EUCHNER

Operating Instructions

EKS2 Programming Station

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1. About this document

1.1. Scope

These operating instructions are valid for the programming station EKS2-P-USB-N-I1B0-C1-172018. The operating instructions, the supplementary documents and any enclosed data sheets form the complete user information for your device.

They apply to:

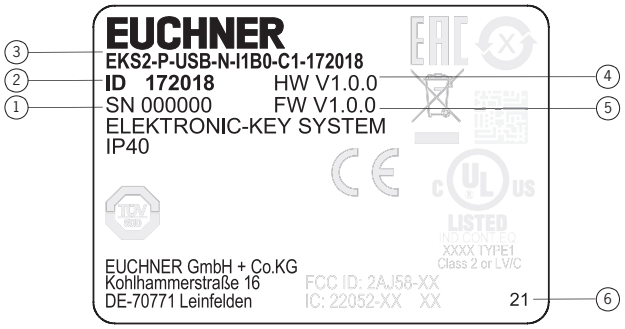
	Product version (hardware version)	Firmware version
Programming station EKS2-P-USB-N-I1B0-C1-172018	V1.0.X	V1.0.X

Important!

- Make sure to use the operating instructions valid for your product version. The version numbers can be found on the type label of your product.
- A firmware update might have been performed on your device. Make sure that the device documentation corresponding to the update is available and is observed.

1.1.1. Programming station type label

(example illustration)



Key	
1	Serial number
2	Order number
3	Item designation
4	Product version (hardware version)
5	Firmware version
6	Year of manufacture

1.2. Target group

Proper use of the programming station together with suitable application software requires knowledge about handling the Electronic-Key-System EKS or EKS2.

1.3. Key to symbols

Symbol/depiction	Meaning
DANGER **WARNING** **CAUTION**	Safety precautions **Danger** of death or severe injuries **Warning** about possible injuries **Caution** slight injuries possible
NOTICE **Important!**	**Notice** about possible device damage **Important** information
Tip	Useful information

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1.4. Supplementary documents

The overall documentation for this product consists of the following documents:

Document title (document number)	Contents
Safety information (2525460)	Basic safety information
Operating instructions (MAN20001744)	(this document)
Software manual	Software manual for various EKS2 software applications, see www.euchner.com
Declaration of conformity	Declaration of conformity
Possibly available data sheet	Item-specific information about deviations or additions

Important!

Always read all documents to gain a complete overview of safe installation, setup and use of the product. The documents can be downloaded from www.euchner.com. For this purpose enter the doc. no. in the search box.

2. Correct use

The programming station EKS2-P-USB-N-I1B0-C1-172018 is used in combination with the EUCHNER application software for reading and writing EKS and EKS2 Electronic-Keys on a standard PC.

The device is only allowed to be operated using Electronic-Keys and connection components that meet EUCHNER requirements. If unsuitable Electronic-Keys or connection components are used, EUCHNER provides no warranty for correct function.

2.1. System requirements

Hardware:	Standard PC
Operating system:	Windows® 10, 64-bit
	Windows® 11

2.2. Use of brand names

Microsoft Windows® is a registered trademark of Microsoft Corporation.

3. Security

It is advisable to create and implement a comprehensive industrial security plan to protect instrumentation and control systems.

Additionally note the following points:

- Use a firewall and an up-to-date virus scanner to protect the standard PC on which the application software is installed and that is used for writing data to the Electronic-Keys.
- Always use the latest software and firmware versions.
- Assign different access rights to different user groups.
- Regularly check assignment of rights.

4. Exclusion of liability and warranty

Liability or warranty is ruled out in case of:

- Incorrect use
- Failure to comply with the operating instructions and the safety regulations therein
- Failure to perform the required check for correct function
- Changes to the product

5. Function

The programming station is a read/write station with USB interface and can write or read the following Electronic-Keys:

System	Transponder
Electronic-Key-System EKS	Electronic-Key EKS with 116 bytes read/write memory
Electronic-Key-System EKS2	Electronic-Key EKS2 with Security Transponder MIFARE DESFire (13.56 MHz)

The programming station is connected to a standard PC using a USB connecting cable. The device is detected via an integrated Windows® driver.

Corresponding EUCHNER application software, installed locally on the PC, is required to read and write transponders. Data are transferred between the transponder and programming station via RFID.

LEDs on the programming station indicate status and error messages (see chapter *8. Status and error messages on page 6).*

6. Operation

NOTICE

Malfunction due to mutual interference between several devices with RFID antennas

- Maintain a minimum distance of 0.2 m between the EKS2 programming station and the EKS2 read unit or other RFID devices.

Important!

- The transponder can be read or written only if it is placed flat on the housing.
- There must be only one transponder on the read surface.

7. Updating firmware

The firmware in the programming station can be updated via the related EUCHNER application software. You will find further information in the related software manuals.

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8. Status and error messages

8.1. LED displays

LED	Color
DIA	red, green, yellow
STATE	red, green, yellow

The LED displays on the EKS2 programming station indicate the individual status and error messages.

Key to symbols	○		LED not illuminated
	✳		LED illuminated
	✳ 1x inverse		LED illuminated, briefly goes off 1x
	✳ 5 Hz		LED flashes at 5 Hz
	✳ 3 x		LED repeatedly flashes three times
	✳ ⇔ ✳		LEDs flash alternately
	X		Any state

8.2. Status and error messages

Operating mode	LED indicator red/green/yellow		Status
	DIA	STATE	
Normal operation	green	green	▸ The device is ready for operation. ▸ The device is connected to the application software.
		yellow	Connection to the application software not established.
		green 1 Hz	A valid transponder has been detected.
		yellow 1 Hz	An invalid transponder has been detected.
Firmware update	yellow	green 2 Hz	Updating the firmware.
		red	Error during firmware update.
Error	red	yellow	Resettable error: error can be acknowledged by briefly disconnecting the USB connection.
		red	Non-resettable error: contact the EUCHNER support team.

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9. Technical data

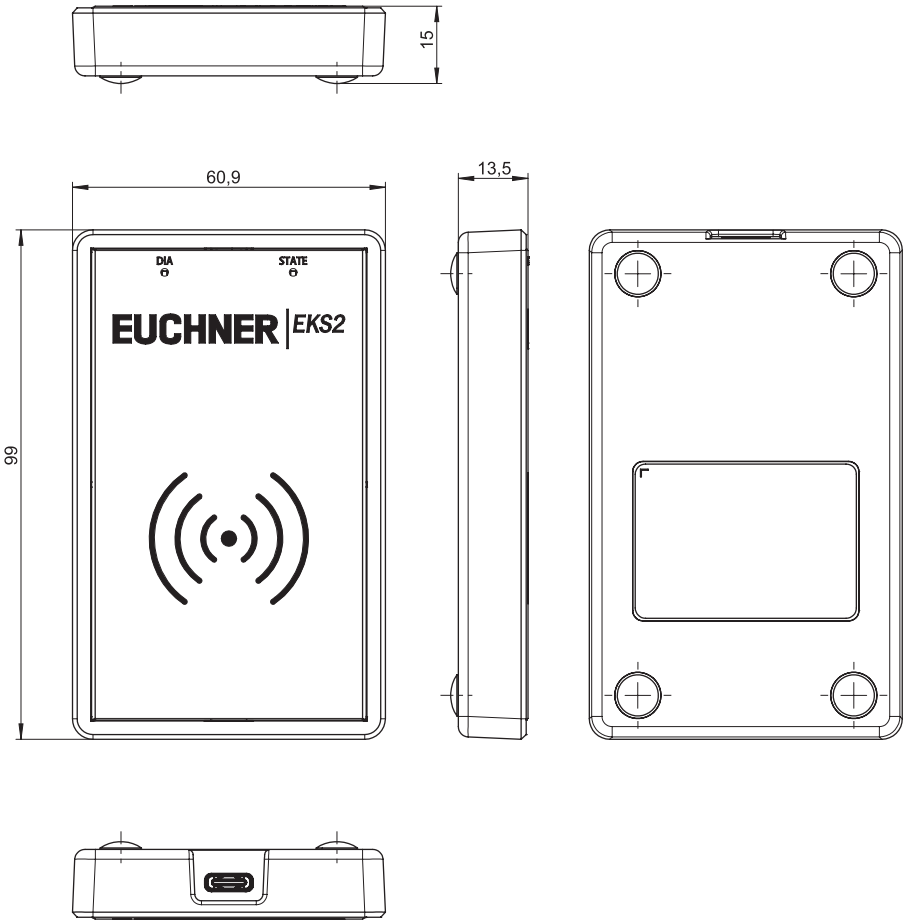
NOTICE

If a data sheet is available for the product, the information on the data sheet applies.

9.1. Technical data for EKS2 programming station

Parameter	Value			Unit
	min.	typ.	max.	
General				
Material	Plastic PC+ABS, PC			
Degree of protection	IP40			
Ambient temperature at 5 V	0		+55	°C
Storage temperature	-35	-	+85	°C
Power supply connection	USB type C socket			
Cable length	Max. 3 m USB			m
Current consumption			100	mA

9.2. Dimension drawing for EKS2 programming station



9.3. Radio frequency approvals

FCC ID: 2AJ58 - 22
IC: 22052 - 22

FCC/IC-Requirements

This device complies with part 15 of the FCC Rules and with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1) This device may not cause harmful interference, and

2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority

to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

Unique Identifier:
EKS2-P series

Responsible Party – U.S. Contact Information
EUCHNER USA Inc.
1860 Jarvis Avenue
Elk Grove Village, Illinois 60007

+1 315 701-0315
info(at)euchner-usa.com
http://www.euchner-usa.com

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10. Inspection and service

Regular inspection of the following is necessary to ensure trouble-free long-term operation:

- Check the secure mounting of the devices and the connections
- Check for contamination

No servicing is required. Repairs to the device are only allowed to be made by the manufacturer.

11. Disposal

Observe the country-specific regulations when disposing of the device.

For further information, please refer to the *Company/Sustainability* area at www.euchner.com.

12. Service

If servicing is required, please contact:

EUCHNER GmbH + Co. KG
Kohlhammerstraße 16
70771 Leinfelden-Echterdingen
Germany

Service telephone:
+49 711 7597-500

E-mail:
support@euchner.de

Internet:
www.euchner.com

13. Declaration of conformity

The product complies with the following requirements:

- Machinery Directive 2006/42/EC (until January 19, 2027)
- Machinery Regulation (EU) 2023/1230 (from January 20, 2027)

The EU declaration of conformity can be found at www.euchner.com. Enter the order number of your device in the search box. The document is available under *Downloads*.

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