



Bidirectional Powerful Chuck

CKLB2 Series

● Operating stroke: 5, 6, 8, 10, 12, 16, 20, 23 mm

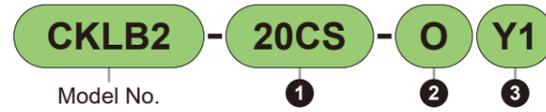


Specifications

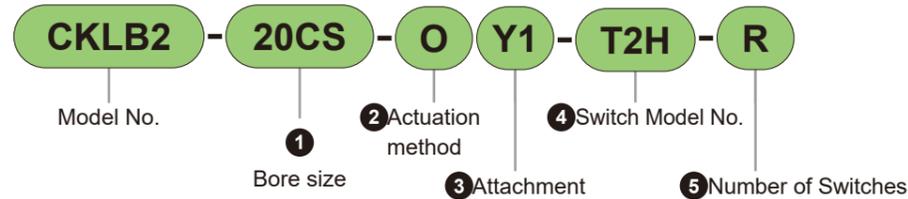
Item	CKLB2-20CS	CKLB2-25CS	CKLB2-32CS	CKLB2-40CS	CKLB2-50CS	CKLB2-63CS	CKLB2-80CS	CKLB2-100CS
Bore size	mm ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
Operating Fluid	Compressed Air							
Max. Working Pressure	MPa 0.7							
Min. Operating Pressure	MPa 0.3							
Ambient Temperature	°C 5 to 60							
Port Size	M5						Rc1/8	
Operating stroke	mm 5	6	8	10	12	16	20	23
Rod diameter	mm ø6	ø8	ø10	ø12	ø14	ø16	ø16	ø20
Internal volume (reciprocating)	cm ³ 1.8	3.3	7.7	15.6	28.3	60.3	118.2	215.5
Repeatability	mm ±0.01							
Weight	kg 0.13	0.20	0.32	0.38	0.58	1.00	2.00	3.53
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
20CS	ø20
25CS	ø25
32CS	ø32
40CS	ø40
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: Attachments can be used for both internal and external chucking.
*2: Refer to P. 486 for the Dimensions and compatible model of the attachment. When ordered as an option, it will be shipped included with a quantity of 2.

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□
Solid State	1-Color Flexible Lead Wire Type	2-wire	-	10 to 30	-	5 to 20 *2	T2HR3	T2VR3

* 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 T2H□
5 m T2H□

*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.

Rechargeable Battery Compatible Specification (Catalog No. CC-1226AA)

● Design compatible with rechargeable battery manufacturing process



* Please contact us for details.

