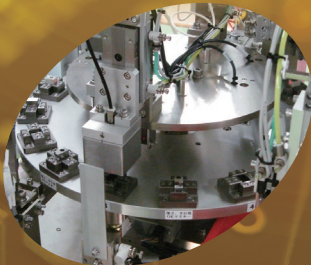
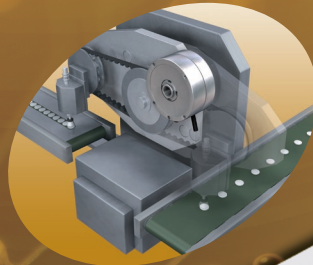


Automotive Process
Applications by Machinery

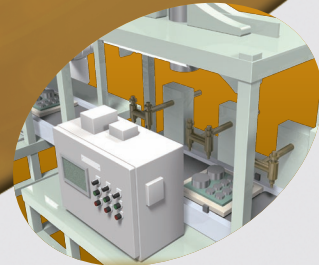
CAR ELECTRONICS



Assembly



Handling



Inspection

We continue to respond to new needs!

A broad lineup of products manufactured with a persistent spirit of inquiry and proven technological prowess to serve as a partner to fulfill the needs in the car electronics field.



Motor

Charging plug

ECU
(Electronic control unit)

Plug for rapid charging

Inverter

Battery control unit

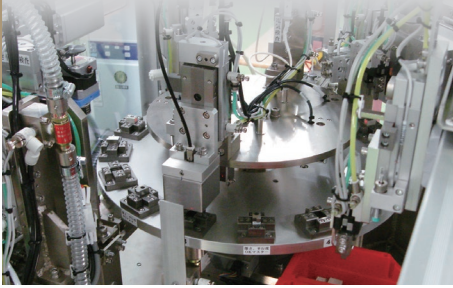
Lithium-ion battery

On-vehicle charger



Assembly

03

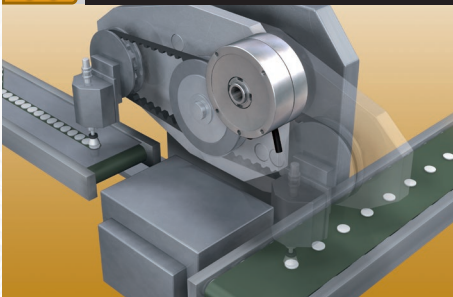


- ABSODEX, τ disk
- Electric actuator
- Long service life cylinder, Environment-resistant cylinder
- Directional control valve
- Index



Handling

07

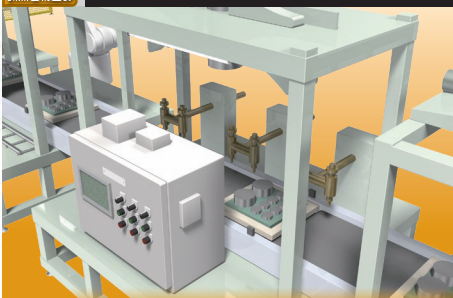


- Electric gripper
- Grippers for collaborative robots
- Hand, chuck
- Auto hand changer
- Suction transport



Inspection

09

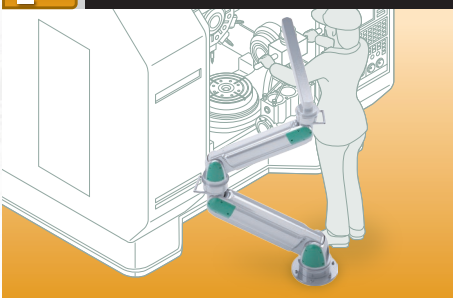


- Image processing visual programming tool
- Fluid control components
- Valve for high vacuum
- Air unit



Carrier

10



- Assistive device
- Low sliding friction balancer cylinder



Predictive Maintenance (IO-Link compatible components)

11



- Electric actuator
- Directional control valve
- Sensor/controller



Achieved fast tact and high precision!CKD's pneumatic technology, motorized technology, and cam technology will contribute to the improvement of your device level and production.

Instant positioning direct drive actuator



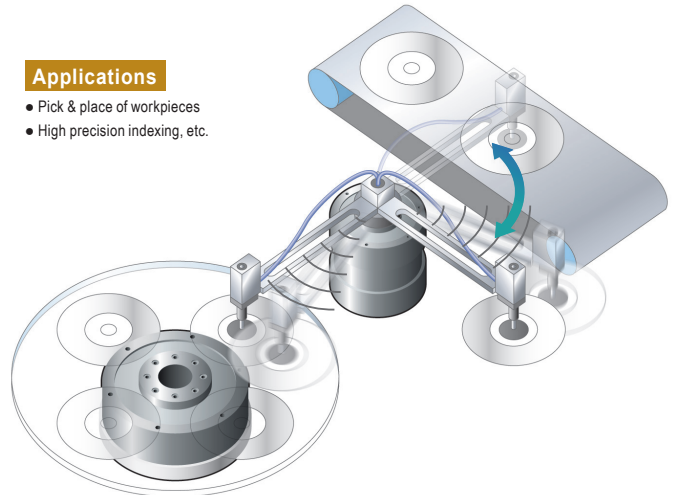
ABSODEX High Response
AXSeries

Max. torque: 6N·m to 1000N·m

Absolute type direct drive actuator.
Highly precise, high functionality, and easy to use!
Conforms to safety standards and overseas standards. It also supports various interfaces.

Applications

- Pick & place of workpieces
- High precision indexing, etc.



Best-in-industry high performance direct drive motor



Direct Drive Motor
τDISCSeries

τDISC[®]
Servo Motor

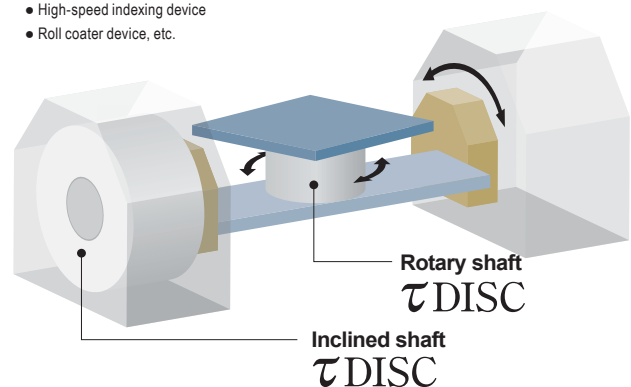
Max. torque: 3.4N·m to 500N·m

A diverse lineup to meet various requirements such as high precision, high speed and speed stability.

- High precision/high resolution
- Quick and easy startup work.
- A wide variety of interfaces. Also compatible with motion networks.
- Ideal for devices that require speed stability and high accuracy.

Applications

- Laser finishing machine
- High-speed indexing device
- Roll coater device, etc.



Rotary shaft
τDISC

Inclined shaft
τDISC

High performance actuator using a servo motor



Electric Actuator
KBXSeries

Max. speed: 2000 mm/s (timing belt)
Repeatability: ±0.01 mm
Max. workload: 150 kg

All encoders are absolute types that do not require origin return.
A wide variety of axes from short axis to orthogonal axis (2 to 4 axes).
A high specification orthogonal robot.

Change the transport, change the worksite



Electric Shuttle Mover
ESMSeries

Three-dimensional transport P&P system
Long stroke with a max. length of 20 m

Belt drive. Various motors can be mounted (motorless type).

CKD motorless actuators are compatible with various servo motor makers, allowing you to mount motors you are accustomed to. Ample variations are available.

Motorless EBS-M/EBR-M Series



Slider
EBS-LSeries

- Ball screw drive, 3 sizes
- Servo motor: 50 to 200W supported
- Max. payload: 50kg (horizontal)
- Max. stroke: 1100mm
- Max. speed: 1000mm/s



Rod with Built-in Guide
EBR-LSeries

- Ball screw drive, 3 sizes
- Servo motor: 50 to 200W supported
- Max. payload: 50kg (horizontal)
- Max. stroke: 1100mm
- Max. speed: 1000mm/s

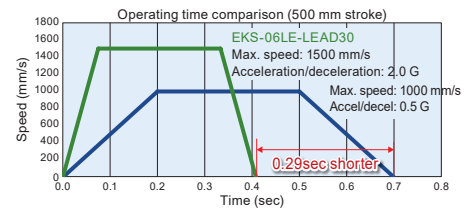
Motorless for high precision / fast tact



Slider
EKSSeries

- Ball screw drive, 5 sizes
- Outer rail with iron base used
- Servo motor: 50 to 750W supported
- Max. payload: 171.5kg (horizontal)
- Max. stroke: 1500mm
- Max. speed: 2500 mm/s

- Supports further increased equipment speeds
- Maximum acceleration/deceleration: 2 G



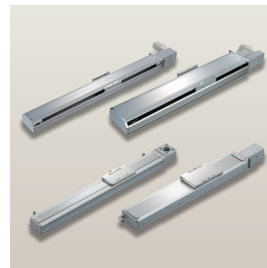
Motorless transport for high loads



Slider
ETS/ECSSeries

- Ball screw drive, 8 sizes
- Servo motor: 50 to 750W supported
- Max. payload: 150kg (horizontal)
- Max. stroke: 1500mm
- Max. speed: 2000mm/s
- ECS: Full cover low dust specifications

Motorless for long stroke transport



Slider
ETV/ECVSeries

- Belt drive, 6 sizes
- Servo motor: 100 to 750W supported
- Max. payload: 85kg (horizontal)
- Max. stroke: 3500mm
- Max. speed: 2000mm/s
- ECV: Full cover low dust specifications

Stepper motor drive A new product that is compatible with air components and with equivalent capacity



Gripper 2-Finger
FLSHSeries

- Sliding screw drive
- 3 sizes
- Manual adjustment of finger position
- Self-lock mechanism

Compatible dimensions with the Air hand LSH Series

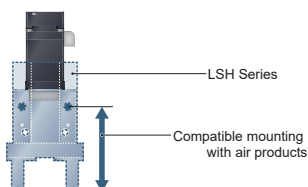


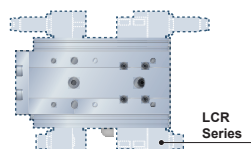
Table type
FLCRSeries



- Ball screw + belt drive
- 3 sizes
- Built-in motor saves space

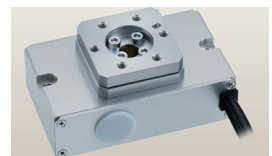
Compatible dimensions with the Air type LCR Series

No shock absorber needed, space saving



Maintenance Parts
Reduced

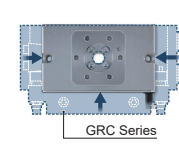
Rotary
FGRCSeries



- Worm gear + belt drive
- 3 sizes ● Self-lock mechanism
- Manually adjustable table position

Space saving compared to the Air type GRC Series

No shock absorber needed, compact body



Maintenance Parts
Reduced

Installation Space
Up to 35% Less!



What "HIGH PRODUCTIVITY" means to CKD

If things like production loss due to component failure and unexplained stoppages or maintenance while the line is in operation can be prevented, productivity will improve. HP Series emphasizes that type of manufacturing, one that originates from the perspective of components. To improve productivity in places with high usage frequency and high-stress environments, the series serves to create a "production facility that never stops" and "achieves stable operation" with products that have an unprecedented long service life.



HIGH PRODUCTIVITY

Optimized sliding parts Does not breakdown even with high frequency use

Long service life cylinder

HP1 Series

2X or more previous models
Durability 20 million cycles

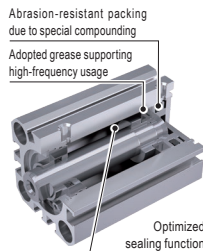
Momentary stops
greatly reduced

Replacements
greatly reduced

Under our specified conditions

Long service life

By optimizing packing design, seal functionality, and adopting grease designed for high frequency use, a long service life is achieved while maintaining the same dimensions as the conventional product.



Stable operation

The optimum structure of the sliding parts prevents the starting pressure from rising even in repeated operational cycles. As the starting pressure is constant, the operating time is also constant. Provides stable operation without unexplained stoppages.

Same dimensions as conventional products

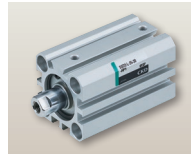
As it has the same dimensions as conventional products, it can be used as a replacement without changing the design or modifying the equipment.



Pencil Shaped Cylinder
SCP3



Small Bore Size Cylinder
CMK2



Compact Cylinder
SSD2



Compact Cylinder
SMG



Linear Slide Cylinder
LCR



Guided Cylinder
STG

Improved environmental resistance Does not breakdown even in dusty environments

Environment resistance cylinder

G-HP1 Series

2X or more previous models
Durability 5 million cycles

Momentary stops
greatly reduced

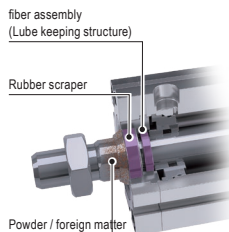
Replacements
greatly reduced

Improved
environmental
resistance

Under our specified conditions

Long service life even in harsh environments

Equipped with a heavy duty scraper and lube keeper to prevent intrusion of dust and to maintain lubrication. Durability in dusty environment has been greatly improved.

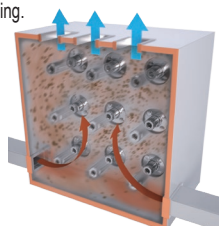


Stable operation even in harsh environments

Tests are carried out in recreated dust environments. Durability has been confirmed through rigorous testing.

[Test conditions]

Working pressure	0.5 MPa
Dust type	5 to 75 μm
Dust quantity	on the 1.5g/1 day 2-cycle
Dust Input count	2 cycles/day
Load	None



*In-house durability test Image



Small Bore Size Cylinder
CMK2



Round Shaped Cylinder
SCM



Tie Rod Cylinder
SCG



Compact Cylinder
SSD2



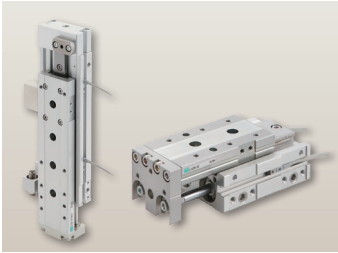
Guided Cylinder
STG



Guided Cylinder
STS/STL

Refer to the CKD website (<https://www.ckd.co.jp/en/>) for details on each product and other models.

Light, highly rigid, and free piping as standard



Linear Slide Cylinder
LCRSeries
LCGSeries

Bore size: $\phi 6$ to $\phi 25$ mm
Stroke: 10 to 150 mm

High rigidity linear guide adopted.
Flexibility in design is increased with a wide variety of variations, including increased rigidity ratio, compact and lightweight.

With zero sliding resistance, loads can be controlled with high precision



Air Bearing
LBCSeries

Thrust range: 0.02N to 31.4N

Air-Gyro
LBC-RSeries

Rotation-stop angle: $\theta = \pm 0.1^\circ$

- Air pressure adjustable soft actuator with zero sliding resistance.
- Air gyro that enables parallel adjustment.

Highly rigid linear guide built-in, ideal for low pitch installation



Linear Slide Cylinder
LMGSeries
[China Only Products]

Bore size: $\phi 6$ to $\phi 20$ mm
Stroke length: 5 to 60 mm

Ideal for high rigidity, space saving and low pitch installation.
4-surface mounting and 3-surface piping are possible.

Direct multi-surface mounting and space-saving possible

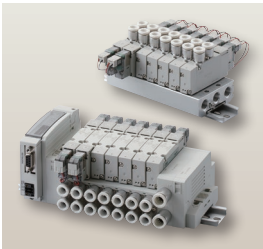


Compact Cylinder
SMGSeries

Bore size: $\phi 6$ to $\phi 32$ mm
Stroke length: 5 to 100 mm

Integration of mount block enables flexible mounting from five direct mounting surfaces as standard. Achieved space-saving and light weight mounting cylinder (33% light weight and 23% space-saving compared with conventional models). Easy maintenance achieved due to the new mounting method.

Directional control valve that inherits reliability and performance



Pilot operated 3, 5-port valve
4GA/B RSeries

The easy-to-use and variety abundant 4G Series has been renewed. High durability (actual value: more than 1 million cycles) and energy saving. Contributes to countermeasures to prevent trouble including temporary stoppages.

Achieves high speed and high precision

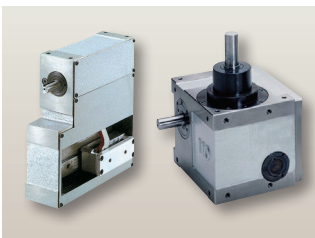


Index
RGISSeries

Max. rotation speed: up to 600 rpm

Compact and high speed, the RGIS Series is an orthogonal axis type intermittent indexing device configured from high output roller gear cam and turret.

Achieves high speed Pick & Place



Pick & Place Unit
PPLX/PPIMSeries

PPIM Series
Improved high precision and high rigidity with the new main shaft structure. Supports high speed and high precision transport of microchip parts. Downsizing of equipment is possible.

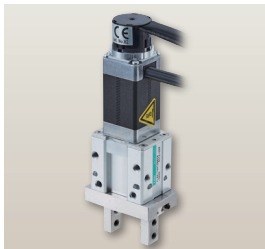
PPLX Series
0.5 seconds/cycle high speed transport, compact and thin type straight pick and place unit. Adopting the 2 roller gear cam structure, performs an arbitrary two-dimensional planar motion, and plays an effective role in straight conveyor lines for small work.



Handling

Proposals for robotic handling devices such as vacuum suction, hand chuck, etc.
 Models arranged based on the theme concerning space-saving and safety.
 A wide variety of products other than those listed below are available.

Ideal for soft handling without impact



2-Finger Gripper
FLSHSeries

Max. stroke length: 14mm
 Max. gripping power: 20N to 65N

An Electric Gripper that is compatible with Air Hands. Multipoint positioning is possible to support various types of workpieces and the speed and pressing force settings can be changed to suit the workpiece.

Ideal for handling multi-model workpieces



2-Finger Thin Gripper
FFLDSeries

Max. stroke: 160mm (one side: 80)
 Max. gripping power: 80N to 500N (one side)

Industry longest class stroke to support all kinds of workpieces. This unit has one of the thinnest form factors in the industry, reducing the load on the spindle and the moment of inertia and contributing to the downsizing of robots.

Pneumatic grippers with high compatibility with collaborative robots



Grippers for Collaborative Robots
RLSH/RHLF/RCKLSeries

RLSH
 Compact
 Stroke length: 18 mm
 Gripping force: 42N
 Weight: 1.0kg

RHLF
 Long stroke
 Stroke length: 32 mm
 Gripping power: 85N
 Weight: 1.1kg

RCKL
 3-Way Finger
 Stroke length: 10 mm
 Gripping power: 125N
 Weight: 1.1kg

RLSH/RHLF/RCKL-Series Grippers for collaborative robots are air driven making them compact and lightweight with high gripping power. Easy setup supports the introduction of collaborative robots for all customers.

Model No.	Certified manufacturer	Compatibility
---UR	Universal Robot	UR3/UR5/UR10/UR16 e-Series/CB-Series
---TM	TECHMAN/OMRON	TM5-700/TM5-900/TM12/TM14
---FN	FANUC	CRX-10iA/CRX-10iA/L

Damage-free transport with magnetic springs



Fine Buffer
FBU2Series

Buffer pressure: 0.1 to 1.1N

No metal contact due to uniform pressure and clean due to its low dust properties. Achieves long-life since there is no fatigue as with metal springs.

Buffer & rotary alignment

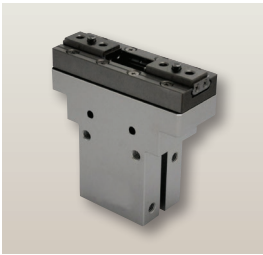


Active Fine Buffer
AFB-RBSeries

Stroke: 3 mm, 6 mm (selectable)
 Buffer pressure: 0.5N, 1.0N (selectable)
 Motor rotation resolution: 0.014°

The motor and buffer are integrated for rotating alignment and buffering. All-in-one design helps reduce the size and weight of multiple heads.

High rigidity linear guide equipped hand

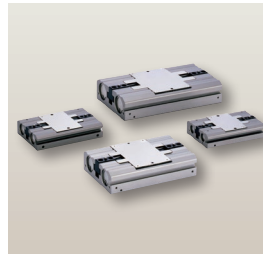


Linear Guide Hand
LHASeries

Cylinder bore size: $\phi 6$ to $\phi 32$ mm
Stroke length: 4 to 20 mm

High precision, high rigidity, long-life integrated linear guide used.
Body is thin, enabling multiple layouts.

Ultra thin hand achieves space-savings

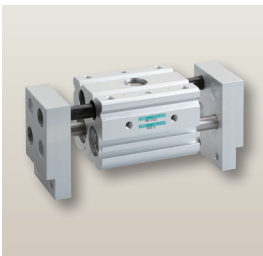


Ultra Thin Parallel Hand
HLDSeries

Bore size: $\phi 8$ – $\phi 20$ mm
Stroke length: 12/16/20/30mm

Industry's thinnest! !
Achieves high gripping power with the double piston design.

Long stroke hand



Compact Wide Parallel Hand
HMFSeries

Cylinder bore size: $\phi 12$ to $\phi 40$ mm
Stroke length: 20 to 200 mm

Powerful gripping power regardless of its small, light, and compact features.
Supports both large and small work with long stroke.

Transport tool change unit

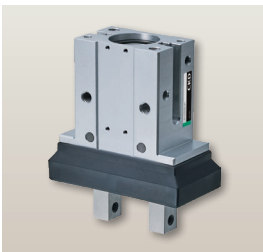


Auto Hand Changer
CHCSeries

Load capacity: 1/5/10/20kg

Short set up change time achieved simply by exchanging the adapter when changing tools. Equipped with a position locking structure, it is safe even when the drive system is shut OFF.

Increased rigidity of linear guide Long service life realized



Linear Slide Hand
LSH-HP1Series

Repeatability: ± 0.01 mm
High-precision positioning: ± 0.025 mm

Guide rigidity is increased compared with conventional products and allowable moment is greatly improved. High rigidity, high precision, and high durability are achieved. Long-life cylinder sliding technology is used in the cylinder part. Achieves long service life and stable operation without unexplained stoppages.

Grips / measures simultaneously, Predictive Maintenance realized



Measuring Hand
LSHM-HP2Series

Repeatability: ± 0.02 mm
Linearity: FS $\pm 0.5\%$
Environment resistance: IP65 or equivalent

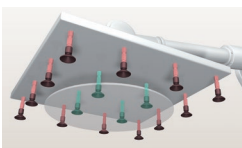
The hand body has a built-in stroke detection sensor and amplifier. Finger positioning with high precision analog output. Monitors abnormal wear and deformation of gripping jaws and jigs through changes in output to prevent equipment and robot damage.

Suction transport supports multiple workpieces



Vacuum Pad
Position Locking
Valve
VSECVSeries

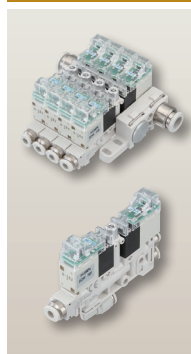
Port size: M3, M4, M5,
M6, R1/8



During suction
While closed

When multiple pads are used, even if there are pads that do not adsorb, they all work to reduce the vacuum decline and prevent the workpiece from falling.

Vacuum switching unit for space-saving mounting

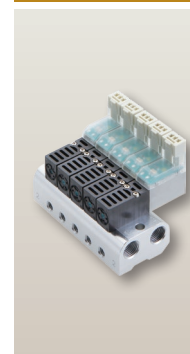


Compact Ejector
Unit
VSNPSeries

Working pressure:
0 to 0.55 MPa
Operating vacuum pressure:
0 to -100kPa

Compact and lightweight vacuum switching unit.
Achieves high speed and stable responsivity.

No need for positive pressure, saves energy



Negative Pressure
Switching Unit
MV3QRSeries

Manifold station No.:
2 to 10 stations
Working fluid: Low vacuum

Vacuum release without positive pressure to prevent small chips from being blown away, eliminating the need for further countermeasures. Downsizing made possible by integrating the vacuum pressure sensor to the unit. Install in small spaces with minimal footprint.



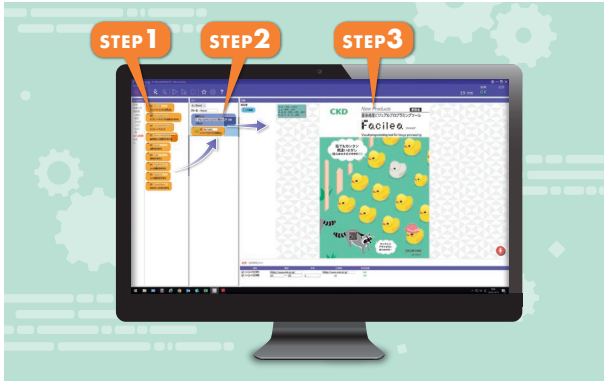
Supports the inspection process with sensor and valve technologies. Supports highly precise and low yield rate equipment manufacturing with high pressure compatibility and vacuum technologies in the leakage test. Furthermore, we have a wide assortment of speed controllers and digital sensors to support the visualization of the factory equipment.

Easy 20-minute image processing even for novices



Image Processing Visual Programming Tool

Facilea

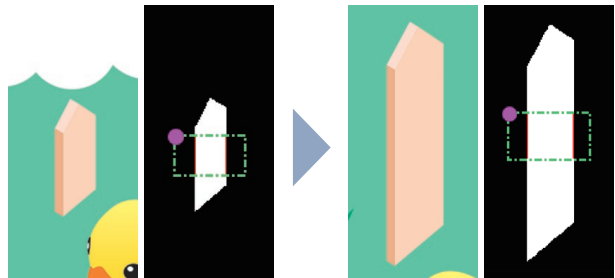


3 Easy steps

Drag and drop, and a simple configuration input make it easy for anyone to build an image processing system.

[Distance Measurement]

Converts a color image to a gray image, and through binarisation*, measures and determines the distance.



Measurement					
Region of interest (ROI) Setting					
Item	Threshold	Magnification	Value	Judgment	
<input checked="" type="checkbox"/> Max	20	~ 30	1	23	OK
<input type="checkbox"/> Min	0	~ 0	1	23	
<input type="checkbox"/> Average	0	~ 0	1	23.000	

Measurement					
Region of interest (ROI) Setting					
Item	Threshold	Magnification	Value	Judgment	
<input checked="" type="checkbox"/> Max	20	~ 30	1	33	NG
<input type="checkbox"/> Min	0	~ 0	1	33	
<input type="checkbox"/> Average	0	~ 0	1	33.000	

* Binarisation: Process for converting images to black and white

Flow rate can be seen! Speed controller dial with linear characteristics

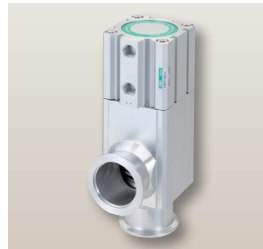


Speed controller with adjusting dial
DSCSeries

Bore size: ϕ 3.2 to ϕ 12 mm
Port size/body size: M5 to 10

Indicator displays the number of dial rotations in increments of 0.5. Finer quantification is now possible. Thanks to the optimal design of the needle, linear flow characteristics proportional to the dial indicator value are achieved and cylinder speed setting is made easy.

Highly durable high vacuum valve, with semiconductor industry track record



High vacuum valve
AVBSeries

High durability with an actual value of over 3 million cycles! Achieves long-life by adopting a special structure using a unique CKD molded bellows. Use for vacuuming in the He leakage test.

Supports to 20MPa in pneumatic leakage test



Cylinder Valve for High Pressure Air
NABSeries

Max. working pressure 20MPa. Ideal for aerating air tightness and pressure-resistant inspection media of oil hydraulic equipment. Adopted the special rod seal structure that extends the life time of high pressure area valves. Use in the high pressure leakage test process.

Achieves high accuracy, durability and stability

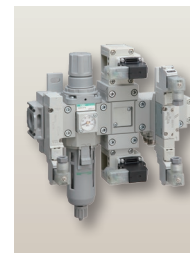


Direct Acting 2-port Solenoid Valve
A2-5201Series

Working fluid:
Compressed air, dry gas,
inert gas
Port size: Rc1/8, Rc1/4

The air pressure open/close state can be controlled at high frequency. Reduces the number of maintenance! A design specializing in durability, responsivity, and durable stability that contributes to energy saving.

Trouble-free revolutionary piping!



Air Unit
CXUSeries

Piping is not necessary! Trouble-free! Free combination! Air units which are necessary for actuator drive between filter regulators and valves have been modularized. The man-hours for design and piping have been reduced.



All for the “working people”.

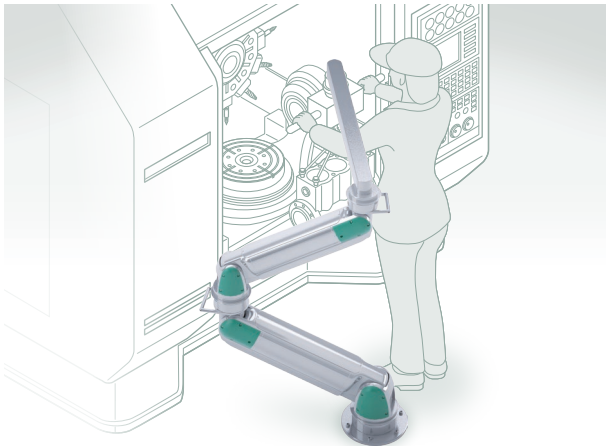
CKD's Human Assist devices assist the transport of heavy items using air pressure.



Transform workstyles with assistive devices



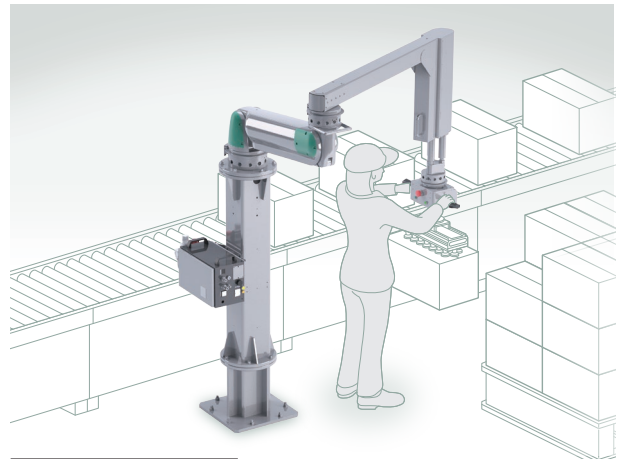
PowerArm
PAWSeries



Load capacity: 30kg to 80kg

Helps you work hard and improves your working environment
The new pneumatic pressure balancer enables assistance from below. Freely combine single-axis and multi-axis specifications to suit your applications and worksites.

PowerArm
PAWSeries (palletizing specifications)



Load capacity: 50kg

Space-saving enabling easy stacking and unloading
While retaining the space-saving, compact and light touch of the PowerArm, the built-in vertical axis has been made so that it can be further used easily in the palletizing process.

Low friction enables 1 mm/sec.



Ultra Low Friction Balancing Cylinder
BBS-OUSeries

Load capacity: 24kg to 93kg

Position locking mechanism built-in for safety concerns. Low friction is achieved by special packing and treatment. Compatible with lateral load as well.

Light operating force with high operability

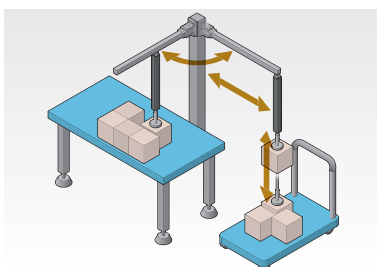


Balance cylinder
BBSSeries

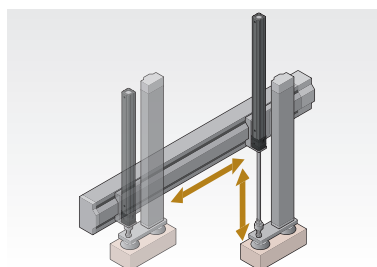
Load capacity: 58kg to 235kg

The balancer unit allows heavy loads of around 300 kg to be controlled with minimal force. Even if the weight of each workpiece being transported differs, this is automatically recognized and the optimal balance is maintained.

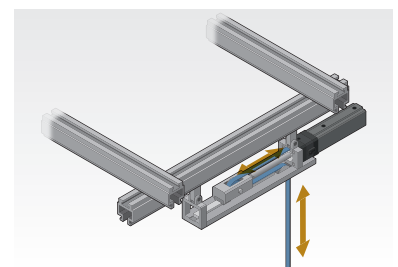
Application



Stacking boxes



Transport assistance using electric actuators

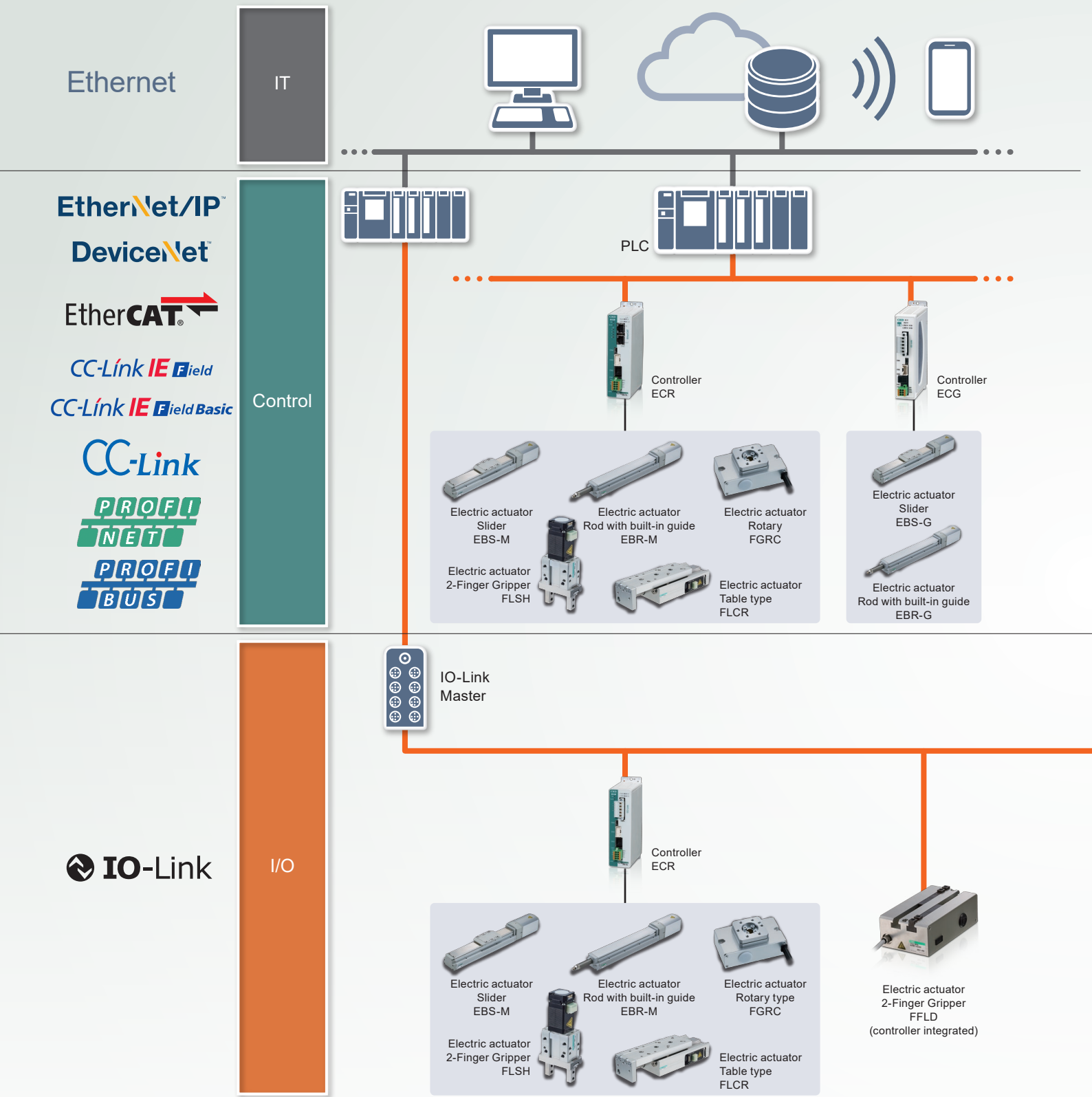


Conveying wire-suspended workpieces



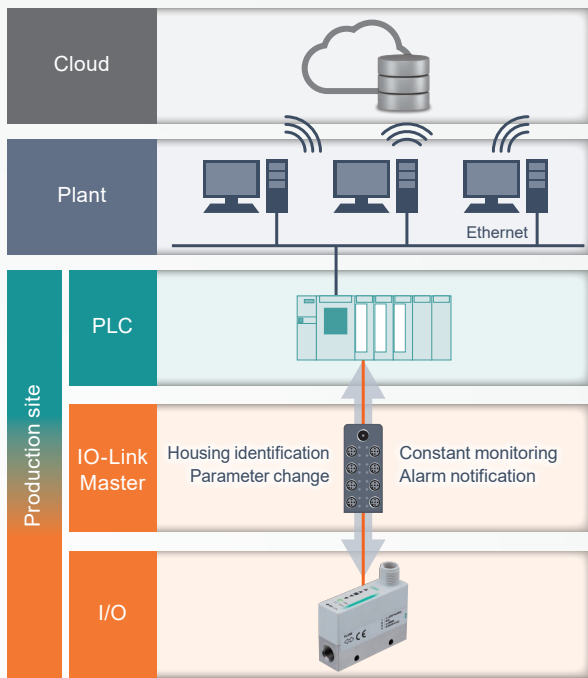
Predictive Maintenance (IO-Link Compatible Components)

With the globalization of production and the declining labor population as a backdrop, components are required to handle various networks. CKD has a lineup of products compatible with various industrial networks at production sites. High productivity of our customers are supported through components which allow collaboration between people and machines.









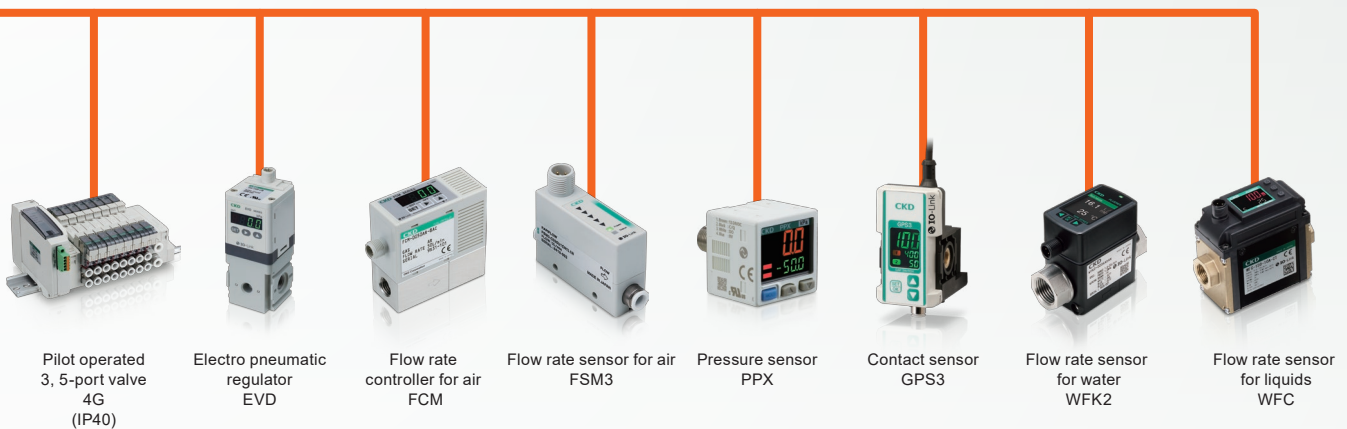
IO-Link

IO-Link is a digital communication standard for sensors/actuators at factory sites.(IEC 61131-9)
 Unlike analog communication, it enables the transmission of parameters and event data.



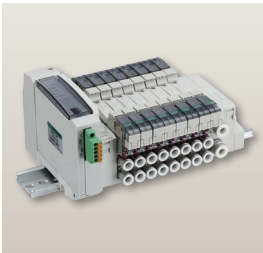
Features of IO-Link

- 
Digital signal Constant monitoring via digital data is possible.
- 
Parameter remote control Parameters can be set and changed via the network, enabling remote equipment operation.
- 
Housing identification Models, serial numbers, etc., can be confirmed on the network.
- 
Data storage The settings can be copied from the master (scanner), making parameter reconfiguration after maintenance obsolete.
- 
Error notification Device failure and disconnection can be confirmed.
- 
Connection to fieldbus It can also be converted to Ethernet networks and connected, enabling devices to be IoT-ready.



Predictive Maintenance (IO-Link Compatible Components)

Solenoid valve with low sliding and long service life



Pilot operated 3, 5-port valve
4GSeries

Applicable cylinder bore size: $\phi 20$ to $\phi 100$
Working pressure range: 0.2MPa to 0.7MPa
Degree of protection: IP40

The superb sliding mechanism of the main valve realizes low sliding length and service life. Response time: $12\text{ms} \pm 2\text{ms}$, durability of 100 million cycles (single solenoid), with valve ON count function built-in.

Component can be operated and state monitored



Electro pneumatic regulator
EVDSeries

Max. flow rate: 60 to 1500L/min
Pressure range: 0 to 900

Compact, high-function electro pneumatic regulator featuring easily used functions such as pressure and error display function and direct memory function. Digital display for easy-to-see control status built-in. Module connection to filter/regulator is possible.

Diversified, high performance, easy to use



Flow Rate Sensor for Gas RAPIFLOW
FSM3Series

Flow rate range: 0.5L/min to 1000L/min
Applicable fluid: Clean air, compressed air, nitrogen gas, argon, oxygen (stainless steel body only), carbon dioxide, mixed gas (argon + carbon dioxide)
Transmission speed: COM2 (38.4 kbps)
Min. cycle time: 5 ms

A single flow rate sensor that supports five types of gases, including air, nitrogen, argon, carbon dioxide, and mixed gas. Transmission of parameters and event data is possible, enabling predictive maintenance. Ideal for leakage inspection and air consumption control.

Predictive maintenance from flow rate controller achieved



Flow Rate Controller for Air RAPIFLOW
FCMSeries

Max. flow rate: 0.015 to 100L/min
Port size (ϕ , Rc, UNF):
6, 8, 1/4, 9/16-18

It is a device that unitizes flow sensor function, proportional control function and valve function, and controls the necessary flow rate. Detects deterioration of the sensor/solenoid proportional valve, as well as abnormalities such as peripheral systems. IO-Link can output warning signals.

Contact status is indicated by numbers



Contact sensor
GPS3Series

Working pressure: 50 to 200kPa
Detection range
Short range: 0.02 to 0.15mm
Wide range: 0.03 to 0.4 mm
Transmission speed: COM2 (38.4 kbps)
Min. cycle time: 5 ms

Industry's first! High precision 2-point output enables easy operation. Two thresholds within the detection distance range can be set, and in addition to precise seating confirmation, rough seating state confirmation can be detected all with a single unit.

Pressure sensor for twin display



Pressure sensor
PPXSeries

Set pressure For low pressure: -101.0 to +101.0kPa
For high pressure: -0.101 to +1.010MPa
Switch output:
2-point output or 1-point output + analog output
Transmission speed: COM2 (230.4 kbps)
Min. cycle time: 1.0 ms

Twin display that allows simultaneous verification of the pressure "preset value" and "set value" and a 3-color display that enables easy verification of the sensor condition. Mode selection according to your use is available. CE marking compliant product.

