

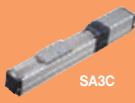



RoboCylinder Miniature Models

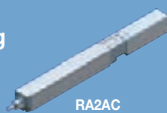

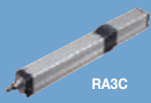

4th Revised Edition















New
RCA2 & RCS2 Rod Types available with Cleanroom and Dust/Splash-proof Specification

Mini Slider Type																						
Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)							
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical											
Separate Motor (Removable)	Tiny Coupling Slider Type 	RCP3	SA2AC SA2AR	Incremental	Pulse Motor	20□	Lead Screw	4	—	0.25	—	200	25-100 (25-mm steps)	±0.05	22							
								2	—	0.5	—	100										
								1	—	1	—	50										
	6	—	0.25					—	300	25-150 (25-mm steps)												
	4	—	0.5					—	200													
	2	—	1					—	100													
Tiny Motor-reversing Slider Type 	RCA2	SA2AC SA2AR	Incremental	Servo Motor	5W	Ball Screw	4	21.4	0.5	0.25	200	25-100 (25-mm steps)	±0.02	20								
							2	42.3	1	0.5	100											
							1	85.5	2	1	50											
Built-in Motor (Direct-coupled)	Tiny Coupling PowerCon Slider Type 	RCP4 RCP4CR*					SA3C	Incremental	High-end Pulse Motor	28□	Ball Screw				6	—	3	1.5	420	25-300 (25-mm steps)	±0.02	32
															4	—	5	2.5	280			
															2	—	8	3.5	140			
	6	—	3	1.5	420																	
	4	—	5	2.5	280																	
	2	—	8	3.5	140																	
Tiny Motor-reversing PowerCon Slider Type 	RCA2	SA2AC SA2AR	Incremental	High-end Pulse Motor	28□	Ball Screw	6	—	3	1.5	420	25-300 (25-mm steps)	±0.02	32								
							4	—	5	2.5	280											
							2	—	8	3.5	140											

* RCP4CR : Cleanroom type (ISO class 4) only available with straight motor (model type RCP4CR-SA3C)




Mini Rod Type																	
Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)		
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical						
Separate Motor (Removable)	Tiny Coupling Rod Type 	RCP3	RA2AC RA2AR	Incremental	Pulse Motor	20□	Lead Screw	4	—	0.25	0.125	200	25-100 (25-mm steps)	±0.05	22		
								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					
	Tiny Motor-reversing Rod Type 	RCA2	RA2AC RA2AR			Incremental	Pulse Motor	20□	Ball Screw	4	—	1	0.325	200	25-150 (25-mm steps)	±0.02	28
										2	—	2	0.625	100			
										1	—	4	1.25	50			
										6	—	0.5	0.2	300			
										4	—	1	0.375	200			
										2	—	2	0.75	100			
Built-in Motor (Direct-coupled)	Tiny Coupling PowerCon Rod Type 	RCP4	RA3C	Incremental	High-end Pulse Motor	28□	Ball Screw	16	—	6	1.5	1120	25-300 (25-mm steps)	±0.02	32		
								10	—	12	2.5	700					
								5	—	24	5	350					
								2.5	—	36	10	175					
								16	—	5	1	1120					
								10	—	12	2.5	700					
	Tiny Motor-reversing PowerCon Rod Type 	RCA2	RA2AC RA2AR			Incremental	High-end Pulse Motor	28□	Ball Screw	5	—	24	5	350	25-300 (25-mm steps)	±0.02	32
										2.5	—	36	10	175			
										16	—	5	1	1120			
										10	—	12	2.5	700			
										5	—	24	5	350			
										2.5	—	36	10	175			

