

PRODUCT DATASHEET

ES-LA-C00-S010-V002

Precision Linear Motion Assembly

Micro Servo Electric Cylinder | Electric Actuator Platform 10 Series

Product Overview

Precision Linear Motion Assembly with mechanical Interface Joint bearing, speed Grade 3 and cable Diameter 2.3 mm.

Key Specifications

| PARAMETER                  | VALUE                  | UNIT |
|----------------------------|------------------------|------|
| Mechanical Interface       | Joint bearing          |      |
| Speed Grade                | 3                      |      |
| Cable Diameter             | 2.3                    | mm   |
| Cable Length               | 200                    | mm   |
| Electrical Interface       | LVTTL serial interface |      |
| Force Sensor Resolution    | 1                      | N    |
| Full-load Speed            | 16                     | mm/s |
| Maximum Push/Pull Force    | 56                     | N    |
| Maximum Self-locking Force | 100                    | N    |

## Technical Specifications

| PARAMETER                   | SPECIFICATION          | UNIT | NOTES               |
|-----------------------------|------------------------|------|---------------------|
| PERFORMANCE                 |                        |      |                     |
| Full-load Speed             | 16                     | mm/s | Speed Class: 03     |
| Maximum Push/Pull Force     | 56                     | N    | Speed Class: 03     |
| Maximum Self-locking Force  | 100                    | N    | Speed Class: 03     |
| Repeat Positioning Accuracy | $\pm 0.02$             | mm   |                     |
| Stall Push/Pull Force       | 80                     | N    | Speed Class: 03     |
| ELECTRICAL                  |                        |      |                     |
| No-load Current             | 0.27                   | A    | Speed Class: 03     |
| Operating Voltage           | $8 \pm 10\%$           | V    |                     |
| Peak Current                | 2                      | A    |                     |
| Static Current              | 0.05                   | A    |                     |
| Electrical Interface        | LVTTL serial interface |      | Model Code Token: D |

## Technical Specifications

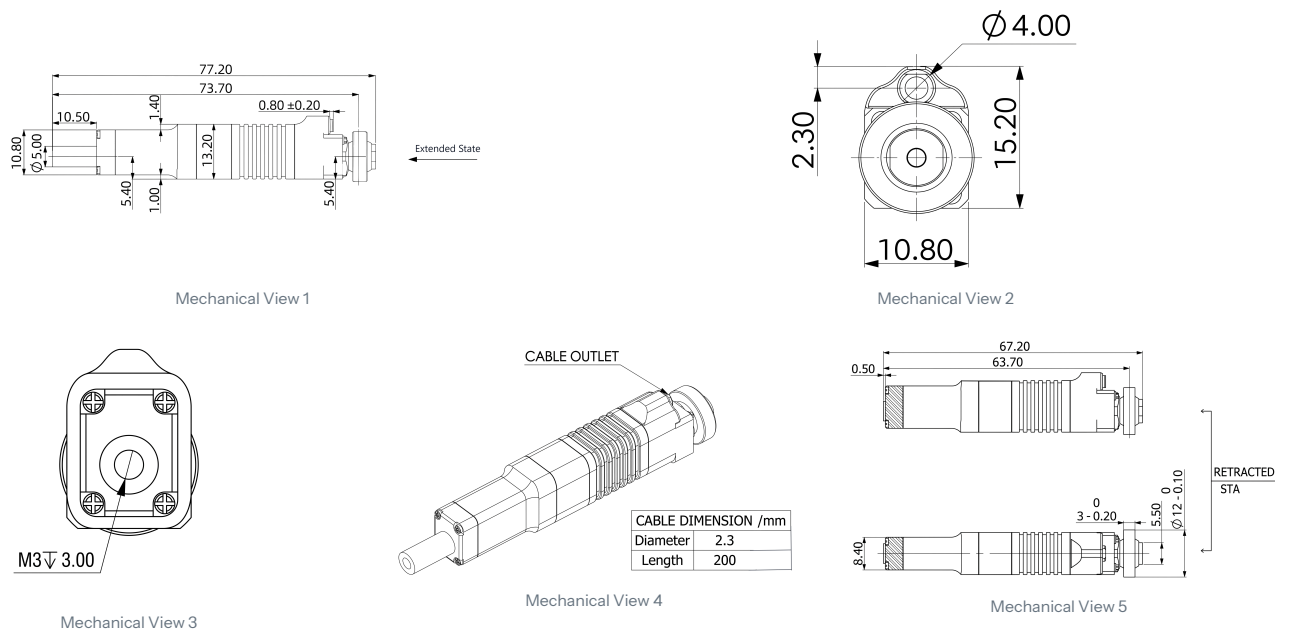
| PARAMETER                 | SPECIFICATION | UNIT | NOTES                |
|---------------------------|---------------|------|----------------------|
| MECHANICAL                |               |      |                      |
| Cable Diameter            | 2.3           | mm   |                      |
| Cable Length              | 200           | mm   |                      |
| Stroke                    | 10            | mm   |                      |
| Weight                    | 29            | g    |                      |
| INTERFACES                |               |      |                      |
| Mechanical Interface      | Joint bearing |      | Model Code Token: 4  |
| ENVIRONMENTAL             |               |      |                      |
| Operating Temperature     | -10 to +60    | °C   |                      |
| ADDITIONAL SPECIFICATIONS |               |      |                      |
| Speed Grade               | 3             |      | Model Code Token: 03 |
| Force Sensor Resolution   | 1             | N    |                      |
| No-load Speed             | 36            | mm/s | Speed Class: 03      |
| Protection Rating         | IP40          |      |                      |

