



High Gripping Force Powerful Chuck

CKH2 Series

● Operating stroke: 6, 8, 10, 12 mm



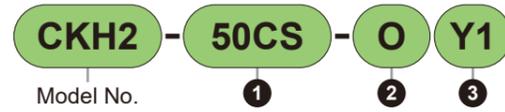
CKH2 Series Specifications

Specifications

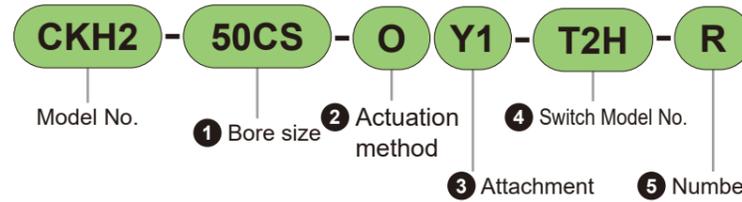
Item	CKH2-50CS	CKH2-63CS	CKH2-80CS	CKH2-100CS
Bore size	mm ø50	mm ø63	mm ø80	mm ø100
Operating Fluid	Compressed Air			
Max. Working Pressure	MPa 0.7			
Min. Operating Pressure	MPa 0.3			
Ambient Temperature	°C 5 to 60			
Port Size	M5		Rc1/8	
Operating stroke	mm 6	mm 8	mm 10	mm 12
Rod diameter	mm ø14	mm ø16	mm ø16	mm ø20
Internal volume (reciprocating)	cm ³ 28.3	cm ³ 60.3	cm ³ 118.2	cm ³ 215.5
Repeatability	mm ±0.01			
Weight	kg 0.59	kg 1.02	kg 2.02	kg 3.45
Lubrication	Not required (When lubricating, use turbine oil Class 1 ISO VG32)			

Model No. Notation Method

Without Switch
(Built-in magnet for switch)



With Switch
(Built-in magnet for switch)



1 Bore Size (mm)

Code	Content
50CS	ø50
63CS	ø63
80CS	ø80
100CS	ø100

2 Actuation method

Code	Content
Blank	Standard (Double Acting)
O	Single acting type (Normally open:)
C	Single acting type (Normally closed:)

3 Attachment

Code	Content
Blank	Without attachments
Y1	With attachment Material: S45C
Y2	With attachment Material: MC Nylon

*1, *2

*1: Attachment is not available for inner diameter chuck.
*2: Refer to P. 486 for the Dimensions and compatible model of the attachment. When ordered as an option, three are included at shipment.

4 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)		Load Current (mA)		Lead wire *1	
			AC	DC	AC	DC	Straight	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.