Mini Rod Type

Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)						
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical										
Built-in Motor (Direct-coupled)	Short Fixed Nut Rod Type 	RCA2	RN3N	RN3N RP3N	Incremental	Servo Motor (24V)	10W	Lead Screw	4	25.1	0.25	0.125	200	30 50	±0.05	28					
			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											
	Short Tapped Hole Rod Type 	RCA2	RN4N	RN4N RP4N	Incremental	Servo Motor (24V)	20W	Lead Screw	6	19.9	0.25	0.125	300	30 50	±0.05	34					
			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											
Short Free Mount Rod Type with Single-Guide 	RCA2	RN5N	RN5N RP5N	Incremental	Servo Motor (230V)	60W	Ball Screw	10	89	5	1.5	380 <330>	50 75	±0.02	46						
		5						178	10	3	250										
	2.5	356	20					6	125												
	Short Free Mount Rod Type with Double-Guide 	RCA2	GS3N				GS3N	Incremental	Servo Motor (24V)	10W	Lead Screw	4		25.1		0.25	0.125	200	30 50	±0.05	28
			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															
Short Free Mount Rod Type with Double-Guide 	RCA2	GS4N	GS4N	Incremental	Servo Motor (24V)	20W	Lead Screw	6	19.9	0.25	0.125	220	30 50	±0.05	34						
		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												
Short Free Mount Rod Type with Double-Guide 	RCA2	GS5N	GS5N	Incremental	Servo Motor (230V)	60W	Ball Screw	10	89	5	1.5	380 <330>	50 75	±0.02	46						
		5						178	10	3	250										
	2.5	356	20					6	125												
	Short Free Mount Rod Type with Double-Guide 	RCA2	GD3N				GD3N	Incremental	Servo Motor (24V)	10W	Lead Screw	4		25.1		0.25	0.125	200	30 50	±0.05	28
			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															
Short Free Mount Rod Type with Double-Guide 	RCA2	GD4N	GD4N	Incremental	Servo Motor (24V)	20W	Lead Screw	6	19.9	0.25	0.125	220	30 50	±0.05	34						
		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												
Short Free Mount Rod Type with Double-Guide 	RCA2	GD5N	GD5N	Incremental	Servo Motor (230V)	60W	Ball Screw	10	89	5	1.5	380 <330>	50 75	±0.02	46						
		5						178	10	3	250										
	2.5	356	20					6	125												
	Short Slide Unit Rod Type with Double-Guide 	RCA2	SD3N				SD3N	Incremental	Servo Motor (24V)	10W	Lead Screw	4		25.1		0.25	0.125	200	25 50	±0.05	60
			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															
Short Slide Unit Rod Type with Double-Guide 	RCA2	SD4N	SD4N	Incremental	Servo Motor (24V)	20W	Lead Screw	6	19.9	0.25	0.125	300	25 50 75	±0.05	72						
		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												
Short Slide Unit Rod Type with Double-Guide 	RCA2	SD5N	SD5N	Incremental	Servo Motor (230V)	60W	Ball Screw	10	89	5	1.5	380 <330>	50 75	±0.02	94						
		5						178	10	3	250										
	2.5	356	20					6	125												

* RCA2CR, RSC2CR : Cleanroom type (ISO class 5) ** RCA2W, RSC2W : Dust/splash-proof type (IP52)

