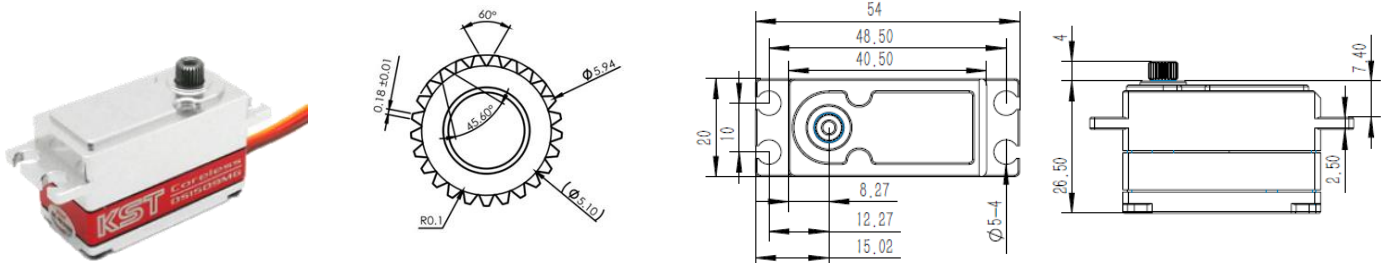


### DS1509MG Technical Specification

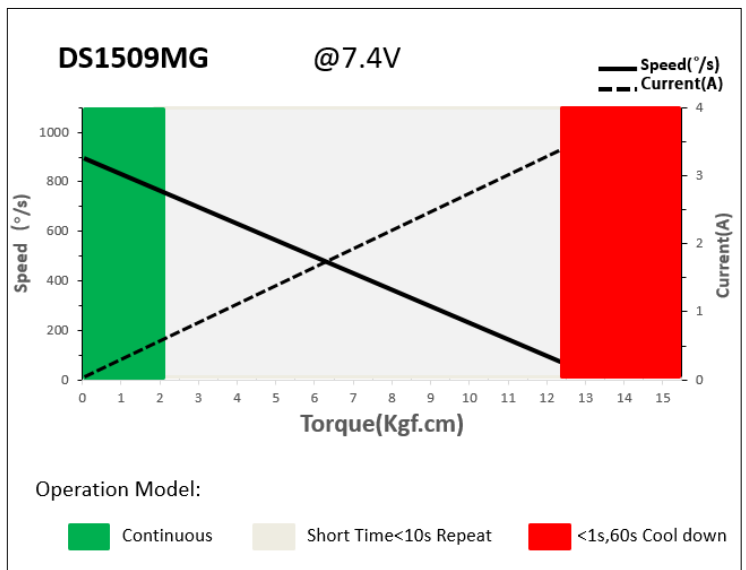


25T 6mm Output Shaft Spline

### 1. Operating Data

	DS1509MG
Rated Voltage	DC7.4V
Voltage Range	DC4.8V-7.4V
Stalling Torque	8.5Kgf.cm@4.8V
	10.7Kgf.cm@6.0V
	12.8 Kgf.cm @7.4V
No-load Speed	0.10sec/60°@4.8V
	0.08sec/60°@6.0V
	0.07sec/60°@7.4V
Working Frequency	1520us/333Hz
Default Travel Angle	±50°=100° Total
Temperature Range	-10°C .....+65°C
Soft Start	Programmable
Programmable	Yes
Case Material	Aluminum Alloy
Motor Type	Coreless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Potentiometer
Ball Bearing	2BB
Case Dimensions	40.5mm*20mm*26.5mm±0.2m
Weight	55g±10%

### 2. Performance



### 3. Command signal

#### PWM Command Interface

Signal Voltage	HIGH: min.3.3V, max.5.0V Low: min.0.0V, max.1.5V
Pulse Lengths	900us-2100us
Pulse Lengths for Position	1000us/1500us/2000us -50°/ 0°/+50°

### 4. Electrical Connection

	Pin Assignment			
	1	Orange	Signal	PWM Command
	2	Red	DC+	Supply Voltage
	3	Brown	DC-	Supply Ground