



2-way powerful chuck

# CKLB2 Series

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

Double acting



Single acting (normally open)



Single acting (normally closed)



## 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
Working fluid	Compressed air							
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)							
Min. working pressure MPa	0.3 (≈44 psi, 3 bar)							
Ambient temperature °C	5 (41°F) to 60 (140°F)							
Port size	M5						Rc1/8	
Operating stroke length mm	5	6	8	10	12	16	20	23
Rod diameter mm	ø6	ø8	ø10	ø12	ø14	ø16	ø16	ø20
Volumetric capacity (reciprocating) cm <sup>3</sup>	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 (use turbine oil class 1 ISO VG32 if necessary for lubrication)							

## Switch specifications

Item	Proximity 2-wire	Proximity 3-wire
	T2H/V	T3H/V
Applications	Dedicated for programmable controller	For programmable controller, relay
Output method	—	NPN output
Power supply voltage	—	10 to 28 VDC
Load voltage/current	10 to 30 VDC, 5 to 20 mA (*1)	30 VDC or less, 100 mA or less
Indicator lamp	LED (Lit when ON)	
Leakage current	1 mA or less	10 µA or less
Weight	1 m:18 g 3 m:49 g 5 m:80 g	

\*1 : The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

\*2 : Refer to Ending Page 1 for detailed switch specifications and dimensions.

LCM  
LCR  
LCG  
LCW  
LCX  
STM  
STG  
STS/STL  
STR2  
UCA2  
ULK\*  
JSK/M2  
JSG  
JSC3/JSC4  
USSD  
UFCD  
USC  
UB  
JSB3  
LMB  
LML  
HCM  
HCA  
LBC  
CAC4  
UCAC2  
CAC-N  
UCAC-N  
RCS2  
RCC2  
PCC  
SHC  
MCP  
GLC  
MFC  
BBS  
RRC  
GRC  
RV3\*  
NHS  
HRL  
LN  
Hand  
Chuk  
MechHnd/Chuk  
ShkAbs  
FJ  
FK  
SpdContr  
Ending

CKL2  
CKLG2  
CKL2-HC  
CKH2  
CKLB2  
CKG  
CK  
CKA  
CKS  
CKS-F  
CKF  
CKJ  
CHC

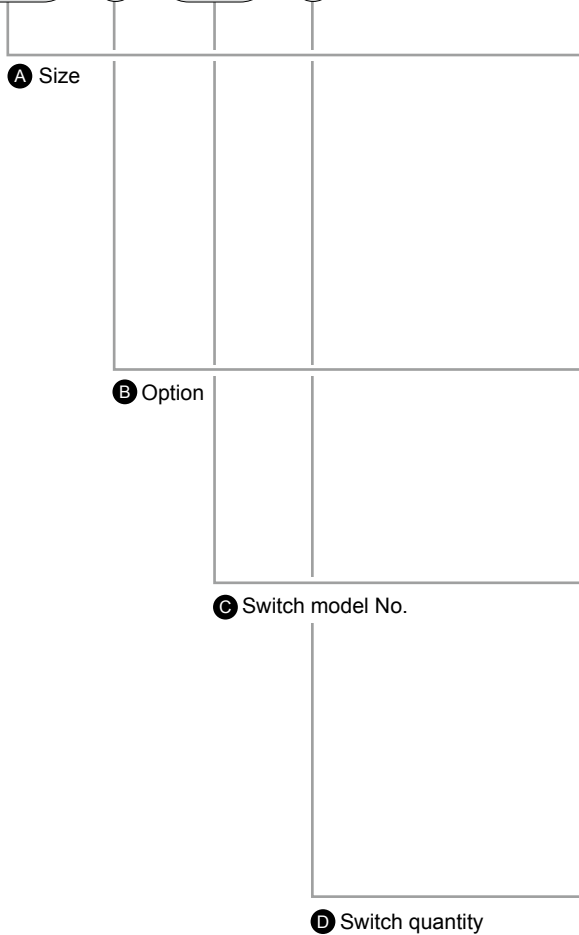
### How to order

Without switch (built-in magnet for switch)

**CKLB2** - **20CS** - **O**

With switch (built-in magnet for switch)

**CKLB2** - **20CS** - **O** - **T2H** - **R**



Code	Description					
<b>A Size</b>						
20CS						
25CS						
32CS						
40CS						
50CS						
63CS						
80CS						
100CS						
<b>B Option</b>						
Blank	Standard (double acting)					
O	Single acting (normally open)					
C	Single acting (normally closed)					
Y1	With attachment Material: S45C					
Y2	With attachment Material: MC nylon					
<b>C Switch model No.</b>						
<b>Axial lead wire</b>	<b>Radial lead wire</b>	<b>Contact</b>	<b>Voltage</b>	<b>Display</b>	<b>Lead wire</b>	
			<b>AC</b>	<b>DC</b>		
T2H*	T2V*	Proximity		●	1-color	2-wire
T3H*	T3V*			●	display	3-wire
<b>* Lead wire length</b>						
Blank	1 m (standard)					
3	3 m (option)					
5	5 m (option)					
<b>D Switch quantity</b>						
R	1 on open side					
H	1 on closed side					
D	2					

### ⚠ Precautions for model No. selection

- \*1 : Attachment is commonly used for inner and outer mount chuck.
- \*2 : Refer to pages 1868 and 1869 for the dimensions and compatible model of the attachment.  
When ordered as an option, two are attached at shipment.

[Example of model No.]