5 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



4 Switch Model No.

*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

Check Valve

CKW-HP
CKL2
CKLG2
CKL2-□-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ

Check Valve

CKW-HP
CKL2
CKLG2
CKL2-□-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ

Cylinder Switch
Ending

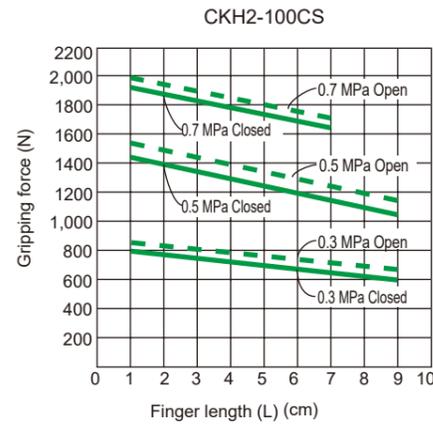
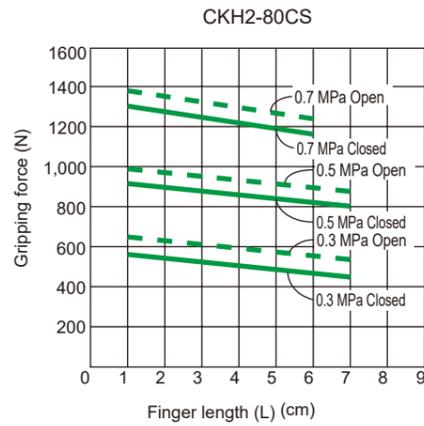
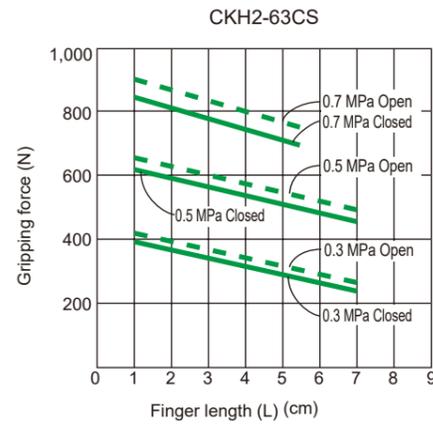
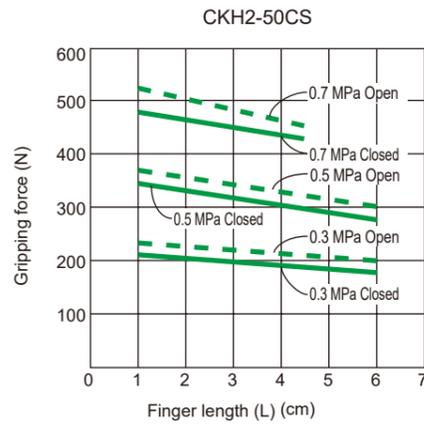
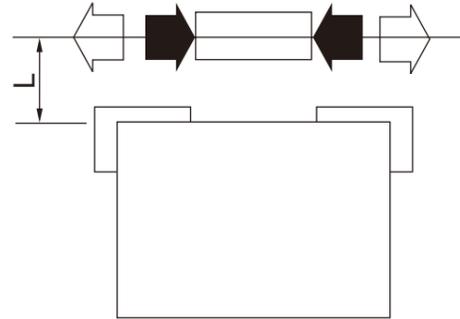
Cylinder Switch
Ending

Gripping Force Performance Data

- Gripping force represents the thrust (for one finger) in the direction of the arrow shown in the figure.
- The gripping force 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)

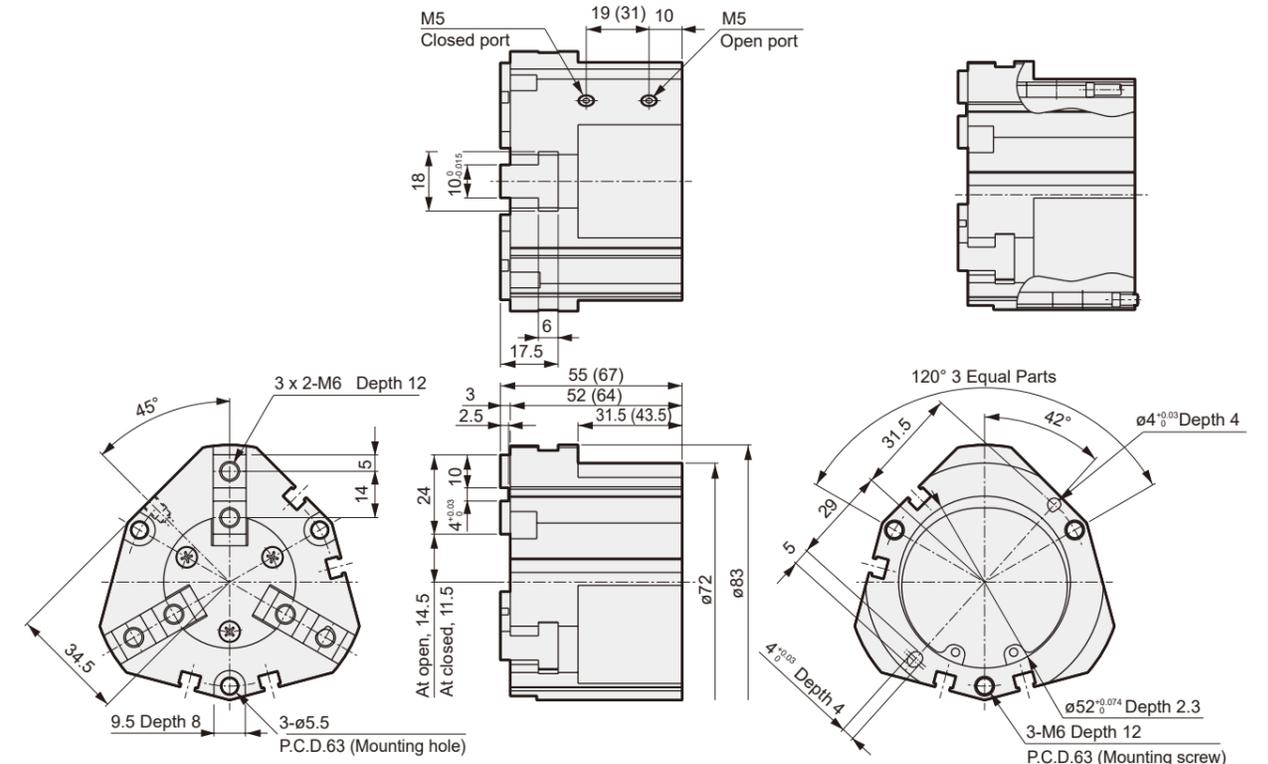
Note) O type gripping force is approx. 20 to 30 % lower in the closing direction compared to the double acting type. C type gripping force is approx. 10 to 20 % lower in the opening direction compared to the double acting type. **When selecting, check the design and selection precautions on P. 490.**



