





2025
Digest Catalog

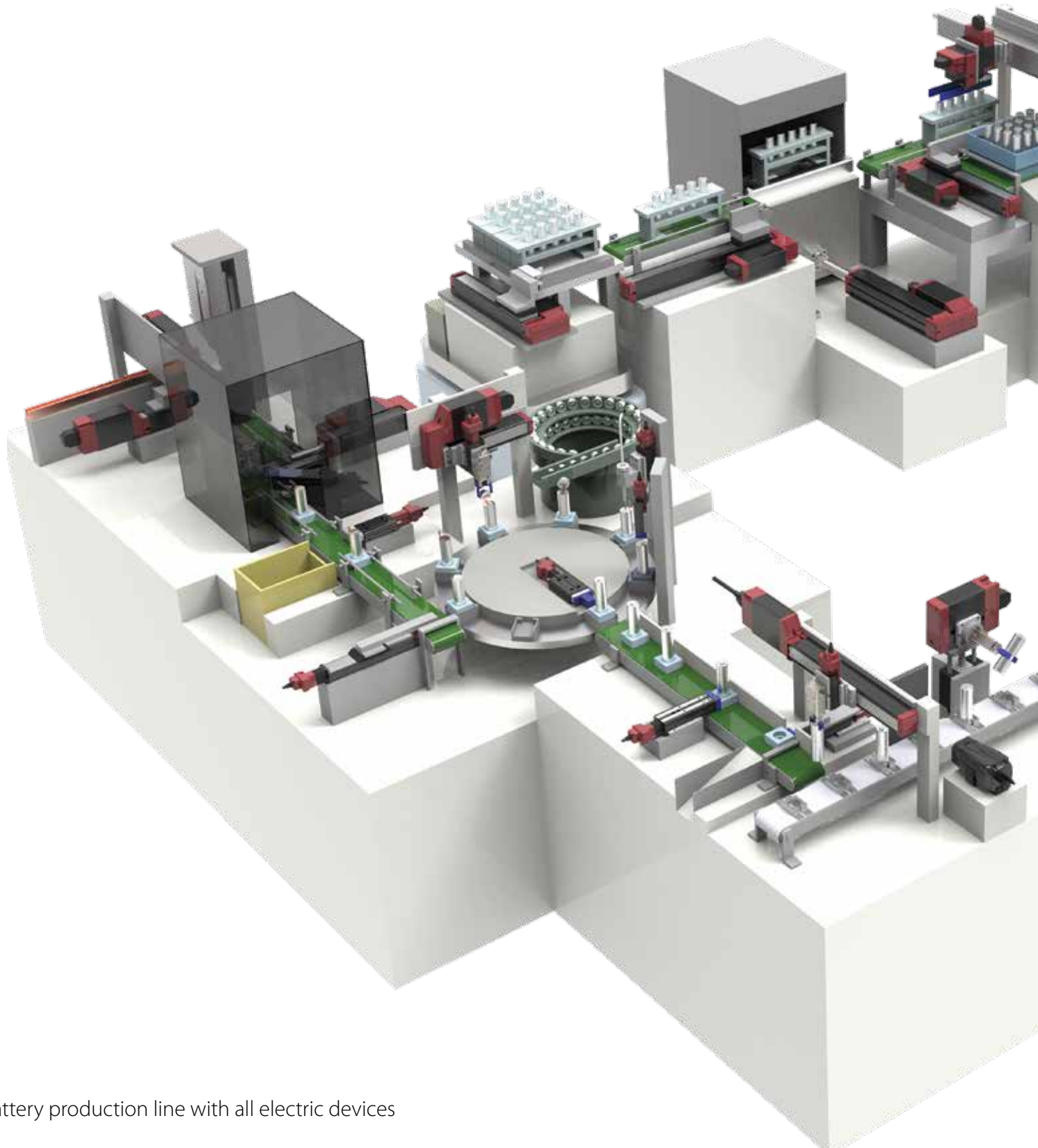
IAI Industrial Robots
Digest Catalog

IAI
Quality and Innovation

www.iai-automation.com

INDEX

As a leading manufacturer of electric actuators/compact industrial robots,
IAI always anticipates market needs and brings a variety of products to market each year.
A wide variety of variations are available to provide the best system for your site.



Battery production line with all electric devices



About Us **3**

Lineup System configuration **9**

ELECYLINDER **15**

Multi-point Positioning **23**

Multi-axis Products **29**

Cleanroom Dust-Proof Splash-Proof **33**

Controller **37**

Other Products **41**

Application **45**

IAI
Quality and Innovation

Leading manufacturer of compact industrial robots
World's No.1 share of single axis/Cartesian robots

IAI Group Headquarters (Japan)

Company Name:	IAI Corporation
Establishment date:	April 3, 1976
Representative:	President & CEO Toru Ishida
Business Description:	Development, design, manufacturing and sales of compact industrial robots Development of new agricultural technology (Eco-Farm Department)
Number of employees:	1,447 as of April 2025



A new plant was put into operation in 2024 to double production capacity.
The headquarters has also been relocated to Ihara-cho accordingly.

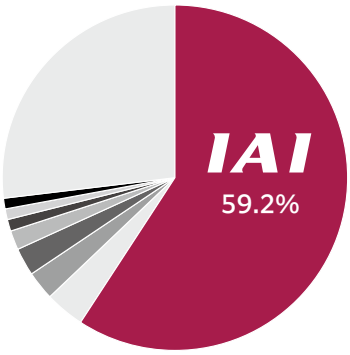
● Worldwide Offices



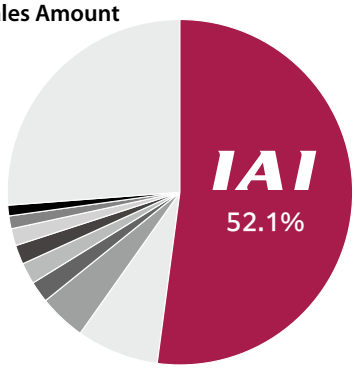
Single Axis/Cartesian Robots Share in Japan

Japan 2022 Results (Fuji Economic Survey)

● Units Sold



● Sales Amount



Societal Contribution

● Mini Robo



Mini Robo is a soccer robot developed by IAI.
It was born out of the desire for children to experience the joy of making things. Tournaments are also held on a regular basis.

● IAI Stadium



IAI supports the local Shizuoka professional soccer team, the Shimizu S-Pulse, as a sponsor. In 2013, we acquired the naming rights for Nihondaira Stadium, the home stadium of Shimizu S-Pulse.

What IAI can do for you

Product lineup

We offer the No. 1 product lineup in the electric actuator industry and a wide variety of variations. (For details, see p. 9)
Usable for a variety of applications and conditions of use.

Electric Actuators / Industrial Robots



Controller



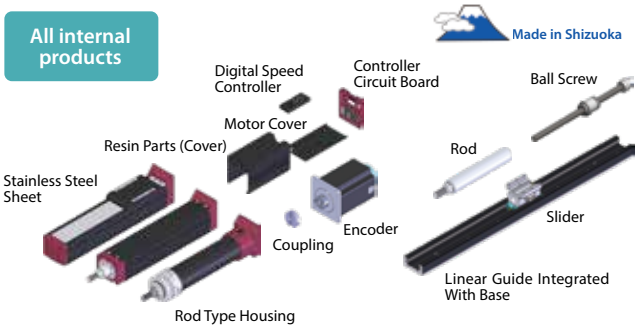
24VDC PSU Teaching



Short Delivery

Major components are manufactured in-house, achieving stable delivery times.

(Ex.) ELECYLINDER®



Long Service Life

No sealing material is used in sliding parts, resulting in a long service life.

(Ex.) ELECYLINDER®

Operational conditions

Operating Day Per Year	Operating Hours	Movement Stroke	Payload	Operation Cycle
240 days	16 hours per day	300 mm	Horizontal: 12 kg	8 seconds per reciprocating motion

Life

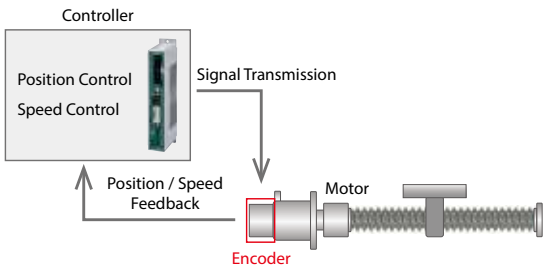
Product Specifications	Life	Operation Life	Lifespan Factors	Remarks
ELECYLINDER® EC-R7 	15 years	~16,000 km	End of bearing life	Max. speed: 155 mm/s Acceleration/deceleration: 0.5 G

Quality Improvement / Cycle Time Reduction

Maximizing the advantages of electric power contributes to improved productivity.

Feedback Control

All motors, including stepper motors, are equipped with encoders. The unit continues to operate according to the command value by feedback control.



▼ Feedback control
Position: 1,000 times/second
Speed: up to 20,000 times/second

AVD Control

In addition to speed, acceleration and deceleration can be set respectively. Able to increase speed while reducing impact at the start and stop of movement.



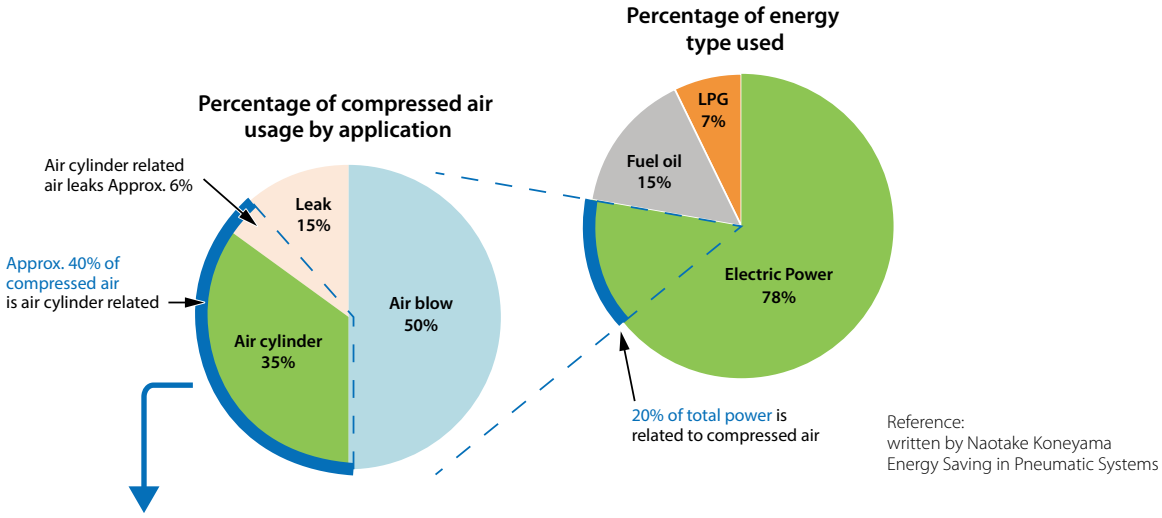
Operating conditions abbreviation: AVD
Acceleration
Velocity
Deceleration
AVD

Toward Carbon Neutrality

Energy Saving

Since compressed air is not used, power can be utilized efficiently.

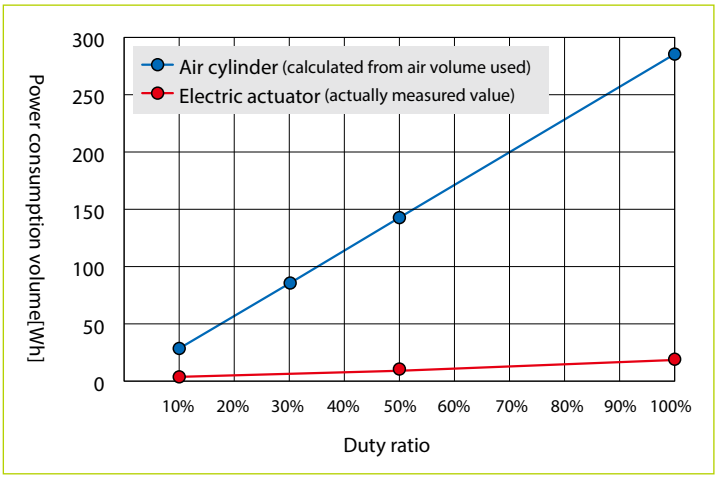
Percentage of energy used by the plant



Reference:
written by Naotake Koneyama
Energy Saving in Pneumatic Systems

Approx. 8% of the plant's total electricity is used to drive air cylinders.

Comparison of power consumption of air cylinders and electric actuators



■Air cylinder (Ø25)
Air piping inner diameter Ø4mm x 2m, stroke 300mm, 0.4MPa, 300mm/s
■Electric actuator (EC-S6H)
Horizontal, stroke 300mm, 1G, 300mm/s, 12kg transfer

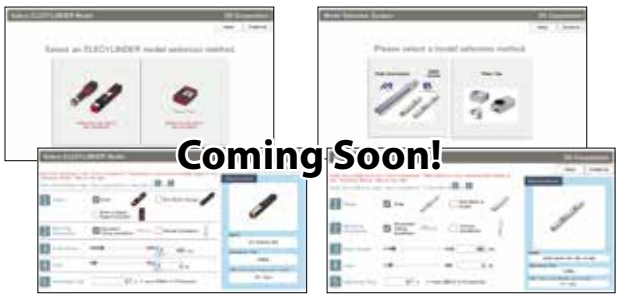
As duty ratio (operating rate) increases, electric actuators consume less power.

The IAI Website

Please take advantage of the useful tools on our website

Model Selection Software

The optimal model can be selected from approximately 1 million items in one attempt.



Once it's available, we will put the information here.
intelligentactuator.com/new-configurator

Catalog PDFs

Please refer to the catalogs for dimensional drawings and specification details.

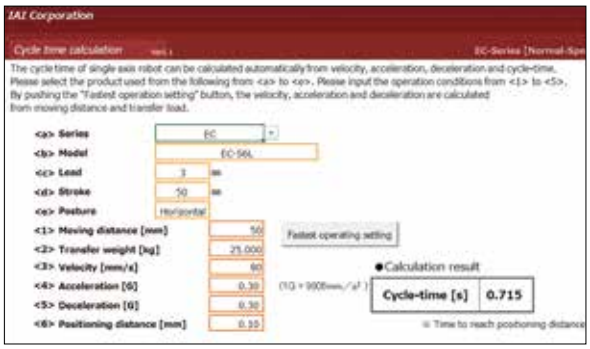
We recommend the Digital Catalog, which has an extensive search function.



Please contact your sales representative or nearest sales office. We also accept requests for information through our website.

Cycle time calculation software

The cycle time can be checked in advance by the desired actuator and operating conditions of the application.



Video Lineup

Over 300 videos are available on the IAI YouTube channel. Please refer to the videos for applications and solutions.

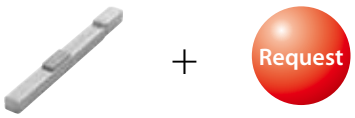


Services

We provide support from application sizing, to actuator maintenance, as well as training and seminars

Special specifications supported (customization service for standard products)

We will make proposals and modify the standard product according to your request.



Training and maintenance seminars, both on-site and in our offices are available

We actively conduct training for hands-on experiences with our softwares, as well as maintenance and safety seminars.



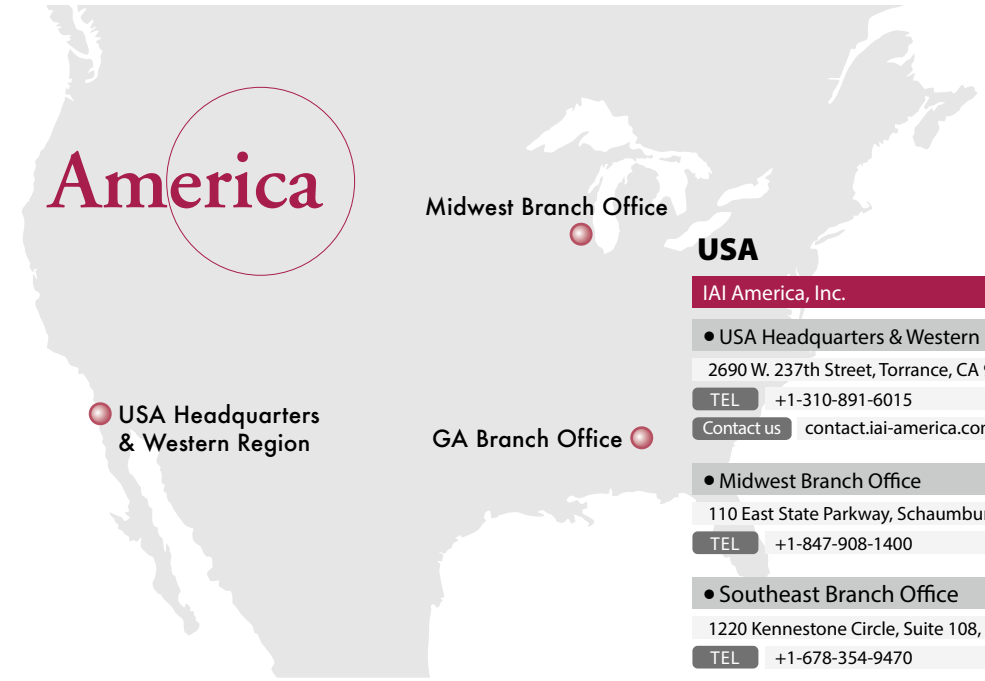
Troubleshooting and repair services

A dedicated maintenance and repair contact will respond in a timely manner to any issues that may arise.

Support system

■ Overseas Sales Companies

Support overseas with the same attention to detail as in Japan ~Technical Support at USA, Europe and Asia OCEANIA~



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Product lineup list

2-point / 3-point Positioning (ELECYLINDER) *A new "3 position mode specification" option is now available.

Reference page ▶P15

Type	Slider	Radial Cylinder	Rod	Table	Gripper	Rotary	Stopper	Cleanroom	Dust-proof/ splash-proof
Exterior									
Body width	20 ~ 188 mm	20 ~ 108 mm	13 ~ 148 mm	26 ~ 88 mm	25 ~ 138 mm	45 ~ 185 mm	42/93/112/148 mm	35 ~ 120 mm	63 / 73 mm
Stroke	25 ~ 2800 mm	25 ~ 1000 mm	10 ~ 300 mm	10 ~ 150 mm	2 ~ 130 mm (one side)	330 deg.	10 ~ 50 mm	50 ~ 2000 mm	50 ~ 800 mm
Max. payload	Horizontal 400 kg Vertical 120 kg	Horizontal 300 kg Vertical 150 kg	Horizontal 80kg Vertical 19 kg	Horizontal 20 kg Vertical 7 kg	10 ~ 1641 N (Max. grip force on both sides)	0.6 ~ 25.2 N (Max. torque)	100 kg (Max. workpiece mass)	Horizontal 90 kg Vertical 55 kg	Horizontal 80 kg Vertical 19 kg
Max. speed	2000 mm/s	860 mm/s	860 mm/s	800 mm/s	225 mm/s	600 deg./s	350 mm/s	1350 mm/s	860 mm/s

Multi-point positioning / Special application

Reference Page▶P23

Type	Slider	Linear Servo	Rod	Radial Cylinder	Table	Pulse / Servo Press	Gripper	Rotary	Special Applications
Exterior									
Body width	22 ~ 198 mm	60 ~ 210 mm	12 ~ 200 mm	40 ~ 160 mm	32 ~ 95 mm	40 ~ 200 mm	22 ~ 123 mm	45 ~ 233 mm	-
Stroke	25 ~ 3200 mm	40 ~ 4155 mm	10 ~ 500 mm	50 ~ 800 mm	25 ~ 390 mm	50 ~ 520 mm	2 ~ 130 mm (one side)	330 deg. 360 deg. (Multi-rotation)	-
Max. payload	Horizontal 400 kg Vertical 80 kg	Horizontal 120 kg	Horizontal 1000 kg Vertical 600kg	Horizontal 300 kg Vertical 150 kg	Horizontal 30 kg Vertical 24 kg	~ 50000 N (Max. push force)	10 ~ 880 N (Max. grip force on both sides)	0.24 ~ 75 N (Max. torque)	-
Max. speed	3000 mm/s	2500 mm/s	1200 mm/s	1500 mm/s	1300 mm/s	240 mm/s	643 mm/s	1800 mm/s	-

Multi-axis products

Reference Page▶P29

Type	Cartesian Robot	Tabletop Robot	Cartesian 6-Axis Robot	SCARA Robot
Exterior				
Number of Axes	2 ~ 6 axes	2 ~ 4 axes	6-axis	3 ~ 4 axes
Base axis movable range	50 ~ 4155 mm	200 ~ 500 mm	50 ~ 1100 mm	180 ~ 1200 mm
Max. payload	90 kg	30 kg	2 kg	50 kg
Max. speed	2500 mm/s (Base axis max. speed)	1200 mm/s (Base axis max. speed)	700 mm/s (Max. composite speed)	9215 mm/s (Max. composite speed)

Products with special specifications



In addition to standard products, we also offer various products with special specifications. If you do not find the product you need, contact our sales representative.

The most requested special specifications, such as non-standard stroke/grease, air purge joint attachment, stainless steel grease nipple, etc., are listed in the leaflet on the left.

Special controller specifications and products for rechargeable battery manufacturing processes are also available.

intelligentactuator.com/special-specification-products/

Cleanroom / Dust-proof and splash-proof

Reference Page▶P33

Type	Slider	Rod	Radial cylinder	Gripper	Rotary	SCARA Robot
Exterior						
Body width	40 ~ 198 mm	28 ~ 85 mm	45 ~ 160 mm	42 ~ 80 mm	45 ~ 195 mm	3 ~ 4 axes (axes qty.)
Stroke	25 ~ 2500 mm	25 ~ 300 mm	50 ~ 800 mm	4 ~ 7 mm (one side)	330 deg. 360 deg. (Multi-rotation)	300 ~ 1200 mm (Arm length)
Max. payload	Horizontal 150 kg Vertical 60 kg	Horizontal 100 kg Vertical 70 kg	Horizontal 240 kg Vertical 120 kg	6.4 ~ 102 N (Max. grip force on both sides)	0.24 ~ 75 N (Max. torque)	47 kg
Max. speed	2000 mm/s	630 mm/s	630 mm/s	600 mm/s	1800 mm/s	8098 mm/s (Max. composite speed)

Controller

Reference Page▶P37

Type		RCON	RSEL	REC	PCON-CB/CGB	ACON-CB/CGB	DCON-CB/CGB	SCON2	MSEL	XSEL2	XSEL-RA/SA	XSEL-RAX/SAX (For SCARA)
Exterior												
Max. number of connectable axes		~ 16 axes	~ 8 axes (16 axes for EC)	~ 16 axes	1-axis	1-axis	1-axis	1-axis	~ 4 axes	~ 8 axes	~ 8 axes	~ 8 axes
Compatible Motor		24V Stepper motor / 24V AC servo motor / 24V Brush-less DC motor type / 200V AC servo motor	24V Stepper motor / 24V AC servo motor / 24V Brush-less DC motor type / 200V AC servo motor	24V Stepper motor / 24V AC servo motor / 200V AC servo motor	24V Stepper motor	24V AC servo motor	24V Brush-less DC motor type	200V AC servo motor	24V Stepper motor	200V AC servo motor	200V AC servo motor	200V AC servo motor
Interpolation operation		×	✓	×	×	×	×	×	✓	✓	✓	✓
IAI Exclusive Program (SEL Language)		Not required	Required	Not required	Not required	Not required	Not required	Not required	Required	Required	Required	Required
Supported control method	I/O (input-output)	×	✓	×	✓	✓	✓	✓	✓	✓	✓	✓
	Pulse-train	×	×	×	✓	✓	✓	✓	×	×	×	×
	Field Network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Other (24VDC power supply / teaching, etc.)

Reference Page▶P41

Type	24VDC power supply	Teaching software for PC		Teaching pendant			Wired Teaching Controller	Wireless Teaching Controller	Brake Release Box
	PSA-24(L)	IA-OS	IA-101	TB-02	TB-03	ADTB	TBD-1	TBD-1WL	BKR-01
Exterior									
Overview	IAI exclusive power supply. Up to 5 units can be connected in parallel.	Compatible with EC, REC, and controllers with □CON in the model name.	Compatible with TTA and controllers having □SEL in the model name.	Compatible with all models listed in the General Catalog. Safety category compliant.	Compatible with all models listed in the General Catalog. Wireless communication with ELECYLINDER is possible.	Teaching pendant with power supply unit. Test run and data setting are possible even before electrical wiring work is done.	Connectable to all ELECYLINDER.	Wireless communication with ELECYLINDER is possible.	Actuator brake release without wiring to the controller during equipment start-up.

In the case of 2-point positioning (ELECYLINDER),
system configuration necessary for operation is as follows.

