



# Assembly and Operating Manual

## EGH

Flexible gripper for cobot

Translation of Original Operating  
Manual

Hand in hand for tomorrow

## Imprint

### Copyright:

This manual is protected by copyright. The author is SCHUNK SE & Co. KG.  
All rights reserved.

### Technical changes:

We reserve the right to make alterations for the purpose of technical improvement.

**Document number:** 1408785

**Version:** 08.00 | 08/10/2024 | en

Dear Customer,

Thank you for trusting our products and our family-owned company, the leading technology supplier of robots and production machines.

Our team is always available to answer any questions on this product and other solutions. Ask us questions and challenge us. We will find a solution!

Best regards,

Your SCHUNK team

Customer Management

Tel. +49-7133-103-2503

Fax +49-7133-103-2189

cmg@de.schunk.com



**Please read the operating manual in full and keep it close to the product.**

# Table of Contents

<b>1 General</b> .....	<b>5</b>
1.1 About this manual.....	5
1.1.1 Presentation of Warning Labels .....	5
1.1.2 Definition of Terms .....	6
1.1.3 Symbol definition.....	6
1.1.4 Applicable documents .....	6
1.1.5 Sizes.....	6
1.1.6 Variants .....	6
1.2 Warranty .....	7
1.3 Scope of delivery.....	7
<b>2 Basic safety notes</b> .....	<b>8</b>
2.1 Intended use.....	8
2.2 Constructional changes.....	8
2.3 Spare parts .....	8
2.4 Gripper fingers .....	8
2.5 Ambient conditions and operating conditions .....	9
2.6 Personnel qualification .....	9
2.7 Personal protective equipment .....	10
2.8 Notes on safe operation.....	10
2.9 Transport.....	11
2.10 Malfunctions .....	11
2.11 Disposal .....	11
2.12 Fundamental dangers .....	11
2.12.1 Protection during handling and assembly .....	12
2.12.2 Protection during commissioning and operation .....	12
2.12.3 Protection against dangerous movements .....	12
2.12.4 Protection against electric shock.....	13
2.13 Notes on particular risks .....	15
<b>3 Technical data</b> .....	<b>17</b>
3.1 Name plate .....	17
3.2 Connection data .....	17
3.3 Ambient conditions and operating conditions .....	18
<b>4 Design and description</b> .....	<b>19</b>
4.1 Design .....	19
4.2 Description .....	19
4.3 Display.....	19
<b>5 Assembly and settings</b> .....	<b>21</b>

5.1	Installing and connecting .....	21
5.2	Connections .....	22
5.2.1	Mechanical connection .....	22
5.2.2	Electrical connection .....	26
<b>6</b>	<b>Troubleshooting.....</b>	<b>31</b>
6.1	Product does not move.....	31
6.2	Product does not execute a complete stroke.....	31
6.3	Product opens or closes jerkily .....	31
6.4	Opening and closing times are not achieved .....	31
6.5	Electrical signals are not transmitted .....	31
6.6	Faults that are displayed via the LED "STATUS" .....	31
6.7	Acknowledge error .....	32
<b>7</b>	<b>Maintenance .....</b>	<b>33</b>
<b>8</b>	<b>EU-Declaration of Conformity .....</b>	<b>34</b>
<b>9</b>	<b>Translation of the original declaration of incorporation .....</b>	<b>35</b>
<b>10</b>	<b>UKCA declaration of Conformity .....</b>	<b>36</b>
<b>11</b>	<b>UKCA declaration of incorporation .....</b>	<b>37</b>
<b>12</b>	<b>Information on the RoHS Directive, REACH Regulation and Substances of Very High Concern (SVHC) .....</b>	<b>38</b>

# 1 General

## 1.1 About this manual

This manual contains important information for a safe and appropriate use of the product.

This manual is an integral part of the product and must be kept accessible for the personnel at all times.

Before starting work, the personnel must have read and understood this operating manual. Prerequisite for safe working is the observance of all safety instructions in this manual.

In addition to these instructions, the documents listed under ▶ 1.1.4 [ 6 ] are applicable.

**NOTE:** The illustrations in this manual are intended to provide a basic understanding and may deviate from the actual version.

### 1.1.1 Presentation of Warning Labels

To make risks clear, the following signal words and symbols are used for safety notes.



#### **⚠ DANGER**

**Dangers for persons!**

Non-observance will inevitably cause irreversible injury or death.



#### **⚠ WARNING**

**Dangers for persons!**

Non-observance can lead to irreversible injury and even death.



#### **⚠ CAUTION**

**Dangers for persons!**

Non-observance can cause minor injuries.

#### **CAUTION**

**Material damage!**

Information about avoiding material damage.

### 1.1.2 Definition of Terms

The term "product" replaces the product name on the title page in this manual.

### 1.1.3 Symbol definition

The following symbols are used in this manual:

■ Prerequisite for an action

1. Action 1

2. Action 2

⇒ Intermediate results

⇒ Final results

▶ 1.1.3 [📄 6]: chapter number and [page number] in hyperlinks

### 1.1.4 Applicable documents

- General terms of business \*
- Catalog data sheet of the purchased product \*
- Software guide "SCHUNK gripper with IO-Link" \*
- Variant UREK: Software handbook "SCHUNK Software module for URCap" \*
- Variant FCRXEK: Software handbook "SCHUNK Software module for FANUC CRX " \*
- Assembly and operating manuals of the accessories \*
- Assembly and Operating Manual of IO-Link-Master "FEN20-4IOL" \*\*

The documents labeled with an asterisk (\*) can be downloaded from [schunk.com/downloads](https://schunk.com/downloads).

The documents labeled with two asterisks (\*\*) can be downloaded from [turck.com](https://turck.com).

### 1.1.5 Sizes

This operating manual applies to the following sizes:

- EGH 80

### 1.1.6 Variants

This operating manual applies to the following variations:

- EGH 80-IOL-N-B
- EGH 80-IOL-N-UREK Starter
- EGH 80-IOL-N-FCRXEK Starter

## 1.2 Warranty

If the product is used as intended, the warranty is valid for 12 months from the ex-works delivery date under the following conditions:

- Observe the ambient conditions and operating conditions

Parts touching the workpiece and wear parts are not included in the warranty.

## 1.3 Scope of delivery

The scope of delivery includes

- Flexible gripper for cobot EGH in the ordered model
- Safety information (product-specific instructions available online)
- Accessory kit with ISO flange and tool

The starter package also includes:

- Attachment finger in rigid and flexible design
- IO-Link master incl. accessories

## 2 Basic safety notes

### 2.1 Intended use

The product is designed exclusively for gripping and temporarily holding workpieces or objects.

