

Mini ROBO Cylinder

RCP3

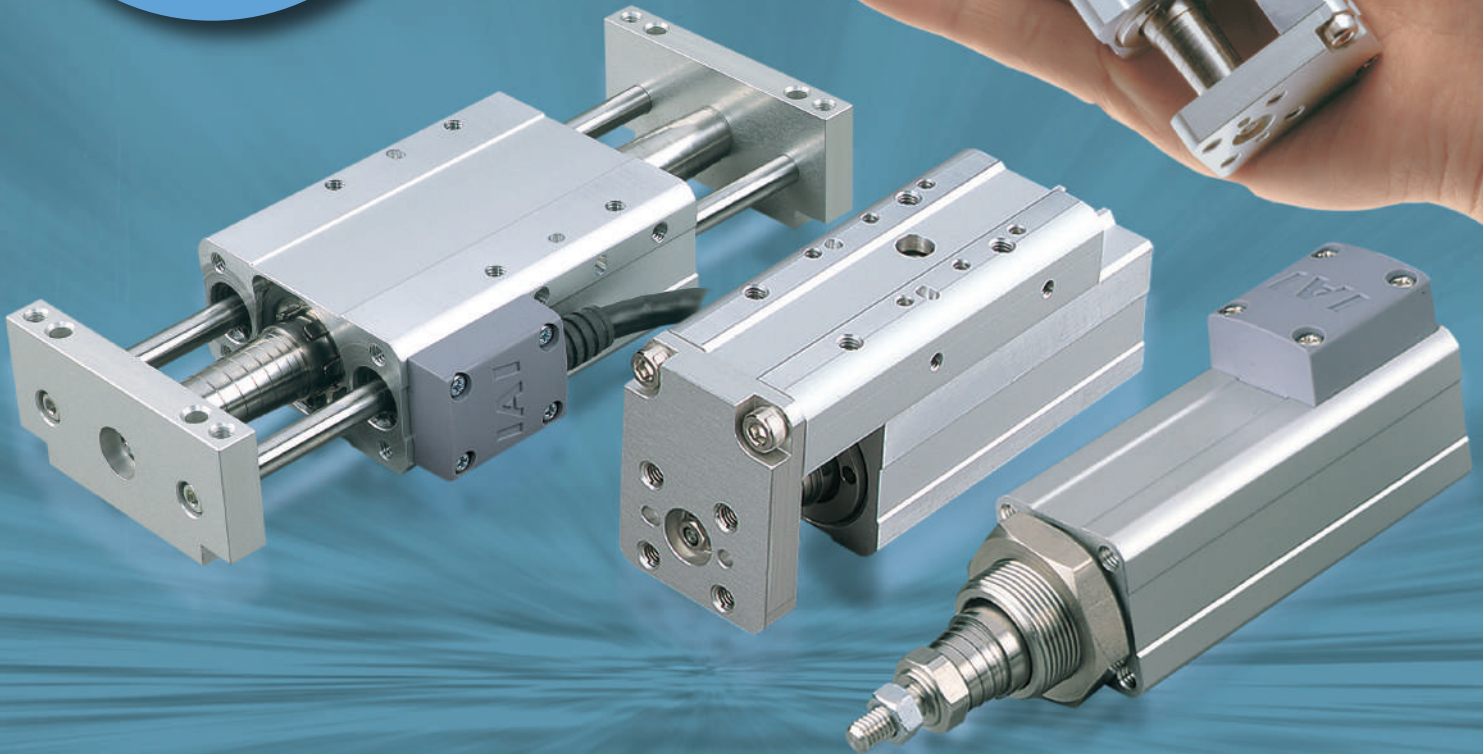
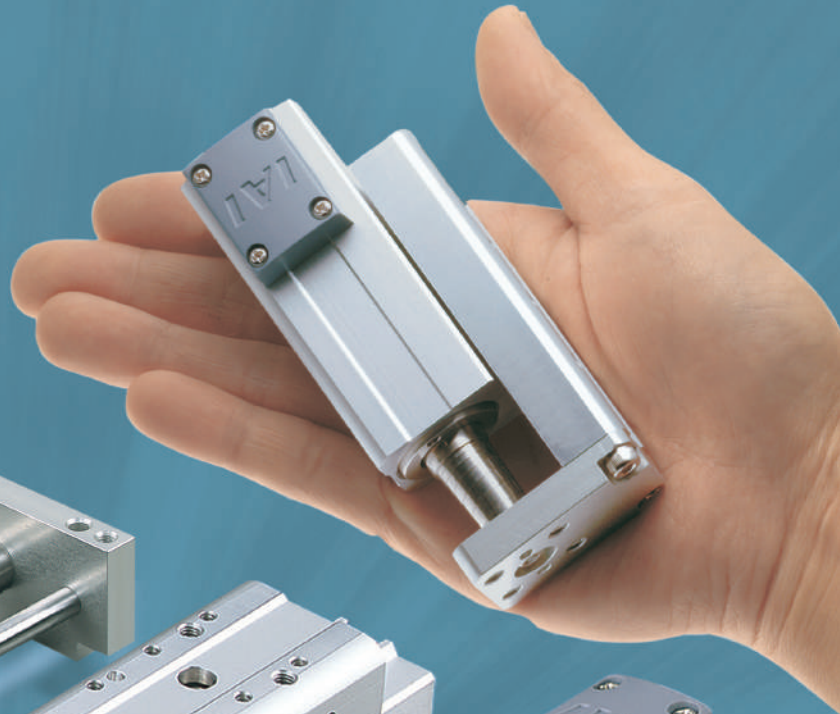
RCA2

RCS2

RCL

Variations have been expanded with:

- Additional RCS2 series
- Additional Stroke 50/75 mm
- Additional Controller SCON-CA


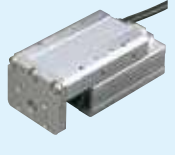
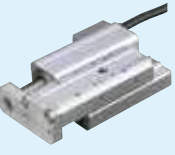
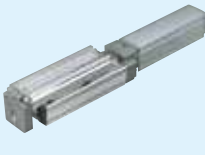
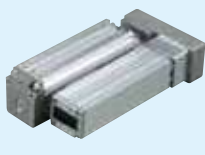

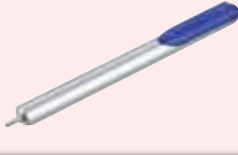





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Category	Type	Title / External view	Model		Actuator width	Maximum payload (horizontal)	Reference Page
			Series Name	Type name			
Slider type	Motor Unit type	Coupling type	RCP3	SA2AC	22mm	1kg	→P.17
				SA2BC	28mm	1kg	→P.19
			RCA2	SA2AC	20mm	2kg	→P.25
		Side-Mounted Motor type	RCP3	SA2AR	58mm	1kg	→P.21
				SA2BR	59.5mm	1kg	→P.23
			RCA2	SA2AR	41mm	2kg	→P.27

Rod type	Without guide	Motor Unit type	RCP3	RA2AC	22mm	4kg	→P.29
				RA2BC	28mm	8kg	→P.31
			RCA2	RA2AC	18mm	2kg	→P.37
		Side-Mounted Motor type	RCP3	RA2AR	58mm	4kg	→P.33
				RA2BR	59.5mm	8kg	→P.35
			RCA2	RA2AR	41mm	2kg	→P.39
	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	

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	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
					Multi-slider	SA6L	58mm	3.2kg	→P.115
		SM4L				40mm	0.8kg	→P.109	
						SM5L	48mm	1.6kg	→P.113
						SM6L	58mm	3.2kg	→P.117
	Micro Cylinder	Slim type		RCL	RA1L	ø16mm	0.5kg	→P.119	
					RA2L	ø20mm	1kg	→P.121	
RA3L					ø25mm	2kg	→P.123		
Controller	PMEC/AMEC Controller						→P.131		
	PSEP/ASEP Controller						→P.141		
	SCON-CA Controller						→P.157		

The compact, next-generation electric actuator

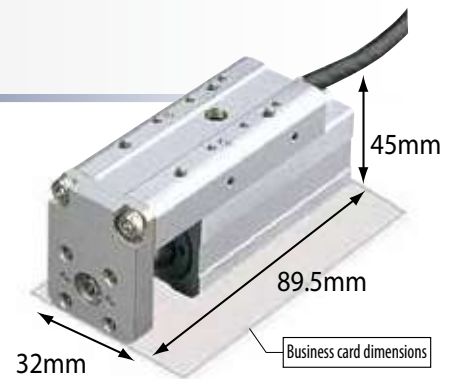
Mini ROBO Cylinder



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.

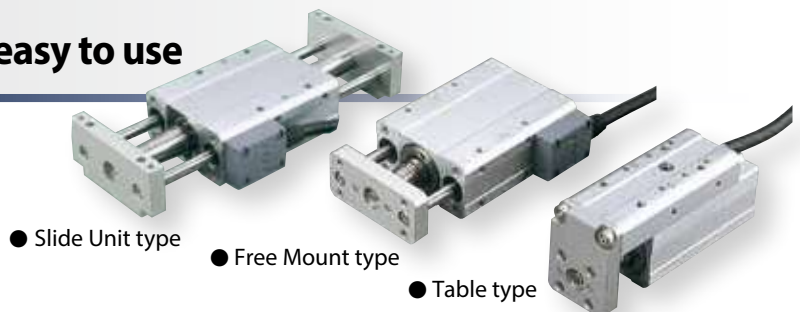
The Mini Table Compact type RCA2-TCA3NA has dimensions smaller than a business card.



Shaped like an air cylinder and easy to use

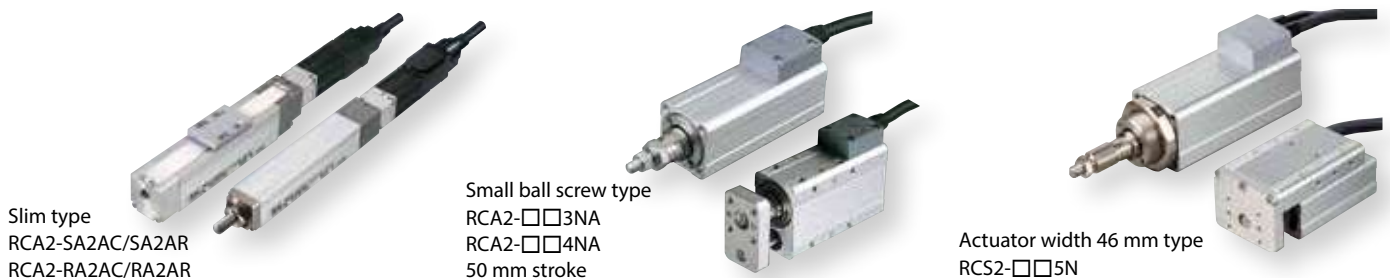
The Mini ROBO Cylinder is available in shapes similar to air cylinders.

Users accustomed to the operation of pneumatic systems are able to use the new ROBO Cylinder effortlessly.

































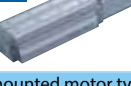


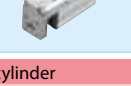
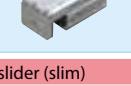
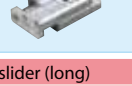






Expanded Variations

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.



<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/SA7C/SS7C/SS8C
Rod type	Appearance					
	Name	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type
Rod type	Type	SA2AR/SA2BR	SA3R/SA4R/SA5R/SA6R	SA5R/SA6R/SA7R/SS7R/SS8R	SA4R/SA5R/SA6R	SA4R/SA5R/SA6R/SA7R/SS7R/SS8R
	Appearance					
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
Rod type	Appearance					
	Name	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type	Side-mounted motor type, short	Side-mounted motor type, high-thrust
Rod type	Type	RA2AR/RA2BR	RA3R/RA4R	RA5R	SRA4R	RA13R
	Appearance					
Rod type	Name	Single guide type	Single guide type	Single guide type	Single guide type	Single guide type, short
	Type	GS3NA/GS4NA/GS5N	RG54C/RG56C	RGS3C/RGS4C	RG55C	SRGS4R/SRGS7BD
Rod type	Appearance					
	Name	Double guide type	Double guide type	Double guide type	Double guide type	Double guide type, short
Rod type	Type	GD3NA/GD4NA/GD5N	RGD4C/RGD6C	RGD3C/RGD4C	RGD5C	SRGD4R/SRGD7BD
	Appearance					
Rod type	Name	Slide unit type				
	Type	SD3NA/SD4NA/SD5N				
Rod type	Appearance					
	Table type	Name	Motor unit type	Motor unit type		
Type		TA3C/TA4C	TA5C/TA6C/TA7C			
Table type	Appearance					
	Name	Side-mounted motor type	Side-mounted motor type			
Table type	Type	TA3R/TA4R	TA5R/TA6R/TA7R			
	Appearance					
Table type	Name	Compact type	Wide type	Fiat type		
	Type	TCA3NA/TCA4NA/TCA5N	TWA3NA/TWA4NA/TWA5N	TFA3NA/TFA4NA/TFA5N		
Table type	Appearance					
	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	
Linear Servo type	Appearance					

*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.

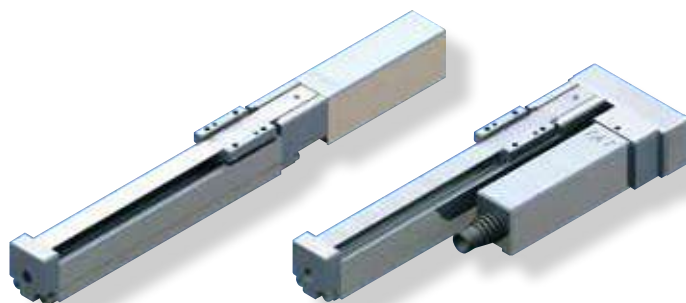
Pulse (24V) → RCP3/RCP2 series
 Servo (24V) → RCL/RCA2/RCA series
 Servo (100V/200V) → RCS2 series

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

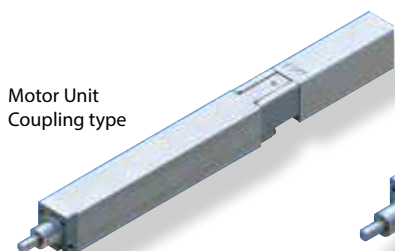
The rod extends and retracts from the main body, gets into position and presses.

- 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.

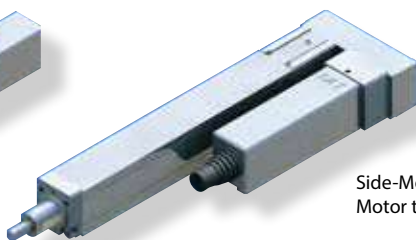
Usage Used for raising/lowering products and jigs, pushing, clamping, etc.



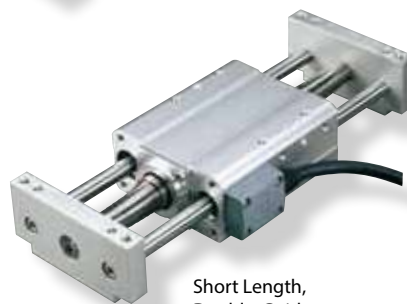
Short Length,
Double-Guide
Free Mount type



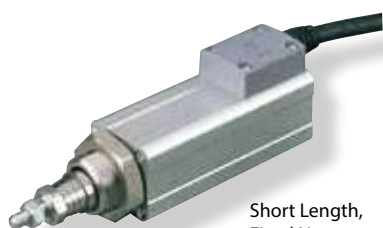
Motor Unit
Coupling type



Side-Mounted
Motor type



Short Length,
Double-Guide
Slide Unit type



Short Length,
Fixed Nut type



Short Length,
Tapped Hole type



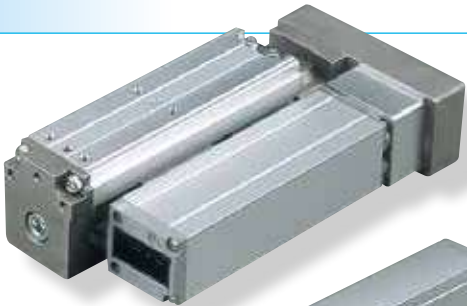
Short Length,
Single-Guide
Free Mount type

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

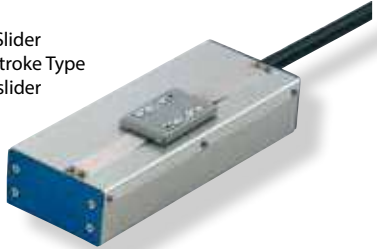
High speed, lightweight parts transfer.

- 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 single slider



Micro Slider Long Stroke Type Multi-slider



Micro Cylinder Slim type




Specification Table

Slider 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				
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				
			6					—	0.25	—	300				
		SA2BC	4		—	0.5	—	200	25~150 (every 25)	±0.02	P.19				
			2		—	1	—	100							
	RCA2	SA2AC	SA2AC		Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.25
								2	42.3	1	0.5	100			
	SA2AR	SA2AR	SA2AR		Pulse motor	20□	Lead screw	4	—	0.25	—	200	25~100 (every 25)	±0.05	P.21
								2	—	0.5	—	100			
	SA2BR	SA2BR	SA2BR		Pulse motor	20□	Lead screw	1	—	1	—	50	25~150 (every 25)	±0.05	P.23
								6	—	0.25	—	300			
	RCA2	SA2AR	SA2AR		Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.27
								2	42.3	1	0.5	100			
	SA2AR	SA2AR	SA2AR		Pulse motor	20□	Lead screw	1	—	1	—	100	25~150 (every 25)	±0.05	P.23
								2	—	1	—	100			
SA2AR	SA2AR	SA2AR	Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.27		
						2	42.3	1	0.5	100					
SA2AR	SA2AR	SA2AR	Pulse motor	20□	Lead screw	1	—	1	—	50	25~150 (every 25)	±0.05	P.23		
						2	—	1	—	100					
SA2AR	SA2AR	SA2AR	Servo motor	5W	Ball screw	4	21.4	0.5	0.25	200	25~100 (every 25)	±0.02	P.27		
						2	42.3	1	0.5	100					
SA2AR	SA2AR	SA2AR	Pulse motor	20□	Lead screw	1	—	1	—	50	25~150 (every 25)	±0.05	P.23		
						2	—	1	—	100					

Mini 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				
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			
								4	—	0.5	0.2	200			
								2	—	1	0.375	100			
								1	—	2	0.75	50			
			20□ High thrust			Ball screw	4	—	1	0.325	200	±0.02	P.29		
							2	—	2	0.625	100				
							1	—	4	1.25	50				
							6	—	0.25	0.125	300			±0.05	P.31
							4	—	0.5	0.25	200				
							2	—	1	0.5	100				
		6	—		0.5	0.2	300	25~150 (every 25)	±0.02						
		4	—		1	0.375	200								
		2	—		2	0.75	100								
		1	—		4	1.5	50								
		6	—		1	0.325	200								
		4	—		2	0.625	300								
		20□ High thrust	Ball screw		2	—	4	1.25	100	±0.02	P.31				
					1	—	8	2.5	50						
4	21.4			0.5	0.25	200	25~100 (every 25)	±0.02							
2	42.3			1	0.5	100									
1	85.5	2	1	50											
4	21.4	0.5	0.25	200											
RCA2	RA2AC	RA2AC	Servo motor	5W	Ball screw	2	42.3	1	0.5	100	25~100 (every 25)	±0.02	P.37		
						1	85.5	2	1	50					

■ Skillful use of the "Lead Screw" type



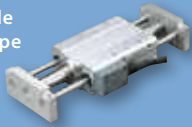
- (1) Lead screws are suitable for uses with infrequent operations. (As a guide, this would be approximately 5 years, for 1 operation every 10 seconds, 24-hour use, 240 days a year.)
- (2) Lead screws are suitable for uses with small payloads, light loads. (1kg or less)
- (3) Use when repeated positioning 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		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												
Motor Unit model	 <p>Side-Mounted Motor type</p>	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											
								4	—	0.5	0.2	200											
								2	—	1	0.375	100											
								1	—	2	0.75	50											
			20□ High thrust		Ball screw	4	—	1	0.325	200													
						2	—	2	0.625	100													
						1	—	4	1.25	50													
						20□	Lead screw	6	—	0.25	0.125	300	25~150 (every 25)	±0.05									
								4	—	0.5	0.2	200											
								6	—	0.5	0.2	300											
		4	—	1	0.375			200															
		2	—	2	0.75			100															
		1	—	4	1.5			50															
		20□ High thrust	Ball screw	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	 <p>Fixed Nut type</p>				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			
4	42.7			0.75	0.25	200																	
2	85.5			1.5	0.5	100																	
1	170.9			3	1	50																	
RN4NA	Lead screw			6	19.9	0.25	0.125	220		30 50	±0.05												
				4	29.8	0.5	0.25	200															
				2	59.7	1	0.5	100															
				6	33.8	2	0.5	270(220)															
				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														
					Short Length type	 <p>Tapped Hole type</p>	RCA2	RP3NA	Incremental				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			
4	42.7	0.75	0.25	200																			
2	85.5	1.5	0.5	100																			
1	170.9	3	1	50																			
RP4NA	Lead screw	6	19.9	0.25			0.125	220		30 50	±0.05												
		4	29.8	0.5			0.25	200															
		2	59.7	1			0.5	100															
		6	33.8	2			0.5	270(220)															
		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														

*The value inside < > indicates vertical usage.

Continue to the next page

Specification Table




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									
								2	85.5	1.5	0.5	100									
								1	170.9	3	1	50									
		GS4NA	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)												
					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	Incremental	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									
		2	85.5	1.5							0.5	100									
		1	170.9	3							1	50									
	GD4NA	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)														
		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	Incremental	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										
	2	85.5	1.5							0.5	100										
	1	170.9	3							1	50										
SD4NA	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													
		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.

■ Skillful use of the “Lead Screw” type

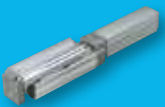

- (1) Lead screws are suitable for uses with infrequent operations. (As a guide, this would be approximately 5 years, for 1 operation every 10 seconds, 24-hour use, 240 days a year.)
- (2) Lead screws are suitable for uses with small payloads, light loads. (1kg or less)
- (3) Use when repeated positioning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

Table type



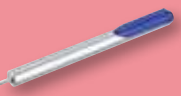
Type	Title / External view	Model		Encoder	Motor type		Feed screw	Lead (mm)	Rated thrust (N)	Max. payload (kg)		Max. speed (mm/s)	Stroke (mm)	Positioning repeatability (mm)	Reference Pages								
		Series Name	Type name		Type	Size				Horizontal	Vertical												
Short Length type	Compact type 	RCA2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

*The value inside <> indicates vertical usage.

Specification Table

Table 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					
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)					
			6					-	~1	~0.5	300					
		RCA2	TA4C		Servo motor	10W		4	-	~2	~1	200			P.91	
			2					-	~3	~1.5	100					
			6					-	1	0.5	300					
			4					-	2	1	200					
	Side-Mounted Motor type 	RCP3	TA3R		Pulse motor	20□	Ball screw	6	-	~0.7	~0.3	300(200)			P.93	
			4					-	~1.4	~0.6	200(133)					
			2					-	~2	~1	100(67)					
			6					-	~1	~0.5	300					
		RCA2	TA4R			Servo motor		10W	4	-	~2	~1			200	P.95
			2						-	~3	~1.5	100				
			6						-	1	0.5	300				
			4						-	2	1	200				
RCA2	TA4R	Servo motor	10W	2	-	3	1.5	100	P.97							
	6			-	1	0.5	300									
	4			-	2	1	200									
	2			-	3	1.5	100									

*The value inside <> indicates vertical usage.

Linear servo 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									
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
			SA4L												2W	2.5	0.8	1200	30~180 (every 30)	P.107
			SM4L																30~120 (every 30)	P.109
			Long Stroke type 												SA5L	5W	5	1.6	1400	36~216 (every 36)
	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	Incremental	Linear motor	2W	-	2.5	0.5		0.1	300	25	±0.1	P.119		
RA2L				5W	5	1							340					30	P.121	
RA3L				10W	10	2							450					40	P.123	

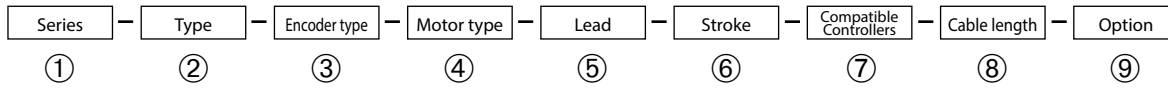
Model Descriptions



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



① Series	This indicates the name of each series.
② Type	This indicates the shape (slider, rod, etc.), size (width 22mm, etc.) and motor connection method, etc.
③ Encode 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).
④ Motor 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.
⑤ Lead	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.
⑥ Stroke	This indicates the stroke for the actuator (operating range). (Units are in mm)
⑦ Compatible Controllers	This indicates the controller types that can be connected. (The motor-encoder cable changes according to type of controller.)
⑧ Cable length	This indicates the length of the motor-encoder cable connecting the actuator and controller.
⑨ Option	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 — [] — **I** — [] — [] — [] — [] — [] — [] — []

Series Type Encoder type Motor type Lead Stroke Compatible Controller Cable length Options

Mini Slider type	SA2AC	Motor unit Coupling type width 22mm	Mini Table type	TA3C	Motor unit Coupling type width 36mm	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.	20 20mm S S 150 150mm *Range differs according to type.	P3 PCON MSEL RCON RSEL	N No cable P 1m S 3m M 5m X□□ Length designation	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.
	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								

Model Descriptions

RCA2 — [] — **I** — [] — [] — [] — [] — [] — []

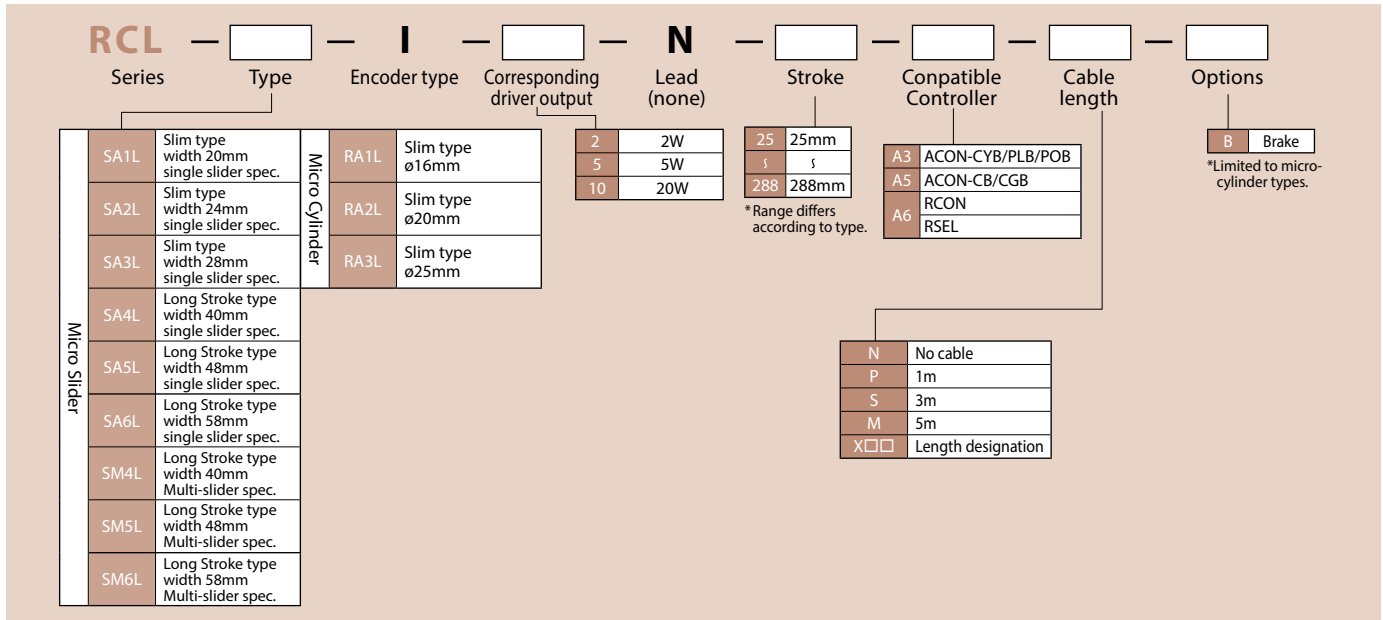
Series Type Encoder type Motor type Lead Stroke Compatible Controller Cable length Options

Mini Slider type	SA2AC	Motor unit Coupling type width 20mm	<table border="1"> <tr><td>5</td><td>5W</td></tr> <tr><td>10</td><td>10W</td></tr> <tr><td>20</td><td>20W</td></tr> </table>	5	5W	10	10W	20	20W	<table border="1"> <tr><td>1</td><td>Ball screw 1mm</td></tr> <tr><td>2</td><td>Ball screw 2mm</td></tr> <tr><td>4</td><td>Ball screw 4mm</td></tr> <tr><td>6</td><td>Ball screw 6mm</td></tr> <tr><td>1S</td><td>Lead screw 1mm</td></tr> <tr><td>2S</td><td>Lead screw 2mm</td></tr> <tr><td>4S</td><td>Lead screw 4mm</td></tr> <tr><td>6S</td><td>Lead screw 6mm</td></tr> </table> <p>*Differs depending on type.</p>	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	<table border="1"> <tr><td>20</td><td>20mm</td></tr> <tr><td>∫</td><td>∫</td></tr> <tr><td>100</td><td>100mm</td></tr> </table> <p>*Range differs according to type.</p>	20	20mm	∫	∫	100	100mm	<table border="1"> <tr><td>A3</td><td>ACON-CYB/PLB/POB</td></tr> <tr><td>A5</td><td>ACON -CB/CGB</td></tr> <tr><td>RCON</td><td></td></tr> <tr><td>RSEL</td><td></td></tr> </table>	A3	ACON-CYB/PLB/POB	A5	ACON -CB/CGB	RCON		RSEL		<table border="1"> <tr><td>N</td><td>No cable</td></tr> <tr><td>P</td><td>1m</td></tr> <tr><td>S</td><td>3m</td></tr> <tr><td>M</td><td>5m</td></tr> <tr><td>X□□</td><td>Length designation</td></tr> </table>	N	No cable	P	1m	S	3m	M	5m	X□□	Length designation	<table border="1"> <tr><td>K2</td><td>Change direction for connector cable exit</td></tr> <tr><td>B</td><td>Brake</td></tr> <tr><td>CJT</td><td>Cable exit direction (top)</td></tr> <tr><td>CJR</td><td>Cable exit direction (right)</td></tr> <tr><td>CJL</td><td>Cable exit direction (left)</td></tr> <tr><td>CJO</td><td>Cable exit direction (outside)</td></tr> <tr><td>CJB</td><td>Cable exit direction (bottom)</td></tr> <tr><td>LA</td><td>Power-saving specification</td></tr> <tr><td>ML</td><td>Left-mounted motor</td></tr> <tr><td>MR</td><td>Right-mounted motor</td></tr> <tr><td>MT</td><td>Top-mounted motor</td></tr> <tr><td>NM</td><td>Reverse-home specification</td></tr> </table> <p>*Available items differ according to type.</p>	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
	5	5W																																																																												
	10	10W																																																																												
	20	20W																																																																												
1	Ball screw 1mm																																																																													
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1S	Lead screw 1mm																																																																													
2S	Lead screw 2mm																																																																													
4S	Lead screw 4mm																																																																													
6S	Lead screw 6mm																																																																													
20	20mm																																																																													
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A3	ACON-CYB/PLB/POB																																																																													
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Mini Rod type	RA2AC	Motor unit coupling type width 18mm	<table border="1"> <tr><td>TCA3NA</td><td>Short Length, Compact type width 32mm</td></tr> <tr><td>TCA4NA</td><td>Short Length, Compact type width 36mm</td></tr> <tr><td>TWA3NA</td><td>Short Length, Wide type width 50mm</td></tr> <tr><td>TWA4NA</td><td>Short Length, Wide type width 58mm</td></tr> <tr><td>TFA3NA</td><td>Short Length, Flat type width 61mm</td></tr> <tr><td>TFA4NA</td><td>Short Length, Flat type width 71mm</td></tr> <tr><td>TA4C</td><td>Motor Unit Coupling type width 40mm</td></tr> <tr><td>TA4R</td><td>Side-mounted motor type width 81mm</td></tr> </table>	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	<table border="1"> <tr><td>2.5</td><td>2.5 mm (Ball screw)</td></tr> <tr><td>5</td><td>5 mm (Ball screw)</td></tr> <tr><td>10</td><td>10 mm (Ball screw)</td></tr> </table>	2.5	2.5 mm (Ball screw)	5	5 mm (Ball screw)	10	10 mm (Ball screw)	<table border="1"> <tr><td>50</td><td>50mm</td></tr> <tr><td>75</td><td>75mm</td></tr> </table>	50	50mm	75	75mm	<table border="1"> <tr><td>T2</td><td>SCON</td></tr> <tr><td></td><td>SSEL</td></tr> <tr><td></td><td>XSEL-P/Q</td></tr> <tr><td></td><td>XSEL-RA/SA</td></tr> <tr><td>T4</td><td>RCON</td></tr> <tr><td></td><td>RSEL</td></tr> </table>	T2	SCON		SSEL		XSEL-P/Q		XSEL-RA/SA	T4	RCON		RSEL	<table border="1"> <tr><td>N</td><td>No cable</td></tr> <tr><td>P</td><td>1m</td></tr> <tr><td>S</td><td>3m</td></tr> <tr><td>M</td><td>5m</td></tr> <tr><td>X□□</td><td>Length designation</td></tr> <tr><td>R□□</td><td>Robot cable</td></tr> </table>	N	No cable	P	1m	S	3m	M	5m	X□□	Length designation	R□□	Robot cable	<table border="1"> <tr><td>K1</td><td>Connector cable exit from the left</td></tr> <tr><td>K2</td><td>Connector cable exit from the front</td></tr> <tr><td>K3</td><td>Connector cable exit from the right</td></tr> </table>	K1	Connector cable exit from the left	K2	Connector cable exit from the front	K3	Connector cable exit from the right														
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	RN3NA	Short Length, Fixed Nut type width 28mm																																																																												
	RN4NA	Short Length, Fixed Nut type width 34mm																																																																												
	RP3NA	Short Length, Tapped Hole type width 28mm																																																																												
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	GS3NA	Short Length, Single-Guide Free Mount type width 28mm																																																																												
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	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																																																																												