Configuration example

ELECYLINDER

Model selection software coming soon.



The optimal model can be selected from approximately 1 million items in one attempt.

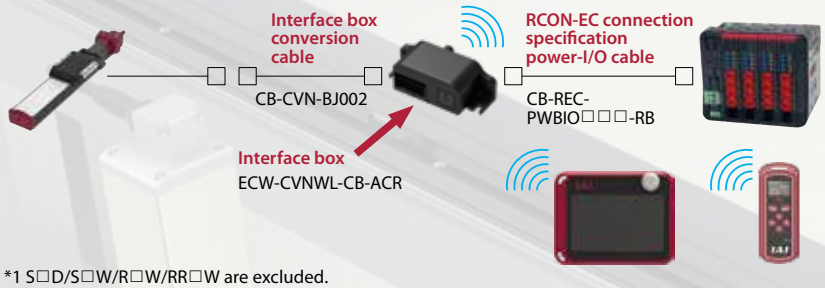
24VDC power

Power supply for driving ELECYLINDER.
Power supply selection requires capacity calculation.
The power calculator software makes calculation easy.

[Options] » P41 » P43

In the case of ELECYLINDER*1 with actuator cable.

When connecting the REC/EC connecting unit and performing wireless teaching*2, order an interface box, conversion cable, and power-I/O cable separately.



*1 S□D/S□W/R□W/RR□W are excluded.
*2 Simultaneous use of specifications RCON-EC connection specification (ACR) and Wireless axis operation specification (WL2) is available as a special order.
*Only applies to models that require an interface box.
*For details, please contact IAI.

Cable

Able to select up to 10m. Specify the cable length within the ELECYLINDER model number.

[Included with ELECYLINDER]

Teaching tools

Three methods are available.

1 IA-OS (PC teaching software)

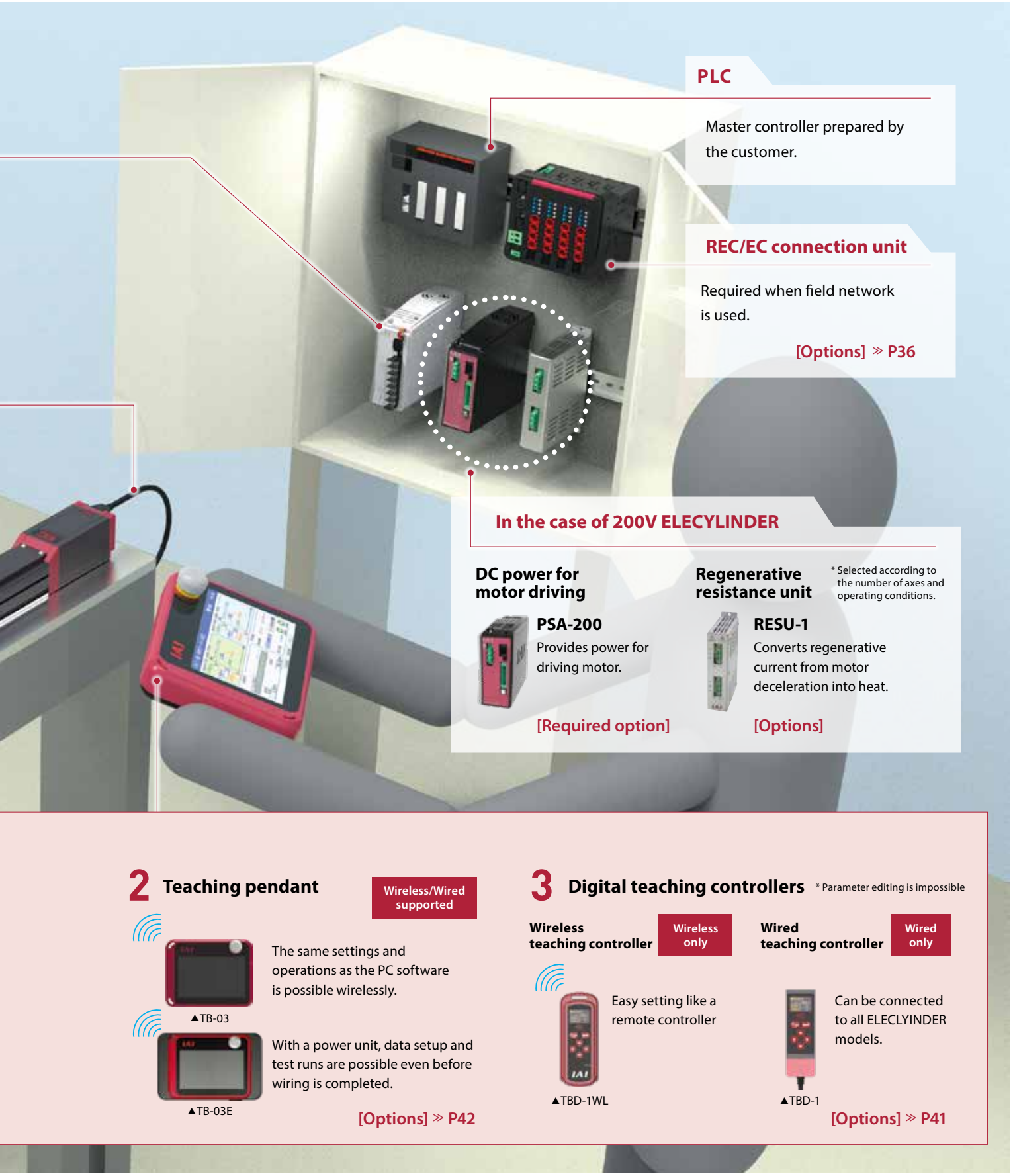


This is start up supporting software for position input, trial operation, monitoring function, etc.

*Please purchase through your distributor and a download link will be sent to your valid email address.

[Options] » P43

* Since the ELECYLINDER has a built-in controller, a separate controller is not needed.



PLC

Master controller prepared by the customer.

REC/EC connection unit

Required when field network is used.

[Options] » P36

In the case of 200V ELECYLINDER

DC power for motor driving

PSA-200

Provides power for driving motor.

[Required option]

Regenerative resistance unit

* Selected according to the number of axes and operating conditions.

RESU-1

Converts regenerative current from motor deceleration into heat.

[Options]

2 Teaching pendant

Wireless/Wired supported

▲TB-03

The same settings and operations as the PC software is possible wirelessly.

▲TB-03E

With a power unit, data setup and test runs are possible even before wiring is completed.

[Options] » P42

3 Digital teaching controllers

* Parameter editing is impossible

Wireless teaching controller

Wireless only

▲TBD-1WL

Easy setting like a remote controller

Wired teaching controller

Wired only

▲TBD-1

Can be connected to all ELECLYINDER models.

[Options] » P41

For the multi-positioning/multi-axis products/cleanroom/dust and splash-proof type, the required system configurations are as follows.

Configuration example

Actuator

Model selection software coming soon.



The optimal model can be selected from approximately 1 million items in one attempt.

PLC

Master controller prepared by the customer.

I/O cable and connector

Communication cable between controller and PLC. Specify cable length within the controller model number.
For the field network specification, only a connector is included.

[Supplied with the controller]

24VDC power

Power supply for driving 24V actuators.
Power supply selection requires capacity calculation.
The power calculator software makes calculation easy.

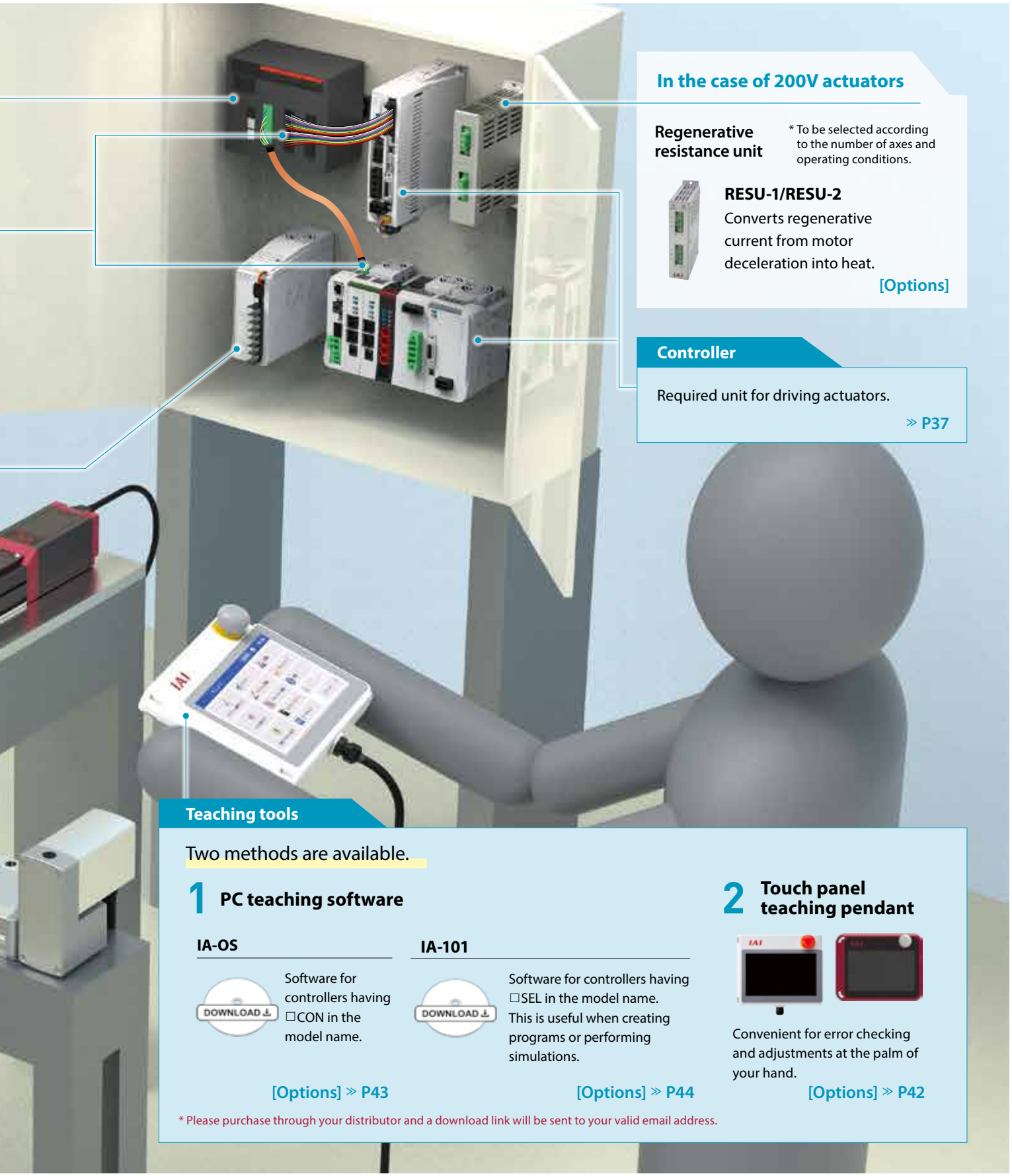
[Options] » P41 » P43

Motor-encoder cable

Cable between actuator and controller.
Specify the cable length within the actuator model number.

[Included in the actuator]

* Since the table top robot (TTA) has a built-in controller and power, a separate controller is not required.



In the case of 200V actuators

Regenerative resistance unit

* To be selected according to the number of axes and operating conditions.

RESU-1/RESU-2

Converts regenerative current from motor deceleration into heat.

[Options]

Controller

Required unit for driving actuators.

» P37

Teaching tools

Two methods are available.

1 PC teaching software

IA-OS

DOWNLOAD

Software for controllers having ☐CON in the model name.

[Options] » P43

IA-101

DOWNLOAD

Software for controllers having ☐SEL in the model name. This is useful when creating programs or performing simulations.

[Options] » P44

2 Touch panel teaching pendant

Convenient for error checking and adjustments at the palm of your hand.

[Options] » P42

* Please purchase through your distributor and a download link will be sent to your valid email address.

2-point, 3-point Positioning / Built-in controller

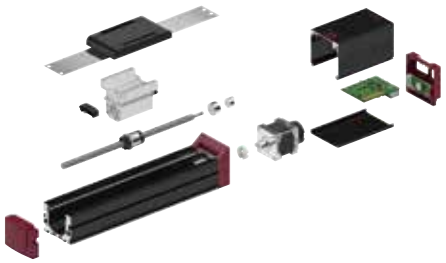
ELECYLINDER

What is ELECYLINDER?

Like solenoid valves, ELECYLINDER can be operated with only an ON/OFF signal, making them easy to operate even for first-time users of electric actuators.

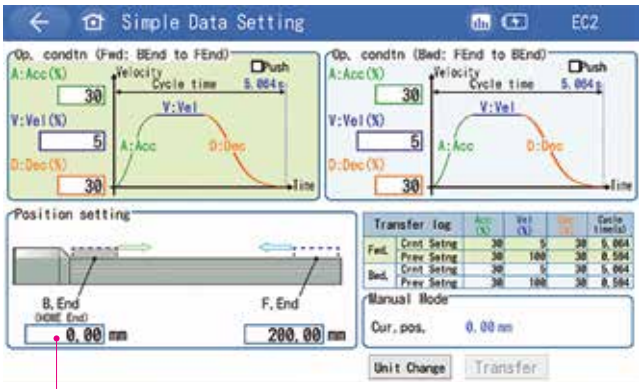
- Electric actuator based on the concept of "simple"
- Built-in controller
- Programless

ALL IN ONE



Simple operation

Enter numerical values for position, speed, acceleration, deceleration, and push force.



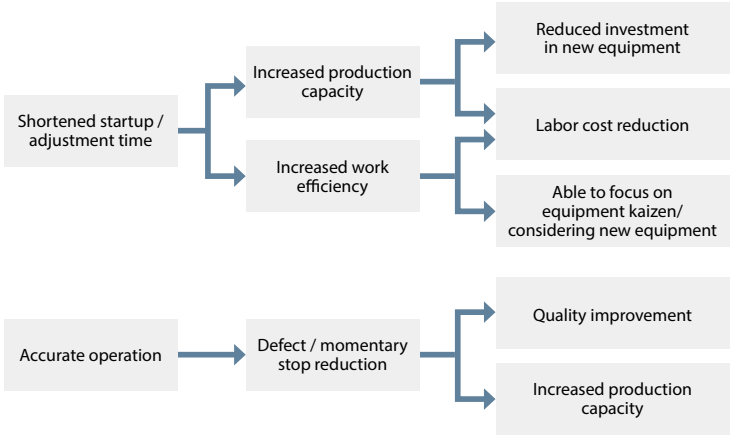
The current position can also be captured.



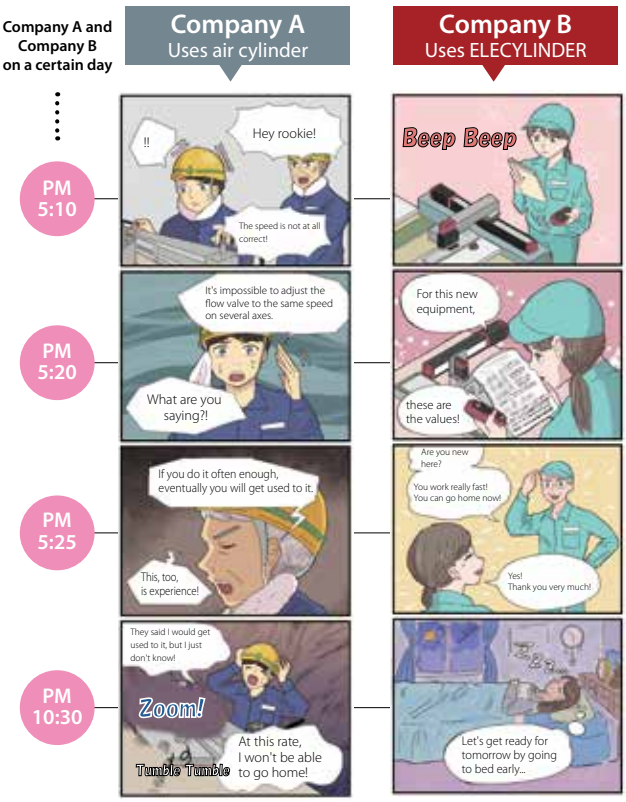
Can operate from a remote location!

Is your plant going digital?

Set numerically	➡	Can be set up accurately by anyone.
Controlled numerically	➡	At changeover, simply enter the previously confirmed values. Easy teaching even with a large number of adjustment axes.
Confirm cycle time	➡	Cycle time can be confirmed on the settings tool screen.

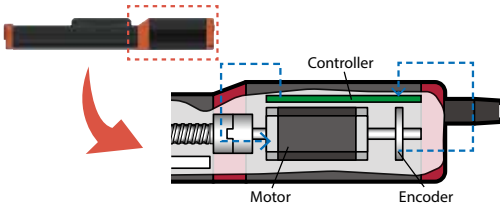


Reliable adjustments can be made without relying on intuition or experience. High quality manufacturing is possible because there is no misalignment or speed reduction.



High Performance

Once set, it will continue to operate at the same value.



▼Feedback Control

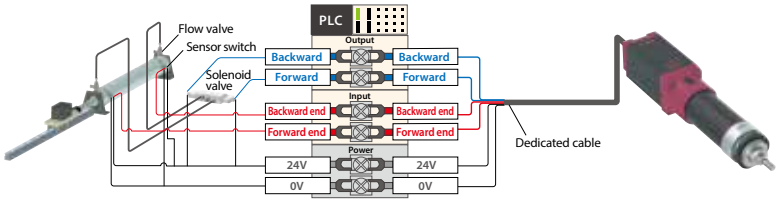
Position: 1,000 cycles/sec.
Speed: ~20,000 cycles/sec.

▼Set-values Unit

Position: 0.01 mm
Speed: 0.01 mm/s

Reduced wiring

Can be operated with the same wiring and PLC ladder program as the air cylinder.



Can be operated by the same ON/OFF signals as a solenoid valve.

Energy saving

Reduces power consumption and contributes to energy savings.

Air cylinder



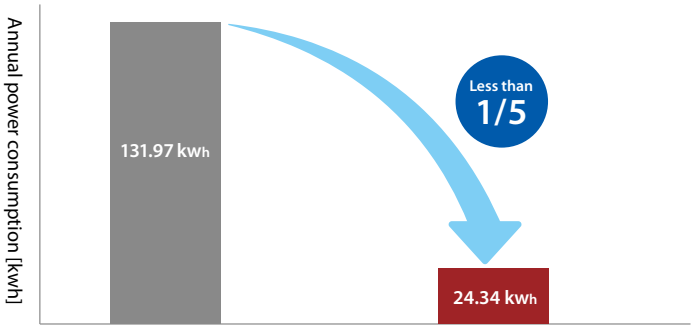
Stroke	300 mm
Speed	Approx. 300 mm/s
Load mass	30 kg
Bore system	Ø40
Moving distance	300 mm
One-way travel time	Approx. 1.2 sec.
Stop time	17 sec.
Mounting posture	Horizontal

Electric (ELECYLINDER)



Stroke	300 mm
Speed	300 mm/s
Load mass	30 kg
Acceleration/deceleration	0.3 G
Moving distance	300 mm
One-way travel time	1.2 sec.
Stop time	17 sec.
Mounting posture	Horizontal

▼Comparison of annual power consumption



*The comparison is for annual power consumption based on operation of 250 days/year and 10 hours/day for electric actuator and air cylinder.
*Factory air pressure: 0.6Mpa, Regulator output pressure: 0.4 Mpa
*Air cylinders are calculated based on air consumption.
*Air cylinder is calculated from actual value of air power meter (by Tokyo Meter)
*Compressor efficiency: 69 % (based on values in our factory)

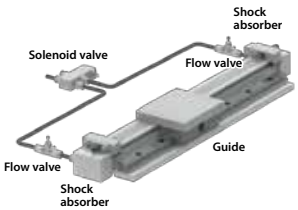
Low price

Designed to offer cost performance comparable to air cylinders.

▼Rodless type

By integrating functions that normally require external components—such as speed controllers and solenoid valves—ELECYLINDER helps reduce overall system cost.
It is designed to minimize total ownership cost throughout the equipment's lifetime.

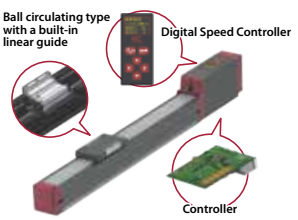
Air cylinder



- ✓ Air cylinder body (with guide)
- ✓ Flow valve
- ✓ Shock absorber
- ✓ Solenoid valve

Rodless air cylinder Ø25
Stroke 300 mm

ELECYLINDER



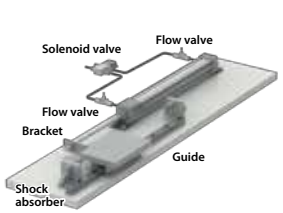
- ✓ ELECYLINDER
- built-in: Linear guide, Motor Encoder, Ball screw, Controller

ELECYLINDER
DS7 with digital speed controller
Stroke 300 mm

▼Rod type

ELECYLINDER (radial cylinder type) can withstand radial loads applied directly to the body, eliminating the need for external guides and connection brackets.
This simplifies machine design and reduces assembly and adjustment costs.

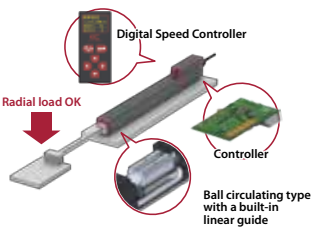
Air cylinder



- ✓ Air cylinder body
- ✓ Guide
- ✓ Flow valve
- ✓ Shock absorber
- ✓ Solenoid valve

Rod type air cylinder Ø25
Stroke 300 mm

ELECYLINDER



- ✓ ELECYLINDER
- built-in: Linear guide, Motor Encoder, Ball screw, Controller

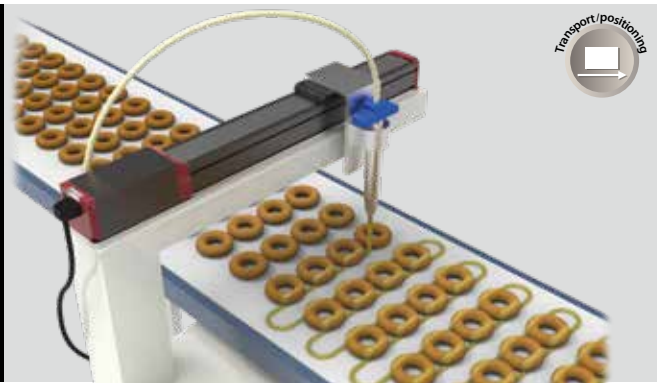
ELECYLINDER
DRR6 with digital speed controller
Stroke 300 mm

2 POSITION
3 POSITION

Slider type

Ideal for moving workpieces in the Horizontal direction or over long distances.

ELECYLINDER



Catalog Download:
intelligentactuator.com/dg23-p13-1

How to select ELECYLINDER:
intelligentactuator.com/dg23-p13-2

ELECYLINDER Product Page:
intelligentactuator.com/dg23-p13-3

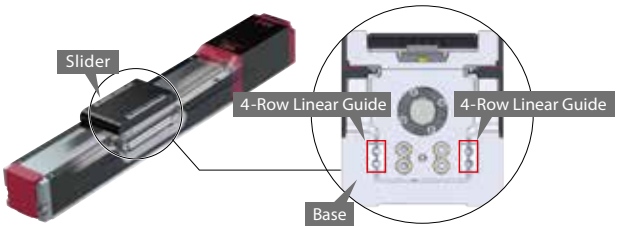
*A new "3 position mode specification" option is now available.

Features

The standard actuator shape is used to mount and operate a workpiece on a slider on the top surface of the body.
IAI products feature a ball circulating type with a built-in linear guide integrated with base, which is resistant to moments in the rolling direction.

Extensive lineup: From palm size to large size capable of carrying up to 400 kg horizontally.

Stable positioning: No worry about rattling of the guide section because the guide is press-fitted into the base.
Stability as a positioning device due to low guide variation◎.



