

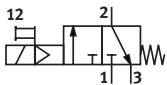
On/off valve MS12N-EE

FESTO



Characteristics

At a glance

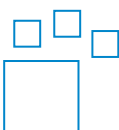


Solenoid actuated on/off valve for pressurizing and exhausting pneumatic systems

- 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 [ms12n_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]: integrated pressure gauges
- Features [A4]: Adapter for pressure gauge

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

Type code

001	Series	
MS	MS series	
002	Size	
12	Width dimension 124 mm	
003	Thread type	
N	NPT thread	
004	Function	
EE	On/off valve, electric	
005	Pneumatic connection, inch	
AQT	Sub-base NPT1	
AQU	Sub-base NPT11/4	
AQV	Sub-base NPT11/2	
AQW	Sub-base NPT2	
G	Module without connecting thread, without sub-base	
006	Supply voltage	
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	
A4	Adapter plate for EN pressure gauge 1/4, without pressure gauge	
AG	MS pressure gauge	
009	Alternative pressure gauge scale	
	MS pressure gauge	
BAR	Bar	
MPA	MPa	
010	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket standard design	
011	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data

Pneumatic connection 1 ¹⁾	–
Pneumatic connection 2 ²⁾	–
Pneumatic connection 3	G1
Structural design	Piston gate valve
Lap	Positive overlap
Type of mounting	Alternatively: In-line installation With accessories
Mounting position ³⁾	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) With sub-bases: 1 NPT, 1 1/4 NPT, 1 1/2 NPT or 2 NPT

2) With sub-bases: 1 NPT, 1 1/4 NPT, 1 1/2 NPT or 2 NPT

3) On/off valve mounted vertically when combined with a pressure sensor, as condensate should not collect in the pressure sensor.

Electrical data

Coil characteristics	110 V AC: 50 Hz, initial power 11.5 VA, holding power 8.9 VA 110 V AC: 60 Hz, initial power 9.5 VA, holding power 6.2 VA 230 V AC: 50 Hz, initial power 11.5 VA, holding power 9.1 VA 230 V AC: 60 Hz, initial power 9.5 VA, holding power 6.4 VA 24 V DC: 4.5 W
Degree of protection	IP65
Duty cycle	100%

Flow characteristics

Normal nominal flow rate (normalized to DIN 1343) ¹⁾	25,000 ... 32,000 l/min
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1) Measured at p1 = 6 bar and p2 = 5 bar, Δp = 1 bar, depending on the selected sub-bases, which must be ordered separately → Accessories page: ms12-aq

Operating and environmental conditions

Operating pressure	3 ... 16 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
Temperature of medium	-10 ... 50°C
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress
CE marking (see declaration of conformity)	As per EU low voltage directive
UKCA marking (see declaration of conformity)	To UK instructions for electrical equipment

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

Weight

Product weight ¹⁾	3,800 g
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1) With muffler S: 3,900 g

