



Powerful chuck

# CKL2 Series

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



## Specifications

Descriptions	CKL2							
Size	20CS	25CS	32CS	40CS	50CS	63CS	80CS	100CS
Cylinder bore size mm	φ 20	φ 25	φ 32	φ 40	φ 50	φ 63	φ 80	φ 100
Working fluid	Compressed air							
Max. working pressure MPa	0.7							
Min. working pressure MPa	0.3							
Ambient temperature °C	5 to 60							
Port size	M5					Rc1/8		
Operational stroke length mm	5	6	8	10	12	16	20	23
Rod diameter mm	φ 6	φ 8	φ 10	φ 12	φ 14	φ 16		φ 20
Capacity of 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							
Product weight Kg	0.12	0.19	0.26	0.38	0.59	1.02	2.02	3.45
Lubrication	Not required (use turbine oil Class 1 ISO VG32 for lubrication)							

## Switch specifications

Descriptions	Proximity 2 wire	Proximity 3 wire
	T2H/V	T3H/V
Applications	Programmable controller	Programmable controller, relay
Output method	-	NPN output
Power voltage	-	10 to 28 VDC
Load voltage/current	10 to 30 VDC, 5 to 20mA (Note 2)	30 VDC or less, 100mA or less
Light	LED (ON lighting)	
Leakage current	1mA or less	10 μA or less

Note 1: Maximum load current above: 20mA applies at 25°C. If switch ambient temperature is higher than 25 °C, value is lower than 20mA. (5 to 10mA at 60°C)

- RRC
- GRC
- RV3\*
- NHS
- HR
- LN
- FH100
- HAP
- BSA2
- BHA/BHG
- LHA
- LHAG
- HKP
- HLA/HLB
- HLAG/HLBG
- HEP
- HCP
- HMF
- HMFB
- HFP
- HLC
- HGP
- FH500
- HBL
- HDL
- HMD
- HJL
- BHE
- CKG
- CK
- CKA
- CKS
- CKF
- CKJ
- CKL2**
- CKL2 \*-HC
- CKH2
- CKLB2
- NCK/SCK/FCK
- FJ
- FK
- Ending

### How to order

Without switch

**CKL2** - **20CS** - **O**

With switch

**CKL2** - **20CS** - **O** - **T2H** - **R**

**A** Size

**B** Option  
Note 1, Note 2

**C** Switch model no.  
Note 3

**D** Switch quantity

Symbol	Descriptions			
<b>A Size</b>				
<b>20CS</b>				
<b>25CS</b>				
<b>32CS</b>				
<b>40CS</b>				
<b>50CS</b>				
<b>63CS</b>				
<b>80CS</b>				
<b>100CS</b>				
<b>B Option</b>				
<b>Blank</b>	Standard (double acting)			
<b>O</b>	Single acting (normally open)			
<b>C</b>	Single acting (normally closed)			
<b>Y1</b>	With small jaw material (S50C)			
<b>Y2</b>	With small jaw material (MC nylon)			
<b>C Switch model no.</b>				
Axial lead wire	Radial lead wire	Proximity Contact	Indicator	Lead wire
<b>T2H*</b>	<b>T2V*</b>	Proximity	1 color indicator type	2-wire
<b>T3H*</b>	<b>T3V*</b>			3-wire
<b>*Lead wire length</b>				
<b>Blank</b>	1m (standard)			
<b>3</b>	3m (option)			
<b>5</b>	5m (option)			
<b>D Switch quantity</b>				
<b>R</b>	One on open side			
<b>H</b>	One on closed side			
<b>D</b>	Two			

### ⚠ Note on model no. selection

Note 1: Small jaw is commonly used for inner and outer chuck.

Note 2: Refer to pages 494 to 497 for the dimensions and applicable model of the small jaw.  
When ordering as option, 3 pieces are provided.

