



Powerful chuck

CKL2 Series

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

Double acting



Single acting (normally open)



Single acting (normally closed)



Specifications

Descriptions	CKL2							
	20CS	25CS	32CS	40CS	50CS	63CS	80CS	100CS
Size	20CS	25CS	32CS	40CS	50CS	63CS	80CS	100CS
Bore size mm	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
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	φ6	φ8	φ10	φ12	φ14	φ16		φ20
Volumetric capacity (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	0.12	0.19	0.26	0.38	0.59	1.02	2.02	3.45
Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)							

Switch specifications

Descriptions	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 (*2)	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 other switch specifications.

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

How to order

Without switch (built-in magnet for switch)

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

With switch (built-in magnet for switch)

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

A Size

B Option
*1, *2

C Switch model No.
*3

D Switch quantity

⚠ Precautions for model No. selection

- *1 : Small jaw is commonly used for inner and outer chuck.
- *2 : Refer to pages 1718 to 1719 for the dimensions and compatible model of the small jaw.
When ordered as an option, three are attached at shipment.

[Example of model No.]
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 1 m
- D** Switch quantity : 1 on open side

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.

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

CKL2 - ... - **P4*** ● Design compatible with rechargeable battery manufacturing process.

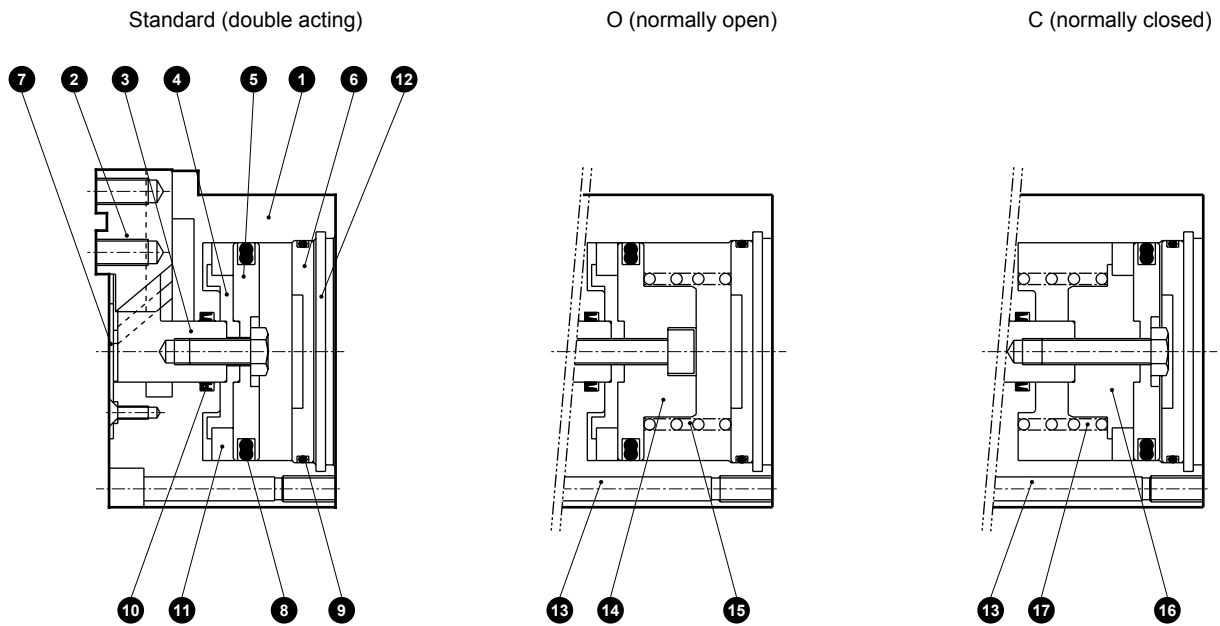
* Contact CKD for details.