(Ex.) High rigidity type

Lineup

Ultra-compact Type — EC-SL3



- Ultra-compact, palm-sized type

Body width	35 mm
Stroke	50 ~ 200 mm
Max. payload	Horizontal 2 kg / Vertical 0.7 kg
Max. speed	200 mm/s

Standard Type — EC-S□(A)



- 6 total sizes

Body width	20 ~ 85 mm
Stroke	25 ~ 1500 mm
Max. payload	Horizontal 80 kg / Vertical 55 kg
Max. speed	1200 mm/s

High rigidity Type — EC-S□AH



- High rigidity 4-column Gothic arc linear guide type

Body width	63 / 75 / 85 mm
Stroke	50 ~ 2000 mm
Max. payload	Horizontal 110 kg / Vertical 55 kg
Max. speed	1440 mm/s

Wide Type — EC-WS□



- Wide body, high rigidity type

Body width	100 / 120 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 62 kg / Vertical 13.5 kg
Max. speed	1000 mm/s

Belt driven Type — EC-B□



- Belt-driven long actuator

Body width	63 ~ 89 mm
Stroke	300 ~ 2600 mm
Max. payload	Horizontal 25 kg
Max. speed	2000 mm/s

Large Type — EC-S1□



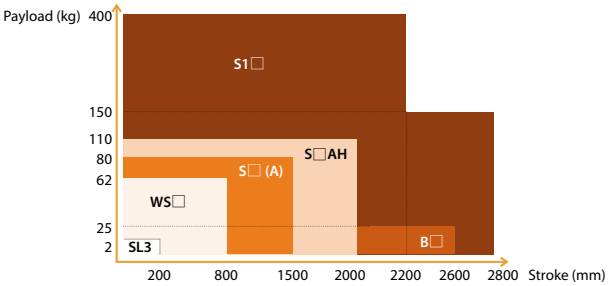
- Large actuator with high thrust

Body width	100 ~ 188 mm
Stroke	100 ~ 2800 mm
Max. payload	Horizontal 400 kg / Vertical 120 kg
Max. speed	2000 mm/s

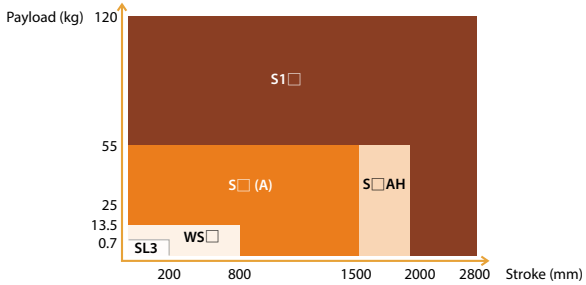
Specifications overview

Correlation diagram of stroke and payload

Horizontal Transfer



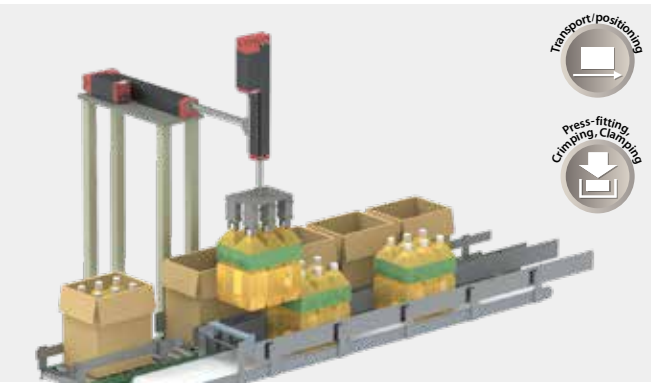
Vertical Transfer



Radial Cylinder®

Ideal for radial load transfer, pressing, and press fitting.

ELECYLINDER



Radial Cylinder Catalogs:
intelligentactuator.com/dg23-p14-1

How to select ELECYLINDER:
intelligentactuator.com/dg23-p14-2

EC Radial Cylinder features:
intelligentactuator.com/dg23-p14-3

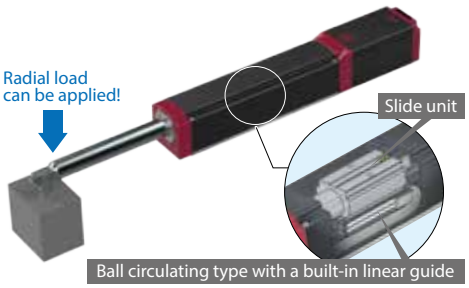
*A new "3 position mode specification" option is now available.

Features

A ball circulating type with a built-in linear guide similar to the slider type is built into the rod type body.
Radial and unbalanced loads can be directly received by the cylinder body.

Linearity:
Integrated structure with built-in linear guide suppresses tip runout.

High thrust:
Max. payload Horizontal 300 kg / Vertical 150 kg, max. pushing force up to 6000 N.



(Ex.) High rigidity type

Lineup

Standard Type **EC-RR□**



24V Stepper motor | Low price | high thrust

- 7 total sizes

Body width	20 ~ 108 mm
Stroke	25 ~ 800 mm
Max. payload	Horizontal 300 kg / Vertical 150 kg
Max. speed	860 mm/s

High rigidity Type **EC-RR□AH**



24V Stepper motor | Low price | Highrigidity

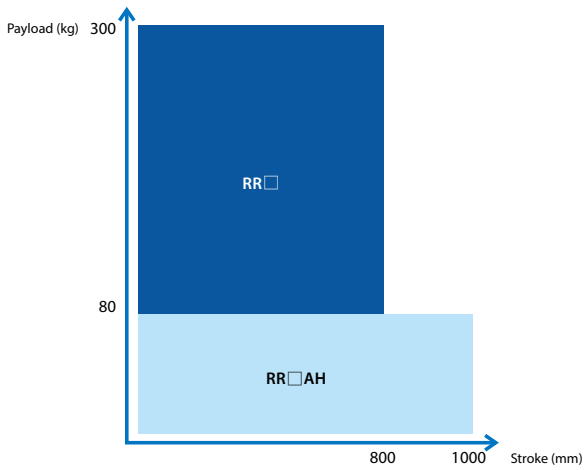
- High rigidity 4-column Gothic arc linear guide type

Body width	63 / 75 mm
Stroke	50 ~ 1000 mm
Max. payload	Horizontal 80 kg / Vertical 28 kg
Max. speed	860 mm/s

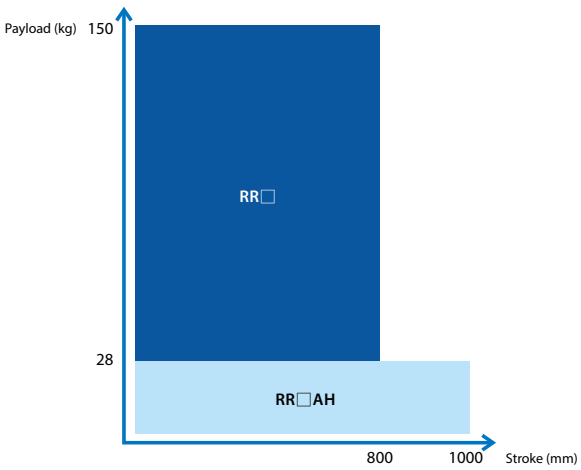
Specifications overview

Correlation diagram of stroke and payload

Horizontal **Horizontal Transfer**



Vertical **Vertical Transfer**

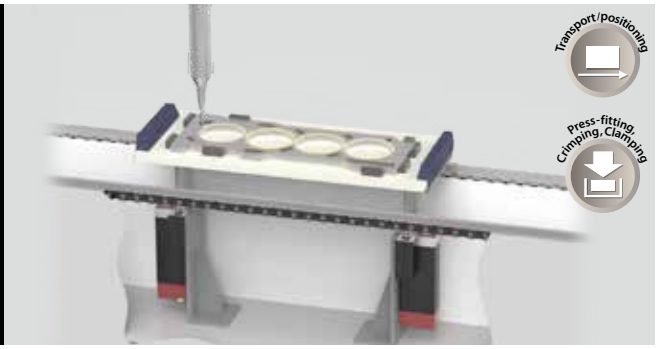


2 POSITION
3 POSITION

Rod type / Table type

Ideal not only for conveyance but also for pressing and press fitting.

ELECYLINDER



Catalog Download:
intelligentactuator.com/dg23-p15-1

How to select ELECYLINDER:
intelligentactuator.com/dg23-p15-2

EC Table Type features:
intelligentactuator.com/dg23-p15-3

*A new "3 position mode specification" option is now available.

Features

[Rod type]

An inexpensive actuator in which the rod operates in the same way as a rod type air cylinder.

Extensive lineup

Ultra-compact type, guide type, ball bushing type for lifter applications, etc., can be selected according to the application.

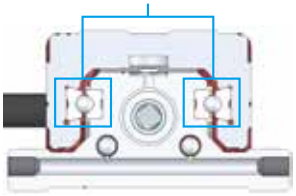
[Table type]

The table on the top of the body operates.
With a built-in ball circulating type with a built-in linear guide in the table section, it can handle load moments in any direction.

Compact

Guide, motor, encoder, and controller built-in to a palm-sized body

Ball circulating type with a built-in linear guide



(Example) Sectional view of ultra-small type

Lineup

Rod type

Wire Type — EC-WER1



24V Stepper motor · Compact

- Wire-driven type

Body width	13 mm
Stroke	10 / 20 mm
Max. payload	Horizontal 0.75 kg / Vertical 0.25 kg
Max. speed	Set value 100 mm/s Actual speed 91 mm/s

Ultra-compact Type — EC-GDB3



24V Stepper motor · Low price · Compact

- Ultra-compact, palm-sized type

Body width	42 mm
Stroke	10 ~ 50 mm
Max. payload	Horizontal 2 kg / Vertical 0.8 kg
Max. speed	200 mm/s

Standard Type — EC-R6/R7



24V Stepper motor · Low price

- Cylindrical rod type

Body width	63 / 73 mm
Stroke	50 ~ 300 mm
Max. payload	Horizontal 80 kg / Vertical 19 kg
Max. speed	860 mm/s

Mini Type — EC-RP□/GS4/GD□



24V Stepper motor · Low price · Compact

- Short overall length type

Body width	28 ~ 112 mm
Stroke	30 ~ 150 mm
Max. payload	Horizontal 35 kg / Vertical 6.5 kg
Max. speed	800 mm/s

Double guide Type — EC-SRGC9/SRG9 SRG11/15



24V Stepper motor · Low price

- Ball bushing type

Body width	93 / 112 / 148 mm
Stroke	50 ~ 300 mm
Max. payload	Horizontal 60 kg / Vertical 12.5 kg
Max. speed	800 mm/s

Rod type

Slim Type — EC-CRP□/CGD□



24V AC servo motor · Low price · Compact

- Slim type with hollow motor

Body width	36 ~ 110 mm
Stroke	30 / 50 mm
Max. payload	Horizontal 16 kg / Vertical 7 kg
Max. speed	200 mm/s

Table type

Ultra-compact Type — EC-T3

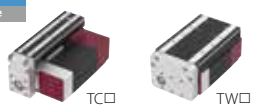


24V Stepper motor · Low price · Compact

- Ultra-compact, palm-sized type

Body width	32 mm
Stroke	10 ~ 50 mm
Max. payload	Horizontal 2 kg / Vertical 0.8 kg
Max. speed	200 mm/s

Mini Type — EC-TC□/TW□



24V Stepper motor · Low price · Compact

- Short overall length type

Body width	26 ~ 88 mm
Stroke	30 ~ 150 mm
Max. payload	Horizontal 20 kg / Vertical 6.5 kg
Max. speed	800 mm/s

Slim Type — EC-CTC3/CTC5



24V AC servo motor · Low price · Compact

- Slim type with hollow motor

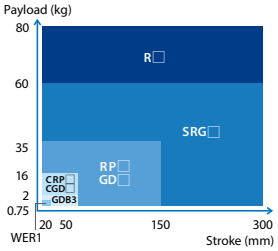
Body width	36 / 52 mm
Stroke	30 / 50 mm
Max. payload	Horizontal 8 kg / Vertical 7 kg
Max. speed	200 mm/s

Specifications overview

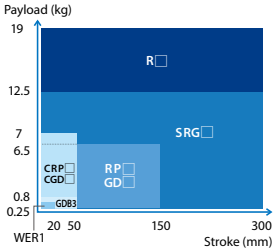
Correlation diagram of stroke and payload

[Rod type]

Horizontal Transfer

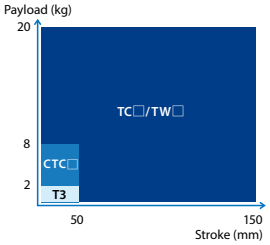


Vertical Transfer

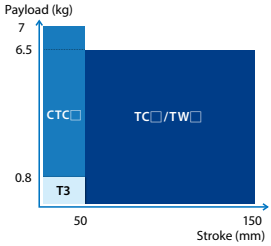


[Table type]

Horizontal Transfer



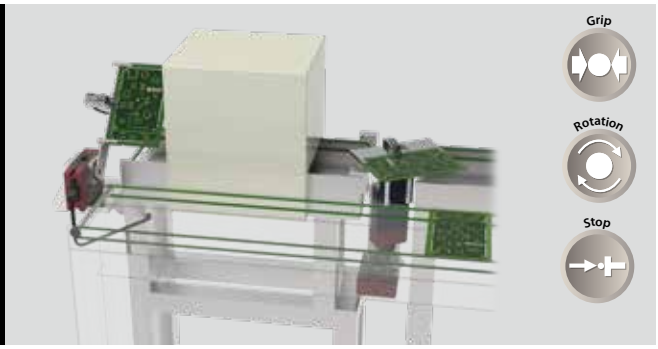
Vertical Transfer



Gripper / Rotary / Stopper

Can be used for gripping, turning, and stopping applications.

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ELECYLINDER Gripper Type
intelligentactuator.com/dg23-p16-1

ELECYLINDER Rotary Type
intelligentactuator.com/dg23-p16-2

ELECYLINDER Stopper Type
intelligentactuator.com/dg23-p16-3

*A new "3 position mode specification" option is now available.

Features

[Gripper]
Gripping force can be adjusted in 1% increments.

Easy setup
Simply input the clamping force, standby position, and clamping start point numerically.



[Rotary]
Rotary actuator with built-in controller and reduced height.

Built-in controller
Allowing smooth stopping even at high speeds.

[Stopper]
Ideal for stopping workpieces on conveyors without an air source.

Sliding bushing
construction, sliding bushings allow for radial loads.



Lineup

Gripper

Wire Type — EC-WEGR2



24V Stepper motor | Compact

● Wire-driven type

Body width	25 mm
Stroke (one side)	2 mm
Max. grip force (both sides)	10 N

Gripper Type — EC-GRB(P)□



24V Stepper motor | Low price | Compact

● Vertical type

Body width	81 ~ 130 mm
Stroke (one side)	10 ~ 20 mm
Max. grip force (both sides)	28 ~ 360 N

Gripper Type — EC-GRC6/GRC7



24V Stepper motor | Low price | Compact

● Flat type

Body width	60 / 70 mm
Stroke (one side)	10 ~ 40 mm
Max. grip force (both sides)	36 ~ 350 N

Gripper Type — EC-GRST□



24V Stepper motor | Low price | Long Ruler | high thrust

● Long stroke

Body width	35 ~ 73 mm
Stroke (one side)	25 ~ 130 mm
Max. grip force (both sides)	125 ~ 1641 N

Gripper

Gripper Type — EC-GRTR14□



24V Stepper motor | Low price

● 3-finger

Body width	Ø138 mm
Stroke (one finger)	15 mm
Max. grip force (3 fingers)	950 N

Rotary

Rotary Type — EC-RTB4

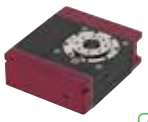


24V Stepper motor | Low price | Compact

● Vertical type

Body width	45 mm
Operation range	0 ~ 330 deg.
Max. torque	0.6 N
Allowable inertia moment	~ 0.011 kg·m²

Rotary Type — EC-RTC□



24V Stepper motor | Low price

● Flat type

Body width	90 ~ 185 mm
Operation range	0 ~ 330 deg.
Max. torque	1.5 ~ 25.2 N
Allowable inertia moment	~ 0.49 kg·m²

Stopper

Stopper Type — EC-GDS3



24V Stepper motor | Low price | Compact

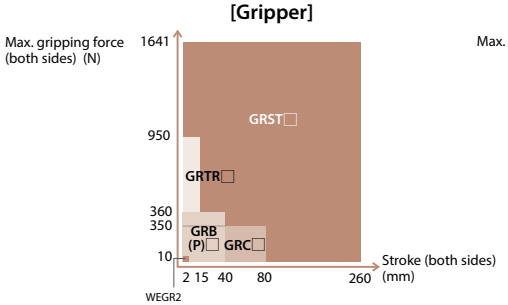
● Palm-sized, ultra small type

Body width	42 mm
Stroke	10 ~ 30 mm
Max. workpiece mass	8 kg

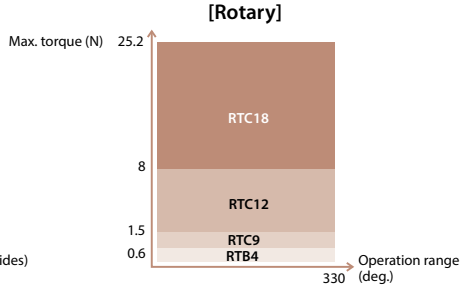
Specifications overview

Correlation chart between stroke and max. grip force/operation range and max. torque

[Gripper]



[Rotary]



Stopper Type — EC-ST9/STC9 ST11/15



24V Stepper motor | Low price

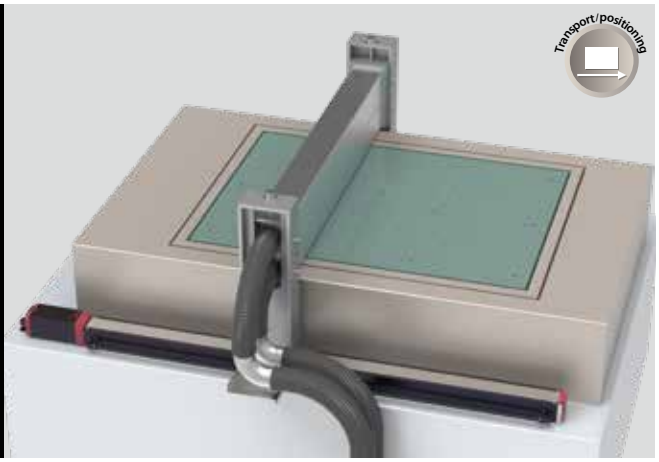
● Can be selected from three sizes

Body width	93 / 112 / 148 mm
Stroke	30 ~ 50 mm
Max. workpiece mass	100 kg

Cleanroom specification

ISO Class 2.5 or 3 can be used.

ELECYLINDER



EC Cleanroom Type Catalog:
intelligentactuator.com/dg23-p17-1

EC Cleanroom Specification:
intelligentactuator.com/dg23-p17-2

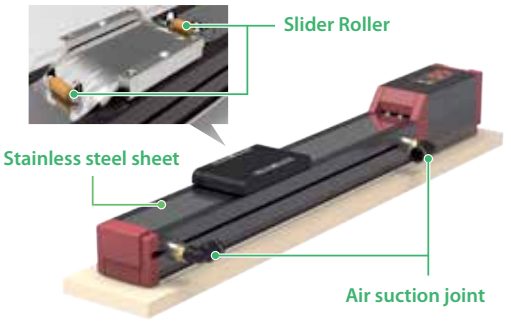
*A new "3 position mode specification" option is now available.

Features

The system is ISO class 2.5/3 compliant, making it ideal for operation in clean environments. (ISO 14644-1)

Extensive lineup:
From compact type to Horizontal 80 kg high payload type.

Unlimited installation orientation:
Sealed construction allows for Vertical or Horizontal installation.



What is ISO Class 2.5...?
Refers to an environment with less than 316 pieces of debris 0.1 µm or larger in 1 m³.

Low-dust structure
- Stainless steel sheet on top surface
- Air suction inside the body
- Roller structure of slider section
- Low dust grease (Ball screw/guide section)

Lineup

Standard Type EC-S☐(A)CR



- 5 total sizes
- ISO Class 3 (ISO 14644-1 Std.)

Body width	35 ~ 85 mm
Stroke	50 ~ 1500 mm
Max. payload	Horizontal 80 kg / Vertical 55 kg
Max. speed	1200 mm/s

High rigidity Type EC-S☐AHCR



- High rigidity 4-row Gothic arc linear guide type
- ISO Class 2.5 (ISO 14644-1 Std.)

Body width	63 / 78 / 85 mm
Stroke	50 ~ 2000 mm
Max. payload	Horizontal 90 kg / Vertical 55 kg
Max. speed	1350 mm/s

Wide Type EC-WS☐CR



- Wide body, high rigidity type
- ISO Class 3 (ISO 14644-1 Std.)

Body width	100 / 120 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 62 kg / Vertical 13.5 kg
Max. speed	900 mm/s

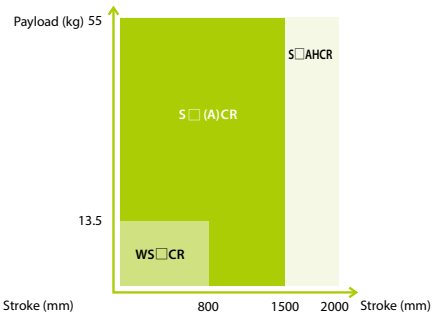
Specifications overview

Correlation diagram of stroke and payload

Horizontal Transfer



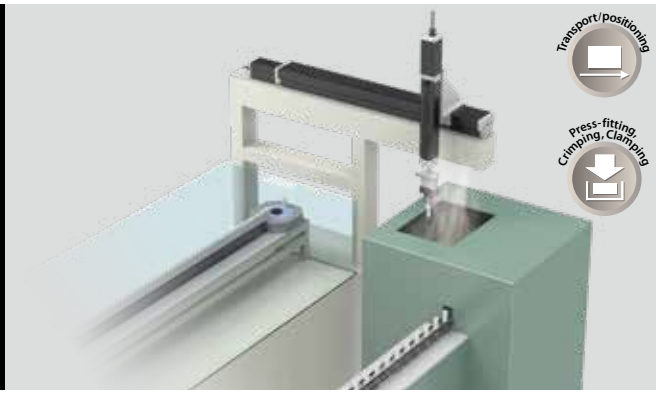
Vertical Transfer



Dust-proof / splash-proof specification

IP40~67 can be used.

ELECYLINDER



Catalog Download:
intelligentactuator.com/dg23-p18-1

EC Dust/Splash-proof Specification:
intelligentactuator.com/dg23-p18-2

*A new "3 position mode specification" option is now available.

Features

IP40~67 rating allows use in water and dusty environments. It is used in processing machines, food processing machines, washing machines, etc.

Grease options: Optional grease for food machinery can be selected.
Integrated guide: Slider type/radial cylinders have a built-in ball circulating type with a built-in linear guide as in the standard environment version, so that moment loads in the rolling direction can be accommodated.

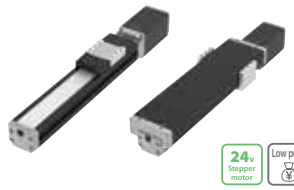
Ingress Protection Display
IP □ □
1st Display Number: Protection against human body and solid foreign objects
2nd Display Number: Protection from water ingress

	Dust-resistant specification	Dust/splash-proof specification		Dust/splash-proof specification	Dust/splash-proof specification
	S□D	S□W	S□W WS Option	GRBP□W	R□W RR□W
Ingress Protection	IP40	IP43	IP44*	IP54 equivalent	IP67
1st Display Number Description	No tools, wires, or other solid objects exceeding 1.0 mm in diameter or thickness can penetrate. (Thickness 1.0 mm)			Dust that will affect operation will not enter the interior.	Dust does not enter the interior. (Prevents completely)
2nd Display Number Description	Unprotected	Rainproof: No harmful effects from water drop falling within 60° from the vertical. (60° 60°)	Splashproof: Not adversely affected by splashing water from any direction.		Waterproof: Water does not enter the interior even when submerged under water under defined conditions.

* S□W: IP44 when wiper seal mounted specification (WS) option is adopted.

