

# **SF006C Clutch Gear Digital Servo Specifications**


## 1. Function of the Performance

NO.	item	Specification		Remarks
1-1	Operating Voltage	4.8~6V DC		
1-2	Standby Current	≤4 mA		
1-3	Consumption Current* (No Load)	4.8V	≤50mA	Torsion protection: ≥0.9 kgf·cm; Power failure protection after 5 seconds of continuous load blocking
		6V	≤60mA	
1-4	Stall Current	4.8V	≤550mA	
		6V	≤650mA	
1-5	Rated Torque	4.8V	≥0.6 kgf·cm	
		6V	≥0.7 kgf·cm	
1-6	Max. Torque	4.8V	≥1.4 kgf·cm	
		6V	≥1.6 kgf·cm	
1-7	No Load Speed	4.8V	≤0.14sec/60°	
		6V	≤0.12sec/60°	

## 2. Standard Test Environment:

NO.	item	Specification	Remarks
2-1	Operating Temperature Range	-10°C ~ +50°C	
2-2	Storage Temperature Range	-20°C ~ +60°C	
2-3	Operating Humidity Range	≤ 90%RH	
2-4	Storage Humidity Range	≤ 90%RH	

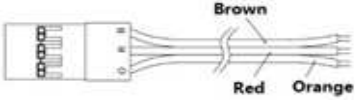
## 3. Mechanical Specification:

NO.	item	Specification		Remarks
3-1	Weight	10± 0.5g		
3-2	Case Material	ABS		
3-3	Gear Set Material	Plastic gear		
3-4	Reduction ratio	1/265		
3-5	Motor Type	Core motor		
3-6	Cable	Materia	Φ1.08,19 PVC	
		Length	245±5mm(Exsert without plugs)	
3-7	Horn Gear Spline	40T/Φ4.85mm		
3-8	Horn Gear Type	(See 8.Accessories)		
3-9	Rocker Arm Screw	Φ1.7*3.5 PWA W=4.5 Nickelage		
3-10	VR Parameter	Type	Carbon-Film Potentiometer	
		Angle	210±5°	
		Life	100 0000Cycles Min	

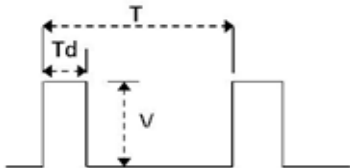
## 4. Control Specification

NO.	Item	Specification
4-1	Rotating Direction	CCW(500→2500us) Counter-Clockwise
4-2	Pulse Width Range	500~2500us
4-3	Neutral Position	1500us
4-4	Operating Travel Angle	180°±10° ( 500~2500us )
4-5	Max. Operating Travel Angle	180°±10° ( 500~2500us )
4-6	Mechanical Limit Angle	360°
4-7	Left & Right Travelling Angle Deviationshumei	≤ 6°
4-8	Centering deviation	≤ 1°
4-9	Back Lash	≤ 1°
4-10	Dead Band Width	≤ 4 us
4-11	Amplifier Type	Digital

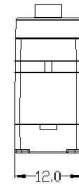
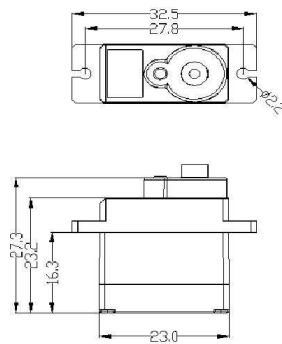
## 5. Connector

NO.	Item	Specification	Remark
5-1	Type	JR2.54mm/3Pin	
5-2	Pin Assignment	Brown	
		Red	
		Orange	

## 6. Communication Interface (PWM)

NO.	Item	Specification	Remark
6-1	Signal Voltage: V	HIGH : Min,2.0V , Max. Vcc LOW : Min,0.0V , Max.0.45V	
6-2	Frame Rate: T	3.0~30ms (Default 20ms)	
6-3	Left/Center/Right: Td	2500/1500/500us	
6-4	Resolution	-	

## 7. Outside Dimension: (Unit: mm)



## 8. Accessories:



## 9. Electrical Schematic Diagram :

