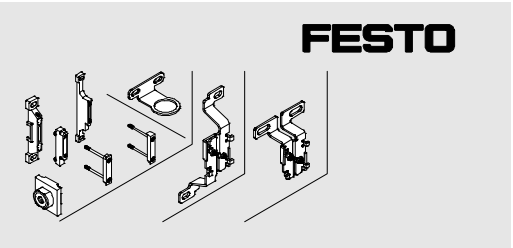


MS4/6-AG.../-AQ..., MS4/6-MV, MS4/6-WP/WPB/WPM, MS4/6-WR/WB, MS4-WBM



Operating instructions
Original instructions

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Note

Installation and commissioning to be carried out only by qualified personnel in accordance with the operating instructions.

Definition:

Front panel = front module connector

Rear panel = rear module connector

For all available product documentation
→ www.festo.com/pk

1 Application

The sub-bases MS4/6-AG.../-AQ... are intended as adapters for pneumatic connection and for fastening the tubing for in-line installation of service units. The module connector MS4/6-MV connects either two service units or one service unit to a sub-base. The mounting brackets MS4/6-WP/WPB/WPM serve to mount several service units onto a wall and the mounting brackets MS4/6-WR/WB/WBM to mount a single unit to a wall.

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Note

Improper handling can result in malfunctions. Make sure that the following specifications are always observed:

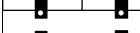
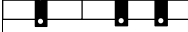
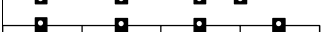
- Compare the limit values specified in these operating instructions with your current application (e.g. operating medium, pressures, forces, temperatures, masses, flow rates).
- Comply with the regulations of the German Technical Control Board (TÜV) trade association or relevant national regulations.
- Take into consideration the ambient conditions at the location of use.
- Use the product in its original state without any unauthorised modifications.

3 Installation

- Select one of the mounting options listed in the table below.

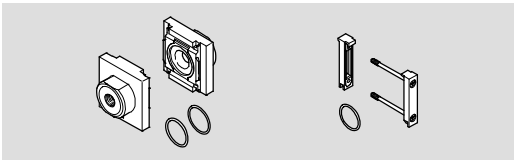
Type	Sub-base	Mounting bracket	
Type	MS4/6-AG.../-AQ...	MS4/6-WP MS4/6-WPB MS4/6-WPM	MS4/6-WB MS4-WBM MS4/6-WR
Position	On the left and right of the product	For mounting clearance see table 2	Individual mounting

Tab. 1 Mounting options

Mounting clearances for mounting service unit combinations											
Number of units	1	2	3	4	5	6	7	8	9	10	
Mounting position of the mounting brackets (marked black) on service unit combinations											
	Mounting clearance ¹⁾	1 unit:	MS4-WP/WPB/WPM: 40 mm MS6-WP/WPB: 62 mm MS6-WPM-D: 69 mm								
		2 units:	MS4-WP/WPB/WPM: 80 mm MS6-WP/WPB: 124 mm MS6-WPM-2D: 138 mm								
	1) Divide the clearance distances by half for the MS4/6-FRM-FRZ distributor block.										

Tab. 2 Mounting clearances

Sub-base MS4/6-AG.../-AQ...
Module connector MS4/6-MV(M)



Assembly of two service units of the same size with module connector MS4/6-MV(M)

- Note the direction of flow from 1 to 2. The figures on the product housing [2] serve as an orientation. (Special case: on the MS4/6-LRB, the same figure is on both sides of the housing).

1. Remove the cover cap MS4/6-END [1] (push upwards), if present.
2. First push both mounting screws into both holes of the front panel [4].
3. Place the seal [5] between the service units.
4. Place the front and rear panels [4] and [3] into the groove of the service units (cover nose on the front and rear panels point upwards).
Special case MS6-MVM: Depending on the direction of flow, turn the intermediate plate around according to the position of the sealing groove. (conversion, see following figure).

MS6-MVM: 1.0 Nm

MS6-MVM: 1.0 Nm

5. Screw the screws of the front panel [4] into the rear panel [3].

**MS4: 0.8 Nm
MS6-MV: 1.2 Nm**

In-line installation of a service unit combination

Preassembly:

- Remove the cover cap MS4/6-END [7] (push upwards), if present.
- Make sure that the sealing groove, which exists in only one of the two sub-bases, meets with the flat surface on the housing.
If assembled correctly, the figure on the sub-base will be the same as the figure on the housing [8] (special case: on the MS4/6-LRB, the same figure is on both sides of the housing).

