

# **Software Manual**

## **Co-act EGP-C in variants FCRXID / FCRXEK**

**SCHUNK Software module for FANUC CRX**

Translation of original software  
manual

## 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:** 1451578

**Version:** 02.00 | 10/08/2023 | 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>4</b>
1.1 About this manual.....	4
1.2 Applicable documents .....	4
<b>2 Description of software functions .....</b>	<b>5</b>
<b>3 Install software component .....</b>	<b>6</b>
<b>4 Configure software component .....</b>	<b>9</b>
<b>5 Using gripper commands in a program .....</b>	<b>11</b>
<b>6 Using sensor monitoring in a program.....</b>	<b>13</b>

# 1 General

## 1.1 About this manual

This manual contains information on the SCHUNK-Software Plugin for FANUC CRX Cobots.

The software is used to easily integrate and control the following products in FANUC CRX applications:

- Co-act EGP-C-FCRXEK
- Co-act EGP-C-FCRXID

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

In addition to these instructions, the documents listed under ▶ 1.2 [4] are applicable.

## 1.2 Applicable documents

- Assembly and operating manual for the product \*

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

## 2 Description of software functions

The plugin provides the commands "Closes gripper" and "Opens gripper". A third command "Light Band" is available only on the FCRXEK variant. The state of the two position sensors on the gripper can be read using standard CRX commands, ▶ 6 [13].

### Command "Opens gripper"

This command causes the gripper to move to the open position. There is an optional parameter to change the payload number of the robot and another to wait for a specified amount of time after sending the command to the gripper.

### Command "Closes gripper"

This command causes the gripper to move to the closed position. There is an optional parameter to change the payload number of the robot and another to wait for a specified amount of time after sending the command to the gripper.

### Command "Light band"

In the variant with external wiring, FCRXEK, a light band is installed. This command is used to change the state of the light band to green, yellow, red, or "off".

### 3 Install software component

---

**NOTE**

To install the software, SCHUNK recommends using a USB stick.

---

**Prepare the USB stick**

The USB stick must meet the following requirements:

- Formatted in FAT format
  - Description of the removable drive: "SCHUNK EGP-C....."
- 

**Installing the software module****NOTE**

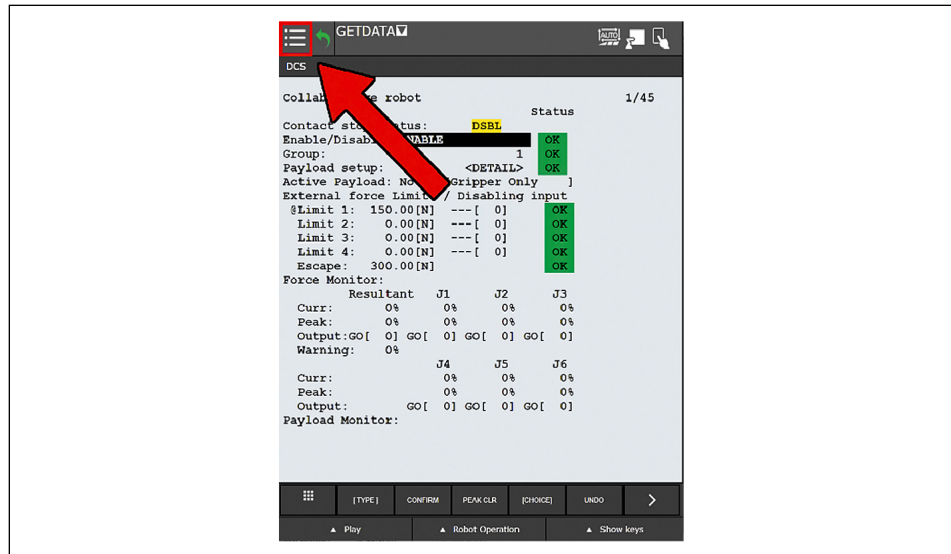
To avoid malfunctions, SCHUNK recommends installing the current version of the software module.