Switch Single Unit Model No. Notation Method



4 Switch Model No.

Check Valve

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

Check Valve

CKW-HP
CKL2
CKLG2
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CKJ

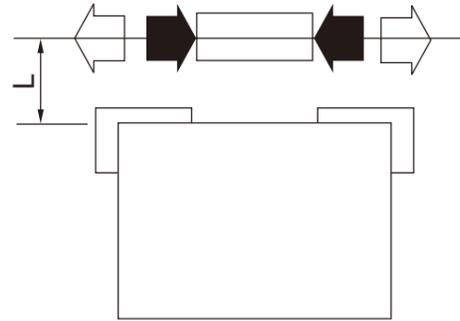
Cylinder Switch
Ending

Cylinder Switch
Ending

Gripping Force Performance Data

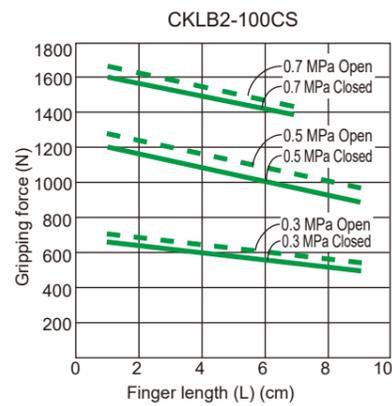
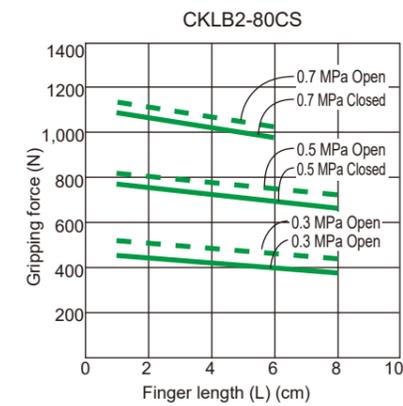
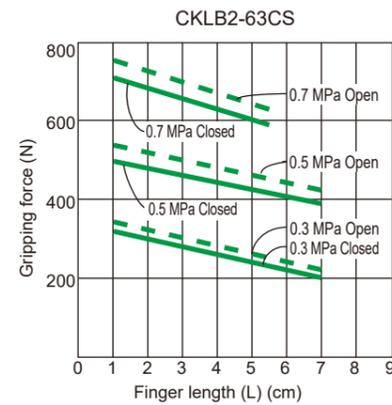
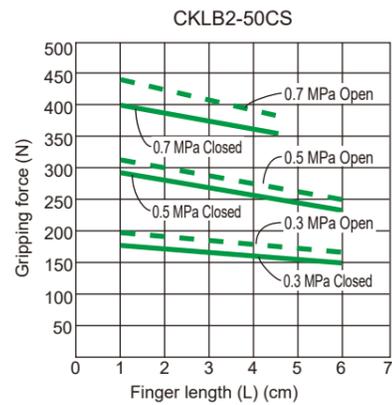
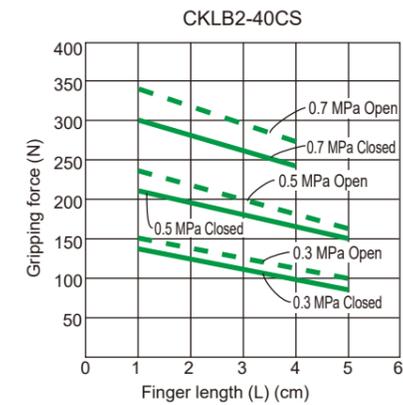
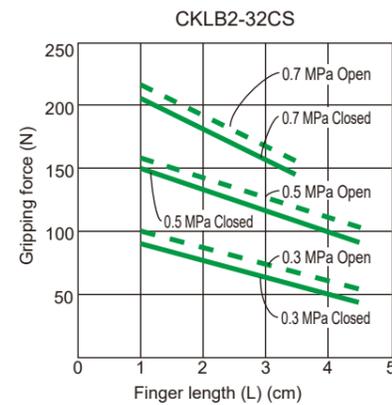
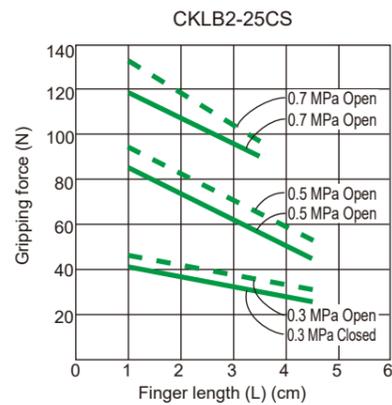
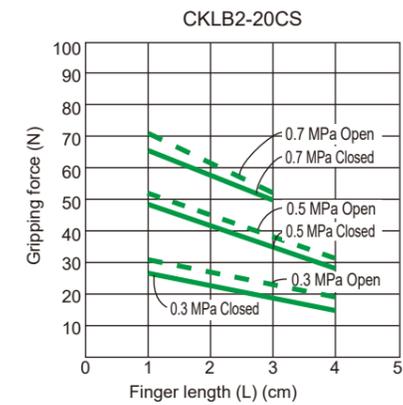
- Gripping force represents the thrust (for one finger) in the direction of the arrow shown in the figure.
- The gripping force in the opening/closing directions with finger length L of hand with a supply pressure of 0.3, 0.5 and 0.7 MPa is shown.

- Opening direction (←) - - - (Dashed 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.**

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

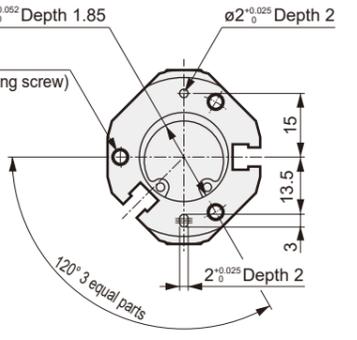
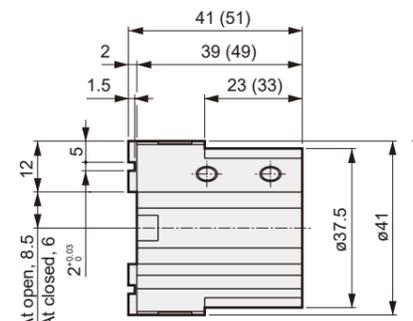
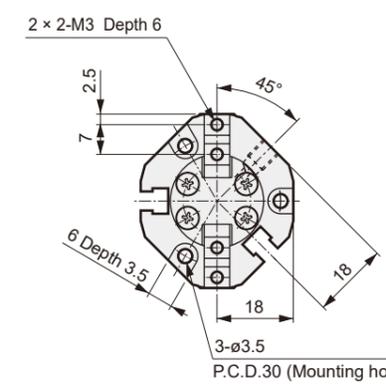
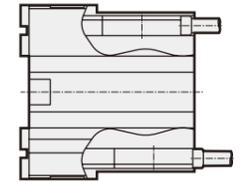
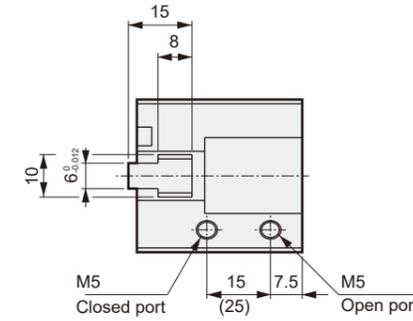


