



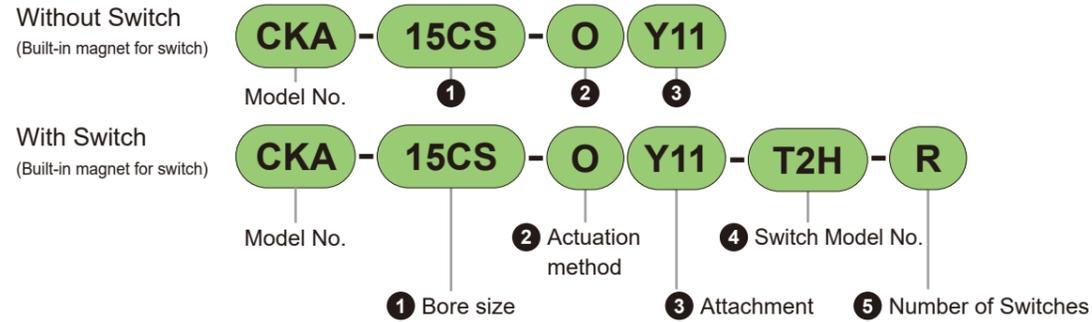
3-Jaw Low Profile Chuck Double Acting/Single Acting

CKA Series

● Operating stroke: 5, 6, 7, 9, 20, 25, 30, 38 mm



Model No. Notation Method



1 Bore Size (mm)

Code	Content
15CS	φ16
20CS	φ25
25CS	φ32
30CS	φ40
40CS	φ50
50CS	φ63
60CS	φ80
70CS	φ100

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
Y11	With attachments Material (S50C) For Outer Diameter Chuck (attachment No.: 510 to 540, 710 to 770) (15CS, 50CS to 70CS only)
Y12	With attachments Material (S50C) For Inner Diameter Chuck (attachment No.: 610 to 630) (20CS to 40CS only)
Y21	With attachments Material (MC Nylon) For Outer Diameter Chuck (attachment No.: 510 to 540, 710 to 770) (15CS, 50CS to 70CS only)
Y22	With attachments Material (MC Nylon) For Inner Diameter Chuck (attachment No.: 610 to 630) (20CS to 40CS only)

Note) Refer to pages 486, 487 for the external dimensions and compatible models of the attachments. When ordered as an option, it will be shipped included with a quantity of 3.

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: 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: For 1 Bore sizes "50CS" to "70CS", the switch groove shape is different, so a mounting bracket is required when ordering the switch separately.
- *4: Switches other than the switch model numbers are also available. (Custom Product) For details, see P. 573.

5 Number of Switches

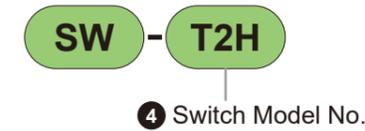
Code	Content
R	With 1 pc. on Open Side
H	With 1 pc. on Close Side
D	With 2 pcs

* 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

CKA-15CS to 40CS

[T-type Switch]

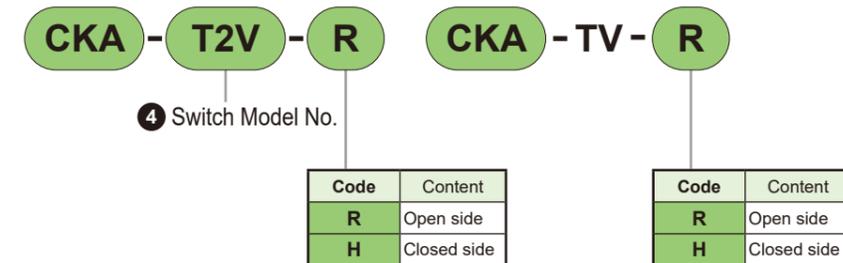


CKA-50CS to 70CS

- For switch T□H□ [Switch Body + Mounting Bracket Kit] *1 [Mounting Bracket Kit] *1



- For switch T□V□ [Switch Body + Mounting Bracket Kit] *1 [Mounting Bracket Kit] *1



*1 The weight of the mounting bracket is 1.5 g.

