

# RCA2-TA7C

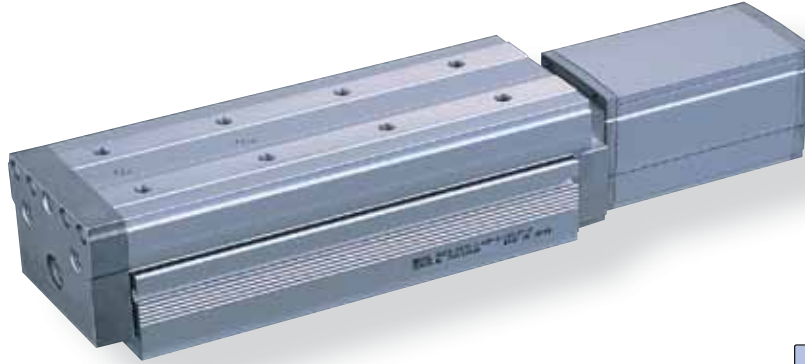
ROBO Cylinder Table Type Motor Unit Coupled 75mm Width 24V Servo Motor Ball Screw

■ Configuration: **RCA2** — **TA7C** — **I** — **30** —  —  —  —  —

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * The simple absolute encoder is also considered type "I".	30: 30W Servo motor	12: 12mm 6: 6mm 3: 3mm	25: 25mm ↓ 200: 200mm (25mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> : Custom	See Options below

\* See page Pre-35 for an explanation of the naming convention.

Power-saving



Technical References P. A-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.

### Actuator Specifications

#### ■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity		Rated Thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA7C-I-30-12- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>	30	12	4	1	26	25~200 (25mm increments)
RCA2-TA7C-I-30-6- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>		6	6	2.5	53	
RCA2-TA7C-I-30-3- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>		3	8	4	105	

#### ■ Stroke and Maximum Speed

Stroke Lead	25 ~ 200 (25mm increments)	
	12	600 <580>
6	300	
3	150	

Legend:  Stroke  Compatible controller  Cable length  Options

\* The values enclosed in "<" ">" apply to vertical usage. (Unit: mm/s)

#### ① Stroke List

Stroke (mm)	Standard Price
25	-
50	-
75	-
100	-
125	-
150	-
175	-
200	-

#### ③ Cable List

Type	Cable Symbol	Standard Price
Standard Type (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
		-

\* The RCA2 comes standard with a robot cable.

\* See page A-39 for cables for maintenance.

#### ④ Options List

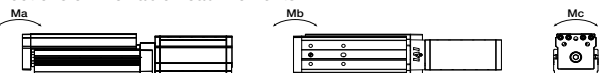
Name	Option Code	Standard Price	Standard Price
Brake	B	→ A-25	-
Cable exit direction (Top)	CJT	→ A-25	-
Cable exit direction (Right)	CJR	→ A-25	-
Cable exit direction (Left)	CJL	→ A-25	-
Cable exit direction (Bottom)	CJB	→ A-25	-
Power-saving	LA	→ A-32	-
Reversed-home	NM	→ A-33	-

#### Actuator Specifications

Item	Description
Drive System	Ball screw $\phi$ 10mm C10 grade
Positioning Repeatability	$\pm$ 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 Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

(\*) Based on a 5,000km service life.

