

# On/off valve MS-EE-B

**FESTO**



## Characteristics

### At a glance

- Very compact and extremely lightweight series for use close to the process directly in the machine.
- Grid dimension: 40 mm; 62 mm
- With solenoid coil, without plug socket
- Supply voltage: 24 VDC

### Product segmentation



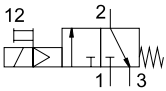
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- Quickest delivery, worldwide – wherever, whenever
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### Function



- Solenoid actuated on/off valve for pressurising and exhausting pneumatic systems
- Ducted exhaust air is possible via threaded connection at port 3 with silencer
- Detenting and non-detenting manual override

### Pneumatic connection

Individual fittings that are fastened via a female thread

### Special material properties

[F1A] Recommended for production plants for manufacturing lithium-ion batteries, F1A

Metals with copper, zinc or nickel as the main component are excluded from use. Exceptions are nickel in steels, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils

### Version

[B] Second generation

Basic component with sturdy and lightweight polymer housing. Fully compatible with the MS series.

## Type code

001	Series
<b>MS</b>	MS series

002	Size
<b>4</b>	Grid dimension 40 mm
<b>6</b>	Grid dimension 62 mm

003	Function
<b>EE</b>	On/off valve, electric

004	Pneumatic connection
<b>1/4</b>	Female thread G1/4
<b>1/2</b>	Female thread G1/2

005	Supply voltage
<b>V24</b>	24 V DC (connection pattern to EN 175301)

006	Special material properties
<b>F1A</b>	Recommended for production plants for manufacturing lithium-ion batteries, F1A

007	Version
<b>B</b>	Second generation

## Datasheet

## General technical data

Size	4	6
Pneumatic connection, port 1	G1/4	G1/2
Pneumatic connection, port 2	G1/4	G1/2
Pneumatic connection, port 3	G1/4	G1/2
Design	Poppet valve, electrically actuated	
Lap	Underlap	
Type of mounting	Via wall/surface bracket	
Mounting position	Vertical +/-5°	
Valve function	3/2-way, closed, monostable	
Manual override	Detenting, Non-detenting	
Type of reset	Mechanical spring	
Type of piloting	Pilot actuated	
Pilot air supply	Internal	

## Electrical data

Characteristic coil data	24 V DC: 2.3 W	
Permissible voltage fluctuations	+/- 10%	
Switch-on time	29 ms	
Electrical connection	Type C To EN 175301-803	
Degree of protection	IP65	

## Flow characteristics

Size	4	6
Pneumatic connection, port 1	G1/4	G1/2
Standard nominal flow rate <sup>1)</sup>	2,000 l/min	5,000 l/min
Standard nominal flow rate, exhaust 0.6->0 MPa (6->0 bar, 87->0 psi)	1,600	-
C value	8.36 l/sbar	-
b value	0.49	-

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

## Operating and environmental conditions

Operating pressure	0.3 ... 0.7 MPa	
Operating pressure	3 ... 7 bar	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]	
Ambient temperature	-5 ... 50°C	
Media temperature	-5 ... 50°C	
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress	

1) Corrosion resistance class CRC 1 to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, or parts which are covered in the application (e.g. drive trunnions).

## Materials

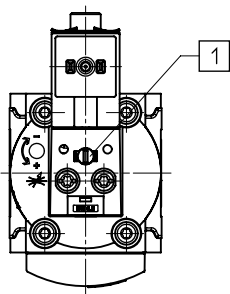
Material housing	PA-reinforced
Material seals	HNBR NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

## Additional material specifications – products for battery production (MS...-F1A-B)

Suitability for the production of Li-ion batteries	Metals with more than 1% copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
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## Datasheet

