AA026 MG90S 180/360 Degree

MG90S Metal gear Digital 14g Servo SG90 For Rc Helicopter Plane Boat Car MG90 9G

Features:
100% Brand New and High Quality
With compact portable design, nice shape and unique style, light weight and portable
Application: The Model of Fixed wing, Helicopter KT, Glide, Small scale robot, Manipulator, etc.

Gear Type: All Metal Gears
Structural Material: copper metal gears, coreless motor and double ball bearing
Scope: small and medium-sized electric model aircraft and model.Specification:Color: Black

Size: 31x 31 x 11 mm

G90S servo, Metal gear with one bearing

Tiny and lightweight with high output power, this tiny servo i Helicopter, Quadcopter or Robot. Tiny and lightweight with high output power, this tiny servo is perfect for , Quadcopter or Robot. This servo has metal gears for added strength and durability. s perfect for RC Airplane, r added strength and 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 si ervo can rotate approximately 180 degrees (90 in each direction), and works just like the . You can use any servo code, hardware or library to control these 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 ervo can rotate approximately 180 degrees (90 in each direction), and works just like the . You can use any servo code, hardware or library to control these beginners who want to make stuff move without building a motor controller omes with a 3 horns (arms) and hardware.

Package weight: 0.6 oz/16g
The connection cable length: 250mm
Working torque: 2KG/cm
Operating voltage: 4.8V ¨C 6.0V
Speed: 4.8V 0.10 sec/60 degrees, 6.0V 0.09sec/60 degrees
The time of response pulse width: ¡Ü 5usec
Dead band setting: 5 microseconds
Plug Type: JR, FUTABA General
Rotation angle: 180 degrees
Servo: analog Servo
Compatible Modes:
The Model of Fixed wing, Helicopter KT, Glide, Small scale robot, Manipulator, etc.

Kuongshun Electronic, one of the international well-known manufacturers and suppliers of mg90 mg90s 180 degree which is situated in China, now has quality products for sale.
Hot Tags: mg90,mg90s,180 degree,suppliers China,MG90S Metal gear,Digital Servo,SG90,Rc,Helicopter,Plane Boat,Car,MG90 9G

Specifications
- Weight: 13.4 g
- Dimension: 22.5 x 12 x 35.5 35.5 mm approx.
- Stall torque: 1.8 kgf·cm (4.8V) (4.8V), 2.2 kgf·cm (6 V)
- Operating speed: 0.1 s/60 degree
- Operating voltage: 4.8 V - degree (4.8 V), 0.08 s/60 degree (6 V) 6.0 V

• Dead band width: 5 µs

DESCRIPTION

The Servo Motor Micro MG90S – 360 degree continuous rotation servo is a micro size 360 degree analog servo with metal gears and robust construction.

PACKAGE INCLUDES:

- 1 MG90S 360 Degree Continuous Rotation Servo motor with attached 9.5" control cable
- 3 arms/horns for various interface applications
- Screws for mounting arms to the servo and mounting the servo

KEY FEATURES OF SERVO MOTOR MICRO MG90S – 360 DEGREE CONTINUOUS ROTATION:

- Very small micro size
- 360 degree continuous rotation of the shaft
- Sturdy metal gears
- Analog drive

Unlike normal servos that can be commanded to an exact position within a range of about 180 or 360 degrees, these servos will rotate continuously in either direction with no ability to position it to a particular position or to control speed. Think of them more like small DC motors with a motor controller built-in that powers the motor and that allows you to start/stop and control direction.

The gears are heavy-duty metal. The speed of rotation is fixed at about 120RPM.

These types of servos are handy for driving wheels on a micro-robot where space is limited or if you just want to spin something.

These are driven by a PWM signal. A pulse width of approximately 1500uS (PWM value of about 185) will cause the motor to stop. A higher PWM value over about 195 will rotate the motor in one direction while a lower PWM value under about 175 will cause the motor to rotate in the opposite direction. If the PWM value drops below about 500uSec (PWM value of 62), the motor will also stop due to insufficient drive.

If using the Servo.h library, as shown in the code below, a command of about 90 will cause the motor to stop. A value of 0 will cause it turn in one direction at full speed and a value of 180 will cause it to turn in the other direction at full speed.

Motor Connections

The built-in cable has a 3-pin female connector that is usually mated with a male header.

1×3 Female Connector

- **Brown** = Ground
- **Red** = 5V
- **Orange** = PWM Signal

OUR EVALUATION RESULTS:

These servos are fairly strong little motors with metal gears.

The servo runs on 5V with a current draw about 10mA at idle and 120mA to 250mA when being commanded to move depending on how it is being operated. Current draw can get up to a maximum of 800mA under a stall condition, so be aware of that. One MG90S can typically be driven off the power pin of an Arduino when experimenting as long as you don't stall it, but motors in general are electrically noisy and power hungry devices. It is always better to drive them directly off of a power supply rather than trying to power from the on-board Arduino regulator whenever possible

If you do decide to run it directly off the Arduino, you can help avoid most problems by running the power and ground from the Arduino over to a breadboard and then to the servo. By placing a fairly large electrolytic cap of around 470-1000uF across the power and ground on the breadboard, that will help to insulate the Arduino from some of the power surges of the motor.

The program below can be used to exercise a 360 degree servo motor. It simply spins the servo in one direction for 3 seconds, pauses and the spins in the opposite direction for 3 seconds.

To use, hookup 5V and ground to the servo power and ground pins. Connect the PWM pin to pin 9 on the MCU, but this can be changed to any PWM capable pin.

Servo Motor Micro MG90S Test Program

```
/*
  Exercise 360 degree Servo motor
  Simply runs servo in one direction for 3 seconds, stops, then r
everses direction
  Uses built-in Servo.h library
*/
#include "Servo.h"
#define SERVO_PIN 9   // Can use any PWM pin
```

```
Servo servo;           // creates servo object used to control the
servo motor

//=================================================================
================

//  Initialization

//=================================================================
================

void setup()

{

  servo.attach(SERVO_PIN); // assigns PWM pin to the servo object

}

//=================================================================
================

//  Main

//=================================================================
================

void loop()

{

  servo.write(0); //Spin in one direction

  delay(3000);

  servo.write(90); // Stop

  delay(500);

  servo.write(180);  // Spin in opposite direction

  delay(3000);

  servo.write(90);  // Stop

  delay(500);

}
```

BEFORE THEY ARE SHIPPED, THESE SERVO MOTORS ARE:

- Inspected
- Tested @ 5V for > 15 minutes using test program