



## HIGH PERFORMANCE DIGITAL SERVOS

### Servo Name/Number: MGB6928HV2 28Kg/0.05s 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 39.8mm
Exterior/Appearance	No damage, not allowed to affect the function
Life Time	>100000 (sub/load)

#### Electrical Specification:

	5.0V	6.0V	7.4V	8.4V
Operating Speed (No load)	0.10s/60°	0.08s / 60°	0.06s / 60°	0.05s / 60°
Running Current (No load)	650mA	700mA	800mA	900mA
Stall Torque (at locked)	23kg.cm	31kg.cm	40kg.cm	42kg.cm
Stall Current (at locked)	6.6A	8.0A	9.3A	10.3A
Maximum Working Torque	18.9kg.cm	23kg.com	30.kg.cm	32kg.cm
Maximum Working Current	6.1A	7.2A	8.2A	8.5A
Rated Working Torque	16.5kg.cm	20.5kg.cm	22kg.cm	28kg.cm
Rated Working Current	4.3A	4.6A	5.5A	6.0A
Idle Current (at stopped)	10mA	10mA	10mA	10mA

#### Mechanical Specification:

Overall Dimensions	40 x 20 x 39.8mm
Limit Angle	180°
Weight	89g $\pm$ 1g
Connector Wire Gauge	#22 AWG
Connector Wire Length	300 $\pm$ 5 mm
Spline	Ø5.90 25T
Reduction Ratio	214:1
Motor	Brushless
Angle Sensor	Potentiometer
Bearing	2BB
Gear	Steel Gear
Case	Full Metal
Waterproof	Yes

### 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:

