

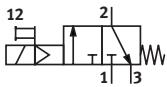
On/off valve MS6N-EE

FESTO



Characteristics

At a glance

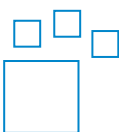


Solenoid actuated on/off valve for pressurizing and exhausting pneumatic systems

- Electric 3/2-way valve for pressurizing and venting pneumatic installations
- A muffler can be attached or the exhaust air can be ducted at port 3
- Supply voltage 24 V DC, 110, 230 V AC
- With optional 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

The installation of connection plates makes it easier to replace the module if necessary (e.g., when using piping).

Pressure gauge alternatives

- Features [AG]/[RG]: integrated pressure gauges
- Features [A4]/[A8]: Adapter for pressure gauge
- Features [AD7]/[AD8]/[AD9]/[AD10]: simple pressure sensors for monitoring the system
- Features [AD11]/[AD12]: functional pressure sensors for monitoring the system

Type of mounting

[WP] Mounting bracket standard design



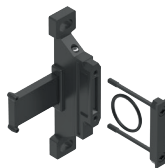
- For connecting the modules for wall mounting
- In conjunction with sub-base for wall mounting of a single device
- in conjunction with mounting plate MS-AEND for wall mounting of a single device
- Same wall distance for mixed combination with series MS4 and MS6

[WB] Mounting centrally at rear (wall mounting top and bottom), sub-bases not required



- For wall mounting

[WPM] Mounting bracket for hooking in air preparation units



- For connecting the modules for wall mounting
- In conjunction with sub-base MS4-AG... for wall mounting of an individual device
- Fast hooking and unhooking

Type code

001	Series	
MS	MS series	
002	Size	
6	Width dimension 62 mm	
003	Thread type	
N	NPT thread	
004	Function	
EE	On/off valve, electric	
005	Pneumatic connection, inch	
1/4	Internal thread NPT 1/4	
3/8	Internal thread NPT 3/8	
1/2	Internal 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 arrangement to EN 175301	
10V24C	24 V DC, 10 bar (connection arrangement to EN 175301) without manual override	
10V24D	24 V DC, 10 bar, M12 (port pattern to IEC 61076-2-101) without manual override	
10V24F	24 V DC, 10 bar, M12 (connection pattern to IEC 61076-2-101). Manual override on the pilot actuator non-detenting	
10V24P	24 V DC, 10 bar, M12 (connection pattern to IEC 61076-2-101)	
V24	24 V DC (connection arrangement to EN 175301)	
V24P	24 V DC plug, M12 socket adapter (connection pattern according to IEC 61076-2-101)	
V110	110 V AC (connection arrangement in accordance with EN 175301)	
V230	230 V AC (connection arrangement in accordance with EN 175301)	

007	Pneumatic muffler	
	Without	
S	Pneumatic muffler	
008	Pressure gauge alternatives	
	Without	
A4	Adapter plate for EN pressure gauge 1/4, without pressure gauge	
A8	Adapter plate 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 4-pin plug, IO-Link®, PNP, NPN, 0...10 V, 1...5 V, 4...20 mA	
AD12	Pressure sensor with LCD display, M8 4-pin plug, 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), sub-bases not required	
WP	Mounting bracket standard design	
WPM	Mounting bracket for hooking in air preparation units	
011	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data

Pneumatic connection 1 ¹⁾	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 2	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 3	G1/2		
Structural design	Piston gate valve		
Lap	–		Positive overlap
Type of mounting	Alternatively: In-line installation With accessories		
Mounting position ²⁾	Any		
Valve function	3/2-way, closed, monostable		
Exhaust air function	Cannot be throttled		
Manual override	Detenting, Non-detenting		
Actuation type	Electrical		
Reset method	Mechanical spring		
Type of control	Piloted		
Pilot air supply port	Internal		
Flow direction	Non-reversible		

1) Via sub-base [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 condensation water must not be allowed to collect in the pressure sensor.