**CKLB2-20CS-0-T2H-R**

- A** Size : 20CS
- B** Option : Single acting (normally open)
- C** Switch model No.: Proximity T2H switch, lead wire 1 m
- D** Switch quantity : 1 on open side

Specifications for rechargeable battery (Catalog No. CC-1226A)

**CKLB2** - ... - **P4\*** ● Design compatible with rechargeable battery manufacturing process.

\* Contact CKD for details.

### How to order switch

**SW** - **T2H**

Switch model No.  
(Item **C** above)

Note) When the type with two switches is selected, if the model has a short operational stroke length, both switches may turn ON depending on the workpiece size.

LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
<b>Chuck</b>
MechHnd/Chuck
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
<b>CKLB2</b>
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

# CKLB2 Series

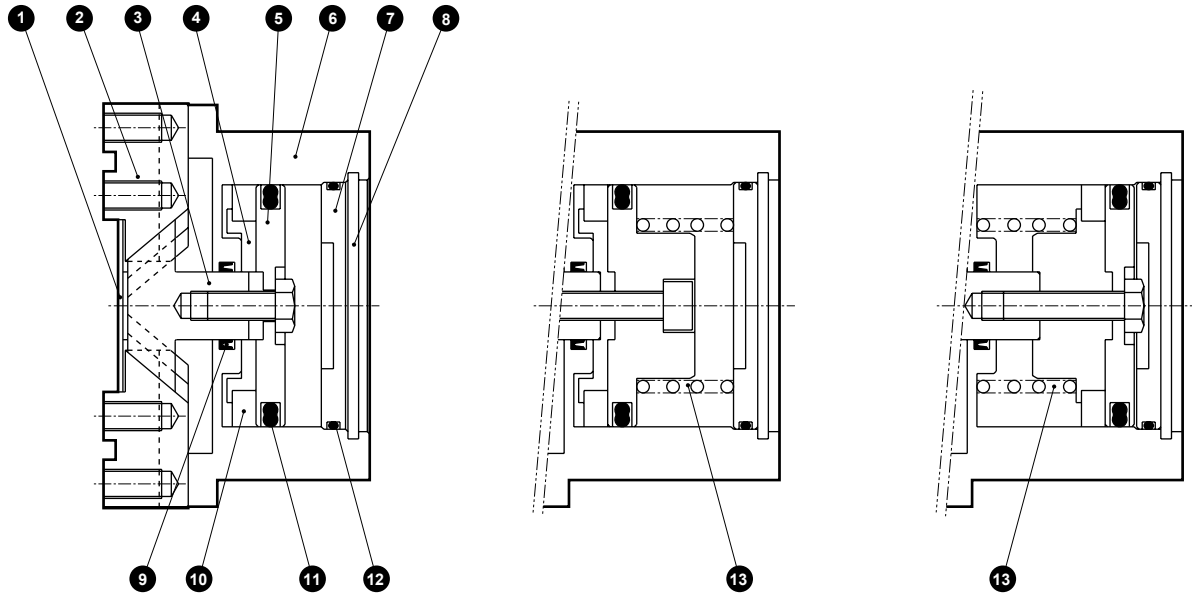
## Internal structure and parts list

● CKLB2-20CS to 100CS

Standard (double acting)

O (normally open)

C (normally closed)



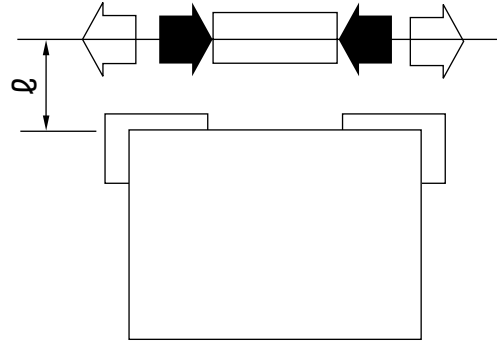
**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Center guard	Stainless steel		7	Cylinder guard	Aluminum alloy	
2	Finger	Carbon steel		8	Snap ring	Stainless steel	Steel (80, 100CS)
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	Cylinder gasket	Nitrile rubber	
				13	O spring	Stainless steel	

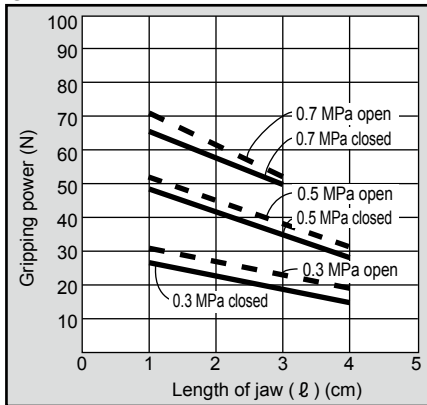
### Gripping power performance data

- Gripping power represents the thrust (per one finger) in the arrow direction shown in the figure.
- The gripping power in the opening/closing directions with jaw length  $\ell$  of hand with a supply pressure of 0.3, 0.5 and 0.7 MPa is shown.
  - Open direction (←) - - - - (shown with broken line)
  - Closed direction (→) - - - - (shown with continuous line)

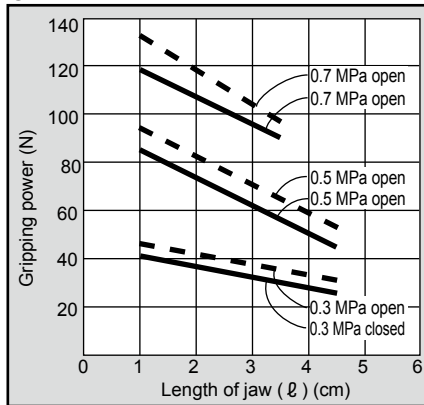


(Note) O type gripping power decreases approximately 20 to 30% in the closed direction compared to double acting.  
 C type gripping power decreases approximately 10 to 20% in the open direction compared to the double acting.  
 When making a selection, read the precautions for design and selection on page 1872.

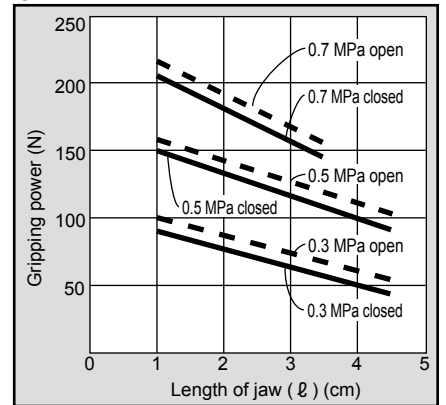
● CKLB2-20CS



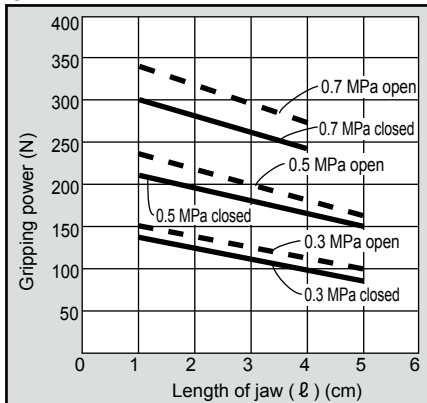
● CKLB2-25CS



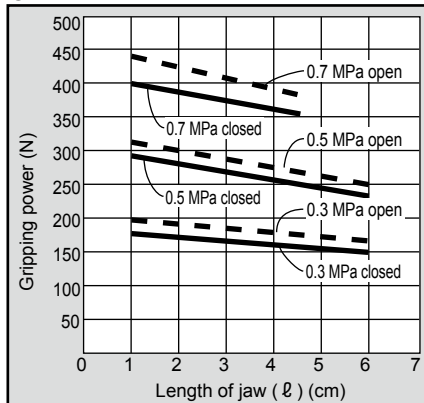
● CKLB2-32CS



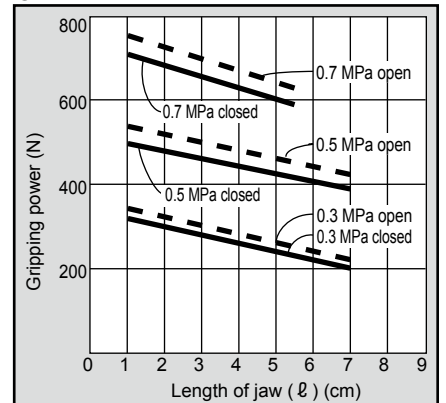
● CKLB2-40CS



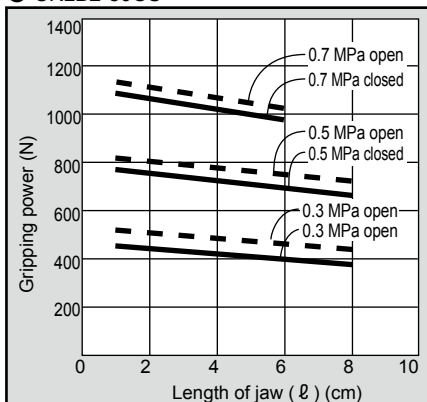
● CKLB2-50CS



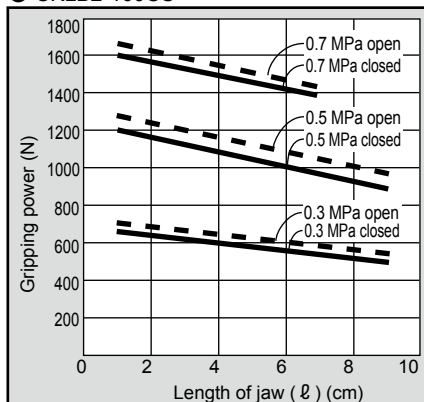
● CKLB2-63CS



● CKLB2-80CS



● CKLB2-100CS



LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
<b>Chuk</b>
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
<b>CKLB2</b>
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

# CKLB2 Series

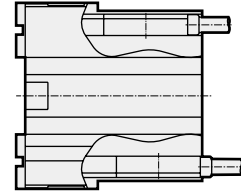
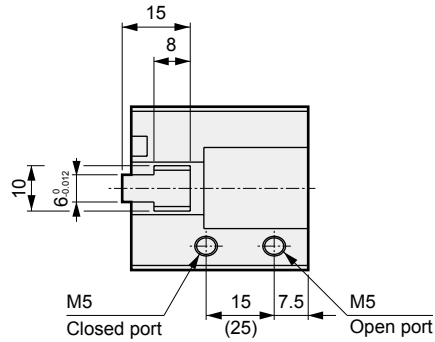
## Dimensions



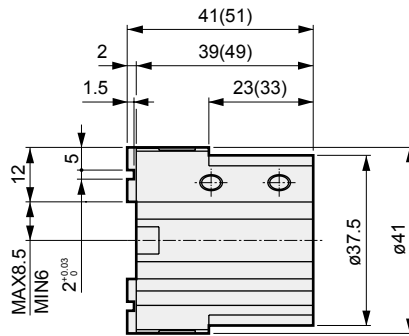
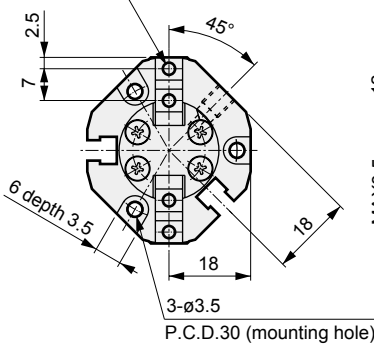
### ● CKLB2-20CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.

