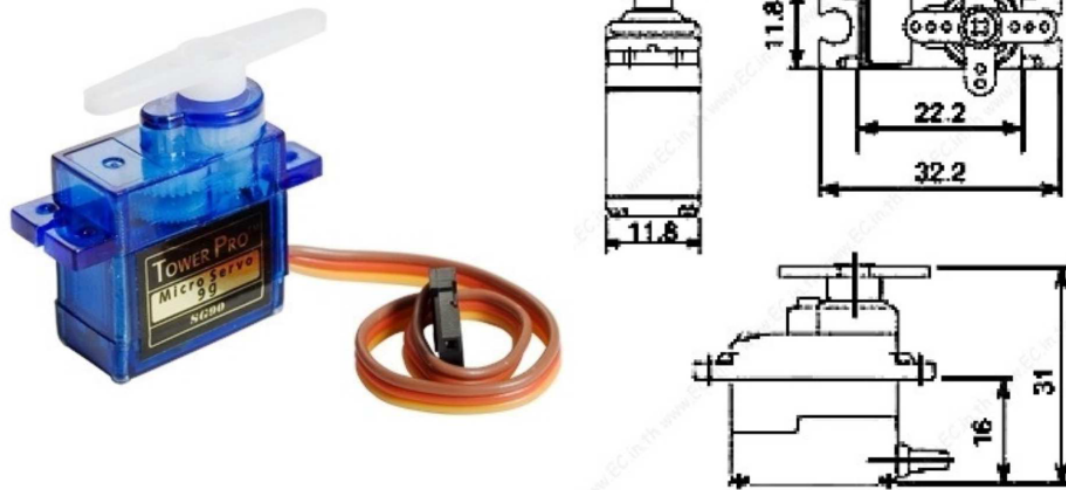


## SG90 9 g Micro Servo



Tiny and lightweight with high output power. Servo can rotate approximately 180 degrees (90 in each direction), and works just like the standard kinds but *smaller*. You can use any servo code, hardware or library to control these servos. Good for beginners who want to make stuff move without building a motor controller with feedback & gear box, especially since it will fit in small places. It comes with a 3 horns (arms) and hardware.

### Specifications

- Weight: 9 g
- Dimension: 22.2 x 11.8 x 31 mm approx.
- Stall torque: 1.8 kgf·cm
- Operating speed: 0.1 s/60 degree
- Operating voltage: 4.8 V (~5V)
- Dead band width: 10  $\mu$ s
- Temperature range: 0  $^{\circ}$ C – 55  $^{\circ}$ C

Position "0" (1.5 ms pulse) is middle, "90" (~2ms pulse) is all the way to the left. ms pulse) is all the way to the right, ""-90" (~1ms pulse) is all the way to the left.

# TowerPro SG90 - Micro Servo



## Basic Information

Modulation: Analog

Torque: **4.8V:** 25.0 oz-in (1.80 kg-cm)

Speed: **4.8V:** 0.10 sec/60°

Weight: 0.32 oz (9.0 g)

Dimensions:

**Length:** 0.91 in (23.1 mm)

**Width:** 0.48 in (12.2 mm)

**Height:** 1.14 in (29.0 mm)

Motor Type: 3-pole

Gear Type: Plastic

Rotation/Support: Bushing

## Additional Specifications

Rotational Range: 180°

Pulse Cycle: ca. 20 ms

Pulse Width: 500-2400 µs

### T-Pro Mini Servo SG-90 9G Servo



The **TP SG90** is similar in size and weight to the Hitec HS-55, and is a good choice for most park flyers and helicopters. Hobbyists from around the world has used the SG90 on famous planes like GWS Slow Stick, E-Flite Airplanes, Great Planes, Thunder Tiger, Align, EDF jets and more. If you are looking for a servo that won't break your arm or leg, this is the perfect choice for you!

The **TP SG90** servo weighs 0.32 ounces (9.0 grams). Total weight with wire and connector is 0.37 ounces (10.6 grams).

The **TP SG90** has the universal "S" type connector that fits most receivers, including Futaba, JR, GWS, Cirrus, Blue Bird, Blue Arrow, Corona, Berg and Hitec.

