RCS3-RA10R (Servo press specification)

Battery-less Absolute | Motor Unit Type | Side-mounted Motor | Body Width 110* mm | 200V AC Servo Motor

■ Model Specification Items

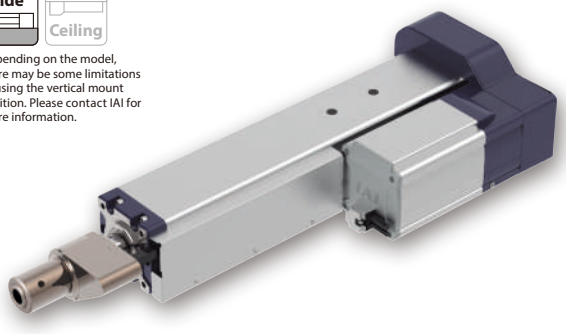
RCS3	RA10R	WA	400	2.5	□	T2	□	□
Series	Type	Encoder Type	Motor Type	Lead	Stroke	Applicable Controllers	Cable Length	Options
		WA: Battery-less Absolute	400: Servo motor 400W	2.5: Lead 2.5mm	100: 100mm ~ 500: 500mm (Every 50mm)	T2: SCON-CB/CGB (For servo press only)	N : None P : 1m S : 3m M : 5m X□□ : Specified length R□□ : Robot cable	Refer to Options table below. * Specify cable exit direction (CJT/CJB/CJO). For side-mounted motor type, specify the mount direction (ML/MR).

* 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.

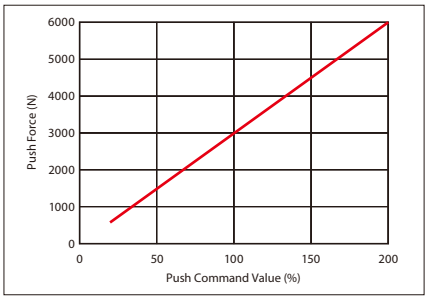
CE RoHS

Horizontal | Vertical | Side | Ceiling

* 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, please check that the allowable continuous operational thrust force for the actual push cycle is less than the allowable continuous operational thrust force. (Even if there is no push motion) Please refer to P.28 for more information.

(2) Customer's tooling is to be mounted on the load cell itself. In case any radial or moment load is applied to the load cell, please consider adding the external guides, etc. to offset those side loads.

(3) Please install a support block when front mounting or back mounting a horizontally mounted actuator that is 150st or more. (Refer to page 34 "Notes When Installing")

(4) Servo Press with load cell should not be used for pulling motion. It will damage the load cell.

Actuator Specifications

■ Lead and Payload

Model Number	Motor wattage (W)	Lead (mm)	Max. speed (mm/s)	Max. acceleration (G)	Max. payload Horizontal (kg)*	Max. payload Vertical (kg)	Rated thrust (N)	Max. push force (N)**
RCS3-RA10R-WA-400-2.5-①-T2-②-③	400	2.5	125	0.2	15	15	2713	6000

■ Stroke and Max Speed

Lead (mm) \ Stroke (mm)	100~500
2.5	125

(Unit: mm/s)

Legend: ① Stroke ② Cable Length ③ Option
* Max. horizontal payload means max. weight on the customer's external guide.
** Speed limitation applies to push motion. See the manual or contact IAI.

① Stroke

① Stroke (mm)	RCS3-RA10R
100	○
150	○
200	○
250	○
300	○
350	○
400	○
450	○
500	○

② Cable Length

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

* Please contact IAI for maintenance cables.

③ Options

Name	Option Code	Reference Page
Brake	**B**	See P.35
Cable exit direction (Top)	**CJT**	See P.35
Cable exit direction (Bottom) (*2)	**CJB**	See P.35
Cable exit direction (Outside)	**CJO**	See P.35
Flange (Front)	**FL**	See P.36
Foot bracket (*1)	**FT**	See P.37
Equipped with load cell (Standard equipment) (*3)	**LCT**	See P.37
Motor side-mounted (left)	**ML**	See P.37
Motor side-mounted (right)	**MR**	See P.37

(*1) Refer to P. 37 for the number of brackets included.
(*2) The foot bracket cannot be chosen when you select the actuator whose stroke is 100mm.
(*3) Please make sure to enter "LCT" in the box of Model Specification Items to select the actuator with load cell option.