Outline Dimension Drawing

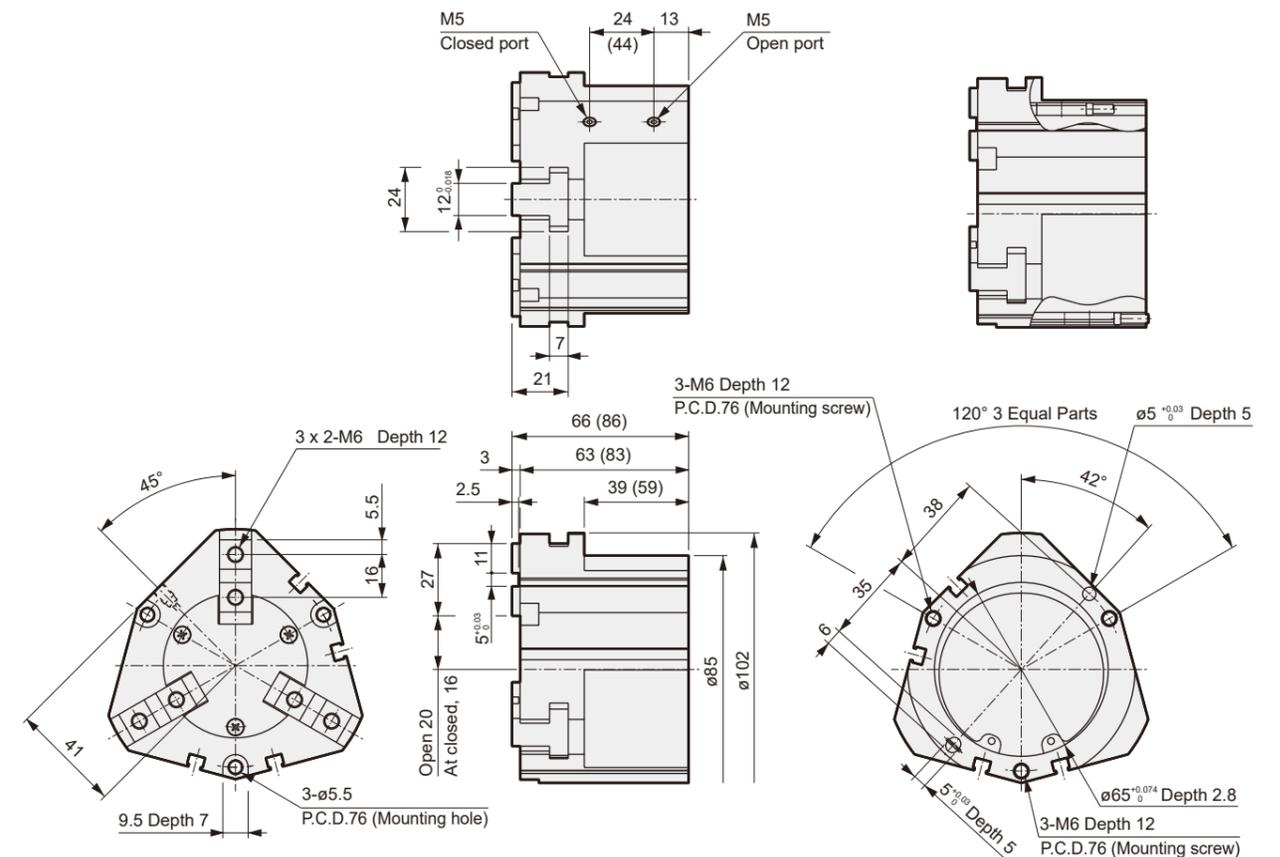
● CKH2-50CS Standard/O/C

• Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.



● CKH2-63CS Standard/O/C

• Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.



