

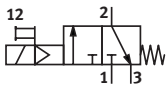
On/off valve MS6N-EE

FESTO



Characteristics

At a glance

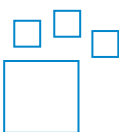


Solenoid actuated on/off valve for pressurising and exhausting pneumatic systems

- Electric 3/2-way valve for pressurising and exhausting pneumatic systems
- A silencer can be attached or the exhaust air can be ducted at port 3
- Supply voltage 24 V DC, 110, 230 V AC
- Optionally with pressure gauge and pressure sensor
- With solenoid coil, without plug socket

Ordering data - modular system

Link [ms6n_ee](#)



Configurable product

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

Pneumatic connection

By installing connecting plates it is easier to replace the module if necessary (e.g. when using piping).

Pressure gauge alternatives

- Key features [AG]/[RG]: integrated pressure gauges
- Key features [A4]/[A8]: Adapter for pressure gauge
- Key features [O.D7]/[O.D.8]/[O.D.9]/[O.D.10]: simple pressure sensors for monitoring the system
- Key features [AD11]/[AD12]: functional pressure sensors for monitoring the system

Type of mounting

[WP] Mounting bracket basic design



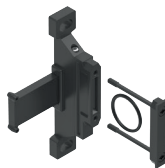
- For connecting the modules for wall mounting
- In combination with connecting plate for wall mounting an individual unit
- In conjunction with mounting plate MS-AEND or wall mounting a single device
- Same wall distance for combinations of series MS4 and MS6

[WB] Mounting centrally at rear (wall mounting top and bottom), connecting plates not required



- For wall mounting

[WPM] Mounting bracket for hooking in service unit components



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- Fast hooking and unhooking

Type code

001	Series	
MS	MS series	
002	Size	
6	Grid dimension 62 mm	
003	Thread type	
N	NPT thread	
004	Function	
EE	On/off valve, electric	
005	Pneumatic connection, inch	
1/4	Female thread NPT 1/4	
3/8	Female thread NPT 3/8	
1/2	Female thread NPT 1/2	
AQN	Sub-base NPT1/4	
AQP	Sub-base NPT3/8	
AQR	Sub-base NPT1/2	
AQS	Sub-base NPT3/4	
006	Supply voltage	
10V24	24 V DC, 10 bar, connection pattern to EN 175301	
10V24C	24 V DC, 10 bar (connection pattern to EN 175301) without manual override	
10V24D	24V DC, 10 bar, M12 (connection pattern according to IEC 61076-2-101) without manual override	
10V24F	24 V DC, 10 bar, M12 (connection pattern to IEC 61076-2-101). Non-detenting manual override on the pilot actuator	
10V24P	24 V DC, 10 bar, M12 (connection pattern to IEC 61076-2-101)	
V24	24 V DC (connection pattern to EN 175301)	
V24P	24 V DC plug, M12 socket adapter (connection pattern to IEC 61076-2-101)	
V110	110 V AC (connection pattern to EN 175301)	
V230	230 V AC (connection pattern to EN 175301)	

007	Silencer	
	None	
S	Silencer	
008	Pressure gauge alternatives	
	None	
A4	Adapter for EN pressure gauge 1/4, without pressure gauge	
A8	Adapter for EN pressure gauge 1/8, without pressure gauge	
AD7	Pressure sensor with switching display, M8 plug, threshold value comparator, PNP, N/O	
AD8	Pressure sensor with switching display, M8 plug, threshold value comparator, PNP, N/C	
AD9	Pressure sensor with switching display, M8 plug, window comparator, PNP, N/O	
AD10	Pressure sensor with operational status indicator, M8 plug, window comparator, PNP, N/C	
AD11	Pressure sensor with LCD display, M12 plug, 4-pin, IO-Link®, PNP, NPN, 0...10 V, 1...5 V, 4...20 mA	
AD12	Pressure sensor with LCD display, M8 plug, 4-pin, IO-Link®, PNP, NPN, 0...10 V, 1...5 V, 4...20 mA	
AG	MS pressure gauge	
RG	Integrated pressure gauge, red/green scale	
009	Alternative pressure gauge scale	
	MS pressure gauge	
BAR	bar	
MPA	MPa	
010	Type of mounting	
	Without mounting bracket	
WB	Mounting centrally at rear (wall mounting top and bottom), connecting plates not required	
WP	Mounting bracket basic design	
WPM	Mounting bracket for hooking in service unit components	
011	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data

Pneumatic connection, port 1 ¹⁾	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection, port 2	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection, port 3	G1/2		
Design	Piston gate valve		
lap	–		Overlap
Type of mounting	Either: Inline installation With accessories		
Mounting position ²⁾	Any		
Valve function	3/2-way, single solenoid, closed		
Exhaust-air function	Cannot be throttled		
Manual override	Detenting, Non-detenting		
Type of actuation	Electrical		
Type of reset	Mechanical spring		
Type of piloting	Piloted		
Pilot air supply	Internal		
Flow direction	Non-reversible		

1) Via connecting plate [AQ...]: 1/4 NPT, 3/8 NPT, 1/2 NPT or 3/4 NPT

2) Vertical mounting position for the on/off valve with pressure sensor, as no condensation must be allowed to accumulate in the pressure sensor.

Electrical data

Supply voltage	24 V DC, 10 bar, connection pattern to EN 175301	24 V DC (connection pattern to EN 175301)	110 V AC (connection pattern to EN 175301)	230 V AC (connection pattern to EN 175301)
Characteristic coil data	24 V DC: 2.5 W	24 V DC: 1.5 W	110 V AC: 50/60 Hz, pick-up power 3.0 VA, holding power 2.4 VA	230 V AC: 50/60 Hz, pick-up power 3.0 VA, holding power 2.4 VA
Electrical connection	Type C, Plug, To DIN EN 175301-803, Square design	To EN 175301-803	Type C, Plug, To DIN EN 175301-803, Square design	
Degree of protection	IP65			
Duty cycle	100%			

Flow characteristics

Pneumatic connection, port 1	1/4 NPT	3/8 NPT	1/2 NPT
Standard nominal flow rate (standardised to DIN 1343) ¹⁾	2,600 l/min	5,500 l/min	7,000 l/min
C value	11 l/sbar	22 l/sbar	29 l/sbar
b value	0.5		0.4

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

Operating and environmental conditions

Supply voltage	24 V DC, 10 bar, connection pattern to EN 175301	24 V DC (connection pattern to EN 175301)	110 V AC (connection pattern to EN 175301)	230 V AC (connection pattern to EN 175301)
Operating pressure	4 ... 10 bar	4 ... 18 bar		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas			
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature	-10 ... 50°C	-10 ... 60°C		
Media temperature	-10 ... 60°C			
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress			
Suitable for use with food ²⁾	See supplementary material information			

1) More information www.festo.com/x/topic/crc

2) More information www.festo.com/certificates/ms4-ee

Datasheet

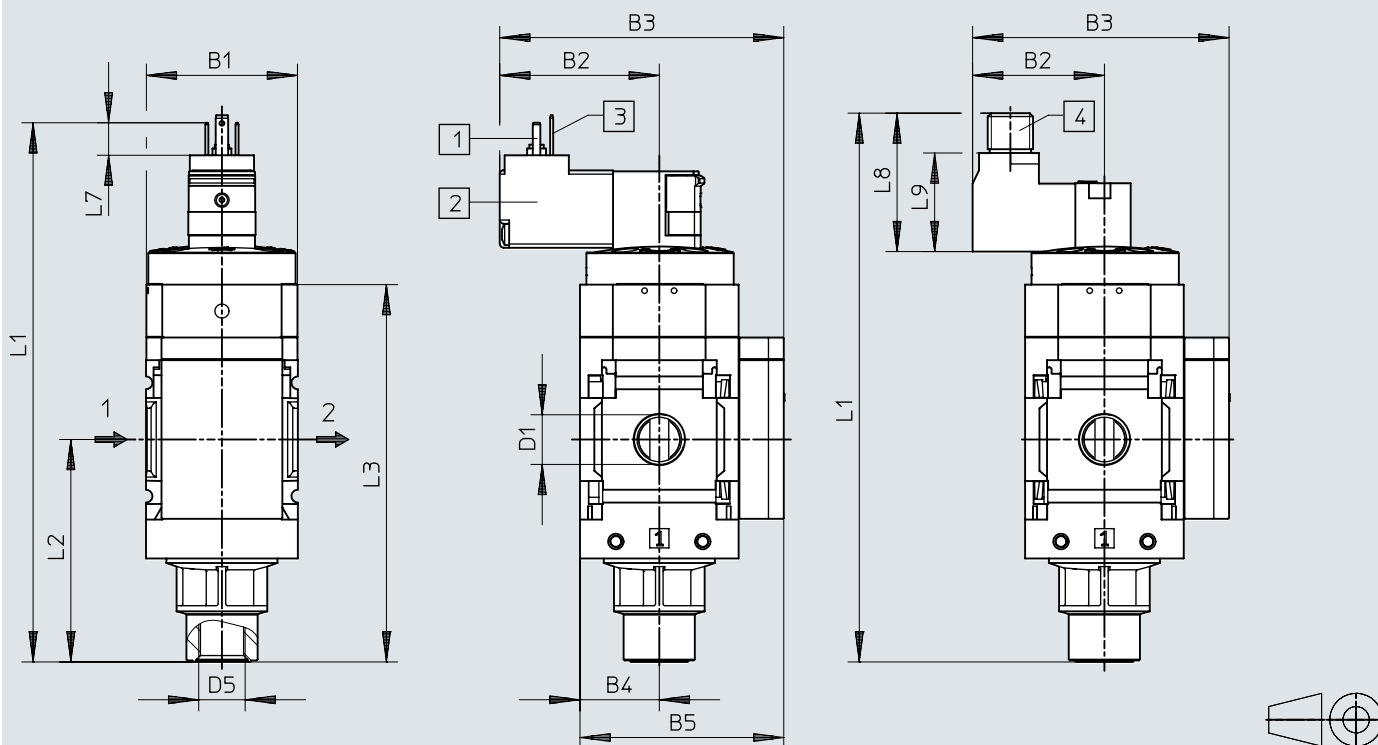
Materials				
Supply voltage	24 V DC, 10 bar, connection pattern to EN 175301	24 V DC (connection pattern to EN 175301)	110 V AC (connection pattern to EN 175301)	230 V AC (connection pattern to EN 175301)
Material housing	Die-cast aluminium			
Material seals	NBR			
Note on materials	RoHS compliant			
LABS (PWIS) conformity	VDMA24364-B2-L	VDMA24364-B1/B2-L	VDMA24364-B2-L	