## Dimensional & Integration Overview

### Mechanical Overview

| PARAMETER      | VALUE | UNIT |
|----------------|-------|------|
| Cable Diameter | 2.3   | mm   |
| Cable Length   | 200   | mm   |
| Stroke         | 10    | mm   |
| Weight         | 29    | g    |

### Dimensional Drawings



## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                   | VALUE                                |
|-------------------|-----------------------------------------|--------------------------------------|
| Mechanical View 1 | Overall length in extended state        | Overall extended length 77.20 mm     |
|                   | Extended state body length              | Extended body length 73.70 mm        |
|                   | End axial clearance or travel allowance | 0.80 ± 0.20 mm                       |
|                   | Shoulder step offset                    | Step offset 1.40 mm                  |
|                   | Left shaft interface axial length       | Left shaft interface length 10.50 mm |
|                   | Left shaft diameter                     | Diameter 5.00 mm                     |
|                   | Left end outer height                   | Outer height 10.80 mm                |
|                   | Middle body outer height                | Middle body outer height 13.20 mm    |
|                   | State label                             | Extended state                       |
|                   | Left lower local height                 | Local height 5.40 mm                 |
|                   | Right end local height                  |                                      |
|                   | Lower step offset                       | Lower step offset 1.00 mm            |
| Mechanical View 2 | Top small hole diameter                 | Diameter 4.00                        |
|                   | Left local vertical dimension           | 2.30                                 |
|                   | Right overall vertical dimension        | 15.20                                |
|                   | Bottom width dimension                  | 10.80                                |
| Mechanical View 3 | M3 threaded hole depth                  | M3 thread, depth 3.00                |

## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                           | VALUE                                                 |
|-------------------|-------------------------------------------------|-------------------------------------------------------|
| Mechanical View 5 | Retracted overall length                        | 67.20                                                 |
|                   | Retracted internal length to end feature        | 63.70                                                 |
|                   | End offset dimension                            | 0.50                                                  |
|                   | Retracted state label                           | Retracted state                                       |
|                   | Joint bearing interface diameter with tolerance | Diameter 12, upper tolerance 0, lower tolerance -0.10 |
|                   | Interface spacing dimension                     | 5.50                                                  |
|                   | End step width with tolerance                   | 3, upper tolerance 0, lower tolerance -0.20           |
|                   | Left end height dimension                       | 8.40                                                  |

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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.