Cylinder Switch
Ending

Outline Dimension Drawing

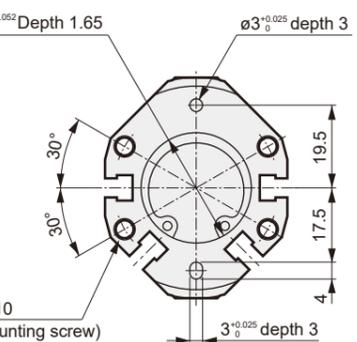
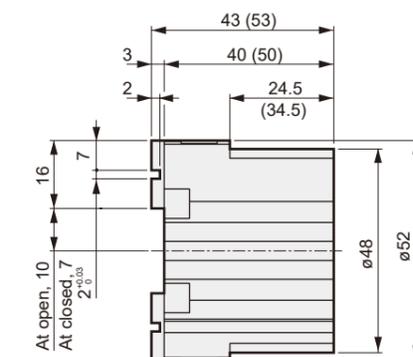
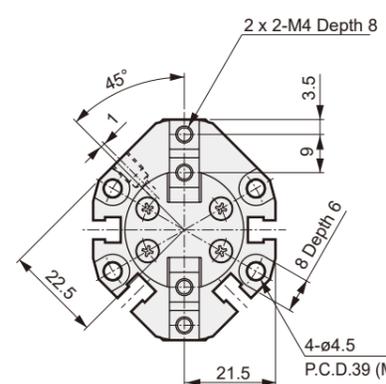
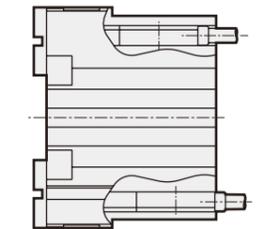
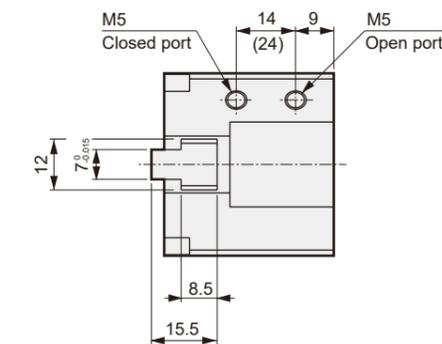
- CKLB2-20CS Standard/O/C
- Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.

- With Switch



- CKLB2-25CS Standard/O/C
- Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.