RCS2 — [] — **I** — **60** — [] — [] — **T2** — [] — []

Series Type Encoder type Motor type Lead Stroke Compatible Controller Cable length Options

Small rod type	RN5N	Short Length, Fixed Nut type width 46 mm	<table border="1"> <tr><td>60</td><td>60W</td></tr> </table>	60	60W	<table border="1"> <tr><td>2.5</td><td>2.5 mm (Ball screw)</td></tr> <tr><td>5</td><td>5 mm (Ball screw)</td></tr> <tr><td>10</td><td>10 mm (Ball screw)</td></tr> </table>	2.5	2.5 mm (Ball screw)	5	5 mm (Ball screw)	10	10 mm (Ball screw)	<table border="1"> <tr><td>50</td><td>50mm</td></tr> <tr><td>75</td><td>75mm</td></tr> </table>	50	50mm	75	75mm	<table border="1"> <tr><td>T2</td><td>SCON</td></tr> <tr><td></td><td>SSEL</td></tr> <tr><td></td><td>XSEL-P/Q</td></tr> <tr><td></td><td>XSEL-RA/SA</td></tr> <tr><td>T4</td><td>RCON</td></tr> <tr><td></td><td>RSEL</td></tr> </table>	T2	SCON		SSEL		XSEL-P/Q		XSEL-RA/SA	T4	RCON		RSEL	<table border="1"> <tr><td>N</td><td>No cable</td></tr> <tr><td>P</td><td>1m</td></tr> <tr><td>S</td><td>3m</td></tr> <tr><td>M</td><td>5m</td></tr> <tr><td>X□□</td><td>Length designation</td></tr> <tr><td>R□□</td><td>Robot cable</td></tr> </table>	N	No cable	P	1m	S	3m	M	5m	X□□	Length designation	R□□	Robot cable	<table border="1"> <tr><td>K1</td><td>Connector cable exit from the left</td></tr> <tr><td>K2</td><td>Connector cable exit from the front</td></tr> <tr><td>K3</td><td>Connector cable exit from the right</td></tr> </table>	K1	Connector cable exit from the left	K2	Connector cable exit from the front	K3	Connector cable exit from the right
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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																																																



■ Skillful use of the “Lead Screw” type

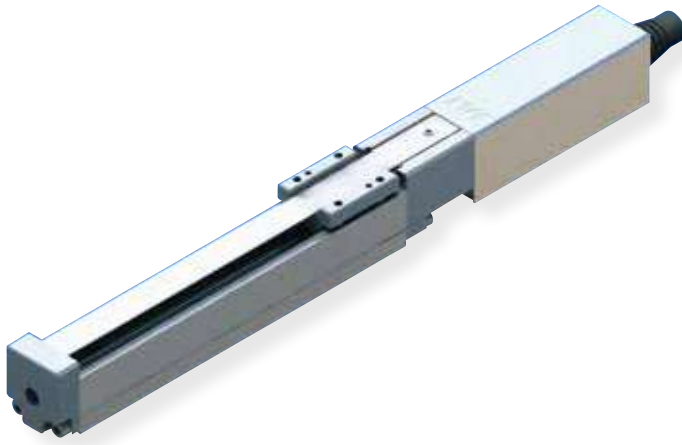
- (1) Lead screws are suitable for uses with infrequent operations. (As a guide, this would be approximately 5 years, for 1 operation every 10 seconds, 24-hour use, 240 days a year.)
- (2) Lead screws are suitable for uses with small payloads, light loads. (1kg or less)
- (3) Use when repeated positioning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

RCP3-SA2AC

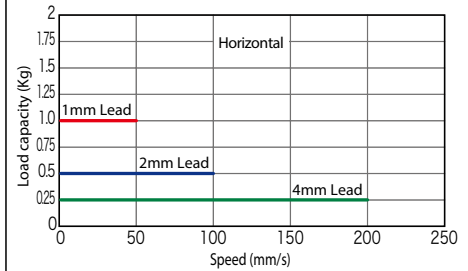
ROBO Cylinder Mini Slider Type Motor Unit Coupling Type Actuator Width 22mm Pulse Motor Lead Screw Specification

■ Model Description	RCP3	—	SA2AC	—	I	—	20P	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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		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□□: Length Designation		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		Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
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	
Lead screw	4	180	200
	2	100	
	1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

Actuator Specifications

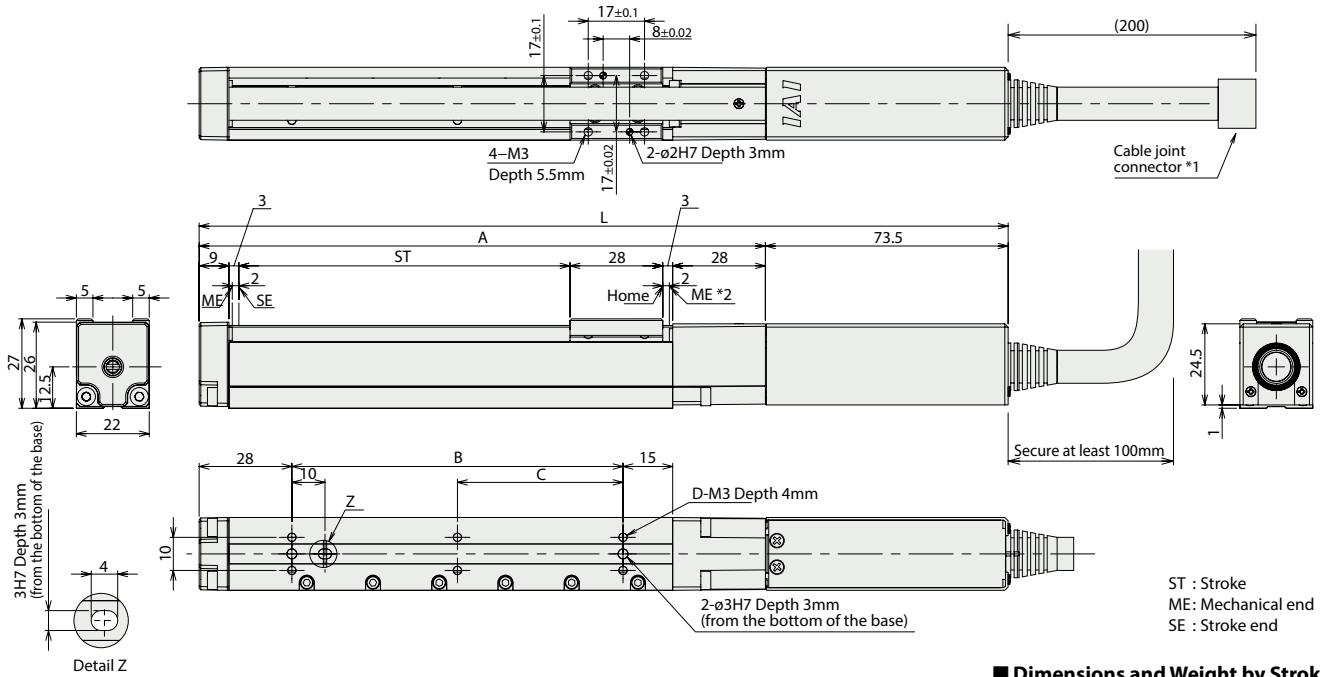
Item	Description
Drive System	Lead screw, ø4mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

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



- *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	Positioner	Pulse-train	Program	Control method											Maximum number of positioning points	Reference page	
							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.

More controller info is available in the General Controller Catalog PDF.

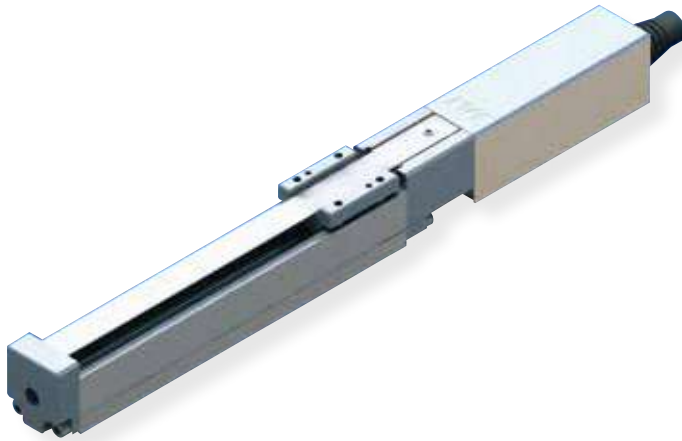


RCP3-SA2BC

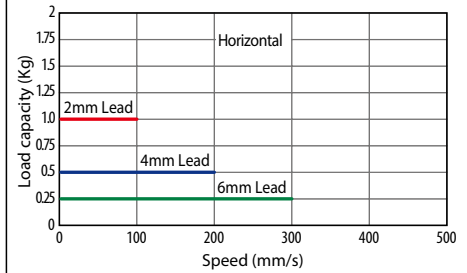
ROBO Cylinder Mini Slider Type Motor Unit Coupling Type Actuator Width 28mm Pulse Motor Lead Screw Specification

■ Model Description	RCP3	—	SA2BC	—	I	—	20P	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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		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□□: Length Designation		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		Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
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	Lead screw	Lead screw
Lead screw	6	180	280	300
	4	180	200	
	2	100		

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

Actuator Specifications

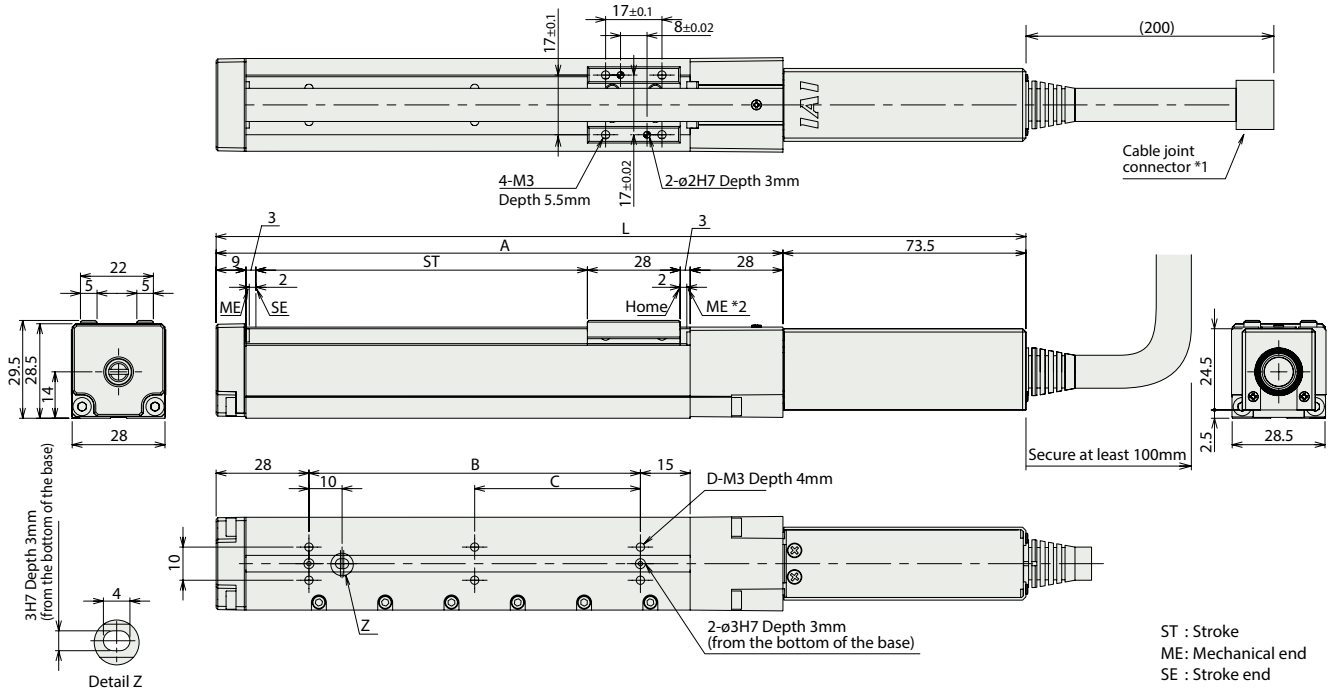
Item	Description
Drive System	Lead screw, ø6mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

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



- *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	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)			
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64		
RCON		16 (ML3,SSN,ECM- ϕ)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	-	-		128 (No position data for ML3, SSN, ECM),
RSEL		8		-	-	●	●	●	●	-	-	-	-	●	●	●	-	-	-	36000		

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

More controller info is available in the General Controller Catalog PDF.



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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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		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□□: 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.

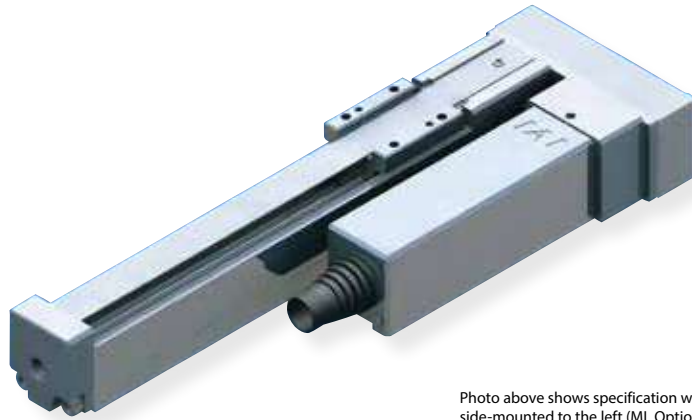
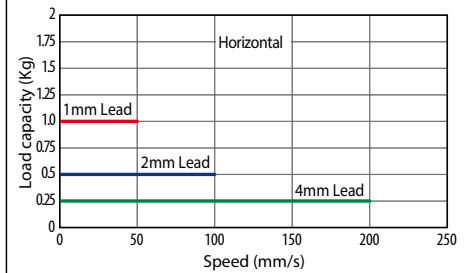


Photo above shows specification with motor side-mounted to the left (ML Option).

■ 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		Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
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	
Lead screw	4	180	200
	2	100	
	1	50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Specification with motor side-mounted to the left	ML	—	—
Specification with motor side-mounted to the right	MR	—	—
Reversed-home specification	NM	—	—

Actuator Specifications

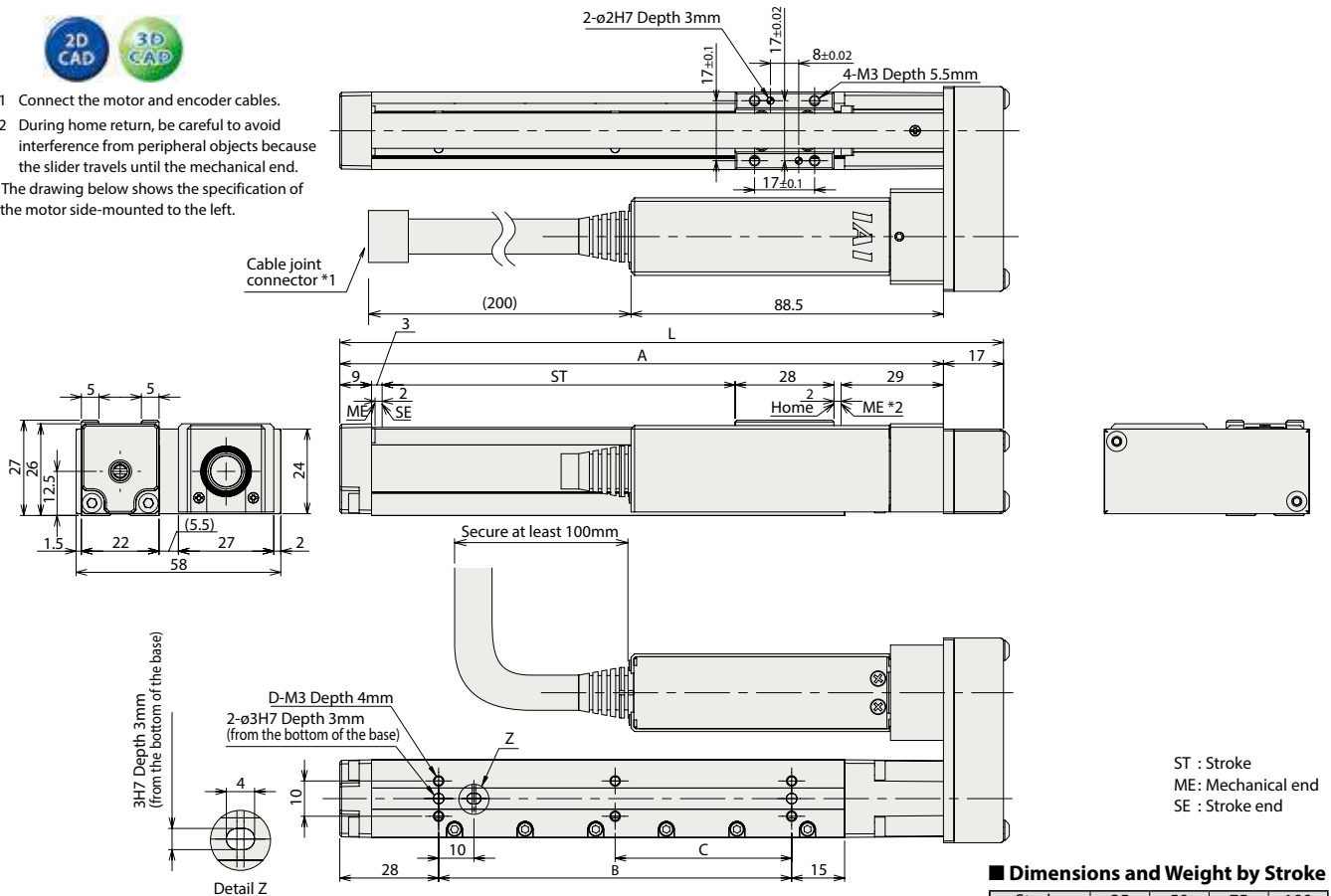
Item	Description
Drive System	Lead screw, ø4mm, rolled C10
Lost motion	0.3mm or less (initial value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

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



- *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.



■ 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	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	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN,ECM-B)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

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

More controller info is available in the General Controller Catalog PDF.



* This is for the single-axis PSEL.
 * ① indicates the power-supply voltage type (1: 100 V/2: 100 to 240 V).

Mini Slider type
 Mini Rod type
 Mini Table type
 Mini Linear Servo type
 Controller
 Compact
 Wide
 Flat
 Coupling
 Side-mounted

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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		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□□: 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.

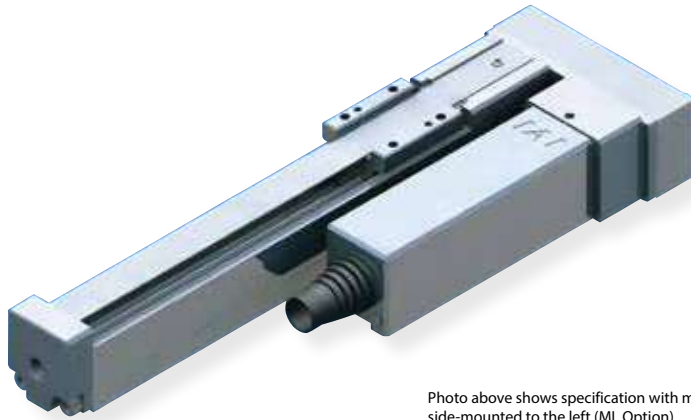
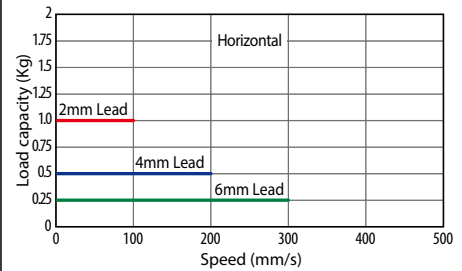


Photo above shows specification with motor side-mounted to the left (ML Option).

■ **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		Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
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 screw	Stroke	25 (mm)	50 (mm)	75~150 (mm)
		Lead	Lead	Lead
Lead screw	6	180	280	300
	4	180	200	
	2	100		

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

③ Options

Title	Option code	See page	Standard price
Specification with motor side-mounted to the left	ML	—	—
Specification with motor side-mounted to the right	MR	—	—
Reversed-home specification	NM	—	—

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

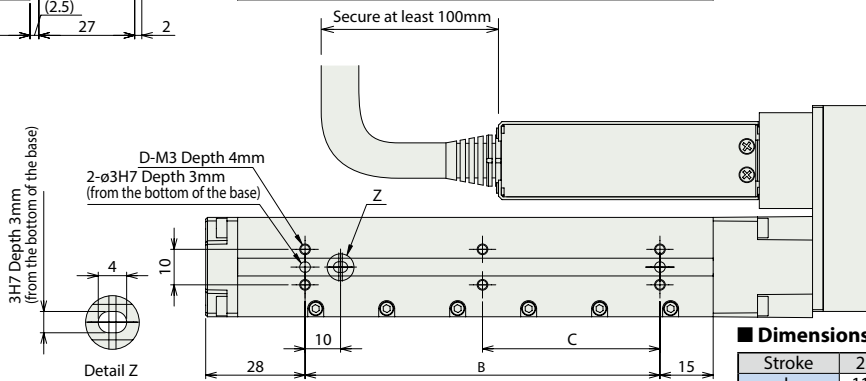
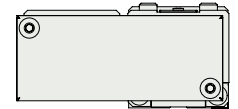
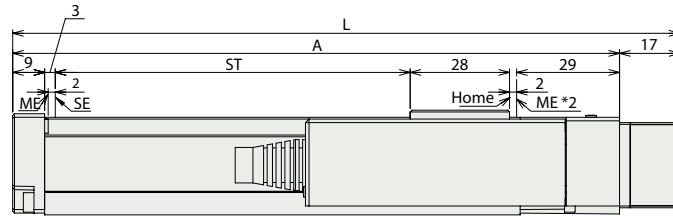
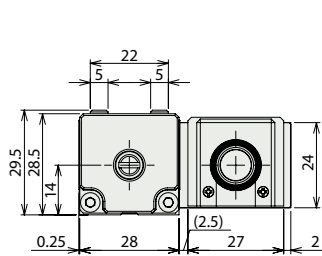
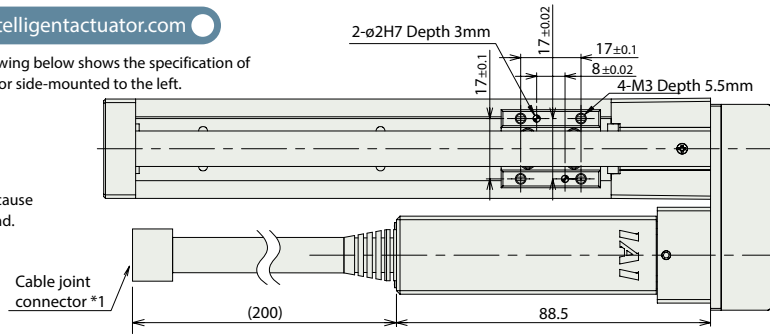
Dimensional Drawings

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



* 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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)			
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	64		
RCON		16 (ML,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.

More controller info is available in the General Controller Catalog PDF.

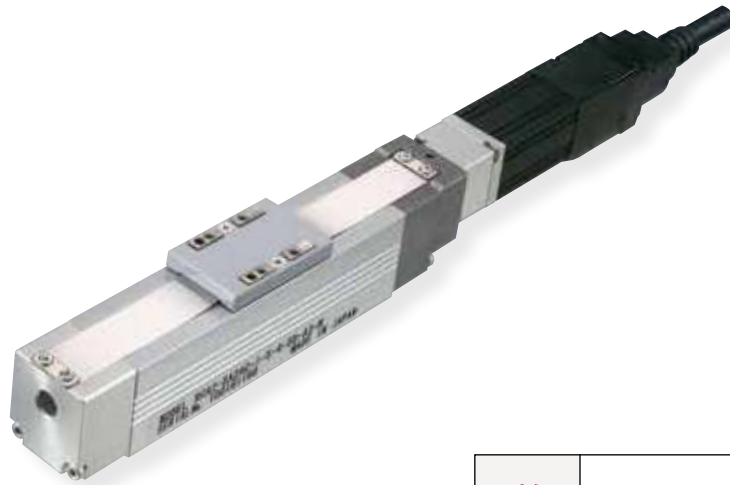


RCA2-SA2AC

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

■ Model Description	RCA2 — SA2AC — I — 5 — <input type="checkbox"/> — <input type="checkbox"/> — A3 — <input type="checkbox"/> — <input type="checkbox"/>
	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.

* 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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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
2		100	
1		50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

③ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

Actuator Specifications

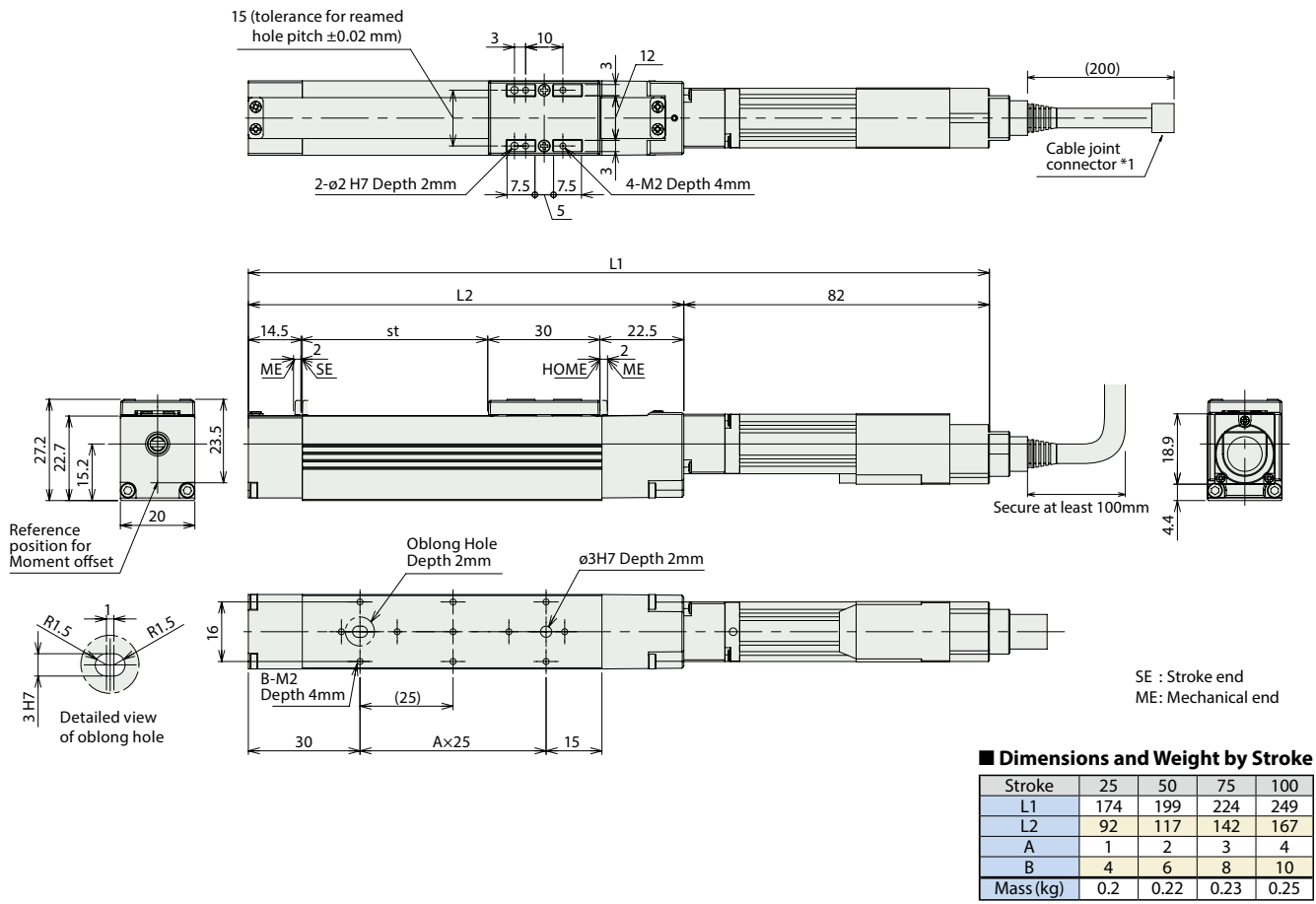
Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Guide	Linear guide
Dynamic allowable moment	Ma:0.22N·m, Mb:0.31N·m, Mc:0.28N·m
Allowable overhang	40mm or less in Ma, Mb and Mc directions
Ambient operating temperature, 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



- *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.



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	Positioner	Pulse-train	Program	Control method											Maximum number of positioning points	Reference page		
							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	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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 — <input type="checkbox"/> — <input type="checkbox"/> — A3 — <input type="checkbox"/> — <input type="checkbox"/>							
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: 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 0.2G 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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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
2		100	
1		50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

③ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—
Motor side mounted to the right	MR	—	—
Motor side mounted to the left	ML	—	—

Actuator Specifications

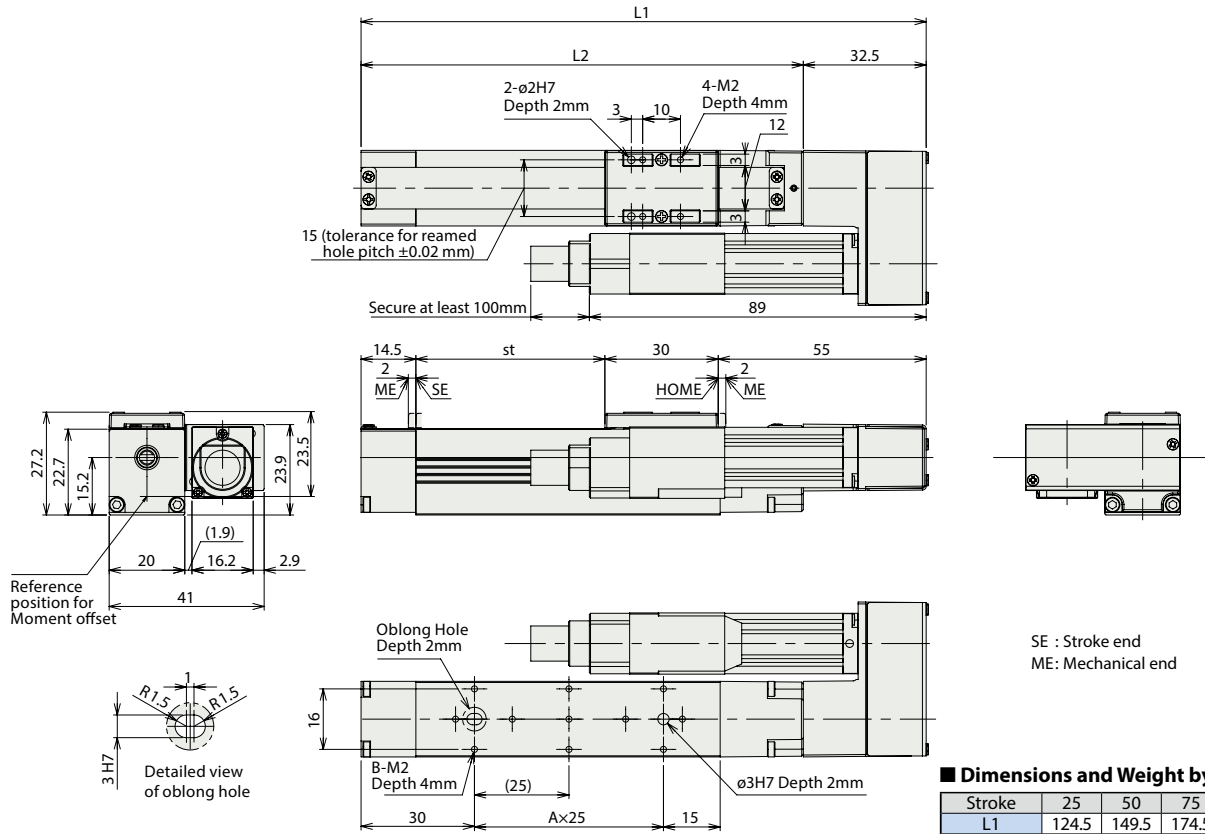
Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Guide	Linear guide
Dynamic allowable moment	Ma:0.22N·m, Mb:0.31N·m, Mc:0.28N·m
Allowable overhang	40mm or less in Ma, Mb and Mc directions
Ambient operating temperature, 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



- *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.



■ 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	Positioner	Pulse-train	Program	Control method										Maximum number of positioning points	Reference page			
							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	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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

More controller info is available in the General Controller Catalog PDF.



