

PRODUCT DATASHEET

ES-EC-S01-M003

Precision Linear Motion Assembly

Miniature Slide Electric Cylinders | ES-EC-S01 Miniature Slide Electric Cylinder Series

Product Overview

Precision Linear Motion Assembly with rated Thrust 5 mm: 170; 10 mm: 85 N, maximum Linear Speed 5 mm: 165; 10 mm: 330 mm/s and stroke 75, 150 mm.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Thrust	5 mm: 170; 10 mm: 85	N
Maximum Linear Speed	5 mm: 165; 10 mm: 330	mm/s
Stroke	75, 150	mm
Weight	Non-brake - 75 mm stroke: 1.40; 150 mm stroke: 1.65; brake - 75 mm stroke: 1.47; 150 mm stroke: 1.72	kg
Allowable Load Moment (Mx)	18.8	N·m
Allowable Load Moment (My)	18.8	N·m
Allowable Load Moment (Mz)	30.5	N·m
Lead screw pitch	5; 10	mm
Maximum Acceleration	5 mm: 2000; 10 mm: 3000	mm/s ²

Technical Specifications

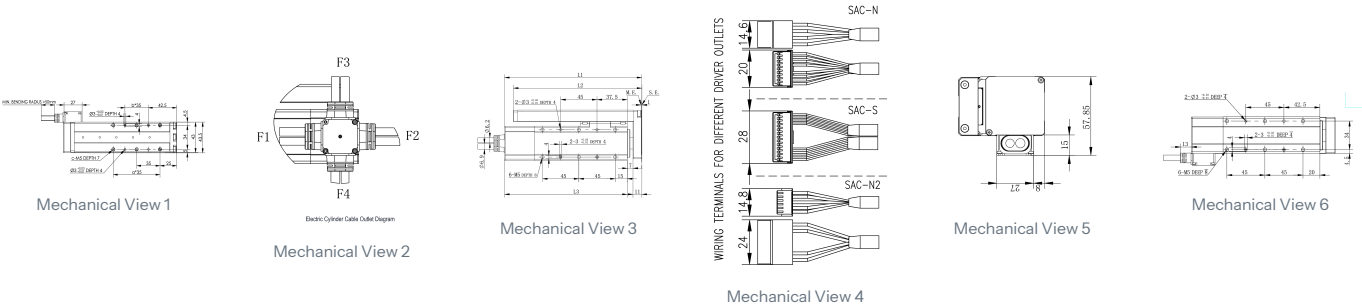
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Rated Thrust	5 mm: 170; 10 mm: 85	N	
Maximum Linear Speed	5 mm: 165; 10 mm: 330	mm/s	
Maximum horizontal load	5 mm: 15; 10 mm: 15	kg	
Minimum Thrust	5 mm: 51; 10 mm: 25.5	N	
Maximum vertical load	5 mm: 6; 10 mm: 3	kg	
Maximum Acceleration	5 mm: 2000; 10 mm: 3000	mm/s ²	
Lead screw pitch	5; 10	mm	
Position Repeatability	±0.02	mm	
Allowable Load Moment (My)	18.8	Nm	
Allowable Load Moment (Mx)	18.8	Nm	
Allowable Load Moment (Mz)	30.5	Nm	
MECHANICAL			
Stroke	75, 150	mm	
Weight - Without brake	1.40	kg	Stroke 75 mm
	1.65	kg	Stroke 150 mm
Weight - With brake	1.47	kg	Stroke 75 mm
	1.72	kg	Stroke 150 mm

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE		UNIT
Stroke	75, 150		mm
Weight	BRAKE OPTION	STROKE	WEIGHT
	Without brake	75 mm	1.40 kg
		150 mm	1.65 kg
	With brake	75 mm	1.47 kg
		150 mm	1.72 kg

Dimensional Drawings



2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Upper mounting pitch parameter b	b × 35 mm
	Upper right-end mounting pitch	42.5 mm
	Upper locating hole diameter and depth	Diameter 3 mm, tolerance +0.03/+0.01 mm, depth 4 mm
	Upper local vertical offset	4 mm
	Right-end upper vertical offset	4.5 mm
	Body height	34 mm
	Overall height	43 mm
	Maximum overall height	43.5 mm
	Lower edge offset	5 mm
	M5 threaded hole depth	C-M5 threaded holes, depth 7 mm
	Lower locating hole diameter and depth	Diameter 3 mm, tolerance +0.03/+0.01 mm, depth 4 mm
	Lower mounting pitch parameter a	a × 35 mm
	Right-side mounting pitch	35 mm
	Right-end mounting distance	25 mm
Mechanical View 2	Drawing title	Electric Cylinder Cable Outlet Diagram

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 3	Overall length L1	L1
	Length L2	L2
	Upper mounting hole pitch segment 1	45 mm
	Upper mounting hole pitch segment 2	37.5 mm
	Upper locating hole specification	2 holes, diameter 3 mm, tolerance +0.03/+0.01 mm, depth 4 mm
	Shaft diameter 1	Diameter 6.2 mm
	Lower locating hole specification	2 features, size 3 mm, tolerance +0.03/+0.01 mm, depth 4 mm
	Shaft diameter 2	Diameter 6.9 mm
	Right end offset distance	7 mm
	Threaded mounting hole specification	6 x M5 threaded holes, depth 8 mm
	Lower mounting hole pitch segment 1	45 mm
	Lower mounting hole pitch segment 2	
	Lower end spacing	15 mm
	Right end extension distance	11 mm
	Overall length L3	L3
	Right end clearance	1 mm
Mechanical View 4	Outlet terminal compatibility note for different drivers	Outlet terminals for different driver wiring configurations
Mechanical View 5	Local overall height	57.85 mm

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 6	Upper row locating hole specification	2 holes, diameter 3 mm, tolerance +0.03/+0.01 mm, depth 4 mm
	Upper row hole spacing 1	45 mm
	Upper row hole spacing 2	42.5 mm
	Middle/lower row locating hole specification	2 holes, diameter 3 mm, tolerance +0.03/+0.01 mm, depth 4 mm
	Vertical spacing between hole rows	4 mm
	Main body height	34 mm
	Right side step height	4.5 mm
	Mounting threaded hole specification	6 x M5 threaded holes, depth 8 mm
	Lower row hole spacing 1	45 mm
	Lower row hole spacing 2	
	Lower row right end spacing	20 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.