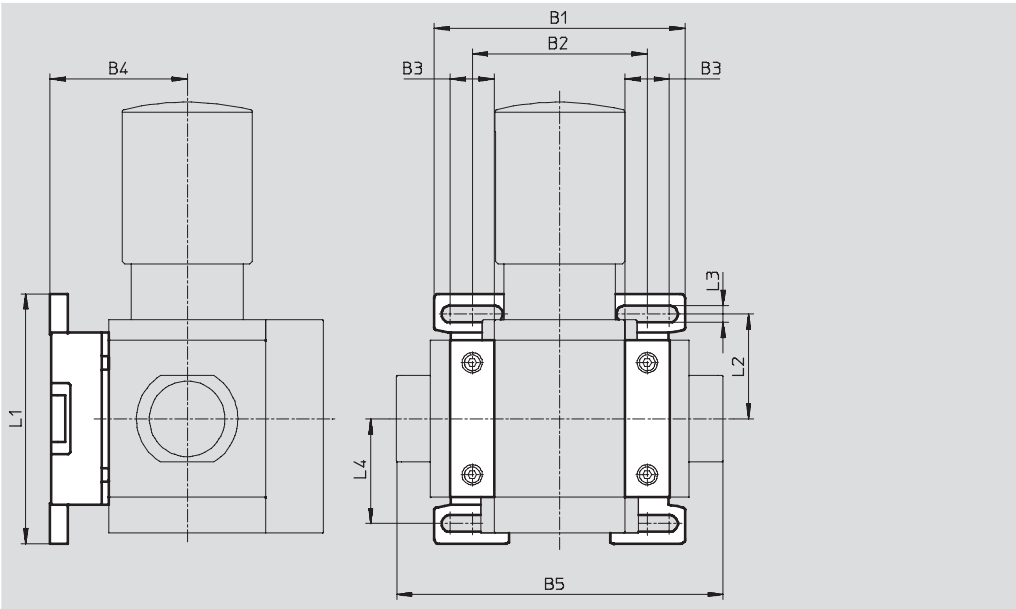
Accessories

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

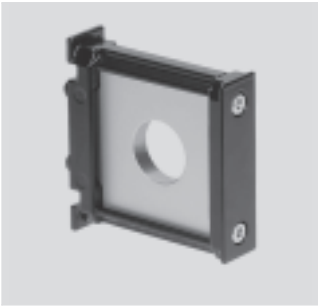


Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [g]	Part No.	Type
99	69	17.5	54	129	98.6	41.3	6.6	41.3	62	144	526073	MS6-WPM-D
168	138			198					124	154	532186	MS6-WPM-2D

Body connector MS6-MVM

- For installation of modules with regulating knob pointing downwards

Material:
Die-cast aluminum




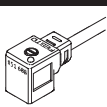
Ordering Data		
Size	Part No.	Type
MS6	532801	MS6-MVM


On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series


Accessories

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
14 Ordering Data – Plug Socket MSSD					Technical data → www.festo.com/catalog/mssd	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type
	for MS6-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 → www.festo.com/catalog/kmeb	
	Description	Operating voltage range	Switching status display	Cable length [m]	Part No.	Type
	for MS6-EE/DE	24 V DC	LED	2.5	151688	KMEB-1-24-2,5-LED
		24 V DC	LED	5	151689	KMEB-1-24-5-LED
		24 V DC	LED	10	193457	KMEB-1-24-10-LED
		230 V AC	–	2.5	151690	KMEB-1-230AC-2,5
		230 V AC	–	5	151691	KMEB-1-230AC-5

12 Ordering Data – Illuminating Seal MEB-LD			Technical data → www.festo.com/catalog/meb-ld		
	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 → www.festo.com/catalog/cpv18-hv		
	Description		Part No.	Type	PU ¹⁾
	for MS6-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 → www.festo.com/catalog/sim-m8	
	Electrical connection	Cable length [m]	Part No.	Type	
	M8x1, 3-pin	2.5	159420	SIM-M8-3GD-2,5-PU	
		5	159421	SIM-M8-3GD-5-PU	
		10	192964	SIM-M8-3GD-10-PU	
	M8x1, 3-pin	2.5	159422	SIM-M8-3WD-2,5-PU	
		5	159423	SIM-M8-3WD-5-PU	
		10	192965	SIM-M8-3WD-10-PU	


Ordering Data – Plug Socket with Cable SIM-M12			Technical data → www.festo.com/catalog/sim-m12		
	Electrical connection	Cable length [m]	Part No.	Type	
	M12x1, 4-pin	5	164259	SIM-M12-4GD-5-PU	
	M12x1, 4-pin	5	164258	SIM-M12-4WD-5-PU	


On-off/Soft-start Valves MS6-EM1/EE/DL/DE – Metric Series

Accessories

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9 Ordering Data – Pressure Gauge MA					Technical data → www.festo.com/catalog/ma	
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type
			[bar]	[psi]		
	Pressure gauge MA, DIN EN 837-1					
	40	G¼	0 ... 16	0 ... 232	183901	MA-40-16-G¼-EN
	Pressure gauge MA, DIN EN 837-1, with red-green range					
	50	R¼	0 ... 16	–	525729	MA-50-16-R¼-E-RG

6 Ordering Data – Silencer U				Technical data → www.festo.com/catalog/u	
	Description	Pneumatic connection	Part No.	Type	
	for MS6-EM1/EE	G $\frac{1}{2}$	6844	U- $\frac{1}{2}$ -B	

Ordering Data – Padlock LRV5-D				
	Description	Weight [g]	Part No.	Type
	for regulators, filter/regulators and manual on-off valves	120	193786	LRV5-D

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

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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	
		Body thread	Port plate	24 V DC (connection pattern to EN 175301)	24 V DC (connection pattern M12 to DESINA)	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			AG...	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	■	–	■	■	■	■	–	■	■	–	■

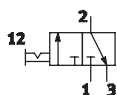
Contents			
MS6N-EM1		MS6N-EE	
Technical Data	→ 958	Technical Data	→ 963
Dimensional Drawings	→ 959	Dimensional Drawings	→ 965
Ordering Data	→ 961	Ordering Data	→ 967
Accessories	→ 980	Accessories	→ 980
→ www.festo.com/catalog/msn6-em1		→ www.festo.com/catalog/msn6-ee	
MS6N-DL		MS6N-DE	
Technical Data	→ 970	Technical Data	→ 975
Dimensional Drawings	→ 972	Dimensional Drawings	→ 977
Ordering Data	→ 973	Ordering Data	→ 978
Accessories	→ 980	Accessories	→ 980
→ www.festo.com/catalog/msn6-dl		→ www.festo.com/catalog/msn6-de	

On-off Valves MS6N-EM1 – Inch Series

Technical Data

FESTO

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 q _N ¹⁾ [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 ²⁾	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

