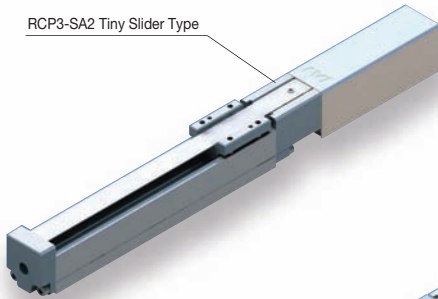


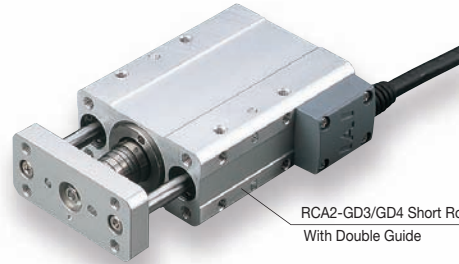
New RoboCylinder Miniature Models

ROBO CYLINDER

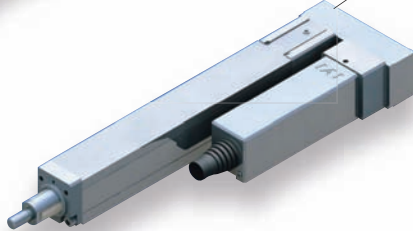
RCP3-SA2 Tiny Slider Type



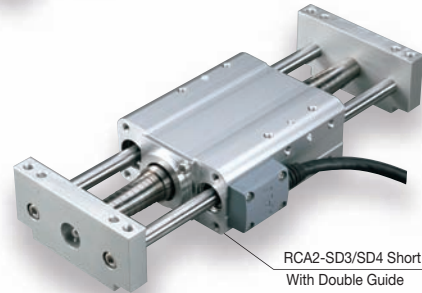
RCA2-GD3/GD4 Short Rod Type
With Double Guide



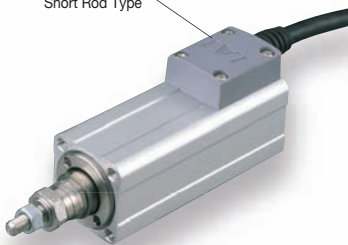
RCP3-RA2R Tiny Rod Type
Motor-reversing specification



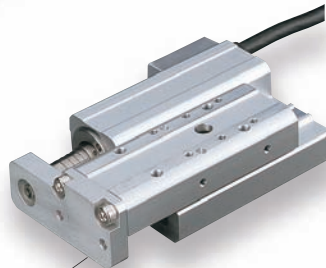
RCA2-SD3/SD4 Short Slide Unit Rod Type
With Double Guide



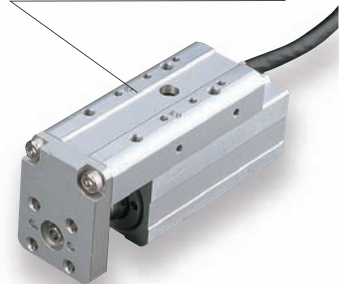
RCA2-RP3/RP4
Short Rod Type



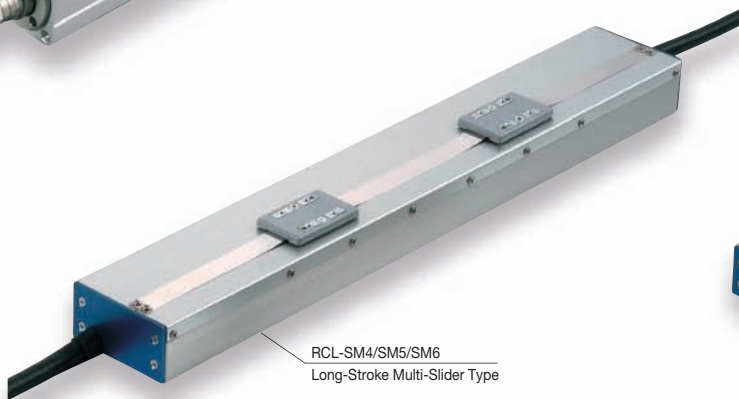
RCA2-TF3/TF4 Short Flat Table Type



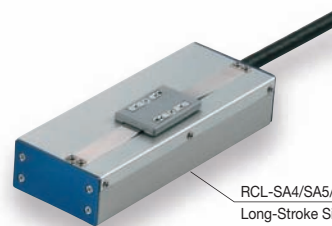
RCA2-TC3/TC4 Short Compact Table Type



RCL-SM4/SM5/SM6
Long-Stroke Multi-Slider Type



RCL-SA4/SA5/SA6
Long-Stroke Single-Slider Type



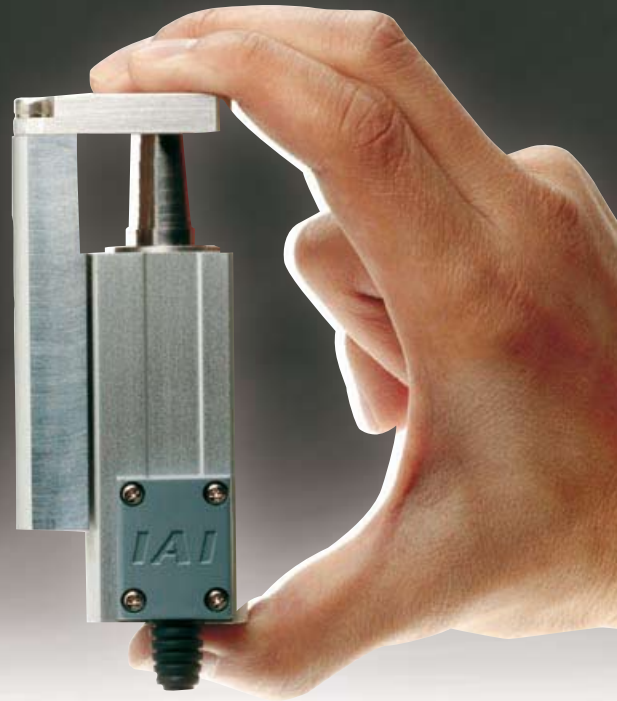
RCP3

RCA2

RCL

Next-generation Cylinders, Small is the New Big Mini-RoboCylinder

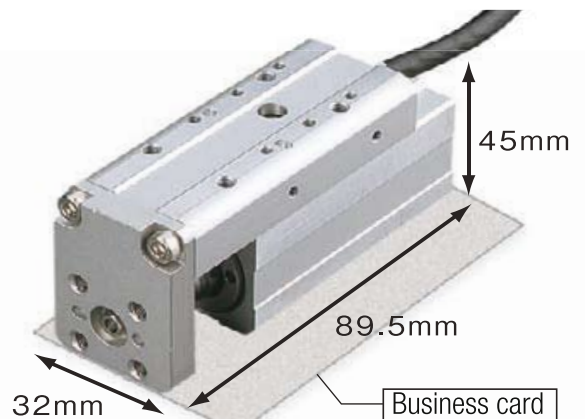
**ROBO
CYLINDER**



Space Saving

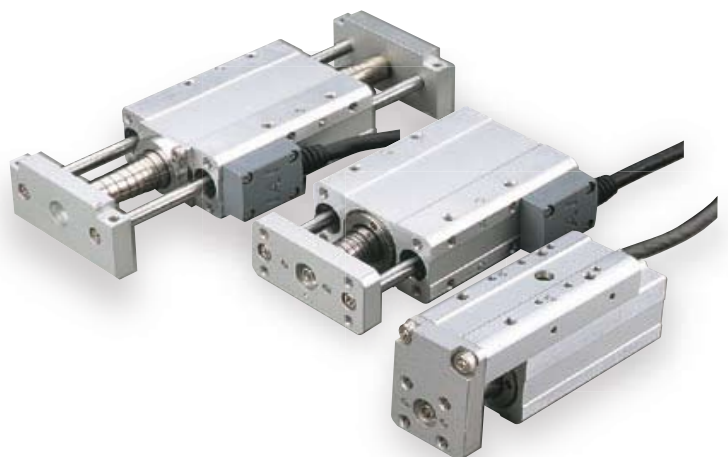
Incorporating a newly developed motor, the new RoboCylinder has achieved smaller size with significantly reduced overall length, width and height which are comparable to air cylinders. Systems that could only use air cylinders previously due to size constraints, can now benefit from IAI's electromechanical solution.

The tabletop type RCA2-TC3N has a footprint smaller than a business card.




Shaped Like an Air Cylinder and Easy to Use







The new RoboCylinder is available in shapes similar to that of air cylinders. Users who are comfortable with the handling and operation of pneumatic systems are now able to switch to RoboCylinder effortlessly.



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	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	25~150 (25-mm steps)	28			
		6	—					0.25	—	300					
	4	—	0.5					—	200	25~100 (25-mm steps)	58				
	2	—	1					—	100						
	4	—	0.25					—	200	25~150 (25-mm steps)	59.5				
	2	—	0.5					—	100						
	1	—	1	—	50	25~100 (25-mm steps)	58								
	6	—	0.25	—	300										
4	—	0.5	—	200	25~150 (25-mm steps)	59.5									
2	—	1	—	100											

Mini Rod Type



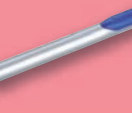
Motor Unit	Type Description	Model		Encoder Type	Motor		Feed Screw	Lead (mm)	Rated Thrust (N)	Max. Load Capacity (kg)		Max. Speed (mm/s)	Stroke (mm)	Repeat-ability (mm)	Width (mm)			
		Series	Type		Motor Type	Motor Size				Horizontal	Vertical							
Separate Motor (Removable)	Tiny Coupling Rod Type 	RCP3	RA2AC	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	25~150 (25-mm steps)	28						
		6	—					0.25	0.125	300								
	4	—	0.5					0.25	200	25~100 (25-mm steps)	58							
	2	—	1					0.5	100									
	4	—	0.25					0.125	200	25~150 (25-mm steps)	59.5							
	2	—	0.5					0.25	200									
	1	—	1	0.5	50	25~100 (25-mm steps)	58											
	6	—	0.25	0.125	300													
4	—	0.5	0.25	200	25~150 (25-mm steps)	59.5												
2	—	1	0.5	100														
Built-in Motor (Direct-coupled)	Short Fixed Nut Rod Type 	RCA2	RN3N	Incremental	Servo Motor	10W	Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	28			
			2					50.3	0.5	0.25	100							
		1	100.5					1.0	0.5	50	30	±0.05	34					
		6	19.9					0.25	0.125	220								
		4	29.8					0.5	0.25	200	±0.02	34						
		2	59.7					1.0	0.5	100								
	6	33.8	2				0.5	270(220)	200	30								
	4	50.7	3				0.75	200										
	2	101.5	6				1.5	100										
	Short Tapped Hole Rod Type 	RCA2	RP3N				Incremental	Servo Motor	10W	Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	28
			2								50.3	0.5	0.25	100				
		1	100.5								1.0	0.5	50	30	±0.05	34		
		6	19.9	0.25	0.125	220												
		4	29.8	0.5	0.25	200					±0.02	34						
		2	59.7	1.0	0.5	100												
	6	33.8	2	0.5	270(220)	200				30								
	4	50.7	3	0.75	200													
	2	101.5	6	1.5	100													
	Short Free Mount Rod Type with Single-Guide 	RCA2	GS3N	Incremental	Servo Motor	10W				Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	28
			2								50.3	0.5	0.25	100				
		1	100.5								1.0	0.5	50	30	±0.05	34		
		6	19.9				0.25	0.125	220									
		4	29.8				0.5	0.25	200		±0.02	34						
		2	59.7				1.0	0.5	100									
	6	33.8	2				0.5	270(220)	200	30								
	4	50.7	3				0.75	200										
	2	101.5	6				1.5	100										
	Short Free Mount Rod Type with Double-Guide 	RCA2	GD3N				Incremental	Servo Motor	10W	Lead Screw	4	25.1	0.25	0.125	200	30	±0.05	28
			2								50.3	0.5	0.25	100				
		1	100.5								1.0	0.5	50	30	±0.05	34		
6		19.9	0.25	0.125	220													
4		29.8	0.5	0.25	200	±0.02					34							
2		59.7	1.0	0.5	100													
6	33.8	2	0.5	270(220)	200	30												
4	50.7	3	0.75	200														
2	101.5	6	1.5	100														
Short Slide Unit Rod Type with Double-Guide 	RCA2	SD3N	Incremental	Servo Motor	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	0.5	50	25 50 75	±0.02	72			
	6	19.9					0.25	0.125	300									
	4	29.8					0.5	0.25	200									
	2	59.7					1.0	0.5	100									
6	33.8	2			0.5	300												
4	50.7	3			0.75	200												
2	101.5	6			1.5	100												

