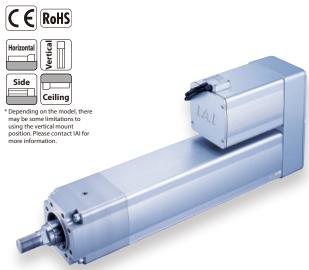
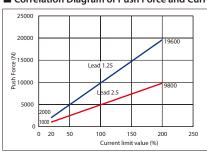
#### Battery less Motor 200<sub>V</sub> High-Payload Rod Type 130 mm Unit (Position Type without Load Cell) AC Servo Motor Absolute Type Model RCS2 - RA13R-WA **— 750 — T2** Specification Encoder Type Motor Type Stroke Applicable Controllers Items Type Lead Cable Length Options Refer to Options WA: Battery-less 750: Servo 2.5:2.5mm 50: 50mm T2:SCON motor 750W Absolute 1.25:1.25mm ≥ 200: SSEL table below One of motor mount direction type needs to be selected from 200mm XSEL-P/Q : 3m : 5m Does not include a controller. (Every 50mm) XSFI-RA/SA X□□: Specified length R□□: Robot cable Please contact IAI for more information about the model specification items MT1/MT2/MT3/MR1/ Body width does not include the width of the side-mount MR2/ML1/ML3.



#### ■ Correlation Diagram of Push Force and Current Limit Value



## Caution:

- The correlation between push force and current limit value is strictly for reference purposes. Actual numbers may vary slightly.
- The current limit value should be 20% or more because the push force will be unstable when the current limit value is low.
- The travel speed during pushmotion operation is fixed at 10mm/s.
  Please note that the graph shows push-motion at 10mm/s, and the push force will decrease as the speed changes.
- Depending on the operating conditions, the push force may decrease due to the temperature rise of the motor



- (1) For push-motion operation, check the allowable time period of continuous pushmotion set with a different thrust force. Also, please check that the allowable continuous operational thrust force for the actual push cycle is less than the allowable continuous operational thrust force and that the duty cycle is 50% or less. Please refer to the Selection Guidelines (P.28) for more information.
- (2) The value of payload is when operating at an acceleration of 0.02G for lead 2.5 and 0.01G for lead 1.25. The value listed above is the upper limit of acceleration
- (3) Estimated allowable duty varies depending on operating conditions (payload, acceleration/deceleration, etc.). Please refer to P. 31 for more information.
- (4) The value of the horizontal payload assumes that there is an external guide and that the rod is not subjected to external force other than in the moving direction. (5) Loads can be applied to the rod tip. Please refer to P.33 for more information.
- (6) For the brake option, a brake box (see P.22) is required in addition to the main unit and controller.

#### Actuator Specifications

#### ■ Lead and Payload

Model Number	Motor wattage (W)	Lead (mm)	Max. acceleration (G)		ayload Vertical (kg)		Max. push force (N)**	Stroke (mm)
RCS2-RA13R-WA-750-2.5-①-T2-②-③	750	2.5	0.02	400	200	5106	9800	50~200
RCS2-RA13R-WA-750-1.25-①-T2-②-③		1.25	0.01	500	300	10211	19600	(Every 50mm)
Legend: 1 Stroke 2 Cable Length 3 Option ** Max. hor ** Speed lin								

## ■ Stroke and Max Speed

Stroke (mm)	50	100	150	200
2.5	85	120	1.	25
1.25		6	2	

(Unit: mm/s)

① Stroke (mm)	RCS2-	RA13R
U Stroke (mm)	1t Type (Lead 2.5)	
50	0	0
100	0	0
150	0	0
200	0	0

#### 2 Cable Length

Type	Cable Code			
	<b>P</b> (1m)			
Standard	<b>S</b> (3m)			
	<b>M</b> (5m)			
6 16 11 11	<b>X06</b> (6m) ~ <b>X10</b> (10m)			
Specified length (Standard cable)	X11(11m)~X15(15m)			
(Staridard Cable)	<b>X16</b> (16m)~ <b>X20</b> (20m)			
	R01(1m) ~R03(3m)			
	R04(4m) ~R05(5m)			
Robot cable	R06(6m) ~R10(10m)			
	R11(11m)~R15(15m)			
	<b>R16</b> (16m)~ <b>R20</b> (20m)			

<sup>\*</sup> Please contact IAI for maintenance cables.

