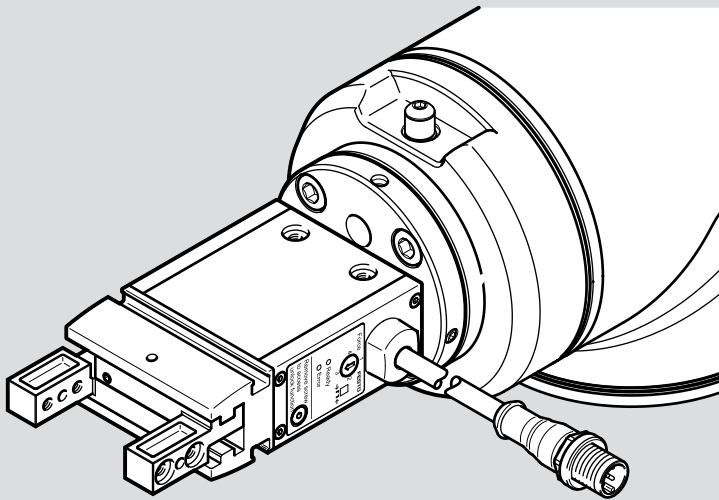


EHPS-...-A-RA50

Parallel gripper kit for robots

FESTO

Operating instruction



8217809

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2024-12

[8217811]

Original instructions

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1 About this document

1.1 Applicable documents



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

Documents	Product	Contents
Operating instruction	Parallel gripper EHPS	–
Operating instruction	Positions transmitter SMAT-8M	–
Assembly instructions	Connecting cable NEBA-M8...4-...-LE4	–
Assembly instructions	Connecting cable NEBA-M12...5-...-LE4	–

Tab. 1: Applicable documents

1.2 Product labelling

Warning symbols on the product	
	If the housing is damaged, protection against dangerous voltages is no longer guaranteed.

Tab. 2: Warning symbols on the product

2 Safety

2.1 Safety instructions

- Only use the product in its original condition without unauthorised modifications.
- Observe the identifications on the product.
- Before working on the product: Switch off the power supply, ensure that it is off and secure it against being switched on again.
- Before working on the product, switch off the compressed air supply and lock it to prevent it from being switched on again.
- The occurrence of a failure could lead to unforeseeable movements if the product is connected with the power supply. Do not operate the product unless protective measures have been implemented to prevent mechanical hazards to body parts.
- The product may generate high frequency interference, which may require interference suppression measures in residential areas.
- Store the product in a cool, dry environment protected from UV and corrosion. Keep storage times short.

2.2 Intended use

The parallel gripper kit for robots is mounted on a robot to perform payload handling tasks.

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 have skills and experience in dealing with electrical (open-loop) control technology.

3 Additional information

- Contact the regional Festo contact if you have technical problems
➔ www.festo.com.
- Accessories and spare parts ➔ www.festo.com/catalogue.

4 Product overview

4.1 Product design

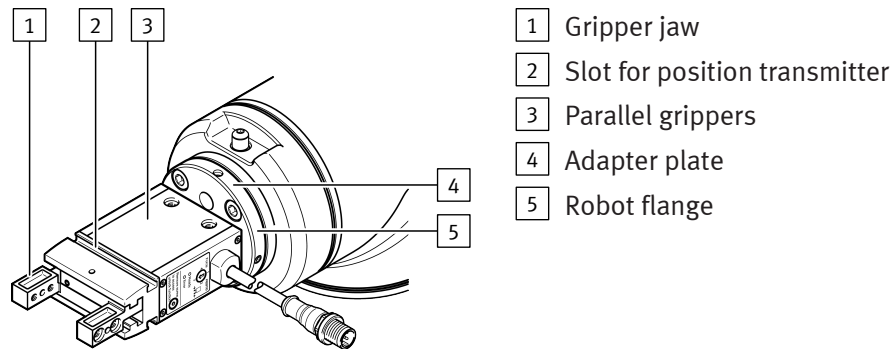


Fig. 1: Product design

4.2 Function

The gripper has an integrated servo motor. The gripper mechanism converts the rotary motion of the servo motor into a linear motion of the gripper jaws. The gripper jaws move towards each other when closing or away from each other when opening. Gripper fingers are attached to the gripper jaws. The payload can be gripped in 2 ways:

- On the outer contour when closing.
- On the inner contour when opening.

5 Mounting

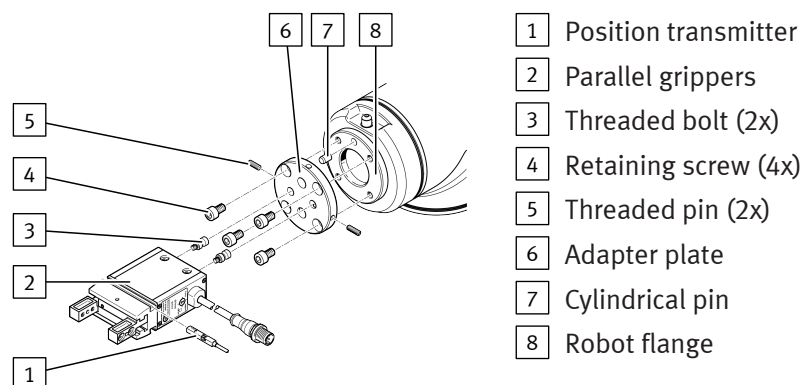


Fig. 2: Mounting



Gripper fingers

The gripper fingers are not in the scope of delivery Specification of gripper fingers ➔ 1.1 Applicable documents.