* < > : Max. speed of vertical application

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	TC3N	Incremental	Servo Motor	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	0.5	50			
			20W			Lead Screw	6	19.9	0.25	0.125	220				
							4	29.8	0.5	0.25	200				
							2	59.7	1.0	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 Wide Table Type 	RCA2	TW3N	Incremental	Servo Motor	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	0.5	50			
20W			Lead Screw			6	19.9	0.25	0.125	220					
						4	29.8	0.5	0.25	200					
						2	59.7	1.0	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 Flat Table Type 	RCA2	TF3N	Incremental	Servo Motor	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	0.5	50				
		20W			Lead Screw	6	19.9	0.25	0.125	220					
						4	29.8	0.5	0.25	200					
						2	59.7	1.0	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										
Separate Motor (Removable)	Coupling Table Type 	RCP3	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)				
		28□			6		-	~1	~0.5	300					
					4		-	~2	~1	200					
					2		-	~3	~1.5	100					
	Motor-reversing Table Type 	RCA2	Incremental	Servo Motor	10W	Ball Screw	6	28	1	0.5	300				
							4	43	2	1	200				
							2	85	3	1.5	100				
		RCP3			20□		Pulse Motor	6	-	~0.7	~0.3			300(200)	
								4	-	~1.4	~0.6			200(133)	
								2	-	~2	~1			100(67)	
28□	6	-	~1	~0.5	300										
	4	-	~2	~1	200										
	2	-	~3	~1.5	100										
Motor-reversing Table Type 	RCA2	Incremental	Servo Motor	10W	Ball Screw	6	28	1	0.5	300					
						4	43	2	1	200					
						2	85	3	1.5	100					

Mini Linear Motor 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				
Combined Motor-to-Body System (Micro Slider)	Slim Linear Motor Slider Type 	RCL	SA1L	Incremental	Linear Motor	2W	-	2	0.5	-	420	40	±0.1	20	
			SA2L			5W	-	4	1	-	460	48			
			SA3L			10W	-	8	2	-	600	64			
	Long-stroke Linear Motor Slider Type 		SA4L			2W	-	2.5	0.8	-	1200	30~180			
			SM4L			-	-	-	-	-	-	30~120			
			SA5L			5W	-	5	1.6	-	1400	36~216			
			SM5L			-	-	-	-	-	-	36~144			
			SA6L			10W	-	10	3.2	-	1600	48~288			
			SM6L			-	-	-	-	-	-	48~192			
			SA6L			10W	-	10	3.2	-	1600	48~192			
Combined Motor-to-Body System (Micro Cylinder)	Slim Linear Motor Rod Type 	RA1L	2W	-	2.5	0.5	0.1	300	25	±0.1	ø16				
		RA2L	5W	-	5	1	0.2	340	30						
		RA3L	10W	-	10	2	0.4	450	40						

* < > : Max. speed of vertical application

Operate Using the Same Signals Used for Air Cylinder Solenoid Valves

Operating Principle of PSEP/ASEP

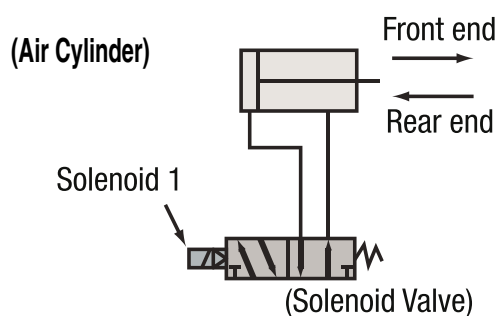
The PSEP/ASEP can be operated with the same signals used for the solenoid signals of air cylinders.

There are two types of solenoid valves: Single solenoids and double solenoids.

The PSEP/ASEP can support signals for both types.

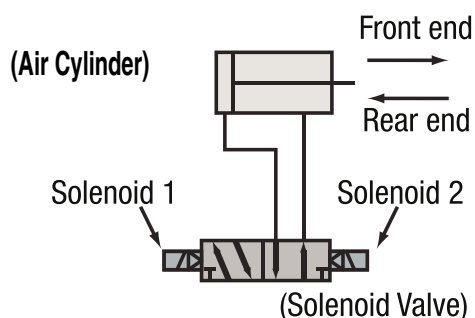
■ Solenoid Valve of an Air Cylinder

<Single Solenoid Type>



Signal to Solenoid 1	Rod Movement
ON	Front End
OFF	Rear End

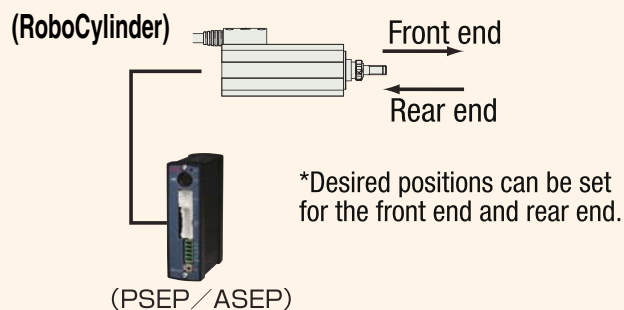
<Double Solenoid Type>



Signal to Solenoid 1	Signal to Solenoid 2	Rod Movement
ON	OFF	Front End
OFF	ON	Rear End

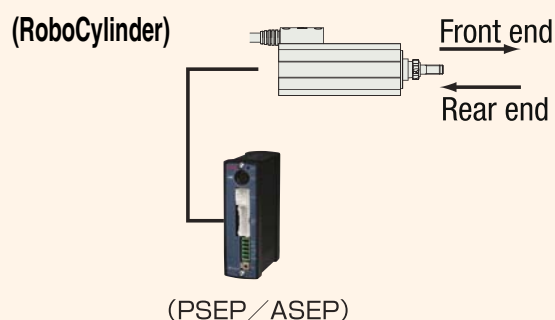
■ ASEP/PSEP

<Replacement of the Single Solenoid>



Signal to Controller Input 0	Rod Movement
ON	Front End
OFF	Rear End

<Replacement of the Double Solenoid>



Signal to Controller Input 1	Signal to Controller Input 0	Rod Movement
ON	OFF	Front End
OFF	ON	Rear End

*The actuator can also be moved among 3 points by switching the parameters

Controller

Specialized for 2 or 3 positioning: New controller PSEP and ASEP

PSEP/ASEP is a Simple Easy Positioner designed for the application which requires only 2 or 3 points positioning such as air cylinder but not requires several points positioning such as conventional controller.

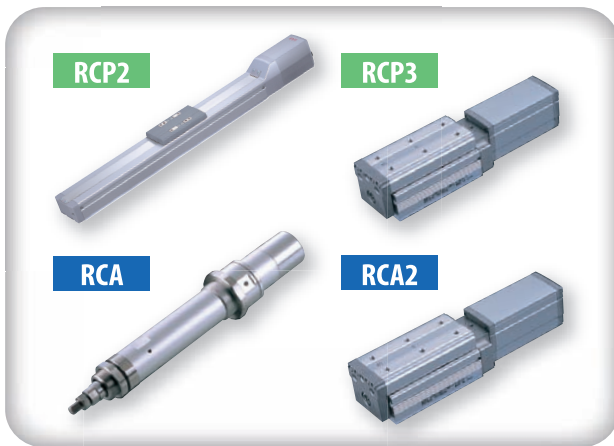
This controller is suitable for the air cylinder user who wants to reduce positioning time or to stop at 3rd position.

An IP53 type is available, too. It can be equipped near actuator like solenoid valve.

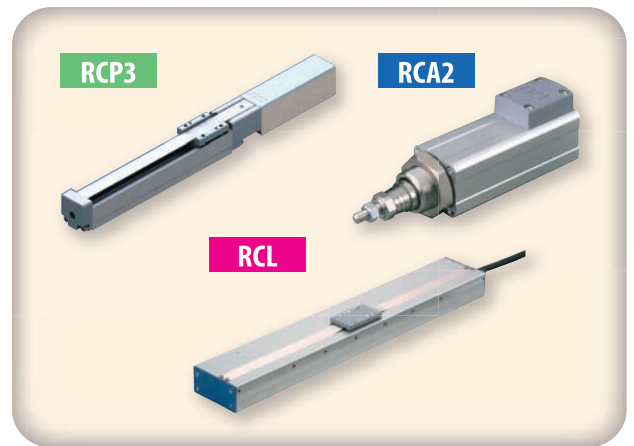


PSEP/ASEP is applicable not only for Mini-RoboCylinder but also for conventional RoboCylinder with P3/A3 encoder. The other way around conventional controller can be used to control RoboCylinder miniature types.

Existing RoboCylinder Models



New Mini-RoboCylinder Models

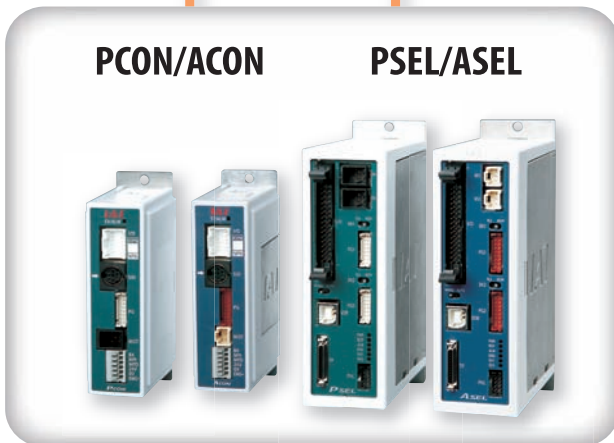


P1/A1 Encoder

P3/A3 Encoder

PCON/ACON

PSEL/ASEL



PSEP/ASEP