#### ③ Options

Name	Option Code	Reference Page
Brake (With brake box)	В	See P.35
Brake (Without brake box)	<b>BN</b> (*1)	See P.35
Flange	FL	See P.36
Foot Bracket	FT (*2)	See P.37
Motor top side-mounted	MT1/MT2/MT3	See P.38
Motor right side-mounted	MR1/MR2 (*2)	See P.38
Motor left side-mounted	ML1/ML3 (*2)	See P.38

<sup>(\*1)</sup> Option: When selecting the brake (without brake box) "BN" and using it as the second axis of the brake box, a cable must be separately purchased. Please refer to P.42 for more information.

### Actuator Specifications

Actuator Specifications						
Item	Description					
Drive system	Ball screw φ32mm rolled C10					
Positioning repeatability	±0.01mm					
Backlash	0.2mm or less					
Rod diameter	φ50mm (ball spline)					
Allowable moment load to rod	120N·m Please see P.33					
Ambient operating temp. & humidity	0~40°C, 85% RH or less (non-condensing)					

<sup>(\*2)</sup> Option: MR1/MR2/ML1/ML3 and FT cannot be selected together.

#### Dimensions

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



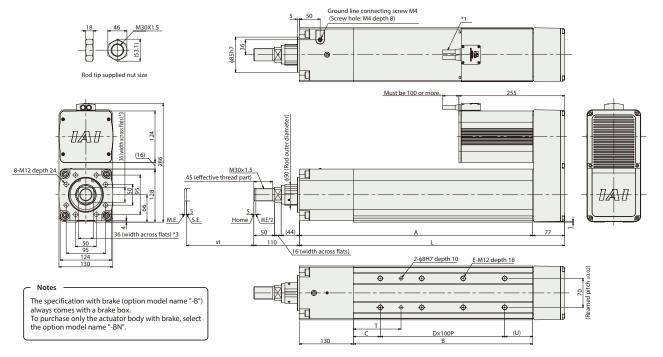


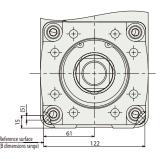
- \*1. Connect the motor-encoder cables, Please contact IAI for more details on the cable
- \*1. Connect the motor-encoder cables. Please contact LNI for more details on the cable.

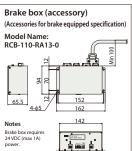
  \*2. While the rod is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the mechanical end.

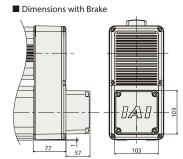
  M.E. Mechanical end. S.E.: Stroke end

  \*3. The direction of width across flats varies depending on the product. Those flats cannot be used for vertical or horizontal reference plane.









# ■ Dimensions and Mass by Stroke RCS2-RA13R \* The brake option has a 57mm longer total length and

zky neavier weight.								
Stroke	50	100	150	200				
L	489.5	539.5	589.5	639.5				
Α	412.5	462.5	512.5	562.5				
В	282.5	332.5	382.5	432.5				
C	40	65	40	65				
D	2	2	3	3				
E	6	6	8	8				
T	90	115	90	115				
U	42.5	67.5	42.5	67.5				
Mass (kg)	33	34	35	36				

#### Side-mounted motor direction / Cable exit position (Option)

#### Notes

Be sure to select a symbol in the model number for the side-mounted motor direction and cable exit position.















Option Code	MT1	MT2	MT3	MR1	ML1	MR2	ML3
Side-mounted motor direction	Top (standard)	Тор	Тор	Right side	Left side	Right side	Left side
Cable exit position	Top (standard)	Right side	Left side	Тор	Тор	Right side	Left side

	F	Max. number of	Power supply		Control method			Maximum number of	2.6
		connectable axes	voltage	Positioner	Pulse train	Program	Network * Option	positioning points	Reference page
SCON-CB/CGB		1		•	•	-	DeviceNet	512 (768 for network spec.)	Please contact IAI for more information.
SCON-LC/LCG		1	Single-phase 200VAC	-	-	•	原原原用面 <sup>®</sup> 面面放射 Compo\\et ₩MEHAIHJUK	512 (768 for network spec.)	
SSEL-CS		2		•	-	•	Ether CAT. The Ether Net / IP	20000	
(SEL-P/Q/RA/SA	Piira	8	Three-phase 200VAC	-	-	•	Note: The type of compatible networks will vary depending on the controller. Please refer to the reference page for more information.	55,000 (Depending on the type)	