Dimensions

Dimensions – Basic type with female thread, with cover plate

Download CAD data www.festo.com

10V24D / 10V24F / 10V24P



[1] Plug connection according to EN 175301-803

[2] Solenoid actuator can be repositioned 180°, i.e. magnet faces forwards

[3] PIN only for solenoid actuators 110 V and 230 V

[4] Electrical connection M12x1 according to ISO 20401 suitable for EN 61076-2-101, 4-pin version for connecting cable NEBU M12

	B1	B2		B3		B4	B5	B6	B7	D1
		[V24] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]	[V24] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]					
	[inch]	[inch]		[inch]		[inch]	[inch]	[inch]	[inch]	
MS6N-EE-1/4	2,44	2,05	1,77	3,82	3,54	1,22	2,99	1,22	0,43	1/4 NPT
MS6N-EE-3/8										3/8 NPT
MS6N-EE-1/2										1/2 NPT

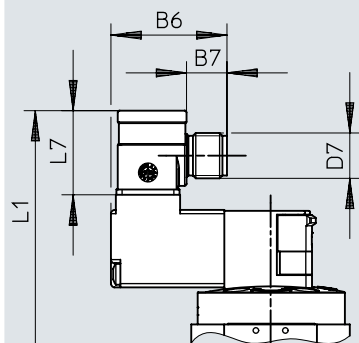
	D5	D7	L1			L2	L3	L7	L8	L9
			[V24] [V110] [V230]	[10V24] [10V24C]	[10V24D] [10V24F] [10V24P]					
			[inch]			[inch]	[inch]	[inch]	[inch]	[inch]
MS6N-EE-1/4	1/2 NPT	M12x1	7,32	7,20	7,40	3,31	5,63	0,34	1,46	1,08
MS6N-EE-3/8										
MS6N-EE-1/2										

1) Measured with plug socket MSSD-EB (included in the scope of delivery).

Dimensions

Dimensions – Basic type with female thread, with cover plate, V24P

Download CAD data www.festo.com



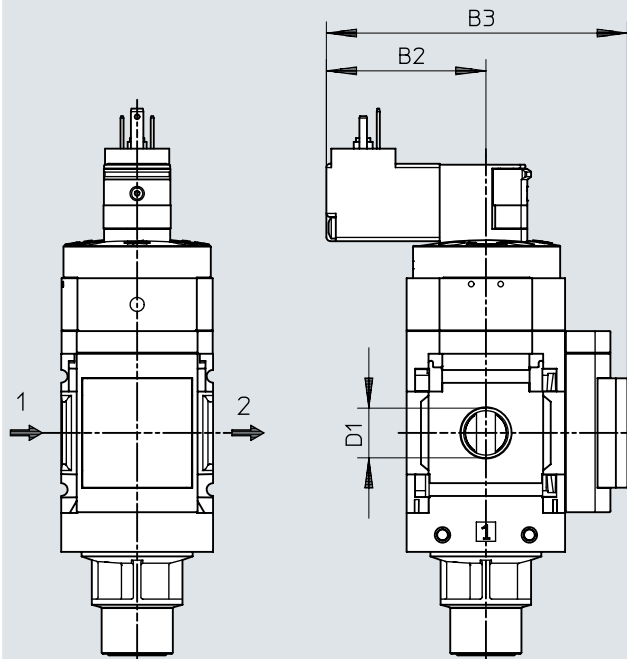
	B6 [inch]	B7 [inch]	D7	L1 [inch]	L7 [inch]
MS6N-EE-1/4	1,22	0,43	M12x1	7,83 ¹⁾	0,87 ¹⁾
MS6N-EE-3/8					
MS6N-EE-1/2					

1) Measured with plug socket MSSD-EB (included in the scope of delivery).

Dimensions

Dimensions – Integrated MS pressure gauge with standard scale / Integrated MS pressure gauge with red/green scale