Lineup

Standard Type — Slider type EC-S□D/S□W



24V Stepper motor | Low price

● IP40~44

Body width	63 / 73 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 51 kg / Vertical 19 kg
Max. speed	860 mm/s

Standard Type — Rod type EC-R□W



24V Stepper motor | Low price

● IP67

Body width	63 / 73 mm
Stroke	50 ~ 300 mm
Max. payload	Horizontal 80 kg / Vertical 19 kg
Max. speed	860 mm/s

Standard Type — Radial Cylinder® EC-RR□W



24V Stepper motor | Low price

● IP67

Body width	63 / 73 mm
Stroke	65 ~ 315 mm
Max. payload	Horizontal 80 kg / Vertical 19 kg
Max. speed	860 mm/s

Standard Type — Gripper EC-GRBP□W



24V Stepper motor | Low price | Compact

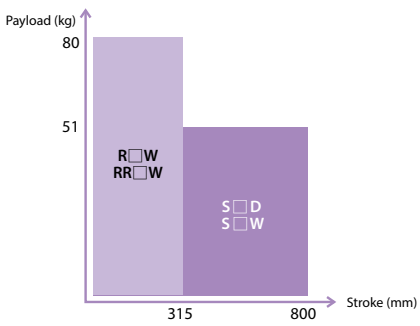
● IP54 equivalent

Body width	89 ~ 137 mm
Stroke (one side)	10 ~ 20 mm
Max. grip force (both sides)	36 ~ 258 N

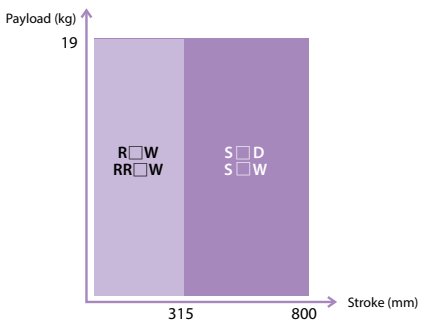
Specifications Overview

Correlation diagram of stroke and payload

Horizontal Transfer



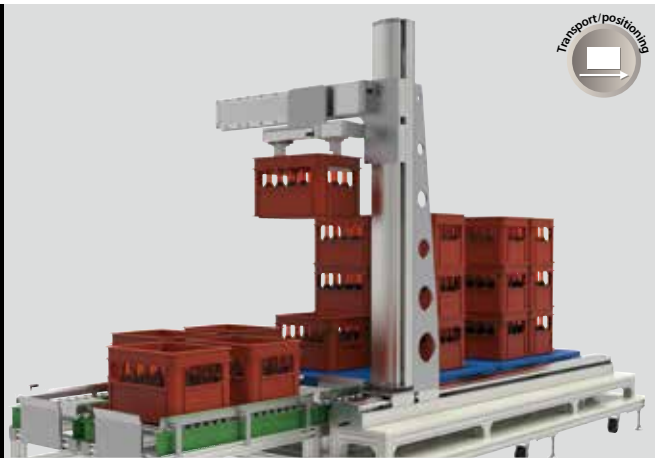
Vertical Transfer



Slider type

Ideal for moving workpieces in the Horizontal direction or over long distances.

ROBO Cylinder Single-axis robot



Catalog Download
intelligentactuator.com/dg23-p19-1

Slider Type Lineup:
intelligentactuator.com/dg23-p19-2

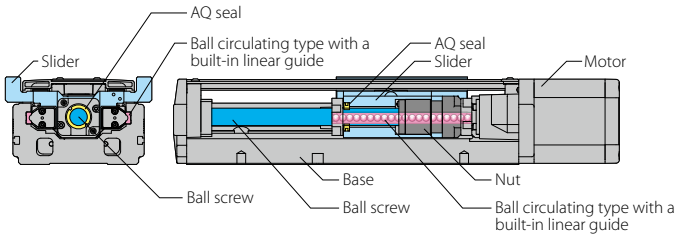
Features

The standard actuator shape is used to mount and operate a workpiece on a slider on the top surface of the body.
IAI products feature a ball circulating type with a built-in linear guide integrated with base, which is resistant to moments in the rolling direction.

Extensive lineup
A wide range of types can be selected to suit the application, from compact types, long-strokes, low-cost belt-driven types, and multi-slider types.

Stable positioning
Guide is press-fitted into the base,
so there is no risk of rattling of the guide section◎.

High precision
Positioning repeatability up to 3μm
Ideal for equipment requiring high running accuracy and high precision positioning when combined.



(Ex.) Single Axis Robot

Lineup

ROBO Cylinder RCP6 Series RCP6-SA□/HSA□/WSA□



24V Stepper motor | Low price | Highrigidity

- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40 ~ 160 mm
Stroke	50 ~ 1500 mm
Max. payload	Horizontal 100 kg / Vertical 55 kg
Max. speed	1440 mm/s

ROBO Cylinder RCS4 Series RCS4-SA□/HSA□/WSA□



200V AC servo motor | Low price | Highrigidity | High speed

- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40 ~ 160 mm
Stroke	50 ~ 1100 mm
Max. payload	Horizontal 120 kg / Vertical 50 kg
Max. speed	2200 mm/s

ROBO Cylinder RCP5 Series RCP5-BA□

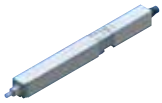


24V Stepper motor | Low price | Long Ruler

- Belt-driven type
- Motor with top/bottom mounting can be selected

Body width	40 ~ 70 mm
Stroke	300 ~ 2600 mm
Max. payload	Horizontal 16 kg
Max. speed	1600 mm/s

ROBO Cylinder RCP3 Series RCP3-SA2□



24V Stepper motor | Low price | Compact

- Compact type with a body width of 22mm and up

Body width	22 / 28 mm
Stroke	25 ~ 150 mm
Max. payload	Horizontal 1 kg
Max. speed	300 mm/s

IS(P)B



- High precision type
  (Positioning repeatability: ±3μm) also selectable

Body width	90 ~ 198 mm
Stroke	100 ~ 3000 mm
Max. payload	Horizontal 400 kg / Vertical 80 kg
Max. speed	2500 mm/s

IS(P)DB



- Simple dust-proof type with stainless steel sheet

Body width	90 ~ 150 mm
Stroke	100 ~ 1600 mm
Max. payload	Horizontal 120 kg / Vertical 40 kg
Max. speed	2200 mm/s

NSA



- Rotating nut type
- Multi-sliders can also be selected

Body width	125 ~ 198 mm
Stroke	300 ~ 3000 mm
Max. payload	Horizontal 120 kg
Max. speed	2500 mm/s

IFA



- Belt-driven type
- Motor with top/bottom mounting can be selected

Body width	105 / 134 mm
Stroke	200 ~ 3200 mm
Max. payload	Horizontal 40 kg
Max. speed	3000 mm/s

LSA/LSAS



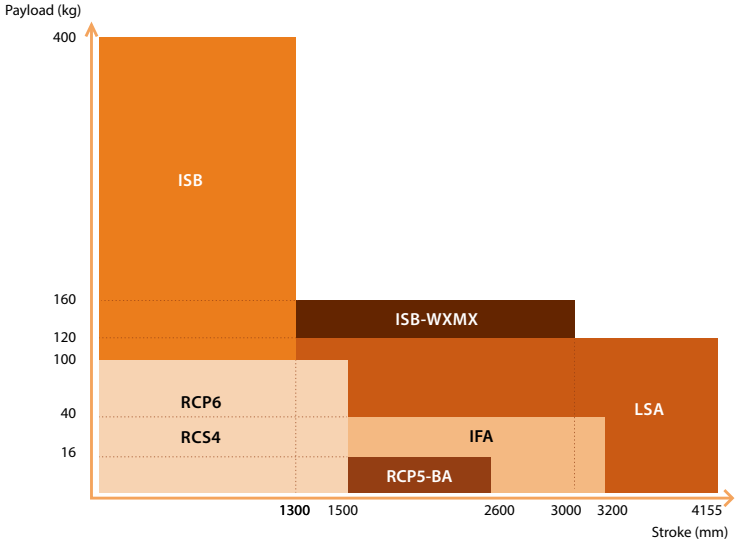
- Linear servo type
- Multi-sliders can also be selected

Body width	60 ~ 210 mm
Stroke	40 ~ 4155 mm
Max. payload	Horizontal 120 kg
Max. speed	2500 mm/s

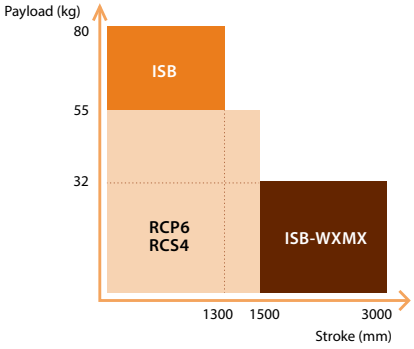
Specifications overview

Correlation diagram of stroke and payload

Horizontal Transfer



Vertical Transfer



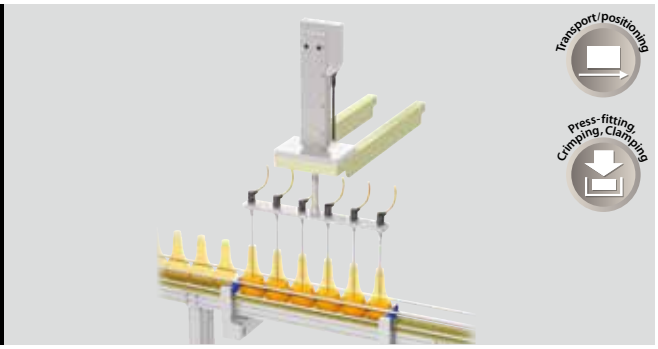
Multi-point positioning

MULTI-POSITION

Rod type / Radial Cylinder®

It is ideal not only for conveyance but also for pressing and press fitting.

ROBO Cylinder



Catalog Download
intelligentactuator.com/dg23-p21-1

Rod Type Lineup:
intelligentactuator.com/dg23-p21-2

Features

[Rod type]

This is an inexpensive actuator in which the rod operates in the same way as a rod type air cylinder.

Extensive lineup
Selectable from pen size to maximum pressing force of 2t to suit the application.

[Radial Cylinder]

A ball circulating type with a built-in linear guide is built into the rod type body. Radial and unbalanced loads can be directly received by the cylinder body.

Linearity
Integrated structure with built-in linear guide suppresses tip runout.

Lineup

RCP6-RA□/RRA□/WRA□



- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40 ~ 160 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 100 kg / Vertical 70 kg
Max. speed	1120 mm/s

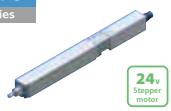
RCP5-RA10□



- High thrust type
- Motor side-mounted type is also selectable

Body width	108 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 300 kg / Vertical 150 kg
Max. speed	250 mm/s

RCP3-RA2□



- Compact and mini type

Body width	22 / 28 mm
Stroke	25 ~ 150 mm
Max. payload	Horizontal 8 kg / Vertical 2.5 kg
Max. speed	300 mm/s

RCP2-SR□4R



- Overall length shortening type
- Guide type is also available

Body width	44 / 45 mm
Stroke	20 ~ 200 mm
Max. payload	Horizontal 35 kg / Vertical 15 kg
Max. speed	250 mm/s

RCD



- Ultra-compact type with a cross section size of □12 mm

Body width	12 mm
Stroke	10 ~ 30 mm
Max. payload	Horizontal 0.7 kg / Vertical 0.3 kg
Max. speed	300 mm/s

RCS4-RA□/RRA□/WRA□



- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40 ~ 160 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 100 kg / Vertical 72 kg
Max. speed	1500 mm/s

RCA2



- Overall length shortening type
- Guide type is also available

Body width	28 ~ 72 mm
Stroke	30 ~ 75 mm
Max. payload	Horizontal 6 kg / Vertical 1.5 kg
Max. speed	300 mm/s

RCS3-RA15R/20R



- Max. 2t push force

Body width	150 / 200 mm
Stroke	100 ~ 500 mm
Max. payload	Horizontal 1000 kg / Vertical 600 kg
Max. speed	400 mm/s

RCS2



- Overall length shortening type
- Guide type is also available

Body width	46 ~ 94 mm
Stroke	50 ~ 300 mm
Max. payload	Horizontal 55 kg / Vertical 22.5 kg
Max. speed	800 mm/s

RCS2-RA13R



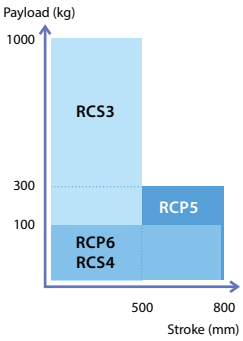
- Max. approx. 2t push force

Body width	130 mm
Stroke	50 ~ 200 mm
Max. payload	Horizontal 500kg / Vertical 300kg
Max. speed	125 mm/s

Specifications overview

Correlation diagram of stroke and payload

Horizontal Transfer



Vertical Transfer

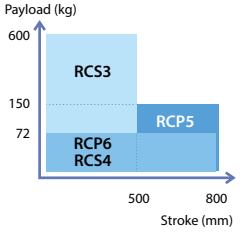


Table type

Large mounting surfaces for tools and parts allow for easy design and assembly.

ROBO Cylinder



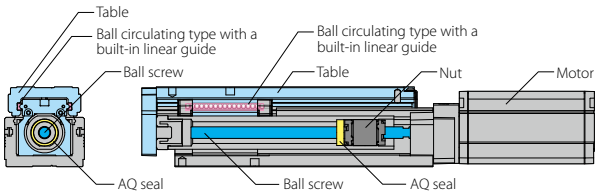
Catalog Download
intelligentactuator.com/dg23-p22-1

Table Type Lineup:
intelligentactuator.com/dg23-p22-2

Features

The table on the top of the body operates. With a built-in ball circulating type with a built-in linear guide in the table section, it can handle load moments in any direction. Used for clamping workpieces from the left and right sides, for workpiece widening mechanisms and for orthogonal combination axes such as the Vertical axis.

Extensive lineup
Selectable according to application from high load moment type to compact size with nut rotation



Lineup

RCP6-TA□

ROBO Cylinder RCP6 Series



24V Stepper motor | Low price | High rigidity

- 3 total sizes
- Motor side-mounted type is also selectable

Body width	40 ~ 70 mm
Stroke	25 ~ 390 mm
Max. payload	Horizontal 30 kg / Vertical 24 kg
Max. speed	1120 mm/s

RCS4-TA□

ROBO Cylinder RCS4 Series



200V AC servo motor | Low price | High rigidity

- 3 total sizes
- Motor side-mounted type is also selectable

Body width	40 ~ 70 mm
Stroke	25 ~ 390 mm
Max. payload	Horizontal 30kg / Vertical 24 kg
Max. speed	1300 mm/s

RCA2-T□

ROBO Cylinder RCA2 Series



24V AC servo motor | Low price | Compact

- Overall length shortening type

Body width	32 ~ 71 mm
Stroke	30 / 50 mm
Max. payload	Horizontal 6 kg / Vertical 1.5 kg
Max. speed	300 mm/s

RCS2-T□

ROBO Cylinder RCS2 Series



200V AC servo motor | Low price | Compact

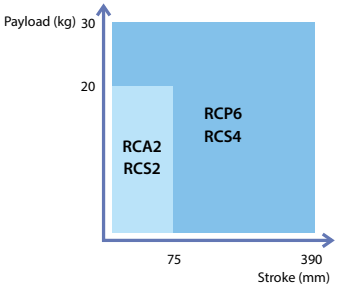
- Overall length shortening type

Body width	48 ~ 95 mm
Stroke	50 / 75 mm
Max. payload	Horizontal 20 kg / Vertical 6 kg
Max. speed	380 mm/s

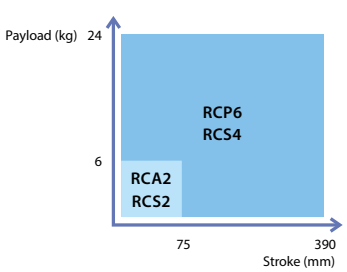
Specifications overview

Correlation diagram of stroke and payload

Horizontal Transfer



Vertical Transfer



MULTI-POSITION

Pulse Presses / Servo Presses / Special Application Models

Can be used for high-precision load control and special applications.

ROBO Cylinder



Catalog Download
intelligentactuator.com/dg23-p23-1

Special Purpose
intelligentactuator.com/dg23-p23-2

Stopper Cylinder RCP4-ST
intelligentactuator.com/dg23-p23-3

Features

[Pulse press]

Actuator that enables force control by combining a stepper motor and load cell.

Low price / Simple
Equipped with a stepper motor, the price is less than half of the servo press specifications and can be easily set up with a teaching tool.

Can be pushed and pulled
Load direction push and pull functionality with unlimited push/pull time.



[Servo press]

Actuator that combines a servo motor with a load cell to provide high precision force control.

High precision
A wide variety of press motions difficult to achieve with hydraulic pressure.



[Special applications model]

Can be used for various applications, such as a stopper to stop a conveyor workpiece, vacuum pump without air or a model that can realize two types of motions with a single actuator.

Lineup

ROBO Cylinder RCP6 Series — **Pulse Press**

RCP6-RRA□R

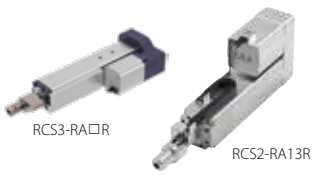


● 3 total sizes

Body width	40 ~ 73 mm
Stroke	110 ~ 320 mm
Max. push / Tensile strength	2000 N
Max. payload	Horizontal 10 kg Vertical 10 kg
Loading repeatability	±1.0% F.S.

ROBO Cylinder RCS3/2 Series — **Servo Press**

RCS3/RCS2-RA□R



● 8 total sizes

Body width	40 ~ 200 mm
Stroke	50 ~ 520 mm
Max. push / Tensile strength	50000 N
Rated thrust	126 ~ 25902 N
Loading repeatability	±0.5% F.S.

RP Series — **ROBO Pump®**

RP-VPM

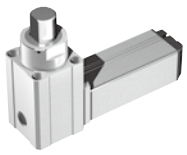


● Vacuum pump without air

Generating flow rate	1.8 L/min or more
Vacuum level	-50 kPa or less
Payload guideline (with 20mm vacuum pad)	Horizontal 0.4 kg Vertical 0.2 kg

ROBO Cylinder RCP4 Series — **Stopper cylinder**

RCP4-ST□



● Stopper cylinder for stopping workpieces on the conveyor

Body width	42 / 60 mm
Stroke	20 / 30 mm
Max. workpiece mass	150 kg
Max. workpiece impact speed (m/min)	40 mm/s

ZR Series — **Vertical/rotation integrated**

ZR



● Unit type with vertical and rotational axis in one

Stroke	Z-axis: ~ 200 mm R-axis: ±360 deg.
Max. payload	6 kg

WU Series — **Wrist Unit**

WU



● Wrist unit with oscillating and rotational axis in one

Operation range	B-axis: ~ ±105 deg. T-axis: ±360 deg.
Max. payload	2 kg

RCP6 Series — **Rotary Chuck**

RCP6-RTCK□



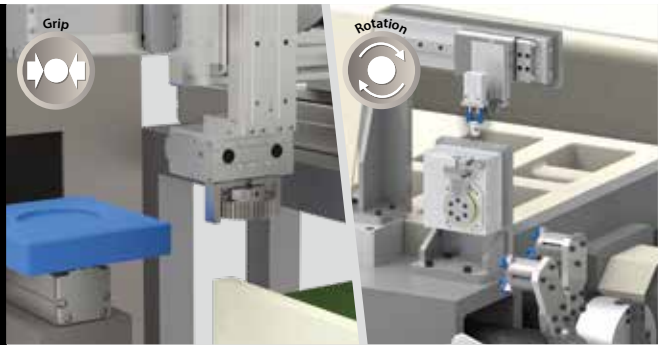
● Rotation and grip in one unit

Rotational operation range	0 ~ 360 deg.
Grip stroke	2 mm
Max. grip force (both sides)	20 N

Gripper / Rotary

Ideal for lifting in inner/outer diameter grip and for fine position control as an index.

ROBO Cylinder Single-axis robot



Catalog Download
intelligentactuator.com/dg23-p24-1

Gripper
intelligentactuator.com/dg23-p24-2

Rotary
intelligentactuator.com/dg23-p24-3

Features

[Gripper]

Since a large number of gripping points and gripping forces can be set, there is no need to adjust the setup.

Supports workpiece identification

Zone signal function outputs a signal when the machine moves to an arbitrary position, enabling workpiece identification and pass/fail judgment.

[Rotary]

330 degree and multi-turn specifications are selectable. Infinite rotation in one direction is also supported.

Extensive lineup

Compact to large, vertical, flat, etc., the most suitable model for your equipment can be selected.

Lineup

Gripper

GRS/GRM

Solenoid gripper Series



Low price | Compact

- Solenoid-driven compact gripper

Body width	26 / 32 mm
Stroke (one side)	2 mm
Max. grip force (both sides)	20 N

RCD

ROBO Cylinder RCD Series



24V Brush-less DC motor type | Low price | Compact

- Ultra-compact, palm-sized type gripper

Body width	22 mm
Stroke (one side)	2 mm
Max. grip force (both sides)	10 N

RCP6-GRT7□

ROBO Cylinder RCP6 Series



24V Stepper motor

- Flat shape type with height of 39mm

Body width	91 / 123 mm
Stroke (one side)	15 ~ 40 mm
Max. grip force (both sides)	300 N

RCP6-GRST□

ROBO Cylinder RCP6 Series



24V Stepper motor | Long Ruler

- Long Stroke Gripper
- Motor side-mounted type is also selectable

Body width	58 / 70 mm
Stroke (one side)	90 ~ 130 mm
Max. grip force (both sides)	880 N

RCP4-GR□

ROBO Cylinder RCP4 Series


Slide RCP4-GRS□


Lever RCP4-GRL□

24V Stepper motor

- 6 total models

Body width	34 ~ 60mm	
	Slide	Lever
Stroke (one side)	7 ~ 15 mm	90 deg.
Max. grip force (both sides)	220 N	90 N

RCP2-GR3□

ROBO Cylinder RCP2 Series


Slide RCP2-GR3S□


Lever RCP2-GR3L□

24V Stepper motor

- 3-claw type is also available

Body width	62 / 80mm	
	Slide	Lever
Stroke (one side)	5 / 7 mm	19 deg.
Max. grip force (both sides)	102 N	51 N

Rotary

RCP2-RT□

ROBO Cylinder RCP2 Series


RCP2-RTB□


RCP2-RTC□

24V Stepper motor | Low price

- 6 total models

Body width	45 ~ 114 mm
Operation range	330 / 360 deg. (multi-rotation)
Max. torque	4.6 N
Allowable inertia moment	~ 0.03 kg/m²

RCS2-RTC□L

ROBO Cylinder RCS2 Series



200V AC servo motor | high thrust

- Hollow type

Body width	135 ~ 233 mm
Operation range	330 / 360 deg. (multi-rotation)
Max. torque	8.6 N
Allowable inertia moment	~ 0.17 kg·m²

DDA

Single Axis Robot DDA Series



200V AC servo motor | high thrust | high precision

- Large diameter direct drive motor

Body width	180 mm
Operation range	360 deg. (multi-rotation)
Max. torque	~ 75 N
Allowable inertia moment	~ 1.8 kg·m²

RCP6-RTFML

ROBO Cylinder RCP6 Series



24V Stepper motor

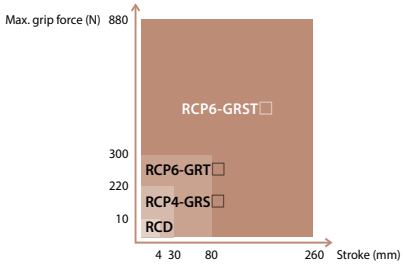
- Ø49 Large caliber hollow shaft

Operation range	±180 deg.
Max. torque	5.2 N
Allowable inertia moment	~ 0.08 kg·m²

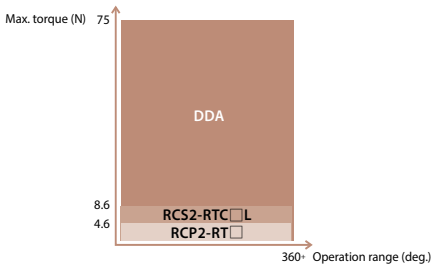
Specifications overview

Correlation chart between stroke and max. grip force/operation range and max. torque

[Gripper (2 claws)]



[Rotary]



Cartesian Robot

A combined unit with brackets and wiring treatment.

Cartesian Robot



Catalog Download
intelligentactuator.com/dg23-p25-1

Cartesian Robot
intelligentactuator.com/dg23-p25-2

Features

Choose from IK series with low-cost RCP6 or ICSB series which combines high rigidity, high precision, and high speed operation of the ISB. (2~6 axes)
A wide range of combination patterns are available for various applications.
Battery-less absolute encoder is standard, eliminating the need for a home return motion when starting up the machine.

