Advancing into a NEW ERA switching Air to ELECYLINDER

Designed to move between two points just like Air Cylinder
Speed / Acceleration / Deceleration can be set in just 5 minutes.

Newest Additions to the Series
- Mini Rod Type
- Mini Table Type
- High Rigidity Slider Type
- Radial Cylinder Type
- High Rigidity Radial Cylinder type
- Waterproof Specification

Next Generation ROBO Cylinder® RCP6 & RCS4

From an abundant lineup of 210 total models, Equipped with high-resolution battery-less absolute encoder as standard

RCP6(S) STEPPER MOTOR SERIES MOTOR STRAIGHT TYPE

*Built-in Controller Type (RCP6S) is available

RCP6(S) STEPPER MOTOR SERIES SIDE-MOUNTED MOTOR TYPE

*Built-in Controller Type (RCP6S) is available

RCS4 AC SERVO MOTOR SERIES MOTOR STRAIGHT TYPE /SIDE-MOUNTED MOTOR TYPE

- Improved positioning repeatability: ±10µm (Standard Type), ±5µm (High-Precision specification).
- Cleanroom and Dust/Splash-Proof specification series available.

Servo Press Compatible ROBO Cylinder® with Load Cell

The high-precision position control enables easy adjustment of the push force and the position control, compact and low-thrust rod type actuator that can even be used for simple pressing, typically difficult for hydraulic equipment. 8 types from a range of 20N-50,000N are available.

- Loading repeatability is ±0.5%. Supports traceability.
- Setting is easy by using a dedicated software.
- Newly developed 3kW motor driver achieved Max. Thrust of 5t and Max. Speed of 220mm/sec.

Wrist Unit

IAI’s unique design makes the parts light and compact. Low cost compared to 6-axis articulated robots. Orthogonal axes and interpolation commands are possible.
ROBO Cylinder®

These affordable, highly precise and highly rigid actuators have 1/5th the running cost of a pneumatic system.

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

- Battery-less absolute encoder as standard equipment.
- By using a PowerCON, it has 1.5 times higher speeds and double the payload compared to traditional models.

- A high push force is achieved utilizing the characteristics of stepper motors.
- An abundance of sizes and variations is available to meet a wide range of applications.

- Equipped with a servo motor, these actuators support high loads and long strokes.
- When an XSEL controller is used, you can combine three or more axes.
- Compatible with DeviceNet, CC-Link, and other field networks.

- By using a PowerCON, it has 1.5 times higher speeds and double the payload compared to traditional models.

- The ERC3 Series has built-in controllers which allows for a reduction in wiring, and setup steps.
- Despite being extremely low cost, it utilizes a ball screw and linear guide, with high precision and high rigidity.
Mini ROBO Cylinder®

Next-generation electric actuators, the solution for space constrained applications

- By using linear motors, these actuators operate at a g-force (in speeds and acceleration force) of up to 2G.
- The slider and rod types are available. The slider-type has six different kinds based on size and stroke.
- The multi-slider type, which has two independently-working sliders installed on one axis, is available.
- Replacement is simple with the coupled type motor.
- You can choose from the straight type (motor coupled type) and the side-mounted motor type.
- You can choose between the slim motor coupled type and the short free mounting type, that has significantly reduced in length.
- You can choose between the compact short type and the motor coupled type with longer stroke.
- The smallest in the industry with a cross-section size of 12mm.
- The built-in encoder allows position control.
- By using linear motors, these actuators operate at a g-force (in speeds and acceleration force) of up to 2G.
- The slider and rod types are available. The slider-type has six different kinds based on size and stroke.
- The multi-slider type, which has two independently-working sliders installed on one axis, is available.