### Manual override

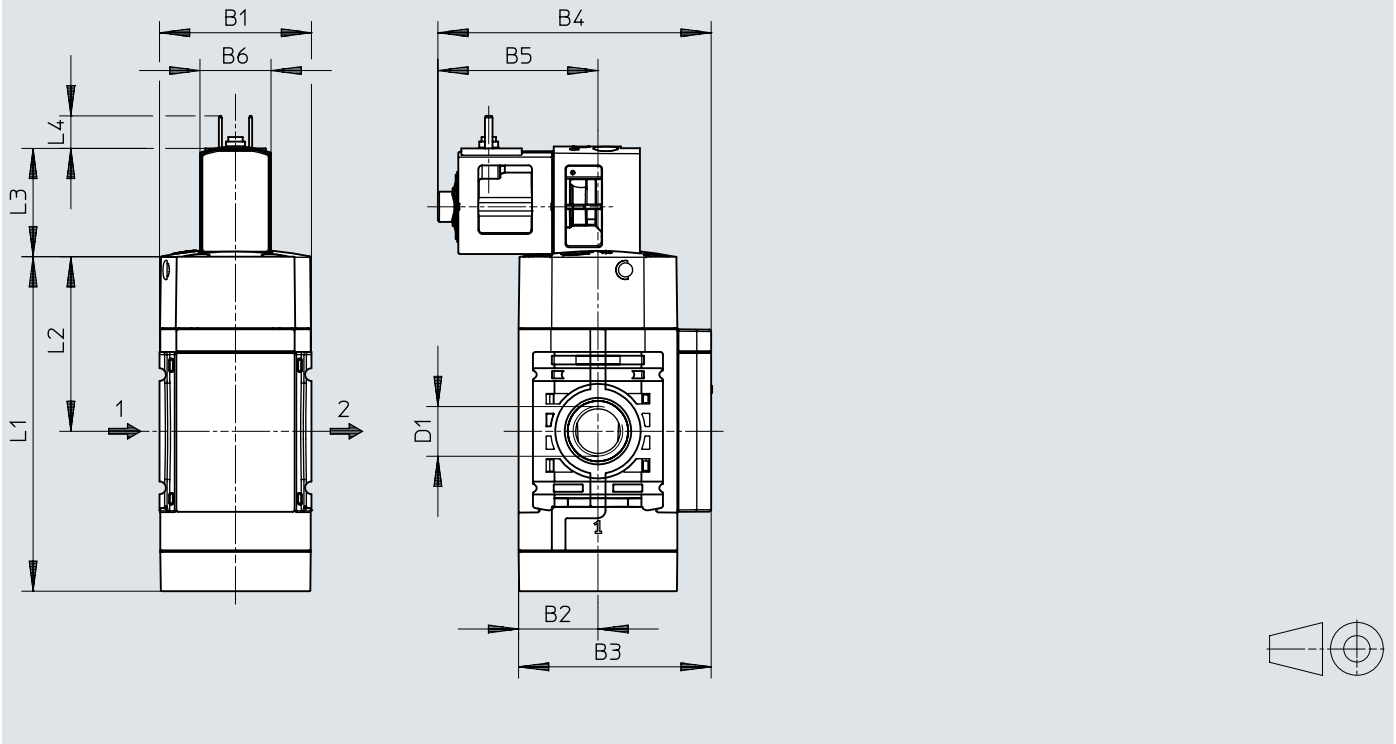


[1] Detenting and non-detenting manual override

## Dimensions

### Dimensions – Basic version

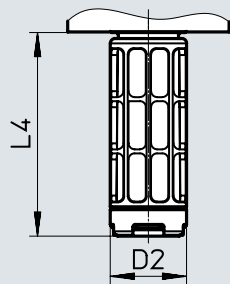
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	B1	B2	B3	B4	B5	B6	D1	L1	L2	L3	L4
MS4-EE-...-B	40,2	21	50,9	72,3	42,4	18,8	G1/4	88,5	46,2	28,7	8,6
MS6-EE-...-B	62	31	76	87,7	42,7	18,8	G1/2	140	75,5	28,2	8,6

## Dimensions

## Dimensions – Silencer (accessory)

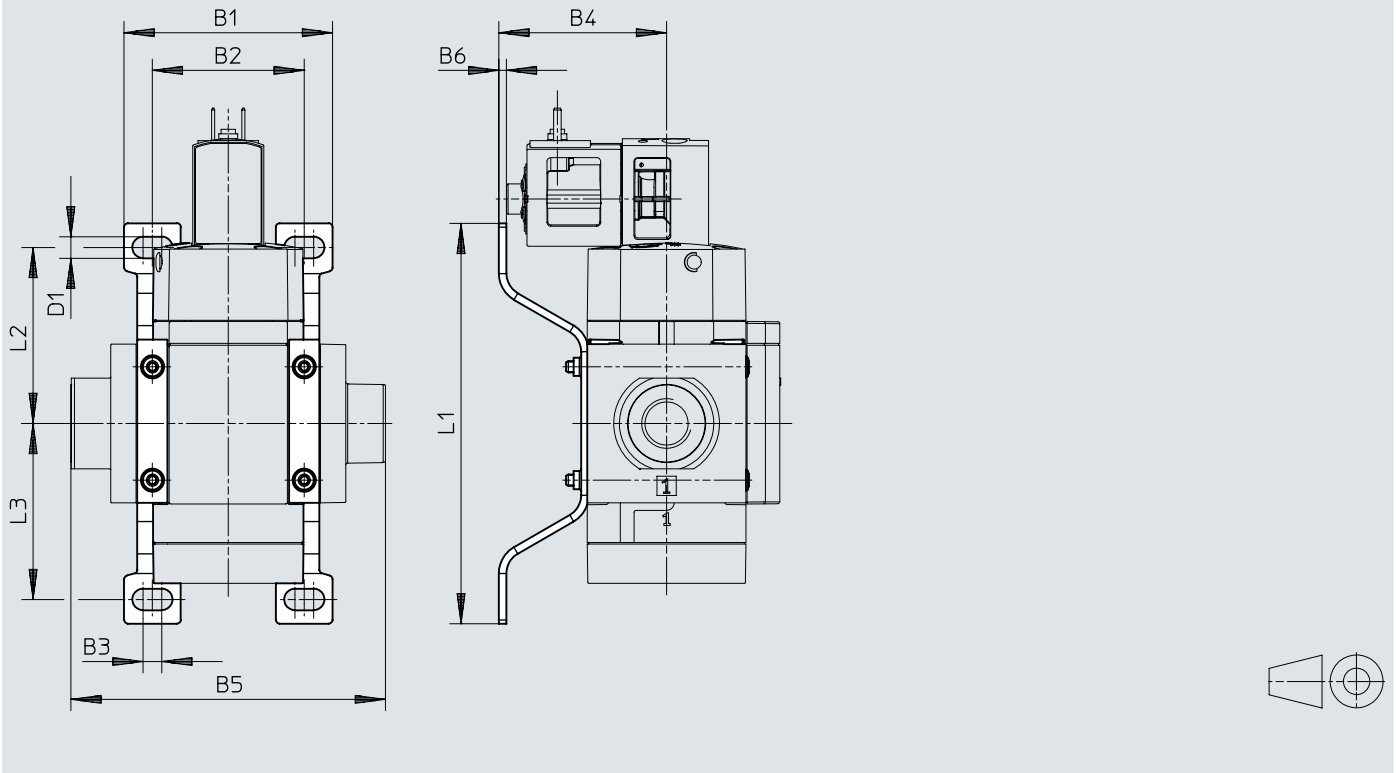
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	D2 ∅	L4
U-1/4	20	55
U-1/2	28	108

## Dimensions

Dimensions – Wall mounting kit MS...-WPE-B (accessories)


Download CAD data → [www.festo.com](http://www.festo.com)




	B1	B2	B3	B4	B5	B6	D1 ∅	L1	L2	L3
MS4-WPE-B	55,2	40,2	5	44,4	83,3	2	5,7	106	46,6	46,6
MS6-WPE-B	79	62	4,3	53,9	114,9	2	6,5	158	71	71