### ● With switch

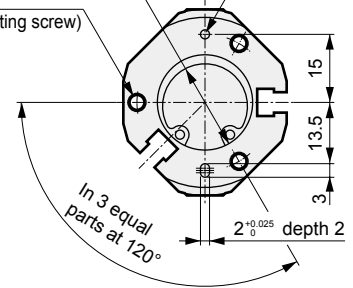


2 x 2-M3 depth 6



ø21<sup>+0.052</sup> depth 1.85      ø2<sup>+0.025</sup> depth 2

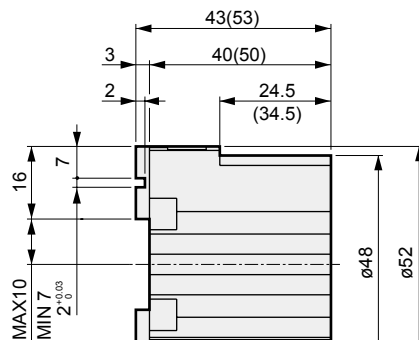
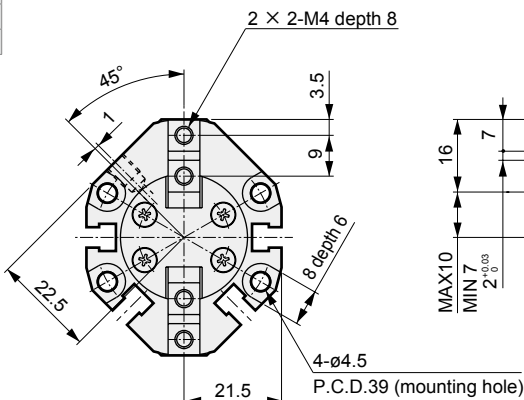
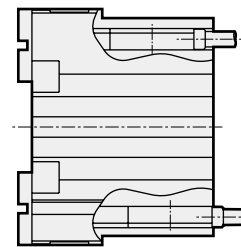
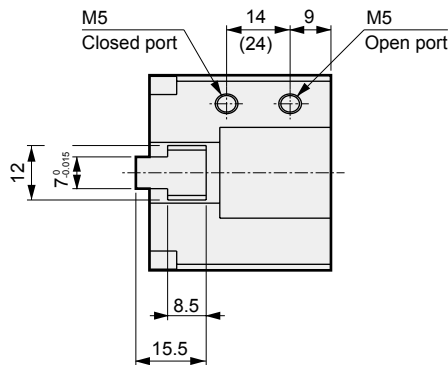
3-M4 depth 8  
P.C.D.30 (mounting screw)



### ● CKLB2-25CS standard/O/C

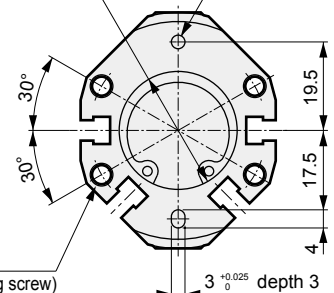
· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.

### ● With switch



ø26<sup>+0.052</sup> depth 1.65      ø3<sup>+0.025</sup> depth 3

4-M5 depth 10  
P.C.D.39 (mounting screw)



