

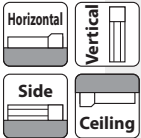
RCS3-RA20R

Ultra-high Payload Rod Type
(Conveyor Position Model without Load Cell)

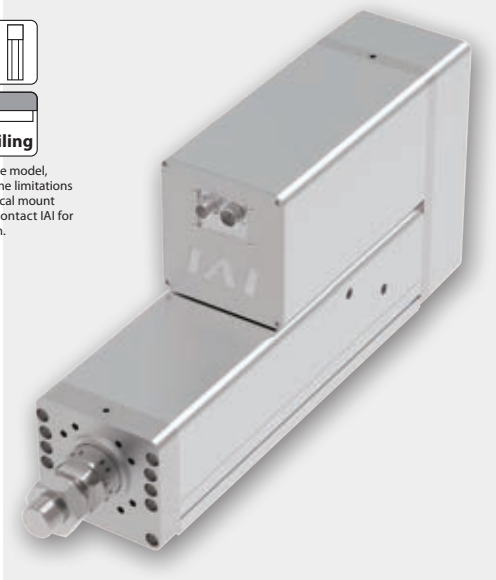
Battery-less Absolute
Motor Unit Type
Side-mounted Motor
Body Width 200* mm
230v AC Servo Motor

■ Model Specification Items	RCS3	RA20R	WA	3000	10		T3		
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Applicable Controllers	Cable Length	Options
			WA: Battery-less Absolute	3000: Servo motor 3000W	10: Lead 10mm	100: 100mm ? 500: 500mm (Every 100mm)	T3:SCON-CGB	N : None P : 1m S : 3m M : 5m X□□ : Specified length	Refer to Options table below. * Make sure to specify MT (Side-mounted motor on top).

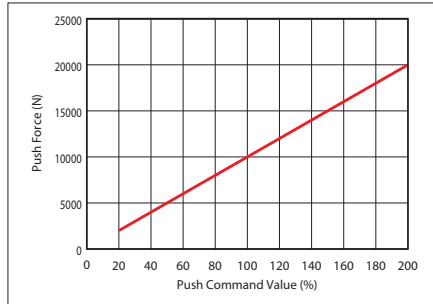
* Does not include a controller.
 * Please contact IAI for more information about the model specification items.
 * Body width does not include the width of the side-mounted motor.



* Depending on the model, there may be some limitations to using the vertical mount position. Please contact IAI for more information.



■ Correlation Diagram of Push Force and Current Limit Value



Caution:

- The correlation between push force and push command value are strictly for reference purposes. Actual numbers may vary slightly.
- The push command value should be 20% or more because the push force will be unstable when the push command value is low.

POINT Selection Notes

- (1) For push-motion operation, check the allowable time period of continuous push-motion set with a different thrust force. Also, the estimated allowable duty varies depending on operating conditions (payload and speed). Please refer to P.31 for more information.
- (2) Please install a support block when front mounting a horizontally mounted actuator. (Refer to page 34 "Notes When Installing")
- (3) Loads can be applied to the rod tip. Please refer to P.33 for more information.

■ Actuator Specifications

■ Lead and Payload

Model Number	Motor wattage (W)	Lead (mm)	Max. speed (mm/s)	Max. acceleration (G)	Max. payload		Rated thrust (N)	Max. push force (N)
					Horizontal (kg)	Vertical (kg)		
RCS3-RA20R-WA-3000-10-①-T3-②-③	3000	10	400	0.2	1000	600	10361	20000

Legend: ① Stroke ② Cable Length ③ Option * Max. horizontal payload means max. weight on the customer's external guide. ** Max. push force can be achieved only within 5~10mm/s speed range.

■ Stroke and Max Speed

Lead (mm)	Stroke (mm)	100~500

(Unit: mm/s)

■ Cable Length

Type	Cable Code
Standard type (Robot cable)	P(1m)
	S(3m)
	M(5m)
Specified length (Robot cable)	X06(6m) ~X10(10m)
	X11(11m)~X15(15m)
	X16(16m)~X20(20m)

* Please refer to the backside for maintenance cables.
* Robot cable specification is standard.

■ Actuator Specifications

Item	Description
Drive system	Ball screw ø40mm ground
Positioning repeatability	±0.01mm
Lost motion	0.1mm or less
Allowable moment to rod	Please see P. 33
Ambient operating temp. & humidity	0°C~40°C, 85% RH or less (non-condensing)