---

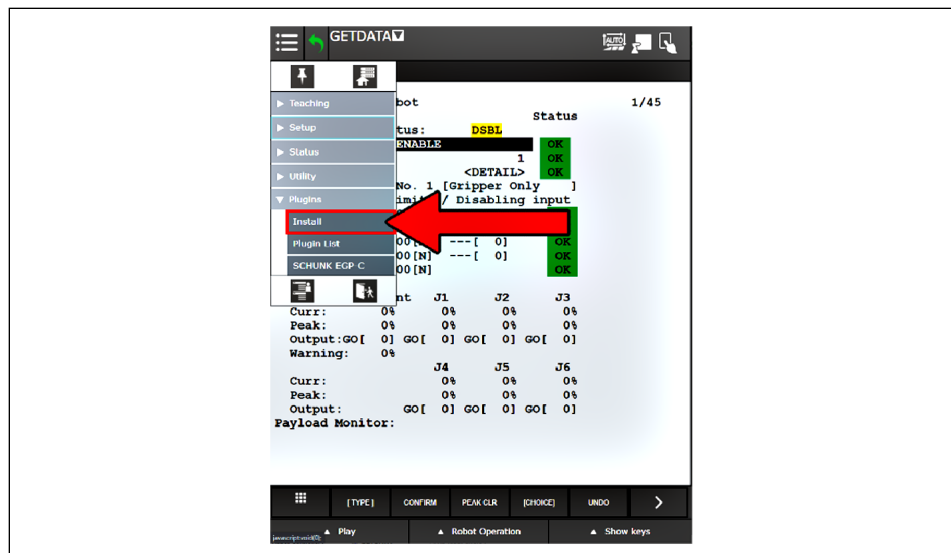
1. Download the current version of the software module at [schunk.com/downloads](https://www.schunk.com/downloads) and copy it to the USB stick.
2. Connect the USB stick to the robot control system (not to the USB port of the Tablet Teach Pendant).



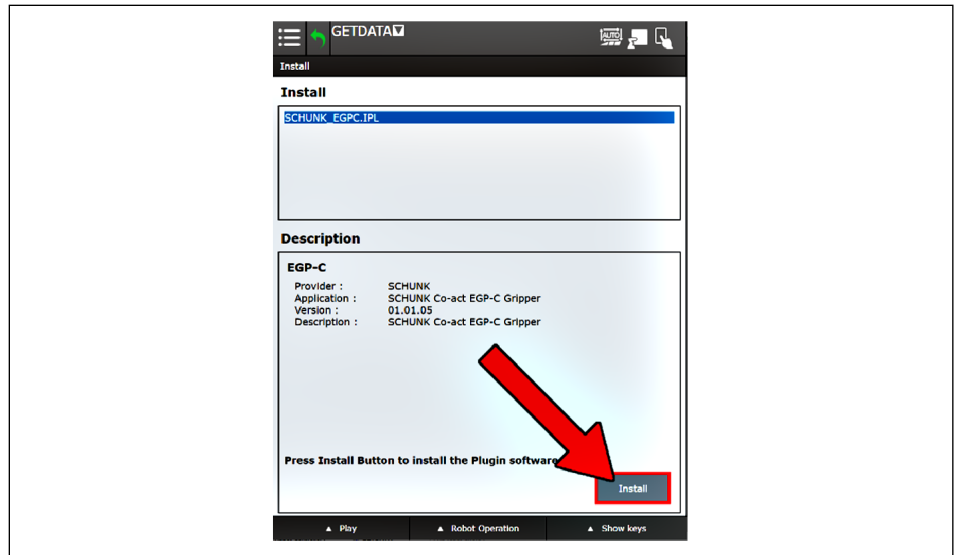
3. Select the "Menu" button at the top right of the Tablet Teach Pendant screen.



