

RCA-SA6R ROBO Cylinder Slider Type 58mm Width 24V Servo Motor Side-Mounted Motor

■ Configuration: **RCA** — **SA6R** — — **30** — — — — —

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

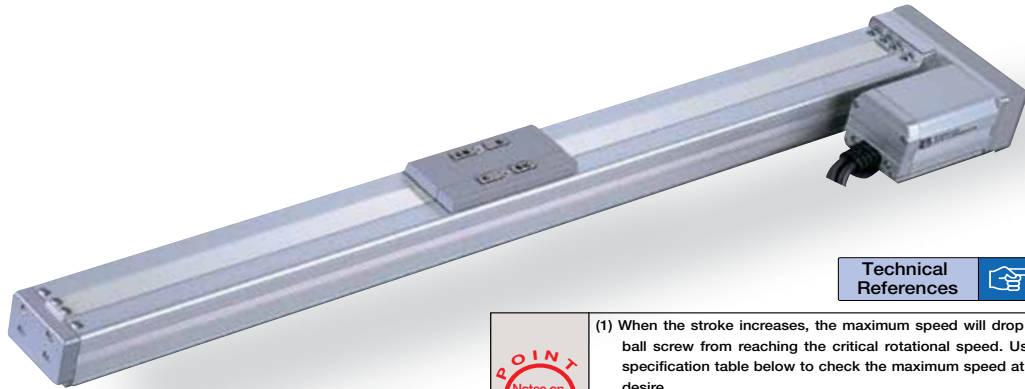
I: Incremental A: Absolute 30: 30W Servo motor 12: 12mm 50: 50mm A1: ACON RACON ASEL A3: AMEC ASEP N: None P: 1m S: 3m M: 5m X: Custom Length R: Robot Cable

* Absolute encoder models can only use ASEL. When the actuator is used with the simple absolute encoder, the model is considered an incremental model.

* See page Pre-35 for explanation of each code that makes up the configuration name.

See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

Power-saving



Technical References P. A-5

Pictured: Left-mounted motor model (ML).

- POINT** Notes on Selection
- (1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
 - (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model). These values are the upper limits for the acceleration.

| Actuator Specifications | | | | | | | Stroke and Maximum Speed | | | | |
|--------------------------|------------------|-----------|--------------------|-----|------------------|----------------------------|----------------------------|----------------------------|----------|----------|----------|
| ■ Lead and Load Capacity | | | | | | | ■ Stroke and Maximum Speed | | | | |
| Model | Motor Output (w) | Lead (mm) | Max. Load Capacity | | Rated Thrust (N) | Stroke (mm) | Stroke Lead | 50 ~ 450 (50mm increments) | 500 (mm) | 550 (mm) | 600 (mm) |
| RCA-SA6R-①-30-12-②-③-④-⑤ | 30 | 12 | 6 | 1.5 | 24.2 | 50 ~ 600 (50mm increments) | 12 | 800 | 760 | 640 | 540 |
| RCA-SA6R-①-30-6-②-③-④-⑤ | | 6 | 12 | 3 | 48.4 | | 6 | 400 | 380 | 320 | 270 |
| RCA-SA6R-①-30-3-②-③-④-⑤ | | 3 | 18 | 6 | 96.8 | | 3 | 200 | 190 | 160 | 135 |

Legend ① Encoder ② Stroke ③ Compatible controller ④ Cable length ⑤ Options (Unit: mm/s)

| Encoder & Stroke List | | |
|-----------------------|----------------|----------|
| ② Stroke (mm) | Standard Price | |
| | ① Encoder Type | |
| | Incremental | Absolute |
| 50 | - | A |
| 100 | - | - |
| 150 | - | - |
| 200 | - | - |
| 250 | - | - |
| 300 | - | - |
| 350 | - | - |
| 400 | - | - |
| 450 | - | - |
| 500 | - | - |
| 550 | - | - |
| 600 | - | - |

