

# EC-R6

Model Specification Items

EC — R6  
Series — Type

Lead

S : 20mm  
H : 12mm  
M : 6mm  
L : 3mm

Stroke

50: 50mm  
300: 300mm  
(Every 50mm)

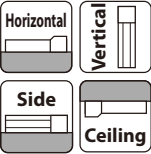
Cable Length

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.



Table of Payload by Speed/Acceleration

Lead 20

Speed (mm/s)	Acceleration (G)					
	0.3	0.5	0.7	1	0.3	0.5
0	6	6	5	5	1.5	1.5
160	6	6	5	5	1.5	1.5
320	6	6	5	3	1.5	1.5
480	6	6	5	3	1.5	1.5
640	6	4	3	2	1.5	1.5
800	4	3			1	1

Lead 12

Speed (mm/s)	Acceleration (G)					
	0.3	0.5	0.7	1	0.3	0.5
0	25	18	16	12	4	4
100	25	18	16	12	4	4
200	25	18	16	10	4	4
400	20	14	10	6	4	4
500	15	8	6	4	3.5	3
700	6	2			2	1

Lead 6

Speed (mm/s)	Acceleration (G)					
	0.3	0.5	0.7	1	0.3	0.5
0	40	35	30	25	10	10
50	40	35	30	25	10	10
100	40	35	30	25	10	10
200	40	30	25	20	10	10
250	40	27.5	22.5	18	9	8
350	30	14	12	10	5	5
400	18	10	6	5	3	3
450	8	3			2	1

Lead 3

Speed (mm/s)	Acceleration (G)					
	0.3	0.5	0.7	1	0.3	0.5
0	60	50	45	40	12.5	12.5
50	60	50	45	40	12.5	12.5
100	60	50	45	40	12.5	12.5
125	60	50	40	30	10	10
175	40	35	25	20	6	5
200	35	30	20	14	5	4.5
225	16	16	10	6	5	4

- POINT Selection Notes**
- (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) The value of the horizontal payload assumes that there is an external guide. Please be aware that the anti-rotation stopper can be damaged when an external force is applied to the rod from any direction other than the moving direction.
  - (4) When performing push operation, refer to P.31.
  - (5) Depending on the ambient operating temperature, duty control is necessary. Please refer to P.32 for more information.

Actuator Specifications

Lead and Payload

Model	Lead (mm)	Max. payload		Max. Push force (N)
		Horizontal (kg)	Vertical (kg)	
EC-R6S-①-②-③	20	6	1.5	56
EC-R6H-①-②-③	12	25	4	93
EC-R6M-①-②-③	6	40	10	185
EC-R6L-①-②-③	3	60	12.5	370

Legend: ① Stroke ② Cable Length ③ Option

Stroke and Max. Speed

(Unit: mm/s)

Lead (mm)	50~200 (Every 50mm)	250 (mm)	300 (mm)
20	800		
12	700		547
6	450	376	268
3	225	186	133

① Stroke

① Stroke (mm)	EC-R6	① Stroke (mm)	EC-R6
50	○	200	○
100	○	250	○
150	○	300	○

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
Flange (front)	FL	See P.29
Foot bracket	FT	See P.29
Tip adapter (Internal thread)	NFA	See P.30
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 ø10mm, rolled C10
Positioning repeatability	±0.05mm
Rod	ø25 Material: Aluminum, hard alumite treatment
Static allowable torque on rod tip	0.5N·m
Rod tip maximum angular displacement (*)	±1.5 degrees
Ambient operating temperature/humidity	0 to 40°C, 85% RH or less (Non-condensing)

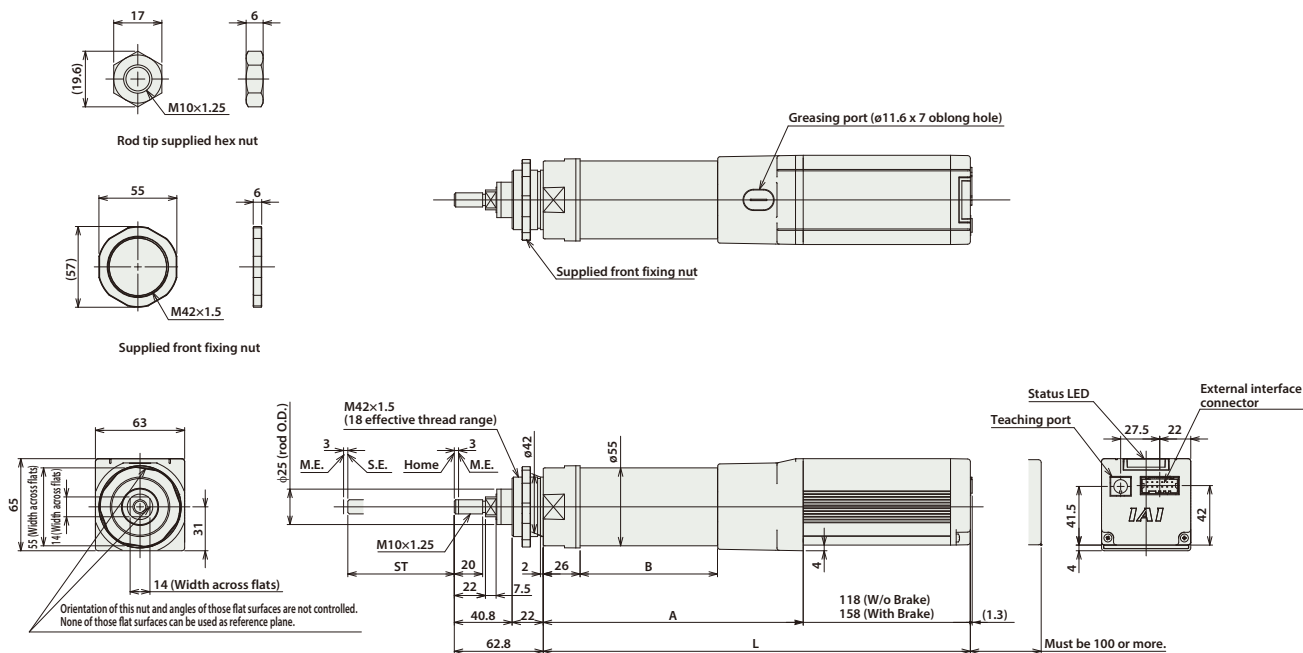
(\*) The rod tip angular displacement (initial value for reference) when the rod tip static allowable torque is applied with the rod fully retracted.

Dimensions

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



\*1 When the rod 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	
L	W/o Brake	301.5	351.5	401.5	451.5	501.5	551.5
	With Brake	341.5	391.5	441.5	491.5	541.5	591.5
A	183.5	233.5	283.5	333.5	383.5	433.5	
B	97	147	197	247	297	347	
Weight (kg)	W/o Brake	1.6	1.8	2.0	2.2	2.4	2.6
	With Brake	1.8	2.0	2.2	2.4	2.6	2.8

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.