Download CAD data www.festo.com

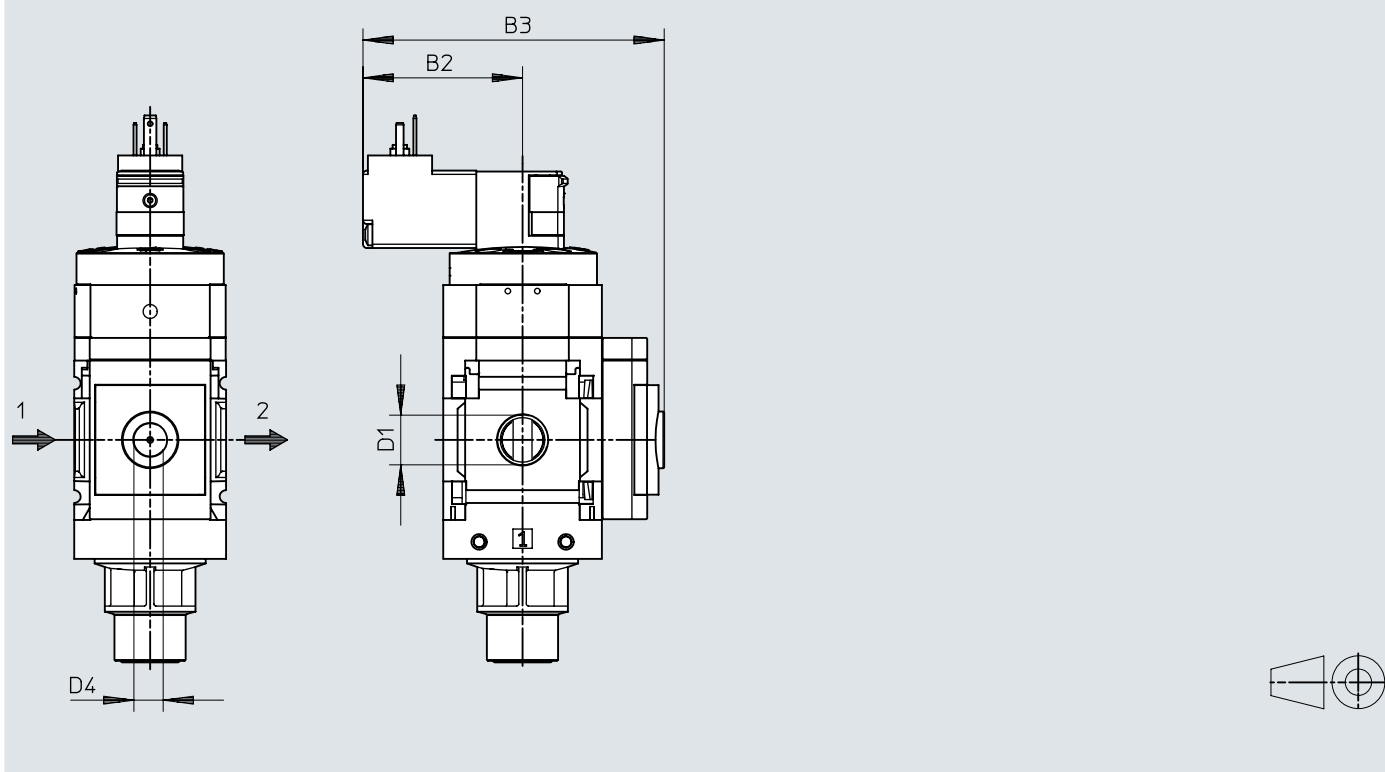


	B2		B3		D1
	[V24] [V24P] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]	[V24] [V24P] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]	
	[inch]		[inch]		[inch]
MS6N-EE-1/4-...-AG	2,44	1,77	3,86	3,58	1/4 NPT
MS6N-EE-3/8-...-AG					3/8 NPT
MS6N-EE-1/2-...-AG					1/2 NPT
MS6N-EE-1/4-...-RG	2,44	1,77	3,92	3,64	1/4 NPT
MS6N-EE-3/8-...-RG					3/8 NPT
MS6N-EE-1/2-...-RG					1/2 NPT

Dimensions

Dimensions – Adapter for EN pressure gauge 1/8, without pressure gauge/
adapter for EN pressure gauge 1/4, without pressure gauge

