

RCA2-TCA4NA

Robo Cylinder, Mini Table Type, Short-Length Compact Type, Actuator Width 36mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2	TCA4NA	I	20					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	I: Incremental	20:20W Servo motor	* The Simple absolute encoder is also considered type "I".	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.	

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



Power-saving



Technical References Appendix P.5

- POINT**
Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2mm-lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-TCA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-TCA4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-TCA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TCA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-TCA4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-TCA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Stroke and Maximum Speed

Lead	Stroke	30 (mm)		50 (mm)	
		Ball screw	Lead screw	Ball screw	Lead screw
Ball screw	6	270	<220>	300	
	4	200			
	2	100			
Lead screw	6	220		300	
	4	200			
	2	100			

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

Stroke (mm)	Standard price	
	Feed screw	
	Ball screw	Lead screw
30	—	—
50	—	—

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 cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

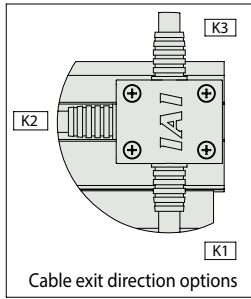
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less
	Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification

(Note) For cases when the guide service life has been set to 5,000km.

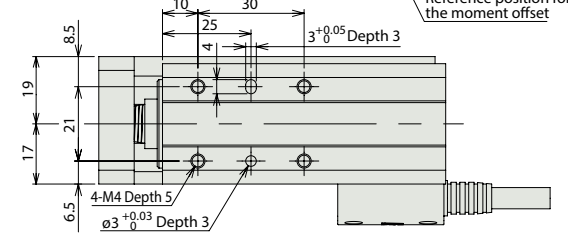
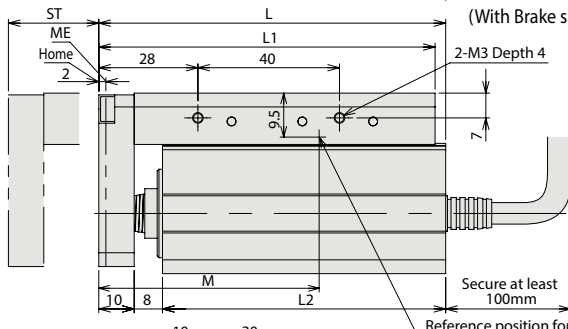
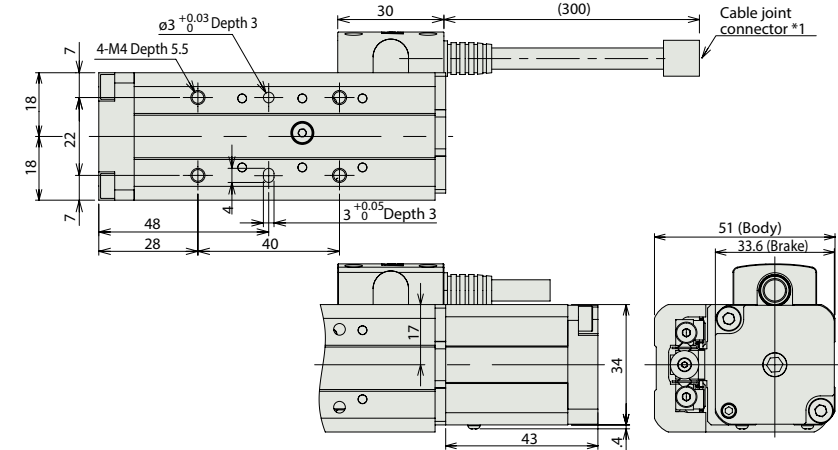
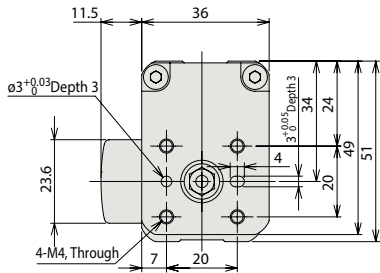
Dimensional Drawings

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

For Special Orders Appendix P.15



ST : Stroke
ME : Mechanical End



- (*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.

*Brake-equipped models are heavier by 0.15kg.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	98	118
L1	95	115
L2	80	100
M	66	86
Weight (kg)	0.48	0.6

② 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-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	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-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-②-2-0	Pulse train input type with differential line driver support	(-)	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-②-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Program Control Type		ASEL-CS-1-20I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN). * ③ indicates number of axes (1 to 8). * ④ 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