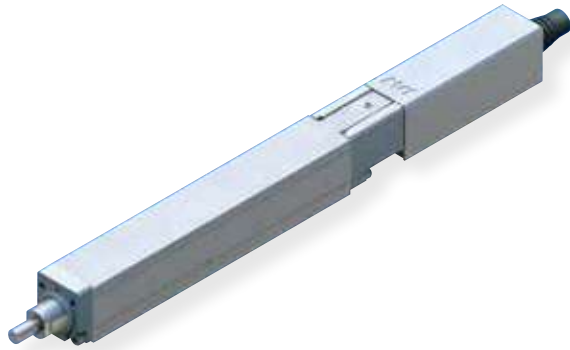
Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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	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□□: Length Designation	B: Brake NM: Reversed-home specification

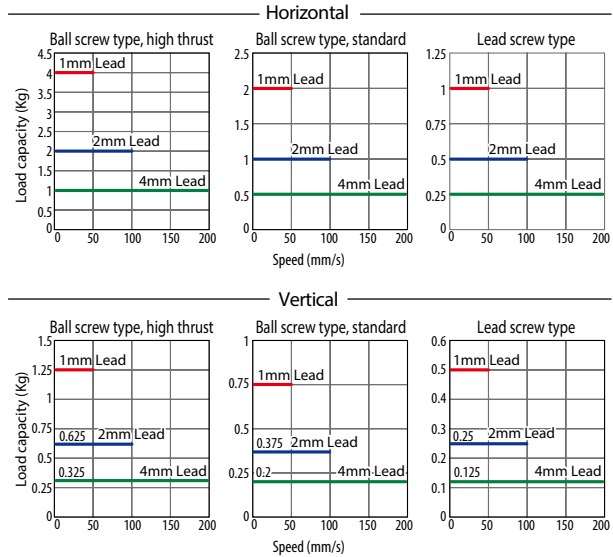
* See page 14 for details on the model descriptions.



- 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.



Actuator Specifications Table

Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload		Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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			4	0.5	0.2			
RCP3-RA2AC-I-20P-2-①-②-③-④	Standard	Ball screw	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			4	0.25	0.125			
RCP3-RA2AC-I-20P-2S-①-②-③-④			2	0.5	0.25			
RCP3-RA2AC-I-20P-1S-①-②-③-④	Standard	Lead screw	1	1	0.5	±0.05		

Stroke and Maximum Speed

Lead	Stroke	Maximum Speed (mm/s)	
		25 (mm)	50~100 (mm)
Ball screw	4	180	200
	2	100	
	1	50	
	4	180	200
Lead screw	2	100	
	1	50	

Legend ① Stroke ② Compatible controllers ③ Cable length ④ Option

(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	—	—	—

④ Options

Title	Option code	See page	Standard price
Brake	B	—	—
Reversed-home specification	NM	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

Actuator Specifications

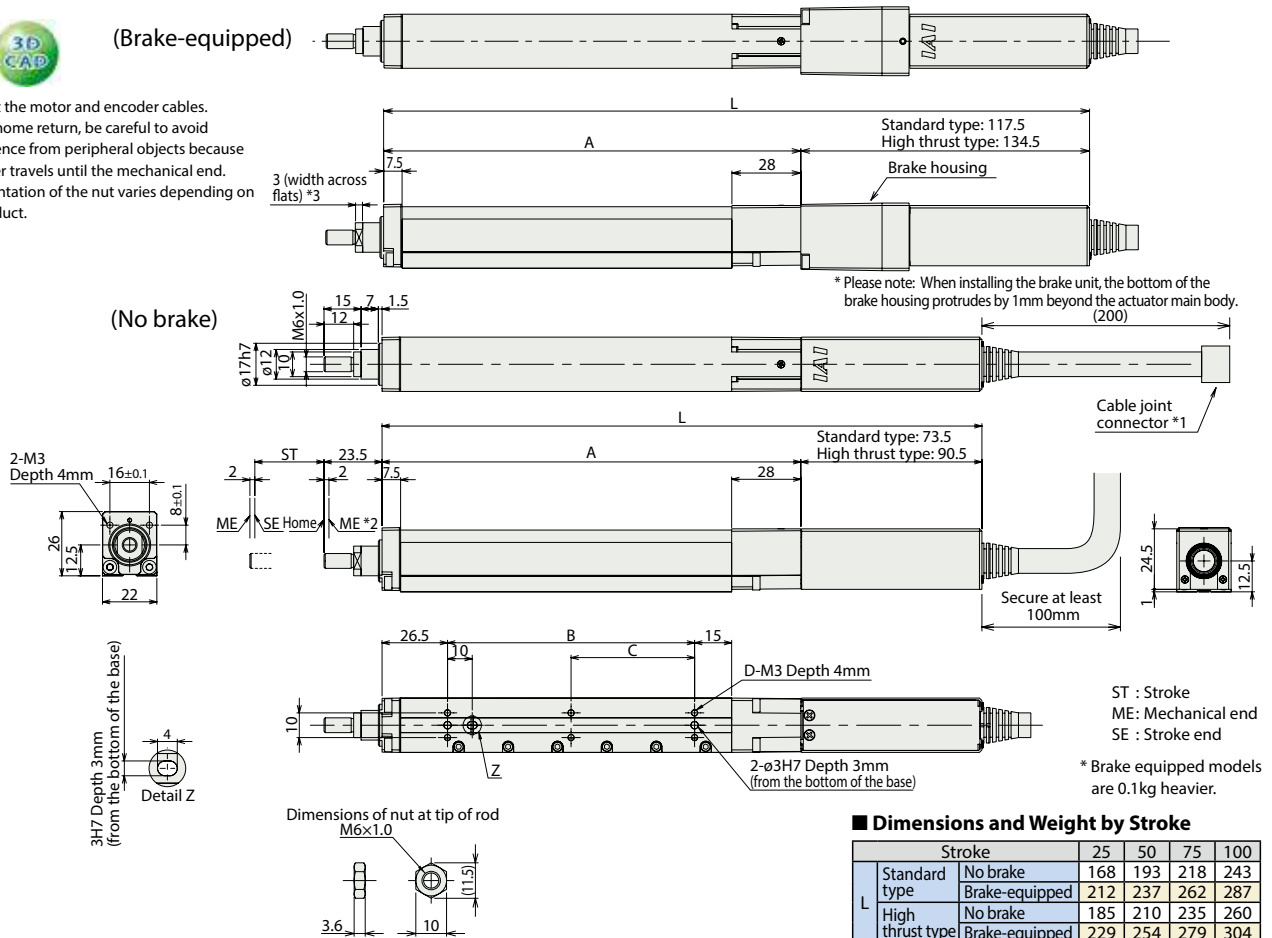
Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1mm or less/Lead screw: 0.3mm or less (default value)
Base	Material: Aluminum, white alumite treated
Guide	Slide guide
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service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

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.



■ 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	Positioner	Pulse-train	Program	Control method										Maximum number of positioning points	Reference page		
							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	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



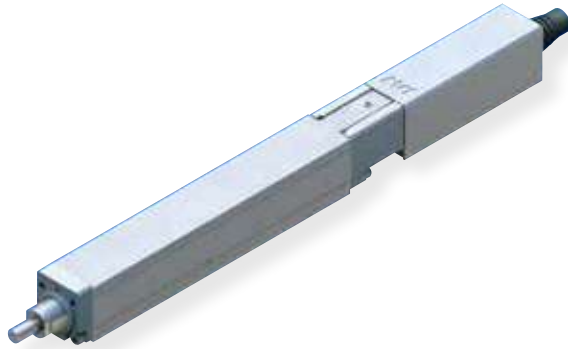
Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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
			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 PS: RCON RSEL	N: None P: 1m S: 3m M: 5m X□□: Length Designation	B: Brake NM: Reversed-home specification

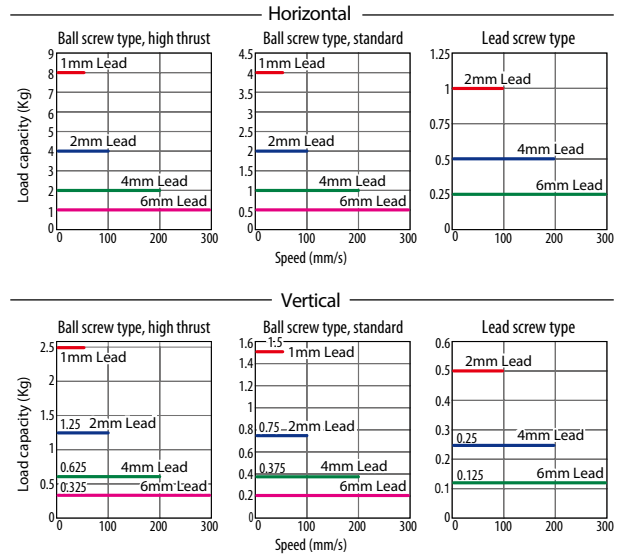
* See page 14 for details on the model descriptions.



- 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.



Actuator Specifications Table

Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload		Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)		
				Horizontal (kg)	Vertical (kg)					
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	Ball screw	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					

Stroke and Maximum Speed

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

(unit: mm/s)

Legend ① Stroke ② Compatible controllers ③ Cable length ④ Option

① Stroke list

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

④ Options

Title	Option code	See page	Standard price
Brake	B	—	—
Reversed-home specification	NM	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

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

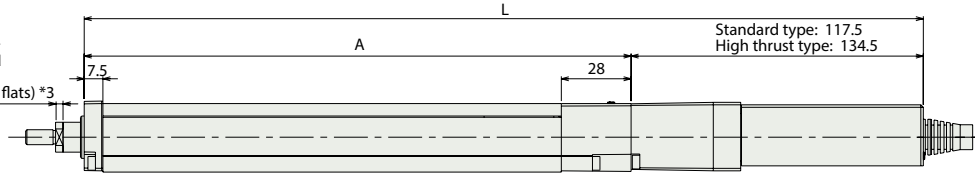
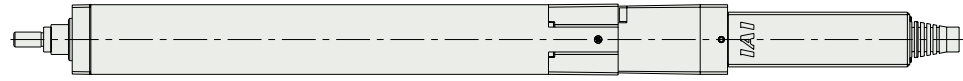
Dimensional Drawings

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

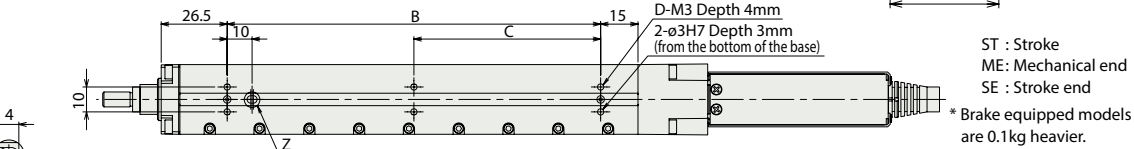
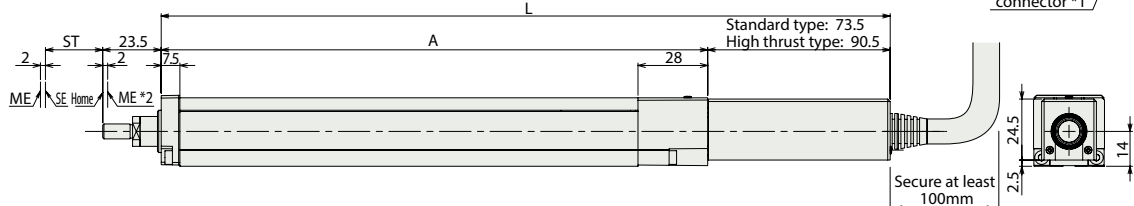
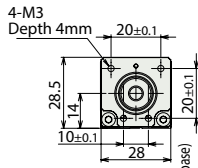
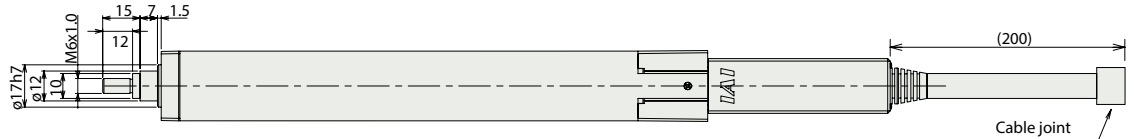
(Brake-equipped)



- *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.

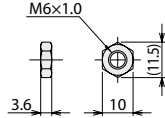


(No brake)



Detail Z

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	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	Positioner	Pulse-train	Program	Control method											Maximum number of positioning points	Reference page	
							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.

More controller info is available in the General Controller Catalog PDF.



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□□: 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.

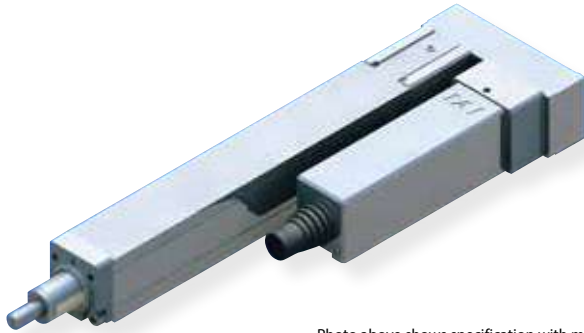
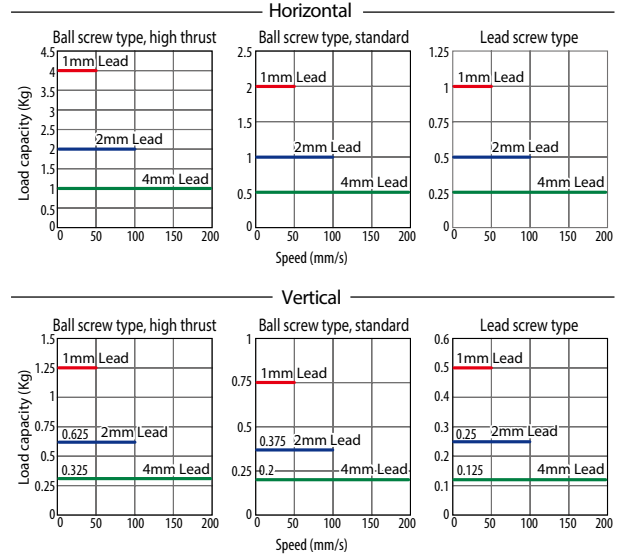


Photo above shows specification with motor side-mounted to the left (ML Option).

- POINT**
Notes on selection
- 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.
 - 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.
 - The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.
 - 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.



Actuator Specifications Table

Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload		Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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			4	0.5	0.2			
RCP3-RA2AR-I-20P-2-①-②-③-④	Standard	Ball screw	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			4	0.25	0.125			
RCP3-RA2AR-I-20P-2S-①-②-③-④	Standard	Lead screw	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	Maximum Speed	
		25 (mm)	50~100 (mm)
Ball screw	4	180	200
	2	100	
	1	50	
Lead screw	4	180	200
	2	100	
	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	—	—	—

④ Options

Title	Option code	See page	Standard price
Brake	B	—	—
Side-mounted motor to the left (standard)	ML	—	—
Side-mounted motor to the right	MR	—	—
Reversed-home specification	NM	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

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

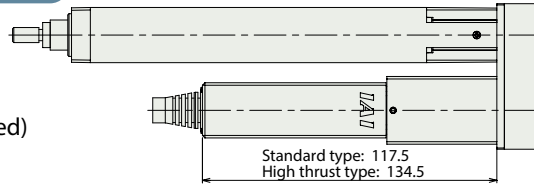
Dimensional Drawings

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

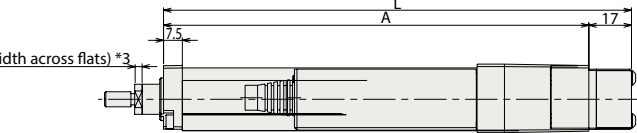


*The drawing below shows the specification of the motor side-mounted to the left.

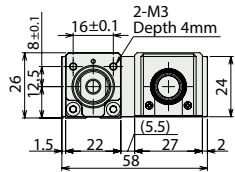
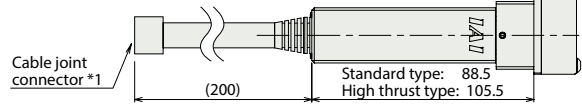
(Brake-equipped)



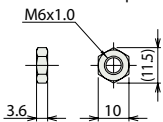
(No brake)



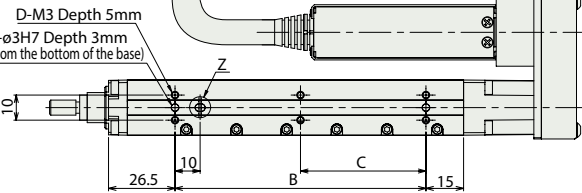
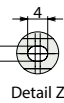
*Please note: When installing the brake unit, the bottom of the brake housing protrudes by 1mm beyond the actuator main body.



Dimensions of nut at tip of rod



3H7 Depth 3mm (from the bottom of the base)



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	DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN			ECM	
MSEL-PC/PG		4	Single phase 100VAC/230VAC 24VDC	-	-	●	●	●	-	●	-	-	-	-	●	●	●	-	-	30000	Please contact IAI for more information.
PCON-CB/CGB		1		●	●	-	●	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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	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	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□□: 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.



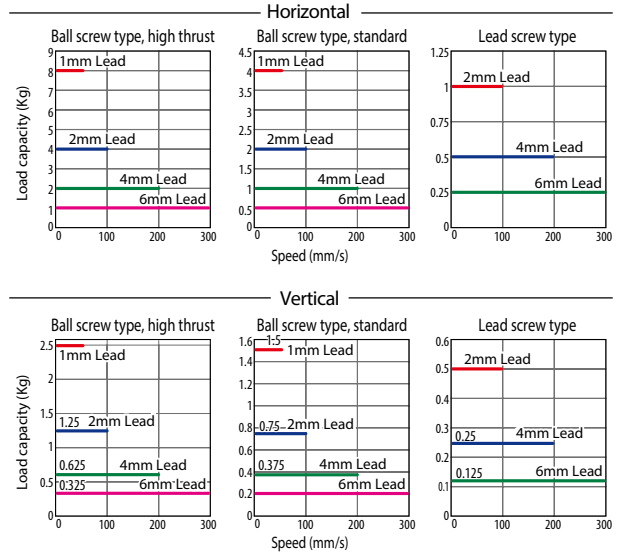
Photo above shows specification with motor side-mounted to the left (ML Option).

- POINT**
Notes on selection

 - (1) The payload is the value when 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.



Actuator Specifications Table

■ Leads and Payloads

Model	Motor type	Feed screw	Lead (mm)	Maximum payload		Maximum pushing force (N)	Positioning repeatability (mm)	Stroke (mm)		
				Horizontal (kg)	Vertical (kg)					
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	Ball screw	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	Maximum Speed (mm/s)		
		25 (mm)	50~100 (mm)	75~150 (mm)
Ball screw	6	180	280	300
	4	180	200	
	2	100		
	1	50		
Lead screw	6	180	280	300
	4	180	200	
	2	100		

(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	—	—	—
125	—	—	—
150	—	—	—

④ Options

Title	Option code	See page	Standard price
Brake	B	—	—
Side-mounted motor to the left (standard)	ML	—	—
Side-mounted motor to the right	MR	—	—
Reversed-home specification	NM	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCP3 is the robot cable.

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

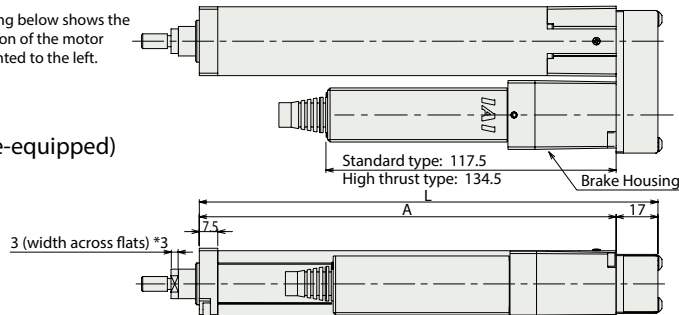
Dimensional Drawings

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

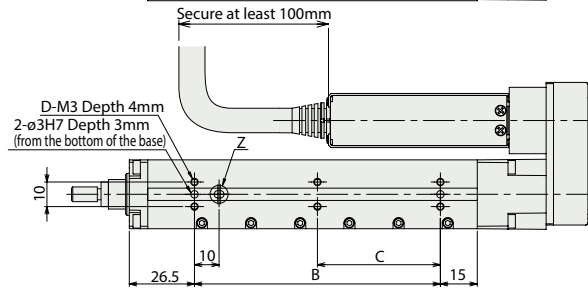
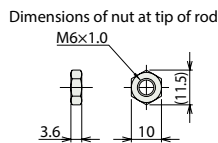
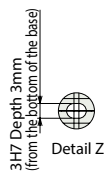
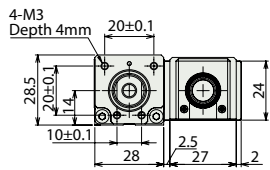
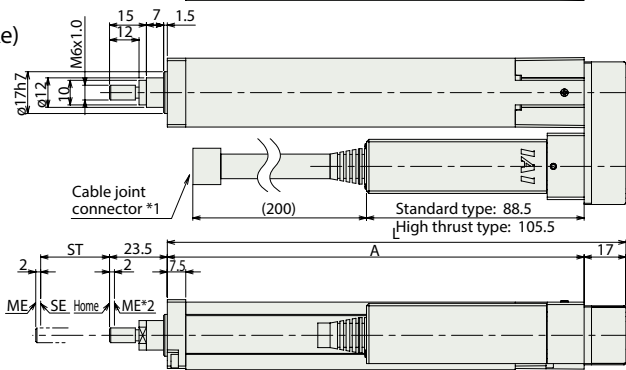


*The drawing below shows the specification of the motor side-mounted to the left.

(Brake-equipped)



(No brake)



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	Positioner	Pulse-train	Program	Control method										Maximum number of positioning points	Reference page		
							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	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML,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.

More controller info is available in the General Controller Catalog PDF.



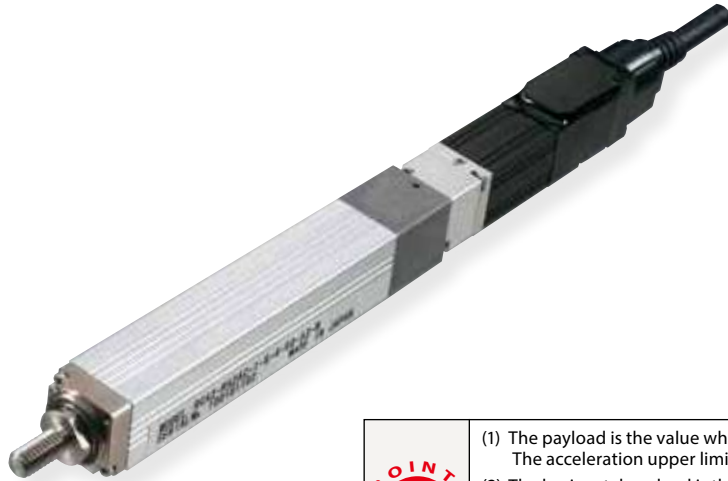
Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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 — <input type="checkbox"/> — <input type="checkbox"/> — A3 — <input type="checkbox"/> — <input type="checkbox"/>
	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: 1m S: 3m M: 5m X□□: Length Designation
	See options table below.

* See page 14 for details on the model descriptions.



- (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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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
2		100	
1		50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

③ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

Actuator Specifications

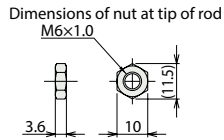
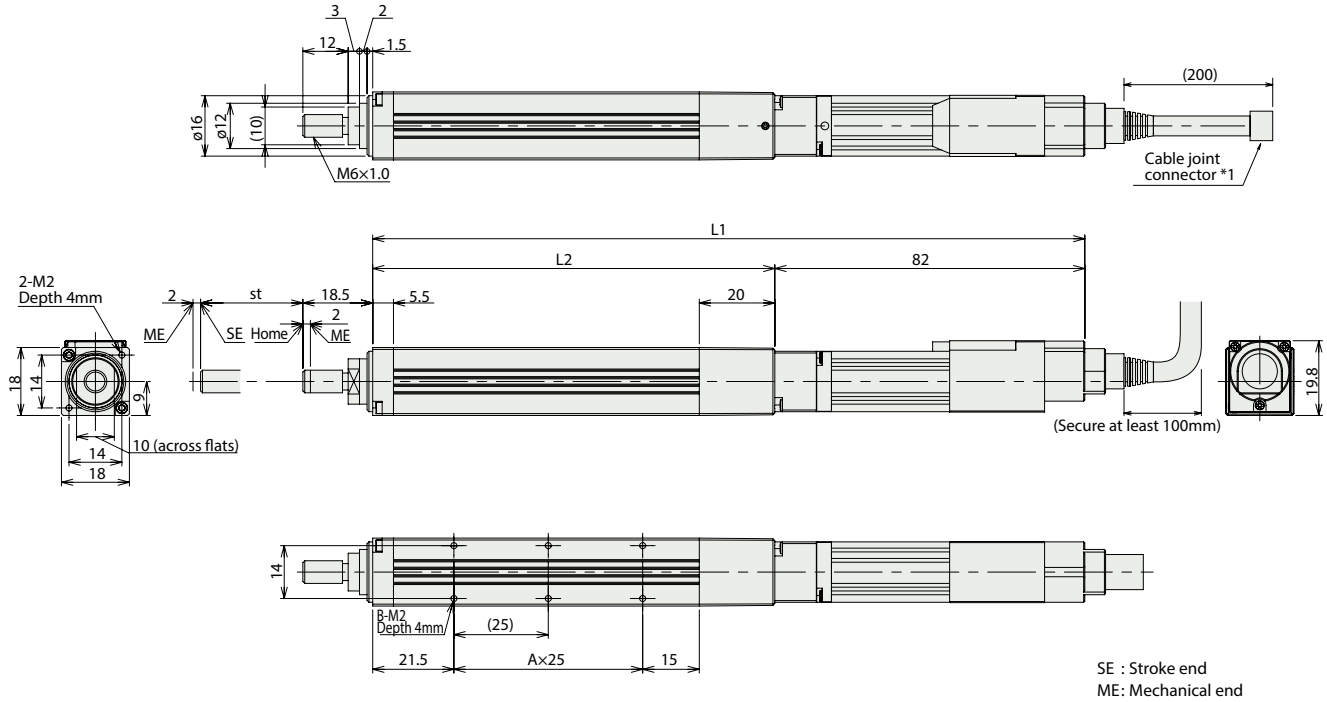
Item	Description
Drive System	Ball screw, ø4 mm, rolled C10
Lost motion	0.1 mm or less
Base	Material: Aluminum, white alumite treated
Rod non-rotation preciseness	±3.0°
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km

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.



■ 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	Positioner	Pulse-train	Program	Control method										Maximum number of positioning points	Reference page		
							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.

More controller info is available in the General Controller Catalog PDF.



RCA2-RA2AR

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

■ Model Description	RCA2 — RA2AR — I — 5 — <input type="checkbox"/> — <input type="checkbox"/> — A3 — <input type="checkbox"/> — <input type="checkbox"/>							
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: 1m S: 3m M: 5m X <input type="checkbox"/> : 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).



- The payload is the value when operated at 0.3G acceleration. The acceleration upper limit is the value indicated above.
- 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.
- 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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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
2		100	
1		50	

(unit: mm/s)

① Stroke list

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

③ Options

Title	Option code	See page	Standard price
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

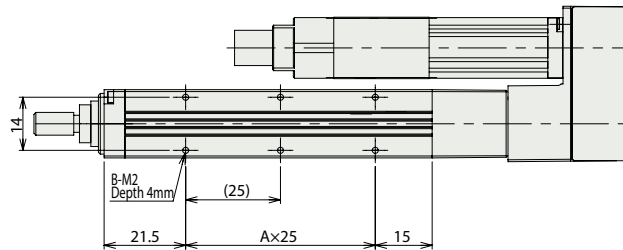
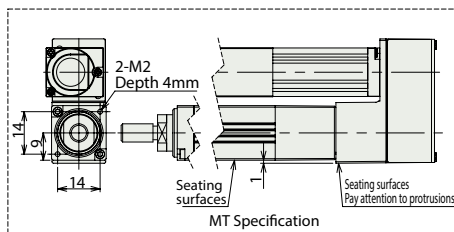
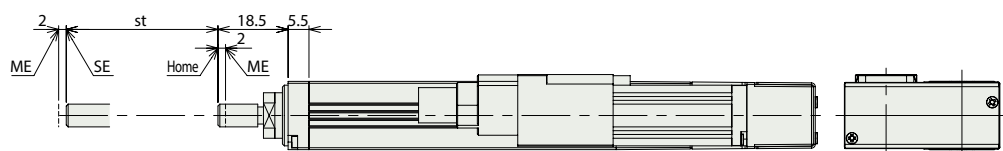
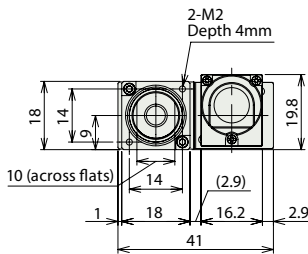
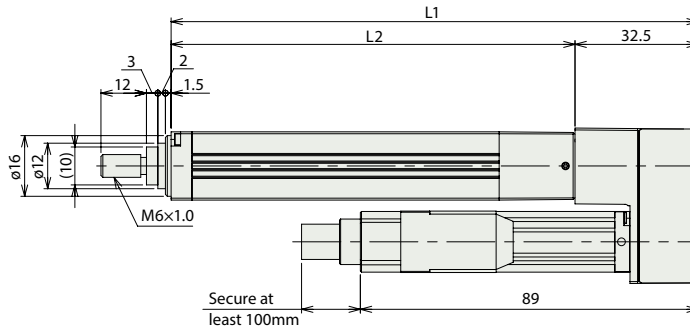
Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost motion	0.1 mm or less
Base	Material: Aluminum, white alumite treated
Rod non-rotation preciseness	±3.0°
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km

Dimensional Drawings

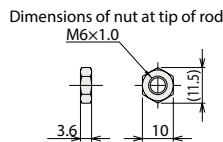
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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 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																	
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	

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

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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□□: Length Designation		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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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	Maximum Speed	
		30 (mm)	50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

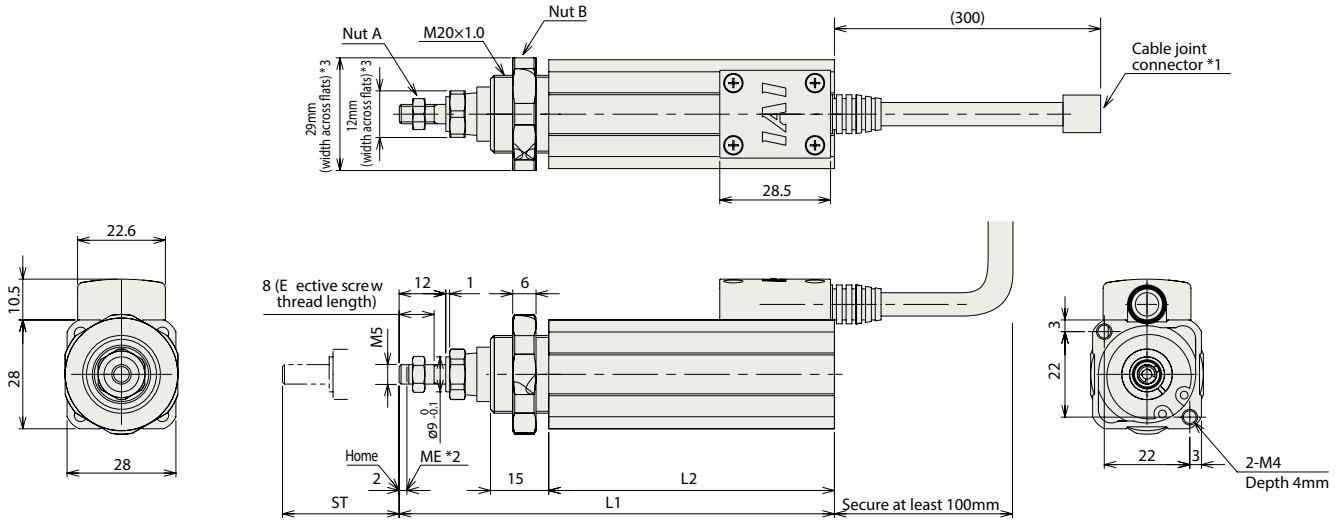
Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

Dimensional Drawings

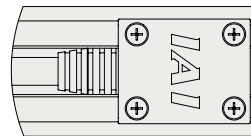
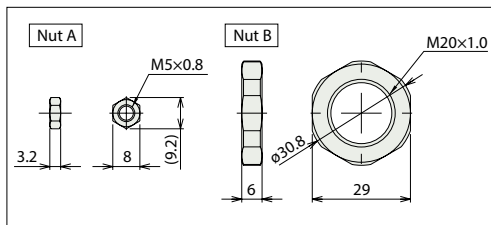
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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	DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN			ECM
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Servo type
Controller
Fixed Nut
Tapped Hole
Single-Guide
Double-Guide
Slide Unit

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[]: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed

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

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

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

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

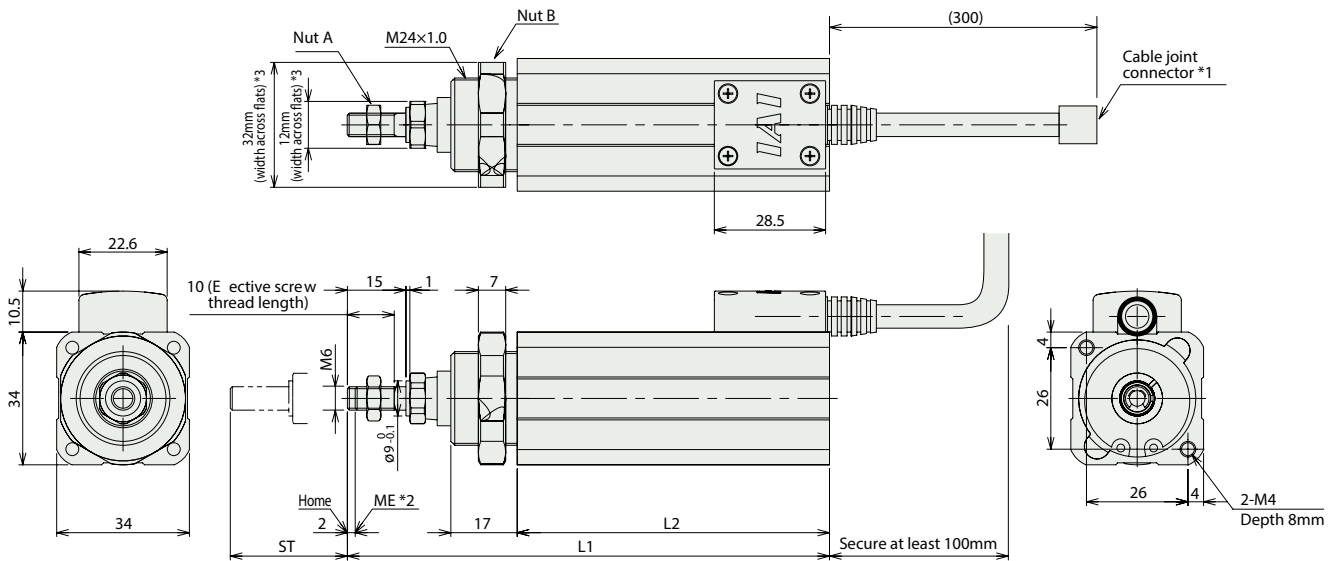
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

Dimensional Drawings

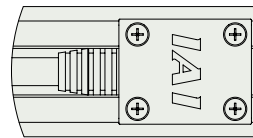
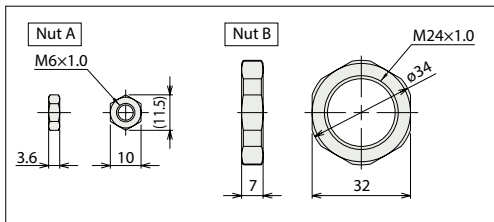
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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.
- *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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



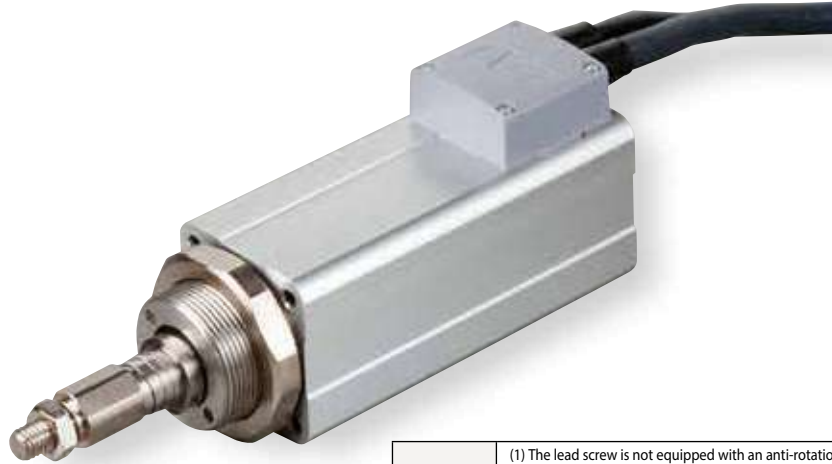
Mini Slider type
Mini Rod type
Mini Table type
Mini Servo type
Controller
Fixed Nut
Tapped Hole
Single-Guide
Double-Guide
Slide Unit

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
					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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	Standard price	
50	—	—
75	—	—

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)	—

③ Options

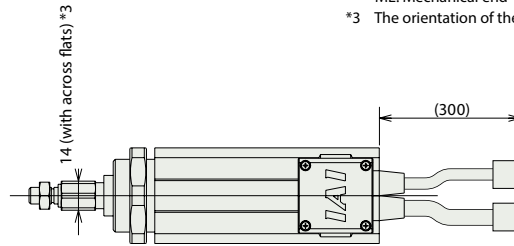
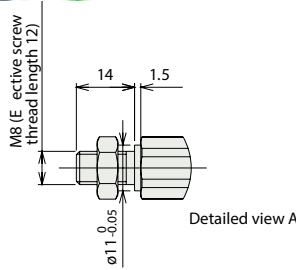
Title	Option code	See page	Standard price
Connector cable exits from the left	K1	Refer to the next page	—
Connector cable exits from the front	K2	Refer to the next page	—
Connector cable exits from the right	K3	Refer to the next page	—

Actuator Specifications

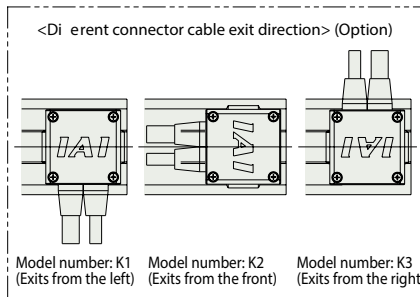
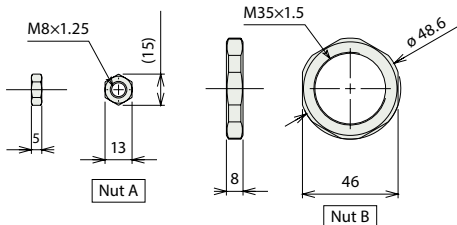
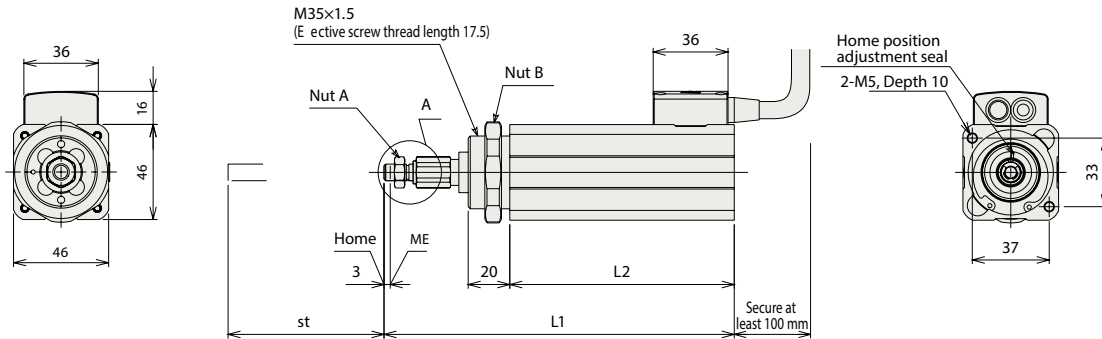
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

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	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	●	-	-	-	●	●	●	-	-	360000			
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)				
SSEL-CS		2	Single phase 100VAC/200VAC	●	-	●	●	-	●	-	-	-	●	-	-	-	20000				
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	-	●	-	-	-	●	-	-	-	20000				
XSEL-RA/SA		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	-	●	-	-	-	●	●	-	-	55000 (It depends on model)				

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

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Servo type
- Linear type
- Controller
- Fixed Nut
- Tapped Hole
- Single-Guide
- Double-Guide
- Slide Unit

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
			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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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	Maximum Speed	
		30 (mm)	50 (mm)
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

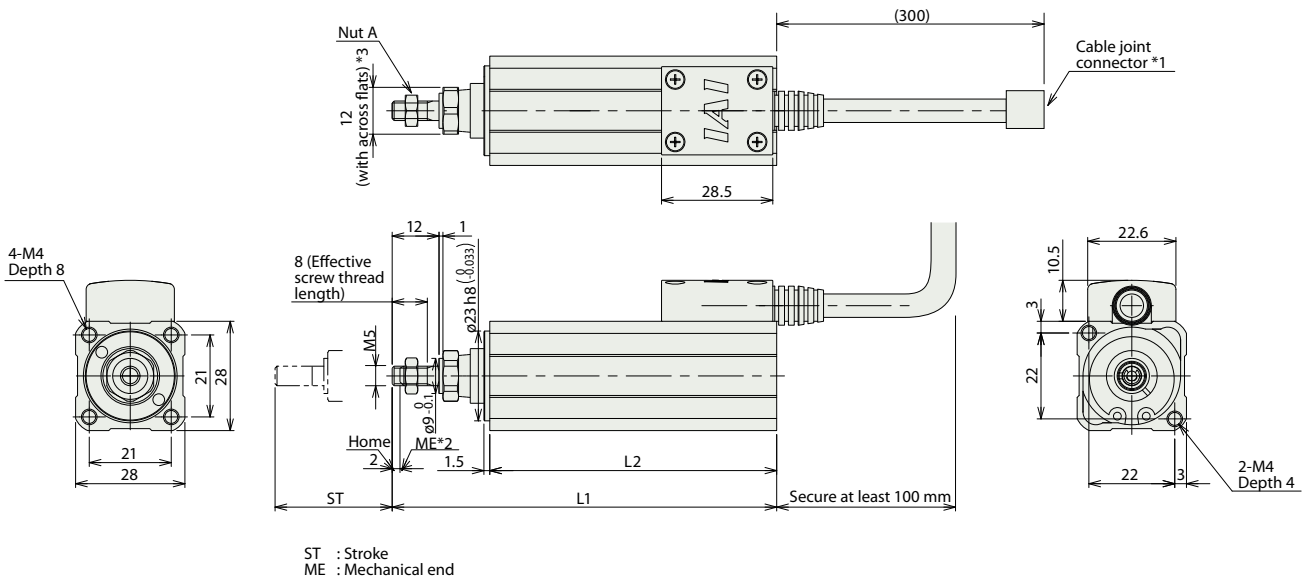
Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

Dimensional Drawings

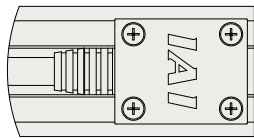
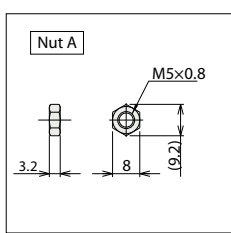
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3, SSN, ECM are B)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	-	-	-	●	●	●	-	-	36000	

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

More controller info is available in the General Controller Catalog PDF.



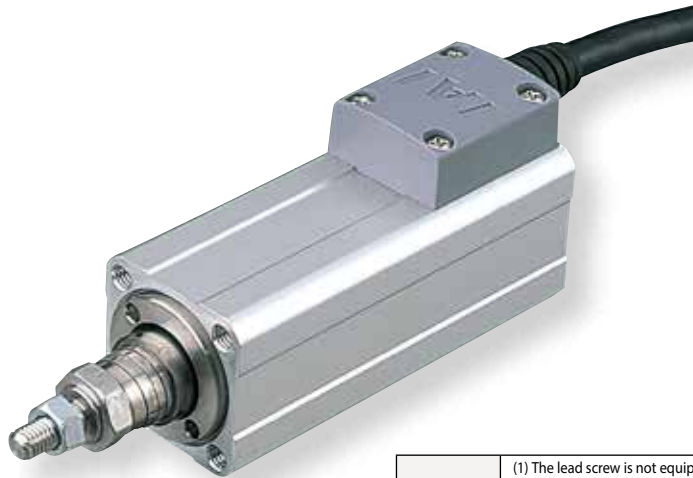
RCA2-RP4NA

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
			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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)		50 (mm)	
		30	50	30	50
Ball screw	6	270	<220>	300	
	4	200			
	2	100			
Lead screw	6	220		300	
	4	200			
	2	100			

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

* <> Indicates vertical use

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

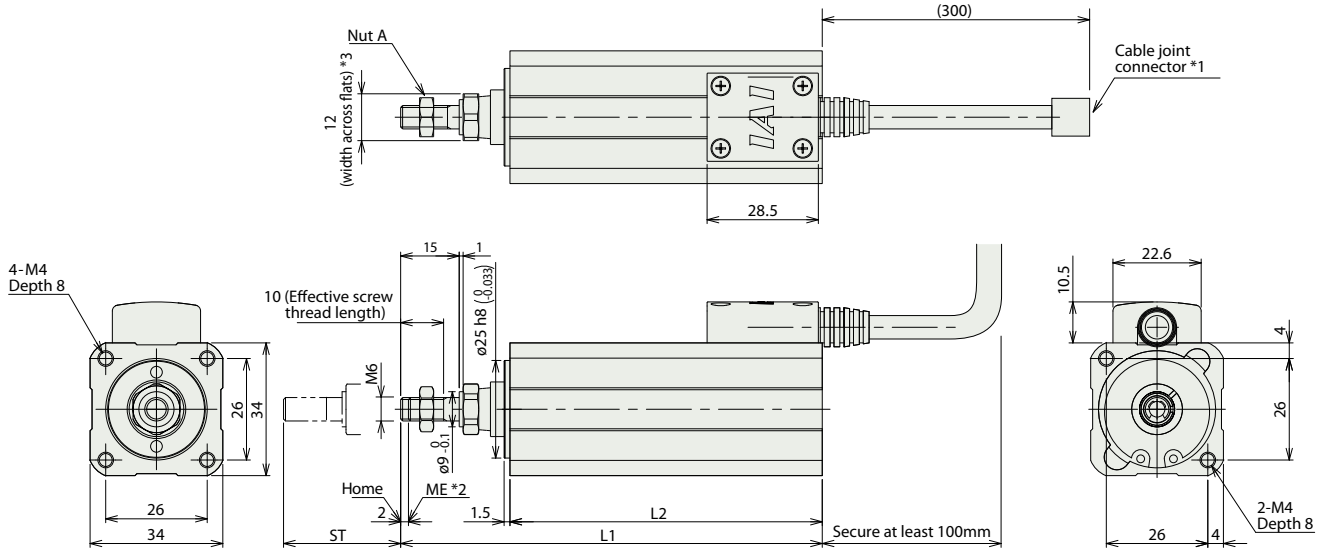
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

Dimensional Drawings

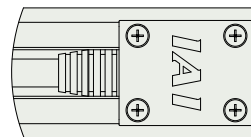
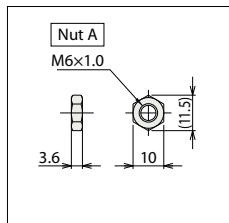
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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.
- *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	DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT			SSN	ECM
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	Standard price
50	—
75	—

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 (15.3m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

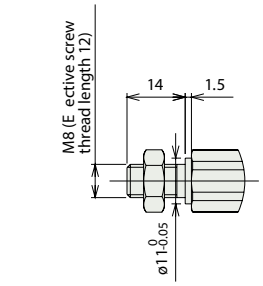
Title	Option code	See page	Standard price
Connector cable exits from the left	K1	Refer to the next page	—
Connector cable exits from the front	K2	Refer to the next page	—
Connector cable exits from the right	K3	Refer to the next page	—

Actuator Specifications

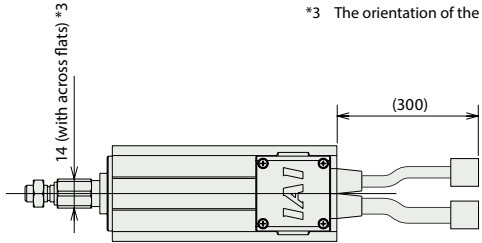
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

Dimensional Drawings

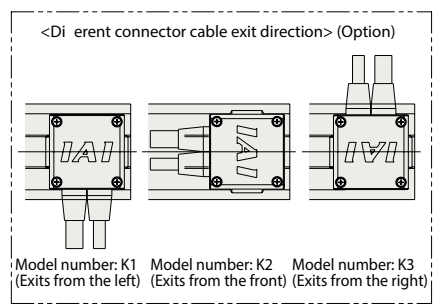
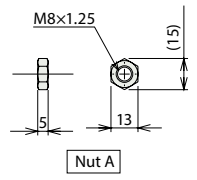
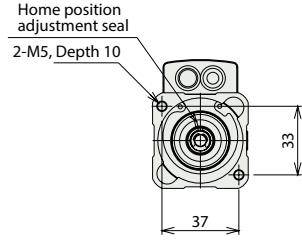
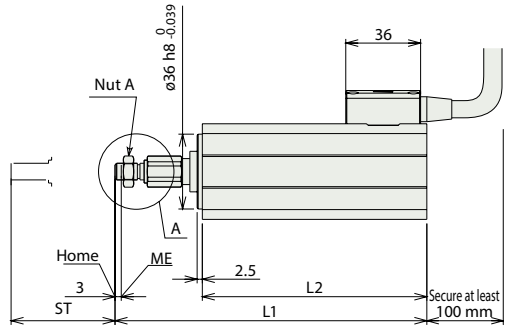
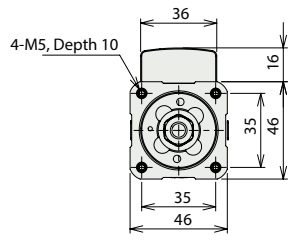
CAD drawings can be downloaded from the website. www.intelligentactuator.com



Detailed view A



- *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	Positioner	Pulse-train	Program	Control method												Maximum number of positioning points	Reference page
							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	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	●	-	-	-	●	●	●	-	-	360000		
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)		
SSEL-CS		2	Single phase 100VAC/200VAC	●	-	●	●	●	-	-	-	-	●	-	-	-	-	20000		
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	●	-	-	-	-	20000		
XSEL-RA/SA		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	●	●	-	-	-	55000 (It depends on model)		

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

More controller info is available in the General Controller Catalog PDF.

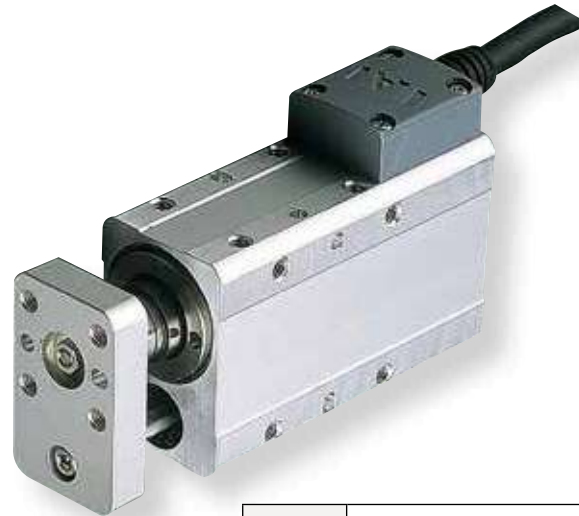


RCA2-GS3NA

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□□: Length Designation
	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	50 (mm)
		Ball screw	200
Lead screw	4	200	100
	2	100	50
	1	50	—

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

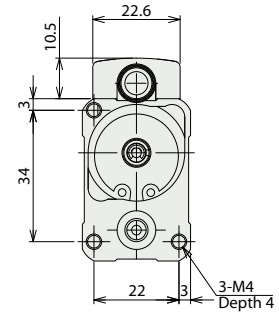
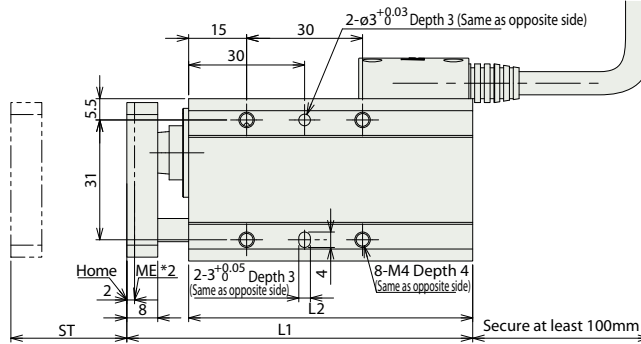
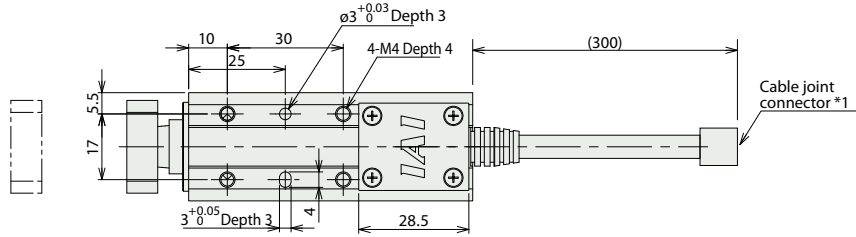
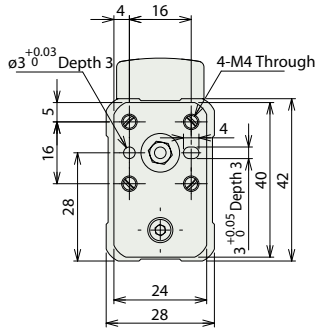
Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

Dimensional Drawings

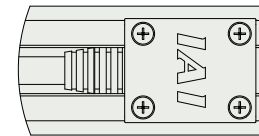
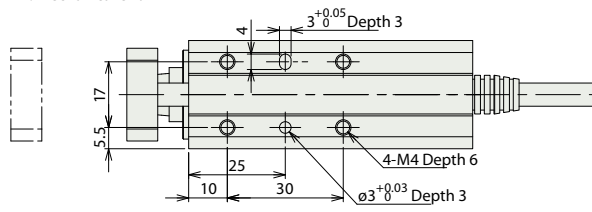
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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
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
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Servo type
- Linear type
- Controller
- Fixed Nut
- Tapped Hole
- Single-Guide
- Double-Guide
- Slide Unit

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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed

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

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

* <> Indicates vertical use

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

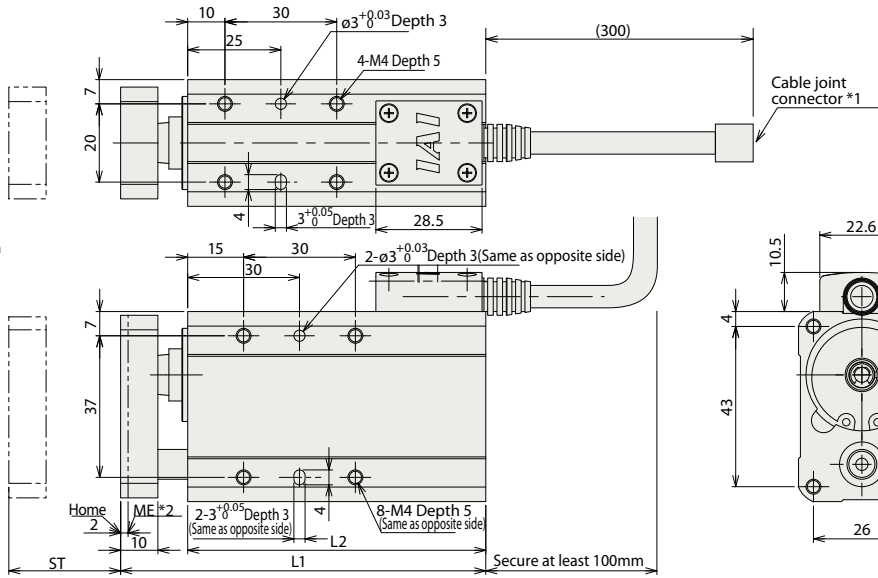
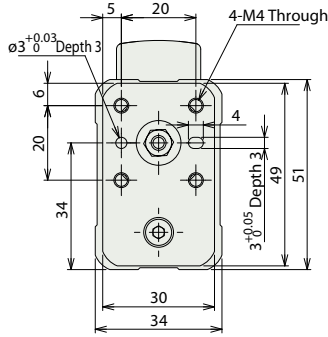
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

Dimensional Drawings

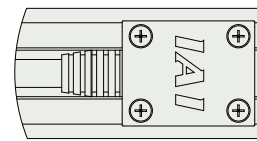
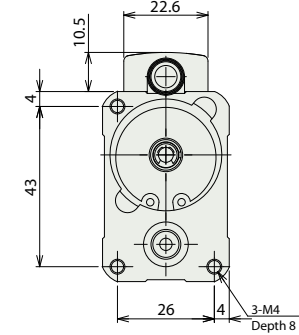
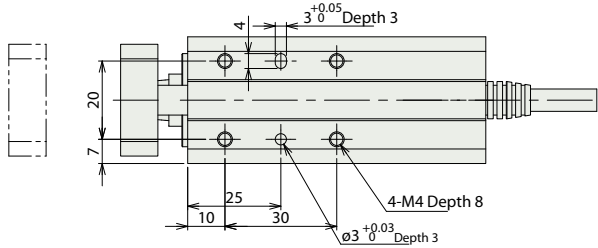
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *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
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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	Please contact IAI for more information.		
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-			
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
RCON		16 (ML3, SSN, ECM are 8)	●	●	●	●	-	-	●	●	●	●	●	●	●	-	-			
RSEL		8	●	●	●	●	-	-	-	-	●	●	●	-	-	-				

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

More controller info is available in the General Controller Catalog PDF.



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
			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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)
		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)	Standard price
50	—
75	—

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 (15.3m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

Title	Option code	See page	Standard price
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

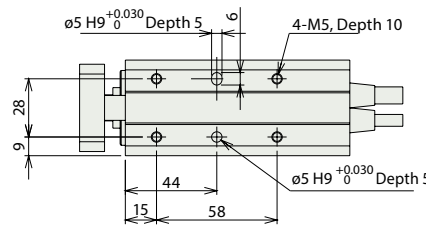
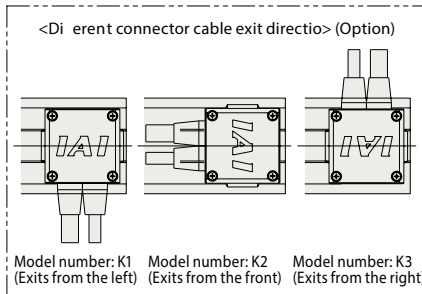
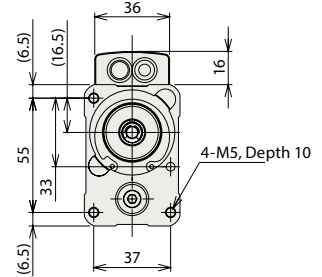
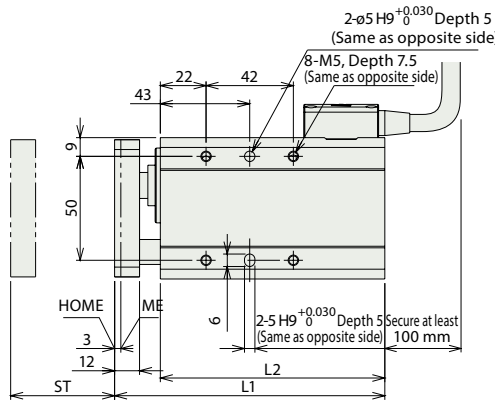
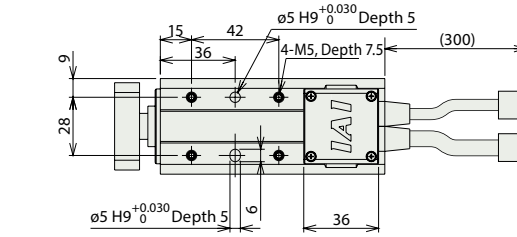
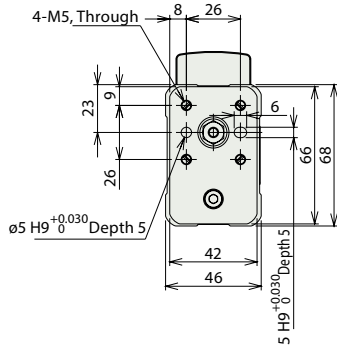
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

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



■ 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	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	●	-	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2	Single phase 100VAC/200VAC	●	-	●	●	●	-	-	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	-	●	●	-	-	-	55000 (It depends on model)	

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

More controller info is available in the General Controller Catalog PDF.



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
			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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	50 (mm)
		Ball screw	200
Lead screw	4	200	100
	2	100	50
	1	50	20

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

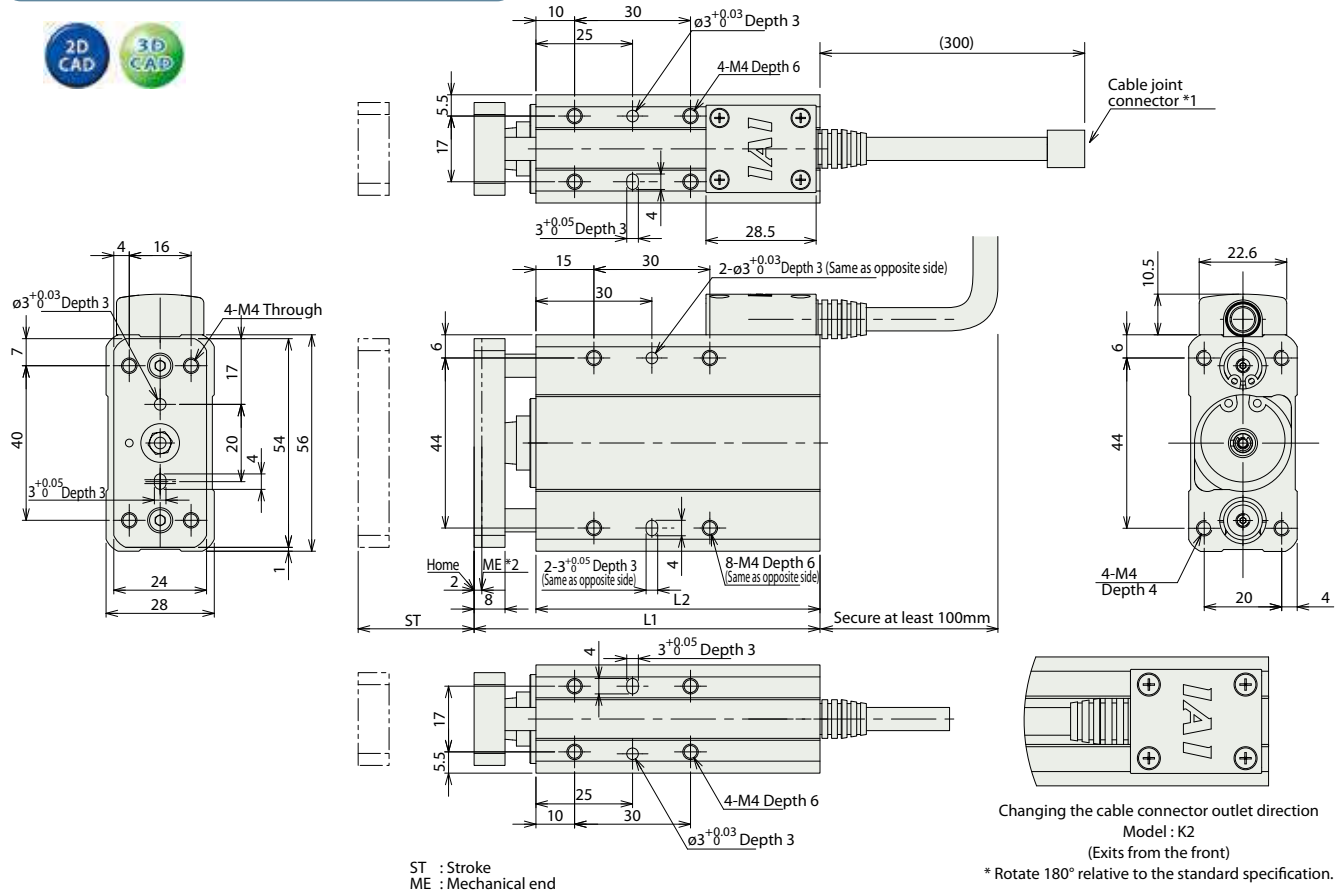
Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

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



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

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	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	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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
			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: 1m S: 3m M: 5m X□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)		50 (mm)	
		30	50	30	50
Ball screw	6	270	<220>	300	
	4	200			
	2	100			
Lead screw	6	220		300	
	4	200			
	2	100			

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

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

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

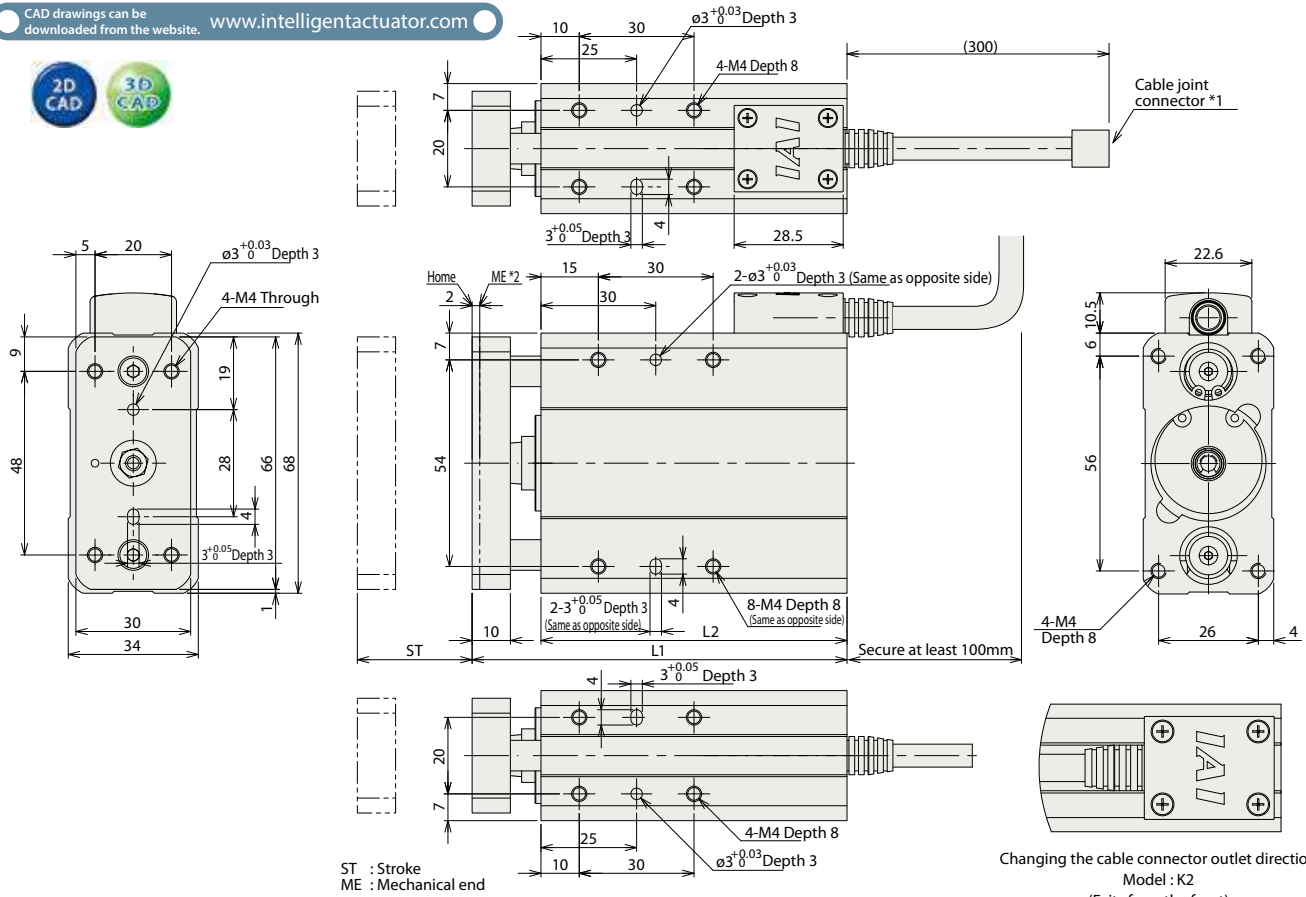
Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

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

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.