- With Switch



Check Valve

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

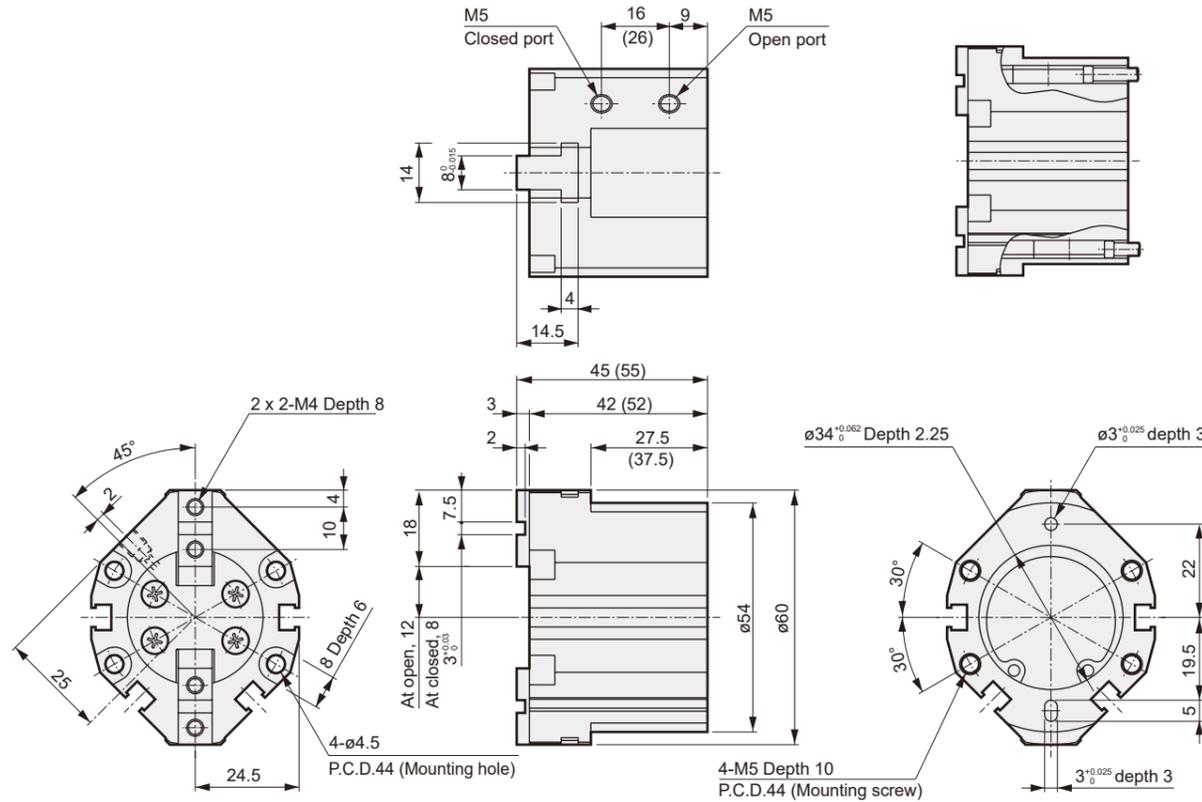
Cylinder Switch
Ending

Outline Dimension Drawing

●CKLB2-32CS Standard/O/C

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