Directions of Allowable Load Moments

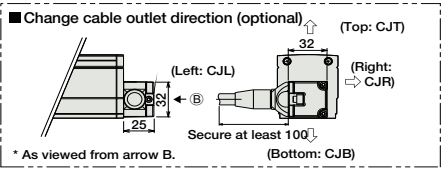
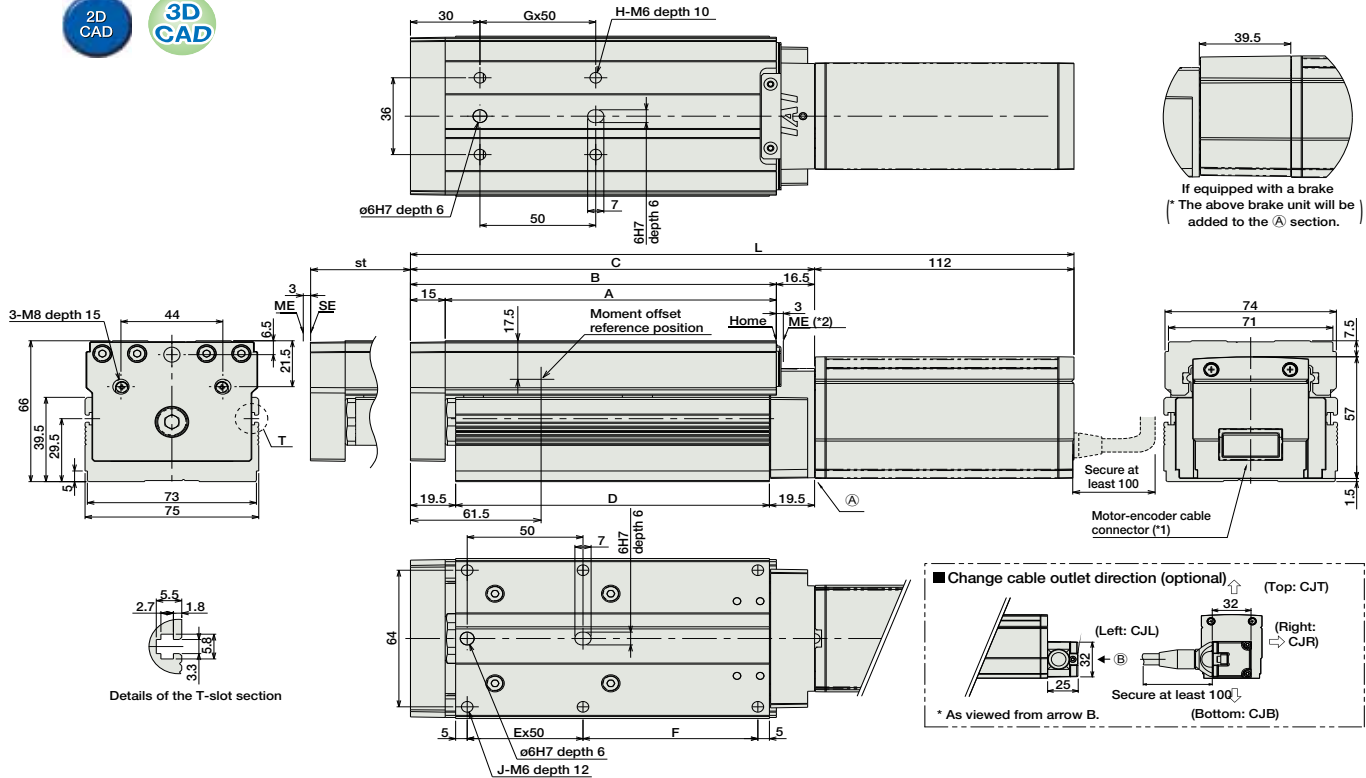


Dimensions

CAD drawings can be downloaded from IAI website. [www.intelligentactuator.com](http://www.intelligentactuator.com)



For Special Order P. A-9



■ Dimensions and Weight by Stroke \* Adding a brake will increase the actuator's weight by 0.4kg.

Stroke	L	Stroke							
		25	50	75	100	125	150	175	200
No brake		261.5	286.5	311.5	336.5	361.5	386.5	411.5	436.5
	Brake-equipped	301	326	351	376	401	426	451	476
A		118	143	168	193	218	243	268	293
B		133	158	183	208	233	258	283	308
C		149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5
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)		2.1	2.3	2.5	2.8	3	3.2	3.4	3.6

(\*1) The motor-encoder cable is connected directly to the motor cover of the actuator. See page A-39 for details on cables.  
 (\*2) After homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.  
 ME: Mechanical end  
 SE: Stroke end

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page										
Solenoid Valve Type		AMEC-C-30①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	-	→ P477										
		ASEP-C-30①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.															
Splash-Proof Solenoid Valve Type		ASEP-CW-30①-NP-2-0									→ P487							
Positioner Type		ACON-C-30①-NP-2-0	Positioning is possible for up to 512 points	512 points					DC24V	(Standard) 1.3A rated 4.0A max.	-							
		ACON-CG-30①-NP-2-0																
Safety-Compliant Positioner Type																		
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30①-NP-2-0	Pulse train input type with differential line driver support	(-)									(Power-saving) 1.3A rated 2.2A max.	-	→ P535			
Pulse Train Input Type (Open Collector)		ACON-PO-30①-NP-2-0	Pulse train input type with open collector support															
Serial Communication Type		ACON-SE-30①-N-0-0	Dedicated to serial communication	64 points														
Field Network Type		RACON-30①	Dedicated to field network	768 points														→ P503
Program Control Type		ASEL-C-1-30①-NP-2-0	Programmed operation is possible. Operation is possible on up to 2 axes	1500 points			→ P567											

\* This is for the single-axis ASEL.  
 \* ① is a placeholder for the code "LA", if the power-saving option is specified.