# LJ9DA (Linear Servo) Technical Specification

(THIS DATA IS JUST A REFERENCE. IT IS NOT A GUARANTEED DATA.)

## Update Number
160309-01

### Item | Specification | Remark
--- | --- | ---
1 Communication Interface | Signal Voltage: V
- PWM
  - **HIGH**: min. 3.0V
  - **LOW**: min. 0.6V
  - max. 0.45V
- Frame Rate: T
  - 3.0~30ms (Default 14.25ms)
- Retract/Center/Extend: Td
  - 2120/1520/920 μs
  - (Resolution recommends less than 1 μs.)

2 Rated Voltage
- DC 11.1~14.8V

3 Operating Voltage
- DC 9.0~15.6V

4 Standby Current
- ≤ 60mA at 11.1V

5 Consumption Current*

<table>
<thead>
<tr>
<th>LL</th>
<th>Me</th>
<th>UL</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>240</td>
<td>340</td>
<td>mA</td>
</tr>
<tr>
<td>at 11.1V, No-Load</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

6 Max. Force*

<table>
<thead>
<tr>
<th>LL</th>
<th>Me</th>
<th>UL</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.5</td>
<td>36.7</td>
<td>—</td>
<td>kgf</td>
</tr>
<tr>
<td>260</td>
<td>360</td>
<td>—</td>
<td>N</td>
</tr>
<tr>
<td>934.8</td>
<td>1294.6</td>
<td>—</td>
<td>ozf</td>
</tr>
</tbody>
</table>

7 Rated Force*

<table>
<thead>
<tr>
<th>LL</th>
<th>Me</th>
<th>UL</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3</td>
<td>7.3</td>
<td>—</td>
<td>kgf</td>
</tr>
<tr>
<td>52.0</td>
<td>72.0</td>
<td>—</td>
<td>N</td>
</tr>
<tr>
<td>187.0</td>
<td>258.9</td>
<td>—</td>
<td>ozf</td>
</tr>
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</table>

8 No Load Speed*

<table>
<thead>
<tr>
<th>LL</th>
<th>Me</th>
<th>UL</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6</td>
<td>3.0</td>
<td>3.4</td>
<td>inch/s</td>
</tr>
<tr>
<td>at 11.1V</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9 Stroke Length
- 1.97 inch (50mm)
- 0 inch (0mm) / 2120 μs
- 0.98 inch (25mm) / 1520 μs
- 1.97 inch (50mm) / 920 μs

10 Operating Temperature Range
- -10~+60°C (14~140°F)
- Except for the cable and the moving part.

11 Storage Temperature Range
- -30~+80°C (-22~176°F)

12 Outer Dimension
- 7.8 x 2.0 x 3.9 inch (197.6 x 51.1 x 99.3mm)
- Case Material:
  - Gear Box: PBT+PC-GF30
  - Heat Sink: AL
- Connector:
  - Mating:
    - JST Mfg. Co., Ltd
    - 08T-JWPF-VSLE-D etc.

13 Weight
- 25.4oz (720g)

14 Case Material
- Gear/Screw Set Material
  - 1st/3rd: Metal
  - 2nd: Synthetic Resin
  - Ball Screw: Metal

15 Connector
- Pin Assignment
  - 1 Brown: Position
  - 2 Yellow: Position Feedback
  - 3 Green: RS485 A(D+)
  - 4 Blue: RS485 B(D-)
  - 5 white: PWM/S.BUS
  - 6 Red: Battery(+)
  - 7 Black: Battery(-)
  - 8 Gray: Cable Shield Line

* At 23±5°C (Initial Performance Data)

All Specifications are subject to change without prior notice.

**Caution**

This product SHOULD NOT be used for the devices that is directly related to human life and/or harmful devices for human body such as below applications.

1. Medical Devices
2. Aerospace/Aviation Related Devices
3. Nuclear Related Devices e.t.c.
Outer Dimension

LJ9DA

Analog Feedback