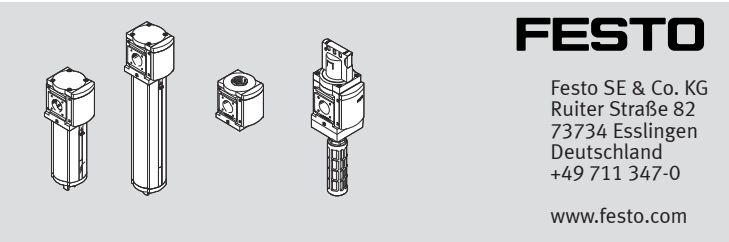


MS(B)9-...-EX4

Service unit component/Service unit combination



Addendum document | Operating conditions EX



8162189
2021-12d
[8162191]



Translation of the original instructions

© 2022 all rights reserved to Festo SE & Co. KG


1 Identification EX

Identification		
	II 2G	Ex h IIC T6 Gb X
	II 2D	Ex h IIIC T60°C Db X

Tab. 1: Identification EX

2 Applicable documents

NOTICE
Technical data for the product can have different values in other documents. For operation in an explosive atmosphere, the technical data in this document always have priority.


All available documents for the product → www.festo.com/sp.

3 Certified products

Type	Designation	Part number
MS9-EM	Manual on/off valve	562178
MS9-FRM	Branching module	562534
MS9-LF	Filters	562532
MS9-LFM	Fine filter	552940
MS9-LFR	Filter regulator	562531
MS9-LFX	Active carbon filter	552942
MS9-LOE	Lubricator	562533
MS9-LR	Pressure regulator	562530
MS9-LWS	Water separator	567857

Tab. 2: Certified products

4 Safety

4.1 Safety instructions

- The device can be used under the stated operating conditions in zones 1 and 2, explosive gas atmospheres, and in zones 21 and 22, explosive dust atmospheres.
- The device with the lowest category determines the category of the entire product for the operation of service unit combinations.
- All work must be carried out outside of potentially explosive areas.
- Only operate the device with a suitable operating medium → Technical data
- The device is not intended for use with other fluids.
- Use the device in its original status without any unauthorised modifications.
- The device may only be used in the delivered configuration in a potentially explosive atmosphere.

4.2 Intended use

Service unit components and service unit combinations are intended for use for the preparation of compressed air.

4.3 Identification X: special conditions

- Danger of electrostatic discharges.
- When using devices with a condensate drain, make sure that the operating medium has a pressure dew point ≤ -10 °C.

5 Function

Service unit components and service unit combinations include function for compressed air preparation, e.g. filters or branching modules.

6 Commissioning

- WARNING**
The discharge of electrostatically charged parts can lead to ignitable sparks.
- Prevent electrostatic charging by taking appropriate installation and cleaning measures.
 - Include the device in the system's potential equalisation.
 - Closed-loop controller: do not remove the rotary knob during operation in a potentially explosive atmosphere.
 - Closed-loop controller: use the knurled nut only for installation with an earthed mounting bracket. When using other mounting components, remove the knurled nut.

NOTICE
Draw in compressed air outside of the explosive atmosphere.

NOTICE
Strong charge-generating processes can charge non-conductive layers and coatings on metal surfaces.

NOTICE
Escaping exhaust air can swirl up dust and create an explosive dust atmosphere.

NOTICE
Particulate matter in the compressed air can cause electrostatic charges.

NOTICE
Related type of ignition protection: c (constructional safety)

- Observe the product labelling.
- Make sure that the contact between the service unit components and the sub-bases is electrically conductive.
- Earth all service unit components and their combinations on the left or right sub-base with the earthing screw.
- Prevent draw-in of ambient air by preventing negative pressure in the devices.

7 Maintenance and care

- Check the products regularly for correct functioning and service every 6 months.

8 Fault clearance

Malfunction	Remedy
Audible leakage at the connections	Check fittings of the connections.
Incomplete pressurisation of an output	Ensure constant pressure in the system.

Tab. 3: Fault clearance

The replacement of wearing parts and spare parts is possible in individual cases. Repairs of this type must only be carried out by trained and authorised personnel.

- Please contact your Festo technical consultant.
- After assembly, check the electrical resistivity between the earthing screws on the left-hand and right-hand sub-base → Technical data.

Operating conditions		
Ambient temperature		
EE	[°C]	$-10 \leq T_a \leq +50$
EM, FRM, LF, LFM, LFR, LFX, LOE, LR, LWS	[°C]	$-10 \leq T_a \leq +60$
Temperature of medium		
EE, EM, FRM, LF, LFM, LFR, LFX, LOE, LR, LWS	[°C]	$-10 \dots +60$
Operating pressure		
EM, FRM, LF, LFM, LFX	[MPa]	0 ... 2
	[bar]	0 ... 20
	[psi]	0 ... 290
LFR, LR	[MPa]	0.1 ... 2
	[bar]	1 ... 20
	[psi]	14.5 ... 290
LOE	[MPa]	0.1 ... 1.6
	[bar]	1 ... 16
	[psi]	14.5 ... 232
LWS	[MPa]	0.08 ... 1.6
	[bar]	0.8 ... 16
	[psi]	11.6 ... 232
Operating medium		
EM, FRM, LOE, LR		Compressed air to ISO 8573-1:2010 [7:4:4]
LF		Compressed air to ISO 8573-1:2010 [7:9:-]
LFM		Compressed air to ISO 8573-1:2010 [6:8:4]
LFR		Compressed air to ISO 8573-1:2010 [7:4:-]
LFX		Compressed air to ISO 8573-1:2010 [1:4:2]
LWS		Compressed air to ISO 8573-1:2010 [-:7:4]
Information on operating medium		Lubricated operation not possible
Electrical resistivity between the earthing screws on the left-hand and right-hand sub-base	[Ω]	100
All aluminium alloys used contain less than 7.5% magnesium (Mg).		

Tab. 4: Technical data