



HIGH PERFORMANCE DIGITAL SERVOS

Servo Name/Number: MGB5216HV 16.0kg/0.08s 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	36 x 15 x 33mm
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)	0.14s/60°	0.11s / 60°	0.09s / 60°	0.08s / 60°
Running Current (No load)	450mA	500mA	650mA	800mA
Stall Torque	26.0kg.cm	30.0kg.cm	36.0kg.cm	40.0kg.cm
Stall Current	4.5A	5.2A	6.5A	7.1A
Rated Working Torque	10.5kg.cm	11.5kg.cm	15.0kg.cm	16.0kg.cm
Rated Working Current	2.7A	3.0A	3.5A	3.7A
Idle Current	10mA	10mA	10mA	10mA

Mechanical Specification:

Overall Dimensions	36 x 15 x 33mm
Limit Angle	180°
Weight	52g ±1g
Connector Wire Gauge	#22 AWG
Connector Wire Length	220 ±5 mm
Spline	Ø5.90 25T
Reduction Ratio	214:1
Motor	Brushless
Angle Sensor	Potentiometer
Bearing	2BB
Gear	Steel Gear
Case	Full Metal
Waterproof	No

Mechanical Specification (Cont'd):

Positive Pole	Black (Middle)
Negative Electrode	Black
Signal	Black + White

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	About 125° (at 800 → 2200μsec)

Dimensions: mm