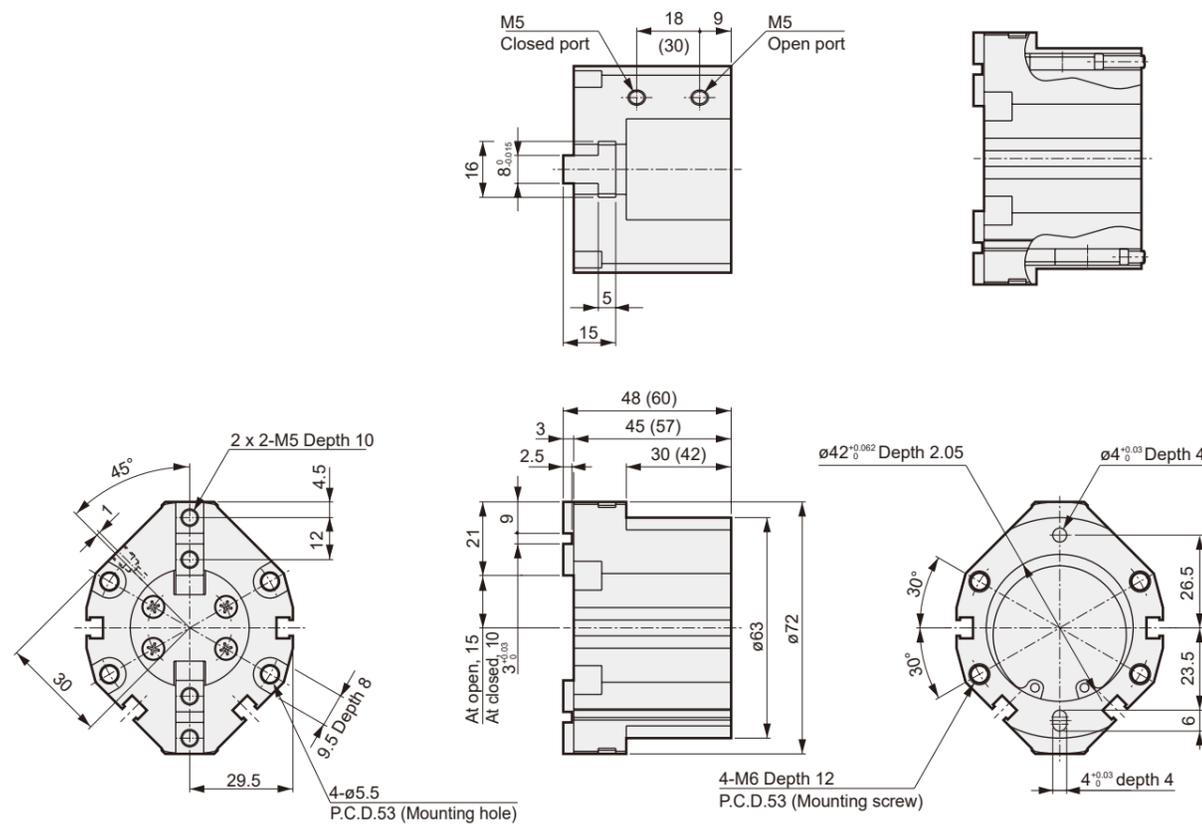
●With Switch



●CKLB2-40CS Standard/O/C

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

●With Switch



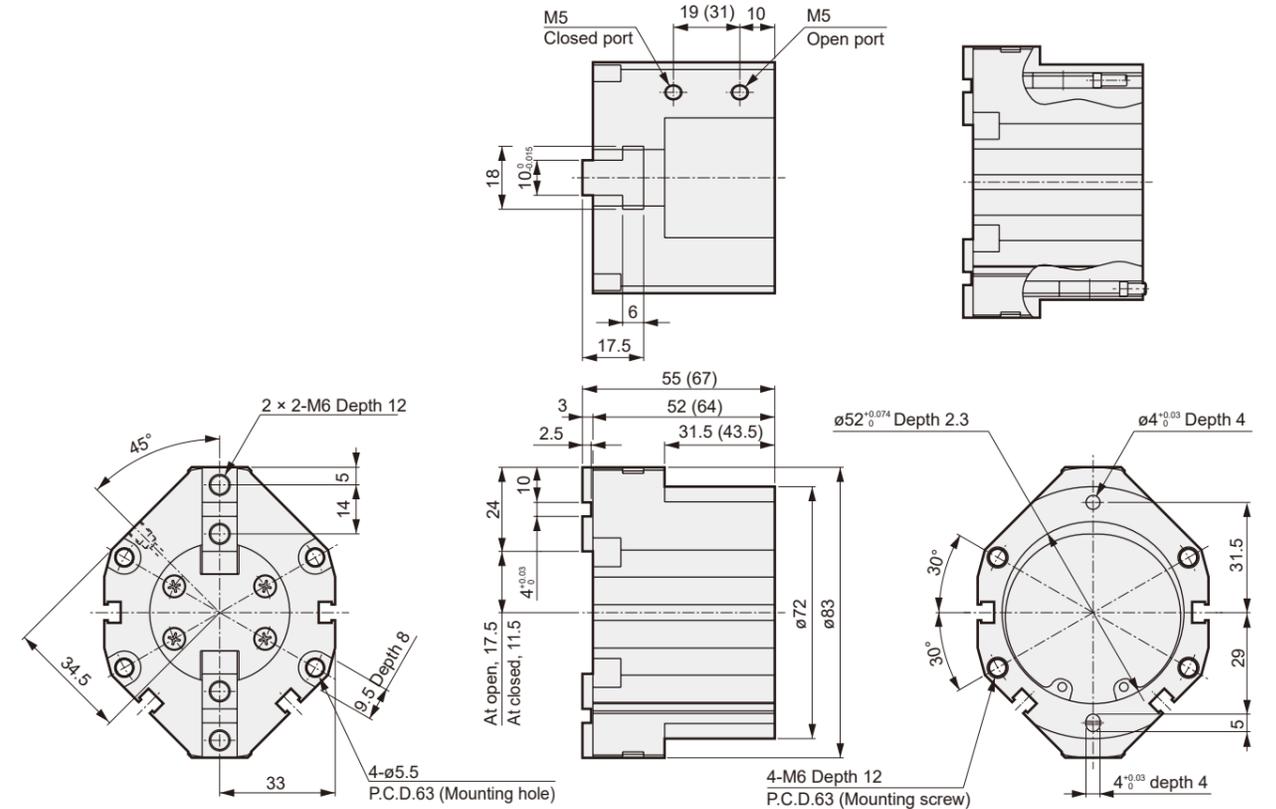
Outline Dimension Drawing

Outline Dimension Drawing

●CKLB2-50CS Standard/O/C

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

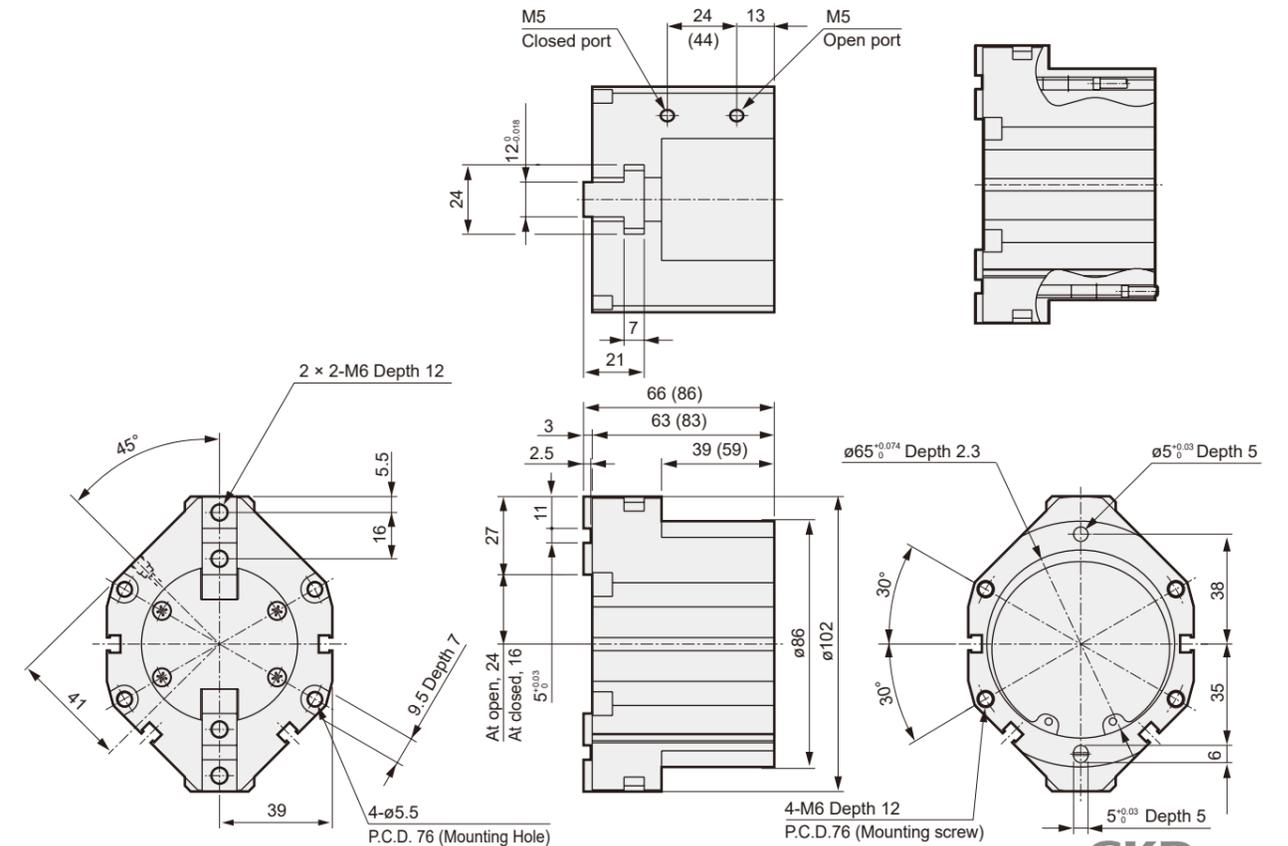
●With Switch



●CKLB2-63CS Standard/O/C

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

●With Switch



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

