RCA2-SD3N

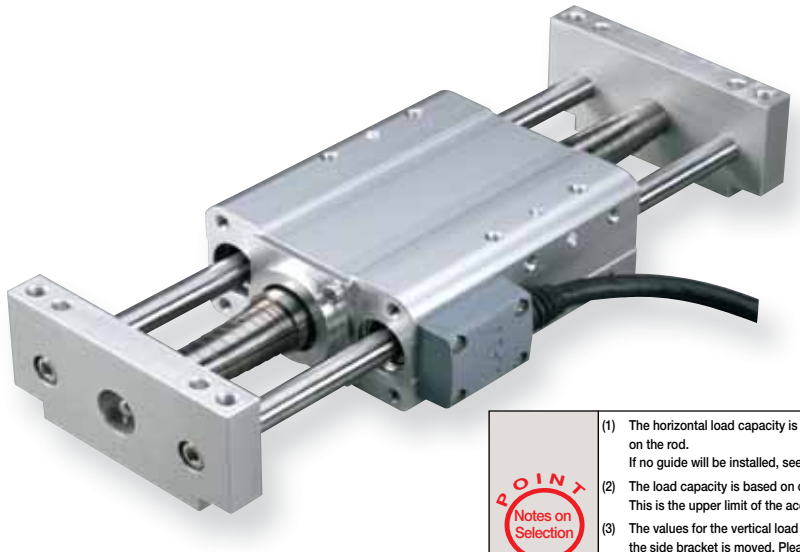
ROBO Cylinder Mini Rod Type Short-Length Mounting Slide Unit Type with Double Guide
60mm Width 24V Servo Motor Lead Screw

■ Configuration: RCA2 — SD3N — I — 10 — □ — □ — □ — □ — □

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
RCA2	SD3N	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	25 : 25mm 50 : 50mm	A1 : ACON RACON ASEL A3 : AMEC ASEP	N : None P : 1m S : 3m M : 5m X□□ : Custom	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 horizontal load capacity is based on the use of a guide to prevent any radial and/or moment load on the rod.
If no guide will be installed, see the Tip Load vs. Service Life graph (→ page A-82).

(2) The load capacity is based on operation at an acceleration of 0.2G.
This is the upper limit of the acceleration.

(3) The values for the vertical load capacity are based on a setup in which the actuator is secured and the side bracket is moved. Please note that moving the actuator against the secured side bracket is not possible.

(4) This model uses a lead screw. 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-SD3N-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125 (*1)	25.1	±0.05	25 50
RCA2-SD3N-I-10-2S-①-②-③-④			2	0.5	0.25 (*1)	50.3		
RCA2-SD3N-I-10-1S-①-②-③-④			1	1	0.5 (*1)	100.5		

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

(*1) When the actuator is fixed

■ Stroke and Maximum Speed

Lead \ Stroke	25/50 (mm)
Lead Screw 4	200
Lead Screw 2	100
Lead Screw 1	50

(Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price
	Feed Screw
	Lead Screw
25	–
50	–

③ 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.