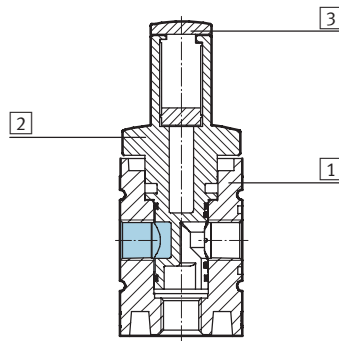
On-off Valves MS6N-EM1 – Inch Series

Technical Data, Dimensional Drawings

FESTO

Materials

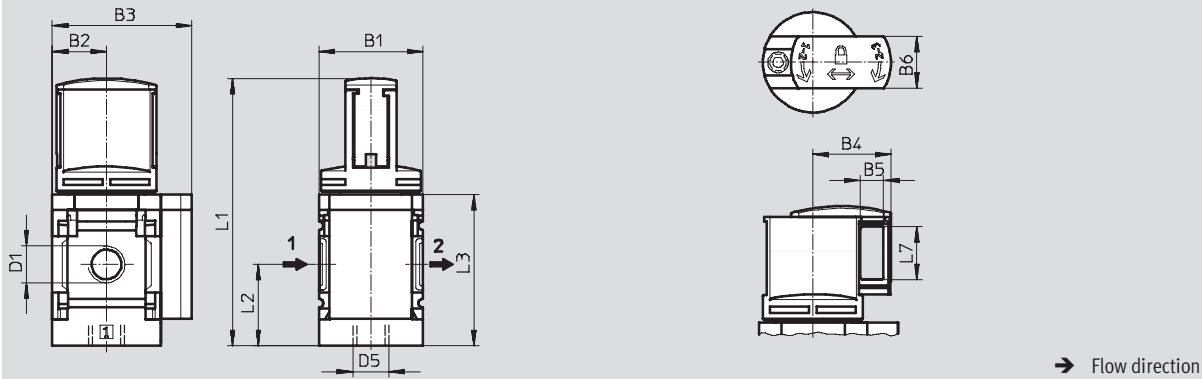
Sectional view



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...)

Dimensions¹⁾ – Standard

Download CAD Data → 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

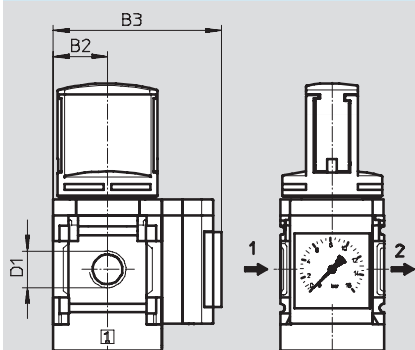
FESTO

Dimensions¹⁾ – Pressure Gauge Alternatives

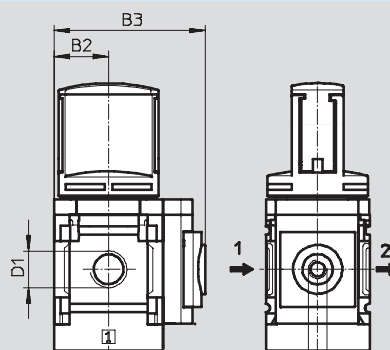
Download CAD Data → www.festo.com/us/cad

Integrated MS pressure gauge AG, display unit [psi]

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



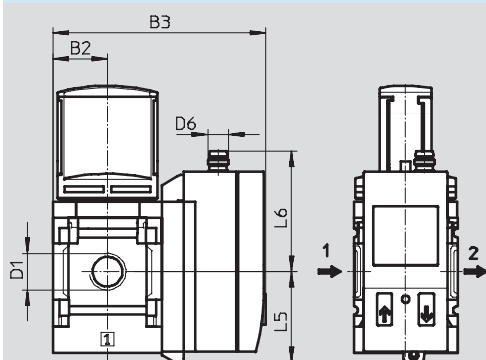
→ Flow direction



→ Flow direction

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → 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	1/4 NPT	–	–	–
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.

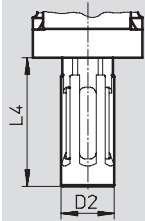
On-off Valves MS6N-EM1 – Inch Series

Dimensional Drawings, Ordering Data – Pre-configured Products



Dimensions¹⁾ – Silencer

Download CAD Data → 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 ²⁾	1D	541294	MS6N-EM1-1/4-S ²⁾	1D
3/8 NPT	541297	MS6N-EM1-3/8 ²⁾	1D	541298	MS6N-EM1-3/8-S ²⁾	1D
1/2 NPT	541289	MS6N-EM1-1/2 ²⁾	1D	541290	MS6N-EM1-1/2-S ²⁾	1D

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

2) Free of copper and PTFE

On-off Valves MS6N-EM1 – Inch Series

Ordering Data – Configurable Products

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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
Order example										
541301	MS	6	N	EM1	1/4	S	AG	BAR	WB	Z

Ordering Table						
Grid dimension		[mm]	62	Conditions	Code	Enter code
M	Part No.	541301				
	Series	Standard			MS	
	Size	6			6	
	Thread	NPT thread			N	
	Function	On-off valve, manual			-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 → 986)			-AQN	
		Port plate 3/8 NPT (dimensions → 986)			-AQP	
		Port plate 1/2 NPT (dimensions → 986)			-AQR	
		Port plate 3/4 NPT (dimensions → 986)			-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 → 987)		3	-WP	
		Mounting bracket (dimensions → 987)		3	-WPM	
		Mounting bracket (dimensions → 984)			-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

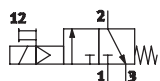
541301	MS	6	N	EM1						
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On-off Valves MS6N-EE – Inch Series

Technical Data

FESTO

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 _N ¹⁾ [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 p₁ = 88 psi and p₂ = 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 ²⁾	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



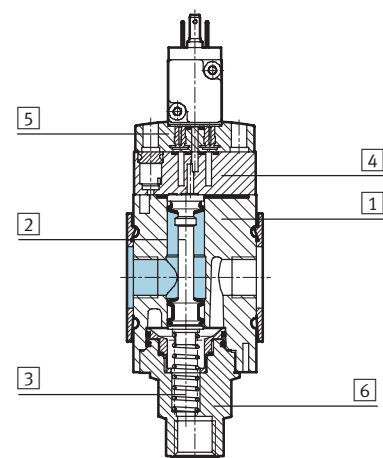
Technical Data

Weights [lb]	
Standard	1.48
With silencer	1.63

- For spare parts go to: www.festo.com/en/spare_parts_service

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...)

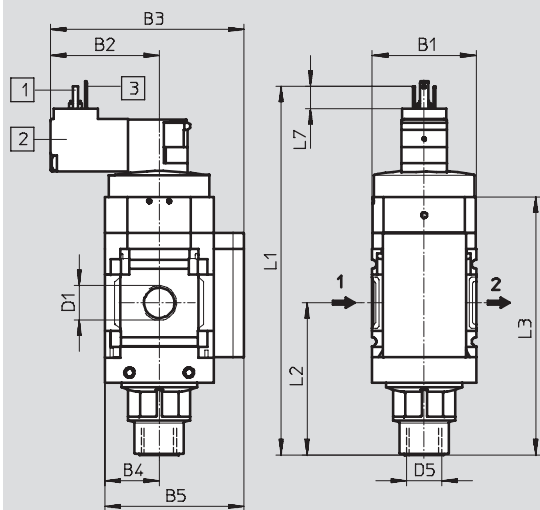
On-off Valves MS6N-EE – Inch Series

Dimensional Drawings

FESTO

Dimensions¹⁾ – Standard

Download CAD Data → 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					

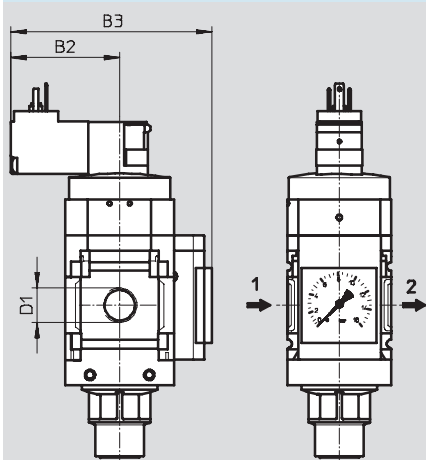
1) Dimensions are in inches, unless otherwise noted.

