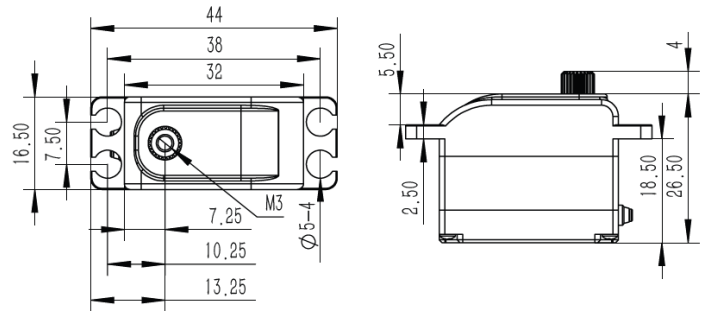
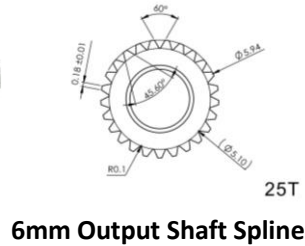


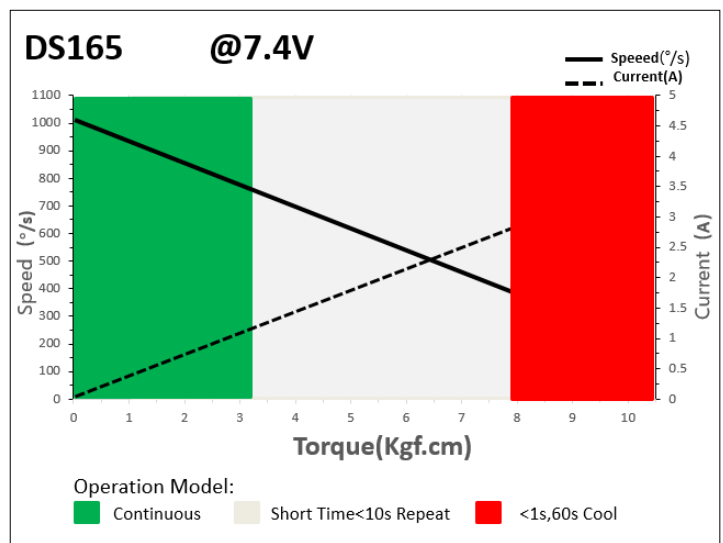
# DS165 Technical Specification



## 1. Operating Data

Rated Voltage	DC7.4V
Voltage Range	DC4.8V-8.4V
Torque	5.4Kgf.cm@4.8V
	6.6Kgf.cm@6.0V
	7.8Kgf.cm@7.4V
	9.0Kgf.cm@8.4V
Speed	0.088sec/60°@4.8V
	0.073sec/60°@6.0V
	0.059sec/60°@7.4V
	0.055sec/60°@8.4V
Start Current	2.20A@4.8V
	2.85A@6.0V
	3.25A@7.4V
	3.65A@8.4V
Working Frequency	1520us/333Hz
Default Travel Angle	±100° =200° Total
Temperature Range	-10°C.....+65°C
Soft Start	Programmable
Programmable	Yes
Case Material	Aluminum Alloy+ Plastic
Motor Type	Coreless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Contactless
Ball Bearing	2BB
Waterproof	IP65
Case Dimensions	32*16.5*26.5mm±0.2mm
Weight	32g±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	500us-2500us
Pulse Lengths for Position	500us/1500us/2500us
	-100%/ 0°/+100°

## 4. Electrical Connection

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