RCA2-TWA3N
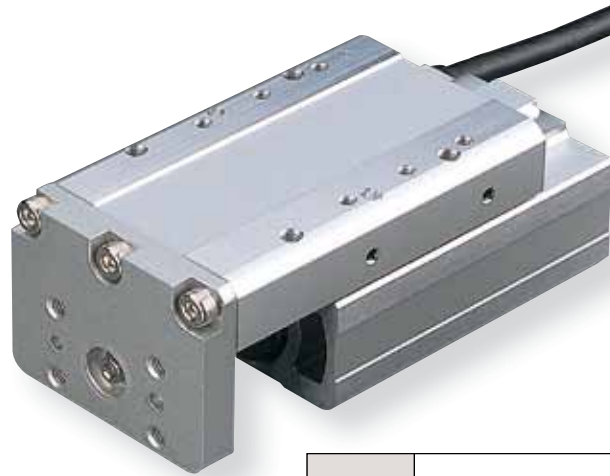
ROBO Cylinder   Mini Table Type   Short-Length Wide Model   50mm Width
24V Servo Motor   Lead Screw Model

■ Configuration:

RCA2 — TWA3N — I — 10 — □ — 30 — □ — □ — □

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option

I: Incremental
* The simple absolute encoder is also considered type "I".

10: 10W Servo motor

4S : 4mm lead screw
2S : 2mm lead screw
1S : 1mm lead screw

30 : 30mm

A1: ACON
    RACON
    ASEL
A3: AMEC
    ASEP

N : None
P : 1m
S : 3m
M : 5m
X□□ : Custom

K2 : Connector cable exit direction
LA : Power-saving

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

Power-saving

Technical References   P. A-5

POINT — Notes on Selection

(1) The load capacity is based on operation at an acceleration of 0.2G. This is the upper limit of the acceleration.
(2) This model uses a Lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42 for more information.)

■ Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Feed Screw	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TWA3N-I-10-4S-30-①-②-③	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 (Fixed)
RCA2-TWA3N-I-10-2S-30-①-②-③			2	0.5	0.25	50.3		
RCA2-TWA3N-I-10-1S-30-①-②-③			1	1	0.5	100.5		

Legend ① Compatible controller ② Cable length ③ Options

■ Stroke and Maximum Speed

Lead	Stroke / 30 (mm)
Lead screw 4	200
Lead screw 2	100
Lead screw 1	50

(Unit: mm/s)

■ Stroke List

Stroke (mm)	Standard Price
30	–

② Cable List

Type	Cable Symbol	Standard Price
Standard (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.

③ Option List

Name	Option Code	See Page	Standard Price
Connector cable exit direction	K2	→ A-32	–
Power-saving	LA	→ A-32	–

■ Actuator Specifications

Item	Description
Drive System	Lead screw ø4mm C10 grade
Lost Motion	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: 9.4 N·m
Ambient Operating Temp./Humidity	0～40°C, 85% RH or less (non-condensing)
Service Life	Horizontal: 10 million cycles Vertical: 5 million cycles

(Note) Based on a 5,000 km service life set for the guide.

Dimensions

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

2D CAD **3D CAD**

For Special Orders P. A-9

*1 The motor-encoder cable is connected here. See page A-39 for details on cables.
*2 When homing, the table moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical end
SE: Stroke end

(300)

Cable joint connector*1

4-M4 depth 6.5
ø3 +0.03 0 depth 3

26   40
46
6.5
37
4
3 +0.05 0 depth 3

4-M4 through
50
29
3 +0.05 0 depth 3
21
41
43
16
4
ø3 +0.03 0 depth 3
12   26

Home   ME*2
30
2
86.5
8   8   73.5   Secure at least 100
3 +0.05 0 depth 3
4

3-M4 depth 6
40
9
5   10.5
22
3

Connector cable exit direction (Model: K2)
* Rotates 180° with respect to the standard model.

4
37
6.5
4-M4 depth 6
25
10   30
ø3 +0.03 0 depth 3

Dimensions/Weight by Stroke

Stroke	30
Weight (kg)	0.52

① 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-10I①-NP-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	–	→ P477
		ASEP-C-10I①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.	3 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	–	→ P487
Splash-Proof Solenoid Valve Type		ASEP-CW-10I①-NP-2-0					–	
Positioner Type		ACON-C-10I①-NP-2-0	Positioning is possible for up to 512 points	512 points			–	
Safety-Compliant Positioner Type		ACON-CG-10I①-NP-2-0					–	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-NP-2-0	Pulse train input type with differential line driver support	(–)			–	→ P535
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-NP-2-0	Pulse train input type with open collector support				–	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated to serial communication	64 points			–	
Field Network Type		RACON-10①	Dedicated to field network	768 points			–	→ P503
Program Control Type		ASEL-C-1-10I①-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.

Slider Type
Mini
Standard
Controllers Integrated
Rod Type
Mini
Standard
Controllers Integrated
Table/Arm /Flat Type
Mini
Standard
Gripper/ Rotary Type
Linear Servo Type
Cleanroom Type
Splash Proof
Controllers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
Pulse Motor
Servo Motor (24V)
Servo Motor (200V)
Linear Servo Motor