Dimensions¹⁾ – Pressure Gauge Alternatives

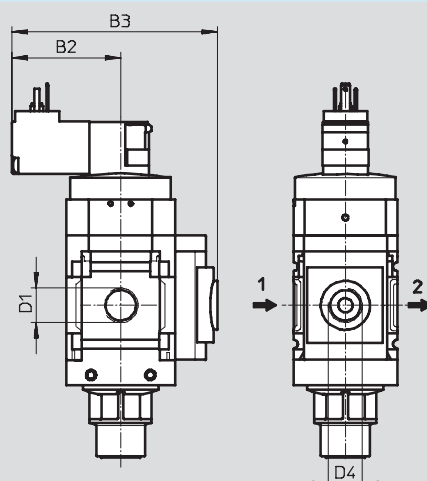
Download CAD Data → www.festo.com/us/cad

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	1/4 NPT
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

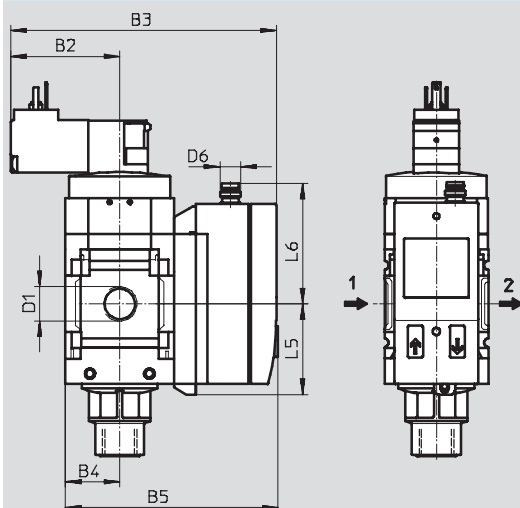
FESTO

Dimensions¹⁾ – Pressure Gauge Alternatives

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

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → 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

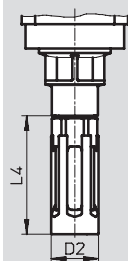
→ Flow direction

Type	B2	B3	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.

Dimensions¹⁾ – Silencer

Download CAD Data → 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

FESTO

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 ¹⁾	1D	538767	MS6N-EE-1/4-V110-S ¹⁾	Q
3/8 NPT	532111	MS6N-EE-3/8-V110 ¹⁾	1D	538773	MS6N-EE-3/8-V110-S ¹⁾	Q
1/2 NPT	532110	MS6N-EE-1/2-V110 ¹⁾	1D	538761	MS6N-EE-1/2-V110-S ¹⁾	Q
Supply voltage 230 V AC						
1/4 NPT	532115	MS6N-EE-1/4-V230 ¹⁾	1D	538769	MS6N-EE-1/4-V230-S ¹⁾	Q
3/8 NPT	532117	MS6N-EE-3/8-V230 ¹⁾	1D	538775	MS6N-EE-3/8-V230-S ¹⁾	Q
1/2 NPT	532116	MS6N-EE-1/2-V230 ¹⁾	1D	538763	MS6N-EE-1/2-V230-S ¹⁾	Q

LT = Lead time

1D typically ships same day/next day

1W typically ships within 1 week

Q request a quote for lead time

1) Free of copper and PTFE

On-off Valves MS6N-EE – Inch Series

Ordering Data – Configurable Products

FESTO

M Mandatory Data →

Part No.	Series	Size	Thread	Function	Connection size	Supply voltage
527683	MS	6	N	EE	$\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$ AQN AQP AQR AQS	V24 10V24 V110 V230
Order example						
527683	MS	6	N	– EE	– AQN	– V24

Ordering Table						
Grid dimension		[mm]	62	Conditions	Code	Enter code
M	Part No.	527683				
	Series	Standard			MS	MS
	Size	6			6	6
	Thread	NPT thread			N	N
	Function	On-off valve, electrical			-EE	-EE
	Connection size	Body thread $\frac{1}{4}$ NPT			- $\frac{1}{4}$	
		Body thread $\frac{3}{8}$ NPT			- $\frac{3}{8}$	
		Body thread $\frac{1}{2}$ NPT			- $\frac{1}{2}$	
		Port plate $\frac{1}{4}$ NPT (dimensions → 986)			-AQN	
		Port plate $\frac{3}{8}$ NPT (dimensions → 986)			-AQP	
		Port plate $\frac{1}{2}$ NPT (dimensions → 986)			-AQR	
		Port plate $\frac{3}{4}$ NPT (dimensions → 986)			-AQS	
	Supply voltage	24 V DC (connection pattern to EN 175301), 206 psi			-V24	
		24 V DC (connection pattern to EN 175301), 147 psi			-10V24	
		110 V AC (connection pattern to EN 175301), 206 psi			-V110	
		230 V AC (connection pattern to EN 175301), 206 psi			-V230	

1 10V24 Max. inlet pressure 147 psi

Transfer order code

527683	MS	6	N	– EE	–		–	
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On-off Valves MS6N-EE – Inch Series

Ordering Data – Configurable Products

FESTO

→ 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 ➔ 987)		4	-WP	
		Mounting bracket (dimensions ➔ 987)		4	-WPM	
		Mounting bracket (dimensions ➔ 984)			-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

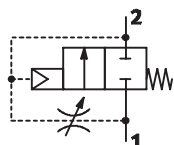
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Soft-start Valves MS6N-DL – Inch Series

Technical Data

FESTO

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 q _N ¹⁾ [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 ²⁾	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

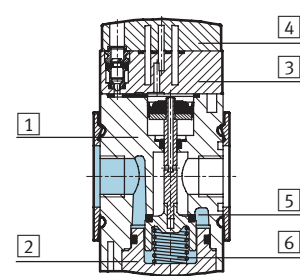
Soft-start Valves MS6N-DL – Inch Series

Technical Data



Materials

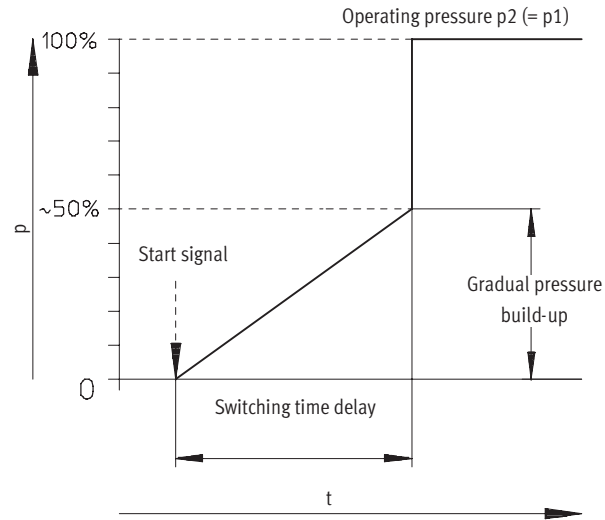
Sectional view



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

FESTO

Dimensions¹⁾ – Standard

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

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.