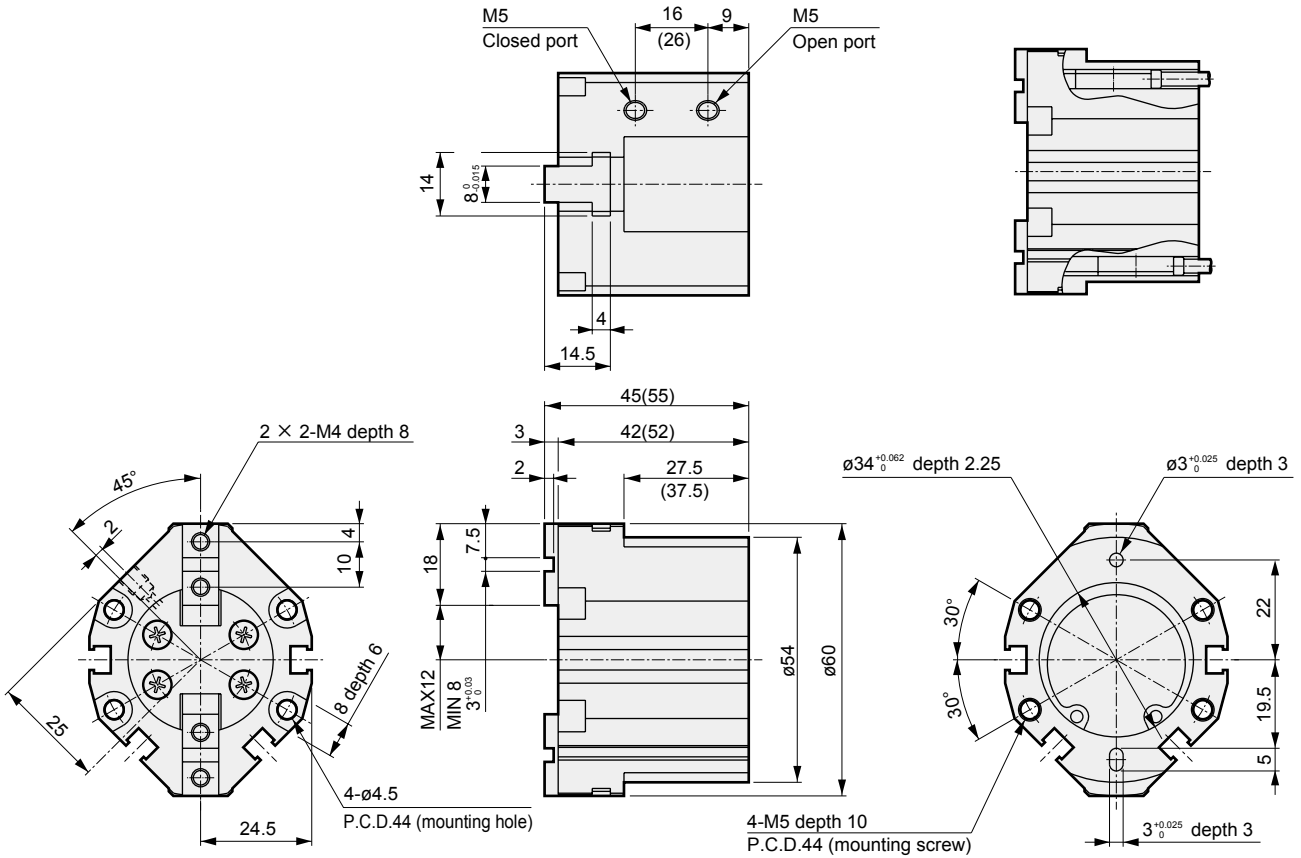
LCM
LCR
LCG
LCW
L CX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

## Dimensions

● CKLB2-32CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.

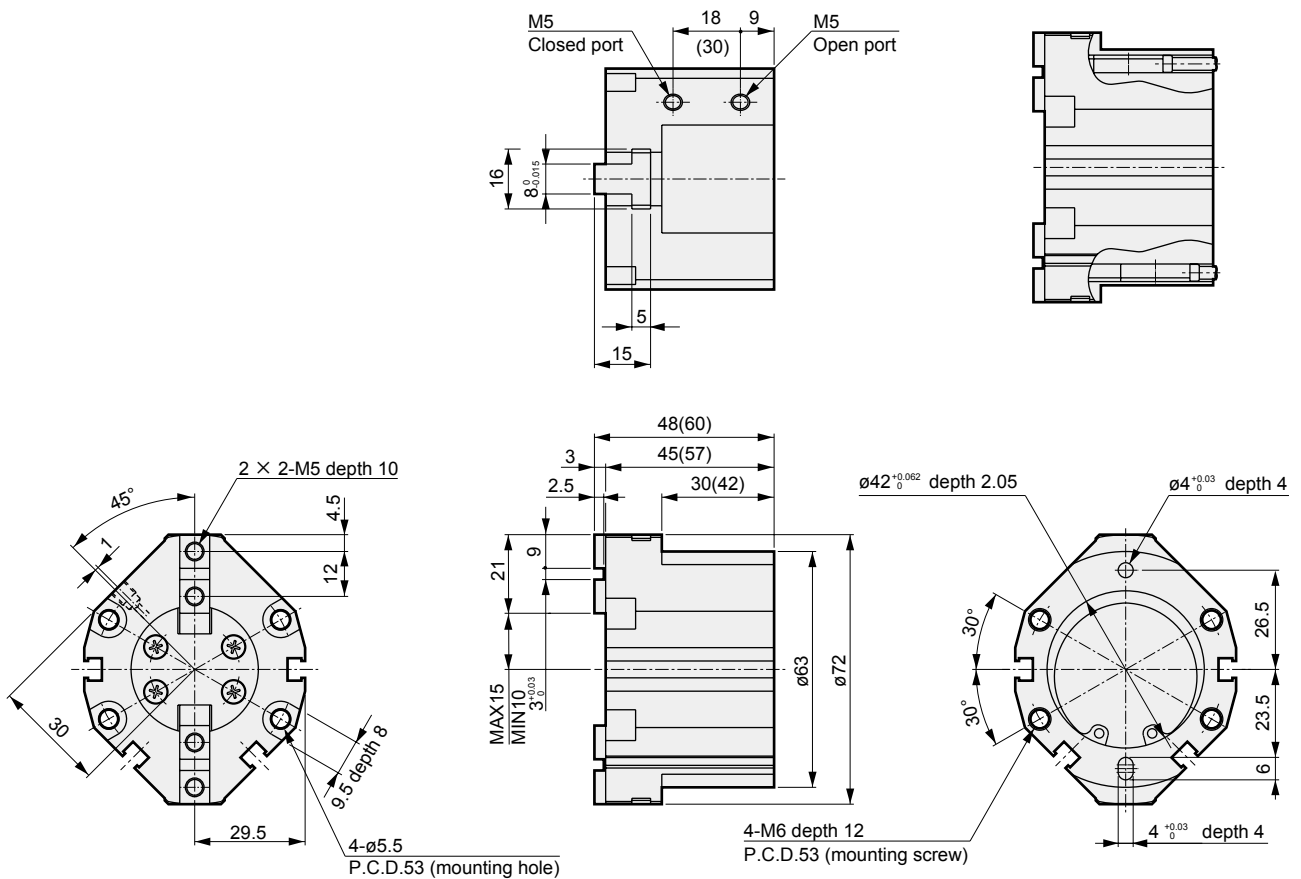
● With switch



● CKLB2-40CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.

