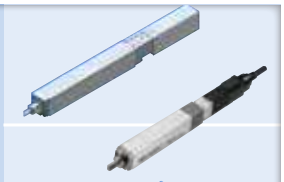
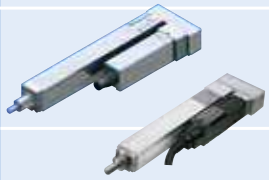
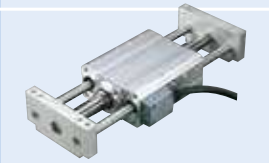
IAI
Quality and Innovation

Mini ROBO Cylinder

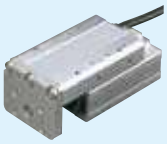
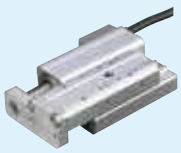
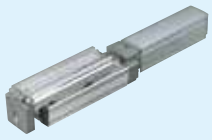
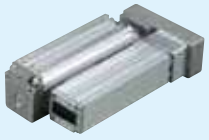
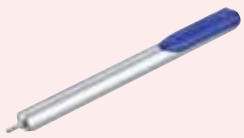
RCP3
RCA2
RCS2
RCL

www.intelligentactuator.com

Product Overview

Category	Type	Title / External view	Model: Series Name	Model: Type name	Actuator width	Maximum payload (horizontal)	Reference Page	
Slider type	Motor Unit type	Coupling type 	RCP3	SA2AC	22mm	1kg	→P.17	
				SA2BC	28mm	1kg	→P.19	
			RCA2	SA2AC*	20mm	2kg	→P.25	* This model is unavailable.
		Side-Mounted Motor type 	RCP3	SA2AR	58mm	1kg	→P.21	
				SA2BR	59.5mm	1kg	→P.23	
			RCA2	SA2AR*	41mm	2kg	→P.27	* This model is unavailable.
Rod type	Without guide / Motor Unit type	Coupling type 	RCP3	RA2AC	22mm	4kg	→P.29	
				RA2BC	28mm	8kg	→P.31	
			RCA2	RA2AC*	18mm	2kg	→P.37	* This model is unavailable.
		Side-Mounted Motor type 	RCP3	RA2AR	58mm	4kg	→P.33	
				RA2BR	59.5mm	8kg	→P.35	
			RCA2	RA2AR*	41mm	2kg	→P.39	* This model is unavailable.
	Without guide / Short Length type	Fixed Nut type 	RCA2	RN3NA	28mm	3kg	→P.41	
				RN4NA	34mm	6kg	→P.43	
			RCS2	RN5N	46mm	20kg	→P.45	
		Tapped Hole type 	RCA2	RP3NA	28mm	3kg	→P.47	
				RP4NA	34mm	6kg	→P.49	
			RCS2	RP5N	46mm	20kg	→P.51	
	With guide / Short Length type	Single-guide type 	RCA2	GS3NA	28mm	3kg	→P.53	
				GS4NA	34mm	6kg	→P.55	
			RCS2	GS5N	46mm	20kg	→P.57	
		Double-guide type 	RCA2	GD3NA	28mm	3kg	→P.59	
				GD4NA	34mm	6kg	→P.61	
			RCS2	GD5N	46mm	20kg	→P.63	
		Slide unit type 	RCA2	SD3NA	60mm	3kg	→P.65	
				SD4NA	72mm	6kg	→P.67	
			RCS2	SD5N	94mm	20kg	→P.69	

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Category	Type	Title / External view	Model		Actuator width	Maximum payload (horizontal)	Reference Page
			Series Name	Type name			
Table type	Short Length type	Compact type 	RCA2	TCA3NA	32mm	3kg	→P.71
				TCA4NA	36mm	6kg	→P.73
			RCS2	TCA5N	48mm	20kg	→P.75
		Wide type 	RCA2	TWA3NA	50mm	3kg	→P.77
				TWA4NA	58mm	6kg	→P.79
			RCS2	TWA5N	80mm	20kg	→P.81
		Flat type 	RCA2	TFA3NA	61mm	3kg	→P.83
				TFA4NA	71mm	6kg	→P.85
			RCS2	TFA5N	95mm	20kg	→P.87
	Motor Unit type	Coupling type 	RCP3	TA3C	36mm	2kg	→P.89
				TA4C	40mm	3kg	→P.91
			RCA2	TA4C	40mm	3kg	→P.93
		Side-Mounted Motor type 	RCP3	TA3R	72mm	2kg	→P.95
				TA4R	81mm	3kg	→P.97
			RCA2	TA4R	81mm	3kg	→P.99
Linear servo type	Micro Slider	Slim type 	RCL *These models are not available	SA1L	20mm	0.5kg	→P.101
				SA2L	24mm	1kg	→P.103
				SA3L	28mm	2kg	→P.105
		Long Stroke type: Single slider 		SA4L	40mm	0.8kg	→P.107
				SA5L	48mm	1.6kg	→P.111
				SA6L	58mm	3.2kg	→P.115
		Long Stroke type: Multi-slider 		SM4L	40mm	0.8kg	→P.109
				SM5L	48mm	1.6kg	→P.113
				SM6L	58mm	3.2kg	→P.117
	Micro Cylinder	Slim type 	RCL *These models are not available	RA1L	ø16mm	0.5kg	→P.119
				RA2L	ø20mm	1kg	→P.121
				RA3L	ø25mm	2kg	→P.123
Controller		PMEC/AMEC Controller 	*These models are unavailable.				→P.131
		PSEP/ASEP Controller 	*These models are unavailable.				→P.141
		SCON-CA Controller 	*These models are unavailable.				→P.157

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

The compact, next-generation electric actuator

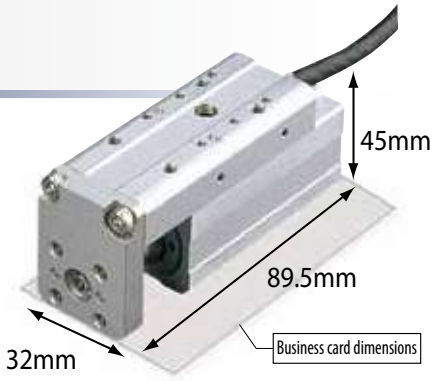
Mini ROBO Cylinder

ROBO CYLINDER

Mini ROBO Cylinder (space-saving)

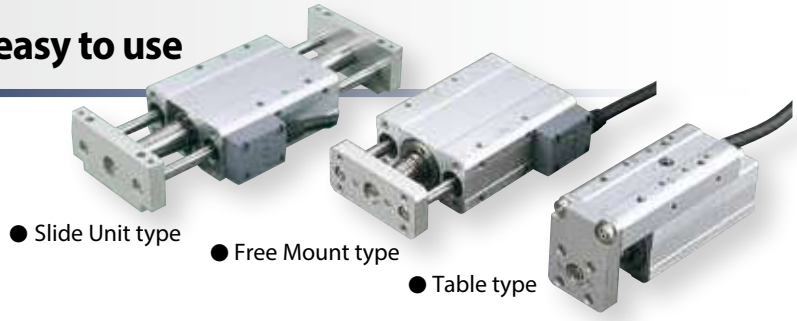
The Mini ROBO Cylinder is an achievement in small electromechanical cylinders. It incorporates a newly developed motor, and its significantly reduced length, width and height make it comparable in size to air cylinders. The Mini ROBO Cylinder is the perfect replacement for air cylinders in systems that previously could only use air cylinders due to size constraints.

The Mini Table Compact type RCA2-TCA3NA has dimensions smaller than a business card.



Shaped like an air cylinder and easy to use

The Mini ROBO Cylinder is available in shapes similar to air cylinders.
Users accustomed to the operation of pneumatic systems are able to use the new ROBO Cylinder effortlessly.

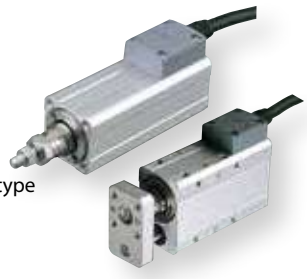


● Slide Unit type
● Free Mount type
● Table type

Expanded Variations

New models have been added, including slim types with contracted actuator width and high-payload, long-stroke types of 46 mm in actuator width, to support greater applications.

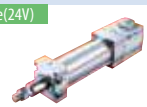
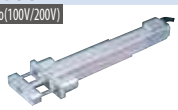
Slim type
RCA2-SA2AC/SA2AR
RCA2-RA2AC/RA2AR



Small ball screw type
RCA2-☐☐3NA
RCA2-☐☐4NA
50 mm stroke

Actuator width 46 mm type
RCS2-☐☐5N

<List of existing ROBO Cylinder models and new ROBO Cylinder models>

		Models featured in this catalog	Existing Models			
Slider type	Name	Motor unit type	Motor unit type	Coupling type	Coupling type	Coupling type
	Type	SA2AC/SA2BC	SA3C/SA4C/SA5C/SA6C	SA5C/SA6C/SA7C/SS7C/SS8C	SA4C/SA5C/SA6C	SA4C/SA5C/SA6C/SA7C/SS7C/SS8C
	Appearance	Pulse(24V) Servo(24V) 	Pulse(24V) Servo(24V) 	Pulse(24V) 	Servo(24V) 	Servo(100V/200V) 
	Name	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type
	Type	SA2AR/SA2BR	SA3R/SA4R/SA5R/SA6R	SA5R/SA6R/SA7R/SS7R/SS8R	SA4R/SA5R/SA6R	SA4R/SA5R/SA6R/SA7R/SS7R/SS8R
	Appearance	Pulse(24V) Servo(24V) 	Pulse(24V) Servo(24V) 	Pulse(24V) 	Servo(24V) 	Servo(100V/200V) 
Rod type	Name	Motor unit type	Coupling type	Coupling type	Full length short type	High thrust type
	Type	RA2AC/RA2BC	RA3C/RA4C/RA6C	RA3C/RA4C/RA5C	SRA7BD	RA10C
	Appearance	Pulse(24V) Servo(24V) 	Pulse(24V) 	Servo(24V) Servo(100V/200V) 	Servo(100V/200V) 	Pulse(24V) 
	Name	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type, short	Side-mounted motor type, high-thrust
	Type	RA2AR/RA2BR	RA3R/RA4R	RA5R	SRA4R	RA13R
	Appearance	Pulse(24V) Servo(24V) 	Servo(24V) Servo(100V/200V) 	Servo(100V/200V) 	Pulse(24V) Servo(24V) 	Servo(100V/200V) 
	Name	Single guide type	Single guide type	Single guide type	Single guide type	Single guide type, short
	Type	GS3NA/GS4NA/GS5N	RGS4C/RGS6C	RGS3C/RGS4C	RGS5C	SRGS4R/SRGS7BD
	Appearance	Servo(24V) Servo (100V/200V) 	Pulse(24V) Servo(100V/200V) 	Servo(24V) Servo(100V/200V) 	Servo(100V/200V) 	Pulse(24V) Servo(24V) Servo(100V/200V) 
	Name	Double guide type	Double guide type	Double guide type	Double guide type	Double guide type, short
	Type	GD3NA/GD4NA/GD5N	RGD4C/RGD6C	RGD3C/RGD4C	RGD5C	SRGD4R/SRGD7BD
	Appearance	Servo(24V) Servo (100V/200V) 	Pulse(24V) 	Servo(24V) Servo(100V/200V) 	Servo(100V/200V) 	Pulse(24V) Servo(24V) Servo(100V/200V) 
	Name	Slide unit type				
	Type	SD3NA/SD4NA/SD5N				
	Appearance	Servo(24V) Servo (100V/200V) 				
Table type	Name	Motor unit type	Motor unit type			
	Type	TA3C/TA4C	TA5C/TA6C/TA7C			
	Appearance	Pulse(24V) Servo(24V) 	Pulse(24V) Servo(24V) 			
	Name	Side-mounted motor type	Side-mounted motor type			
	Type	TA3R/TA4R	TA5R/TA6R/TA7R			
	Appearance	Pulse(24V) Servo(24V) 	Pulse(24V) Servo(24V) 			
	Name	Compact type	Wide type	Flat type		
	Type	TCA3NA/TCA4NA/TCA5N	TWA3NA/TWA4NA/TWA5N	TFA3NA/TFA4NA/TFA5N		
	Appearance	Servo(24V) Servo (100V/200V) 	Servo(24V) Servo (100V/200V) 	Servo(24V) Servo (100V/200V) 		
Linear Servo type	Name	Micro cylinder	Micro-slider (slim)	Micro-slider (long)	Multi-slider	
	Type	RA1L/RA2L/RA3L	SA1L/SA2L/SA3L	SA4L/SA5L/SA6L	SM4L/SM5L/SM6L	
	Appearance	Servo(24V) 	Servo(24V) 	Servo(24V) 	Servo(24V) 	

*The type code indicates the width of the actuator. Take note that actuators of the same type code have different dimensions depending on the model. For details, refer to the drawings for each type.

type	Actuator width
2A	22mm
2B	28mm
3	28~36mm
4	34~45mm
5	48~55mm
6	58~64mm
7	71~75mm
8	80mm
10	100mm
13	130mm

* "Pulse (24V)," "Servo (24V)" and "Servo (100/200V)" indicate motor types.

Pulse (24V) → RCP3/RCP2 series
Servo (24V) → RCL/RCA2/RCA series
Servo (100V/200V) → RCS2 series

* RCL models are unavailable.

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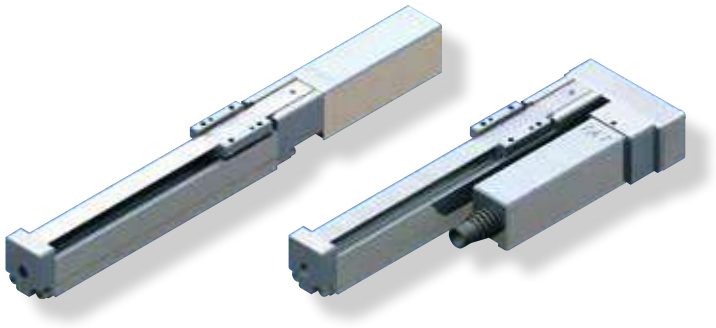
Mini Slider type

The slider on the main body moves back and forth until it is positioned.

Features
- The motor can easily perform switching operations for the unit model.
- Select from Side-Mounted Motor type with a reduced total length and Slim Straight type (Coupling type).

Usage
Used for jig and workpiece positioning, table travel, etc



Motor Unit Coupling type

Side-Mounted Motor type

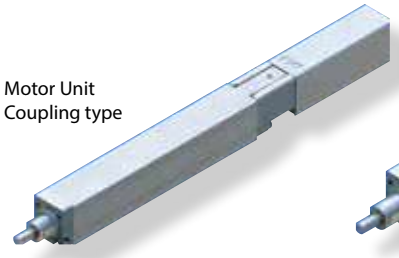
Mini Rod type

The rod extends and retracts from the main body, gets into position and presses.

Features
- Select from Slim Motor Unit types and Short Length types having greatly reduced overall length.
- Select from Guide types with highly rigid/linear built-in guides and those without guides having drastically miniaturized main body sizes.

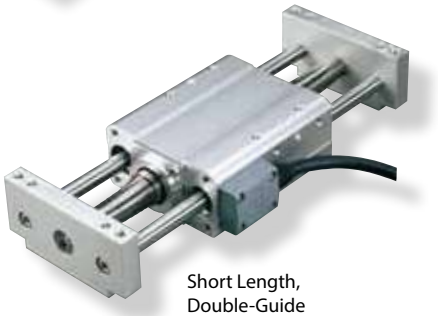
Usage
Used for raising/lowering products and jigs, pushing, clamping, etc.

Short Length, Double-Guide Free Mount type



Motor Unit Coupling type

Side-Mounted Motor type



Short Length, Double-Guide Slide Unit type

Short Length, Fixed Nut type

Short Length, Tapped Hole type

Short Length, Single-Guide Free Mount type

Mini Table type

The table on the main body slides until it is positioned.

Features
- Comes equipped with an integrated guide that keeps overhung loads balanced.
- Select from Compact, Short Length types and Long Stroke Motor Unit types.

Usage
Used for raising/lowering products and jigs, horizontal moving, and pushing (handles overhung loads from the main unit).

Side-Mounted Motor type

Motor Unit Coupling type

Short Length Wide type

Short Length Flat type

Short Length Compact type

Mini Linear Servo type

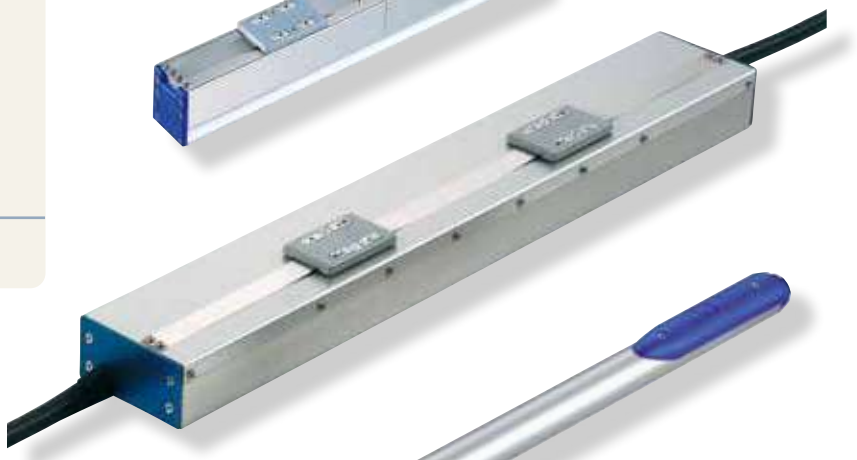
* RCL models are unavailable.

High speed, lightweight parts transfer.

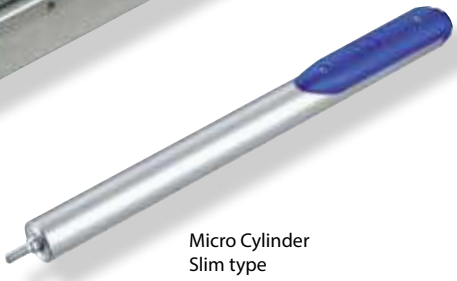
Features
- Equipped with a high acceleration/deceleration linear motor capable of operation at up to 2G.
- Available in Slider type and Rod type. Slider type comes in six different models for each size and stroke.
- The Multi-slider type comes with two sliders on one actuator that can be independently operated.

Usage
Used for transfers requiring short cycle times, etc.

Micro Slider Slim type



Micro Slider Long Stroke Type Multi-slider



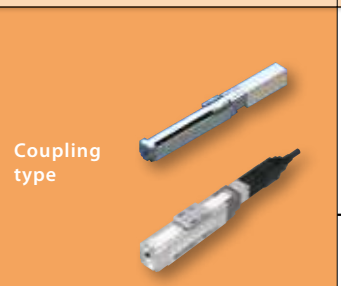
Micro Cylinder Slim type

Micro Slider Long Stroke Type single slider

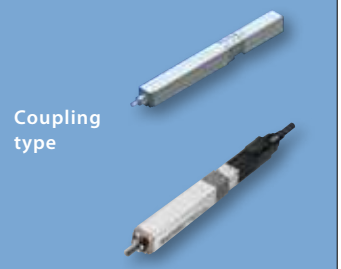
Specification Table

ROBO CYLINDER

Slider type

Type	Title / External view	Model: Series Name	Model: Type name	Encoder	Motor type: Type	Motor type: Size	Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg): Horizontal	Max. payload (kg): Vertical	Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages	
Motor Unit model	 Coupling type	RCP3	SA2AC	Incremental	Pulse motor	20□	Lead screw	4	—	0.25	—	200	25~100 (every 25)	±0.05	P.17	
								2	—	0.5	—	100				
								1	—	1	—	50				
			SA2BC					6	—	0.25	—	300	25~150 (every 25)		P.19	
								4	—	0.5	—	200				
								2	—	1	—	100				
		RCA2	SA2AC*		Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.25	* This model is unavailable.
								2	42.3	1	0.5	100				
								1	85.5	2	1	50				
	 Side-Mounted Motor type	RCP3	SA2AR		Pulse motor	20□	Lead screw	4	—	0.25	—	200	25~100 (every 25)	±0.05	P.21	
								2	—	0.5	—	100				
								1	—	1	—	50				
			SA2BR					6	—	0.25	—	300	25~150 (every 25)		P.23	
								4	—	0.5	—	200				
								2	—	1	—	100				
		RCA2	SA2AR*		Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.27	* This model is unavailable.
								2	42.3	1	0.5	100				
								1	85.5	2	1	50				

Mini Rod type

Type	Title / External view	Model: Series Name	Model: Type name	Encoder	Motor type: Type	Motor type: Size	Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg): Horizontal	Max. payload (kg): Vertical	Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages	
Motor Unit model	 Coupling type	RCP3	RA2AC	Incremental	Pulse motor	20□	Lead screw	4	—	0.25	0.125	200	25~100 (every 25)	±0.05	P.29	
								2	—	0.5	0.25	100				
								1	—	1	0.5	50				
							Ball screw	4	—	0.5	0.2	200		±0.02		
								2	—	1	0.375	100				
								1	—	2	0.75	50				
						20□ High thrust		4	—	1	0.325	200				
								2	—	2	0.625	100				
								1	—	4	1.25	50				
			RA2BC			20□	Lead screw	6	—	0.25	0.125	300	25~150 (every 25)	±0.05	P.31	
								4	—	0.5	0.25	200				
								2	—	1	0.5	100				
							Ball screw	6	—	0.5	0.2	300		±0.02		
								4	—	1	0.375	200				
								2	—	2	0.75	100				
								1	—	4	1.5	50				
						20□ High thrust		6	—	1	0.325	300				
								4	—	2	0.625	200				
								2	—	4	1.25	100				
								1	—	8	2.5	50				
		RCA2	RA2AC*		Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.37	* This model is unavailable.
								2	42.3	1	0.5	100				
								1	85.5	2	1	50				

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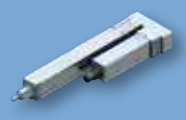
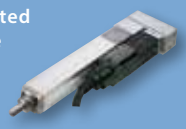
■Skillful use of the "Lead Screw" type

(1) Lead screws are suitable for uses with infrequent operations. (As a guide, this would be approximately 5 years, for 1 operation every 10 seconds, 24-hour use, 240 days a year.)
(2) Lead screws are suitable for uses with small payloads, light loads. (1kg or less)
(3) Use when repeated positioning accuracy of less than ±0.05mm is needed.
(4) Please set up in a location where maintenance will be easy.

Rod type

Type	Title / External view	Model: Series Name	Model: Type name	Encoder	Motor type: Type	Motor type: Size	Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg): Horizontal	Max. payload (kg): Vertical	Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages
Motor Unit model	Side-Mounted Motor type  	RCP3	RA2AR	Incremental	Pulse motor	20□	Lead screw	4	—	0.25	0.125	200	25~100 (every 25)	±0.05	P.33
								2	—	0.5	0.25	100			
								1	—	1	0.5	50			
							Ball screw	4	—	0.5	0.2	200		±0.02	
								2	—	1	0.375	100			
								1	—	2	0.75	50			
						20□ High thrust		4	—	1	0.325	200			
								2	—	2	0.625	100			
								1	—	4	1.25	50			
			RA2BR			20□	Lead screw	6	—	0.25	0.125	300	25~150 (every 25)	±0.05	P.35
								4	—	0.5	0.25	200			
								2	—	1	0.5	100			
							Ball screw	6	—	0.5	0.2	300		±0.02	
								4	—	1	0.375	200			
								2	—	2	0.75	100			
								1	—	4	1.5	50			
						20□ High thrust		6	—	1	0.325	300			
								4	—	2	0.625	200			
								2	—	4	1.25	100			
								1	—	8	2.5	50			
		RCA2	RA2AR*		Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.39
								2	42.3	1	0.5	100			
								1	85.5	2	1	50			
Short Length type	Fixed Nut type 	RCA2	RN3NA	Incremental	Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.41
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			RN4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.43
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	RN5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.45
								5	178	10	3	250			
								2.5	356	20	6	125			
	Tapped Hole type 	RCA2	RP3NA		Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.47
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			RP4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.49
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	RP5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.51
								5	178	10	3	250			
								2.5	356	20	6	125			

* This model is unavailable.

*The value inside < > indicates vertical usage.

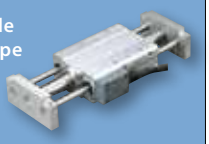
The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Continue to the next page

Specification Table

ROBO CYLINDER

Rod type

Type	Title / External view	Model		Encoder	Motor type		Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg)		Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages
		Series Name	Type name		Type	Size				Horizontal	Vertical				
Short Length type	Single-Guide type 	RCA2	GS3NA	Incremental	Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.53
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			GS4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.55
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	GS5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.57
								5	178	10	3	250			
								2.5	356	20	6	125			
	Double-Guide type 	RCA2	GD3NA		Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.59
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			GD4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.61
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	GD5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.63
								5	178	10	3	250			
								2.5	356	20	6	125			
	Double-Guide Slide Unit type 	RCA2	SD3NA		Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	25 50	±0.05	P.65
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			SD4NA			20W	Lead screw	6	19.9	0.25	0.125	300	25 50 75	±0.05	P.67
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	300		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	SD5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.69
								5	178	10	3	250			
								2.5	356	20	6	125			

*The value inside < > indicates vertical usage.

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■Skillful use of the "Lead Screw" type

(1) Lead screws are suitable for uses with infrequent operations. (As a guide, this would be approximately 5 years, for 1 operation every 10 seconds, 24-hour use, 240 days a year.)
(2) Lead screws are suitable for uses with small payloads, light loads. (1kg or less)
(3) Use when repeated positioning accuracy of less than ±0.05mm is needed.
(4) Please set up in a location where maintenance will be easy.

Table type

Type	Title / External view	Model: Series Name	Model: Type name	Encoder	Motor type: Type	Motor type: Size	Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg): Horizontal	Max. payload (kg): Vertical	Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages
Short Length type	Compact type 	RCA2	TCA3NA	Incremental	Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.71
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			TCA4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.73
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	TCA5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.75
								5	178	10	3	250			
								2.5	356	20	6	125			
	Wide type 	RCA2	TWA3NA		Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.77
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			TWA4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.79
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	TWA5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.81
								5	178	10	3	250			
								2.5	356	20	6	125			
	Flat type 	RCA2	TFA3NA		Servo motor (24V)	10W	Lead screw	4	25.1	0.25	0.125	200	30 50	±0.05	P.83
								2	50.3	0.5	0.25	100			
								1	100.5	1	0.5	50			
							Ball screw	4	42.7	0.75	0.25	200		±0.02	
								2	85.5	1.5	0.5	100			
								1	170.9	3	1	50			
			TFA4NA			20W	Lead screw	6	19.9	0.25	0.125	220	30 50	±0.05	P.85
								4	29.8	0.5	0.25	200			
								2	59.7	1	0.5	100			
							Ball screw	6	33.8	2	0.5	270(220)		±0.02	
								4	50.7	3	0.75	200			
								2	101.5	6	1.5	100			
		RCS2	TFA5N		Servo motor (200V)	60W	Ball screw	10	89	5	1.5	380(330)	50 75	±0.02	P.87
								5	178	10	3	250			
								2.5	356	20	6	125			

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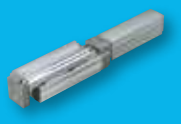
Specification Table

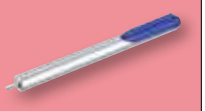
Table type

Type	Title / External view	Model: Series Name	Model: Type name	Encoder	Motor type: Type	Motor type: Size	Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg): Horizontal	Max. payload (kg): Vertical	Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages
Motor Unit model	Coupling type 	RCP3	TA3C	Incremental	Pulse motor	20□	Ball screw	6	-	~0.7	~0.3	300(200)	20~100 (every 10)	±0.02	P.89
								4	-	~1.4	~0.6	200(133)			
								2	-	~2	~1	100(67)			
			TA4C			28□		6	-	~1	~0.5	300			P.91
								4	-	~2	~1	200			
								2	-	~3	~1.5	100			
		RCA2	TA4C		Servo motor	10W		6	-	1	0.5	300			P.93
								4	-	2	1	200			
								2	-	3	1.5	100			
	Side-Mounted Motor type 	RCP3	TA3R		Pulse motor	20□		6	-	~0.7	~0.3	300(200)			P.95
								4	-	~1.4	~0.6	200(133)			
								2	-	~2	~1	100(67)			
			TA4R			28□		6	-	~1	~0.5	300			P.97
								4	-	~2	~1	200			
								2	-	~3	~1.5	100			
		RCA2	TA4R		Servo motor	10W		6	-	1	0.5	300			P.99
								4	-	2	1	200			
								2	-	3	1.5	100			

*The value inside < > indicates vertical usage.

Linear servo type

*RCL models are unavailable.

Type	Title / External view	Model: Series Name	Model: Type name	Encoder	Motor type: Type	Motor type: Size	Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg): Horizontal	Max. payload (kg): Vertical	Max.speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages
Micro Slider	Slim type 	RCL	SA1L	Incremental	Linear motor	2W	-	-	2	0.5	-	420	40	±0.1	P.101
			SA2L			5W		-	4	1	-	460	48		P.103
			SA3L			10W		-	8	2	-	600	64		P.105
	Long Stroke type 		SA4L			2W		-	2.5	0.8	-	1200	30~180 (every 30)		P.107
			SM4L					-					30~120 (every 30)		P.109
			SA5L			5W		-	5	1.6	-	1400	36~216 (every 36)		P.111
			SM5L					-					36~144 (every 36)		P.113
			SA6L			10W		-	10	3.2	-	1600	48~288 (every 48)		P.115
			SM6L					-					48~192 (every 48)		P.117
Micro Cylinder	Slim type 	RCL	RA1L			2W		-	2.5	0.5	0.1	300	25		P.119
			RA2L			5W		-	5	1	0.2	340	30		P.121
			RA3L			10W		-	10	2	0.4	450	40		P.123

*These models are not available

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Model Descriptions

ROBO CYLINDER

Models for each ROBO Cylinder series are designated by the items below.
See the explanations below for information on each item. The range of selections for each item (lead, stroke, etc.) varies by type, so refer to the page for each type for more information.

Explanation of Items

Series	–	Type	–	Encoder type	–	Motor type	–	Lead	–	Stroke	–	Compatible Controllers	–	Cable length	–	Option
①		②		③		④		⑤		⑥		⑦		⑧		⑨

①Series	This indicates the name of each series.
②Type	This indicates the shape (slider, rod, etc.), size (width 22mm, etc.) and motor connection method, etc.
③Encode type	This indicates whether the encoder installed in the actuator is an "absolute type" or an "incremental" type. * If the controller for the Simple Absolute type is used, use actuator encoder type "I" (incremental specification).
④Motor type	This shows the wattage of the motor installed in the actuator. Since the RCP3 Series uses a pulse motor, the motor size (20P=20□ motor) is shown instead of the wattage.
⑤Lead	This shows a feed screw lead (the distance the slider moves per revolution of the feed screw). Ball screws are shown in numerals only. Lead screws have an S after the number.
⑥Stroke	This indicates the stroke for the actuator (operating range). (Units are in mm)
⑦Conpatible Controllers	This indicates the controller types that can be connected. (The motor-encoder cable changes according to type of controller.)
⑧Cable length	This indicates the length of the motor-encoder cable connecting the actuator and controller.
⑨Option	This indicates the options that can be installed on the actuator. * If multiple options are selected, specify them in alphabetical order. (Example:A3-B-ML)

RCP3 – Series – Type – I Encoder type – Motor type – Lead – Stroke – Conpatible Controller – Cable length – Options

Type:

Mini Slider type	SA2AC	Motor unit Coupling type width 22mm	Mini Table type	TA3C	Motor unit Coupling type width 36mm
	SA2BC	Motor unit Coupling type width 28mm		TA4C	Motor unit Coupling type width 40mm
	SA2AR	Side-Mounted Motor type width 58mm		TA3R	Side-Mounted Motor type width 72mm
	SA2BR	Side-Mounted Motor type width 59.5mm		TA4R	Side-Mounted Motor type width 81mm
Mini Rod type	RA2AC	Motor unit Coupling type width 22mm			
	RA2BC	Motor unit Coupling type width 28mm			
	RA2AR	Side-Mounted Motor type width 58mm			
	RA2BR	Side-Mounted Motor type width 59.5mm			

Motor type:

20P	20□motor
20SP	20□high-thrust motor
28P	28□motor

Lead:

1	Ball screw 1mm
2	Ball screw 2mm
4	Ball screw 4mm
6	Ball screw 6mm
1S	Lead screw 1mm
2S	Lead screw 2mm
4S	Lead screw 4mm
6S	Lead screw 6mm

*Differs depending on type.

Stroke:

20	20mm
↓	↓
150	150mm

*Range differs according to type.

Conpatible Controller:

P3	PCON
	MSEL
P5	RCON
	RSEL

Cable length:

N	No cable
P	1m
S	3m
M	5m
X□□	Length designation

Options:

B	Brake
CJT	Cable exit direction (top)
CJR	Cable exit direction (right)
CJL	Cable exit direction (left)
CJO	Cable exit direction (outside)
CJB	Cable exit direction (bottom)
ML	Left-mounted motor
MR	Right-mounted motor
NM	Reverse-home specification

*Available items differ according to type.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Model Descriptions

RCA2 — Type — I — Motor type — Lead — Stroke — Conpatible Controller — Cable length — Options

Type

Mini Slider type

SA2AC	* This model is unavailable.
SA2AR	* This model is unavailable.

Mini Rod type

RA2AC	* This model is unavailable.
RA2AR	* This model is unavailable.
RN3NA	Short Length, Fixed Nut type width 28mm
RN4NA	Short Length, Fixed Nut type width 34mm
RP3NA	Short Length, Tapped Hole type width 28mm
RP4NA	Short Length, Tapped Hole type width 34mm
GS3NA	Short Length, Single-Guide Free Mount type width 28mm
GS4NA	Short Length, Single-Guide Free Mount type width 34mm
GD3NA	Short Length, Double-Guide Free Mount type width 28mm
GD4NA	Short Length, Double-Guide Free Mount type width 34mm
SD3NA	Short Length, Double-Guide Slide Unit type width 60mm
SD4NA	Short Length, Double-Guide Slide Unit type width 72mm

Mini Table type

TCA3NA	Short Length, Compact type width 32mm
TCA4NA	Short Length, Compact type width 36mm
TWA3NA	Short Length, Wide type width 50mm
TWA4NA	Short Length, Wide type width 58mm
TFA3NA	Short Length, Flat type width 61mm
TFA4NA	Short Length, Flat type width 71mm
TA4C	Motor Unit Coupling type width 40mm
TA4R	Side-mounted motor type width 81mm

Encoder type: I

Motor type

5	5W
10	10W
20	20W

Lead

1	Ball screw 1mm
2	Ball screw 2mm
4	Ball screw 4mm
6	Ball screw 6mm
1S	Lead screw 1mm
2S	Lead screw 2mm
4S	Lead screw 4mm
6S	Lead screw 6mm

*Differs depending on type.

Stroke

20	20mm
↓	↓
100	100mm

*Range differs according to type.

Conpatible Controller

A3	ACON-CYB/PLB/POB
A5	ACON -CB/CGB
A6	RCON
	RSEL

Cable length

N	No cable
P	1m
S	3m
M	5m
X□□	Length designation

Options

K2	Change direction for connector cable exit
B	Brake
CJT	Cable exit direction (top)
CJR	Cable exit direction (right)
CJL	Cable exit direction (left)
CJO	Cable exit direction (outside)
CJB	Cable exit direction (bottom)
LA	Power-saving specification
ML	Left-mounted motor
MR	Right-mounted motor
MT	Top-mounted motor
NM	Reverse-home specification

* Available items differ according to type.

RCS2 — Type — I — 60 — Lead — Stroke — T2 — Cable length — Options

Type

Small rod type

RN5N	Short Length, Fixed Nut type width 46 mm
RP5N	Short Length, Tapped Hole type width 46 mm
GS5N	Short Length, Single-Guide type width 46 mm
GD5N	Short Length, Double-Guide type width 46 mm
SD5N	Short Length, Double-Guide Slide Unit type width 94 mm

Small table type

TCA5N	Short Length, Compact type width 48 mm
TWA5N	Short Length, Wide type width 80 mm
TFA5N	Short Length, Flat type width 95 mm

Encoder type: I

Motor type: 60

60	60W

Lead

2.5	2.5 mm (Ball screw)
5	5 mm (Ball screw)
10	10 mm (Ball screw)

Stroke

50	50mm
75	75mm

Conpatible Controller: T2

T2	SCON
	SSEL
	XSEL-P/Q
	XSEL-RA/SA
T4	RCON
	RSEL

Cable length

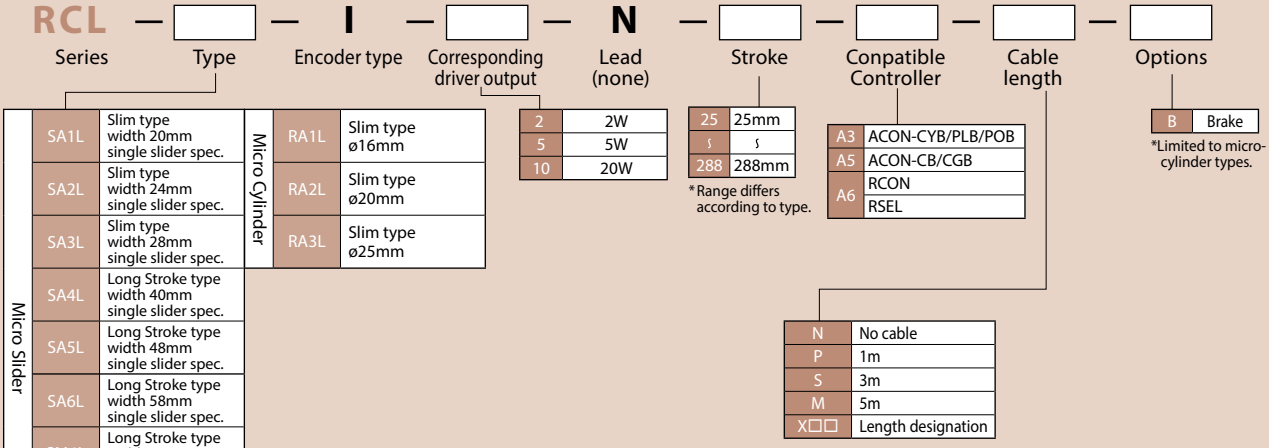
N	No cable
P	1m
S	3m
M	5m
X□□	Length designation
R□□	Robot cable

Options

K1	Connector cable exit from the left
K2	Connector cable exit from the front
K3	Connector cable exit from the right

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following RCL models are discontinued.



■Skillful use of the "Lead Screw" type

(1) Lead screws are suitable for uses with infrequent operations. (As a guide, this would be approximately 5 years, for 1 operation every 10 seconds, 24-hour use, 240 days a year.)
(2) Lead screws are suitable for uses with small payloads, light loads. (1kg or less)
(3) Use when repeated positioning accuracy of less than ±0.05mm is needed.
(4) Please set up in a location where maintenance will be easy.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-SA2AC

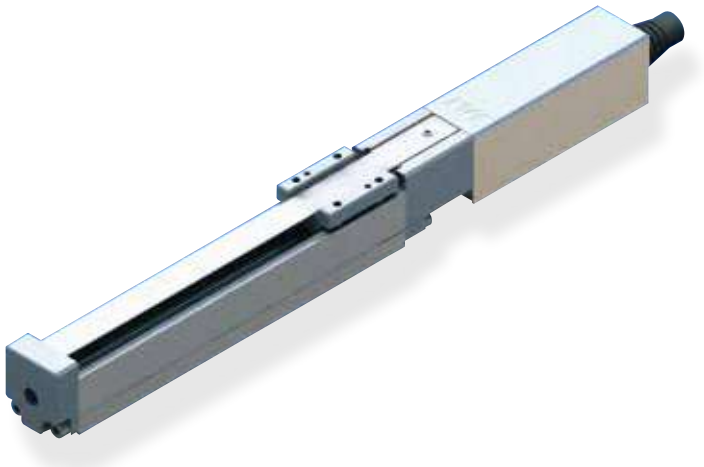
ROBO Cylinder Mini Slider Type Motor Unit Coupling Type Actuator Width 22mm Pulse Motor Lead Screw Specification

■ Model Description

RCP3 — SA2AC — I — 20P — □ — □ — □ — □ — □ — □

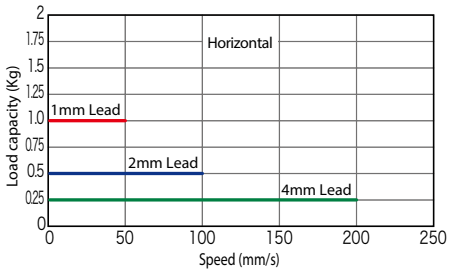
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	SA2AC	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse motor 20□size	4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	25: 25mm 〜 100: 100mm (every 25mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	NM: Reversed-home specification

* See page 14 for details on the model descriptions.



■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.



POINT Notes on selection

(1) The payload is the value when operated at 0.2G acceleration. The acceleration upper limit is the value indicated above.
(2) Cannot be used in the horizontal orientation with the slider facing to the side or in the vertical orientation.
(3) Service life decreases significantly if used in a dusty environment.

Actuator Specifications Table

■ Leads and Payloads

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Positioning repeatability (mm)	Stroke (mm)
RCP3-SA2AC-I-20P-4S-①-②-③-④	Lead screw	4	0.25	—	±0.05	25 to 100 (every 25mm)
RCP3-SA2AC-I-20P-2S-①-②-③-④		2	0.5	—		
RCP3-SA2AC-I-20P-1S-①-②-③-④		1	1	—		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Lead screw 4	180	200
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	

④ Options

Title	Option code
Reversed-home specification	NM

③ Cable Length

Type	Cable Symbol	P3	P5
Standard Type	P(1m)	✓	✓
	S(3m)	✓	✓
	M(5m)	✓	✓
Special Length	X06(6m) 〜 X10(10m)	✓	✓
	X11(11m) 〜 X15(15m)	✓	✓
	X16(16m) 〜 X20(20m)	✓	✓
Robot Cable	R01(1m) 〜 R03(3m)		✓
	R04(4m) 〜 R05(5m)		✓
	R06(6m) 〜 R10(10m)		✓
	R11(11m) 〜 R15(15m)		✓
	R16(16m) 〜 R20(20m)		✓

Note: The cables for P3 are robot cable as standard.

Actuator Specifications

Item	Description
Drive System	Lead screw, ø4mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40℃, 85% RH or less (Non-condensing)
Service life	10 million cycles

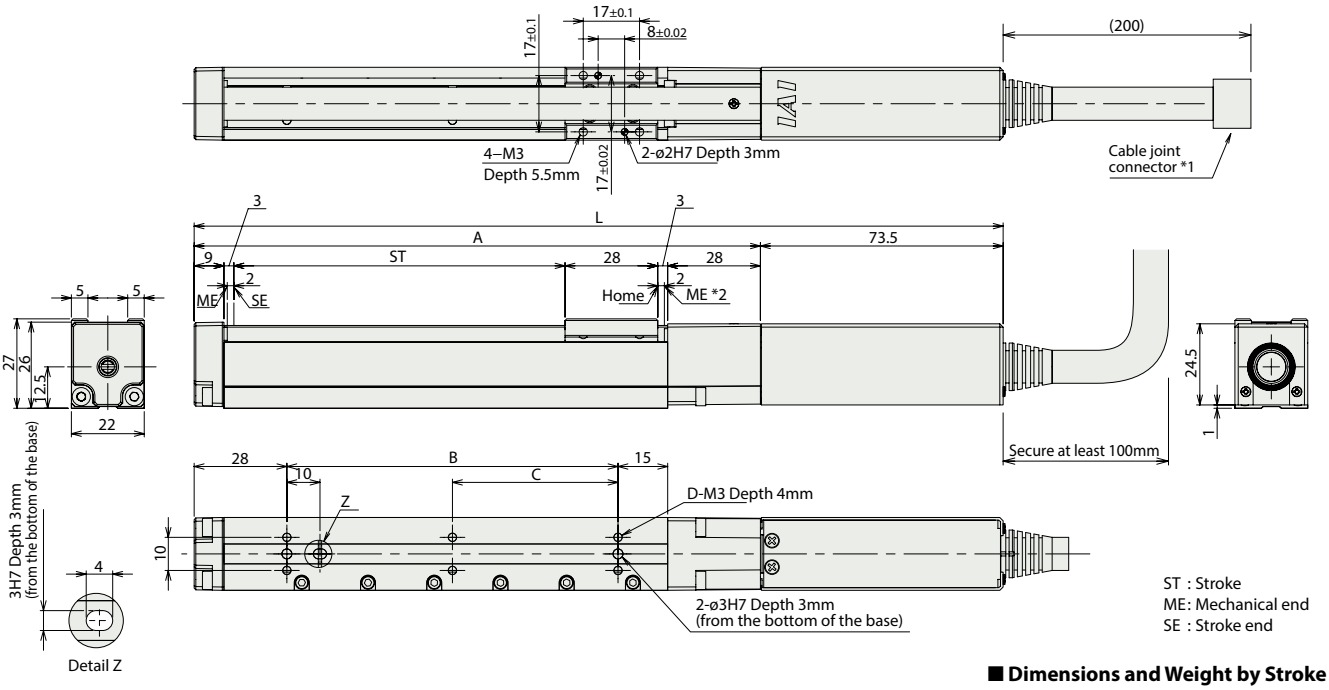
Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.



