

**IAI**  
Quality and Innovation

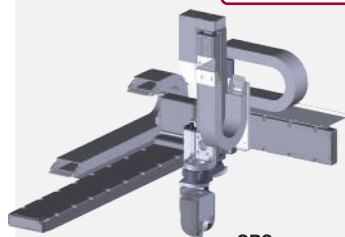
# IAI ROBOT LINEUP GUIDE

Product Lineup Catalog

ELECYLINDER®  
ROBO Cylinder®  
Industrial robots

**Coming soon!**  
Cleanroom Specification

**Available now!**



CRS



IXA  
Dust-splash proof  
Specification

**Newest Additions to the ELECYLINDER® Series**

Cleanroom specification, Digital long stroke, Wide slider, Power unit for TB series



**Coming soon!**



[www.intelligentactuator.com](http://www.intelligentactuator.com)

ELECYLINDER can be operated only by ON/OFF signals like solenoid valves. It's easy to operate for beginners. You can adjust A (Acceleration), V (Velocity) and D (Deceleration) individually by input percentage. It can start/stop smoothly at high speed.



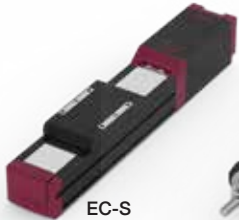
Equipped with battery-less absolute encoder

Built-in controller type

### Standard

#### Slider type

Body width (mm): 63-73  
Stroke (mm): 50-500  
Maximum payload (kg):  
Horizontal 51/Vertical 19



EC-S

#### Rod type

Body width (mm): 63-73  
Stroke (mm): 50-300  
Max. payload (kg):  
Horizontal 80/Vertical 19



EC-R

#### Side-mounted motor

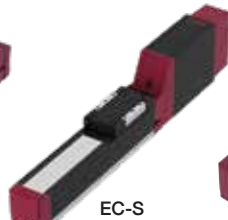
Body width (mm): 63-73  
Stroke (mm): 50-500  
Maximum payload (kg):  
Horizontal 51/Vertical 19



EC-S□R  
EC-RR□R

#### Small type

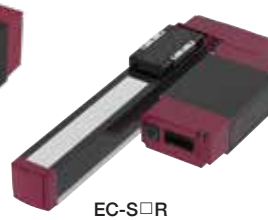
Body width (mm): 35-44  
Stroke (mm): 50-300  
Max. payload (kg):  
Horizontal 18/Vertical 6.5



EC-S

#### Small, side-mounted motor

Body width (mm): 35-44  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 18/Vertical 6.5



EC-S□R

#### Wide type

Body width (mm): 100, 120  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 62/Vertical 13.5



EC-WS□

### Radial Cylinder

#### Radial Cylinder®

Body width (mm): 63-73  
Stroke (mm): 65-315  
Maximum payload (kg):  
Horizontal 80/Vertical 19



EC-RR

#### High-rigidity Radial Cylinder®

Body width (mm): 63-75  
Stroke (mm): 50-1000  
Maximum payload (kg):  
Horizontal 80/Vertical 28



EC-RR□AH  
EC-RR□AHR  
EC-RR□XAH

#### Small type Radial Cylinder®

Body width (mm): 35-44  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 35/Vertical 6.5



EC-RR

### High-rigidity

#### High-rigidity slider type

Body width (mm): 63-75  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25



EC-S□AH

#### Side-mounted motor

Body width (mm): 63-75  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25



EC-S□AHR

### Compact

#### Table type

Body width (mm): 78-88  
Stroke (mm): 30, 50, 100, 150  
Maximum payload (kg):  
Horizontal 20/Vertical 6.5



EC-TC/TW

#### Rod type

Body width (mm): 34-112  
Stroke (mm): 30, 50, 100, 150  
Maximum payload (kg):  
Horizontal 35/Vertical 6.5



EC-RP/GS/GD

### Environment-resistant

#### Splash-proof (Rod type)

Body width (mm): 63-73  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 80/Vertical 19



EC-R□W

#### Splash-proof (Radial cylinder)

Body width (mm): 63-73  
Stroke (mm): 65-315  
Maximum payload (kg):  
Horizontal 80/Vertical 19