Lineup

IK2 Series — IK2



Max. stroke X-axis: 1100 Y-axis: 500 mm
Max. payload 17 kg
Max. speed X-axis: 650 Y-axis: 800 mm/s

IK2 Series — IK2



Max. stroke Y-axis: 1100 Z-axis: 300 mm
Max. payload 8 kg
Max. speed Y-axis: 800 Z-axis: 800 mm/s

IK3 Series — IK3



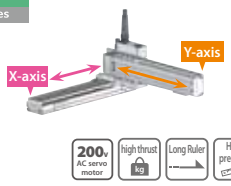
Max. stroke X-axis: 1100 Y-axis: 500
Z Axis: 300 mm
Max. payload 6 kg
Max. speed X-axis: 300 Y-axis: 640
Z-axis: 800 mm/s

IK4 Series — IK4



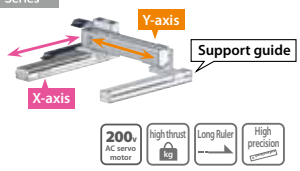
Max. stroke X-axis: 1100 Y-axis: 400
Z-axis: 150 R-axis: ±360 mm
Max. payload 5kg
Max. speed X-axis: 300 Y-axis: 280
Z-axis: 400 R-axis: 1000 mm/s

ICSB2 Series — ICS(P)B2-B□



Max. stroke X-axis: 3000 Y-axis: 700 mm
Max. payload 90 kg
Max. speed X-axis: 2500
Y-axis: 2400 mm/s

ICSB2 Series — ICS(P)B2-G□



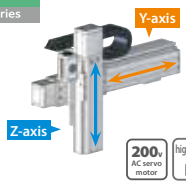
Max. stroke X-axis: 2500 Y-axis: 1200 mm
Max. payload 60 kg
Max. speed X-axis: 1200
Y-axis: 1200 mm/s

ICSB2 Series — ICS(P)B2-Z□



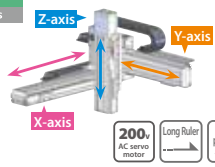
Max. stroke X-axis: 2500 Z-axis: 500 mm
Max. payload 20 kg
Max. speed X-axis: 2400
Z-axis: 1200 mm/s

ICSB2 Series — ICS(P)B2-Y□



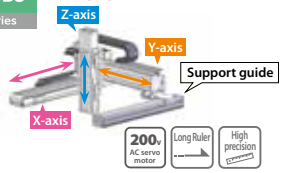
Max. stroke Y-axis: 1300 Z-axis: 500 mm
Max. payload 40 kg
Max. speed Y-axis: 2400
Z-axis: 1200 mm/s

ICSB3 Series — ICS(P)B3-B□



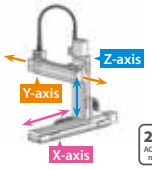
Max. stroke X-axis: 3000 Y-axis: 700
Z-axis: 500 mm
Max. payload 36.4 kg
Max. speed X-axis: 2500 Y-axis: 2400
Z-axis: 1200 mm/s

ICSB3 Series — ICS(P)B3-G□



Max. stroke X-axis: 2500 Y-axis: 1200
Z-axis: 600 mm
Max. payload 34.3 kg
Max. speed X-axis: 1200 Y-axis: 1200
Z-axis: 1200 mm/s

ICSB3 Series — ICS(P)B3-Z3□



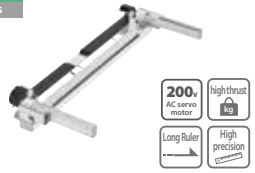
Max. stroke X-axis: 1270 Y-axis: 500
Z-axis: 500 mm
Max. payload 16.5 kg
Max. speed X-axis: 1200 Y-axis: 1200
Z-axis: 600 mm/s

ICSB4 Series — ICS(P)B4-B□HZR□



Max. stroke X-axis: 1300 Y-axis: 700
Z-axis: 200 R-axis: ±360mm
Max. payload 5 kg
Max. speed X-axis: 1200 Y-axis: 1200
Z-axis: 1256 R-axis: 2200 mm/s

ICSB4 Series — ICS(P)B4-B□N1□



Max. stroke X-axis: 2700 Y-axis: 700 mm
Max. payload 45 kg
Max. speed X-axis: 2400 Y-axis: 1200 mm/s

ICSB6 Series — ICS(P)B6-B□N1□

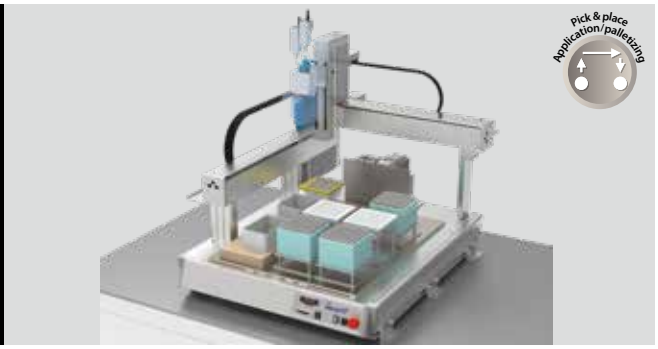


Max. stroke X-axis: 2700 Y-axis: 700
Z-axis: 500 mm
Max. payload 20 kg
Max. speed X-axis: 2400 Y-axis: 1200
Z-axis: 1200 mm/s

Tabletop Robot

Built-in controller and power supply. Active in cell production sites.

Tabletop Robot



Catalog Download
intelligentactuator.com/dg23-p26-1

TTA Product Page
intelligentactuator.com/dg23-p26-2

Features

Tabletop all-in-one Cartesian Coordinate Robot with built-in controller and power supply, capable of interpolated control of up to 4 axes.
Two patterns are available: workpiece moving type and workpiece fixed type.

Simple program
Automatic generation of soldering, coating, and screw tightening programs is possible by using the "SEL Program Generator" in the PC software (see p. 44 for details)

Switch Option
Up to four additional switches can be added to the full panel for configurable usage. No PLC is required, reducing wiring and lowering costs.

Workpiece gantry type TTA-A Series

Type where workpieces are loaded on the X Axis and moved around.
The workpiece itself moves.



Workpiece mount type TTA-C Series

Type where workpieces are loaded on the base.
The workpiece itself does not move.



Lineup

TTA Series TTA-A2



24v Stepper motor / 24v AC servo motor

Max. stroke	X-axis: 500 Y-axis: 500 mm
Max. payload	X-axis: 30 Y-axis: 20 kg
Max. speed	X-axis: 1200 Y-axis: 1200 mm/s

TTA Series TTA-A3



24v Stepper motor / 24v AC servo motor

Max. stroke	X-axis: 500 Y-axis: 500 Z-axis: 150mm
Max. payload	X-axis: 30 Z-axis: 15 kg
Max. speed	X-axis: 1200 Y-axis: 1200 Z-axis: 400 mm/s

TTA Series TTA-A4



24v Stepper motor / 24v AC servo motor

Max. stroke	X-axis: 500 Y-axis: 500 Z-axis: 150 mm
Max. payload	X-axis: 30 ZR-axis: 15 kg
Max. speed	X-axis: 1200 Y-axis: 1200 Z-axis: 400 mm/s

TTA Series TTA-C2



24v Stepper motor / 24v AC servo motor

Max. stroke	X-axis: 500 Y-axis: 450 mm
Max. payload	20 kg
Max. speed	X-axis: 1000 Y-axis: 800 mm/s

TTA Series TTA-C3



24v Stepper motor / 24v AC servo motor

Max. stroke	X-axis: 500 Y-axis: 450 Z-axis: 150 mm
Max. payload	15 kg
Max. speed	X-axis: 1000 Y-axis: 1000 Z-axis: 400 mm/s

TTA Series TTA-C4



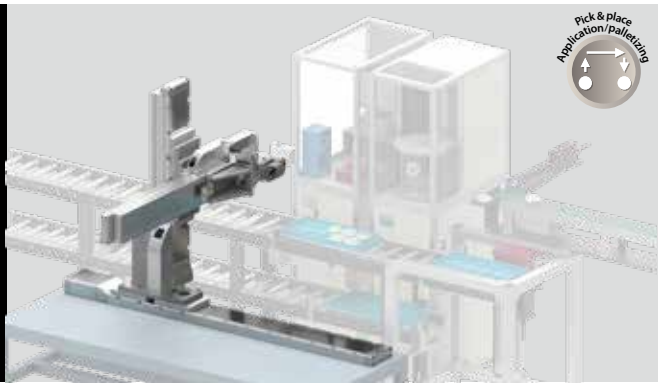
24v Stepper motor / 24v AC servo motor

Max. stroke	X-axis: 500 Y-axis: 450 Z-axis: 150 mm
Max. payload	15 kg
Max. speed	X-axis: 1000 Y-axis: 1000 Z-axis: 400 mm/s

Cartesian 6-Axis Robot

Three orthogonal axes + three rotational axes provide a high degree of freedom of movement.

Cartesian 6-Axis Robot



Catalog Download
intelligentactuator.com/dg23-p27-1

Cartesian 6-Axis Robot
intelligentactuator.com/dg23-p27-2

Features

This 6-DOF robot combines 3 orthogonal axes and 3 rotational axes.
High degree of freedom of movement including rotation and swivel is possible.
The orthogonal 6-axis robot can perform movements that could only be handled with Vertical multi-joints at a lower cost.

Simulation
Using the "Simulator for CRS" in the PC software, operation check, programming, and cycle time check can be performed in advance even without the robot itself.

Optimal size
XYZ Axis allows selection of stroke per axis.

ROBO Cylinder
Orthogonal configuration
(X,Y, Z Axis)

+

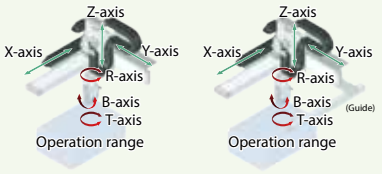
Hollow rotary
RCP6-RTFML
(R-axis)

+

Wrist Unit
WU-S/M
(B,T axis)

Can be pivoted and rotated with respect to the horizontal plane (XY plane)

Gantry type



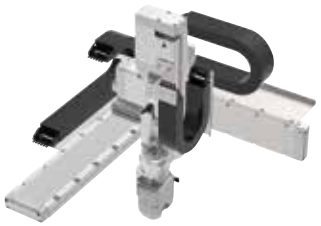
Can be pivoted and rotated with respect to a wall surface (YZ plane)

Lateral approach | Downward approach



Lineup

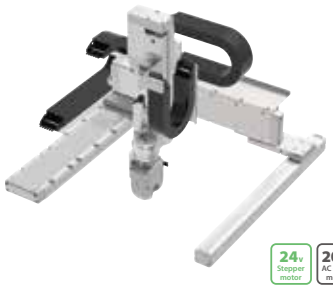
CRS Series CRS-XB□



24V Stepper motor | 200V AC servo motor

Max. stroke	X-axis: 1100 Y-axis: 300 Z-axis: 200 mm
Max. payload	2 kg
Standard cycle time	1.66 secs.

CRS Series CRS-XG□



24V Stepper motor | 200V AC servo motor

Max. stroke	X-axis: 1100 Y-axis: 600 Z-axis: 200 mm
Max. payload	2 kg
Standard cycle time	1.66 secs.

CRS Series CRS-XZCY



24V Stepper motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 200 mm
Max. payload	1 kg
Standard cycle time	2.55 secs.

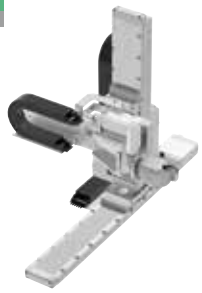
CRS Series CRS-XZCZ



24V Stepper motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 200 mm
Max. payload	1 kg
Standard cycle time	2.55 secs.

CRS Series CRS-XZ□Y



24V Stepper motor | 200V AC servo motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 500 mm
Max. payload	1 kg
Standard cycle time	1.69 secs.

CRS Series CRS-XZ□Z



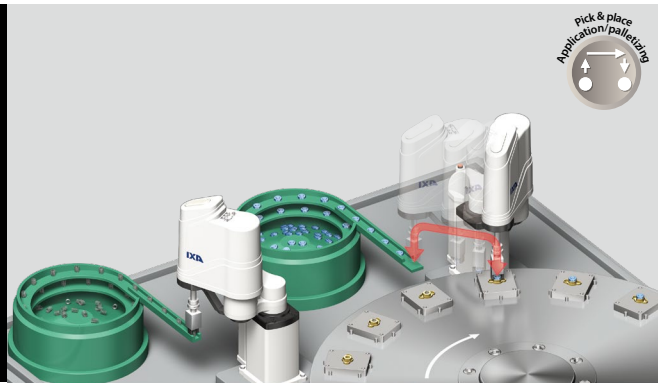
24V Stepper motor | 200V AC servo motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 500 mm
Max. payload	1 kg
Standard cycle time	1.69 secs.

SCARA Robot

The fastest SCARA robot in the industry reduces cycle time.

SCARA Robot



Catalog Download
intelligentactuator.com/dg23-p28-1

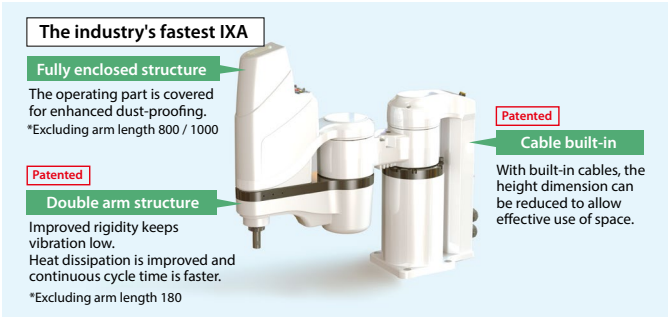
IXA Series Lineup
intelligentactuator.com/dg23-p28-2

IXP Series
intelligentactuator.com/dg23-p28-3

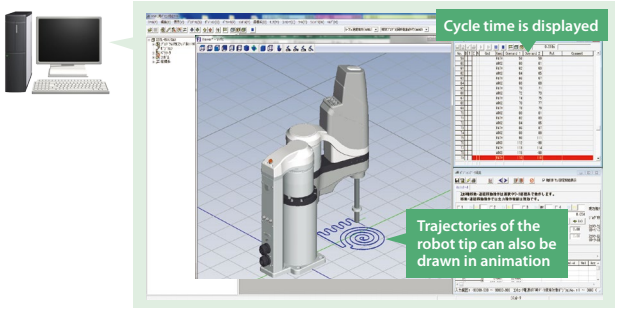
Features

Choose from the low-cost IXP series equipped with a stepper motor and the industry's fastest, high rigidity (double arm construction) IXA series.

The IXA series has an interior cable, allowing it to be used in applications with height restrictions.



IXA simulation
Using the "Simulator for IXA" in the PC software, operation check, programming, and cycle time check can be performed in advance even without the robot itself.



Lineup

IXP Series

IXP



24V Stepper motor | Low price

●Rotational axis / gripper type also available

Arm length	180~650mm
Vertical Axis Stroke	80~200mm
Max. payload	6kg
Standard cycle time	0.57 secs.~

IXA Series

Standard type
IXA-□NNN



200V AC servo motor

●6 total models

Arm length	180~1000mm
Vertical Axis Stroke	50~400mm
Max. payload	21kg
Standard cycle time	0.26 secs.~

IXA Series

High-speed type
IXA-□NSN



200V AC servo motor | High speed

●5 total models

Arm length	180~1000mm
Vertical Axis Stroke	150~400mm
Max. payload	24kg
Standard cycle time	0.26 secs.~

IXA Series

High payload type
IXA-□NHN



200V AC servo motor | Long Ruler | high thrust

●Longest IAI SCARA robot

Arm length	1000/1200mm
Vertical Axis Stroke	400mm
Max. payload	50kg
Standard cycle time	0.56 secs.~

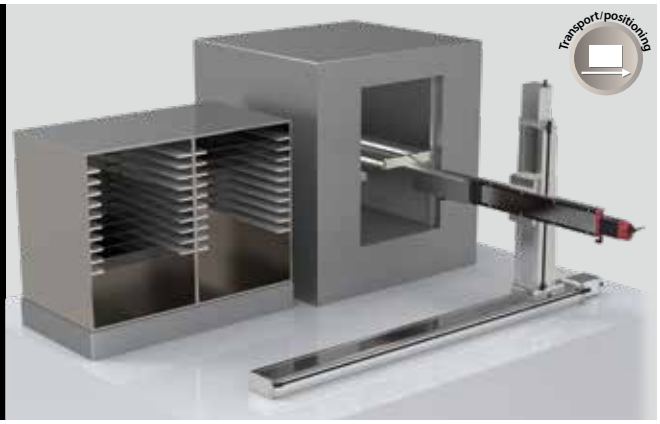
CLEANROOM

DUST/SPLASH PROOF

Slider type

Ideal for moving workpieces in the Horizontal direction or over long distances.

ROBO Cylinder Single-axis robot



Catalog Download
intelligentactuator.com/dg23-p29-1

Cleanroom Type
intelligentactuator.com/dg23-p29-2

Dust & Splash-proof Type
intelligentactuator.com/dg23-p29-3

Features

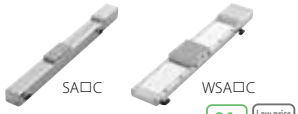
[Cleanroom]
The stainless steel sheet on the top surface, air suction inside the body, and low-dust construction with low-dust grease ensure compliance with ISO Class 2.5 or equivalent. (ISO 14644-1)

[Dust-proof/splash-proof]
The IP65 rating ensures that even dusty environments or equipment directly exposed to water will not be affected.

Lineup

Cleanroom

ROBO Cylinder RCP6CR Series — RCP6CR-SA□C/ WSA□C



- 8 total sizes
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	40 ~ 160 mm
Stroke	50 ~ 1100 mm
Max. payload	Horizontal 100 kg / Vertical 55 kg
Max. speed	1440 mm/s

ROBO Cylinder RCP6CR Series — RCP6CR-HSA□C/ HSA□XC



- 2 total sizes
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	63 ~ 75 mm
Stroke	50 ~ 1500 mm
Max. payload	Horizontal 55 kg / Vertical 25 kg
Max. speed	1280 mm/s

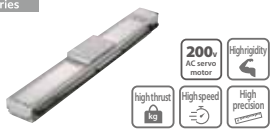
ROBO Cylinder RCS4CR Series — RCS4CR-SA□C/ WSA□C



- 8 total sizes
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	40 ~ 160 mm
Stroke	50 ~ 1100 mm
Max. payload	Horizontal 100 kg / Vertical 50kg
Max. speed	1500 mm/s

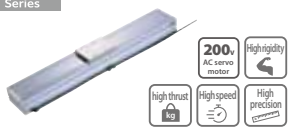
Single Axis Robot ISDBCR Series — IS(P)DBCR



- Anti-static type is also available
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	90 ~ 150 mm
Stroke	100 ~ 2500 mm
Max. payload	Horizontal 120 kg / Vertical 40 kg
Max. speed	1800 mm/s

Single Axis Robot ISDACR Series — IS(P)DACR-W



- High thrust type
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	198 mm
Stroke	100 ~ 2500 mm
Max. payload	Horizontal 120 kg / Vertical 60 kg
Max. speed	2000 mm/s

Dust-proof/splash-proof

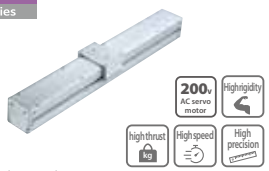
ROBO Cylinder RCP4W Series — RCP4W-SA□C



- 3 Total Types
- IP65

Body width	57 ~ 79 mm
Stroke	100 ~ 700 mm
Max. payload	20 kg
Max. speed	530 mm/s

Single Axis Robot ISWA Series — IS(P)WA



- High rigidity type
- IP65

Body width	94 ~ 155 mm
Stroke	100 ~ 1200 mm
Max. payload	70 kg
Max. speed	1000 mm/s

CLEANROOM

DUST/SPLASH PROOF

Rod type / Radial Cylinder

Ideal not only for conveyance but also for pressing and press fitting.

ROBO Cylinder



Catalog Download
intelligentactuator.com/dg23-p30-1

Cleanroom Type
intelligentactuator.com/dg23-p30-2

Dust & Splash-proof Type
intelligentactuator.com/dg23-p30-3

Features

[Cleanroom]
The air suction inside the body meets ISO Class 3.5 or equivalent. (ISO 14644-1)

[Dust-proof/splash-proof]
IP52/65 rating by sealing the joint with a gasket and seal.

Lineup

Cleanroom

RCA2CR



- Overall shortened length type
- Guide type is also available
- ISO Class 100 (0.1µm, Fed.Std.209D)

Body width	28 ~ 35 mm
Stroke	25 ~ 50 mm
Max. payload	Horizontal 6 kg / Vertical 1.5 kg
Max. speed	300 mm/s

RCS2CR



- Overall shortened length type
- Guide type is also available
- ISO Class 100 (0.1µm, Fed.Std.209D)

Body width	46 / 48 mm
Stroke	50 / 75 mm
Max. payload	Horizontal 20 kg / Vertical 6 kg
Max. speed	380 mm/s

Dust-proof/splash-proof

RCP6W-RA□/RRA□/WRA□


RA□


RRA□


WRA□

- 8 total sizes
- Motor side-mounted type is also selectable
- IP65

Body width	40 ~ 160 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 100 kg / Vertical 70 kg
Max. speed	630 mm/s

RCP5W-RA10C



- High thrust type
- IP65

Body width	108 mm
Stroke	50 ~ 800 mm
Max. payload	Horizontal 240 kg / Vertical 120 kg
Max. speed	200 mm/s

RCA2W



- Overall shortened length type
- Guide type is also available
- IP52

Body width	28 ~ 35 mm
Stroke	25 ~ 50 mm
Max. payload	Horizontal 6 kg / Vertical 1.5 kg
Max. speed	300 mm/s

RCS2W



- Overall shortened length type
- Guide type is also available
- IP52

Body width	46 / 48 mm
Stroke	50 / 75 mm
Max. payload	Horizontal 20 kg / Vertical 6 kg
Max. speed	380 mm/s

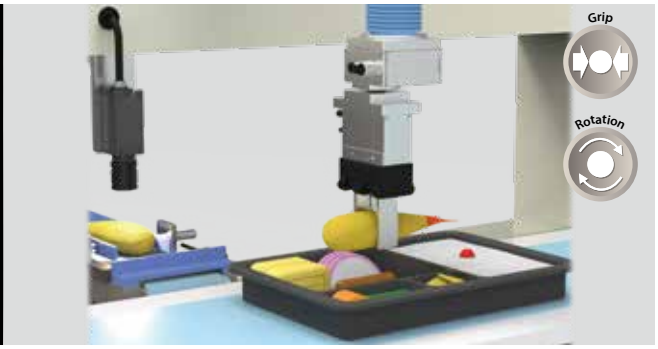
CLEANROOM

DUST/SPLASH PROOF

Gripper / Rotary

Ideal for lifting in inner/outer diameter grip and for fine position control as an index.

ROBO Cylinder Single-axis robot



Catalog Download
intelligentactuator.com/dg23-p31-1

Cleanroom Type
intelligentactuator.com/dg23-p31-2

Dust & Splash-proof Type
intelligentactuator.com/dg23-p31-3

Features

[Cleanroom]
The air suction inside the body meets ISO Class 2.5 or equivalent. (ISO 14644-1)

[Dust-proof/splash-proof]
The gripper is equipped with a rubber cover for simple dustproofing, and the rotary is dustproof and drip-proof due to the sealed structure of the body frame.

Lineup

Cleanroom

ROBO Cylinder RCP2CR Series RCP2CR-GR□



24V Stepper motor | Low price

- Slide, Lever, 3 Claw Type
- 6 total models
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	42 ~ 80 mm
Stroke (one side)	4 ~ 7 mm / 90 deg.
Max. grip force (both sides)	102 N

ROBO Cylinder RCP2CR Series RCP2CR-RT□



RCP2CR-RTB□ RCP2CR-RTC□

24V Stepper motor | Low price

- 6 total models
- ISO Class 10 (0.1μm, Fed.Std.209D)

Body width	45 ~ 114 mm
Operation range	330 / 360 deg. (multi-rotation)
Max. torque	~ 4.6 N
Allowable inertia moment	~ 0.03 kg/m²

Single Axis Robot DDACR Series DDACR



200V AC servo motor | high thrust | High precision

- Large diameter direct drive motor
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	180 mm
Operation range	360 deg. (multi-rotation)
Max. torque	~ 75 N
Allowable inertia moment	~ 1.8 kg·m²

Dust-proof/splash-proof

ROBO Cylinder RCP2W Series RCP2W-GR□



24V Stepper motor | Low price

- Slide, Lever, 3 Claw Type
- 6 total models
- IP50

Body width	42 ~ 80 mm
Stroke (one side)	4 ~ 7 mm / 90 deg.
Max. grip force (both sides)	102 N

ROBO Cylinder RCP2W Series RCP2W-RT□



RCP2W-RTB□ RCP2W-RTC□

24V Stepper motor | Low price

- 6 total models
- IP54

Body width	45 ~ 114 mm
Operation range	330 / 360 deg. (multi-rotation)
Max. torque	~ 4.6 N
Allowable inertia moment	~ 0.03 kg/m²

Single Axis Robot DDW Series DDW



200V AC servo motor | high thrust | High precision

- Large diameter direct drive motor
- IP66M

Body width	195 mm
Operation range	360 deg. (multi-rotation)
Max. torque	~ 67 N
Allowable inertia moment	~ 1.6 kg·m²

SCARA Robot

The fastest SCARA robot in the industry reduces cycle time.

SCARA Robot



Catalog Download
intelligentactuator.com/dg23-p32-1

SCARA Robot Lineup
intelligentactuator.com/dg23-p32-2

IXP Series
intelligentactuator.com/dg23-p32-3

Features

Choose from the low-cost IXP series equipped with a stepper motor and the industry's fastest, high rigidity (double arm construction) IXA series. The IXA series has an interior cable, allowing it to be used in applications with height restrictions.