■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L	169.5	194.5	219.5	244.5
A	96	121	146	171
B	25	50	75	100
C	0	0	0	50
D	4	4	4	6
Mass (kg)	0.25	0.27	0.29	0.3

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-SA2BC

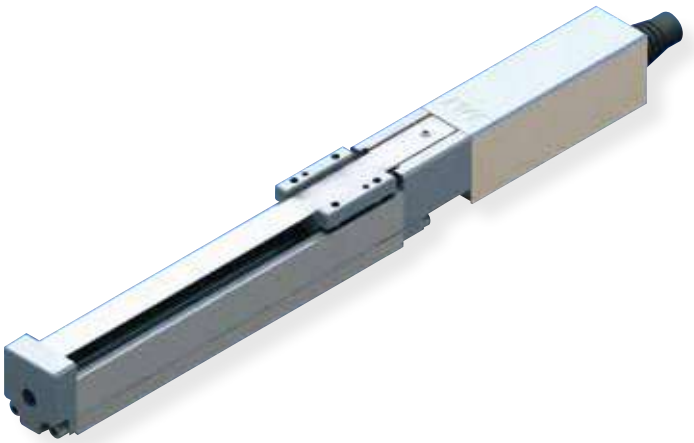
ROBO Cylinder Mini Slider Type Motor Unit Coupling Type Actuator Width 28mm Pulse Motor Lead Screw Specification

■ Model Description

RCP3 — SA2BC — I — 20P — □ — □ — □ — □ — □ — □

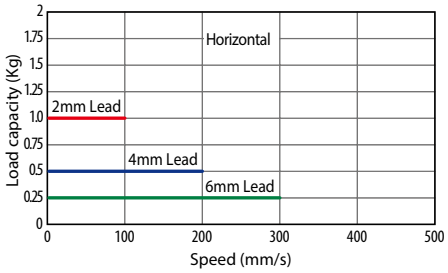
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	SA2BC	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse motor 20□size	6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	25: 25mm ⌇ 150: 150mm (every 25mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	NM: Reversed-home specification

* See page 14 for details on the model descriptions.



■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.



POINT Notes on selection

(1) The payload is the value when operated at 0.2G acceleration. The acceleration upper limit is the value indicated above.

(2) Cannot be used in the horizontal orientation with the slider facing to the side or in the vertical orientation.

(3) Service life decreases significantly if used in a dusty environment.

Actuator Specifications Table

■ Leads and Payloads

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Positioning repeatability (mm)	Stroke (mm)
RCP3-SA2BC-I-20P-6S-①-②-③-④	Lead screw	6	0.25	—	±0.05	25 to 150 (every 25mm)
RCP3-SA2BC-I-20P-4S-①-②-③-④		4	0.5	—		
RCP3-SA2BC-I-20P-2S-①-②-③-④		2	1	—		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)	75~150 (mm)
Lead screw 6	180	280	300
Lead screw 4	180	200	
Lead screw 2	100		

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	
125	
150	

④ Options

Title	Option code
Reversed-home specification	NM

③ Cable Length

Type	Cable Symbol	P3	P5
Standard Type	P(1m)	✓	✓
	S(3m)	✓	✓
	M(5m)	✓	✓
Special Length	X06(6m) ~ X10(10m)	✓	✓
	X11(11m) ~ X15(15m)	✓	✓
	X16(16m) ~ X20(20m)	✓	✓
Robot Cable	R01(1m) ~ R03(3m)		✓
	R04(4m) ~ R05(5m)		✓
	R06(6m) ~ R10(10m)		✓
	R11(11m) ~ R15(15m)		✓
	R16(16m) ~ R20(20m)		✓

Note: The cables for P3 are robot cable as standard.

Actuator Specifications

Item	Description
Drive System	Lead screw, ø6mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

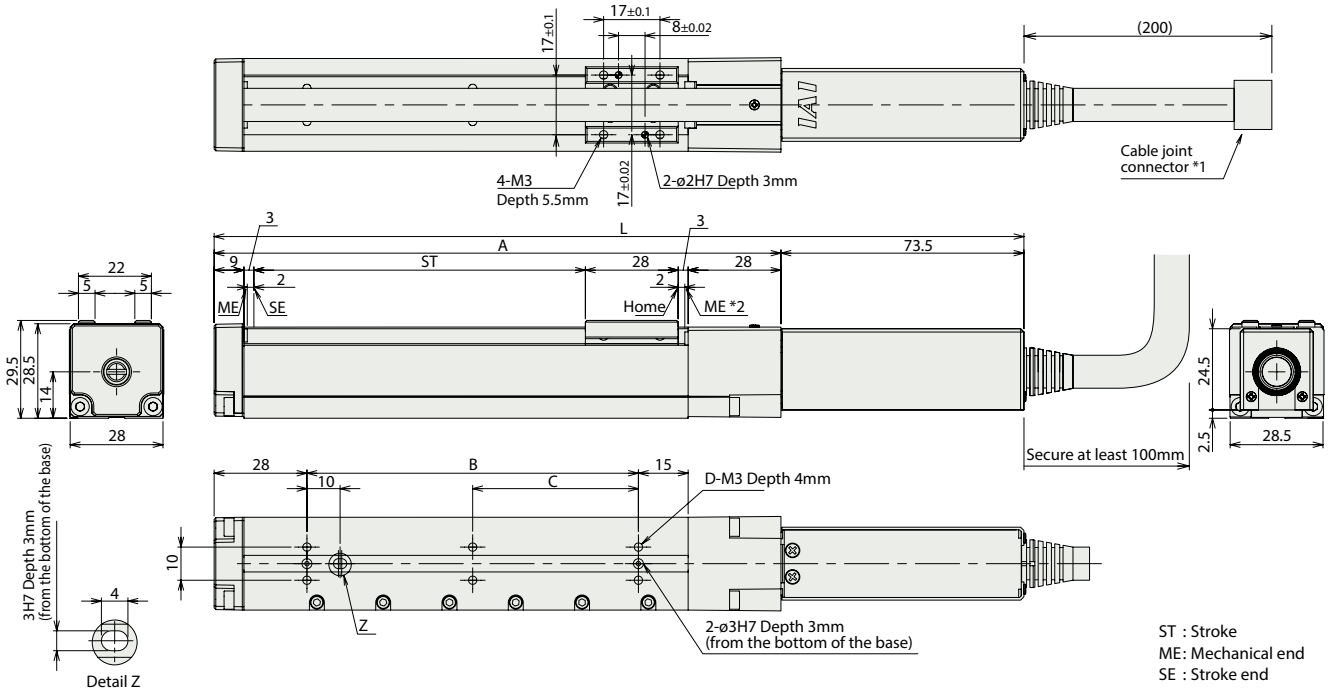
Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.



ST : Stroke
ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100	125	150
L	169.5	194.5	219.5	244.5	269.5	294.5
A	96	121	146	171	196	221
B	25	50	75	100	125	150
C	0	0	0	50	62.5	75
D	4	4	4	6	6	6
Mass (kg)	0.3	0.32	0.35	0.37	0.4	0.42

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-SA2AR

ROBO Cylinder Mini Slider Type Side-Mounted Motor Type Actuator Width 58mm Pulse Motor Lead Screw Specification

■ Model Description

RCP3 – SA2AR – I – 20P – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	SA2AR	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse motor 20□size	4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	25: 25mm 〜 100: 100mm (every 25mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	See options table below. * Be sure to specify which side the motor is to be mounted (ML/MR)

* See page 14 for details on the model descriptions.

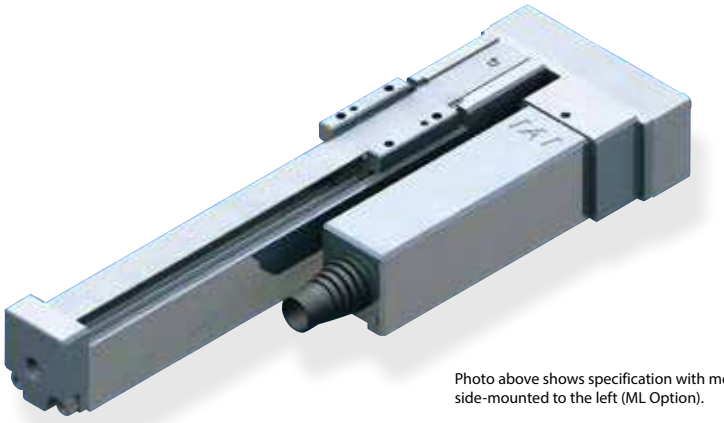
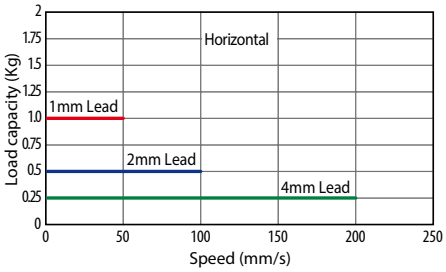


Photo above shows specification with motor side-mounted to the left (ML Option).

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.



POINT Notes on selection

(1) The payload is the value when operated at 0.2G acceleration. The acceleration upper limit is the value indicated above.
(2) Cannot be used in the horizontal orientation with the slider facing to the side or in the vertical orientation.
(3) Service life decreases significantly if used in a dusty environment.

Actuator Specifications Table

■ Leads and Payloads

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Positioning repeatability (mm)	Stroke (mm)
RCP3-SA2AR-I-20P-4S-①-②-③-④	Lead screw	4	0.25	—	±0.05	25 to 100 (every 25mm)
RCP3-SA2AR-I-20P-2S-①-②-③-④		2	0.5	—		
RCP3-SA2AR-I-20P-1S-①-②-③-④		1	1	—		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Lead screw 4	180	200
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	

④ Options

Title	Option code
Specification with motor side-mounted to the left	ML
Specification with motor side-mounted to the right	MR
Reversed-home specification	NM

③ Cable Length

Type	Cable Symbol	P3	P5
Standard Type	**P**(1m)	✓	✓
	S(3m)	✓	✓
	M(5m)	✓	✓
Special Length	**X06**(6m) 〜 **X10**(10m)	✓	✓
	X11(11m) 〜 **X15**(15m)	✓	✓
	X16(16m) 〜 **X20**(20m)	✓	✓
Robot Cable	**R01**(1m) 〜 **R03**(3m)		✓
	R04(4m) 〜 **R05**(5m)		✓
	R06(6m) 〜 **R10**(10m)		✓
	R11(11m) 〜 **R15**(15m)		✓
	R16(16m) 〜 **R20**(20m)		✓

Note: The cables for P3 are robot cable as standard.

Actuator Specifications

Item	Description
Drive System	Lead screw, ø4mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

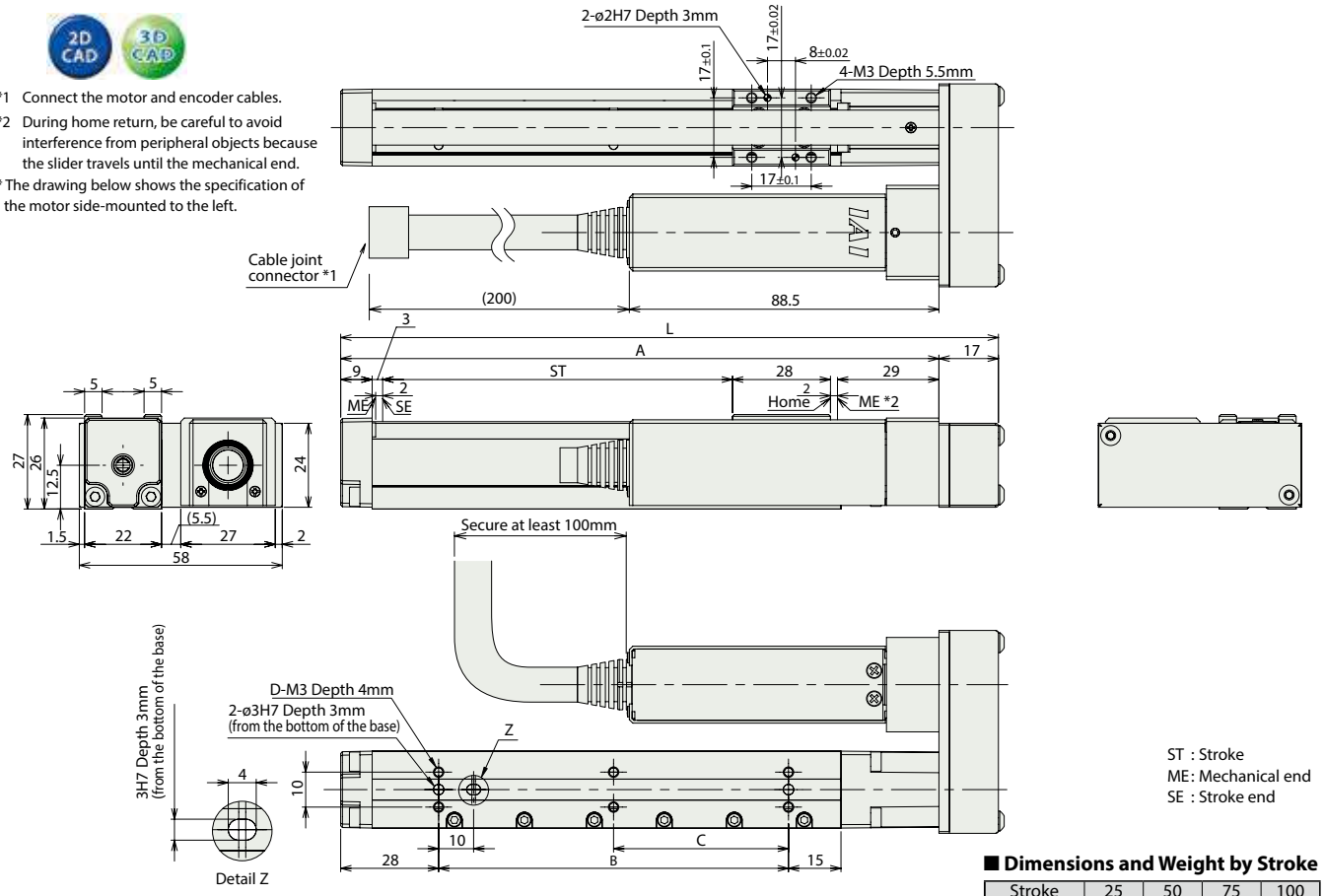
CAD drawings can be downloaded from the website. www.intelligentactuator.com

2D CAD 3D CAD

*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.

* The drawing below shows the specification of the motor side-mounted to the left.



ST : Stroke
ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L	113	138	163	188
A	96	121	146	171
B	25	50	75	100
C	0	0	0	50
D	4	4	4	6
Mass (kg)	0.28	0.3	0.32	0.33

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-SA2BR

ROBO Cylinder Mini Slider Type Side-Mounted Motor Type Actuator Width 59.5mm Pulse Motor Lead Screw Specification

■ Model Description

RCP3 – SA2BR – I – 20P – [ ] – [ ] – [ ] – [ ] – [ ] – [ ]

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	SA2BR	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse motor 20□size	6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	25: 25mm ⌇ 150: 150mm (every 25mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	See options table below. * Be sure to specify which side the motor is to be mounted (ML/MR).

* See page 14 for details on the model descriptions.

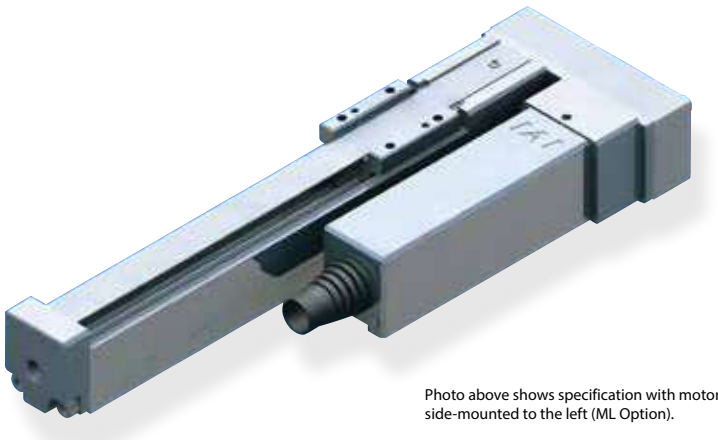
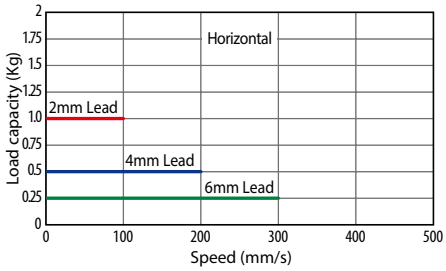


Photo above shows specification with motor side-mounted to the left (ML Option).

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.



POINT Notes on selection

(1) The payload is the value when operated at 0.2G acceleration. The acceleration upper limit is the value indicated above.
(2) Cannot be used in the horizontal orientation with the slider facing to the side or in the vertical orientation.
(3) Service life decreases significantly if used in a dusty environment.

Actuator Specifications Table

■ Leads and Payloads

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Positioning repeatability (mm)	Stroke (mm)
RCP3-SA2BR-I-20P-6S-①-②-③-④	Lead screw	6	0.25	—	±0.05	25 to 150 (every 25mm)
RCP3-SA2BR-I-20P-4S-①-②-③-④		4	0.5	—		
RCP3-SA2BR-I-20P-2S-①-②-③-④		2	1	—		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50 (mm)	75~150 (mm)
Lead screw 6	180	280	300
Lead screw 4	180	200	
Lead screw 2	100		

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	
125	
150	

③ Options

Title	Option code
Specification with motor side-mounted to the left	ML
Specification with motor side-mounted to the right	MR
Reversed-home specification	NM

③ Cable Length

Type	Cable Symbol	P3	P5
Standard Type	P(1m)	✓	✓
	S(3m)	✓	✓
	M(5m)	✓	✓
Special Length	X06(6m) ~ X10(10m)	✓	✓
	X11(11m) ~ X15(15m)	✓	✓
	X16(16m) ~ X20(20m)	✓	✓
Robot Cable	R01(1m) ~ R03(3m)		✓
	R04(4m) ~ R05(5m)		✓
	R06(6m) ~ R10(10m)		✓
	R11(11m) ~ R15(15m)		✓
	R16(16m) ~ R20(20m)		✓

Note: The cables for P3 are robot cable as standard.

Actuator Specifications

Item	Description
Drive System	Lead screw, ø6mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

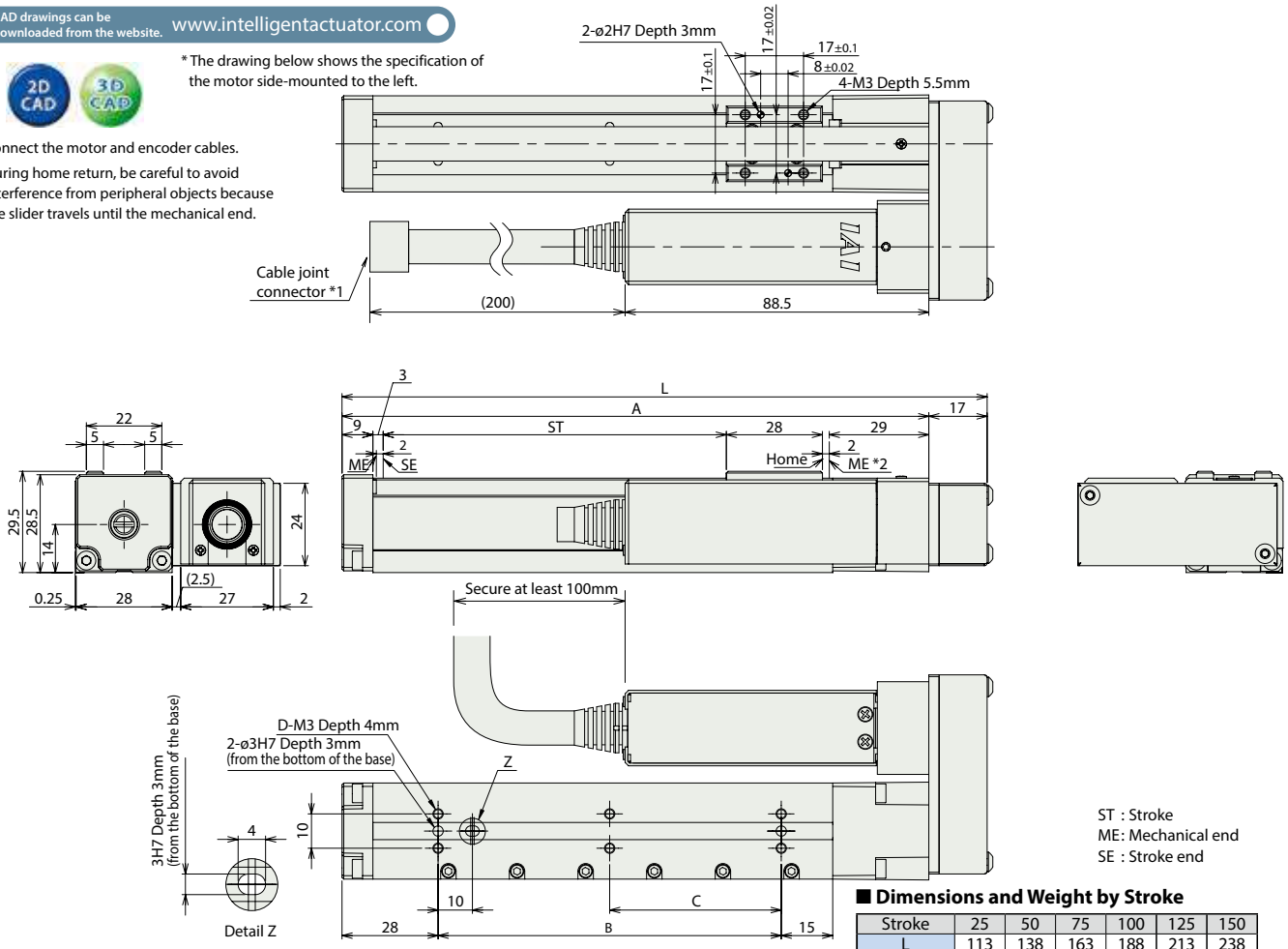
CAD drawings can be downloaded from the website. www.intelligentactuator.com

2D CAD 3D CAD

* The drawing below shows the specification of the motor side-mounted to the left.

*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.



ST : Stroke
ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100	125	150
L	113	138	163	188	213	238
A	96	121	146	171	196	221
B	25	50	75	100	125	150
C	0	0	0	50	62.5	75
D	4	4	4	6	6	6
Mass (kg)	0.32	0.34	0.37	0.39	0.42	0.46

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-SA2AC

ROBO Cylinder Mini Slider Type Motor Unit Coupling Type Actuator Width 20mm 24V Servo Motor Ball Screw Specification

■ Model Description

RCA2 – SA2AC – I – 5 – □ – □ – A3 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	SA2AC	I: Incremental specification * Model number is "I" when used with simple absolute unit.	5: Servo motor 5W	4: 4mm 2: 2mm 1: 1mm	25: 25mm 〜 100: 100mm (every 25mm)	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	See options table below.

* See page 14 for details on the model descriptions.

POINT Notes on selection

(1) The payload is the value when operated at 0.2G acceleration. The acceleration upper limit is the value indicated above.
(2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-SA2AC-I-5-4-①-A3-②-③	5	Ball screw	4	0.5	0.25	21.4	±0.02	25 to 100 (every 25mm)
RCA2-SA2AC-I-5-2-①-A3-②-③			2	1	0.5	42.3		
RCA2-SA2AC-I-5-1-①-A3-②-③			1	2	1	85.5		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Ball screw 4	180	200
Ball screw 2	100	
Ball screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	

② Cable Length

Type	Cable symbol	
Standard type (Robot cable)	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard.

③ Options

Title	Option code
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Guide	Linear guide
Dynamic allowable moment	Ma:0.22N•m, Mb:0.31N•m, Mc:0.28N•m
Allowable overhang	40mm or less in Ma, Mb and Mc directions
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000km

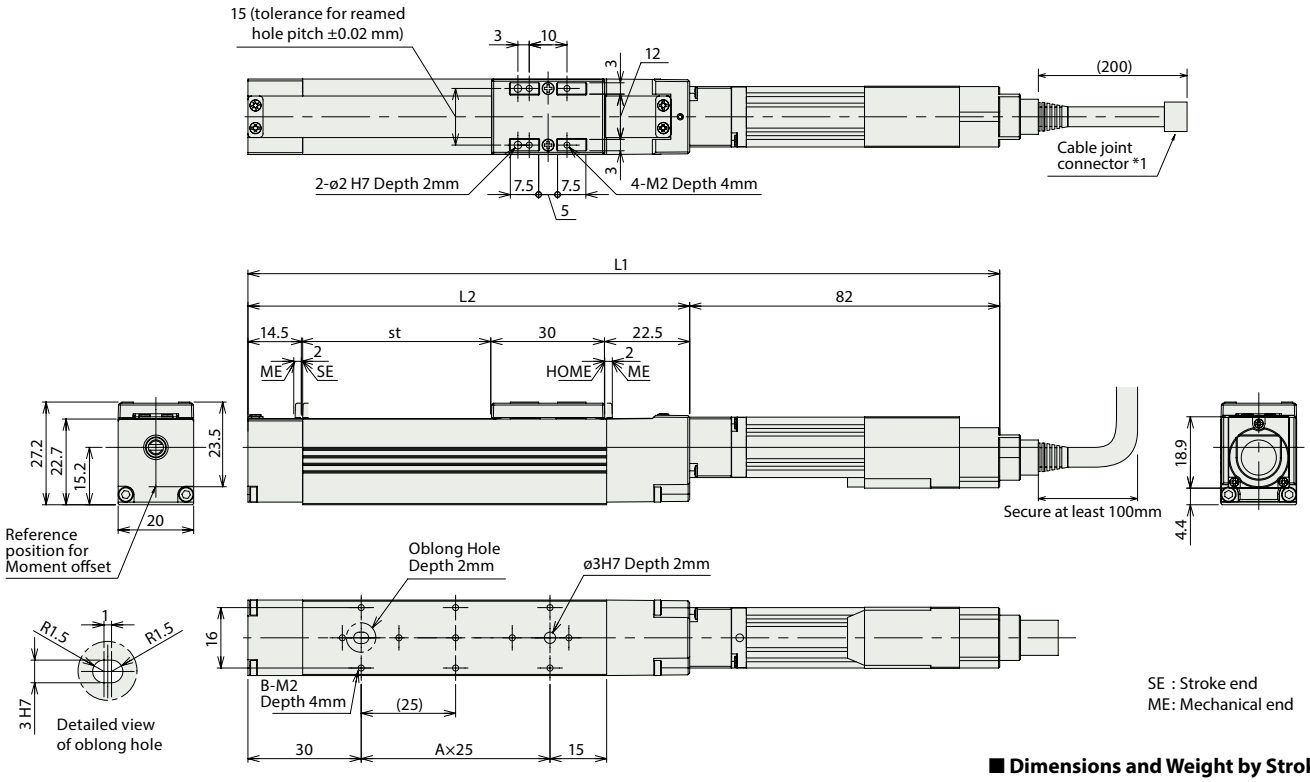
Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.



■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L1	174	199	224	249
L2	92	117	142	167
A	1	2	3	4
B	4	6	8	10
Mass (kg)	0.2	0.22	0.23	0.25

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for successor product.

RCA2-SA2AR

ROBO Cylinder Mini Slider Type Side-Mounted Motor Type Actuator Width 41mm 24V Servo Motor Ball Screw Specification

■ Model Description

RCA2 – SA2AR – I – 5 – □ – □ – A3 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	5: Servo motor 5W	4: 4mm 2: 2mm 1: 1mm	25: 25mm 〜 100: 100mm (every 25mm)	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	See options table below. * Be sure to specify which side the motor is to be mounted (ML/MR).

* See page 14 for details on the model descriptions.

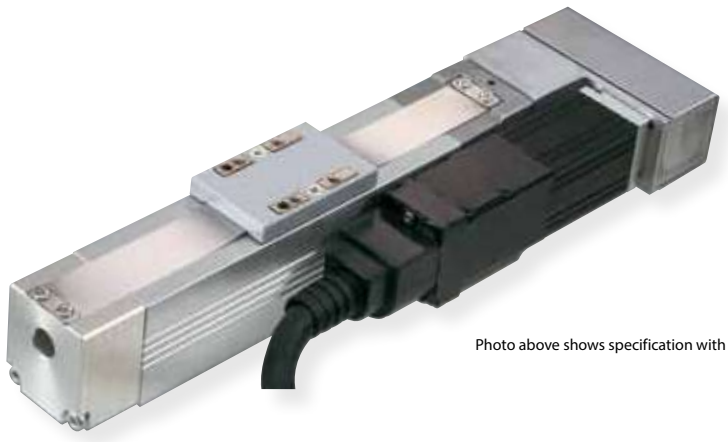


Photo above shows specification with motor side-mounted to the left (ML Option).

POINT Notes on selection

(1) The payload is the value when operated at 0.2G acceleration. The acceleration upper limit is the value indicated above.
(2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-SA2AR-I-5-4-①-A3-②-③	5	Ball screw	4	0.5	0.25	21.4	±0.02	25 to 100 (every 25mm)
RCA2-SA2AR-I-5-2-①-A3-②-③			2	1	0.5	42.3		
RCA2-SA2AR-I-5-1-①-A3-②-③			1	2	1	85.5		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Ball screw 4	180	200
Ball screw 2	100	
Ball screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	

② Cable Length

Type	Cable symbol	
Standard type (Robot cable)	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard.

③ Options

Title	Option code
Reversed-home specification	**NM**
Motor side mounted to the right	**MR**
Motor side mounted to the left	**ML**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Guide	Linear guide
Dynamic allowable moment	Ma:0.22N•m, Mb:0.31N•m, Mc:0.28N•m
Allowable overhang	40mm or less in Ma, Mb and Mc directions
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000km

Dimensional Drawings

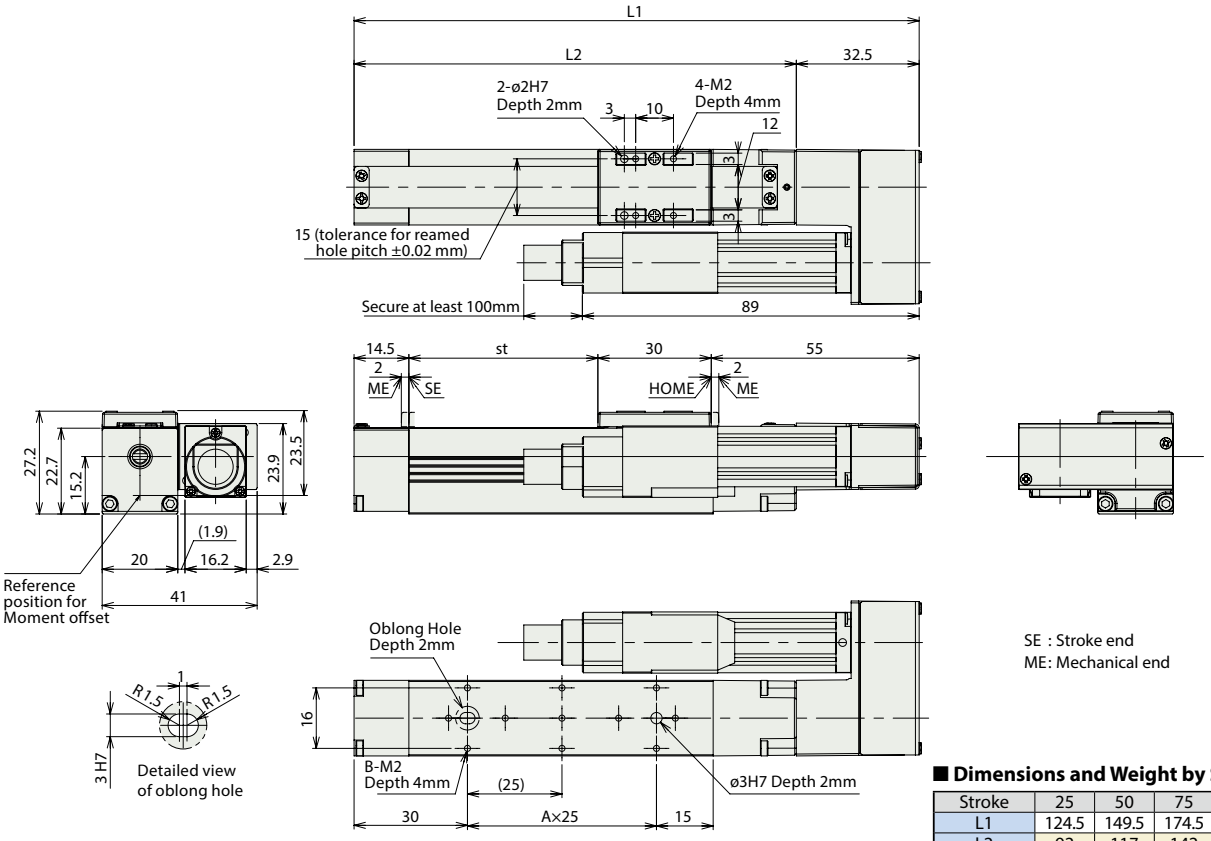
CAD drawings can be downloaded from the website. www.intelligentactuator.com

2D CAD 3D CAD

*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.

*The drawing below shows the specification of the motor side-mounted to the left.



SE : Stroke end
ME: Mechanical end

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L1	124.5	149.5	174.5	199.5
L2	92	117	142	167
A	1	2	3	4
B	4	6	8	10
Mass (kg)	0.23	0.25	0.26	0.28

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-RA2AC

ROBO Cylinder Mini Rod type Motor Unit Coupling type Actuator Width 22mm Pulse Motor
Ball Screw Specification /Lead Screw Specification

■ Model Description

RCP3 — RA2AC — I — ☐ — ☐ — ☐ — ☐ — ☐ — ☐ — ☐

Series: RCP3

Type: RA2AC

Encoder type: I: Incremental specification
* Model number is "I" when used with simple absolute unit.

Motor type: 20P: Pulse Motor 20☐ size Standard type
20SP: Pulse Motor 20☐ size High-thrust type

Lead: 4: Ball screw 4mm
2: Ball screw 2mm
1: Ball screw 1mm
4S: Lead screw 4mm
2S: Lead screw 2mm
1S: Lead screw 1mm

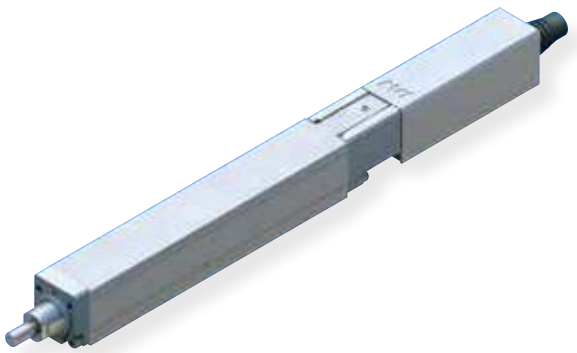
Stroke: 25: 25mm
⌇
100: 100mm
(every 25mm)

Compatible controllers: P3: PCON
MSEL
P5: RCON
RSEL

Cable length: N: None
P: 1m
S: 3m
M: 5m
X☐☐: Len. desig.
R☐☐: Robot cable

Option: B: Brake
NM: Reversed-home specification

* See page 14 for details on the model descriptions.



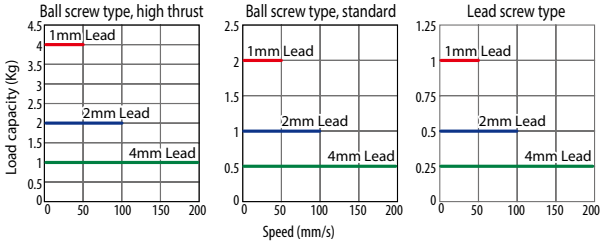
POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.
(2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
(3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.
(4) Service life decreases significantly if used in a dusty environment.

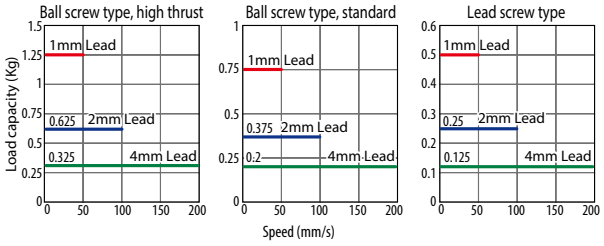
■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.

Horizontal



Vertical



Actuator Specifications Table

■ Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-RA2AC-I-20SP-4-①-②-③-④	High thrust	Ball screw	4	1	0.325	See page 126.	±0.02	25 to 100 (every 25mm)
RCP3-RA2AC-I-20SP-2-①-②-③-④			2	2	0.625			
RCP3-RA2AC-I-20SP-1-①-②-③-④			1	4	1.25			
RCP3-RA2AC-I-20P-4-①-②-③-④	Standard		4	0.5	0.2			
RCP3-RA2AC-I-20P-2-①-②-③-④			2	1	0.375			
RCP3-RA2AC-I-20P-1-①-②-③-④			1	2	0.75			
RCP3-RA2AC-I-20P-4S-①-②-③-④	Standard	Lead screw	4	0.25	0.125		±0.05	
RCP3-RA2AC-I-20P-2S-①-②-③-④			2	0.5	0.25			
RCP3-RA2AC-I-20P-1S-①-②-③-④			1	1	0.5			

Legend ① Stroke ② Compatible controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Ball screw 4	180	200
Ball screw 2	100	
Ball screw 1	50	
Lead screw 4	180	200
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price: Feed screw: Ball screw: High thrust type	Standard price: Feed screw: Ball screw: Standard type	Standard price: Feed screw: Lead screw
25	—	—	—
50	—	—	—
75	—	—	—
100	—	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

Title	Option code
Brake	**B**
Reversed-home specification	**NM**

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less/Lead screw: 0.3mm or less (default value)
Base		Material: Aluminum, white alumite treated
Guide		Slide guide
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal: 10 million cycles Vertical: 5 million cycles

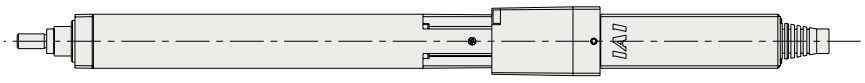
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

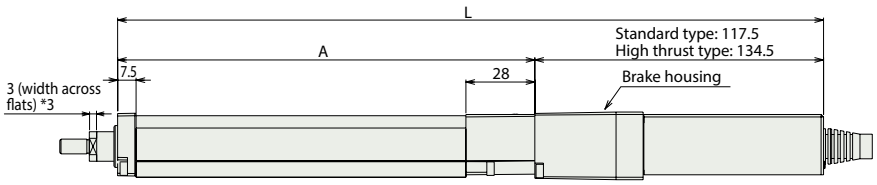
CAD drawings can be downloaded from the website. www.intelligentactuator.com

2D CAD 3D CAD

(Brake-equipped)

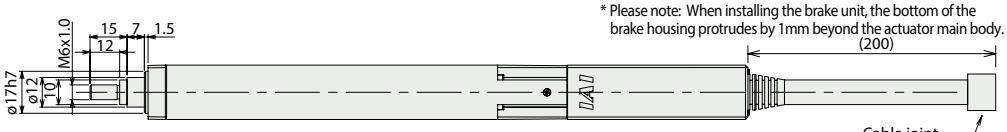


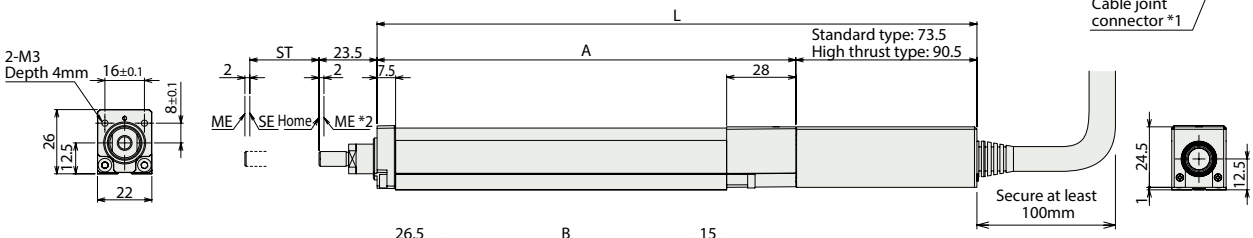
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.

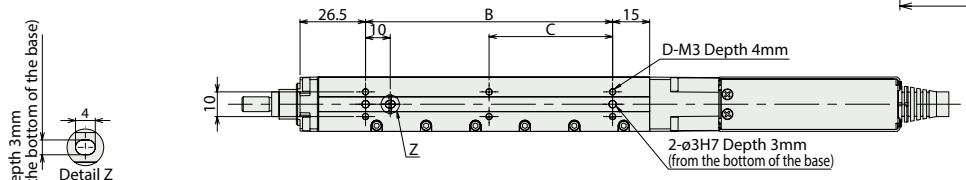


* Please note: When installing the brake unit, the bottom of the brake housing protrudes by 1mm beyond the actuator main body.

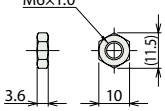
(No brake)







Dimensions of nut at tip of rod



ST : Stroke
ME: Mechanical end
SE : Stroke end

* Brake equipped models are 0.1kg heavier.

■ Dimensions and Weight by Stroke

Stroke			25	50	75	100
L	Standard type	No brake	168	193	218	243
		Brake-equipped	212	237	262	287
	High thrust type	No brake	185	210	235	260
		Brake-equipped	229	254	279	304
A			94.5	119.5	144.5	169.5
B			25	50	75	100
C			0	0	0	50
D			4	4	4	6
Mass (kg)			0.31	0.33	0.36	0.37

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-RA2BC

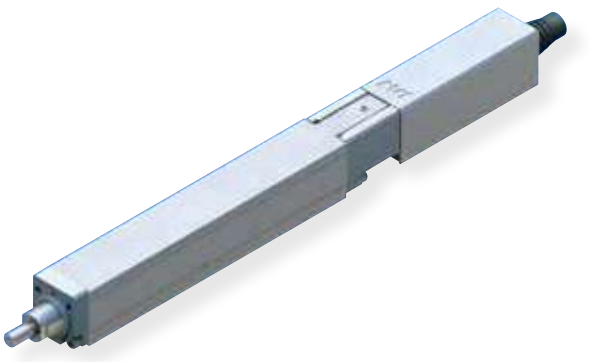
ROBO Cylinder Mini Rod type Motor Unit Coupling type Actuator Width 28mm Pulse Motor
Ball Screw Specification /Lead Screw Specification

■ Model Description

RCP3 — RA2BC — I — ☐ — ☐ — ☐ — ☐ — ☐ — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	RA2BC	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse Motor 20□ size Standard type 20SP: Pulse Motor 20□ size High-thrust type	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	25: 25mm ⌇ 150: 150mm (every 25mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1m S: 3m M: 5m X□□: Len. desig. R□□: Robot cable	B: Brake NM: Reversed-home specification

* See page 14 for details on the model descriptions.



