

DC8-24V PWM Brushless DC Motor Speed Controller Operation Manual

Model: PWM brushless DC motor speed controller

1. Úvod

This manual provides comprehensive instructions for the Occick DC8-24V PWM brushless DC motor speed controller. This compact and lightweight board is designed to precisely control the speed and direction of brushless DC motors that are equipped with their own driver and PWM terminals. Please read this manual carefully before installation and operation to ensure safe and efficient use.

2. Bezpečnostné informácie

- Uistite sa, že napájanie objektu je v rámci špecifikovaného rozsahu 8 – 24 V jednosmerného prúdu.
- Always disconnect the power before making any cable connections.
- Avoid short circuits between terminals.
- This controller is designed for brushless DC motors with integrated drivers and PWM control inputs. Do not attempt to use it with other types of motors.
- Protect the board from moisture, dust and extreme temperatures.
- Handle the board carefully to avoid damaging the electronic components.

3. Obsah balenia

- 1 x Brushless DC Motor Speed Controller Board

4. Zobrazenie hotového produktu

The speed controller board features a compact design with clearly marked terminals and controls for ease of use. It is available in two main designs: “Style A” with a positive switch model and “Style B” with a side switch model.

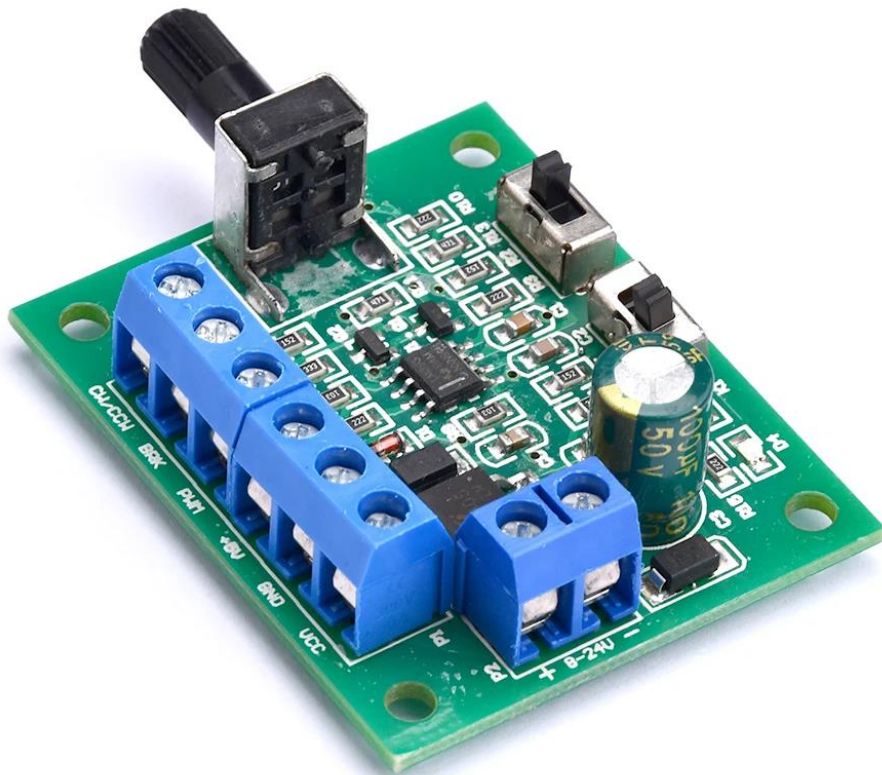


Figure 1: Occick Brushless DC Motor Speed Controller, Style A (Positive Switch Model)

5. ****BRK****: Brake control input (if supported by the motor controller).
6. ****CW/CCW****: Clockwise/Counterclockwise direction control input (if supported by the motor controller).
7. ****Speed potentiometer (W1)****: Sets the motor speed (duty cycle 0-100%).
8. ****Forward/Reverse Rotation Switch (K2)****: Switches the direction of motor rotation (requires motor controller support).
9. ****Start-stop switch (K1)****: Starts or stops the engine.
10. ****Indicator****: Provides visual feedback on the status of the controller.
11. ****Negative (8-24V)****: Negative pole for main power supply.
12. ****Positive (8-24V)****: Positive pole for main power supply.
13. ****Power Terminal (P1)****: Main input power terminals (8-24V).
14. ****Motor terminal (P2)****: Output terminals for connection to a brushless DC motor.

Kroky pripojenia:

1. Connect the 8-24 V DC power supply to the ****positive (12)**** and ****negative (11)**** terminals (or to the P1 power supply terminals (13)). Observe the correct polarity.
2. Connect the motor power cable to the ****motor terminal (14)****.
3. Connect the motor PWM input to the ****PWM (4)**** terminal on the controller.
4. If your motor controller supports the braking function, connect its brake input to the ****BRK (5)**** terminal.
5. If your motor controller supports forward/reverse rotation, connect its direction input to the ****CW/CCW (6)**** terminal.
6. Make sure all connections are tight and insulated to prevent accidental short circuits.

6. Prevádzka

1. ****Power on****: After all connections are made, connect the board to the power supply. The indicator light (10) should light up.
2. ****Start/Stop engine****: Use the ****Start-Stop switch (K1)**** to start or stop the engine.
3. ****Speed adjustment****: Rotate the ****speed potentiometer (W1)**** to adjust the motor speed. The duty cycle can be controlled from 0% (off) to 100% (full speed).

4. ****Reverse****: If your motor and its controller support it, use the ****forward/reverse switch (K2)**** to change the direction of the motor's rotation. Please note that this function depends on the internal capabilities of the motor controller.

7. Údržba

- Keep the speed controller clean and free of dust and dirt.
- Avoid exposing the board to liquids or excessive moisture.
- Do not use excessive force on the switches or potentiometer.
- Regularly check that the cable connections are not loose or corroded.
- Keď sa nepoužíva, skladujte na suchom a chladnom mieste.

8. Riešenie problémov

- ****Engine won't start****:
 - Check that the power supply is connected correctly and provides the specified voltage (8-24 V DC).
 - Make sure the start-stop switch (K1) is in the “ON” position.
 - Verify that the motor is a brushless DC motor with an integrated controller and PWM input.
 - Check all cable connections between the controller and the motor for continuity and correct polarity.
- ****Speed does not change****:
 - Make sure the speed potentiometer (W1) is working properly and rotates freely.
 - Verify PWM connection to motor controller.
- ****Direction does not change****:
 - Verify that your specific brushless DC motor and its driver support external forward/reverse control via the CW/CCW terminal.
 - Check the functionality of the forward and reverse rotation switch (K2) and its connection.
- ****The indicator light is off****:
 - Check the connection and voltage of the main power supply.

- Check the board for visible damage.

9. Špecifikácie

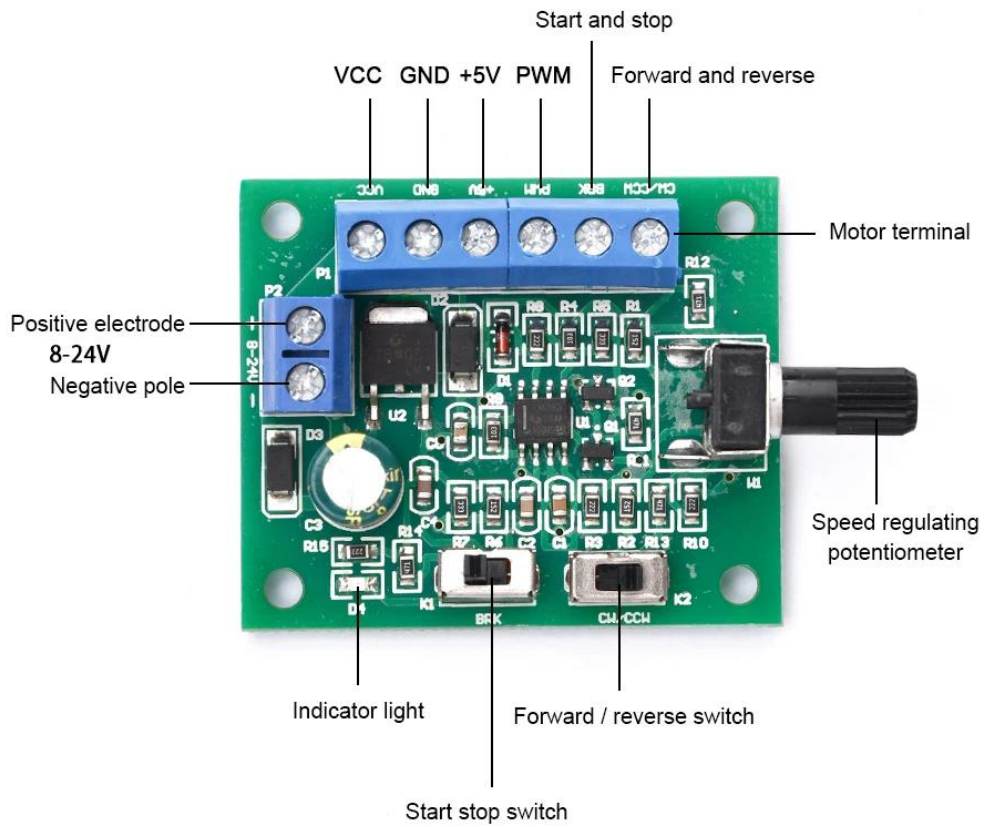


Figure 4: Speed controller board dimensions (60 mm x 41 mm)

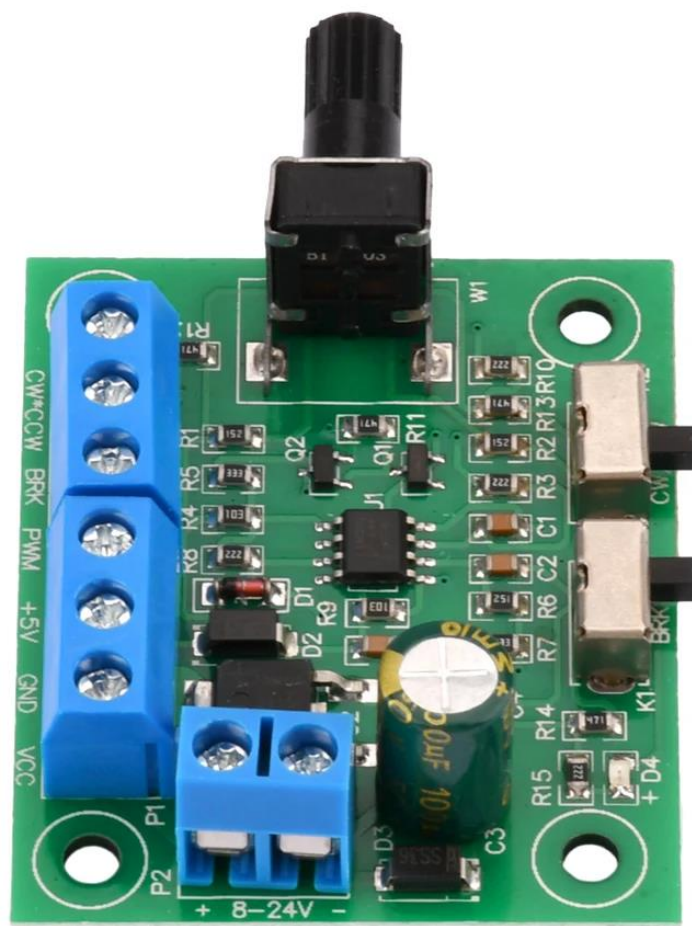


Figure 5: Alternative dimensions (4.8 cm x 4 cm) and weight (16.1 g)

Špecifikácie produktu

Funkcia	Špecifikácia
Názov produktu	Brushless DC motor speed controller
Mark	oteckov
Farba	Zelená

Špecifikácie produktu

Funkcia	Špecifikácia
Vstupný objekt	DC voltage 8 – 24 V
Výstupné napätie (pre externé komponenty)	5V
PWM frekvencia	Približne 18 kHz
Pracovný cyklus	0 – 100 %
Rozmery	60 mm x 41 mm (approx. 2.36 inches x 1.61 inches) or 4.8 cm x 4 cm (approx. 1.88 inches x 1.57 inches)
Hmotnosť	16,1 g
Funkcie	Start-stop switch, Forward/reverse rotation switch, Indicator light

10. Tipy pre používateľov

- ****Current Capacity****: The product description does not list the maximum motor current rating. It is important to ensure that the current draw of your brushless DC motor does not exceed the capabilities of this speed controller board. Always check the specifications of your motor and use an external motor driver with the appropriate current capacity if necessary.
- ****Motor Compatibility****: Please note that forward/reverse and brake functions depend on the internal controller of your specific brushless motor supporting these external control signals.

11. Záruka a podpora

For any technical assistance, troubleshooting beyond this guide, or warranty questions, please contact the seller directly through your purchasing platform. For prompt support, please provide your order details and a clear description of the problem.