● With switch



LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
<b>Chuck</b>
MechMtlChuck
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
<b>CKLB2</b>
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

# CKLB2 Series

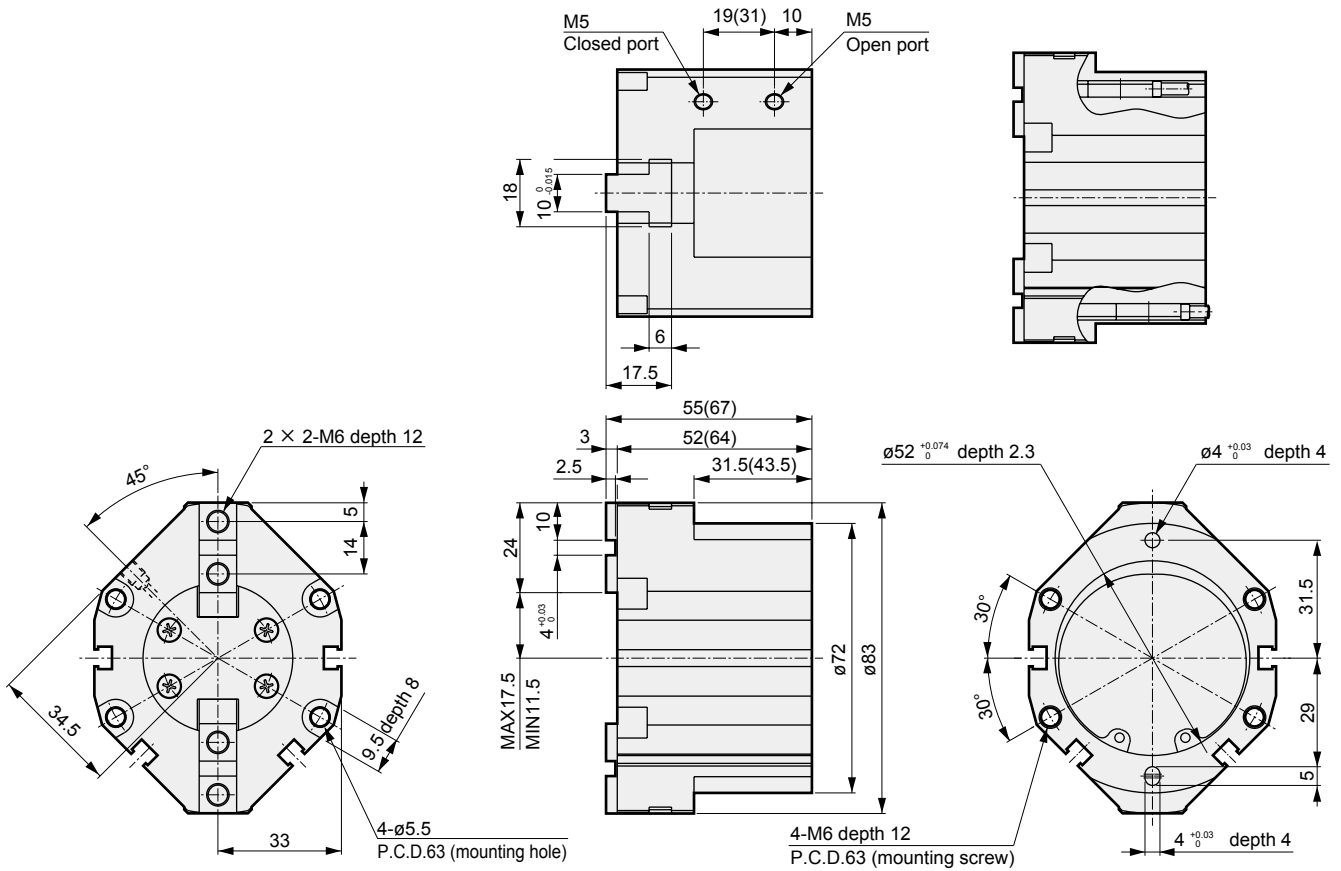
## Dimensions



### ● CKLB2-50CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.

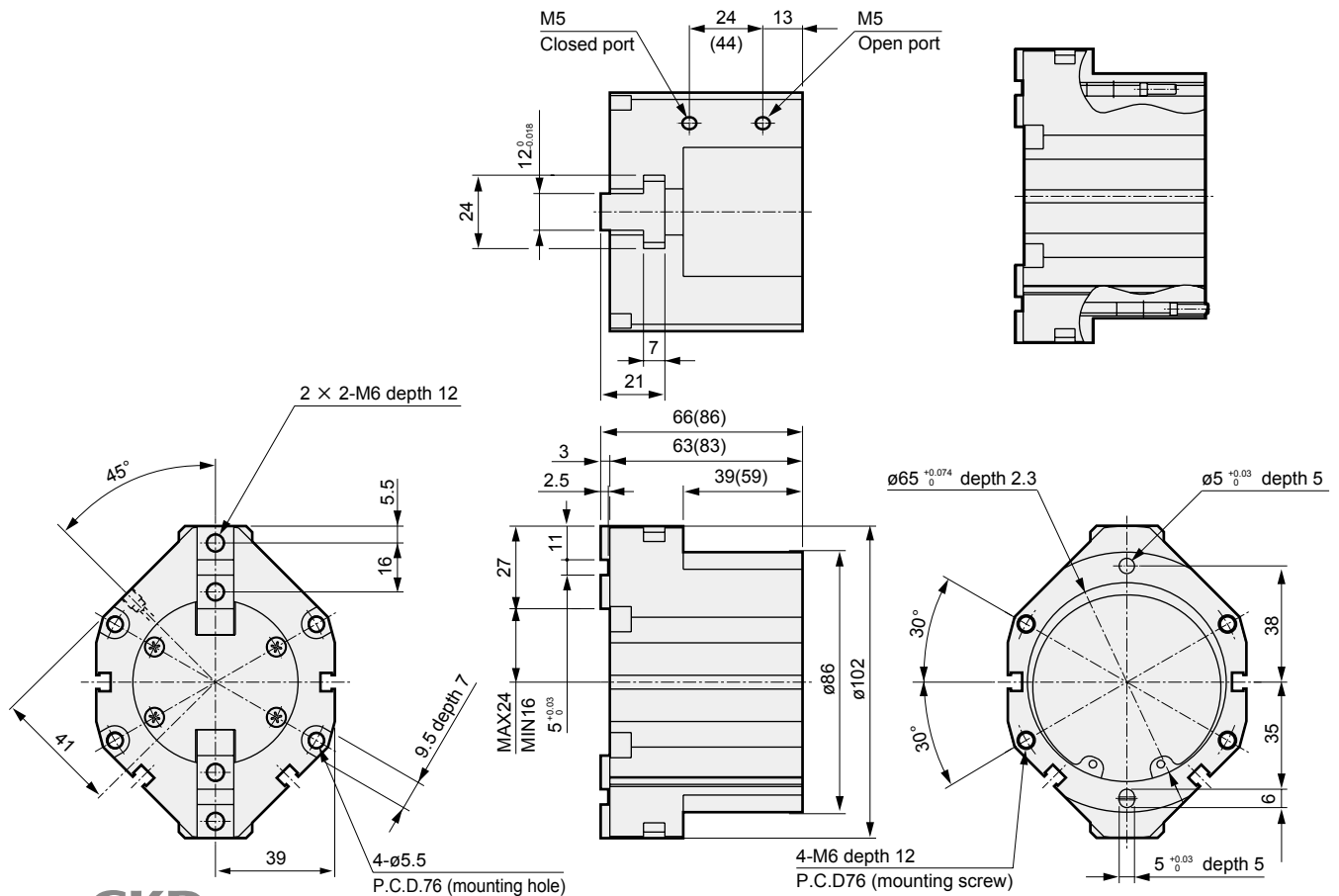
### ● With switch



### ● CKLB2-63CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.

### ● With switch

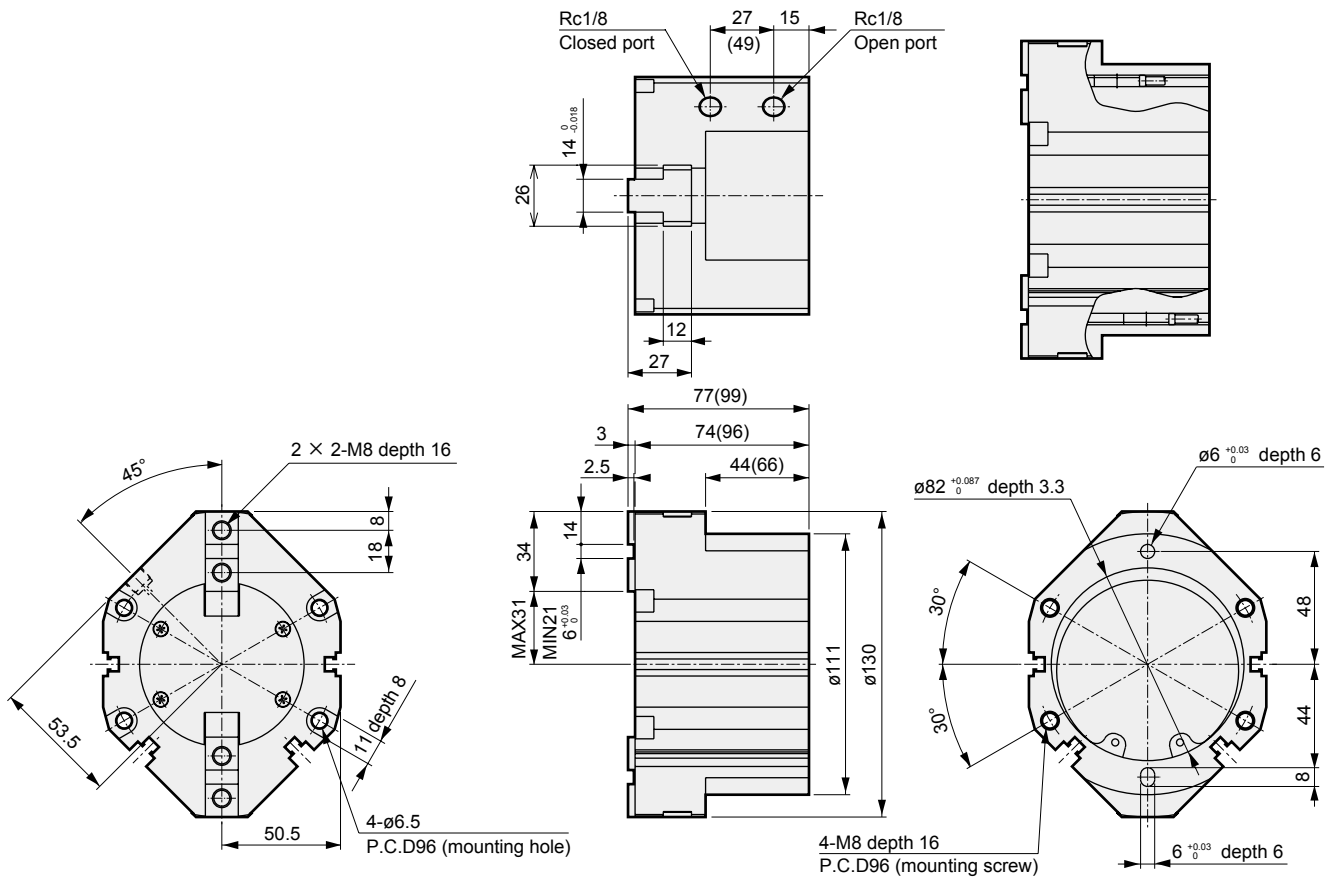