Value inside < > : Max. speed with vertical usage

Mini Table Type															
Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical				
Built-in Motor (Direct-coupled)	Short Compact Table Type 	RCA2	TCA3NA	Incremental	Servo Motor (24 V)	10W	Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	32
								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	50	±0.02			
						2	85.5	1.5	0.5	100					
						1	170.9	3	1	50					
		TCA4NA	Lead Screw	6	19.9	0.25	0.125	220	30	±0.05	36				
				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	50	±0.02							
		4	50.7	3	0.75	200									
		2	101.5	6	1.5	100									
	RCS2	TCA5N	Servo Motor (230 V)	60W	Ball Screw	10	89	5	1.5	380/330	50	±0.02	48		
	5	178				10	3	250							
	2.5	356				20	6	125							
	Short Wide Table Type 	RCA2	TWA3NA	Incremental	Servo Motor (24 V)	10W	Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	50
								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	50	±0.02			
						2	85.5	1.5	0.5	100					
						1	170.9	3	1	50					
		TWA4NA	Lead Screw	6	19.9	0.25	0.125	220	30	±0.05	58				
				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	50	±0.02								
	4	50.7	3	0.75	200										
	2	101.5	6	1.5	100										
RCS2	TWA5N	Servo Motor (230 V)	60W	Ball Screw	10	89	5	1.5	380/330	50	±0.02	80			
5	178				10	3	250								
2.5	356				20	6	125								
Short Flat Table Type 	RCA2	TFA3NA	Incremental	Servo Motor (24 V)	10W	Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	61	
							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	50	±0.02				
					2	85.5	1.5	0.5	100						
					1	170.9	3	1	50						
	TFA4NA	Lead Screw	6	19.9	0.25	0.125	220	30	±0.05	71					
			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	50	±0.02								
	4	50.7	3	0.75	200										
	2	101.5	6	1.5	100										
RCS2	TFA5N	Servo Motor (230 V)	60W	Ball Screw	10	89	5	1.5	380/330	50	±0.02	95			
5	178				10	3	250								
2.5	356				20	6	125								

Value inside <> : Max. speed with vertical usage

Mini Slider Type


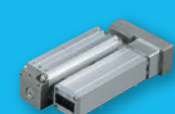
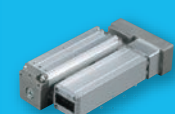
- Features**
- The motor can easily perform switching operations for the unit model.
 - Select from Side-Mounted Motor type with a reduced total length and Tiny Straight type (Coupling type).

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



Mini Rod Type

- Features**
- Select from Tiny 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.

Mini Table Type															
Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical				
Separate Motor (Removable)	Coupling Table Type 	RCP3	TA3C	Incremental	Pulse Motor	20□	Ball Screw	6	—	~0.7	~0.3	300 <200>	20~100 (10-mm steps)	±0.02	36
			4					—	~1.4	~0.6	200 <133>				
			2					—	~2	~1	100 <67>				
		RCA2	TA4C					6	—	~1	~0.5	300			
			4					—	~2	~1	200				
			2					—	~3	~1.5	100				
	Motor-reversing Table Type 	RCP3	TA3R	Incremental	Pulse Motor	20□	Ball Screw	6	—	~0.7	~0.3	300 <200>			
			4					—	~1.4	~0.6	200 <133>				
			2					—	~2	~1	100 <67>				
		RCA2	TA4R					6	—	~1	~0.5	300			
			4					—	~2	~1	200				
			2					—	~3	~1.5	100				
Separate Motor (Removable)	Motor-reversing Table Type 	RCA2	TA4R	Incremental	Servo Motor	10W	Ball Screw	6	—	1	0.5	300			
			4					—	2	1	200				
			2					—	3	1.5	100				
		RCP3	TA3R					6	—	~0.7	~0.3	300 <200>			
			4					—	~1.4	~0.6	200 <133>				
			2					—	~2	~1	100 <67>				
RCA2	TA4R	6	—	~1	~0.5	300									
	4	—	~2	~1	200										
	2	—	~3	~1.5	100										

Value inside < > : Max. speed with vertical usage

Mini BLDC Motor Type															
Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust/Gripping Force (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical				
Combined Motor-to-Body System (Micro Cylinder)	Slim Brushless DC Motor Rod Type 	RCD	RA1D	Incremental	BLDC Servo-Motor	2.5W	Lead Screw	2	4.2	0.7	0.3	300	10 20 30	±0.05	ø12
	Slim Brushless DC Motor Gripper Type 		GRSNA					2	10 (5 per side)	—	—	67	4 (2 per side)		

Mini Table Type

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

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

Mini BLDC Motor Type

- Features**
- Equipped with a high acceleration/ deceleration brushless DC motor capable of operation at up to 1G and a maximum speed of 300mm/s
 - Available in Rod type and 2-finger Gripper type
 - Adjustable Pushing and Gripping forces

Usage Used for transfers requiring short cycle times, etc.