- The built-in guide allows the actuator to hold overhung loads.
- You can choose between the compact short type and the motor coupled type with longer stroke.
**Single-axis Robots**
Intelligent actuators with high-speed and high-transfer capabilities

- Standard Type: ISB
- High-precision Type: ISP
- High-rigidity Type (Steel-base): SSP
- Simple Dust-proof Type: ISDB/ISPDB
- High-rigidity Belt-drive Type: IF
- Slim Belt-drive Type: FS

- Rotary Type: RS
- Vertical / Rotational Integral Type: ZR
- Nut Rotational Type: NS

**Cleanroom Types**
Dedicated cleanroom types conforming to cleanliness class 10

- Stepper Motor: RCP (S) CR
- AC Servo Motor: RCS4CR-SA
- AC Servo Motor: RCS4CR-WSA
- Stepper Motor: RCP5CR
- Stepper Motor: RCP4CR
- Servo Motor: RCACR
- Servo Motor: RC52CR/RC53CR
- High-performance Type: ISDBC/ISPDBC
- Anti-static Type: ISDBC-ESD
- Gripper Type: RCP2CR-GR
- Rotary Type: RCP2CR-RT
- SCARA Robot: IXP-C
- SCARA Robot: IX-NC
- Ultra-compact SCARA Robot: IX-NC
- Direct Drive Motor: DACR

- A well sealed structure allows it to achieve a cleanliness class 10.
- A wide variety of products are available, from ROBO Cylinder® all the way to single-axis actuators and SCARA robots.

**Splash-proof/Dust-proof Types**
These actuators offer protection conforming to IP54~IP67, and are a desirable solution when operated in adverse environments.

- Stepper Motor
  - Water proof/Dust proof Type: EC-R6W/RTW
  - Radial Cylinder Type: RCP6(S)W-RA
  - RCP6(S)W-RRA
  - RCP6(S)W-WPA
- Stepper Motor
  - Radial Cylinder Type: RCP5W-RA
- Stepper Motor
  - Slider Type: RCP4W-SA
- Stepper Motor
  - Rod Type: RCP2W-SA
- Stepper Motor
  - Rod Type: RCP2W-RA
- Servo Motor Rod Type: RCS2W-RA
- RCS2W-RA
- Servo Motor Rod Type: RCGW-RA
- Stepper Motor Rod Type: RCP2W-RA
- Stepper Motor High-thrust Rod Type: RCP2W-RA
- Gripper Type: RCP2W-GR
- Rotary Type: RCP2W-RT
- Slider Type: ISWA/ISPWA
- SCARA Robot: IXP-W
- SCARA Robot: IX-NNW
- Direct Drive Motor: DACR

- These actuators handle environments with extreme dust or water splashes.
- Many variations are available to meet diverse applications.
LSA Series Linear Servo Actuators
A full lineup of linear servo actuators to meet your needs
Maximum payload of up to 120kg and maximum strokes of up to 4m

- High-speed and high-precision are kept even at long strokes.
- Supports high accelerations of up to 3G and maximum speeds up to 2.5m/s.
- Multi-slider type and synchronized operation are also available.

IX Series SCARA® Robots
Introducing the new SCARA Robot IXA!

- Fastest cycle times:
  Standard cycle time: 0.26s (High speed type)
- Achieves a low price.
- Low vibration, accurate positioning
- Equipped with Battery-less absolute encoder as standard.
- Mechanical structure / features.
- Standard type / High-speed type are available.

IXP Series PowerCON SCARA® Robots
All models come standard with battery-less absolute encoders

- All models come standard with battery-less absolute encoders.
- The encoder resolution has increased to 10 times that of the existing IXP.
- The cost of IXP is around half of the traditional models.
- Lighter than conventional models.
- The regular cycle time is about 60% shorter than conventional Cartesian robots.
- Added 3-axis specification, 4-axis with gripper specification.
- Equipped with optimal speed and acceleration/deceleration settings.

IX Series SCARA Robots
The IX SCARA robots feature high performance and functionality

- Achieves high-speed, payload and precision.
- Each arm length type can carry up to 50kg.
- All high-speed performance with a standard cycle time of 0.66sec.
TTA Series Tabletop Robots
Improved tabletop robots for cell productions, R&D applications, and more

Gate Type

- Every model equipped with battery-less absolute encoder as standard.
- AC Servo Motor specification added to the series.
- Max. payload: X-axis: 30kg   Z-axis: 15kg (AC servo motor), Max. speed: XY-axis: 1200mm/s   Z-axis: 40mm/s (AC servo motor)
- Improved positioning repeatability: ±0.005mm (AC servo motor ) /±0.01mm(Stepper motor spec)
- The SEL Program Generator eliminates the tedious work of program creation.