EC-RR□W

#### Cleanroom Specification

Body width (mm): 35-75  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25

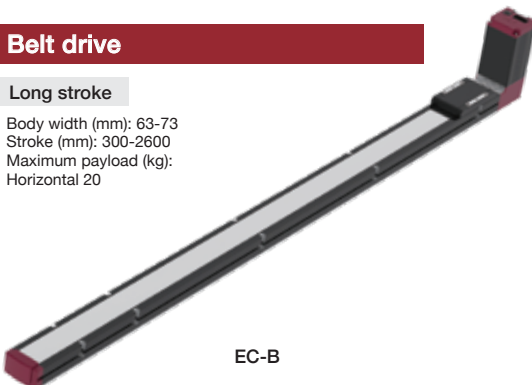


EC-S□CR  
EC-S□AHR

### Belt drive

#### Long stroke

Body width (mm): 63-73  
Stroke (mm): 300-2600  
Maximum payload (kg):  
Horizontal 20



EC-B

### Others

#### Rotary

Body width (mm): 90-117  
Max. swaying angle (degree): 330  
Max. speed (degree/s): 600



EC-RTC

#### Stopper cylinder

Body width (mm): 148  
Stroke (mm): 50  
Max. workpiece mass (kg): 50



EC-ST

## ELECYLINDER® Digital Speed Controller

Electric actuator can change speed by entering numeric values directly.



Program-less

No need to connect a PC or a teaching pendant. Setting and trial operations can be performed by the ELECYLINDER alone.

Equipped with battery-less absolute encoder

Built-in controller type

### Standard

#### Slider type

Body width (mm): 63-73  
Stroke (mm): 50-500  
Maximum payload (kg):  
Horizontal 51/Vertical 19



EC-DS

#### Rod type

Body width (mm): 63-73  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 80/Vertical 19



EC-DR

#### Side-mounted motor

Body width (mm): 63-73  
Stroke (mm): 50-500  
Maximum payload (kg):  
Horizontal 51/Vertical 19



EC-DS□R

#### Small type

Body width (mm): 35-44  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 18/Vertical 6.5



EC-DS

#### Small, side-mounted motor

Body width (mm): 35-44  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 18/Vertical 6.5



EC-DS□R

#### Wide type

Body width (mm): 100, 120  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 62/Vertical 13.5



EC-WS□

### Radial Cylinders

#### Radial cylinder®

Body width (mm): 63-73  
Stroke (mm): 65-315  
Maximum payload (kg):  
Horizontal 80/Vertical 19



EC-DRR

#### High-rigidity Radial Cylinder®

Body width (mm): 63-75  
Stroke (mm): 50-1000  
Maximum payload (kg):  
Horizontal 80/Vertical 28



EC-DRR□AH  
EC-DRR□AHR  
EC-DRR□XAH

#### Small type Radial Cylinder®

Body width (mm): 35-44  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 35/Vertical 6.5



EC-DRR

### Environment-resistant

#### Cleanroom specification

Body width (mm): 35-75  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25



EC-DS□CR  
EC-DS□AHC

### High-rigidity

#### High-rigidity Slider type

Body width (mm): 63-75  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25



EC-DS□AH

#### Side-mounted motor

Body width (mm): 63-75  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 80/Vertical 28



EC-DS□AHR  
EC-DRR□R  
EC-DRR□AHR

### ELECYLINDER® Large slider type

#### Slider type

Body width (mm): 132-156  
Stroke (mm): 100-2500  
Maximum payload (kg):  
Horizontal 108/Vertical 36



EC-S

200V power supply for  
ELECYLINDER



PSA-200

### ELECYLINDER® Field network connection unit

Field network compatible remote I/O



REC

### ELECYLINDER® Teaching pendant with dedicated power supply unit



TB-03

TB-03E



ROBO Cylinder is high-performance electric actuator equipped with a ball screw, linear guide, and servo motor. These next-generation actuator has multi-point positioning capability as well as the ability to change speed and acceleration, unlike anything seen with air cylinders.



## Slider Type

Suitable for moving something horizontally and for a long distance.

Body width (mm): 22-160, Stroke (mm): 25-2600,  
Maximum payload (kg): Horizontal 100 / Vertical 55

### Standard type

Equipped standard with  
battery-less absolute encoder  
Built-in controller available

24v  
Stepper  
motor



RCP6(S)-SA□C

### Side-mounted motor

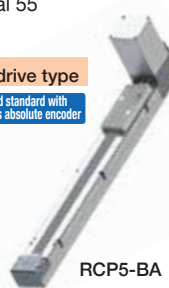
Equipped standard with  
battery-less absolute encoder  
Built-in controller available



RCP6(S)-WSA□R

### Belt-drive type

Equipped standard with  
battery-less absolute encoder



RCP5-BA

### Standard type

Equipped standard with  
battery-less absolute encoder

24v  
AC servo  
motor

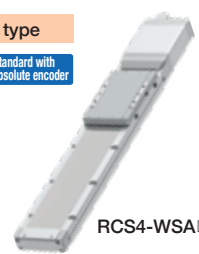


RCA-SA□C

### Wide type

Equipped standard with  
battery-less absolute encoder

200v  
AC servo  
motor



RCS4-WSA□C

## Rod Type

Use rod type when moving workpieces vertically or carrying them with a chuck.

It is also suitable for pushing operations and press-fitting operations.

Body width (mm): 12-200, Stroke (mm): 10-800, Maximum payload (kg): Horizontal 300 / Vertical 150 (Except High payload)

### Standard type

Equipped standard with  
battery-less absolute encoder  
Radial cylinder available  
Built-in controller available

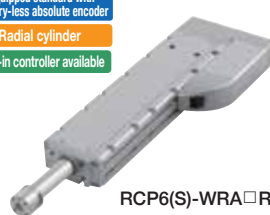
24v  
Stepper  
motor



RCP6(S)-R(R)A□C

### Wide side-mounted motor

Equipped standard with  
battery-less absolute encoder  
Radial cylinder  
Built-in controller available



RCP6(S)-WRA□R

### Standard side-mounted motor

Equipped standard with  
battery-less absolute encoder  
Radial cylinder available

200v  
AC servo  
motor



RCS4-R(R)A□R

### Wide type

Equipped standard with  
battery-less absolute encoder  
Radial cylinder



RCS4-WRA□C

### Compact type

24v  
DC brush-  
less motor



RCD-RA1DA

### Compact type

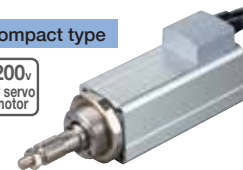
24v  
AC servo  
motor



RCA2-RN/GS/SD

### Compact type

200v  
AC servo  
motor



RCS2-RN/GS/SD

## Servo press

Rod type actuators are equipped with a load cell at the rod tip.

High-precision pushing (pressurizing) operations are possible.

Body width (mm): 40-200, Stroke (mm): 100-520,

Max. pushing force (N): 50000

200v  
AC servo  
motor

Equipped standard with  
battery-less absolute encoder



RCS3-RA□R



RCS2-RA13R

## Table type

Use this type when moving workpieces vertically and when moment loads are applied.

Body width (mm): 32-95, Stroke (mm): 20-390, Max. payload (kg): horizontal 30 / vertical 24.

### Standard type

Equipped standard with  
battery-less absolute encoder  
Built-in controller available

24v  
Stepper  
motor



RCP6(S)-TA□C

### Side-mounted motor type

Equipped standard with  
battery-less absolute encoder  
Built-in controller available



RCP6(S)-TA□R

### Compact type

24v  
AC servo  
motor



RCA2-TCA/  
TWA/TFA

### Standard type

Equipped standard with  
battery-less absolute encoder

200v  
AC servo  
motor



RCS4-TA□C

### Side-mounted motor type

Equipped standard with  
battery-less absolute encoder



RCS4-TA□R

### Compact type



RCS2-TCA/TWA/TFA



## Rotary type

Use this type when changing the direction of the workpiece or for precise positioning as an index.

Body width (mm): 45-233, Maximum speed (degree/s): 266-1200

### Hollow type

Equipped standard with battery-less absolute encoder

24v Stepper motor



RCP6-RTFML

### Flat type



RCP2-RTC

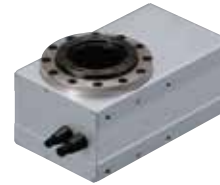
### Vertical type



RCP2-RTB

### Rotary type

200v AC servo motor



RCS2-RTC□L

### Direct drive motor

Body width (mm): 180  
Max. speed (degree/s): 1800



DDA-LT/LH

## Gripper type

Suitable for gripping and lifting up workpieces.