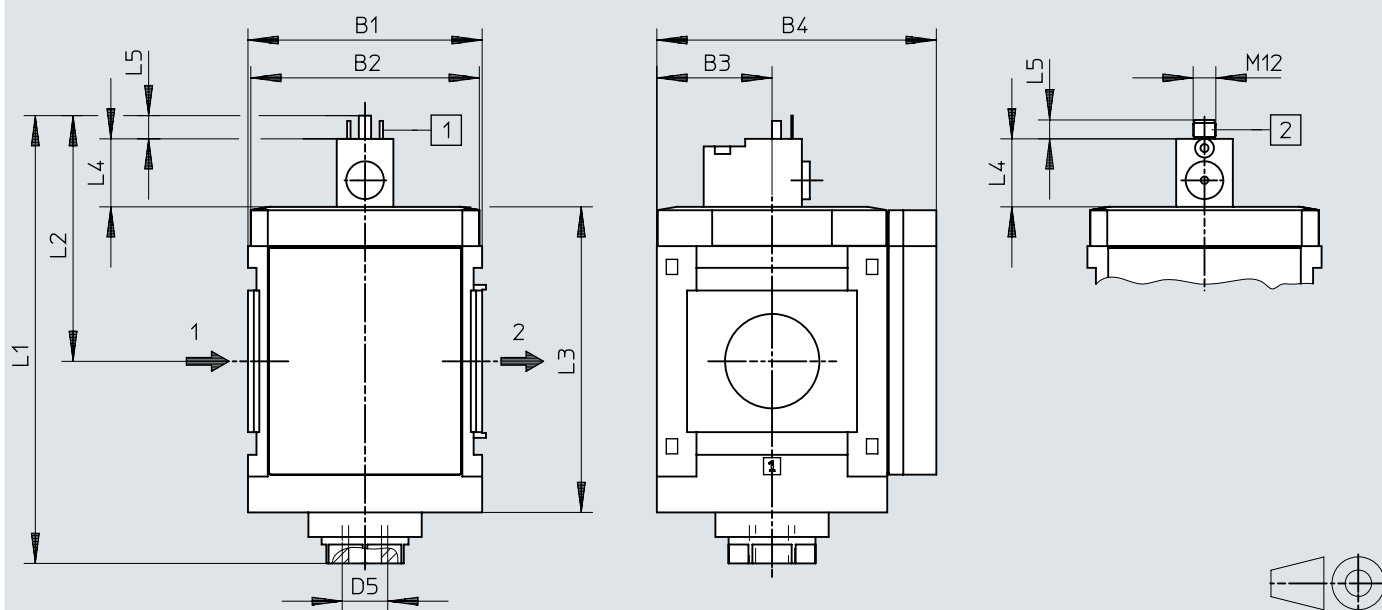
Materials

Housing material	Die-cast aluminum
Seals material	NBR
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Dimensions

Dimensions – Module without connection thread, without connection plate,
with sealing cover / supply voltage

Download CAD data www.festo.com



[1] Plug connection according to EN 175301-803

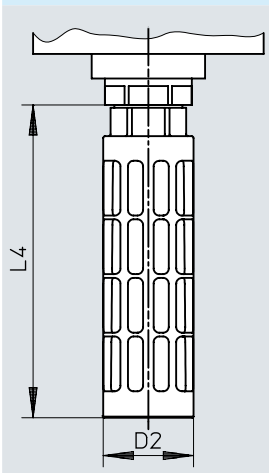
[2] Plug connection M12, 4-pin according to DESINA for connecting cable NEBU-M12

	B1 [inch]	B2 [inch]	B3 [inch]	B4 [inch]	L1 [inch]	L2 [inch]	L3 [inch]	L4 [inch]	L5 [inch]	D5
MS12N-EE-G-V24, V110, V230	4,88	4,80	2,40	5,83	9,33	5,12	6,38	1,41	0,48	G1
MS12N-EE-G-V24P								1,42	0,39	