[Cleanroom]
ISO Class 3 or 3.5 compliant, these products are used in assembly and transport equipment in clean environments. (ISO 14644-1)

[Dust-proof/splash-proof]
While complying with IP65, the specifications are equivalent to those of standard environmental specifications.

The industry's fastest IXA (dust-proof splash-proof specification)

Aluminum cover adopted
No water ingress due to cover deformation even when subjected to direct jets.
There is no swelling caused by coolant.

Double arm structure
Improved rigidity keeps vibration low.
Heat dissipation is improved and continuous cycle time is faster.

*Excluding arm length 300



Cable built-in
With built-in cables, the height dimension can be reduced to allow effective use of space.

Lineup

Cleanroom

IXP Series IXP-□C□



24V Stepper motor | Low price

●ISO Class 3.5 or equivalent (ISO 14644-1 Std.)

Arm length	350 ~ 650 mm
Vertical Axis Stroke	150 / 200 mm
Max. payload	6 kg
Standard cycle time	0.74 secs.~

IXA Series High-speed type IXA-4NSC



200V AC servo motor | High speed

●ISO Class 3 (ISO 14644-1 Std.)

Arm length	300 ~ 600 mm
Vertical Axis Stroke	150 ~ 330 mm
Max. payload	10 kg
Standard cycle time	0.27 secs.~

Dust-proof/splash-proof

IXP Series IXP-□W□



24V Stepper motor | Low price

●IP65 (Excluding bellows)

Arm length	350 ~ 650 mm
Vertical Axis Stroke	150 / 200 mm
Max. payload	6 kg
Standard cycle time	0.74 secs.~

IXA Series High-speed type IXA-4NSW



200V AC servo motor | High speed

●IP65 (Excluding bellows)

Arm length	300 ~ 1000 mm
Vertical Axis Stroke	150 ~ 400 mm
Max. payload	21 kg
Standard cycle time	0.30 secs.~

IXA Series High payload type IXA-4NHW



200V AC servo motor | Long Ruler | high thrust

●IP65 (Excluding bellows)

Arm length	1200 mm
Vertical Axis Stroke	400 mm
Max. payload	47 kg
Standard cycle time	0.61 secs.~

Controller Products

Compact and high-output driver board is built in.

Controller



Catalog Download
intelligentactuator.com/dg23-p33-1

Controller Lineup Page
intelligentactuator.com/dg23-p33-2

Lineup

Single-axis controller

When only 1 axis is controlled by 1 controller

Supported control system ▶ I/O (Input/output) Pulse-train Field network Serial communication (Modbus)

PCON Series



- Equipped with PowerCON (high-output driver), which draws out the maximum capability of the stepper motor
- Equipped with a collision detection function

Max. dimensions (mm): W 35 × D 78.1 × H 190

ACON Series



- Equipped with an off-board tuning function to set the optimum gain to match the transport load

Max. dimensions (mm): W 35 × D 78.1 × H 185

DCON Series



- RCD Controller

Max. dimensions (mm):
W 35 × D 78.1 × H 185

SCON2 Series



- Convenient functions such as reading actuator information, drive recorder function, safety function, etc.
- Pulse output is available

Dimensions (mm): W 40 × D 143 × H 160

SCON Series



- 200VAC servo motor
  All models equipped with the system can be connected
- Pulse output s available

Max. dimensions (mm): W 92.7 × D 174 × H 300

Multi-axis controller

When controlling multiple axes with 1 controller

Supported control system ▶ SEL language (IAI exclusive program) *Excluding RCON
I/O (Input/output) Field network

RCON Series

Recommended product!



- Unit connection type
- Different motor types can be controlled by 1 unit
- Up to 16 axes can be connected (some restrictions apply)
- ELECYLINDER can also be connected

Dimensions (mm): D 98.8 × H 115

RSEL Series

Recommended product!



- Unit connection type
- Control of different motor types is possible
- Up to 8 axes can be connected (some restrictions apply)
- ELECYLINDER can also be connected

Dimensions (mm): D 98.8 × H 115

MSEL Series



- Built-in power supply type (100~230 VAC±10%)
- SCARA Robot IXP, Wrist Unit WU can be controlled

Dimensions (mm): W 130 × D 125 × H 195

XSEL Series



- SCARA Robot IXA can be controlled
- Capable of 2-axis synchronous control
- Control of up to 40 axes is possible in the extended motion

Max. dimensions (mm): W 372 × D 125.3 × H 195

XSEL2 Series

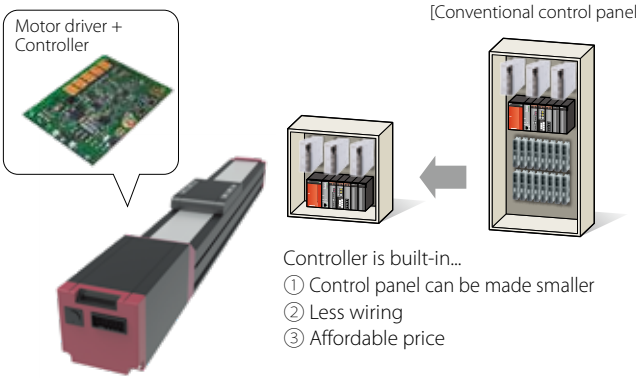


- Interference check is possible on 3D CAD data
- Equipped with software PLC
- ELECYLINDERs can be connected

Max. dimensions (mm): W 302 × D 125.3 × H 195

ELECYLINDER® Controller built-in type

For 2-point/3-point positioning, ELECYLINDER® with built-in controller is recommended.



Controller is built-in...
① Control panel can be made smaller
② Less wiring
③ Affordable price

Field network connection unit for ELECYLINDER®

REC Series

- ELECYLINDER Exclusive
- Control of different motor types is possible
- Up to 16 axes can be connected (some restrictions apply)



When connected to an EC connection unit *, I/O control via a field network is possible.
*Integration into RCON and RSEL is also possible.

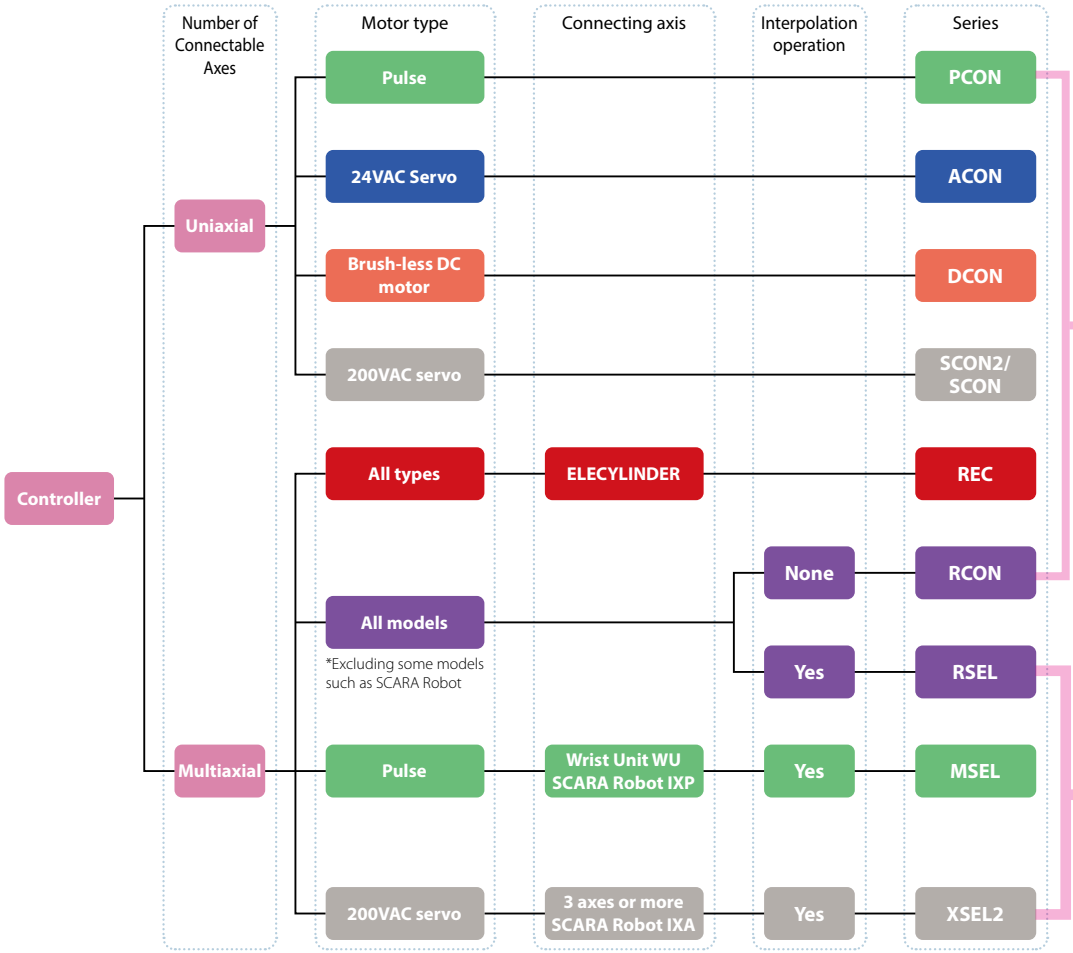
Field networks

Our controllers support numerous field networks

Motion control by motion network is also available.

DeviceNet, PROFIBUS, EtherCAT, MECHATROLINK, CompoNet, PROFINET, CC-Link, SSCNETIII/H, EtherNet/IP, CC-Link IE Field, CC-Link IE TSN

Selection flow



Simple

Positioner type

This is a type of controller that registers position and speed information in position table in advance and operates by specifying the registration number (position No.) externally. Position and speed can also be specified directly via a PLC or positioning unit.
This controller is low-cost and easy to install.

PLC Unnecessary

Program type

Control is performed by a program using IAI's proprietary language (SEL language). In the case of RSEL, the program can be easily created with a support tool. General-purpose I/O, general-purpose protocol communication, and internal operations using variables are available, so the device can be operated independently without the need for a PLC or other host device.

General functions

▶Positioner type with "□CON" in the model name

General functions

Function	Description
Multi-point positioning	0.01mm (deg.) * Set by unit
Speed control	Speed can be set for each position
Acceleration deceleration control	Acceleration/deceleration can be set for each position
Push	Push start point and current (%), Set push width
Pitch feed	Arbitrary values for equally spaced movement
Jog motion	Operable only while input is ON
Zone output	0.01mm (deg.) * Set by unit
Pausing	Stop at any position by putting up a pause signal Command cancellation is also possible by combining a reset signal
Speed changes while moving	Speed can be changed without pausing by updating only the speed while moving

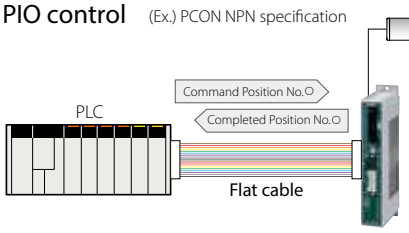
*0.001 for some models

Other functions

Function	Description
Overload warning	Set load level with parameters Warning and alarm outputs available
Collision detection *1	Set current value and judgment time If a collision is detected, Servo OFF immediately
Vibration control *2	Set vibration frequency with parameters Vibration suppression support available
Power conservation	Automatic servo OFF and auto-current down settings for power saving

*1 Stepper motor specification only
*2 AC servo motor specification only

PIO control (Ex.) PCON NPN specification



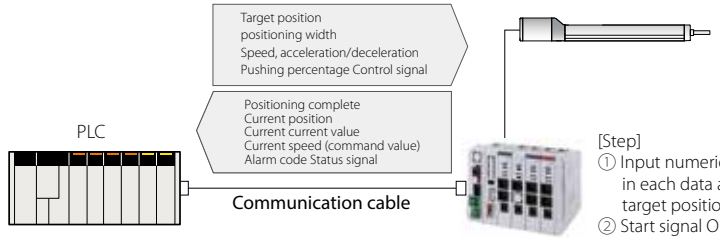
Teaching software "IA-OS" for PC
Position edit screen



- Max. 512 positioning points.
- Pre-registration of operational conditions.
- Outputs a completion signal for each position after operation completion.

[Step]
① Enter operational conditions in position data
② Specify the position No. from the top
③ Start signal ON

Field network control (Ex.) RCON direct numerical control mode



[Step]
① Input numerical values in each data area such as target position, speed, etc.
② Start signal ON

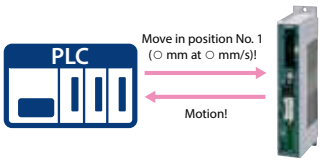
- Unlimited number of positioning points.
- Specify numerical values for target position, speed, acceleration/deceleration, and push current limit. In addition to the current position, the speed and current value can be monitored.

Compatible models

Position-specified move using I/O signals

RCON PCON ACON DCON SCON2 SCON RSEL MSEL X-SEL2 X-SEL

Select the PIO specification.
(MSEL equipped as standard)

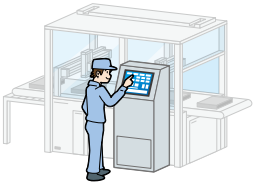


"Move!" to a pre-registered point and send instructions.

Direct numerical control from PLC, etc.

RCON PCON ACON DCON SCON2 SCON RSEL MSEL X-SEL2 X-SEL

Select the field network specification.



The position and speed of the device can be freely controlled from a touch panel attached to the device.

Interpolation control (Application, palletizing, etc.)

RSEL MSEL X-SEL2 X-SEL

Programming in IAI's proprietary language (SEL language) is required.
In the case of RSEL, the SEL program can be easily created with a support tool.

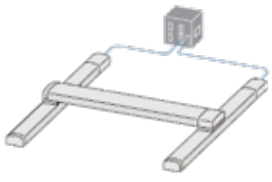


Free movement is possible, including diagonal movement and circular arcs.

Synchronous control

MSEL (+RCP6) X-SEL2 X-SEL

Select an actuator with a limit switch for the connecting actuator.

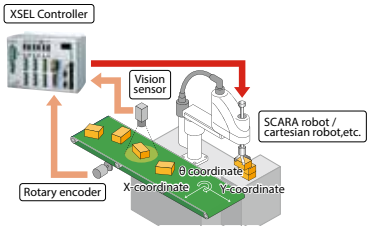


The 2 axes operate at exactly the same timing.

Conveyor tracking

X-SEL2 X-SEL

Special specifications will be supported.

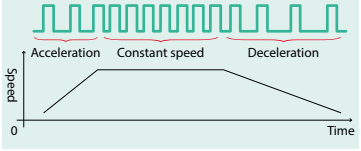


The robot transfers the workpiece in accordance with the conveyor's movement.

Pulse-train control

PCON ACON DCON SCON2 SCON

Select the pulse-train specification.



Position and speed are indicated by the number and speed of pulses.

▶Program type with "□SEL" in the model name and tabletop robot

In addition to the functions of the positioner type, the program type has the following functions.

General functions (Plus added features)

Function	Description
Interpolation control	Linear / circular motion with multiple axes interpolating each other
Synchronous control	Two axes operate simultaneously with automatic compensation
Autostart program	Automatic startup of the set program in READY state after controller power-on

Other functions (Plus added features)

Function	Description
Simple interference check zone *1	If the tool tip encroaches into arbitrary 3D space, an error output prevents interference
IXA Compliance Control	Function that softly controls the robot in accordance with external forces and assists in fitting of workpieces, etc.
Multi-slider over-approach detection *2	Ability to detect multi-slider over-approach by setting a minimum distance with parameters

*1 SCARA / Cartesian 6-axis
*2 NSA / LSA / LSAS

Controlled by IAI's exclusive program (SEL language) and position data.

PC Teaching software: IA-101



Stand-alone

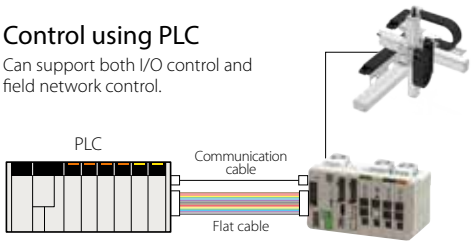
(When a host unit such as PLC is not used)



Auto-start program allows device configuration without a PLC.

Control using PLC

Can support both I/O control and field network control.



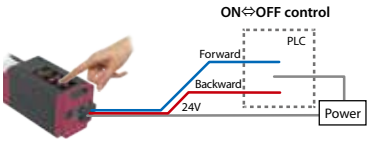
Field network enables:
- Editing position data from PLC
- Direct numerical specification from PLC
- Output of coordinates to PLC

Numerical data can be easily exchanged by programming using variables.

Air cylinder replacement

EC PCON ACON DCON SCON2 SCON

Select the PIO specification.
Solenoid valve mode is available.

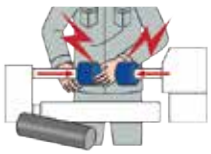


Can be operated with the same wiring and programming as the air cylinder.

Torque limited while moving

RCON PCON ACON DCON SCON2 SCON RSEL MSEL X-SEL2 X-SEL

Motor current value can be limited.
(For PCON, ACON, DCON, and SCON, only pulse-train specifications are supported.)

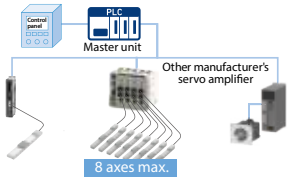


The actuator can be stopped when a person or object interferes during movement.

Motion control

RCON PCON ACON DCON SCON2 SCON

Select motion specifications. The system is equipped with a mechanism to match the timing.

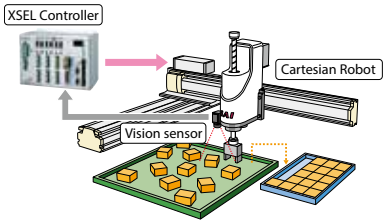


Simultaneous operation and interpolation control are possible by combining IAI products with motors from other manufacturers.

Vision system

TTA MSEL X-SEL2 X-SEL RSEL

Connection via Ethernet or RS-232C.

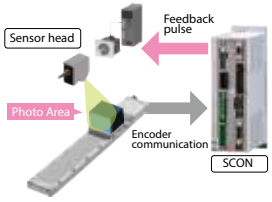


Robot can be moved to the position read by the camera. Please consult your sales representative for details.

Feedback pulse output

SCON2 SCON

Select the PIO specification. Special specifications are available for field network specifications in SCON.

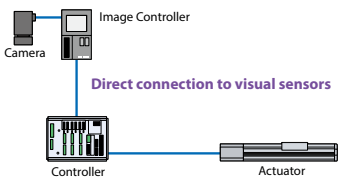


It is possible to feed back to external devices whether the actuator has moved as commanded.

Serial communication direct control

RCON PCON ACON DCON SCON2 SCON RSEL MSEL X-SEL2 X-SEL

Any I/O type can be used for any model.



The same protocol can be used to connect to software and hardware from other vendors.

24VDC power supply

Power supply internal data external output

Contents listed at right can be monitored by connecting with RCON/RSEL.

Output voltage
Output current
Load factor
Total energized time
Internal temperature
Fan speed low warning



*Image



PSA-24(L) R-unit

Calculator software provides an easy calculation for required number of 24V power units. >> P43

PSA-24

- IAI exclusive power supply
- Up to 5 units can be connected in parallel

Power supply voltage: 100 VAC ~ 230 VAC±10%
Continuous rated output: ~13.8A (330W)
Max. dimensions (mm): W 54 × D 142.8 × H 131



Brake release box

Shortened start up time

Brake release of the actuator is possible without waiting for electric wiring work.



BKR-01

- Actuator brake release without wiring to the controller during equipment start-up

Dimensions (mm): W 76 × D 35 × H 135



Digital speed controller (ELECYLINDER exclusive)

Just pick a number and input it. Intuitive digital speed controller

The ELECYLINDER can be operated simply by selecting values.

By using a digital speed controller, you can set it on the spot and check it immediately.



Wired teaching controller built-in type

Digital Speed Controller
For external / wireless communication

▼Setting screen



Simple setting (10 levels) | AVD Settings (1~100%) | Cycle time display

▼Digital speed controller enables

- Basic setting (position, acceleration, speed, deceleration)
- Reading current positions
- Jog motion
- Motor power ON/OFF
- Error display
- Setting push force motion
- Brake release
- Cycle time checking
- Alarm reset

TBD-1 Wired teaching controller

ELECYLINDER Exclusive
Wired Teaching Controller

- By connecting the included cable to the SIO connector, all ELECYLINDERs can be operated regardless of model or installation conditions

Dimensions (mm): W 31.6 × D 10.3 × H 95



TBD-1WL Wireless teaching controller

ELECYLINDER Exclusive
Wireless Teaching Controller

- Wireless communication allows easy connection to ELECYLINDER installed in hard-to-reach locations
- Maximum number of simultaneously detected axes: 16

Dimensions (mm): W 45 × D 30 × H 113

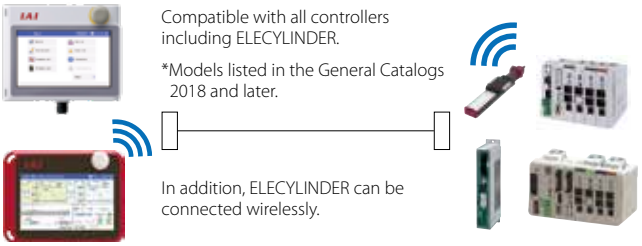


<Note>Parameter editing is not possible. To change parameters, use either PC teaching software or teaching pendant.

Controller Catalog Download
intelligentactuator.com/dg23-p38-1

Teaching pendant

All types of controller settings can be made with 1 unit



Compatible with all controllers including ELECYLINDER.

*Models listed in the General Catalogs 2018 and later.

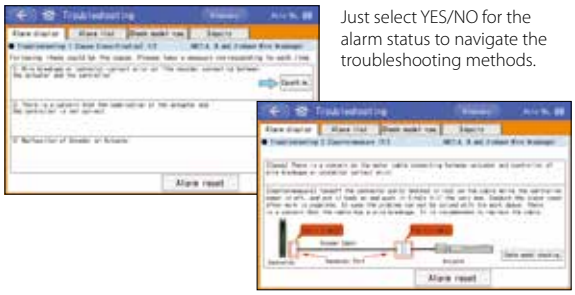
In addition, ELECYLINDER can be connected wirelessly.

Simple, graphical support functions



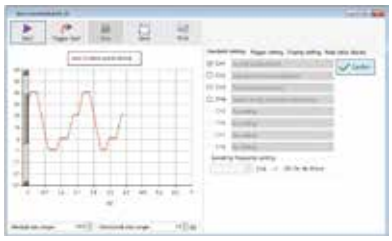
Each menu uses icons to make menu selection easier.

Enhanced troubleshooting functions



Just select YES/NO for the alarm status to navigate the troubleshooting methods.

Full range of monitoring functions



Checking actuator status and input/output signals is possible.

TB-02

- Available for safety category B~4 (TP adapter, dummy plug required separately)
- Low price

Dimensions (mm): W 190 × D 25/55 × H 155



Standard specifications

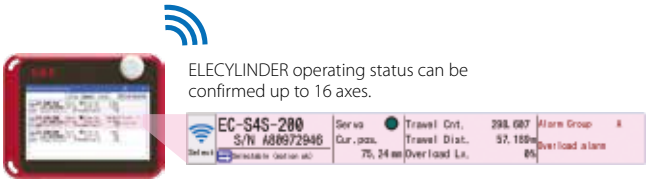


Safety category compliance specification

TB-03

- Wireless connection to ELECYLINDER allows for external positioning, operation settings, and commissioning without the need for a cable connection

Dimensions (mm): W 200 × D 34 × H 155



ELECYLINDER operating status can be confirmed up to 16 axes.

ADTB

- Teaching pendant with power supply unit
- Brake release, trial operation, and data setting are all possible prior to wiring since the teaching pendant has its own power supply unit
  *Compatible with 24V ELECYLINDER/RCP series



TB-03E/03P　TB-02E/02P

Since the RCP series power supply unit serves as the controller, a separate controller is not needed.



Operation is possible with 100VAC/200VAC power only.



ADTB

It can be mounted for your TB-03/02.

PC teaching software

Supports from designing to troubleshooting.

Teaching software for PC

There are 2 types of software for setting positions and parameters. (Windows only)

IA-OS For position controller … Compatible with controllers having ☐CON in the model name.

▼Main stored software

- IA-OS
- PC software for RC (for old controllers)
- Calculator software
- Functional safety unit configuration tool (for SCON2)

▼Compatible controllers

EC, RCON, REC, PCON, ACON, DCON, SCON2, SCON, etc.

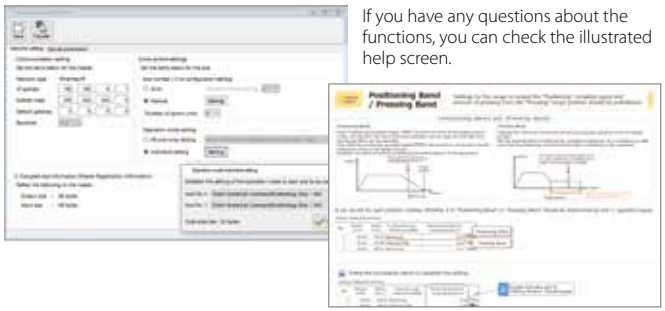
DOWNLOAD

*Please purchase through your distributor and a download link will be sent to your valid email address.

IA-OS

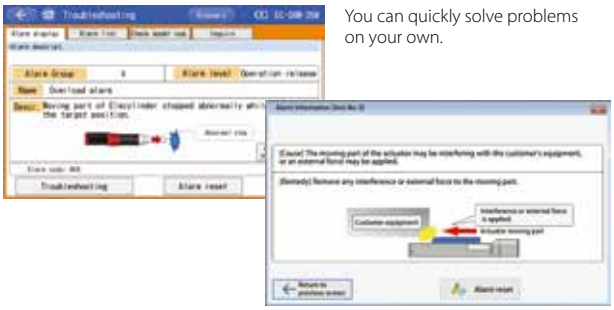
This software is used to set the position and parameters of the position controller. In addition to test runs, servo monitoring and troubleshooting are also available. The extensive help/guide functions allow for smooth start-up and setup without referring to separate manuals.

▼Trial operation / position editing



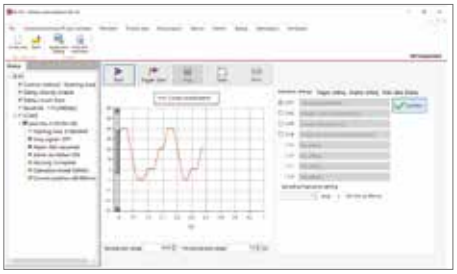
If you have any questions about the functions, you can check the illustrated help screen.

▼Troubleshooting

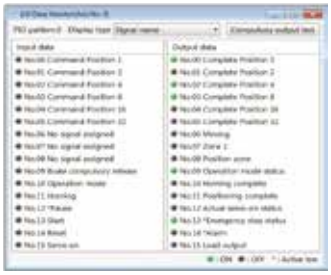


You can quickly solve problems on your own.

▼Servo monitor



▼Data monitoring



Easy checking of input/output status. Forced I/O output is also possible.



Calculator software

The calculator software is included to the IA-OS software package.

The optimum 24V power supply capacity can be determined for actuator operation.
It is also possible to calculate power consumption, number of required regenerative resistor units, and cycle time.

Flow guide



Motion setting



Calculation results



Not only electricity consumption, but also electricity costs and CO_2 emissions can be checked.

IA-101 For program controller … Compatible with tabletop robots and controllers having ☐SEL in the model name.

▼Main stored software
- IA-101 (Including older versions)
- Simulator for IXA/CRS

▼Compatible controllers
TTA, RSEL, MSEL ,XSEL, XSEL2, etc.

DOWNLOAD

*Please purchase through your distributor and a download link will be sent to your valid email address.

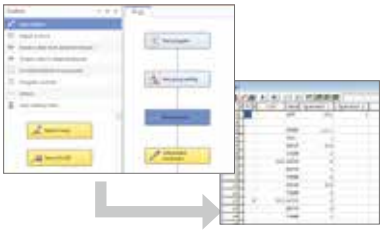
IA-101

Software for setting program controller positions, parameters, and programs.
In addition to trial operations, input/output signal checking, servo monitoring and troubleshooting are also possible.

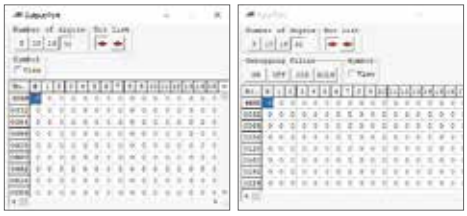
▼Program / Position editing



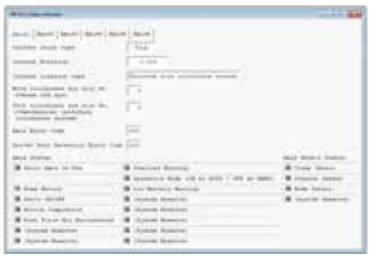
▼SEL Program support tool (for RSEL)



▼Input/output monitor



▼Assignment setting



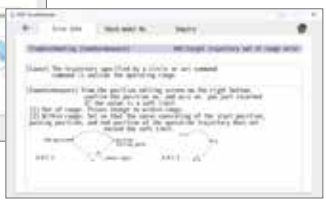




Required assignments can be done easily.

▼Troubleshooting





You can quickly solve errors at the time of programming, too.

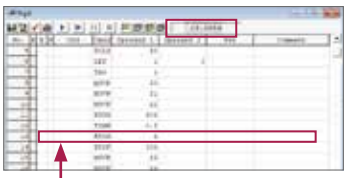
Simulator for IXA/CRS

Motion checks can be performed on SCARA (IXA) and Cartesian 6-axis robots (CRS).
Since checking is possible on the desk, designing can be done without the robot.

▼What the simulation software can do

① Program operation can be checked.

② Cycle time can be confirmed.

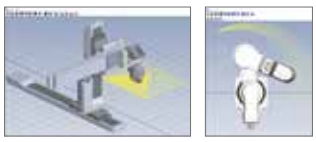




③ Input/output signals from external sources can be simulated.

④ Operation trajectory can be checked.

The motion trajectory can be observed from various directions: top, bottom, front, back, right side, left side, and isometric view.



⑤ Simple interference check zone can be set

Interference between the robot and peripheral devices can be checked.

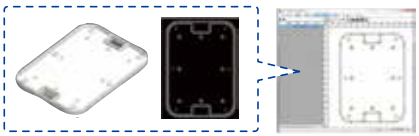


SEL Program generator

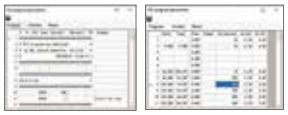
Software to easily perform soldering, coating, and screw tightening operations using a Tabletop Robot (TTA).

▼Basic operation in only 2 steps

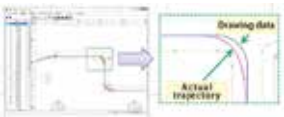
① Read the target workpiece into the DXF software



② Generate program and position data



Created automatically



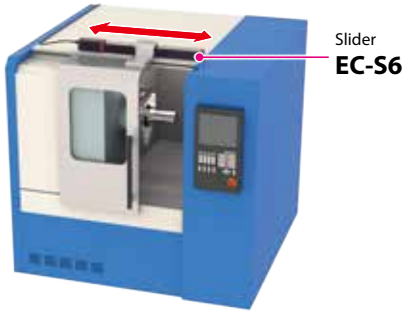
Confirm the Actual Operation
You can visually confirm the amount of deviation by overlaying the plotted data and the actual movement path.

Download the SEL program from here:
intelligentactuator.com/sel-pg/

Other Products

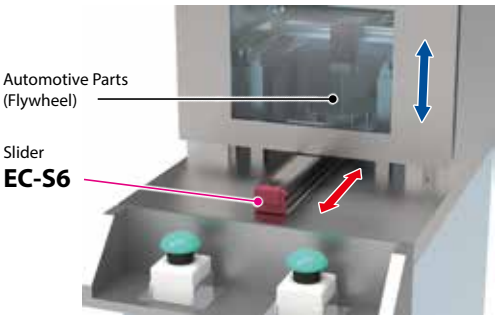
ELECYLINDER (2-point positioning)

Door opening/closing mechanism for processing machines



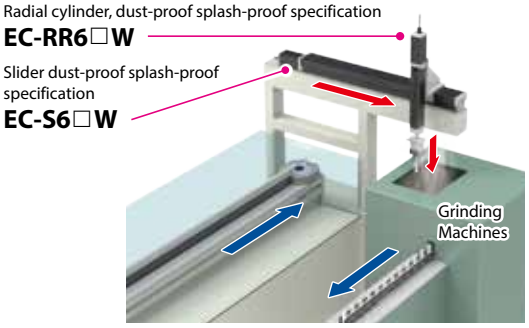
In addition to speed, acceleration and deceleration can be set respectively, enabling shockless opening and closing while increasing speed.

Laser marking equipment



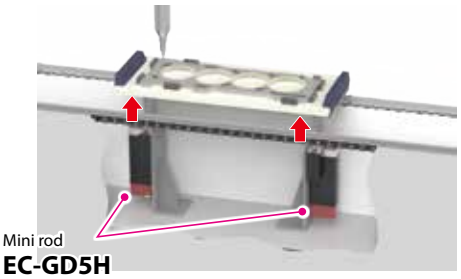
Positions can be set in increments of 0.01mm, and feedback control of 1,000 times per second ensures repeatable and accurate engraving.

Ceramic product grinding process



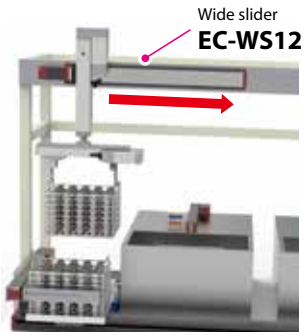
Since S6□W is IP43/44 (IP54 equivalent with WS option) and RR6□W is IP67 rated, they can be used in machining processes where dust is generated.

Sealant application equipment



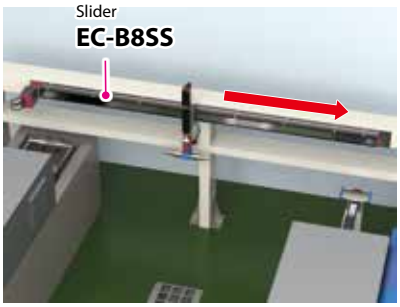
Compact slender type with built-in controller and shortened overall length. Wireless teaching is possible by using the teaching tool TB-03 or Wireless Teaching Controller.

Workpiece transfer device for washing machines



The wide slider type has high moment rigidity and can handle large overhangs. In addition, vibration during movement can be prevented by individual settings of acceleration, speed, and deceleration.

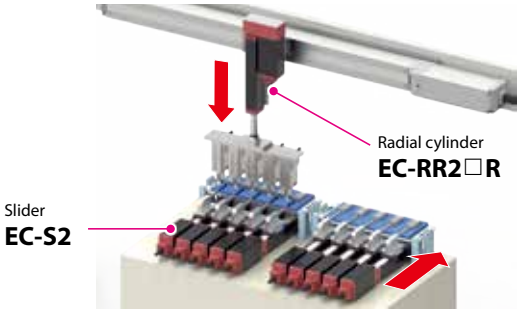
In-process transfer of motor shafts



The belt-driven type is ideal for long-distance interprocess transfer because there is no speed reduction due to strokes. Battery-less absolute encoder eliminates the need for home return when power is turned on.

Automobile Machinery

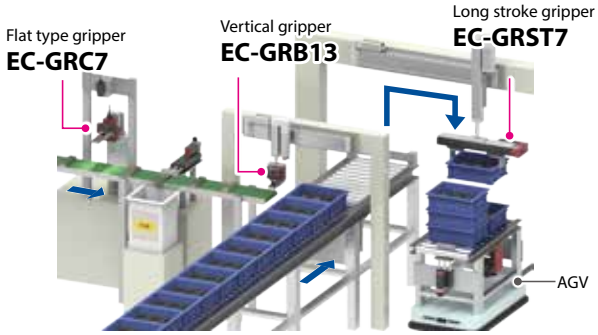
Transfer and press-fitting of plastic gears into motors



The 20mm compact base width allows for use in locations where installation space is limited. Since pressing settings are quantified, every part can be accurately press-fitted with the same torque.

Automobile Machinery

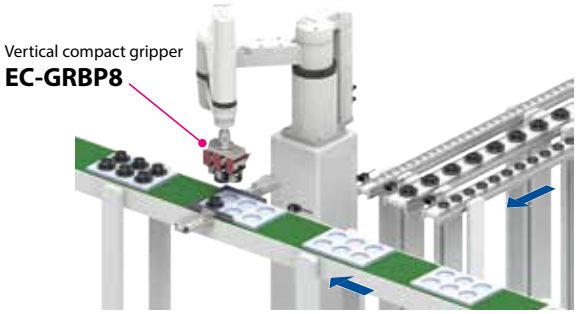
Inspection and pallet-transfer of diecast parts



Several variations are available: flat type with height of 30/35 mm, vertical type convenient for combined axes, maximum gripping force of 1641 N (both sides), and long stroke type with maximum stroke of 130 mm (one side).

Automobile Machinery

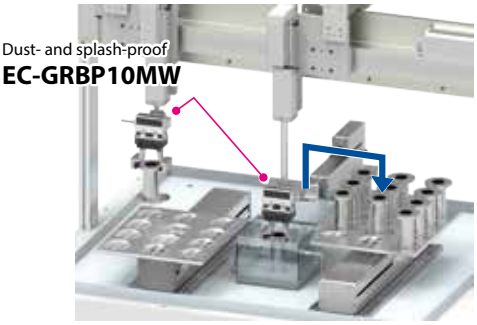
Bearing assembly process



Thanks to its compact body, multiple axes can be combined and used. Despite its compact body, high precision gripping is possible because of the built-in driver and controller like other ELECYLINDERs.

Automobile Machinery

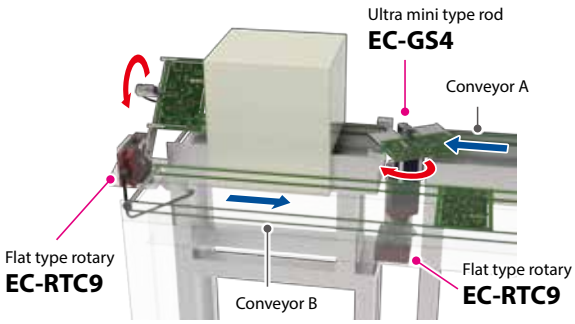
Cleaning equipment for metal parts



IP54 equivalent construction allows for operation in the environment where it is exposed to water splash. The rubber cover material can be selected according to the environment. (chloroprene rubber or silicone rubber)

Electrical Machinery Precision

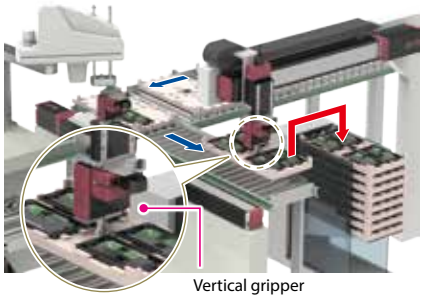
Substrate reversal



Since the rotary type can also adjust acceleration and deceleration, speed can be increased while reducing the impact at the time of reversal.

Electrical Machinery Precision

Transfer of electronic parts

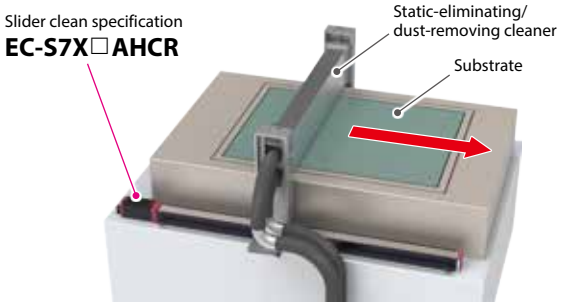


Gripping force, standby position and gipping start position can easily be set numerically. Wireless teaching is possible by TB-03 teaching tool or wireless teaching controller.

ELECYLINDER (2-point positioning)

Electrical Machinery Precision

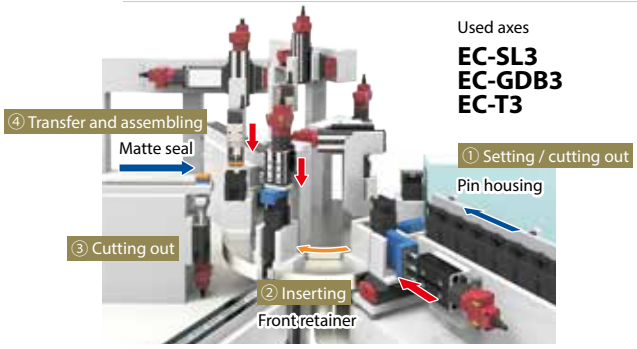
Static-eliminating/dust-removing air type substrate cleaner



Cleanroom specification is compliant with ISO class 2.5 or 3.
Suitable for transfer in the clean environment.

Electrical Machinery Precision

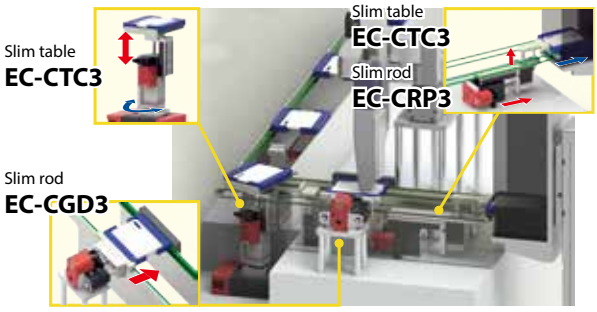
Index table connector assembling equipment



Palm-sized electric actuator.
Up to 16 axes can be connected by using the REC controller.

Electrical Machinery Precision

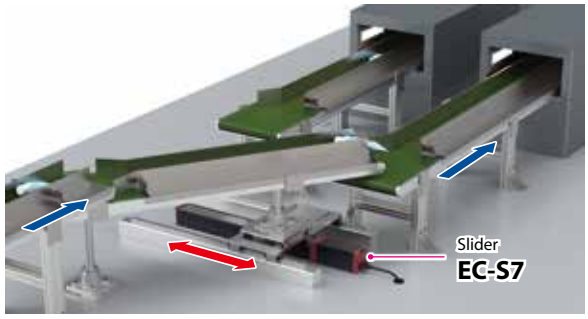
Printing process for cover parts



The slim body's overall length is 59.5 mm and up, allowing for use in locations where installation space is limited.

Pharmaceuticals Medical supplies

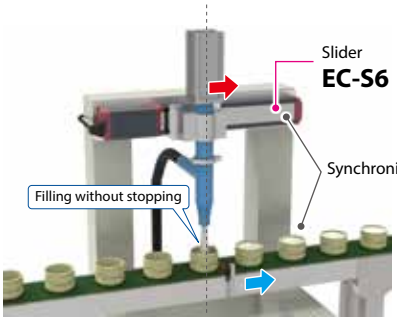
Sorting equipment for cosmetic goods on the conveyor



Since there is no degradation of speed due to aging, the system can perform sorting according to the setting for a long period of time.

Pharmaceuticals Medical supplies

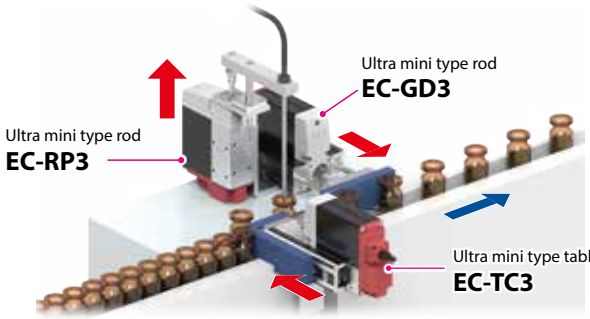
Hand cream filling equipment



The speed can be set in 0.01 mm/s increments, allowing the conveyor speed and motion to follow. This reduces the time required for conveyor stoppage.

Pharmaceuticals Medical supplies

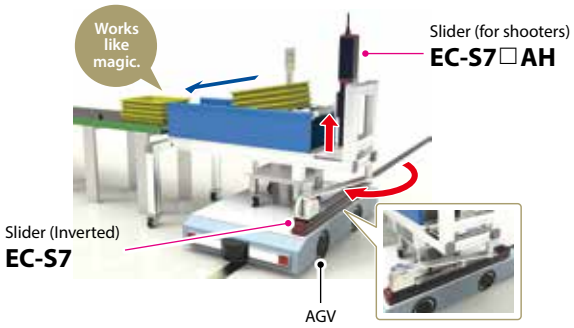
Filling line for vials



The compact base width of approximately 30 mm allows for compact equipment design. Since the same operation is performed every time, choco-tei (temporary stoppages) due to timing deviations can be reduced.

Logistics

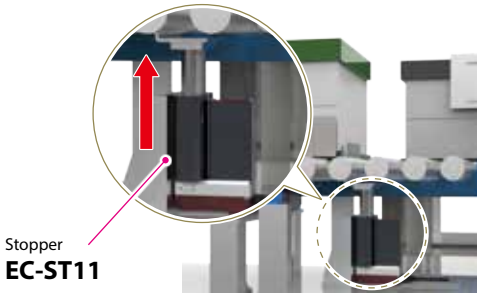
Equipment for inverting pallets loaded on AGVs



The built-in controller and 24V power supply make it ideal for installation in AGVs.

Logistics

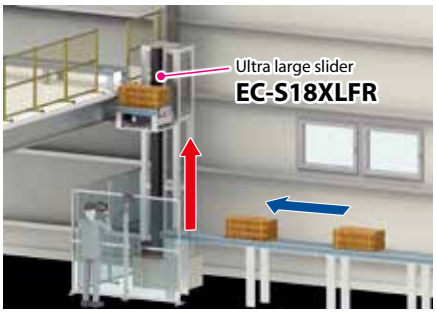
Stopper for foldable container line



Sliding bushing construction is resistant to radial impact loads, making it ideal for stopper applications.
The 24V power supply allows it to be used in any location.

Logistics

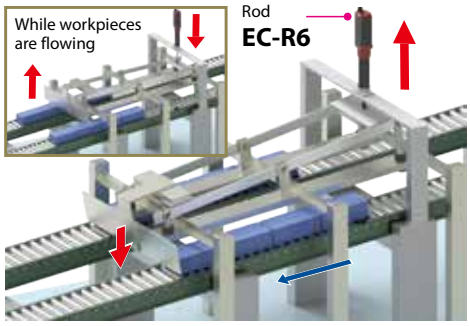
Timber lift and transfer device



The ultra large slider type for timber transfer.
Best suited for lifting applications because long stroke movements are possible even when mounted vertically.

Logistics

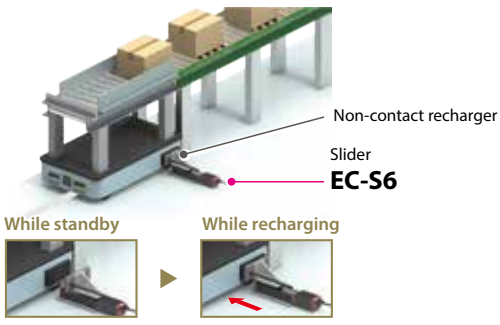
Workpiece stopper of a chuter



Since there is no degradation of speed due to aging, speed re-adjustments and manual relocation of workpieces are not needed.

Logistics

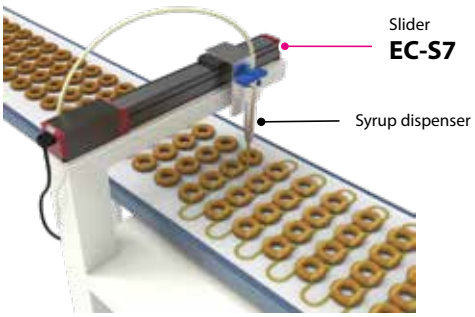
Positioning equipment for AGV recharger



The position can be set in 0.01 mm increments, allowing the recharger to be aligned precisely.
This prevents component damage due to contact with the AGV.

Foodstuffs

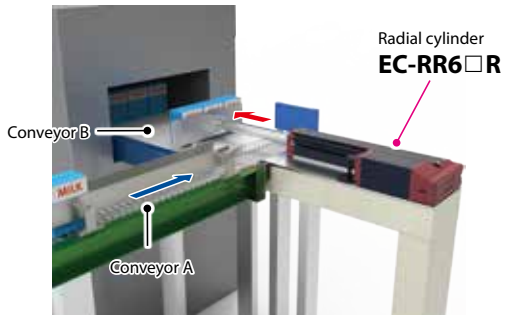
Equipment for dispensing syrup on donuts



The speed feedback of 20,000 times per second ensures that the moving speed is stable and evenly syrupy.