Stroke (mm): 2-finger 4-260, 3-finger 10, 14 (degree): 2-finger 180, 3-finger 19

### Solenoid type



GRM-S/M EG (Outer diameter grip)  
S/M IG (Inner diameter grip)

### Ultra compact slide type

24v DC brushless motor



RCD-GRSNA

### Long stroke: Coupling type

Equipped standard with battery-less absolute encoder  
Built-in controller available

24v Stepper motor



RCP6(S)-GRST□C

### Long stroke: Side-mounted motor type

Equipped standard with battery-less absolute encoder  
Built-in controller available



RCP6(S)-GRST□R

### Thin slide type

Equipped standard with battery-less absolute encoder

24v Stepper motor



RCP6-GRT

### Slide type

24v Stepper motor



RCP4-GRS

### Lever type



RCP4-GRL

### 3-finger slide type



RCP2-GR3S

### 3-finger lever type



RCP2-GR3L

## Rotary chuck type

Rotation capability with the rotary and gripping capability with the gripper are integrated into one unit.

24v Stepper motor



RCP6-RTCK

## Others

### Stopper cylinder

Body width (mm): 106.5-108  
Stroke (mm): 20-30

24v Stepper motor



RCP4-ST

### ZR Unit (vertical/rotation integrated type)

Body width (mm): 2/122, M/138  
Max. payload (kg): S/3, M/6

200v AC servo motor



ZR-S/M

### Wrist unit

Body width (mm): S/136.5, M/136.5  
Max. payload (kg): S/1, M/2

Equipped standard with battery-less absolute encoder

24v Stepper motor



WU-S/M

## Single-axis Robot

Intelligent actuator with high speed and high transfer capabilities

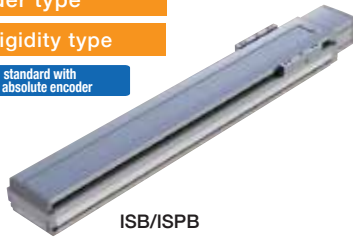
The single-axis robot is a high-precision indexing device, which is equipped with a base, linear guide, ball screw and servo motor integrated into one unit. It reduces designing and adjustment times, achieving lower costs.

### Slider type

#### High rigidity type

Equipped standard with battery-less absolute encoder

200V  
AC servo motor



ISB/ISPB

### High rigidity type (iron-base)



SSPA

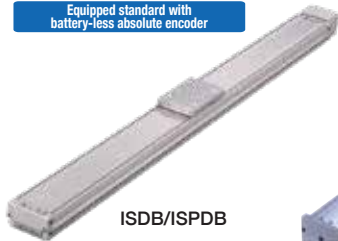
### Ball screw type (standard)



ISA/ISPA

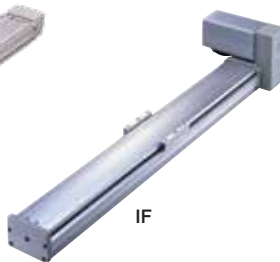
### Simple dust-proof type

Equipped standard with battery-less absolute encoder



ISDB/ISDPB

### Belt-drive, high rigidity type



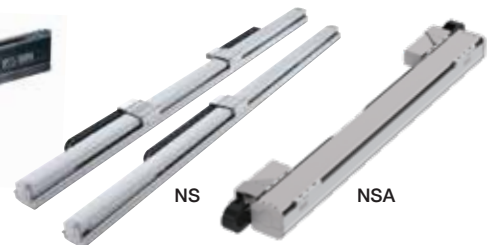
IF

### Belt-drive, slim type



FS

### Nut-rotation type



NS

NSA

## Cleanroom Specification

Suitable for transfer and indexing in the cleanroom.

Electric actuators for cleanroom applications, compliant with Class 10 or Class 100.

### Slider type

Equipped standard with battery-less absolute encoder

Built-in controller available



RCP6(S)CR-SA□C

### Rod type



RCA2CR-GS

### Gripper type



RCP2CR-GRM

### Rotary type



DDACR

RCP2CR-RT

### SCARA robot

Equipped standard with battery-less absolute encoder



IXP-□C

## Dust- and Splash-proof Specification

Operations with extreme dust or water splashes.

Degree of protection conforms to IP50-67.