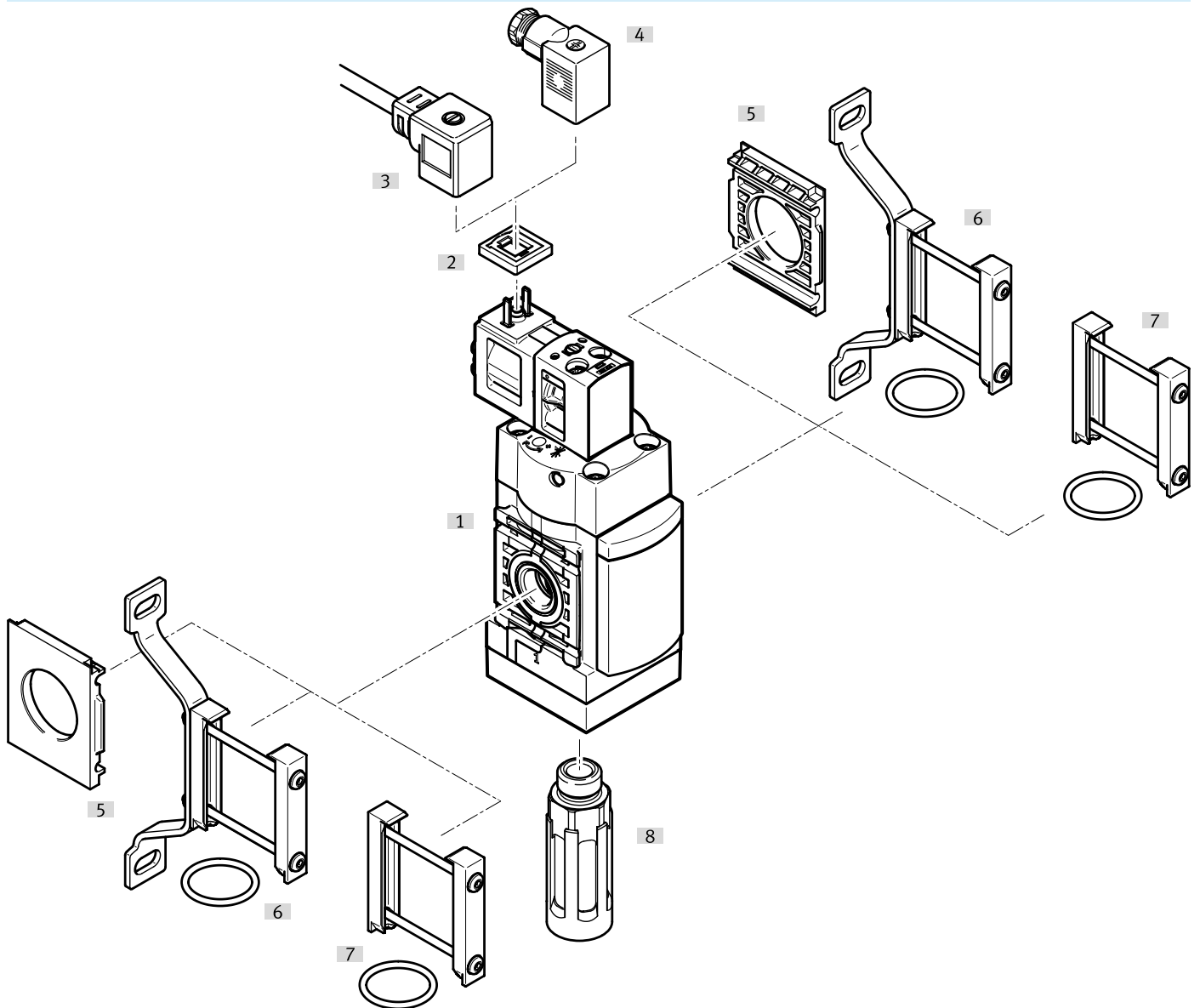
## Ordering data

Ordering data					
	Size	Pneumatic connection, port 1	Product weight	Part no.	Type
	4	G1/4	194 g	★ 8091771	MS4-EE-1/4-V24-B
	6	G1/2	517 g	★ 8091578	MS6-EE-1/2-V24-B