Check Valve

- CKW-HP
- CKL2
- CKLG2
- CKL2 -□-HC
- CKH2**
- CKLB2
- CKG
- CK
- CKA
- CKS
- CKS-F
- CKF
- CKJ

Check Valve

- CKW-HP
- CKL2
- CKLG2
- CKL2 -□-HC
- CKH2**
- CKLB2
- CKG
- CK
- CKA
- CKS
- CKS-F
- CKF
- CKJ

- Cylinder Switch
- Ending

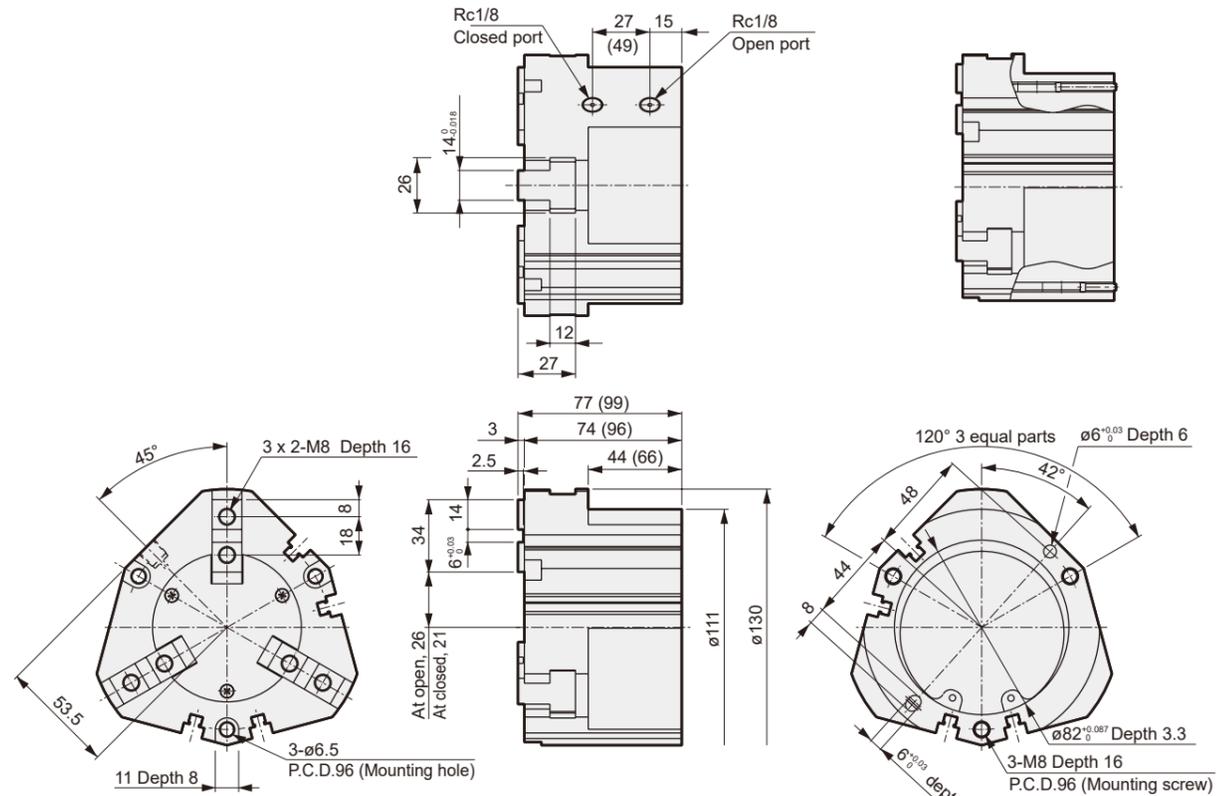