Dimensions¹⁾ – Pressure Gauge Alternatives

Integrated MS pressure gauge AG, display unit [psi]

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

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

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	1/4 NPT
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

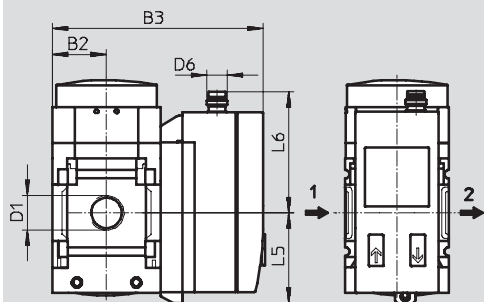
FESTO

Dimensions¹⁾ – Pressure Gauge Alternatives

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

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → 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	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 ¹⁾	1D
3/8 NPT	532025	MS6N-DL-3/8 ¹⁾	1D
1/2 NPT	532024	MS6N-DL-1/2 ¹⁾	1D

LT = Lead time

1D typically ships same day/next day

1W typically ships within 1 week

Q request a quote for lead time

1) Free of copper and PTFE

Soft-start Valves MS6N-DL – Inch Series

Ordering Data – Configurable Products

FESTO

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	
Order example										
527685	MS	6	N	- DL	- AQN	- AG	- BAR	- WB	- Z	

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 → 986)							-AQN	
		Port plate 3/8 NPT (dimensions → 986)							-AQP	
		Port plate 1/2 NPT (dimensions → 986)							-AQR	
		Port plate 3/4 NPT (dimensions → 986)							-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 → 987)					3		-WP	
		Mounting bracket (dimensions → 987)					3		-WPM	
		Mounting bracket (dimensions → 984)							-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

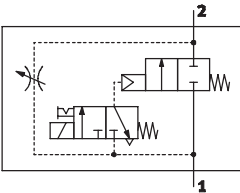
Transfer order code

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 ¹⁾ [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 ²⁾	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

FESTO

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 ¹⁾	2			

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

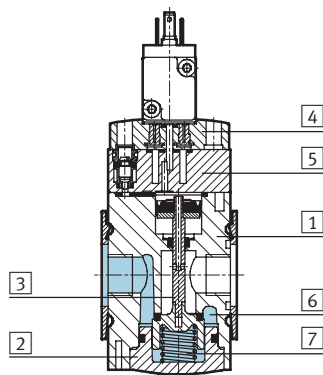
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [lb]	
Soft-start valve	1.36

- For spare parts go to: www.festo.com/en/spare_parts_service

Materials

Sectional view

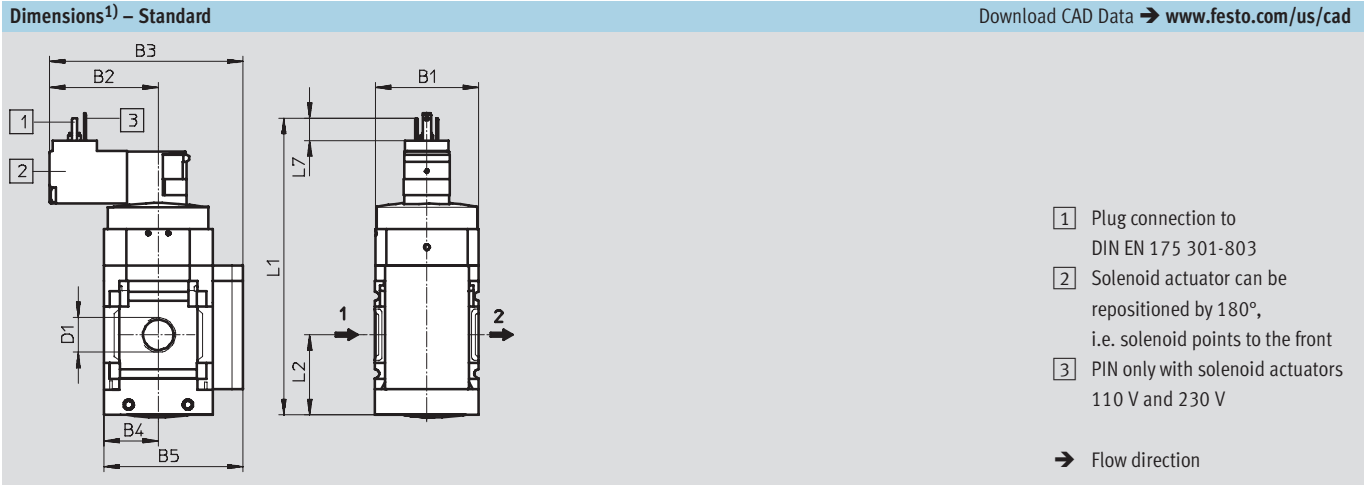


Soft-start valve		
1	Body	Die-cast aluminum
2	Base	Polyamide
3	Valve stem	Steel
4	End cap	Polyamide
5	Top plate	Polyamide
6	Seat	Aluminum/nitrile rubber
7	Springs	Spring steel
–	Seals	Nitrile rubber
Note on materials		Free of copper and PTFE (not with variants AG, 10V24 or AD...)

Soft-start Valves MS6N-DE – Inch Series

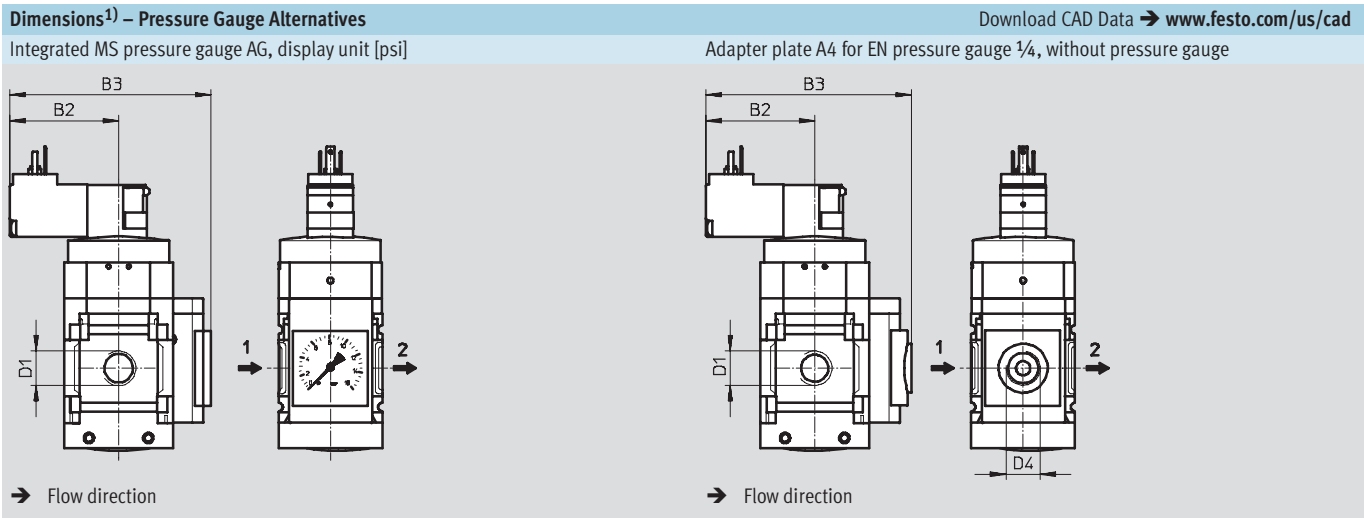
Dimensional Drawings

FESTO



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.



