

RCA2-TA7R

Robo Cylinder, Table Type, Actuator Width 75mm, Servo Motor, Side-mounted Motor

Model Specification Items	RCA2 — TA7R — I — 30 — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options	I: Incremental 30: 30W Servo motor * The Simple absolute encoder is also considered type "I". 12: 12mm 25: 25mm 6: 6mm 200: 200mm (25mm pitch increments) 3: 3mm A1: ACON ASEL A3: AMEC ASEP MSEP N: None P: 1m S: 3m M: 5m X□□: Custom Length See options below. * Be sure to specify which side the motor is to be mounted (ML/MR)

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- Please note that the maximum speed is different when used horizontally versus vertically.
 - The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically.) This is the upper limit of the acceleration.
 - See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA7R-I-30-12-①-②-③-④	30	12	4	1	26	25~200 (every 25mm)
RCA2-TA7R-I-30-6-①-②-③-④		6	6	2.5	53	
RCA2-TA7R-I-30-3-①-②-③-④		3	8	4	105	

Stroke and Maximum Speed

Stroke / Lead	25~200 (every 25mm)
	12
6	300
3	150

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—
175	—
200	—

③ Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) ~ X10 (10m)	—
	X11 (11m) ~ X15 (15m)	—
	X16 (16m) ~ X20 (20m)	—

*The standard cables is the motor-encoder integrated robot cable. *See page A-59 for cables for maintenance.

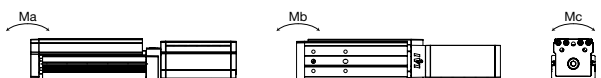
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N-m, Mb: 60.8 N-m, Mc: 123.2 N-m
Allowable dynamic moment	Ma: 9.91 N-m, Mb: 14.13 N-m, Mc: 28.65 N-m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments

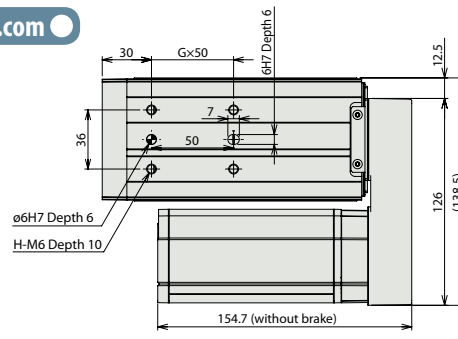
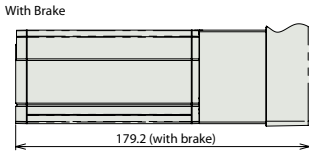


Dimensional Drawings

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

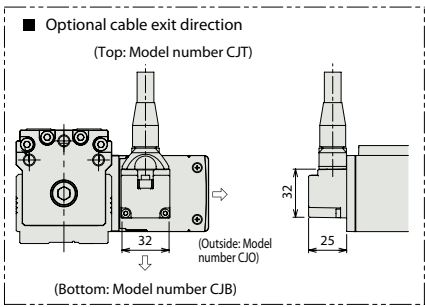
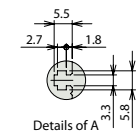
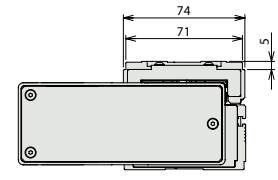
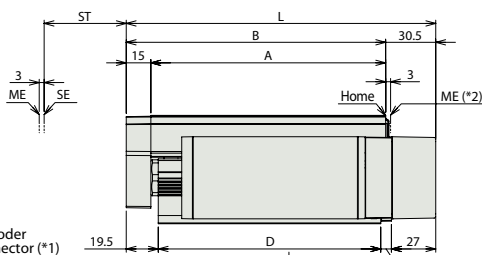
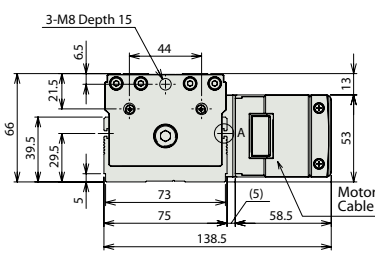


*Please note that, for 25mm-stroke model with brake, the motor unit protrudes from the end of the table.



For Special Orders Appendix P.15

The offset reference position of the moment is the same as TA7C (P342).



Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.4kg.

Stroke	25	50	75	100	125	150	175	200
L	163.5	188.5	213.5	238.5	263.5	288.5	313.5	338.5
A	118	143	168	193	218	243	268	293
B	133	158	183	208	233	258	283	308
D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5
E	1	1	2	2	3	3	4	4
F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5
G	1	1	2	2	3	3	4	4
H	4	4	6	6	8	8	10	10
J	6	6	8	8	10	10	12	12
Weight (kg)	2.4	2.6	2.8	3.1	3.3	3.5	3.7	3.9

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
 ME: Mechanical end SE: Stroke end

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-30I(1)-(II)-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-30I(1)-(II)-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-(III)-(IV)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-(III)-(IV)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-30I(1)-(II)-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-30I(1)-(IV)-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I(1)-(II)-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-30I(1)-(II)-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-30I(1)-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P675
Program Control Type		ASEL-CS-1-30I(1)-(II)-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in (1) when the power-saving specification is specified. * (II) indicates I/O type (NP/PN). * (III) indicates number of axes (1 to 8). * (IV) indicates field network specification symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor