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<https://www.ckd.co.jp/kiki/en/>



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Search by Product System List

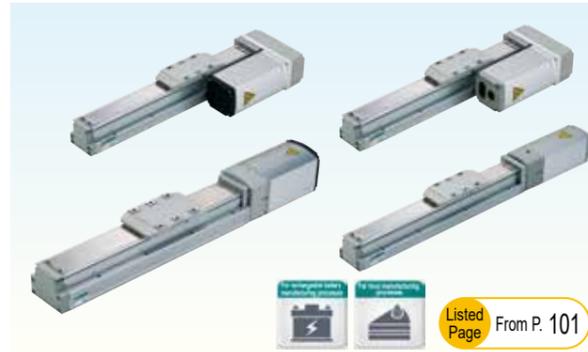
You can select by the appearance and product overview of each series.

Slider Type >>> P. 1



Slider Type

Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Page
EJSG-04	□35	900 mm/s	20 kg	16
EJSG-05	□42	1120 mm/s	40 kg	26
EJSG-08	□56	800 mm/s	80 kg	36
EJSG-04-G	□35	900 mm/s	20 kg	52
EJSG-05-G	□42	1120 mm/s	40 kg	56
EJSG-08-G	□56	800 mm/s	80 kg	60
EJSG-04-C	□35	720 mm/s	20 kg	72
EJSG-05-C	□42	895 mm/s	40 kg	76
EJSG-08-C	□56	640 mm/s	80 kg	80



Slider Type

Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Page
EBS-04G	□35	900 mm/s	20 kg	108
EBS-05G	□42	1120 mm/s	45 kg	118
EBS-08G	□56	800 mm/s	80 kg	128
EBS-04M *1	□35	800 mm/s	16.6 kg	108
EBS-05M *1	□42	1100 mm/s	45 kg	118
EBS-08M *1	□56	1100 mm/s	80 kg	128

*1 Value for power supply voltage of 48 VDC.
* For the rechargeable battery production process (P4) and food production process (FPI), there are restrictions on connectable controllers.

Rod Type >>> P. 159



Rod Type

Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Page
EBR-04G	□35	700 mm/s	40 kg	166
EBR-05G	□42	1000 mm/s	80 kg	176
EBR-08G	□56	750 mm/s	80 kg	186
EBR-04M *1	□35	600 mm/s	33.3 kg	166
EBR-05M *1	□42	800 mm/s	80 kg	176
EBR-08M *1	□56	900 mm/s	80 kg	186

*1 Value for power supply voltage of 48 VDC.
* For the rechargeable battery production process (P4) and food production process (FPI), there are restrictions on connectable controllers.

F Series >>> P. 221



Table Type

Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Page
FLCR-16	□20	300 mm/s	4 kg	228
FLCR-20	□25	300 mm/s	5.5 kg	230
FLCR-25	□25L	300 mm/s	11 kg	232

* For the rechargeable battery production process (P4), there are restrictions on connectable controllers.



Rotary Type

Model No.	Motor Size	Max. Angular Velocity	Max. Output Torque	Page
FGRC-10	□20	200 deg/s	0.89 N·m	250
FGRC-30	□25	200 deg/s	2.71 N·m	252
FGRC-50	□35	200 deg/s	4.66 N·m	254



2-Finger Gripper Type

Model No.	Motor Size	Max. Speed	Max. Gripping Force	Stroke	Page
FLSH-16	□20	50 mm/s (one side)	20 N (one side)	12 mm (6, one side)	274
FLSH-20	□25	50 mm/s (one side)	42 N (one side)	18 mm (9, one side)	278
FLSH-25	□25L	50 mm/s (one side)	65 N (one side)	22 mm (11, one side)	282



2-Finger Gripper Type

Model No.	Motor Size	Max. Speed	Max. Gripping Force	Stroke	Page
FFLD-08	□20	10 mm/s (one side)	80 N (one side)	100 mm (50, one side)	300
FFLD-30	□25L	10 mm/s (one side)	300 N (one side)	140 mm (70, one side)	302
FFLD-50	□25L	10 mm/s (one side)	500 N (one side)	160 mm (80, one side)	304
FFLD-04H	□20	30 mm/s (one side)	40 N (one side)	100 mm (50, one side)	306
FFLD-12H	□25L	30 mm/s (one side)	120 N (one side)	140 mm (70, one side)	308
FFLD-30H	□25L	30 mm/s (one side)	300 N (one side)	140 mm (70, one side)	310
FFLD-50H	□35	30 mm/s (one side)	500 N (one side)	160 mm (80, one side)	312

Search by Product System List

You can select by the appearance and product overview of each series.

G Series >>> P. 327



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Rod Type					
GSSD2					
Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Page	
GSSD2-20	□35	400 mm/s	4.4 kg	332	
GSSD2-32	□42	500 mm/s	9.2 kg	334	
GSSD2-50	□56	500 mm/s	14.8 kg	336	



Listed Page From P. 341

Stopper Type					
GSTK					
Model No.	Motor Size	Max. Speed	Max. Thrust	Page	
GSTK-20	□35	400 mm/s	62 N	342	
GSTK-32	□42	500 mm/s	113 N	344	
GSTK-50	□56	500 mm/s	192 N	346	



Listed Page From P. 353

Guided Type					
GSTG					
Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Stroke	Page
GSTG-20	□35	400 mm/s	4.4 kg	100 mm	354
GSTG-32	□42	500 mm/s	9.2 kg	100 mm	356
GSTG-50	□56	500 mm/s	14.8 kg	100 mm	358

D Series >>> P. 413



Listed Page From P. 417

Rod Type				
DSSD2				
Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Page
DSSD2-20	□35	135 mm/s	4.4 kg	418
DSSD2-32	□42	180 mm/s	10 kg	420
DSSD2-50	□56	144 mm/s	14.8 kg	422



Listed Page From P. 427

Stopper Type				
DSTK				
Model No.	Motor Size	Max. Speed	Max. Thrust	Page
DSTK-20	□35	135 mm/s	62 N	428
DSTK-32	□42	180 mm/s	137 N	430
DSTK-50	□56	144 mm/s	129 N	432



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Guided Type					
GSTS/GSTL					
Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Stroke	Page
GSTS-20	□35	400 mm/s	4.4 kg	50 mm	368
GSTS-32	□42	500 mm/s	9.2 kg	50 mm	370
GSTS-50	□56	500 mm/s	14.8 kg	50 mm	372
GSTL-20	□35	400 mm/s	4.4 kg	200 mm	382
GSTL-32	□42	500 mm/s	9.2 kg	200 mm	384
GSTL-50	□56	500 mm/s	14.8 kg	200 mm	386



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3-Finger Gripper Type					
GCKW					
Model No.	Motor Size	Max. Speed	Max. Gripping Force	Stroke	Page
GCKW-16	□20	50 mm/s (one side)	7 N (one side)	4 mm (2, one side)	396
GCKW-20	□25	50 mm/s (one side)	16 N (one side)	4 mm (2, one side)	398
GCKW-25	□25L	50 mm/s (one side)	29 N (one side)	6 mm (3, one side)	400



Listed Page From P. 439

Guided Type					
DSTG					
Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Stroke	Page
DSTG-20	□35	135 mm/s	4.4 kg	100 mm	440
DSTG-32	□42	180 mm/s	10 kg	100 mm	442
DSTG-50	□56	144 mm/s	14.8 kg	100 mm	444



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Guided Type					
DSTS/DSTL					
Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Stroke	Page
DSTS-20	□35	135 mm/s	4.4 kg	50 mm	454
DSTS-32	□42	180 mm/s	10 kg	50 mm	456
DSTS-50	□56	144 mm/s	14.8 kg	50 mm	458
DSTL-20	□35	135 mm/s	4.4 kg	200 mm	468
DSTL-32	□42	180 mm/s	10 kg	200 mm	470
DSTL-50	□56	144 mm/s	14.8 kg	200 mm	472

Search by Product System List

You can select by the appearance and product overview of each series.

D Series >>> P. 481



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Compact Guided Type

DMSDG

Model No.	Motor Size	Max. Speed	Max. Payload (Horizontal)	Max. Pushing Force	Page
DMSDG-08	□20	50 mm/s	270 g	10 N	486
DMSDG-16	□28	77 mm/s	350 g	30 N	488



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2-Finger Gripper Type

DLSH

Model No.	Motor Size	Max. Speed	Max. Gripping Force	Stroke	Page
DLSH-20	□28	63 mm/s (one side)	10 N (one side)	10 mm (5, one side)	500
DLSH-32	□42	60 mm/s (one side)	40 N (one side)	22 mm (11, one side)	502



Listed Page From P. 509

3-Finger Gripper Type

DCKW

Model No.	Motor Size	Max. Speed	Max. Gripping Force	Stroke	Page
DCKW-20	□28	41 mm/s (one side)	8 N	4 mm (2, one side)	510
DCKW-32	□42	70 mm/s (one side)	30 N	8 mm (4, one side)	512

Controller >>> P. 529



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Multi Axis Controller

ECMG

Model No.	Interface Specifications	Compatible Actuators	Applicable Motor Size	Page
ECMG	CC-Link EtherCAT EtherNet/IP	EJSG/EBS-G EBR-G/FLCR-G/ FGRC-G/FLSH-G G Series	□20/□25 □25L/□35 □42/□56	535



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Single Axis Controller

ECG

Model No.	Interface Specifications	Compatible Actuators	Applicable Motor Size	Page
ECG-A	Parallel I/O IO-Link CC-Link EtherCAT EtherNet/IP	EJSG/EBS-G EBR-G/GSSD2 GSTK/GSTG GSTS/GSTL	□35/□42 □56	565
ECG-B	Parallel I/O IO-Link CC-Link EtherCAT EtherNet/IP	FCLR-G FGRC-G FLSH-G GCKW	□20/□25 □25L	581



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Single Axis Controller

ECR

Model No.	Interface Specifications	Compatible Actuators	Applicable Motor Size	Page
ECR	Parallel I/O IO-Link CC-Link EtherCAT	EBS-M EBR-M FLCR FGRC FLSH	□20/□25 □25L/□35 □42/□56	595



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Single Axis Controller

ESC4

Model No.	Interface Specifications	Compatible Actuators	Applicable Motor Size	Page
ESC4	Parallel I/O	D Series	□20/□28 □35/□42 □56	611

Controller Compatibility List

This is a compatibility table for actuators and controllers. Please select a compatible controller for the actuator you will be using.

	Slider Type	Rod Type	F Series				G Series					D Series								
			Table Type		Rotary Type	2-Finger Gripper Type		Rod Type	Stopper Type	Guided Type		3-Finger Gripper Type	Rod Type	Stopper Type	Guided Type		2-Finger Gripper Type	3-Finger Gripper Type		
			EJSG	EBS-G/M	EBR-G/M	FLCR	FGRC	FLSH	FFLD	GSSD2	GSTK	GSTG	GSTS GSTL	GCKW	DSSD2	DTSK	DSTG	DSTS DSTL	DMSDG	DLSH
ECMG		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ECG-A		●	●	●				●	●	●	●									
ECG-B					●	●	●					●								
ECR			●	●	●	●	●													
ESC4													●	●	●	●	●	●	●	●

Model Selection System

You can select the optimal model just by selecting the operating conditions and entering the required values.

*EJSG, G-Series, and D-Series are not supported. Please check the general catalog's model selection page.



<https://sentei.ckd.co.jp/kiki/sentei/electric/en/>

Common Configuration Tool "S-Tools" Free of Charge

The dedicated configuration tool "S-Tools" is available free of charge on our website. It can be used with all ROBODEX Pulse series products.

CKD YouTube Channel

Please check from your iPad or smartphone.



*May not display correctly depending on the smartphone's usage environment.

ECMG Setup Video Now Available!

ROBODEX Quick Start Guide (Multi Axis Controller) ECMG Series -Startup-



Large icon

Operation and status on one screen



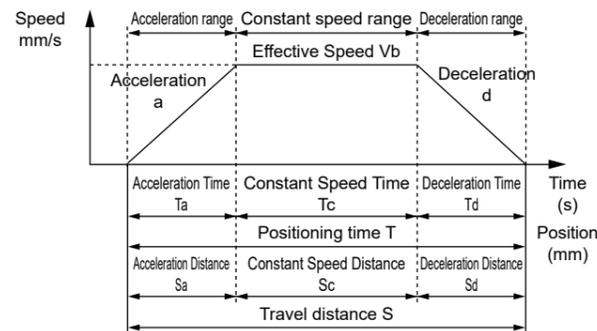
Actuator status can be visually confirmed at a glance

Easy operation check on the control panel

Positioning Time Confirmation Chart

You can check the positioning time of the selected actuator.

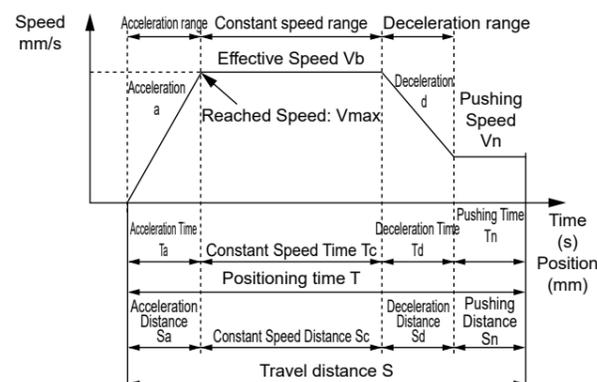
Positioning time for general transfer operations



	Content	Code	Unit	Remarks
Setting Value	Set Speed	V	mm/s	
	Set Acceleration	a	mm/s ²	
	Set Deceleration	d	mm/s ²	
	Travel Distance	S	mm	
Calculated Value	Reached Speed	Vmax	mm/s	$= [2 \times a \times d \times S / (a + d)]^{1/2}$
	Effective Speed	Vb	mm/s	The smaller of V and Vmax
	Acceleration Time	Ta	s	$= Vb / a$
	Deceleration Time	Td	s	$= Vb / d$
	Constant Speed Time	Tc	s	$= Sc / Vb$
	Acceleration Distance	Sa	mm	$= (a \times Ta^2) / 2$
	Deceleration Distance	Sd	mm	$= (d \times Td^2) / 2$
	Constant Speed Distance	Sc	mm	$= S - (Sa + Sd)$
Positioning Time	T	s	$= Ta + Tc + Td$	

* Do not use at speeds exceeding the specifications.
 * Depending on the acceleration/deceleration and stroke, a trapezoidal velocity waveform may not be formed (the set speed may not be reached). In that case, select the smaller of the set speed (V) and the reached speed (Vmax) as the effective speed (Vb).
 * Acceleration and deceleration vary depending on the product and usage conditions. For details, please refer to the specifications P. for each model.
 * Settling time varies depending on the usage conditions, but it may take about 0.2 s.
 * 1G = 9.8 m/s².

Positioning time for pushing operations



	Content	Code	Unit	Remarks
Setting Value	Set Speed	V	mm/s	
	Set Acceleration	a	mm/s ²	
	Set Deceleration	d	mm/s ²	
	Travel Distance	S	mm	
Calculated Value	Pushing Speed	Vn	mm/s	
	Reached Speed	Vmax	mm/s	$= [2 \times a \times d \times (S - Sn + Vn^2 / 2d) / (a + d)]^{1/2}$
	Effective Speed	Vb	mm/s	The smaller of V and Vmax
	Acceleration Time	Ta	s	$= Vb / a$
	Deceleration Time	Td	s	$= (Vb - Vn) / d$
	Constant Speed Time	Tc	s	$= Sc / Vb$
	Pushing Time	Tn	s	$= Sn / Vn$
	Acceleration Distance	Sa	mm	$= (a \times Ta^2) / 2$
Deceleration Distance	Sd	mm	$= ((Vb + Vn) \times Td) / 2$	
Constant Speed Distance	Sc	mm	$= S - (Sa + Sd + Sn)$	
Positioning Time	T	s	$= Ta + Tc + Td + Tn$	

* Do not use at speeds exceeding the specifications.
 * Pushing speed varies depending on the product.
 * Depending on the acceleration/deceleration and stroke, a trapezoidal velocity waveform may not be formed (the set speed may not be reached). In that case, select the smaller of the set speed (V) and the reached speed (Vmax) as the effective speed (Vb).
 * Acceleration and deceleration vary depending on the product and usage conditions. For details, please refer to the specifications P. for each model.
 * Settling time varies depending on the usage conditions, but it may take about 0.2 s.
 * 1G = 9.8 m/s².

CKD How to use CAD data

Pneumatic valve manifold specifications and CAD data are easily available on the Web.

Free download!

This is what makes CKD's CAD great!

Comprehensive list of CKD's leading products



Japanese, English, Chinese (Simplified and Traditional), and Korean are supported.

Simultaneous with new product launch

NEW Model No. **AX1R**

ABSODEX



Supports various data formats

- + PDF (A4) (2D)
- + PDF DataSheet (2D)
- + CAD-DataSheet (3D)
- + SAT (3D)
- + Solid Edge 2019 (3D)
- + Solid Edge 2023 (3D)
- + Solid Edge 2021 (3D)
- + Solid Edge 2022 (3D)

More than 25 types of 2D and more than 35 types of 3D
Supports PDF and JPEG formats!

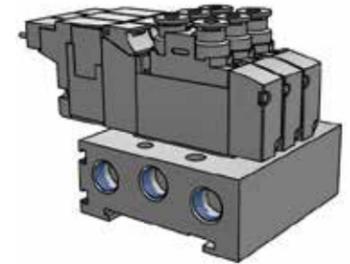
*To use 3D CAD, you must register as a CKD plus member.

Specifications are available



Manifold specifications for pneumatic valves can be prepared and shipped assembled to the customer.

Get CAD data



2D and 3D CAD data available for pneumatic valve manifold assemblies

Specifications and download method of CAD data

CKD plus How to register as a member

STEP 1

From the CKD components product top page, click "New member registration"



STEP 2

Enter your name, company name, contact information, and email address

Registration complete!



Easy registration in 2 STEPS

How to download CAD

STEP 1

Click on "3D CAD" from the product detail page



STEP 2

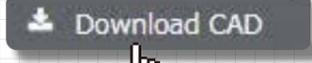
Select model No.

STEP 3

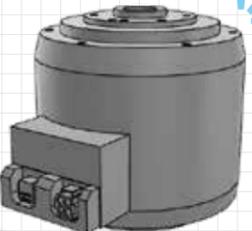
Specify CAD format

Generate CAD data

Download CAD



Download complete!



STEP 1

CKD components product TOP page > Product details page > Click "Manifold specifications sheet"



STEP 2

Select model No.

STEP 3

Create specifications sheets



STEP 4

Download complete!

- For specifications output, **Specification output** Click
- If downloading CAD data **2D/3D CAD** Click



Significantly reduces work time

Website Guide

Various information is provided on our website.
Please make use of it.

Catalogs	CAD	Instruction Manuals
Maintenance Parts	Software	Model Selection
FAQ	Technical Information	Standard Compliant Product Information
Column	Event Information	Seminars

You can find the information you need here.

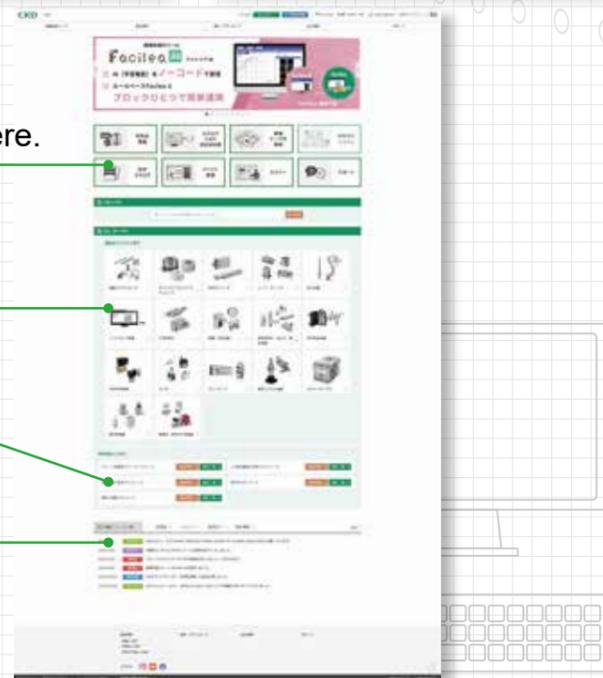
You can search for desired products.

You can find suitable products by application.

You can check the latest news.



Each product page provides various information.



Various information is published by product axis and application.

Model Selection System Guide

About Using the Model Selection System

We provide a system that supports the selection of the following items. Please use it when selecting models and designing.

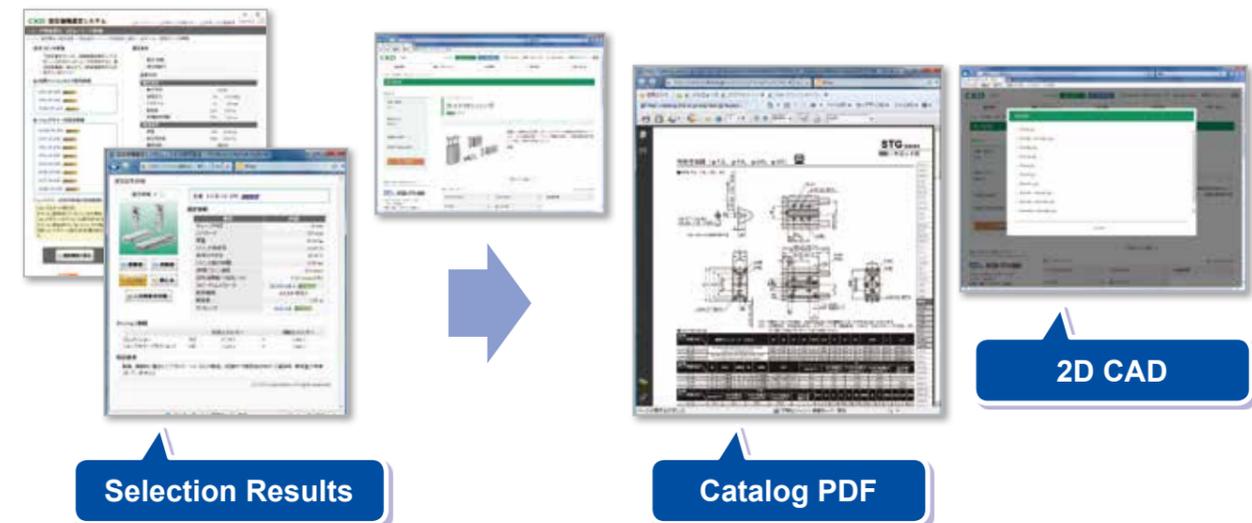
Published on our website

This system is for selecting products according to your application and operating conditions.

Web version Pneumatic components	Download version Mechanical index / Direct drive mode	Web version Electric actuator	Web version Fluid control components
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*Downloadable software may not be able to be downloaded due to your company's security policy. In that case, please contact us.

Link from selection results to catalog PDFs and CAD data!



No registration required, available anytime!

We offer various services for CKD products, including catalogs, PDFs, CAD data, and model selection. Please take a look.

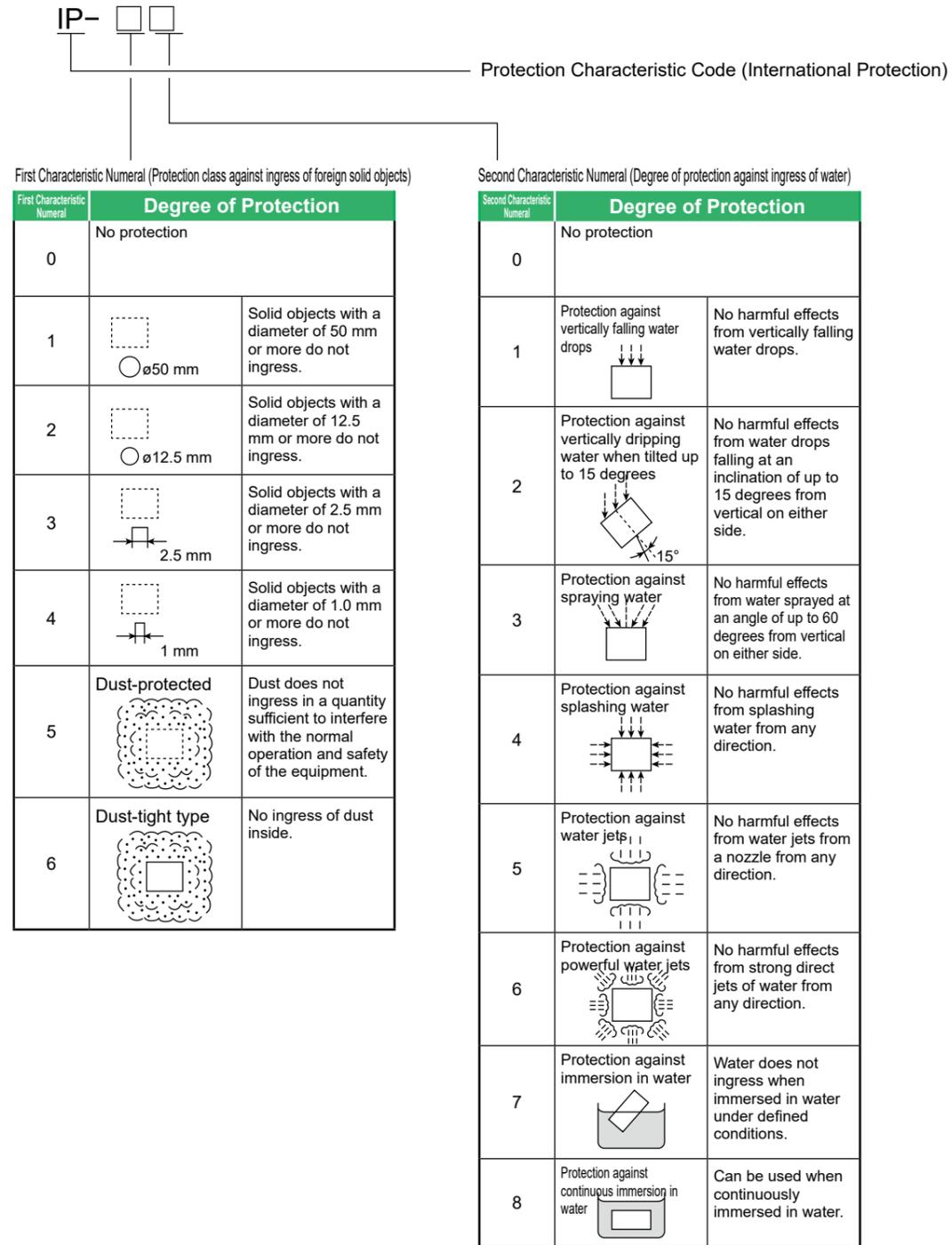
<https://www.ckd.co.jp/en/>



Protective Structure

MEMO

- Protection Structure
- IEC (International Electrotechnical Commission: International Electrotechnical Commission) Standard (IEC60529)
- JIS C 0920 : 2003





Safety Precautions

Always read this section before use.

When designing equipment using electric actuators, the manufacturer is obligated to ensure that the safety of the mechanism and the electrically controlled system are secured.

It is important to select, use, handle and maintain CKD products appropriately to ensure their safe usage.

Observe warnings and precautions to ensure device safety.

Check that device safety is ensured and a safe device is manufactured.

WARNING

- 1 This product is designed and manufactured as a general industrial machine part. It must be handled by an operator having sufficient knowledge and experience in handling.
- 2 Use the product within specifications range.
This product must be used within its stated specifications. It must not be modified or machined additionally. This product is intended for use as a device or part for general-purpose industrial machinery. It is not intended for use outdoors (except for outdoor type) or for use under the following conditions or environment.
(Note that this product can be used under the following conditions only when CKD is consulted prior to use and the customer consents to CKD product specifications. The customer must provide safety measures to avoid risks in the event of problems.)
 - 1 Use for special applications which require the safety, including nuclear energy, railways, aircrafts, marine vessels, vehicles, medicinal devices, devices or applications coming into contact with beverages or foodstuffs, amusement devices, emergency operations (cutoff circuits, opening etc.) circuits, press machines, brake circuits, or safety devices or applications.
 - 2 Use for applications where life or assets could be adversely affected and special safety measures are required.
- 3 Observe organization standards and regulations, etc. related to the safety of device design.
- 4 Never remove devices before confirming safety.
 - 1 Inspect and service on the machine and devices after confirming safety of the entire system related to this product.
 - 2 Note that there may be hot or charged sections even after operation is stopped.
 - 3 When inspecting or maintaining device, be sure to shut down the power supply of the equipment and the relevant power supply, using caution to avoid electric shock.
- 5 Observe instruction manual and precautions attached the product surely to prevent accidents.
 - 1 The product could operate unexpectedly during teaching operation or trial operation. Be especially careful not to touch the actuator. If operating the product from a position where the shaft body cannot be seen, be sure to first confirm that the safety is secured even if the actuator moves.
- 6 Observe precautions to prevent electric shock.
 - 1 Do not touch the heat sink, cement friction, or motor inside the controller.
These will heat up, and could cause burns. Wait an appropriate amount of time prior to performing inspections or other tasks. A high voltage is applied until the electrical load stored in the internal capacitors is discharged after the power is turned OFF. Do not touch for around three minutes after the power OFF.
 - 2 Make sure to turn the switch on the controller power supply source OFF, before maintenances and inspections.
There is a danger of high voltage electric shocks.
 - 3 Do not attach or remove connector, while the power is on. Otherwise, this may cause malfunction, failure, or electric shock.
- 7 Install an overcurrent protector.
The wiring to the driver should be in accordance with JIS B 9960-1:2019 (IEC 60204-1:2016) Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements. Install an overcurrent protector (a circuit breaker or circuit protector for wiring) on the main power, control power, and I/O power.
(Reference: JIS B 9960-1 7.2.1 General description)
If there is a possibility the circuit current may exceed the rated value of the component or the allowable current of the conductor, an overcurrent protection must be provided. The details of the ratings or set values to be selected shall be provided in 7.2.10.
- 8 Observe precautions below to prevent accidents.
 - The precautions are ranked as "DANGER", "WARNING" and "CAUTION" in this section.

DANGER: When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries, and when there is a high degree of emergency to a warning.

WARNING: When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries.

CAUTION: When a dangerous situation may occur if handling is mistaken leading to minor injuries or physical damage.

Note that some items described as "CAUTION" may lead to serious results depending on the situation. Every item provides important information and must be observed.

Warranty

- 1 Warranty period
The product specified herein is warranted for one (1) year from the date of delivery to the location specified by the customer.
- 2 Warranty coverage
If the product specified herein fails for reasons attributable to CKD within the warranty period specified above, CKD will promptly provide a replacement for the faulty product or a part thereof or repair the faulty product at one of CKD's facilities free of charge.
However, following failures are excluded from this warranty:
 - 1) Failure caused by handling or use of the product under conditions and in environments not conforming to those stated in the catalog, the Specifications, or the Instruction Manual.
 - 2) Failure caused by use of the product exceeding its durability (cycles, distance, time, etc.) or caused by consumable parts.
 - 3) Failure not caused by the product.
 - 4) Failure caused by use not intended for the product.
 - 5) Failure caused by modifications/alterations or repairs not carried out by CKD.
 - 6) Failure caused by reasons unforeseen at the level of technology available at the time of delivery.
 - 7) Failure caused by acts of nature and disasters beyond control of CKD.
 The warranty stated herein covers only the delivered product itself. Any loss or damage induced by failure of the delivered product is excluded from this warranty.
Note: For details on the durability and consumable parts, contact your nearest CKD sales office.
- 3 Compatibility confirmation
The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.
- 4 Range of service
The delivered product price does not include engineer dispatch service fees. Separate fees will be charged in the following cases.
 - (1) Instruction of installation and adjustment, and presence on test operation
 - (2) Maintenance and inspection, adjustment, and repair
 - (3) Technical instructions and technical education (operation, program, wiring method, safety education, etc.)

Precautions for export

Products and related technologies in this catalog

Those of the products and related technologies in this catalog which are subject to US Export Administration Regulations (EAR) are marked on the product page as "Product subject to the EAR (EAR99) or (EAR99 and 3A991)". For export or provision of products or related technologies subject to EAR regulations, we request that the US Export Administration Regulations (EAR) be observed appropriately.