

## 1.Description:

ZK-MG is a High-power PWM DC motor governor.It can adjust the motor speed by adjusting the duty cycle of the output signal.It can also adjust the output frequency to match the frequency of the output signal to the motor frequency, allowing the motor to work more stably.

## 2.Features:

- 1>.Support ON/OFF output
- 2>.Soft start function
- 3>.Support set duty cycle
- 4>.Support set frequency
- 5>.Adjustable digital encoder
- 6>.Instrument case
- 7>.Support reverse connection protection
- 8>.Support parameter memory function

## 3.Parameters :

- 1>.Product Name:ZK-MG High-Power PWM DC Motor Speed Controller
- 2>.Product Number:ZK-MG
- 3>.Working Voltage:DC 5V-30V
- 4>.Rated Current:5A
- 5>.Peak Current:15A
- 6>.Power:150W(Max)
- 7>.Work Frequency:1KHz-99KHz
- 8>.Frequency Accuracy:1%
- 9>.Frequency Resolution:1KHz
- 10>.Duty Cycle:0%-100%
- 11>.Duty Cycle Resolution:1%
- 12>.Work temperature: -40~85°C
- 13>.Working Humidity:0%-95%RH
- 14>.Size:79\*43\*40mm

## 4.Potentiometer introduction:

- 1>.Long press means need keep press for more than 3second.
- 2>.Default display duty cycle.
- 3>.Normal display mode:
  - 3.1>.Short press potentiometer:Turn ON/OFF output signal.
  - 3.2>.Long press potentiometer:Enter parameter set mode.
  - 3.3>.Rotate potentiometer clockwise:Increase duty cycle value.
  - 3.4>.Rotate potentiometer counterclockwise:Decrease duty cycle value.
- 4>.Parameter set mode:
  - 4.1>.Short press potentiometer:Select parameter.Switch select Lower Limit Value of duty cycle,Upper Limit Value and Output Frequency.Lower Limit Value

display in 'L' and 2bit number.Upper Limit Value display in 'H' and 2bit number or '100'.Output Frequency display in 'F' and 2bit number.

4.2>.Long press potentiometer:Save parameter and quit set mode to normal display mode.

4.3>.Rotate potentiometer clockwise:Increase set value.

4.4>.Rotate potentiometer counterclockwise:Decrease set value.

5>.STOP pads inside:It is used to connect to button to turn ON/OFF output if user need control output by another button or controller.

## 5.Use Steps:

1>.Connect right work voltage(Note:don't connect load before set parameters).

2>.Short press potentiometer to turn OFF output.

3>.Long press potentiometer enter into parameter set mode.

4>.Short press potentiometer to select set parameters.

5>.Rotate potentiometer to set parameter value.

6>.Set another two parameters as step3 and step4.

7>.Long press potentiometer to save parameters and quit set mode to normal display mode.

8>.Connect load as wiring diagram.

9>.Short press potentiometer to turn ON output.

## 6.Application:

1>.Drive motor

2>.Light brightness control

3>.Speed control

4>.Signal generator

## 7.Package Listing:

1>.1pcs ZK-MG High-Power PWM DC Motor Speed Controller

Output Indicator : ON : Start output  
OFF : Stop output



Display screen:

Switch display Lower or Upper Limit  
Value of duty cycle and Frequency.

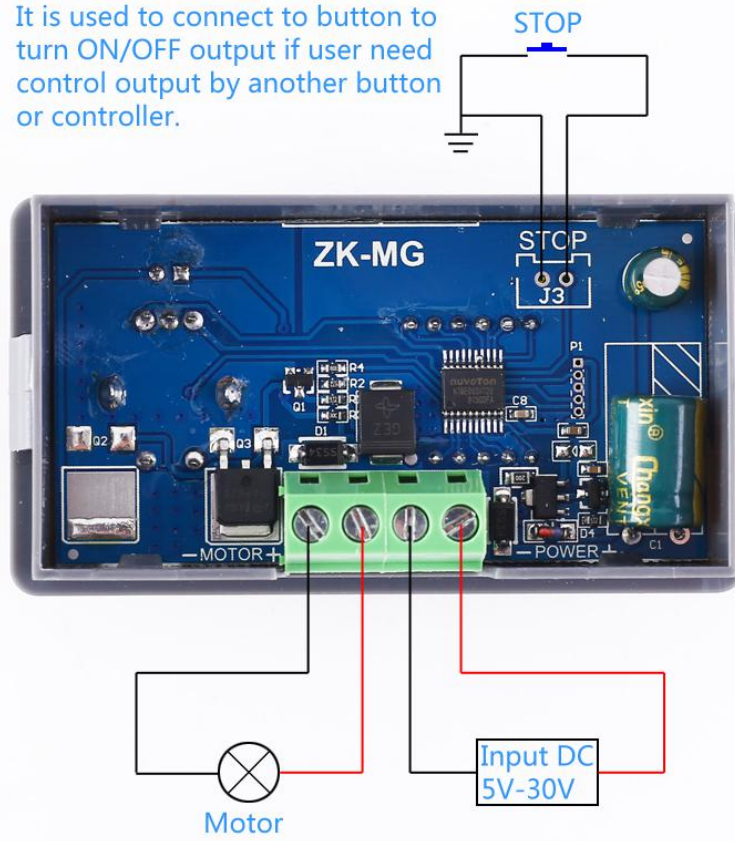
**Normal display mode:**

- 1>.Short press potentiometer:Turn ON/OFF output signal.
- 2>.Long press potentiometer:Enter parameter set mode.
- 3>.Rotate potentiometer clockwise:Increase duty cycle value.
- 4>.Rotate potentiometer counterclockwise:Decrease duty cycle value.

**Parameter set mode:**

- 1>.Short press potentiometer:Select parameter.Switch select Lower Limit Value of duty cycle,Upper Limit Value and Output Frequency.Lower Limit Value display in L and 2bit number.Upper Limit Value display in H and 2bit number or 100.Output Frequency display in F and 2bit number.
- 2>.Long press potentiometer:Save parameter and quit set mode to normal display mode.
- 3>.Rotate potentiometer clockwise:Increase set value.
- 4>.Rotate potentiometer counterclockwise:Decrease set value.

It is used to connect to button to turn ON/OFF output if user need control output by another button or controller.





Handle:H14\*D11.5mm