

DS3240 Series Datasheet 2024

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Product Name): DS3240 (Red)

Product Description): 6V 40kg RC Digital Servo

Model Numbers

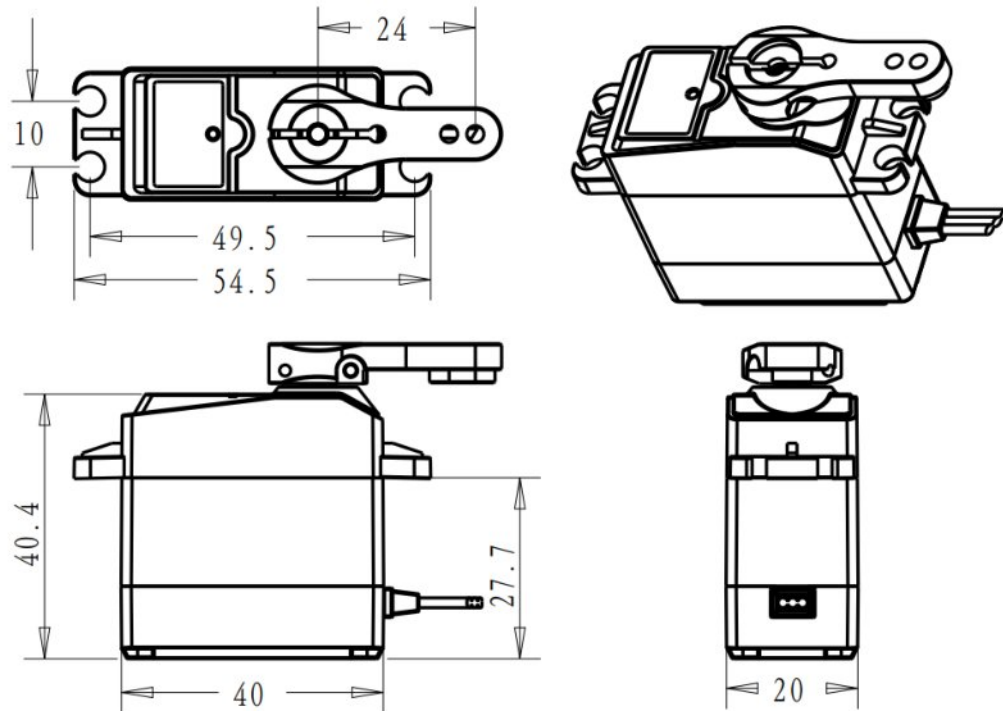
- DS3240 - Digital Servo 40kg.cm 180 Rotation Angle (3 Pin)
- DS3240-270 - Digital Servo 40kg.cm 270 Rotation Angle (3 Pin)
- DS3240-270-FB - Digital Servo 40kg.cm 270 Rotation Angle with Feedback (4 Pin)



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Product Name): DS3240 (Red)

Product Description): 6V 40kg RC Digital Servo



1. Apply Environmental Condition

| No. | Item | Specification |
|-----|----------------------------------|---------------|
| 1-1 | 存储温度 Storage Temperature Range | -30℃ ~ 80℃ |
| 1-2 | 运行温度 Operating Temperature Range | -25℃ ~ 70℃ |
| 1-3 | 工作电压范围 Operating Voltage Range | 4.8-6.8V |

2. 机械特性 Mechanical Specification

| No. | Item | Specification |
|-------|-----------------------------|----------------|
| 2-1 | 尺寸 Size | 40*20*40.5mm |
| 2-2 | 重量 Weight | 60g |
| 2-3 | 齿轮比 Gear ratio | 342 |
| 2-4 | 轴承 Bearing | Double bearing |
| 2 - 5 | 舵机线 Connector wire | 300 ± 5 mm |
| 2-6 | 马达 Motor | 3-pole(s) |
| 2-7 | 防水性能 Waterproof performance | IP66 |

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3. 电气特性 Electrical Specification No.

