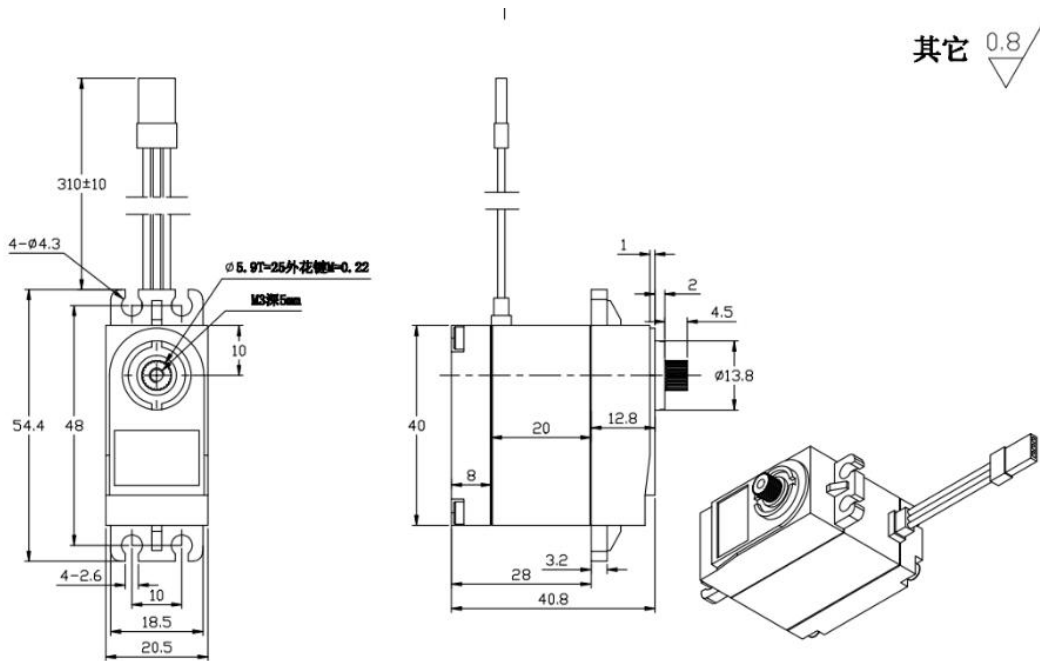


SHENZHEN SKY STAR TECHNOLOGY CO.,LTD			
Data Sheet of TD-8120MG 20kg 360° Digital Servo Motor			
Product Specification			
Products Name: TD-8120MG 20kg 360°Digital Servo Motor			
1. Apply Environmental Conditon			
No	Item	Specifcation	
1.1	Storage Temperature Range	-30°C~80°C	
1.2	Operating Temperature Range	-25°C~70°C	
2. Standard Test Environment			
No	Item	Specifcation	
2.1	Temperature Range	-25°C~70°C	
2.2	Humidity Range	65%±10%	
3. Mechanical Specification			
No	Item	Specifcation	
3.1	Size	40.0*20.5*40.5mm	
3.2	Weight	65g±5%	
3.2	Gear type	5 Metal	
3.4	Limit angle	360°	
3.5	Bearing	2BB	
3.6	Horn gear spline	25T 直径:5.9mm	
3.7	Horn type	Plastic, POM	
3.8	Case	Engineering plastics(PBT)+Aluminum alloy	
3.9	Connector wire	300mm±5mm	
3.10	Motor	Carbon brush motor	
3.11	Splash water resistance	IP65	
4. Electrical Specification			
No	Item	Specifcation	
4.1	Operating voltage	4.8V	8.4V
4.2	Idle current	<40mA	
4.3	No load speed	36rpm/min	60rpm/min
4.4	Runnig current	210mA	260mA
4.5	Peak stall torque	20.5kg.cm	22.8kg.cm
4.6	Stall current	2100mA±10%	2700mA±10%
5. Control Specification			
No	Item	Specifcation	
5.1	Command signal	Pulse width modification	
5.2	Amplifier type	Digital controller	
5.3	Pulse width range	500 ~ 2500usec(1000us or 2000us Reach maximum speed )	

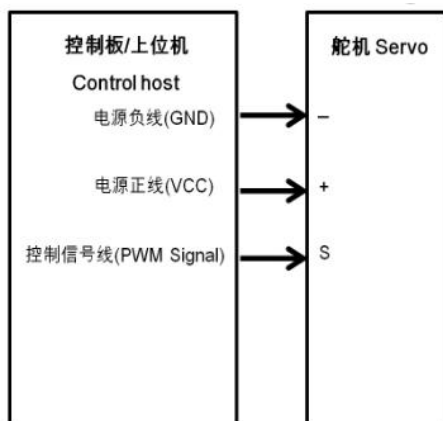
5.4	Stop position	1500usec
5.5	Stop interval	1450-1550usec
5.6	Running degree	360° Continuous rotation.
5.7	Dead band width	5 usec(Increase the speed by 5us by 1%)
5.8	Rotating direction	CWW(when 1500~2000usec)
5.9	Rotating direction	CW (when 1500~1000usec)

## 2. 2D Dimension Drawing



Note: The dimension diagram of this product has an error of  $\pm 0.2\text{mm}$  compared to the actual product dimensions.

## 3.Product Control



Note: Operating Voltage : 4.8V-8.4V , Signal Voltage : 3.0-5.0V .  
Signal Period :20ms, Pulse Width : 500us-2500us .