

PRODUCT DATASHEET

ES-LA-C00-S011-V003

Precision Linear Motion Assembly

Micro Servo Electric Cylinder | Electric Actuator Platform 11 Series

Product Overview

Precision Linear Motion Assembly with mechanical Interface Joint bearing, speed Grade 7 and cable Diameter 2.3 mm.

Key Specifications

| PARAMETER                  | VALUE                  | UNIT |
|----------------------------|------------------------|------|
| Mechanical Interface       | Joint bearing          |      |
| Speed Grade                | 7                      |      |
| Cable Diameter             | 2.3                    | mm   |
| Cable Length               | 200                    | mm   |
| Electrical Interface       | LVTTL serial interface |      |
| Force Sensor Resolution    | 1                      | N    |
| Full-load Speed            | 21                     | mm/s |
| Maximum Push/Pull Force    | 42                     | N    |
| Maximum Self-locking Force | 50                     | N    |

## Technical Specifications

| PARAMETER                   | SPECIFICATION           | UNIT | NOTES               |
|-----------------------------|-------------------------|------|---------------------|
| PERFORMANCE                 |                         |      |                     |
| Full-load Speed             | 21                      | mm/s | Speed Class: 07     |
| Maximum Push/Pull Force     | 42                      | N    | Speed Class: 07     |
| Maximum Self-locking Force  | 50                      | N    | Speed Class: 07     |
| Repeat Positioning Accuracy | $\pm 0.03$              | mm   |                     |
| Stall Push/Pull Force       | 60                      | N    | Speed Class: 07     |
| ELECTRICAL                  |                         |      |                     |
| No-load Current             | 0.53                    | A    | Speed Class: 07     |
| Operating Voltage           | $8 \pm 10\%$            | V    |                     |
| Peak Current                | 2                       | A    |                     |
| Static Current              | 0.05                    | A    |                     |
| Electrical Interface        | LVTTTL serial interface |      | Model Code Token: D |

## Technical Specifications

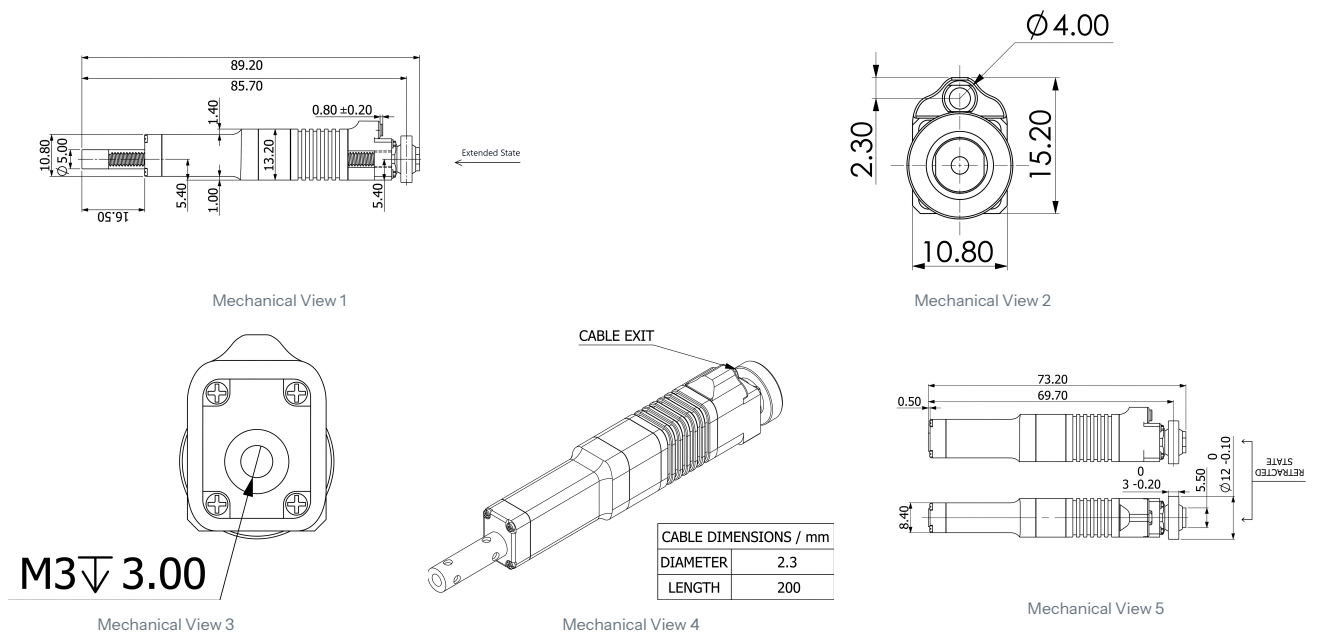
| PARAMETER                 | SPECIFICATION | UNIT | NOTES                |
|---------------------------|---------------|------|----------------------|
| MECHANICAL                |               |      |                      |
| Cable Diameter            | 2.3           | mm   |                      |
| Cable Length              | 200           | mm   |                      |
| Stroke                    | 16            | mm   |                      |
| Weight                    | 33            | g    |                      |
| INTERFACES                |               |      |                      |
| Mechanical Interface      | Joint bearing |      | Model Code Token: 4  |
| ENVIRONMENTAL             |               |      |                      |
| Operating Temperature     | -10 to +60    | °C   |                      |
| ADDITIONAL SPECIFICATIONS |               |      |                      |
| Speed Grade               | 7             |      | Model Code Token: 07 |
| Force Sensor Resolution   | 1             | N    |                      |
| No-load Speed             | 50            | mm/s | Speed Class: 07      |
| Protection Rating         | IP40          |      |                      |