<Example of model number>

**CKL2-20CS-O-T2H-R**

Model: Powerful chuck

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

### How to order switch

**SW** - **T2H**

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

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

RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/ BHG
LHA
LHAG
HKP
HLA/ HLB
HLAG/ HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HLB
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
<b>CKL2</b>
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Powerful chuck  
Chuck

## Dimensions

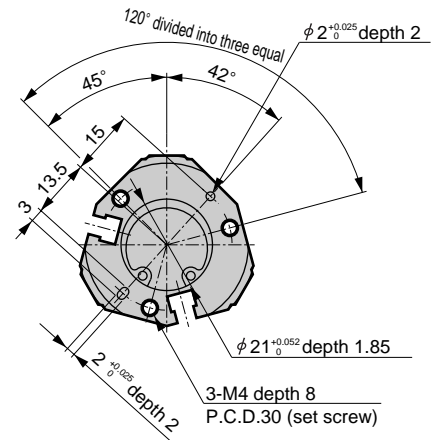
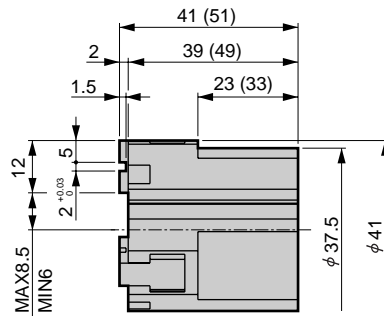
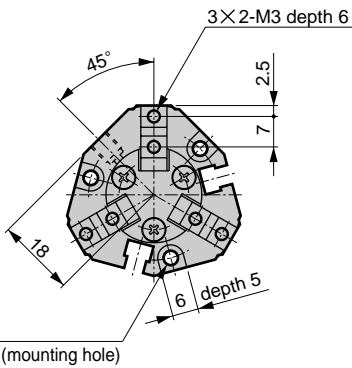
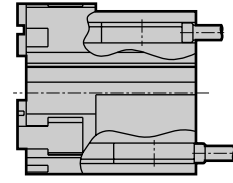
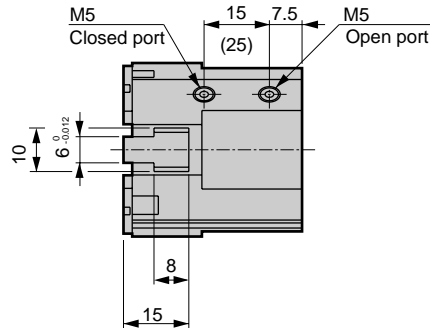


RRC
GRC
RV3*
NHS
HR
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FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
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HLA/HLB
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HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
<b>CKL2</b>
CKL2-*.HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

### ● CKL2-20CS standard/O/C

● With switch

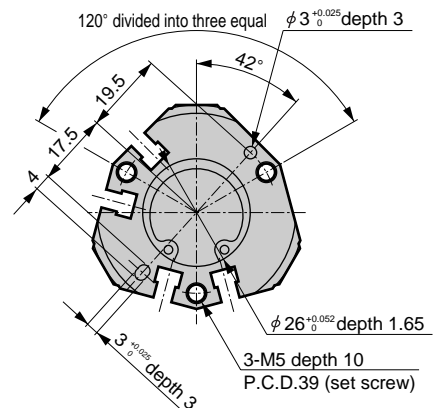
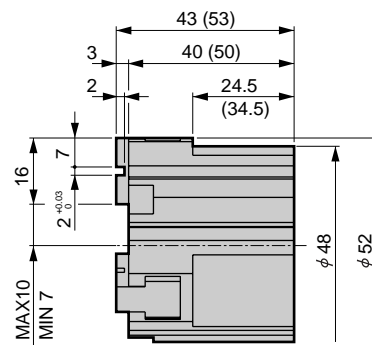
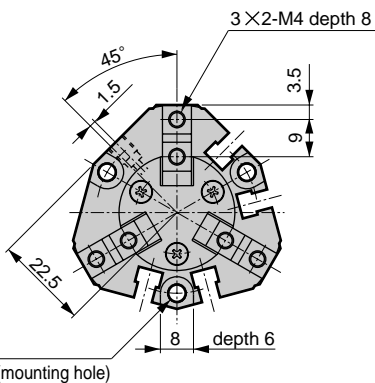
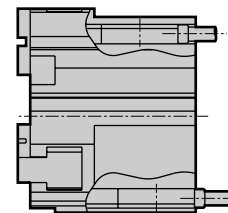
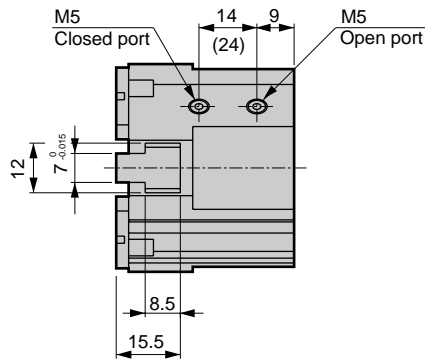
· Dimension in ( ) for O [normally open] and C [normally closed] specifications.



### ● CKL2-25CS standard/O/C

● With switch

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

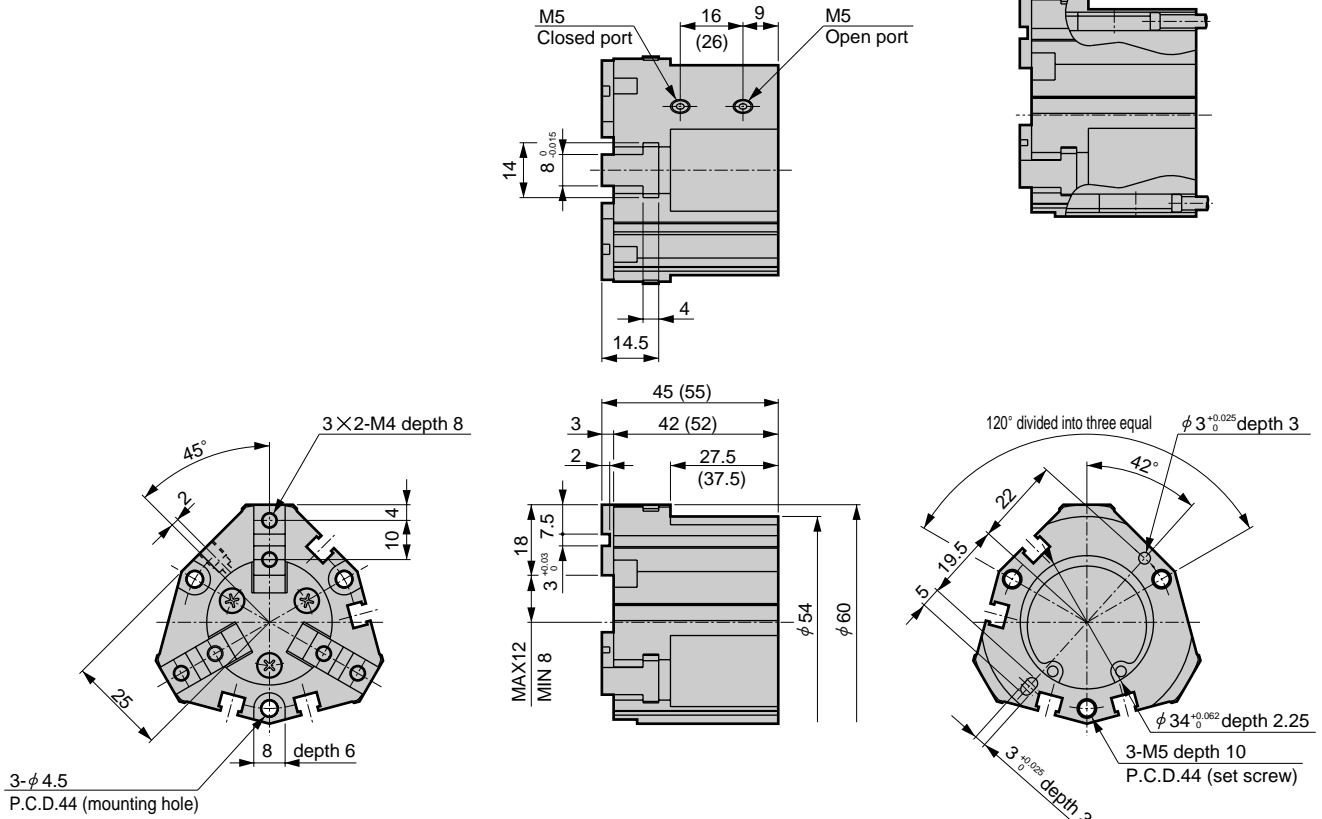


## Dimensions



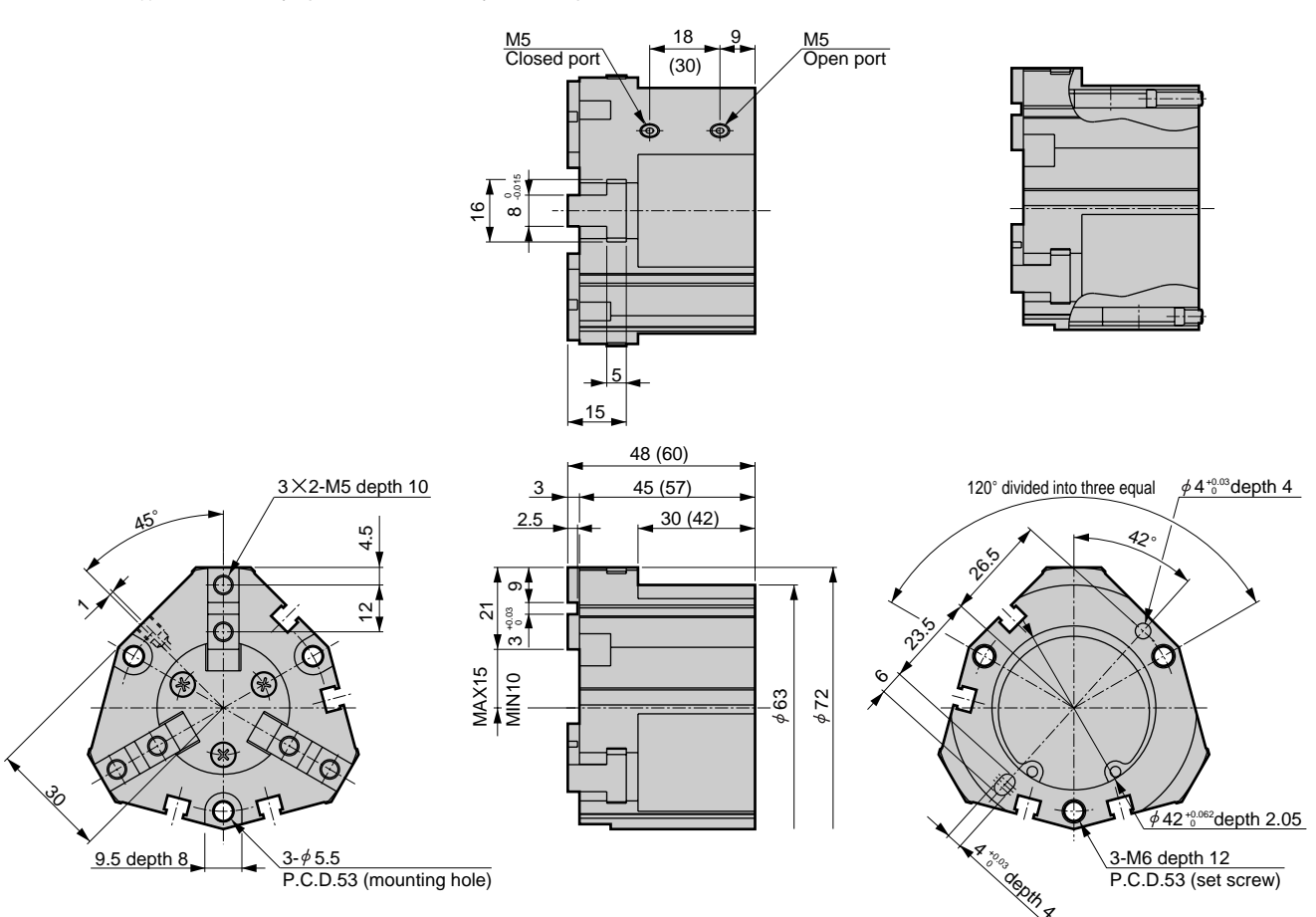
### ● CKL2-32CS standard/O/C

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



### ● CKL2-40CS standard/O/C

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



RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
HKP
HLA/HLB
HLAG/HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
<b>CKL2</b>
CKL2 *-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

Powerful chuck  
Chuck

## Dimensions

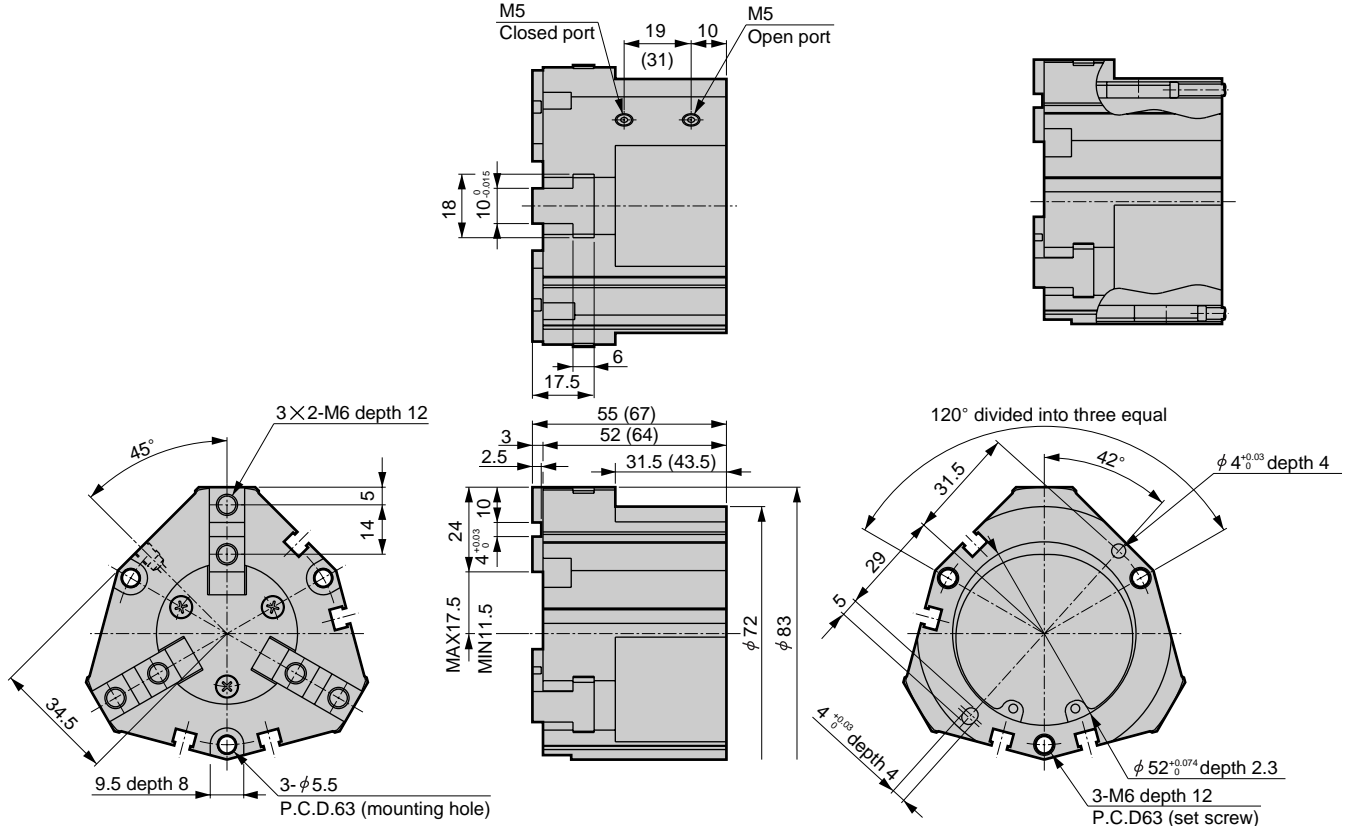


RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
HKP
HLA/HLB
HLAG/HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
<b>CKL2</b>
CKL2-*.HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

● CKL2-50CS standard/O/C

● With switch

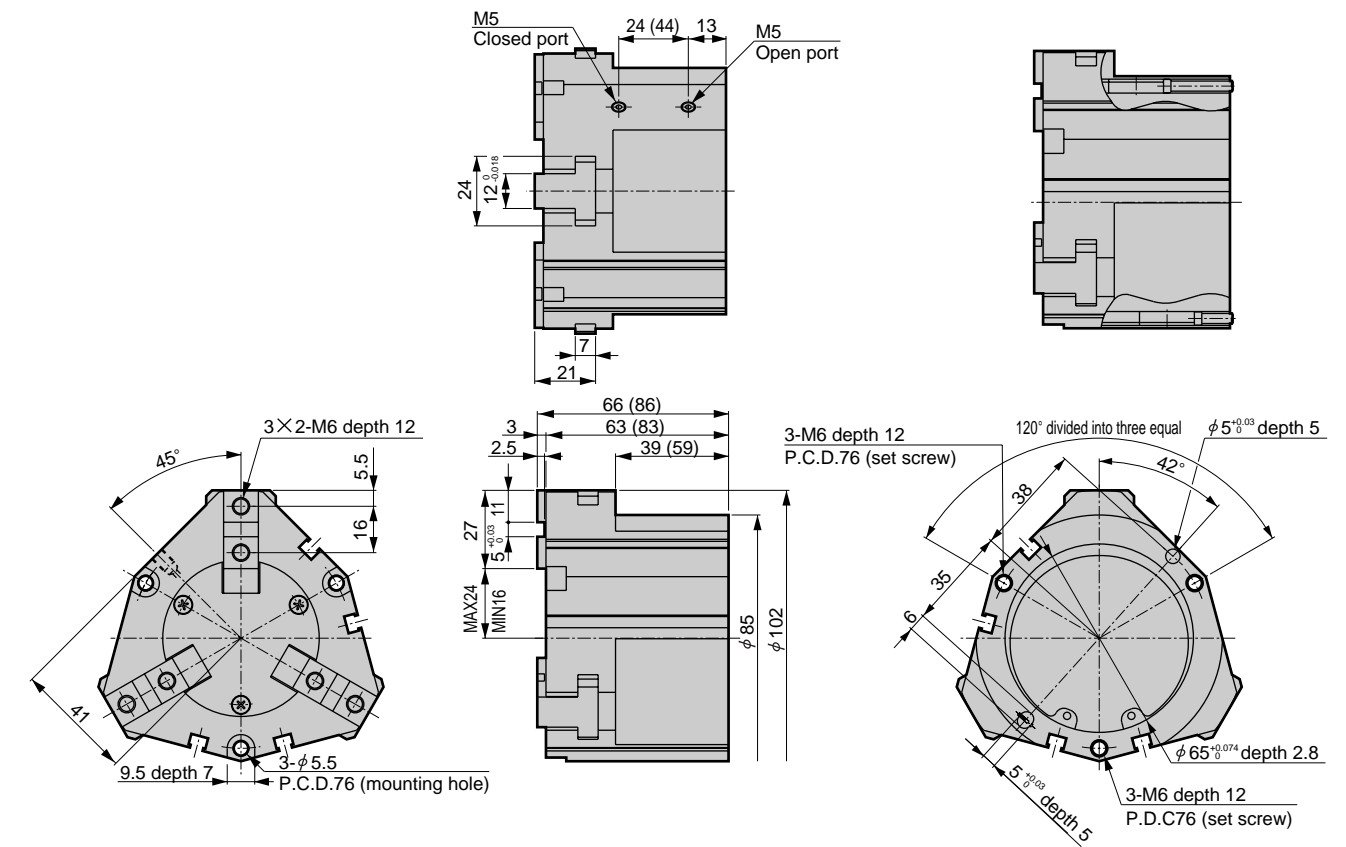
· Dimension in ( ) for O [normally open] and C [normally closed] specifications.



● CKL2-63CS standard/O/C

● With switch

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

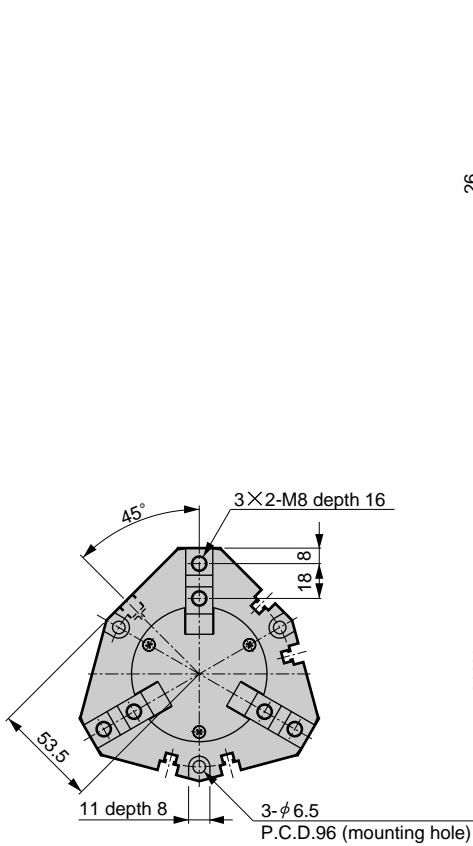


### Dimensions

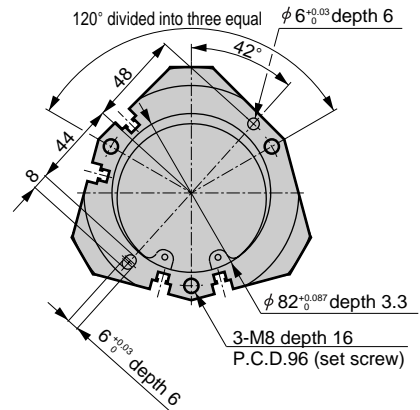
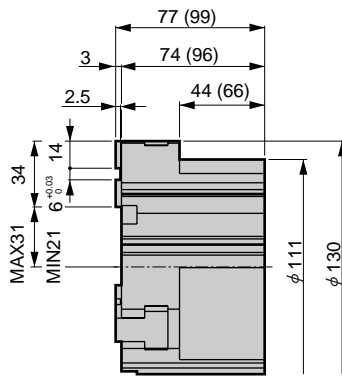
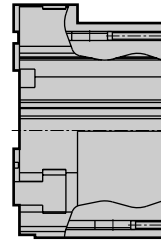
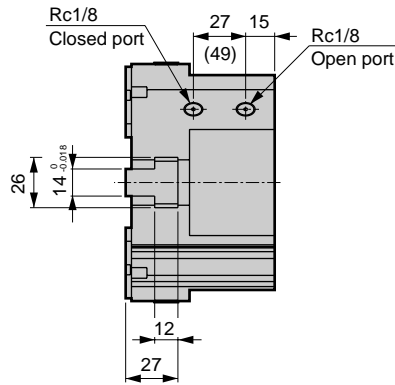


#### ● CKL2-80CS standard/O/C

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

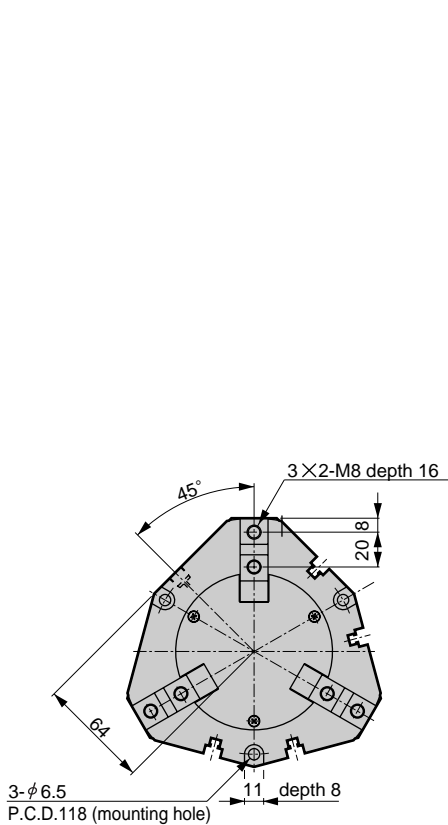


#### ● With switch

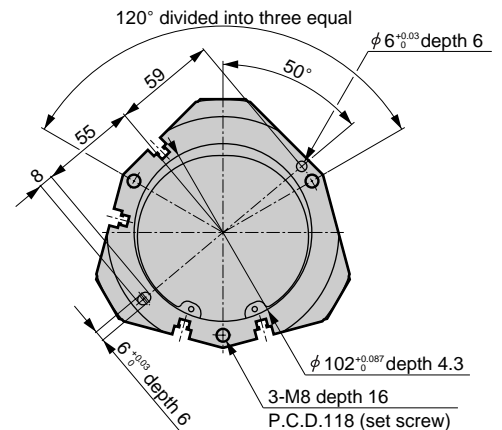
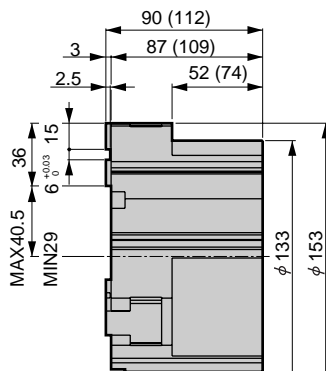
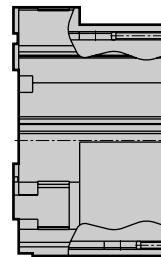
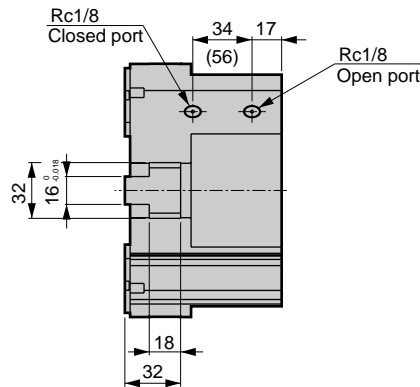


#### ● CKL2-100CS standard/O/C

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



#### ● With switch



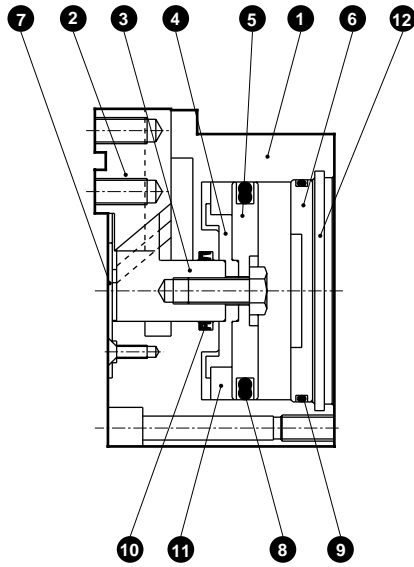
RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
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HLA/HLB
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<b>CKL2</b>
CKL2 *-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

Powerful chuck  
Chuck

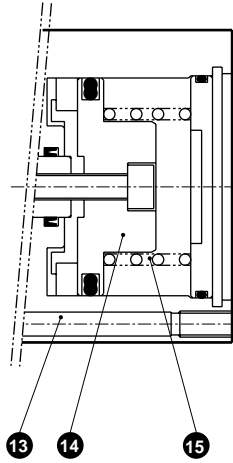
## Internal structure and parts list

● CKL2-20CS to 100CS

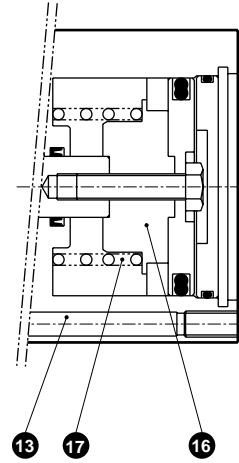
Standard (double acting) type



O (normally open) type



C (normally closed) type



## Parts list

No	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Body	Aluminum alloy		10	Rod packing seal	Nitrile rubber	
2	Master key	Steel		11	Magnet		
3	Piston A	Stainless steel (20 to 32CS), Steel (40 to 100CS)		12	Snap ring	Stainless steel	Steel (80, 100CS)
4	Piston B	Aluminum alloy		13	O, C body	Aluminum alloy	
5	Piston C	Aluminum alloy		14	O piston C	Aluminum alloy	
6	Cylinder guard	Aluminum alloy		15	O spring	Stainless steel	
7	Center cover	Stainless steel		16	C piston B	Aluminum alloy	
8	Piston packing seal	Nitrile rubber		17	C spring	Stainless steel	
9	Cylinder gasket	Nitrile rubber					