■ Options

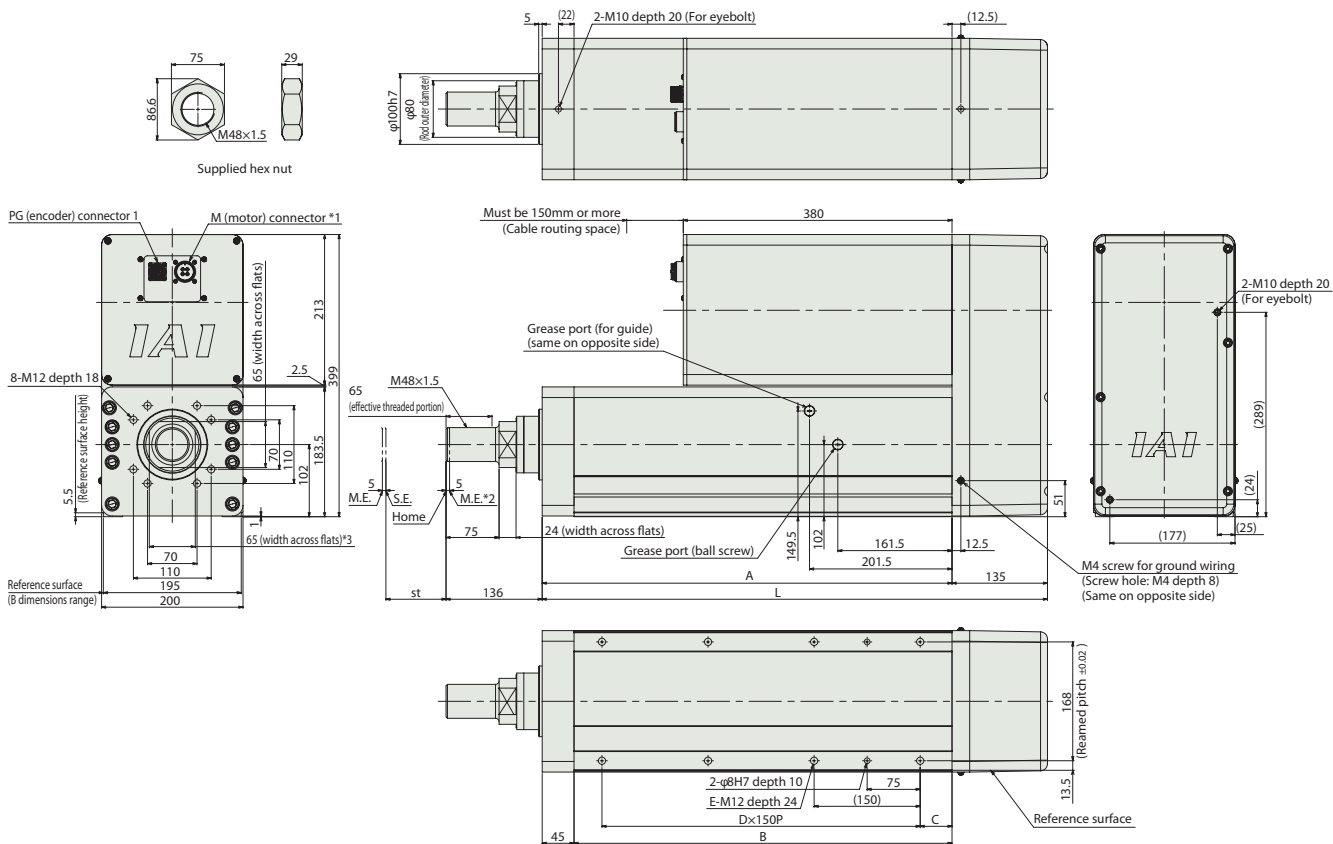
Name	Option Code	Reference Page
Brake	B	See P.35
Cable exit direction (Top)	CJT	See P.35
Cable exit direction (Right)	CJR	See P.35
Cable exit direction (Left)	CJL	See P.35
Side-mounted motor direction (Top)	MT	See P.37

Dimensions

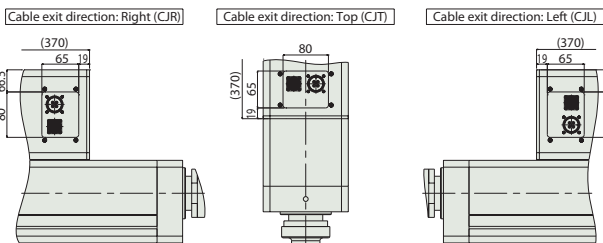
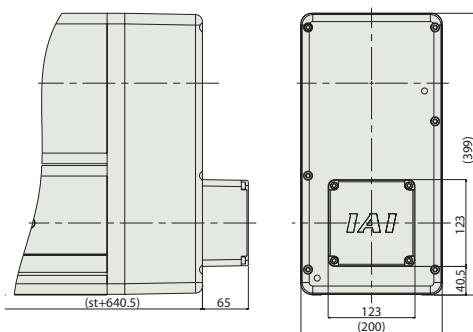
CAD drawings can be downloaded from our website.
www.robocylinder.de



- *1 Connect the motor-encoder cables. Please contact IAI 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 with Brake



■ Dimensions and Mass by Stroke

Stroke	100	200	300	400	500	
L	614.5	714.5	814.5	914.5	1014.5	
A	479.5	579.5	679.5	779.5	879.5	
B	434.5	534.5	634.5	734.5	834.5	
C	70	45	100	70	120	
D	2	3	3	4	4	
E	6	8	8	10	10	
Mass (kg)	Without brake	93.3	99.6	105.8	112.1	118.4
	With brake	96.3	102.6	108.8	115.1	121.4

Applicable Controllers

The RCS3 series actuators can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method				Maximum number of positioning points	Reference page
				Positioner	Pulse train	Program	Network * Option		
SCON-CGB (for Position Controller)		1	Three-phase 230VAC	●	-	-	DeviceNet CC-Link EtherCAT EtherNet/IP CompoNet	512 (768 for network spec.)	See P.38