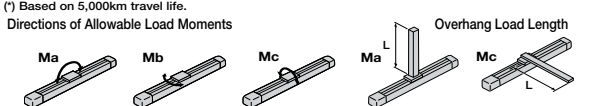
| ④ Cable List | | |
|-----------------|-----------------------|----------------|
| Type | Cable Symbol | Standard Price |
| Standard | P (1m) | - |
| | S (3m) | - |
| | M (5m) | - |
| Special Lengths | X06 (6m) ~ X10 (10m) | - |
| | X11 (11m) ~ X15 (15m) | - |
| | X16 (16m) ~ X20 (20m) | - |
| | R01 (1m) ~ R03 (3m) | - |
| Robot Cable | R04 (4m) ~ R05 (5m) | - |
| | R06 (6m) ~ R10 (10m) | - |
| | R11 (11m) ~ R15 (15m) | - |
| | R16 (16m) ~ R20 (20m) | - |
| | | |

* See page A-39 for cables for maintenance.

| ⑤ Option List | | | |
|-------------------------------|-------------|----------|----------------|
| Name | Option Code | See Page | Standard Price |
| Brake | B | → A-25 | - |
| Home sensor | HS | → A-32 | - |
| Power-saving | LA | → A-32 | - |
| Reversed-home | NM | → A-33 | - |
| Left-Mounted Motor (Standard) | ML | → A-33 | - |
| Right-Mounted Motor | MR | → A-33 | - |
| Slider Roller | SR | → A-36 | - |

| Actuator Specifications | |
|----------------------------------|------------------------------------------------------------|
| Item | Description |
| Drive System | Ball screw ø10mm C10 grade |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum (white alumite treated) |
| Allowable Static Moment | Ma: 38.3N·m Mb: 54.7N·m Mc: 81.0N·m |
| Allowable Dynamic Moment (†) | Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m |
| Overhang Load Length | Ma direction: 220mm or less Mb-Mc direction: 220mm or less |
| Ambient Operating Temp./Humidity | 0~40°C, 85%RH or less (Non-condensing) |

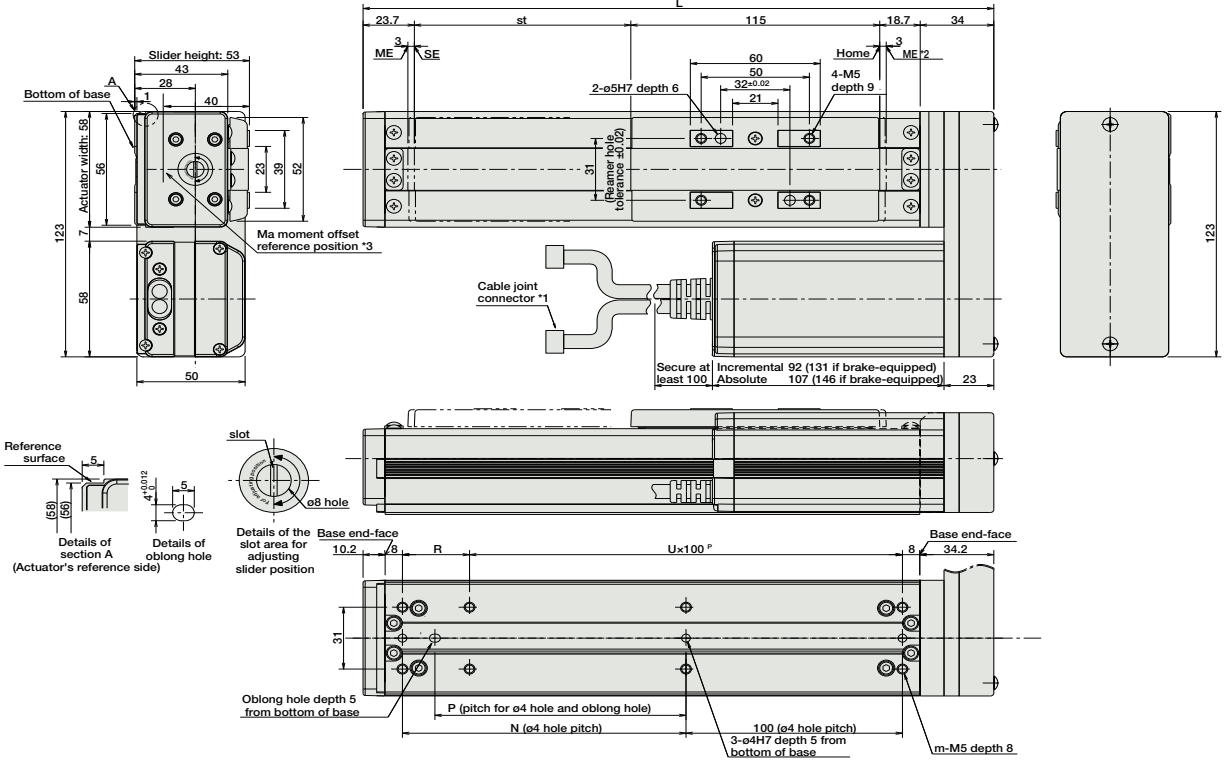
(†) Based on 5,000km travel life.



