



HIGH PERFORMANCE DIGITAL SERVOS

Servo Name/Number: MGB8555HV 54.7Kg/0.12s Brushless 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	40 x 20 x 39.1mm
Exterior/Appearance	No damage, no influence on function
Lifetime	>80,000 times/load (on ultimate load)

Electrical Specification:

	5.0V	6.0V	7.4V	8.4V
Operating Speed (No load)	0.20s/60°	0.17s / 60°	0.13s / 60°	0.12s / 60°
Running Current (No load)	500mA	600mA	900mA	1000mA
Stall Torque	32.6kg.cm	39.1kg.cm	48.2kg.cm	54.7kg.cm
Stall Current	5.1A	6.1A	7.4A	8.2A
Rated Working Torque	18.0kg.cm	21.0kg.cm	26.0kg.cm	31.0kg.cm
Rated Working Current	2.6A	3.5A	3.9A	4.9A
Idle Current	10mA	10mA	10mA	10mA

Mechanical Specification:

Overall Dimensions	40 x 20 x 39.1mm
Limit Angle	180°
Weight	85g \pm 5 mm
Connector Wire Gauge	#22 AWG
Connector Wire Length	310 \pm 5 mm
Spline	Ø5.90 25T
Reduction Ratio	378:1
Motor	Brushless
Angle Sensor	Potentiometer
Bearing	2BB
Gear	Steel Gear
Case	Full Metal
Waterproof	Yes

Mechanical Specification (Cont'd):

Positive Pole	Red
Negative Electrode	Brown
Signal	Yellow

Control Specification:

Control System	Change the pulse width
Amplifier Type	Digital Controller
Operating Travel	90° (at 1500 → 2000μsec)
Neutral Position	1500μsec
Dead Band Width	2μsec
Rotating Direction	Counterclockwise (at 1500 → 2000μsec)
Pulse Width Range	500 → 2500μsec
Maximum Travel	About 180° (at 500 → 2500μsec)