■ 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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Linear Servo type
- Controller
- Fixed Nut
- Tapped Hole
- Single-Guide
- Double-Guide
- Slide Unit

RCS2-GD5N

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

■ Model Description	RCS2	—	GD5N	—	I	—	60	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	T2	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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 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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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

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

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

① Stroke list

Stroke (mm)	Standard price
50	—
75	—

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 (15.3m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

Title	Option code	See page	Standard price
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

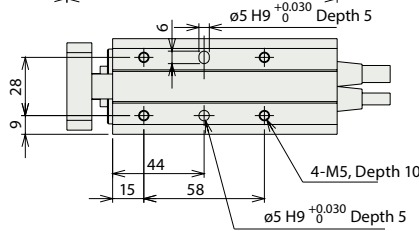
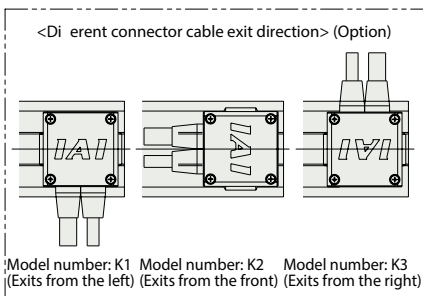
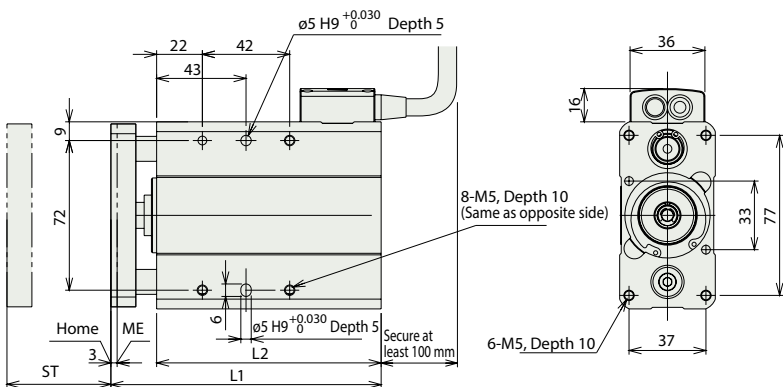
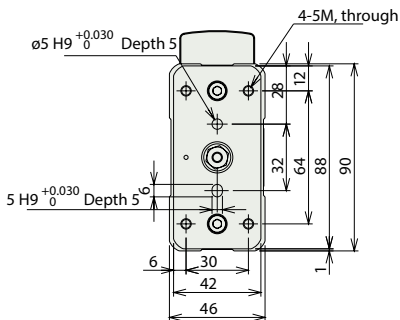
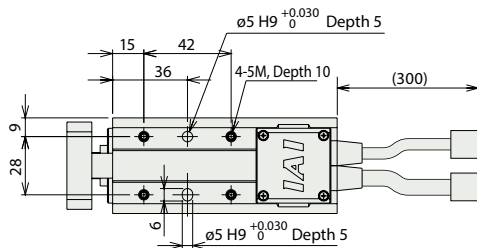
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

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



■ 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	-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.	
RSEL		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	●	-	-	-	-	●	●	●	-	-	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	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000		
XSEL-RA/SA		8	3 phase 200VAC	-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (It depends on model)		

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

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Servo type
- Linear type
- Controller
- Fixed Nut
- Tapped Hole
- Single-Guide
- Double-Guide
- Slide Unit

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
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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed

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

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(*) When the main unit side is fixed

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

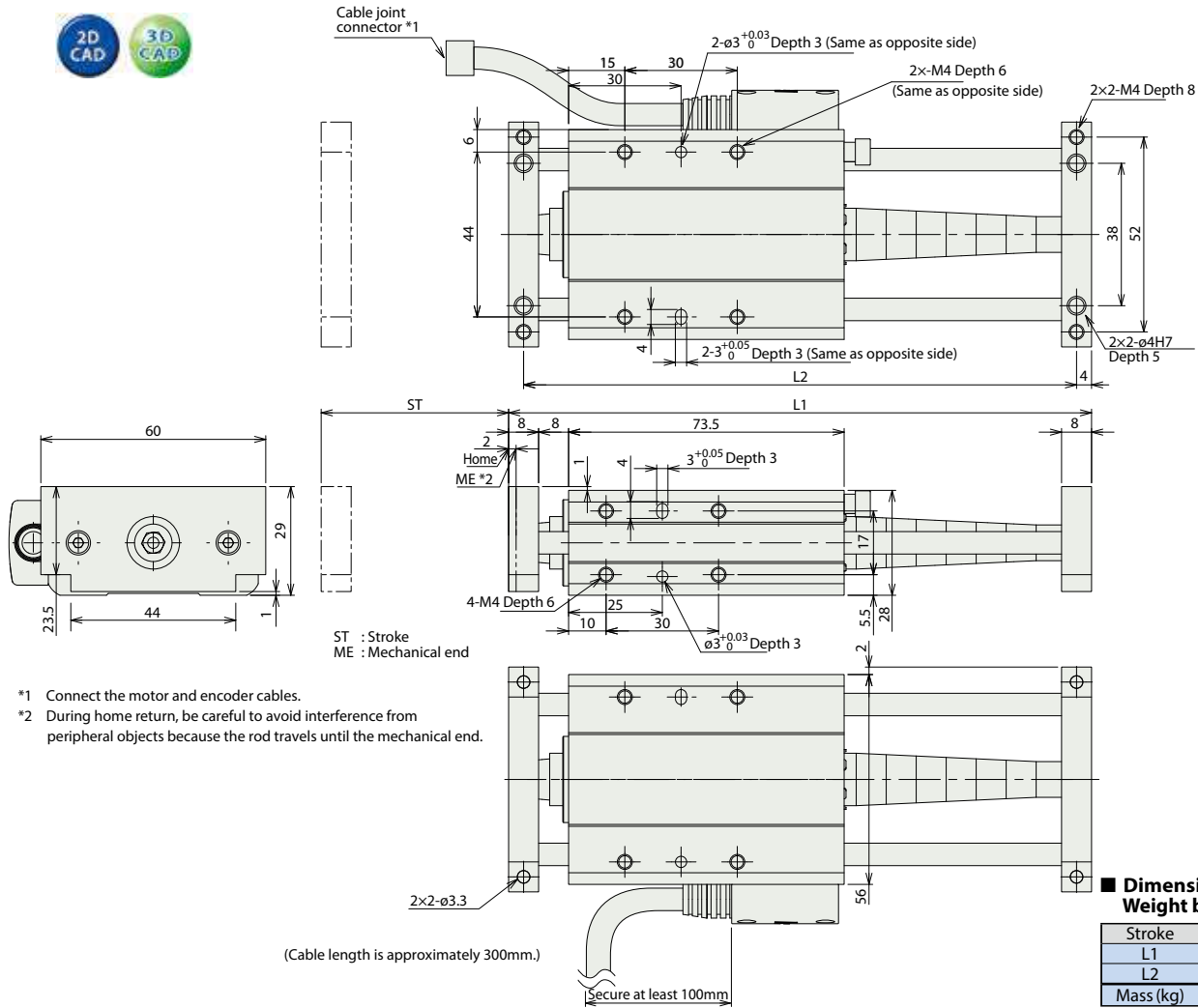
Title	Option code	See page	Standard price
Power-saving specification	LA	—	—

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



■ 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	●	●	-	●	●	●	●	●	●	●	●	-	-	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.

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Linear Servo type
- Controller
- Fixed Nut
- Tapped Hole
- Single-Guide
- Double-Guide
- Slide Unit

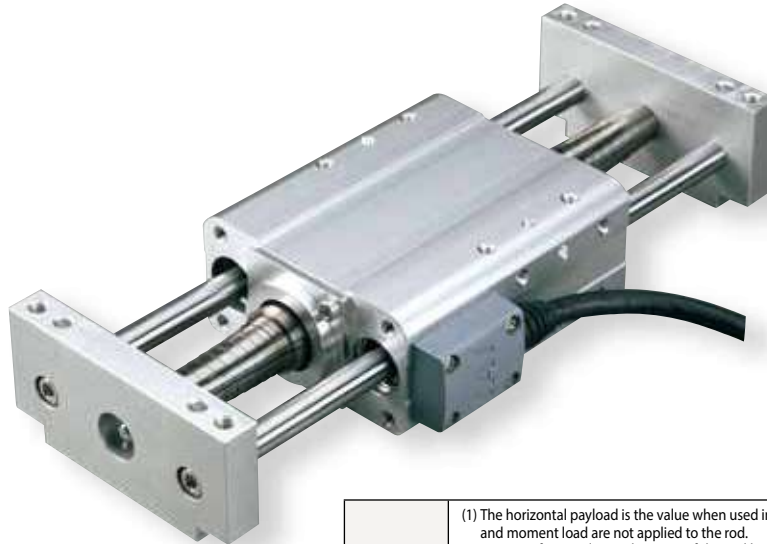
RCA2-SD4NA

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
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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed

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

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(*1) When the main unit side is fixed

* <> Indicates vertical use

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Power-saving specification	LA	—	—

Actuator Specifications

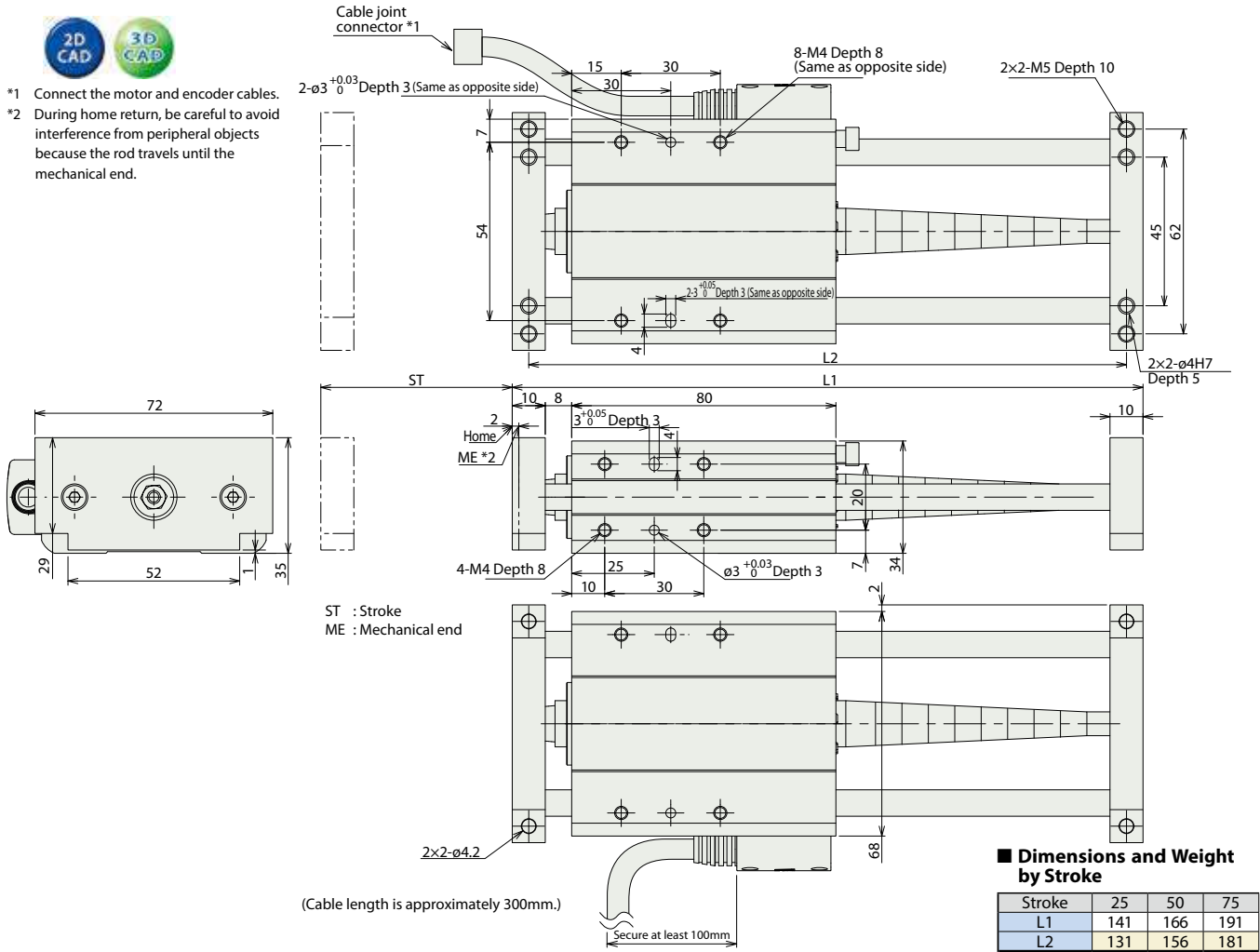
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification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

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.



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			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
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



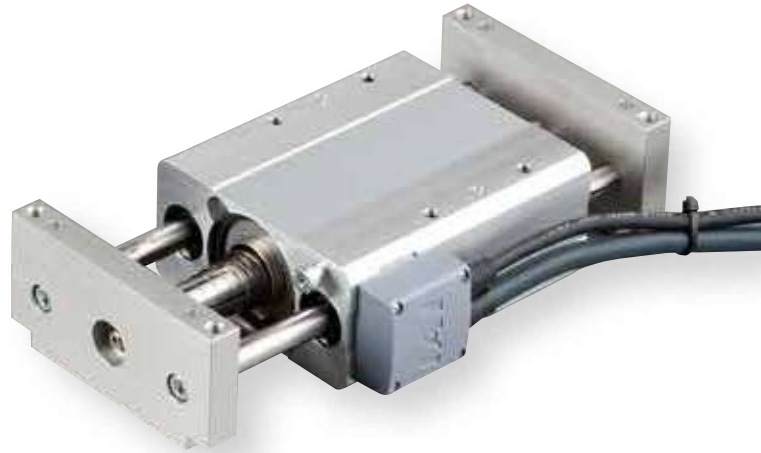
- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Linear Servo type
- Controller
- Fixed Nut
- Tapped Hole
- Single-Guide
- Double-Guide
- Slide Unit

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
			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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	Standard price
50	—
75	—

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 (15.3m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

Title	Option code	See page	Standard price
Connector cable exits from the left	K1	Refer to the next page	—
Connector cable exits from the right	K3	Refer to the next page	—

Actuator Specifications

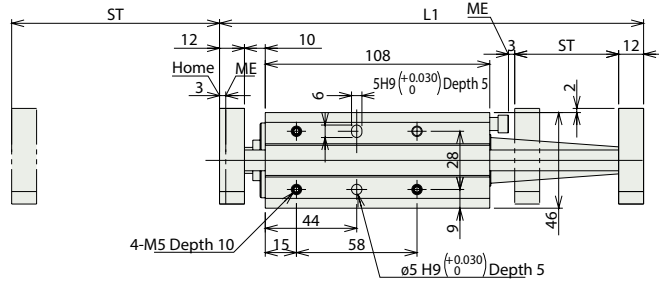
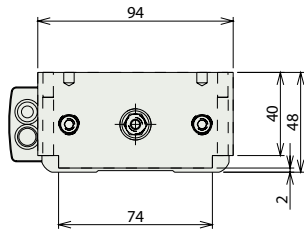
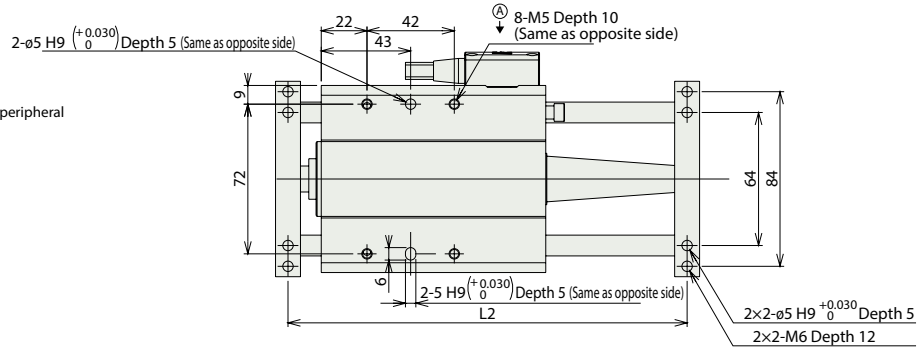
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000 km or 50 million cycles

Dimensional Drawings

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

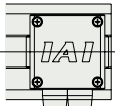


- *1 Connect the motor and encoder cables.
- *2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
ME: Mechanical end SE: Stroke end



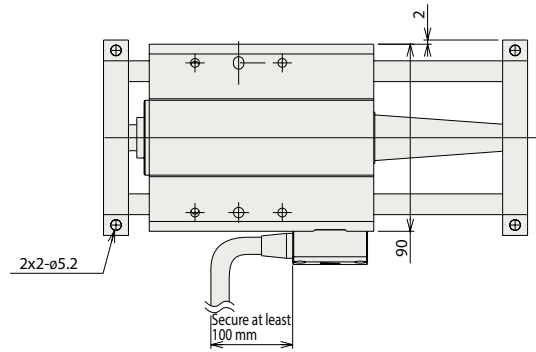
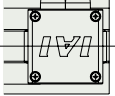
<Different connector cable exit direction> (Option)

Model number: K1
(Exits from the left)



* View from A in the figure above

Model number: K3
(Exits from the right)



■ 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	-	-	-	●	●	●	●	-	-	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),
RSEL		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	●	-	-	-	●	●	●	-	-	360000
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	-	●	-	512 (768 for network spec.)
SSEL-CS		2	Single phase 100VAC/200VAC	●	-	●	●	●	-	-	-	-	●	-	-	-	-	20000
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	●	-	-	-	-	20000
XSEL-RA/SA		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	●	●	-	-	-	55000 (It depends on model)

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

More controller info is available in the General Controller Catalog PDF.



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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1 mm 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
	Ball screw specification

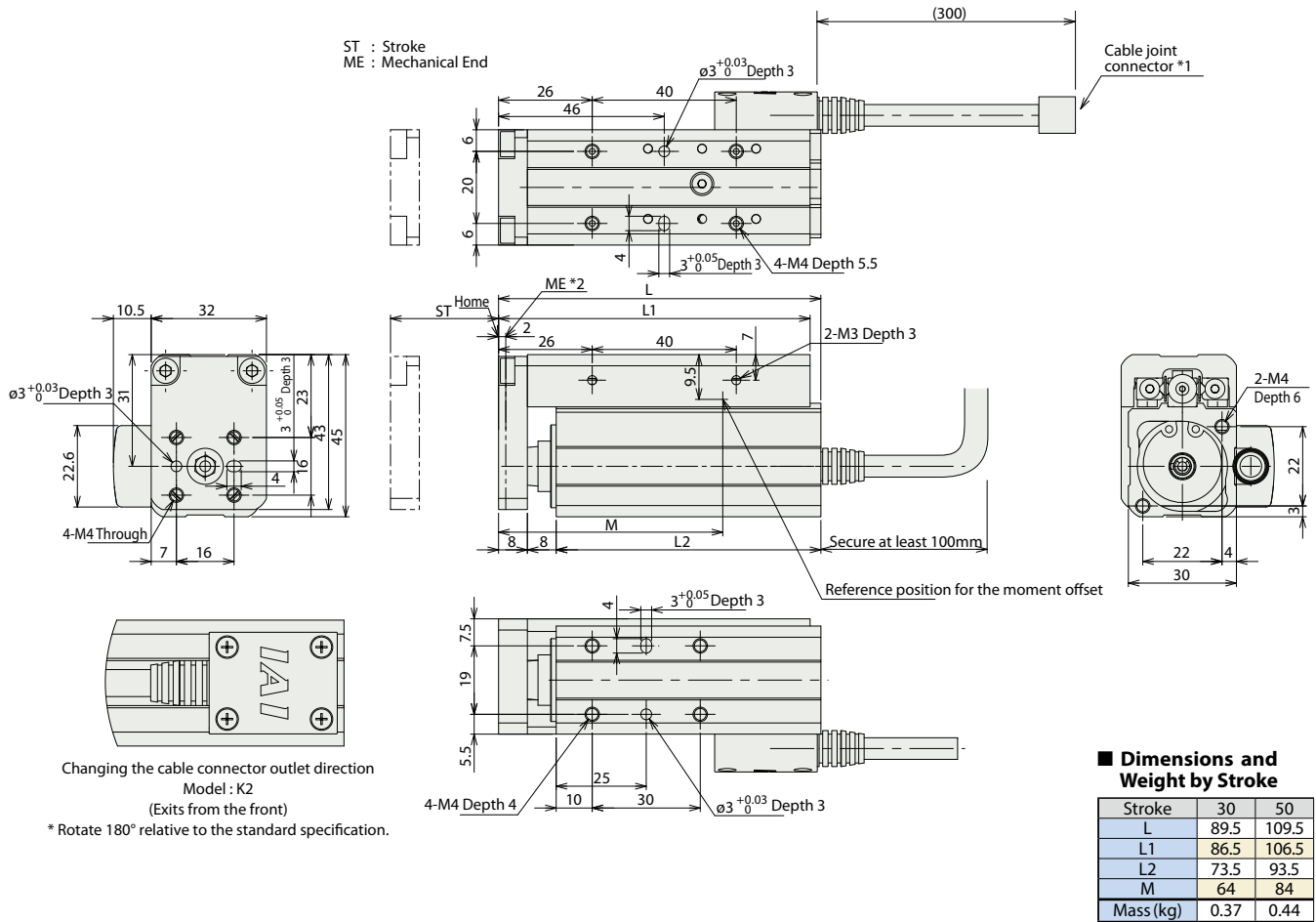
(Note) For cases when the guide service life has been set to 5,000km.
(*) For lead 1: 3,000 km or 50 million cycles

Dimensional Drawings

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



- *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.

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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

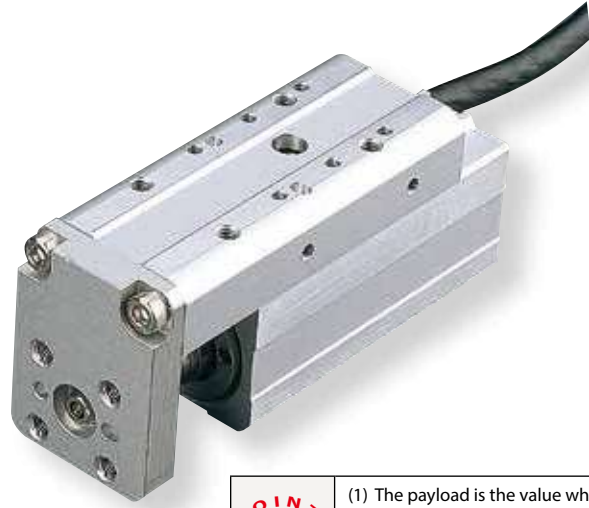
RCA2-TCA4NA

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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	
		30	50	30	50
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	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1 mm 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
	Ball screw specification

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

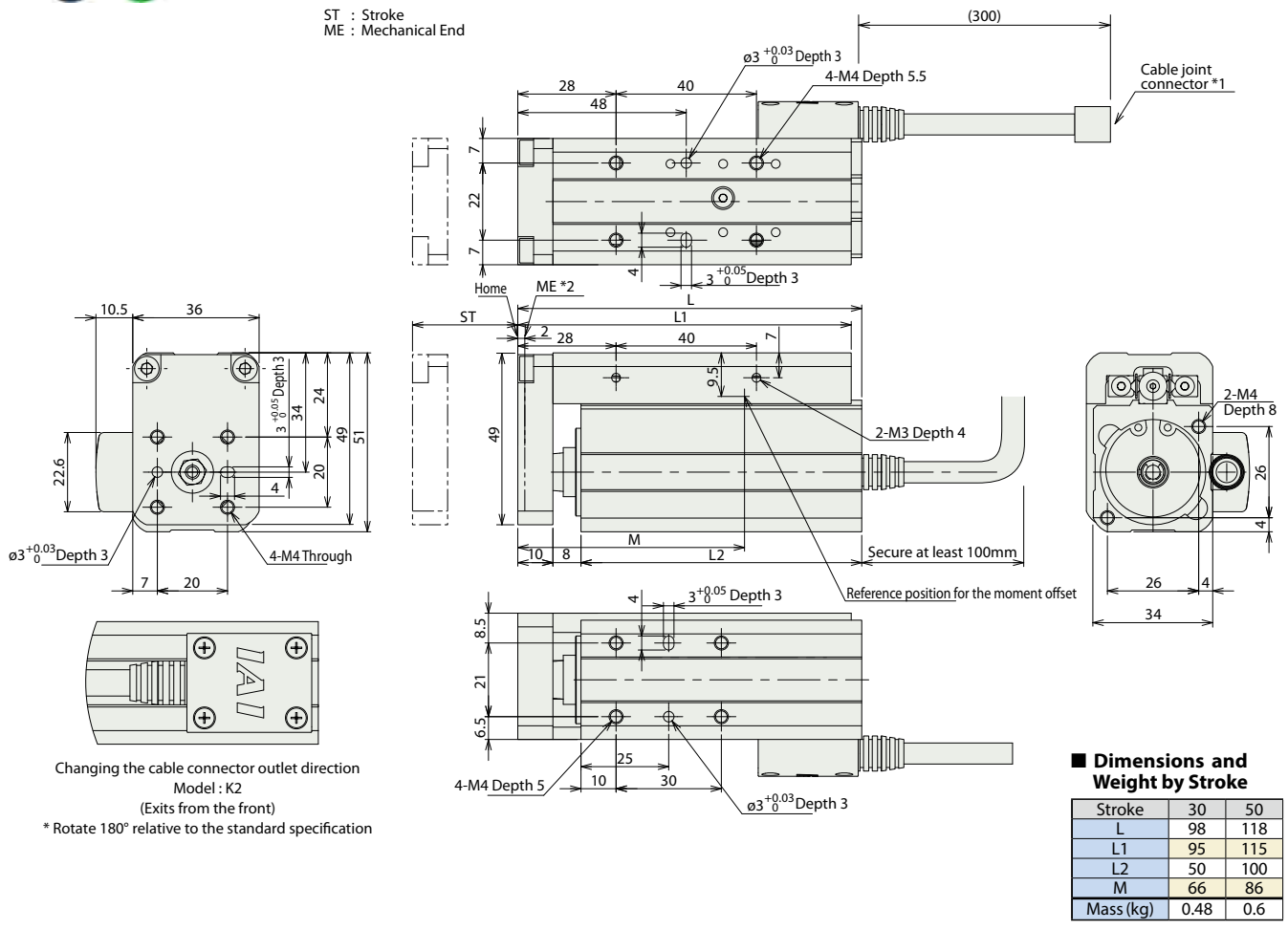
Dimensional Drawings

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.

ST : Stroke
ME : Mechanical End



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

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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	Please contact IAI for more information.	
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-		
RCON		16 (ML, SSN, ECM are 8)		-	-	-	●	●	●	●	-	●	●	●	●	●	●		
RSEL		8		-	-	●	●	●	●	-	-	●	●	●	-	-	-		

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

More controller info is available in the General Controller Catalog PDF.

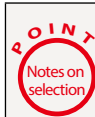


RCS2-TCA5N

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	T2	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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.



- (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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	Standard price
50	—
75	—

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 (15m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

Title	Option code	See page	Standard price
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
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

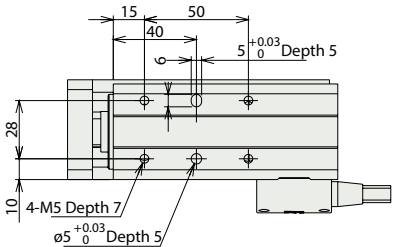
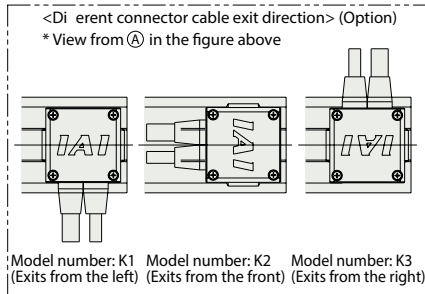
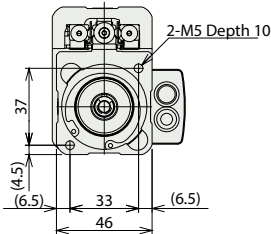
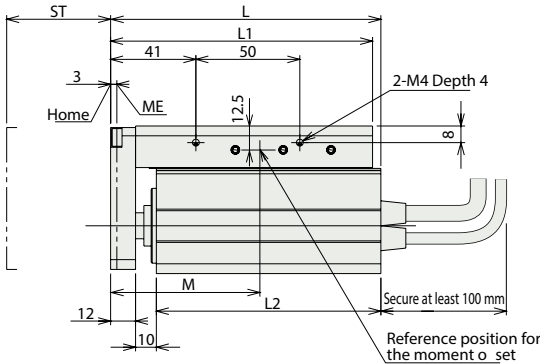
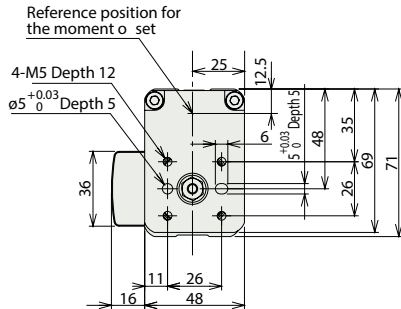
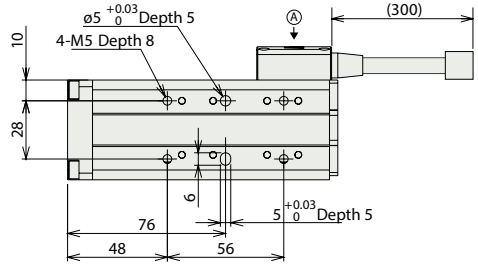
(Note) For cases when the guide service life has been set to 5,000km.

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



■ 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.

More controller info is available in the General Controller Catalog PDF.

