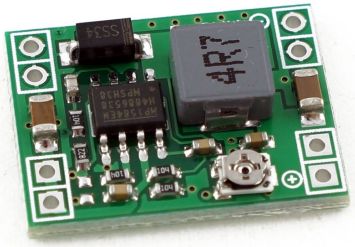
BEC 3A

Adjustable step-down voltage converter (step-down BEC)

User manual



Always set and measure the output voltage with a multimeter before connecting a load.

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1. Product description

1.1 What it is for

The BEC 3A adjustable is a small step-down voltage converter (step-down BEC). From an input voltage of 4.5–28 V it produces a lower, regulated output voltage that you set with a potentiometer in the range of 0.8–20 V. The output voltage is always lower than the input voltage.

In RC models and FPV equipment it is useful wherever you need to power a device with a voltage that neither the battery nor the flight controller (FC) provides directly – for example a camera, LED lighting or other auxiliary electronics.

1.2 Specifications and package contents

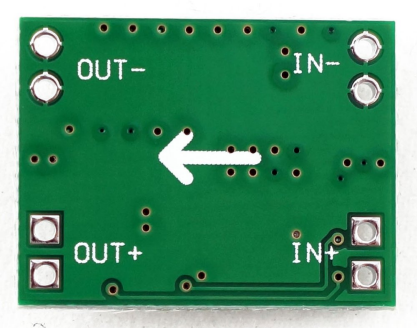
Input voltage	4.5–28 V
Output voltage	0.8–20 V (always lower than the input voltage)
Current rating	2 A continuous, max. 3 A (short-term or with a heatsink)
Efficiency	max. 96 %
Voltage setting	potentiometer – clockwise down, anticlockwise up
Dimensions	22 × 17 × 4 mm
Package contents	1× BEC module (assembled printed circuit board)
Not included	wires, connectors, heatsink, insulation (heat-shrink tubing)
Product designation	BEC 3A adjustable

2. Use

2.1 What you will need

- a power source with a voltage in the range of 4.5–28 V (e.g. the model's battery),
- a multimeter to check the output voltage,
- a small flat screwdriver to adjust the potentiometer,
- a soldering iron, solder and wires with a cross-section suitable for the current drawn,
- heat-shrink tubing or other insulation.

2.2 Wiring and voltage setting



Bottom side of the module: input IN+ / IN−, output OUT+ / OUT−. The arrow shows the direction from input to output.

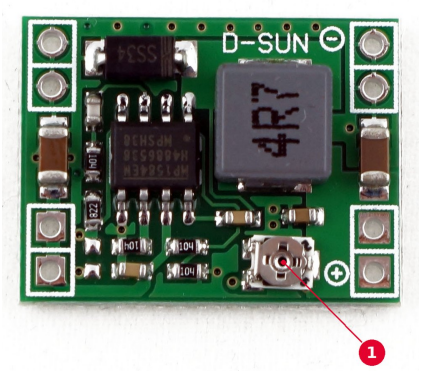
① Solder the supply wires to the **IN+** (plus) and **IN−** (minus) pads. The pin labels are printed on the bottom side of the board.

② Do not connect the load to the **OUT+** and **OUT−** output yet – connect only a multimeter (DC voltage range).

③ Connect the power and turn the potentiometer with a small screwdriver (figure below, label ①): **clockwise lowers the voltage**, **anticlockwise raises it**. Set the required value.

④ Disconnect the power, solder the load to OUT+ and OUT− instead of the multimeter and check the voltage again after switching on.

⑤ Insulate the module (e.g. with heat-shrink tubing) and mount it so that it cannot touch conductive parts of the model.



① *potentiometer for setting the output voltage*

2.3 Load and battery supply

- Draw no more than **2 A** continuously. A current of up to **3 A** is permissible only for a short time or with a heatsink.
- The module can only lower the voltage. The output voltage must always be lower than the input voltage.
- The battery voltage drops during operation. Set the output voltage so that it is lower than the voltage of a discharged battery – e.g. with a 3S LiPo battery (fully charged 12.6 V, i.e. 4.20 V/cell; end of flight 10.5 V, i.e. 3.5 V/cell) lower than 10.5 V.
- The input voltage must not exceed **28 V**, not even with a fully charged battery.
- The module heats up under higher load – provide airflow.

2.4 Safety and care

- Always measure the output voltage with a multimeter before connecting a load.
- Observe the polarity. Reverse polarity may damage the module and the connected device.
- Do not short-circuit the output and do not solder on the module while it is powered.
- Protect the bare board from moisture, dust and contact with conductive materials (e.g. a carbon frame).
- When used in a model aircraft or drone, follow the regulations of the country in which you operate the model – the law of the country of operation applies.
- The product is intended for persons aged 14 and over.

3. Information for the EU and Czech Market

3.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.cz

3.2 Product conformity

CE

- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorama.cz.
- **Product identification:** the product designation “BEC 3A adjustable” is stated on the purchase document. The product is a bare printed circuit board without a rating label and without firmware.

3.3 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

4. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 3.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.