### Slider type



RCP4W-SA□C

### Rod type

Equipped standard with battery-less absolute encoder

Radial cylinder available

Built-in controller available



RCP6(S)W-R(R)A□C

### Gripper type



RCP2W-GRM

### Rotary type



DDW

RCP2W-RT

### SCARA robot

Equipped standard with battery-less absolute encoder



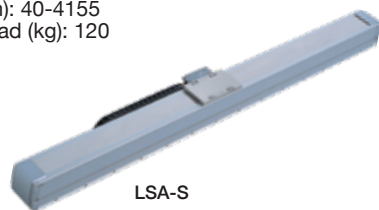
IXP-□W

## Linear Servo Type

Suitable for long stroke operations with high-speed and high acceleration/deceleration.

Body width (mm): 60-210  
Stroke (mm): 40-4155  
Max. payload (kg): 120

Linear servo motor



LSA-S



LSAS-N



LSA-W

## SCARA Robot

Horizontal articulated robots suitable for high-speed transfer operations of light workpieces

**IXA** Arm length (mm): 300-1000  
Standard cycle time (S): 0.26-0.45 Max. payload (kg): 3-24

**IXP (Power Con type)** Arm length (mm): 180-650  
Max. payload (kg): 6

Standard type

Equipped standard with battery-less absolute encoder

200v AC servo motor



IXA-NNN

High-speed type

Equipped standard with battery-less absolute encoder



IXA-NSN

Standard type

Equipped standard with battery-less absolute encoder

24v Stepper motor



IXP-3N

## Table Top Robot

All-in-one, table-top type robot equipped with built-in controller and power supply unit

Selectable from stepper motors or servo motors.

Body width (mm): 401-755.8 XY axis stroke (mm): 150-500

24v Stepper motor

24v AC servo motor

A-type [movable workpiece type]

3-axis type

Equipped standard with battery-less absolute encoder



TTA-A3

C-type [fixed workpiece type]

3-axis type

Equipped standard with battery-less absolute encoder



TTA-C3

## Cartesian Robot

Many variations are available by combining single-axis robots.

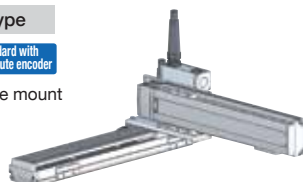
Realizes high rigidity by ingenious mechanical design. Number of axes: 2-6 Max. payload (kg): 65

2-axis configuration

XYB type

Equipped standard with battery-less absolute encoder

Y-axis base mount



3-axis configuration

XYB+Z base mount

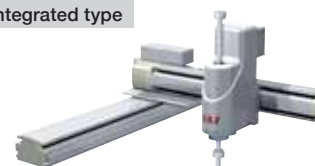
Equipped standard with battery-less absolute encoder

Y-axis base mount  
Z-axis base mount



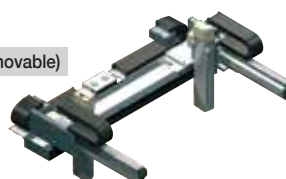
4-axis configuration

ZR axes integrated type



6-axis configuration

Z-axis base mount type (Z-axis slider movable)



High-speed Cartesian type

Cartesian 4 axes + Rotary axis





# Controller

Select an operational pattern based on the purpose of use.

## Positioner type

### Single-axis controller

<Small> Position controller  
Max. dimensions: W28mm x D69mm x H80mm



PCON-CYB



ACON-CYB



DCON-CYB

Position controller DC24V/AC100V/AC200V types  
Max. dimensions: W35mm x D69.1mm x H190mm



PCON-CB



ACON-CB



DCON-CB

Max. dimensions:  
W49mm x D116mm x H158mm



SCON-CAL

Max. dimensions:  
W72mm x D121mm x H194mm



SCON-CB

### Multi-axis controller

Position controller DC24V type  
Max. dimensions:  
W223.4mm x D95mm x H115mm



RCON

## Program Type

### Multi-axis controller

Max. dimensions: W100mm x D126mm x H177~195mm  
Max. dimensions: W304mm~372mm x D125.3mm x H195mm



SSEL



XSEL



RSEL

## Touch Panel Teaching Pendant

Position controller /  
Program controller  
common use  
Max. dimensions:  
W190mm x D25mm x H155mm



TB-02

Position controller /  
Program controller  
common use  
Max. dimensions:  
W200mm x D34mm x H155mm



TB-03

Teaching pendant with  
dedicated  
power supply unit for EC  
Max size: W250mm x D57.4mm x H164.4mm



TB-03E/TB-02E

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

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