Dimensions

Dimensions – Silencer

Download CAD data www.festo.com

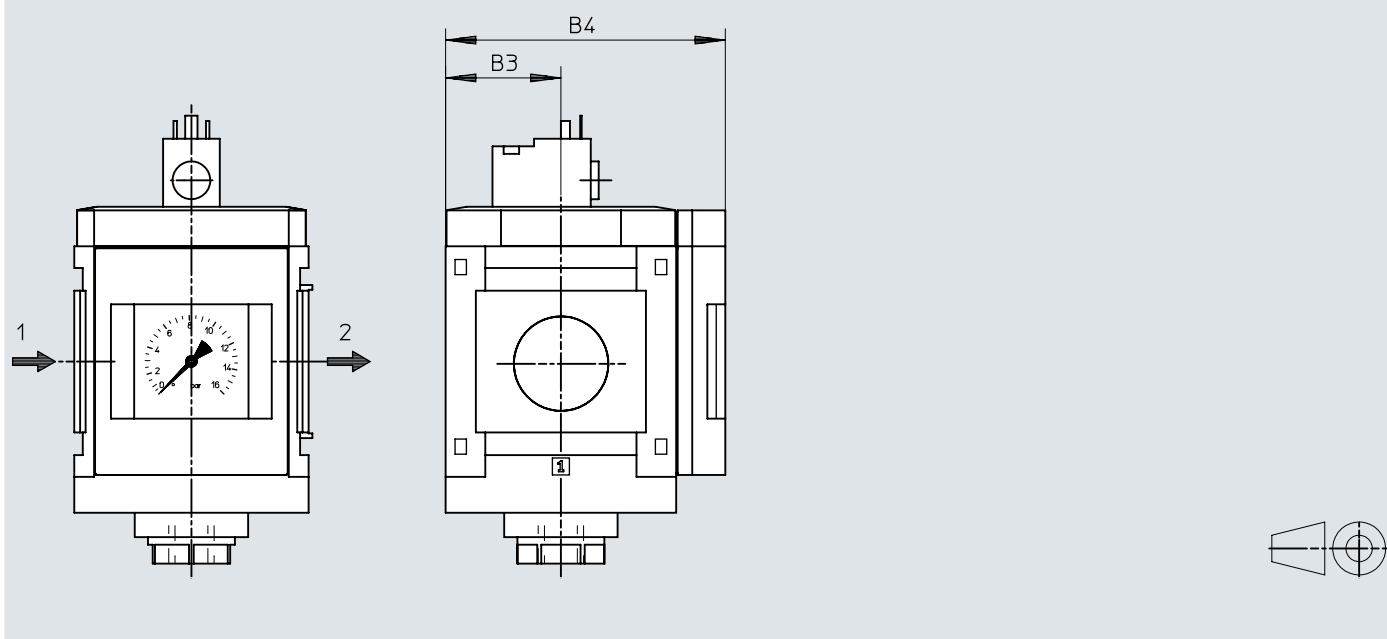


	D2 ø [inch]	L4 [inch]
MS12N-EE-...-S	1,88	6,52

Dimensions

Dimensions – Integrated MS pressure gauge with standard scale / display unit [bar]

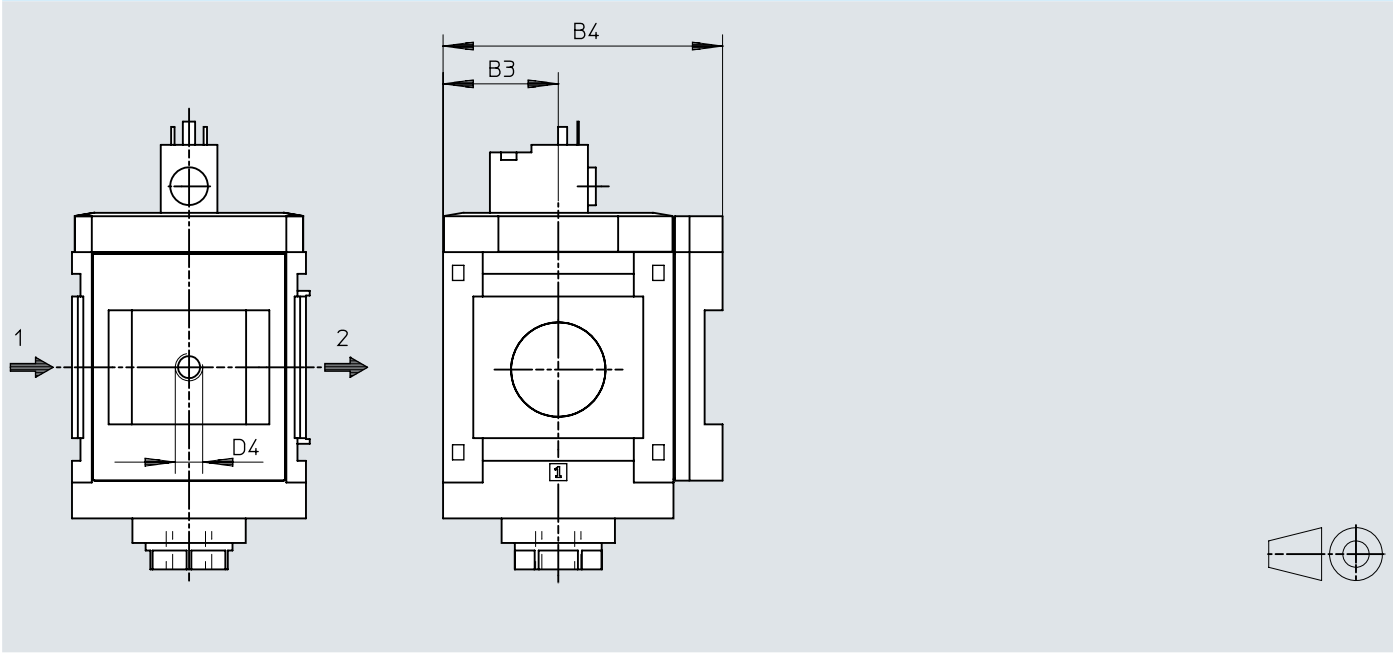
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	B3 [inch]	B4 [inch]
MS12N-EE-...-AG	2,40	5,83

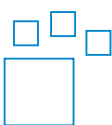
Dimensions

Dimensions – Adapter for EN pressure gauge 1/4, without pressure gauge Download CAD data www.festo.com