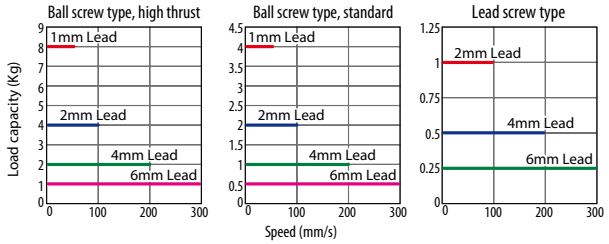
POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.
(2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
(3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.
(4) Service life decreases significantly if used in a dusty environment.

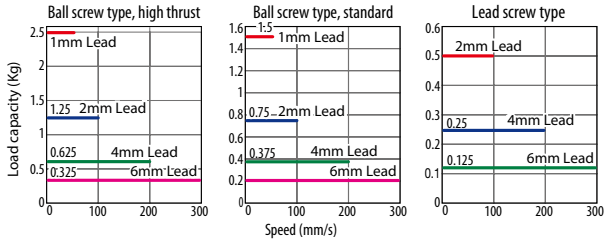
■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.

Horizontal



Vertical



Actuator Specifications Table

■ Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-RA2BC-I-20SP-6-①-②-③-④	High thrust	Ball screw	6	1	0.325	See page 126.	±0.02	25 to 150 (every 25mm)
RCP3-RA2BC-I-20SP-4-①-②-③-④			4	2	0.625			
RCP3-RA2BC-I-20SP-2-①-②-③-④			2	4	1.25			
RCP3-RA2BC-I-20SP-1-①-②-③-④			1	8	2.5			
RCP3-RA2BC-I-20P-6-①-②-③-④	Standard		6	0.5	0.2			
RCP3-RA2BC-I-20P-4-①-②-③-④			4	1	0.375			
RCP3-RA2BC-I-20P-2-①-②-③-④			2	2	0.75			
RCP3-RA2BC-I-20P-1-①-②-③-④			1	4	1.5			
RCP3-RA2BC-I-20P-6S-①-②-③-④	Standard	Lead screw	6	0.25	0.125		±0.05	
RCP3-RA2BC-I-20P-4S-①-②-③-④			4	0.5	0.25			
RCP3-RA2BC-I-20P-2S-①-②-③-④			2	1	0.5			

Legend ① Stroke ② Compatible controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)	75~150 (mm)
Ball screw 6	180	280	300
Ball screw 4	180	200	
Ball screw 2	100		
Ball screw 1	50		
Lead screw 6	180	280	300
Lead screw 4	180	200	
Lead screw 2	100		

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price: Feed screw: Ball screw: High thrust type	Standard price: Feed screw: Ball screw: Standard type	Standard price: Feed screw: Lead screw
25	—	—	—
50	—	—	—
75	—	—	—
100	—	—	—
125	—	—	—
150	—	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

Title	Option code
Brake	**B**
Reversed-home specification	**NM**

Actuator Specifications

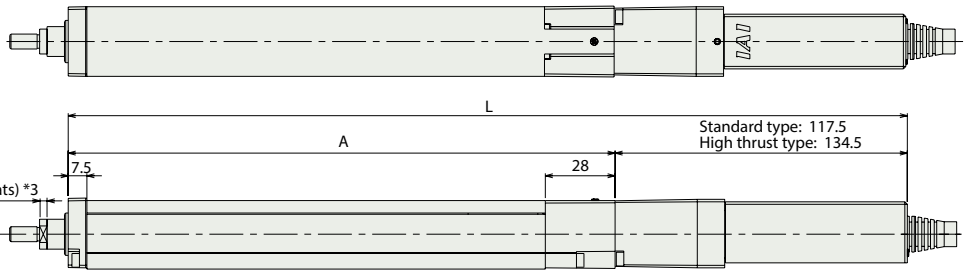
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1mm or less/Lead screw: 0.3mm or less (default value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life: Lead screw specification	Horizontal: 5 million cycles Vertical: 10 million cycles

The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

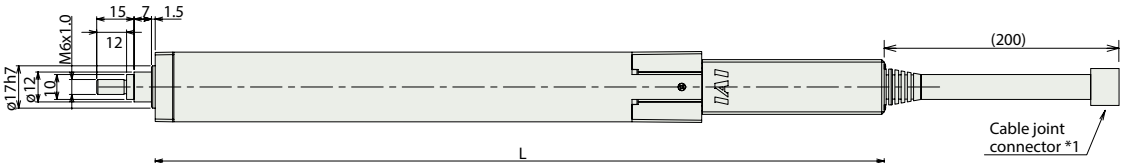
CAD drawings can be downloaded from the website. www.intelligentactuator.com

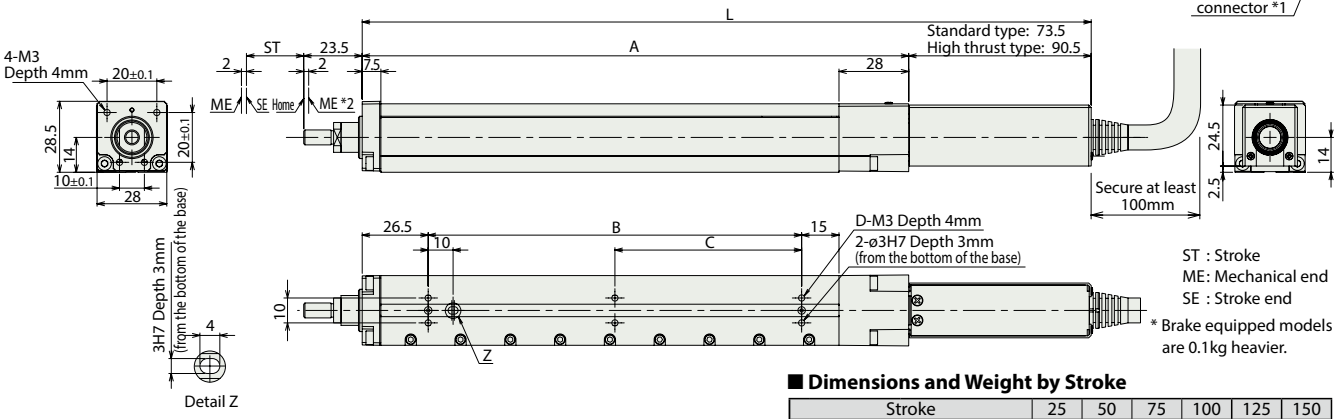
(Brake-equipped)



*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.

(No brake)

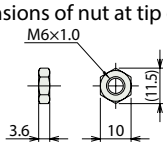




ST : Stroke
ME: Mechanical end
SE : Stroke end

* Brake equipped models are 0.1kg heavier.

Dimensions of nut at tip of rod



■ Dimensions and Weight by Stroke

Stroke			25	50	75	100	125	150
L	Standard type	No brake	168	193	218	243	268	293
		Brake-equipped	212	237	262	287	312	337
	High thrust type	No brake	185	210	235	260	285	310
		Brake-equipped	229	254	279	304	329	354
A			94.5	119.5	144.5	169.5	194.5	219.5
B			25	50	75	100	125	150
C			0	0	0	50	62.5	75
D			4	4	4	6	6	6
Mass (kg)			0.36	0.39	0.42	0.45	0.48	0.51

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-RA2AR

ROBO Cylinder Mini Rod type Side-Mounted Motor type Actuator Width 58mm Pulse Motor
Ball Screw Specification /Lead Screw Specification

■ Model Description

RCP3 — RA2AR — I — ☐ — ☐ — ☐ — ☐ — ☐ — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse Motor 20□ size Standard type 20SP: Pulse Motor 20□ size High-thrust type	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	25: 25mm 〜 100: 100mm (every 25mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1m S: 3m M: 5m X□□: Len. desig. R□□: Robot cable	See options table below. *Be sure to specify which side the motor is to be mounted (ML/MR).

* See page 14 for details on the model descriptions.

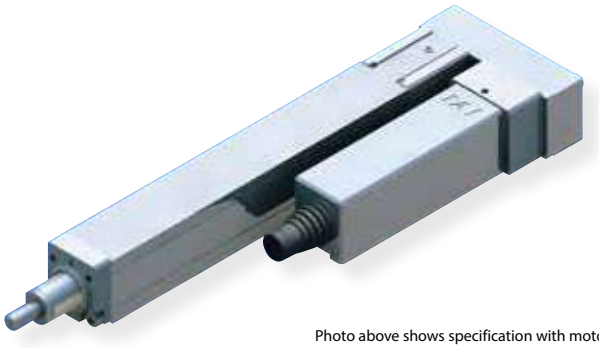


Photo above shows specification with motor side-mounted to the left (ML Option).

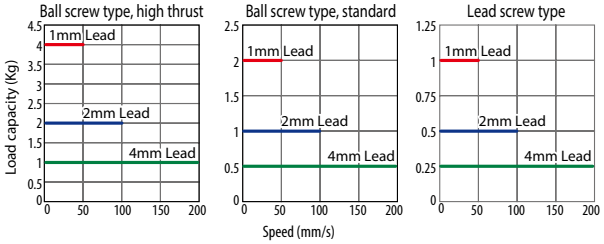
POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.
(2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
(3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.
(4) Service life decreases significantly if used in a dusty environment.

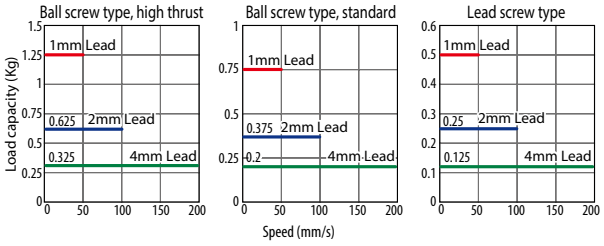
■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.

Horizontal



Vertical



Actuator Specifications Table

■ Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-RA2AR-I-20SP-4-①-②-③-④	High thrust	Ball screw	4	1	0.325	See page 126.	±0.02	25 to 100 (every 25mm)
RCP3-RA2AR-I-20SP-2-①-②-③-④			2	2	0.625			
RCP3-RA2AR-I-20SP-1-①-②-③-④			1	4	1.25			
RCP3-RA2AR-I-20P-4-①-②-③-④	Standard		4	0.5	0.2			
RCP3-RA2AR-I-20P-2-①-②-③-④			2	1	0.375			
RCP3-RA2AR-I-20P-1-①-②-③-④			1	2	0.75			
RCP3-RA2AR-I-20P-4S-①-②-③-④	Standard	Lead screw	4	0.25	0.125		±0.05	
RCP3-RA2AR-I-20P-2S-①-②-③-④			2	0.5	0.25			
RCP3-RA2AR-I-20P-1S-①-②-③-④			1	1	0.5			

Legend ① Stroke ② Compatible controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Ball screw 4	180	200
Ball screw 2	100	
Ball screw 1	50	
Lead screw 4	180	200
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price		
	Feed screw		
	Ball screw		Lead screw
	High thrust type	Standard type	
25	—	—	—
50	—	—	—
75	—	—	—
100	—	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

Title	Option code
Brake	**B**
Side-mounted motor to the left (standard)	**ML**
Side-mounted motor to the right	**MR**
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1mm or less/Lead screw: 0.3mm or less (default value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life (Lead screw specification)	Horizontal: 10 million cycles Vertical: 5 million cycles

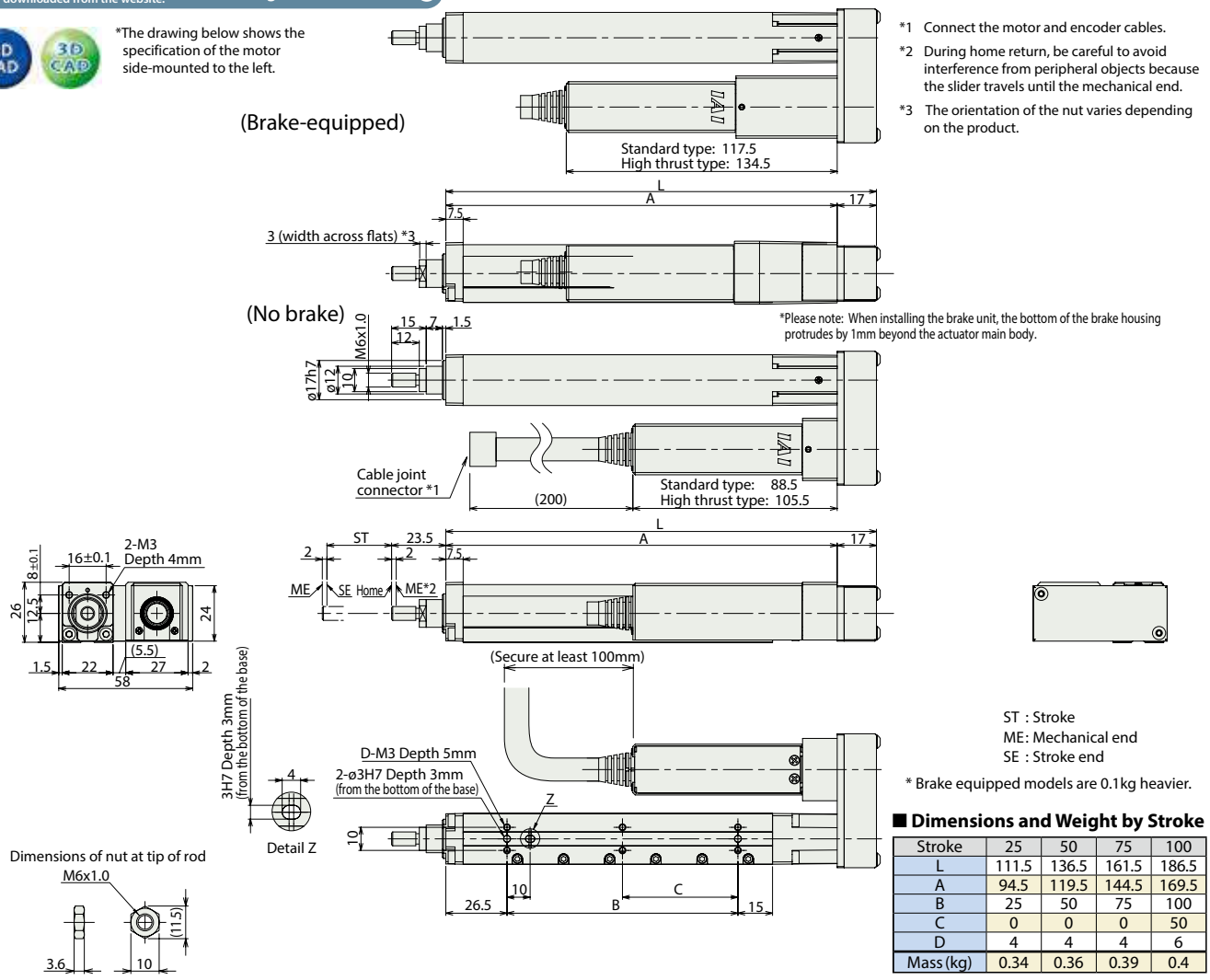
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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

2D CAD 3D CAD

*The drawing below shows the specification of the motor side-mounted to the left.



*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.

*3 The orientation of the nut varies depending on the product.

ST : Stroke
ME: Mechanical end
SE : Stroke end

* Brake equipped models are 0.1kg heavier.

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L	111.5	136.5	161.5	186.5
A	94.5	119.5	144.5	169.5
B	25	50	75	100
C	0	0	0	50
D	4	4	4	6
Mass (kg)	0.34	0.36	0.39	0.4

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-RA2BR

ROBO Cylinder Mini Rod type Side-Mounted Motor type Actuator Width 59.5mm Pulse Motor
Ball Screw Specification /Lead Screw Specification

■ Model Description

RCP3 — RA2BR — I — ☐ — ☐ — ☐ — ☐ — ☐ — ☐ — ☐

Series: RCP3

Type: RA2BR

Encoder type: I: Incremental specification. * Model number is "I" when used with simple absolute unit.

Motor type: 20P: Pulse Motor 20☐ size Standard type; 20SP: Pulse Motor 20☐ size High-thrust type

Lead: 6: Ball screw 6mm; 4: Ball screw 4mm; 2: Ball screw 2mm; 1: Ball screw 1mm; 6S: Lead screw 6mm; 4S: Lead screw 4mm; 2S: Lead screw 2mm

Stroke: 25: 25mm ~ 150: 150mm (every 25mm)

Compatible controllers: P3: PCON MSEL; P5: RCON RSEL

Cable length: N: None; P: 1m; S: 3m; M: 5m; X☐☐: Len. desig.; R☐☐: Robot cable

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

* See page 14 for details on the model descriptions.

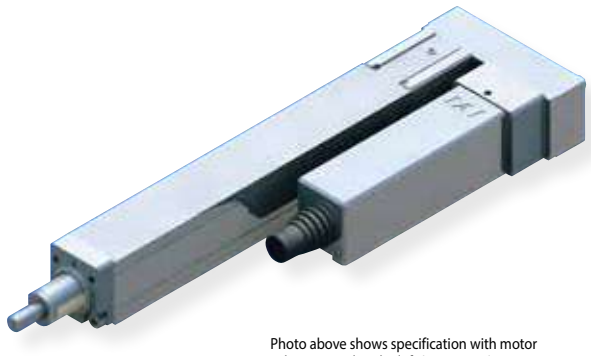


Photo above shows specification with motor side-mounted to the left (ML Option).

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.

(2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.

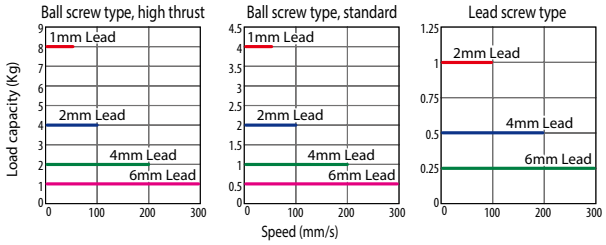
(3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.

(4) Service life decreases significantly if used in a dusty environment.

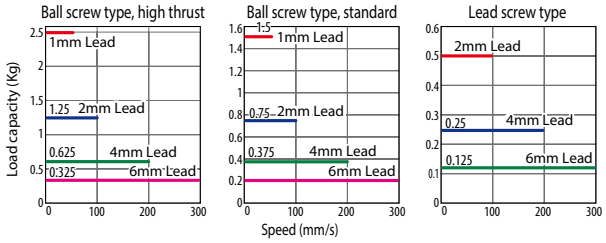
■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.

Horizontal



Vertical



Actuator Specifications Table

■ Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-RA2BR-I-20SP-6-①-②-③-④	High thrust	Ball screw	6	1	0.325	See page 126.	±0.02	25 to 150 (every 25mm)
RCP3-RA2BR-I-20SP-4-①-②-③-④			4	2	0.625			
RCP3-RA2BR-I-20SP-2-①-②-③-④			2	4	1.25			
RCP3-RA2BR-I-20SP-1-①-②-③-④			1	8	2.5			
RCP3-RA2BR-I-20P-6-①-②-③-④	Standard		6	0.5	0.2			
RCP3-RA2BR-I-20P-4-①-②-③-④			4	1	0.375			
RCP3-RA2BR-I-20P-2-①-②-③-④			2	2	0.75			
RCP3-RA2BR-I-20P-1-①-②-③-④			1	4	1.5			
RCP3-RA2BR-I-20P-6S-①-②-③-④	Standard	Lead screw	6	0.25	0.125		±0.05	
RCP3-RA2BR-I-20P-4S-①-②-③-④			4	0.5	0.25			
RCP3-RA2BR-I-20P-2S-①-②-③-④			2	1	0.5			

Legend ① Stroke ② Compatible controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)	75~150 (mm)
Ball screw 6	180	280	300
Ball screw 4	180	200	
Ball screw 2	100		
Ball screw 1	50		
Lead screw 6	180	280	300
Lead screw 4	180	200	
Lead screw 2	100		

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price: Feed screw: Ball screw: High thrust type	Standard price: Feed screw: Ball screw: Standard type	Standard price: Feed screw: Lead screw
25	—	—	—
50	—	—	—
75	—	—	—
100	—	—	—
125	—	—	—
150	—	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

Title	Option code
Brake	**B**
Side-mounted motor to the left (standard)	**ML**
Side-mounted motor to the right	**MR**
Reversed-home specification	**NM**

Actuator Specifications

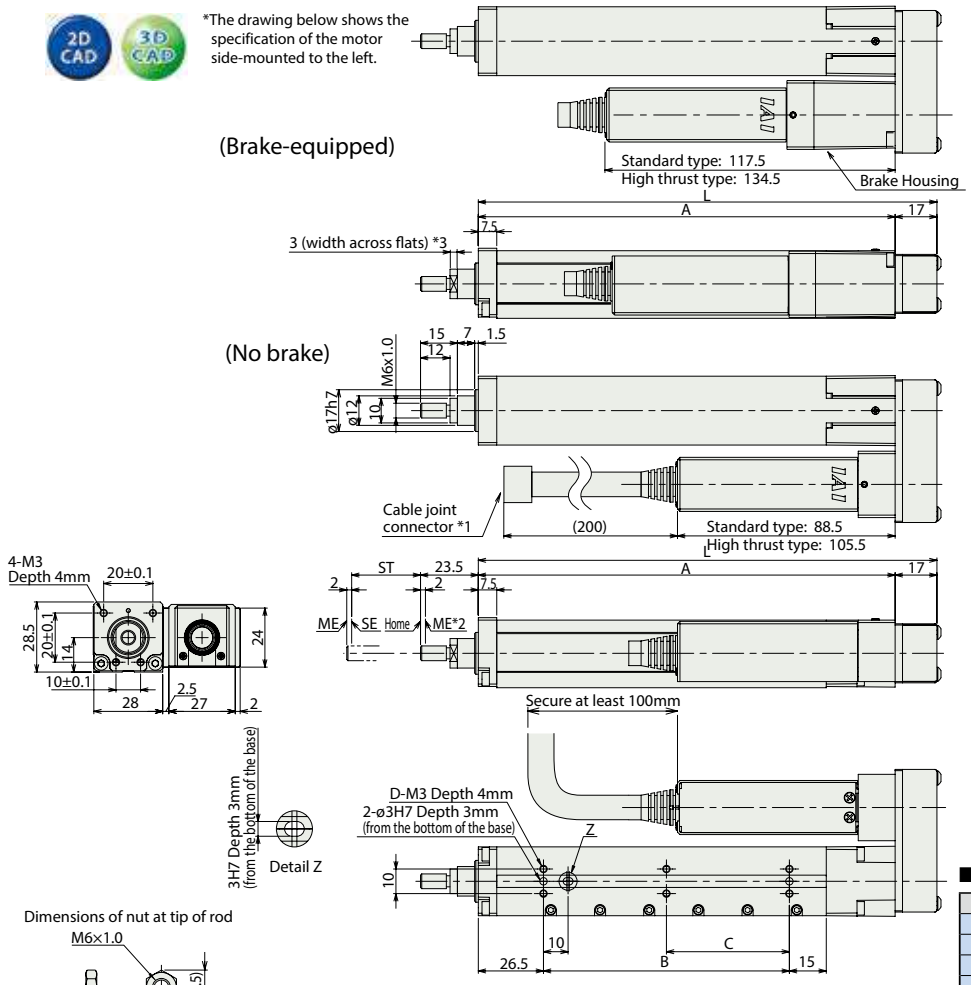
Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less/Lead screw: 0.3mm or less (default value)
Base		Material: Aluminum, white alumite treated
Guide		Slide guide
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal: 10 million cycles Vertical: 5 million cycles

Dimensional Drawings

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

2D CAD 3D CAD

*The drawing below shows the specification of the motor side-mounted to the left.



*1 Connect the motor and encoder cables.

*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.

*3 The orientation of the nut varies depending on the product.

ST : Stroke
ME: Mechanical end
SE : Stroke end

* Brake equipped models are 0.1kg heavier.

Dimensions and Weight by Stroke

Stroke	25	50	75	100	125	150
L	111.5	136.5	161.5	186.5	211.5	236.5
A	94.5	119.5	144.5	169.5	194.5	219.5
B	25	50	75	100	125	150
C	0	0	0	50	62.5	75
D	4	4	4	6	6	6
Mass (kg)	0.38	0.41	0.44	0.47	0.5	0.53

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following model was discontinued. Please contact IAI or check our website for successor product.

RCA2-RA2AC

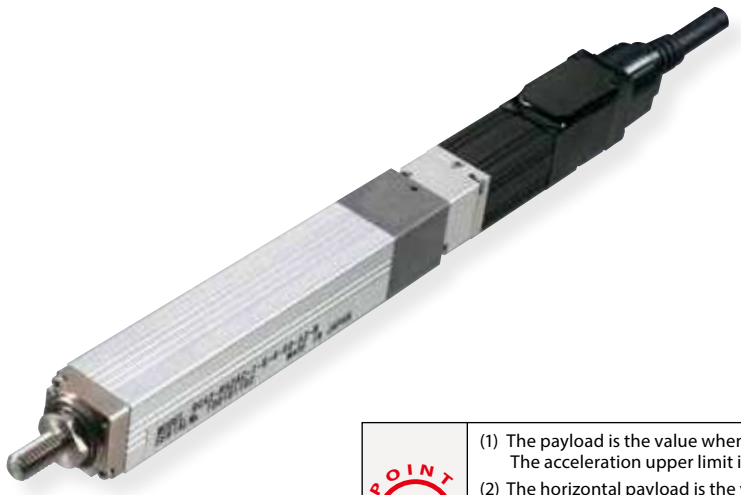
ROBO Cylinder Mini Rod type Motor Unit Coupling type Actuator Width 18mm 24V Servo Motor
Ball Screw Specification

■ Model Description

RCA2 – RA2AC – I – 5 – □ – □ – A3 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	RA2AC	I: Incremental specification * Model number is "I" when used with simple absolute unit.	5: Servo motor 5W	4: 4mm 2: 2mm 1: 1mm	25: 25mm 〜 100: 100mm (every 25mm)	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB	N: None P: 1m S: 3m M: 5m X□□: Length Designation	See options table below.

* See page 14 for details on the model descriptions.



POINT — Notes on selection

(1) The payload is the value when operated at 0.3G acceleration. The acceleration upper limit is the value indicated above.

(2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.

(3) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RA2AC-I-5-4-①-A3-②-③	5	Ball screw	4	0.5	0.25	21.4	±0.02	25 to 100 (every 25mm)
RCA2-RA2AC-I-5-2-①-A3-②-③			2	1	0.5	42.3		
RCA2-RA2AC-I-5-1-①-A3-②-③			1	2	1	85.5		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Ball screw 4	180	200
Ball screw 2	100	
Ball screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	

② Cable Length

Type	Cable symbol	
Standard type (Robot cable)	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard.

③ Options

Title	Option code
Reversed-home specification	**NM**

Actuator Specifications

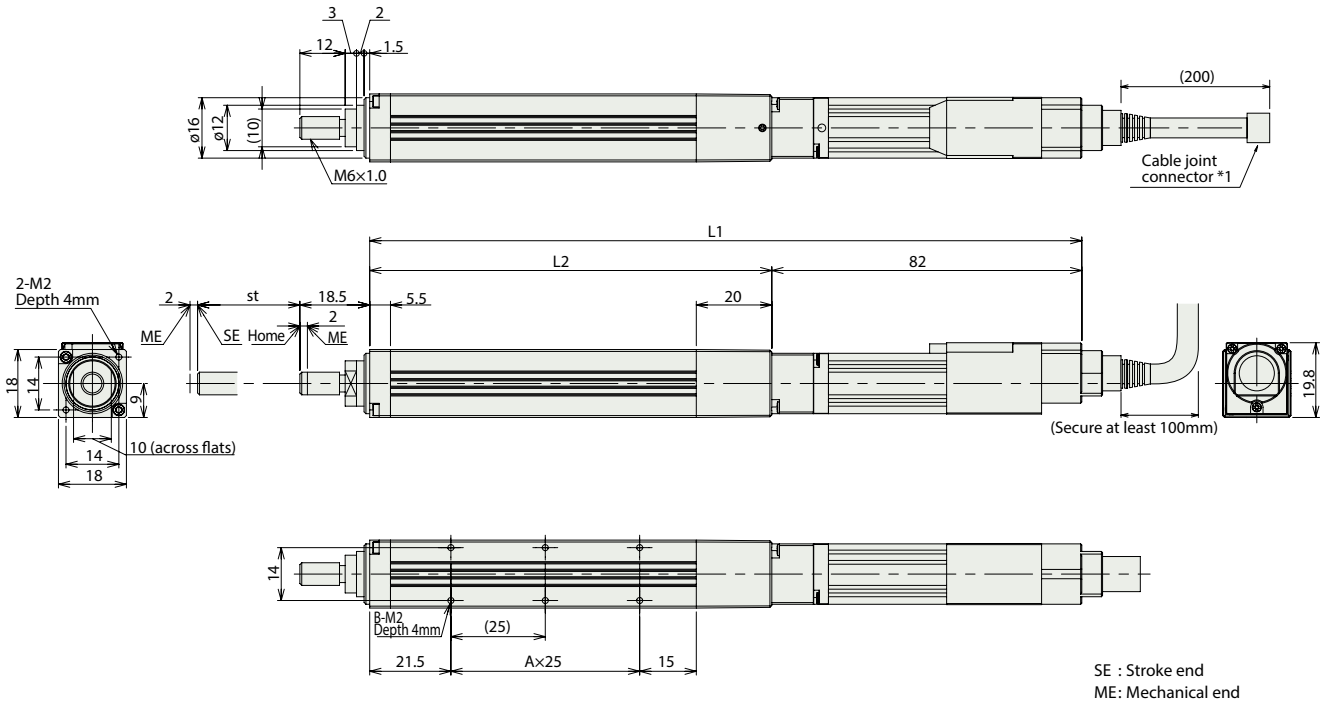
Item	Description
Drive System	Ball screw, ø4 mm, rolled C10
Lost motion	0.1 mm or less
Base	Material: Aluminum, white alumite treated
Rod non-rotation preciseness	±3.0°
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

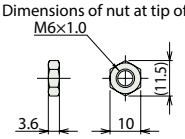
CAD drawings can be downloaded from the website. www.intelligentactuator.com

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.



SE : Stroke end
ME: Mechanical end

Dimensions of nut at tip of rod



■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L1	163.5	188.5	213.5	238.5
L2	81.5	106.5	131.5	156.5
A	1	2	3	4
B	4	6	8	10
Mass (kg)	0.17	0.19	0.2	0.22

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for successor product.

RCA2-RA2AR

ROBO Cylinder Mini Rod type Side-Mounted Motor type Actuator Width 41mm 24V Servo Motor
Ball Screw Specification

■ Model Description

RCA2 – RA2AR – I – 5 – □ – □ – A3 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	RA2AR	I: Incremental specification * Model number is "I" when used with simple absolute unit.	5: Servo motor 5W	4: 4mm 2: 2mm 1: 1mm	25: 25mm 〜 100: 100mm (every 25mm)	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB	N: None P: 1m S: 3m M: 5m X□□: Length Designation	See options table below. *Be sure to specify which side the motor is to be mounted (ML/MR).

* See page 14 for details on the model descriptions.

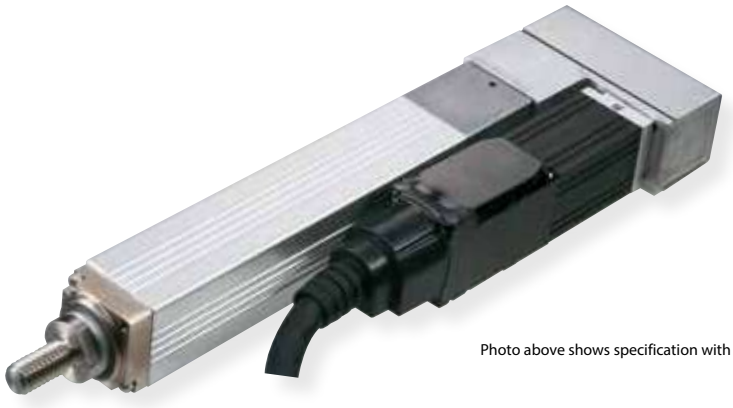


Photo above shows specification with motor side-mounted to the left (ML Option).

POINT Notes on selection

(1) The payload is the value when operated at 0.3G acceleration.
The acceleration upper limit is the value indicated above.

(2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.

(3) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RA2AR-I-5-4-①-A3-②-③	5	Ball screw	4	0.5	0.25	21.4	±0.02	25 to 100 (every 25mm)
RCA2-RA2AR-I-5-2-①-A3-②-③			2	1	0.5	42.3		
RCA2-RA2AR-I-5-1-①-A3-②-③			1	2	1	85.5		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
Ball screw 4	180	200
Ball screw 2	100	
Ball screw 1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	
25	
50	
75	
100	

② Cable Length

Type	Cable symbol	
Standard type (Robot cable)	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard.

③ Options

Title	Option code
Side-mounted motor to the left	**ML**
Side-mounted motor to the right	**MR**
Side-mounted motor to the top	**MT**
Reversed-home specification	**NM**

Actuator Specifications

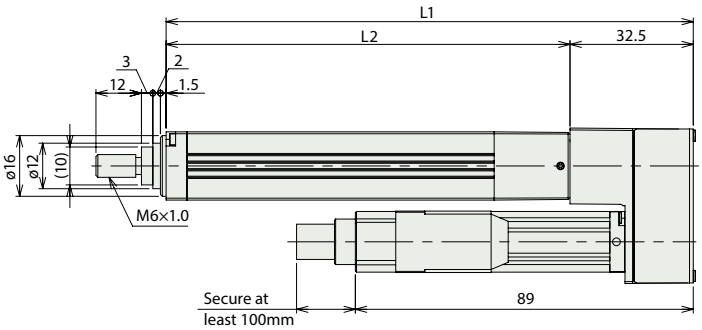
Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost motion	0.1 mm or less
Base	Material: Aluminum, white alumite treated
Rod non-rotation preciseness	±3.0°
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km

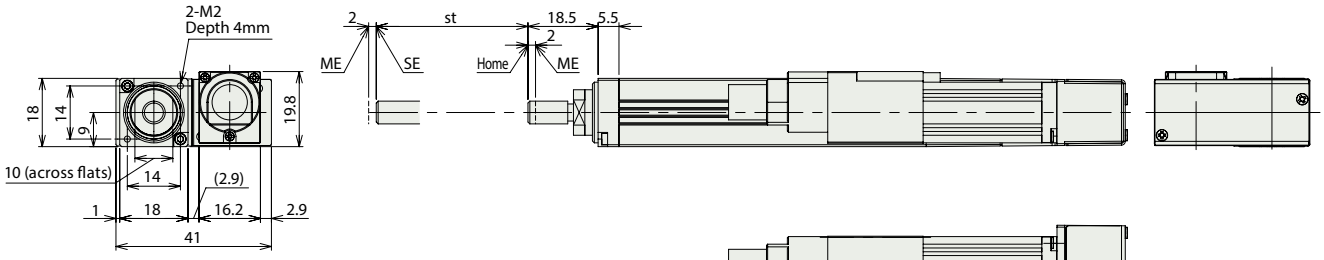
The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

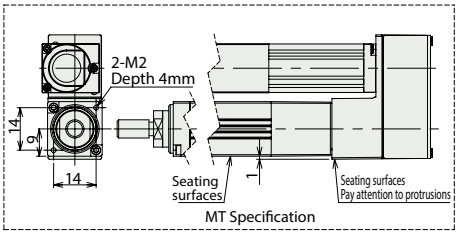
Dimensional Drawings

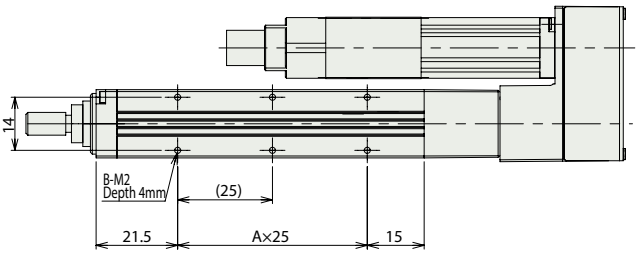
CAD drawings can be downloaded from the website. www.intelligentactuator.com

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.
*The drawing below shows the specification with motor side-mounted to the left (ML).





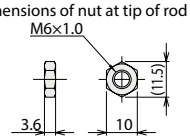




SE : Stroke end
ME: Mechanical end

ML Specification

Dimensions of nut at tip of rod



■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L1	114	139	164	189
L2	81.5	106.5	131.5	156.5
A	1	2	3	4
B	4	6	8	10
Mass (kg)	0.21	0.22	0.24	0.25

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-RN3NA

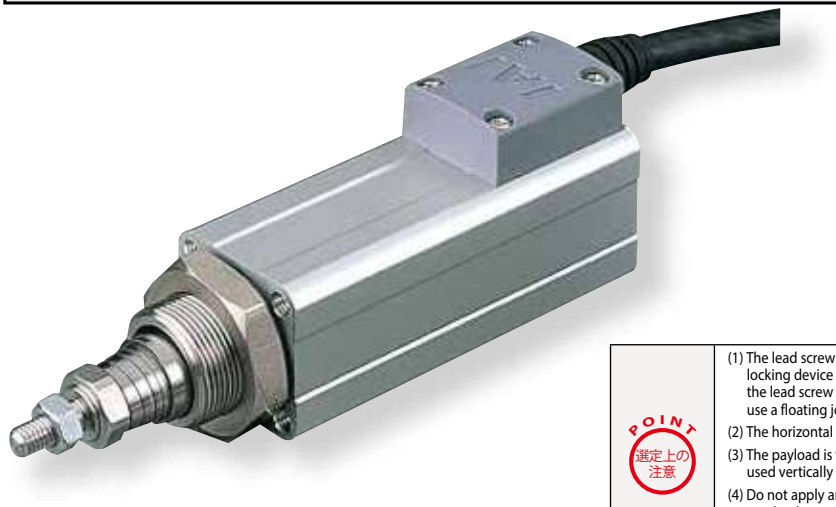
ROBO Cylinder Mini Rod Type Short-Length Nut Mounting Type Actuator Width 28 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – RN3NA – I – 10 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.



Power-saving specification

POINT 選定上の注意

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RN3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-RN3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-RN3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-RN3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-RN3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-RN3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

■ Stroke and Maximum Speed

Lead	Stroke 30 (mm)	Stroke 50 (mm)
Ball screw 4	200	
Ball screw 2	100	
Ball screw 1	50	
Lead screw 4	200	
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

Actuator Specifications

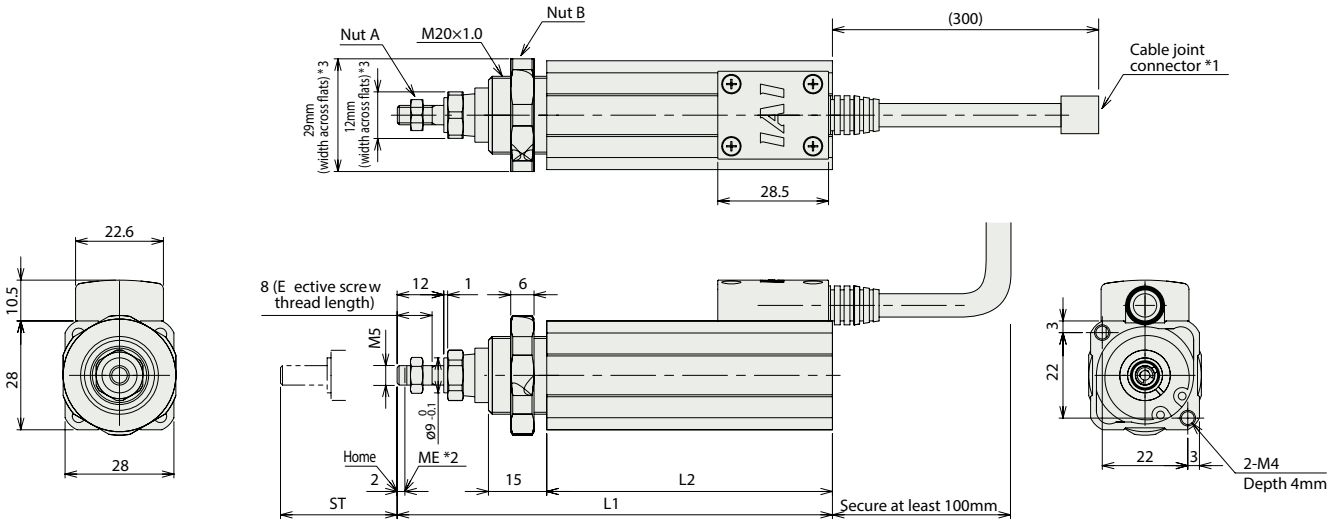
Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

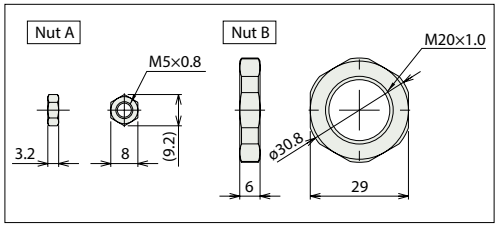
CAD drawings can be downloaded from the website. www.intelligentactuator.com

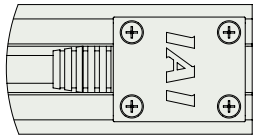
2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.



ST : Stroke
ME : Mechanical end





Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	112	132
L2	73.5	93.5
Mass (kg)	0.25	0.27

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-RN4NA

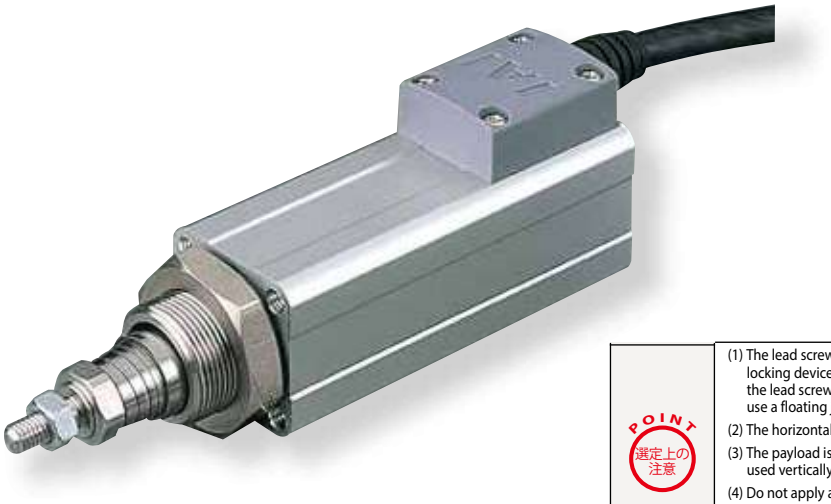
ROBO Cylinder Mini Rod Type Short-Length Nut Mounting Type Actuator Width 34 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – RN4NA – I – 20 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.