1. Position the cylindrical pin on the adapter plate and press it into the stop.
2. Screw the threaded pins loosely into the threaded holes of the adapter plate.
3. Position the adapter plate on the robot flange and press it on.
4. Screw in and tighten the socket head screws. Tightening torque: 8 Nm \pm 20%.

5. Screw in and tighten the threaded bolts into the parallel gripper.

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Tightening torque [Nm]	3 ± 20 %		10 ± 20 %

6. Insert the parallel grippers with the mounted threaded bolts into the adapter plate.
7. Tighten the threaded pins. Tightening torque: 3 Nm ± 20%.

6 Installation, electrical

⚠ WARNING

Risk of Injury due to electric shock.

- For the electric power supply, use SELV or PELV circuits that guarantee a reinforced isolation from the mains network.

⚠ WARNING

Risk of injury due to electric shock or burns.

The gripper does not offer any additional protection against unintended high currents in the supply cables.

- The cross section of the supply cables should be designed to meet the maximum current value that could occur in the event of a failure.

⚠ WARNING

Danger of crushing.

The gripper fingers could move unintentionally and crush body parts.

- Do not reach into the movement range.

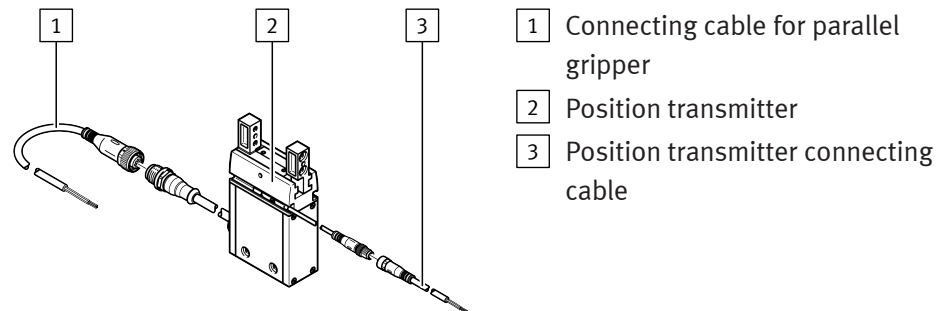


Fig. 3: Installation, electrical

1. Insert the position transmitter into the slot and fasten it
→ 1.1 Applicable documents.
2. Connect the parallel gripper with the supplied connecting cable NEBA-M12...5-...-LE4 → 1.1 Applicable documents.
3. Connect the position transmitter to the supplied connecting cable NEBA-M8...4-...-LE4 → 1.1 Applicable documents.

Installing connecting cables

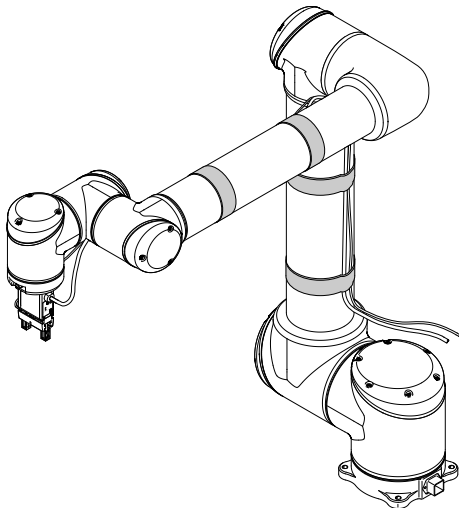


Fig. 4: Installing connecting cables

- i

The connecting cables must be fastened to the outside of the robot arm with the supplied Velcro strips to prevent the internal cables of the robot from overload.
- i

Observe the prescribed bending radii of the connecting cables
➔ 1.1 Applicable documents.
- i

The freedom of movement of the robot must not be restricted by the connecting cables.

1.

Cut the enclosed Velcro straps to length.
2.

Lay connecting cables along the robot arm.
3.

Fasten the connecting cables with Velcro straps.

Attaching connecting cables

1.

Lay out the connecting cables without crushing, kinking or stretching them.
2.

Connect the parallel gripper connecting cable ➔ 1.1 Applicable documents.
3.

Connect the position transmitter connecting cable
➔ 1.1 Applicable documents.

7 Cleaning

- Clean the product with a clean, soft cloth and non-abrasive cleaning agents.
For use with reduced particle emission:
– Remove abraded particles and soil from the product:
– Prior to initial commissioning
– Regularly during operation

8 Technical data

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Certificates, declaration of conformity	➔ www.festo.com/sp		
Product weight (moving mass) [g]	400	630	1000

Tab. 3: Technical data

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