- The product may only be used within the scope of its technical data, ▶ 3 [17].
- The product is intended for installation in a machine/ automated system. The applicable guidelines for the machine/ automated system must be observed and complied with.
- The product is intended for industrial and industry-oriented use. Its use outside enclosed spaces is only permitted if suitable protective measures are taken against outdoor exposure. The product is not suitable for use in salty air.
- The product can be used within the permissible load limits and technical data for holding workpieces during simple machining operations, but is not a clamping device according to EN 1550:1997+A1:2008.
- Appropriate use of the product includes compliance with all instructions in this manual.
- Any utilization that exceeds or differs from the appropriate use is regarded as misuse.

### 2.2 Constructional changes

#### Implementation of structural changes

Modifications, changes or reworking, e.g. additional threads, holes, or safety devices, can damage the product or impair its functionality or safety.

- Structural changes should only be made with the written approval of SCHUNK.

### 2.3 Spare parts

#### Use of unauthorized spare parts

Using unauthorized spare parts can endanger personnel and damage the product or cause it to malfunction.

- Use only original spare parts or spares authorized by SCHUNK.

### 2.4 Gripper fingers

#### Requirements of gripper fingers

Accumulated energy can make the product unsafe and risk the danger of serious injuries and considerable material damage.

- Execute the gripper fingers in such a way that the product reaches either the "open" or "closed" position in a de-energized state.
- Only change gripper fingers if no residual energy can be released.
- Make sure that the product and the top jaws are a sufficient size for the application.

## 2.5 Ambient conditions and operating conditions

### Required ambient conditions and operating conditions

Incorrect ambient and operating conditions can make the product unsafe, leading to the risk of serious injuries, considerable material damage and/or a significant reduction to the product's life span.

- Make sure that the product is used only in the context of its defined application parameters, ▶ 3 [📄 17].

## 2.6 Personnel qualification

### Inadequate qualifications of the personnel

If the personnel working with the product is not sufficiently qualified, the result may be serious injuries and significant property damage.

- All work may only be performed by qualified personnel.
- Before working with the product, the personnel must have read and understood the complete assembly and operating manual.
- Observe the national safety regulations and rules and general safety instructions.

The following personal qualifications are necessary for the various activities related to the product:

#### Trained electrician

Due to their technical training, knowledge and experience, trained electricians are able to work on electrical systems, recognize and avoid possible dangers and know the relevant standards and regulations.

#### Qualified personnel

Due to its technical training, knowledge and experience, qualified personnel is able to perform the delegated tasks, recognize and avoid possible dangers and knows the relevant standards and regulations.

#### Instructed person

Instructed persons were instructed by the operator about the delegated tasks and possible dangers due to improper behaviour.

**Service personnel of the manufacturer** Due to its technical training, knowledge and experience, service personnel of the manufacturer is able to perform the delegated tasks and to recognize and avoid possible dangers.

## 2.7 Personal protective equipment

### Use of personal protective equipment

Personal protective equipment serves to protect staff against danger which may interfere with their health or safety at work.

- When working on and with the product, observe the occupational health and safety regulations and wear the required personal protective equipment.
- Observe the valid safety and accident prevention regulations.
- Wear protective gloves to guard against sharp edges and corners or rough surfaces.
- Wear heat-resistant protective gloves when handling hot surfaces.
- Wear protective gloves and safety goggles when handling hazardous substances.
- Wear close-fitting protective clothing and also wear long hair in a hairnet when dealing with moving components.

## 2.8 Notes on safe operation

### Incorrect handling of the personnel

Incorrect handling and assembly may impair the product's safety and cause serious injuries and considerable material damage.

- Avoid any manner of working that may interfere with the function and operational safety of the product.
- Use the product as intended.
- Observe the safety notes and assembly instructions.
- Do not expose the product to any corrosive media. This does not apply to products that are designed for special environments.
- Eliminate any malfunction immediately.
- Observe the care and maintenance instructions.
- Observe the current safety, accident prevention and environmental protection regulations regarding the product's application field.

## 2.9 Transport

### Handling during transport

Incorrect handling during transport may impair the product's safety and cause serious injuries and considerable material damage.

- When handling heavy weights, use lifting equipment to lift the product and transport it by appropriate means.
- Secure the product against falling during transportation and handling.
- Stand clear of suspended loads.

## 2.10 Malfunctions

### Behavior in case of malfunctions

- Immediately remove the product from operation and report the malfunction to the responsible departments/persons.
- Order appropriately trained personnel to rectify the malfunction.
- Do not recommission the product until the malfunction has been rectified.
- Test the product after a malfunction to establish whether it still functions properly and no increased risks have arisen.

## 2.11 Disposal

### Handling of disposal

The incorrect handling of disposal may impair the product's safety and cause serious injuries as well as considerable material and environmental harm.

- Follow local regulations on dispatching product components for recycling or proper disposal.

## 2.12 Fundamental dangers

### General

- Observe safety distances.
- Never deactivate safety devices.
- Before commissioning the product, take appropriate protective measures to secure the danger zone.
- Disconnect power sources before installation, modification, maintenance, or calibration. Ensure that no residual energy remains in the system.
- If the energy supply is connected, do not move any parts by hand.

- Do not reach into the open mechanism or movement area of the product during operation.

### **2.12.1 Protection during handling and assembly**

#### **Incorrect handling and assembly**

Incorrect handling and assembly may impair the product's safety and cause serious injuries and considerable material damage.

- Have all work carried out by appropriately qualified personnel.
- For all work, secure the product against accidental operation.
- Observe the relevant accident prevention rules.
- Use suitable assembly and transport equipment and take precautions to prevent jamming and crushing.

#### **Incorrect lifting of loads**

Falling loads may cause serious injuries and even death.

- Stand clear of suspended loads and do not step into their swiveling range.
- Never move loads without supervision.
- Do not leave suspended loads unattended.

### **2.12.2 Protection during commissioning and operation**

#### **Falling or violently ejected components**

Falling and violently ejected components can cause serious injuries and even death.

- Take appropriate protective measures to secure the danger zone.
- Never step into the danger zone during operation.

### **2.12.3 Protection against dangerous movements**

#### **Unexpected movements**

Residual energy in the system may cause serious injuries while working with the product.

