

Specification of SunFounder 55g Servo

1. Apply Environmental Condition:

No.	Item	Specification
1-1	Storage Temperature Range	-20°C ~ 60°C
1-2	Operating Temperature Range	-10°C ~ 60°C
1-3	Operating Voltage Range	4.8V ~ 6.0V

2. Standard Test Environment:

2-1	Standard Test Environment	Every characteristic of the inspect must be normal temperature and humidity carry out the test, temperature $25\pm 5^{\circ}\text{C}$ and relative humidity $65\pm 10\%$ of judgment made in accordance with this specification standard testing conditions.
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3. Appearance Inspection:

No.	Item	Specification
3-1	Outline Drawing	Dimension see the last page
3-2	Appearance	No damage which affects functions allowed.

4. Electrical Specification (Function of the Performance):

No.	Item	4.8V	6.0V
4-1	Operating speed (at no load)	0.18 Sec/60°	0.15 Sec/60°
4-2	Running current (at no load)	270 \pm 10 mA	330 \pm 10 mA

4-3	Stall torque (at locked)	13 ±0.5 kg-cm	15 ±0.5 kg-cm
4-4	Stall current (at locked)	1640 ±30 mA	1840 ±30 mA
4-5	Idle current (at stopped)	3 ± mA	3 ± mA
4-6	Running life (at no load)	100000 times≥	100000 times≥

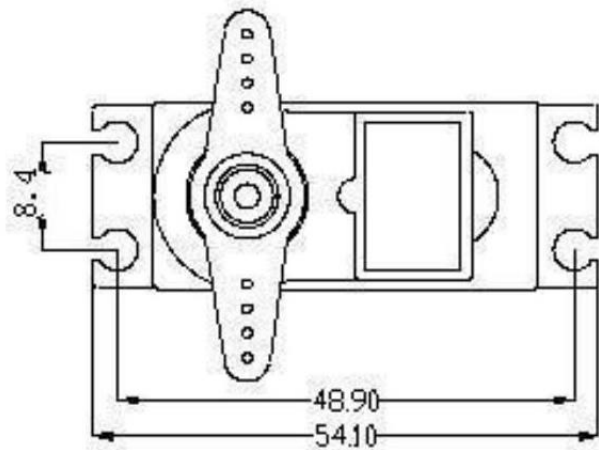
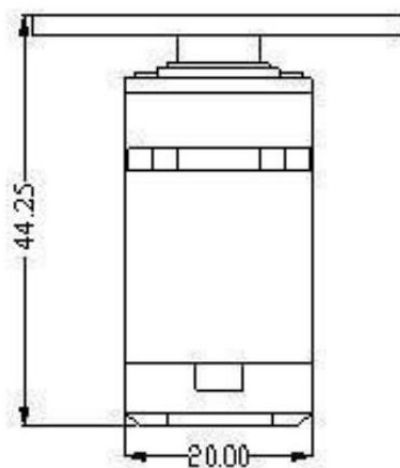
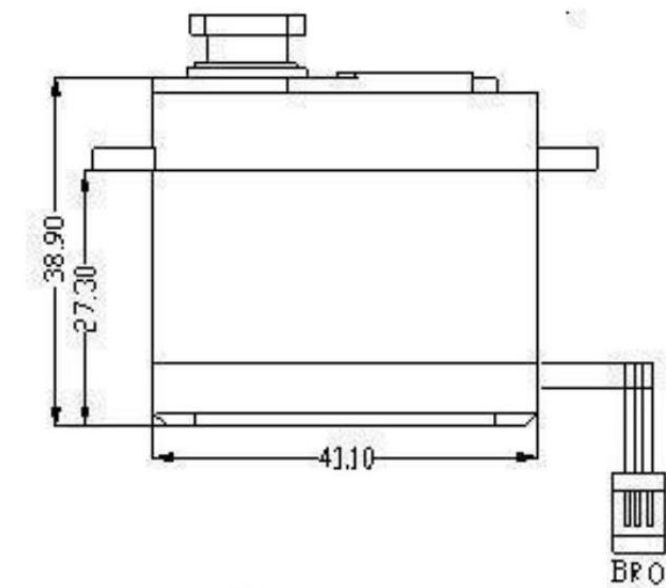
Note: Item 4-2 definition is average value when the servo running with no load.

5. Mechanical Specification:

No.	Item	Specification
5-1	Overall Dimensions	See the drawing
5-2	Limit angle	240° ±10°
5-3	Weight	55 ±0.5 grams (without servo horn and screw)
5-4	Connector wire gauge	#24 AWG
5-5	Connector wire length	300 ±5 mm
5-6	Horn gear spline	25 T
5-7	Horn type	1/Cross, Two blade, One blade, Circle. 2/Two blade, One blade.

6. Control Specification:

No.	Item	Specification
6-1	Control system	Pulse width modification
6-2	Amplifier type	Digital controller
6-3	Operating travel	90° ±5°
6-4	Neutral position	1500 μsec
6-5	Dead band width	3 μsec
6-6	Rotating direction	Counterclockwise (When 1000 ~ 2000 μsec)
6-7	Pulse width range	1000 ~ 2000 μsec
6-8	Maximum travel	Approx. 180° (When 500 ~ 2500 μsec)



Brown Wire:GND
Red Wire:+VCC
Orange Wire:Singal Wire