

Technical Data:

Power supply:	P3120-1N box-fixed voltage transformer, magnetic or P3120-1B box-rechargeable battery, 6 V/10 Ah, magnetic
Output:	4 mm safety receptacle, permanently protected against short-circuiting
Voltage display:	LED, digit size 26 mm
Potentiometer for regulating the output voltage	
3 mm LED indicator for power source voltage	
Case:	Plastic, ABS
Dimensions:	approx. 160 x 120 x 45 mm
Weight:	approx. 540 g

Do not drop the instrument. Should this occur, have the instrument checked and, if necessary, repaired by authorized service personnel.

In the event that unexpected problems arise during installation or use, turn the instrument off and contact an authorized dealer.

Do not expose the instrument to water drops or spray.

This instrument contains no parts that need to be serviced by the user.

The instrument may only be repaired by authorized service personnel.

This device is only to be operated by qualified persons and by others duly instructed by such persons.

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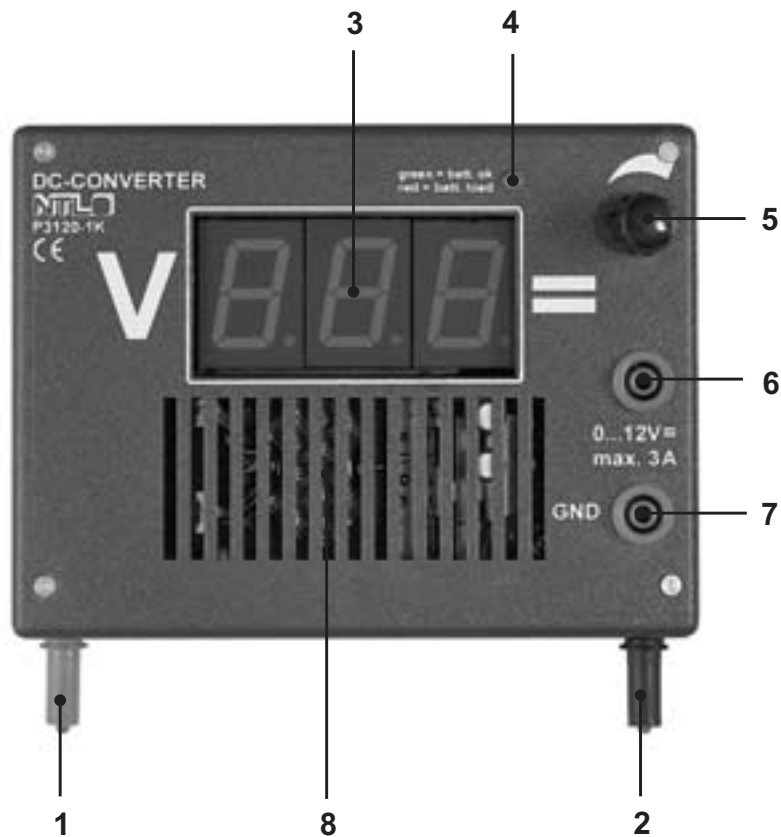
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Box-DC converter, magnetic P3120-1K

This device is used mainly in conjunction with the box-rechargeable battery 6 V/10 Ah, magnetic P3120-1B or box-fixed voltage transformer, magnetic P3120-1N for carrying out experiments in which stabilized and variable DC voltage able to be loaded moderately is required but no electrical outlet is available.

The converter provides infinitely variable, stabilized DC voltage from 0 to about 12 V. The maximum permanent load is 3 A. The current voltage output is shown on a digital display 26 mm high with 2½ decimal places.





- 1 4 mm safety receptacle, red (positive terminal), for connection to P3120-1B box-rechargeable battery, magnetic, or P3120-1N box-fixed voltage transformer, magnetic
- 2 4 mm safety receptacle, black (negative terminal) for connection to power source
- 3 LED display for voltage output
- 4 LED indicating power source connected
- 5 Potentiometer for regulating output voltage
- 6 4 mm safety receptacle, red, for voltage output (positive terminal)
- 7 4 mm safety receptacle, blue, for voltage output (negative terminal)
- 8 Ventilation slits

Operation:

Due to the large amount of current needed, this device is designed as a converter and thus must be powered by either a fixed voltage transformer (e.g. P3120-1N box-fixed voltage transformer, magnetic) or by the P3120-1B box-rechargeable battery 6 V/10 Ah, magnetic, connected to the 4 mm safety receptacles (1, 2).

Note:

In the case of overloading, the control LED (4) on the converter blinks or glows red.

When used with the box-rechargeable battery P3120-1B the amount of charge in the battery is indicated by the two-colored LED (4) on the converter. Green indicates that sufficient power for operation is available. Red indicates that too little power is being supplied. In this case sufficient output voltage cannot be ensured (charge the battery!). If nothing lights up, then either the power supply is not working or is too weak or the connections have been reversed.

The DC-converter provides stabilized DC voltage between the output terminal (6) and the ground (7). The amount of voltage can be adjusted infinitely from 0 to about 12 V using the potentiometer (5) and varies little under load. The maximum continuous load is 3 A. The current output voltage is indicated by the display with 26 mm digits and 2½ decimal places (3).

The output terminals (6, 7) are permanently protected against short-circuiting as well as against reactive loads. In the case that the output terminals are overloaded for a longer period by backlash potential, a PTC switches the output off. Should this occur, turn the device off, allowing it to cool down for a minute, and correct the circuit before turning the device on again. Inadvertently connecting power supplies to the output terminals is of no consequence up to 12 V_{eff}, beyond that there is a danger of the device being destroyed.

Note:

As a result of the internal mechanism protecting against connecting the device to the wrong terminals, negative backlash potential is short-circuited! This can damage the device that has been improperly connected to the converter!

In order to prevent the device from overheating, do not cover the ventilation slits (8).

The negative output terminal (7) is connected to the negative input terminal. This should be noted particularly in the case of experiments involving complicated circuitry!