| | | |
|---------------------------------------|--------------|--------------|
| 工作电压 Operating Voltage | 5V | 6.8V |
| 3-1 待机电流 Idle current(at stopped) | 4mA | 5mA |
| 3-2 空载转速 Operating speed (at no load) | 0.20 sec/60° | 0.17 sec/60° |
| 3-3 堵转扭矩 Stall torque (at locked) | 36 kg-cm | 45 kg-cm |
| 3-4 堵转电流 Stall current (at locked) | 3.1A | 3.9A |

4. 控制特性 Control Specification

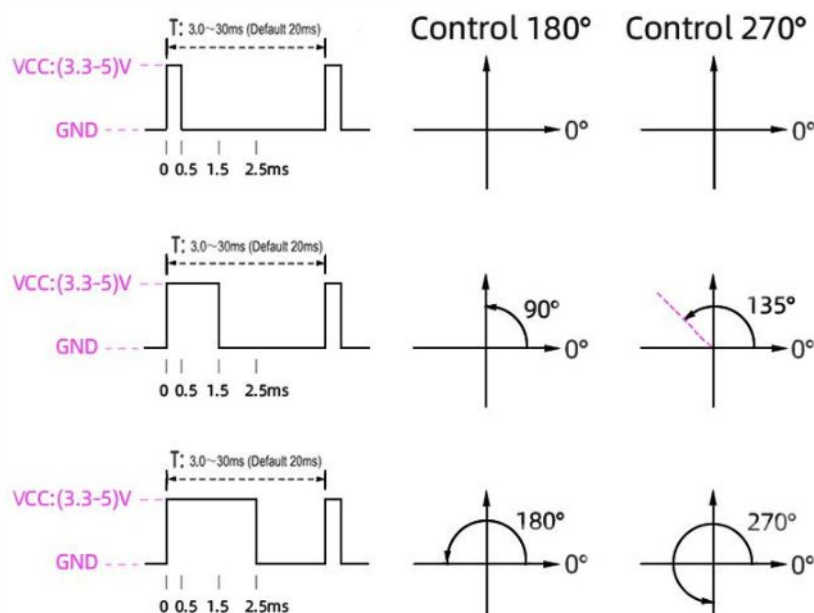
| No. | Item | Specification |
|-----|--------------------------|---------------------------------------|
| 4-1 | 驱动方式 Control System | PWM(Pulse width modification) |
| 4-2 | 脉宽范围 Pulse width range | 500~2500μsec |
| 4-3 | 中点位置 Neutral position | 1500μsec |
| 4-4 | 控制角度 Running degree | 180° or 270° (when 500~2500 μ sec) |
| 4-5 | 控制精度 Dead band width | 3 μsec |
| 4-6 | 控制频率 Operating frequency | 50-330Hz |
| 4-7 | 旋转方向 Rotating direction | Counterclockwise (when 500~2500 μsec) |

5. 关于 PWM 控制说明 About PWM Control

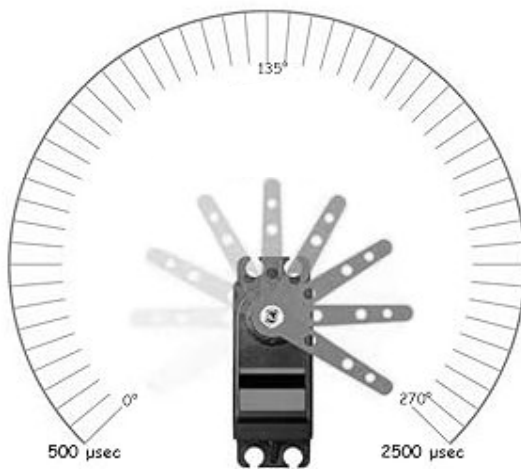
► Connector: JR-3pin-2.54mm



► Communication Interface: PWM



8. PWM Signal



Angle Control 270°

Angle Control 270 degree

- Pulse width range: 500 ~ 2500μsec
- Rotating direction: Counterclockwise (when 500 ~ 2500 μsec)
- Neutral position: 1500μsec
- Running degree: 0° (when 500 μ sec)
- Running degree: 270° (when 2500 μ sec)

9. Internal Gear Structure

