



Holybro PM02v3 Power Module 12S Power Distribution Instruction Manual

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Introduction

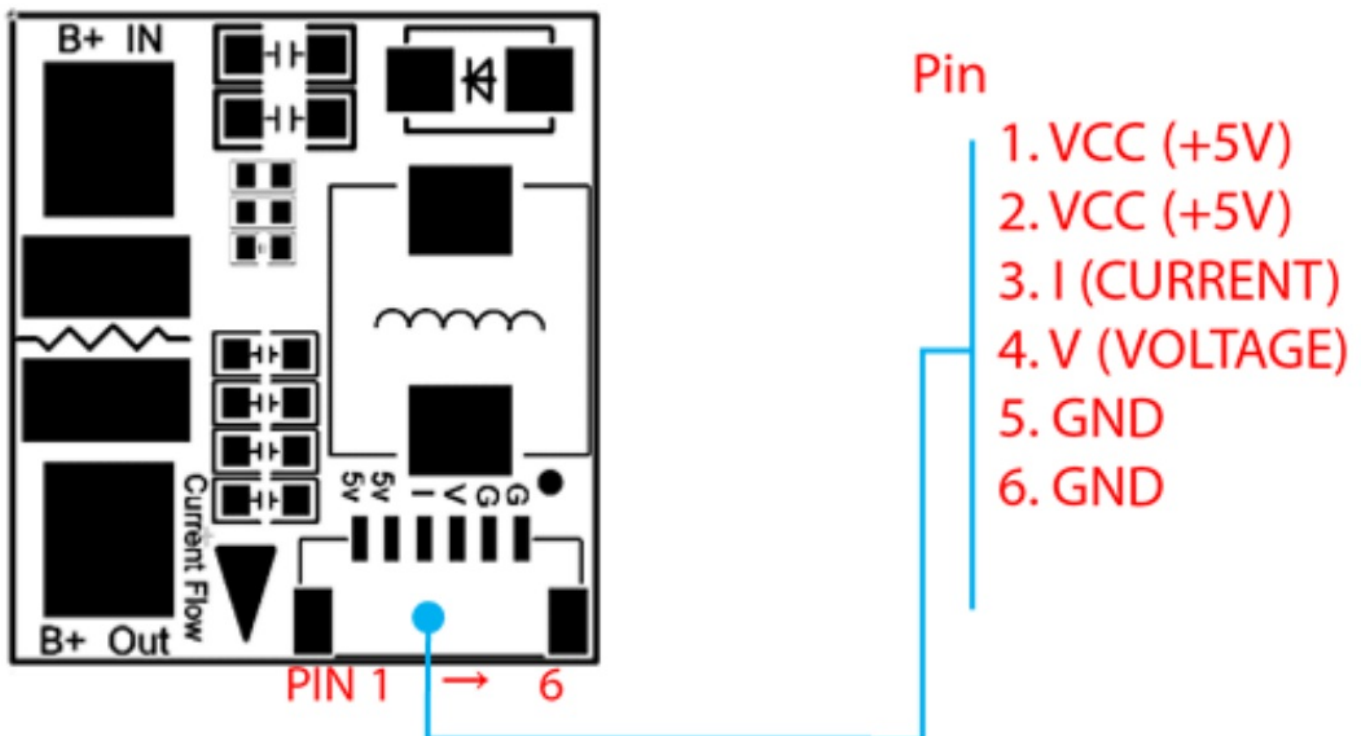
PM02 is a simple way of providing your APM and Pix32 with clean power from a LiPo battery as well as current consumption and battery voltage measurements, all through a 6-pos cable. The on-board switching regulator outputs 5.2V and a maximum of 3A from up to a 12S LiPo battery. The Power Module comes completely assembled with XT60 connectors, and wrapped in shrink tubing for protection.

The Power Module is designed to power APM, Pix32, a RC receiver and APM accessories (GPS, radio). It is not designed to power servos. Use your aircraft's own ESC/BEC for that. The GH terminal is also compatible with both Pix32, Pixhawk4, Pixhawk4 mini, Pix32 V5 and Durando.