- Switch off the energy supply, ensure that no residual energy remains and secure against inadvertent reactivation.
- The faulty actuation of connected drives may cause dangerous movements.
- Operating mistakes, faulty parameterization during commissioning or software errors may trigger dangerous movements.
- Never rely solely on the response of the monitoring function to avert danger. Until the installed monitors become effective, it must be assumed that the drive movement is faulty, with its

action being dependent on the control unit and the current operating condition of the drive. Perform maintenance work, modifications, and attachments outside the danger zone defined by the movement range.

- To avoid accidents and/or material damage, human access to the movement range of the machine must be restricted. Limit/prevent accidental access for people in this area due through technical safety measures. The protective cover and protective fence must be rigid enough to withstand the maximum possible movement energy. EMERGENCY STOP switches must be easily and quickly accessible. Before starting up the machine or automated system, check that the EMERGENCY STOP system is working. Prevent operation of the machine if this protective equipment does not function correctly.

#### 2.12.4 Protection against electric shock

##### Work on electrical equipment

Touching live parts may result in death.

- Work on the electrical equipment may only be carried out by qualified electricians in accordance with the electrical engineering regulations.
- Lay electrical cables properly, e. g. in a cable duct or a cable bridge. Observe standards.
- Before connecting or disconnecting electrical cables, switch off the power supply and check that the cables are free of voltage. Secure the power supply against being switched on again.
- Before switching on the product, check that the protective earth conductor is correctly attached to all electrical components according to the wiring diagram.
- Check whether covers and protective devices are fitted to prevent contact with live components.
- Do not touch the product's terminals when the power supply is switched on.

##### Possible electrostatic energy

Components or assembly groups may become electrostatically charged. When the electrostatic charge is touched, the discharge may trigger a shock reaction leading to injuries.

- The operator must ensure that all components and assembly groups are included in the local potential equalisation in accordance with the applicable regulations.

- While paying attention to the actual conditions of the working environment, the potential equalisation must be implemented by a specialist electrician according to the applicable regulations.
- The effectiveness of the potential equalisation must be verified by executing regular safety measurements.

## 2.13 Notes on particular risks



### **⚠ DANGER**

#### **Risk of fatal injury from suspended loads!**

Falling loads can cause serious injuries and even death.

- Stand clear of suspended loads and do not step within their swiveling range.
- Never move loads without supervision.
- Do not leave suspended loads unattended.
- Wear suitable protective equipment.



### **⚠ WARNING**

#### **Risk of injury from objects falling and being ejected!**

Falling and ejected objects during operation can lead to serious injury or death.

- Take appropriate protective measures to secure the danger zone.



### **⚠ WARNING**

#### **Risk of injury due to unexpected movements!**

If the power supply is switched on or residual energy remains in the system, components can move unexpectedly and cause serious injuries.

- Before starting any work on the product: Switch off the power supply and secure against restarting.
- Make sure, that no residual energy remains in the system.



### **⚠ WARNING**

#### **Risk of injury from crushing and impacts!**

Serious injury could occur during movement of the base jaw, due to breakage or loosening of the gripper fingers or if the workpiece is lost.

- Wear suitable protective equipment.
- Do not reach into the open mechanism or the movement area of the product.



**⚠ WARNING**

**Risk of injury from objects falling in the event of an energy supply failure**

In case of an energy supply failure, the gripping force decreases and a secure hold on the gripped workpiece cannot be guaranteed.

- Take suitable protective measures to secure the danger zone.



**⚠ WARNING**

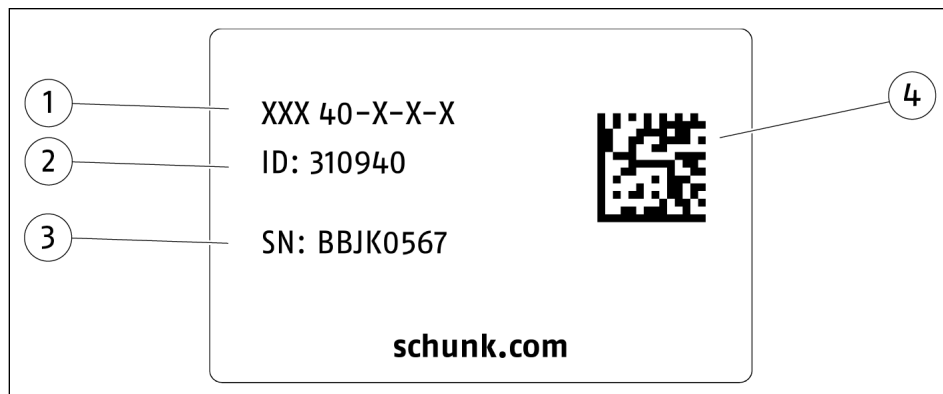
**Risk of burns through contact with hot surfaces!**

Surfaces of components can heat up severely during operation. Skin contact with hot surfaces causes severe burns to the skin.

- For all work in the vicinity of hot surfaces, wear safety gloves.
- Before carrying out any work, make sure that all surfaces have cooled down to the ambient temperature.

### 3 Technical data

#### 3.1 Name plate



1 Product designation

2 ID

3 Serial number

4 Data matrix code

Scan code or enter serial number on the web and get all the product information: operating manuals, spare parts packages, software updates and much more.

For further information, visit [schunk.com/serialisierung](https://www.schunk.com/serialisierung)

A separate app may be required for scanning with a mobile phone.

#### 3.2 Connection data

Designation	EGH
Supply voltage [VDC]	24
Min. [VDC]	21.6
Max. [VDC]	26.4
Min. Supply current power supply unit [A] *	1.0
Max. Current input [A]**	0.5
Gripping force [%]	100
Current input in blocked state [A] ***	0.2
<b>Integrated electronic control unit</b>	
Communication interface	IO-Link
Number of digital inputs/ outputs	2 / -
Specification:	V1.1
Transmission rate	COM2

Designation	EGH
Port	Class B

\* minimum supply current for reliable operation of product

\*\* maximum current input in the acceleration phase (max. t = 50 ms)

\*\*\* Current input in blocked state (in gripper end position or while gripping a workpiece) with active command "Open Gripper" or "Close Gripper"

More technical data is included in the catalog data sheet.

Whichever is the latest version.

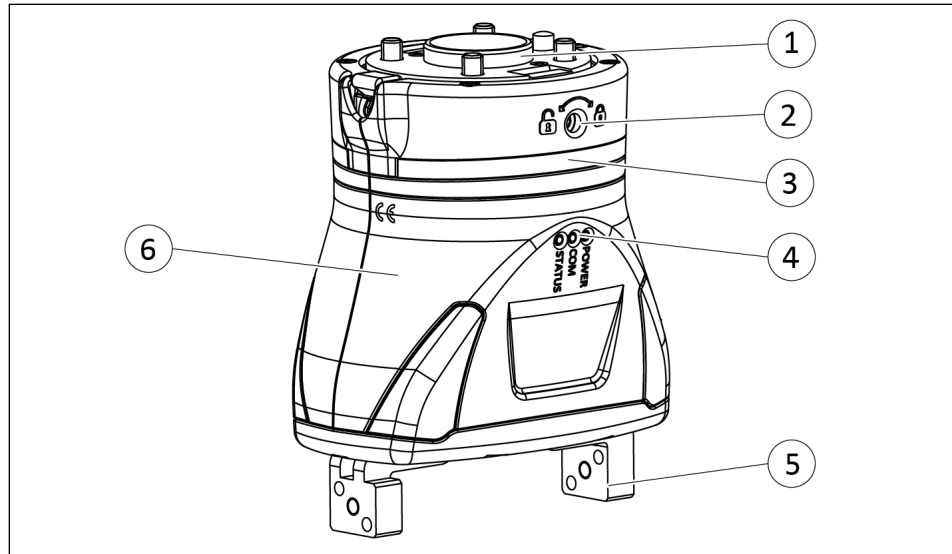
### 3.3 Ambient conditions and operating conditions

Designation	EGH
IP protection class (mechanical) *	20
IP protection class (electrical) *	20
Ambient temperature [°C]	
Min.	5
Max.	55

\* The product is not suitable for use in dirty environments (e.g. splash water, vapours, abrasion or process dusts). For special applications in dirty environments, SCHUNK is also happy to provide customized solutions.

## 4 Design and description

### 4.1 Design



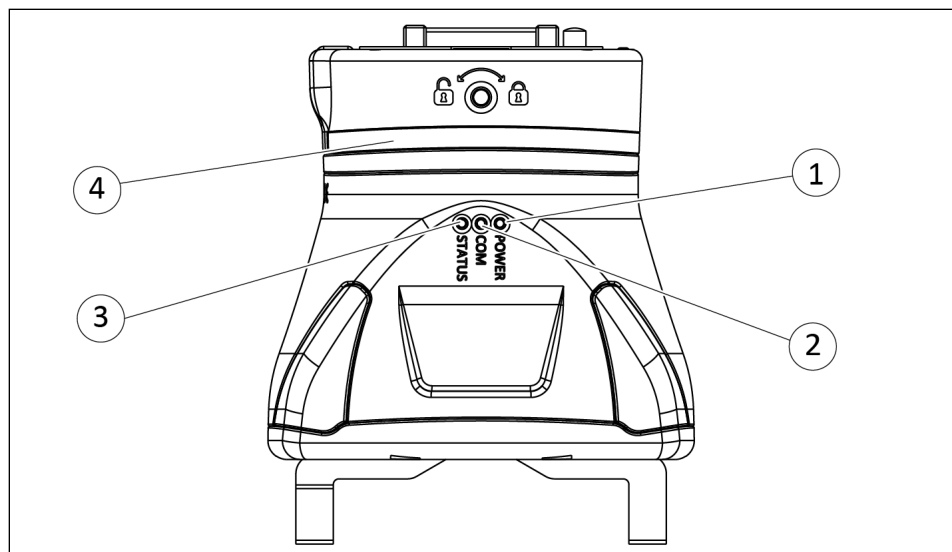
Structure EGH

1	ISO flange for connection to the robot
2	Opening/closing the ISO flange
3	LED light strip
4	LED "POWER", "COM" and "STATUS"
5	Base jaw
6	Housing

### 4.2 Description

Electrical 2-finger parallel gripper with large stroke for direct use with lightweight robots.

### 4.3 Display



LED

1	LED "POWER"	Status display of the product
2	LED "COM"	
3	LED "STATUS"	
4	LED light strip	freely-configurable, application-specific display

Designation	Color	Function
POWER	Green	<ul style="list-style-type: none"> <li>• <b>Lights up</b> if ready for operation</li> <li>• <b>Does not light up</b> if logic or actuator voltage is reversed or not in the valid range.</li> </ul>
COM	Green	<ul style="list-style-type: none"> <li>• <b>Does not light up</b> if IO-Link communication is not active</li> <li>• <b>Flashes</b> if IO-Link communication is active</li> </ul>
STATUS	Green / Red	<ul style="list-style-type: none"> <li>• <b>Does not light up</b> if electronics are not active or defective</li> <li>• <b>Lights up green</b> if ready for operation</li> <li>• <b>Lights up red</b> in case of a fault. Error message is communicated via IO-Link</li> </ul>

## 5 Assembly and settings

### 5.1 Installing and connecting



#### **⚠ WARNING**

##### **Risk of injury due to unexpected movements!**

If the power supply is switched on or residual energy remains in the system, components can move unexpectedly and cause serious injuries.

- Before starting any work on the product: Switch off the power supply and secure against restarting.
- Make sure, that no residual energy remains in the system.

---

#### **NOTE**

Ensure sufficient heat dissipation using the customer's mounting surface.

Mount the product so that sufficient cooling is guaranteed. The size of the cooling surface depends on the application. Avoid exposure to additional heat e.g. caused by attachments or by the attached axle.

A temperature malfunction may occur if the product reaches excessively high temperatures.

- 
1. Check the evenness of the mounting surface, ▶ 5.2.1 [ 22].
  2. Attach the product to the robot, ▶ 5.2.1 [ 22].
    - ⇒ Observe the tightening torque for the mounting screws.
  3. Secure the gripper fingers to the base jaws, ▶ 5.2.1.1 [ 24].
  4. Guide the cable along the robot and fasten it with the supplied Velcro straps, ▶ 5.2.2 [ 26].
  5. Connect cable for power supply and actuation, ▶ 5.2.2 [ 26]

---

#### **NOTE**

The gripping force is set to 100% in the factory and cannot be changed.

---

## 5.2 Connections

### 5.2.1 Mechanical connection

#### Evenness of the mounting surface

The values apply to the whole mounting surface to which the product is mounted.