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	1/4 NPT
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

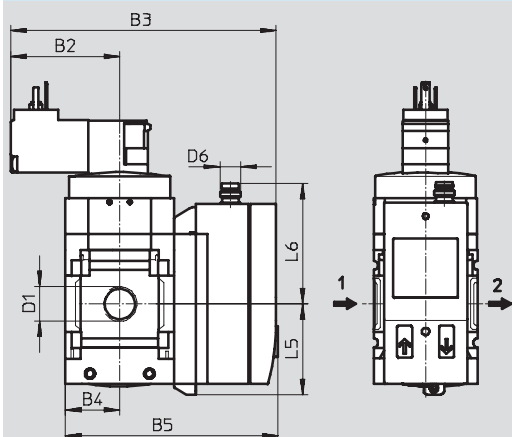
FESTO

Dimensions¹⁾ – Pressure Gauge Alternatives

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

Pressure sensor with display AD1 ... AD4

Technical data SDE1 → 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 ¹⁾	1D
3/8 NPT	532043	MS6N-DE-3/8-V110 ¹⁾	1D
1/2 NPT	532042	MS6N-DE-1/2-V110 ¹⁾	1D
Supply voltage 230 V AC			
1/4 NPT	532047	MS6N-DE-1/4-V230 ¹⁾	1D
3/8 NPT	532049	MS6N-DE-3/8-V230 ¹⁾	1D
1/2 NPT	532048	MS6N-DE-1/2-V230 ¹⁾	1D

LT = Lead time

1D typically ships same day/next day

1W typically ships within 1 week

Q request a quote for lead time

1) Free of copper and PTFE

Soft-start Valves MS6N-DE – Inch Series

Ordering Data – Configurable Products

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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
Order example										
527687	MS	6	N	- DE	- AQN	- V110	- AG	- BAR	- WP	- Z

Ordering Table										
Grid dimension [mm]		62					Conditions	Code	Enter code	
M	Part No.	527687								
	Series	Standard						MS	MS	
	Size	6						6	6	
	Thread	NPT thread						N	N	
	Function	Soft-start valve, electrical						-DE	-DE	
	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 → 986)						-AQN		
		Port plate 3/8 NPT (dimensions → 986)						-AQP		
		Port plate 1/2 NPT (dimensions → 986)						-AQR		
		Port plate 3/4 NPT (dimensions → 986)						-AQS		
	Supply voltage	24 V DC (connection pattern to EN 175301), 206 psi						-V24		
		24 V DC (connection pattern to EN 175301), 147 psi					1	-10V24		
		110 V AC (connection pattern to EN 175301), 206 psi						-V110		
		230 V AC (connection pattern to EN 175301), 206 psi						-V230		
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					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 → 987)					4	-WP		
		Mounting bracket (dimensions → 987)					4	-WPM		
		Mounting bracket (dimensions → 984)						-WB		
	Reverse flow direction	Flow direction from right to left						-Z		

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

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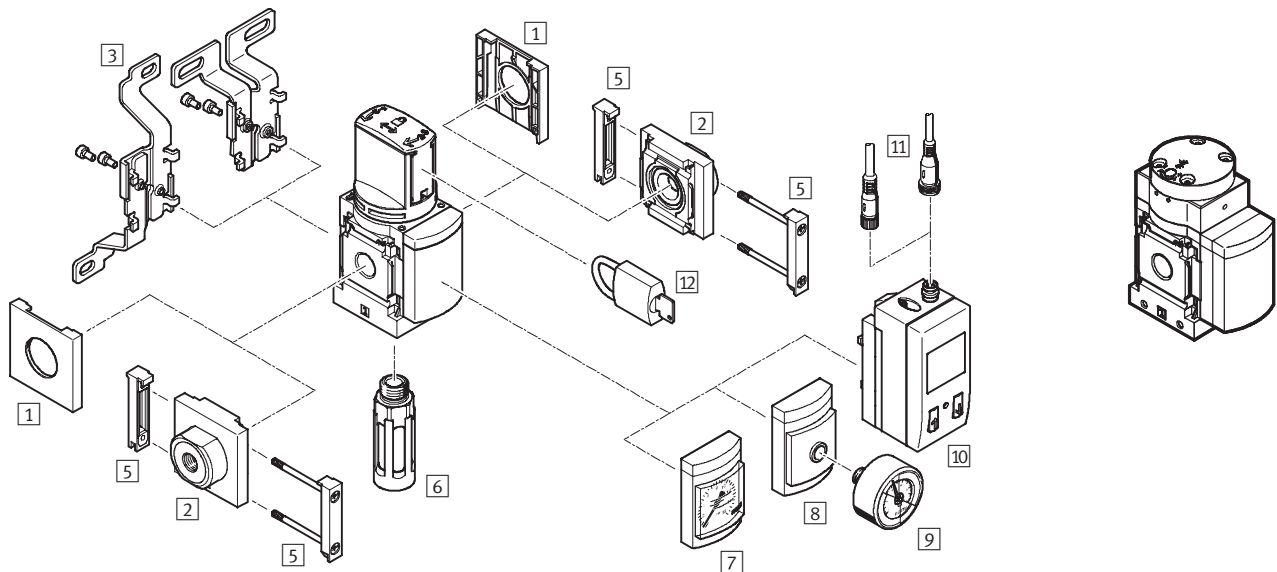
On-off/Soft-start Valves MS6N-EM1/DL – Inch Series