*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

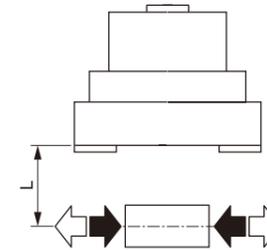
Cylinder Switch
Ending

Specifications

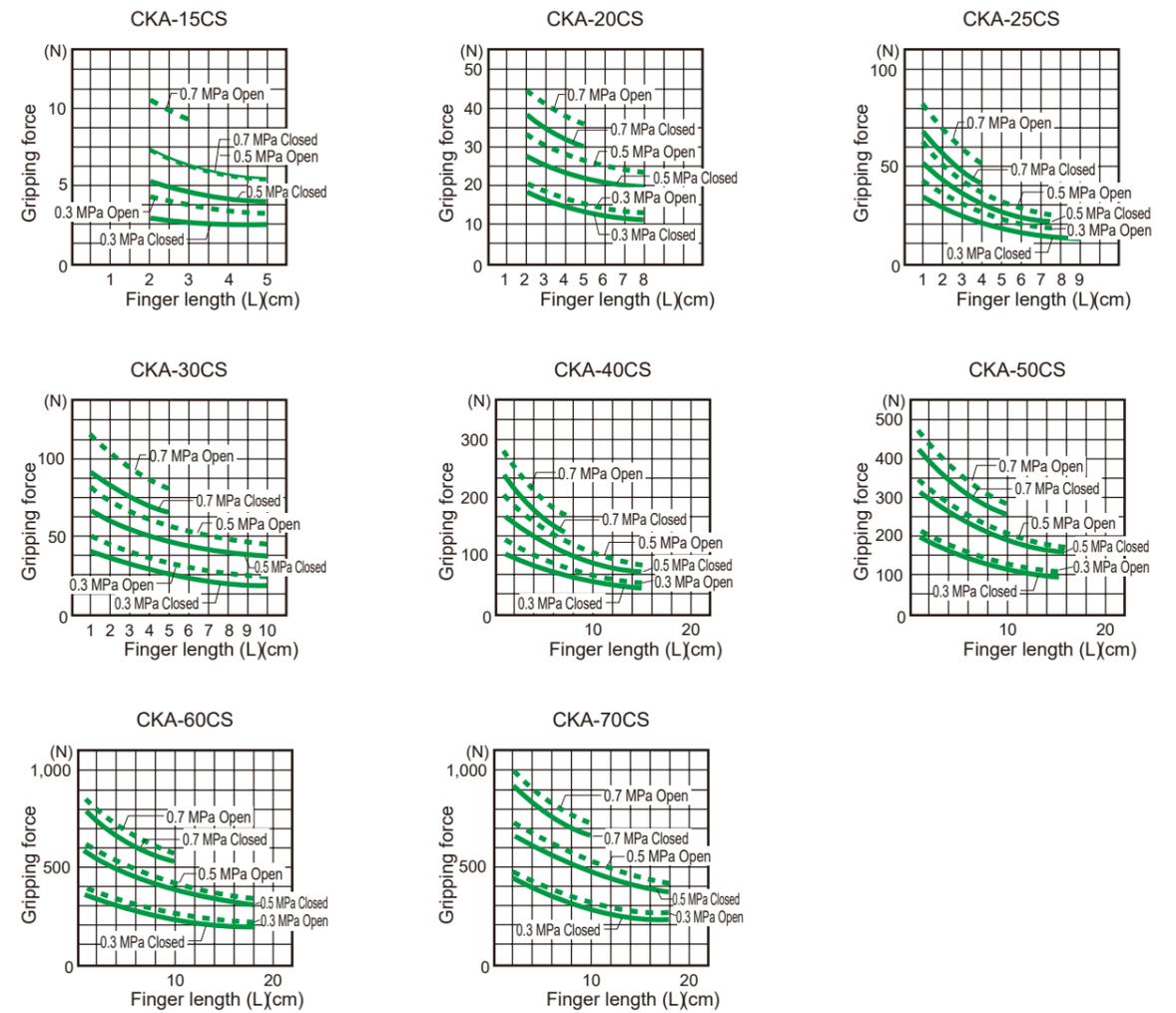
Item	CKA							
Size	15CS	20CS	25CS	30CS	40CS	50CS	60CS	70CS
Bore size mm	ø16	ø25	ø32	ø40	ø50	ø63	ø80	ø100
Actuation	Double Acting/Single Acting Type							
Operating Fluid	Compressed Air							
Max. Working Pressure MPa	0.7							
Min. Operating Pressure MPa	0.3							
Ambient Temperature °C	5 to 60							
Port Size	M5				Rc1/8			
Operating stroke mm	6	5	7	9	20	25	30	38
Rod diameter mm	ø9	ø10	ø14	ø18	ø20		ø24	ø28
Internal volume (reciprocating) cm ³	1.0	2.2	5.1	10.1	36.1	76.9	148.8	294.0
Repeatability mm	±0.03							
Weight kg	0.11	0.25	0.42	0.61	1.41	2.6	4.5	6.4
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.
- Indicates the gripping force for one finger of the hand with finger length L acting in the opening or closing directions when supplied with 0.3, 0.5, or 0.7 MPa pressure.
- 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.