④ Option List

Name	Option Code	See Page	Standard Price
Power-saving	LA	→ A-32	–

Actuator Specifications

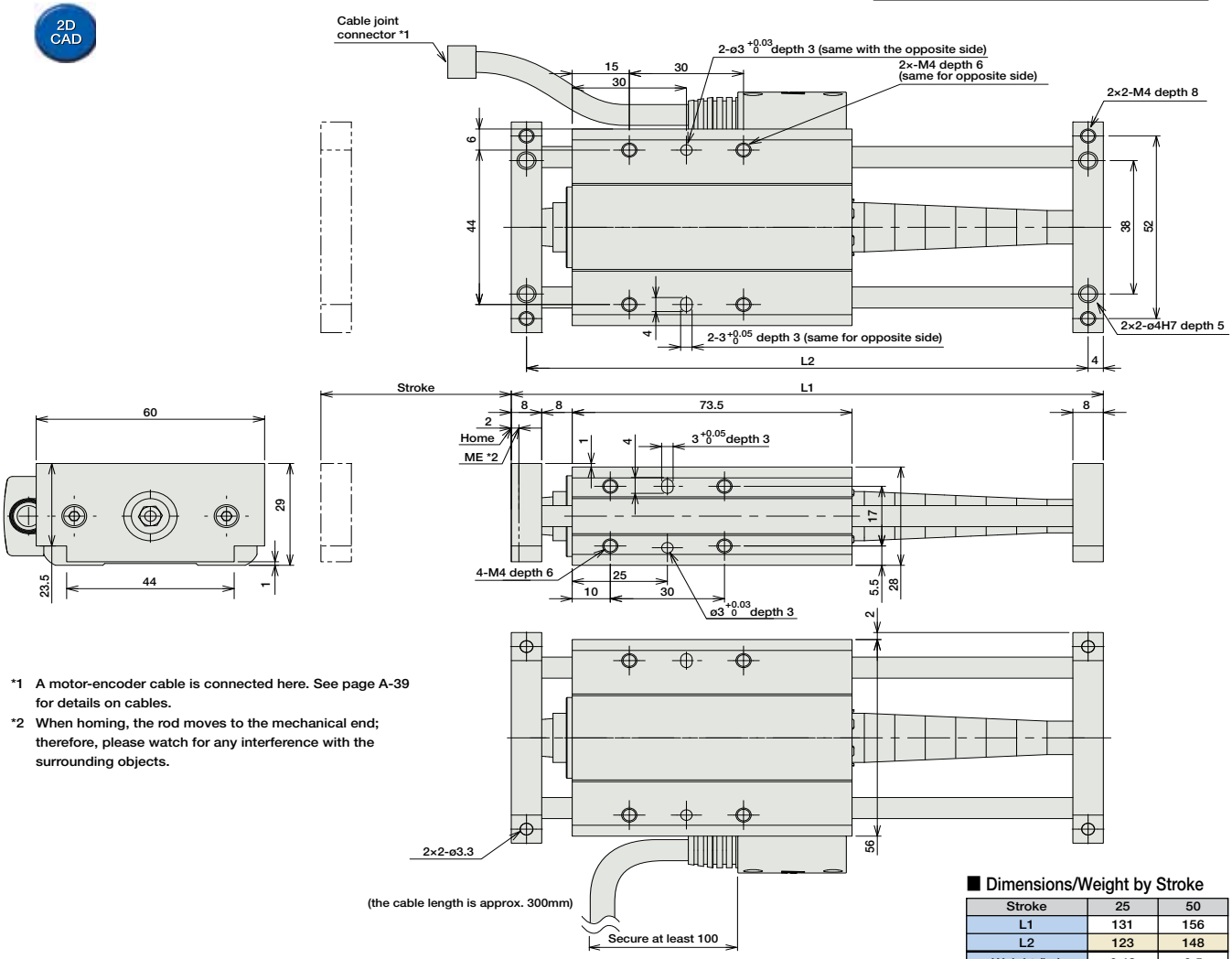
Item	Description
Drive System	Lead Screw ø4mm C10 grade
Lost Motion	0.3mm or less (initial value)
Frame	Material: Aluminum (white alumite treated)
Ambient Operating Temp./Humidity	0～40°C, 85% RH or less (non-condensing)
Service Life	Horizontal: 10 million cycles Vertical: 5 million cycles

Dimensions

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

For Special Orders P. A-9

2D CAD



*1 A motor-encoder cable is connected here. See page A-39 for details on cables.

*2 When homing, the rod moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

■ Dimensions/Weight by Stroke

Stroke	25	50
L1	131	156
L2	123	148
Weight (kg)	0.48	0.5

② 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	3 points	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.		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			–	→ P535
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	(–)			–	
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.