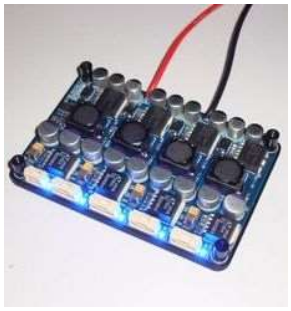
MAUCH - TECHNOLOGY CO., LTD
Nanling Technology Park, Lixiang Street, No. 600
110000 Shenyang, Hunnan District, China

Email: Christian.mauch@hotmail.com
Phone: +86 1513 4182 360

PL – Series 4-14S HYB-BEC:



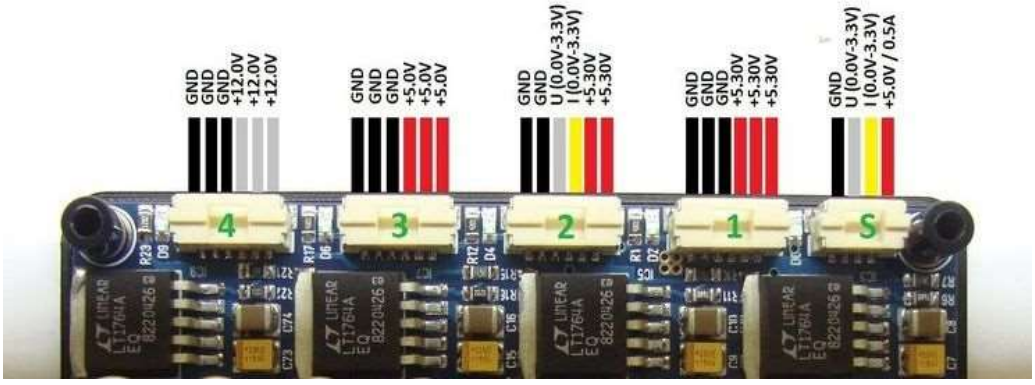



021: PL 4-14S / 1x **022: PL 4-14S / 2x** **023: 024: PL 4-14S / 3x** **025: PL 4-14S / 4x**

The HYB-BEC (Hybrid BEC) is a switching power supply and in the output stage a series linear voltage regulator (LM1764A) to remove the ripple. Due to the component selection, this BEC gets only warm during operation (LDO only 0.35V dropout voltage). Input and output are protected by Panasonic FK and SEPC capacitors. The LT1764A on the output stage is a low dropout regulator optimized for fast transient response. The device is capable of supplying 3A of output current per output. In addition to fast transient response. The HYB-BEC has a very low output voltage noise which makes the device ideal for sensitive RF supply applications.

- All internal BEC's outputs are fully independent.
- Each output rated up to 3A continues, with 4A spikes.
- 20cm / 18AWG input wires
- Power ON / LED for each power supply (aka BEC).
- Compatible to all PL-xxx sensor boards and/or PL - Sensor Hub X2/X8 with max. 5.0V / 0.5A
- External connections via Molex Clik-Mate / 1.25mm connectors. (50238)
- Delivery inclusive enclosure and cable set (without FC cable).

Pin Out:



S = To PL-xxx sensor or Hub X2/X8 with 040: Sensor cable

1 = To backup connector of Pixhawk 2.1 or any other equipment

2 = To Flight controller with any adapter cable 041, 042 or 043 / Cable purchased separately.

3 = 5.0V output for telemetry or any other equipment.

4 = 12.0V output for Gimbal or any other equipment.

Specifications and scope of delivery:

021: PL 4-14S HYB-BEC / 1F

1x 021: PL 4-14S HYB-BEC / 1x 5.3V / 3A
1x 040: PL - Series sensor cable / L=150mm
1x Enclosure
59mm x 29mm x 13mm / 26g (without cables)

022: PL 4-14S HYB-BEC / 2F

1x 022: PL 4-14S HYB-BEC / 2x 5.3V / 3A
1x 040: PL - Series sensor cable / L=150mm
1x 050: Backup cable for Pixhawk 2.1 / L=150mm
1x Enclosure
59mm x 48mm x 13mm / 41g (without cables)

023: PL 4-14S HYB-BEC / 3F

1x 023: PL 4-14S HYB-BEC / 2x 5.3V / 1x 5.0V / 3A
1x 040: PL - Series sensor cable / L=150mm
1x 050: Backup cable for Pixhawk 2.1 / L=150mm
1x 5.0V output cable (red/black) one site Molex Clik-Mate 1.25mm-4p, the other site open. / L = 150mm
1x Enclosure
59mm x 66mm x 13mm / 57g (without cables)

024: PL 4-14S HYB-BEC / 3F

1x 024: PL 4-14S HYB-BEC / 2x 5.3V / 1x 12.0V / 3A
1x 040: PL - Series sensor cable / L=150mm
1x 050: Backup cable for Pixhawk 2.1 / L=150mm
1x 12.0V output cable (white/black) one site Molex Clik-Mate 1.25mm-4p, the other site open. / L = 150mm
1x Enclosure
59mm x 66mm x 13mm / 57g (without cables)

025: PL 4-14S HYB-BEC / 4F

1x 024: PL 4-14S HYB-BEC / 2x 5.3V / 5.0V / 1x 12.0V / 3A
1x 040: PL - Series sensor cable / L=150mm
1x 050: Backup cable for Pixhawk 2.1 / L=150mm
1x 5.0V output cable (red/black) one site Molex Clik-Mate 1.25mm-4p, the other site open. / L = 150mm
1x 12.0V output cable (white/black) one site Molex Clik-Mate 1.25mm-4p, the other site open. / L = 150mm
1x Enclosure
59mm x 87mm x 13mm / 72g (without cables)

The PL - BEC's are delivered without FC cable, so please purchase the correct cable to match your setup:

Cable 041: DF13-6p -> Pixhawk 1 / APM... etc.
Cable 042: Molex Clik-Mate 2.0 - 6p -> Pixhawk 2.1
Cable 043: JST-GH-6p -> Pixhawk 3... etc.

Installation:

Please connect the minus (black) wire from the PL - HYB-BEC as close as possible to the main battery, as this is the ground reference for the voltage measurement. The positive wire (red) can be connected to the PDB.
The PL - HYB-BEC's can be screwed down to the main frame, by removing the 4 bottom M3 screws and drilling holes into the frame. Then reinstall the screws trough the frame.