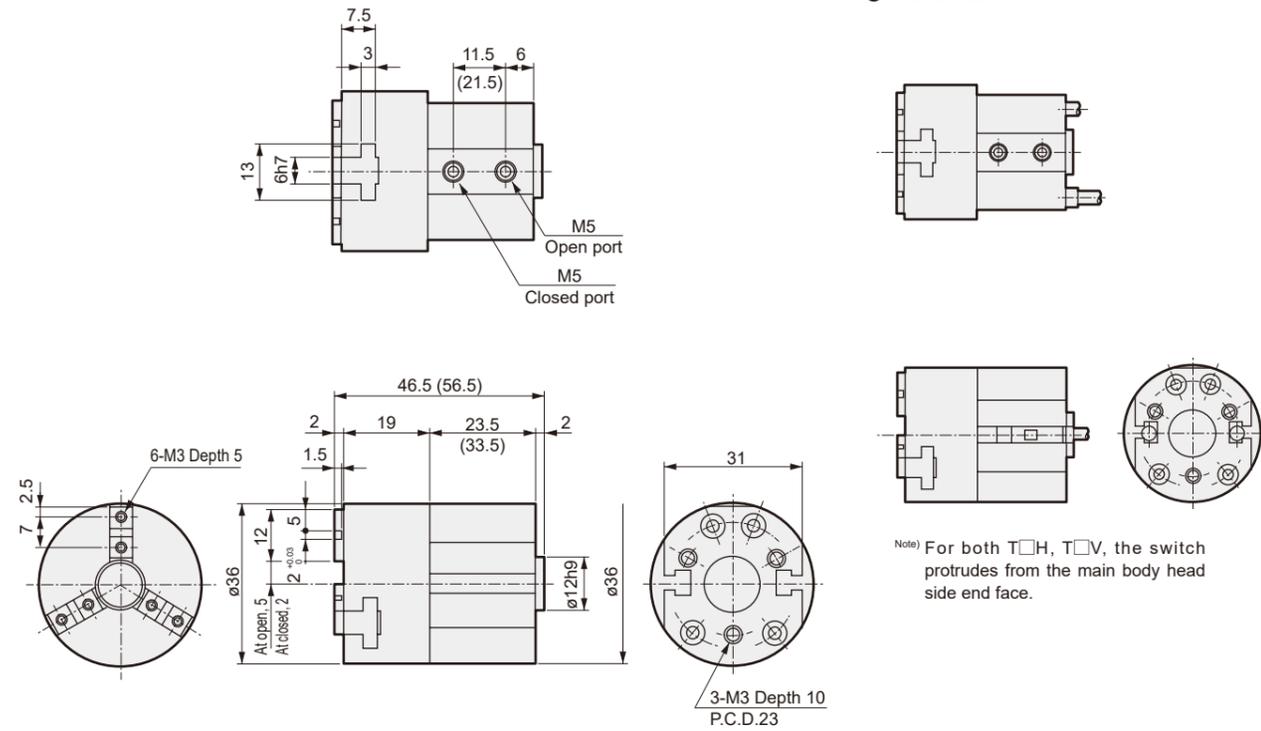


Outline Dimension Drawing

● CKA-15CS Standard/O/C

● () Dimensions are for O (Normally Open) and C (Normally Closed) types.