## Dimensional & Integration Overview

### Mechanical Overview

| PARAMETER      | VALUE | UNIT |
|----------------|-------|------|
| Cable Diameter | 2.3   | mm   |
| Cable Length   | 200   | mm   |
| Stroke         | 16    | mm   |
| Weight         | 33    | g    |

### Dimensional Drawings



## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                 | VALUE                                        |
|-------------------|---------------------------------------|----------------------------------------------|
| Mechanical View 1 | Overall length in extended state      | Overall length = 89.20 mm                    |
|                   | Body length in extended state         | Body length = 85.70 mm                       |
|                   | Shoulder step dimension               | Shoulder step = 1.40 mm                      |
|                   | Left shaft diameter                   | Diameter = $\Phi$ 5.00 mm                    |
|                   | State label                           | Extended state                               |
|                   | Left end outside height               | Outside height = 10.80 mm                    |
|                   | Main body outside height or diameter  | Main body outside height/diameter = 13.20 mm |
|                   | Left mounting end local height        | Local height = 5.40 mm                       |
|                   | Lower step dimension                  | Lower step = 1.00 mm                         |
|                   | Left shaft protrusion length          | Shaft protrusion length = 16.50 mm           |
| Mechanical View 2 | Top joint hole diameter               | Diameter 4.00 mm                             |
|                   | Left local height dimension           | 2.30 mm                                      |
|                   | Right overall height dimension        | 15.20 mm                                     |
|                   | Bottom mounting width                 | 10.80 mm                                     |
| Mechanical View 3 | Mounting threaded hole size and depth | M3 thread, depth 3.00 mm                     |

## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                           | VALUE                                 |
|-------------------|-------------------------------------------------|---------------------------------------|
| Mechanical View 5 | Retracted overall length                        | 73.20 mm                              |
|                   | Retracted body length                           | 69.70 mm                              |
|                   | End step offset                                 | 0.50 mm                               |
|                   | Joint bearing interface diameter with tolerance | Diameter 12 mm, tolerance +0/-0.10 mm |
|                   | State label                                     | Retracted state                       |
|                   | Rod end height                                  | 8.40 mm                               |

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**01** Specifications are subject to change without notice. Verify the current product configuration before final design release.

**02** 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.