Accessories Overview

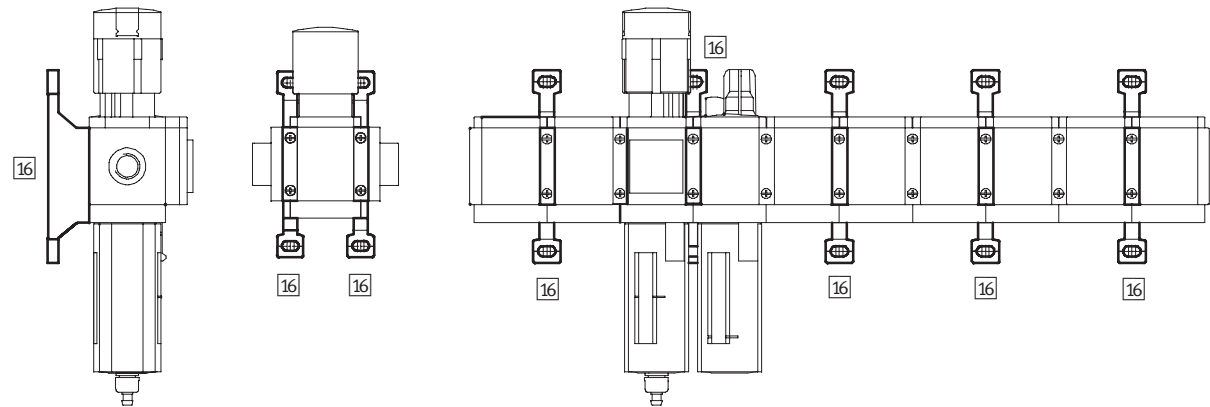
Mounting Attachments and Accessories

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

FESTO

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	■	–	■	–	985
2	Port plate MS6N-AQ...	–	■	–	■	986
3	Mounting bracket MS6-WB	■	■	–	–	984
5	Body connector MS6-MV	–	■	■	■	986
6	Silencer U	■ with EM1	■ with EM1	■ with EM1	■ with EM1	991
7	MS pressure gauge AG	■	■	■	■	EM1 962 DL 974
8	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	EM1 962 DL 974
9	Pressure gauge MA	■	■	■	■	991
10	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	EM1 962 DL 974
11	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	990
12	Padlock LRVS-D	■	■	■	■	991
16	Mounting bracket MS6-WP/WPB/WPM	–	■	■	■	987

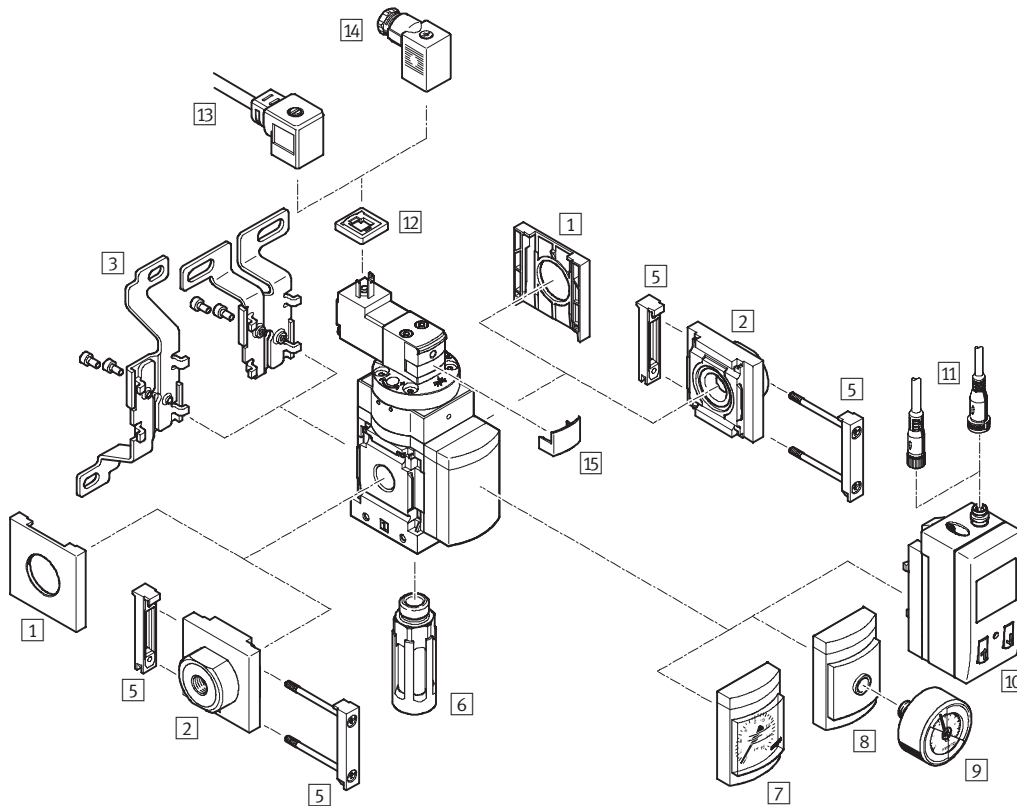
On-off/Soft-start Valves MS6N-EE/DE – Inch Series

Accessories Overview

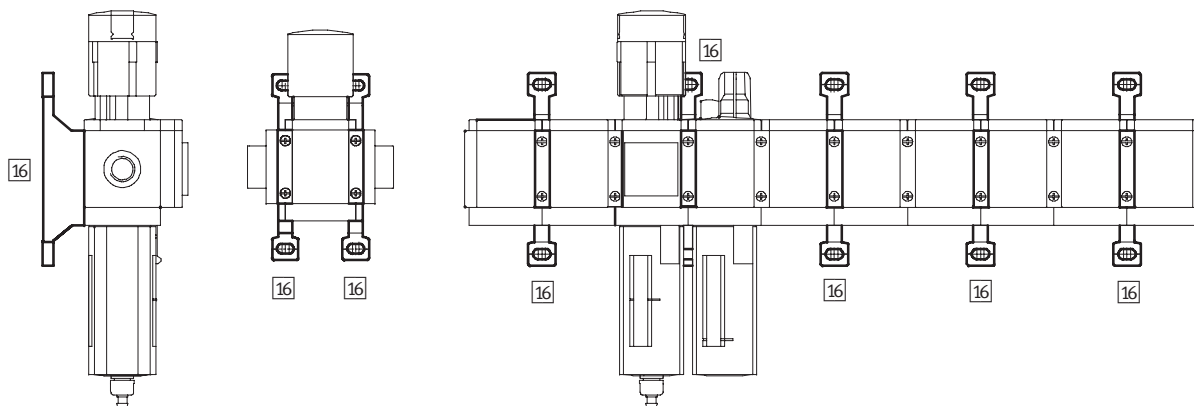
FESTO

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

FESTO

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	■	–	■	–	985
2	Port plate MS6N-AQ...	–	■	–	■	986
3	Mounting bracket MS6-WB	■	■	–	–	984
5	Body connector MS6-MV	–	■	■	■	986
6	Silencer U	■ with EE	■ with EE	■ with EE	■ with EE	991
7	Pressure gauge MS AG	■	■	■	■	EE 968 DE 979
8	Adapter for EN pressure gauge 1/4 A4	■	■	■	■	EE 968 DE 979
9	Pressure gauge MA	■	■	■	■	991
10	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	EE 968 DE 979
11	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	990
12	Illuminating seal MEB-LD	■	■	■	■	990
13	Plug socket with cable KMEB	■	■	■	■	990
14	Plug socket MSSD-EB	■	■	■	■	990
15	Locking clip CPV18-HV	■	■	■	■	990
16	Mounting bracket MS6-WP/WPB/WPM	–	■	■	■	987

