

# RCL-SA1L

ROBO Cylinder Slider Type Mini-Slim Type 20mm Width Linear Servo Motor

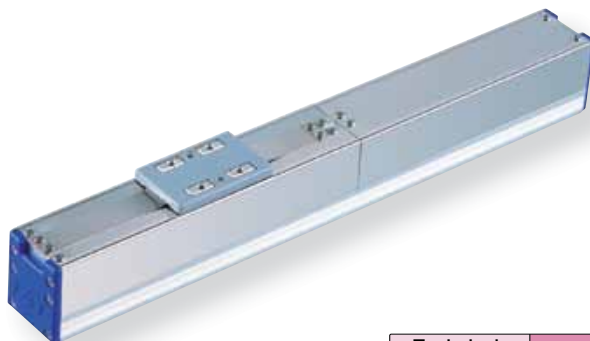
■ Configuration: **RCL** — **SA1L** — **I** — **2** — **N** — **40** —  —

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

I: Incremental      2: 2W linear servo motor      N: No screw      40: 40mm

A1: ACON      N: None  
 RACON      P: 1m  
 ASEL      S: 3m  
 A3: AMEC      M: 5m  
 ASEP      X  : Custom

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



Technical References P. A-5

**POINT** Notes on Selection

(1) The load capacity is determined by the acceleration and the duty. Check the load capacity on the Load Capacity (Horizontal) vs. Acceleration graph on the right. The duty is  $\frac{\text{Operating time}}{\text{Operating time} + \text{stationary time}} \times 100$  per cycle.

(2) The mounting orientation is horizontal only. When operated vertically, please use caution, as the slider will fall when the power is turned OFF.

(3) Please note that an absolute unit cannot be used.

### Load Capacity (Horizontal) vs. Acceleration

Max. Acceleration (G)	Load Capacity (kg)	
	Continuous Operation (100% duty)	(70% or less duty)
0.1	0.5	0.5
0.3		
0.5	0.42	
1	0.25	0.32
1.5	0.18	0.24
2	0.15	0.2

### Actuator Specifications

#### Lead and Load Capacity

Model	Motor Output (W)	Max. Load Capacity		Rated Thrust (N)	Max. Momentary Thrust (N)	Max. Acceleration (G)	Positioning Repeatability (mm)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)					
RCL-SA1L-I-2-N-40-①-②	2	See table above	-	2	10	2	±0.1	40 (Fixed)

Legend: ① Compatible controller ② Cable length

#### Stroke and Maximum Speed

Lead	Stroke	40 (mm)
	(No lead screw)	

(Unit: mm/s)

#### Stroke List

Stroke (mm)	Standard Price
40	-

#### ② 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 RCL comes standard with a robot cable.

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

### Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder Resolution	0.042mm
Base	Material: Aluminum (white alumite treated)
Allowable Dynamic Moment (Note)	Ma: 0.13N·m Mb: 0.12N·m Mc: 0.21N·m
Overhang Load Length	50mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

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

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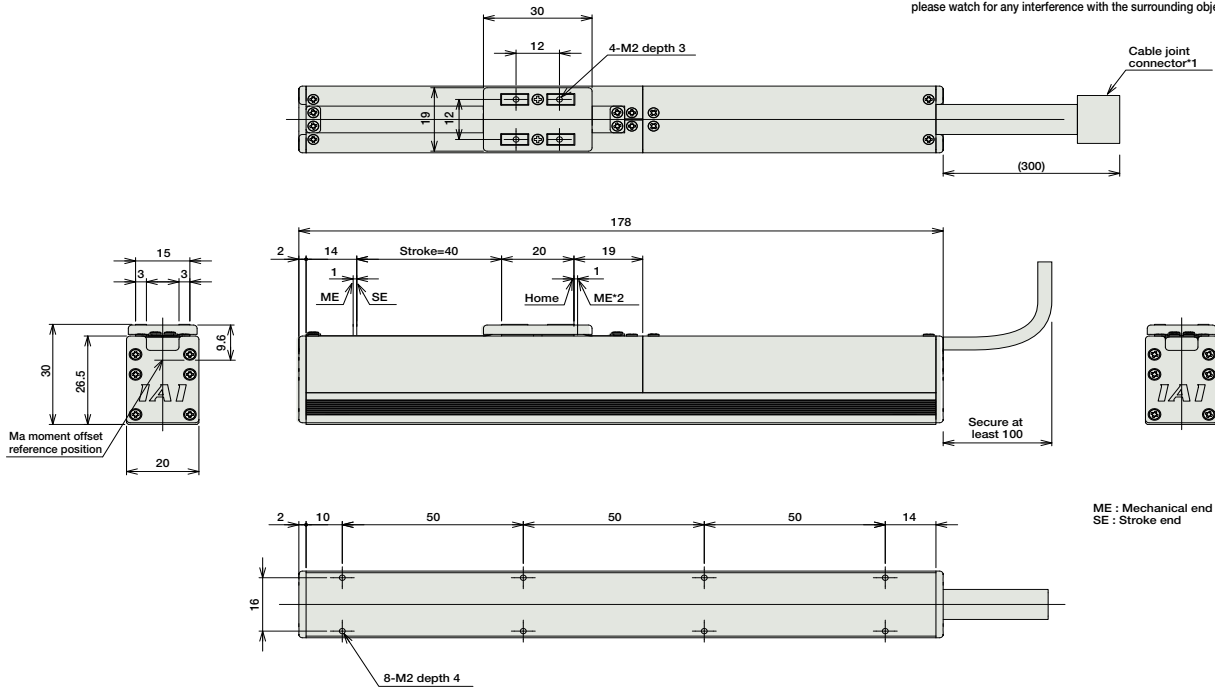
RCL-SA1L

- 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 Proof
- 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

Dimensions

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 slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.



ME : Mechanical end  
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	40
Weight (kg)	0.28

① Compatible Controllers

The RCL 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-2I-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	-	→ P477
		ASEP-C-2I-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-2I-NP-2-0					-	
Positioner Type		ACON-C-2I-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	4.6A max.	-	→ P535
Safety-Compliant Positioner Type		ACON-CG-2I-NP-2-0					-	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-2I-NP-2-0	Pulse train input type with differential line driver support	(-)			-	
Pulse Train Input Type (Open Collector)		ACON-PO-2I-NP-2-0	Pulse train input type with open collector support				-	
Serial Communication Type		ACON-SE-2I-N-0-0	Dedicated to serial communication	64 points			-	
Field Network Type		RACON-2	Dedicated to field network	768 points			-	→ P503
Program Control Type		ASEL-C-1-2I-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.

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