



HIGH PERFORMANCE DIGITAL SERVOS

Servo Name/Number: MG2810HV 10.0Kg/0.07s High Voltage Servo

Environmental Conditions:

Storage Temperature	-20°C ~ 60°C
Operating Temperature	-10°C ~ 50°C
Operating Voltage	5.0V ~ 8.4V

Test Environment:

Standard Test Environment	Each check must be a normal temperature and humidity measurement, temperature degree $25 \pm 5^\circ\text{C}$, relative humidity $65 \pm 10\%$, in accordance with this specification judge characteristics under standard test conditions.
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Visual Inspection:

Physical Dimensions	35 x 15 x 29mm
Exterior/Appearance	No damage, no influence on function
Lifetime	>100,000 times/load (sub load)

Electrical Specification:

	5.0V	6.0V	7.4V	8.4V
Operating Speed (No load)	0.12s/60°	0.10s / 60°	0.08s / 60°	0.07s / 60°
Running Current (No load)	150mA	180mA	300mA	350mA
Stall Torque	7.6kg.cm	8.4kg.cm	10.0kg.cm	11.0kg.cm
Stall Current	1.4A	1.7A	2.0A	2.2A
Idle Current	10mA	10mA	10mA	10mA

Mechanical Specification:

Overall Dimensions	35 x 15 x 29mm
Limit Angle	180°
Weight	28 ±1g
Connector Wire Gauge	#26 AWG
Connector Wire Length	255 ±5 mm
Spline	Ø5.90 25T
Reduction Ratio	280:1
Motor	Coreless
Angle Sensor	Potentiometer
Bearing	2BB
Gear	Metal
Case	Plastic + Aluminium
Waterproof	No
Positive Pole	Red
Negative Electrode	Brown
Signal	Yellow

Control Specification:

Control System	Change the pulse width
Amplifier Type	Digital Controller
Operating Travel	90° (at 1000 → 2000µsec)
Neutral Position	1500µsec
Dead Band Width	2µsec
Rotating Direction	Counterclockwise (at 1500 → 2000µsec)
Pulse Width Range	800 → 2200µsec
Maximum Travel	Approx 150° (at 800 → 2200µsec)

