RCL-SA3L
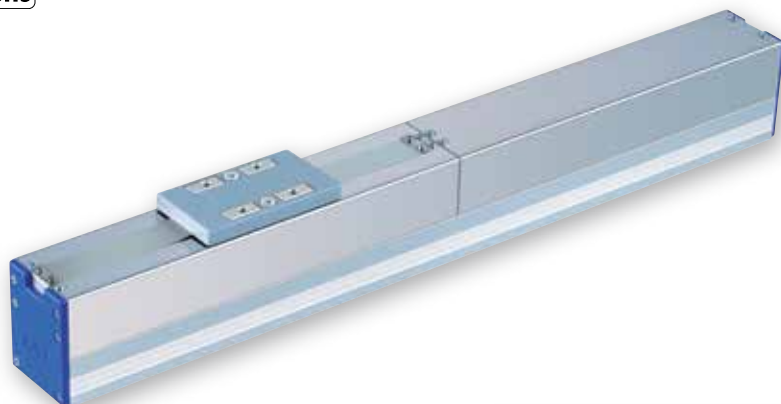
ROBO Cylinder, Slider Type, Mini Slim Type, Actuator Width 28mm, Linear Servo Motor

Model Specification Items	RCL Series	—	SA3L Type	—	I Encoder type	—	10 Motor type	—	N Lead	—	64 Stroke	—	☐ Applicable controller	—	☐ Cable length
					I: Incremental specification		10: Linear servo motor 10W		N: No screw		64: 64mm		A1:ACON ASEL A3:AMEC ASEP MSEP		N: None P: 1m S: 3m M:5m X☐☐:Custom Length

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

RoHS

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)	
	Continuous operation (Duty is 100%)	Duty is 70% or less
0.1	2	2
0.3		
0.5	1.8	
1	1	1.2
1.5	0.65	0.8
2	0.5	0.6

Technical References ☞ Appendix **P.5**

POINT Notes on selection

(1) The payload is determined by the acceleration and duty. Verify the payload in the payload (horizontal) and acceleration chart at right.

The duty is $\frac{\text{Operating time}}{\text{Operating time + stop time}}$ x 100 per cycle.

(2) The mounting position is horizontal-only. Please take care because the slider will drop down with power OFF when operating vertically.
(3) Simple absolute unit cannot be used with the RCL series.

Actuator Specifications
■ Lead and Payload

Model number	Motor output(W)	Maximum payload		Rated thrust (N)	Instantaneous maximum thrust (N)	Maximum acceleration (G)	Positioning repeatability (mm)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)					
RCL-SA3L-I-10-N-64-①-②	10	See chart above	—	8	30	2	±0.1	64 (Fixed)

■ Stroke and Maximum Speed

Stroke Lead	64 (mm)
(no screw)	600

(Unit: mm/s)

Code explanation ① Applicable Controller ② Cable length

Stroke

Stroke (mm)	Standard price
64	—

② 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 RCL is the robot cable.
* See page A-59 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 (*)	Ma: 1.22 N·m, Mb: 1.08 N·m, Mc: 0.34 N·m
Overhung load length	Ma direction: 120mm or less Mb and Mc directions: 80mm or less
Ambient operating temperature, humidity	0 to 40℃, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

RCL ROBO Cylinder

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

Dimensional Drawings

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

For Special Orders ☞ Appendix **P.15**

2D CAD **3D CAD**

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
(*2) During home return, the slider travels until the mechanical use end, so be careful to avoid interference from peripheral objects.