**MS4: 0.8 Nm
MS6-MV: 1.2 Nm**

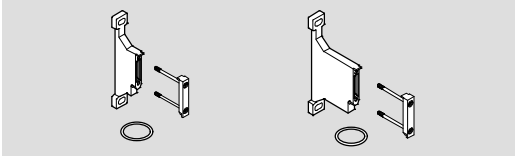
- Screw the sub-bases [6] onto both ends of the tubing using a suitable sealing material. If aligned correctly, the spanner flat [6] will then be horizontal (figure points downwards).
Width across flats: A/F24 for MS4 / A/F34 for MS6.
Counter holding the internal part of the thread prevents the two-part sub-base from being dismantled when it is tightened.

Final assembly:

1. First push both mounting screws into both holes of the front panel [10].
2. Push the service unit combination between the sub-bases.
If assembled correctly, there must be a seal in the groove on each side.
3. Place the front and rear panels [10] and [9] on both sides between the service unit combination and the sub-base (cover nose of the front and rear panels pointing upwards).
4. Screw the screws of the front panel [10] into the rear panel [9].

**MS4: 0.8 Nm
MS6: 1.2 Nm**

Mounting brackets MS4/6-WP/WPB



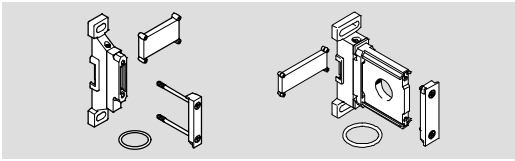
- Take into account the required mounting clearances depending on the number of combined service units (→ Table 2).

1. First push both mounting screws into both holes of the front panel [11].
2. Place the seal between the service units.
3. Place the wall bracket [12] on the rear between the service units.
4. Place the front panel [11] on the front of the service units (cover nose of the front panel and of the wall bracket pointing upwards).
5. Screw the mounting screws of the front panel [11] into the wall bracket [12] on the rear.

**MS4: 0.8 Nm
MS6: 1.2 Nm**

6. Repeat steps 1 to 5 for all necessary mounting brackets.
7. Mount the service unit combination onto the wall brackets [12] with two screws each.

Mounting brackets MS4/6-WPM



1. First mount all necessary wall brackets [14] with two screws each in the required positions.
The retaining screw [18] must point upwards.
The distance piece [15] simplifies maintaining the required mounting clearances (→ Table 2).
2. First push both mounting screws into both holes of the front panel [16].
3. Place the seal between the service units.
4. Place the rear panel [17] and the front panel [16] between the service units.
For size MS6, turn the intermediate plate [13] around depending on the direction of flow according to the position of the sealing groove. (conversion, see following figure).

1.0 Nm

**MS4: 0.8 Nm
MS6: 1.2 Nm**

5. Screw the mounting screws of the front panel [16] into the rear panel [17].
6. Repeat steps 2 to 5 for all necessary mounting brackets.
7. Loosen the retaining screws [18].
8. Place the service unit combination with the locking pins of the rear panels into the elongated holes of the wall brackets [14].
9. Tighten the retaining screws [18].

0.6 Nm

0.8 Nm

Size MS4

0.8 Nm

Size: MS6

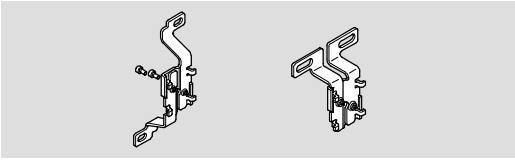
Mounting bracket MS4/6-WR



1. Mount the mounting bracket with two screws at the elongated holes [19].
2. Pull the rotary knob [20] upwards away from the pin-tail [22] (if necessary, remove the padlock and push in the unlocking device).
3. Push the regulator head [23] through the ring bore of the mounting bracket MS4/6-WR.
4. Tighten the retaining nut [21] (knurled nut or hex nut MS4/6-WRS; order separately if necessary).
5. Press the rotary knob [20] onto the pintail [22] until it audibly engages.

9 ± 1 Nm

Mounting brackets MS4/6-WB, MS4-WBM



1. Consider the following mounting variants:
 - Mounting bracket MS4/6-WB with elongated holes opposite each other [27]
 - Mounting bracket MS4-WBM with elongated holes on the top [26]
2. Remove the cover cap MS4/6-END [1] (push upwards), if present.
3. Remove the rear cover plate [24] (levering out the snap hooks with a screwdriver)

**MS4: 1.2 Nm
MS6: 1.5 Nm**

4. Mount the mounting bracket on the service unit as follows.

**MS4: 1.2 Nm
MS6: 1.5 Nm**

**MS4: 1.2 Nm
MS6: 1.5 Nm**

**MS4: 1.2 Nm
MS6: 1.5 Nm**