Power-saving specification

POINT 選定上の注意

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RN4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-RN4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-RN4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-RN4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-RN4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-RN4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke		30 (mm)	50 (mm)
Ball screw	6	270 <220>	300
	4	200	
	5	100	
Lead screw	6	220	300
	4	200	
	2	100	

*< > Indicates Vertical Use (unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

Actuator Specifications

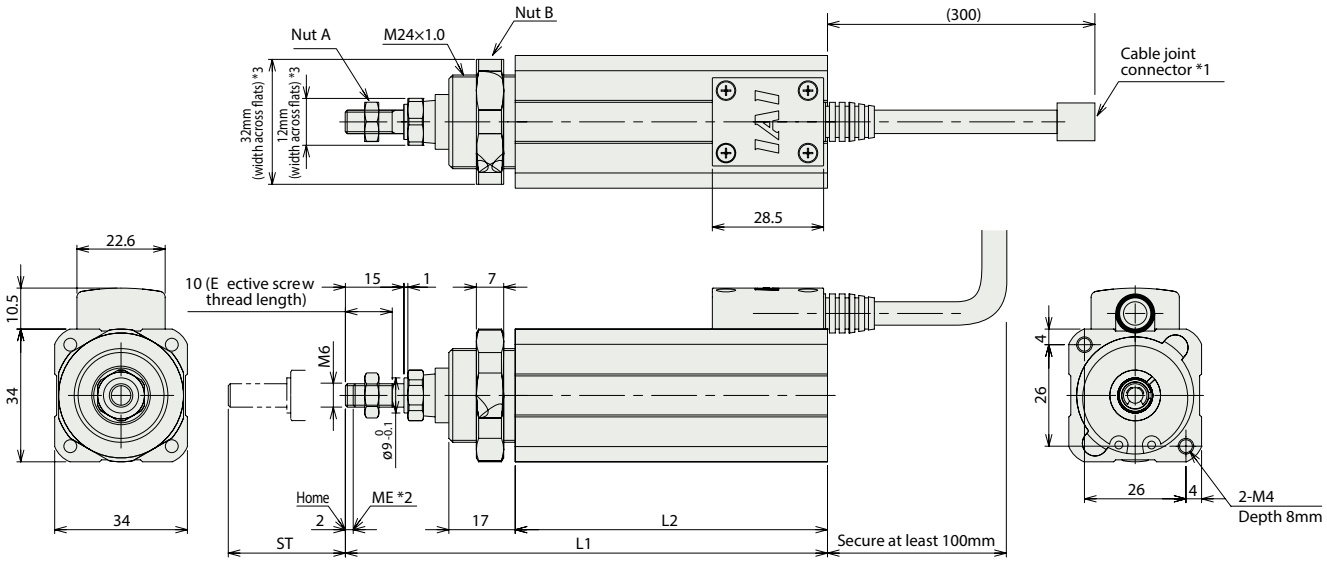
Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

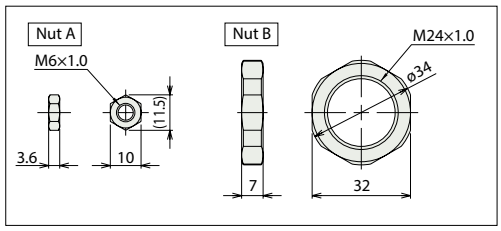
CAD drawings can be downloaded from the website. www.intelligentactuator.com

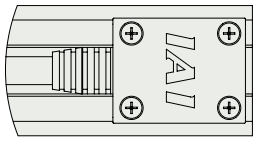
2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.



ST : Stroke
ME : Mechanical end





Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	123.5	143.5
L2	80	100
Mass (kg)	0.4	0.44

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-RN5N

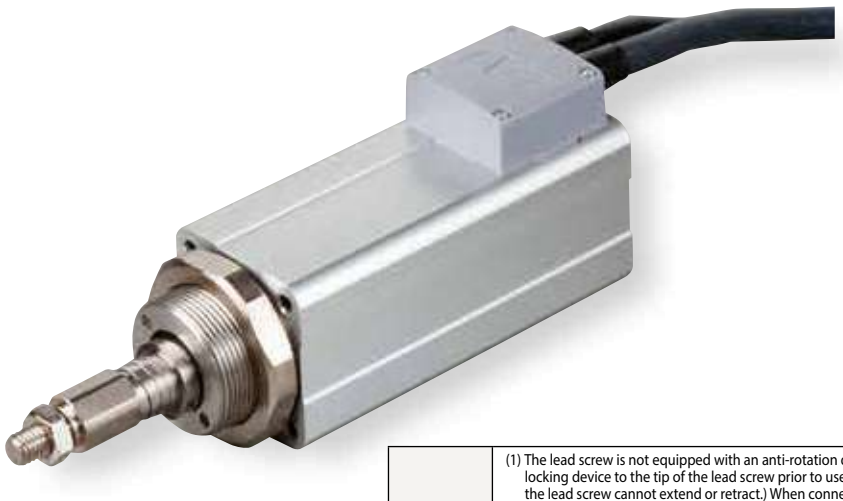
ROBO Cylinder Mini Rod Type Short-Length Tapped-Hole Mounting Type Actuator Width 46 mm
200V Servo Motor Ball Screw Specification

■ Model Description

RCS2 – RN5N – I – 60 – □ – □ – T2 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCS2	RN5N	I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation R□□: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.



POINT 選定上の注意

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-RN5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-RN5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-RN5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)		
50		
75		

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

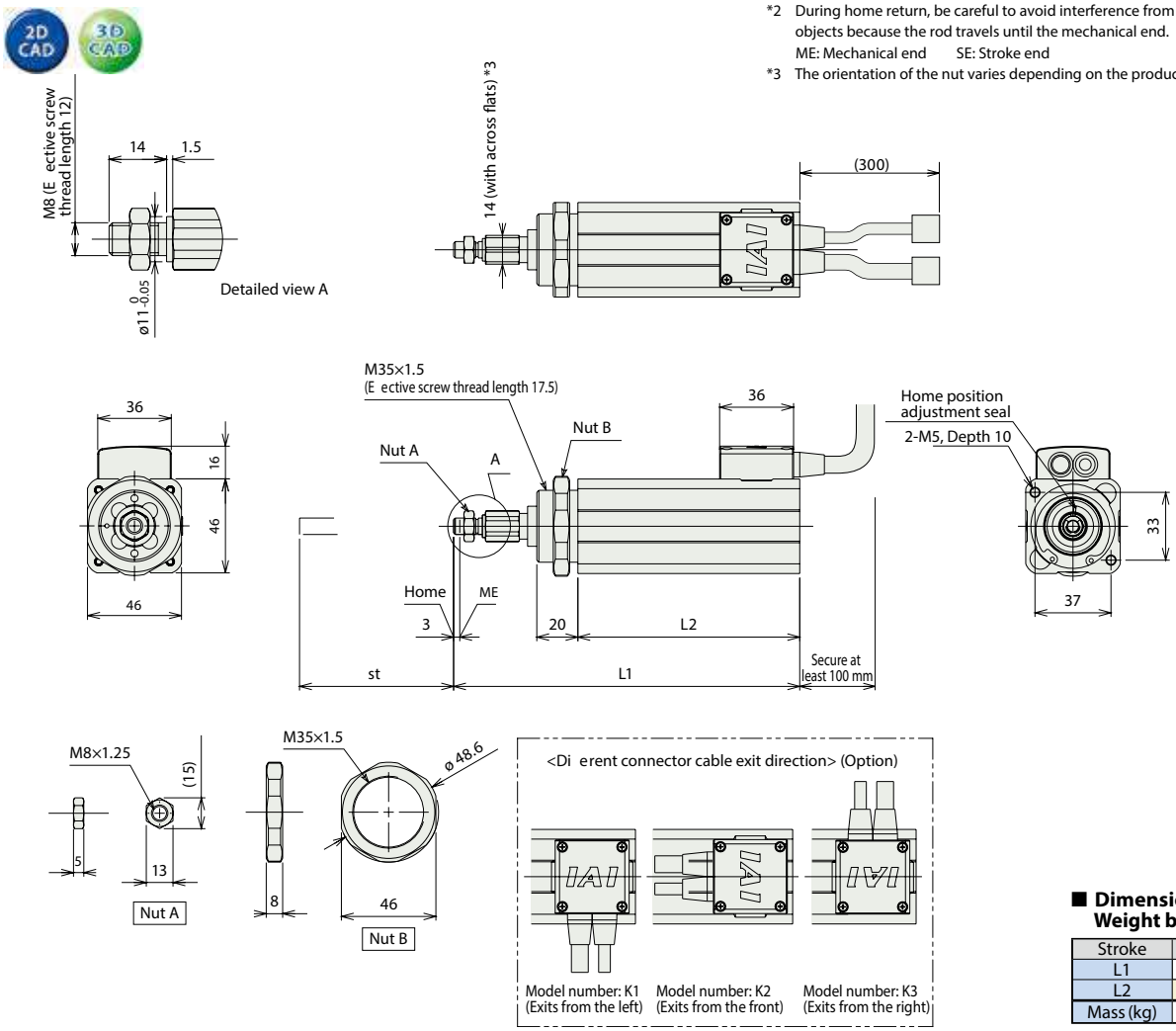
Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

Dimensional Drawings

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

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end
*3 The orientation of the nut varies depending on the product.



■ Dimensions and Weight by Stroke

Stroke	50	75
L1	168.5	193.5
L2	108	133
Mass (kg)	1.0	1.1

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-RP3NA

ROBO Cylinder Mini Rod Type Short-Length Tapped-Hole Mounting Type Actuator Width 28 mm
24V Servo Motor Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – RP3NA – I – 10 – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	RP3NA	I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT 選定上の注意

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RP3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-RP3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-RP3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-RP3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-RP3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-RP3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

■ Stroke and Maximum Speed

	Lead \ Stroke	30 (mm)	50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

(unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

Stroke (mm)	Standard price	
	Feed screw	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

④ Options

Name	Option Code
Brake	**B**
Small connector specification	**CNS**
Designated grease specification	**G1/G3/G4**
Connector cable exit from left side	**K1**
Connector cable exit from front side	**K2**
Connector cable exit from right side	**K3**
Energy saver	**LA**

Actuator Specifications

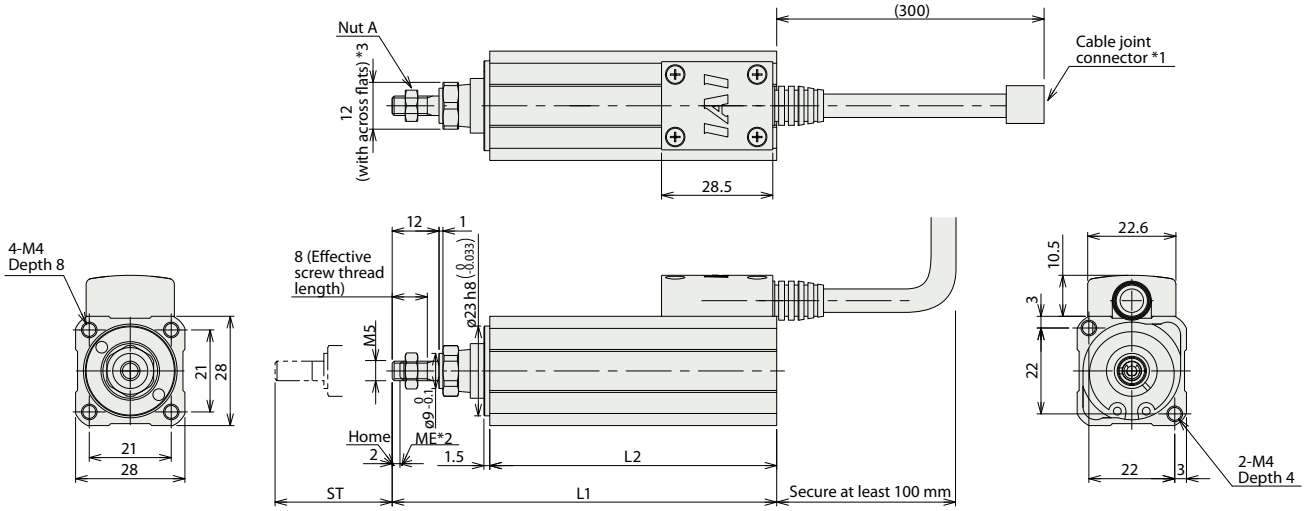
Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

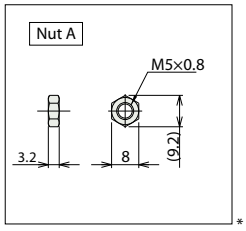
CAD drawings can be downloaded from the website. www.intelligentactuator.com

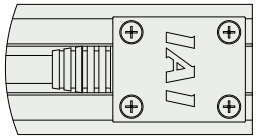
2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.



ST : Stroke
ME : Mechanical end





Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	98.5	118.5
L2	73.5	93.5
Mass (kg)	0.2	0.22

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-RP4NA

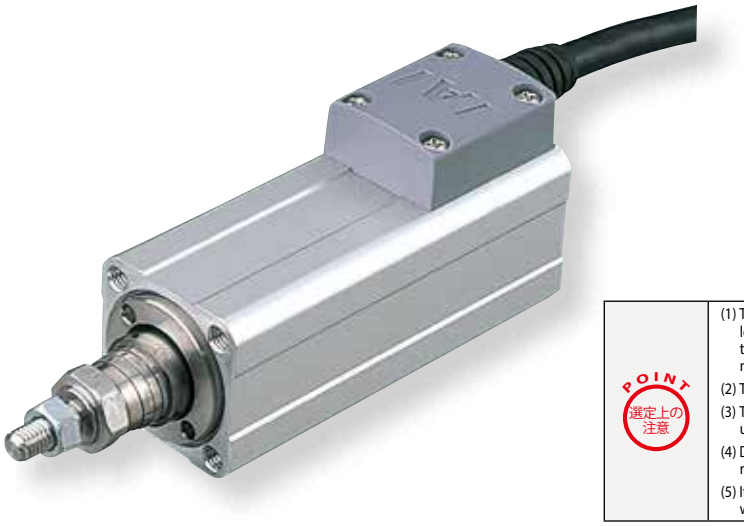
ROBO Cylinder Mini Rod Type Short-Length Tapped-Hole Mounting Type Actuator Width 34 mm
24V Servo Motor Ball Screw Specification/ Lead Screw Specification

■ Model Description

RCA2 – RP4NA – I – 20 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	RP4NA	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.



Power-saving specification

POINT 選定上の注意

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2 if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RP4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-RP4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-RP4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-RP4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-RP4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-RP4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

■ Stroke and Maximum Speed

Lead	Stroke 30 (mm)	Stroke 50 (mm)
Ball screw 6	270 <220>	300
Ball screw 4	200	
Ball screw 2	100	
Lead screw 6	220	300
Lead screw 4	200	
Lead screw 2	100	

*< > Indicates vertical use (unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

Actuator Specifications

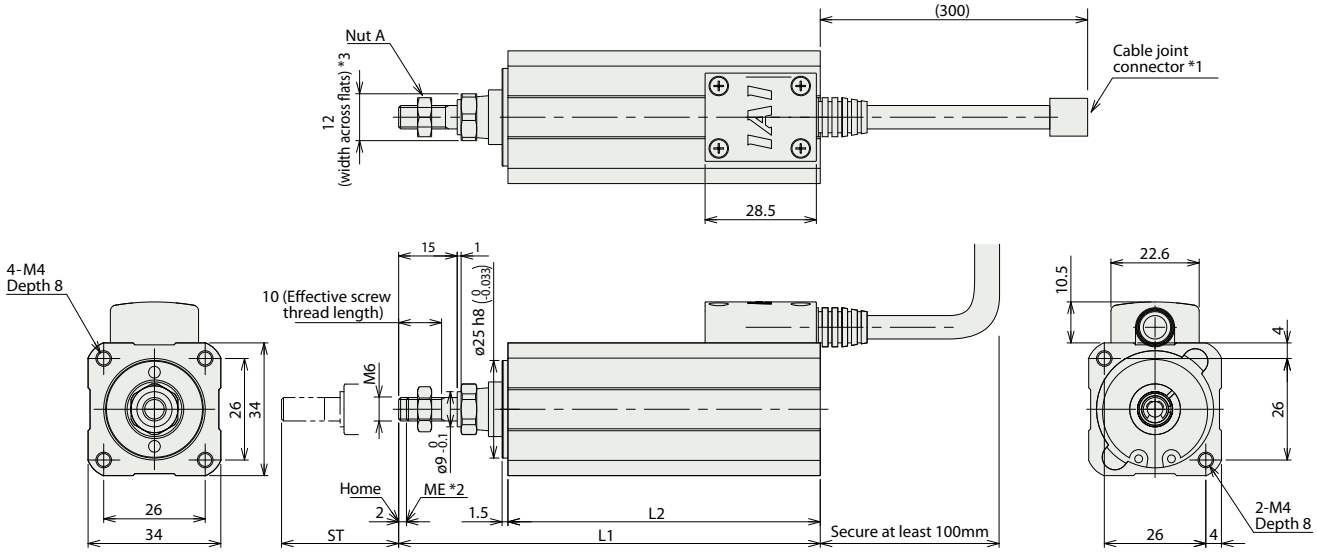
Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

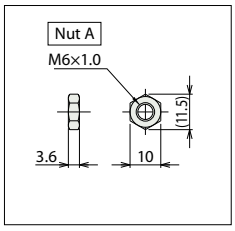
CAD drawings can be downloaded from the website. www.intelligentactuator.com

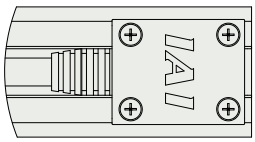
2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.



ST : Stroke
ME : Mechanical end





Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	108	128
L2	80	100
Mass (kg)	0.32	0.36

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

RCS2-RP5N

ROBO Cylinder Mini Rod Type Short-Length Tapped-Hole Mounting Type Actuator Width 46 mm
200V Servo Motor Ball Screw Specification

■ Model Description

RCS2 – RP5N – I – 60 – □ – □ – T2 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation R□□: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT 選定上の注意

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-RP5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-RP5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-RP5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

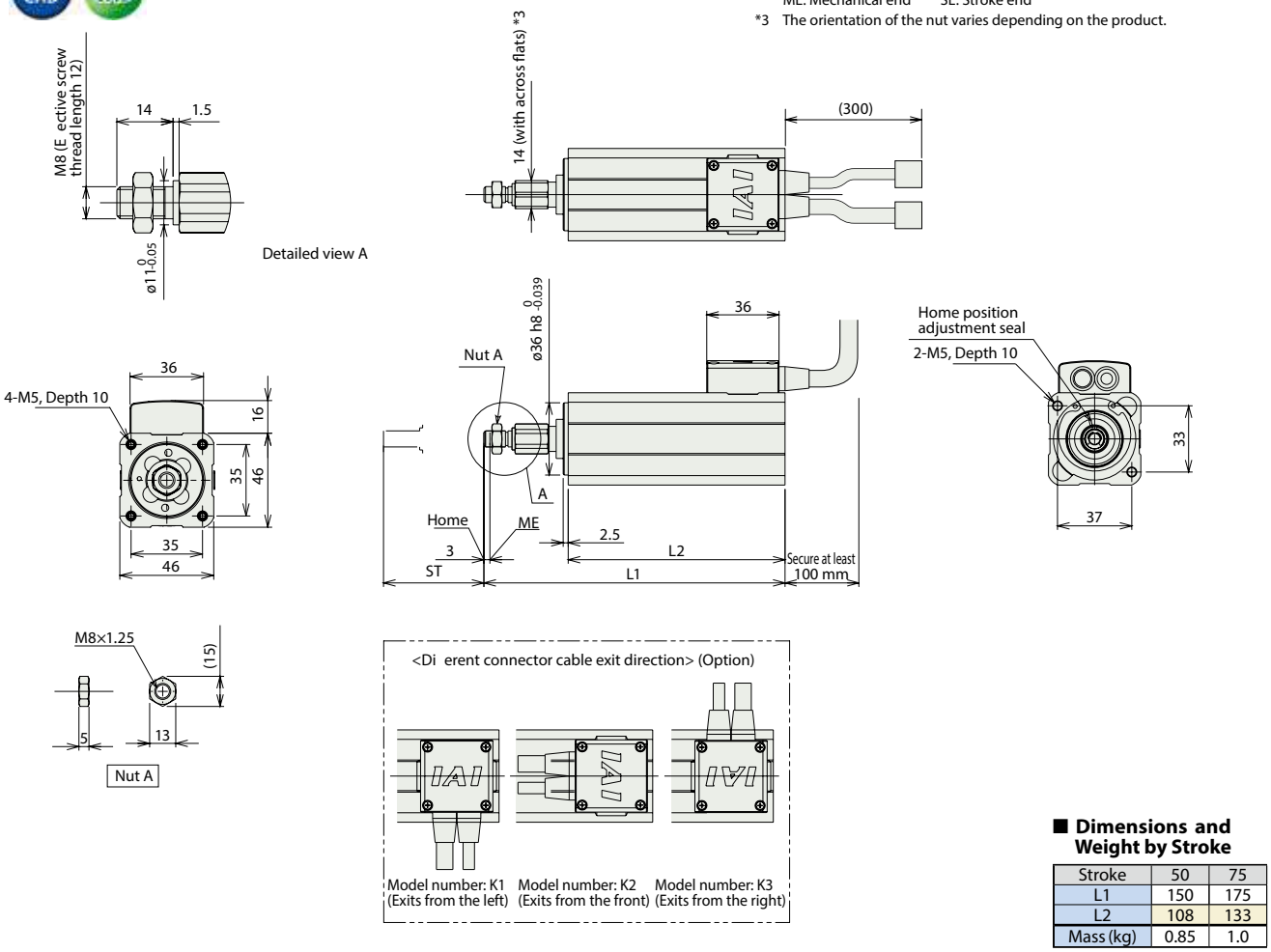
Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

Dimensional Drawings

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

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end
*3 The orientation of the nut varies depending on the product.



■ Dimensions and Weight by Stroke

Stroke	50	75
L1	150	175
L2	108	133
Mass (kg)	0.85	1.0

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-GS3NA

ROBO Cylinder Mini Rod Type Short-Length Single-guide Type Actuator Width 28 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – GS3NA – I – 10 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed. Also note that single-guide types cannot be used if a force is applied in the rotating direction. Use double-guide types in these applications.

(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.

(3) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-GS3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-GS3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-GS3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-GS3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-GS3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-GS3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

■ Stroke and Maximum Speed

Lead	Stroke 30 (mm)	Stroke 50 (mm)
Ball screw 4	200	
Ball screw 2	100	
Ball screw 1	50	
Lead screw 4	200	
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

Actuator Specifications

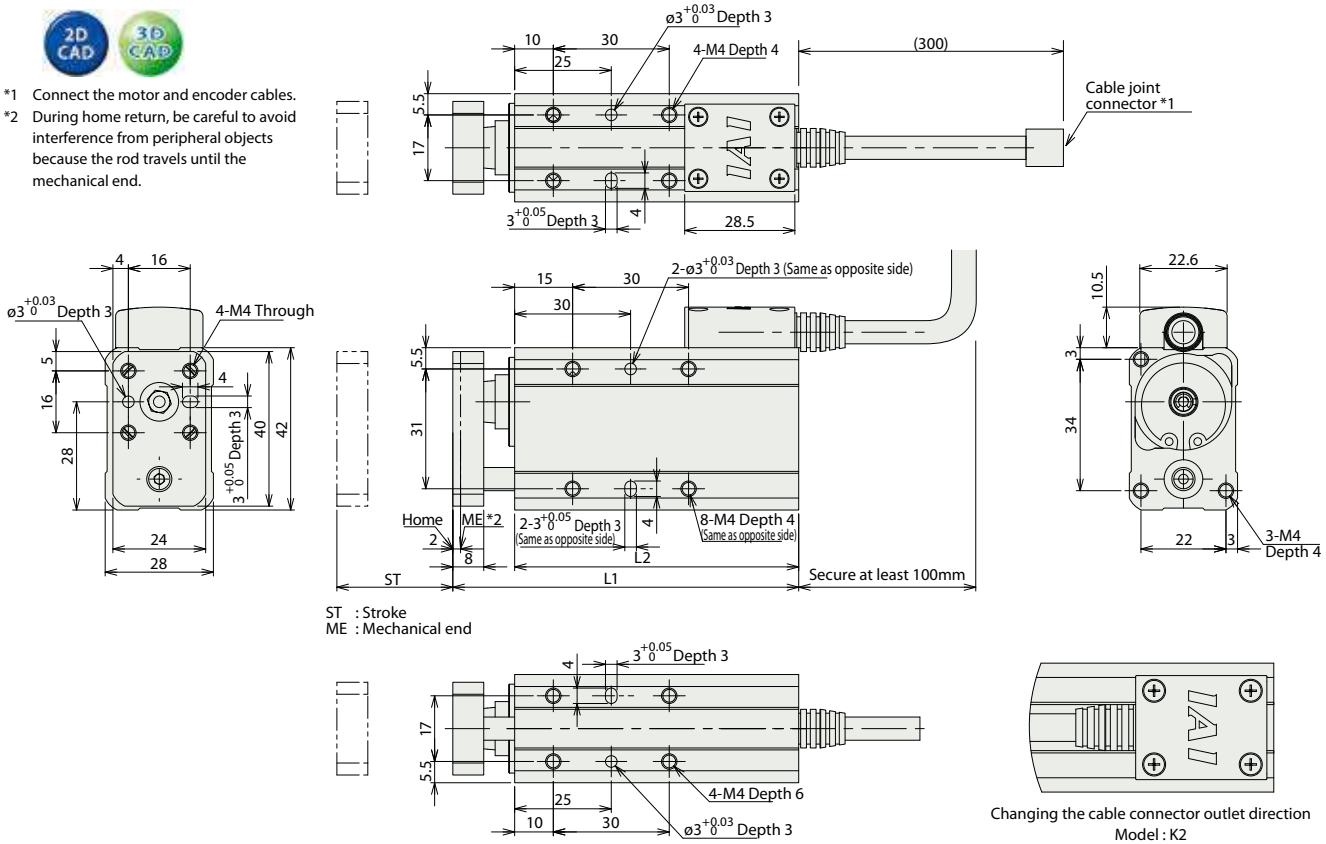
Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	89.5	109.5
L2	73.5	93.5
Mass (kg)	0.32	0.36

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-GS4NA

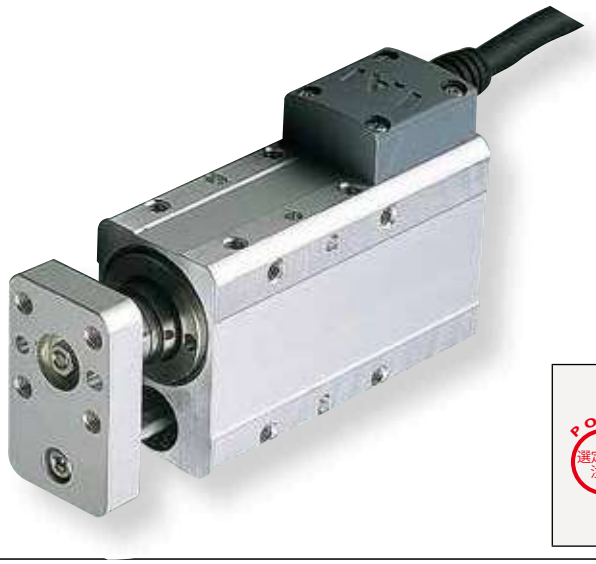
ROBO Cylinder Mini Rod Type Short-Length Single-guide Type Actuator Width 34 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – GS4NA – I – 20 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.



Power-saving specification

POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed. Also note that single-guide types cannot be used if a force is applied in the rotating direction. Use double-guide types in these applications.

(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.

(3) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-GS4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-GS4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-GS4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-GS4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-GS4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-GS4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Legend ①Stroke ②Compatible Controllers ③Cable length ④Option

■ Stroke and Maximum Speed

Lead \ Stroke	30 (mm)	50 (mm)
Ball screw 6	270 <220>	300
Ball screw 4	200	
Ball screw 2	100	
Lead screw 6	220	300
Lead screw 4	200	
Lead screw 2	100	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

④ Options

Name	Option Code
Brake	**B**
Small connector specification	**CNS**
Designated grease specification	**G1/G3/G4**
Connector cable exit from left side	**K1**
Connector cable exit from front side	**K2**
Connector cable exit from right side	**K3**
Energy saver	**LA**

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

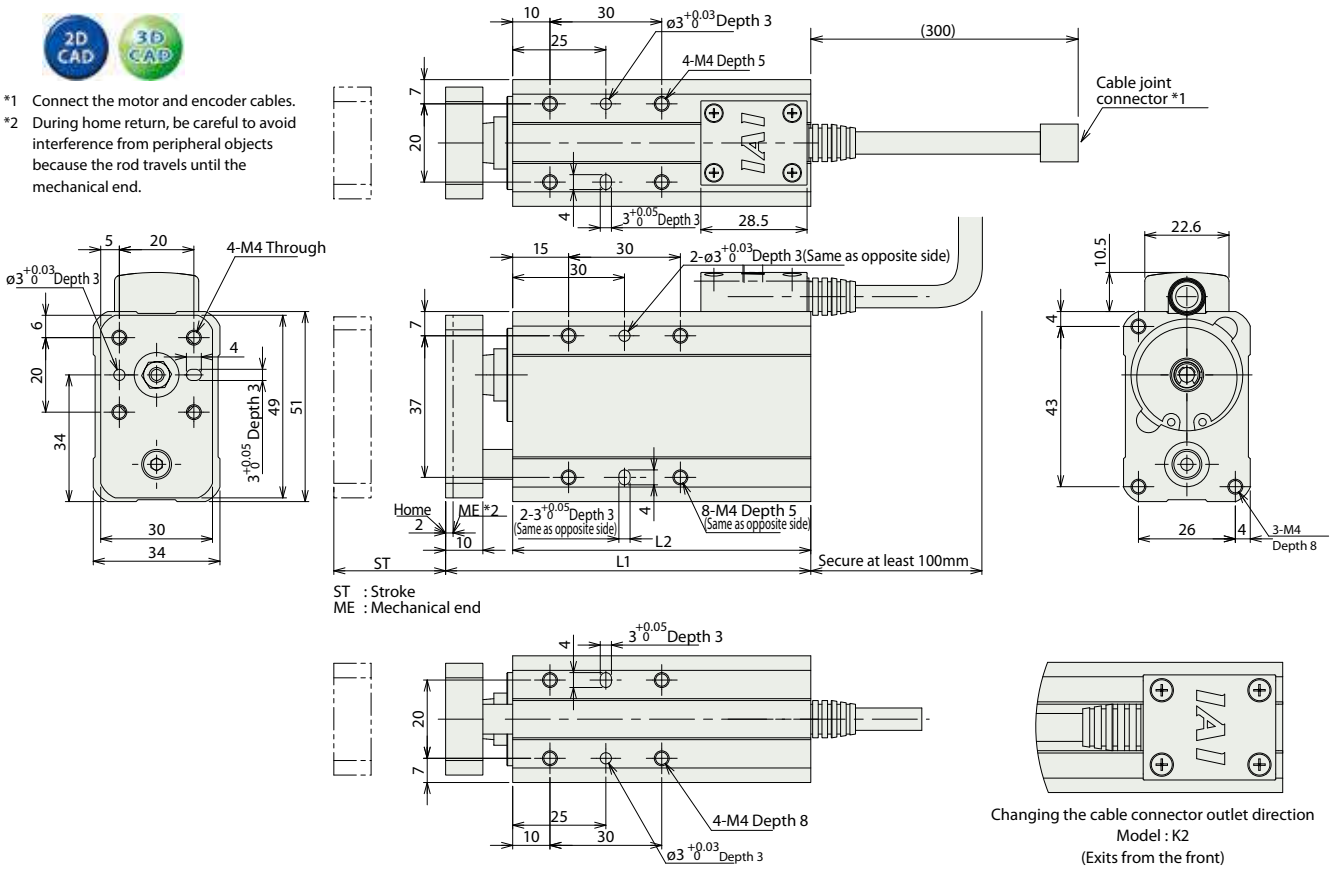
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	98	118
L2	80	100
Mass (kg)	0.55	0.63

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method			Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1	
							DV CC CIE PR CN ML ML3 EC EP PRT SSN ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	● ● ● ● ● ● ● ● ● ● - -	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	- - - - - - - - - - - -	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	● ● ● ● - - ● ● ● ● ● ●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	● ● ● ● - - - ● ● ● - -	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-GS5N

ROBO Cylinder Mini Rod Type Short-Length Single-guide Type Actuator Width 46 mm
200V Servo Motor Ball Screw Specification

■ Model Description

RCS2 — GS5N — I — 60 — □ — □ — T2 — □ — □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCS2	GS5N	I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation R□□: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed. Also note that single-guide types cannot be used if a force is applied in the rotating direction. Use double-guide types in these applications.

(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.

(3) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-GS5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-GS5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-GS5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

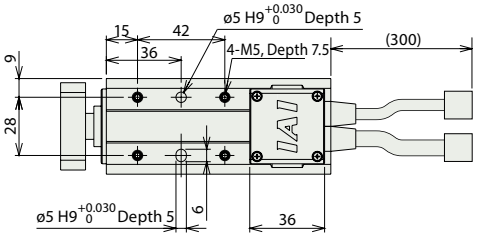
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

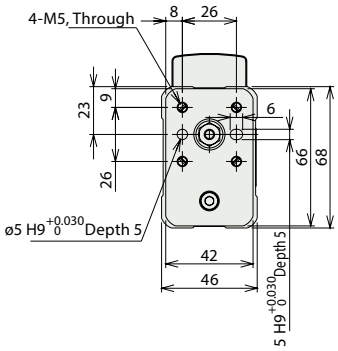
Dimensional Drawings

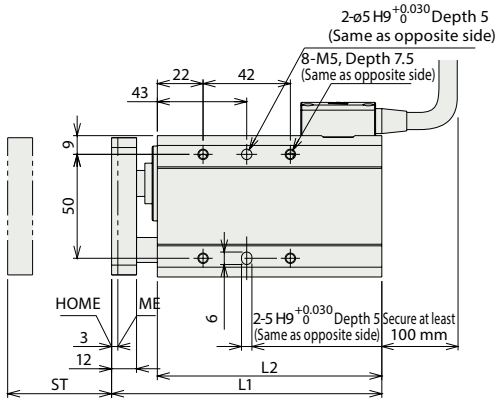
CAD drawings can be downloaded from the website. www.intelligentactuator.com

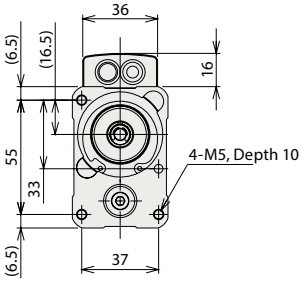
2D CAD 3D CAD

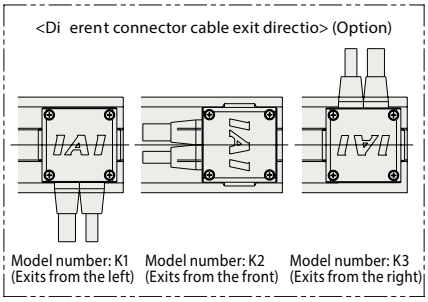
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end

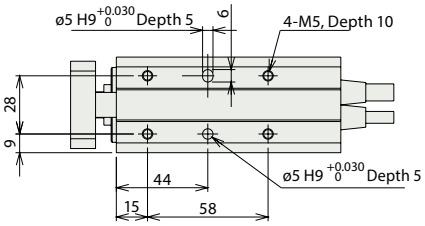












■ Dimensions and Weight by Stroke

Stroke	50	75
L1	130	155
L2	108	133
Mass (kg)	1.3	1.4

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-GD3NA

ROBO Cylinder Mini Rod Type Short-Length Double-guide Type Actuator Width 28 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – GD3NA – I – 10 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	GD3NA	I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed.
(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(3) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-GD3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-GD3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-GD3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-GD3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-GD3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-GD3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

■ Stroke and Maximum Speed

Lead	Stroke 30 (mm)	Stroke 50 (mm)
Ball screw 4	200	
Ball screw 2	100	
Ball screw 1	50	
Lead screw 4	200	
Lead screw 2	100	
Lead screw 1	50	

30	—	—
50	—	—

Special length	**M** (5m)	
	X06 (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

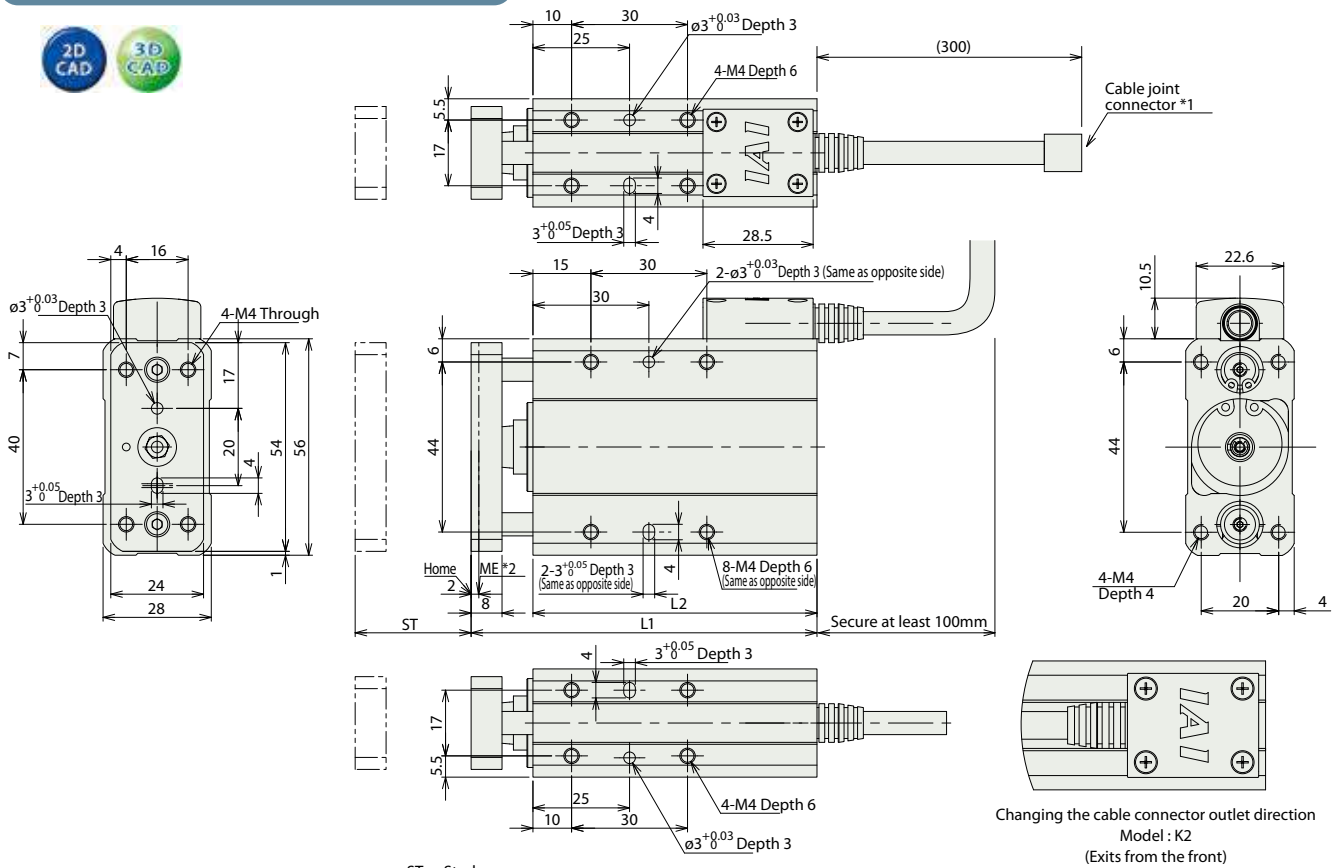
Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw 0.1mm or less, Lead screw 0.3mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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



ST : Stroke
ME : Mechanical end

Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	89.5	109.5
L2	73.5	93.5
Mass (kg)	0.41	0.48

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-GD4NA

ROBO Cylinder Mini Rod Type Short-Length Double-guide Type Actuator Width 34mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – GD4NA – I – 20 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	GD4NA	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed.

(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.

(3) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-GD4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-GD4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-GD4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-GD4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-GD4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-GD4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

■ Stroke and Maximum Speed

Lead	Stroke 30 (mm)	Stroke 50 (mm)
Ball screw 6	270 <220>	300
Ball screw 4	200	
Ball screw 2	100	
Lead screw 6	220	300
Lead screw 4	200	
Lead screw 2	100	

30	—	—
50	—	—

tion

	M (5m) *< > Indicates vertical use	(unit: mm/s)
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

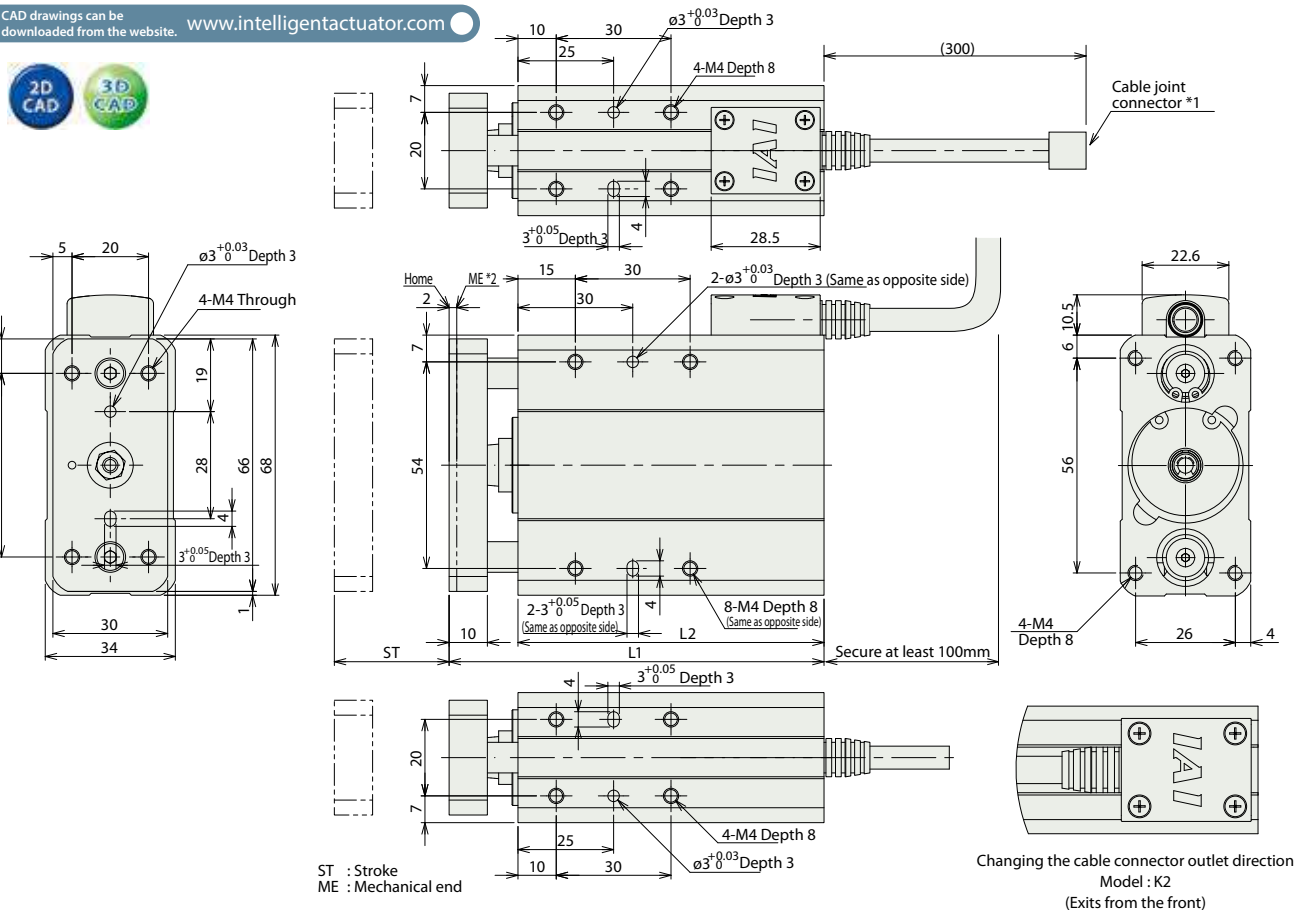
* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	98	118
L2	80	100
Mass (kg)	0.64	0.76

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-GD5N

ROBO Cylinder Mini Rod Type Shor-Length Double-guide type Actuator Width 46 mm
200V Servo Motor Ball Screw Specification

■ Model Description

RCS2 — GD5N — I — 60 — □ — □ — T2 — □ — □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCS2	GD5N	I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation R□□: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed.

(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.

