

User Manual for the

OTTO HEUSS AD-Converter Part number: 3010-570

for converting an analog potentiometer signal to a digital Gray code signal

Mechanical mounting

The AD converter has a holder for top-hat rails and can be plugged into the swell control unit or at the PLC-System.

Connecting the power supply

Connect plus and minus (12-28V) to the terminal provided for this purpose (terminal 3). If you are using a Swell controll unit, you can do this at the terminal marked **green** in the picture below. For the PLC, select an existing 2A or 3A fuse or install another one. The left-hand connection of terminal 3 is MINUS, the right-hand connection is PLUS, the middle one remains unconnected.

Connecting the potentiometer to the AD converter

The potentiometer from the swell shoe must be connected to the AD converter by a 3-core, **shielded cable** (3 x 0.5mm², max. 20 meters long). The "middle" wiper connection of the potentiometer is connected to the Ø symbol of terminal 2, the two "outer" connections are connected to the right and left of terminal 2 as required. Turning the connections inverts the movement of the potentiometer. There is a indicator-LED (4) showing the position of the swell shoe:

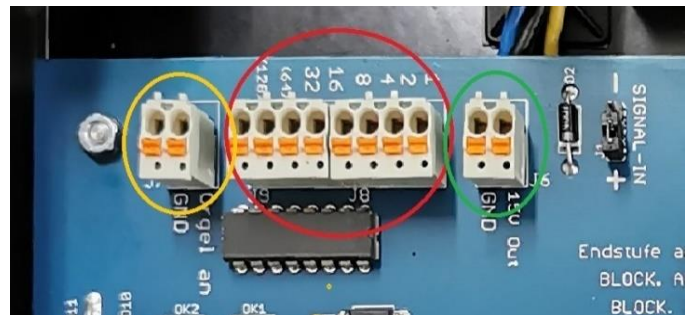
- green is minimum (closed position)
- Yellow is middle
- red is maximum (open position)

Connecting the AD converter to the swell control unit

The connection to the swell control unit is made by a 6-core cable between the A/D converter and the swell control unit, where the Graycode cable is connected to the **red** marked connection points (see photo below), on the A/D converter it's connected to output terminal (5).

The following connections shown in the table are connected to each other:

Swell control unit	AD-Wandler
1	2
2	4
4	8
8	16
16	32
32	64
64 and 128 not used	1 and AUX not used



Connection at Swell control unit



Calibration

1. Move the Swell Shoe to the "closed" position.
2. Press button "calibrate" (1) for approx. 3 seconds and release.
3. The indicator-LED (4) flashes green/red to confirm the process.
4. Move the swell shoe to the "open" position.
5. Press button "calibrate" (1) again shortly and release.
6. The indicator-LED (4) stops flashing to confirm the end of process.

Safety instructions

To ensure safe operation, the following precautions must be observed:

- Avoid setting up the appliance near heat sources and/or in damp and/or dusty places.
- An organ is an electrical system and must be wired, connected and commissioned professionally and in accordance with applicable standards and regulations.
- Avoid strong vibrations during transportation, as these can damage the electronics.
- The device should not be placed near equipment that emits high-frequency waves, such as televisions, radio receivers, microphone systems, transmission masts, etc.
- Strict care must be taken to ensure that no liquids or metal shavings get into the interior of the appliance, as these can cause damage.
- Do not carry out any unauthorized work on the electrical system.
- In the event of a defect, contact the manufacturer or your organ builder.

Guarantee

- Otto Heuss GmbH grants a two-year guarantee from the date of delivery.
- Otto Heuss GmbH is not responsible for damage caused by incorrect handling.
- Otto Heuss GmbH accepts no responsibility for canceled or impaired concerts, events or performances.

Disposal

Electrical appliances that are no longer required or defective must not be disposed of with household waste; they must be taken to a local collection point for proper disposal or dismantled and disposed of correctly by a specialist.

Used batteries and electrical appliances must be disposed of separately in accordance with the applicable regulations.

