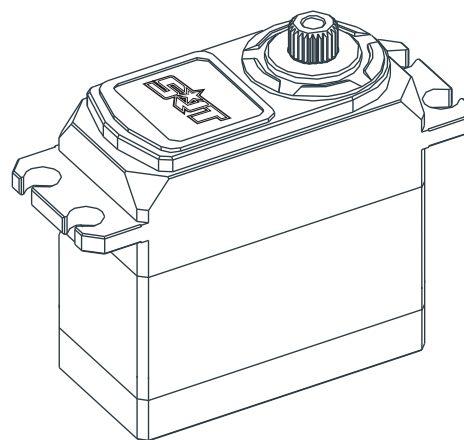


SRT Large Servo (BH125W)

The SRT Large Servo provides 180° Limit angle range of motion and position control for your project. Great for animatronics and ideal scale applications .

KEY FEATURES

- Ideal for 1/5 on road and 1/5 off road scale applications
- Superior Holding Torque
- Incredible efficiency and low power consumption
- Our servo is perfect for vehicles that can benefit from a high quality servo
- CNC Machined aluminum case for exceptional cooling
- 15T output shaft
- 2 μ sec Dead Band
- 1-Year Limited Warranty



OVERVIEW

The latest generation of SRT servos provides you with the performance you need for any 1/5th to 1/6th scale vehicle application. are standard size servos for High-Voltage applications up to 8.4V, feature all metal case construction for the ultimate 1/6th scale performance. All these servos feature SRT innovations like the removable wire leads that allow for custom lead length and ease of maintenance and all metal servo mounting tabs to keep them in place through the most extreme conditions.

Power Requirement Notes

The manufacturer specifies 6.0-8.4VDC for this servo. However, we find that this servo is tolerant of a 9 V battery for very brief periods of time when there is no load, as used in some activities in the Stamps in Class series of tutorials. (Slight jittering may be observed when batteries are fresh; this does not cause damage). Do not use this servo with an unregulated wall-mount supply, or a regulated wall mount supply exceeding 8.4VDC.

Servo current draw can spike while under load. Be sure that your application's power supply and voltage regulator is prepared to supply adequate current for all servos used. Do not try to power this servo directly from a BASIC Stamp module's or any microcontroller's Vdd or Vin pins; do not connect the servo's Vss line directly to the BASIC Stamp module's or any microcontroller's Vss pin.

Apply Environmental Condition

Storage Temperature Range: -20°C~60°C

Operating Temperature Range: -10°C~50°C

Operating Voltage Range: 6.0V~8.4V

Standard Test Environment

Every characteristic of the inspect must be carried out under normal temperature and humidity, temperature $25\pm 5^{\circ}\text{C}$ and relative humidity $65\pm 10\%$, judge the characteristics according to this standard testing conditions.

Electrical Specification (Function of the Performance)

item	6.0V	7.4V	8.4V
Operating speed (at no load)	0.12 sec/60°	0.11 sec/60°	0.085 sec/60°
Running current at no load(Slow to Fast)	400 mA	500 mA	600 mA
Stall torque (at locked)	90.0 kg-cm	110.0 kg-cm	125.0 kg-cm
Stall current (at locked)	9400 mA	11400 mA	13000 mA
Idle current (at stopped)	50 mA	50mA	60mA

Note: Item definition is average value when the servo running with no load

Mechanical Specification

Item	Standard
Materials of the gear	Steel
Weight	$209 \pm 1\text{g}$
Limit angle	$180^{\circ} \pm 10^{\circ}$
Connector wire gauge	# 28 PVC
Connector wire length	$350 \pm 5\text{ mm}$
Horn gear spline	$\psi 7.6*15\text{T}$
Horn type	Single, Double
Reduction ratio	1/369
Motor Type	Brushless Motor

Control Specification

Item	Standard
Control system	Pulse Width Modification
Amplifier type	333Hz Digital Controller
Operating travel	90° (1000→2000 μ sec)
Neutral position	1500 μ sec
Dead band width	2 μ sec
Rotating direction	Clockwise (when 1500→2000 μ sec)
Pulse width range	900→2100 μ sec
Maximum travel	Approx 125°(when 900→2100 μ sec)

Appearance Inspection

Appearance: No damage which affects functions allowed

Outline Drawing: Dimension see below

*mm