4. Select the "Plugins - Install" menu.



5. Select "SCHUNK EGPC.PL" software module.
6. Select the "Install" button.



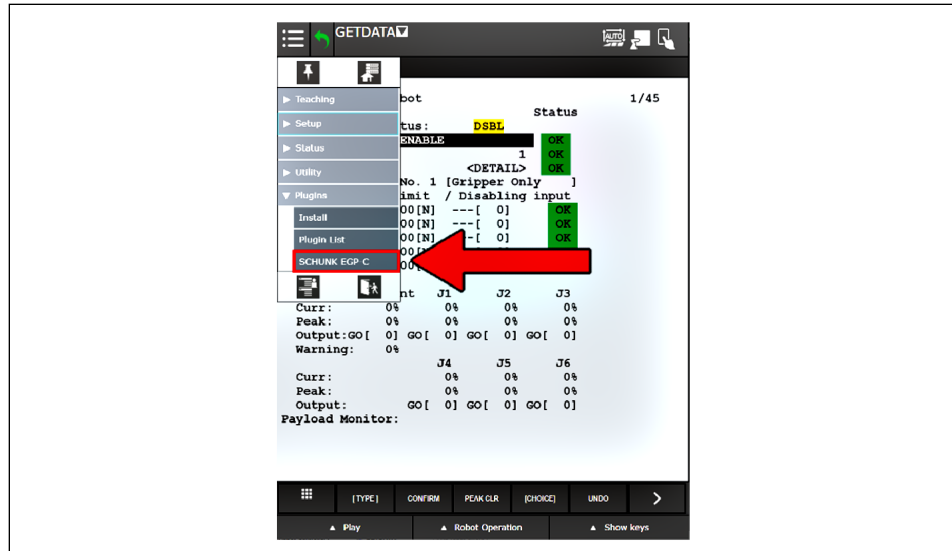
7. Restart the robot controller when the installation is complete.



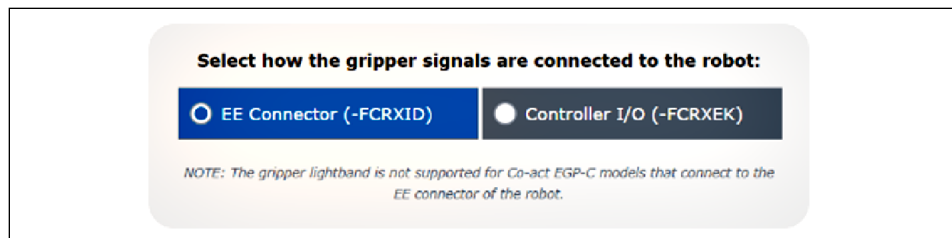
## 4 Configure software component

The following settings may be adjusted:

- Selection of gripper variant –FCRXID or –FCRXEK
  - *Only for variant –FCRXEK:* Selection of robot controller digital input (DI) and digital output (DO) signals connected to the gripper
1. Select menu "Plugins - SCHUNK EGP C" to reach the plugin configuration screen.

