ACCESSORY

HCB-2

Mounting instruction

For qualified professionals

11.10.2021 EN Version 1

ROPEX Industrie-Elektronik GmbH
Adolf-Heim-Str. 4
74321 Bietigheim-Bissingen (Germany)

Tel.: +49 (0)7142-7776-0
Fax: +49 (0)7142-7776-211

E-Mail: info@ropex.de
Internet: https://ropex.de

Contents

1 Revision list

Version	Modification
1	• Preparation of documentation

2 About these instructions

2.1 Function of the instructions

These instructions inform you about the installation of the *HCB-2* high-current busbars.

2.2 Other applicable documents

- ROPEX application report
  Observe the information in the application report. You can find further information on your welding application in the application report.
- Operating instructions for the *CBM-2* current transformer

2.3 Copyright

3 For your safety

3.1 Dangers and safety instructions

Installation by qualified professionals

► Installation, startup and activities at the device may only be carried out by qualified professionals.
► Install the device according to the recognised rules of technology.

Electric shock

► Work on the electrical installation may only be carried out by qualified professionals.
► Work on electrical components may only be carried out by qualified professionals.
► Make sure that live parts do not get wet.
► Observe the applicable regulations.

Safe operation of the device

► Operate the device only fully assembled and installed.
► Make sure that the housing is undamaged, complete and correctly mounted.
► In addition to these instructions, observe the prohibition, warning and mandatory signs on the device.

4 Product description

4.1 Use

The *HCB-2* high-current busbars are used when installing the *CBM-2* current transformer with two high-current cables if the sum of the diameters of the two high-current cables is greater than 12 mm.

The *HCB-2* high-current busbars may only be operated with temperature controllers and suitably designed components.

4.2 Function description

If you install the *CBM-2* current transformer with two high-current cables and the two cables have a total diameter of more than 12 mm, mount the *HCB-2* high-current busbars.

Current transformer *CBM-2*

The secondary current of the impulse transformer is called heating element current. The current transformer is used to measure the difference between two currents. You can use the current transformer for diagnostic purposes.

The *CBM-2* current transformer can be used with the temperature controllers of the *RESISTRON* and *CIRUS* series from ROPEX.

The current transformer has a bushing for the high-current cable with the diameter of 12 mm.
In applications with high secondary currents, the required cable cross-section may be larger than the bushing. In this case, use the *HCB-2* high-current busbars as well.

High-current busbar *HCB-1*

When passing a single cable with a maximum diameter of 12 mm through the current transformer, use the *HCB-1* high-current busbar. For further information, see the instructions for the *HCB-1* high-current busbar.

5 Scope of Delivery

► Check the scope of delivery for completeness and condition.

The scope of delivery includes:

- 2 high-current busbars (angle profile)
- Fixing material:
  - 2 × Allen screw (M4 × 10)
  - 4 × hexagon screw (M6 × 16)
  - 4 × hexagon nut (M6)
  - 8 × washer (M6)
  - 4 × serrated lock washer (M6)
  - 4 × insulating bush (for M4)

6 Installation

6.1 Tools and material

You need the following tools:

- Allen key AF 3
- Spanner AF 10
- Crimping tool

You need the following material:

- Cable lug (for M6, cross-section suitable for the cable used)
- High-current cable (e.g. *C-HF-xx*)

6.2 Mounting high-current busbars

DANGER

Danger to life due to electric shock

The electronic connections are connected to the line voltage.

► Turn off the line voltage.

► Check that no voltage is present at the device.