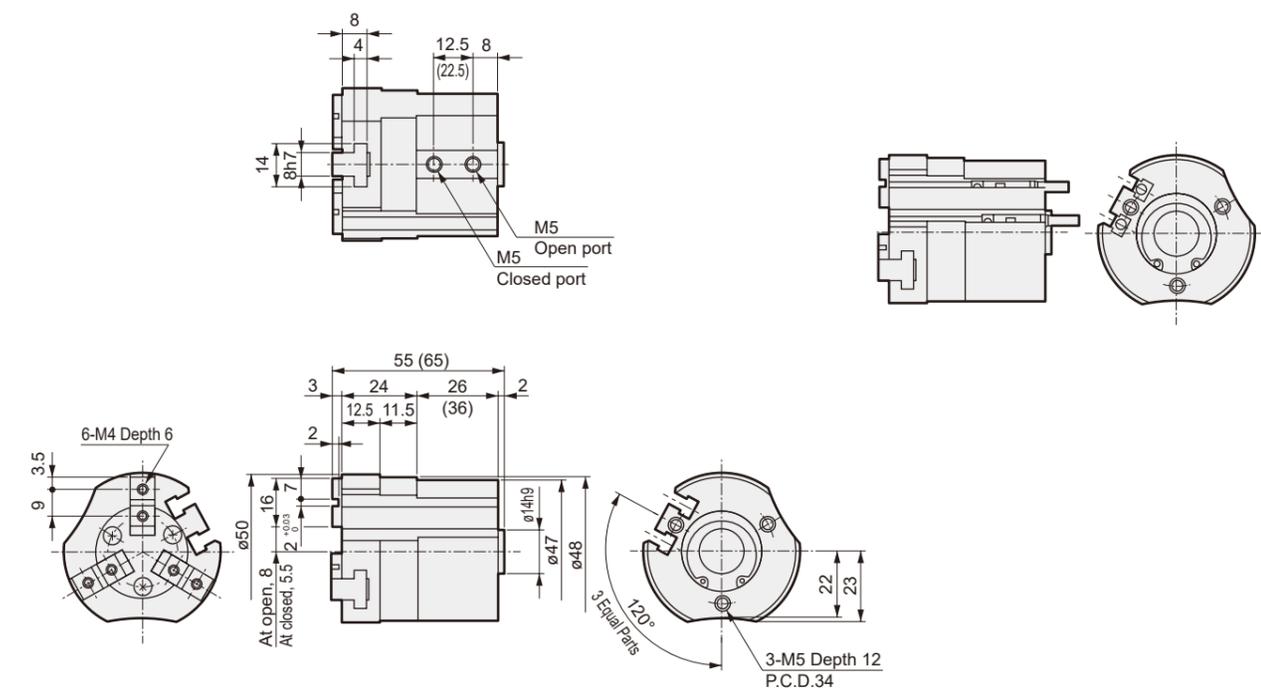
● With Switch



● CKA-20CS Standard/O/C

● () Dimensions are for O (Normally Open) and C (Normally Closed) types.

