

RCA2-TWA4N

ROBO Cylinder Mini Table Type Short-Length Wide Model 58mm Width
24V Servo Motor Ball Screw/Lead Screw Models

■ Configuration: **RCA2** — **TWA4N** — **I** — **20** — **30** — **30** — **30** — **30** — **30**

Series — Type — Encoder — Motor — Lead — Stroke — Compatible Controllers — Cable Length — Option

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

20: 20W Servo motor

6 : 6mm ball screw
4 : 4mm ball screw
2 : 2mm ball screw
6S : 6mm lead screw
4S : 4mm lead screw
2S : 2mm lead screw

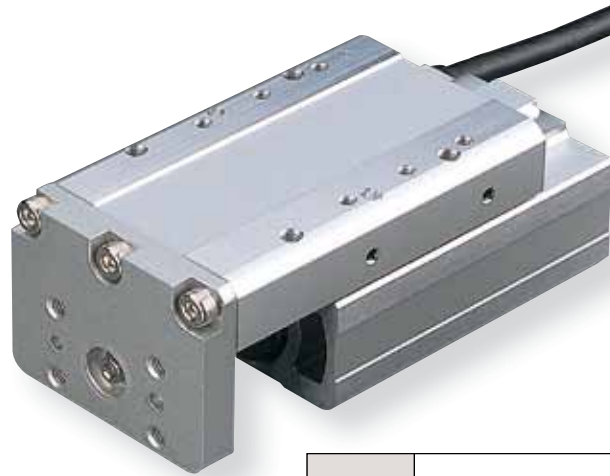
30: 30mm

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 0.3G (0.2G for the 2mm-lead model, or when used vertically). This is the upper limit of the acceleration.
- (2) When using the Lead screw model, please ensure that your usage is appropriate for its characteristics. (See Pre-42 for more information.)

Actuator Specifications

Lead and Load Capacity

| Model | Motor Output (W) | Feed Screw | Lead (mm) | Max. Load Capacity | | Rated Thrust (N) | Positioning Repeatability (mm) | Stroke (mm) |
|-----------------------------|------------------|------------|-----------|--------------------|---------------|------------------|--------------------------------|-------------|
| | | | | Horizontal (kg) | Vertical (kg) | | | |
| RCA2-TWA4N-I-20-6-30-①-②-③ | 20 | Ball screw | 6 | 2 | 0.5 | 33.8 | ±0.02 | 30 (Fixed) |
| RCA2-TWA4N-I-20-4-30-①-②-③ | | | 4 | 3 | 0.75 | 50.7 | | |
| RCA2-TWA4N-I-20-2-30-①-②-③ | | | 2 | 6 | 1.5 | 101.5 | | |
| RCA2-TWA4N-I-20-6S-30-①-②-③ | 20 | Lead screw | 6 | 0.25 | 0.125 | 19.9 | ±0.05 | 30 (Fixed) |
| RCA2-TWA4N-I-20-4S-30-①-②-③ | | | 4 | 0.5 | 0.25 | 29.8 | | |
| RCA2-TWA4N-I-20-2S-30-①-②-③ | | | 2 | 1 | 0.5 | 59.7 | | |

Legend ① Compatible controller ② Cable length ③ Options

Stroke and Maximum Speed

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

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

Stroke List

| Stroke (mm) | Standard Price | |
|-------------|------------------|------------------|
| | Feed Screw | |
| | Ball Screw Model | Lead Screw Model |
| 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 | Ball screw/Lead screw ø6mm C10 grade |
| 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: 12.2 N-m |
| Ambient Operating Temp./Humidity | 0~40°C, 85% RH or less (non-condensing) |
| Service Life Lead Screw Model | Horizontal: 10 million cycles Vertical: 5 million cycles |