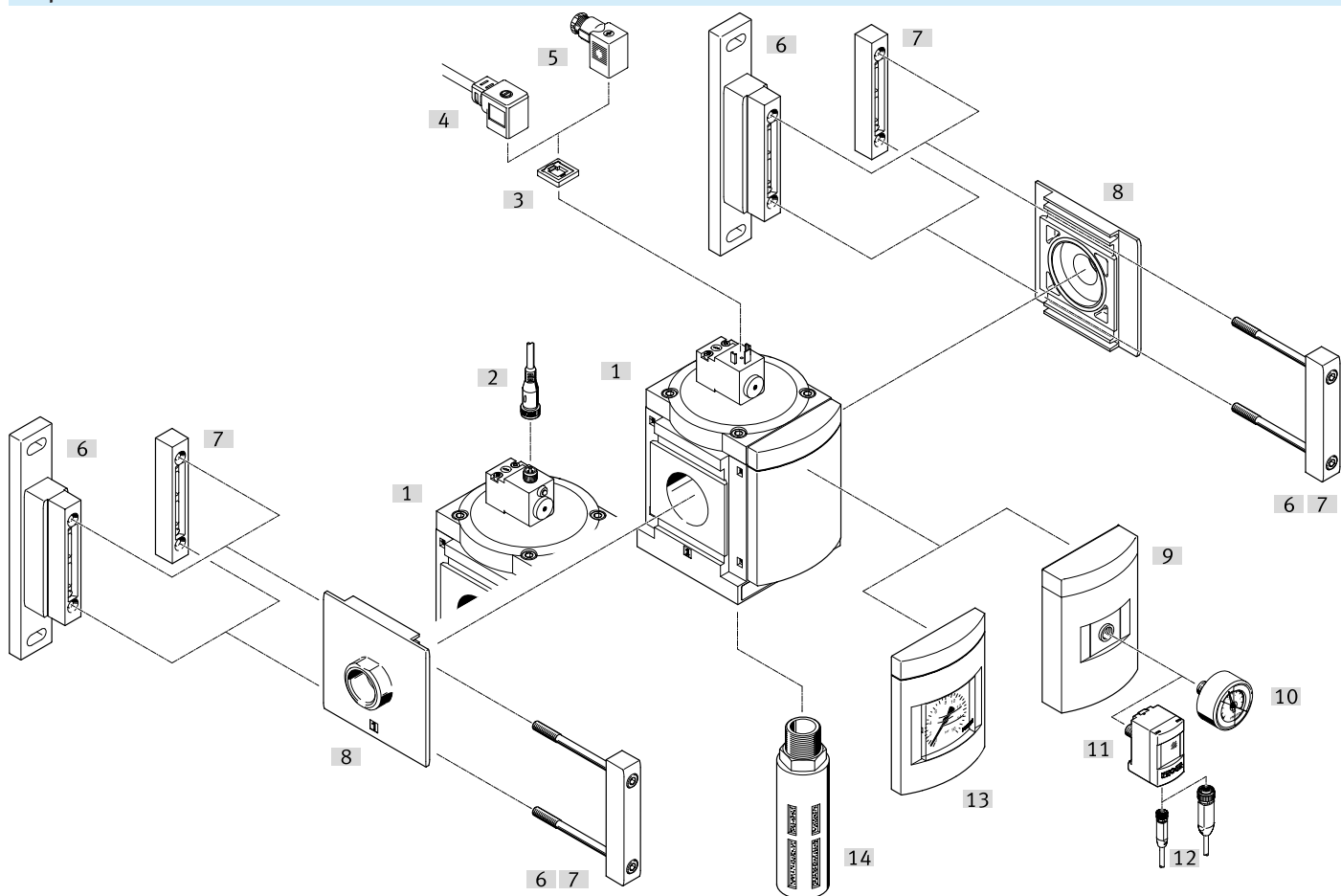
	B3 [inch]	B4 [inch]	D4
MS12N-EE-...-A4	2,40	5,83	G1/4

Ordering data

Ordering data – Modular product system			
	Type code	Part no.	Type
	MS12N-EE	535037	MS12N-EE