Edge length	Permissible unevenness
< 100	< 0.02
> 100	< 0.05

Tab.: Requirements for evenness of the mounting surface (Dimensions in mm)

#### Connections at the product

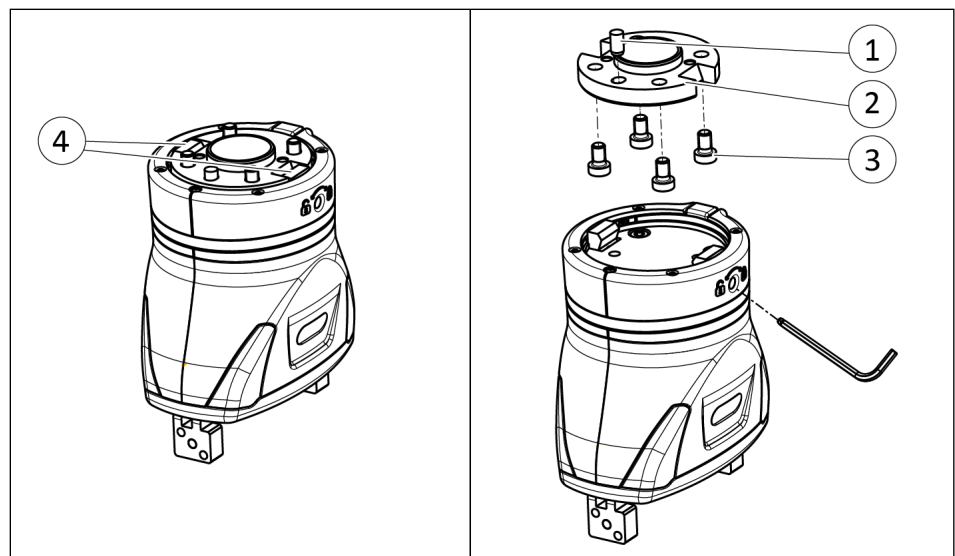
### CAUTION

#### Material damage due to incorrect disassembly!

If the screw is unscrewed too far at the fastening jaws during disassembly, the gripper housing may be damaged.

- Open fastening jaws with max. 2 turns.

The product has an ISO flange that enables it to be fastened to the robot.



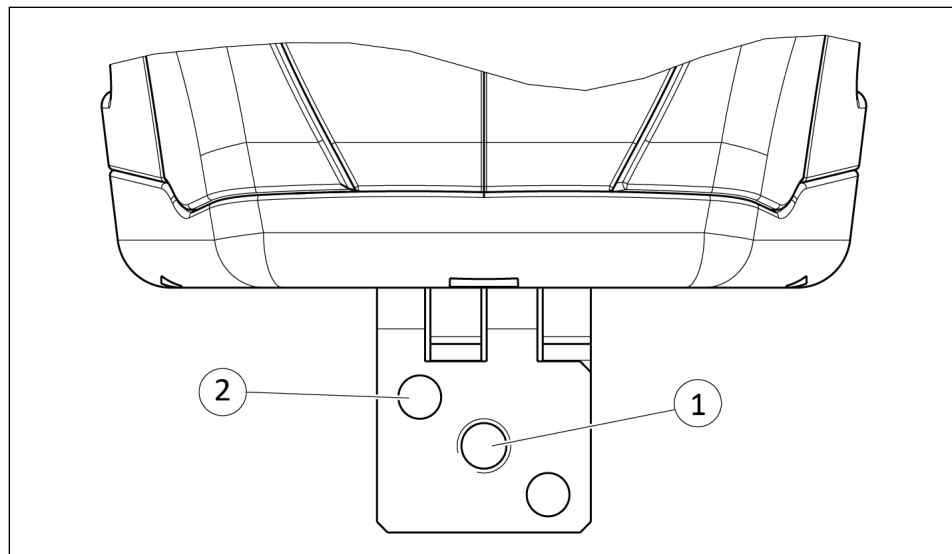
Installation of the product on the robot with ISO flange

Item	Mounting	EGH 80
1	Centering pin	6m6 x 12
2	ISO-Flange	ISO 50
3	Mounting screw	M6 x 10
	Tightening torque [Nm]	10
4	Mounting jaws	
	Tightening torque [Nm]	2

1. Insert centering pin (1) in ISO adapter plate (2).
2. Place ISO adapter plate (2) on robot.

3. Fasten ISO adapter plate (2) to robot using screws (3) and hexagon socket wrench (A/F 5, light green).  
⇒ Observe the tightening torque for the mounting screws.
4. Attach product to ISO adapter plate.
5. Insert the hexagon socket wrench (A/F 4, green) in the opening for closing and opening the mounting jaws (4).
6. Turn the hexagon socket wrench anti-clockwise to fasten the gripper to the robot.  
⇒ Observe the tightening torque.

### Connections at the base jaws



Assembly of gripper fingers

Item	Designation	EGH 80
1	Thread in base jaws	M5
	Max. depth of engagement from locating surface [mm]	10
	Max. tightening torque of the mounting screws [Nm]	6
2	Bore holes for cylindrical pin [mm]	Ø 4

Tab.: Depth of engagement and tightening torque

Further information on installation, ▶ 5.2.1.1 [ 24].

### NOTE

The IO-Link master can be mounted with the included accessories. Further information can be found in the manufacturer's installation and operating manual, ▶ 1.1.4 [ 6].

### 5.2.1.1 Install gripper fingers

#### CAUTION

##### Possible damage of the guide!

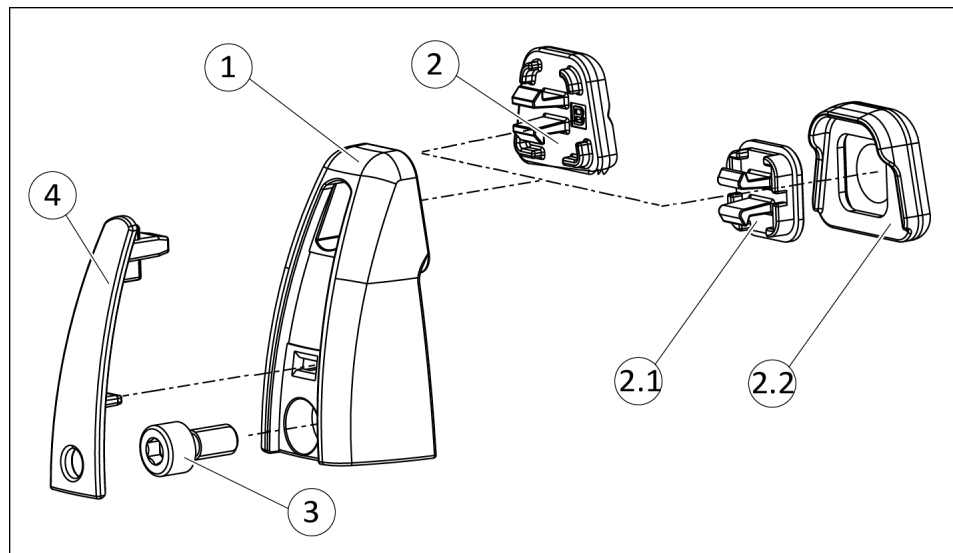
If the tightening torque is too high, the guide can be damaged when mounting the gripper fingers.