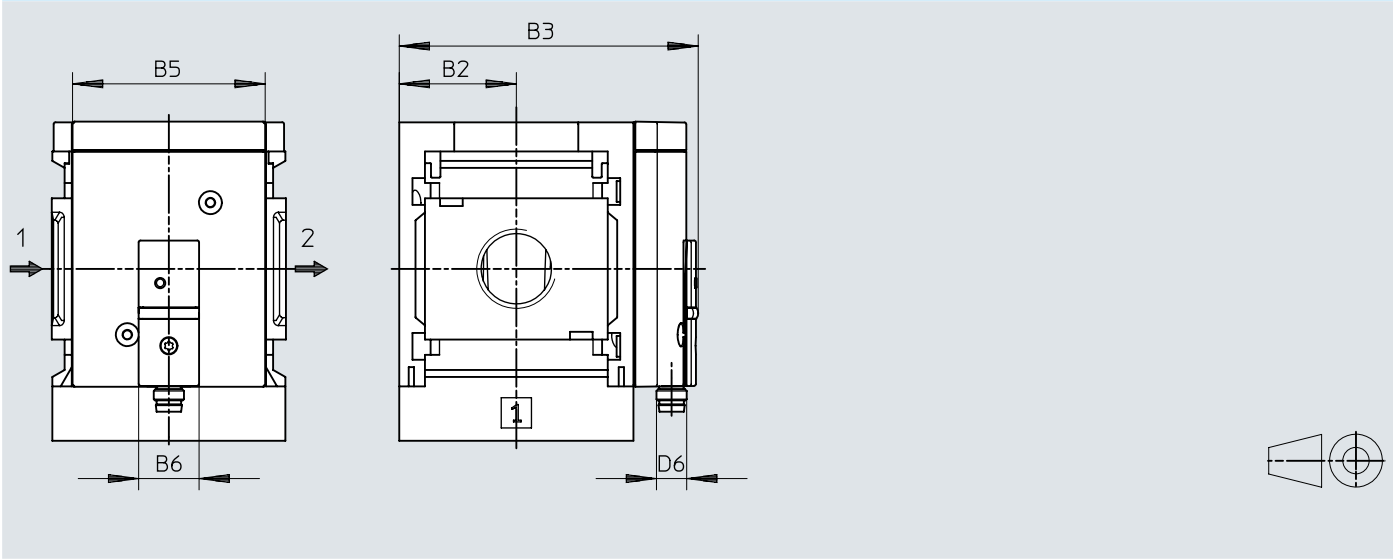
Download CAD data www.festo.com



	B2		B3		D1	D4
	[V24] [V24P] [V110] [V230] [inch]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P] [inch]	[V24] [V24P] [V110] [V230] [inch]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P] [inch]		
MS6N-EE-1/4-...-A8	2,44	1,77	3,92	3,64	1/4 NPT	1/8 NPT
MS6N-EE-3/8-...-A8					3/8 NPT	
MS6N-EE-1/2-...-A8					1/2 NPT	
MS6N-EE-1/4-...-A4	2,44	1,77	3,92	3,64	1/4 NPT	1/4 NPT
MS6N-EE-3/8-...-A4					3/8 NPT	
MS6N-EE-1/2-...-A4					1/2 NPT	

Dimensions

Dimensions – Pressure sensor with status indicator AD7, AD8, AD9, AD10 Download CAD data www.festo.com

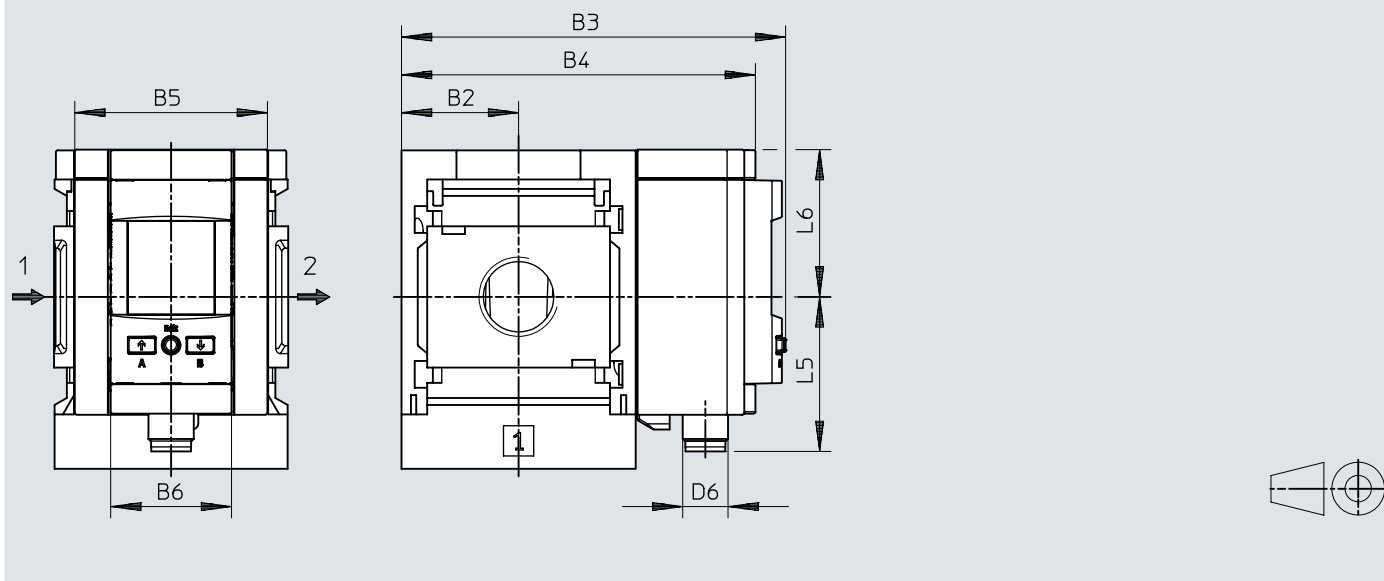


	B2 [inch]	B3 [inch]	B5 [inch]	B6 [inch]	D6
MS6N-...-AD7, AD8, AD9, AD10	1,22	3,11	~2,01	0,63	M8x1

Dimensions

Dimensions – Pressure sensor with LCD display AD11, AD12

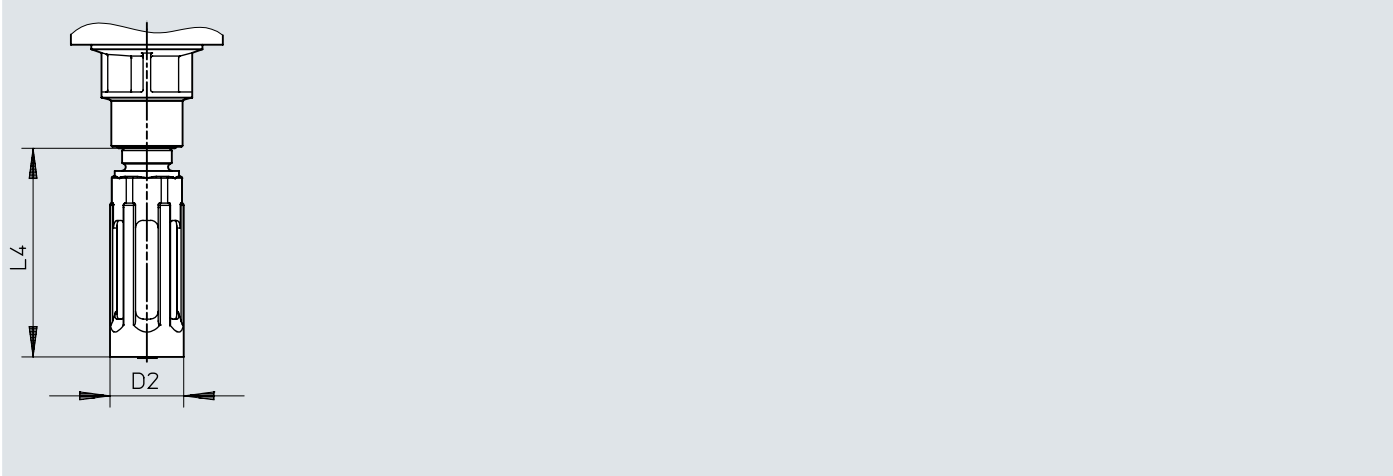
Download CAD data www.festo.com



	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D6	L5 [inch]	L6 [inch]
MS6N-...-AD11	1,22	4,01	3,69	2,01	1,26	M12x1	1,62	1,54
MS6N-...-AD12						M8x1	1,49	

Dimensions

Dimensions – Silencer Download CAD data www.festo.com

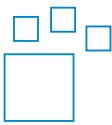


	D2 [inch]	L4 [inch]
MS6N-EE-....-S	1,10	4,25

Ordering data

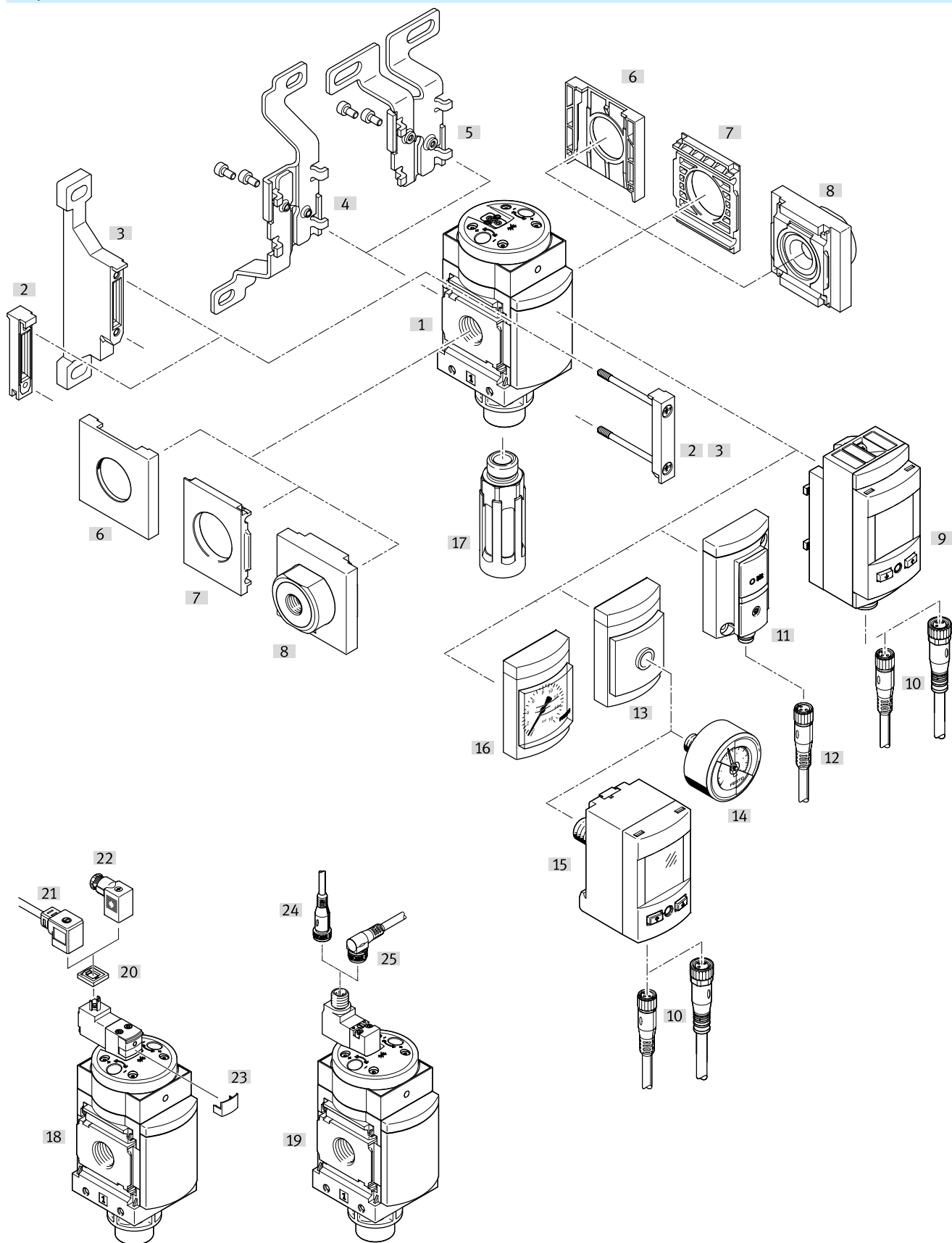
Ordering data – Without silencer						
	Pneumatic connection, port 1	Nominal operating voltage	Flow direction	Product weight	Part no.	Type
	1/4 NPT	24 V DC	From left to right	740 g	542594	MS6N-EE-3/8-10V24
			From right to left		542592	MS6N-EE-1/4-10V24
		110 V AC/50-60 Hz 230 V AC/50-60 Hz	From left to right		542595	MS6N-EE-1/4-10V24-Z
					532109	MS6N-EE-1/4-V110
					532115	MS6N-EE-1/4-V230
	3/8 NPT	24 V DC	From right to left	542597	MS6N-EE-3/8-10V24-Z	
		110 V AC/50-60 Hz 230 V AC/50-60 Hz	From left to right	532111	MS6N-EE-3/8-V110	
				532117	MS6N-EE-3/8-V230	
	1/2 NPT	24 V DC	From left to right	8233003	MS6N-EE-1/2-V24	
			From right to left	542593	MS6N-EE-1/2-10V24	
		110 V AC/50-60 Hz	From left to right	542596	MS6N-EE-1/2-10V24-Z	
				532110	MS6N-EE-1/2-V110	

Ordering data – With silencer						
	Pneumatic connection, port 1	Nominal operating voltage	Flow direction	Product weight	Part no.	Type
	3/8 NPT	24 V DC	From left to right	816 g	542616	MS6N-EE-3/8-10V24-S
			From right to left		542614	MS6N-EE-1/4-10V24-S
					542615	MS6N-EE-1/4-10V24-S-Z
		110 V AC/50-60 Hz 230 V AC/50-60 Hz	From left to right		542613	MS6N-EE-1/2-10V24-S-Z
					538773	MS6N-EE-3/8-V110-S
					538775	MS6N-EE-3/8-V230-S
	1/2 NPT	24 V DC		542612	MS6N-EE-1/2-10V24-S	
		110 V AC/50-60 Hz		538761	MS6N-EE-1/2-V110-S	
		230 V AC/50-60 Hz		538763	MS6N-EE-1/2-V230-S	

Ordering data – Modular product system			
	Short type code	Part no.	Type
	MS6N-EE	527683	MS6N-EE

Peripherals

Peripherals overview



Peripherals

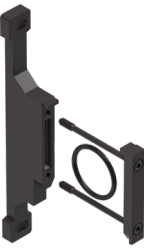
Accessories		→ Link
Type/order code	Description	
[1] On/off valve MS6N-EE	On/off valve	ms6n-ee
[2] Module connector MS6-MV1	For connecting the modules	16
[3] Mounting bracket MS6-WP	Order code [WP]	16
[3] Mounting bracket MS6-WPM	Order code [WPM] (without illustration)	16
[4] Mounting bracket MS6-WB	Order code [WB]	16
[5] Mounting bracket MS4-WBM	Not available for this size	–
[6] Cover cap MS6-END	Can be used to cover the sides of the housing for the first and last modules if no connecting plates are used.	17
[7] Mounting plate MS6-AEND	Module connector MS4-MV1 [2] or mounting bracket MS4-WP, WPB, WPE, WPM [3] is required for mounting.	17
[8] Connecting plate SET MS6-AQ...	Order code [AQ...]	17
[9] Pressure sensor with LCD display SPAU	• Display module • Order code [AD11], [AD12]	ms6n-ee
[10] Connecting cable NEBA-M...G...-LE4, angled	Connecting cable for display module	18
[10] Connecting cable NEBA-M...G...-LE4, straight	Connecting cable for display module	18
[11] Pressure sensor with switching indicator SDE5	• Display module • Order code [AD7], [AD8], [AD9], [AD10]	ms6n-ee
[12] Connecting cable NEBA-M...G...-LE3, straight	Connecting cable for display module	18
[13] Adapter for EN pressure gauge 1/8, 1/4	Order code [A8], [A4]	ms6n-ee
[14] Pressure gauge MA	Built-in pressure indicator	17
[15] Pressure sensor SPAU-...-T	Display module	18
[16] Pressure gauge MS	Order code [AG], [RG]	ms6n-ee
[17] Silencer U	-	19
[17] Silencer S	Order code [S]	ms6n-ee
[18] On/off valve MS6-EE	Supply voltage [V24], [V24P], [10V24], [10V24C], [V110], [V230]	ms6n-ee
[19] On/off valve MS6-EE	Supply voltage [1024VD], [1024VF], [1024VP]	ms6n-ee
[20] Illuminating seal MEB-LD	Switching status indication	18
[21] Plug socket with cable KMEB	Connecting cable for valve coil	19
[22] Plug socket MSSD-EB	Connection socket for valve coil	19
[23] Locking clip CPV18-HV	Prevents the manual override from being activated	19
[24] Connecting cable NEBA-M12G5-LE4, straight	Connecting cable for valve coil	18
[25] Connecting cable NEBA-M12W5-LE4, angled	Connecting cable for valve coil	18

Accessories

Module connector MS6-MV1

	Size	Material module connector	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	POM, High-alloy stainless steel	VDMA24364-B1/B2-L	33 g	8119204	MS6-MV1

Mounting bracket MS6-WP...

	Size	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	Die-cast aluminium	VDMA24364-B1/B2-L	76 g	532195	MS6-WP

Mounting bracket MS6-WPM

	Size	Material module connector	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	Die-cast aluminium	VDMA24364-B1/B2-L	144 g	526073	MS6-WPM-D
				154 g	532186	MS6-WPM-2D

Mounting bracket MS6-WB

	Size	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	Steel	VDMA24364-B1/B2-L	121 g	532196	MS6-WB

Accessories

Cover cap MS6-END						
	Size	Material housing	LABS (PWIS) conformity	Part no.	Type	
	6	Reinforced PA	VDMA24364-B1/B2-L	538780	MS6-END	

Mounting plate MS6-AEND						
	Size	Material housing	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	Reinforced PA	VDMA24364-B1/B2-L	11.1 g	535408	MS6-AEND1

Connecting plate SET MS6-AQ...						
	Size	Pneumatic connection, port 1	Material sub-base	Product weight	Part no.	Type
	6	1/4 NPT	Die-cast aluminium	300 g	526076	MS6N-AQN
		3/8 NPT			526077	MS6N-AQP
		1/2 NPT			526078	MS6N-AQR
		3/4 NPT			526079	MS6N-AQS

Pressure gauge MA						
	Pneumatic connection	Indicating range	Indicating range	Product weight	Part no.	Type
	R1/8	0 ... 232 psi	0 ... 16 bar	60 g	525726	MA-40-16-R1/8-E-RG
	R1/4			75 g	525729	MA-50-16-R1/4-E-RG
				70 g	187080	MA-40-16-R1/4-EN

Pressure sensor SPAU						
	Pneumatic connection	Switching output	Electrical connection 1, connector system	Product weight	Part no.	Type
	R1/8	2 x PNP or 2 x NPN, switchable	M12x1, A-coded to EN 61076-2-101	70 g	8001206	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M12D

Accessories

Pressure sensor SPAU

	Pneumatic connection	Switching output	Electrical connection 1, connector system	Product weight	Part no.	Type
	R1/8	2 x PNP or 2 x NPN, switchable	M8x1, A-coded, to EN 61076-2-104	70 g	8001203	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M8D
	R1/4		M12x1, A-coded to EN 61076-2-101		8001208	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M12D
			M8x1, A-coded, to EN 61076-2-104		8001209	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M8D

Connecting cable NEBA, straight

Connecting cable NEBA, straight						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3
				5 m	8078237	NEBA-M12G5-U-5-N-LE3
			4	2.5 m	8078239	NEBA-M12G5-U-2.5-N-LE4
				5 m	8078240	NEBA-M12G5-U-5-N-LE4
	M8x1, A-coded, to EN 61076-2-104		3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3
			4	2.5 m	8078227	NEBA-M8G4-U-2.5-N-LE4
				5 m	8078228	NEBA-M8G4-U-5-N-LE4

Connecting cable NEBA, angled

Connecting cable NEBA, angled	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3
				5 m	8078246	NEBA-M12W5-U-5-N-LE3
			4	2.5 m	8078248	NEBA-M12W5-U-2.5-N-LE4
				5 m	8078249	NEBA-M12W5-U-5-N-LE4
	M8x1, A-coded, to EN 61076-2-104		3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3
			4	2.5 m	8078233	NEBA-M8W4-U-2.5-N-LE4
				5 m	8078234	NEBA-M8W4-U-5-N-LE4

Illuminating seal MEB-LD

	Electrical connection	Operational voltage range DC	Nominal operating voltage AC	Product weight	Part no.	Type
	Type C, To DIN EN 175301-803, Square design MSEB		230 V	0.6 g	151718	MEB-LD-230AC
		12 ... 24 V			151717	MEB-LD-12-24DC

Accessories

Plug socket with cable KMEB 230V AC						
	Nominal operating voltage AC	Electrical connection 1	Electrical connection 1, number of connections/cores	Cable length	Part no.	Type
	230 V	Socket, to EN 175301-803, type C	3	2.5 m	151690	KMEB-1-230AC-2.5
				5 m	151691	KMEB-1-230AC-5

Plug socket with cable KMEB 24V DC						
	Nominal operating voltage DC	Electrical connection 1	Electrical connection 1, number of connections/cores	Cable length	Part no.	Type
	24 V	Socket, to EN 175301-803, type C	2	2.5 m	547268	KMEB-3-24-2.5-LED
					547270	KMEB-3-24-2.5
				5 m	547271	KMEB-3-24-5
			3		547269	KMEB-3-24-5-LED
				2.5 m	151688	KMEB-1-24-2.5-LED
				5 m	151689	KMEB-1-24-5-LED

Plug socket MSSD-EB					
	Electrical connection	Degree of protection	Product weight	Part no.	Type
		IP67	11 g	539712	MSSD-EB-M12
	3-pin, Socket, Angled socket, Type C, To DIN EN 175301-803, To DIN EN 61984, Square design MSEB, Square design MSN2	IP65, To IEC 60529		151687	MSSD-EB

Silencer U						
	Pneumatic connection	Flow rate to atmosphere	Sound pressure level	Product weight	Part no.	Type
	G1/4	2,440 l/min	80 dB(A)	17 g	6842	U-1/4-B

Locking clip CPV18-HV					
	Short type code	LABS (PWIS) conformity	Product weight	Part no.	Type
	CPV18	VDMA24364-B1/B2-L	0.53 g	530056	CPV18-HV