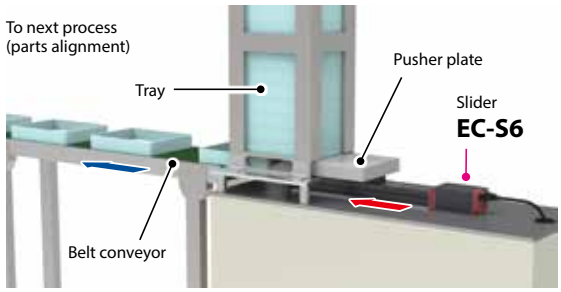
ELECYLINDER (2-point positioning)

Milk carton transfer equipment



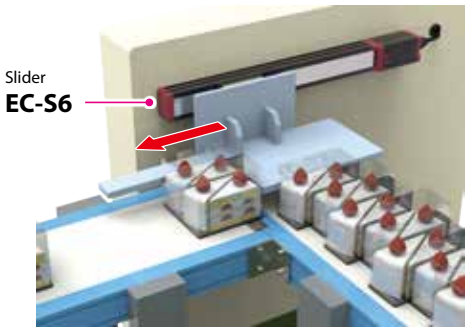
In addition to speed, acceleration and deceleration can be set respectively, thus preventing milk cartons from being knocked over or rolled in.

Tray unstacking equipment



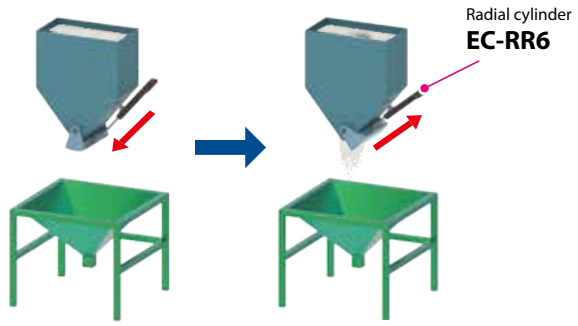
Since speed feedback is performed 20,000 times per second, the same timing can be used for each tray.

Shortcake transfer equipment



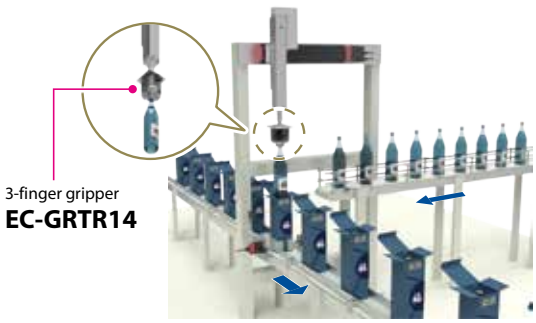
Smooth start/stop by adjusting acceleration and deceleration allows cakes to be transferred to the conveyor without collapsing.

Automated weighing equipment for rice



Since the speed does not change with the season or time of day, it opens and closes at the same timing every time. No more rice than the specified amount flows in, eliminating the need for re-weighing.

Packing process for Japanese rice wine bottles



The 3-finger is suitable for gripping cylindrical workpieces such as bottles. Due to the built-in controller, settings for gripping force and gripping start position can be performed precisely.

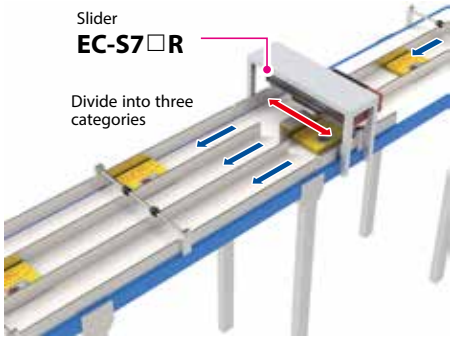
Commercial Dishwasher door open/close



Driven by 24V power supply, no wiring work is required in the kitchen. The built-in controller helps save space.

Foodstuffs

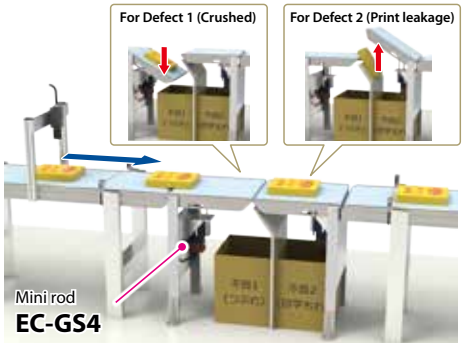
Equipment for sorting curry packs to the next process line



Speed feedback of 20,000 times per second ensures stable speed and eliminates misclassification.

Foodstuffs

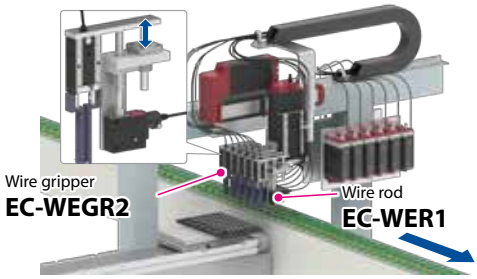
Damaged instant soup package sorting equipment



Compact slender type with built-in controller and shortened overall length. Wireless teaching is possible by using the teaching tool TB-03 or Wireless Teaching Controller.

Other

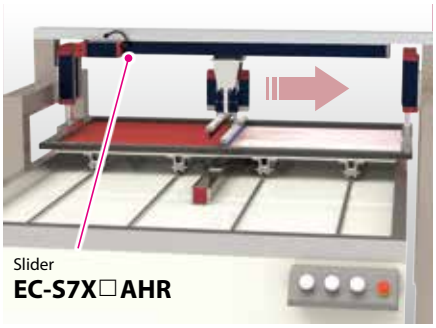
Assembling process of clock circuit boards



Application of pick and place for parts (quartz) using wire cylinders. It's compact and light weight allow multiple axes to be installed together at the tip of the robot.

Other

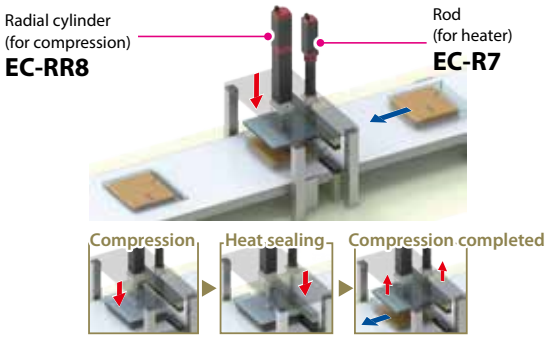
Silk screen printing machine



If the installation space in the longitudinal direction is limited, we recommend the motor side-mounted type.

Other

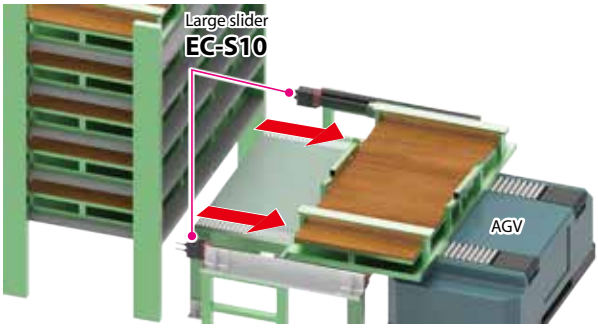
Bagging of clothes



Feedback control enables the same operation every time. Since the operation is stable, automation is possible while maintaining high quality.

Other

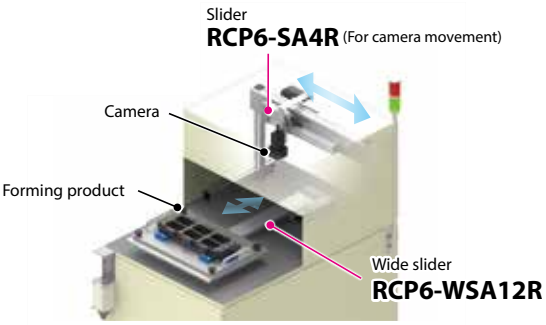
Transfer equipment for stands



Simultaneous motion is possible by applying motion commands to two axes simultaneously. Feedback control reduces choco-tei (temporary stoppages) and re-adjustment due to time lag between the two axes.

Multi-point positioning / Multi-axis products / Cleanroom, dust-proof, splash-proof

Insert missing parts inspection equipment for resin cases



The inspection camera is brought to a smooth standstill by adjusting acceleration and deceleration. This can significantly reduce standby time due to camera vibration.

Tensile testing of wire harnesses

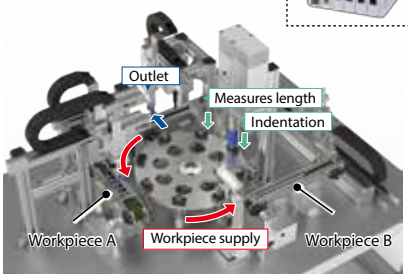


Pulse presses can handle loads in the tensile direction and have no limit on tensile time. High precision judgments are possible at a low cost.

Automatic assembly machine with indexing system (press fitting of bushings)

More than 20 axes of actuators are used in a space of about 1m square.


RCON

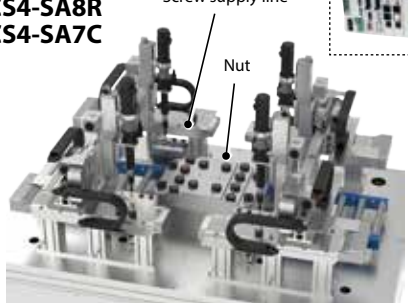


R-unit controllers can be used with a mix of 24V/200V motors. A single unit can connect up to 16 axes, reducing price and installation space.

Orthogonal 3-axis nutrunner screw tightening equipment

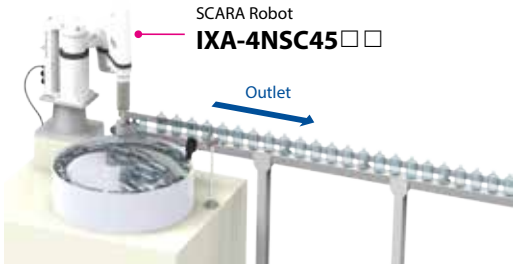
X Axis: **RCS4-WSA16R**
Y Axis: **RCS4-SA8R**
Z Axis: **RCS4-SA7C**


RSEL



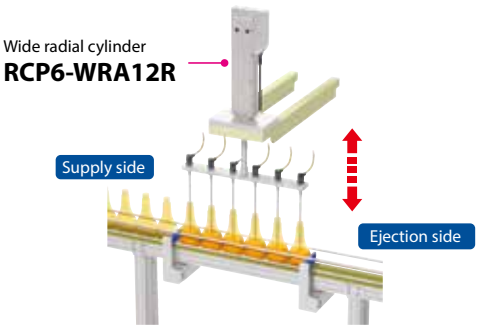
IAI's slider type incorporates a ball circulating type with a built-in linear guide, making it suitable for applications with large rotational reaction forces and moment loads.

Pick and place medical bottles



The IXA cleanroom specification is ISO Class 3 compliant, making it ideal for operation in clean environments. Preliminary verification on a PC is possible by using simulation software.

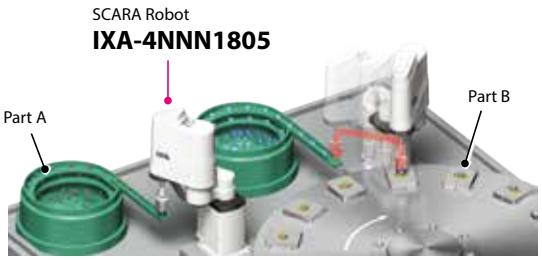
Shampoo bottle filling equipment



The speed can be changed during movement, allowing the nozzle tip to move in accordance with the rate of rise of the liquid surface. By adjusting acceleration and deceleration, shampoo foaming can be prevented.

Automobile Machinery

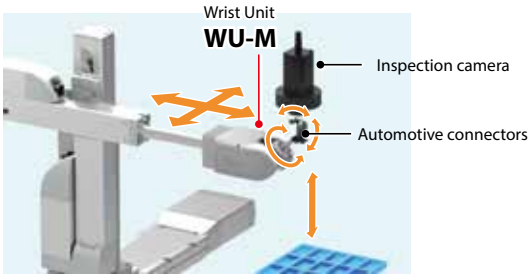
Fast pick and place of radiators and tips



IXA, the fastest in the industry, also supports push-motion operation.
When fitting part A to part B, the position error can be compensated (compliance control).

Automobile Machinery

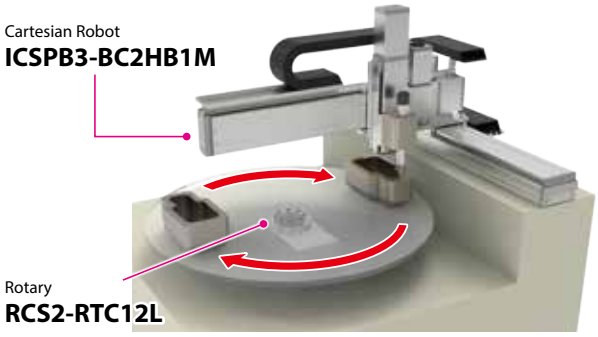
Automotive connector inspection equipment



Diagonal approaches and tip swiveling, possible until now only with vertically articulated robots, can now be performed at a low cost.
The wrist unit is capable of interpolating motion with the orthogonal axes.

Automobile Machinery

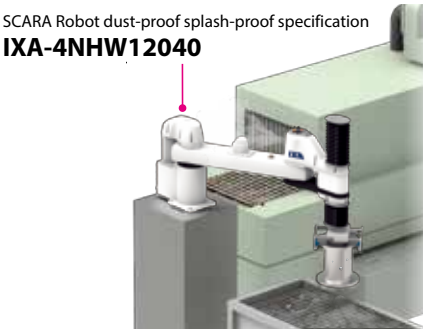
Part sealant application equipment



Multiple target positions can be moved to the final landing point without stopping (pass operation). Since there is no need to pause, coating time can be shortened.

Automobile Machinery

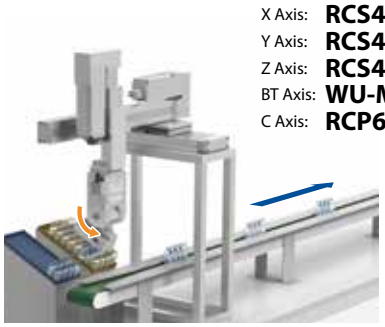
Workpiece supply/unloading process to washing machine



The IXA's dust-proof and splash-proof specifications are IP65 compliant, so it is not affected by water vapor.
The IXA-4NHW12040 can handle a max. payload of 47 kg.

Pharmaceuticals Medical supplies

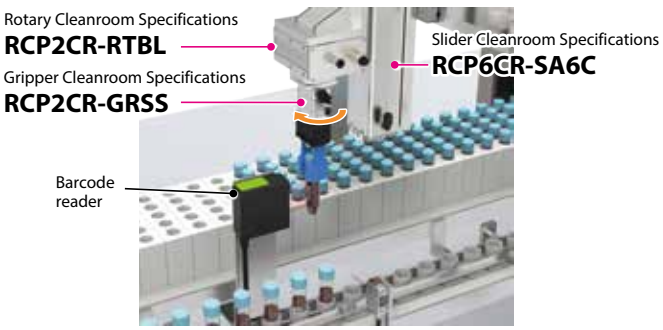
Pick and place vials



By combining Cartesian axes and wrist units, the cost can be reduced compared to Vertical articulated robots.
In addition, the size of the safety fence can be reduced.

Pharmaceuticals Medical supplies

Barcode reading of specimen samples

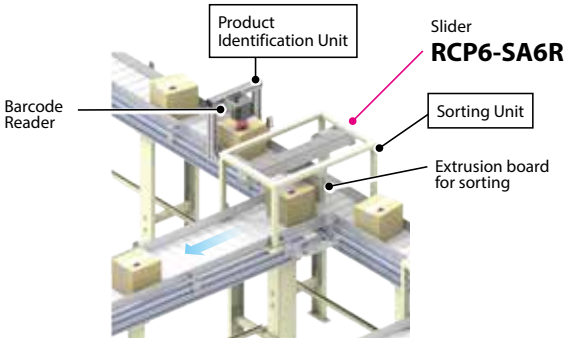


The system is ISO class 2.5 equivalent, making it ideal for operation in clean environments. The wide lineup of products allows for a combination of axes with cleanroom specifications.

Multi-point positioning / Multi-axis products / Cleanroom, dust-proof, splash-proof

Logistics

Automatic sorting equipment for corrugated cardboard

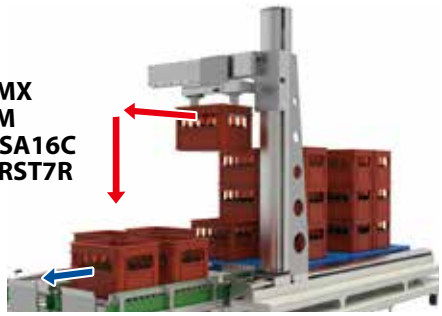


Since the speed can be changed during the movement, the cycle time can be shortened by using low speed in the range where the extruder plate for sorting contacts the corrugated board, and then using high speed for subsequent extrusion movements.

Logistics

Beer bottle case transfer equipment

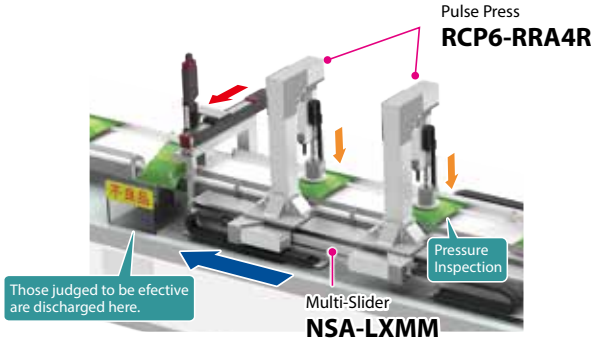
Single Axis Robot
X Axis: **ISB-WXMX**
Z Axis: **ISB-WXM**
Y Axis: **RCS4-WSA16C**
G Axis: **RCP6-GRST7R**



ISB-WXM has a high payload capacity of horizontal 400 kg and vertical 80 kg. Even heavy loads can be handled with a uniaxial configuration robot.

Foodstuffs

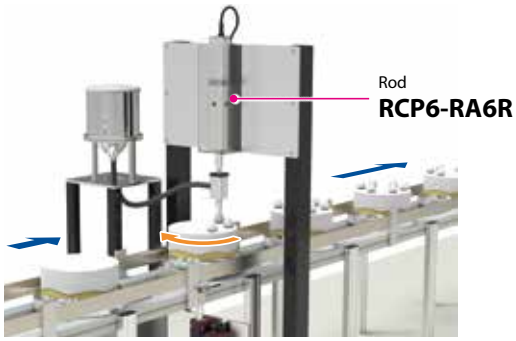
Packaging Bag Leak Test Machine



NSA's multi-slider system has two sliders that each move in tandem with the conveyor, eliminating the need to stop the conveyor for each inspection.

Foodstuffs

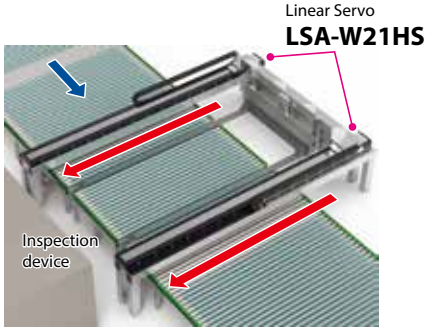
Cake decorating equipment



The speed can be changed while moving, so that the cream can be dispensed slowly at first and faster at the end.
Multi-point positioning allows for the handling of cakes of various shapes.

Electrical Machinery Precision

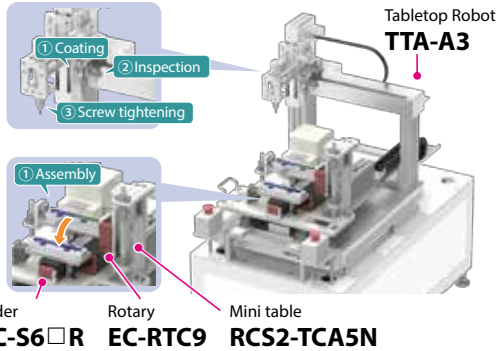
Glass circuit board loader/unloader



Large glass circuit boards are transported by 2-axis synchronous control.
Stroke is 4155 mm.
There is no speed reduction even with long strokes.

Electrical Machinery Precision

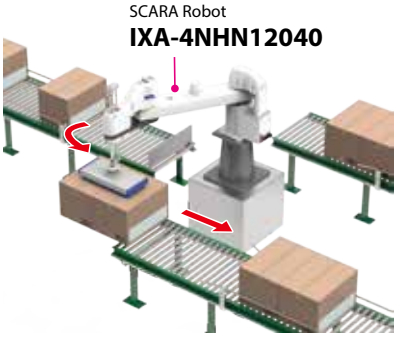
Compact LED light assembly machine



Four processes (assembly, coating, screw tightening, and inspection) are integrated into a single tabletop robot. The number of workpiece sets can be reduced and cycle time can be shortened.

Logistics

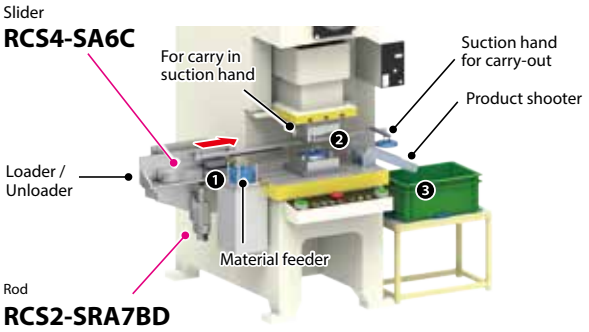
Interconveyor transfer equipment



Large SCARA robot with arm length of 1200 mm and maximum payload of 50 kg.
Collision detection and interference check functions by the controller prevent damage due to collisions.

Foodstuffs

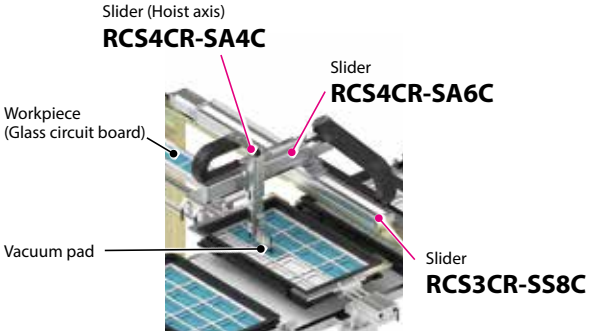
Loader/Unloader for Press Machine



By adjusting the deceleration, the shock when X Axis stops can be reduced, preventing the workpiece from falling.

Electrical Machinery Precision

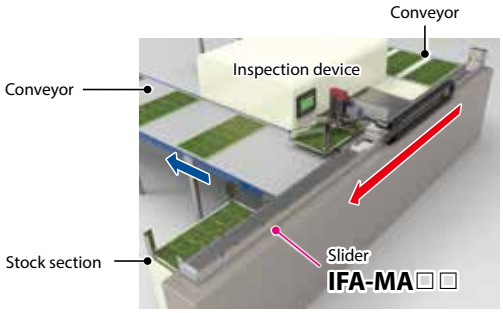
Glass circuit board transfer equipment



The system is ISO class 2.5 equivalent, making it ideal for operation in clean environments. Arching the motion allows palletizing with the shortest path (arch motion).

Electrical Machinery Precision

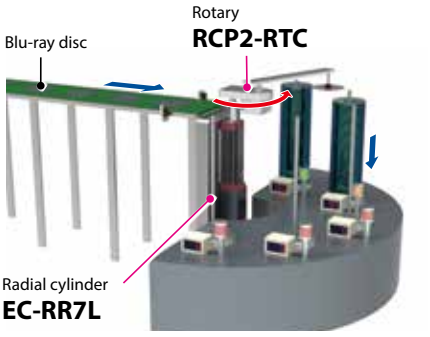
Circuit board inspection inter-process transfer equipment



The belt-driven type is ideal for long-distance interprocess transfer because there is no speed reduction due to strokes. Stroke up to 3200 mm, max. speed up to 3000 mm/s.

Electrical Machinery Precision

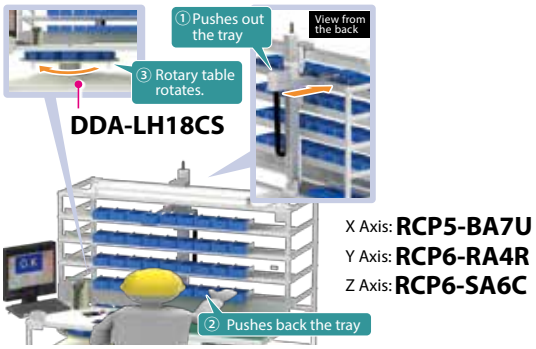
Blu-ray disc process feed



Rotary multi-point positioning increases the number of stock sections and eliminates setup changeover. Feedback control ensures reliable feeding to the stock section.

Other

Electric parts rack



Since the system does not use a sensor, but uses the actuator's position information to confirm take-out, the cost can be reduced compared to conventional error-proofing systems.

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