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

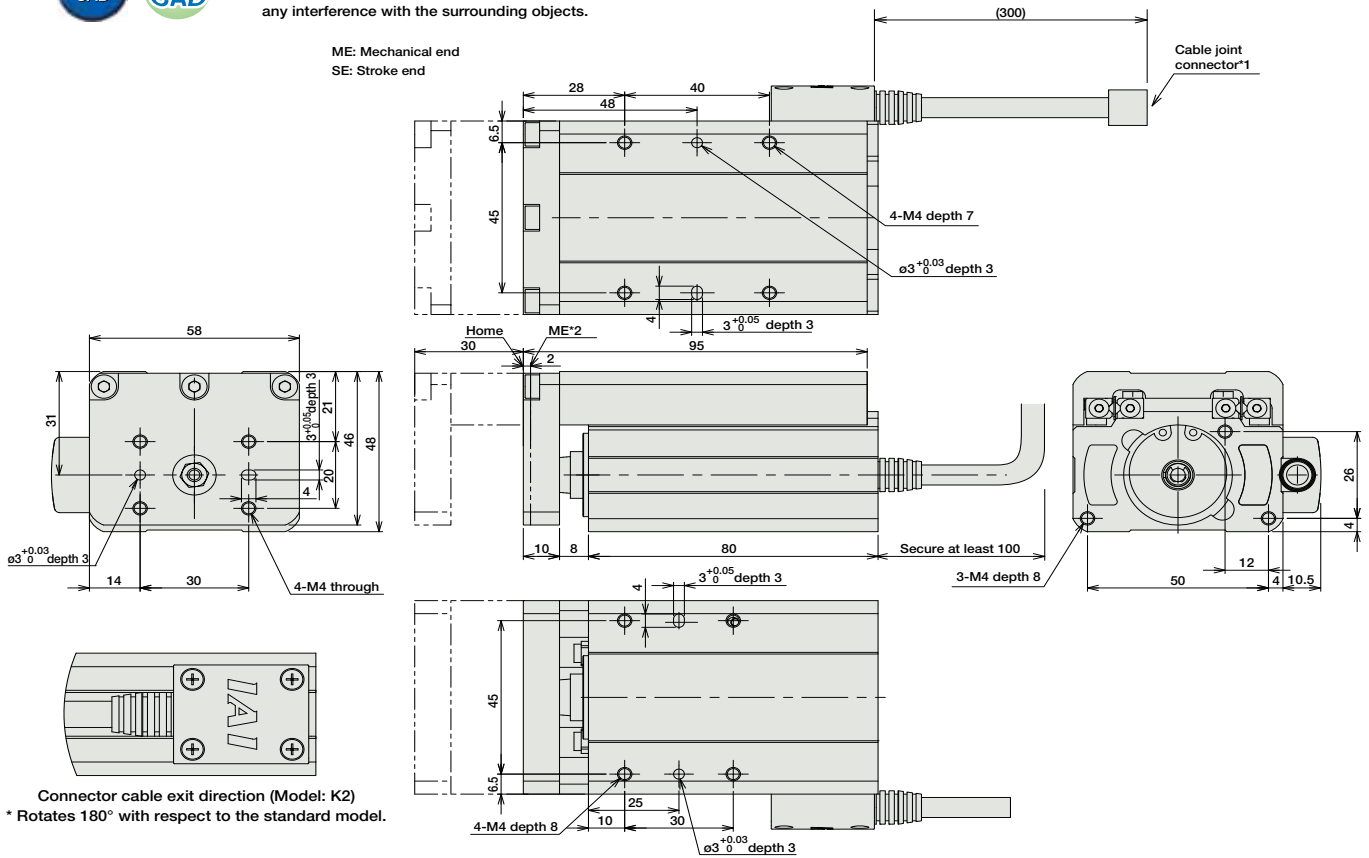
Dimensions

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



- *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.

For Special Orders P. A-9



■ Dimensions/Weight by Stroke

| | |
|-------------|------|
| Stroke | 30 |
| Weight (kg) | 0.65 |

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-20I①-NP-2-1 | Easy-to-use controller, even for beginners | 3 points | DC24V | (Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max. | - | → P477 |
| | | ASEP-C-20I①-NP-2-0 | Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. | | | | - | → P487 |
| Splash-Proof Solenoid Valve Type | | ASEP-CW-20I①-NP-2-0 | - | - | | | | |
| Positioner Type | | ACON-C-20I①-NP-2-0 | Positioning is possible for up to 512 points | 512 points | | | - | |
| Safety-Compliant Positioner Type | | ACON-CG-20I①-NP-2-0 | | - | | | | |
| Pulse Train Input Type (Differential Line Driver) | | ACON-PL-20I①-NP-2-0 | Pulse train input type with differential line driver support | (-) | | | - | → P535 |
| Pulse Train Input Type (Open Collector) | | ACON-PO-20I①-NP-2-0 | Pulse train input type with open collector support | | | | - | |
| Serial Communication Type | | ACON-SE-20I①-N-0-0 | Dedicated to serial communication | 64 points | | | - | |
| Field Network Type | | RACON-20① | Dedicated to field network | 768 points | | | - | → P503 |
| Program Control Type | | ASEL-C-1-20I①-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