

# EC-RP4

Mini

Rod Type

Motor Unit Type



Body Width  
**34 mm**

**24v**  
Stepper Motor

Model Specification Items

**EC** — **RP4**  
Series — Type

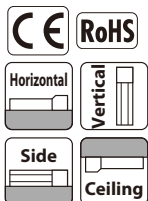
Lead  
H : 6mm  
M : 4mm  
L : 2mm

Stroke  
30:30mm  
50:50mm

Cable Length  
0: With terminal block type connector  
1: 1m  
2: 2m  
10:10m

Options  
Refer to Options below.

\* Please refer to P.16 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 6

Orientation	Horizontal		Vertical	
	Acceleration (G)			
Speed (mm/s)	0.3	0.5	0.3	0.5
0	2.5	2.5	1	1
300	2.5	2.5	1	1

#### Lead 4

Orientation	Horizontal		Vertical	
	Acceleration (G)			
Speed (mm/s)	0.3	0.5	0.3	0.5
0	4	4	1.5	1.5
200	4	4	1.5	1.5

#### Lead 2

Orientation	Acceleration (G)	
	Horizontal	Vertical
Speed (mm/s)	0.3	0.3
0	8	2.5
100	8	2.5



- (1) Since the feed screw has no rotation stopper, add a rotation stop mechanism such as a guide to the tip of the feed screw when in use. (If there is no rotation stopper, the feed screw will rotate instead of traveling back and forth.) Also, do not use floating joints when connecting the rotation stop mechanism to the rod. Please refer to P.21 to P.27 for mounting methods, conditions, etc.
- (2) The maximum acceleration/deceleration is 0.3G for lead 2 and 0.5G for leads 4 and 6.
- (3) The value of the payload assumes that there is an external guide.
- (4) When performing push-motion operation, refer to P.65.

### Actuator Specifications

#### Lead and Payload

Model number	Lead (mm)	Max. payload		Max. push force (N)*
		Horizontal (kg)	Vertical (kg)	
EC-RP4H-①-②-(③)	6	2.5	1	30
EC-RP4M-①-②-(③)	4	4	1.5	45
EC-RP4L-①-②-(③)	2	8	2.5	90

#### Stroke and Max Speed

(Unit: mm/s)

Lead (mm)	30 (mm)	50 (mm)
6	300	
4	200	
2	100	

Legend: ① Stroke ② Cable Length ③ Option

\*Speed limitation applies to push motion. See the manual or contact IAI.

#### ① Stroke

① Stroke (mm)	EC-RP4
30	○
50	○

#### ② Cable Length

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

#### ③ Options

Name	Option code	Reference page
Brake	<b>B</b>	See P.59
PNP specification	<b>PN</b>	See P.62
Battery-less Absolute Encoder specification	<b>WA</b>	See P.62
Wireless communication specification	<b>WL</b>	See P.62

