

PRODUCT DATASHEET

ES-LA-C00-S012-V001

Precision Linear Motion Assembly

Micro Servo Electric Cylinder | Electric Actuator Platform 12 Series

Product Overview

Precision Linear Motion Assembly with mechanical Interface Joint bearing, speed Grade 2 and cable Diameter 2.3 mm.

Key Specifications

PARAMETER	VALUE	UNIT
Mechanical Interface	Joint bearing	
Speed Grade	2	
Cable Diameter	2.3	mm
Cable Length	200	mm
Electrical Interface	LVTTL serial interface	
Force Sensor Detection Range	-100 to +100	N
Force Sensor Resolution	1	N
Full-load Speed	8	mm/s
Ingress Protection Rating	IP40	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Full-load Speed	8	mm/s	Speed Class: 02
Maximum Push/Pull Force	50	N	Speed Class: 02
Maximum Self-locking Force	80	N	Speed Class: 02
Repeat Positioning Accuracy	± 0.06	mm	
Stall Push/Pull Force	80	N	Speed Class: 02
ELECTRICAL			
No-load Current	0.3	A	Speed Class: 02
Operating Voltage	$8 \pm 10\%$	V	
Peak Current	2	A	
Static Current	0.05	A	
Electrical Interface	LVTTTL serial interface		Model Code Token: D
MECHANICAL			
Cable Diameter	2.3	mm	

Technical Specifications

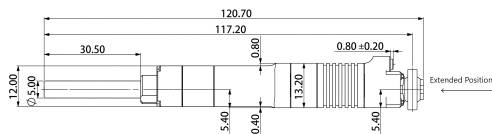
PARAMETER	SPECIFICATION	UNIT	NOTES
MECHANICAL			
Cable Length	200	mm	
Stroke	30	mm	
Weight	38	g	
INTERFACES			
Mechanical Interface	Joint bearing		Model Code Token: 4
ENVIRONMENTAL			
Operating Temperature	-10 to +60	°C	
Ingress Protection Rating	IP40		
ADDITIONAL SPECIFICATIONS			
Speed Grade	2		Model Code Token: 02
Force Sensor Resolution	1	N	
No-load Speed	17	mm/s	Speed Class: 02
Force Sensor Detection Range	-100 to +100	N	

Dimensional & Integration Overview

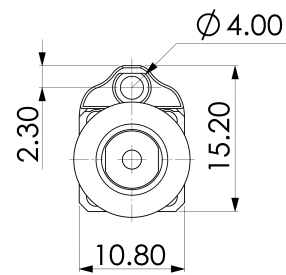
Mechanical Overview

PARAMETER	VALUE	UNIT
Cable Diameter	2.3	mm
Cable Length	200	mm
Stroke	30	mm
Weight	38	g

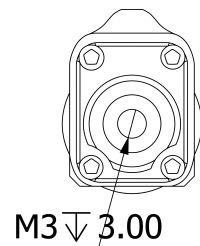
Dimensional Drawings



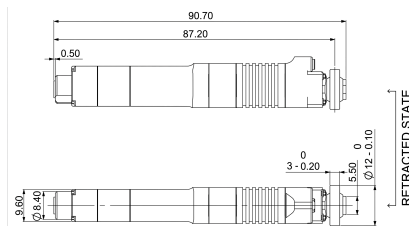
Mechanical View 1



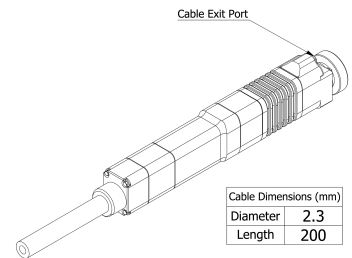
Mechanical View 2



Mechanical View 3



Mechanical View 4



Mechanical View 5

Cable Dimensions (mm)	
Diameter	2.3
Length	200

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Overall length in extended position	Overall length = 120.70 mm
	Body length excluding end allowance	Length = 117.20 mm
	Left shaft extension length	Left shaft extension length = 30.50 mm
	Left shaft diameter	Diameter = Φ 5.00 mm
	Left end outer height or diameter	Outer size = 12.00 mm
	Step offset dimension	Step offset = 0.80 mm
	Right end axial clearance or end length tolerance	Dimension = 0.80 ± 0.20 mm
	Middle body outer height or diameter	Outer size = 13.20 mm
	Lower step height	Lower step height = 5.40 mm
	Right lower step height	Right lower step height = 5.40 mm
	Lower small step offset	Lower offset = 0.40 mm
Mechanical View 2	Top joint bearing hole diameter	Diameter 4.00 mm
	Vertical offset from upper reference line to top hole centerline	2.30 mm
	Interface front-view overall height	15.20 mm
	Interface front-view overall width	10.80 mm
Mechanical View 3	Mounting thread and depth	M3 thread, depth 3.00

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 4	Retracted-state overall length	Overall length = 90.70 mm
	Retracted-state body length	Body length = 87.20 mm
	End offset dimension	Offset = 0.50 mm
	Left-end shaft diameter	Diameter = 8.40 mm
	Left-end outer diameter or height dimension	Dimension = 9.60 mm
Mechanical View 5	Cable dimensions table	Cable dimensions are specified in millimeters

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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.