- When tightening the fixing screw, hold the gripper fingers against it.

#### NOTE

The gripper fingers are already included in the starter package. If required, gripper fingers are available as accessories from SCHUNK, see the catalog data sheet for further information.

#### Variant: Rigid gripper finger

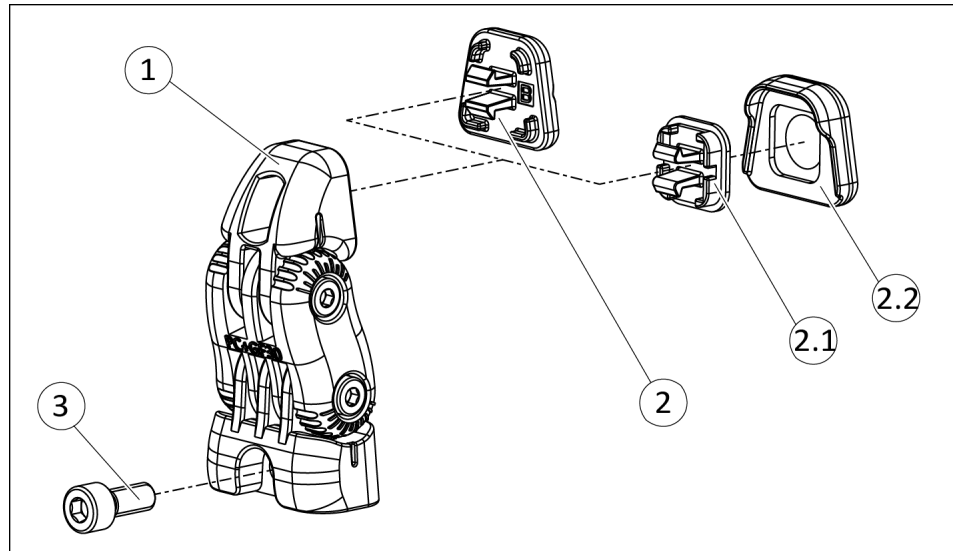


1. Fasten the gripper finger (1) to the base jaw using a hexagon socket wrench (A/F 3, light blue) and a screw (3).
  - ⇒ Observe the permissible depth of engagement.
  - ⇒ Observe the tightening torque for the mounting screws.
  - ⇒ Information on the tightening torque and depth of engagement, ▶ 5.2.1 [ 23].
2. Clip the inlay (2) to the gripper finger (1).  
OR: clip inlay (2.1) to the gripper finger (1) and attach silicone cover (2.2).
3. Clip the cover (4) to the gripper finger (1).

### Variant: flexible gripper finger

#### NOTE

The flexible gripper finger is only suitable for test purposes. Do not use in continuous operation.



1. Loosen both adjusting screws with hexagon socket wrench (A/F 3, light blue) and move gripper finger (1) once completely.
2. Tighten the adjusting screws.
3. Fasten the gripper finger (1) to the base jaw using a hexagon socket wrench (A/F 3, light blue) and a screw (3).
  - ⇒ Observe the permissible depth of engagement.
  - ⇒ Observe the tightening torque for the mounting screws.
  - ⇒ Information on the tightening torque and depth of engagement, ► 5.2.1 [ 23].
4. Clip the inlay (2) to the gripper finger (1).  
OR: clip inlay (2.1) to the gripper finger (1) and attach silicone cover (2.2).
5. Using a hexagon socket wrench (A/F 3, light blue) turn the two adjusting screws to adapt the gripper finger (1) to the workpiece.  
Tightening torque: 1 Nm.

## 5.2.2 Electrical connection

### CAUTION

#### Risk of damage to the electronics!

A faulty connection can cause damage to the internal electronics.

- The supply network must be a network of type "PELV" for power and logic.
- Observe the PIN assignment of the connecting terminals.
- Make sure that all components are grounded correctly.

### CAUTION

#### Damage to cables possible!

Fastening the cables to the robot incorrectly using the enclosed Velcro strips can cause damage to the cables.

- Observe min. bending radii (moved: 100.5 mm, fix installed: 26.8 mm)
- Avoid crushing and shearing points.
- Avoid the tensile forces arising.

### NOTE

Note on EMC conformity (according to EN 61000-6-3: 2007+A1:2011):

- The product may only be used in DC distribution networks with an expansion of < 30 m.

### 5.2.2.1 Connection assignment - Variant UREK

Connection version: Cable with wire strands

Gripper EGH			Turck FEN20-4IOL
No.	Wire strand	Signal	Port 1
1	White	+24 V_IOL	V1+
3	Green	GND_IOL	V1-
4	Yellow	C/Q	C/Q <sub>1</sub>

Tab.: IO-Link master connection assignment

Gripper EGH			Robot control system
No.	Wire strand	Signal	Digital inputs / Digital outputs terminal
2	Brown	+24 V_Power	24 V

Gripper EGH			Robot control system
No.	Wire strand	Signal	Digital inputs / Digital outputs terminal
5	Grey	GND	0 V

Tab.: Connection assignment for voltage supply

Gripper EGH			Robot control system
No.	Wire strand	Signal	Digital outputs terminal
7	Blue	Dig1_In	DO 0 *
8	Red	Dig2_In	DO 1 *

Tab.: Connection assignment for light strip, UR control

\* adjustable via URcap plugin

### 5.2.2.2 Connection assignment - Variant FCRXEK

Connection version: Cable with wire strands

Gripper EGH			Turck FEN20-4IOL
No.	Wire strand	Signal	Port 1
1	White	+24 V_IOL	V <sub>1+</sub>
3	Green	GND_IOL	V <sub>1-</sub>
4	Yellow	C/Q	C/Q <sub>1</sub>

Tab.: IO-Link master connection assignment

Gripper EGH			External 24V voltage supply *
No.	Wire strand	Signal	Digital inputs / Digital outputs terminal
2	Brown	+24 V_Power	24 V
5	Grey	GND	0 V

Tab.: Connection assignment for external 24V voltage supply

\* Not included in the scope of delivery. SCHUNK recommends a power supply unit with 2 amperes.