The wire colors are **Red = Battery(+)** **Brown = Battery(-)** **Orange = Signal**

#### **TP SG90 Specifications:**

Dimensions (L x W x H) = 0.86 x 0.45 x 1.0 inch (22.0 x 11.5 x 27 mm)

Weight = 0.32 ounces (9 grams)

Weight with wire and connector = 0.37 ounce (10.6 grams)

Stall Torque at 4.8 volts = 16.7 oz/in (1.2 kg/cm)

Operating Voltage = 4.0 to 7.2 volts

Operating Speed at 4.8 volts (no load) = 0.12 sec/ 60 degrees

Connector Wire Length = 9.75 inches (248 mm)

Universal "S" type connector fits most receivers

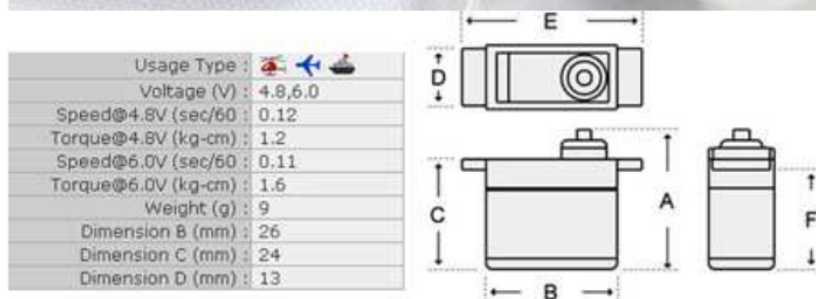
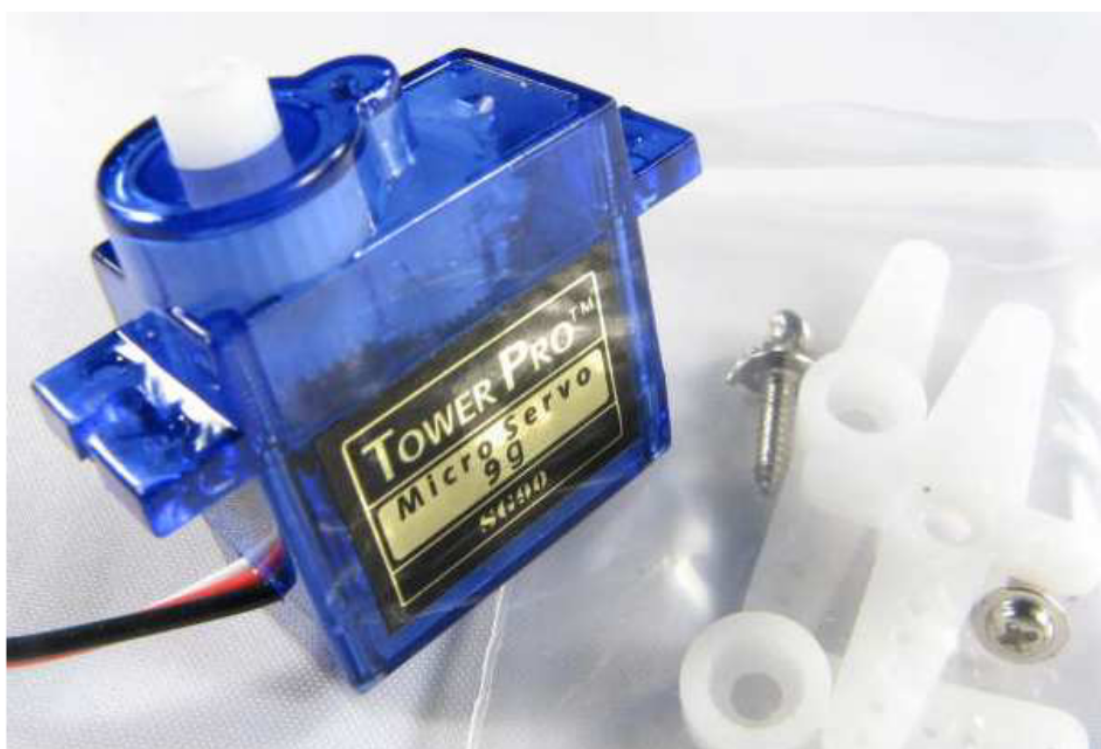
### 9g Tower Pro Servo

Tower Pro 9g servo

These Micro strong and made to last, great for planes. The servos include 3 servo arms.

#### Specs:

- DIMENSION: 26mm\*13mm\*24mm
- WEIGHT: 9G
- OPERATING SPEED: 0.12sec/60degree(4.8V);0.11sec/60degree(6V)
- STALL TORQUE: 1.2kg/cm or 17oz-in. (4.8V) 1.6kg/cm or 22oz-in.(6.0V)
- OPERATING VOLTAGE: 4.8V~6.0V
- FEATURE: 3 pole wire, all nylon gear, connector wire length: 15cm





**The TG9e boasts the same performance as other servo's 10x the price with a .10sec travel time and up to 1.5kg in torque and an ultra narrow dead bandwidth!**

**The TG9e performance is on par with the famous HXT900, however the TG9e isn't as resistant to crashes or over-loading.**

