

EC-S7

Model Specification Items

EC — S7
Series — Type

Lead

S : 24mm
H : 16mm
M : 8mm
L : 4mm

Stroke

50: 50mm
500: 500mm
(Every 50mm)

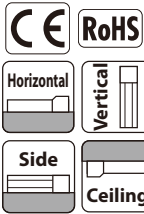
Cable Length

0: With terminal block type connector
1: 1m
10: 10m

Options

Refer to Options below.

* Please refer to P.13 for more information about the model specification items.



* Depending on the model, there may be some limitations to using the vertical, side, and ceiling mount positions. Please contact IAI for more information regarding mounting positions.



- (1) The maximum acceleration/deceleration is 1G for horizontal, and 0.5G for vertical use.
- (2) The actuator specifications displays the payload's maximum value, but it will vary depending on the acceleration and speed. Please refer to "Table of Payload by Speed/Acceleration" at right for more details.
- (3) When performing push operation, refer to P.31.
- (4) Depending on the ambient operating temperature, duty control is necessary. Please refer to P.32 for more information.

Table of Payload by Speed/Acceleration

Lead 24

Orientation	Acceleration (G)					
	Horizontal		Vertical			
Speed (mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	37	22	16	14	3	3
200	37	22	16	14	3	3
420	34	20	16	14	3	3
640	20	15	10	9	3	3
860	12	10	7	4	3	2.5

Lead 16

Orientation	Acceleration (G)					
	Horizontal		Vertical			
Speed (mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	46	35	28	27	8	8
140	46	35	28	27	8	8
280	46	35	25	24	8	8
420	34	25	15	10	5	4.5
560	20	15	10	6	4	3
700	15	10	5	3	3	2

Lead 8

Orientation	Acceleration (G)					
	Horizontal		Vertical			
Speed (mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	51	45	40	40	16	16
70	51	45	40	40	16	16
140	51	40	38	35	16	16
210	51	35	30	24	10	9.5
280	40	28	20	15	8	7
350	30	9	4		5	4
420	7				2	

Lead 4

Orientation	Acceleration (G)					
	Horizontal		Vertical			
Speed (mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	51	45	40	40	19	19
35	51	45	40	40	19	19
70	51	45	40	40	19	19
105	51	45	40	35	19	19
140	45	35	30	25	14	12
175	30	18			9	7.5
210	6					

Actuator Specifications

Lead and Payload

Model	Lead (mm)	Max. payload		Max. Push force (N)
		Horizontal (kg)	Vertical (kg)	
EC-S7S-①-②(-③)	24	37	3	112
EC-S7H-①-②(-③)	16	46	8	168
EC-S7M-①-②(-③)	8	51	16	336
EC-S7L-①-②(-③)	4	51	19	673

Legend: ① Stroke ② Cable Length ③ Option

Stroke and Max. Speed

(Unit: mm/s)

Lead (mm)	50~300 (Every 50mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)
24	860		774	619	506
16	700	631	492	395	323
8	420	322	251	200	164
4	210 <175>	163	126	101	83

<> represents vertical operation.

① Stroke

① Stroke (mm)	EC-S7	① Stroke (mm)	EC-S7
50	○	300	○
100	○	350	○
150	○	400	○
200	○	450	○
250	○	500	○

② Cable Length

Cable code	Cable length
0	No cable (with connector)
1 to 3	1 to 3m
4 to 5	4 to 5m
6 to 10	6 to 10m

③ Options

Type	Option code	Reference page
Brake	B	See P.29
Foot bracket	FT	See P.29
Non-motor end specification	NM	See P.30
PNP specification	PN	See P.30
Battery-less		
Absolute Encoder specification	WA	See P.30

Actuator Specifications

Item	Description
Drive system	Ball screw ø12mm, rolled C10
Positioning repeatability	±0.05mm
Base	Material: Aluminum, alumite treatment
Static allowable moment	Ma direction: 79.7N-m, Mb direction: 114N-m, Mc direction: 157N-m
Dynamic allowable moment (*)	Ma direction: 17.7N-m, Mb direction: 25.3N-m, Mc direction: 34.9N-m
Ambient operating temperature/humidity	0 to 40°C, 85% RH or less (Non-condensing)

* Overhang load length guideline: 280mm or less

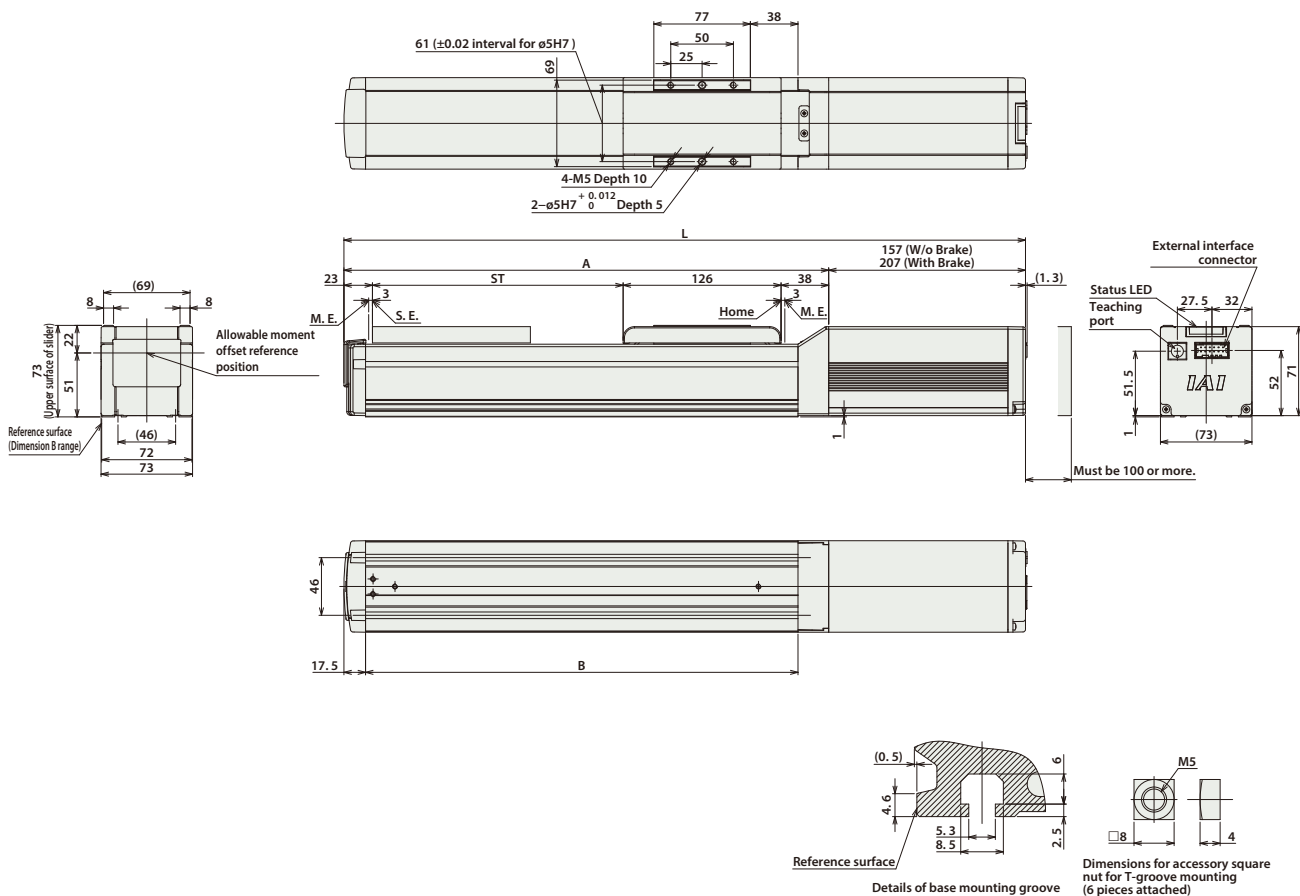
(*) For reference rated life of 5000km. The service life will vary depending on operation and installation conditions. Please contact IAI for more details.

Dimensions

CAD drawings can be downloaded from our website.
www.intelligentactuator.com



*1 When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.
M.E: Mechanical end S.E: Stroke end



■ Dimensions and Mass by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	
L	W/o Brake	394	444	494	544	594	644	694	744	794	844
	With Brake	444	494	544	594	644	694	744	794	844	894
A	237	287	337	387	437	487	537	587	637	687	
B	195	245	295	345	395	445	495	545	595	645	
Weight (kg)	W/o Brake	3.4	3.6	3.9	4.2	4.4	4.7	5.0	5.2	5.5	5.8
	With Brake	3.8	4.1	4.4	4.6	4.9	5.2	5.4	5.7	6.0	6.2

Controller Side Options

Name	Touch Panel Teaching Pendant	PC software	24VDC power supply
External view			
Model	TB-02-C	RCM-101-MW (RS232 connection version) RCM-101-USB (USB connection version)	PS-241 (100V input) PS-242 (200V input)
Overview	A teaching device equipped with functions such as start point, end point, and AVD input, trial operation, and monitoring	Software for start point input, end point input, and AVD input, trial operation, and monitoring using a PC	Power supply with maximum instantaneous output of 17A

* For system configurations using the above tools, refer to P.33.