● With Switch



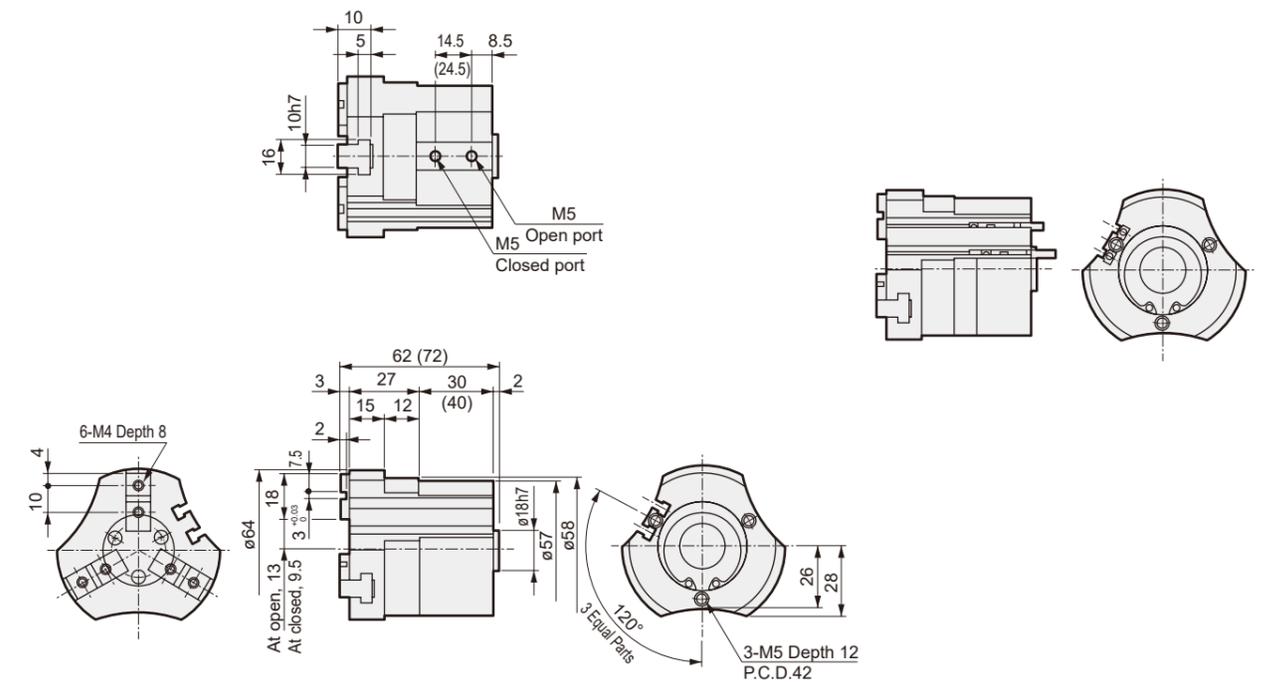
Outline Dimension Drawing

Outline Dimension Drawing

● CKA-25CS Standard/O/C

● () Dimensions are for O (Normally Open) and C (Normally Closed) types.

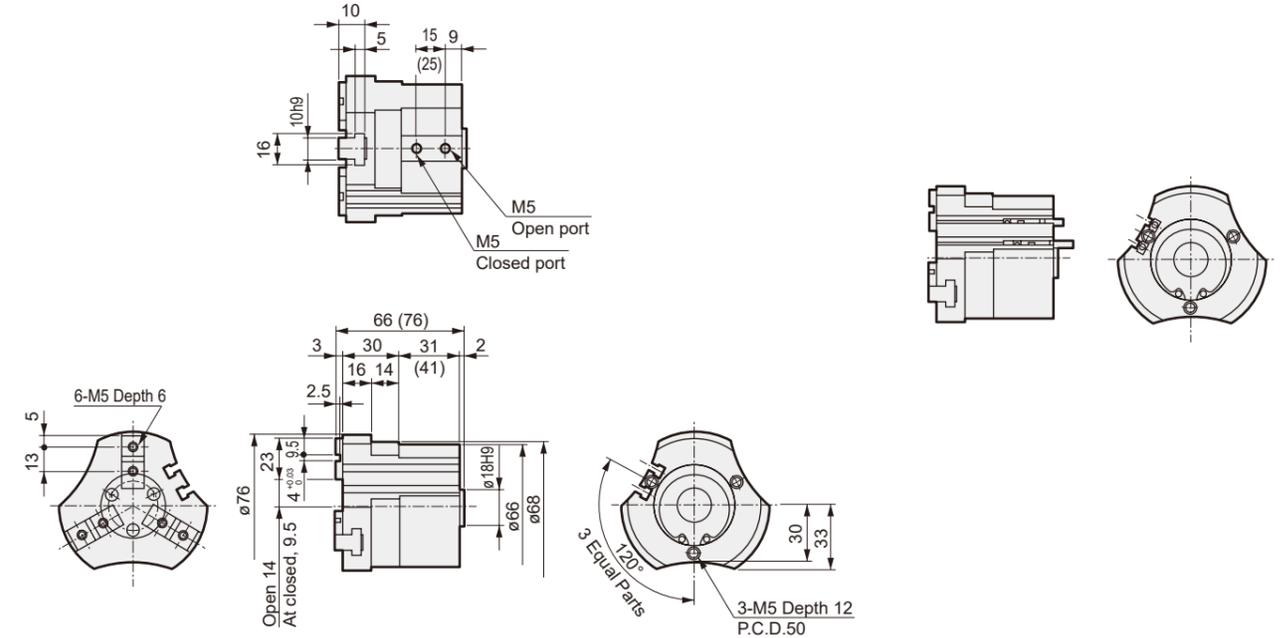
● With Switch



● CKA-30CS Standard/O/C

● () Dimensions are for O (Normally Open) and C (Normally Closed) types.