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

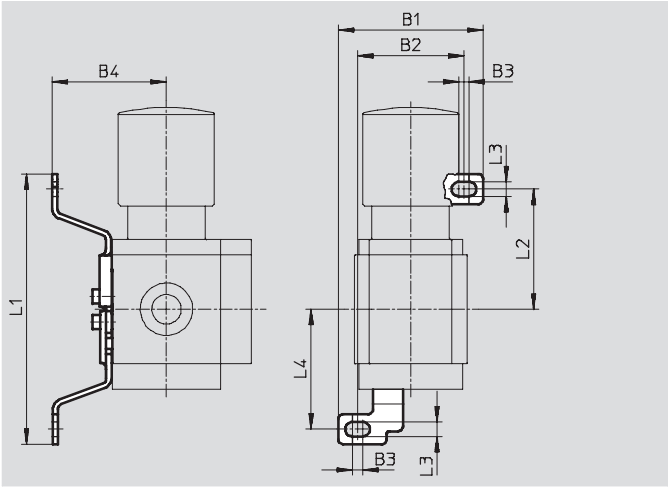


Accessories

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

FESTO

Accessories

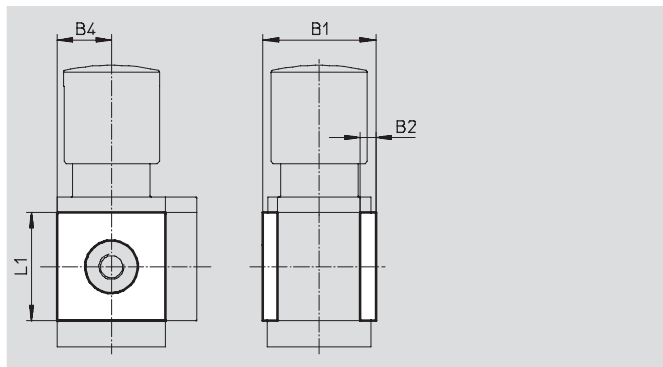
1 Cover cap MS6-END

- 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)

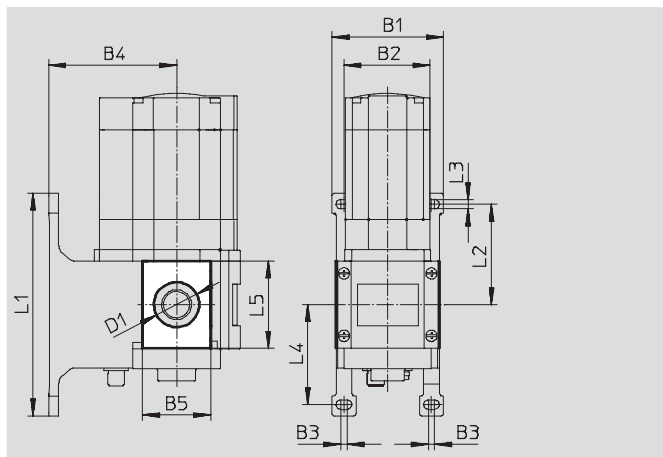
- In combination with mounting bracket MS-WP or MS-WPB for mounting an individual unit on a wall with body thread

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 ¹⁾	Weight [lb]	Part No.	Type
			WP	WPB		Ø									
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.

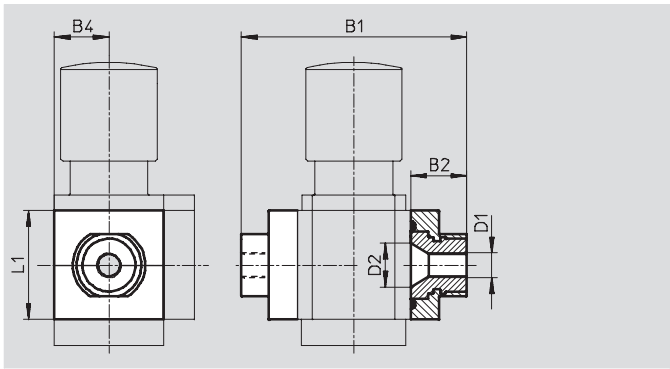
On-off/Soft-start Valves MS6N-EM1/EE/DL/DE – Inch Series

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

FESTO

16 Mounting Bracket MS6-WP...

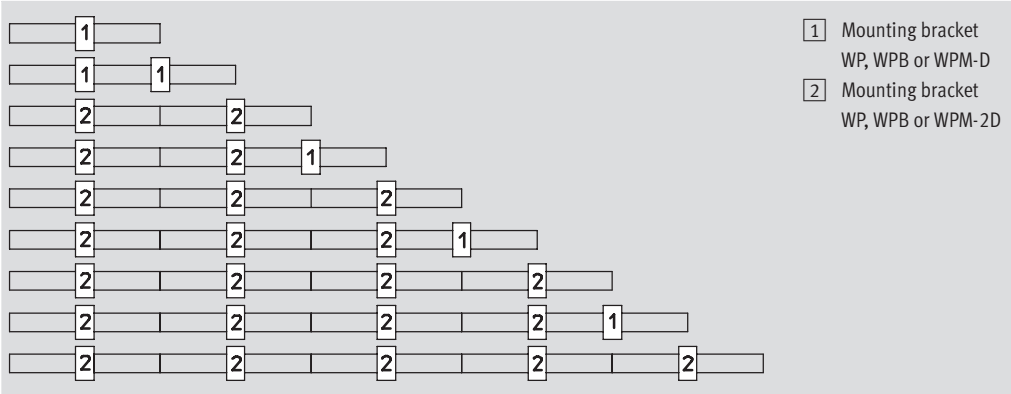
Suggested placement of wall mounting brackets when mounting air preparation combinations

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

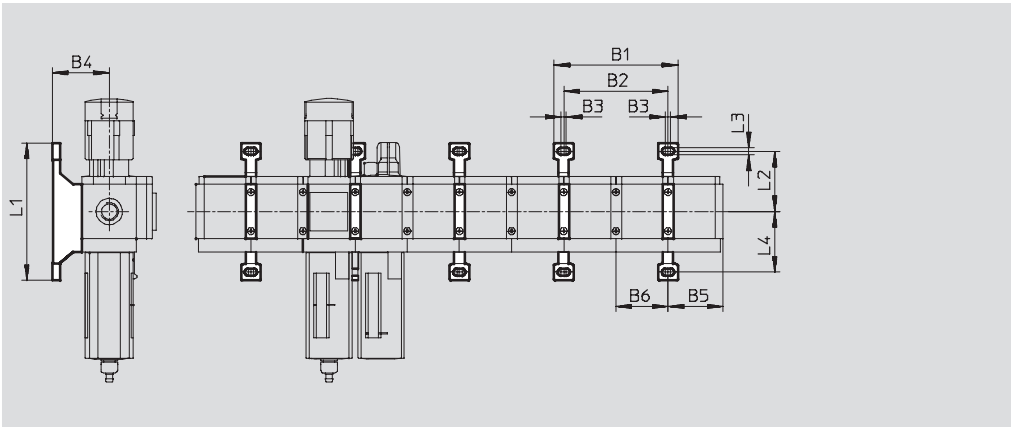
2 units: 4.88 in with WP, WPB
5.43 in with WPM-2D