Ideal for spot welding machine, machine tools, induction hardening device, etc.



Capacitance Flow Sensor for Electromagnetic Liquids
WFCSeries

Flow rate range: 0.5 to 60L/min
Applicable fluid: Fluids (conductive fluids) that do not corrode water or wetted part materials
Transmission speed: COM2 (38.4 kbps)
Min. cycle time: 5 ms

The Flo-Thru structure prevents clogging of foreign matter or detection error. Since it rectifies within the flow path, a straight pipe section is not required, enabling efficient piping layout. Saves space inside equipment systems.

All models feature a water temp measurement function as standard



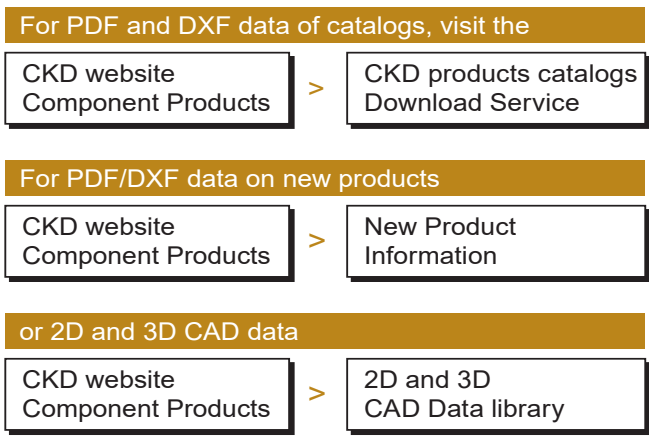
Karman vortex flow rate sensor for water
FLUEREX flow sensor
WFK2Series

Flow rate range: 0.4 to 250L/min
Applicable fluids: pure water, industrial water
Transmission speed: COM2 (38.4 kbps)
Min. cycle time: 5 ms

Switch setting for various outputs can be made and IO-Link communication is supported. The water temperature measuring function is provided as standard and supports fluid up to 95°C, making it ideal for various monitoring of cooling water.



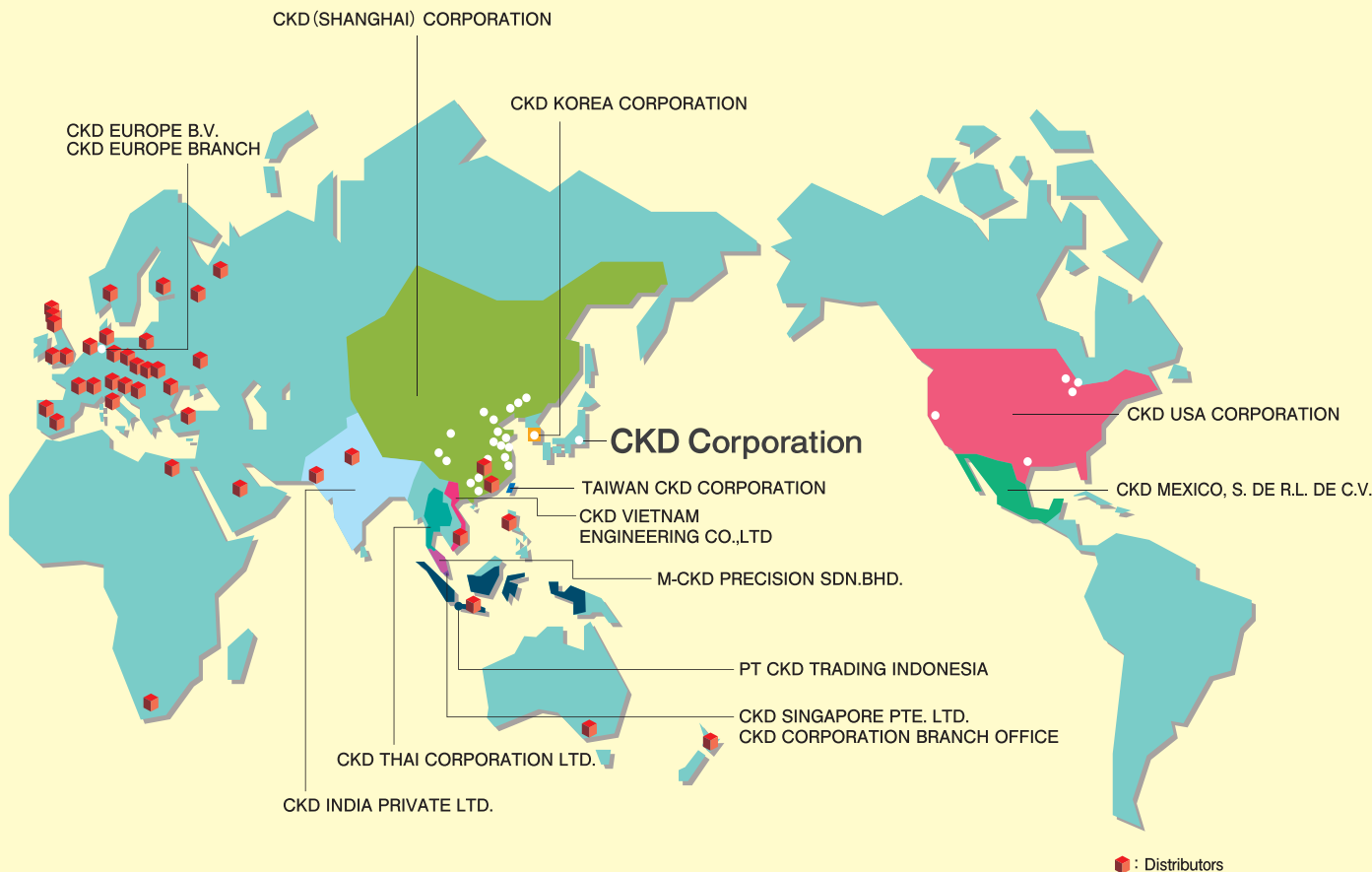
You can download PDF catalogs of CKD products or CAD data.



CKD builds customers' trusts through its global network.



In order to promptly deliver the best products, technology and services from the customer's standpoint, we are establishing a world-wide network and building our customers' trusts. Specifically, when it comes to overseas bases, we have established offices in major regions of Asia, Europe and North America, and we are building closer relationships with customers from various regions of the world.



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ASIA

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