(3) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-GD5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-GD5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-GD5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

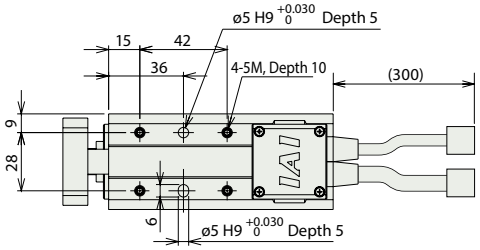
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

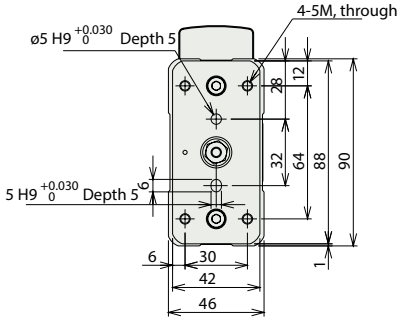
Dimensional Drawings

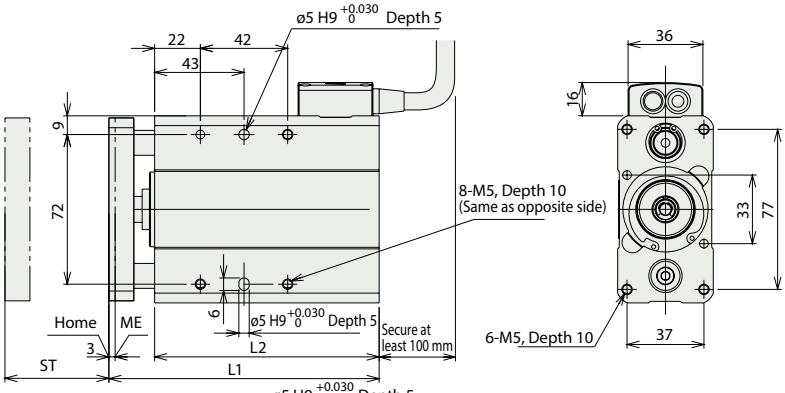
CAD drawings can be downloaded from the website. www.intelligentactuator.com

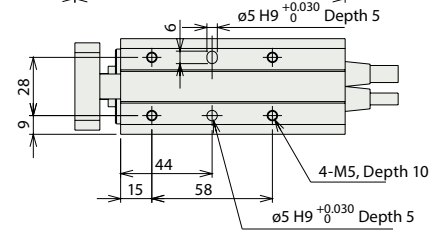
2D CAD 3D CAD

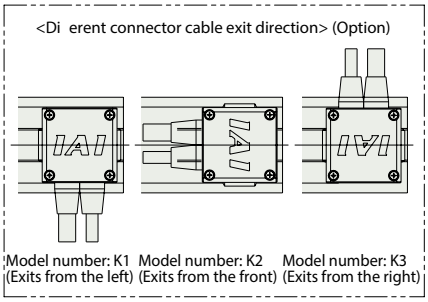
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end











■ Dimensions and Weight by Stroke

Stroke	50	75
L1	130	155
L2	108	133
Mass (kg)	1.6	1.9

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-SD3NA

ROBO Cylinder Mini Rod Type Short-Length Double-Guide Slide Unit Type Actuator Width 60 mm
24V Servo Motor Ball Screw Specification/Lead Screw Specification

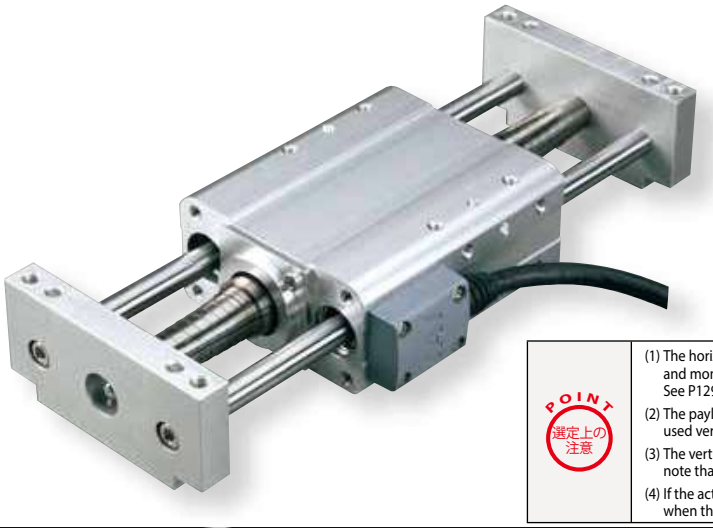
■ Model Description

RCA2 – SD3NA – I – 10 – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	SD3NA	I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	25: 25mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification



POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed.
(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(3) The vertical payload is the value when the actuator is mounted and side bracket is operated. Take note that in vertical operation, the side bracket cannot be mounted to operate the actuator.
(4) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-SD3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25(*)	42.7	±0.02	25 50
RCA2-SD3NA-I-10-2-①-②-③-④			2	1.5	0.5(*)	85.5		
RCA2-SD3NA-I-10-1-①-②-③-④			4	3	1(*)	170.9		
RCA2-SD3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125(*)	25.1	±0.05	25 50
RCA2-SD3NA-I-10-2S-①-②-③-④			2	0.5	0.25(*)	50.3		
RCA2-SD3NA-I-10-1S-①-②-③-④			1	1	0.5(*)	100.5		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(*) When the main unit side is fixed

■ Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
25	—	—
50	—	—

④ Options

Name	Option code		
Small connector specification	CNS		
Connector cable exit from left side	K1		
Connector cable exit from right side	K3		
Energy saver	LA		

③ Cable Length

Type	Cable symbol	
Standard type	P (1m)	
	S (3m)	
	M (5m)	
Special length	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

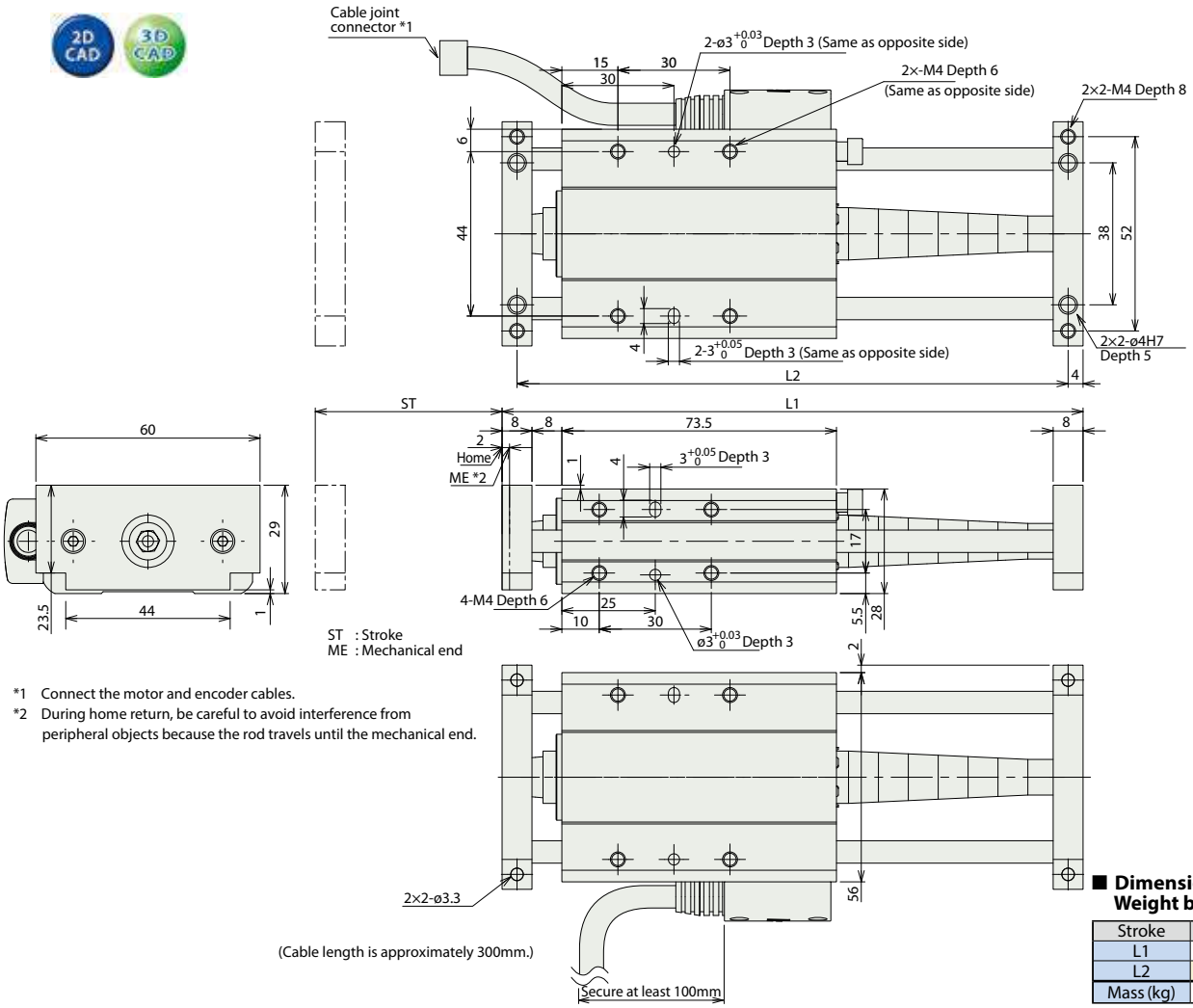
For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available.
When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

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



ST : Stroke
ME : Mechanical end

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.

■ Dimensions and Weight by Stroke

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

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-SD4NA

ROBO Cylinder Mini Rod Type Short-Length, Double-Guide Slide Unit Type Actuator Width 72 mm
24V Servo Motor Ball Screw Specification/Lead Screw Specification

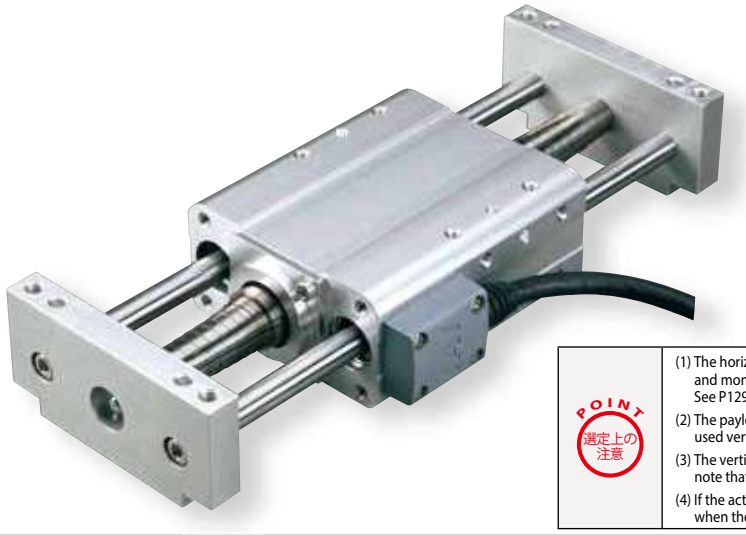
■ Model Description

RCA2 – SD4NA – I – 20 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	SD4NA	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	25: 25mm 50: 50mm 75: 75mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification



POINT 選定上の注意

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed.
(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(3) The vertical payload is the value when the actuator is mounted and side bracket is operated. Take note that in vertical operation, the side bracket cannot be mounted to operate the actuator.
(4) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-SD4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5 (* 1)	33.8	±0.02	25 50 75
RCA2-SD4NA-I-20-4-①-②-③-④			4	3	0.75 (* 1)	50.7		
RCA2-SD4NA-I-20-2-①-②-③-④			2	6	1.5 (* 1)	101.5		
RCA2-SD4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125 (* 1)	19.9	±0.05	25 50 75
RCA2-SD4NA-I-20-4S-①-②-③-④			4	0.5	0.25 (* 1)	29.8		
RCA2-SD4NA-I-20-2S-①-②-③-④			2	1	0.5 (* 1)	59.7		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(*1) When the main unit side is fixed

■ Stroke and Maximum Speed

Lead \ Stroke		25 (mm)	50~75 (mm)
Ball screw	6	240 <200>	300
	4	200	
	2	100	
Lead screw	6	200	300
	4	200	
	2	100	

*< > Indicates vertical use

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price	
	Feed screw	
	Ball screw	Lead screw
25	—	—
50	—	—
75	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

④ Options

Name	Option code		
Small connector specification	**CNS**		
Connector cable exit from left side	**K1**		
Connector cable exit from right side	**K3**		
Energy saver	**LA**		

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available.
When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Actuator Specifications

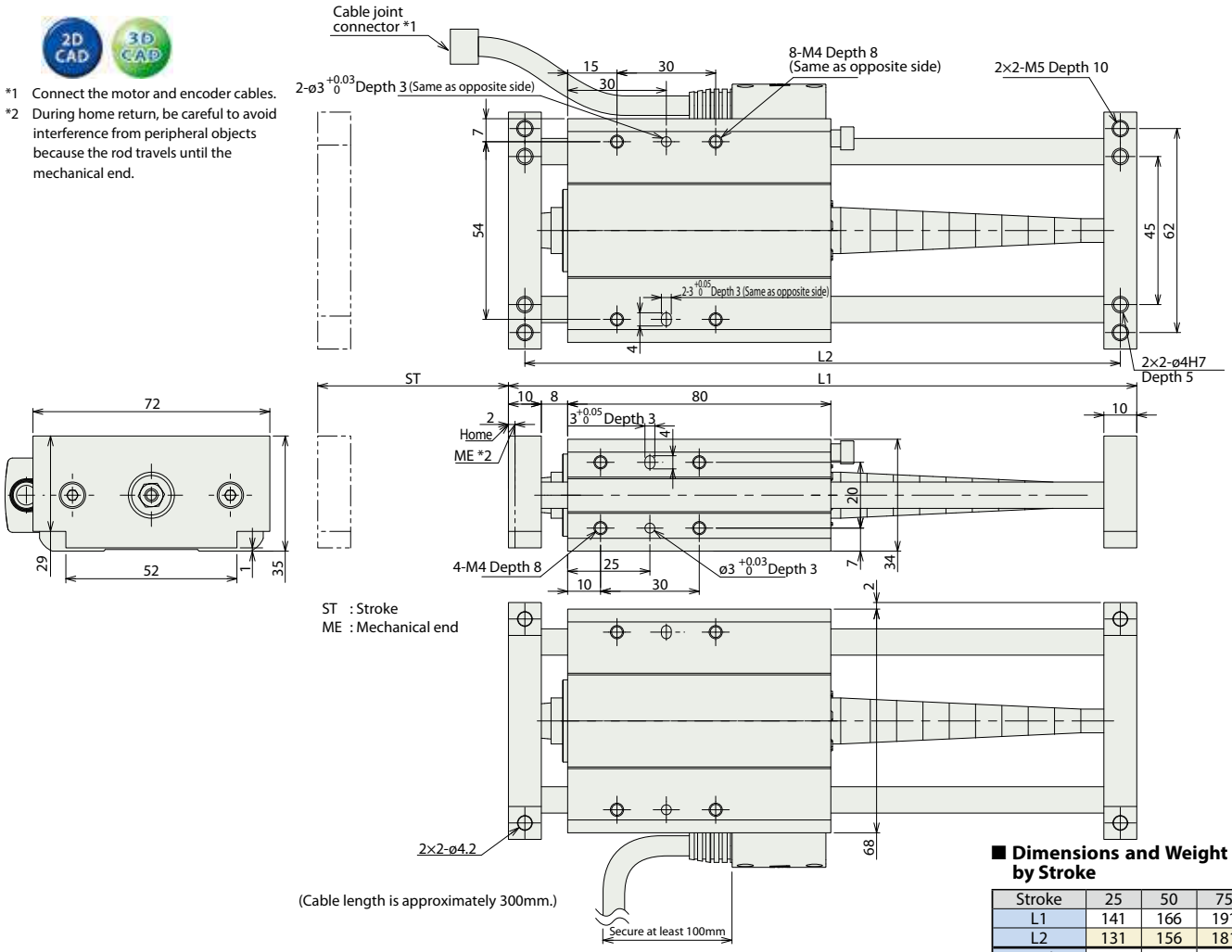
Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



ST : Stroke
ME : Mechanical end

■ Dimensions and Weight by Stroke

Stroke	25	50	75
L1	141	166	191
L2	131	156	181
Mass (kg)	0.73	0.75	0.77

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000

Please contact IAI for more information.

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-SD5N

ROBO Cylinder Mini Rod Type Short-Length Double-Guide Slide Unit Type Actuator Width 94 mm
200V Servo Motor Ball Screw Specification

■ Model Description

RCS2 — SD5N — I — 60 — ☐ — ☐ — T2 — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCS2	SD5N	I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X☐☐: Length Designation R☐☐: Robot cable	K1: Connector cable exits from the left K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT Notes on selection

(1) The horizontal payload is the value when used in combination with a guide so that a radial load and moment load are not applied to the rod.
See P129 for correlation diagrams of the end load and service life when a guide is not installed.
(2) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
(3) The vertical payload is the value when the actuator is mounted and side bracket is operated. Take note that in vertical operation, the side bracket cannot be mounted to operate the actuator.
(4) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-SD5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-SD5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-SD5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

③ Options

Title	Option code		
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

② Cable Length

Type	Cable symbol	Standard price
Standard type	**P** (1m)	—
	S (3m)	—
	M (5m)	—
Special length	**X06** (6m) ~ **X10** (10m)	—
	X11 (11m) ~ **X15** (15m)	—
	X16 (16m) ~ **X20** (20m)	—
Robot cable	**R01** (1m) ~ **R03** (3m)	—
	R04 (4m) ~ **R05** (5m)	—
	R06 (6m) ~ **R10** (10m)	—
	R11 (11m) ~ **R15** 153m)	—
	R16 (16m) ~ **R20** (20m)	—

Actuator Specifications

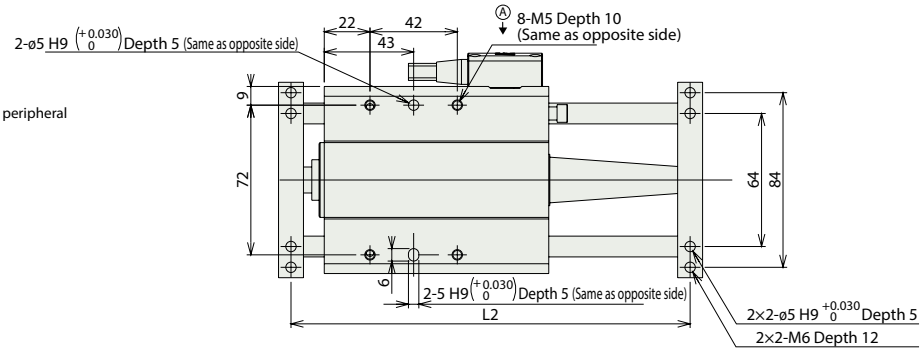
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40℃, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

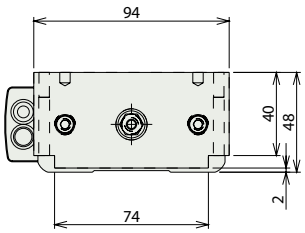
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

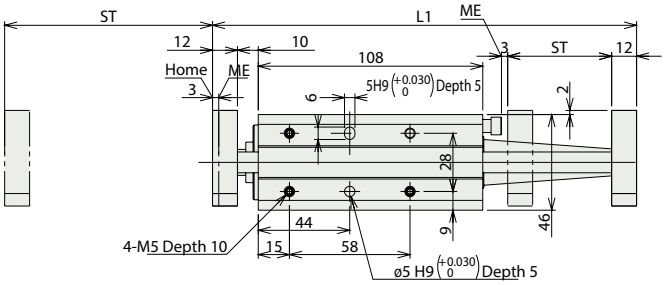
Dimensional Drawings

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

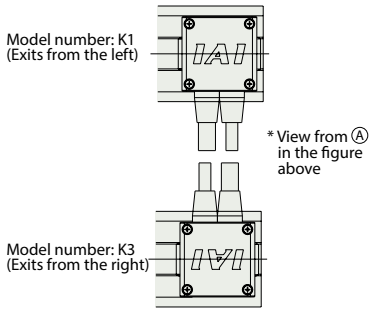
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end

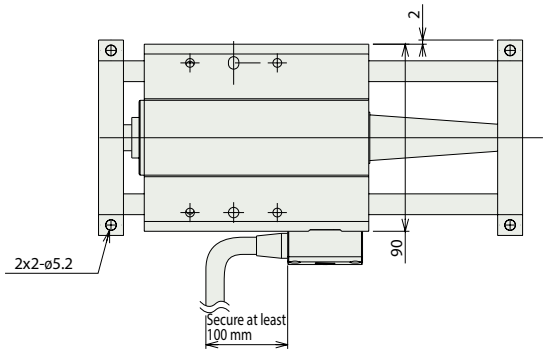






<Different connector cable exit direction> (Option)





■ Dimensions and Weight by Stroke

Stroke	50	75
L1	204	229
L2	192	217
Mass (kg)	1.9	1.94

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TCA3NA

ROBO Cylinder Mini Rod Type Short-Length Compact Type Actuator Width 32 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – TCA3NA – I – 10 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.

(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TCA3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-TCA3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-TCA3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-TCA3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-TCA3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-TCA3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead	Stroke	30 (mm)	50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available. When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

④ Options

Name	Option Code
Brake	**B**
Small connector specification	**CNS**
Designated grease specification	**G1/G3/G4**
Connector cable exit from left side	**K1**
Connector cable exit from front side	**K2**
Connector cable exit from right side	**K3**
Energy saver	**LA**

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)		Ma: 9.9 N•m Mb: 9.9 N•m Mc: 3.3 N•m
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification	5,000 km or 50 million cycles (*)

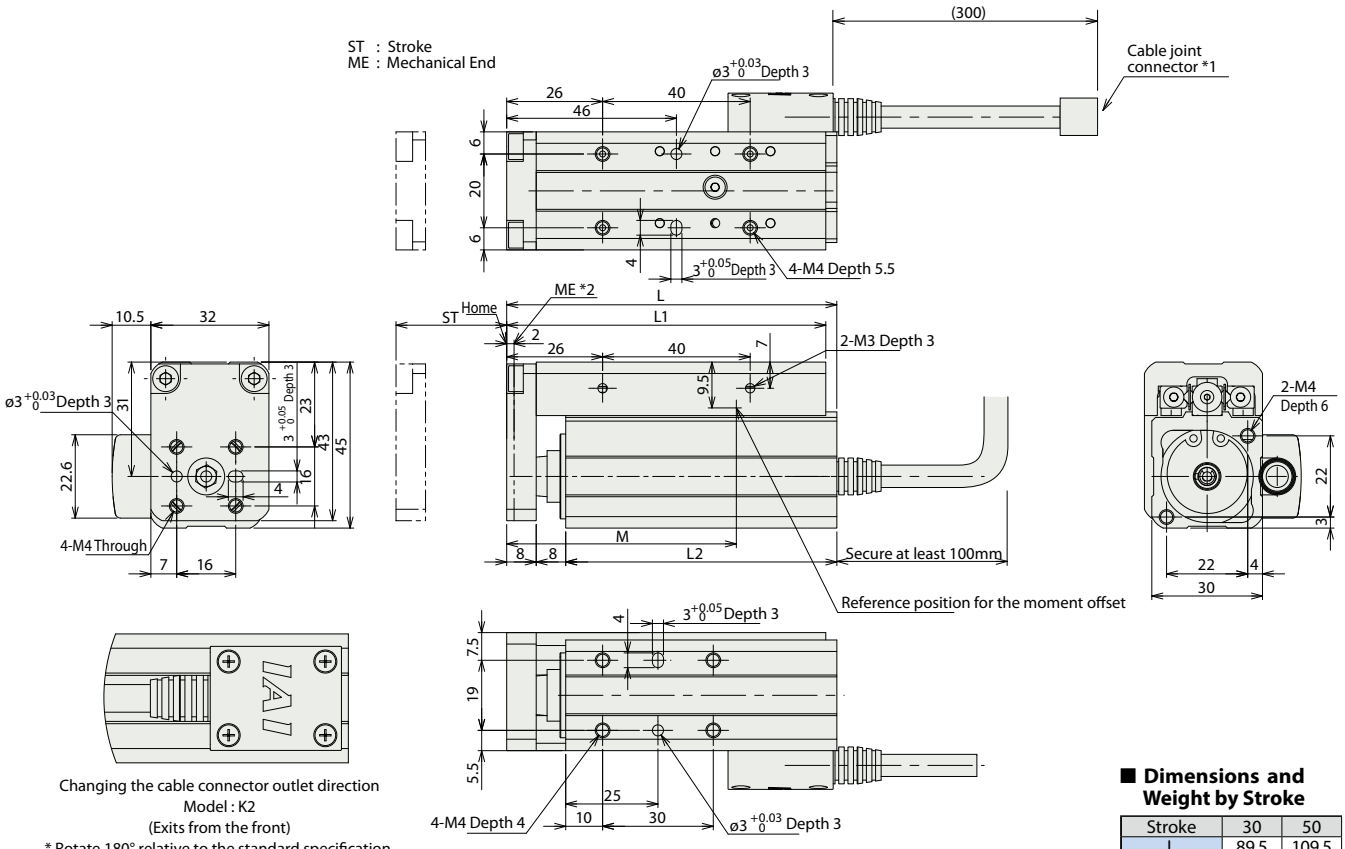
(Note) For cases when the guide service life has been set to 5,000km.
(*) For lead 1: 3,000 km or 50 million cycles

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	89.5	109.5
L1	86.5	106.5
L2	73.5	93.5
M	64	84
Mass (kg)	0.37	0.44

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TCA4NA

ROBO Cylinder Mini Table Type Short-Length Compact Type Actuator Width 36 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – TCA4NA – I – 20 – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TCA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-TCA4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-TCA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TCA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-TCA4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-TCA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	30 (mm)	50 (mm)
Ball screw 6	270 <220>	300
Ball screw 4	200	
Ball screw 2	100	
Lead screw 6	220	300
Lead screw 4	200	
Lead screw 2	100	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	**B**
Small connector specification	**CNS**
Designated grease specification	**G1/G3/G4**
Connector cable exit from left side	**K1**
Connector cable exit from front side	**K2**
Connector cable exit from right side	**K3**
Energy saver	**LA**

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)		Ma: 9.9 N•m Mb: 9.9 N•m Mc: 3.3 N•m
Ambient operating temperature, humidity		0 to 40˚C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification	5,000 km or 50 million cycles (*)

(Note) For cases when the guide service life has been set to 5,000km.

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

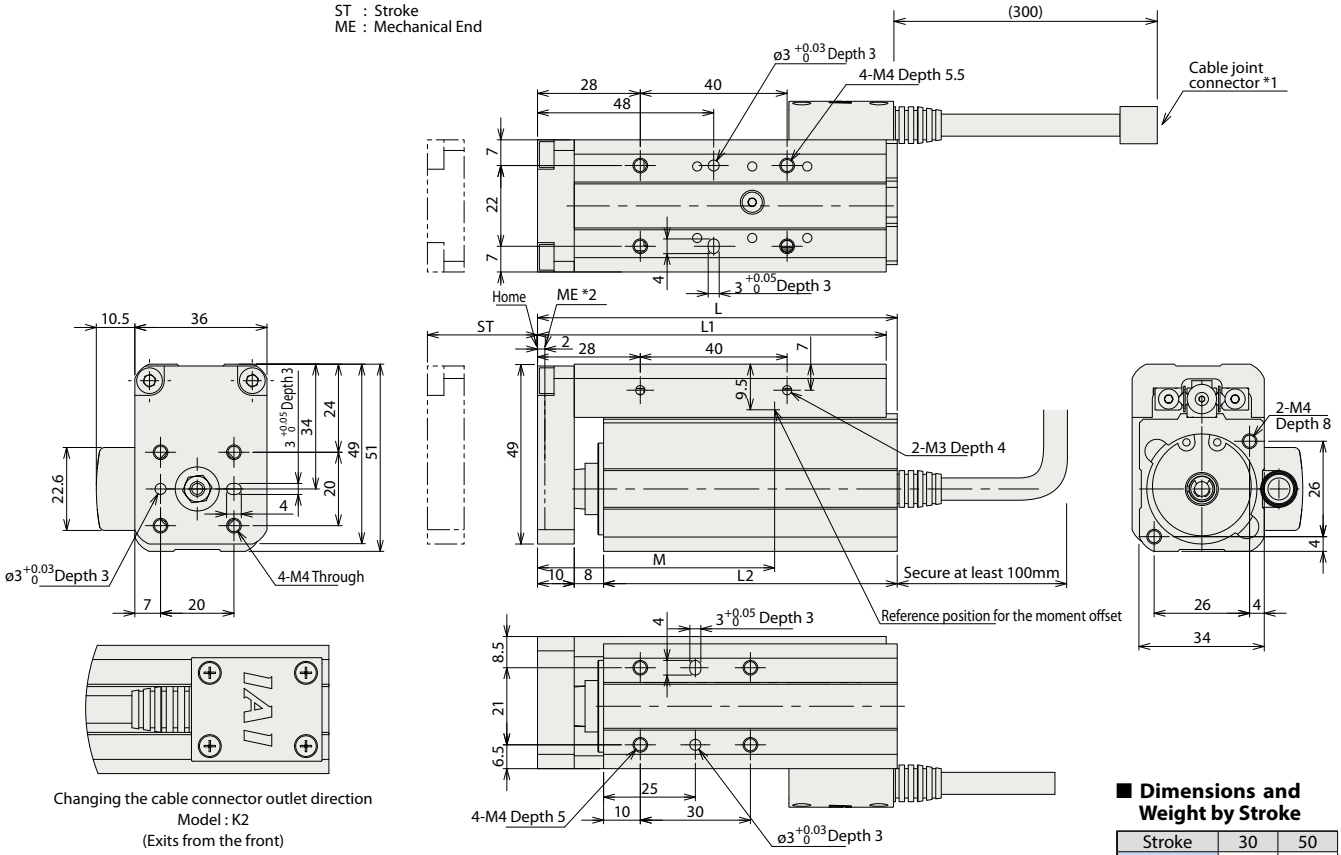
For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available.
When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Dimensional Drawings

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

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.

ST : Stroke
ME : Mechanical End



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification

■ Dimensions and Weight by Stroke

Stroke	30	50
L	98	118
L1	95	115
L2	50	100
M	66	86
Mass (kg)	0.48	0.6

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-TCA5N

ROBO Cylinder Mini Table Type Short-Length Compact Type Actuator Width 48 mm 200V Servo Motor Ball Screw Specification

■ Model Description

RCS2 — TCA5N — I — 60 — ☐ — ☐ — T2 — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCS2	TCA5N	I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X☐☐: Length Designation R☐☐: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.

(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-TCA5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-TCA5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-TCA5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)	Ma: 15 N•m Mb: 15 N•m Mc: 7.1 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

(Note) For cases when the guide service life has been set to 5,000km.

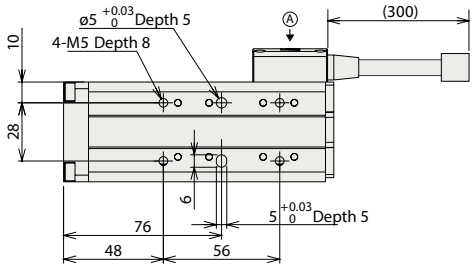
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

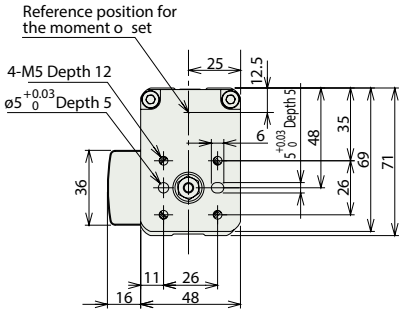
Dimensional Drawings

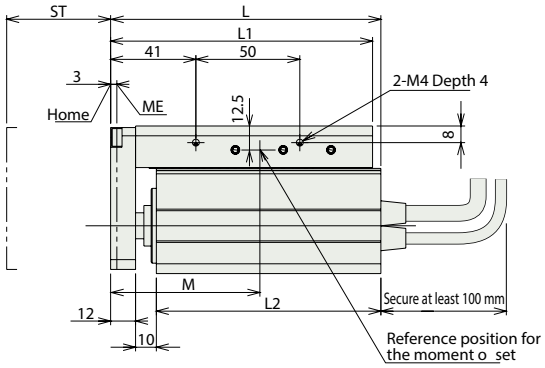
CAD drawings can be downloaded from the website. www.intelligentactuator.com

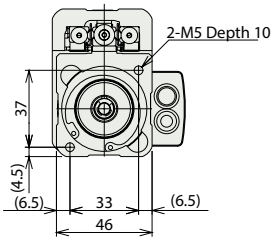
2D CAD

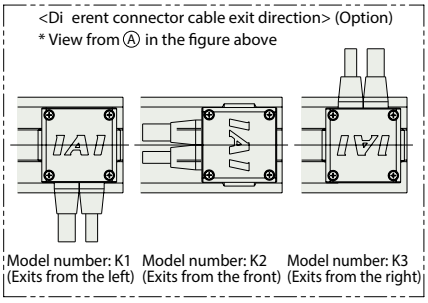
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end

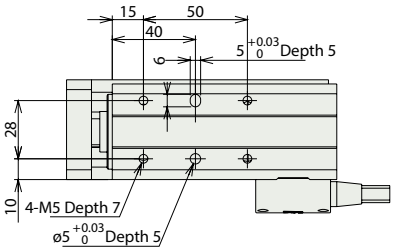












■ Dimensions and Weight by Stroke

Stroke	50	75
L	130	155
L1	126	151
L2	108	133
M	89	105.5
Mass (kg)	1.3	1.5

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TWA3NA

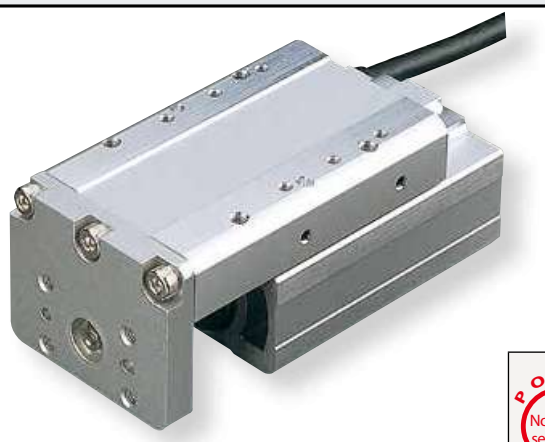
ROBO Cylinder Mini Table Type Short-Length Wide Type Actuator Width 50 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – TWA3NA – I – 10 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.



Power-saving specification

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.

(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TWA3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-TWA3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-TWA3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-TWA3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-TWA3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-TWA3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

■ Stroke and Maximum Speed

Lead		Stroke 30 (mm)	Stroke 50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

(unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

Stroke (mm)	Standard price: Feed screw: Ball screw	Standard price: Feed screw: Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	**B**
Small connector specification	**CNS**
Designated grease specification	**G1/G3/G4**
Connector cable exit from left side	**K1**
Connector cable exit from front side	**K2**
Connector cable exit from right side	**K3**
Energy saver	**LA**

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)		Ma: 9.9 N•m Mb: 9.9 N•m Mc: 9.4 N•m
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification	5,000 km or 50 million cycles (*)

(Note) For cases when the guide service life has been set to 5,000km.
(*) For lead 1: 3,000 km or 50 million cycles

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

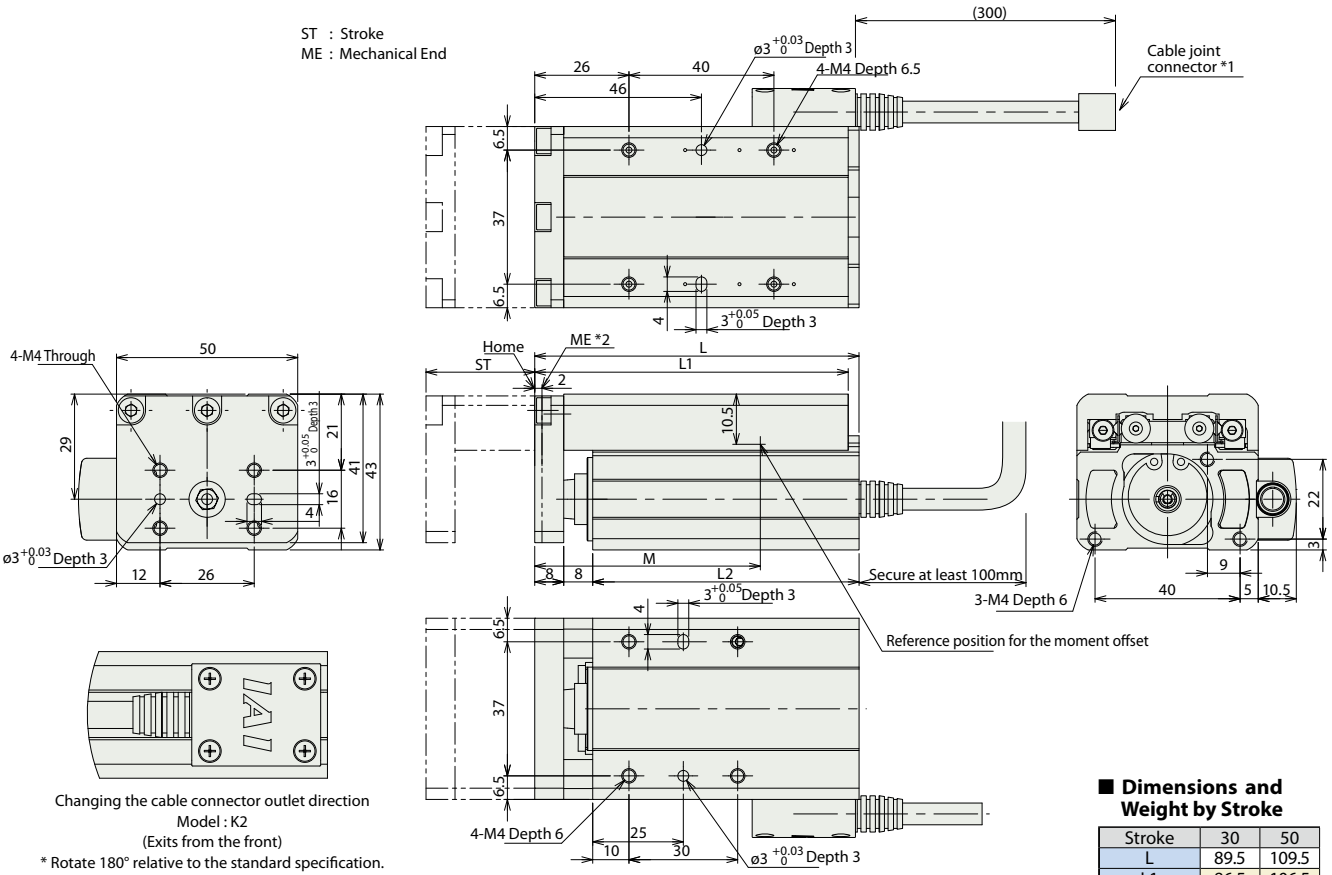
For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available.
When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	89.5	109.5
L1	86.5	106.5
L2	73.5	93.5
M	64	84
Mass (kg)	0.52	0.58

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TWA4NA

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

■ Model Description

RCA2 – TWA4NA – I – 20 – □ – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TWA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-TWA4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-TWA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TWA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-TWA4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-TWA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke		30 (mm)	50 (mm)
Ball screw	6	270 <220>	300
	4	200	
	2	100	
Lead screw	6	220	300
	4	200	
	2	100	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw: Ball screw	Standard price Feed screw: Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available.
When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Actuator Specifications

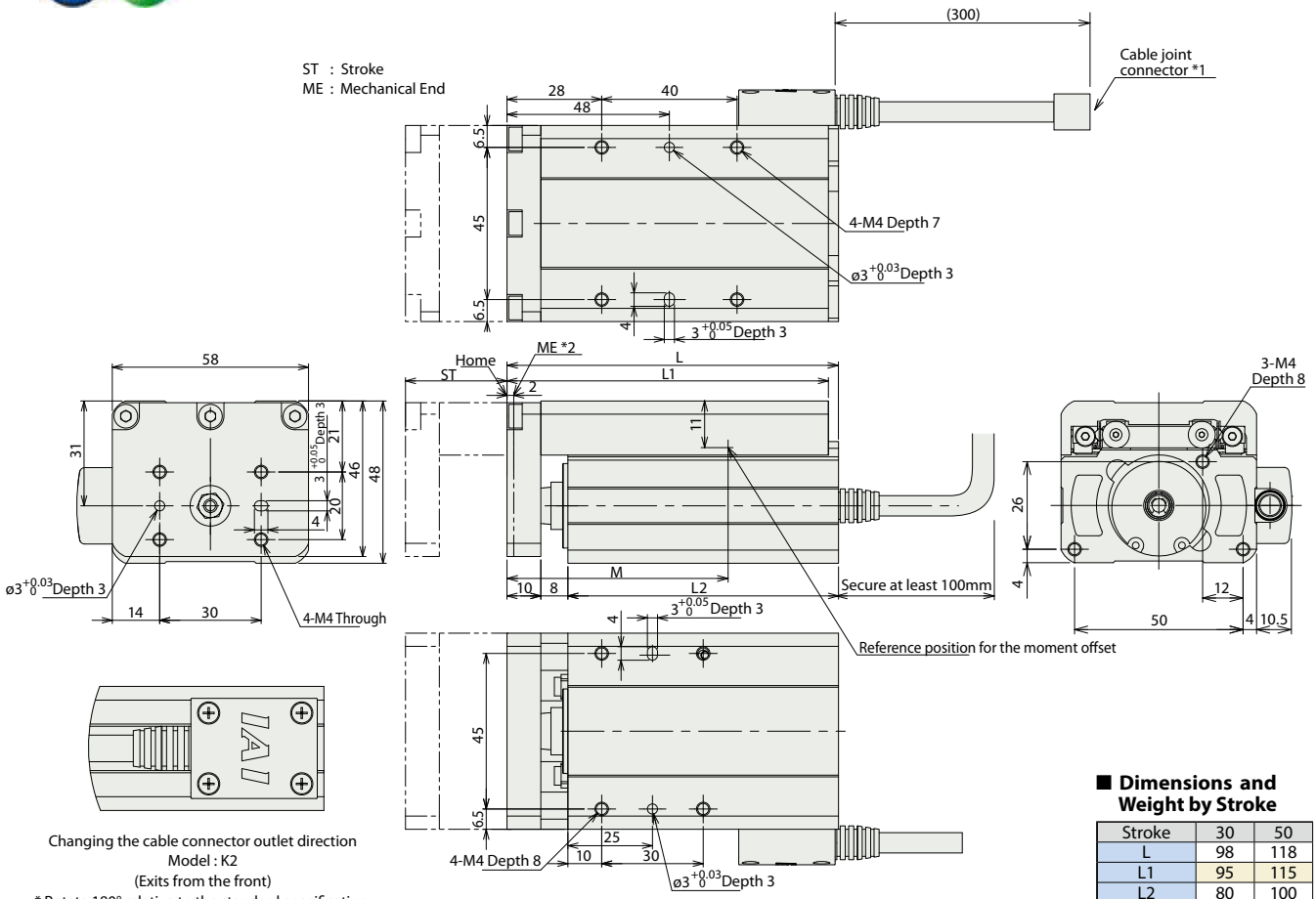
Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)		Ma: 9.9 N•m Mb: 9.9 N•m Mc: 12.2 N•m
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification	5,000 km or 50 million cycles

(Note) For cases when the guide service life has been set to 5,000km.

Dimensional Drawings

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

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	98	118
L1	95	115
L2	80	100
M	66	86
Mass (kg)	0.65	0.77

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-TWA5N

ROBO Cylinder Mini Table Type Short-Length Wide Type Actuator Width 80 mm 200V Servo Motor
Ball Screw Specification

■ Model Description

RCS2 — TWA5N — I — 60 — ☐ — ☐ — T2 — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON SSEL XSEL-P/Q XSEL-RA/SA T4: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X☐☐: Length Designation R☐☐: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-TWA5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-TWA5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-TWA5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	3 80 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)	Ma: 15 N•m Mb: 15 N•m Mc: 25.5 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

(Note) For cases when the guide service life has been set to 5,000km.