Ordering data – Products for battery production					
	Size	Pneumatic connection, port 1	Product weight	Part no.	Type
	4	G1/4	194 g	8176512	MS4-EE-1/4-V24-F1A-B
	6	G1/2	517 g	8176514	MS6-EE-1/2-V24-F1A-B

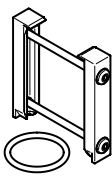
## Peripherals

### Peripherals overview

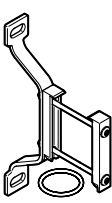


Accessories		→ Page/Internet
Type/order code	Description	
[1] On/off valve MS-EE-B		ms-ee-b
[2] Silencer U		11
[3] Module connector MS...-MV1		11
[4] Wall mounting kit MS...-WPE-B	Without illustration	11
[5] Mounting plate MS...-AEND	Module connector MS4/6-MV [2] or mounting bracket MS4-WP, WPB, WPE, WPM [3] is required for mounting.	11
[6] Illuminating seal MEB-LD		11
[7] Plug socket MSSD-EB	For on/off valve MS...-V24P and MS...-V24-...-EX2, the plug socket is included in the scope of delivery.	11
[8] Plug socket with cable KMEB		12

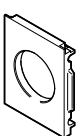
## Accessories

Module connector MS...-MV1					
	Size	Suitability for the production of Li-ion batteries	Product weight	Part no.	Type
	4		13 g	★ 8119201	MS4-MV1
		F1a	36 g	8176695	MS4-MV1-F1A
	6		33 g	★ 8119204	MS6-MV1
		F1a	54 g	8176697	MS6-MV1-F1A

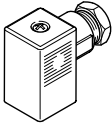
  

Wall mounting kit MS...-WPE-B					
	Size	Product weight	Part no.	Type	
	4	30 g	★ 8118600	MS4-WPE-B	
	6	58 g	★ 8118599	MS6-WPE-B	

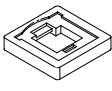
  

Mounting plate MS...-AEND					
	Size	Product weight	Part no.	Type	
	4	4 g	542966	MS4-AEND	
	6	11.1 g	535408	MS6-AEND1	

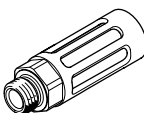
  

Plug socket MSSD-EB					
	Electrical connection	Product weight	Part no.	Type	
	4-pin, Socket, Type C	17 g	192745	MSSD-EB-S-M14	
	3-pin, Socket, Angled socket, Type C, To DIN EN 175301-803, To DIN EN 61984, Square design MSEB, Square design MSN2	11 g	★ 151687	MSSD-EB	

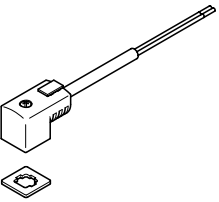
  

Illuminating seal MEB-LD					
	Operational voltage range DC	Product weight	Part no.	Type	
	12 ... 24 V	0.6 g	151717	MEB-LD-12-24DC	

Silencer U					
	Pneumatic connection	Product weight	Part no.	Type	
	G1/4	7.7 g	★ 2316	U-1/4	
	G1/2	58.2 g	★ 2310	U-1/2	

## Accessories

Plug socket with cable KMEB						
	Nominal operating voltage DC	Electrical connection 2, number of connections/cores	Signal status display	Cable length	Part no.	Type
	24 V	2		2.5 m	547270	KMEB-3-24-2.5
				5 m	547271	KMEB-3-24-5
			Yellow LED	2.5 m	547268	KMEB-3-24-2.5-LED
				5 m	547269	KMEB-3-24-5-LED
		3	2.5 m	★ 151688	KMEB-1-24-2.5-LED	
			5 m	151689	KMEB-1-24-5-LED	
			10 m	193457	KMEB-1-24-10-LED	