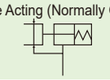
3-Jaw Long Stroke Chuck Double Acting/Single Acting

CK Series

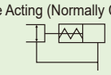
●Operating stroke: 20, 40 mm

Double Acting

Single Acting (Normally Open)



Single Acting (Normally Closed)



RoHS

Model No. Notation Method

Without Switch
(Built-in magnet for switch)

CK - 1CS - O - Y1

Model No. ❶ ❷ ❸

With Switch
(Built-in magnet for switch)

CK - 1CS - O - Y1 - T3H - R

Model No. ❷ Actuation method ❹ Switch Model No. ❶ Bore size ❸ Attachment ❺ Number of Switches

❶ Bore Size (mm)

Code	Content
1CS	ø25
1.5CS	ø44
2CS	ø44

❷ Actuation method

Code	Content
Blank	Standard (Double Acting)
O	Single Acting Type (Normally Open:)
C	Single Acting Type (Normally Closed:)

❸ Attachment

Code	Content
Blank	Without attachments
Y1	With attachments Material (S50C)
Y2	With attachments Material (MC Nylon)

Note) For the outline dimensions and compatible models of the attachments, refer to P. 486. When ordered as an option, it will be shipped included with a quantity of 3.

❹ Switch Model No.

For switch details, please refer to P. 573. Switches are included to the product and shipped.

Contact	Indicator LED Special Function	Wiring (Output)	Load Voltage (V) AC	Load Voltage (V) DC	Load Current (mA) AC	Load Current (mA) DC	Lead wire *1 Straight	Lead wire *1 L-shape	
Solid State	1-Color	2-wire	-	10 to 30	-	5 to 20 *2	T2H□	T2V□	
		3-wire (NPN)	-	30 or less	-	100 or less	T3H□	T3V□	
	1-Color Flexible Lead Wire Type	2-wire	—	10 to 30	—	5 to 20 *2	T2HR3	T2VR3	

*1: For "□" in the switch model number, enter the code selected from the "*Lead wire length" table.
*2: The maximum load current value above, 20 mA, is at 25 °C. If the switch operating ambient temperature is higher than 25 °C, it will be lower than 20 mA. (At 60 °C, it will be 5 to 10 mA.)
*3: Switches other than the switch model numbers are also available. (Custom Product) For details, see P. 573.

***Lead wire length**

Code	Content
Blank	1 m (Standard)
3	3 m (Option)
5	5 m (Option)

Example) Lead wire length
1 m T2H
3 m T2H3
5 m T2H5

❺ Number of Switches

	Code	Content
	R	With 1 pc. on Open Side
	H	With 1 pc. on Close Side
*	D	With 2 pcs

* When 2 switches are included, for models with a short operating stroke, both switches may turn ON depending on the size of the workpiece. Please be careful.

Switch Single Unit Model No. Notation Method

SW - T2H

❹ Switch Model No.

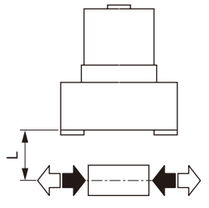
Specifications

Item		CK		
Size		1CS	1.5CS	2CS
Bore size	mm	ø25	ø44	
Actuation method		Double Acting/Single Acting Type		
Operating Fluid		Compressed Air		
Max. Working Pressure	MPa	0.7		
Min. Operating Pressure	MPa	0.3		
Ambient Temperature	°C	5 to 60		
Port Size		M5	Rc1/8	
Operating stroke	mm	20		40
Rod diameter	mm	ø12	ø16	
Internal volume (reciprocating)	cm³	7.9	26.4	52.8
Repeatability	mm	±0.03		
Weight	kg	0.85	1.90	2.90
Lubrication		Not required (When lubricating, use turbine oil Class 1 ISO VG32)		

Gripping Force Performance Data

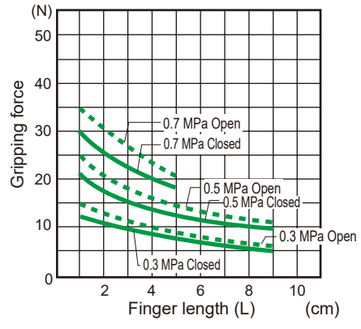
- Gripping force represents the thrust (for one finger) in the direction of the arrow shown in the figure.
- The gripping power in the opening/closing directions with finger length L of hand with a supply pressure of 0.3, 0.5 and 0.7 MPa is shown.

●Open direction (⇦)- - - -(broken line)
●Closing direction (➡)——(solid line)

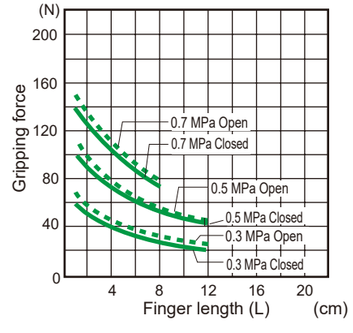


Note) O type gripping force is approx. 20 to 30 % lower in the closing direction compared to the double acting type. C type gripping force is approx. 10 to 20 % lower in the opening direction compared to the double acting type. When selecting, check the design and selection precautions on P. 490.

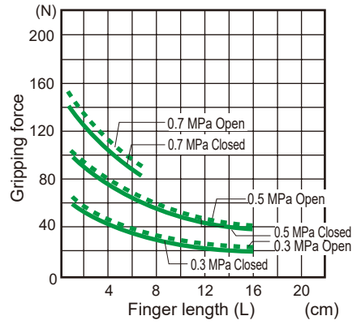
CK-1CS



CK-1.5CS



CK-2CS

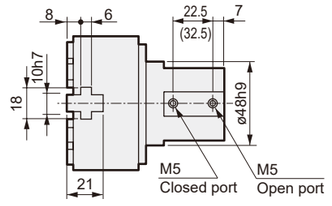


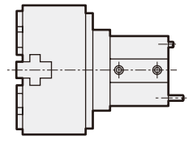
Outline Dimension Drawing

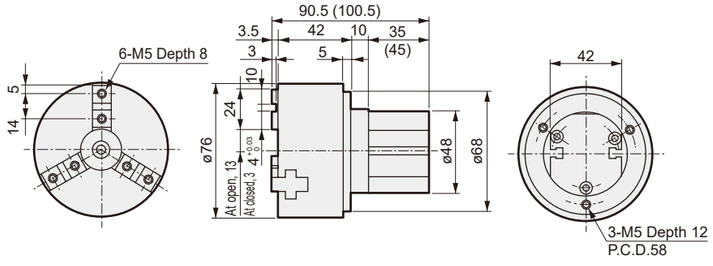
● CK-1CS Standard/O/C

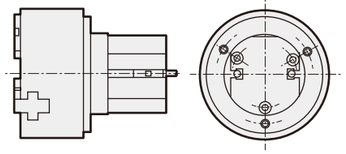
● ( ) Dimensions are for C (Normally Closed) type.

● With Switch





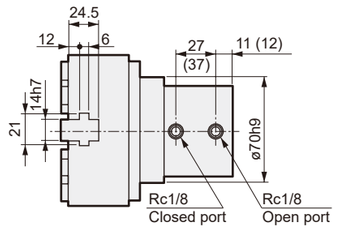


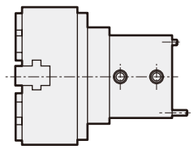


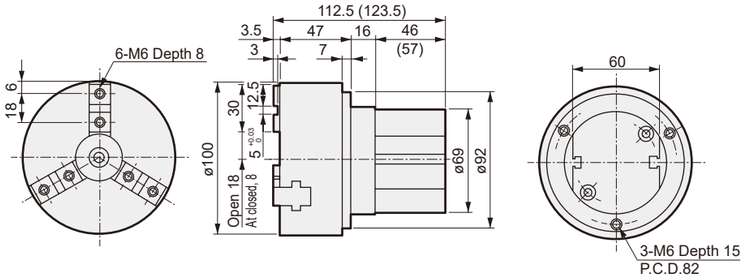
● CK-1.5CS Standard/O/C

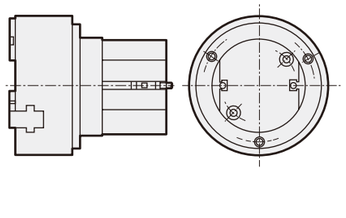
● ( ) Dimensions are for C (Normally Closed) type.

● With Switch







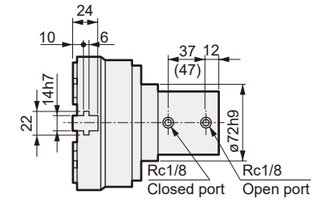


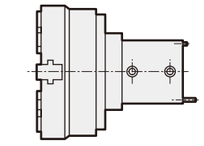
Outline Dimension Drawing

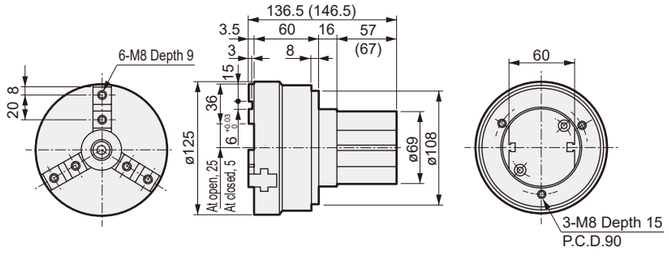
● CK-2CS Standard/O/C

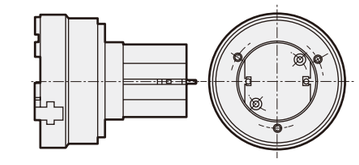
● ( ) Dimensions are for C (Normally Closed) type.

● With Switch



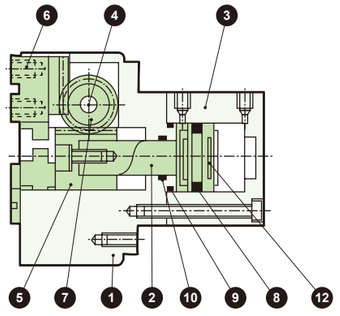




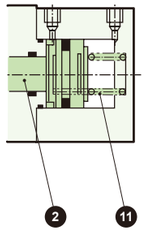


Internal Structure Diagram/Material

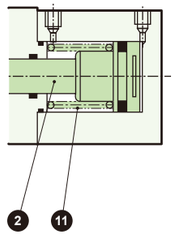
● Standard (double acting) type



● O (Normally Open) Type



● C (Normally Closed) Type



Do not disassemble

Part No.	Part Name	Material	Remarks	Part No.	Part Name	Material	Remarks
1	Adapter	Aluminum Alloy		7	Pinion gear	Steel	
2	Piston	Steel		8	Piston Packing	Nitrile Rubber	
3	Body	Aluminum Alloy		9	Gasket	Nitrile rubber	
4	Pinion gear shaft	Steel		10	Rod Packing	Nitrile Rubber	
5	Rack	Steel		11	Coil Spring	Stainless Steel	O, C only
6	Finger	Steel		12	Magnet		Nickel Plating

MEMO