



## 9g 270° Metal Servo with Analog Feedback (1.5kg)

SKU:SER0046

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### *INTRODUCTION*

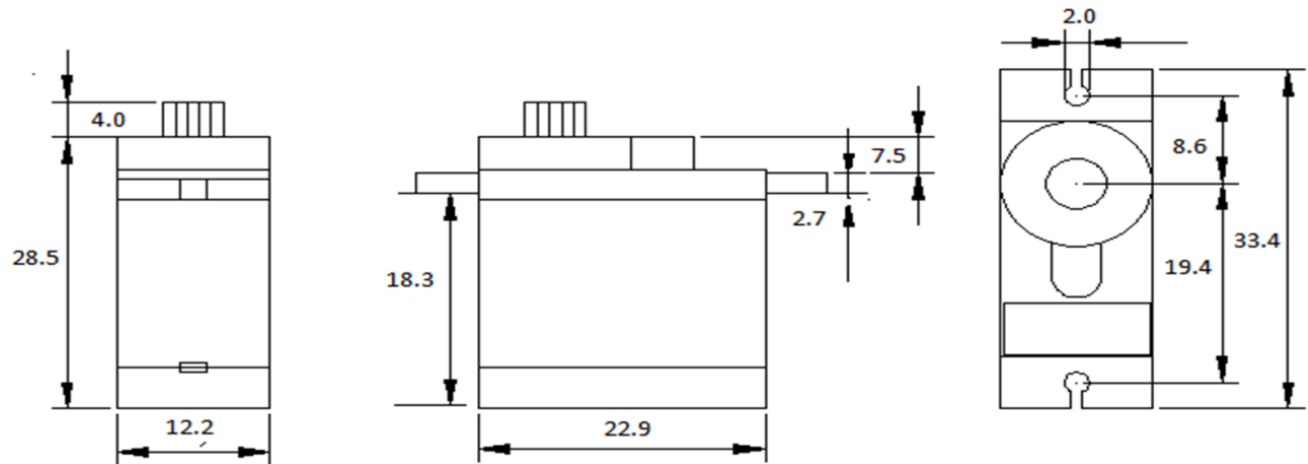
Here comes the new number of our Servo family---a 9g 270° Metal Servo with Analog Feedback. The servo has built-in metal gear that could be much more durable than the previous plastic version. It features large rotating angle and torque, easy-to-install, stable and accurate performance, which could be the best choice for micro-robot controlling and suitable for professionals or makers to develop.

With a tiny body of 0.9\*0.48\*1.28", this servo can be fitted into any tight spaces and its torque can reach up to 1.5Kg·cm. Since there is no limit switch inside the servo, users can manually make the servo rotate in 360 degrees. At the same time, the [power](#) consumption of the servo is pretty low, so the common battery or USB [power](#) supply is able to provide enough power for the servo's normal operation. This servo can be controlled by the [Arduino](#) Servo Library to realize about 270° rotation within pulse range 500-250μsec. Additionally, it can achieve more complicated tasks and suit a wider range of applications compared with the former 180° servo.

Furthermore, this servo provides analog signal with 0~3.3V feedback and it can be connected with MCU to realize close-loop feedback control.

The servo comes with four types of servo horn to meet various application requirements.

Recommended operating voltage: 4.8V-6V. Please note that over-voltage or blocking the servo deliberately will permanently damage the product.



## SPECIFICATION

- Pulse Width Range: 500-2500 $\mu$ sec
- Neutral Position: 1500 $\mu$ sec
- Dead Bandwidth:  $\leq 5\mu$ sec
- Operating Voltage: 4.8V~6V
- Storage Temperature: -20 $^{\circ}$ C~60 $^{\circ}$ C
- Operating Temperature: -10 $^{\circ}$ C~50 $^{\circ}$ C
- Operating Travel: 270 $^{\circ}$  $\pm 5^{\circ}$  (500 $\rightarrow$ 2500 $\mu$ sec)
- Maximum Travel: 220 $^{\circ}$  $\pm 10^{\circ}$
- Speed(no load): 0.12 $\pm$ 0.01 sec/60@4.8V  
0.1 $\pm$ 0.01 sec/60@6.0V
- Stall Torque: 1.3 $\pm$ 0.1kg $\cdot$ cm @4.8V  
1.5 $\pm$ 0.1kg $\cdot$ cm @6.0V
- Static Current:  $\leq 40\pm 5$ mA

- Current(at no load): 200±20mA @4.8V  
220±20mA @6.0V
- Current(at stopped): ≤800±30mA @4.8V  
≤1100±30mA@6.0V
- Operatable Travel: about 270° (500→2500μsec)
- Left & Right Travelling Angle Deviation: ≤ 3°
- Centering Deviation: ≤ 1°
- Control System: change pulse width
- Amplifier Type: digital controller
- Rotation Direction: clockwise
- Outline Dimension: 22.9\*12.2\*32.5mm/0.9\*0.48\*1.28"
- Weight: 12±1g

## *SHIPPING LIST*

- 9g 270° Metal Servo with Analog Feedback (1.5kg) x1