- Cylinder Switch
- Ending

Outline Dimension Drawing

● CKH2-80CS Standard/O/C

· Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.

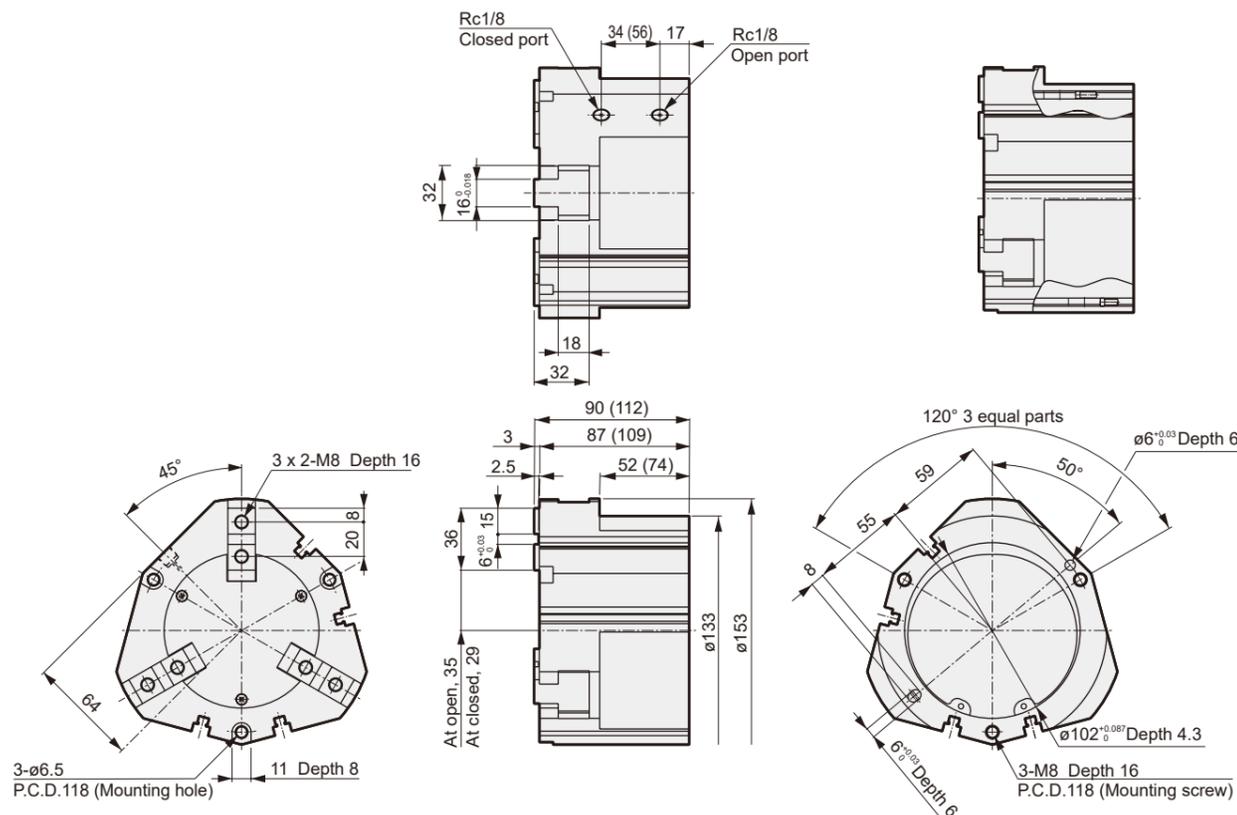
● With Switch



● CKH2-100CS Standard/O/C

· Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.

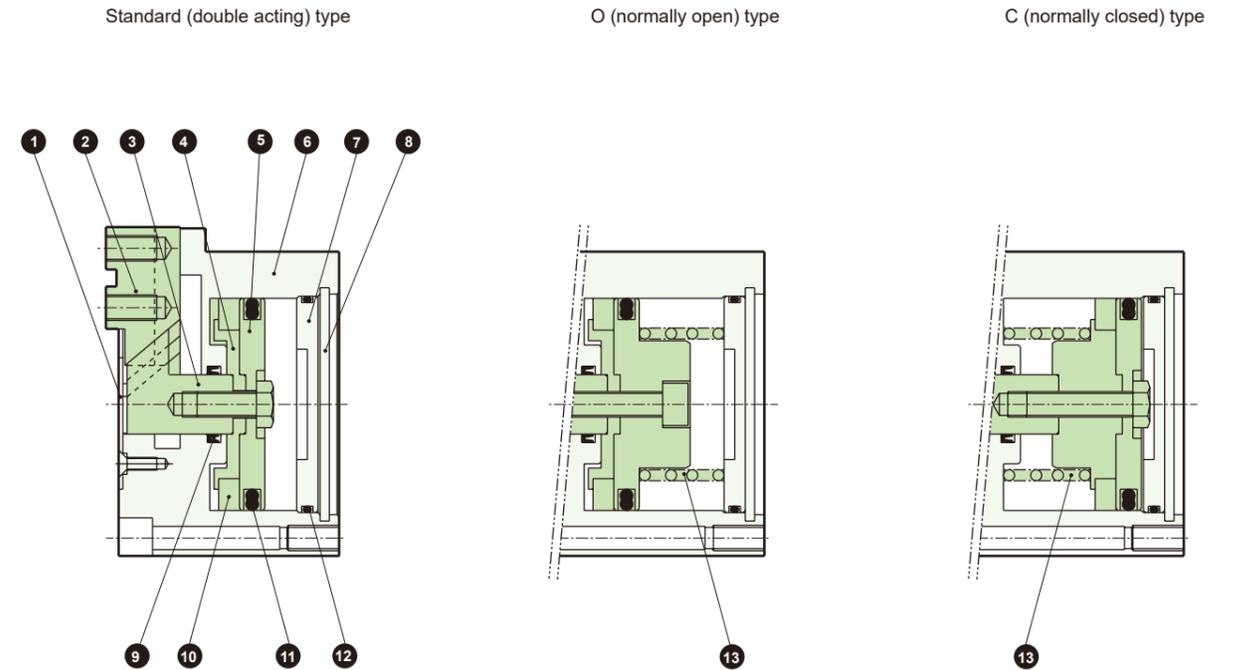
● With Switch



Internal Structure Diagram/Material

Internal Structure Diagram/Material

● CKH2-50CS to 100CS



Do not disassemble

Part No.	Part Name	Material	Remarks	Part No.	Part Name	Material	Remarks
1	Center cover	Stainless Steel		8	C-type retaining ring	50CS, 60CS: Stainless Steel 80CS, 100CS: Steel	
2	Finger	Steel		9	Rod seal	Nitrile Rubber	
3	Piston A	Steel		10	Magnet		
4	Piston B	Aluminum Alloy		11	Piston seal	Nitrile Rubber	
5	Piston C	Aluminum alloy		12	Seal	Nitrile Rubber	
6	Body	Aluminum Alloy		13	Coil Spring	Stainless Steel	O, C only
7	Cover	Aluminum Alloy					

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- CKH2**
- CKLB2
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- CKA
- CKS
- CKS-F
- CKF
- CKJ

Cylinder Switch Ending

Cylinder Switch Ending