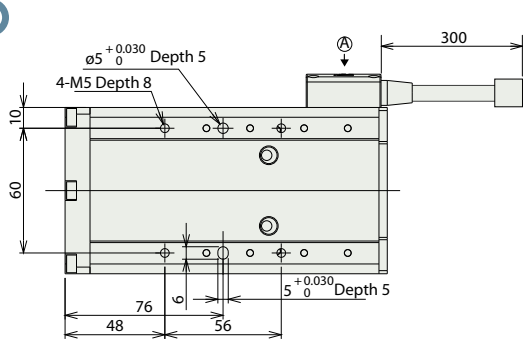
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

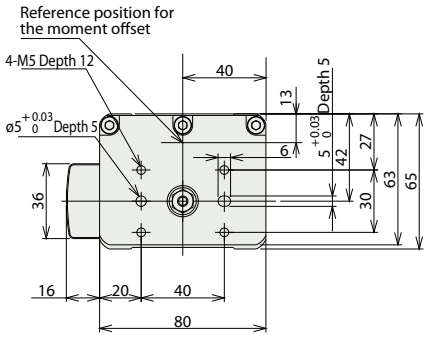
Dimensional Drawings

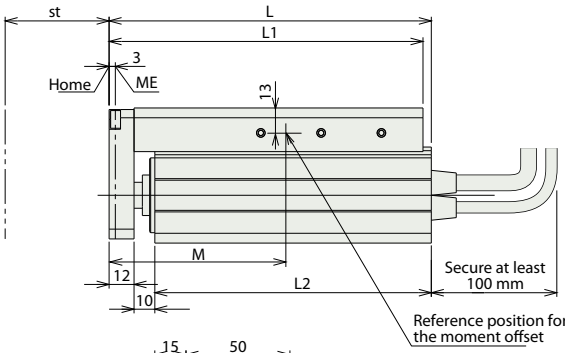
CAD drawings can be downloaded from the website. www.intelligentactuator.com

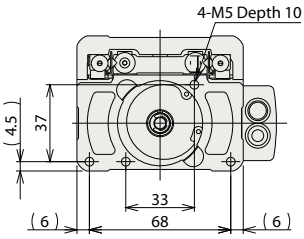
2D CAD

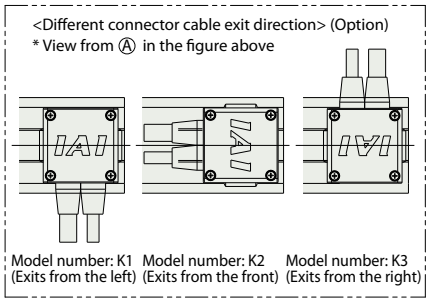
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end

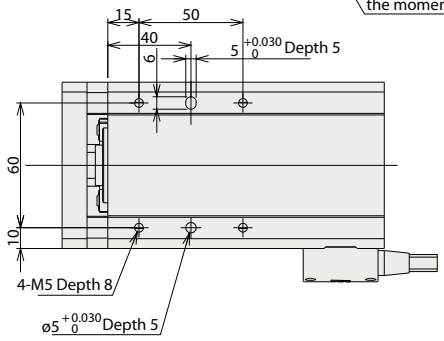












■ Dimensions and Weight by Stroke

Stroke	50	75
L	130	155
L1	126	151
L2	108	133
M	89	105.5
Mass (kg)	1.7	2.0

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method			Network option *1										Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM		
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TFA3NA

ROBO Cylinder Mini Table Type Short-Length Flat Type Actuator Width 61 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – TFA3NA – I – 10 – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TFA3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-TFA3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-TFA3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-TFA3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-TFA3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-TFA3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead		Stroke 30 (mm)	Stroke 50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price Feed screw Ball screw	Standard price Feed screw Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available. When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)		Ma: 9.9 N•m Mb: 9.9 N•m Mc: 3.3 N•m
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification	5,000 km or 50 million cycles (*)

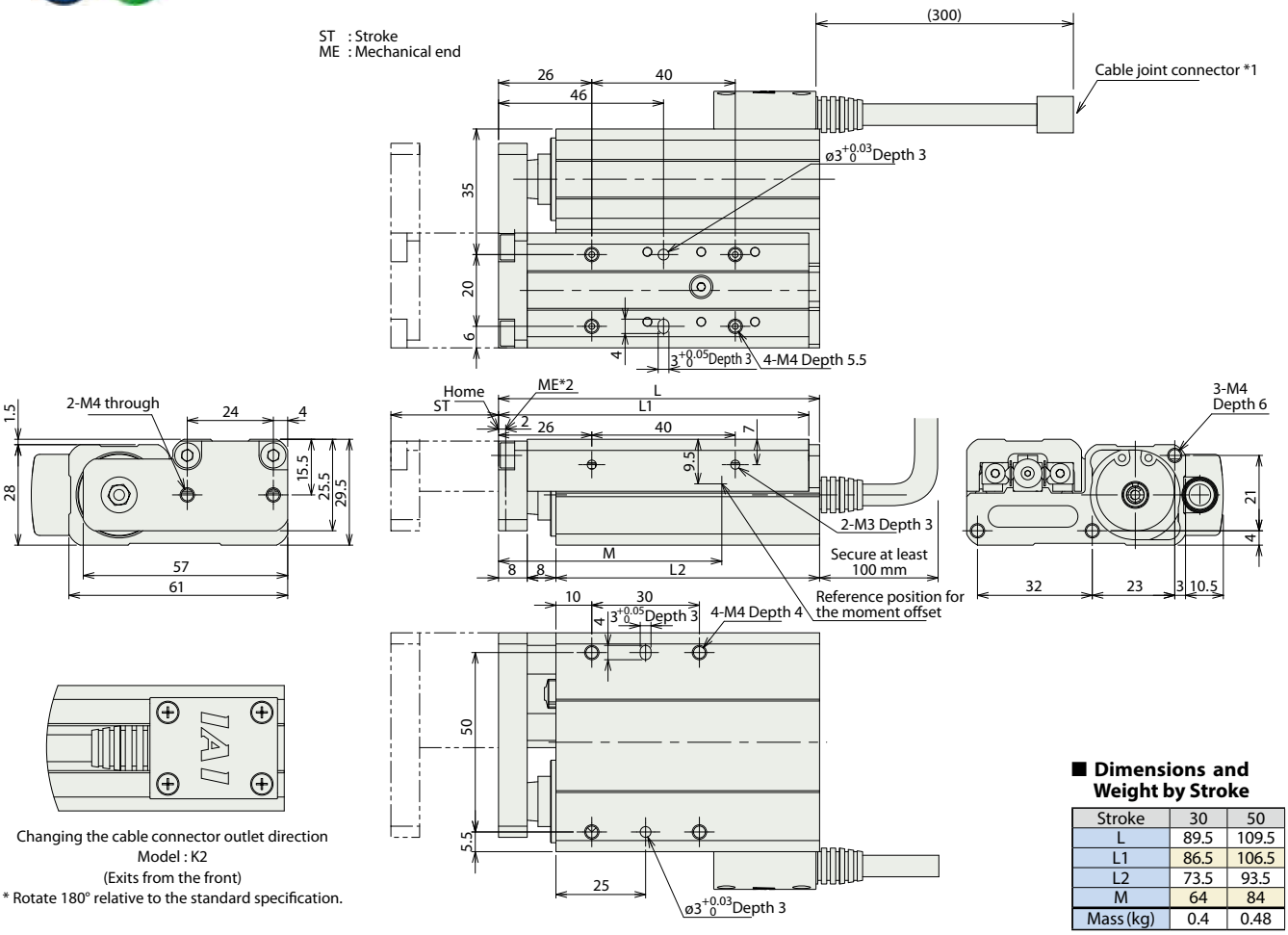
(Note) For cases when the guide service life has been set to 5,000km.
(*) For lead 1: 3,000 km or 50 million cycles

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	89.5	109.5
L1	86.5	106.5
L2	73.5	93.5
M	64	84
Mass (kg)	0.4	0.48

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method			Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1	
							DV / CC / CIE / PR / CN / ML / ML3 / EC / EP / PRT / SSN / ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	● ● ● ● ● ● ● ● ● ● - -	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	- - - - - - - - - - - -	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	● ● ● ● - - ● ● ● ● ● ●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	● ● ● ● - - - ● ● ● - -	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TFA4NA

ROBO Cylinder Mini Table Type Short-Length Flat Type Actuator Width 71 mm 24V Servo Motor
Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – TFA4NA – I – 20 – □ – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo motor 20W	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TFA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-TFA4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-TFA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TFA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-TFA4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-TFA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke		30 (mm)	50 (mm)
Ball screw	6	270 <220>	300
	4	200	
	2	100	
Lead screw	6	220	300
	4	200	
	2	100	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	Standard price	
	Feed screw	
	Ball screw	Lead screw
30	—	—
50	—	—

④ Options

Name	Option Code
Brake	B
Small connector specification	CNS
Designated grease specification	G1/G3/G4
Connector cable exit from left side	K1
Connector cable exit from front side	K2
Connector cable exit from right side	K3
Energy saver	LA

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

(Note)
For standard connector :
The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

For small connector specification (CNS option):
The cables above are standard cable for A3, A5 and A6. Robot cables are available.
When using a 4-way connector cable, specify the cable length as "**N**" for the actuator model number and order the cable separately.
Order model numbers are as follows.
Enter the cable length in □□□. (Example) **080** = 8m, "**-RB**" = Robot cable
A3/A5: CB-CAN2-MPA□□□ (-RB)
A6: CB-ADPC2-MPA□□□ (-RB)
For details on installation precautions, please contact IAI.

Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø6mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)		Ma: 9.9 N•m Mb: 9.9 N•m Mc: 3.3 N•m
Ambient operating temperature, humidity		0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification	5,000 km or 50 million cycles

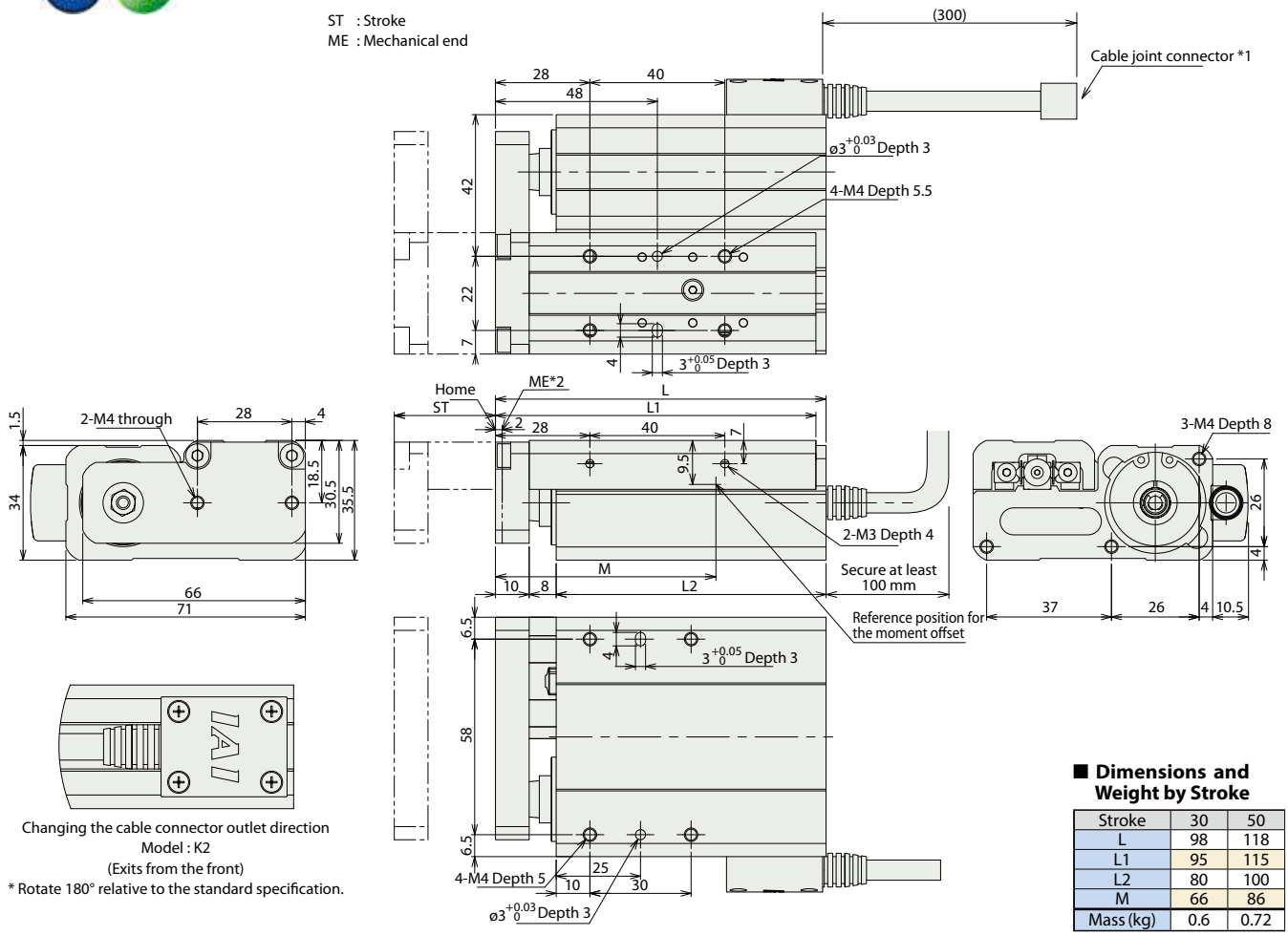
(Note) For cases when the guide service life has been set to 5,000km.

Dimensional Drawings

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

2D CAD 3D CAD

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.



Changing the cable connector outlet direction
Model : K2
(Exits from the front)
* Rotate 180° relative to the standard specification.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	98	118
L1	95	115
L2	80	100
M	66	86
Mass (kg)	0.6	0.72

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCS2-TFA5N

ROBO Cylinder Mini Rod Type Short-Length Flat Type Actuator Width 95 mm 200 V Servo Motor
Ball Screw Specification

■ Model Description

RCS2 — TFA5N — I — 60 — ☐ — ☐ — T2 — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification	60: Servo motor 60W	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON, SSEL, XSEL-P/Q, XSEL-RA/SA T4: RCON, RSEL	N: None P: 1 m S: 3 m M: 5 m X☐☐: Length Designation R☐☐: Robot cable	K1: Connector cable exits from the left K2: Connector cable exits from the front K3: Connector cable exits from the right

* See page 14 for details on the model descriptions.

POINT Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 2.5) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-TFA5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-TFA5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-TFA5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Legend ① Stroke ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

*< > Indicates vertical use (unit: mm/s)

① Stroke list

Stroke (mm)	
50	
75	

③ Options

Title	Option code	See page	
Connector cable exits from the left	**K1**	Refer to the next page	
Connector cable exits from the front	**K2**	Refer to the next page	
Connector cable exits from the right	**K3**	Refer to the next page	

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	
Robot cable	**R01** (1m) ~ **R03** (3m)	
	R04 (4m) ~ **R05** (5m)	
	R06 (6m) ~ **R10** (10m)	
	R11 (11m) ~ **R15** 153m)	
	R16 (16m) ~ **R20** (20m)	

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Dynamic allowable moment (see note)	Ma: 15 N•m Mb: 15 N•m Mc: 7.1 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

(Note) For cases when the guide service life has been set to 5,000km.

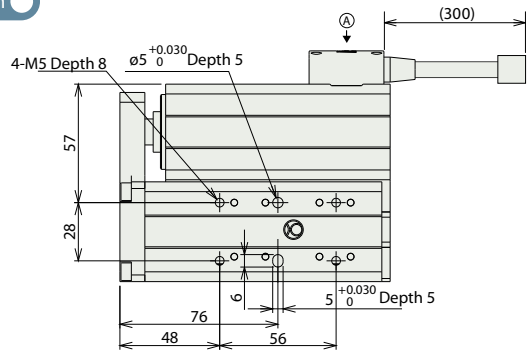
The information may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

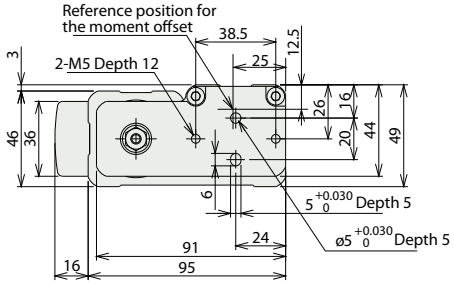
Dimensional Drawings

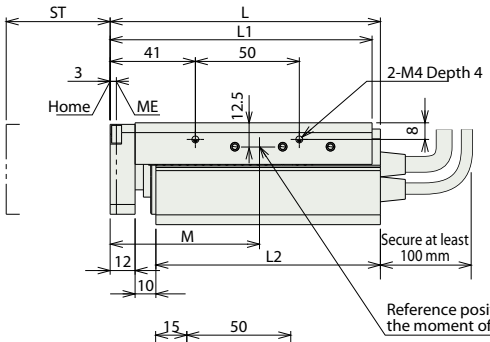
CAD drawings can be downloaded from the website. www.intelligentactuator.com

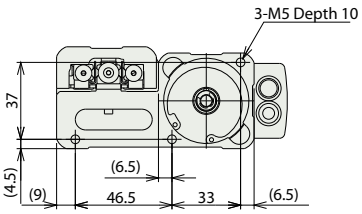
2D CAD

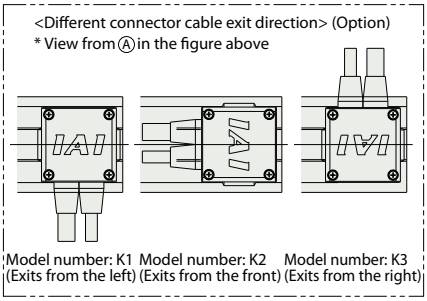
*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end

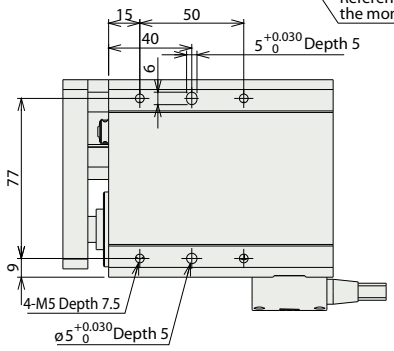












■ Dimensions and Weight by Stroke

Stroke	50	75
L	130	155
L1	126	151
L2	108	133
M	89	105.5
Mass (kg)	1.4	1.6

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
RCON		16 (ML3,SSN, ECM are 8)	24VDC Single phase 200VAC 3 phase 200VAC	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-TA3C

ROBO Cylinder Mini Table Type Motor Unit Coupling Type Actuator Width 36 mm Pulse Motor Ball Screw Specification

■ Model Description

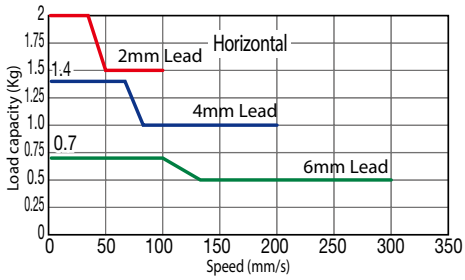
RCP3 — TA3C — I — 20P — ☐ — ☐ — ☐ — ☐ — ☐

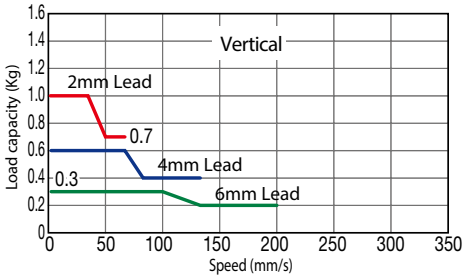
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	TA3C	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse motor 20☐Size	6: 6mm 4: 4mm 2: 2mm	20: 20mm 〜 100: 100mm (set in steps every 10mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X☐☐: Len. desig. R☐☐: Robot cable	See option table below.

* See page 14 for details on the model descriptions.

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





POINT Notes on selection

(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of Lead 2 and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of Lead 2 and vertical usage).

Actuator Specifications Table

■ Leads and Payloads

(Note 1) Please note that the maximum payload decreases as the speed increases.

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-TA3C-I-20P-6-①-②-③-④	Ball screw	6	~0.7	~0.3	9	±0.02	20 to100 (every 10mm)
RCP3-TA3C-I-20P-4-①-②-③-④		4	~1.4	~0.6	14		
RCP3-TA3C-I-20P-2-①-②-③-④		2	~2	~1	28		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(Note 2) For a graph of the pushing force, see P127.

■ Stroke and Maximum Speed

Lead \ Stroke	20 to 100 (mm)
Ball screw 6	300 <200>
Ball screw 4	200 <133>
Ball screw 2	100 <67>

*< > Indicates vertical use

(unit: mm/s)

① Stroke list

Stroke (mm)	
20	
30	
40	
50	
60	
70	
80	
90	
100	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

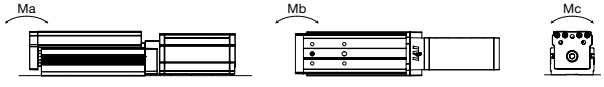
Title	Option code
Brake	**B**
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note 3)	Ma: 3.2 N•m Mb: 4.6 N•m Mc: 5.1 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

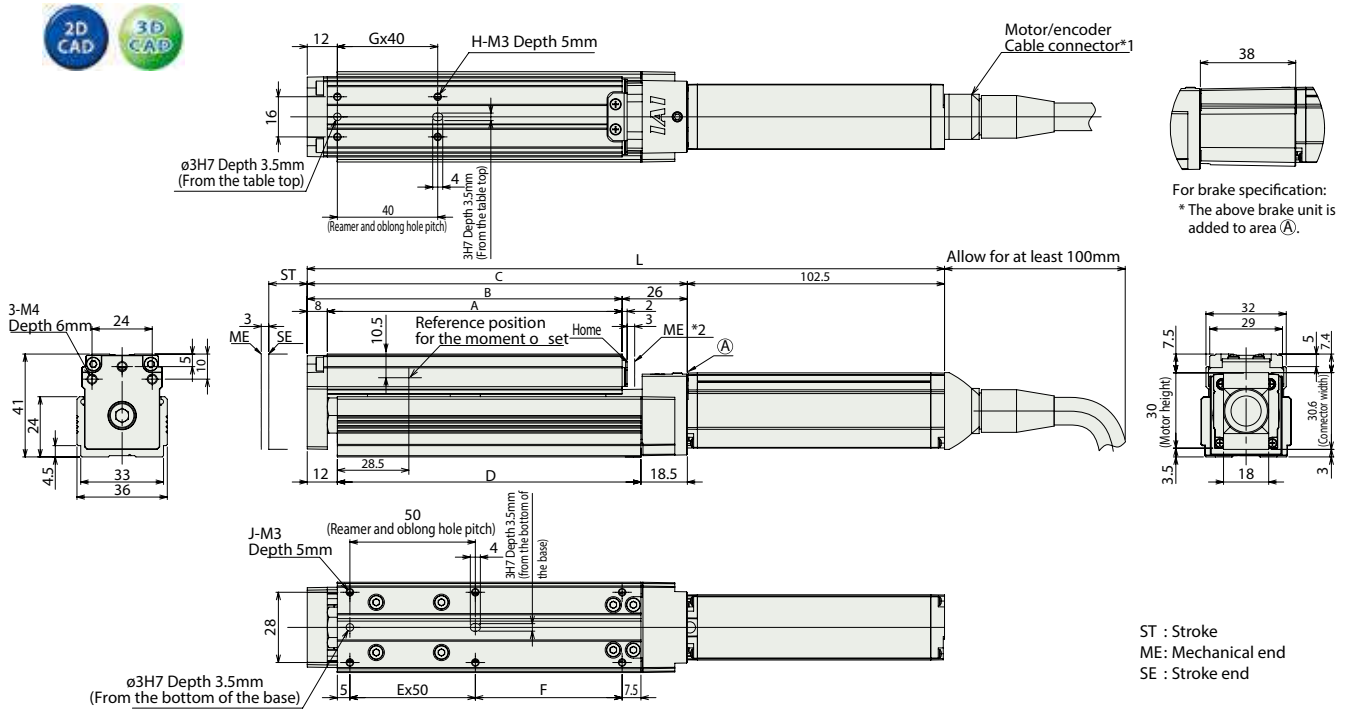
(Note 3) For case of 5,000km service life.

Directions of allowable load moments



Dimensional Drawings

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



ST : Stroke
ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

* The attached brake adds 0.1kg of mass.

Stroke		20	30	40	50	60	70	80	90	100
L	No brake	224	234	244	254	264	274	284	294	304
	Brake-equipped	262	272	282	292	302	312	322	332	342
A		87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.7	167.5
B		95.5	105.5	115.1	125.5	135.5	145.5	155.5	165.5	175.5
C		121.5	131.5	141.5	151.5	161.5	171.5	181.5	191.5	201.5
D		91	101	111	121	131	141	151	161	171
E		1	1	1	1	2	2	2	2	2
F		28.5	38.5	48.5	58.5	18.5	28.5	38.5	48.5	58.5
G		1	1	1	1	2	2	2	2	2
H		4	4	4	4	6	6	6	6	6
J		6	6	6	6	8	8	8	8	8
Mass (kg)		0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7

* 1 The motor-encoder cable is connected directly to the actuator motor cover.
* 2 The slider moves to the mechanical end during home return. Pay attention to prevent contact between the slider and surrounding parts.

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-TA4C

ROBO Cylinder Mini Table Type Motor Unit Coupling Type Actuator Width 40 mm Pulse Motor Ball Screw Specification

■ Model Description

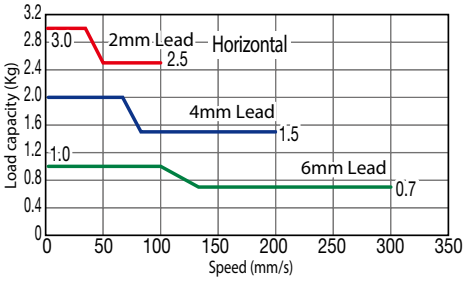
RCP3 — TA4C — I — 28P — □ — □ — □ — □ — □

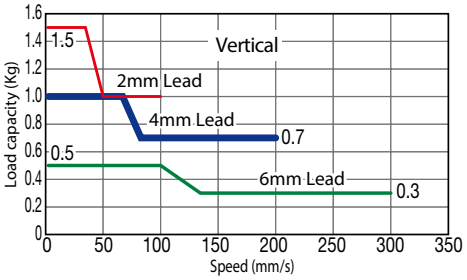
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	TA4C	I: Incremental specification * Model number is "I" when used with simple absolute unit.	28P: Pulse motor 28□Size	6: 6mm 4: 4mm 2: 2mm	20: 20mm 〜 100: 100mm (set in steps every 10mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	See option table below.

* See page 14 for details on the model descriptions.

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





POINT Notes on selection

(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of Lead 2 and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of Lead 2 and vertical usage).

Actuator Specifications Table

■ Leads and Payloads

(Note 1) Please note that the maximum payload decreases as the speed increases.

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-TA4C-I-28P-6-①-②-③-④	Ball screw	6	~1	~0.5	15	±0.02	20 to100 (every 10mm)
RCP3-TA4C-I-28P-4-①-②-③-④		4	~2	~1	22		
RCP3-TA4C-I-28P-2-①-②-③-④		2	~3	~1.5	44		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(Note 2) For a graph of the pushing force, see P127.

■ Stroke and Maximum Speed

Lead \ Stroke	20 to 100 (mm)
Ball screw 6	300
Ball screw 4	200
Ball screw 2	100

(unit: mm/s)

① Stroke list

Stroke (mm)	
20	
30	
40	
50	
60	
70	
80	
90	
100	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

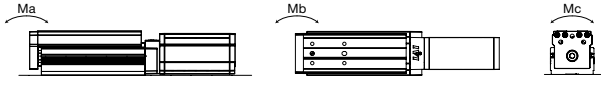
Title	Option code
Brake	**B**
Cable exit direction (top)	**CJT**
Cable exit direction (right)	**CJR**
Cable exit direction (left)	**CJL**
Cable exit direction (bottom)	**CJB**
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (note 3)	Ma: 4.2 N•m Mb: 6 N•m Mc: 8.2 N•m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

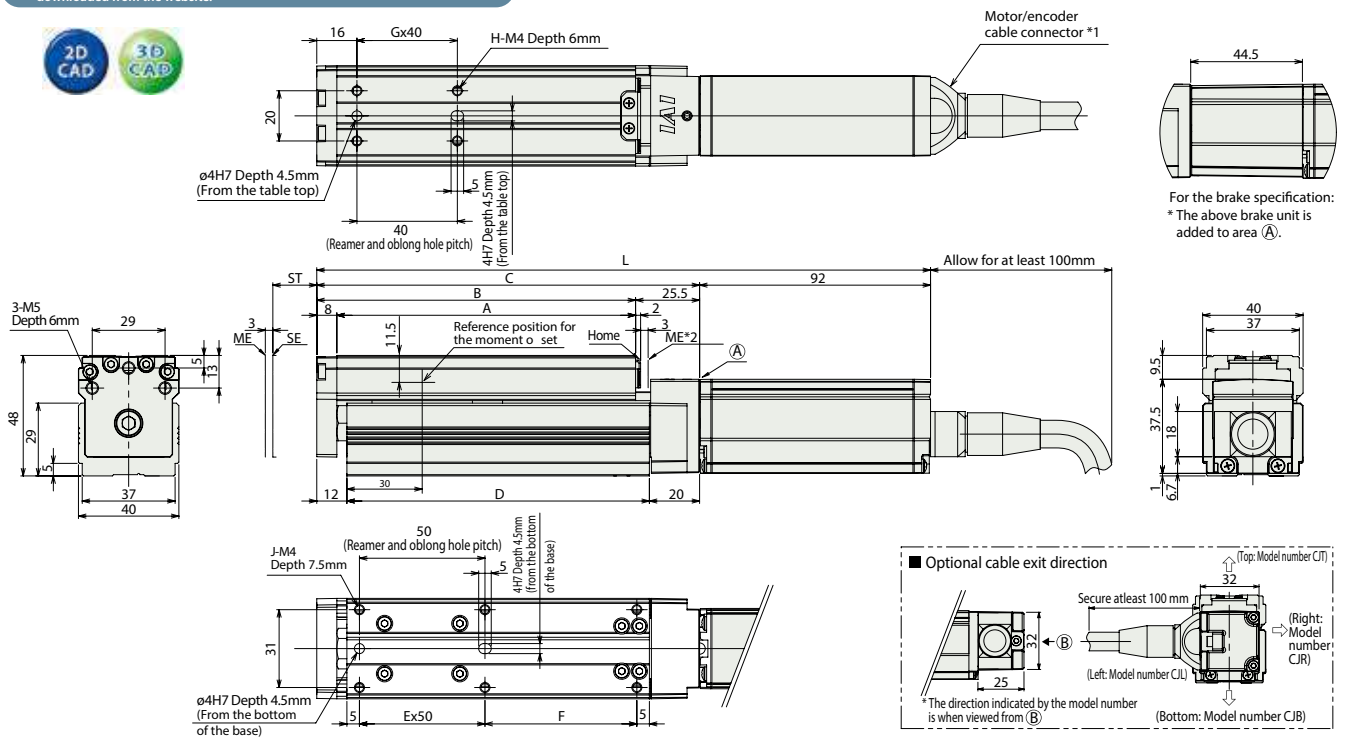
(Note 3) For case of 5,000km service life.

Directions of allowable load moments



Dimensional Drawings

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



* 1 The motor-encoder cable is connected directly to the actuator motor cover.
* 2 The slider moves to the mechanical end during home return. Pay attention to prevent contact between the slider and surrounding parts.

ST : Stroke
ME: Mechanical end
SE : Stroke end

Dimensions and Weight by Stroke

* The attached brake adds 0.2kg of mass.

Stroke	20	30	40	50	60	70	80	90	100
L No brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
L Brake-equipped	259	269	279	289	299	309	319	329	339
A	89	99	109	119	129	139	149	159	169
B	97	107	117	127	137	147	157	167	177
C	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Mass (kg)	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method: Positioner	Control method: Pulse-train	Control method: Program	Control method: Network option *1: DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	Maximum number of positioning points	Reference page
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TA4C

ROBO Cylinder Mini Table Type Motor Unit Coupling Type Actuator Width 40 mm 24V Servo Motor Ball Screw Specification

■ Model Description

RCA2 — TA4C — I — 10 — □ — □ — □ — □ — □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCA2	TA4C	I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	6: 6mm 4: 4mm 2: 2mm	20: 20mm 〜 100: 100mm (set in steps every 10mm)	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

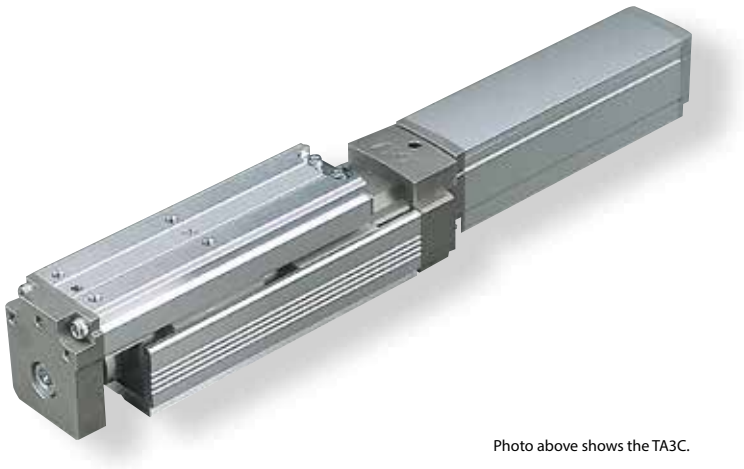


Photo above shows the TA3C.

POINT — Notes on selection

(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of Lead 2 and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of Lead 2 and vertical usage).

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TA4C-I-10-6-①-②-③-④	10	Ball screw	6	1	0.5	28	±0.02	20 to100 (every 10mm)
RCA2-TA4C-I-10-4-①-②-③-④			4	2	1	43		
RCA2-TA4C-I-10-2-①-②-③-④			2	3	1.5	85		

■ Stroke and Maximum Speed

Lead \ Stroke	20 to 100 (mm)
Ball screw 6	300
Ball screw 4	200
Ball screw 2	100

(unit: mm/s)

Legend ①Stroke ②Compatible Controllers ③Cable length ④Option

①Stroke list

Stroke (mm)	
20	
30	
40	
50	
60	
70	
80	
90	
100	

④Options

Title	Option code
Brake	**B**
Cable exit direction (top)	**CJT**
Cable exit direction (right)	**CJR**
Cable exit direction (left)	**CJL**
Cable exit direction (bottom)	**CJB**
Power-saving specification	**LA**
Reversed-home specification	**NM**

③Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

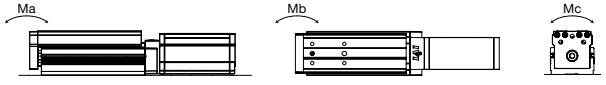
* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 4.2 N•m Mb: 6 N•m Mc: 8.2 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

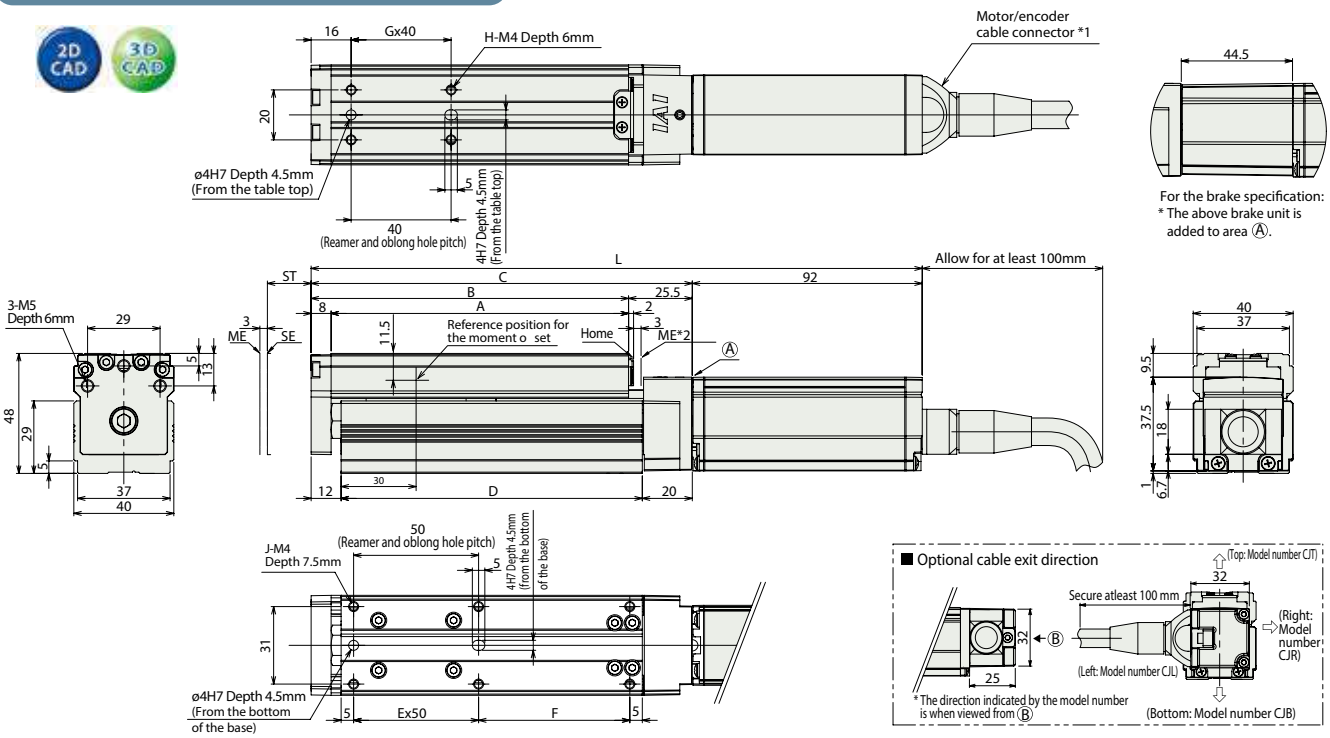
(Note) For case of 5,000km service life.

Directions of allowable load moments



Dimensional Drawings

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



* 1 The motor-encoder cable is connected directly to the actuator motor cover.
* 2 The slider moves to the mechanical end during home return. Pay attention to prevent contact between the slider and surrounding parts.

ST : Stroke
ME: Mechanical end
SE : Stroke end

Dimensions and Weight by Stroke

* The attached brake adds 0.2kg of mass.

Stroke		20	30	40	50	60	70	80	90	100
L	No brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
	Brake-equipped	259	269	279	289	299	309	319	329	339
A		89	99	109	119	129	139	149	159	169
B		97	107	117	127	137	147	157	167	177
C		122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5
D		90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E		1	1	1	1	2	2	2	2	2
F		30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G		1	1	1	1	2	2	2	2	2
H		4	4	4	4	6	6	6	6	6
J		6	6	6	6	8	8	8	8	8
Mass (kg)		0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-TA3R

ROBO Cylinder Mini Table Type Side-Mounted Motor Type Actuator Width 72 mm Pulse Motor Ball Screw Specification

■ Model Description

RCP3 — TA3R — I — 20P — □ — □ — □ — □ — □

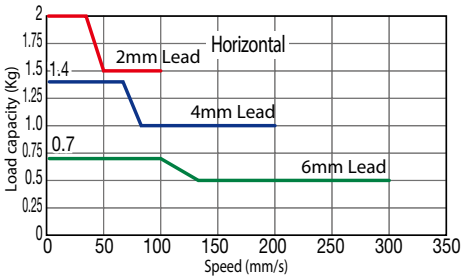
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	TA3R	I: Incremental specification * Model number is "I" when used with simple absolute unit.	20P: Pulse motor 20□Size	6: 6mm 4: 4mm 2: 2mm	20: 20mm ⌇ 100: 100mm (set in steps every 10mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	See option table below. * Be sure to specify which side the motor is to be mounted (ML/MR)

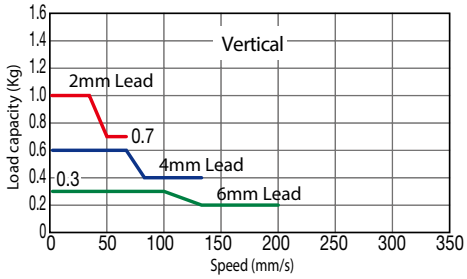
* See page 14 for details on the model descriptions.

Photo above shows specification with motor side-mounted to the left (ML Option).

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





POINT Notes on selection

(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of Lead 2 and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of Lead 2 and vertical usage).

Actuator Specifications Table

■ Leads and Payloads

(Note 1) Please note that the maximum payload decreases as the speed increases.

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-TA3R-I-2P0-6-①-②-③-④	Ball screw	6	~0.7	~0.3	9	±0.02	20 to100 (every 10mm)
RCP3-TA3R-I-20P-4-①-②-③-④		4	~1.4	~0.6	14		
RCP3-TA3R-I-20P-2-①-②-③-④		2	~2	~1	28		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(Note 2) For a graph of the pushing force, see P127.

■ Stroke and Maximum Speed

Lead \ Stroke	20 to 100 (mm)
Ball screw 6	300 <200>
Ball screw 4	200 <133>
Ball screw 2	100 <67>

*< > Indicates vertical use

(unit: mm/s)

① Stroke list

Stroke (mm)	
20	
30	
40	
50	
60	
70	
80	
90	
100	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

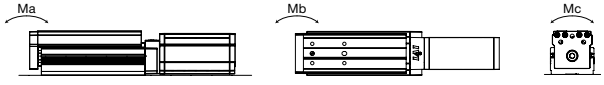
Title	Option code
Brake	**B**
Side-mounted motor to the left (standard)	**ML**
Side-mounted motor to the right	**MR**
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note 3)	Ma: 3.2 N•m Mb: 4.6 N•m Mc: 5.1 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note 3) For case of 5,000km service life.

Directions of allowable load moments

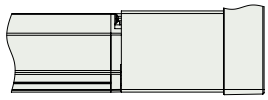


Dimensional Drawings

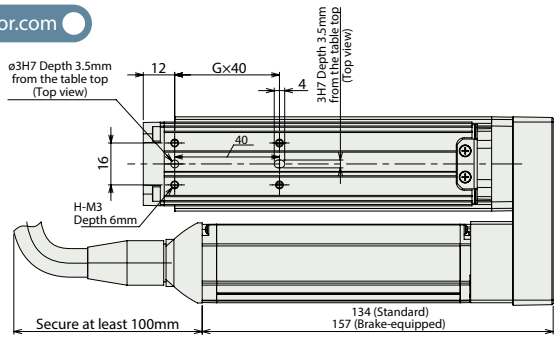
CAD drawings can be downloaded from the website. www.intelligentactuator.com

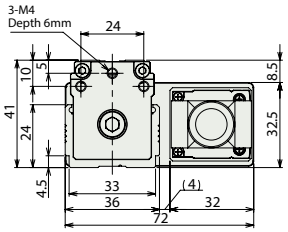
2D CAD 3D CAD

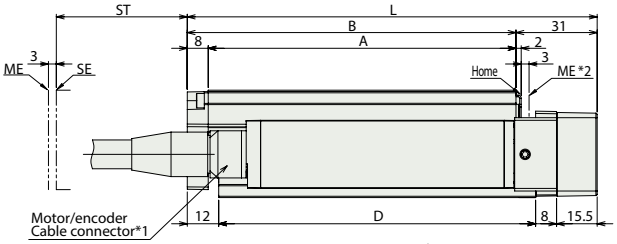
* The drawing below shows the specification with motor side-mounted to the left.