● With Switch



Check Valve

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

Cylinder Switch Ending

Check Valve

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

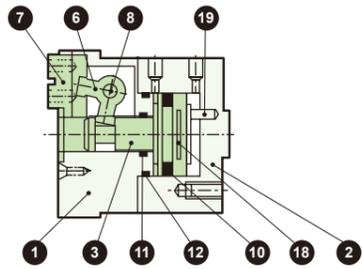
Cylinder Switch Ending

Internal Structure Diagram/Material

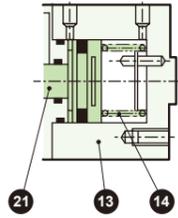
MEMO

● CKA-15CS

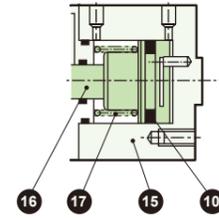
Standard (double acting) type



O (Normally Open) Type

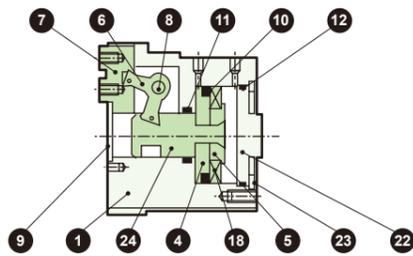


C (Normally Closed) Type

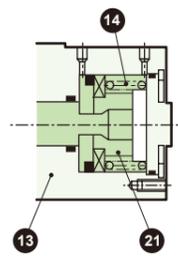


● CKA-20CS to 40CS

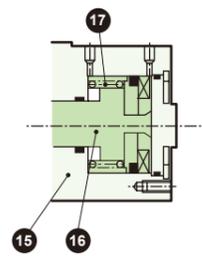
Standard (double acting) type



O (Normally Open) Type

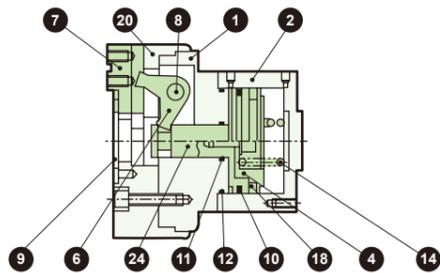


C (Normally Closed) Type

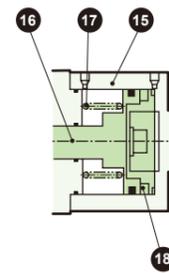


● CKA-50CS to 70CS

Standard (double acting), 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		13	O Body	Aluminum Alloy	
2	Body	Aluminum Alloy		14	O Spring	Steel	O type only
3	Piston A	Stainless Steel		15	C Body	Aluminum Alloy	
4	Piston B	Aluminum Alloy		16	C Piston Rod	Stainless Steel	
5	Piston C	Aluminum Alloy		17	C Spring	Steel	
6	Arm	Steel		18	Magnet	Plastic magnet	
7	Finger	Steel		19	Anti-rotation pin	Stainless Steel	
8	Pivot Shaft	Steel		20	Cover	Aluminum Alloy	
9	Center cover	Stainless Steel		21	O Piston B	Stainless Steel	
10	Piston Packing	Nitrile Rubber		22	Cover	Aluminum Alloy	
11	Rod Packing	Nitrile Rubber		23	Retaining ring	Stainless Steel	
12	Gasket	Nitrile Rubber		24	Piston	Aluminum Alloy	

Note) Structure varies somewhat depending on model.

Check Valve

Check Valve

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

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

Cylinder
Switch
Ending

Cylinder
Switch
Ending