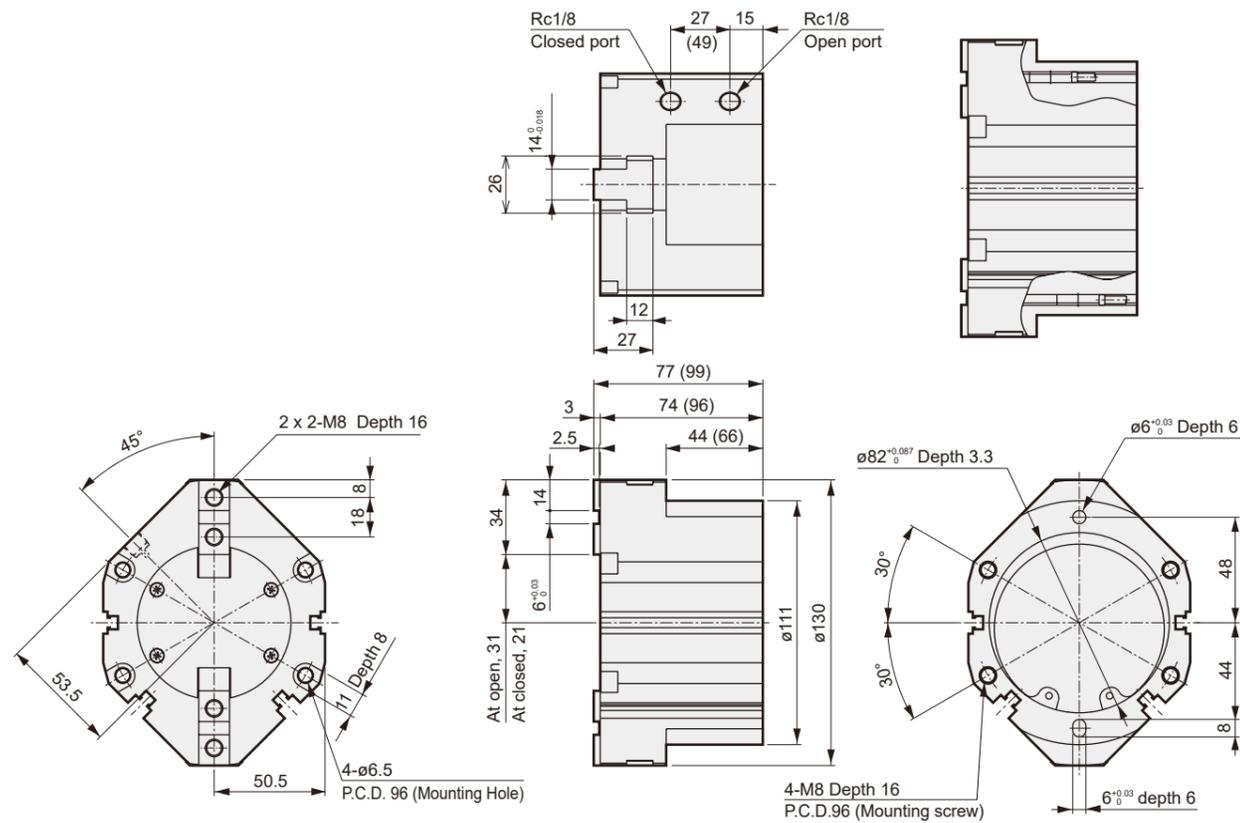
Cylinder Switch
Ending

Cylinder Switch
Ending

Outline Dimension Drawing

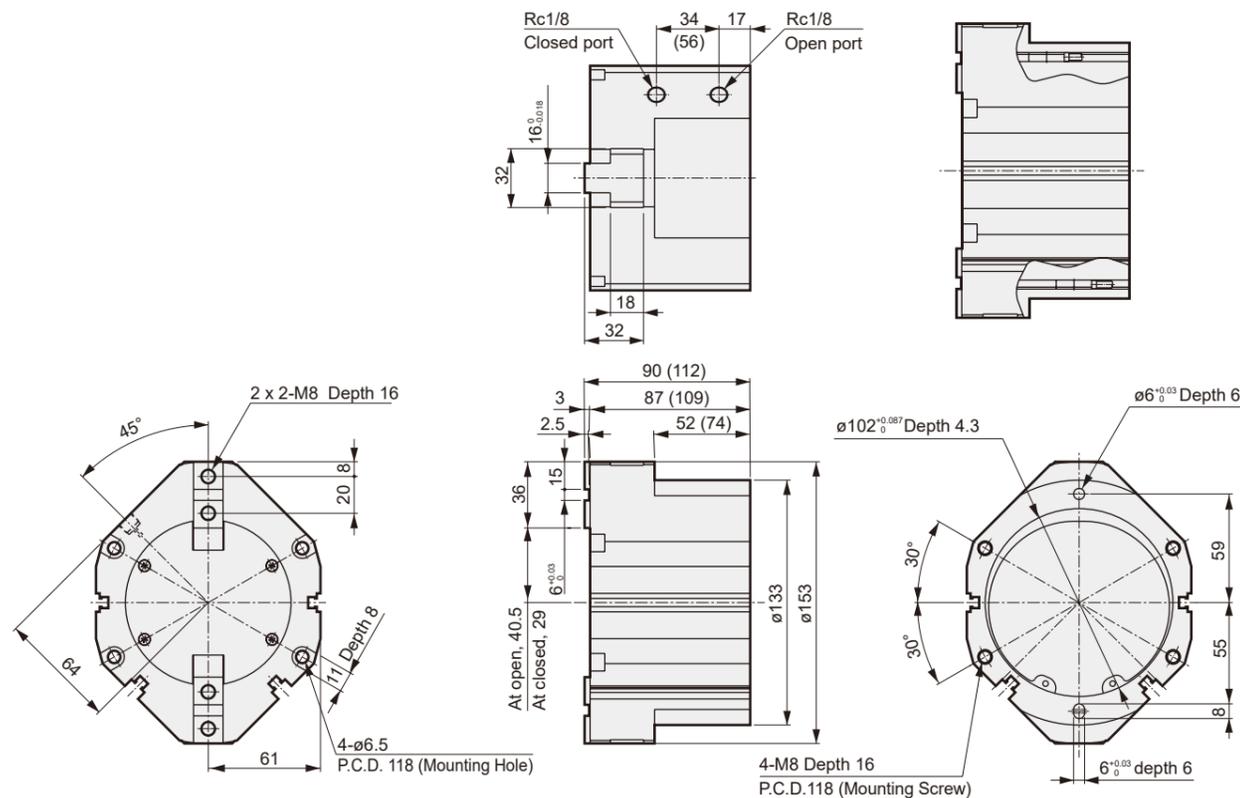
- CKLB2-80CS Standard/O/C
- Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.