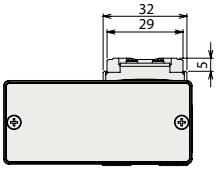


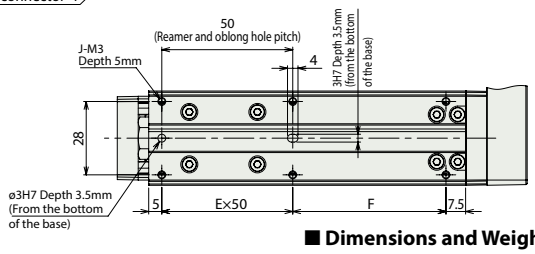
With the brake:
(see drawing on the right for dimensions)











ST : Stroke
ME: Mechanical end
SE : Stroke end

The reference position for moment offset is the same as the position on the TA3C (P. 90).

* 1 The motor-encoder cable is connected directly to the actuator motor cover.
* 2 The slider moves to the mechanical end during home return. Pay attention to prevent contact between the slider and surrounding parts.

■ Dimensions and Weight by Stroke

* The attached brake adds 0.1kg of mass.

Stroke	20	30	40	50	60	70	80	90	100
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5
A	87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.5	167.5
B	95.5	105.5	115.5	125.5	135.5	145.5	155.5	165.5	175.5
D	91	101	111	121	131	141	151	161	171
E	1	1	1	1	2	2	2	2	2
F	28.5	38.5	48.5	58.5	18.5	28.5	38.5	48.5	58.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Mass (kg)	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method: Positioner	Control method: Pulse-train	Control method: Program	Control method: Network option *1 DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	Maximum number of positioning points	Reference page
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCP3-TA4R

ROBO Cylinder Mini Table Type Side-Mounted Motor Type Actuator Width 81 mm Pulse Motor Ball Screw Specification

■ Model Description

RCP3 — TA4R — I — 28P — □ — □ — □ — □ — □

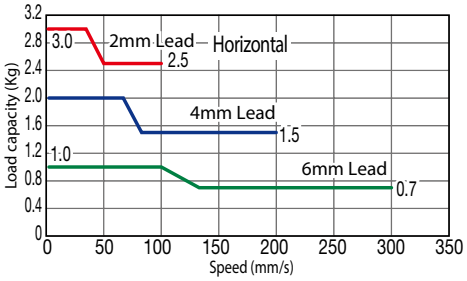
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCP3	TA4R	I: Incremental specification * Model number is "I" when used with simple absolute unit.	28P: Pulse motor 28□Size	6: 6mm 4: 4mm 2: 2mm	20: 20mm 〜 100: 100mm (set in steps every 10mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig. R□□: Robot cable	See option table below. * Be sure to specify which side the motor is to be mounted (ML/MR)

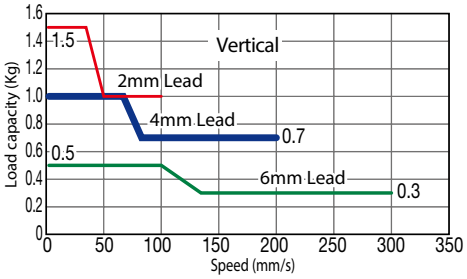
* See page 14 for details on the model descriptions.

Photo above shows specification with TA3R motor side-mounted to the left (ML).

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





POINT Notes on selection

(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of Lead 2 and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of Lead 2 and vertical usage).

Actuator Specifications Table

■ Leads and Payloads

(Note 1) Please note that the maximum payload decreases as the speed increases.

Model	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCP3-TA4R-I-28P-6-①-②-③-④	Ball screw	6	~1	~0.5	15	±0.02	20 to100 (every 10mm)
RCP3-TA4R-I-28P-4-①-②-③-④		4	~2	~1	22		
RCP3-TA4R-I-28P-2-①-②-③-④		2	~3	~1.5	44		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(Note 2) For a graph of the pushing force, see P127.

■ Stroke and Maximum Speed

Lead \ Stroke	20 to 100 (mm)
Ball screw 6	300
Ball screw 4	200
Ball screw 2	100

(unit: mm/s)

① Stroke list

Stroke (mm)	
20	
30	
40	
50	
60	
70	
80	
90	
100	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for P3 are robot cable as standard. For P5, the above cables are not robot cable. Robot cables (R01~R20) for P5 are available. Please ask IAI.

④ Options

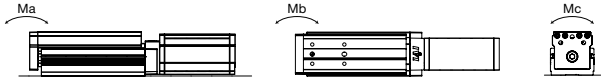
Title	Option code
Brake	**B**
Cable exit direction (top)	**CJT**
Cable exit direction (outside)	**CJO**
Cable exit direction (bottom)	**CJB**
Side-mounted motor to the left (standard)	**ML**
Side-mounted motor to the right	**MR**
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note 3)	Ma: 4.2 N•m Mb: 6 N•m Mc: 8.2 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note 3) For case of 5,000km service life.

Directions of allowable load moments

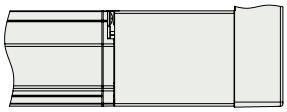


Dimensional Drawings

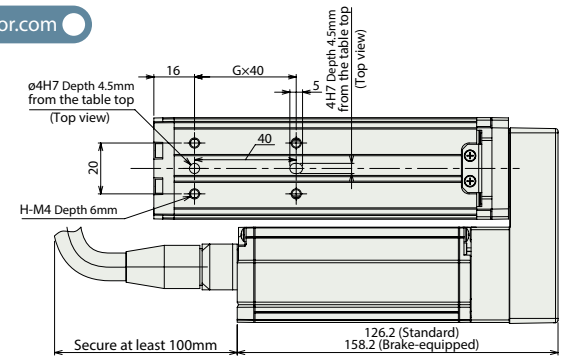
CAD drawings can be downloaded from the website. www.intelligentactuator.com

2D CAD 3D CAD

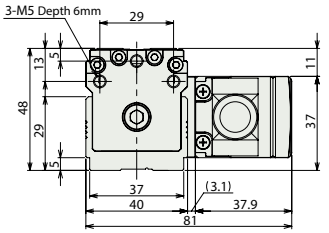
* The drawing below shows the specification with motor side-mounted to the left.

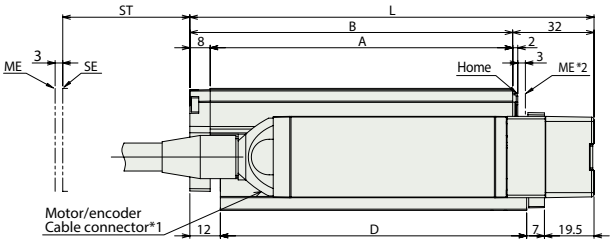


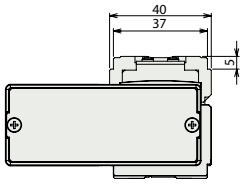
With the brake:
(see drawing on the right for dimensions)



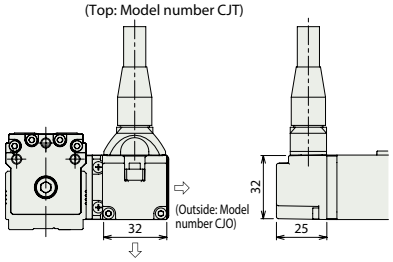
The reference position for moment o set is the same as the position on the TA4C (P.94).

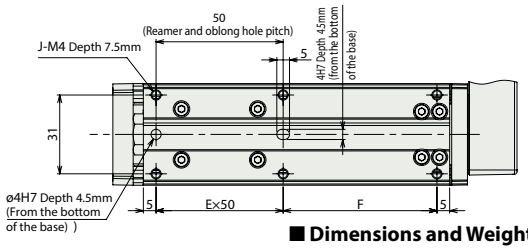






■ Optional cable exit direction





ST : Stroke
ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

* The attached brake adds 0.2kg of mass.

Stroke	20	30	40	50	60	70	80	90	100
L	129	139	149	159	169	179	189	199	209
A	89	99	109	119	129	139	149	159	169
B	97	107	117	127	137	147	157	167	177
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Mass (kg)	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0

*1 The motor-encoder cable is connected directly to the actuator motor cover.
*2 The slider moves to the mechanical end during home return. Pay attention to prevent contact between the slider and surrounding parts.

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC	-	-	●	●	●	-	●	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM=8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

RCA2-TA4R

ROBO Cylinder Mini Table Type Side-Mounted Motor Type Actuator Width 81 mm 24V Servo Motor
Ball Screw Specification

■ Model Description

RCA2 – TA4R – I – 10 – ☐ – ☐ – ☐ – ☐ – ☐ – ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	10: Servo motor 10W	6: 6mm 4: 4mm 2: 2mm	20: 20mm 〜 100: 100mm (set in steps every 10mm)	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X☐☐: Len. desig. R☐☐: Robot cable	See option table below. * Be sure to specify which side the motor is to be mounted (ML/MR)

* See page 14 for details on the model descriptions.

Power-saving specification

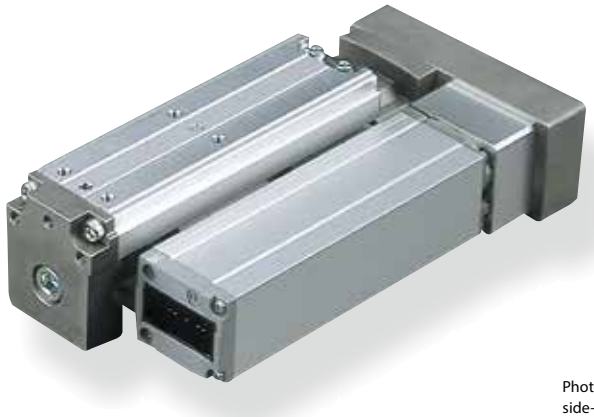


Photo above shows the specification with TA3R motor side-mounted to the left (ML).

POINT Notes on selection

(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of Lead 2 and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of Lead 2 and vertical usage).

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-TA4R-I-10-6-①-②-③-④	10	Ball screw	6	1	0.5	28	±0.02	20 to100 (every 10mm)
RCA2-TA4R-I-10-4-①-②-③-④			4	2	1	43		
RCA2-TA4R-I-10-2-①-②-③-④			2	3	1.5	85		

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	20 to 100 (mm)
Ball screw 6	300
Ball screw 4	200
Ball screw 2	100

(unit: mm/s)

① Stroke list

Stroke (mm)	
20	
30	
40	
50	
60	
70	
80	
90	
100	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

* The cables above for A3 and A5 are robot cable as standard. For A6, the above cables are not robot cable. Robot cables (R01~R20) for A6 are available. Please ask IAI.

④ Options

Title	Option code
Brake	**B**
Cable exit direction (top)	**CJT**
Cable exit direction (outside)	**CJO**
Cable exit direction (bottom)	**CJB**
Power-saving specification	**LA**
Side-mounted motor to the left (standard)	**ML**
Side-mounted motor to the right	**MR**
Reversed-home specification	**NM**

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 4.2 N•m Mb: 6 N•m Mc: 8.2 N•m
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

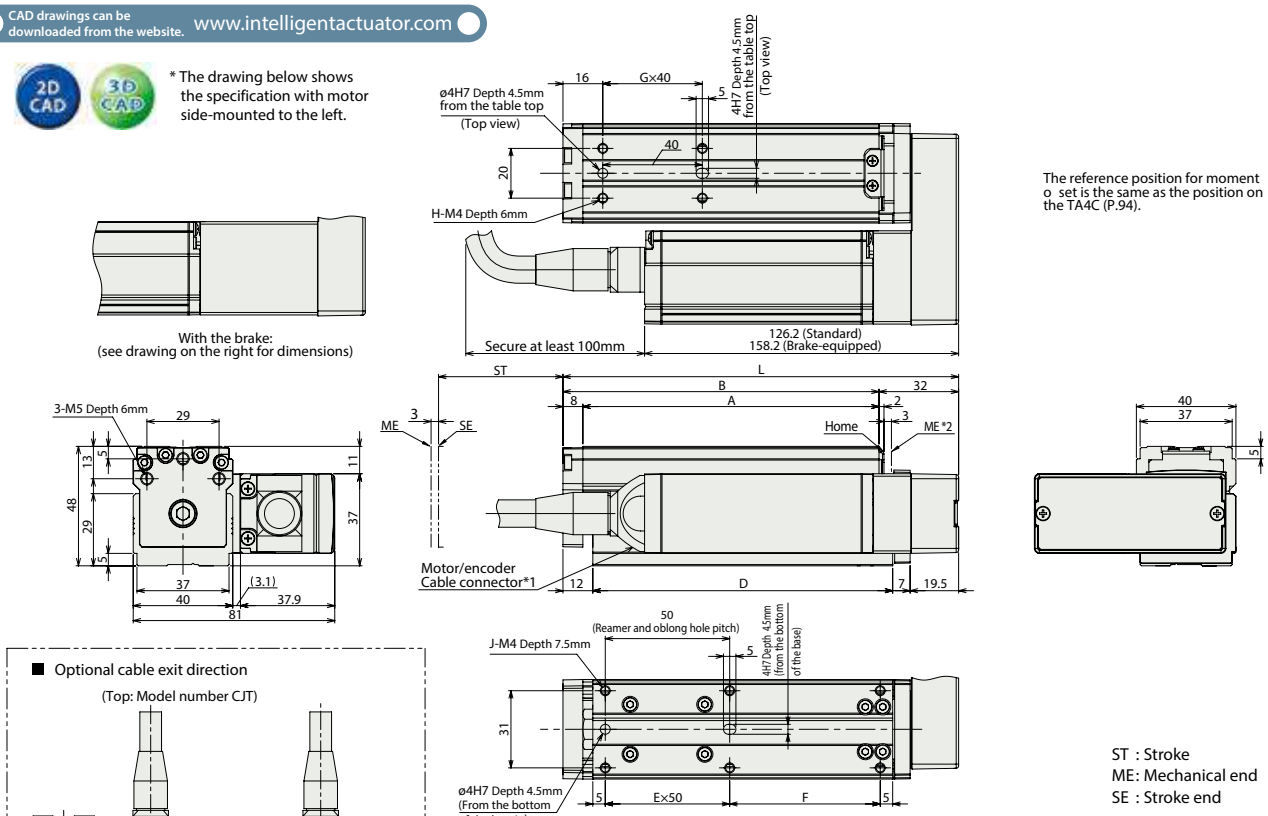
The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

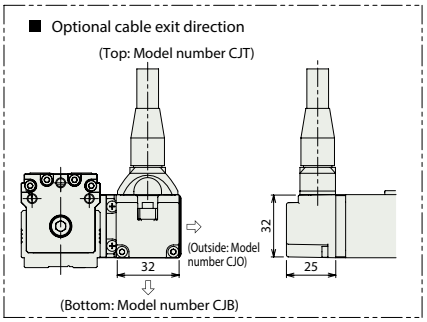
CAD drawings can be downloaded from the website. www.intelligentactuator.com

2D CAD 3D CAD

* The drawing below shows the specification with motor side-mounted to the left.



■ Optional cable exit direction



ST : Stroke
ME: Mechanical end
SE : Stroke end

* 1 The motor-encoder cable is connected directly to the actuator motor cover.
* 2 The slider moves to the mechanical end during home return. Pay attention to prevent contact between the slider and surrounding parts.

■ Dimensions and Weight by Stroke

* The attached brake adds 0.2kg of mass.

Stroke	20	30	40	50	60	70	80	90	100
L	129	139	149	159	169	179	189	199	209
A	89	99	109	119	129	139	149	159	169
B	97	107	117	127	137	147	157	167	177
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Mass (kg)	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

The information about controllers and cables is as of June, 2023.
Please check our General Controller Catalog and/or contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SA1L

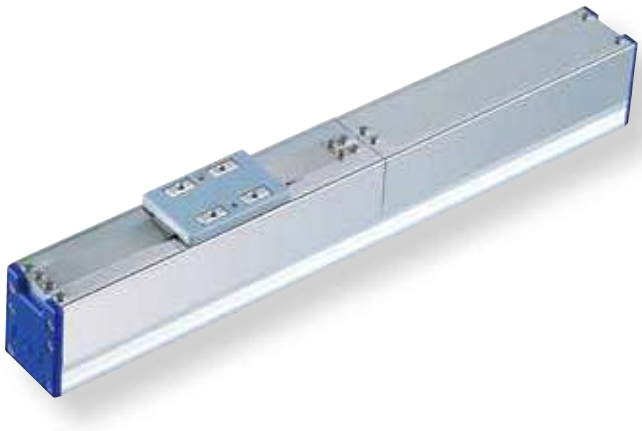
ROBO Cylinder Mini Linear Servo Type Micro Slider Slim Type Actuator Width 20 mm Linear servo motor

■ Model Description

RCL – SA1L – I – 2 – N – 40 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
RCL	SA1L	I: Incremental specification	2: Linear servo motor 2W	N: No screw	40: 40mm	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Len. desig.

* See page 14 for details on the model descriptions.



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 $\frac{\text{Operating time}}{\text{Operating time + stop time}}$ ×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.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)	
	Continuous operation (Duty is 100%)	Duty is 70% or less
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 Table

■ Leads and Payloads

Model	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-SA1L-I-2-N-40-①-②	2	See chart above	—	2	10	2	±0.1	40 (Fixed)

Legend ① Compatible Controllers ② Cable length

■ Stroke and Maximum Speed

Lead \ Stroke	40 (mm)
(no screw)	420

(unit: mm/s)

Stroke list

Stroke (mm)	
40	

③Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.13 N•m Mb: 0.12 N•m Mc: 0.21 N•m
Overhung load length	50mm or less
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

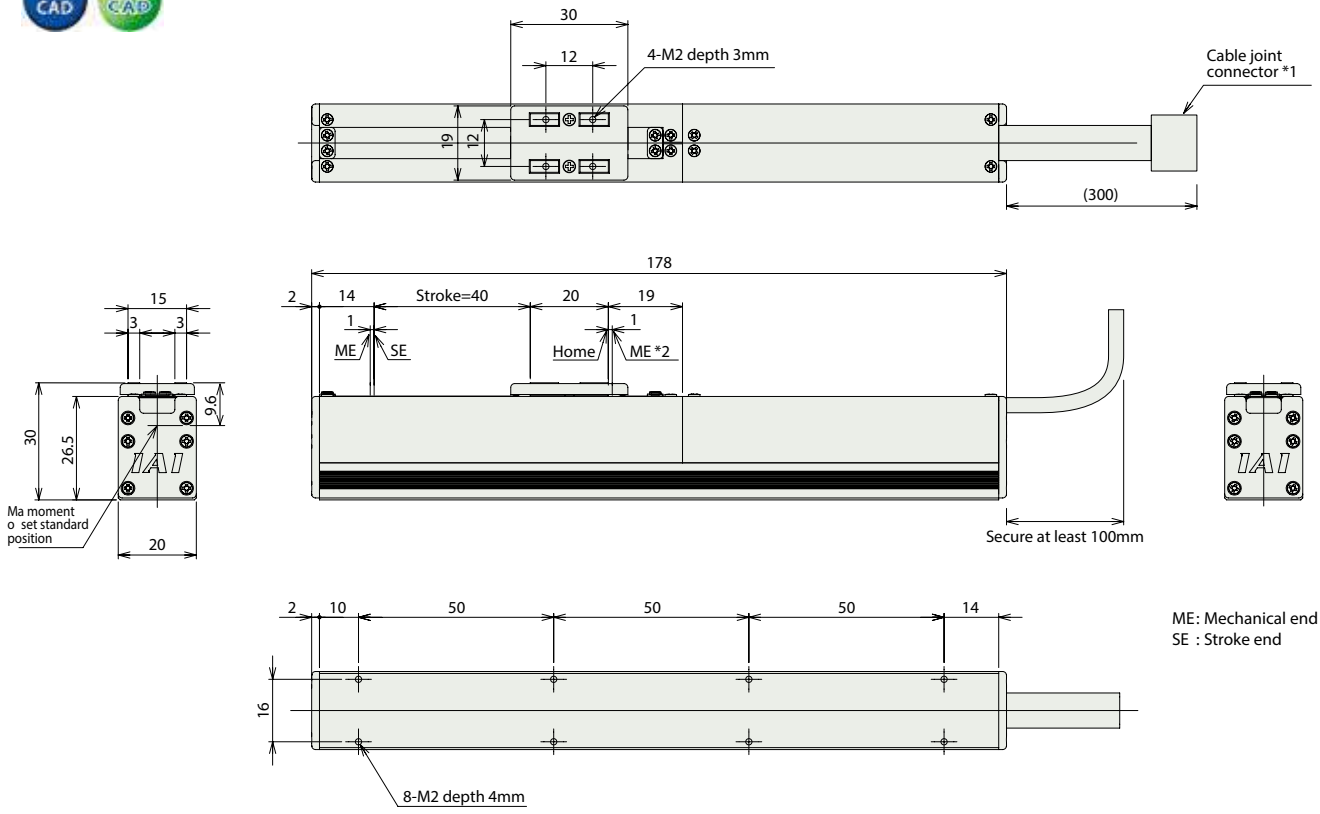
(Note) For case of 5,000km service life.

Dimensional Drawings

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

2D CAD 3D CAD

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.



ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	40
Mass (kg)	0.28

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SA2L

ROBO Cylinder Mini Linear Servo Type Micro Slider Slim Type Actuator Width 24 mm Linear servo motor

■ Model Description

RCL – SA2L – I – 5 – N – 48 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
RCL	SA2L	I: Incremental specification	5: Linear servo motor 5 W	N: No screw	48: 48mm	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation

* See page 14 for details on the model descriptions.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)	
	Continuous operation (Duty is 100%)	Duty is 70% or less
0.1	1	1
0.3		
0.5	0.85	
1	0.5	0.6
1.5	0.36	0.45
2	0.3	0.36

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 $\frac{\text{Operating time}}{\text{Operating time + stop time}}$ ×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 Table

■ Leads and Payloads

Model	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-SA2L-I-5-N-48-①-②	5	See chart above	—	4	18	2	±0.1	48 (Fixed)

Legend ① Compatible Controllers ② Cable length

■ Stroke and Maximum Speed

Lead \ Stroke	48 (mm)
(no screw)	460

(unit: mm/s)

Stroke list

Stroke (mm)	
48	

③Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.2 N•m Mb: 0.17 N•m Mc: 0.25 N•m
Overhung load length	60mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

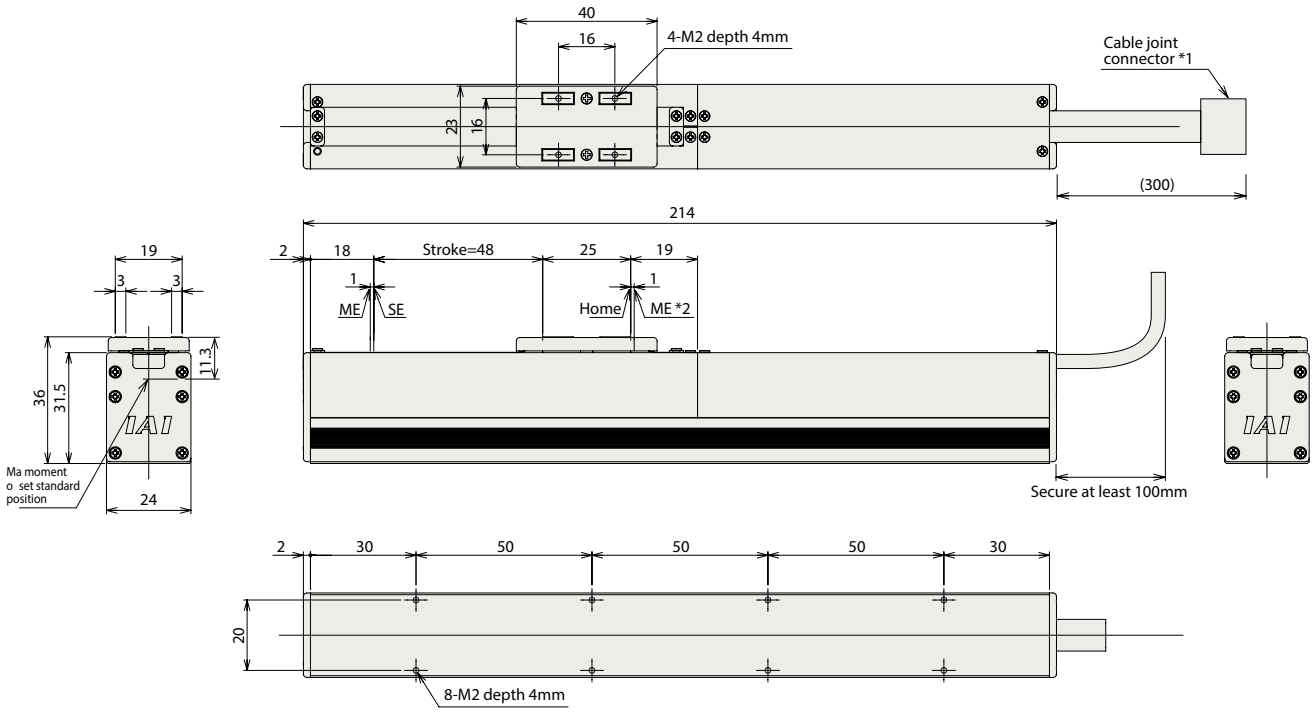
(Note) For case of 5,000km service life.

Dimensional Drawings

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

2D CAD 3D CAD

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.



ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	48
Mass (kg)	0.45

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SA3L

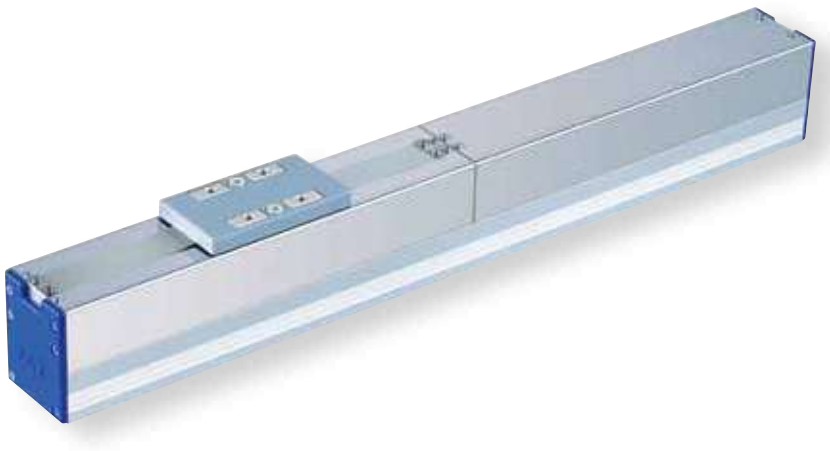
ROBO Cylinder Mini Linear Servo Type Micro Slider Slim Type Actuator Width 28 mm Linear servo motor

■ Model Description

RCL – SA3L – I – 10 – N – 64 – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
RCL	SA3L	I: Incremental specification	10: Linear servo motor 10W	N: No screw	64: 64mm	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation

* See page 14 for details on the model descriptions.



■ 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

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 $\frac{\text{Operating time}}{\text{Operating time + stop time}}$ ×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 Table

■ Leads and Payloads

Model	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)

Legend ① Compatible Controllers ② Cable length

■ Stroke and Maximum Speed

Lead \ Stroke	64 (mm)
(no screw)	600

(unit: mm/s)

Stroke list

Stroke (mm)	
64	

③Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	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˚C, 85% RH or less (Non-condensing)

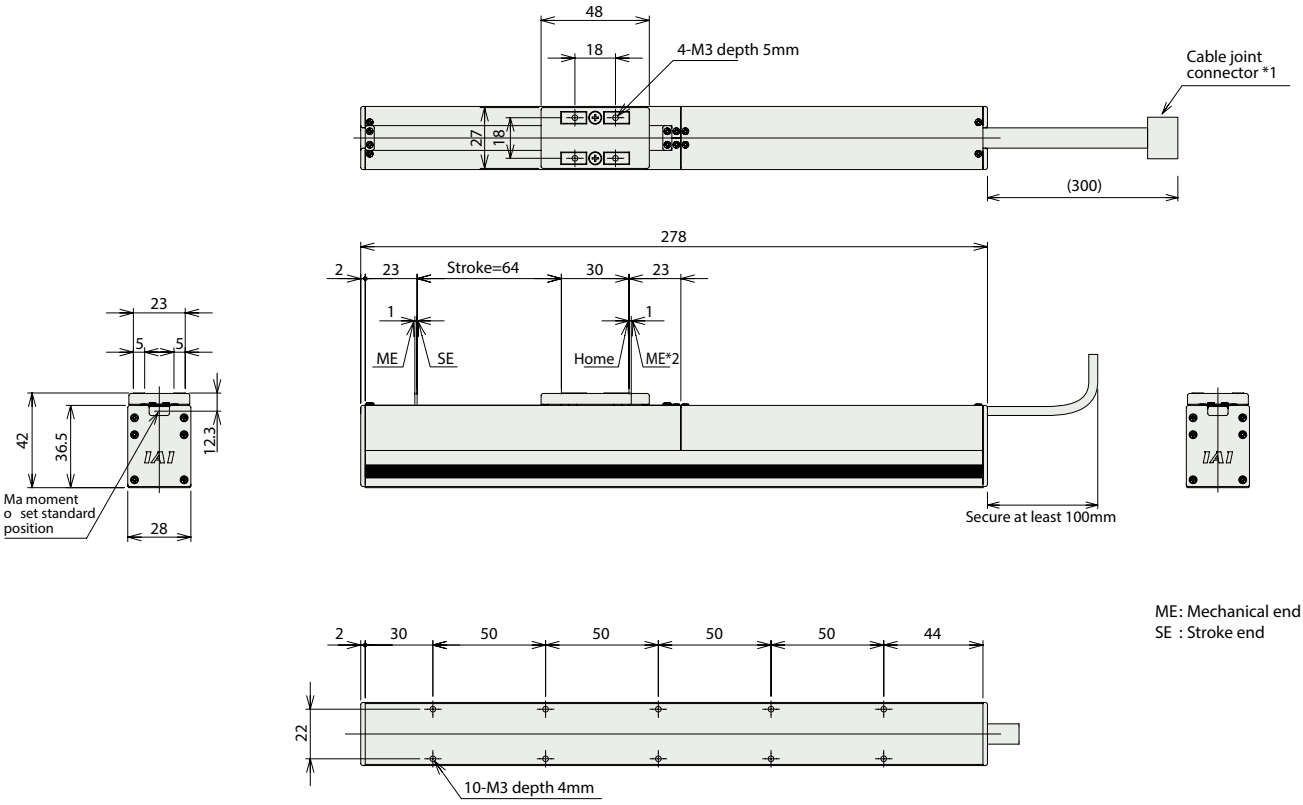
(Note) For case of 5,000km service life.

Dimensional Drawings

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

2D CAD 3D CAD

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.



ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	64
Mass (kg)	0.82

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SA4L

ROBO Cylinder Mini Linear Servo Type Micro Slider Long Stroke Type Actuator Width 20 mm
Linear servo motor

■ Model Description

RCL – SA4L – I – 2 – N – [Stroke] – [Compatible controllers] – [Cable length] – [Option]

- **Series**: RCL
- **Type**: SA4L
- **Encoder type**: I: Incremental specification
- **Motor type**: 2: Linear servo motor 2W
- **Lead**: N: No screw
- **Stroke**: 30: 30mm ~ 180: 180mm (set in steps every 30mm)
- **Compatible controllers**: A1: ASEL; A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP; A5: ACON-CB/CGB
- **Cable length**: N: None; P: 1 m; S: 3 m; M: 5 m; X□□: Length Designation
- **Option**: NM: Reversed-home specification

* See page 15 for details on the model descriptions.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)
	Continuous operation (Duty is 100%)
0.1	0.8
0.3	
0.5	0.5
1	0.25
1.5	0.18
2	0.14

POINT Notes on selection

(1) Please take care because this type has magnetic flux leakage.
(If magnetism is a problem, use SA1L/SA2L/SA3L)
(2) The payload is determined by the acceleration and duty.
Verify the payload in the payload (horizontal) and acceleration chart at right.

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

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

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Instantaneous maximum thrust (N)	Maximum acceleration (G)	Positioning repeatability (mm)	Stroke (mm)
RCL-SA4L-I-2-N-①-②-③-④	2	See chart above	—	2.5	10	2	±0.1	30 to 180 (set in 30mm increments)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	30 to 180 (set in 30mm increments)
(no screw)	1200

(unit: mm/s)

① Stroke list

Stroke (mm)	
30	
60	
90	
120	
150	
180	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

④ Options

Title	Option code		
Reversed-home specification	**NM**		

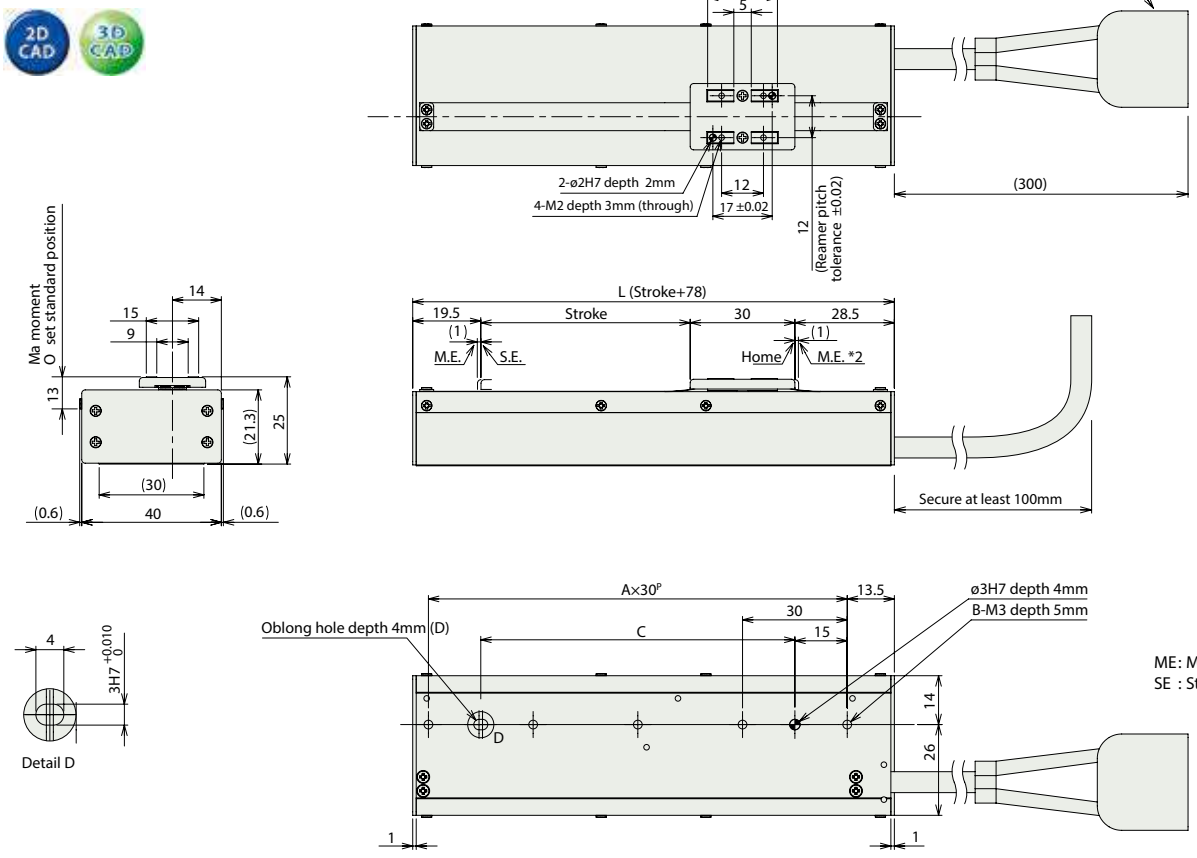
Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.2 N•m Mb: 0.17 N•m Mc: 0.25 N•m
Overhung load length	Ma direction: 60mm or less, Mb and Mc directions: 80mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

Dimensional Drawings

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



ME: Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

Stroke	30	60	90	120	150	180
L	108	138	168	198	228	258
A	3	4	5	6	7	8
B	4	5	6	7	8	9
C	60	90	120	150	180	210
Mass (kg)	0.21	0.25	0.29	0.32	0.36	0.4

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SM4L

ROBO Cylinder Mini Linear Servo Type Multi Slider Long Stroke Type Actuator Width 40 mm
Linear servo motor

■ Model Description

RCL – SM4L – I – 2 – N – [ ] – [ ] – [ ]

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
RCL	SM4L	I: Incremental specification	2: Linear servo motor 2W	N: No screw	30: 30mm ⌇ 120: 120mm (set in steps every 30mm)	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation

* See page 14 for details on the model descriptions.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)
	Continuous operation (Duty is 100%)
0.1	0.8
0.3	
0.5	0.5
1	0.25
1.5	0.18
2	0.14

POINT
Notes on selection

(1) Please take care because this type has magnetic flux leakage.
(If magnetism is a problem, use SA1L/SA2L/SA3L)
(2) The payload is determined by the acceleration and duty.
Verify the payload in the payload (horizontal) and acceleration chart at right.

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

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

Actuator Specifications Table

■ Leads and Payloads

Model	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-SM4L-I-2-N-①-②-③	2	See chart above	—	2.5	10	2	±0.1	30 to 120 (set in 30mm increments)

Legend ① Stroke ② Compatible Controllers ③ Cable length

■ Stroke and Maximum Speed

Lead \ Stroke	30 to 120 (set in 30mm increments)
(no screw)	1200

(unit: mm/s)

① Stroke list

Stroke (mm)	
30	
60	
90	
120	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

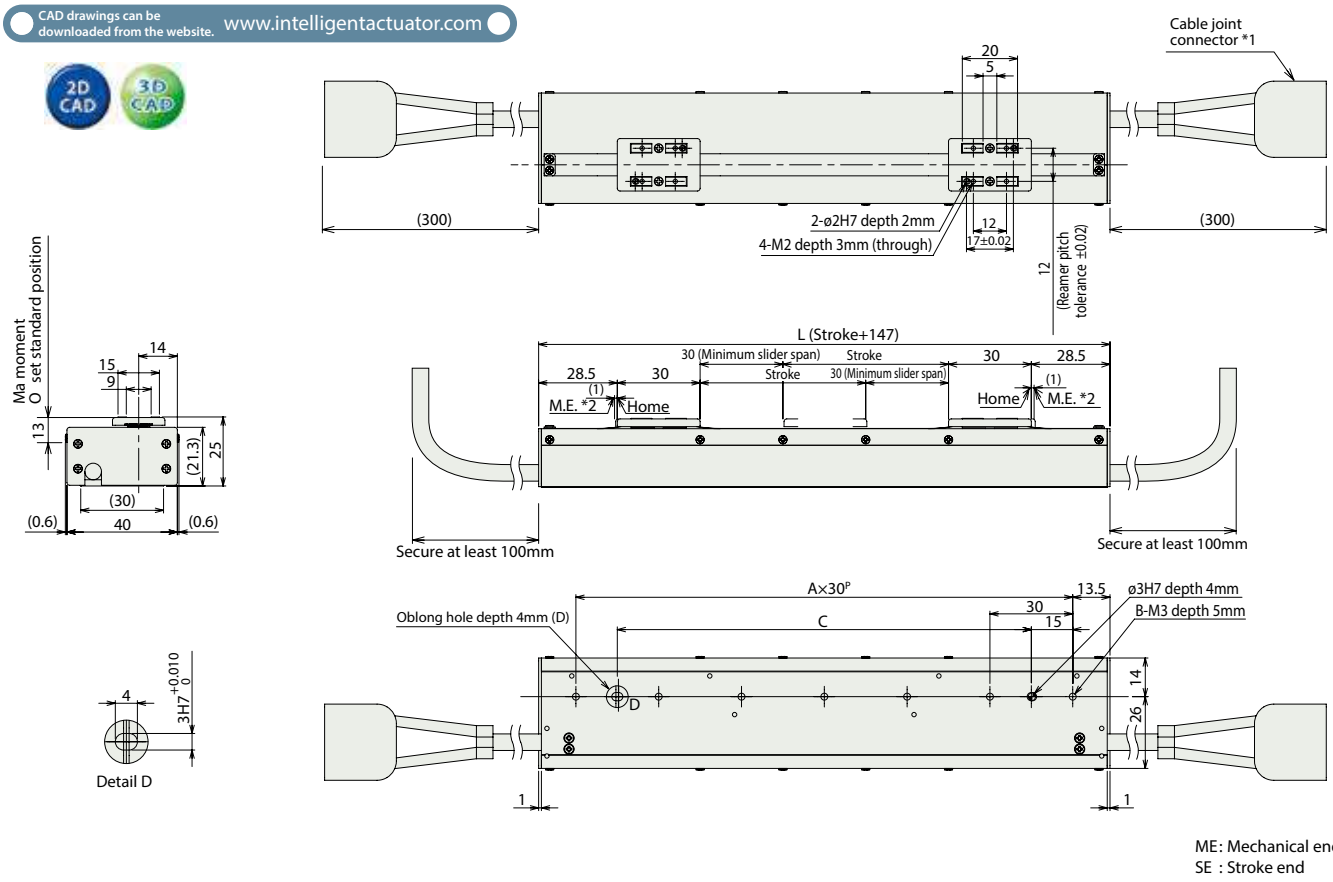
Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.2 N•m Mb: 0.17 N•m Mc: 0.25 N•m
Overhung load length	Ma direction: 60mm or less, Mb and Mc directions: 80mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

Dimensional Drawings

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



ME: Mechanical end
SE : Stroke end

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

Note
One controller is required for each slider.
(Or, one 2-axis controller is required.)

■ Dimensions and Weight by Stroke

Stroke	30	60	90	120
L	177	207	237	267
A	5	6	7	8
B	6	7	8	9
C	120	150	180	210
Mass (kg)	0.37	0.4	0.44	0.48

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SA5L

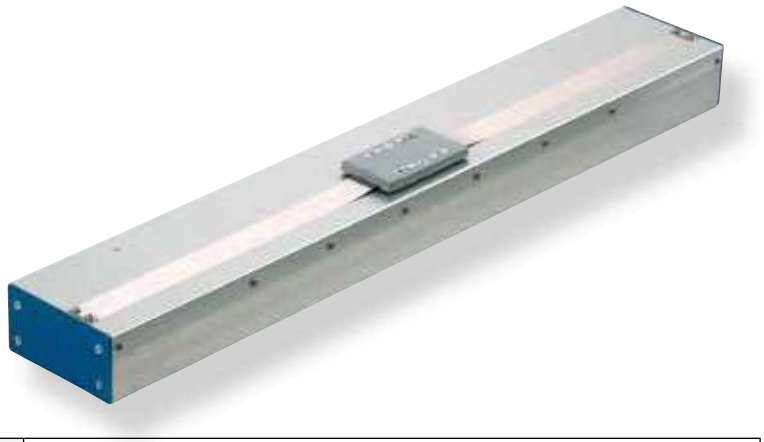
ROBO Cylinder Mini Linear Servo Type Micro Slider Long Stroke Type Actuator Width 48 mm
Linear servo motor

■ Model Description

RCL – SA5L – I – 5 – N – [Stroke] – [Compatible controllers] – [Cable length] – [Option]

- **RCL** — Series
- **SA5L** — Type
- **I** — Encoder type: I: Incremental specification
- **5** — Motor type: 5: Linear servo motor 5W
- **N** — Lead: N: No screw
- **Stroke**: 36: 36mm ~ 216: 216mm (set in steps every 36mm)
- **Compatible controllers**: A1: ASEL; A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP; A5: ACON-CB/CGB
- **Cable length**: N: None; P: 1 m; S: 3 m; M: 5 m; X□□: Length Designation
- **Option**: NM: Reversed-home specification

* See page 14 for details on the model descriptions.



■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)
	Continuous operation (Duty is 100%)
0.1	1.6
0.3	
0.5	1.0
1	0.5
1.5	0.35
2	0.25

POINT Notes on selection

(1) Please take care because this type has magnetic flux leakage.
(If magnetism is a problem, use SA1L/SA2L/SA3L)
(2) The payload is determined by the acceleration and duty.
Verify the payload in the payload (horizontal) and acceleration chart at right.