Cantilever Type

- Many variations are available to support 2 to 6-axis configurations.
- The multi-slider types (ICSPA4/ICSPA6) let you reduce space and cycle time.
- Also available are models with rotational axis(es) additions.
- Any models can be customized to meet your specific needs.
- High resolution Battery-less Absolute Encoder is available.

CT4 High-speed Cartesian Robots
High-speed cartesian robot that shortens assembly / inspection cycle times by operating at high speed, ensuring high rigidity, and demonstrating excellent straight moving performance.

- Maximum speed 2.5m/s, maximum acceleration /deceleration 3.2G.
- Acceleration is significantly improved (conventionally 0.3 ~ 1.0G) and standard cycle time is reduced by 32% compared to conventional cartesian robots.
- Rotational axis specification and pick & rotate specification are added to the series.

DDW, DDA Direct Drive Motors
High speed/payload/precision, easy control, and compact: A direct drive motor that achieved high cost-performance.

- Positioning repeatability ±0.00103 degree (±3.7s), Index accuracy ± 0.00833 degree (±30s) with SCON-CB & High resolution type.(DDA)
- Maximum speed of 1,800°/s and acceleration/deceleration of 6.0G can make faster positioning time possible.(DDA)

Cartesian Robots
Pre-configured cartesian robots that reduce installation and setup times

ICS(P)B2/ICS(P)A2 2-AXIS CONFIGURATION

- Y-axis Base Mount XYB
- Y-axis Slider Mount XYS
- Z-axis Uplight Mount XZ
- Z-axis Slider Mount YZS
- Z-axis Base Mount YZB
- Y-axis Horizontal Gantry XYG
- Y-axis Side-mounted Gantry XYBG

ICSB3/ICSPB3 3-AXIS CONFIGURATION

- Y-axis Base Mount XYB+ZB
- Y-axis Slider Mount XYS+ZS
- Z-axis Uplight Mount XZ
- Z-axis Slider Mount YZS
- Z-axis Base Mount YZB
- Y-axis Horizontal Gantry XYG
- Y-axis Side-mounted Gantry XYBG

ICS(P)A4 4-AXIS CONFIGURATION

- Y-axis Side Base Mount XRB
- Y-axis Multi-Slider XMYB
- X-axis Multi-Slider XMYB+ZB
- Z-axis Base Mount ZB
- Z-axis Slider Mount XMYB+ZS

ICSPA6 6-AXIS CONFIGURATION

- Y-axis Base Mount XYB
- Z-axis Base Mount YZB
- Y-axis Slider Mount XYS
- Z-axis Slider Mount XMYB+ZS
- Z-axis Base Mount ZB
- Z-axis Slider Mount XMYB+ZS

IK series 2-4 AXIIS CONFIGURATION

- Y-axis Base Mount XYB
- Z-axis Base Mount YZB
- Y-axis Slider Mount XYS
- Z-axis Slider Mount XMYB+ZS
Controllers
A wide variety of operational patterns to fit your specific needs

Controllers
- DC Brushless Servo (24VDC)
- 24V Servo (24VDC)
- Stepper (24VDC)
- 120 / 240 VAC Servo (120 / 240VAC)

CON
(Position to Position)

Multi Axes

SEL
(Programmable)

Multi Axes

Power Supply
Low-cost DC24V power supply ideal for powering actuators

<table>
<thead>
<tr>
<th>Model</th>
<th>Features</th>
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| PS-24 | - Safely accelerate an output actuator at a maximum momentary current of 17A.  
- Up to five units can be operated parallel to one another.  
- The load factor detection function lets you monitor the load condition of the unit. |
| PSA-24/24L | - Power source: Universal AC100V ~ 230V  
- Continuous rated output: 240W/330W  
- Peak output: 408W (17A)  
- Compact size, smaller than PS-24 |

Teaching Pendants
Programming points have never been easier
Compatible with Safety Category

<table>
<thead>
<tr>
<th>Model</th>
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<tbody>
<tr>
<td>Touch Panel Teaching Pendant for Controllers TB-02</td>
<td>- Touch Panel Teaching Pendant with wireless data setting function for EC</td>
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FIELD NETWORKS
Note: The type of compatible networks may vary depending on the controller.

- EtherCAT
- CompoNet
- DeviceNet
- CC-Link
- PROFINET
- MECHATROLINK
- EtherCAT
- SSCNETIII-H

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