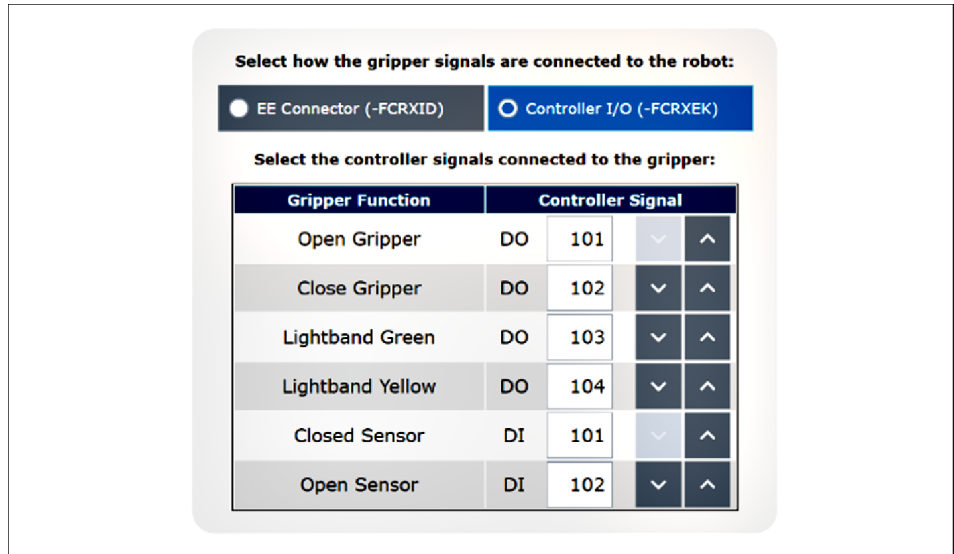


2. Select the connected gripper variant –FCRXID or –FCRXEK.



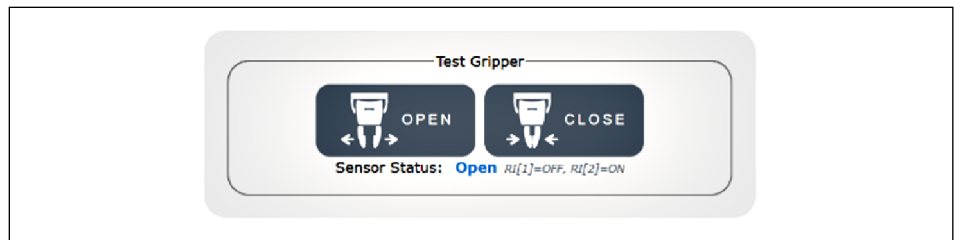
3. If the –FCRXEK variant is selected, the digital input (DI) and digital output (DO) signals connected to the gripper may also be configured.

⇒ The default (recommended) signal connections are shown.



⇒ Settings are configured.

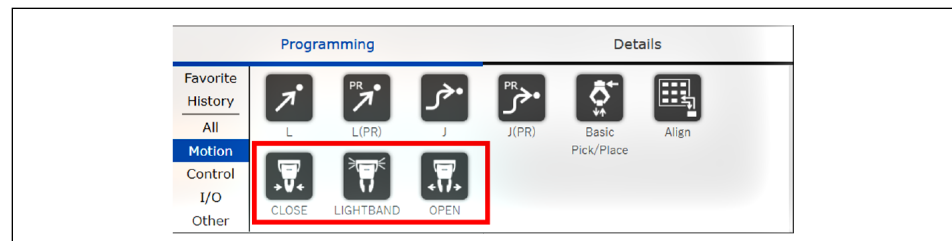
- 4. Test the gripper by using the buttons "OPEN" and "CLOSE". **CAUTION Moving parts! Do not handle or interfere with moving parts.**



## 5 Using gripper commands in a program

Once the CRX plug-in for the SCHUNK Co-act EGP-C gripper is installed, the following commands can be located in the section "Motion" of the CRX program editor:

- CLOSE
- OPEN
- LIGHTBAND



Refer to the FANUC CRX manuals for more information about programming using the visual editor.

The available gripper commands that can be dragged into a program and their parameters are described below. For all CRX commands, the parameters of a command can be edited. To do this, select the command in a program and select the "Details" tab.

### OPEN / CLOSE

These two commands cause the gripper to open and close, respectively.

#### Parameters

- (optional) **Update PAYLOAD number**  
This parameter can be used to automatically change the active payload number for the CRX, as with the standard Teach Pendant Programming command, **PAYLOAD[n]**. It is common for gripper open and close operations to significantly change the payload at the robot end of arm. This parameter is a convenience that can remove the need for a separate payload command in many cases. Refer to the FANUC CRX documentation for more information on configuring payloads and setting the active payload number.
- (optional) **Wait for command to complete**  
This parameter can be used to create a delay after the command has been sent to the gripper and before proceeding to the next command in the program. This is frequently used to allow the gripper to complete its motion before proceeding. The default amount of time for this delay (if set) is 0.5 seconds, though the duration of this delay can be edited.

## Test Gripper

The open and close buttons located within the "Test Gripper" box on the command details screen can be used to immediately cause the gripper to open or close, which is frequently necessary while programming. These buttons have no effect on the command itself or the command's parameters.

### **LIGHTBAND (-FCRXEK variant only)**

This command is used to turn the light band on or off and to set the color of the light band.

## Parameters

- **State/Color**

This parameter specifies the new state for the light band. The following options are available:

- Off
- Green
- Yellow
- Red

## Test Gripper

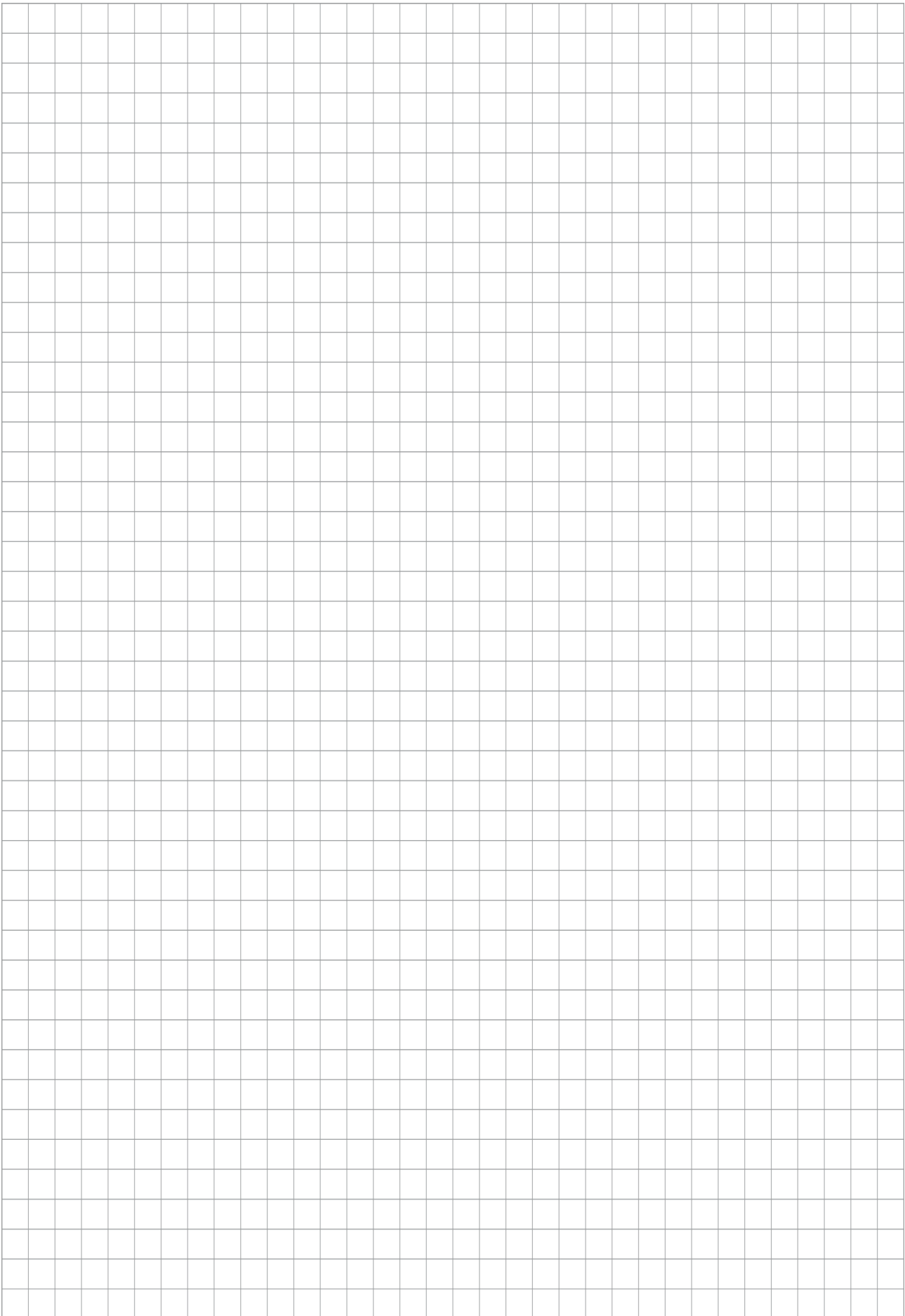
The set button located within the "Test Gripper" box on the command details screen can be used to immediately change the light band state. This button has no effect on the command itself.

