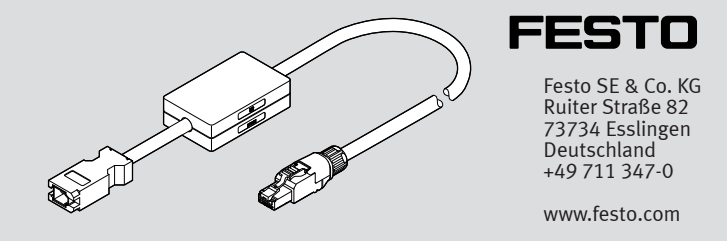


NEFM-REG6-K-...-B-R3G8  
Adapter



Assembly instructions

8164722  
2021-10b  
[8164724]



Translation of the original instructions

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1 Applicable documents

All available documents for the product → [www.festo.com/sp](http://www.festo.com/sp).

| Document       | Product             |
|----------------|---------------------|
| User documents | Servo motor EMMB-AS |
| User documents | Servo drive CMMT-AS |

Tab. 1

2 Safety

2.1 Safety instructions

- Only mount the product on components that are in a condition to be safely operated.

2.2 Intended use

The adapter connects a servo motor EMMB-AS (with multturn encoder) with a servo drive CMMT-AS.

2.3 Training of qualified personnel

Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. The qualified personnel are trained in electrical engineering.

3 Structure

3.1 Product design

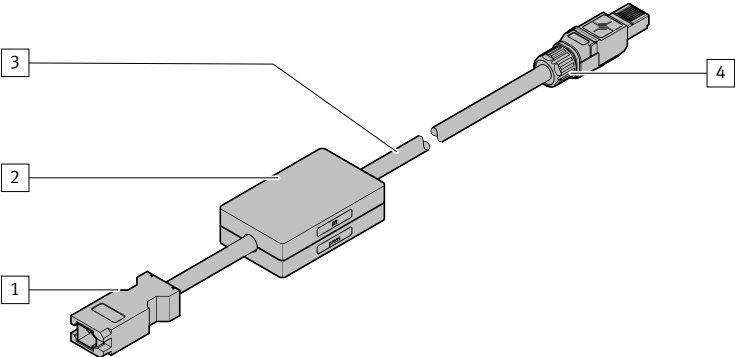


Fig.1

- 1 Socket
- 2 Battery housing
- 3 Cable
- 4 Plug RJ45

3.2 Recommended batteries; not in scope of delivery

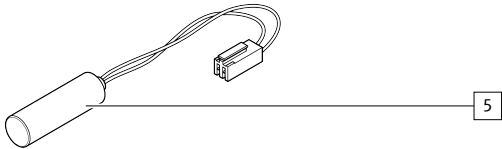


Fig.2

- 5 Battery with socket JAE IL-2S-S3L-(N)

| Battery 5                               | TOSHIBA ER6V | SAFT LS14500 | maxell ER6C |
|-----------------------------------------|--------------|--------------|-------------|
| Voltage [V]                             | 3.6          | 3.6          | 3.6         |
| Capacity [mAh]                          | 2000         | 2600         | 1800        |
| Maximum diameter [mm]                   | 14.6         | 15           | 14.5        |
| Maximum length (incl. connections) [mm] | 52           | 54.8         | 51          |
| Service life (approx.) [a]              | 2.2          | 3            | 2           |

Tab. 2: Specification of the battery

3.3 Contact assignment

| Electrical connection 1<br>Field device side |     |                       | Electrical connection 2<br>Controller side |     |                  |
|----------------------------------------------|-----|-----------------------|--------------------------------------------|-----|------------------|
| 1 Socket                                     | Pin | Allocation/<br>Signal | Allocation/<br>Signal                      | Pin | 4 Plug connector |
|                                              | 1   | +5V                   | Sense+                                     | 3   |                  |
|                                              | 2   | GND                   | VCC                                        | 7   |                  |
|                                              | 3   | BAT+                  | Sense-                                     | 6   |                  |
|                                              | 4   | BAT-                  | GND                                        | 8   |                  |
|                                              | 5   | SD                    | DATA                                       | 4   |                  |
|                                              | 6   | /SD                   | /DATA                                      | 5   |                  |
|                                              | -   | -                     | Not assigned                               | 1   |                  |
|                                              | -   | -                     | Not assigned                               | 2   |                  |

Tab. 3: Contact assignment

4 Assembly

4.1 Installation of the battery

The battery can be installed with the adapter plugged in.

- Shut off the controller release on the servo drive.

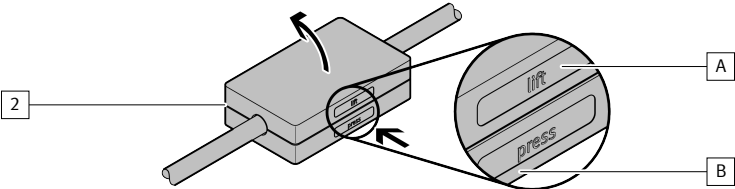


Fig. 3: Opening battery housing

- 1. Align the battery housing 2 so the labelling is legible.
- 2. Press in the centre of the bottom part [B] and lift the cover [A] at the same time.
- 3. Remove the top part [A].
- 4. Remove the bottom part [B].



Fig. 4: Checking contact assignment

- Check the contact assignment of the socket (X) of the battery 5 and correct if necessary.

