

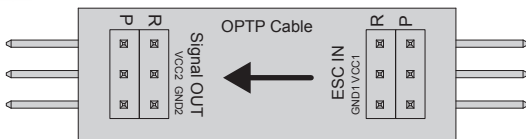
Thank you for purchasing this HOBBYWING product! We strongly recommend reading through this user manual before use. Because we have no control over the use, installation, or maintenance of this product, no liability may be assumed for any damage or losses resulting from the use of the product. We do not assume responsibility for any losses caused by unauthorized modifications to our product. Besides, we have the right to modify our product design, appearance, features and usage requirements without notification. We, HOBBYWING, are only responsible for our product cost and nothing else as result of using our product.

## 01 Product Introduction

The RPM & Telemetry Signal Coupler Module, or SCM for short, solves the issues like "RPM signal from ESC cannot be correctly recognized by flybarless device", "the GND level of Telemetry signal from ESC doesn't match the GND level of flybarless device" and "the GND level of Telemetry signals are interfered by clutter" that some Platinum V4 ESC(s) may encounter when connecting the ESC to a receiver or flybarless device (like the MSH's Brain series FBL).

The SCM is a general product which is not only applicable for Hobbywing ESC(s), but also for ESC(s) of other brands.

## 02 Product Image

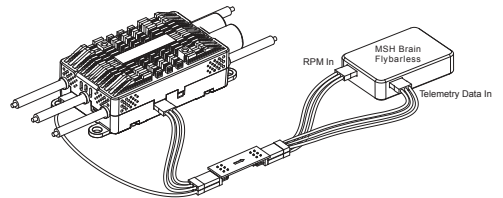


- The "ESC IN" end is for connecting ESC and the "Signal OUT" end is for connecting other device(s) like gyro/flybarless system, receiver or others.
- **Attention!** Both the "ESC IN" end and the "Signal OUT" end need to be powered (ia their respective VCC ports). The acceptable voltage ranges from 3.3V to 12V.

## 03 User Guide

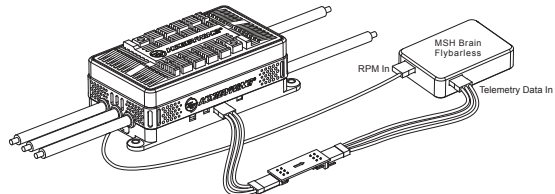
### 1 How to connect a Platinum HV 130A OPTO V4 ESC to the SCM

- Connect the Yellow RPM signal wire of the ESC to the R pin at the "ESC IN" end and leave other spots alone.
- Connect the data transmission port marked with "-/+P" on the ESC to the port marked with "GND1/VCC1/P" at the "ESC IN" end and ensure "-" to "GND1", "+" to "VCC1", and "P" to "P".



### 2 How to connect a Platinum HV 160A V4 ESC or a Platinum HV 200A OPTO V4 ESC to the SCM

- Connect the Data Transmission Port marked with "-/+P" on the ESC to the port marked with "GND1/VCC1/P" at the "ESC IN" end and ensure "-" to "GND1", "+" to "VCC1", and "P" to "P".
- **Note:** you can connect other device(s) to the RPM port on the ESC directly, as there is an optical coupler inside the ESC.



### 3 How to connect other device(s) to the SCM

- Connect the port marked with "R/VCC2/GND2" at the "Signal OUT" end on the SCM to the RPM input port marked with "RPM/+/-" on other electronic device(s) and ensure "R" to "RPM", "VCC2" to "+", and "GND2" to "-".
- Connect the port marked with "P/VCC2/GND2" at the "Signal OUT" end on the SCM to the Telemetry input port marked with "Data/+/-" on other electronic device(s) and ensure "P" to "Data", "VCC2" to "+", and "GND2" to "-".
- **Note:** when connecting the SCM to other device(s), if the RPM or Telemetry port on the electronic device doesn't have any power output, you still need to find a power output on the device and then connect it to the VCC2 pin at the "Signal OUT" end on SCM via a wire, otherwise the SCM can't work properly.

