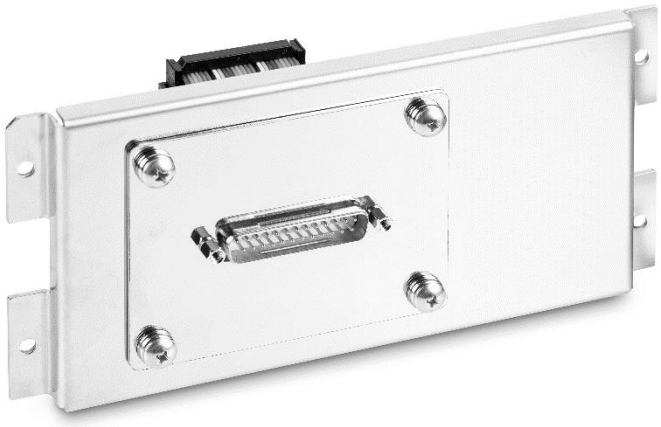
KERN & Sohn GmbH
Ziegelei 1
D-72336 Balingen
E-Mail: info@kern-sohn.com
Phone: +49-[0]7433- 9933-0
Fax: +49-[0]7433-9933-149
Internet: www.kern-sohn.com

Installation instructions Relay output

KERN FEJ-A07

Version 1.0
2022-07
GB



GB

KERN FEJ-A07

Version 1.0 2022-07

Installation instructions Relay output

Contents

1 Scope of delivery 2

2 Assembly 2

2.1 Factory mounting 5

3 Specification 6

3.1 Pin allocation of balance output plug D-SUB25P 6

3.2 Relay contact 7

3.3 Inductive load 7

3.4 Connection optocoupler 7

3.5 Relay input (example) 7

4 Menu settings 8

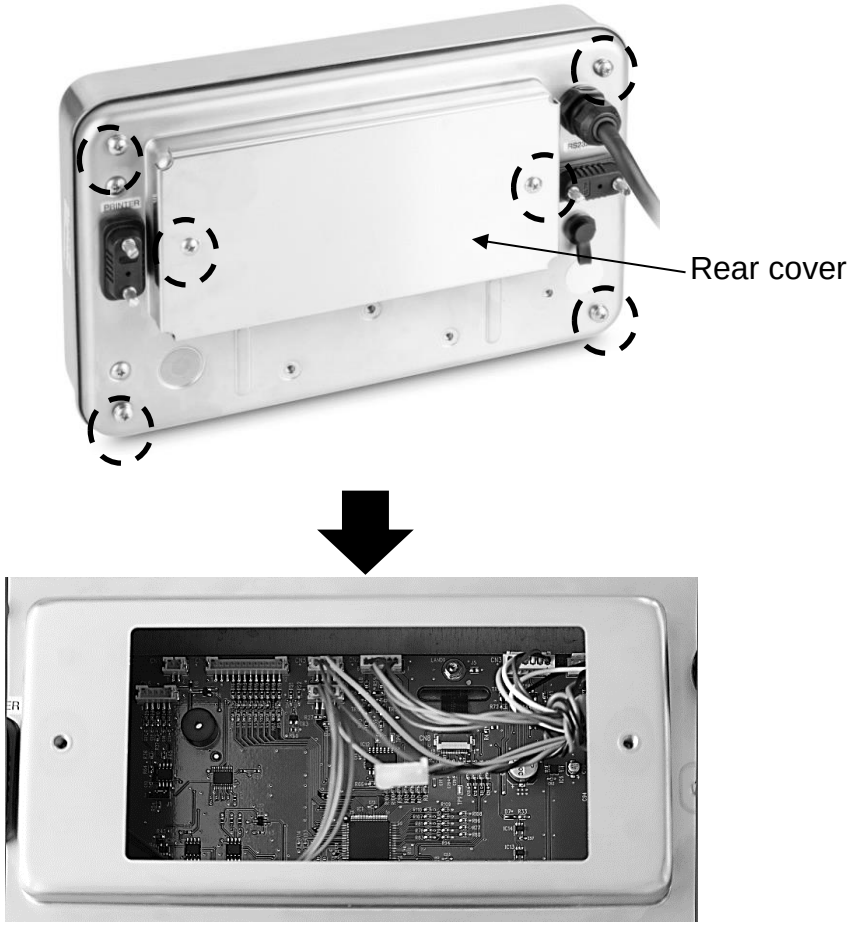
5 Operation 8

1 Scope of delivery

- Relay output
- 4 washers
- 4 nuts
- Foam seal
- Apply „RELAY“ sticker
- Installation instructions

2 Assembly

1. Disconnect the scale from the mains
2. Unscrew 6 screws on the back of the terminal housing and remove the back cover (the terminal may have to be removed from the stand or the scale beforehand).

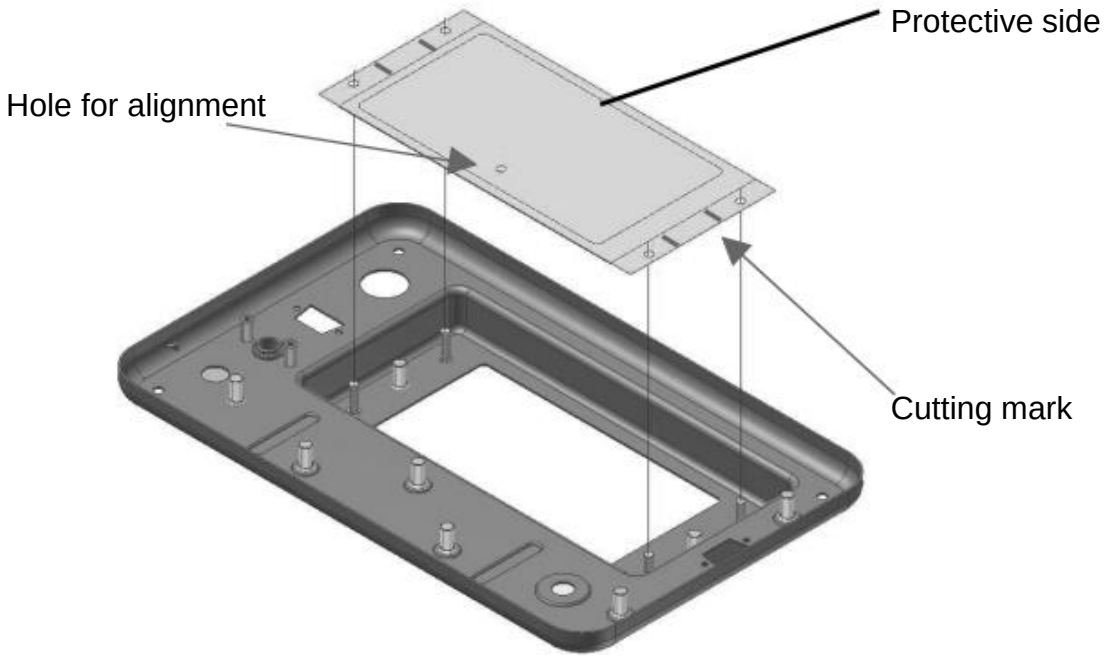


3. Carefully detach the back of the terminal from the front.
4. Clean the inside of the back of the housing with rubbing alcohol.
5. Attach the foam seal to the cleaned inside of the back of the housing as shown in the following illustration.
   - ⇨ Peel the protective side (without holes) off the seal
   - ⇨ Align the foam gasket with the hole in the direction of the three pins.

⇨ Stick the seal with the four holes over the screw pins on the inside of the enclosure

⇨ Peel the protective side (with holes) off the seal.

Hint: Before attaching the seal, cut the protective side at the marked points to make it easier to remove later **(take care not to damage the seal).**



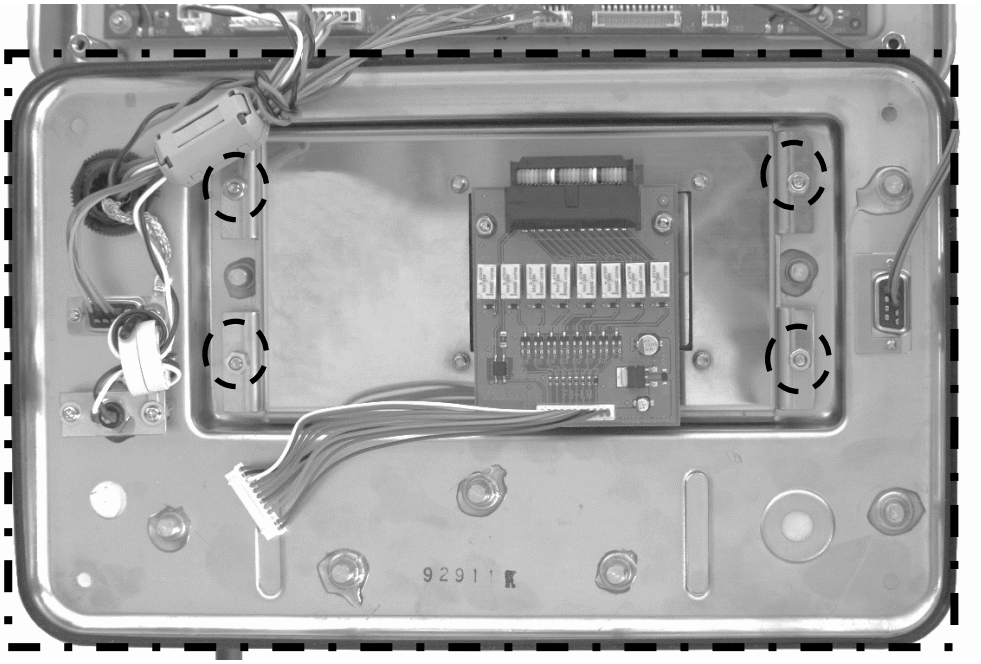
6. Place 4 spacers on the screw pins



7. Place the relay output with the holes on the screw pins

   The relay output should later be located on the left side of the back of the terminal

8. Place 4 washers on the screw pins
9. Fasten the relay output to the screw pins with the 4 nuts
10. Place the rubber seal over its guide slot on the edge of the housing



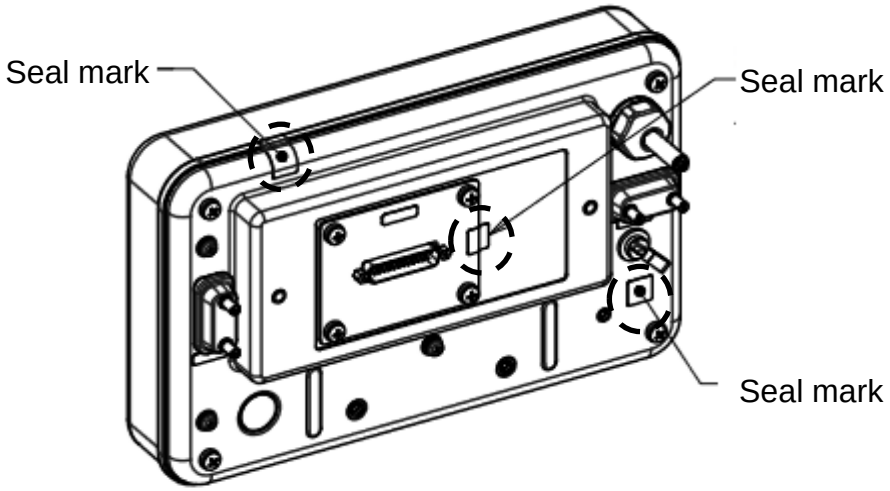
11. Replace the back of the display housing on the front side
12. At the same time, connect the cable connector to the circuit board (CN7)

    Make sure that the rubber seal does not slip off the edges of the back of the housing. Insert the back of the housing into the front of the housing with even pressure. Carry out the procedure with a second person if necessary.
13. Fasten the rear side of the housing again with the four screws.
14. Place the sticker with the inscription “RELAY” on the back of the housing next to the relay output



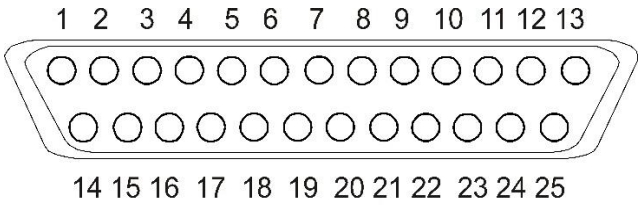
2.1 Factory mounting

If you purchased the relay output for the **FEJ** weighing system factory assembled, there are seal marks on the back of the terminal. For more information on the seal marks, refer to the operating instructions for the particular scale.



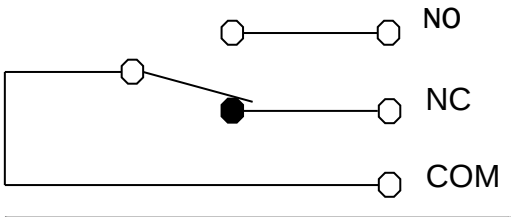
3 Specification

3.1 Pin allocation of balance output plug D-SUB25P



Pin	Signal		Input/ Output	Function
1	1. Limit (LOW)	NO	Output	ON, when first limit (LOW) is reached
2	1. Limit (LOW)	NC	Output	OFF, when first limit (LOW) is reached
3	1. Limit (LOW)	COM	-	Joint contact first limit (LOW)
4	2. Limit (OK)	NO	Output	ON, when second limit (OK) is reached
5	2. Limit (OK)	NC	Output	OFF, when second limit (OK) is reached
6	2. Limit (OK)	COM	-	Joint contact second limit (OK)
7	3. Limit (HIGH)	NO	Output	ON, when third limit (HIGH) is reached
8	3. Limit (HIGH)	NC	Output	OFF, when third limit (HIGH) is reached
9	3. Limit (HIGH)	COM	-	Joint contact third limit (HIGH)
10	-		-	-
11	-		-	-
12	-		-	-
13	-		-	-
14	-		-	-
15	-		-	-
16	ERR	NO	Output	ON in case of error message
17	ERR	NC	Output	OFF in case of error message
18	ERR	COM	-	ERR joint contact
19	During measurement	NO	Output	ON, if measured quantity is 5 times greater than reading range
20	During measurement	NC	Output	OFF, if measured quantity is 5 times greater than reading range
21	During measurement	COM	-	Joint contact during measurement
22	Acoustic signal	NO	Output	ON at acoustic signal
23	Acoustic signal	COM	-	Joint contact when audio signal is given
24	External signal (+)		Input	Contact for output control (+)
25	External signal (-)		Input	Contact for output control (-)

3.2 Relay contact

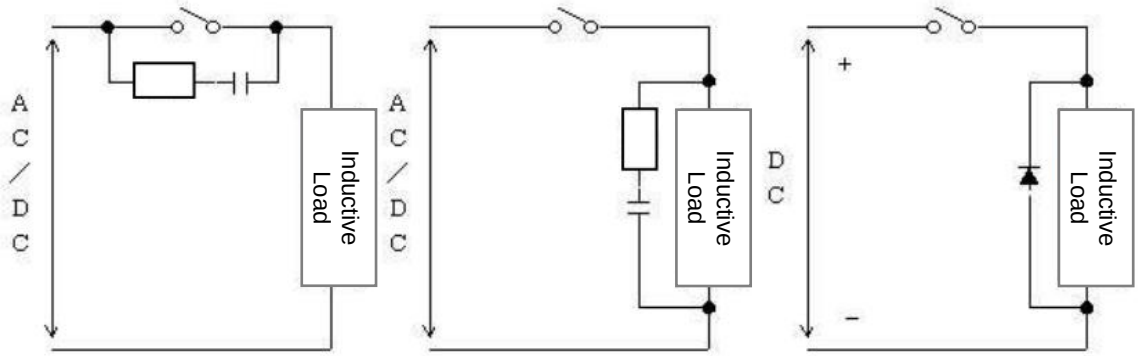


Technical data

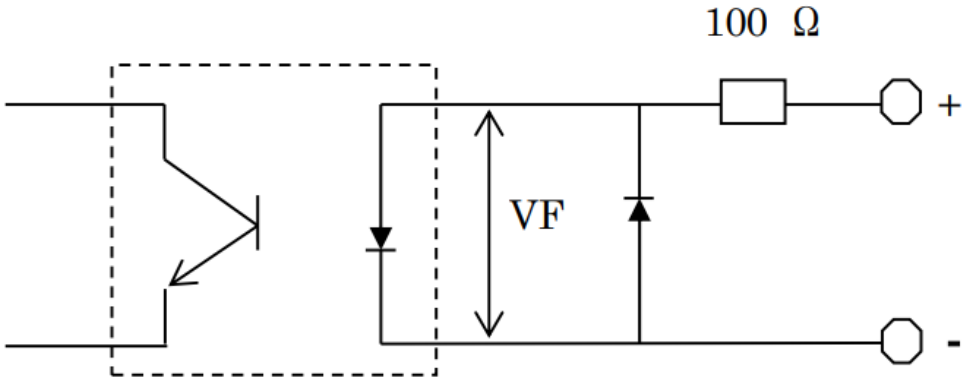
AC 30 V / 0.5 A

DC 30 V / 1 A

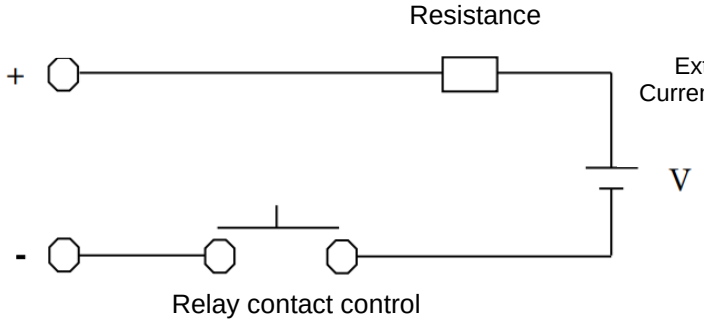
3.3 Inductive load



3.4 Connection optocoupler



3.5 Relay input (example)



Example of constant:

V	R
5 V	270 Ω
12 V	1 kΩ
24 V	2.2 kΩ

4 Menu settings

For more information on the menu setting when weighing with tolerance range, refer to the operating instructions of the respective balance in chapter 13.

- ⇨ Activate weighing with tolerance range
- ⇨ Set relay output when weighing with tolerance range
- ⇨ Set the tolerance values

5 Operation

- ⇨ Connect mains adapter and switch on balance with **[ON/OFF]-**key
- ⇨ Entering limiting values
- ⇨ Evaluation of readings via relay contacts

Status balance	Display	Contact
Measure value outside condition	No measure value display	inactive
Measure value outside range	No measure value display	inactive
Input of invalid values	<LOW>, <OK>, <HIGH> flash or display of <ERR748>.	inactive
Error message (over-ERR/under-ERR)	<UNDER ERROR>, <OVER ERROR>	1. LO, OK, HI and during measurement: OFF 2. ERR: ON
During input	Input appears on display	inactive
Wait for stability indication after taring or zeroing	<TARE> or <ZERO> flashes	Last display fixated
Stand-by	< * >	inactive
Automatic check of balance at starting	Start display (888888)	inactive

- Output by external signal
  - Contacts and audio signals are started by the weighing result, but may also be triggered by an external signal
  - When setting the menu <138 RELAY CTL 2>, the result of the measurement result is shown for about 200 ms after the signal is applied
  - For pulsed, external signals the output signal will follow after 100 ms at the earliest