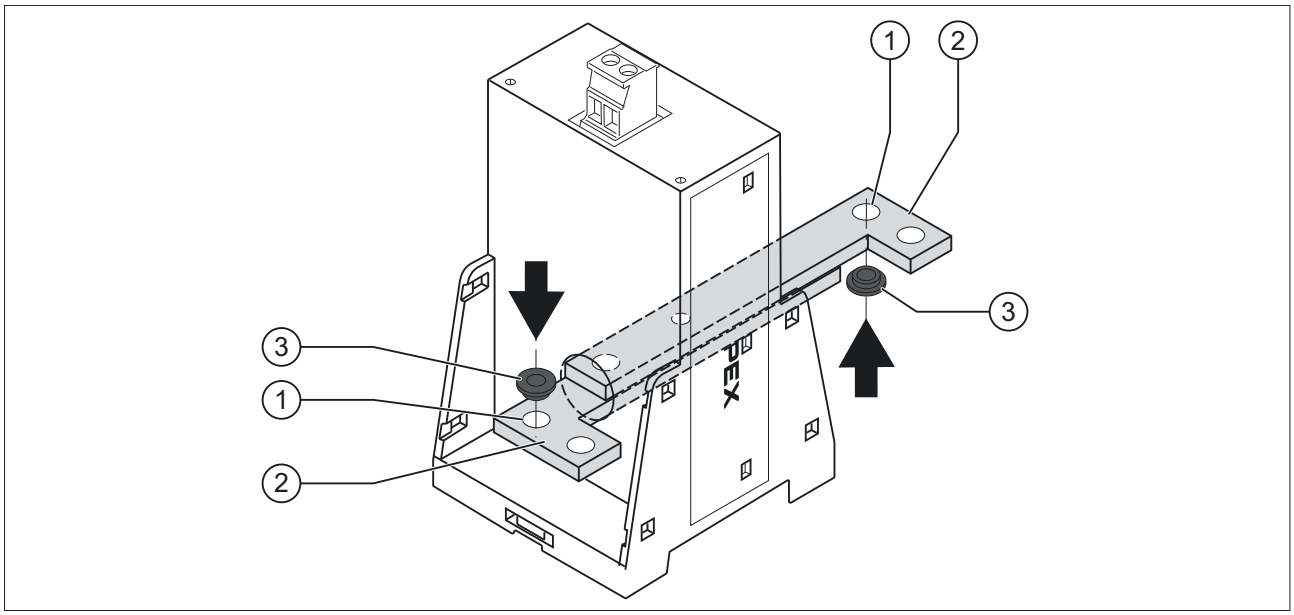
NOTE

Material damage due to inadmissible fixing material

If you use unsuitable fixing material, the function of the device will be impaired.

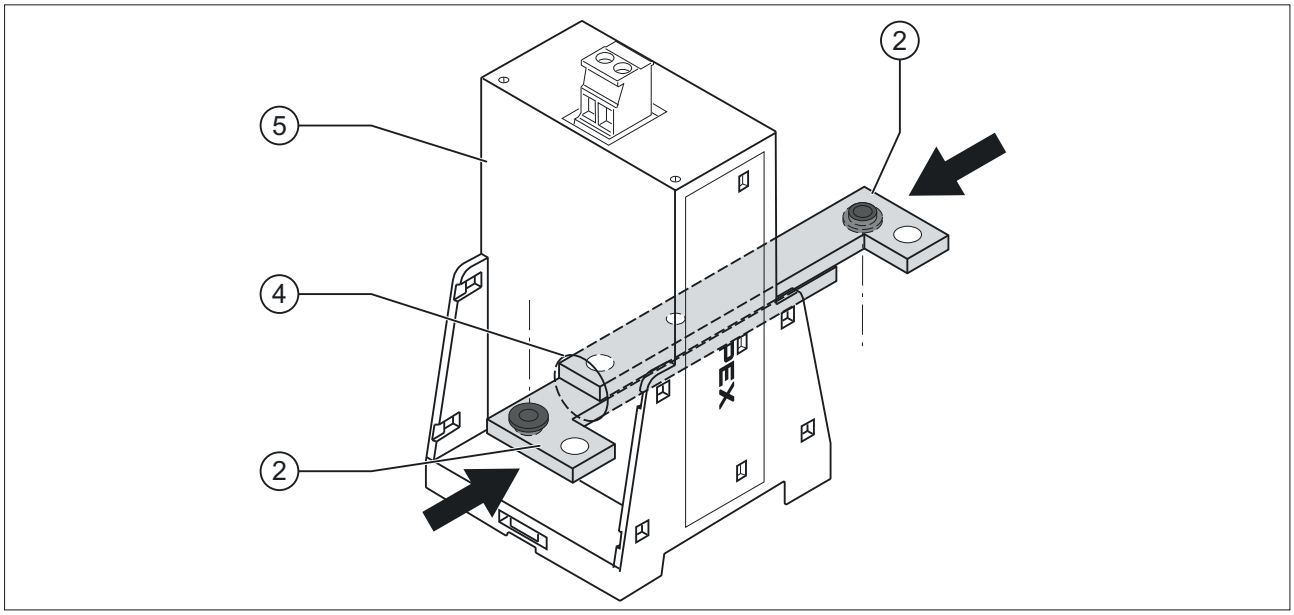
► Only use the fixing material supplied.

To mount the high-current busbars, proceed as follows:

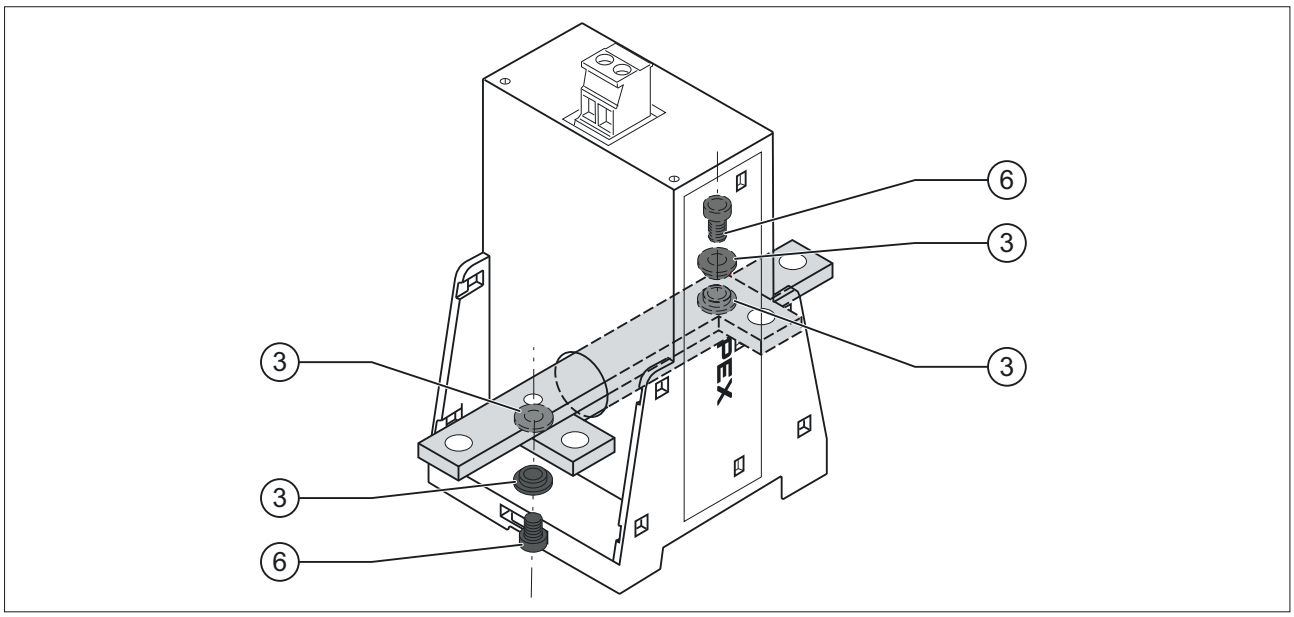


1. insert one insulating bush (3) each into the bore (1) of the two high-current busbars (2)
   Insert one insulating bush from below into one high-current busbar and one insulating bush from above into the other high-current busbar.
   The fixing material is included in the scope of delivery.

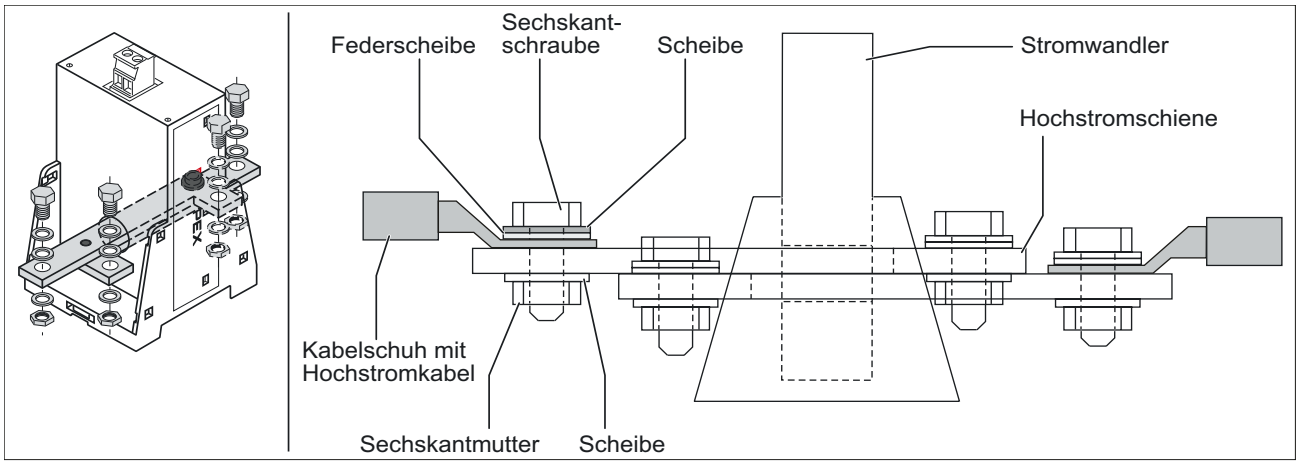
   ⇨ The two high-current busbars are insulated.



2. from both sides of the current transformer (5), push 1 high-current busbar (2) each through the bushing (4)



3. opposite the insulating bush, screw the second insulating bush (3) on with the Allen screw (6)
   Tighten the Allen screws hand-tight.
   The fixing material is included in the scope of delivery.



4. attach the high-current cable to both high-current busbars with the cable lug and tighten the hexagon screws
   The fixing material is included in the scope of delivery.
5. tighten all screws
   Torque:
   M6: 3.5 Nm to 6.0 Nm
   M4: 0.5 Nm to 1.0 Nm

⇨ The high-current busbars with cable lugs and high-current cable are mounted.

7 Maintenance

Only qualified professionals may carry out cleaning, maintenance or repair work.

To enable trouble-free operation of the device and to maintain the product quality, carry out the cleaning and maintenance activities at regular intervals.

The device is subject to vibrations during operation, which can loosen screw connections. To prevent damages, check the device for loose connections at regular intervals and retighten all screws if necessary.

Clean the outside of the device using dry compressed air.

8 How to order

	**High-current busbar HCB-2** Art. no. 885218
	**High-current busbar HCB-1** Art. no. 885110
	**Residual current transformer CBM-2** Art. no. 885217