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Dimensions

For Special Orders P. A-9



■ Dimensions/Weight by Stroke * Brake-equipped models are heavier by 0.3kg.

| Stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L | 241.4 | 291.4 | 341.4 | 391.4 | 441.4 | 491.4 | 541.4 | 591.4 | 641.4 | 691.4 | 741.4 | 791.4 |
| N | 81 | 131 | 181 | 231 | 281 | 331 | 381 | 431 | 481 | 531 | 581 | 631 |
| P | 66 | 116 | 166 | 216 | 266 | 316 | 366 | 416 | 466 | 516 | 566 | 616 |
| R | 81 | 31 | 81 | 31 | 81 | 31 | 81 | 31 | 81 | 31 | 81 | 31 |
| U | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 |
| m | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 |
| Weight (kg) | 1.7 | 1.9 | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 3.1 | 3.3 | 3.5 | 3.7 | 3.9 |

- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end SE: Stroke end
- *3 Reference position for calculating the moment Ma.

③ Compatible Controllers

The RCA 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-30①②-NP-2-1 | Easy-to-use controller, even for beginners | 3 points | AC100V | 2.4A rated | - | → P477 |
| | | ASEP-C-30①②-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-30①②-NP-2-0 | | | | | | |
| Positioner Type | | ACON-C-30①②-NP-2-0 | Positioning is possible for up to 512 points | 512 points | DC24V | (Standard) 1.3A rated 4.4A max. | - | |
| Safety-Compliant Positioner Type | | ACON-CG-30①②-NP-2-0 | | | | | | |
| Pulse Train Input Type (Differential Line Driver) | | ACON-PL-30①②-NP-2-0 | Pulse train input type with differential line driver support | (-) | DC24V | (Power-saving) 1.3A rated 2.2A max. | - | → P535 |
| Pulse Train Input Type (Open Collector) | | ACON-PO-30①②-NP-2-0 | Pulse train input type with open collector support | | | | | |
| Serial Communication Type | | ACON-SE-30①②-N-0-0 | Dedicated to serial communication | 64 points | | | | |
| Field Network Type | | RACON-30② | Dedicated to field network | 768 points | | | | → P503 |
| Program Control Type | | ASEL-C-1-30①②-NP-2-0 | Programmed operation is possible Can operate up to 2 axes | 1500 points | | | | → P567 |

- * This is for the single-axis ASEL.
- * ① is a placeholder for the encoder type (I: incremental, A: absolute).
- * ② is a placeholder for the code "HA" or "LA", when the high-acceleration/deceleration option or the energy-saving option is selected.

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