Actuator Specifications

Item	Description
Drive system	Ball screw ϕ20mm rolled C10
Positioning repeatability	±0.01mm
Lost motion	0.1mm or less
Load cell rated capacity	6000N
Loading repeatability (*4)	±0.5% F.S (*5)
Ambient operating temp. & humidity	0°C~40°C, 85% RH or less (non-condensing)

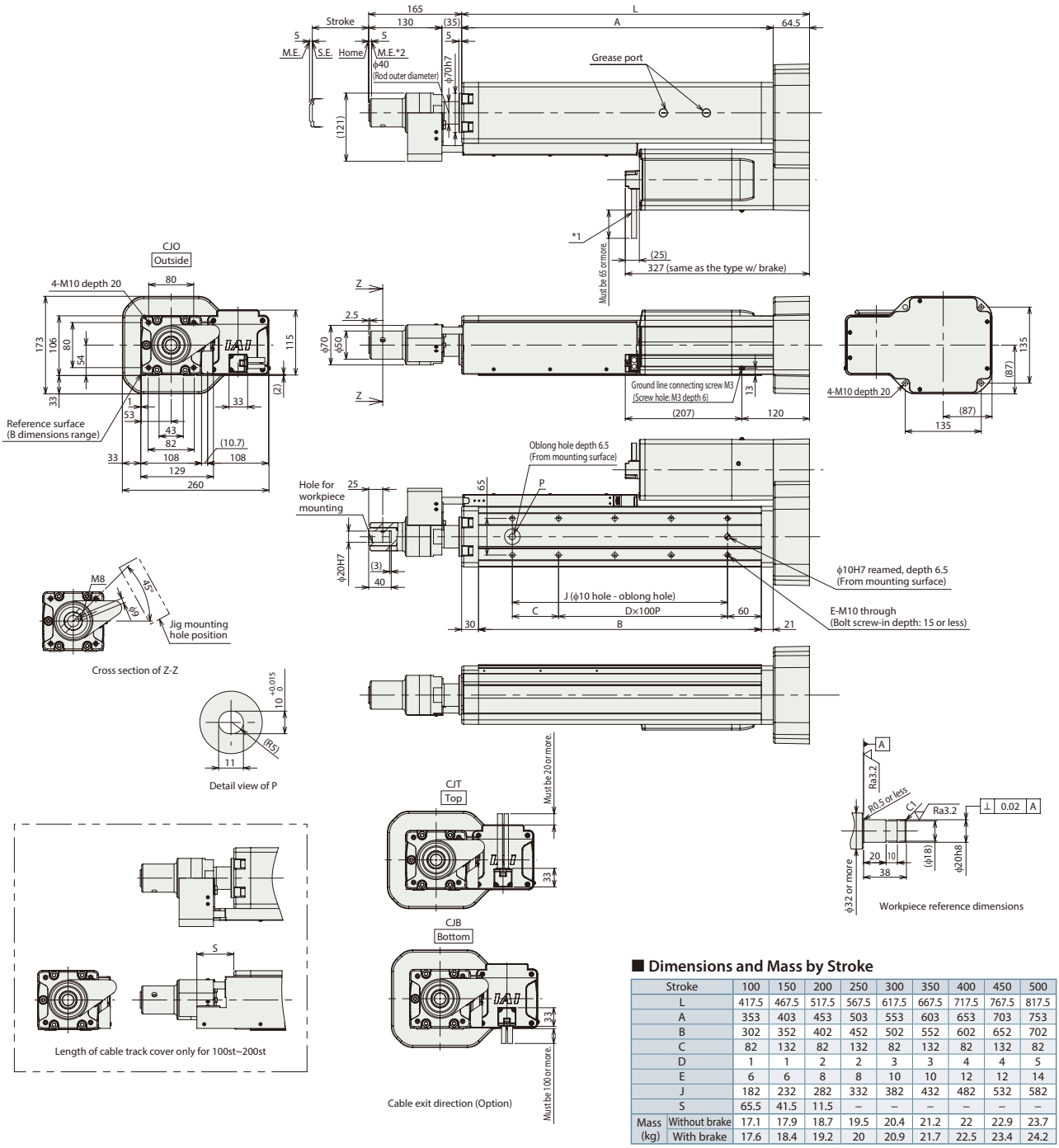
(*4) Ratio (in percentage) of the load variations caused by the repeated operations to the load cell rated capacity
(*5) F.S.: Full Scale, the maximum measurable value.

Dimensions

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

2D CAD 3D CAD

*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



Dimensions and Mass by Stroke

Stroke		100	150	200	250	300	350	400	450	500
L		417.5	467.5	517.5	567.5	617.5	667.5	717.5	767.5	817.5
A		353	403	453	503	553	603	653	703	753
B		302	352	402	452	502	552	602	652	702
C		82	132	82	132	82	132	82	132	82
D		1	1	2	2	3	3	4	4	5
E		6	6	8	8	10	10	12	12	14
J		182	232	282	332	382	432	482	532	582
S		65.5	41.5	11.5	–	–	–	–	–	–
Mass (kg)	Without brake	17.1	17.9	18.7	19.5	20.4	21.2	22	22.9	23.7
	With brake	17.6	18.4	19.2	20	20.9	21.7	22.5	23.4	24.2

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	Press program	Network * Option		
SCON-CB/CGB (For servo press only)		1	Single-phase 200VAC	–	–	–	●	DeviceNet, MECHATROLINK, CC-Link, EtherCAT, PROFIBUS, EtherNet/IP, CompoNet, PROFINET	–	Please contact IAI for more information.