

## Servo-V-Limiter

### LiPo-Regulator for RC models



**Weight: only 5,2 grams!**



- 5.2V (5.9V) voltage regulator for servos
- Voltage corresponds to a 4 (5) cell battery
- Ideal for limiting the servo voltage
- Simply put in between receiver and servo

- Integrated HF suppression (HF filter)
- Excellent voltage stability due to high grade circuitry design and best parts selection
- The 5.9 volts version is also suitable for small models (e.g. HLG)
- No soldering work necessary
- Made in Germany by EMCOTEC

### 5.2V Version

The **Servo-V-Limiter** is a powerful voltage regulator which provides a servo with a constant voltage of 5.2 volts independent of the input voltage. Input voltage is the source where the servo is connected to (e.g. receiver, servo current distribution unit or a gyro).

The **Servo-V-Limiter** allows for utilization of servos with different supply voltages within a receiver system. A battery switch (e.g. DPSI RV system) or a LiPo regulator (e.g. DPSI Micro system) can be set to 5.9 volts output voltage. The receiver as well as the servos are then supplied with 5.9V.

Servos, which are only to be supplied with a 4-cell battery (e.g. fast tail rotor servos within a helicopter) are connected to the **Servo-V-Limiter** and therefore only supplied with 5.2 volts. This corresponds to regular a 4-cell battery.

**Big advantage of the Servo-V-Limiter: voltage reduction takes place by an active voltage regulator rather than a simple diode!**



Voltage regulation is accomplished with almost no drop out loss! This means: even if the input voltage drops down to 5.2 volts, 5.2 volts remain at the output!

Based on the circuitry design, high current peaks are of no problem! Due to the integrated HF suppression, bad influences to the steadily working tail rotor servo of helicopters are inhibited which improves receiving quality and range.



The **Servo-V-Limiter** is simply put in between the receiver (or gyro) and servo (virtually an "extension cable"). Due to the extra long gold plated pins, secure contact is accomplished. An additional shrink hose piece secures the unit if desired.

## 5.9V Version

The 5.9V version of the **Servo-V-Limiter** supplies a connected servo with a constant voltage of 5.9 volts, independent of the voltage of the remaining receiving set.

This allows for servos with different supply voltages within a receiving system. In connection with the DPSI system (Mini 5/6), where all servos are supplied with the full battery voltage (e.g. 7.4 volts from a 2 cell LiPo battery), "normal" servos can be operated which are only approved for 6 volts.

It is advantageous using "high voltage" servos and regular servos in a "mixed operation", because power dissipation in the entire system is reduced. Big models with strong servos (for the rudders) as well as inexpensive regular servos (throttle, choke, landing gear, ECU and so on) can be operated.

The **Servo-V-Limiter** contains an active voltage regulator and not an inaccurate voltage reduction through a simple diode (like in other power supplies). If using a diode for voltage reduction, the voltage is never constant but dependent on input voltage and servo current. The **Servo-V-Limiter** always supplies the servo with constant voltage. The reaction of the servo (and therefore of the model) is always identical.

Because of the effective filter, HF interference in servo cables is eliminated and the receiving quality and range is improved.

The different versions (output voltage) are marked by a small dot!



The **Servo-V-Limiter** can also be used as LiPo regulator for models where only few small servos are used (e.g. slow-flyer, HLG or similar).

Here, a patch cable is necessary between the **Servo-V-Limiter** and the receiver ("servo plug" on both sides). The receiver is then connected like a servo. The battery (2-cell LiPo battery) is connected via a switch cable (or directly) to the **Servo-V-Limiter**. Here, an additional patch cable with plugs (male) on either sides or a V-adapter is necessary. Both are available at EMCOTEC's internet shop.



### Technical Data:

Function:	Voltage regulator for single servos	
Input Voltage:	5.2V ... 8.4V	5.9V ... 8.4V
Output Voltage:	5.2V stabilized	5.9V stabilized
Quiescent Current:	1.7mA	1.7mA
DropOut Loss:	0V	0V
Power Dissipation:	4W max.	4W max.
Maximum Current:	10A	10A
Continuous Current:	3.5A (@ 5.9V Vin)	1.6A (@ 7.4V Vin)
CE Conformity:	According to 2004/108/EC	
Dimensions:	45mm x 9.2mm x 8.6mm 1.77" x 0.36" x 0.34" (L x B x H)	
Connection cable:	10cm JR/Uni 3 x 0,34mm <sup>2</sup> 3 x AWG22	
Weight:	5.2 grams / 0.17 oz.	

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RC Modeling's first grade electronic technology  
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