#### Actuator Specifications

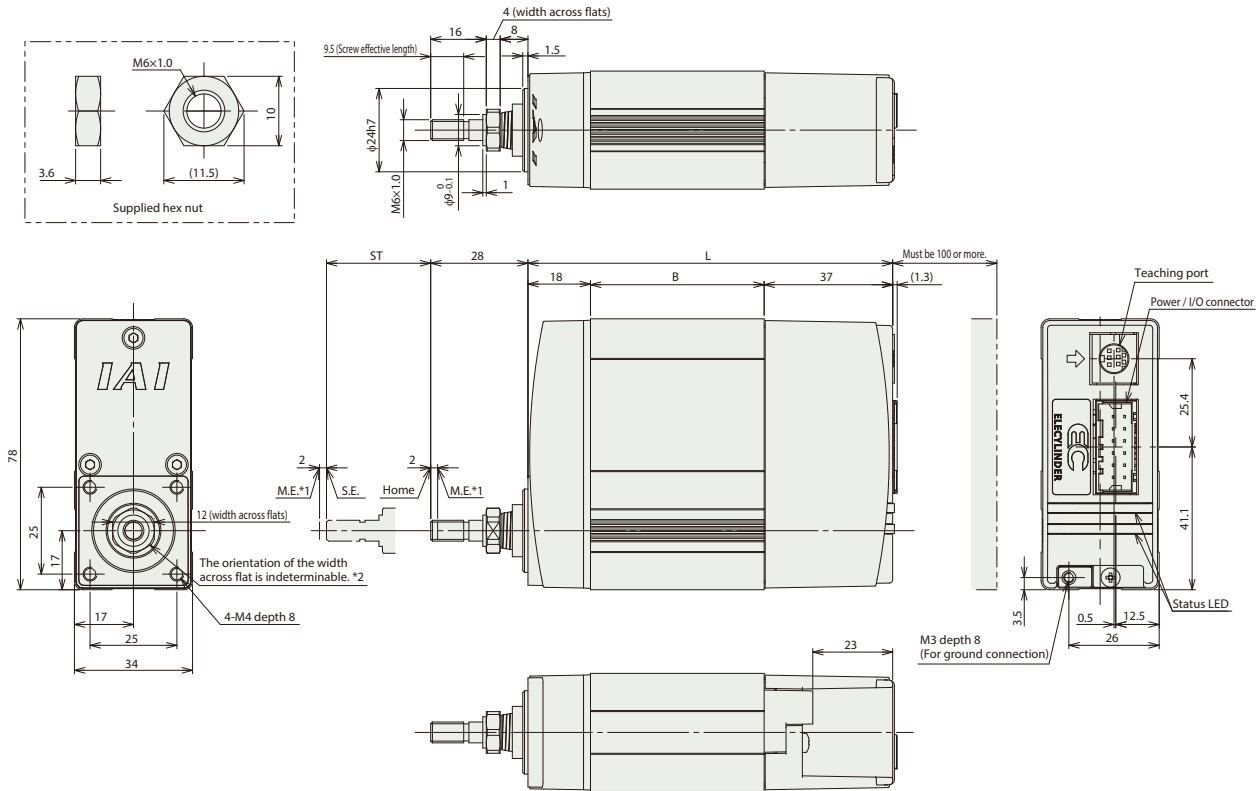
Item	Description
Drive system	Ball screw φ6mm, rolled C10
Positioning repeatability	±0.05mm
Frame	Material: Aluminum, black alumite treatment
Ambient operating temperature/humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km or 50 million cycles

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  
\*2 The direction of width across flats varies depending on the product. Those flats cannot be used for reference plane.



■ Dimensions and Mass by Stroke

Encoder Type	Incremental		Battery-less Absolute		
	Stroke	30	50	30	50
L	W/o Brake	105	125	125	125
	With Brake	135	135	155	155
B	W/o Brake	50	70	70	70
	With Brake	80	80	100	100
Weight (kg)	W/o Brake	0.5	0.6	0.6	0.6
	With Brake	0.7	0.7	0.7	0.7

Controller side Options/Accessories

Name	Touch Panel Teaching Pendant	PC software	24VDC power supply
External view			
Model	<input type="checkbox"/> TB-02 (for wired connection only) <input type="checkbox"/> TB-03 (for wired/wireless connection)	<input type="checkbox"/> RCM-101-MW (RS232 connection version) <input type="checkbox"/> RCM-101-USB (USB connection version)	<input type="checkbox"/> PS-241 (100V input) <input type="checkbox"/> PS-242 (200V input)
Overview	<ul style="list-style-type: none"> <li>● TB-02 A teaching pendant equipped with functions such as start point, end point, and AVD input, trial operation, and monitoring.</li> <li>● TB-03 A data setter that supports wireless connection. The start point, end point and AVD can be input with wireless connection.</li> </ul>	Software for start point input, end point input and AVD input, trial operation, and monitoring using a PC. Both the RS232C version and USB version are available for PC connection.	A 24VDC power supply that can instantaneously output up to 17A. Input voltage 200VAC and 100VAC specifications are available.

\* For system configurations using the above tools, refer to P.68.