



## 产品规格书

## Specification of Product

产品名称: 6V 3公斤模拟连续转舵机  
Product Name: 6V 3kg.cm Analog Continuous rotation Servo

产品型号 Model No. FS5103R

## 1. 使用环境条件 Apply Environmental Condition

| No. | Item                             | Specification |
|-----|----------------------------------|---------------|
| 1-1 | 存储温度 Storage Temperature Range   | -30°C~80°C    |
| 1-2 | 运行温度 Operating Temperature Range | -15°C~70°C    |

## 2. 测试环境 Standard Test Environment

| No. | Item                 | Specification |
|-----|----------------------|---------------|
| 2-1 | 温度 Temperature range | 25°C ±5°C     |
| 2-2 | 湿度 Humidity range    | 65%±10%       |

## 3. 机械特性 Mechanical Specification

| No.  | Item                         | Specification                         |
|------|------------------------------|---------------------------------------|
| 3-1  | 尺寸 Size                      | A: 40.8mm B: 20.1mm C: 38mm D: 49.5mm |
| 3-2  | 重量 Weight                    | 40g ±0.2 (1.41oz)                     |
| 3-3  | 齿轮类型 Gear type               | Plastic Gear(Nylon & POM)             |
| 3-6  | 机构极限角度 Limit angle           | NO limit                              |
| 3-7  | 轴承 Bearing                   | 2 Ball bearings                       |
| 3-8  | 出力轴 Horn gear spline         | 25T                                   |
| 3-9  | 摆臂 Horn type                 | Plastic, POM                          |
| 3-10 | 外壳 Case                      | Nylon & Fiberglass                    |
| 3-11 | 舵机线 Connector wire           | 300mm ±5 mm                           |
| 3-12 | 马达 Motor                     | Metal brush motor                     |
| 3-13 | 防水性能 Splash water resistance | NO                                    |

## 4. 电气特性 Electrical Specification (Function of the Performance)

| No.  | 工作电压 Operating Voltage Range     | 4.8V        | 6V          |
|------|----------------------------------|-------------|-------------|
| 4-1* | 静态电流 Idle current(at stopped)    | 5mA         | 6mA         |
| 4-2* | 空载速度 No load speed               | 55RPM       | 60RPM       |
| 4-3* | 空载电流 Running current(at no load) | 150 mA      | 180 mA      |
| 4-4  | 堵转扭矩 Peak stall torque           | 3kg. cm     | 3.2 kg. cm  |
|      |                                  | 41.74oz. in | 44.52oz. in |
| 4-5  | 堵转电流 Stall current               | 780 mA      | 850mA       |
|      |                                  |             |             |
|      |                                  |             |             |

Note: "\*"definition is average value when the servo running with no load



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5. 控制特性 Control Specification:

| No. | Item                     | Specification  |
|-----|--------------------------|--|
| 5-1 | 控制信号 Command signal      | Pulse width modification                                     |
| 5-2 | 放大器类型 Amplifier type     | Analog comparator  |
| 5-3 | 脉冲宽度范围 Pulse width range | 700~2300 $\mu$ sec   |
| 5-4 | 停止位置 Stop position       | 1500 ( $\pm$ 5) $\mu$ sec                                    |
| 5-5 | 旋转角度 Running degree      | Continuous rotation  |
| 5-6 | 死区宽度 Dead band width     | 10 $\mu$ sec   |
| 5-7 | 旋转方向 Rotating direction  | CW(when 1500~700 $\mu$ sec)<br>CCW(when 1500~2300 $\mu$ sec) |

6. 外形图 The Drawings