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

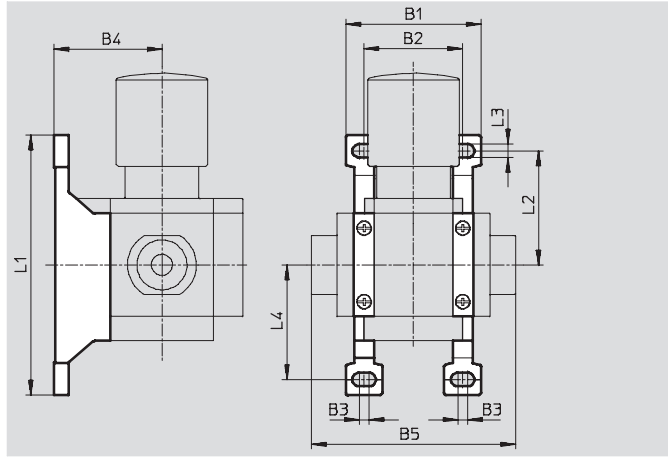
FESTO

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



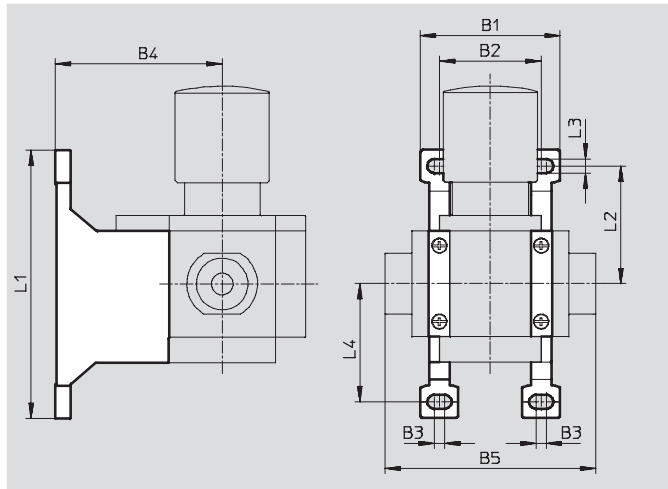
Dimensions and Ordering Data										Part No.	Type
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]		
3.11	2.44	0.18	2.13	4.53	6.22	2.80	0.26	2.80	0.15	532195	MS6-WP

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										Part No.	Type
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]		
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

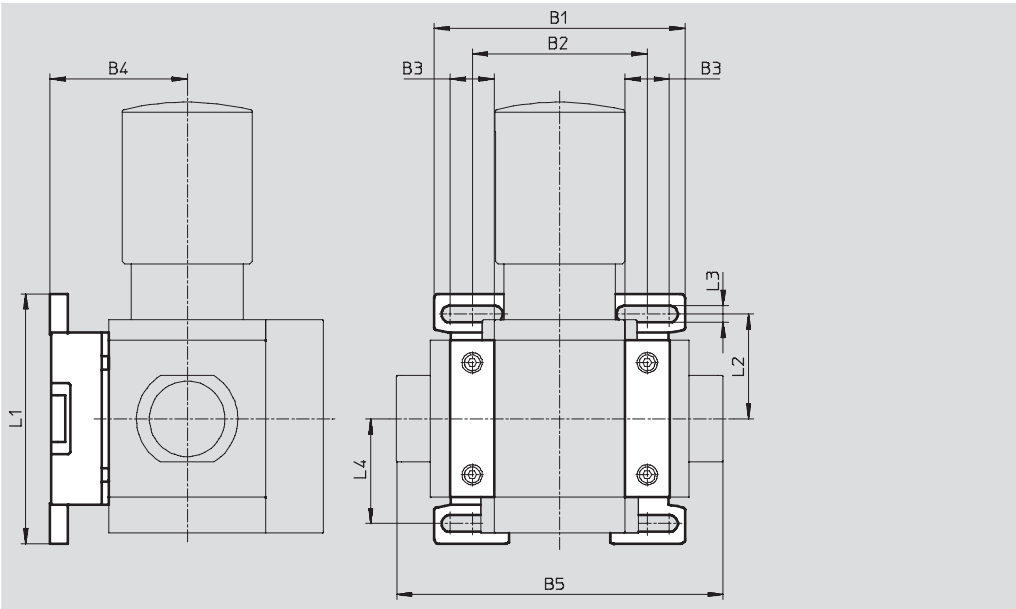
Accessories

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

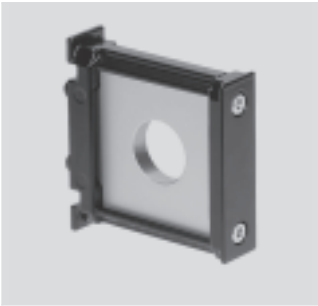


Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [lb]	Part No.	Type
3.90	2.72	0.69	2.13	5.08	3.88	1.63	0.26	1.63	2.44	0.29	526073	MS6-WPM-D
6.61	5.43			7.80					4.88	0.31	532186	MS6-WPM-2D

Body connector MS6-MVM

- For installation of modules with regulating knob pointing downwards

Material:
Die-cast aluminum




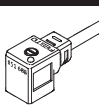
Ordering Data		
Size	Part No.	Type
MS6	532801	MS6-MVM


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


FESTO

Accessories



14 Ordering Data – Plug Socket MSSD					Technical data → www.festo.com/catalog/mssd	
	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 → www.festo.com/catalog/kmeb	
	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 → www.festo.com/catalog/meb-ld	
	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 → www.festo.com/catalog/cpv18-hv		
	Description		Part No.	Type	PU ¹⁾
	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 → www.festo.com/catalog/sim-m8	
	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 → www.festo.com/catalog/sim-m12	
	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

FESTO

9 Ordering Data – Pressure Gauge MA					Technical data → www.festo.com/catalog/ma	
	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	183908	MA-40-16-N¼-EN
	Pressure gauge MA, DIN EN 837-1, with red-green range					
	1.97	¼ NPT	–	0 ... 232	530391	MA-50-232-N¼-PSI-E-RG

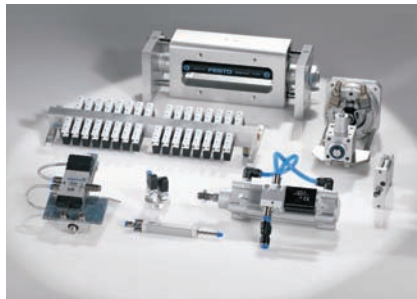
6 Ordering Data – Silencer U				Technical data → www.festo.com/catalog/u	
	Description	Pneumatic connection	Part No.	Type	
	for MS6N-EM1/EE	1/2 NPT	12741	U-1/2-B-NPT	

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

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A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components

Complete custom engineered solutions



Custom Control Cabinets

Comprehensive engineering support and on-site services

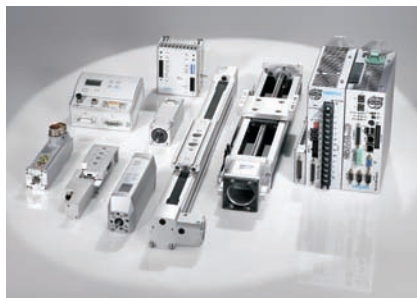


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