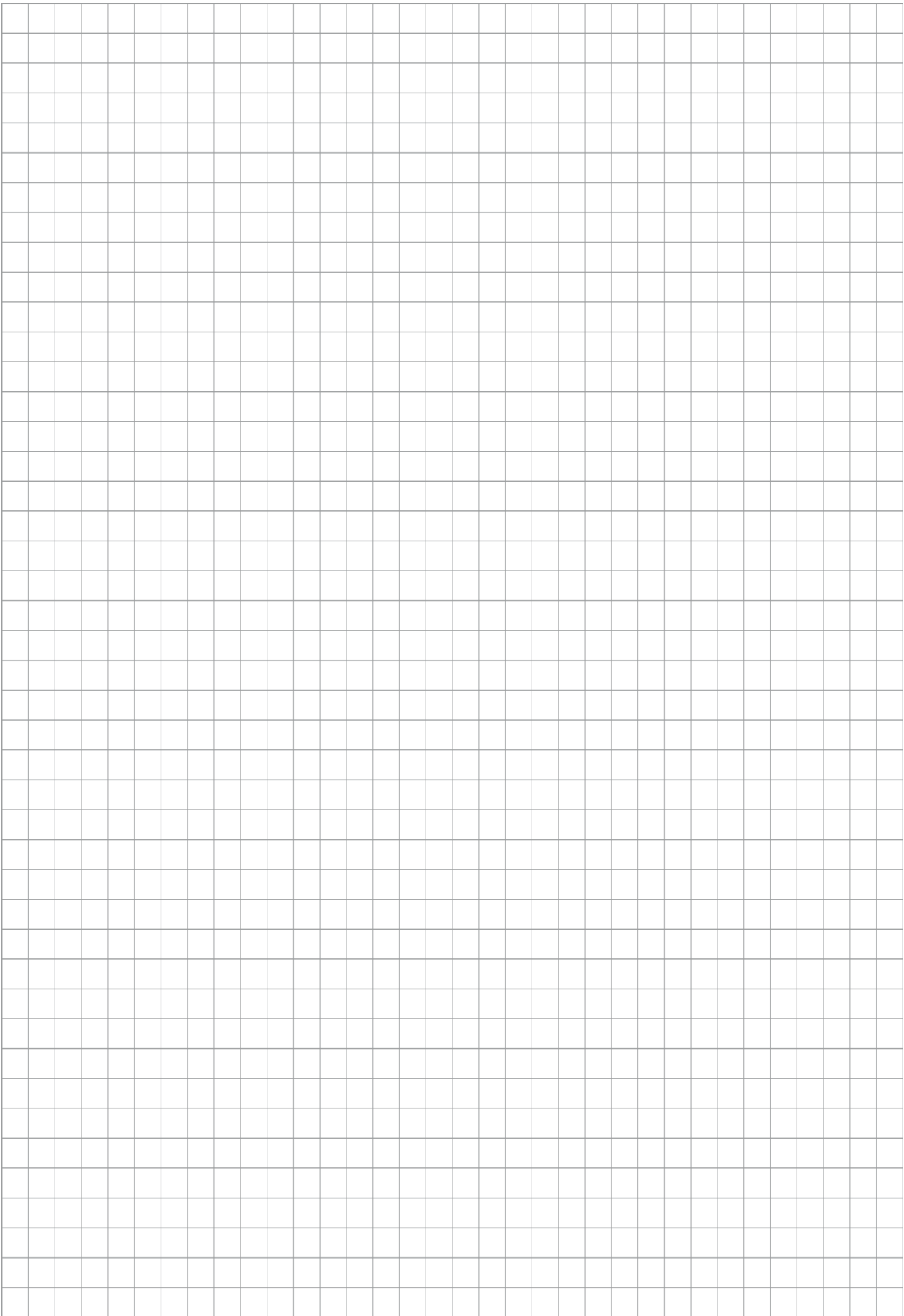
## 6 Using sensor monitoring in a program

The two position sensors on the gripper can be monitored using standard commands for Teach Pendant programming, such as **IF** and **WAIT**. For more information on using digital inputs in a program, refer to the FANUC Teach Pendant programming manual.

It is important to know which two robot inputs (RI) or digital control inputs (DI) are connected to the gripper sensors.

- *When using the -FCRXID variant:* The "closed" position sensor is monitored with RI[1] and the "open" position sensor with RI[2].
- *When using the -FCRXEK variant:* The digital inputs connected to both sensors are determined by qualified personnel when installing the gripper and configured using the plug-in configuration screen, ▶ 4 [ 9]. By default, the "closed" position sensor is monitored with DI[101] and the "open" position sensor with DI[102].







**SCHUNK SE & Co. KG**  
Toolholding and workholding | Gripping Technology |  
Automation technology

Bahnhofstr. 106 - 134  
D-74348 Lauffen/Neckar  
Tel. +49-7133-103-0  
Fax +49-7133-103-2399  
info@de.schunk.com  
schunk.com

Folgen Sie uns | *Follow us*



Wir drucken nachhaltig | *We print sustainable*