● With Switch



- CKLB2-100CS Standard/O/C
- Dimensions in () are for O [Normally Open] and C [Normally Closed] specifications.

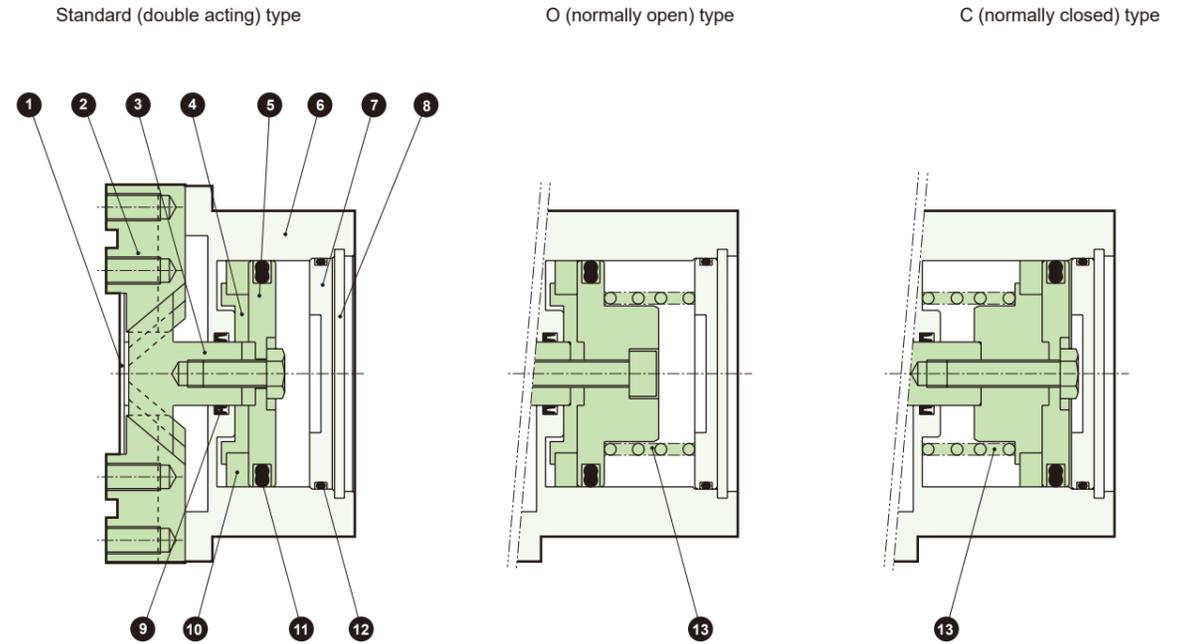
● With Switch



Internal Structure Diagram/Material

Internal Structure Diagram/Material

- CKLB2-20CS to 100CS



Do not disassemble

Part No.	Part Name	Material	Remarks	Part No.	Part Name	Material	Remarks
1	Center cover	Stainless Steel		7	Cover	Aluminum Alloy	
2	Finger	Steel		8	Retaining ring	20CS to 63CS: Stainless Steel 80CS, 100CS: Steel	
3	Piston A	20CS to 32CS: Stainless steel 40CS to 100CS: Carbon steel		9	Rod Packing	Nitrile Rubber	
4	Piston B	Aluminum Alloy		10	Magnet		
5	Piston C	Aluminum Alloy		11	Piston Packing	Nitrile Rubber	
6	Body	Aluminum Alloy		12	Gasket	Nitrile Rubber	
				13	Coil Spring	Stainless Steel	O, C only

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