**Please always ensure your control surfaces are bind free.**

**Spec.**

**Dimension: 23x12.2x29mm**

**Torque: 1.5kg/cm (4.8V)**

**Operating speed: 0.10sec/60 degree 0.09sec/60 degree(6.0V)**

**Operating voltage: 4.8V**

**Temperature range: 0-55C**

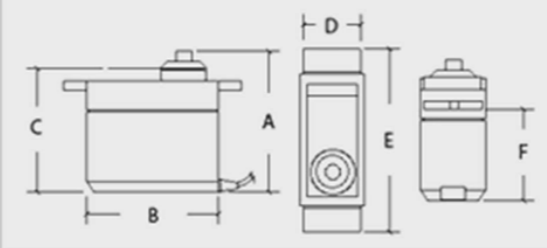
**Dead band-width: 7us**

**Lead Length: 260mm**

**Important.**

**The TG9e does not have the same strength and longevity as the HXT900.**

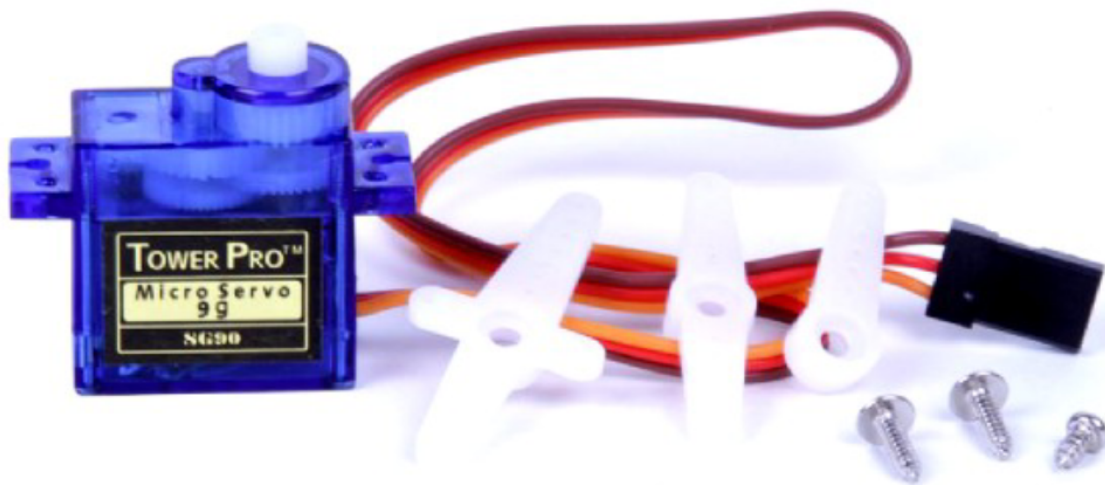
**Please ensure your control surfaces are bind-free and always check servos after a hard landing or crash!**

Weight (g)	9	
Torque (kg)	1.5	
Speed(Sec/60deg)	0.09	
A(mm)	30	
B(mm)	23	
C(mm)	27	
D(mm)	12	
E(mm)	33	
F(mm)	16	

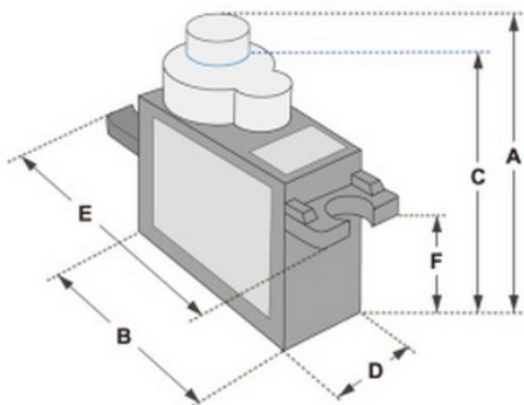


## SERVO MOTOR SG90

## DATA SHEET



Tiny and lightweight with high output power. Servo can rotate approximately 180 degrees (90 in each direction), and works just like the standard kinds but smaller. You can use any servo code, hardware or library to control these servos. Good for beginners who want to make stuff move without building a motor controller with feedback & gear box, especially since it will fit in small places. It comes with a 3 horns (arms) and hardware.

**Dimensions & Specifications**

A (mm) : 32
B (mm) : 23
C (mm) : 28.5
D (mm) : 12
E (mm) : 32
F (mm) : 19.5
Speed (sec) : 0.1
Torque (kg-cm) : 2.5
Weight (g) : 14.7
Voltage : 4.8 - 6

Position "0" (1.5 ms pulse) is middle, "90" (~2ms pulse) is middle, is all the way to the right, "-90" (~1ms pulse) is all the way to the left.

PWM=Orange (⌋⌋)  
Vcc=Red (+)  
Ground=Brown (-)