Gripper EGH			Robot control system	
No.	Wire strand	Signal	JRM18 pin no.	Signal
7	Blue	Dig1_In	18	DO 01 *
8	Red	Dig2_In	52	DO 02 *

Tab.: Connection assignment for light strip - Variant FCRXEK

\* adjustable via FANUC CRX plugin

Robot control system		Voltage supply
JRM18 pin no.	Signal	Signal
26 or 27	DOSCR1	24 V
60 or 61	0 V	0 V

Tab.: Connection assignment for voltage supply, FANUC CRX peripheral device

### 5.2.2.3 Connection assignment TURCK IO-Link-Master FEN20-4IOL



TURCK IO-Link-Master FEN20-4IOL

TURCK	Robot control system
Voltage supply terminal	Digital inputs / Digital outputs terminal
GND	n.c.
V1+	24 V
V1-	0 V

TURCK terminal	Robot control system
P1	Ethernet

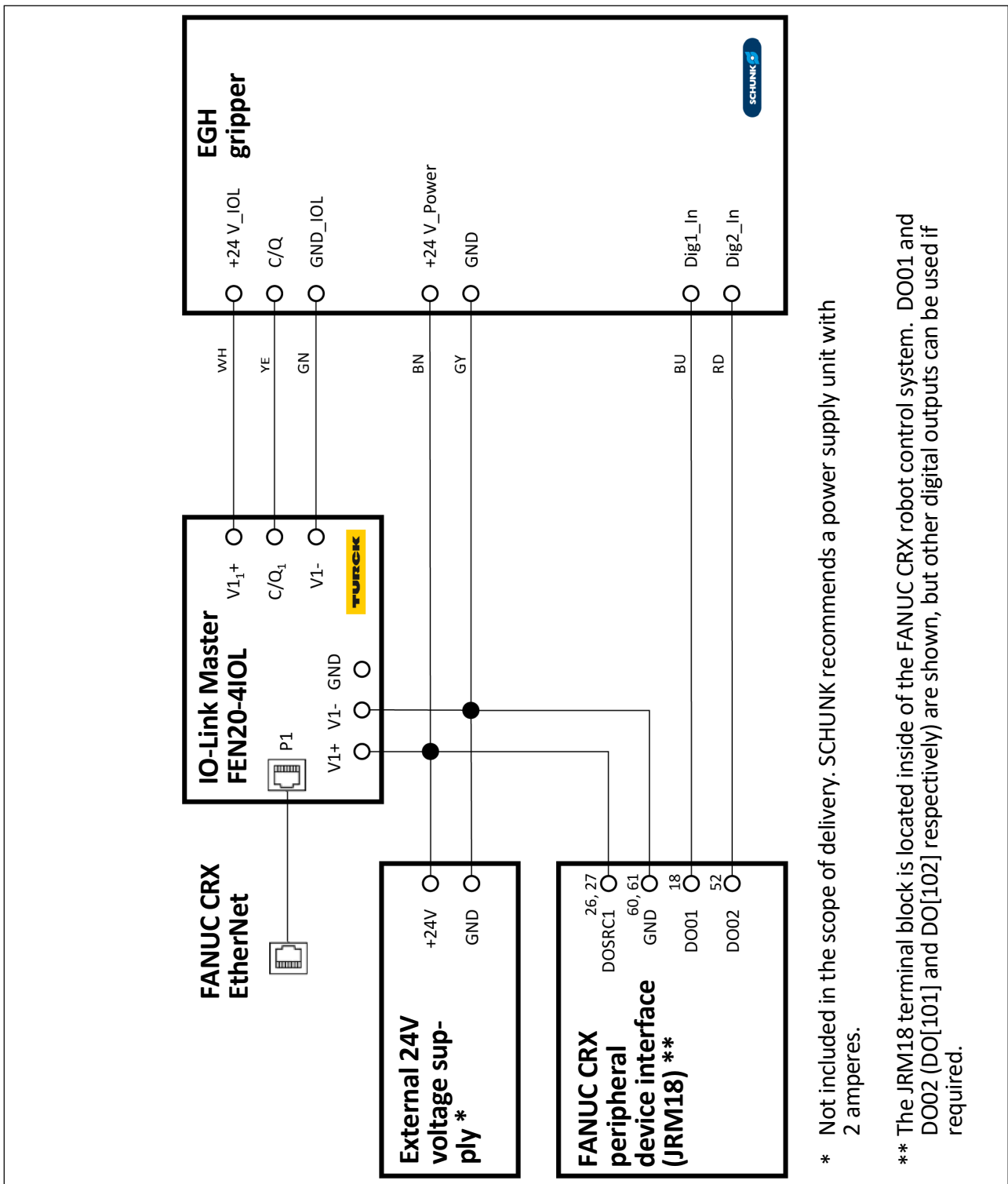
For information on actuation, see:

- Software guide "SCHUNK gripper with IO-Link" \*
- Variant UREK: Software handbook "SCHUNK Software module for URCap" \*
- Variant FCRXEK: Software handbook "SCHUNK Software module for FANUC CRX" \*

The documents labeled with an asterisk (\*) can be downloaded from [schunk.com/downloads](https://www.schunk.com/downloads).



### 5.2.2.5 Connection diagram - Variant FCRXEK



Electrical circuit diagram of complete unit for FANUC CRX robot control system

## 6 Troubleshooting

### 6.1 Product does not move

Tab.:

Possible cause	Corrective action
Base jaws jam in housing, e.g. mounting surface is not sufficiently even.	Check the evenness of the mounting surface. ▶ 5.2.1 [ 22]
	Loosen the mounting screws of the product and actuate the product again.
Power supply connected incorrectly.	Check the power supply. ▶ 5.2.2 [ 26]

### 6.2 Product does not execute a complete stroke

Possible cause	Corrective action
Mounting surface is not sufficiently flat.	Check the evenness of the mounting surface. ▶ 5.2.1 [ 22]
Breakage of components, e.g. by overloading.	Send the product to SCHUNK with a repair order.

### 6.3 Product opens or closes jerkily

Possible cause	Corrective action
Mounting surface is not sufficiently flat.	Check the evenness of the mounting surface. ▶ 5.2.1 [ 22]
Loading too large.	Check permissible weight and length of the gripper fingers. ▶ 3 [ 17]

### 6.4 Opening and closing times are not achieved

Possible cause	Corrective action
Loading too large.	Check permissible weight and length of the gripper fingers.

### 6.5 Electrical signals are not transmitted

Possible cause	Corrective action
Cable connected incorrectly.	Check round connector for correct fit.
Strands swapped.	Check pin allocation.