Electrical data

Supply voltage	24 V DC, 10 bar, connection arrangement to EN 175301	24 V DC (connection arrangement to EN 175301)	110 V AC (connection arrangement in accordance with EN 175301)	230 V AC (connection arrangement in accordance with EN 175301)
Coil characteristics	24 V DC: 2.5 W	24 V DC: 1.5 W	110 V AC: 50/60 Hz, initial power 3.0 VA, holding power 2.4 VA	230 V AC: 50/60 Hz, initial power 3.0 VA, holding power 2.4 VA
Electrical connection	Type C, Plug, As per DIN EN 175301-803, Rectangular design	As per EN 175301-803	Type C, Plug, As per DIN EN 175301-803, Rectangular design	
Degree of protection	IP65			
Duty cycle	100%			

Flow characteristics

Pneumatic connection 1	1/4 NPT	3/8 NPT	1/2 NPT
Normal nominal flow rate (normalized 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 arrangement to EN 175301	24 V DC (connection arrangement to EN 175301)	110 V AC (connection arrangement in accordance with EN 175301)	230 V AC (connection arrangement in accordance with EN 175301)
Operating pressure	4 ... 10 bar		4 ... 18 bar	
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases			
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)			
Ambient temperature	-10 ... 50°C	-10 ... 60°C		
Temperature of medium	-10 ... 60°C			
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress			
For use in the food industry ²⁾	See supplementary material information			

1) For more information, visit www.festo.com/x/topic/kbk

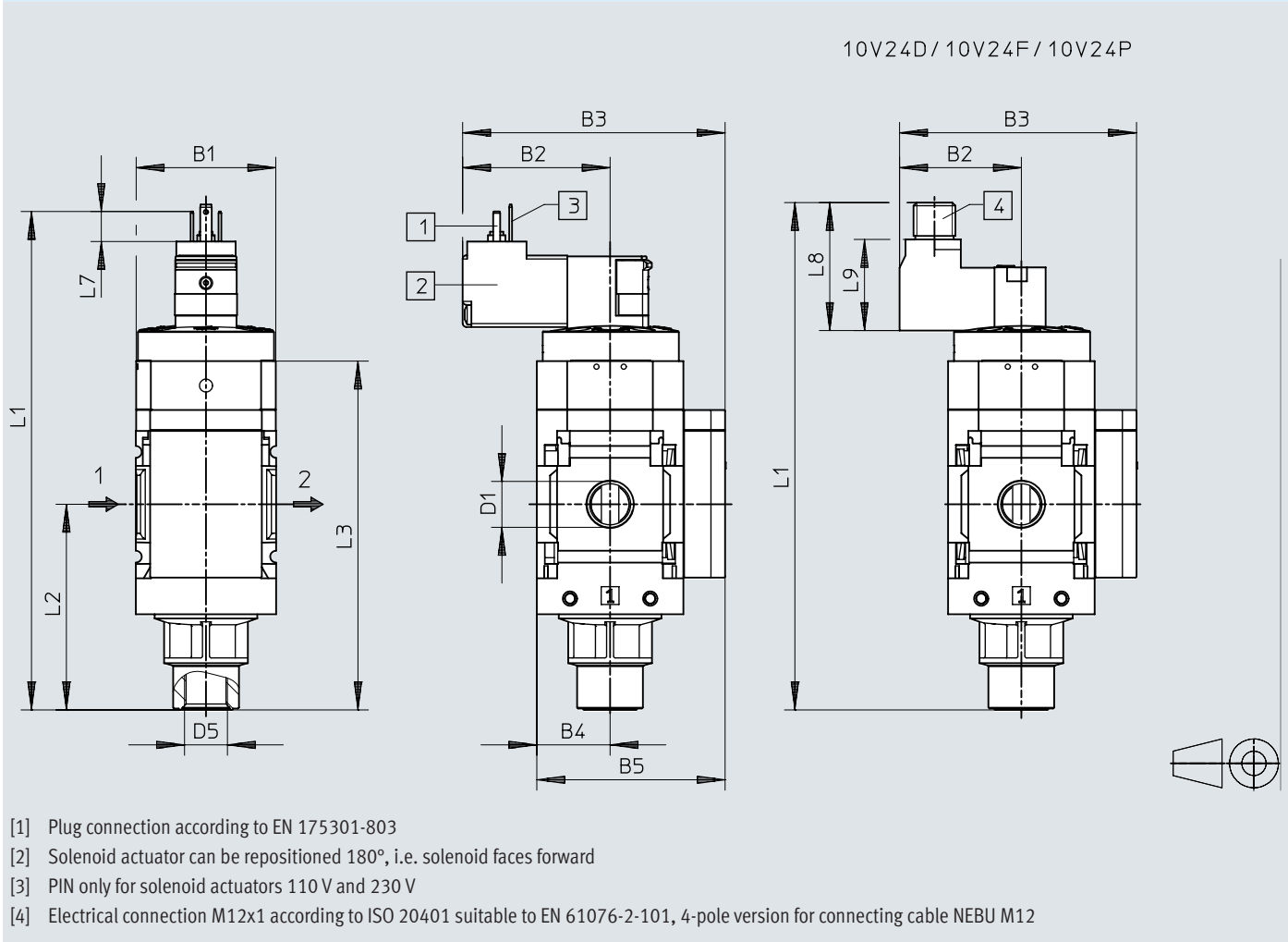
2) Further information www.festo.com/certificates/ms4-ee