ME: Mechanical end
SE : Stroke end
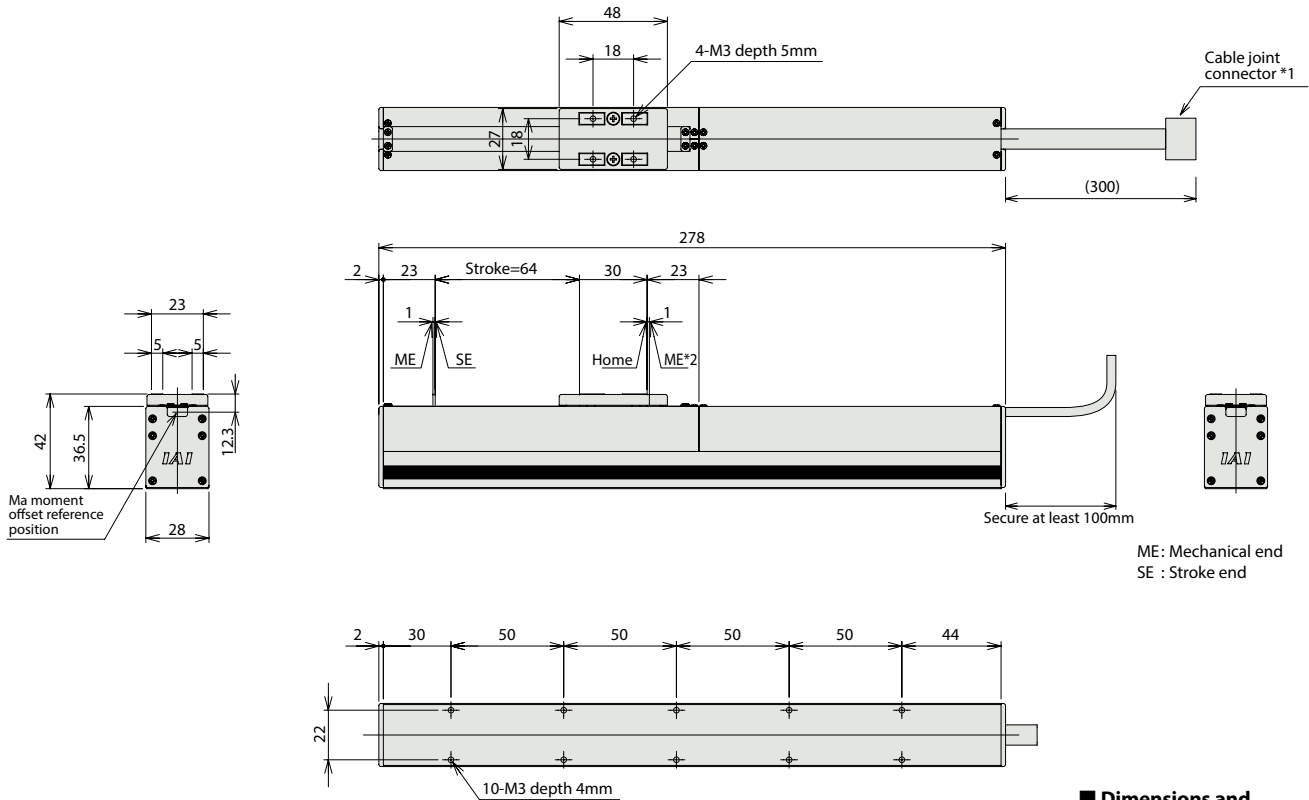
■ Dimensions and Weight by Stroke

Stroke	64
Weight (kg)	0.82

①Applicable Controllers

RCL series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

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-10I-①-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-10I-①-2-0	Simple controller operable with the same signal as a solenoid valve				—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-⑪-~-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected				—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-⑪-~-⑩-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			—	
Positioner type		ACON-C-10I-①-2-0	Positioning is possible for up to 512 points	512 points	DC24V	1.3A rated 6.4A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-10I-①-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I-①-2-0	Pulse train input type with differential line driver support	(—)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-10I-①-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-10I-N-0-0	Dedicated Serial Communication	64 points			—	
Program Control Type		ASEL-CS-1-10I-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			—	→ P675

* This is for the single-axis ASEL.   * ① indicates I/O type (NP/PN).   * ⑪ indicates number of axes (1 to 8).   * ⑩ indicates field network specification symbol.

IAI

RCL-SA3L **424**