### 6.6 Faults that are displayed via the LED "STATUS"

Possible cause	LED "STATUS"	Corrective action
Error state	LED glows continuously red	Read error code, rectify and acknowledge error code, ▶ 6.7 [ 32]

## 6.7 Acknowledge error

1. Acknowledge the error using the software manual, ▶ 1.1.4 [📄 6].
2. Wait until LED "STATUS" turns green.  
⇒ The error is rectified and acknowledged.

## 7 Maintenance

Maintenance intervals	Interval (million cycles)	Maintenance work
	1000 cycles or once per day	Travel an entire stroke Check the gripper fingers for correct positioning or damage.
	2 million cycles	Inspect the product for damage Send damaged products to SCHUNK for repair.

This product must not be disassembled for maintenance.

### CAUTION

#### Material damage due to improper disassembly!

Incorrect works can cause damage to the mechanics and internal electronics.

- Disassembly or opening of the product is not permitted.
- Only allow SCHUNK to repair the product.

## 8 EU-Declaration of Conformity

Manufacturer/  
Distributor                      SCHUNK SE & Co. KG  
Spanntechnik | Greiftechnik | Automatisierungstechnik  
Bahnhofstr. 106 – 134  
D-74348 Lauffen/Neckar

Product designation:        Flexible gripper for cobot / EGH /electric  
ID number                        1406087, 1478176, 1468620

We hereby declare on our sole authority that the product meets the requirements of the following directives at the time of the declaration.  
The declaration is rendered invalid if modifications are made to the product.

- **EMC Directive 2014/30/EU**  
Directive of the European Parliament and the Council of February 26, 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility

Applied harmonized standards, especially:

EN IEC 61000-6-2:2019    Electromagnetic compatibility (EMC) – Part 6-2:  
Generic standards – Immunity standard for industrial environments

EN IEC 61000-6-4:2019    Electromagnetic compatibility (EMC) – Part 6-4:  
Generic standards – Emission standard for industrial environments

Signed for and on behalf of: SCHUNK SE & Co. KG

*Signature: see original declaration*

Lauffen/Neckar, October 2024

Dr.-Ing. Manuel Baumeister,  
Head of Systems Engineering,  
Technology & Innovation

## 9 Translation of the original declaration of incorporation

in terms of the Directive 2006/42/EG, Annex II, Part 1 Section B.

Manufacturer/  
Distributor                      SCHUNK SE & Co. KG  
Spanntechnik | Greiftechnik | Automatisierungstechnik  
Bahnhofstr. 106 – 134  
D-74348 Lauffen/Neckar

We hereby declare that the partly completed machine described below

Product designation:            Flexible gripper for cobot / EGH /electric  
ID number                         1406087, 1478176, 1468620

meets the following basic occupational health and safety of the Machinery Directive 2006/42/EC:

No. 1.1.1, No. 1.1.2, No. 1.1.3, No. 1.1.5, No. 1.3.2, No. 1.5.1, No. 1.5.2; No. 1.5.4, No. 1.5.6, No. 1.5.8, No. 1.5.10, No. 1.5.11, No. 1.5.13

The partly completed machinery may not be put into operation until it has been confirmed that the machine into which the partly completed machinery is to be installed complies with the provisions of the Machinery Directive (2006/42/EC). The declaration shall be rendered invalid if modifications are made to the product.

Applied harmonized standards, especially:

EN ISO 12100:2010                Safety of machinery – General principles for design –  
Risk assessment and risk reduction

The special technical documentation according to Annex VII, Part B, belonging to the partly completed machine, has been created.

Person authorized to compile the technical documentation:  
Stefanie Walter, Address: see manufacturer's address

*Signature: see original declaration*

Lauffen/Neckar, October 2024

Dr.-Ing. Manuel Baumeister,  
Head of Systems Engineering,  
Technology & Innovation

## 10 UKCA declaration of Conformity

Manufacturer/  
Distributor                      SCHUNK Intec Limited  
    Clamping and gripping technology  
    3 Drakes Mews, Crownhill  
    MK8 0ER Milton Keynes

We hereby declare on our sole authority that the product meets the requirements of the following directives at the time of the declaration.

The declaration is rendered invalid if modifications are made to the product.

Product designation:        Flexible gripper for cobot EGH  
ID number                      1406087, 1478176, 1468620

- **Electromagnetic Compatibility Regulations 2016**

Applied harmonized standards, especially:

EN IEC 61000-6-2:2019    Electromagnetic compatibility (EMC) – Part 6-2:  
    Generic standards – Immunity standard for industrial environments

EN IEC 61000-6-4:2019    Electromagnetic compatibility (EMC) – Part 6-4:  
    Generic standards – Emission standard for industrial environments

Person authorized to compile the technical documentation:  
Marcel Machado, address: refer to manufacturer's address

Signed for and on behalf of: SCHUNK SE & Co. KG



Lauffen/Neckar, October 2024

Dr.-Ing. Manuel Baumeister,  
Head of Systems Engineering,  
Technology & Innovation



## 12 Information on the RoHS Directive, REACH Regulation and Substances of Very High Concern (SVHC)

### RoHS Directive

SCHUNK products are classified as "large-scale stationary installations" or as "large-scale stationary industrial tools" within the meaning of Directive 2011/65/EU and its extension 2015/863/EU "on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)", or fulfill their intended function only as part of one. Therefore products from SCHUNK do not fall within the scope of the directive at this time.

### REACH Regulation

Products from SCHUNK fully comply with the regulations of Regulation (EC) No. 1907/2006 "concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)" and its amendment 2022/477. SCHUNK attaches great importance to completely avoiding chemicals of concern to humans and the environment wherever possible.

Only in rare exceptional cases do SCHUNK products contain SVHC substances on the candidate list with a mass content above 0.1%. In accordance with Article. 33 (1) of Regulation (EC) No. 1907/2006, SCHUNK complies with its duty to "communicate information on substances in articles" and lists the components concerned and the substances used in an overview that can be viewed at [schunk.com/SVHC](https://www.schunk.com/SVHC).

*Signature: see original declaration*

Lauffen/Neckar, October 2024

Dr.-Ing. Manuel Baumeister,  
Head of Systems Engineering,  
Technology & Innovation





**SCHUNK SE & Co. KG**  
Spanntechnik | Greiftechnik | Automatisierungstechnik

Bahnhofstr. 106 - 134  
D-74348 Lauffen/Neckar  
Tel. +49-7133-103-0  
info@de.schunk.com  
schunk.com

Folgen Sie uns | *Follow us*



Wir drucken nachhaltig | *We print sustainable*