RC Electronic by EMCOTEC

DPSI systems ❍ LiPo batteries ❍ RC electronics ❍ www.rc-electronic.com

DPSI VREG

Dual power supply with voltage regulator and electronically on/off switches

Functionality:

The **DPSI VREG** (**V**oltage **REG**ulator) can be used for receiver sets as stand alone power supply in RC models and functions as dual current supply by using two batteries. The output voltage is regulated and stabilized; therefore all battery types are suitable.

The DPSI VREG, just like all DPSI systems, is equipped with fail-proof electronically on/off switches. Thanks to its voltage regulation, the DPSI VREG is suitable for all battery types (NiMH, LiPO, A123 etc.).

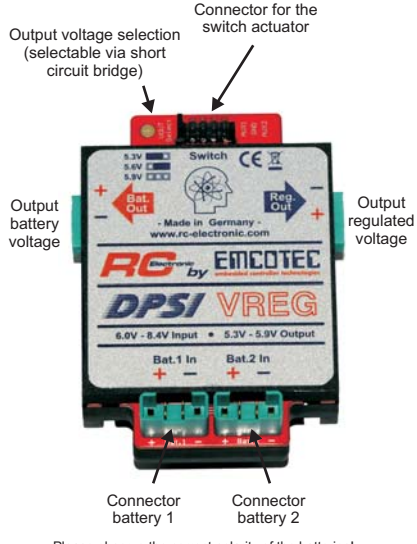
The output voltage is jumper selectable in 3 steps between 5.3V and 5.9V and therefore is suitable for all receiving sets.

Additionally to the regulated output voltage (**Reg. Out**), the unregulated battery voltage (Bat. Out) is available too. It can be used e.g. for servos with a high supply voltage, for smoke pumps, lighting or other consumers (please DO NOT operate ignition systems for gasoline engines with this voltage).

Due to the large heat sink, the used linear regulator can dissipate a high thermal leakage power. The maximum possible continuous current as well as reserves for high current peaks therefore are quite high.

The DPSI VREG includes circuitry for suppressing destructive voltage peaks, which can be induced by certain dynamo effect generating servos. Mounting is simply done by screwing it using M4 screws and four gasoline hoses (each about 30mm long) to one side of a small board. On the DPSI VREG side, simply push the hoses over the bushings.

Mounting hints:



Please observe the correct polarity of the batteries!

EMCOTEC embedded controller technologies

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Observe for sufficient cooling air circulation, because the heat sinks can get very warm.

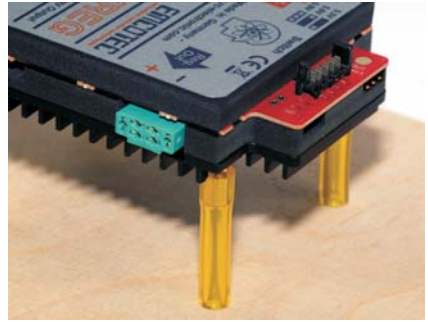
The DPSI switch actuator (pin switching actuator or magnetically switch actuator) connects to the male multipoint connector (SWITCH) just like with any DPSI system.

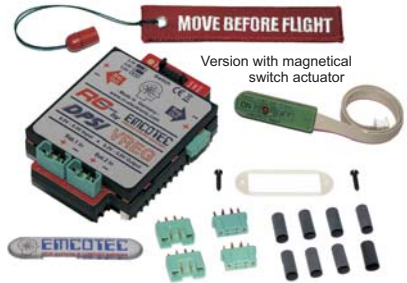
Putting the pin into the red socket turns the DPSI VREG on, putting the pin into the black socket turns it off.

The red LED in the switch actuator indicates the turned on state. Low voltage is not recognized or indicated.

Set the output voltage of the DPSI VREG by using the delivered jumper. Depending on the position of this short circuit bridge, the output voltage changes (see hint on label).

Technical Data:	
Current sources	5...6-cell NiCd / NiMH 2-cell LiIon / LiPo / A123
Operating voltage range	4.8V 12V
Nominal input voltage	6.0V 8.4V
Output voltage	5.3V / 5.6V / 5.9V by jumper
Quiescent current (turned off)	<1µA / battery
Quiescent current (turned on)	approx. 20mA
Max. cont. current @ 5.9V (15 minutes with LiPo)	8A
Max. peak current @ 5.9V (10 seconds with LiPo)	16A
Max. peak current (20ms)	50A
Drop-out-losses @ 2A	approx. 0.25V
Ripple 0.1A / 5A	approx. 40mV
Max. power dissipation	approx. 12W
CE test	according to 2004/108/EC
Environmental conditions	-10°C .... +50°C
Protection dynamo effect	Limiting U_{peak} to approx. 7.3V
Dimensions	87mm x 60mm x 19.3mm
Hole spacing for mounting	77.6mm x 48.2mm
Weight	approx. 88g
Warranty	24 month





Version with magnetical switch actuator

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