

PRODUCT DATASHEET

# ES-LA-C00-S016-V005

Precision Linear Motion Assembly

Micro Servo Electric Cylinder | Electric Actuator Platform 16 Series

Product Overview

Precision Linear Motion Assembly with mechanical Interface Joint bearing, speed Grade 10 and cable Diameter 2.3 mm.

Key Specifications

| PARAMETER               | VALUE                  | UNIT |
|-------------------------|------------------------|------|
| Mechanical Interface    | Joint bearing          |      |
| Speed Grade             | 10                     |      |
| Cable Diameter          | 2.3                    | mm   |
| Cable Length            | 200                    | mm   |
| Electrical Interface    | LVTTL serial interface |      |
| Force Sensor Resolution | 1                      | N    |
| Full-load Speed         | 39                     | mm/s |
| Maximum Push/Pull Force | 31.5                   | N    |
| No-load Speed           | 62                     | mm/s |

## Technical Specifications

| PARAMETER                   | SPECIFICATION          | UNIT | NOTES               |
|-----------------------------|------------------------|------|---------------------|
| PERFORMANCE                 |                        |      |                     |
| Full-load Speed             | 39                     | mm/s |                     |
| Maximum Push/Pull Force     | 31.5                   | N    |                     |
| Repeat Positioning Accuracy | ± 0.02                 | mm   |                     |
| ELECTRICAL                  |                        |      |                     |
| Operating Voltage           | 8 ± 10%                | V    |                     |
| Peak Current                | 2                      | A    |                     |
| Static Current              | 0.05                   | A    |                     |
| Electrical Interface        | LVTTL serial interface |      | Model Code Token: D |
| MECHANICAL                  |                        |      |                     |
| Cable Diameter              | 2.3                    | mm   |                     |
| Cable Length                | 200                    | mm   |                     |

## Technical Specifications

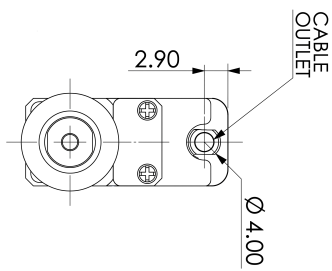
| PARAMETER                 | SPECIFICATION | UNIT | NOTES                |
|---------------------------|---------------|------|----------------------|
| MECHANICAL                |               |      |                      |
| Stroke                    | 10            | mm   |                      |
| Weight                    | 32            | g    |                      |
| INTERFACES                |               |      |                      |
| Mechanical Interface      | Joint bearing |      | Model Code Token: 4  |
| ENVIRONMENTAL             |               |      |                      |
| Operating Temperature     | -10 to +60    | °C   |                      |
| ADDITIONAL SPECIFICATIONS |               |      |                      |
| Speed Grade               | 10            |      | Model Code Token: 10 |
| Force Sensor Resolution   | 1             | N    |                      |
| No-load Speed             | 62            | mm/s |                      |
| Protection Rating         | IP40          |      |                      |

## Dimensional & Integration Overview

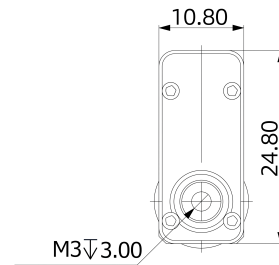
### Mechanical Overview

| PARAMETER      | VALUE | UNIT |
|----------------|-------|------|
| Cable Diameter | 2.3   | mm   |
| Cable Length   | 200   | mm   |
| Stroke         | 10    | mm   |
| Weight         | 32    | g    |

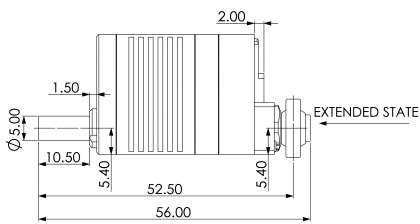
### Dimensional Drawings



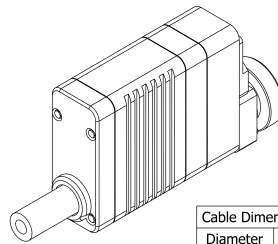
Mechanical View 1



Mechanical View 2

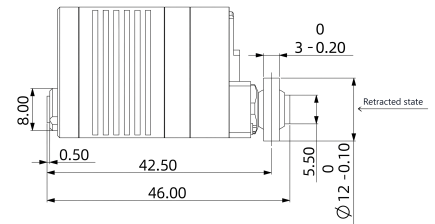


Mechanical View 3



Mechanical View 4

| Cable Dimension / mm |     |
|----------------------|-----|
| Diameter             | 2.3 |
| Length               | 200 |



Mechanical View 5

## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                 | VALUE                           |
|-------------------|---------------------------------------|---------------------------------|
| Mechanical View 2 | Mounting face width                   | Width 10.80 mm                  |
|                   | Mounting face height                  | Height 24.80 mm                 |
|                   | Mounting threaded hole size and depth | M3 threaded hole, depth 3.00 mm |
| Mechanical View 3 | Right end clearance or step length    | 2.00 mm                         |
|                   | Left end shoulder length              | 1.50 mm                         |
|                   | Extended state label                  | Extended state                  |
|                   | Shaft diameter                        | Diameter 5.00 mm                |
|                   | Left shaft protrusion length          | 10.50 mm                        |
|                   | Left interface vertical height        | 5.40 mm                         |
|                   | Right interface vertical height       |                                 |
|                   | Main body length                      | 52.50 mm                        |
|                   | Overall length                        | 56.00 mm                        |

## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                  | VALUE                                                            |
|-------------------|----------------------------------------|------------------------------------------------------------------|
| Mechanical View 5 | Retracted-state end axial dimension    | 3 mm with upper tolerance +0 and lower tolerance -0.20           |
|                   | State label                            | Retracted state                                                  |
|                   | Left-end mounting height               | 8.00 mm                                                          |
|                   | Left-end step offset dimension         | 0.50 mm                                                          |
|                   | Right-end shaft shoulder height        | 5.50 mm                                                          |
|                   | Right-end shaft diameter and tolerance | Diameter 12 mm with upper tolerance +0 and lower tolerance -0.10 |
|                   | Body length                            | 42.50 mm                                                         |
|                   | Overall length                         | 46.00 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.