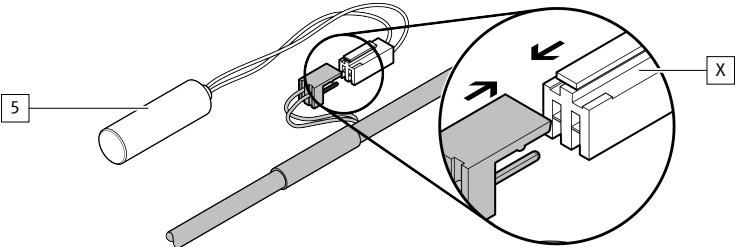


Fig. 5: Attaching push-in connector

- Wire the battery 5 with push-in connector.

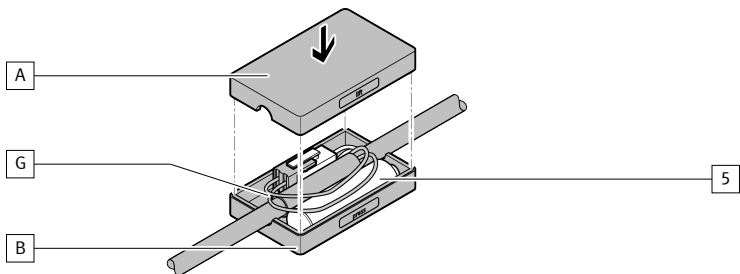


Fig. 6: Closing battery housing

1. Insert the battery [5] and push-in connector into the bottom part [B].
2. Position the top part [A] and engage it. Do not pinch wires [G].

4.2 Mounting electrical connection 1

1. Align the socket [1] to fit the plug.
2. Connect the socket [1] to the plug.  
 ↳ Plug audibly engages.

4.3 Mounting electrical connection 2

1. Align the plug [4] to match the socket.
2. Insert the plug [4] into the socket.  
 ↳ The plug audibly engages.

5 Replacement of the battery

The battery can also be replaced when the machine is switched on and the adapter is plugged in.  
 If possible, replace the battery within 10 seconds. If the replacement takes longer, the servo motor switches to the "Not referenced" status and the saved absolute position is deleted. Reference the axis again, if necessary.

i

The life of the battery depends on the frequency of use. The service life is reduced the more often the machine/system is switched off and the absolute position of the servo motor has to be maintained via the battery.  
 Replace the battery at the latest when the error message "Battery undervoltage" with ID 103828 appears on the servo drive. The battery voltage is then < 2.8 V.

- Shut off the controller release on the servo drive.

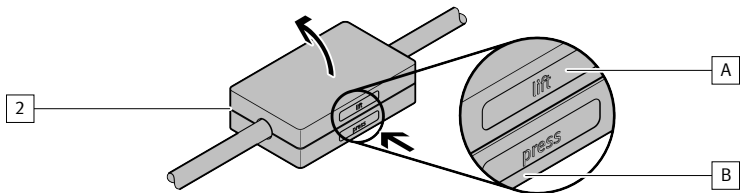


Fig. 7: Opening battery housing

1. Align the battery housing [2] so the labelling is legible.
2. Press in the centre of the bottom part [B] and lift the cover [A] at the same time.
3. Remove the top part [A].
4. Remove the bottom part [B].

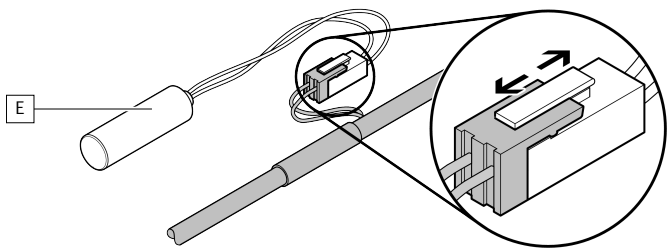


Fig. 8: Disconnecting push-in connector

1. Pull apart the push-in connector.
2. Dispose of battery [E] in an environmentally friendly manner.
3. Install the new battery [5] → 4.1 Installation of the battery.

6 Technical data

| NEFM-REG6-K-...-B-R3G8   |                |                       |                         |
|--------------------------|----------------|-----------------------|-------------------------|
| Cable characteristic     |                |                       | Standard                |
| Cable composition        | [mm²]          | 4x2x0.081 + 1x2x0.205 |                         |
| Shielding                |                |                       | Shielded                |
| Cable diameter           | D              | [mm]                  | 6.8                     |
| Current rating at 40 °C  | [A]            | 1.6                   |                         |
| Surge resistance         | [kV]           | 2                     |                         |
| Operating voltage range  |                |                       |                         |
| AC                       | U <sub>B</sub> | [V]                   | 0 ... 30                |
| DC                       | U <sub>B</sub> | [V]                   | 0 ... 30                |
| Bending radius           |                |                       |                         |
| Fixed cable installation | R              | [mm]                  | ≥ 68                    |
| Ambient temperature      |                |                       |                         |
| Fixed cable installation | [°C]           | -40 ... +80           |                         |
| Material                 |                |                       |                         |
| Cable sheath             |                |                       | PVC                     |
| Insulating sheath        |                |                       | PVC [SR-PVC]            |
| Electrical connection 1  |                |                       |                         |
| Function                 |                |                       | Field device side       |
| Connection type          |                |                       | Socket                  |
| Connection technology    |                |                       | Plug pattern RE         |
| Degree of protection     |                |                       | IP20 In assembled state |
| Electrical connection 2  |                |                       |                         |
| Function                 |                |                       | Controller side         |
| Connection type          |                |                       | Plug connector          |
| Connection technology    |                |                       | RJ45                    |
| Degree of protection     |                |                       | IP20 In assembled state |

Tab. 4: Technical data