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

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

Actuator Specifications Table

■ Leads and Payloads

Model	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-SA5L-I-5-N-①-②-③-④	5	See chart above	—	5	18	2	±0.1	36 to 216 (set in 36mm increments)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

■ Stroke and Maximum Speed

Lead \ Stroke	36 to 216 (set in 36mm increments)
(no screw)	1400

(unit: mm/s)

① Stroke list

Stroke (mm)	
36	
72	
108	
144	
180	
216	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

④ Options

Title	Option code		
Reversed-home specification	**NM**		

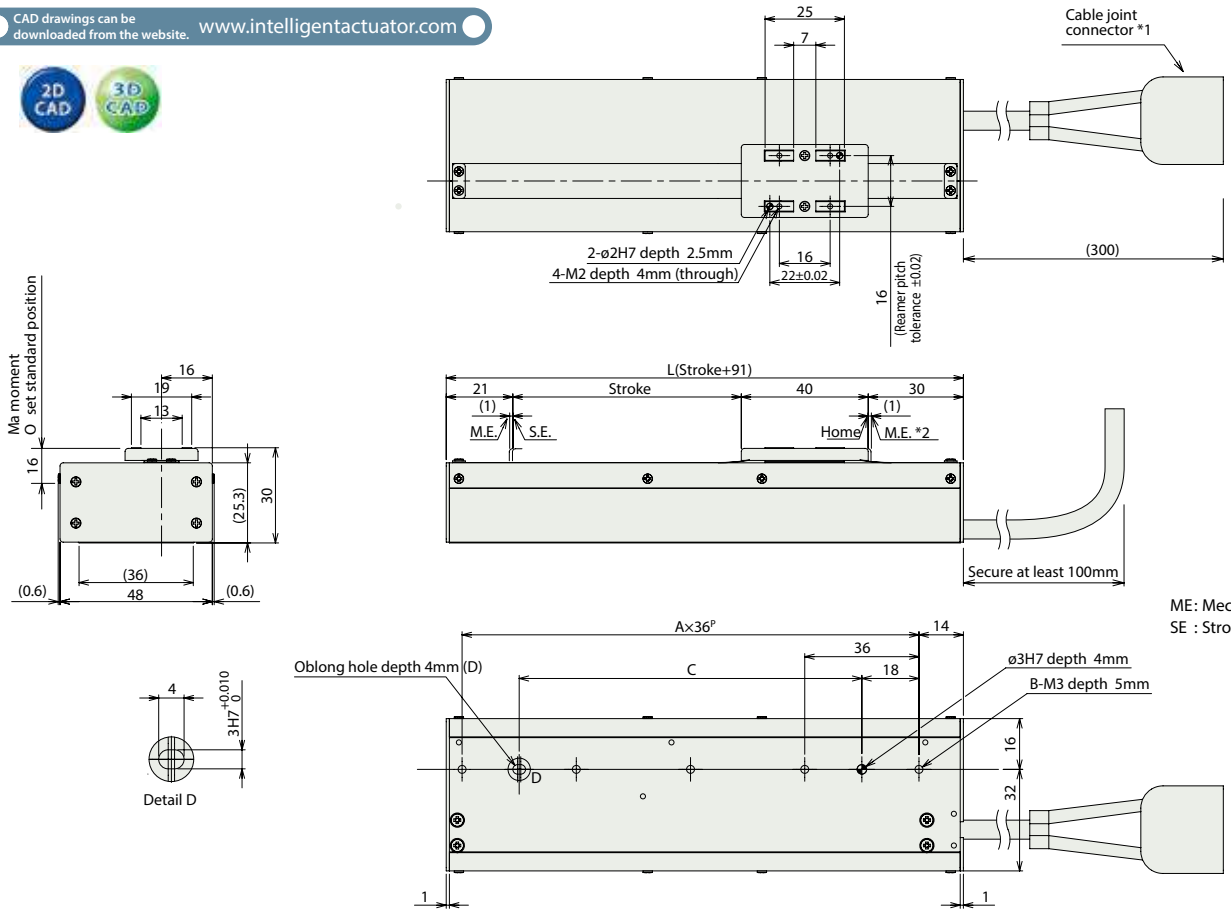
Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma:0.49 N•m Mb: 0.41 N•m Mc: 0.72 N•m
Overhung load length	Ma direction: 80mm or less, Mb and Mc directions: 100mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

Dimensional Drawings

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



■ Dimensions and Weight by Stroke

Stroke	36	72	108	144	180	216
L	127	163	199	235	271	307
A	3	4	5	6	7	8
B	4	5	6	7	8	9
C	72	108	144	180	216	252
Mass (kg)	0.35	0.42	0.48	0.55	0.62	0.68

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SM5L

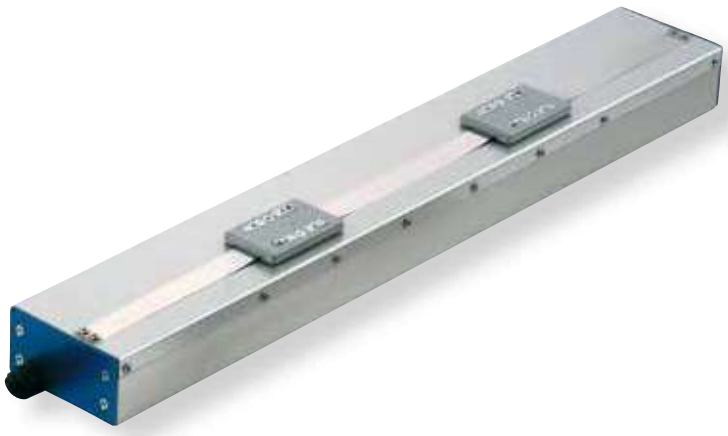
ROBO Cylinder Mini Linear Servo Type Multi Slider Long Stroke Type Actuator Width 48 mm
Linear servo motor

■ Model Description

RCL – SM5L – I – 5 – N – [ ] – [ ] – [ ]

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
RCL	SM5L	I: Incremental specification	5: Linear servo motor 5W	N: No screw	36: 36mm ~ 144: 144mm (set in steps every 36mm)	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation

* See page 14 for details on the model descriptions.



■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)
	Continuous operation (Duty is 100%)
0.1	1.6
0.3	
0.5	1.0
1	0.5
1.5	0.35
2	0.25

POINT Notes on selection

(1) Please take care because this type has magnetic flux leakage.
(If magnetism is a problem, use SA1L/SA2L/SA3L)
(2) The payload is determined by the acceleration and duty.
Verify the payload in the payload (horizontal) and acceleration chart at right.

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

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

Actuator Specifications Table

■ Leads and Payloads

Model	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-SM5L-I-5-N-①-②-③	5	See chart above	—	5	18	2	±0.1	36 to 144 (set in 36mm increments)

Legend ① Stroke ② Compatible Controllers ③ Cable length

■ Stroke and Maximum Speed

Lead \ Stroke	36 to 144 (set in 36mm increments)
(no screw)	1400

(unit: mm/s)

① Stroke list

Stroke (mm)	
36	
72	
108	
144	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

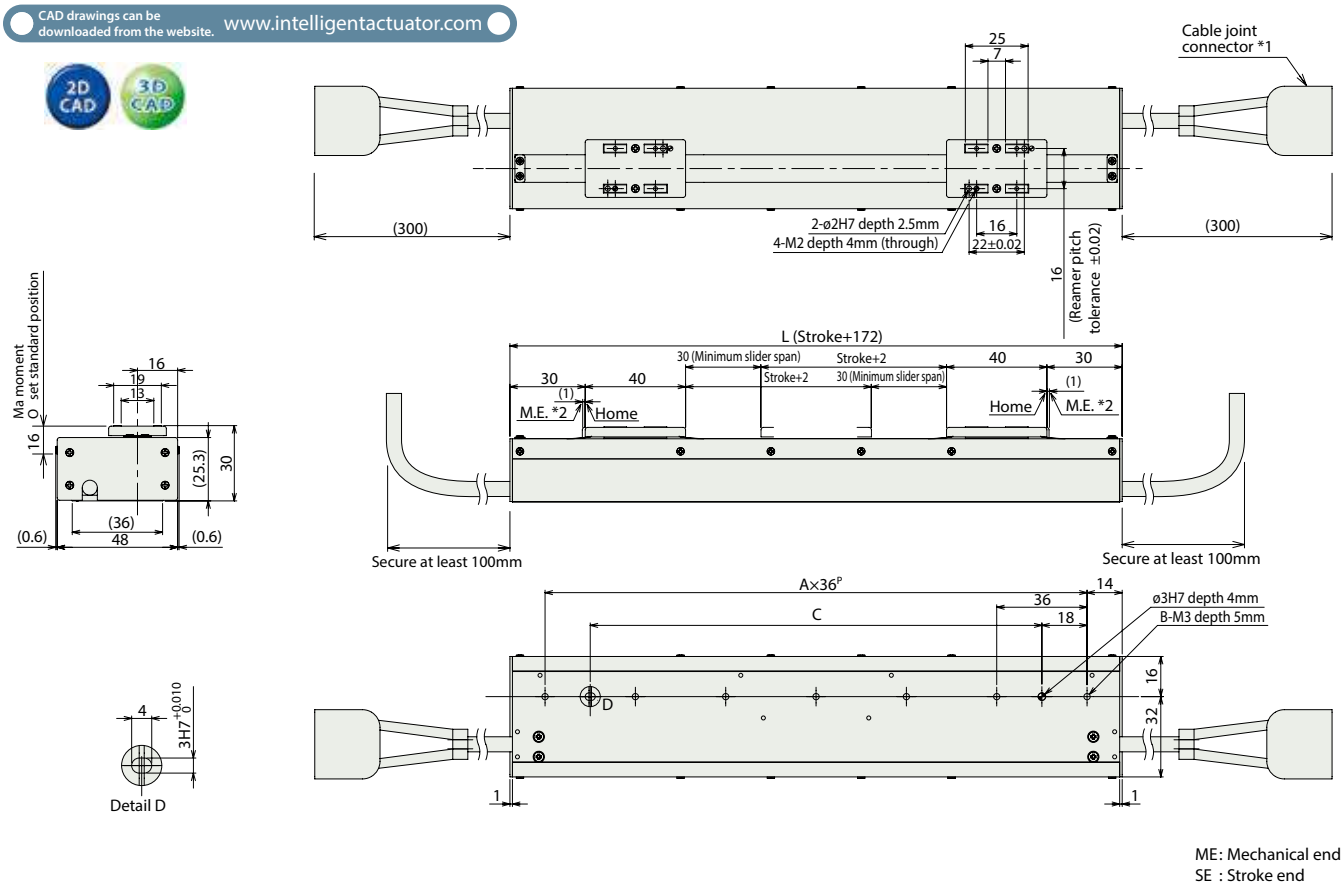
Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.49 N•m Mb: 0.41 N•m Mc: 0.72 N•m
Overhung load length	Ma direction: 80mm or less, Mb and Mc directions: 100mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

Dimensional Drawings

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



ME: Mechanical end
SE : Stroke end

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

Note
One controller is required for each slider.
(Or, one 2-axis controller is required.)

■ Dimensions and Weight by Stroke

Stroke	36	72	108	144
L	208	244	280	316
A	5	6	7	8
B	6	7	8	9
C	144	180	216	252
Mass (kg)	0.62	0.69	0.75	0.82

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SA6L

ROBO Cylinder Mini Linear Servo Type Micro Slider Long Stroke Type Actuator Width 58 mm
Linear servo motor

■ Model Description

RCL – SA6L – I – 10 – N – □ – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCL	SA6L	I: Incremental specification	10: Linear servo motor 10W	N: No screw	48: 48mm ~ 288: 288mm (set in steps every 48mm)	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	NM: Reversed-home specification

* See page 14 for details on the model descriptions.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)
	Continuous operation (Duty is 100%)
0.1	3.2
0.3	
0.5	2
1	1
1.5	0.65
2	0.5

POINT
Notes on selection

(1) Please take care because this type has magnetic flux leakage.
(If magnetism is a problem, use SA1L/SA2L/SA3L)
(2) The payload is determined by the acceleration and duty.
Verify the payload in the payload (horizontal) and acceleration chart at right.

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

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

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Instantaneous maximum thrust (N)	Maximum acceleration (G)	Positioning repeatability (mm)	Stroke (mm)
RCL-SA6L-I-10-N-①-②-③-④	10	See chart above	—	10	30	2	±0.1	48 to 288 (set in 48mm increments)

■ Stroke and Maximum Speed

Lead \ Stroke	48 to 288 (set in 48mm increments)
(no screw)	1600

(unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

Stroke (mm)	
48	
96	
144	
192	
240	
288	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

④ Options

Title	Option code		
Reversed-home specification	**NM**		

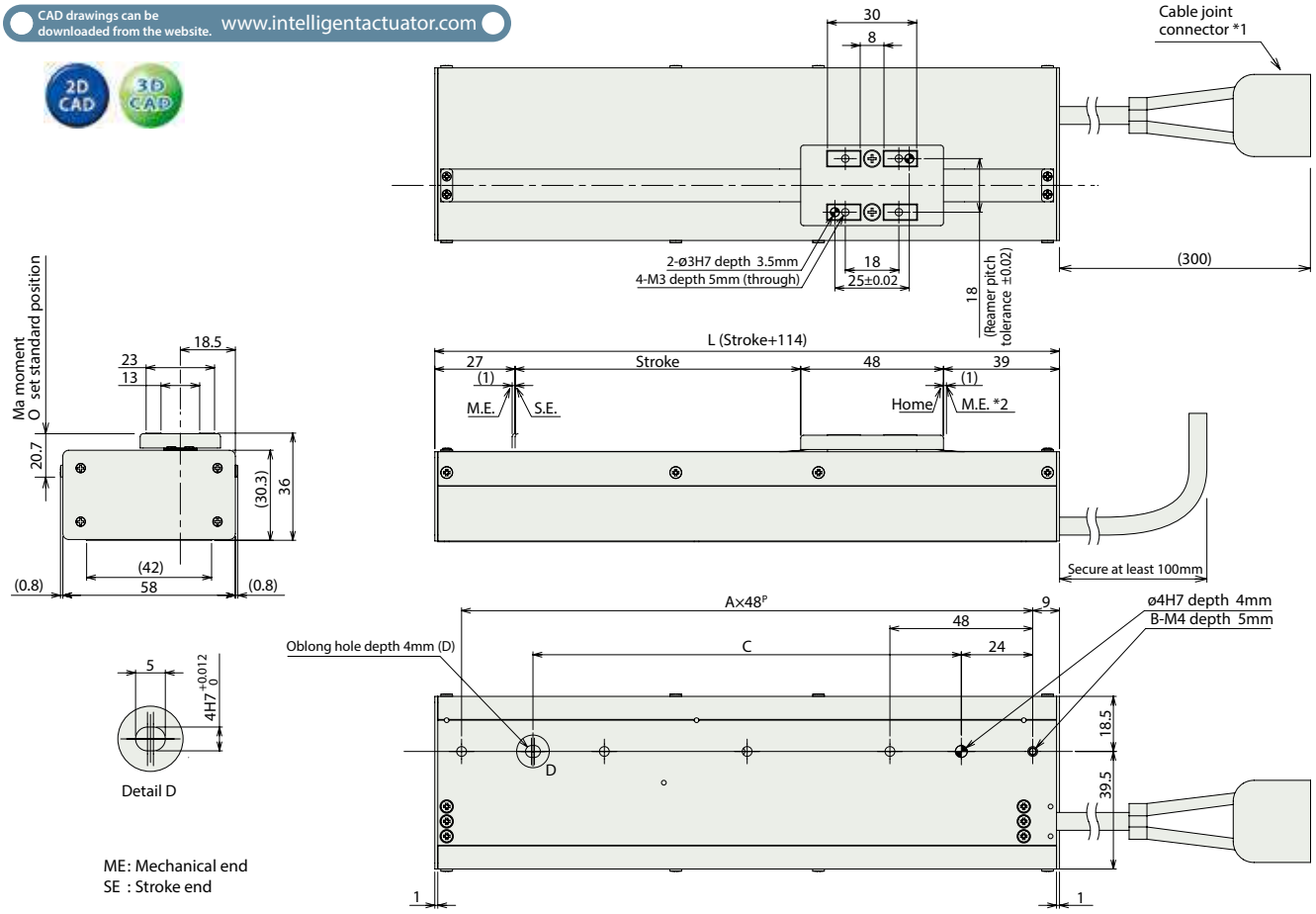
Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.87 N•m Mb: 0.75 N•m Mc: 1.22 N•m
Overhung load length	Ma direction: 80mm or less, Mb and Mc directions: 120mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

Dimensional Drawings

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



ME: Mechanical end
SE : Stroke end

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

■ Dimensions and Weight by Stroke

Stroke	48	96	144	192	240	288
L	162	210	258	306	354	402
A	3	4	5	6	7	8
B	4	5	6	7	8	9
C	96	144	192	240	288	336
Mass (kg)	0.67	0.8	0.93	1.07	1.2	1.34

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-SM6L

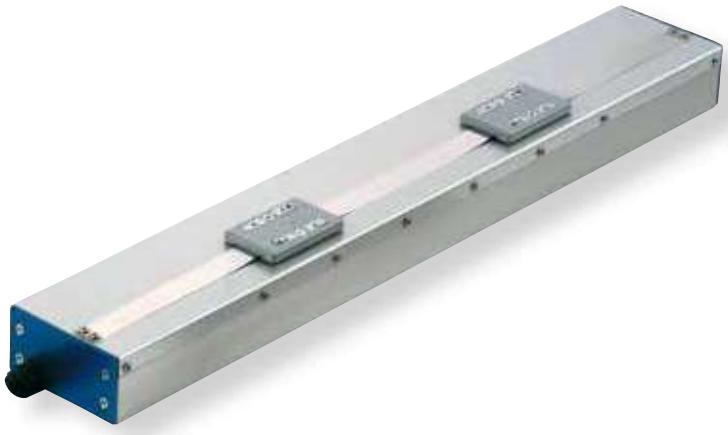
ROBO Cylinder Mini Linear Servo Type Multi Slider Long Stroke Type Actuator Width 58 mm
Linear servo motor

■ Model Description

RCL – SM6L – I – 10 – N – [ ] – [ ] – [ ]

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
RCL	SM6L	I: Incremental specification	10: Linear servo motor 10W	N: No screw	48: 48mm ~ 192: 192mm (set in steps every 48mm)	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation

* See page 14 for details on the model descriptions.



■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)
	Continuous operation (Duty is 100%)
0.1	3.2
0.3	
0.5	2
1	1
1.5	0.65
2	0.5

POINT
Notes on selection

(1) Please take care because this type has magnetic flux leakage.
(If magnetism is a problem, use SA1L/SA2L/SA3L)
(2) The payload is determined by the acceleration and duty.
Verify the payload in the payload (horizontal) and acceleration chart at right.

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

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

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Instantaneous maximum thrust (N)	Maximum acceleration (G)	Positioning repeatability (mm)	Stroke (mm)
RCL-SM6L-I-10-N-①-②-③	10	See chart above	—	10	30	2	±0.1	48 to 192 (set in 48mm increments)

Legend ① Stroke ② Compatible Controllers ③ Cable length

■ Stroke and Maximum Speed

Lead \ Stroke	48 to 192 (set in 48mm increments)
(no screw)	1600

(unit: mm/s)

① Stroke list

Stroke (mm)	
48	
96	
144	
192	

③ Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

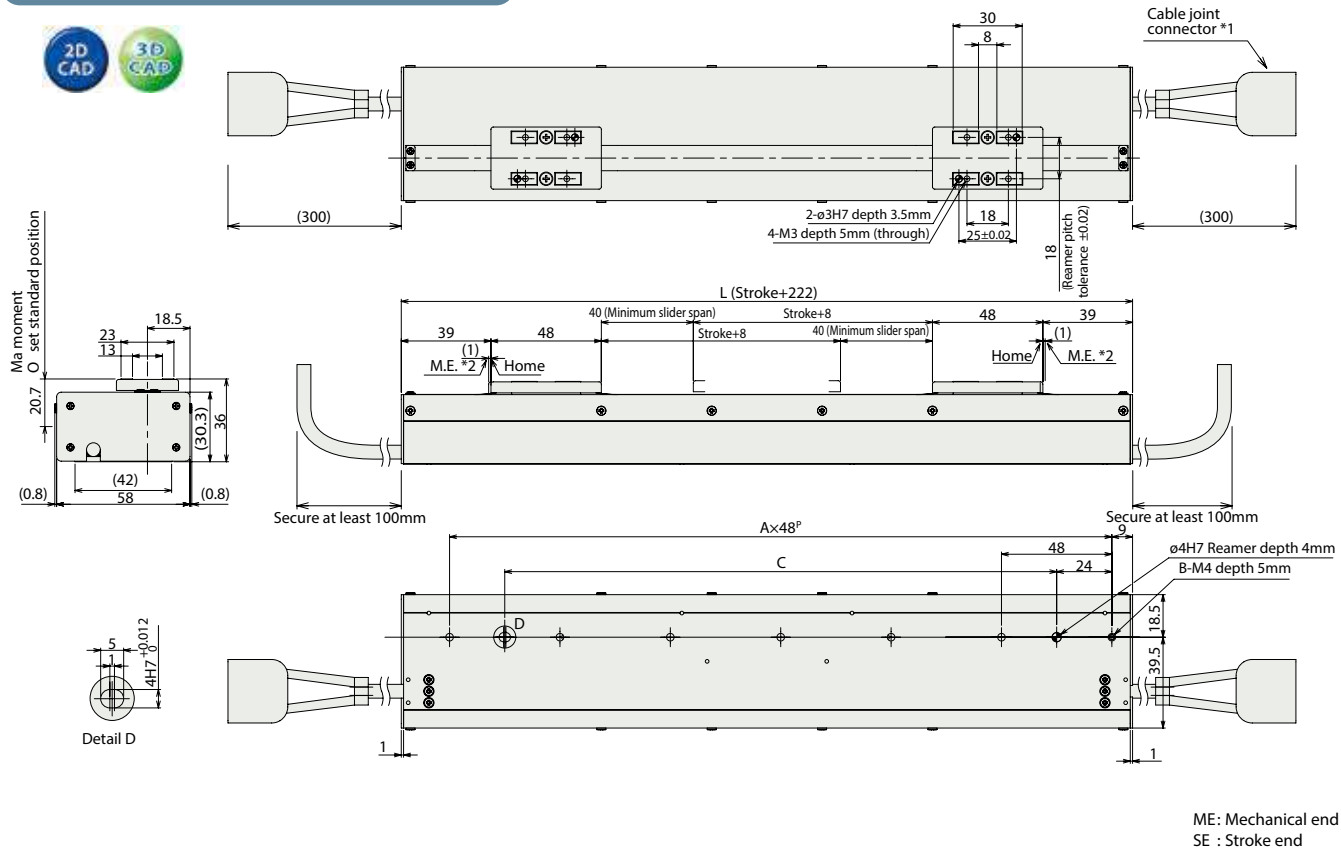
Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Base	Material: Aluminum, white alumite treated
Dynamic allowable moment (Note)	Ma: 0.87 N•m Mb: 0.75 N•m Mc: 1.22 N•m
Overhung load length	Ma direction: 80mm or less, Mb and Mc directions: 120mm or less
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)

(Note) For case of 5,000km service life.

Dimensional Drawings

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



ME: Mechanical end
SE : Stroke end

* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

Note

One controller is required for each slider.
(Or, one 2-axis controller is required.)

■ Dimensions and Weight by Stroke

Stroke	48	96	144	192
L	270	318	366	414
A	5	6	7	8
B	6	7	8	9
C	192	240	288	336
Mass (kg)	1.17	1.31	1.44	1.58

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-RA1L

ROBO Cylinder Mini Linear Servo Type Micro Cylinder Slim Type Main unit diameter: 16mm
Linear servo motor

■ Model Description

RCL – RA1L – I – 2 – N – 25 – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCL	RA1L	I: Incremental specification	2: Linear servo motor 2W	N: No screw	25: 25mm	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	B : Brake (with brake box) BN: Brake (without brake box)

* See page 14 for details on the model descriptions.

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 $\frac{\text{Operating time}}{\text{Operating time + stop time}}$ ×100 per cycle.
(2) If the actuator is operated vertically, use the optional brake specification.
(3) Please use an external guide to avoid a horizontal or rotational load applied to the rod.
(4) The pushing force fluctuation increases when the current limit is low.
(5) Simple absolute unit cannot be used with the RCL series.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)			
	Continuous operation (Duty is 100%)		Duty is 70% or less	
	Horizontal	Vertical	Horizontal	Vertical
0.1	0.5	0.1	0.5	0.1
0.3				
0.5	0.42			
1	0.2		0.25	
1.5	0.11	—	0.15	—
2	0.07	—	0.1	—

■ Pushing force guidelines

Pushing operation is possible within the range of numeric values listed below. (N)

Electric current limit	30%	40%	50%	60%	70%	80%
Pushing force	0.75	1	1.25	1.5	1.75	2

(Note) The pushing forces listed above are for horizontal usage. If facing vertically upward, subtract 0.5N from the numeric values listed above, but if facing vertically downward, add 0.5N.

Actuator Specifications Table

■ Leads and Payloads

Model	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-RA1L-I-2-N-25-①-②-③	2	See chart above	See chart above	2.5	10	Horizontal 2G Vertical 1G	±0.1	25 (Fixed)

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)
(no screw)	300

(unit: mm/s)

Legend ① Compatible Controllers ② Cable length ③ Option

Stroke list

Stroke (mm)	
25	

* Refer to P. 155 for the cable for non-brake specification.
* Refer to P. 120 for the cable for brake specification.
(All prices represent the total of an integrated motor/encoder/brake cable and brake cable.)

③Options

Title	Option code		
Brake (with brake box)	**B**		
Brake (without brake box)	**BN**		

* The brake box and cable with brake is needed to use the brake. If only the actuator with brake is needed for a repair, specify the BN (specification without brake box).

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Pipe	Material: Nickel-plated carbon steel tube
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	10 million cycles

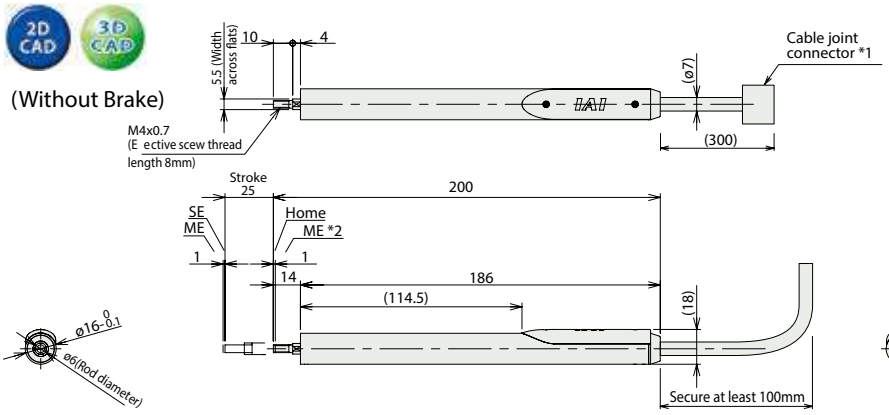
The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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

2D CAD 3D CAD

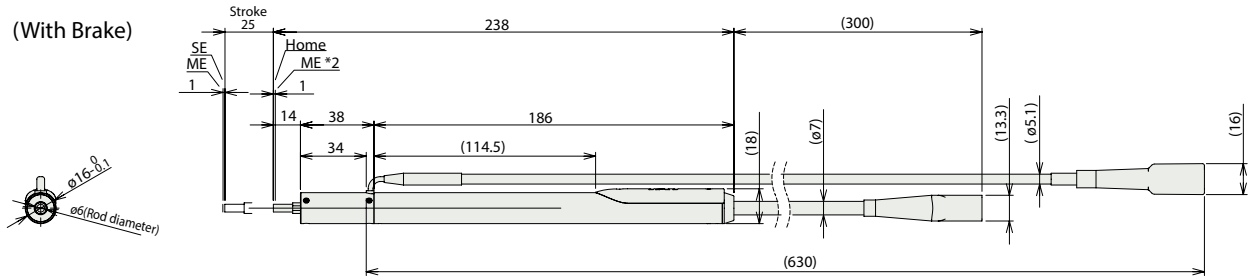
(Without Brake)

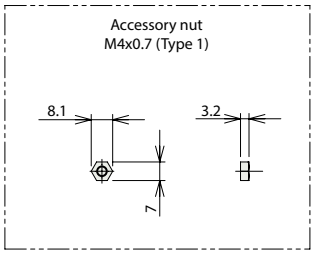


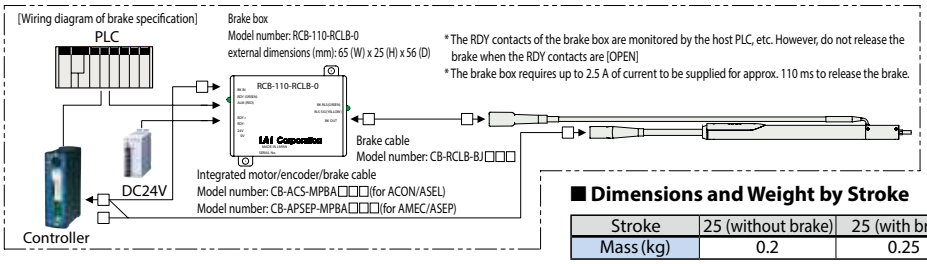
* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

ME: Mechanical end
SE : Stroke end

(With Brake)







■ Dimensions and Weight by Stroke

Stroke	25 (without brake)	25 (with brake)
Mass (kg)	0.2	0.25

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-RA2L

ROBO Cylinder Mini Linear Servo Type Micro Cylinder Slim Type Main unit diameter: 20mm
Linear servo motor

■ Model Description

RCL – RA2L – I – 5 – N – 30 – ☐ – ☐ – ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCL	RA2L	I: Incremental specification	5: Linear servo motor 5W	N: No screw	30: 30mm	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	B : Brake (with brake box) BN: Brake (without brake box)

* See page 14 for details on the model descriptions.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)			
	Continuous operation (Duty is 100%)		Duty is 70% or less	
	Horizontal	Vertical	Horizontal	Vertical
0.1	1	0.2	1	0.2
0.3				
0.5	0.85			
1	0.4		0.5	
1.5	0.24	—	0.3	—
2	0.15	—	0.2	—

■ Pushing force guidelines

Pushing operation is possible within the range of numeric values listed below. (N)

Electric current limit	30%	40%	50%	60%	70%	80%
Pushing force	1.5	2	2.5	3	3.5	4

(Note) The pushing forces listed above are for horizontal usage. If facing vertically upward, subtract 1N from the numeric values listed above, but if facing vertically downward, add 1N.

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 $\frac{\text{Operating time}}{\text{Operating time + stop time}}$ ×100 per cycle.
(2) If the actuator is operated vertically, use the optional brake specification.
(3) Please use an external guide to avoid a horizontal or rotational load applied to the rod.
(4) The pushing force fluctuation increases when the current limit is low.
(5) Simple absolute unit cannot be used with the RCL series.

Actuator Specifications Table

■ Leads and Payloads

Model	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-RA2L-I-5-N-30-①-②-③	5	See chart above	See chart above	5	18	Horizontal 2G Vertical 1G	±0.1	30 (Fixed)

Legend ① Compatible Controllers ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	30 (mm)
(no screw)	340

(unit: mm/s)

Stroke list

Stroke (mm)	
30	

* Refer to P. 155 for the cable for non-brake specification.
* Refer to P. 120 for the cable for brake specification.
(All prices represent the total of an integrated motor/encoder/brake cable and brake cable.)

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

③Options

Title	Option code		
Brake (with brake box)	**B**		
Brake (without brake box)	**BN**		

* The brake box and cable with brake is needed to use the brake. If only the actuator with brake is needed for a repair, specify the BN (specification without brake box).

Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Pipe	Material: Nickel-plated carbon steel tube
Ambient operating temperature, humidity	0 to 40˚C, 85% RH or less (Non-condensing)
Service life	10 million cycles

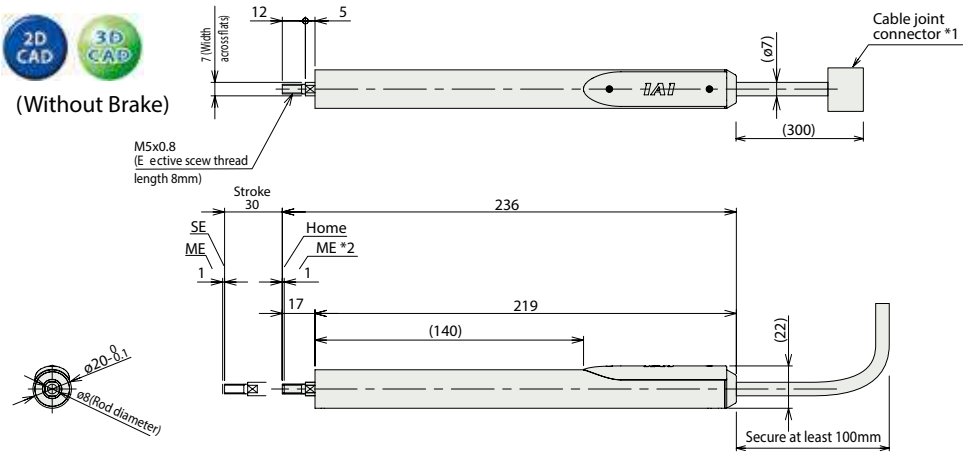
The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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

2D CAD 3D CAD

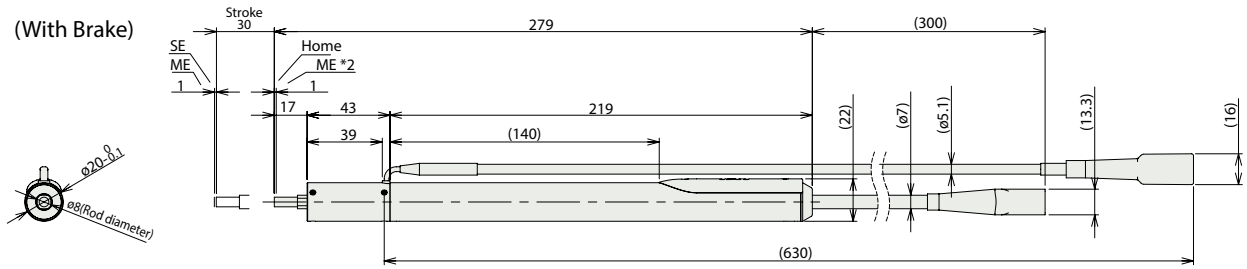
(Without Brake)

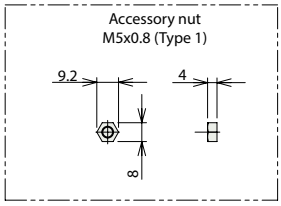


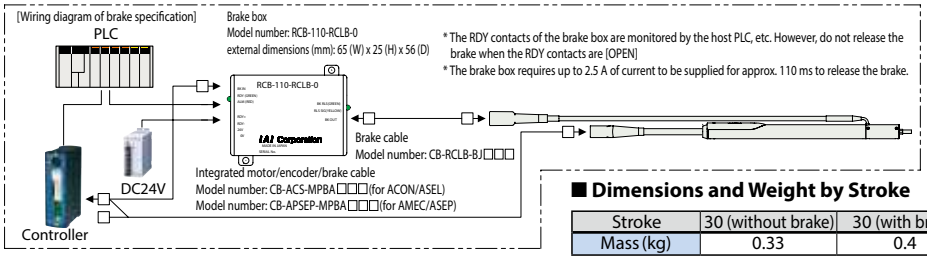
* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

ME: Mechanical end
SE : Stroke end

(With Brake)







■ Dimensions and Weight by Stroke

Stroke	30 (without brake)	30 (with brake)
Mass (kg)	0.33	0.4

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

* The following model was discontinued. Please contact IAI or check our website for the service information.

RCL-RA3L

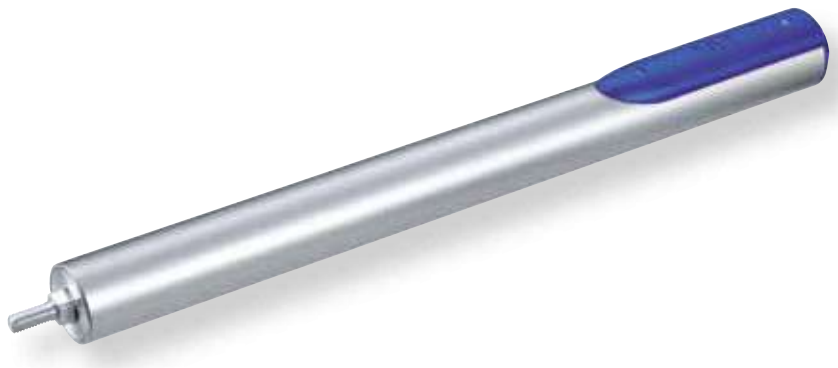
ROBO Cylinder Mini Linear Servo Type Micro Cylinder Slim Type Main unit diameter: 25mm
Linear servo motor

■ Model Description

RCL – RA3L – I – 10 – N – 40 – □ – □ – □

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
RCL	RA3L	I: Incremental specification	10: Linear servo motor 10W	N: No screw	40: 40mm	A1: ASEL A3: ACON-CYB/PLB/POB ASEP,MCON,MSEP A5: ACON-CB/CGB	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	B : Brake (with brake box) BN: Brake (without brake box)

* See page 14 for details on the model descriptions.



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 $\frac{\text{Operating time}}{\text{Operating time + stop time}} \times 100$ per cycle.
(2) If the actuator is operated vertically, use the optional brake specification.
(3) Please use an external guide to avoid a horizontal or rotational load applied to the rod.
(4) The pushing force fluctuation increases when the current limit is low.
(5) Simple absolute unit cannot be used with the RCL series.

■ Relation between payload (horizontal) and acceleration

Maximum Acceleration (G)	Load Capacity (kg)			
	Continuous operation (Duty is 100%)		Duty is 70% or less	
	Horizontal	Vertical	Horizontal	Vertical
0.1	2	0.4	2	0.4
0.3				
0.5	1.6			
1	0.78		1	
1.5	0.46	—	0.6	—
2	0.3	—	0.4	—

■ Pushing force guidelines

Pushing operation is possible within the range of numeric values listed below. (N)

Electric current limit	30%	40%	50%	60%	70%	80%
Pushing force	3	4	5	6	7	8

(Note) The pushing forces listed above are for horizontal usage. If facing vertically upward, subtract 1.8N from the numeric values listed above, but if facing vertically downward, add 1.8N.

Actuator Specifications Table

■ Leads and Payloads

Model	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-RA3L-I-10-N-40-①-②-③	10	See chart above	See chart above	10	30	Horizontal 2G Vertical 1G	±0.1	40 (Fixed)

Legend ① Compatible Controllers ② Cable length ③ Option

■ Stroke and Maximum Speed

Lead \ Stroke	40 (mm)
(no screw)	450

(unit: mm/s)

Stroke list

Stroke (mm)	
40	

* Refer to P. 155 for the cable for non-brake specification.
* Refer to P. 120 for the cable for brake specification.
(All prices represent the total of an integrated motor/encoder/brake cable and brake cable.)

③Options

Title	Option code	See page	Standard price
Brake (with brake box)	**B**		
Brake (without brake box)	**BN**		

* The brake box and cable with brake is needed to use the brake. If only the actuator with brake is needed for a repair, specify the BN (specification without brake box).

② Cable Length

Type	Cable symbol	
Standard type	**P** (1m)	
	S (3m)	
	M (5m)	
Special length	**X06** (6m) ~ **X10** (10m)	
	X11 (11m) ~ **X15** (15m)	
	X16 (16m) ~ **X20** (20m)	

Actuator Specifications

Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Pipe	Material: Nickel-plated carbon steel tube
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

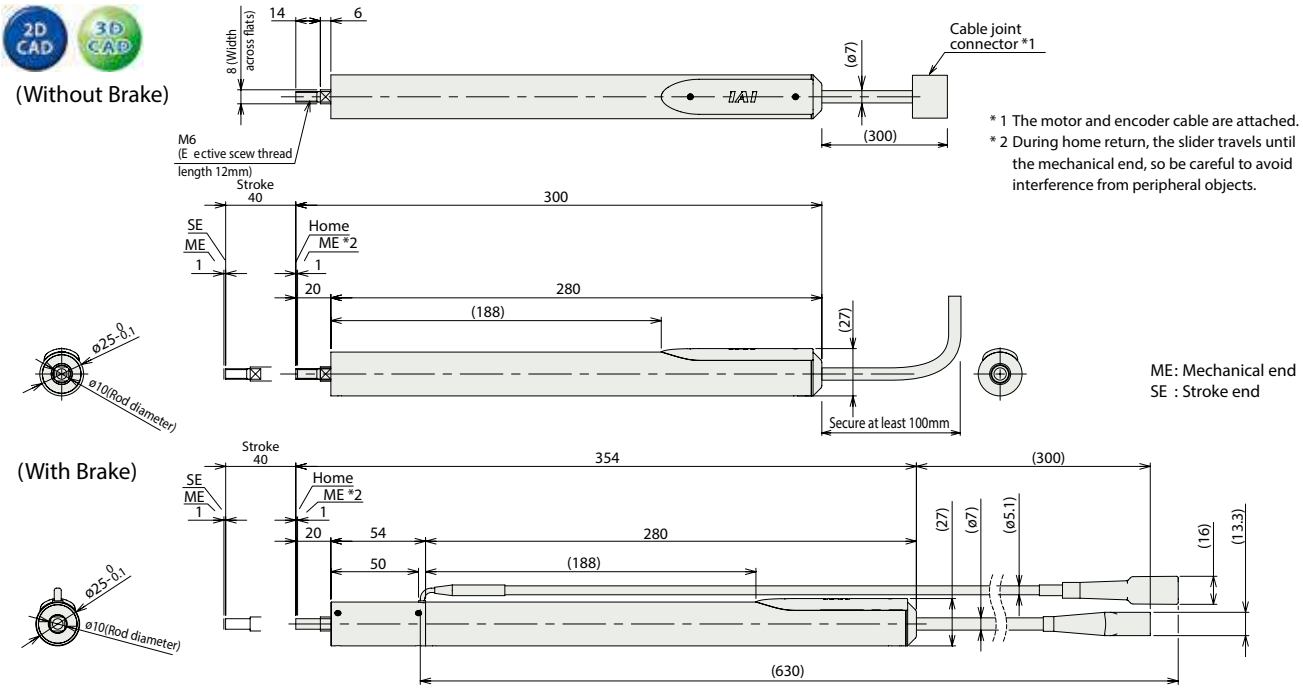
The information above may change without prior notice due to improvements and/or upgrade. Please ask IAI for latest information and confirmation.

Dimensional Drawings

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

2D CAD 3D CAD

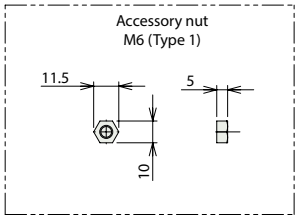
(Without Brake)

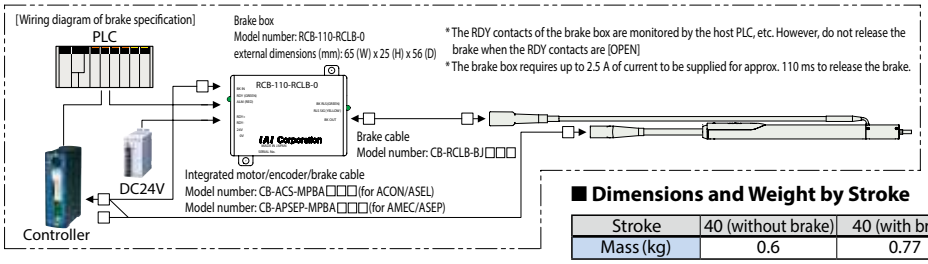


* 1 The motor and encoder cable are attached.
* 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

ME: Mechanical end
SE : Stroke end

(With Brake)





■ Dimensions and Weight by Stroke

Stroke	40 (without brake)	40 (with brake)
Mass (kg)	0.6	0.77

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

*1 For network abbreviations such as DV and CC, please contact IAI.

Please check our General Controller Catalog and contact IAI for latest information.

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Catalog No. CJ0143-6.3A-UST-1-1112 (2026JAN)

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(Rev6.2A 2024JUN)