Spec

- **UBEC input voltage** : 7~51v (2~12s LiPo)
- **Rated current**: 60A
- **Max current**: 120A(<60S)
- **Max current sensing**: 120ASupports 12S battery
- **Voltage and current measurement configured for 3.3V ADC**
- **Switching regulator outputs 5.2V and 3A max**
- **Weight**: 20g

PIN MAP




Make the PM02 show the quantity of electric charge of your battery

Mission Planner setup:

1. Connect PM02 to the battery, also connect it to Mission Planner via USB.
2. Click "INITIAL SETUP" and come to the menu "Battery Monitor".
3. Make "Monito" into "Analog Voltage and Current".
4. Make "Sensor" into "9: Holybro Pixhawk4 PM".
5. Make "HW Ver: "The Cube or Pixhawk" pixhawk4,pixhawk4mini,pix32v5,pix32 " * "HW Ver: Durandal Durandal " *
6. Input "18.182" into Voltage divider (Calced).
7. Input "36.364" into "Amperes per volt".
8. Disconnect and reconnect it to finish the setting up. "Measured battery voltage" shows the current quantity of electric charge of the battery.

- HW Ver: "The Cube or Pixhawk" pixhawk4,pixhawk4mini,pix32v5,pix32



The screenshot shows the Betaflight configurator's 'INITIAL SETUP' tab. The left sidebar contains a menu with options: 'Install Firmware', '>> Mandatory Hardware', '>> Optional Hardware', 'RTK/GPS Inject', 'Sik Radio', 'Battery Monitor' (highlighted), 'Battery Monitor', 'UAVCAN', 'Compass/Motor Cal', and 'Range Finder'. The main area displays hardware configuration options: 'Monitor' (Analog Voltage and Curr), 'Sensor' (9: Holybro Pixhawk4 PM), and 'HW Ver' (4: The Cube or Pixhawk, highlighted with a red box). Below these is a 'Calibration' section with a list of 6 items and their corresponding values.

Calibration	
1. Measured battery voltage:	0.74792945000
2. Battery voltage (Calced):	0.74862579839
3. Voltage divider (Calced):	18.182
4. Measured current:	
5. Current (Calced)	1.20000004766
6. Amperes per volt:	36.364

- HW Ver: Durandal Durandal .Or you can designate it in the Full Parameter List



The screenshot shows the Betaflight configurator's 'SETUP' tab. The left sidebar contains a menu with options: 'Install Firmware', '>> Mandatory Hardware', '>> Optional Hardware', 'RTK/GPS Inject', 'Sik Radio', 'CAN GPS Order', 'Battery Monitor' (highlighted), 'Battery Monitor', 'DroneCAN/UAVCAN', and 'Joystick'. The main area displays hardware configuration options: 'Monitor' (Analog Voltage and Curr), 'Sensor' (9: Holybro Pixhawk4 PM), and 'HW Ver' (9: Durandal/ZealotH743, highlighted with a red box). Below these is a 'Calibration' section with a list of 6 items and their corresponding values.

Calibration	
1. Measured battery voltage:	15.9857617145
2. Battery voltage (Calced):	16.0163550062
3. Voltage divider (Calced):	18.182
4. Measured current:	
5. Current (Calced)	1.26999998092
6. Amperes per volt:	36.364

The XT60 plug and 14AWG wire that PM02 comes with is rated for 30A continuous current and 60A instantaneous current (<1 minute). If a higher current is being used, the plug type and wire size should be changed accordingly. The specifications and models are as follows:

Plug specification	wire size	Rated current: (4 hours , temperature rise	Max current: (1 minute, temperature rise
XT60	12AWG	30A	60A
XT90	10AWG	45A	90A
XT120	8AWG	60A	120A

Package Include

- 1x PM02 board
- 1x Electrolytic capacitor: 220uF 63V(installed)
- 1x MOLEX 6P cable
- 1x JST GH 6P cable

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Documents / Resources

A small thumbnail image showing the cover of the instruction manual for the Holybro PM02v3 Power Module 12S Power Distribution. The cover features a photograph of the power module and some text.	<p>Holybro PM02v3 Power Module 12S Power Distribution [pdf] Instruction Manual PM02v3 Power Module 12S Power Distribution, PM02v3, Power Module 12S Power Distribution, Module 12S Power Distribution, Power Distribution, Distribution</p>
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References

- [Holybro - Build your drone from here](#)