Peripherals overview

Peripherals overview

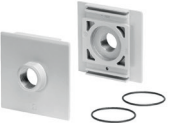


Accessories		→ Page/Internet
Type/order code	Description	
[1] On/off valve MS12N-EE	On/off valve	ms12n-ee
[2] Connecting cable NEBA-M12G5, straight	Connecting cable for display module	12
[3] Illuminating seal MC-LD	Sensing status indication	12
[4] Plug socket with cable KMC	Connecting cable for valve coil	13
[5] Plug socket MSSD-C	Terminal box for valve coil	13
[6] Mounting bracket MS12-WP	Order code [WP]	11
[7] Module connector MS12-MV	For connection of the modules	11
[8] Sub-base-SET MS12-AQ...	Order code [AQ...]	11
[9] Adapter for EN pressure gauge 1/4	Order code [A4]	ms12n-ee
[10] Pressure gauge MA	Built-in pressure indicator	11
[11] Pressure sensor SPAU....T	Display module	12
[12] Connecting cable NEBA-M...G...-LE4, straight	Connecting cable for display module	12
[12] Connecting cable NEBA-M...G...-LE4, angled	Connecting cable for display module	12
[13] Pressure gauge MS	Order code [AG], [RG]	ms12n-ee
[14] Muffer U	-	13

Accessories

Module connector MS12-MV					
	Plate material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L	500 g	537134	MS12-MV

Mounting bracket MS12-WP					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L	700 g	537133	MS12-WP

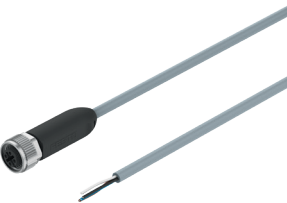
Sub-base-SET MS12-AQ...						
	Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1 NPT	Die-cast aluminum	VDMA24364-B1/B2-L	1,300 g	537139	MS12-AQT
	1 1/4 NPT		VDMA24364-B2-L		537140	MS12-AQU
	1 1/2 NPT		VDMA24364-B1/B2-L		537141	MS12-AQV
	2 NPT				537142	MS12-AQW

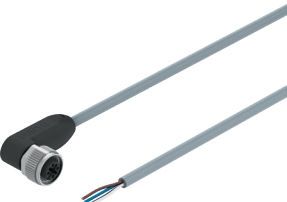
Pressure gauge MA					
	Pneumatic connection	Display range	Display range	Product weight	Part no. Type
	R1/4	0 ... 232 psi	0 ... 16 bar	70 g	187080 MA-40-16-R1/4-EN

Pressure sensor SPAU					
	Pneumatic connection	Switching output	Electrical connection 1, connection technology	Part no.	Type
	R1/4	2 x PNP or 2 x NPN switchable	M12x1 A-coded as per EN 61076-2-101	8001208	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M12D

Accessories

Pressure sensor SPAU					
	Pneumatic connection	Switching output	Electrical connection 1, connection technology	Part no.	Type
	R1/4	2 x PNP or 2 x NPN switchable	M8x1 A-coded as per EN 61076-2-104	8001209	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M8D

Connecting cables 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	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			2.5 m	8078227	NEBA-M8G4-U-2.5-N-LE4
				5 m	8078228	NEBA-M8G4-U-5-N-LE4

Connecting cables 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	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			2.5 m	8078233	NEBA-M8W4-U-2.5-N-LE4
				5 m	8078234	NEBA-M8W4-U-5-N-LE4

Illuminating seal MC-LD				
	DC operating voltage range	Nominal operating voltage AC	Part no.	Type
		230 V	19146	MC-LD-230AC
	12 ... 24 V		19145	MC-LD-12-24DC

Accessories

Plug socket with cable KMC 230V AC					
	Nominal operating voltage AC	Electrical connection	Cable length	Part no.	Type
	230 V		2.5 m	151690	KMEB-1-230AC-2.5
			5 m	151691	KMEB-1-230AC-5
		Socket, Type A	2.5 m	30932	KMC-1-230AC-2,5
			5 m	30934	KMC-1-230AC-5

Plug socket with cable KMC 24V DC						
	Nominal operating voltage DC	Electrical connection	Switching status indication	Cable length	Part no.	Type
	24 V	Socket, Type A	LED	2.5 m	30931	KMC-1-24DC-2,5-LED
				5 m	30933	KMC-1-24DC-5-LED
				10 m	193459	KMC-1-24-10-LED

Plug socket MSSD-C					
	Electrical connection	Degree of protection	Product weight	Part no.	Type
	3-pin, Angled socket, Type A, As per DIN EN 175301-803, Rectangular design MSC, Rectangular design MSN1	IP65	22 g	34583	MSSD-C

Muffler U						
	Pneumatic connection	Flow rate with respect to atmosphere	Noise level	Product weight	Part no.	Type
	G1	17,500 l/min	85 dB(A)	233 g	151990	U-1-B