

# Electrical Contact Bridge EKB Operating Instructions



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#### **Document Information**

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## **1** General information

In this operating instruction you will find:

- information on installation, adjustment, maintenance and disposal of the assembly EKB
- safety information
- assistance in case of malfunctions

Read this operating instruction carefully before you start using the assembly EKB. Pay special attention to the safety instructions, as the failure to comply with them might result in severest injuries, environmental damage or damage to the assembly and to machines.

## 1.1 Key words and warning symbols used



## Danger

Indicates an imminent danger for life and health of persons.



## Warning

Indicates a potentially dangerous situation. Disregarding this warning may result in death or serious injury. This advice additionally warns of risks for machine, material or environment.



## Attention

Indicates possible minor personal injury due to neglect.



## Caution

Indicates possible material damage when disregarding the instructions or gives an important advice for the function.



## Note

Indicates general information on the handling or the product.

## 1.2 Brief description assembly EKB

The assembly EKB has been developed and manufactured in accordance with the applicable national standards and guidelines.

The features of the assembly at a glance:

mechanism:	<ul> <li>electrical contact bridge with adjustable contact gap</li> <li>distance between the contact pins can be mechanically adjusted using a rotary wheel</li> <li>automatic pulley for attachment to the clothing</li> </ul>
electricity:	2 electrically connected contact pins

## 1.3 Intended use

The assembly EKB:

- is only approved as electrical bridge for 2 contacts
- is only approved for commercial use
- may only be used in a dry environment and outside of explosion protection areas
- may only be used manually
- has to be attached to the user's clothing by using the original pulley
- may only be used by qualified personnel (electrically qualified person)

The qualified personnel:

- has demonstrably been trained in the use of the assembly EKB and is familiar with the information and safety instructions in these operating instructions
- has demonstrably been instructed about the dangers and risks when using the assembly EKB

**Any other use** is considered **improper** and may result in personal injury, environmental damage and / or property damage. In particular, the following are not permitted:

- any kind of permanent or fixed attachment of the assembly EKB
- series or parallel connection of several assemblies EKB
- gluing or comparable fixations of the assembly EKB to components or other points
- repair, adjustment or modification of the assembly EKB
- any kind of use in the private sector or by persons who cannot prove the qualification as qualified personnel
- any kind of automated use

Hans & Jos. Kronenberg GmbH do not assume any liability for damages caused by:

- improper or incorrect use
- use of non-approved spare or accessory parts
- non-observance of this manual

## 2 Safety



Caution – Read this manual carefully, especially the safety instructions and information on the application of the assembly EKB!

For the safety of persons, the environment and to avoid damage to property always observe the countryspecific regulations for installation, safety and accident prevention in addition to the safety instructions in this manual.

- Prior to use familiarize yourself with the mode of operation.
- Keep this manual in a safe and legible condition.
- Only pass the assembly EKB on to the qualified personnel with these original operating instructions.

## 2.1 Safety advice



#### Danger – Risk of injury or death due to electrical current!

Only a qualified electrician may use the assembly EKB after a previous training.

Before using the assembly EKB determine which hazards the application will cause and take appropriate safety measures.

Only use the assembly EKB in a dry environment and outside of Ex-protection areas.

If the housing, the mechanics or the contact pins are damaged, the assembly EKB may not be used.

A damaged and faulty assembly EKB or single components of the assembly must not be repaired and must be replaced by a new assembly EKB.



## Warning – Malfunction and destruction of the assembly EKB due to damage, defective components or contamination.

Before using the assembly EKB make sure that the assembly is dry, without foreign objects and free of dust and grease.

Before use check the housing for damage, the insulation of the contact pins for damage and the setting function for the contact gap.



#### Caution

Secure the assembly EKB with the supplied pulley at a suitable place on the user's clothing to prevent the assembly EKB from being accidentally forgotten or left on site.

Do not put any mechanical or thermal stress on the assembly EKB and only use the assembly EKB for its intended purpose.

Only use the assembly EKB within the permissible temperature and voltage range (see chapter 7.2).

Store and transport the assembly EKB in such a way that no moisture, other liquids, other contaminations or foreign bodies can enter the assembly EKB.

## 3 Overview assembly EKB and accessories

The picture below shows the assembly EKB with accessories.

## 3.1 Assembly EKB



\* Dimensioning and technical data can be found in chapter 7.

#### components:

- (A) rotary wheel for adjustment of the contact gap
- (C) 2. contact pin (position adjustable)

(B) 1. contact pin (fixed)

(D) automatic pulley for fixation on the clothing

## **4** Application



## Danger - Risk of injury or death due to electrical current!

Only a **qualified electrician** may use the assembly EKB after previous training.

The safety instructions and accident prevention regulations for working on live equipment must be observed.

Before using the assembly EKB determine which hazards the application will cause and take appropriate safety measures.



#### Caution when applying the assembly EKB

The assembly EKB can be used in any position in the application.

With regards to the contact pins of the contacts to be bridged please pay attention to:

- a correctly adjusted distance
- a correct alignment
- an interference-free insertion

Do not fix the position of the assembly EKB by supporting, gluing or other comparable actions, **the assembly EKB may only be used manually**.

## 4.1 Procedure

When using the assembly EKB please observe the following sequence:

- 1. Make sure that the assembly EKB is used as intended.
- 2. Before each use check the function and insulation of the assembly.
- 3. Make sure that the assembly is clean and dry.
- 4. Determine the contact spacing of the contacts to be bridged.
- 5. Set the distance between the contact pins at the assembly by turning the adjusting screw.
- 6. Correctly align the assembly and the contact pins to the contacts to be bridged.
- 7. Insert the contact pins into the contacts to be bridged without interference and ensure that both contact pins are inserted at the same time.

## **5** Functional test

Regularly check the following on the assembly EKB:

- the housing for damage
- the fastening of the pulley at the housing for tight fit
- the device of the pulley for attachment to the clothing for faultless function
- the rope for proper function
- the automatic winding of the rope for proper function
- all components of the assembly for damage and contamination
- the electrical insulation of the contact pins for tight fit
- the contact pins for wear and tear or combustion
- the electrical connection between the contact pins
- the spring of the adjustment mechanism for proper function

## 6 Maintenance, storage, disassembly and disposal



## Danger – Risk of injury or death due to electrical current!

A damaged and faulty assembly EKB or single components of the assembly must not be repaired. They must be replaced with a new assembly EKB.

## 6.1 Maintenance

We recommend to perform the tests mentioned in chapter 5 before each application.

## 6.2 Storage

Store the assembly EKB in a clean and dry place. Do not put any loads on the assembly.

## 6.3 Disassembly and disposal



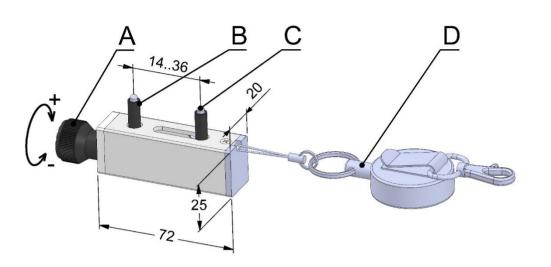
Danger - Risk of injury due to sharp-edged moulded parts and springs!

Do not disassemble the assembly EKB and dispose of the assembly in accordance with national regulations.

## 7 Data sheet

## 7.1 Dimensions

assembly EKB:



#### Legend:

- A: rotary wheel for ajdjustment of the contact gap
- B: 1. contact pin (fixed)
- C: 2. contact pin (position adjustable)
- D: automatic pulley for attachment to the clothing

## 7.2 Technical data

switching capacity*	Ui = 500 V Ith = 10 A
	AC: Ue = 230 V Ie = 2 A
	DC: Ue = 200 V Ie = 0.5 A
	DC: Ue = 48 V Ie = 2 A
position for application	any
adjustable contact distance	from 14 mm up to max. 36 mm
rope length (pulley)	104 cm

\* only permitted for test purposes in short-term operation!

Notes:	



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