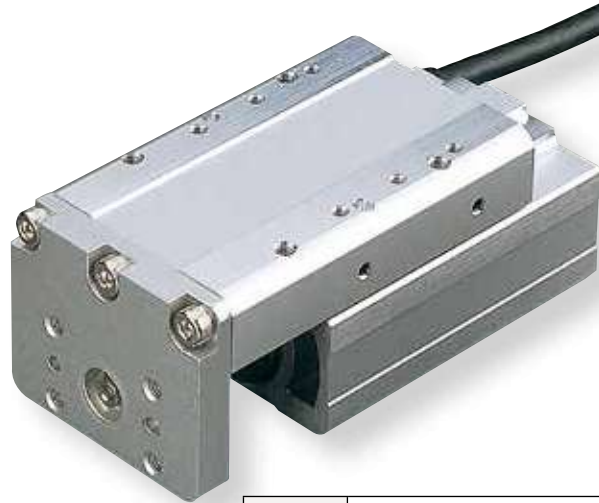


RCA2-TWA3NA

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	50 (mm)
		Ball screw	4
Lead screw	2	100	
	1	50	
	4	200	
Lead screw	2	100	
	1	50	

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1 mm 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
	Ball screw specification

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

(*) For lead 1: 3,000 km or 50 million cycles

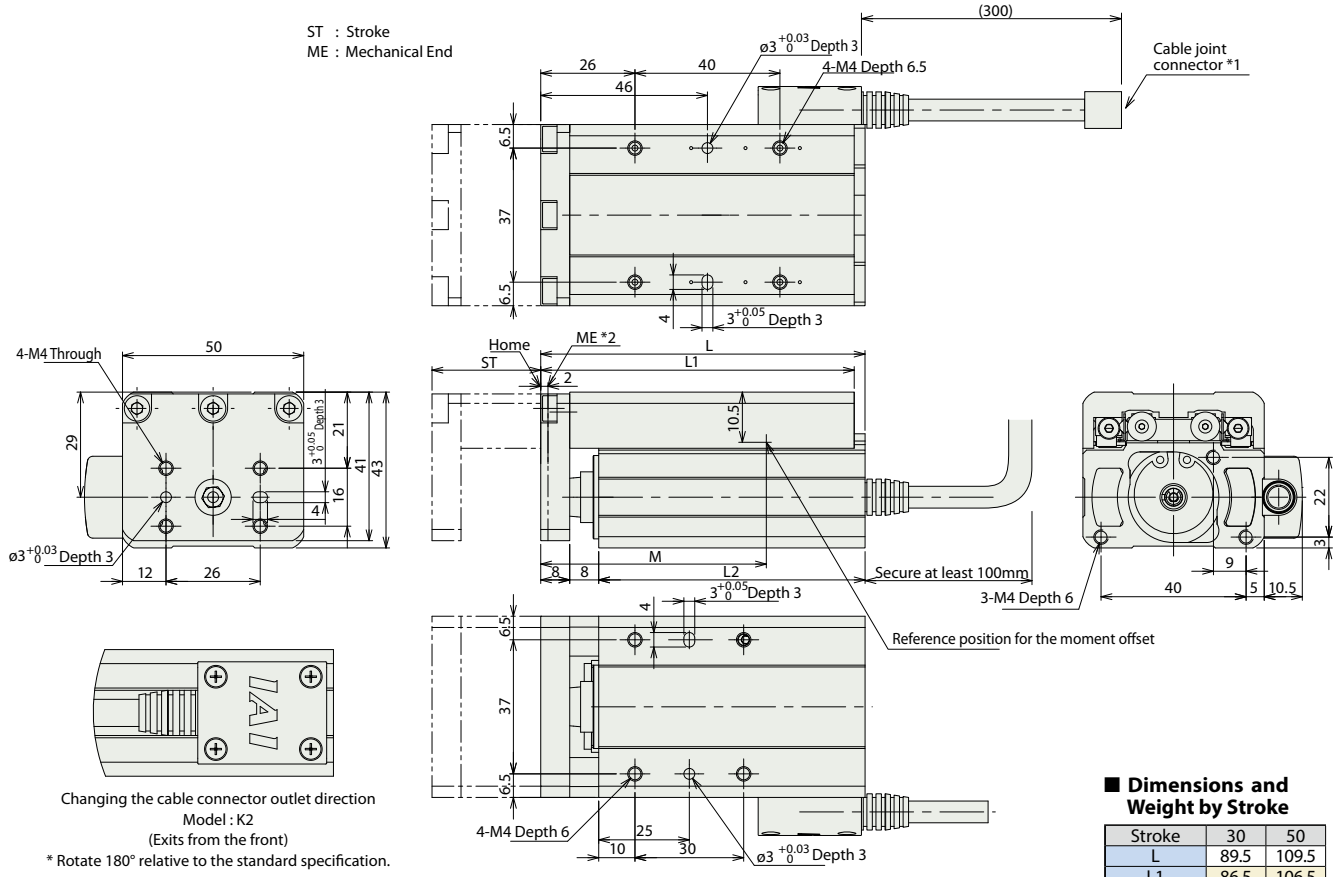
Dimensional Drawings

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



- *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	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	DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT			SSN	ECM
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.	
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-			64
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
RCON		16 (ML,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.

More controller info is available in the General Controller Catalog PDF.

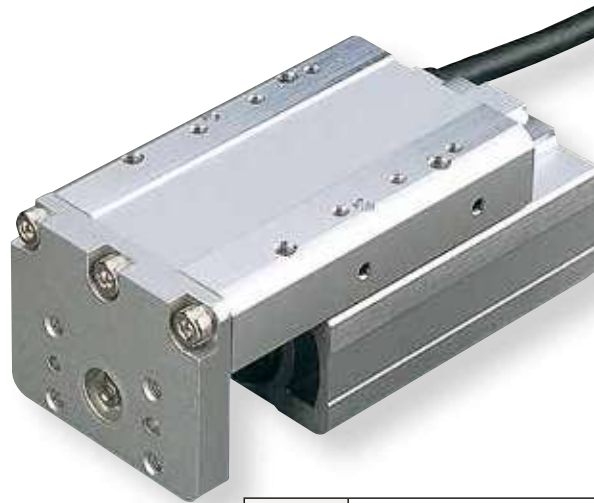


RCA2-TWA4NA

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□□: Length Designation	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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	
		30	50	30	50
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	
	Ball screw	Lead screw
30	—	—
50	—	—

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1 mm 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
	Ball screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles 5,000 km or 50 million cycles

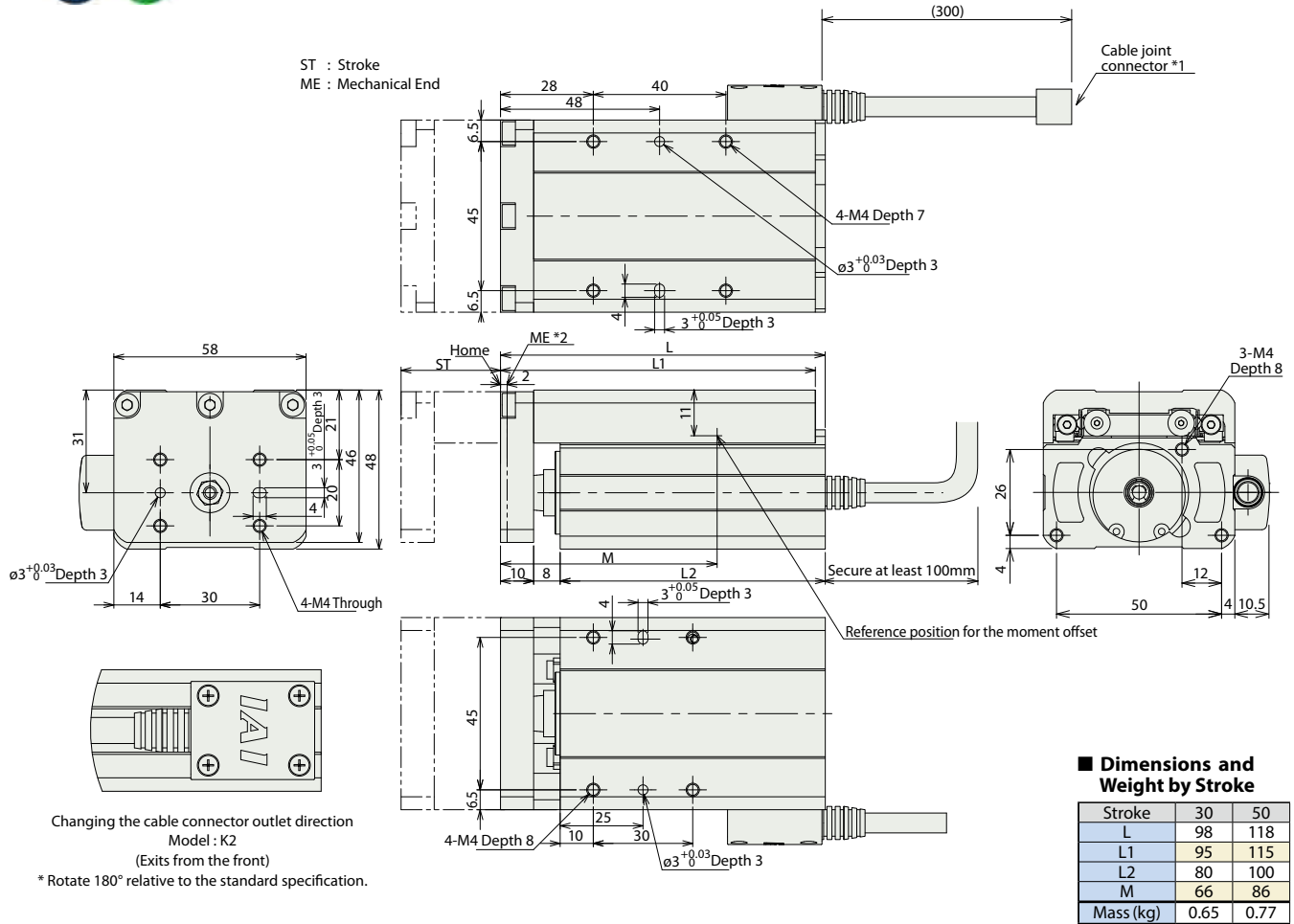
(Note) For cases when the guide service life has been set to 5,000km.

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.



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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.	
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	Standard price
50	—
75	—

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 (15.3m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

Title	Option code	See page	Standard price
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
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

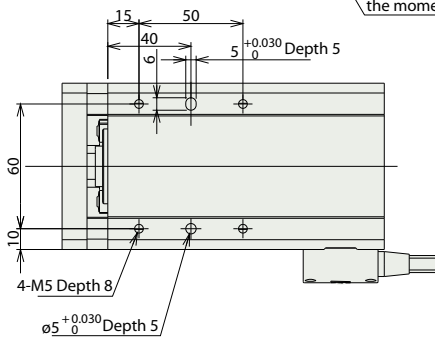
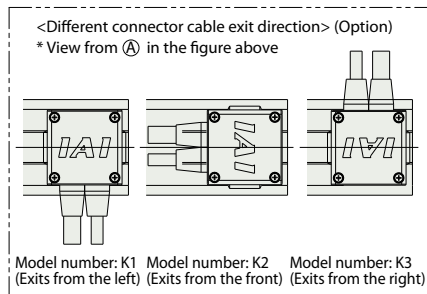
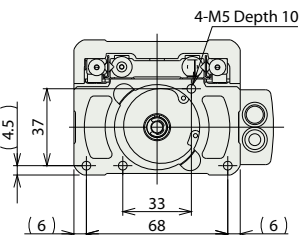
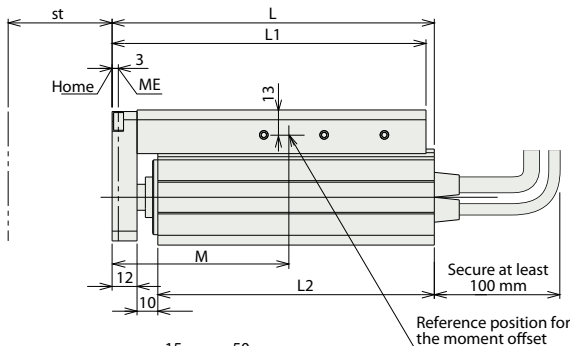
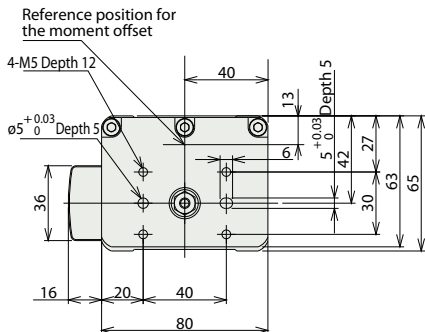
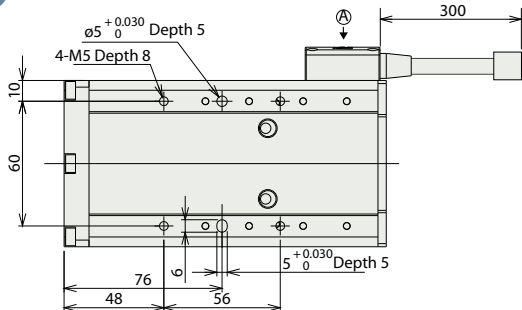
(Note) For cases when the guide service life has been set to 5,000km.

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



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	Positioner	Pulse-train	Program	Control method										Maximum number of positioning points	Reference page		
							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.

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Linear type
- Mini Servo type
- Controller
- Compact
- Wide
- Flat
- Coupling
- Side-mounted

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 — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>							
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□□: Length Designation	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

- 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.
- 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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed

Lead	Stroke	30 (mm)		50 (mm)	
		Ball screw	Lead screw	Ball screw	Lead screw
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	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost motion	Ball screw: 0.1 mm 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
	Ball screw specification

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

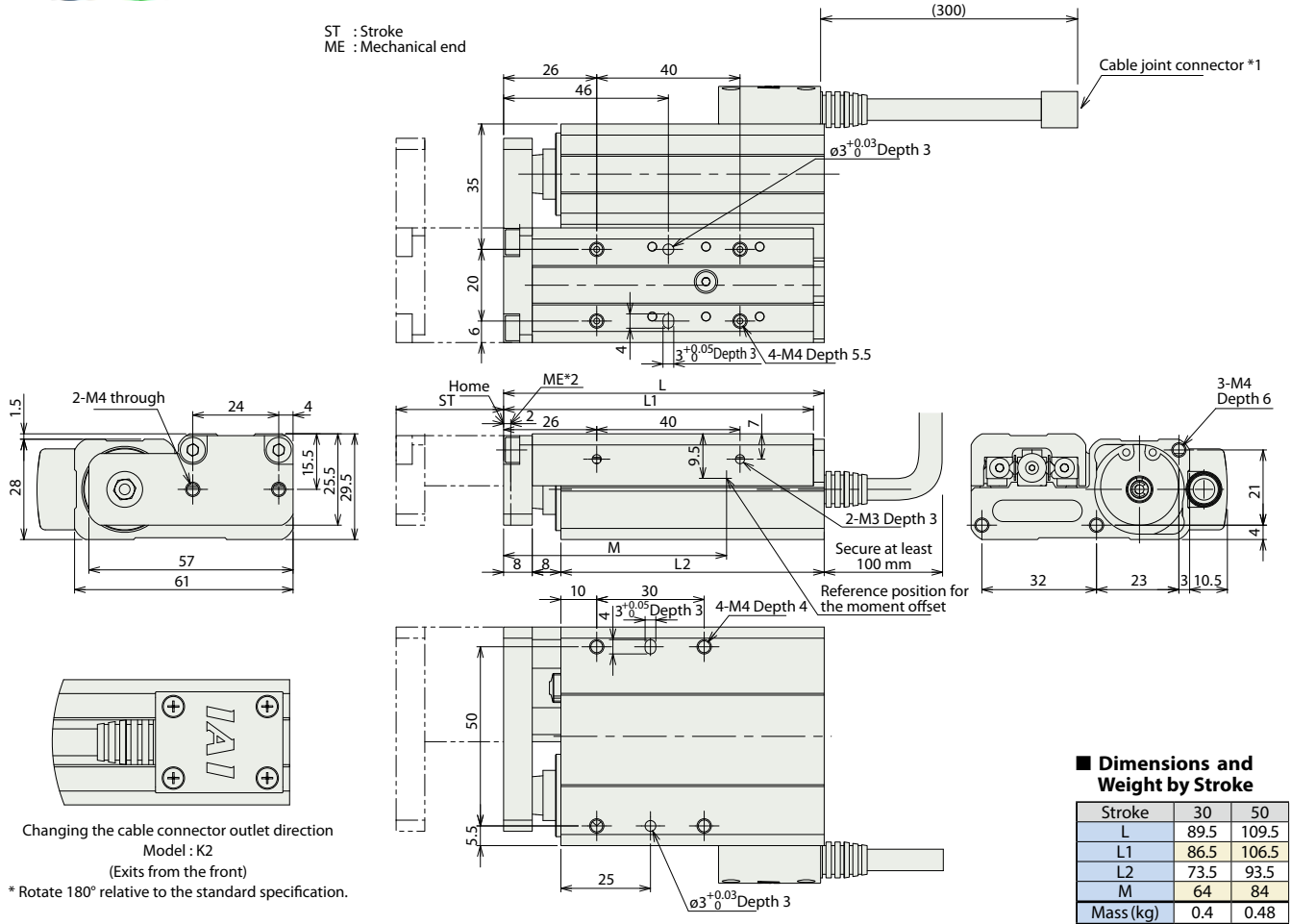
(*) For lead 1: 3,000 km or 50 million cycles

Dimensional Drawings

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



- *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.



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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.	
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	64		
ACON-CYB/PLB/POB		1		-	-	-	-	-	-	-	-	-	-	-	-	-	128 (No position data for ML3, SSN, ECM),		
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	36000		
RCON		16 (ML3, SSN, ECM are 8)		●	●	●	-	-	●	●	●	●	●	●	●				
RSEL		8		●	●	●	●	-	-	-	●	●	●	-	-				

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

More controller info is available in the General Controller Catalog PDF.



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□□: Length Designation	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

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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		

Stroke and Maximum Speed				
Lead	Stroke	30 (mm)		50 (mm)
		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)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCA2 is the robot cable.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	K2	—	—
Power-saving specification	LA	—	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost motion	Ball screw: 0.1 mm 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
	Ball screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles 5,000 km or 50 million cycles

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

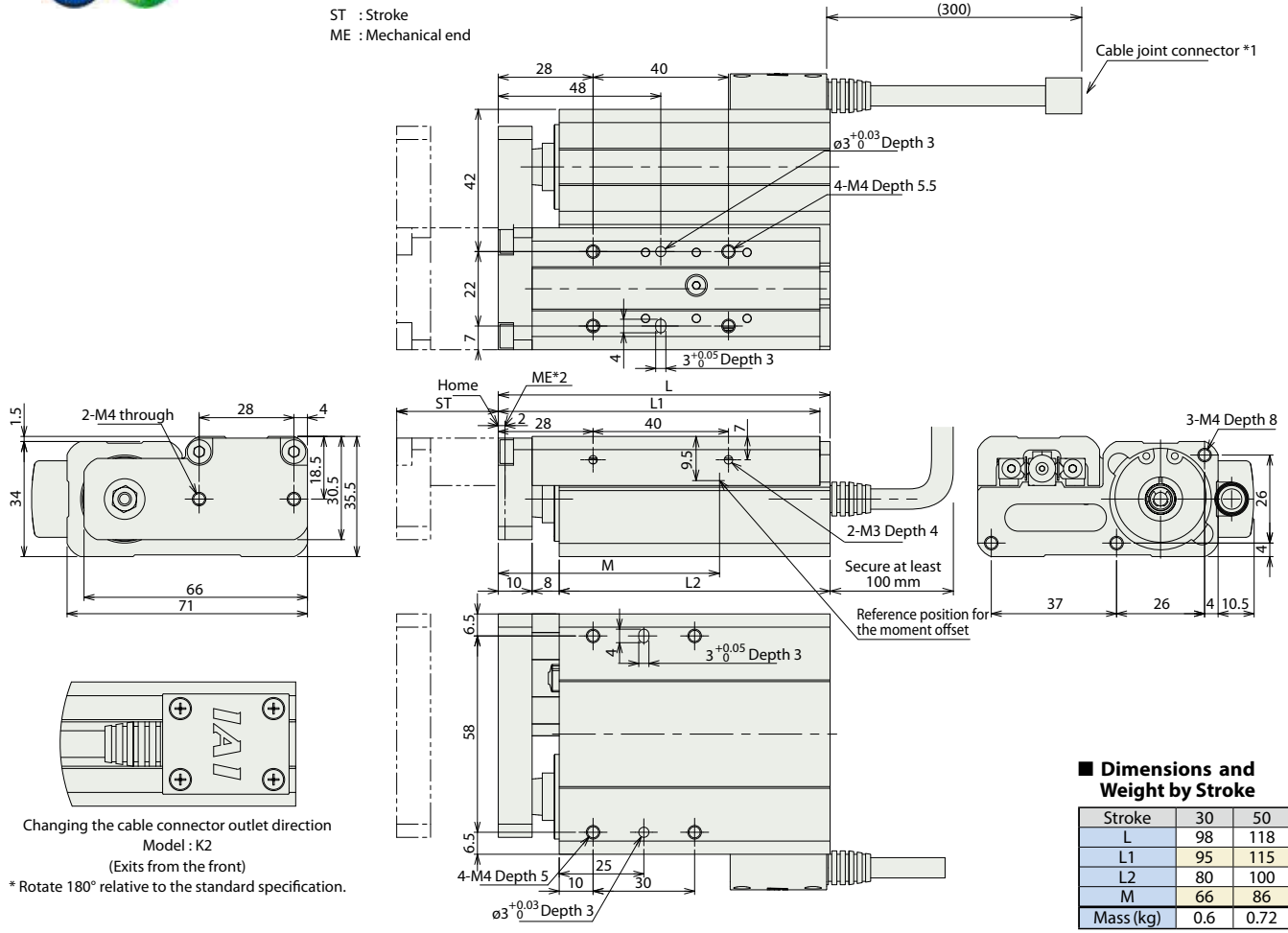
Dimensional Drawings

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.

ST : Stroke
ME : Mechanical end



■ 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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



Mini Slider type

Mini Rod type

Mini Table type

Mini Linear Servo type

Controller

Compact

Wide

Flat

Coupling

Side-mounted

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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
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)	Standard price
50	—
75	—

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 (15m)	—
	R16 (16m) ~ R20 (20m)	—

③ Options

Title	Option code	See page	Standard price
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
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

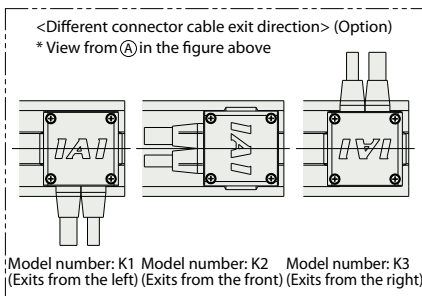
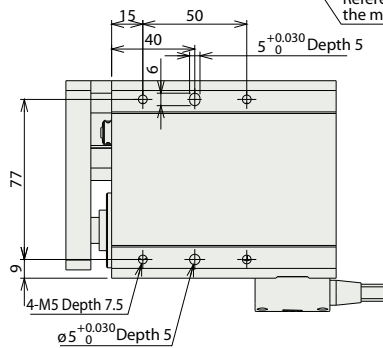
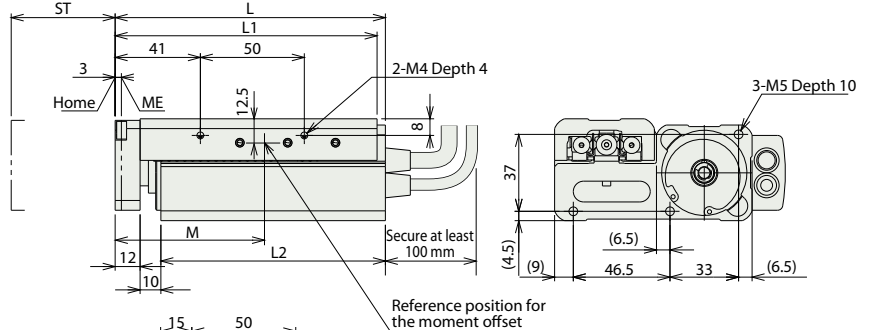
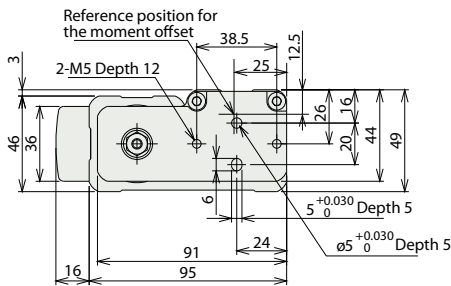
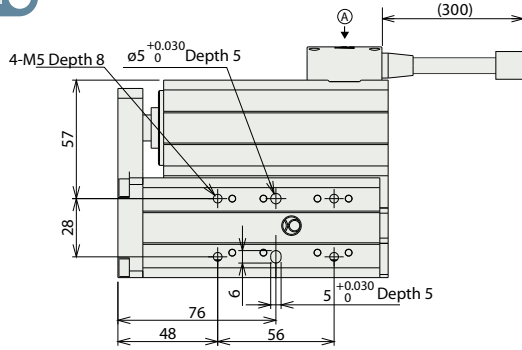
(Note) For cases when the guide service life has been set to 5,000km.

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



■ 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	-	-	-	●	●	●	●	-	-	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	Please contact IAI for more information.
RSEL		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	●	-	-	-	●	●	●	-	-	360000	
SCON-CB/CGB		1	Single phase 100VAC/200VAC	●	●	-	●	●	●	●	●	●	●	●	●	-	●	512 (768 for network spec.)	
SSEL-CS		2	Single phase 100VAC/200VAC	●	-	●	●	●	-	-	-	-	●	-	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	●	-	-	-	-	20000	
XSEL-RA/SA		8	Single phase 200VAC 3 phase 200VAC	-	-	●	●	●	-	-	-	-	●	●	-	-	-	55000 (It depends on model)	

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

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

RCP3-TA3C

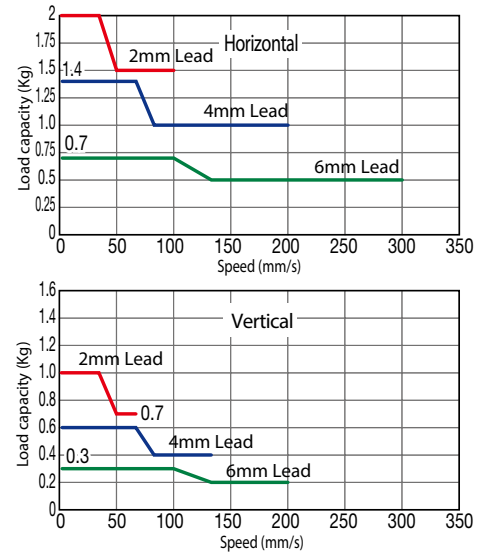
ROBO Cylinder Mini Table Type Motor Unit Coupling Type Actuator Width 36 mm Pulse Motor Ball Screw Specification

Model Description	RCP3	TA3C	I	20P					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
			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□□: Length Designation	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.



(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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)			
RCP3-TA3C-I-20P-6-①-②-③-④	Ball screw	6	~0.7	~0.3	9	±0.02	20 to 100 (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)	20 to 100 (mm)
Ball screw	6	300 <200>
	4	200 <133>
	2	100 <67>

* < > Indicates vertical use

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

④ Options

Title	Option code	See page	Standard price
Brake	B	—	—
Reversed-home specification	NM	—	—

③ Cable Length

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

* Robot type cable comes as standard with RCP3 actuator.

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)

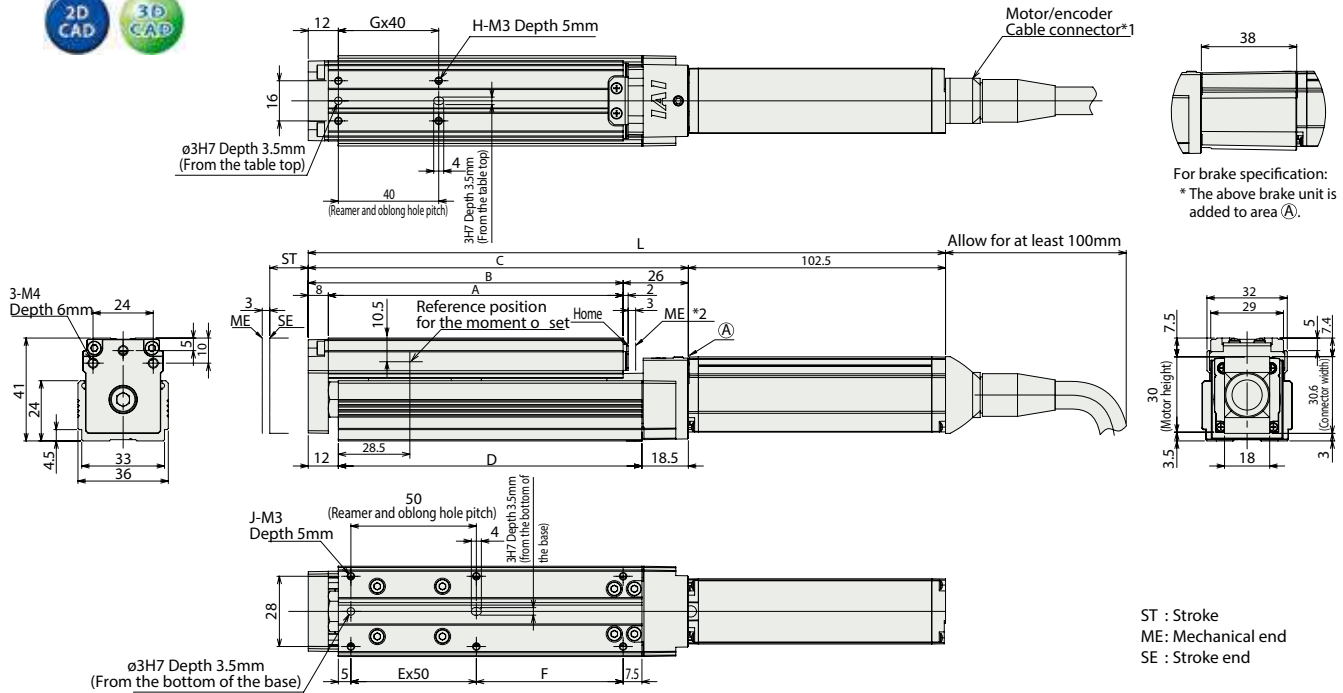
(Note 3) For case of 5,000km service life.

Directions of allowable load moments



Dimensional Drawings

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



■ 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
L 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	68.5	78.5	88.5	98.5	108.5
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	Positioner	Pulse-train	Program	Control method											Maximum number of positioning points	Reference page	
							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 (ML,SSN,ECM-B)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM)	
RSEL		8		-	-	●	●	●	●	●	-	-	●	●	●	●	●	-	-	

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

More controller info is available in the General Controller Catalog PDF.



RCP3-TA4C

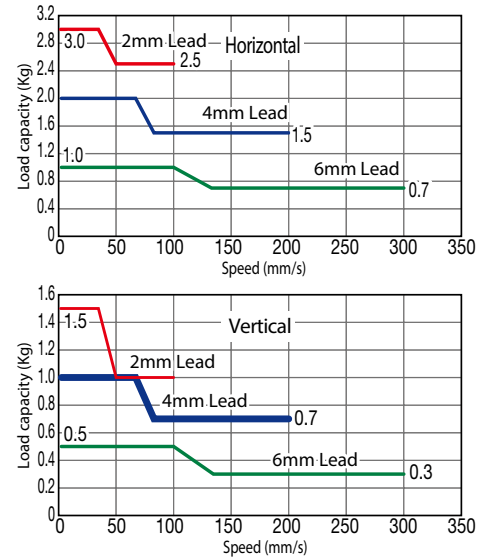
ROBO Cylinder Mini Table Type Motor Unit Coupling Type Actuator Width 40 mm Pulse Motor Ball Screw Specification

Model Description	RCP3	TA4C	I	28P					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
			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 PS: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	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.



(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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)			
RCP3-TA4C-I-28P-6-①-②-③-④	Ball screw	6	~1	~0.5	15	±0.02	20 to 100 (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		

Stroke and Maximum Speed

Lead	Stroke	
	20 to 100 (mm)	20 to 100 (mm)
6	300	300
4	200	200
2	100	100

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(Note 2) For a graph of the pushing force, see P127.

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

④ Options

Title	Option code	See page	Standard price
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	—	—

③ Cable Length

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

* Robot type cable comes as standard with RCP3 actuator.

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)

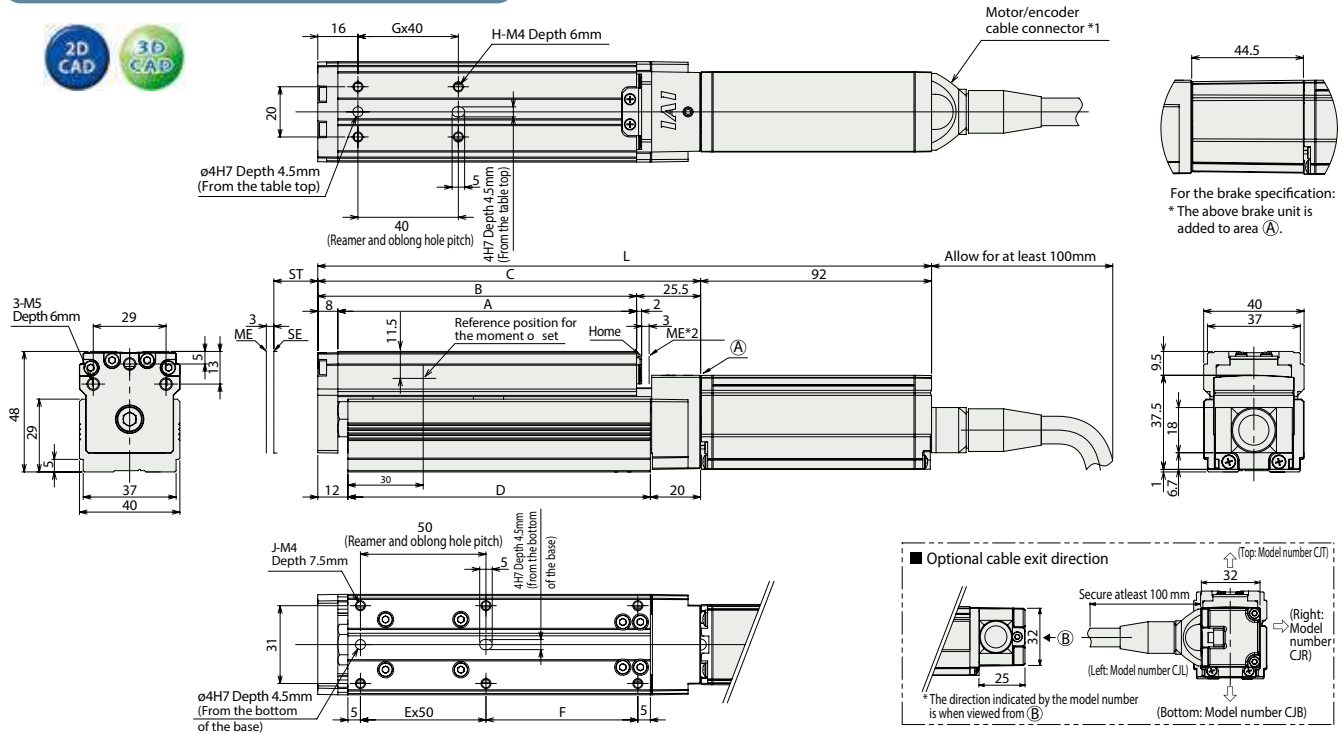
(Note 3) For case of 5,000km service life.

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
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)	0.7	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	Positioner	Pulse-train	Program	Control method											Maximum number of positioning points	Reference page	
							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.

More controller info is available in the General Controller Catalog PDF.



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
					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□□: Length Designation		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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-TA4C-I-10-6-①-②-③-④	10	Ball screw	6	1	0.5	28	±0.02	20 to 100 (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	
	Stroke (mm)	20 to 100 (mm)
Ball screw	6	300
	4	200
	2	100

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

④ Options

Title	Option code	See page	Standard price
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	—	—

③ Cable Length

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

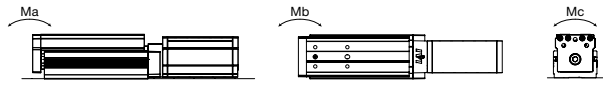
* Robot type cable comes as standard with RCA2 actuator.

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)

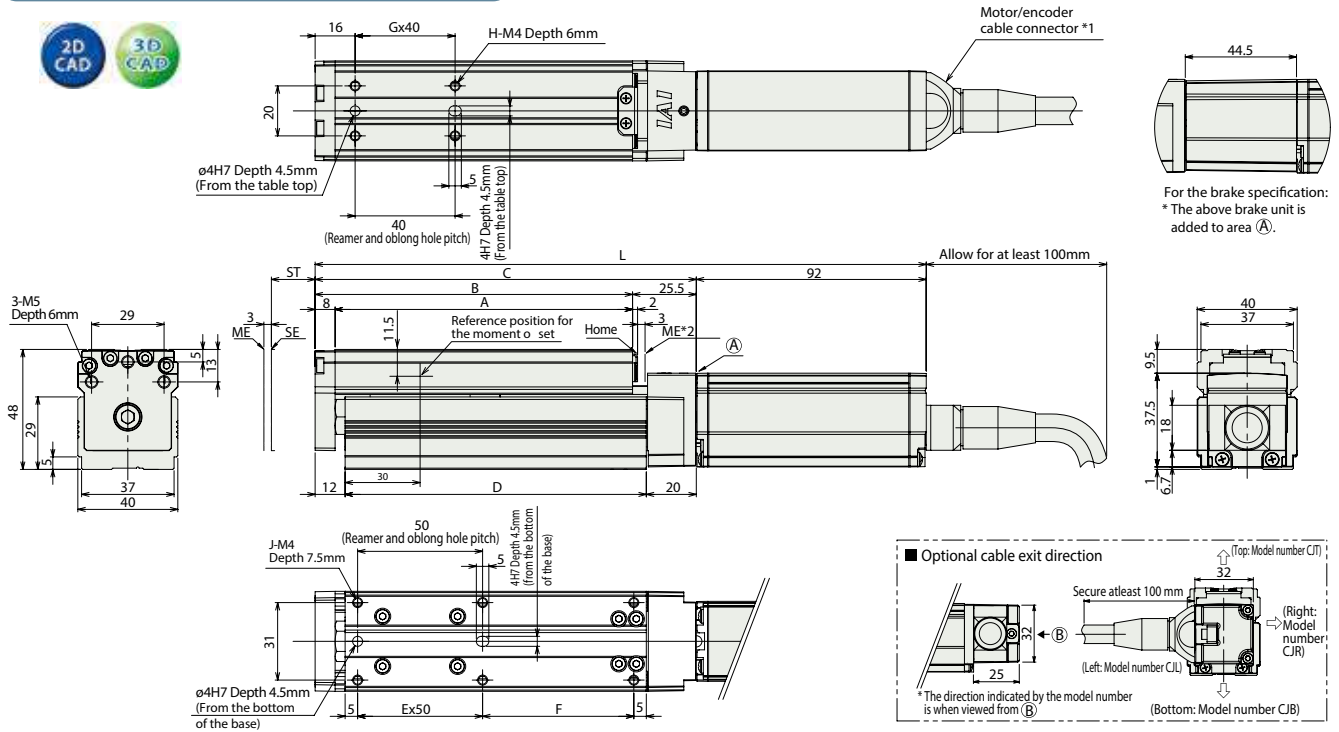
(Note) For case of 5,000km service life.

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
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)	0.8	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												
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	●	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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
			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□□: Length Designation	See option table below. * Be sure to specify which side the motor is to be mounted (ML/MR)

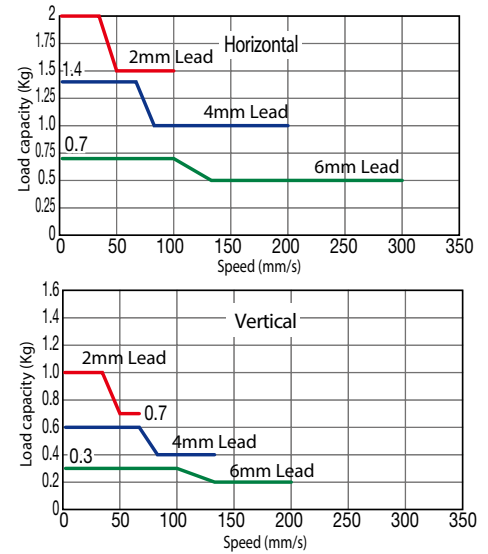
* See page 14 for details on the model descriptions.



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.



(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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)			
RCP3-TA3R-I-2P0-6-①-②-③-④	Ball screw	6	~0.7	~0.3	9	±0.02	20 to 100 (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		

Stroke and Maximum Speed

Lead	Stroke	
	20 to 100 (mm)	20 to 100 (mm)
Ball screw	6	300 <200>
	4	200 <133>
	2	100 <67>

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(Note 2) For a graph of the pushing force, see P127.

* <> Indicates vertical use

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

④ Options

Title	Option code	See page	Standard price
Brake	B	—	—
Side-mounted motor to the left (standard)	ML	—	—
Side-mounted motor to the right	MR	—	—
Reversed-home specification	NM	—	—

③ Cable Length

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

* Robot type cable comes as standard with RCP3 actuator.

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

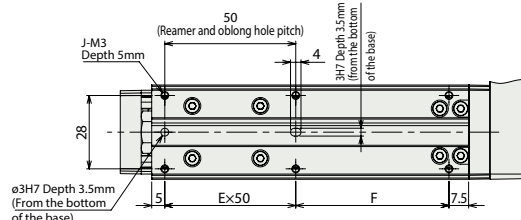
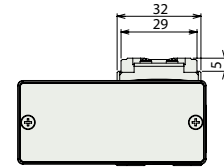
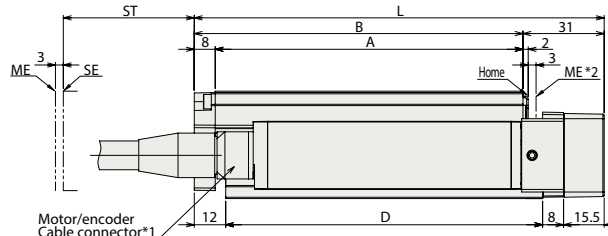
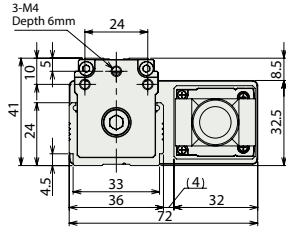
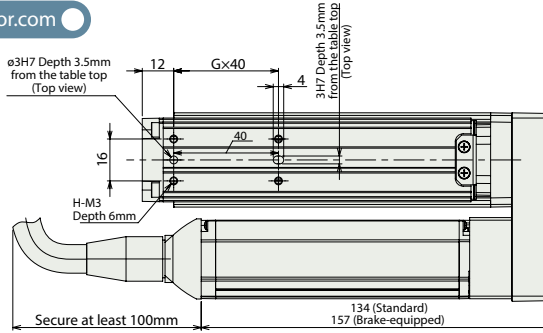
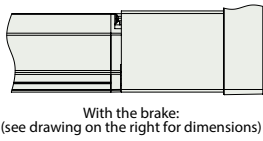


Dimensional Drawings

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



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



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.

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	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	68.5	78.5	88.5	98.5	108.5
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	Positioner	Pulse-train	Program	Control method												Maximum number of positioning points	Reference page
							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.

More controller info is available in the General Controller Catalog PDF.



RCP3-TA4R

ROBO Cylinder Mini Table Type Side-Mounted Motor Type Actuator Width 81 mm Pulse Motor Ball Screw Specification

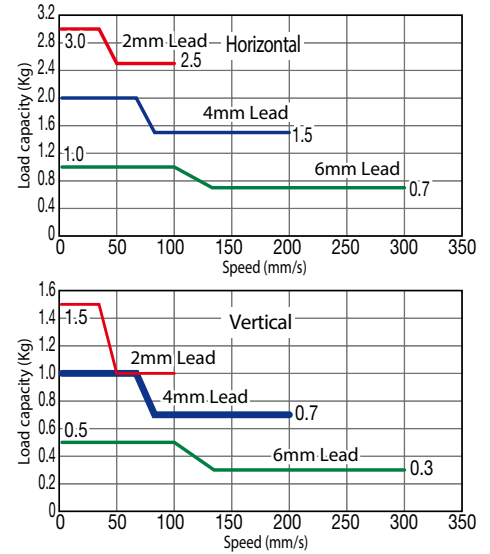
Model Description	RCP3	TA4R	I	28P					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length	Option
			I: Incremental specification * Model number is "I" when used with simple absolute unit.	28P: Pulse motor 28□Size	6: 6mm 4: 4mm 2: 2mm	20: 20mm 100: 100mm (set in steps every 10mm)	P3: PCON MSEL P5: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	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.



(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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)			
RCP3-TA4R-I-28P-6-①-②-③-④	Ball screw	6	~1	~0.5	15	±0.02	20 to 100 (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	
	Stroke (mm)	20 to 100 (mm)
Ball screw	6	300
	4	200
	2	100

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

④ Options

Title	Option code	See page	Standard price
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	—	—

③ Cable Length

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

* Robot type cable comes as standard with RCP3 actuator.

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

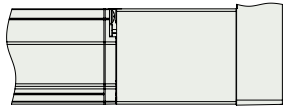


Dimensional Drawings

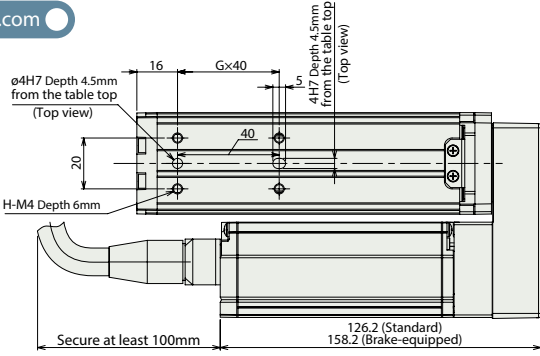
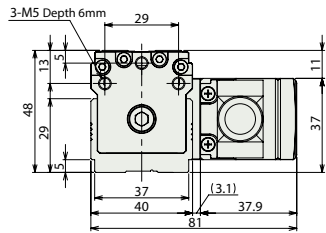
CAD drawings can be downloaded from the website. www.intelligentactuator.com



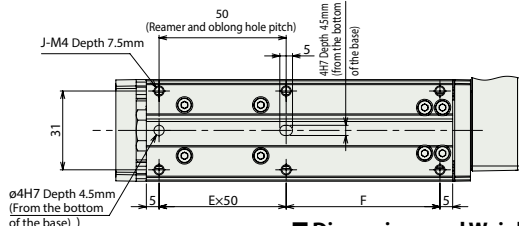
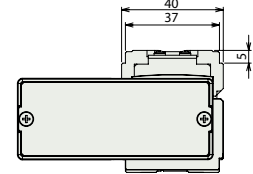
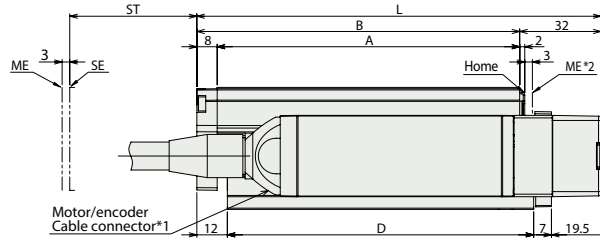
* The drawing below shows the specification with motor side-mounted to the left.



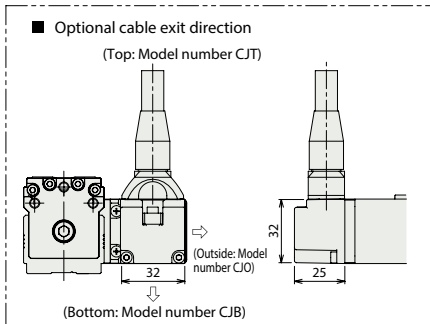
With the brake:
(see drawing on the right for dimensions)



The reference position for moment o set is the same as the position on the TA4C (P.94).



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	70.5	80.5	90.5	100.5	110.5
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

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	Positioner	Pulse-train	Program	Control method										Maximum number of positioning points	Reference page		
							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	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	
PCON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	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□□: Length Designation		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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-TA4R-I-10-6-①-②-③-④	10	Ball screw	6	1	0.5	28	±0.02	20 to 100 (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		

Stroke and Maximum Speed

Lead	Stroke	
	20 to 100 (mm)	20 to 100 (mm)
Ball screw	6	300
	4	200
	2	100

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

③ Cable Length

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

* Robot type cable comes as standard with RCA2 actuator.

④ Options

Title	Option code	See page	Standard price
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)

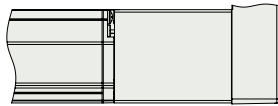
(Note) For case of 5,000km service life.

Dimensional Drawings

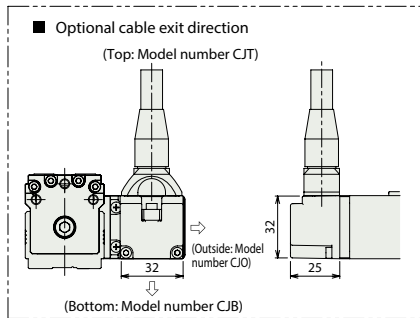
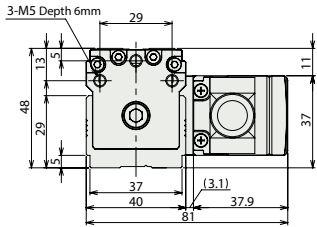
CAD drawings can be downloaded from the website. www.intelligentactuator.com



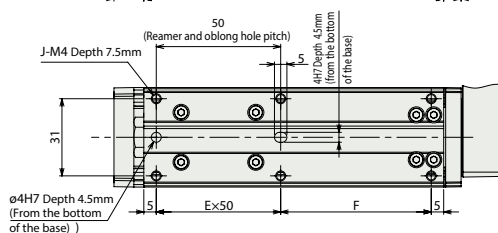
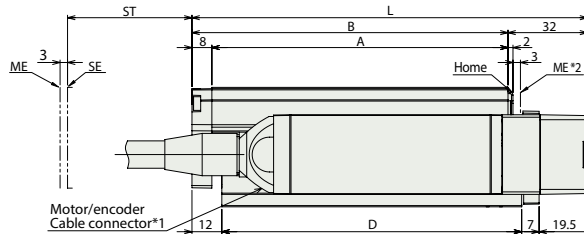
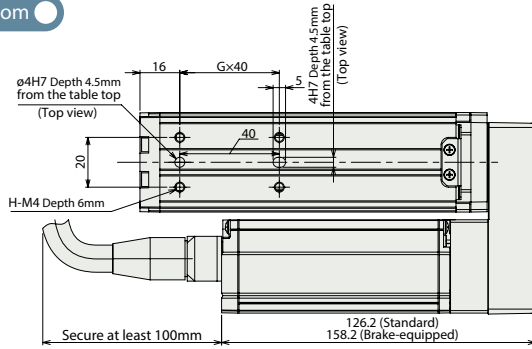
* The drawing below shows the specification with motor side-mounted to the left.



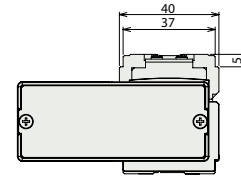
With the brake:
(see drawing on the right for dimensions)



- *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.



The reference position for moment o set is the same as the position on the TA4C (P.94).



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	70.5	80.5	90.5	100.5	110.5
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													
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML, 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.

More controller info is available in the General Controller Catalog PDF.



Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Side-mounted

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length
					I: Incremental specification		2: Linear servo motor 2W		N: No screw		40: 40mm		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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	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

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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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-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

Stroke	40 (mm)
Lead	
(no screw)	420

(unit: mm/s)

Stroke list

Stroke (mm)	Standard price
40	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

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)

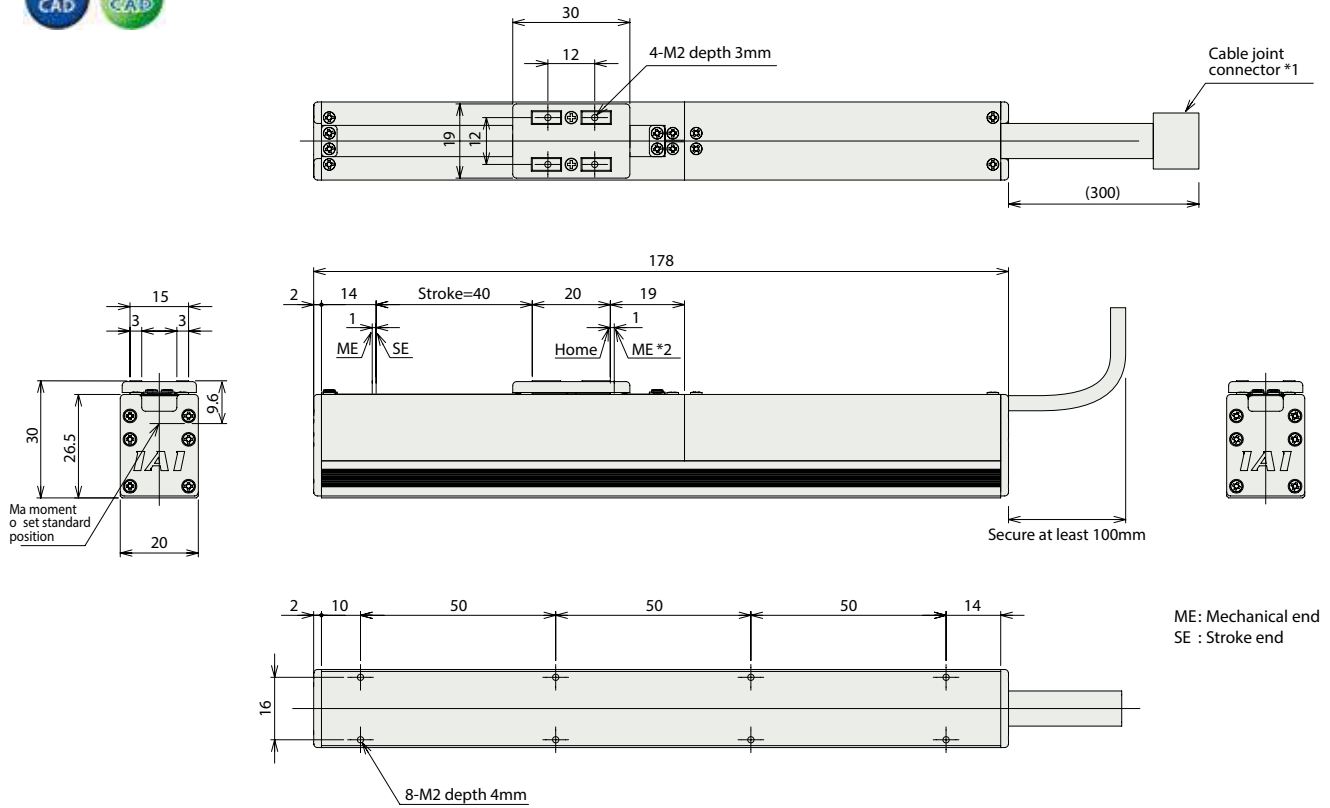
(Note) For case of 5,000km service life.

Dimensional Drawings

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



- * 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	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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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
		I: Incremental specification	5: Linear servo motor 5W	N: No screw	48: 48mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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

Stroke	48 (mm)
Lead	
(no screw)	460

(unit: mm/s)

Stroke list

Stroke (mm)	Standard price
48	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

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)

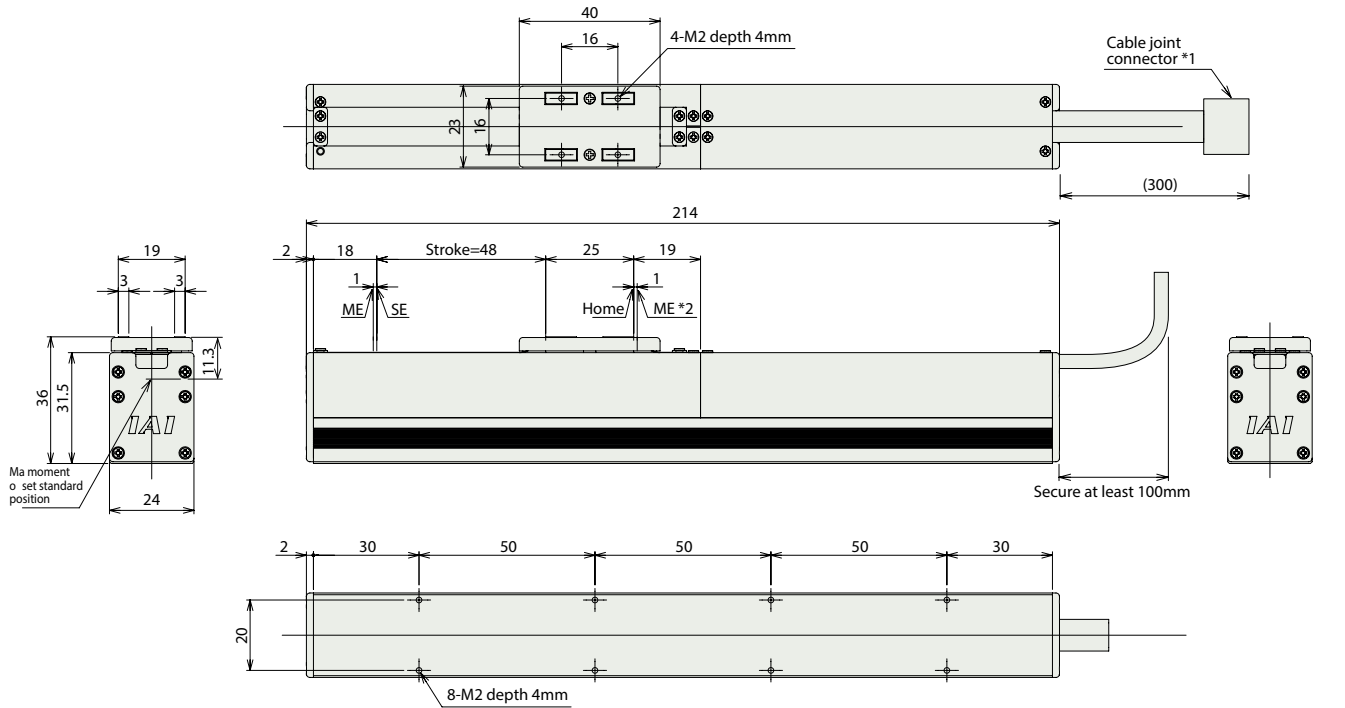
(Note) For case of 5,000km service life.

Dimensional Drawings

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



* 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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.

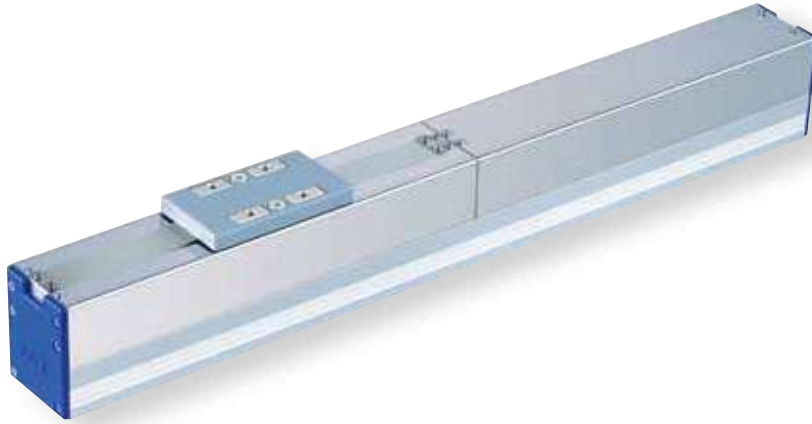


RCL-SA3L

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	<input type="checkbox"/>	<input type="checkbox"/>
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible controllers	Cable length
			I: Incremental specification	10: Linear servo motor 10W	N: No screw	64: 64mm	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	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



- The payload is determined by the acceleration and duty. Verify the payload in the payload (horizontal) and acceleration chart at right.
The duty is $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ per cycle.
- The mounting position is horizontal-only. Please take care because the slider will drop down with power OFF when operating vertically.
- 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)	

(unit: mm/s)

Stroke list

Stroke (mm)	Standard price
64	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

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)

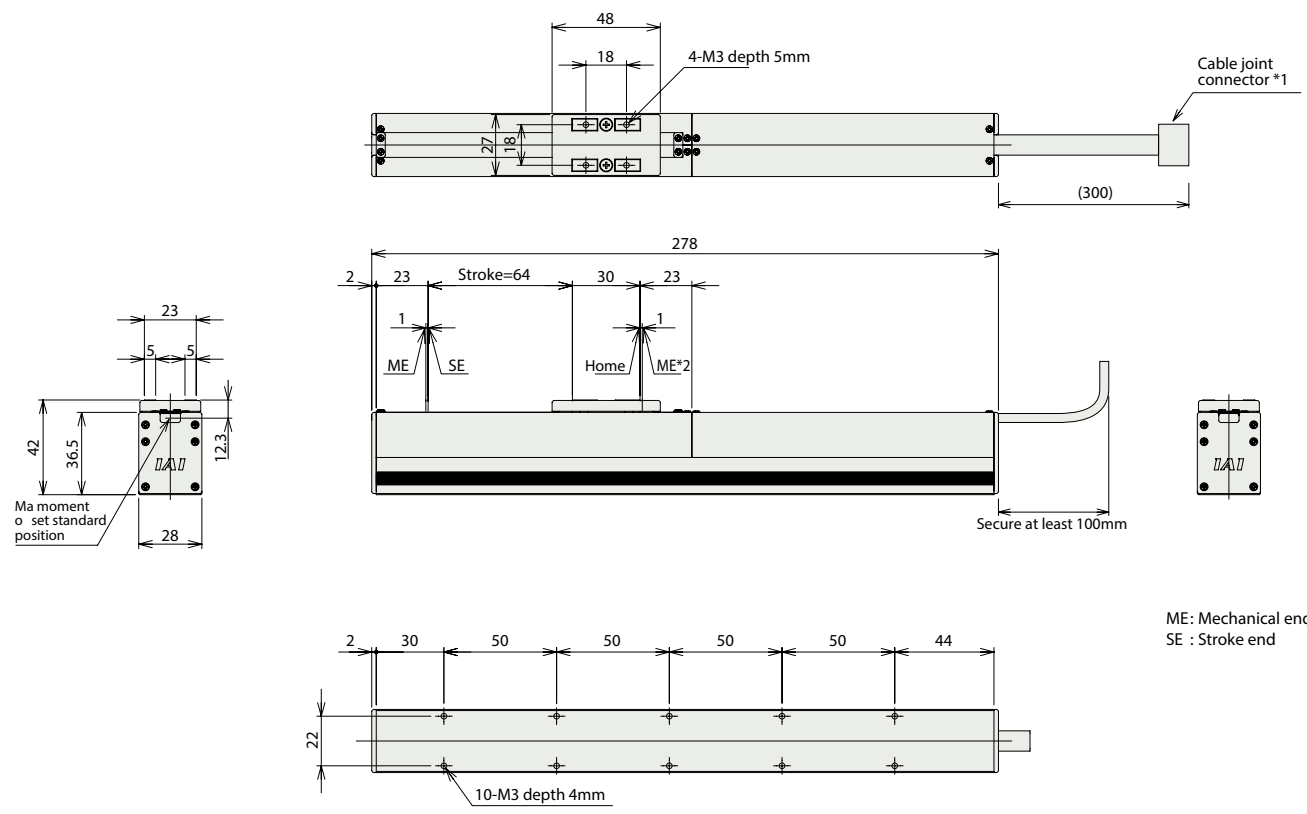
(Note) For case of 5,000km service life.

Dimensional Drawings

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



* 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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.	
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	64		
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-		128 (No position data for ML3, SSN, ECM),
* Option	* Option	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		36000
RCON		16 (ML3, SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●			
RSEL		8		-	-	●	●	●	●	-	-	-	●	●	●	-	-			

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

More controller info is available in the General Controller Catalog PDF.



- Mini Slider type
- Mini Rod type
- Mini Table type
- Mini Linear Servo type
- Controller
- Slim
- Long stroke

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length		Option
					I: Incremental specification		2: Linear servo motor 2W		N: No screw		30: 30mm 180: 180mm (set in steps every 30mm)		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation		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

- Please take care because this type has magnetic flux leakage. (If magnetism is a problem, use SA1L/SA2L/SA3L)
- The payload is determined by the acceleration and duty. Verify the payload in the payload (horizontal) and acceleration chart at right.
The duty is $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ per cycle.
- The mounting position is horizontal-only. Please take care because the slider will drop down with power OFF when operating vertically.
- 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-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)

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
30	—
60	—
90	—
120	—
150	—
180	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

④ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

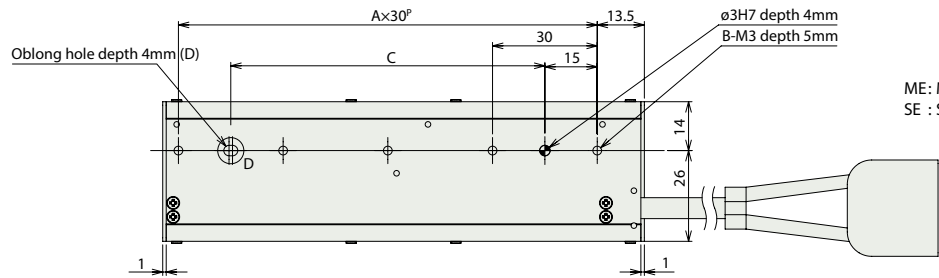
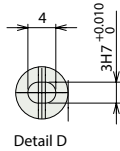
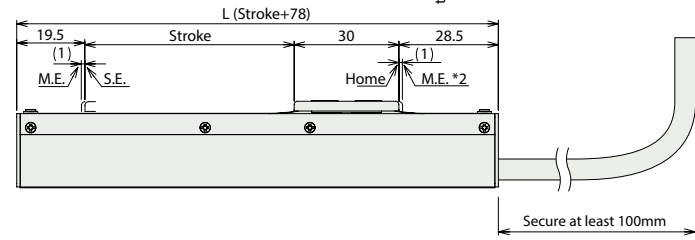
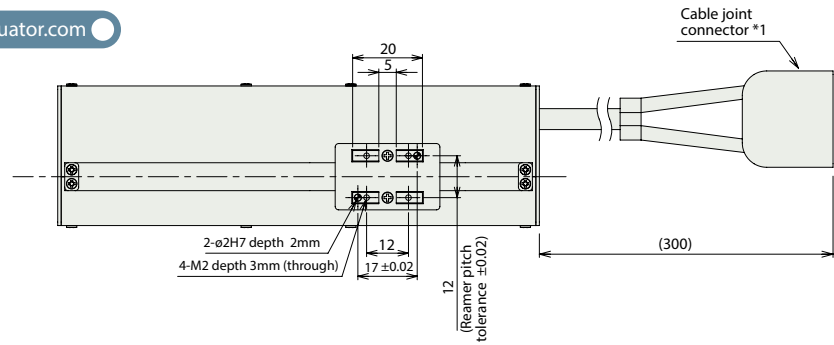
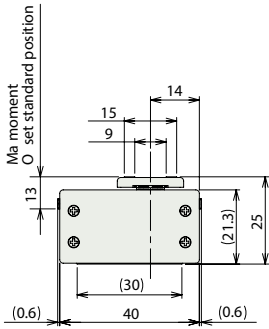
Actuator Specifications

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

- * 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	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

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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.