Datasheet

Materials				
Supply voltage	24 V DC, 10 bar, connection arrangement to EN 175301	24 V DC (connection arrangement to EN 175301)	110 V AC (connection arrangement in accordance with EN 175301)	230 V AC (connection arrangement in accordance with EN 175301)
Housing material	Die-cast aluminum			
Seals material	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



	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

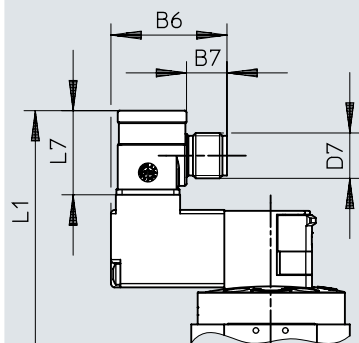
	D5	D7	L1			L2	L3	L7	L8	L9
			[V24] [V110] [V230]	[10V24] [10V24C]	[10V24D] [10V24F] [10V24P]					
			[inch]			[inch]	[inch]	[inch]	[inch]	[inch]
MS6N-EE-1/4	1/2 NPT	M12x1	7,32	7,20	7,40	3,31	5,63	0,34	1,46	1,08
MS6N-EE-3/8										
MS6N-EE-1/2										

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



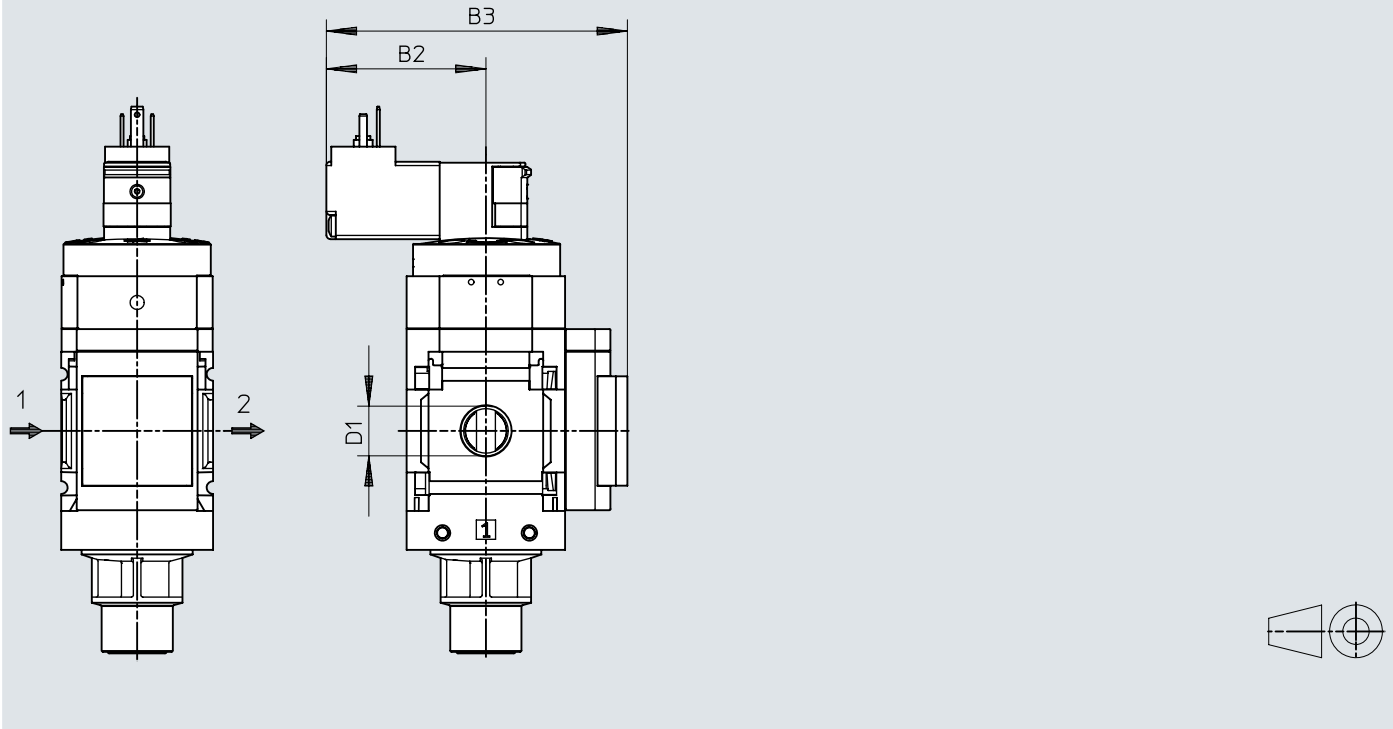
	B6 [inch]	B7 [inch]	D7	L1 [inch]	L7 [inch]
MS6N-EE-1/4	1,22	0,43	M12x1	7,83 ¹⁾	0,87 ¹⁾
MS6N-EE-3/8					
MS6N-EE-1/2					