LCM
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STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
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Hand
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ShkAbs
FJ
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SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

## Dimensions

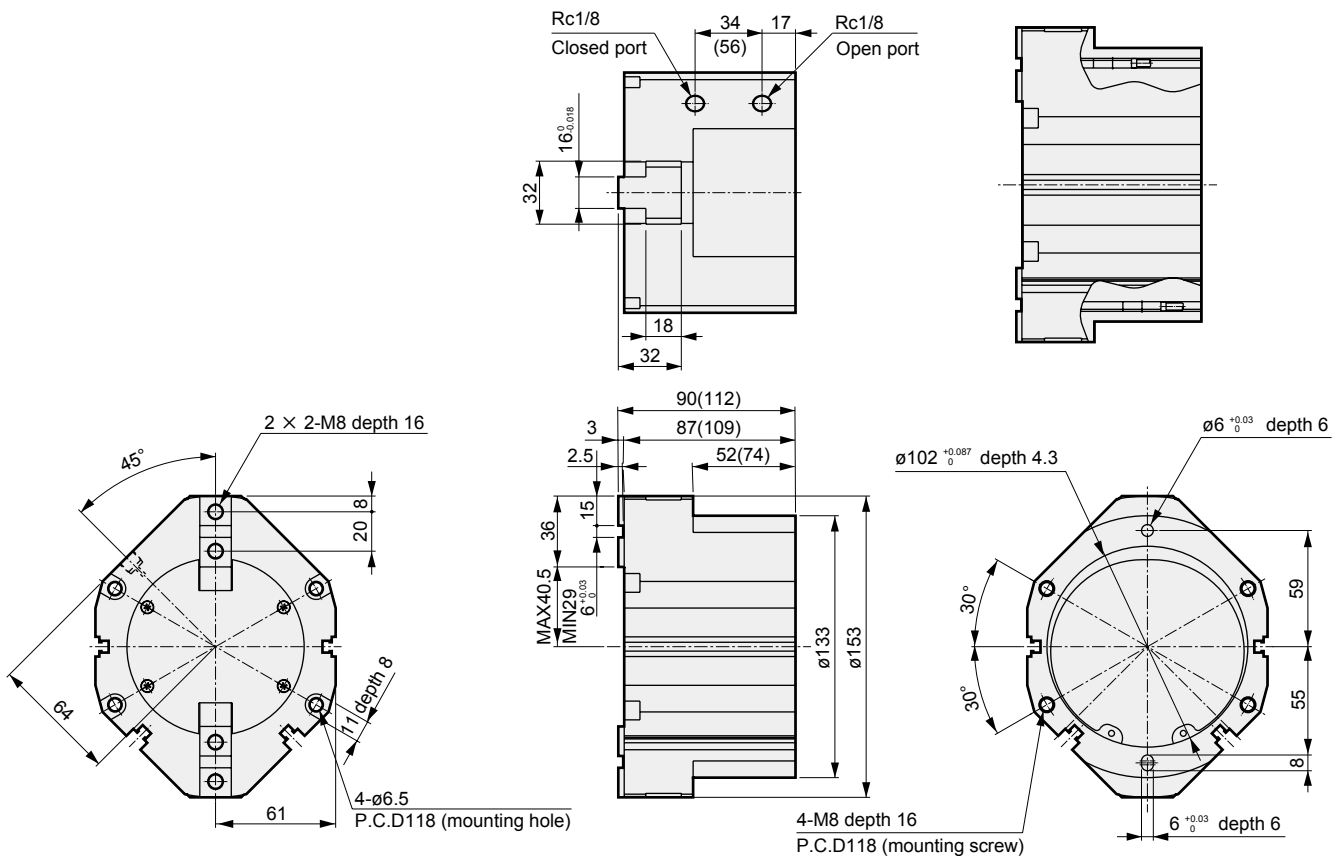
● CKLB2-80CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.



● CKLB2-100CS standard/O/C

· Dimensions in ( ) are for O [normally open] and C [normally closed] specifications.



LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
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JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
<b>Chuk</b>
MechHnd/Chuk
ShkAbs
FJ
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SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
<b>CKLB2</b>
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC