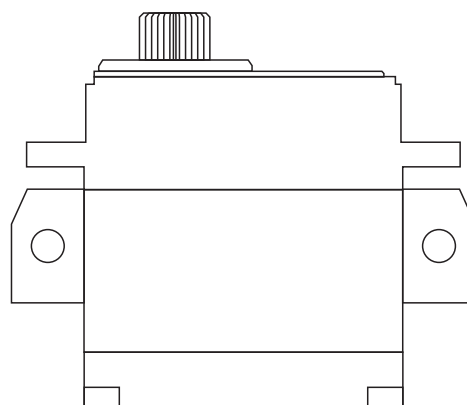


SRT Standard Servo (Min6)

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

KEY FEATURES

- Special 1/12 pancar servo
- Servo support various ultra-high-speed modes like SSR, SFR, SXR, SR.
- Incredible efficiency and low power consumption
- 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 1/10th to 1/12th scale vehicle application. are standard size servos for High-Voltage applications up to 8.4V, feature all metal case construction for the ultimate 1/12th 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~7.4V~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) | 0.08 sec/60° | 0.07 sec/60° | 0.062 sec/60° |
| Running current at no load(Slow to Fast) | 300 mA | 300 mA | 400 mA |
| Stall torque (at locked) | 6.8 kg-cm | 8.0 kg-cm | 9.0 kg-cm |
| Stall current (at locked) | 1400 mA | 1700 mA | 1800 mA |
| Idle current (at stopped) | 50 mA | 50mA | 50mA |

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

Mechanical Specification

| Item | Standard |
|-----------------------|------------------------------|
| Materials of the gear | 7075 Aluminum |
| Weight | $18 \pm 1\text{g}$ |
| Limit angle | $180^{\circ} \pm 10^{\circ}$ |
| Connector wire gauge | # 28 AWG 0.08*60 |
| Connector wire length | $170 \pm 5\text{ mm}$ |
| Horn gear spline | $\psi 5.9*25\text{T}$ |
| Horn type | Single, Double |
| Reduction ratio | 1/369 |
| Motor Type | Coreless 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 | 800→2200 μ sec |
| Maximum travel | Approx 140°(when 800→2200 μ sec) |

Appearance Inspection

Appearance: No damage which affects functions allowed

Outline Drawing: Dimension see below

*mm