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

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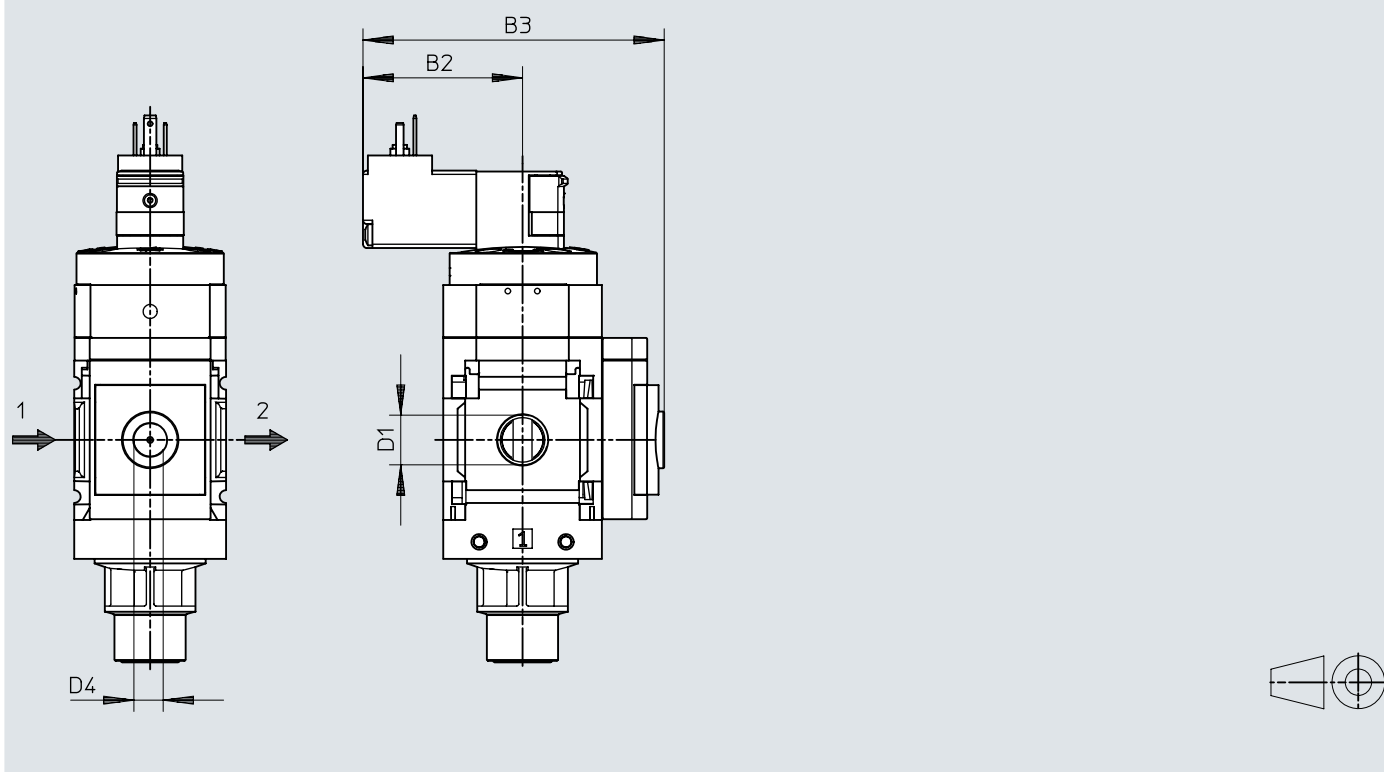


	B2		B3		D1
	[V24] [V24P] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]	[V24] [V24P] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]	
	[inch]		[inch]		[inch]
MS6N-EE-1/4-...-AG	2,44	1,77	3,86	3,58	1/4 NPT
MS6N-EE-3/8-...-AG					3/8 NPT
MS6N-EE-1/2-...-AG					1/2 NPT
MS6N-EE-1/4-...-RG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

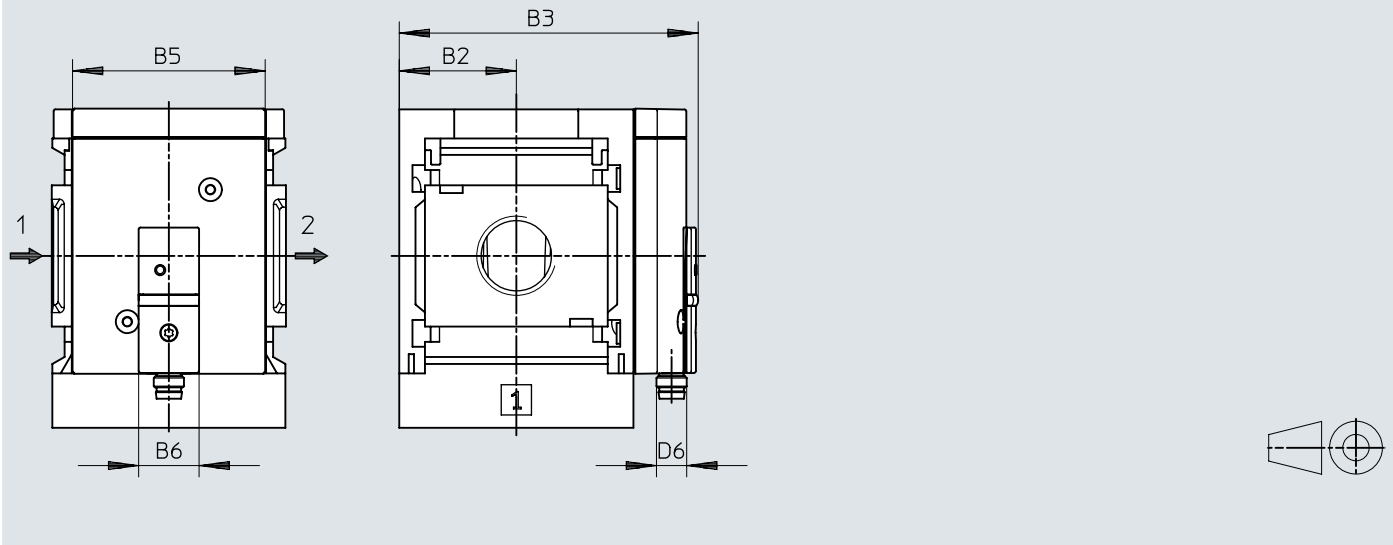


	B2		B3		D1	D4
	[V24] [V24P] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]	[V24] [V24P] [V110] [V230]	[10V24] [10V24C] [10V24D] [10V24F] [10V24P]		
	[inch]		[inch]		[inch]	[inch]
MS6N-EE-1/4-...-A8	2,44	1,77	3,92	3,64	1/4 NPT	1/8 NPT
MS6N-EE-3/8-...-A8					3/8 NPT	
MS6N-EE-1/2-...-A8					1/2 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 switching indication AD7, AD8, AD9, AD10

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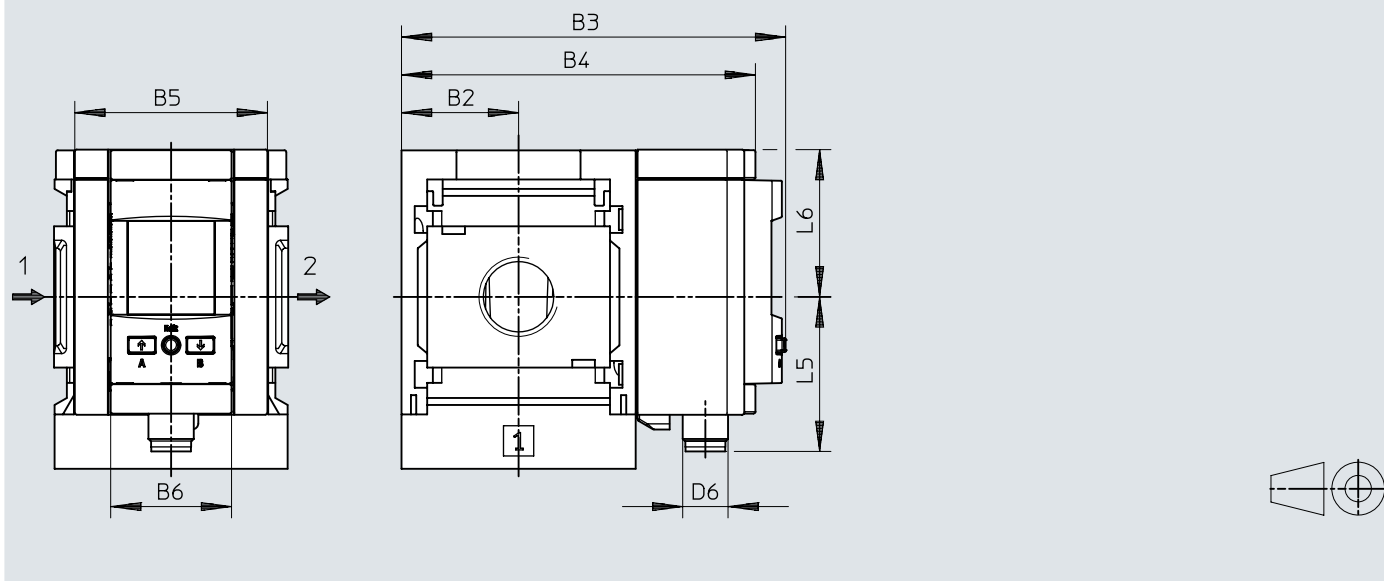


	B2 [inch]	B3 [inch]	B5 [inch]	B6 [inch]	D6
MS6N-...-AD7, AD8, AD9, AD10	1,22	3,11	~2,01	0,63	M8x1

Dimensions

Dimensions – Pressure sensor with LCD display AD11, AD12

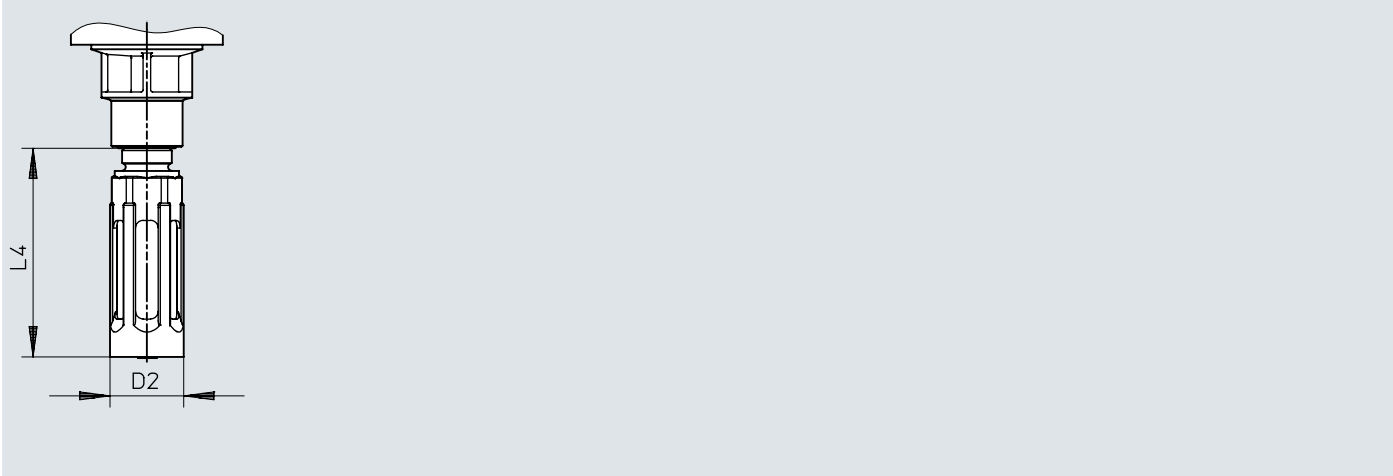
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	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D6	L5 [inch]	L6 [inch]
MS6N-...-AD11	1,22	4,01	3,69	2,01	1,26	M12x1	1,62	1,54
MS6N-...-AD12						M8x1	1,49	

Dimensions

Dimensions – Silencer Download CAD data www.festo.com

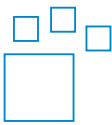


	D2 [inch]	L4 [inch]
MS6N-EE-....-S	1,10	4,25

Ordering data

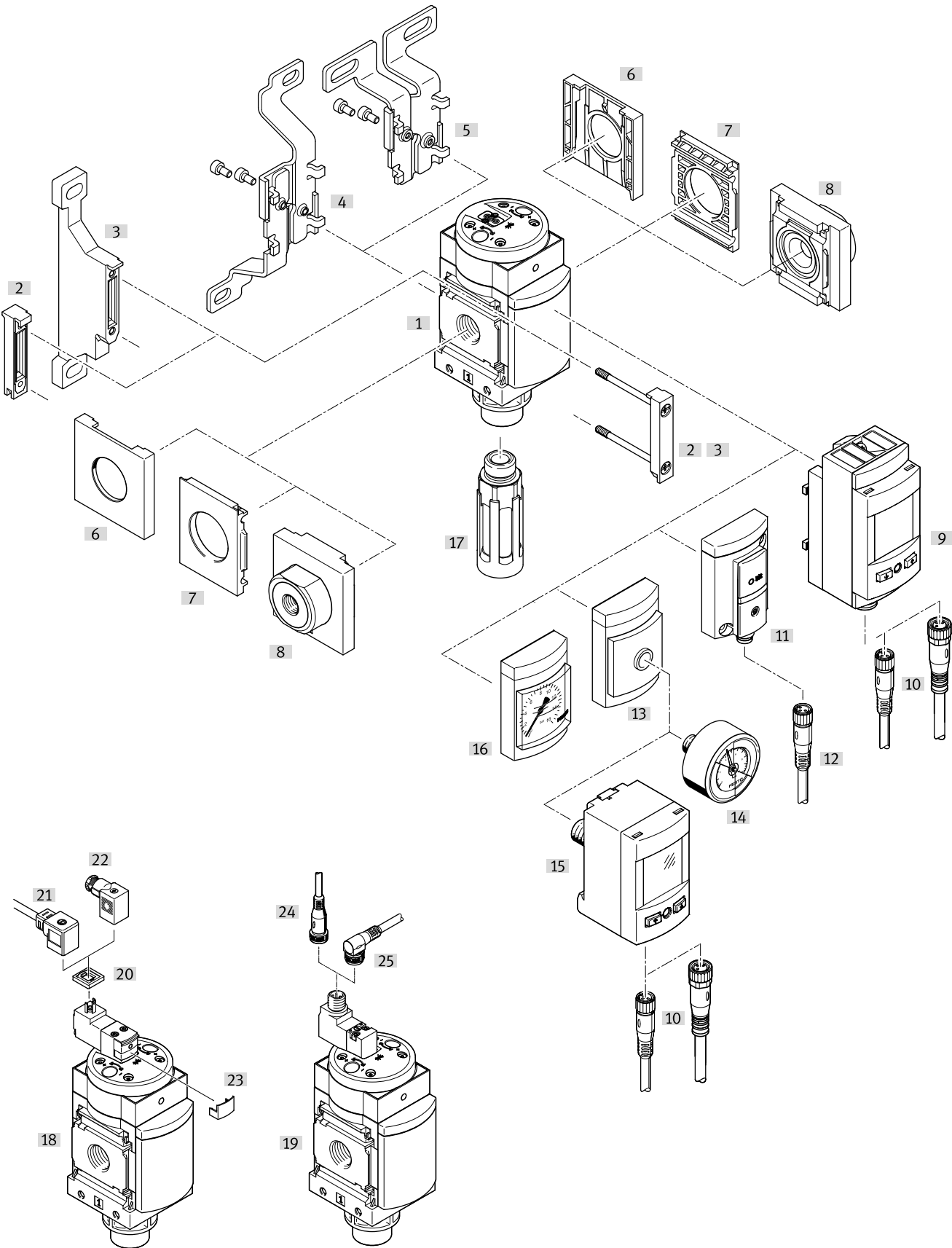
Ordering information - without muffler							
	Pneumatic connection 1	Nominal operating voltage	Flow direction	Product weight	Part no.	Type	
	1/4 NPT	24 V DC	From left to right	740 g	542594	MS6N-EE-3/8-10V24	
			From right to left		542592	MS6N-EE-1/4-10V24	
		110 V AC/50-60 Hz 230 V AC/50-60 Hz	From 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 information - with muffler						
	Pneumatic connection 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
					542614	MS6N-EE-1/4-10V24-S
			From right to left		542615	MS6N-EE-1/4-10V24-S-Z
					542613	MS6N-EE-1/2-10V24-S-Z
		110 V AC/50-60 Hz	From left to right		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			
	Type code	Part no.	Type
	MS6N-EE	527683	MS6N-EE

Peripherals overview

Peripherals overview



Peripherals overview

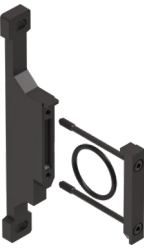
Accessories		→ Page/Internet
Type/order code	Description	
[1] On/off valve MS6N-EE	On/off valve	ms6n-ee
[2] Module connector MS6-MV1	For connection of the modules	16
[3] Mounting bracket MS6-WP	Order code [WP]	16
[3] Mounting bracket MS6-WPM	Order code [WPM] (not shown)	16
[4] Mounting bracket MS6-WB	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 sub-bases 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] Sub-base 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 indication 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] Muffler U	-	19
[17] Muffler 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 [10V24D], [10V24F], [10V24P]	ms6n-ee
[20] Illuminating seal MEB-LD	Sensing status indication	18
[21] Plug socket with cable KMEB	Connecting cable for valve coil	19
[22] Plug socket MSSD-EB	Terminal box 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	Module connector material	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	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	6	Die-cast aluminum	VDMA24364-B1/B2-L	76 g	532195	MS6-WP

Mounting bracket MS6-WPM

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

Mounting bracket MS6-WB

	Size	Bracket material	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	Housing material	LABS (PWIS) conformity	Part no.	Type	
	6	PA-reinforced	VDMA24364-B1/B2-L	538780	MS6-END	

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

Sub-base SET MS6-AQ...						
	Size	Pneumatic connection 1	Material of sub-base	Product weight	Part no.	Type
	6	1/4 NPT	Die-cast aluminum	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	Display range	Display 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, connection technology	Product weight	Part no.	Type
	R1/8	2 x PNP or 2 x NPN switchable	M12x1 A-coded as per EN 61076-2-101	70 g	8001206	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M12D

Accessories

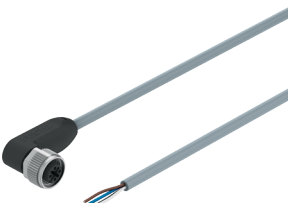
Pressure sensor SPAU

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

Connecting cable NEBA, straight

Connecting cable NEBA, straight						
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per 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 as per 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, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per 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 as per 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	DC operating voltage range	Nominal operating voltage AC	Product weight	Part no.	Type
	Type C, As per DIN EN 175301-803, Rectangular 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 pins/wires	Cable length	Part no.	Type
	230 V	Socket, as per EN 175301-803, form C	3	2.5 m	151690	KMEB-1-230AC-2.5
				5 m	151691	KMEB-1-230AC-5

Plug socket with cable KMEB 24 VDC						
	Nominal operating voltage DC	Electrical connection 1	Electrical connection 1, number of pins/wires	Cable length	Part no.	Type
	24 V	Socket, as per EN 175301-803, form 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, As per DIN EN 175301-803, As per DIN EN 61984, Rectangular design MSEB, Rectangular design MSN2	IP65, As per IEC 60529		151687	MSSD-EB

Muffler U						
	Pneumatic connection	Flow rate with respect to atmosphere	Noise 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					
	Type code	LABS (PWIS) conformity	Product weight	Part no.	Type
	CPV18	VDMA24364-B1/B2-L	0.53 g	530056	CPV18-HV