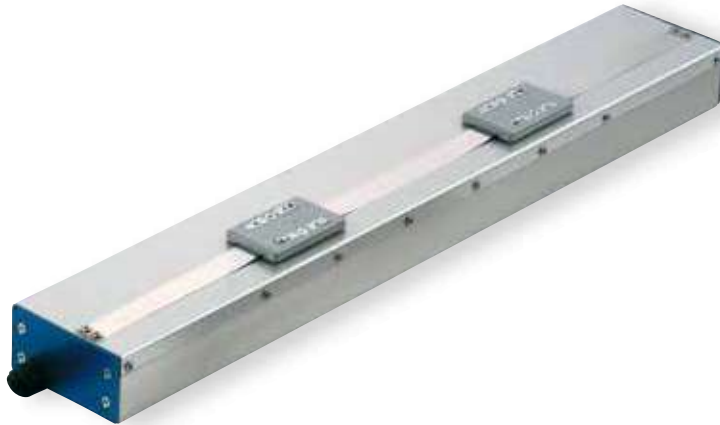


RCL-SM4L

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length
					I: Incremental specification		2: Linear servo motor 2W		N: No screw		30: 30mm 120: 120mm (set in steps every 30mm)		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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)	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
30	—
60	—
90	—
120	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

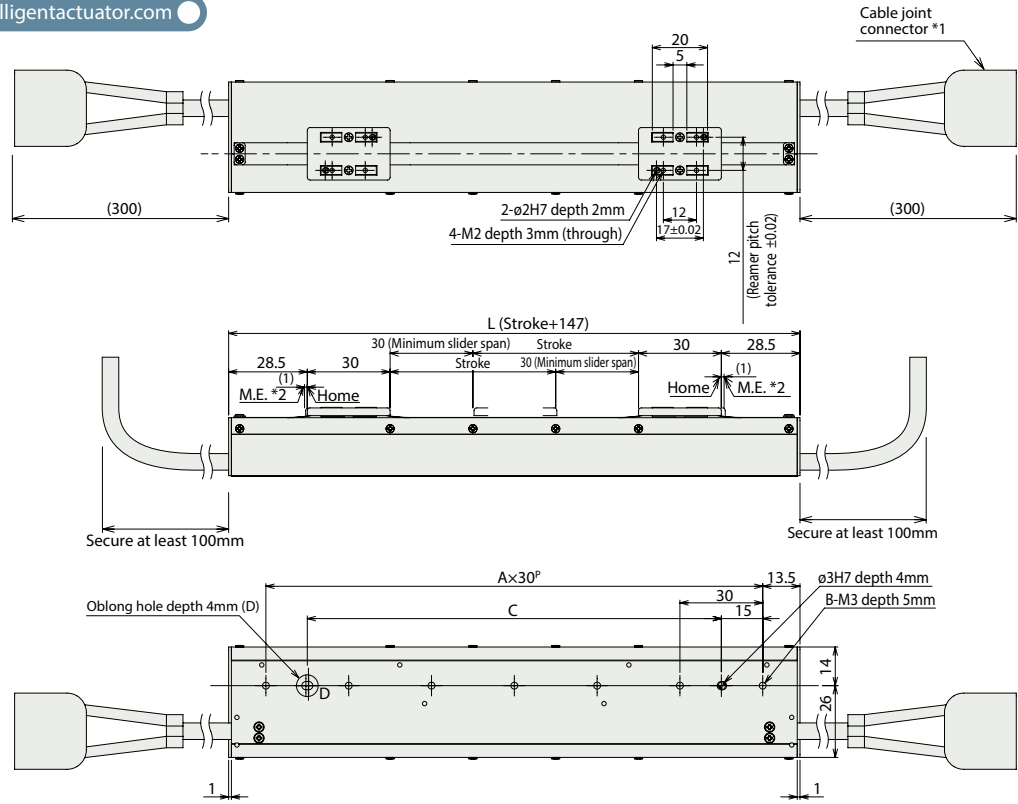
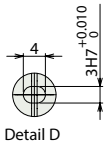
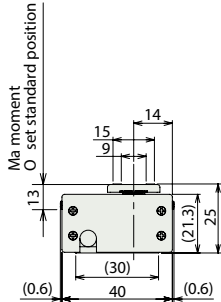
Actuator Specifications

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	●	●	-	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length		Option
				I: Incremental specification		5: Linear servo motor 5W		N: No screw		36: 36mm 216: 216mm (set in steps every 36mm)		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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	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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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)	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
36	—
72	—
108	—
144	—
180	—
216	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

④ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

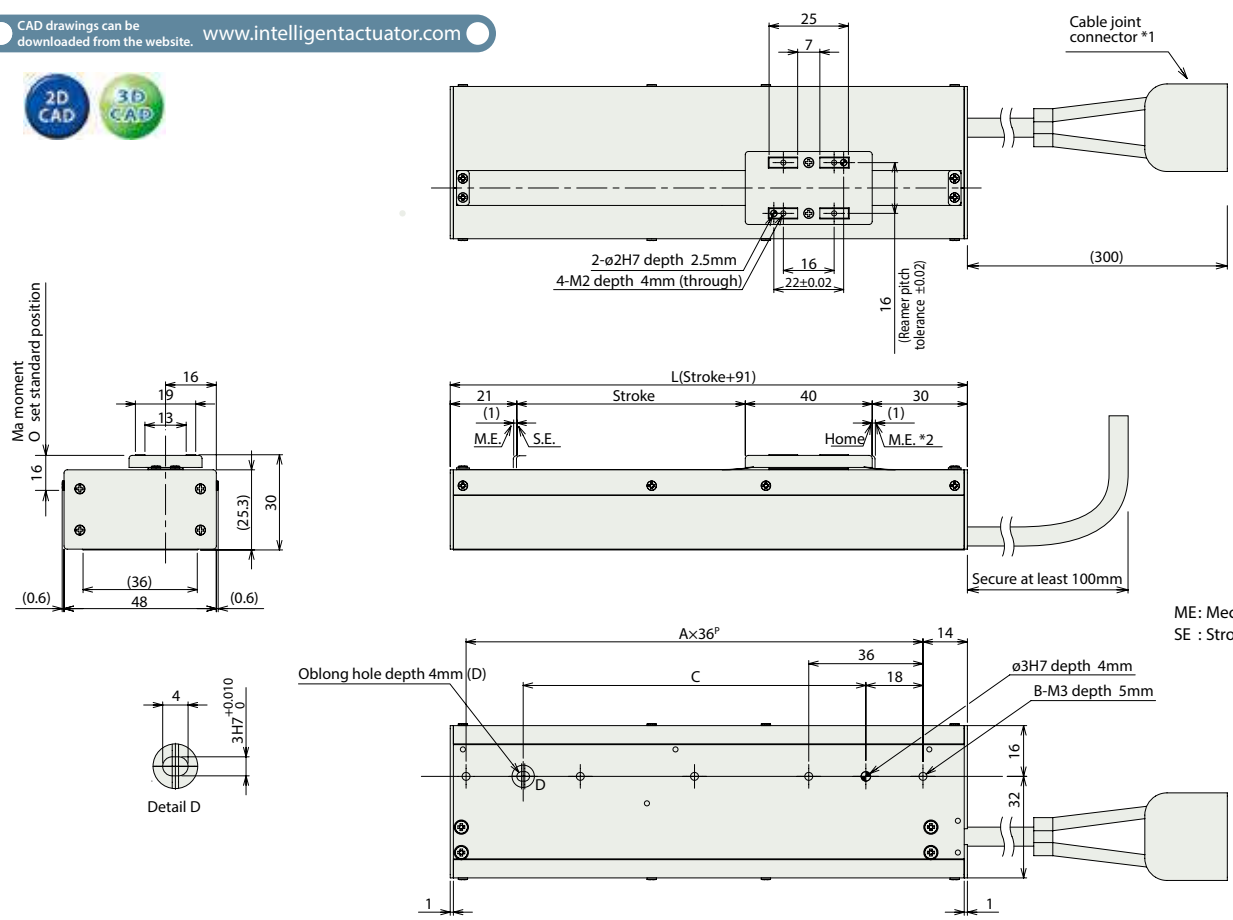
Actuator Specifications

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



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	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

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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.

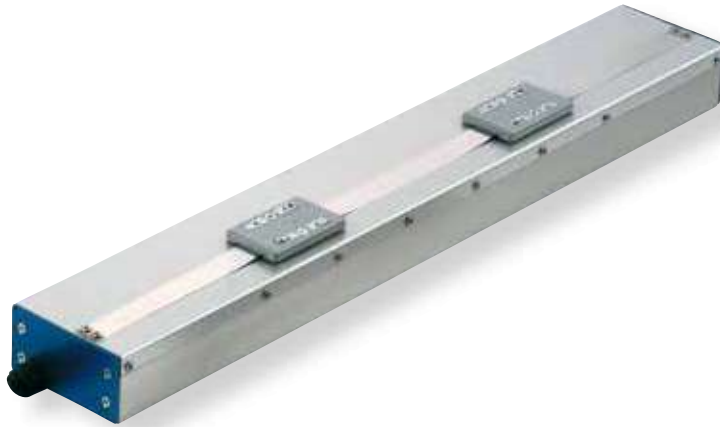


RCL-SM5L

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length
					I: Incremental specification		5: Linear servo motor 5W		N: No screw		36: 36mm 144: 144mm (set in steps every 36mm)		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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)	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
36	—
72	—
108	—
144	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

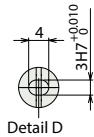
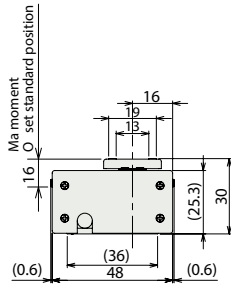
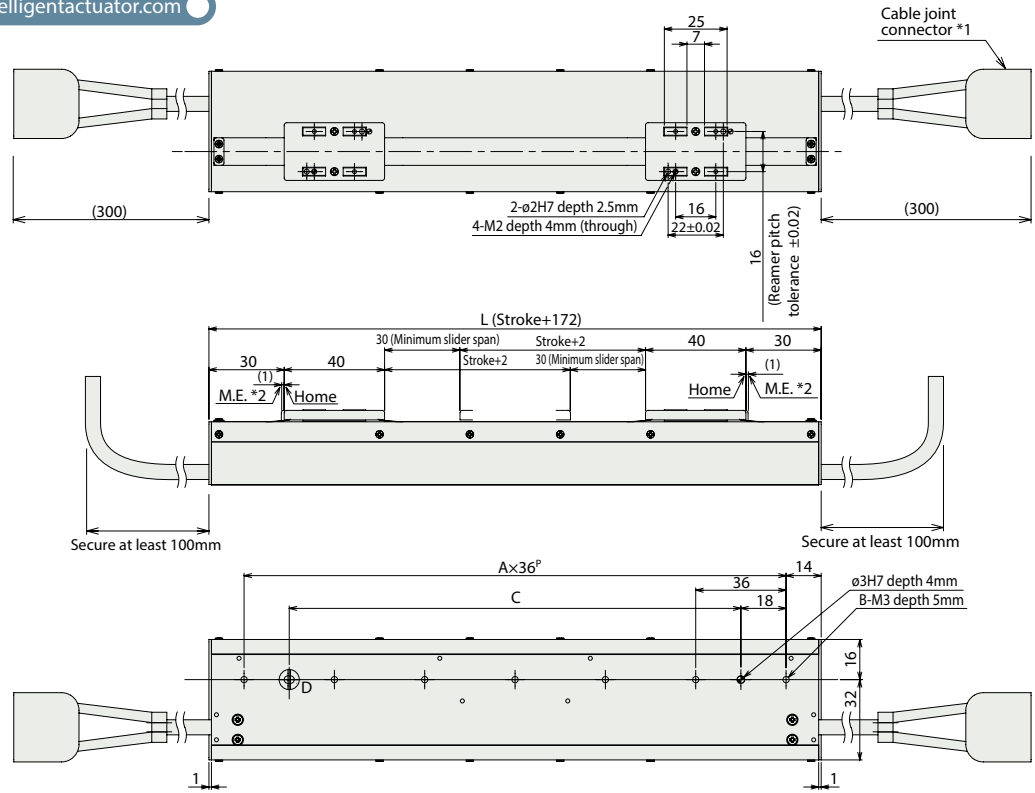
Actuator Specifications

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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length		Option
					I: Incremental specification		10: Linear servo motor 10W		N: No screw		48: 48mm 288: 288mm (set in steps every 48mm)		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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-SA6L-I-10-N-①-②-③-④	10	See chart above	—	10	30	2	±0.1	48 to 288 (set in 48mm increments)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

Stroke and Maximum Speed

Stroke	48 to 288 (set in 48mm increments)
Lead (no screw)	1600

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
48	—
96	—
144	—
192	—
240	—
288	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

④ Options

Title	Option code	See page	Standard price
Reversed-home specification	NM	—	—

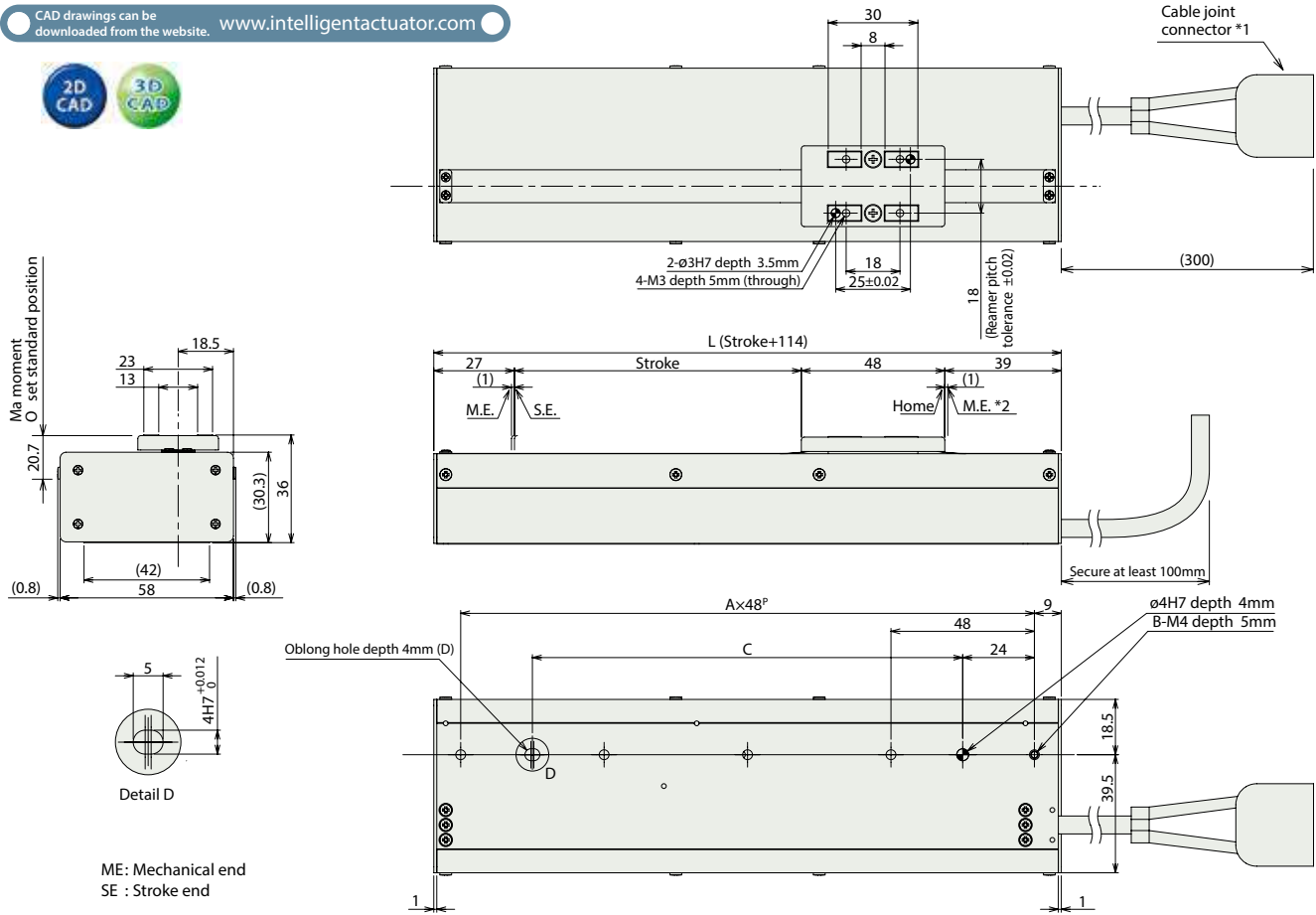
Actuator Specifications

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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		* Option	* Option	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML355N, ECM=8)		-	-	-	●	●	●	●	-	●	●	●	●	●	128 (No data for ML355n, ECM),	
RSEL		8		-	-	●	●	●	●	-	-	●	●	●	-	-	36000	

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

More controller info is available in the General Controller Catalog PDF.

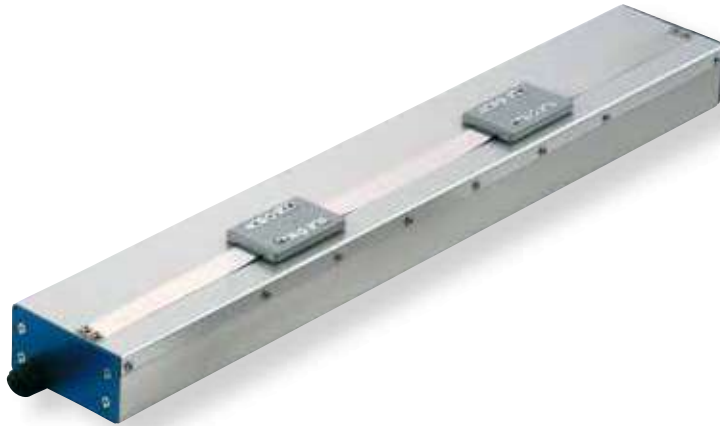


RCL-SM6L

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length
					I: Incremental specification		10: Linear servo motor 10W		N: No screw		48: 48mm 192: 192mm (set in steps every 48mm)		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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 $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ 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-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)	

(unit: mm/s)

① Stroke list

Stroke (mm)	Standard price
48	—
96	—
144	—
192	—

③ Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

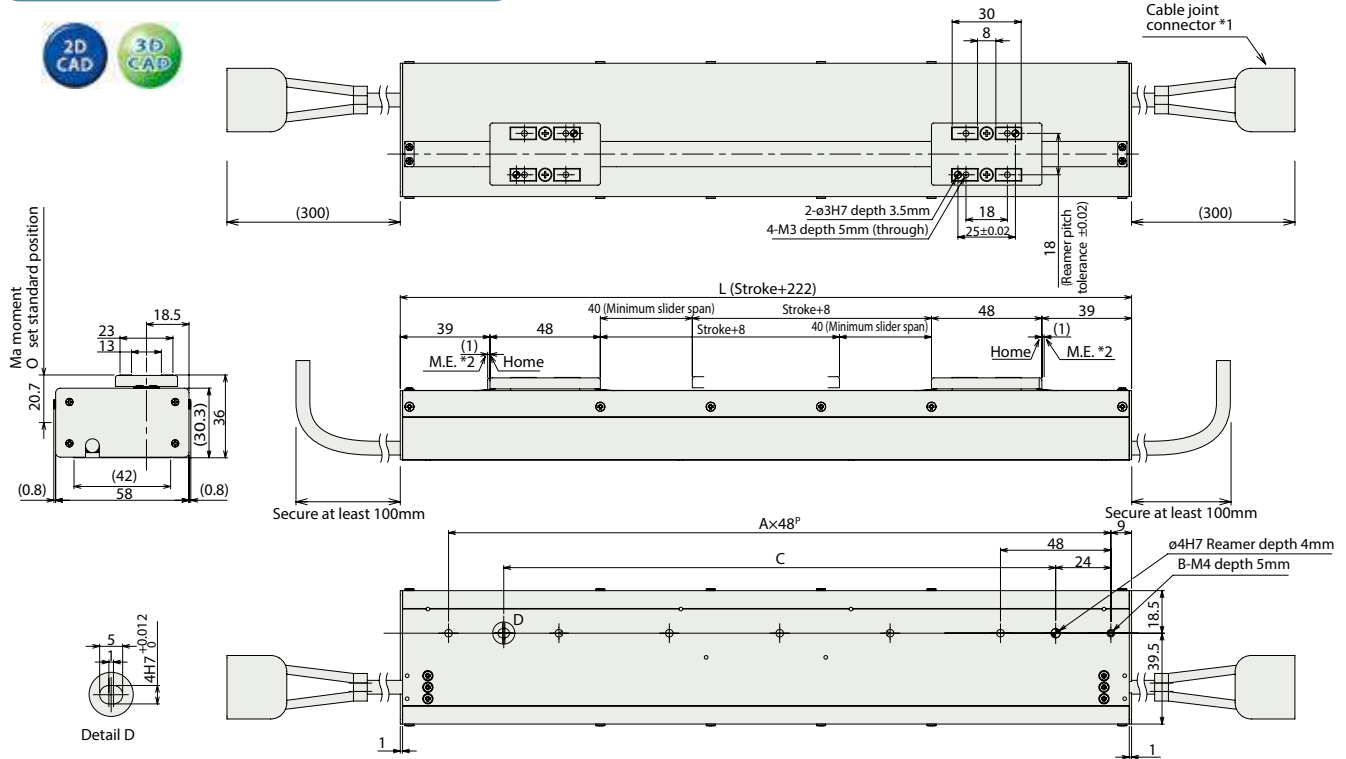
Actuator Specifications

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													
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	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.

More controller info is available in the General Controller Catalog PDF.



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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length		Option
					I: Incremental specification		2: Linear servo motor 2W		N: No screw		25: 25mm		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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	0.5	0.1	0.5	0.1
0.3				
0.5	0.42		0.25	
1	0.2	—	0.15	—
1.5	0.11	—	0.1	—
2	0.07	—	—	—

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.

POINT Notes on selection

- The payload is determined by the acceleration and duty. Verify the payload in the payload (horizontal) and acceleration chart at right. The duty is $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ per cycle.
- If the actuator is operated vertically, use the optional brake specification.
- Please use an external guide to avoid a horizontal or rotational load applied to the rod.
- The pushing force fluctuation increases when the current limit is low.
- 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-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)

Legend ① Compatible Controllers ② Cable length ③ Option

Stroke and Maximum Speed

Stroke	25 (mm)
Lead	300
(no screw)	300

(unit: mm/s)

Stroke list

Stroke (mm)	Standard price
25	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

* 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.)

③ Options

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).

Actuator Specifications

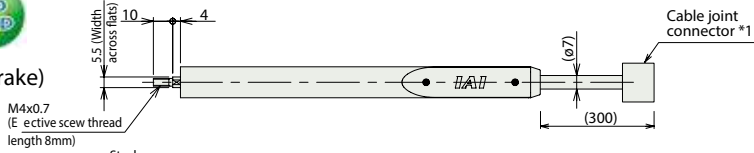
Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Pipe	Material: Nickel-plated carbon steel tube
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

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

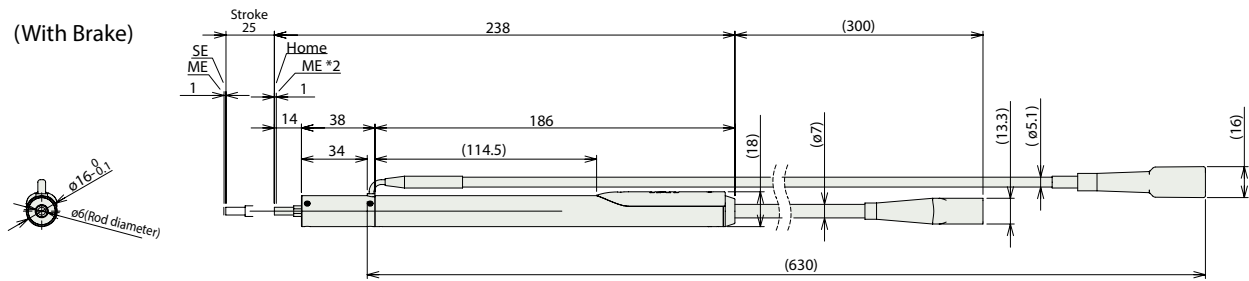


(Without Brake)

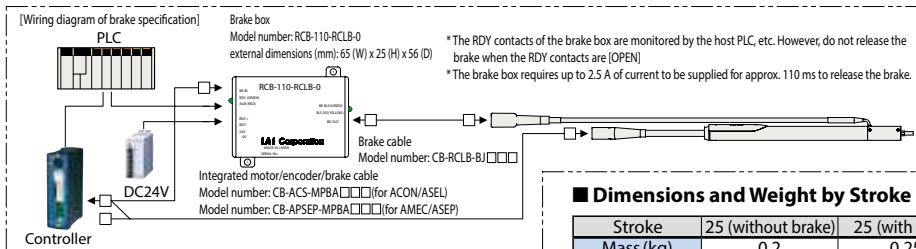
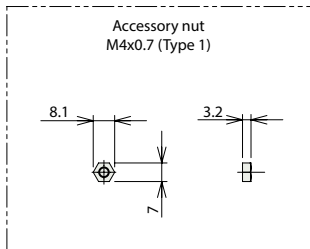


- * 1 The motor and encoder cable are attached.
- * 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

(With Brake)



ME: Mechanical end
SE: Stroke end



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														
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length		Option
					I: Incremental specification		5: Linear servo motor 5W		N: No screw		30: 30mm		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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

- The payload is determined by the acceleration and duty. Verify the payload in the payload (horizontal) and acceleration chart at right. The duty is $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ per cycle.
- If the actuator is operated vertically, use the optional brake specification.
- Please use an external guide to avoid a horizontal or rotational load applied to the rod.
- The pushing force fluctuation increases when the current limit is low.
- 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

Stroke	30 (mm)
Lead	
(no screw)	340

(unit: mm/s)

Stroke list

Stroke (mm)	Standard price
30	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

* 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.)

③ Options

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).

Actuator Specifications

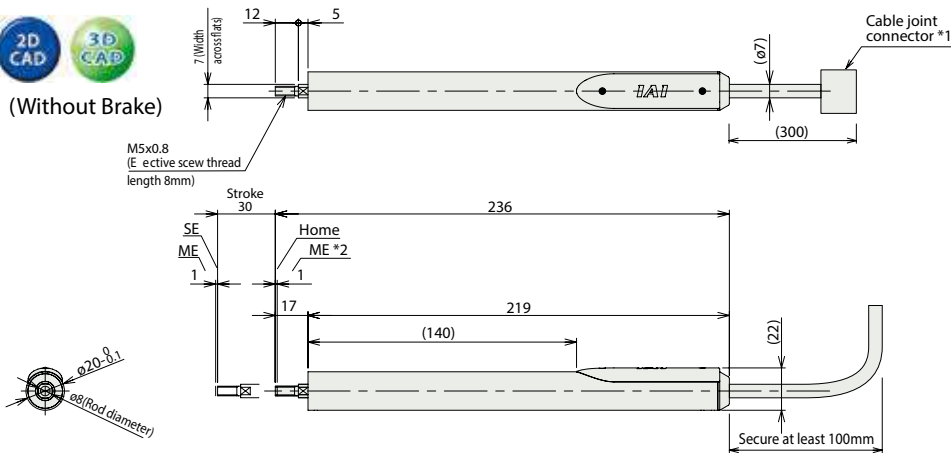
Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Pipe	Material: Nickel-plated carbon steel tube
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

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

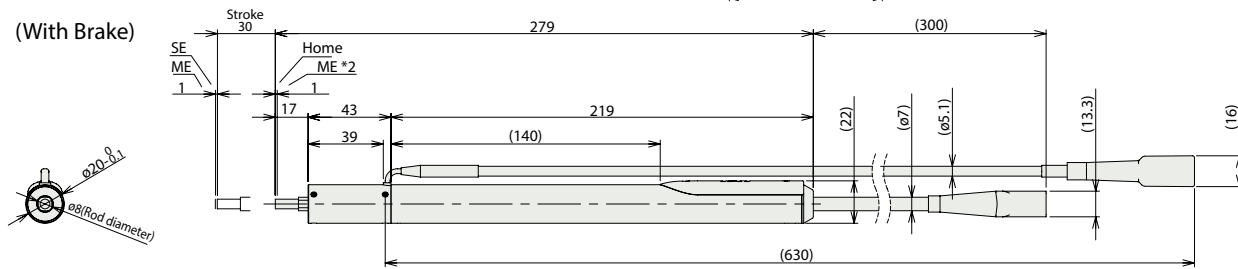


(Without Brake)

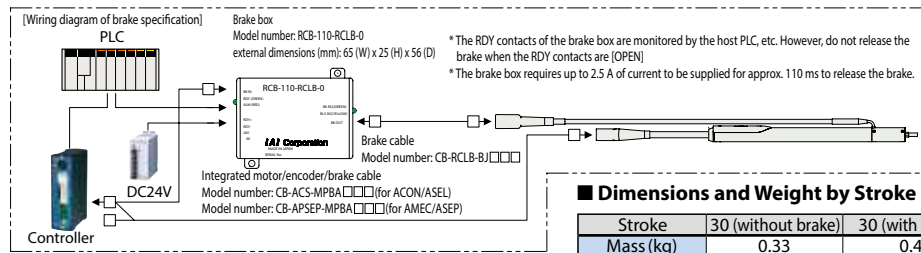
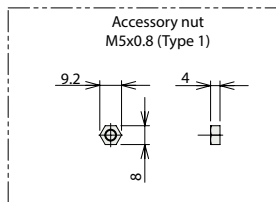


- * 1 The motor and encoder cable are attached.
- * 2 During home return, the slider travels until the mechanical end, so be careful to avoid interference from peripheral objects.

(With Brake)



ME : Mechanical end
SE : Stroke end



■ 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	DV	CC	CIE	PR	Network option *1				ECM					
ACON-CB/CGB		1	24VDC	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



* This is for the single-axis ASEL

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	—	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible controllers		Cable length		Option
					I: Incremental specification		10: Linear servo motor 10W		N: No screw		40: 40mm		A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL		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	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.

POINT Notes on selection

- The payload is determined by the acceleration and duty. Verify the payload in the payload (horizontal) and acceleration chart at right. The duty is $\frac{\text{Operating time}}{\text{Operating time} + \text{stop time}} \times 100$ per cycle.
- If the actuator is operated vertically, use the optional brake specification.
- Please use an external guide to avoid a horizontal or rotational load applied to the rod.
- The pushing force fluctuation increases when the current limit is low.
- 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-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

Stroke	40 (mm)
Lead	
(no screw)	450

(unit: mm/s)

Stroke list

Stroke (mm)	Standard price
40	—

② Cable Length

Type	Cable symbol	Standard price
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 standard cable for the RCL is the robot cable.

* 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.)

③ Options

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).

Actuator Specifications

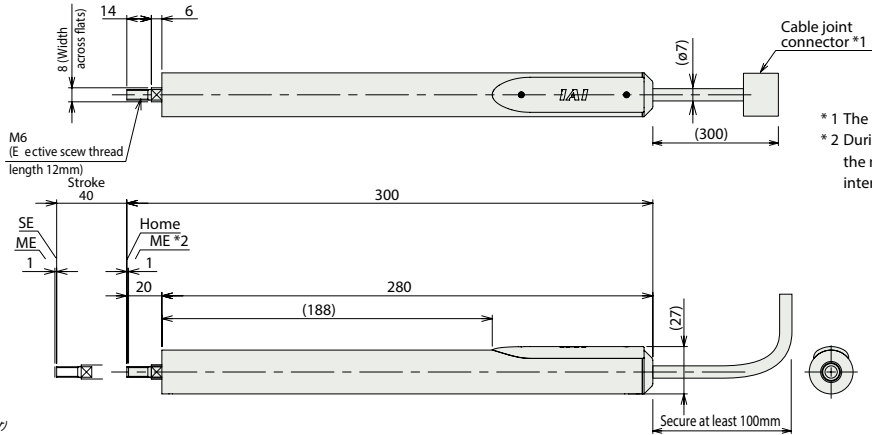
Item	Description
Drive System	Linear servo motor
Encoder resolution	0.042mm
Pipe	Material: Nickel-plated carbon steel tube
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	10 million cycles

Dimensional Drawings

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



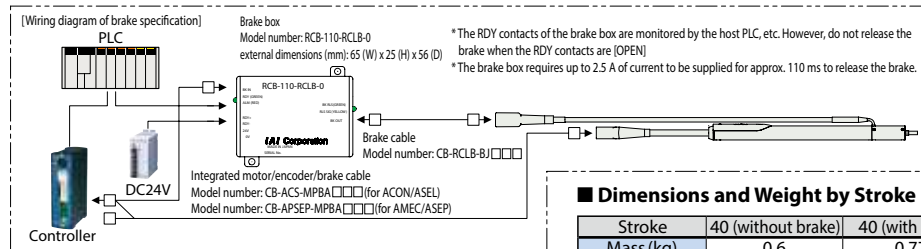
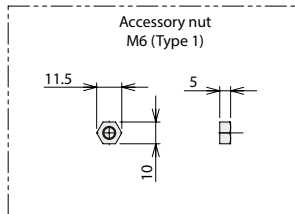
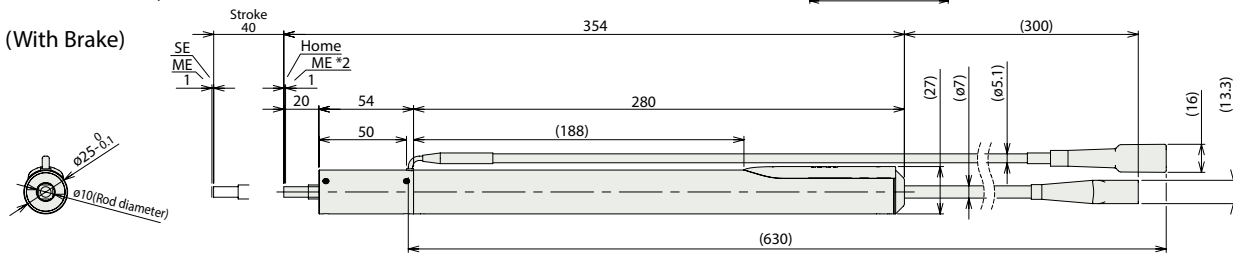
(Without Brake)



* 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	●	●	-	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		●	●	-	-	-	-	-	-	-	-	-	-	-	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.

More controller info is available in the General Controller Catalog PDF.



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The information contained in this product brochure may change without prior notice due to product improvements.

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