Code	Content				
A Size					
20CS					
25CS					
32CS					
40CS					
50CS					
63CS					
80CS					
100CS					
B Option					
Blank	Standard (double acting)				
O	Single acting (normally open)				
C	Single acting (normally closed)				
Y1	With small jaw (Material S50C)				
Y2	With small jaw (Material MC nylon)				
C Switch model No.					
Axial lead wire	Radial lead wire	Proximity Contact	Voltage	Display	Lead wire
			AC		
T2H*	T2V*		●	1-color display	2-wire
T3H*	T3V*		●		3-wire
* Lead wire length					
Blank	1 m (standard)				
3	3 m (option)				
5	5 m (option)				
D Switch quantity					
R	1 on open side				
H	1 on closed side				
D	2				

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

Internal structure and parts list

● CKL2-20CS to 100CS



Cannot be disassembled

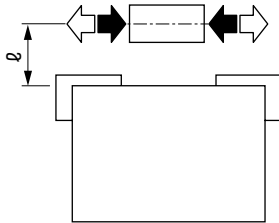
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Body	Aluminum alloy		10	Rod packing	Nitrile rubber	
2	Master key	Steel		11	Magnet		
3	Piston A	Stainless steel (20 to 32CS), steel (40 to 100 CS)		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 guard	Stainless steel		16	C Piston B	Aluminum alloy	
8	Piston packing	Nitrile rubber		17	C spring	Stainless steel	
9	Cylinder gasket	Nitrile rubber					

Gripping power performance data

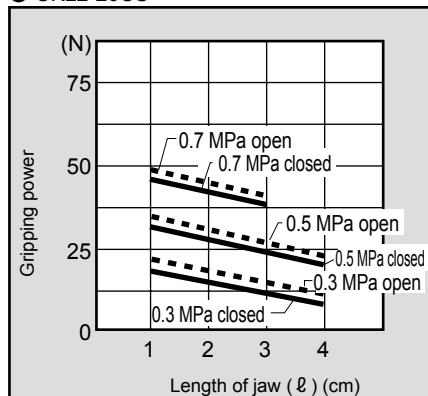
The gripping power in the opening/closing directions with jaw length ℓ of hand with a supply pressure of 0.3, 0.5 and 0.7 MPa is shown.

- Open direction () ----- (shown with broken line)
- Closed direction () ————— (shown with continuous line)

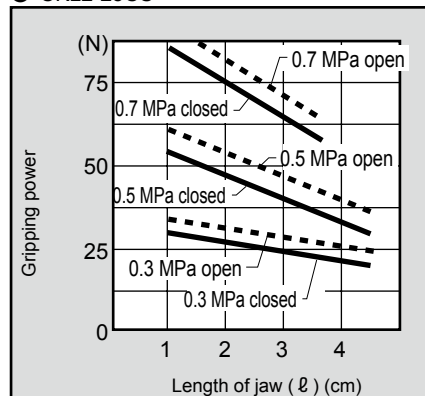


(Note) O type gripping power decreases approximately 20 to 30% in the closed direction compared to double acting.
C type gripping power decreases approximately 10 to 20% in the open direction compared to the double acting.
When making a selection, read the precautions for design and selection on page 1722.

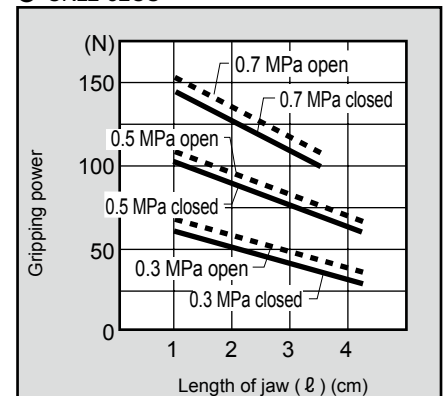
● CKL2-20CS



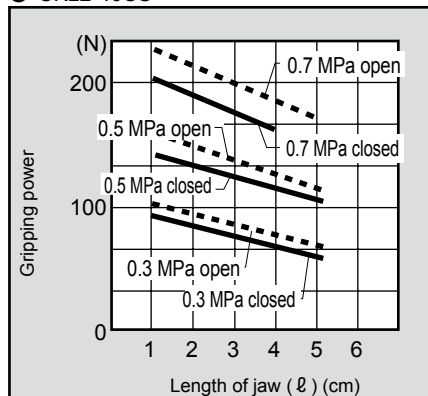
● CKL2-25CS



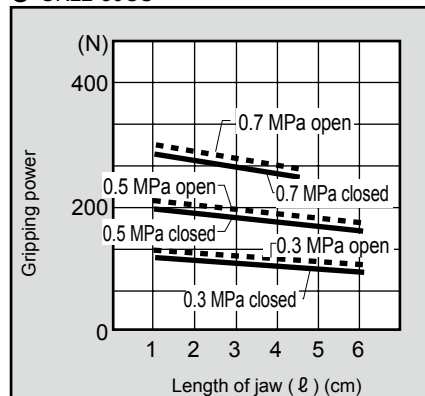
● CKL2-32CS



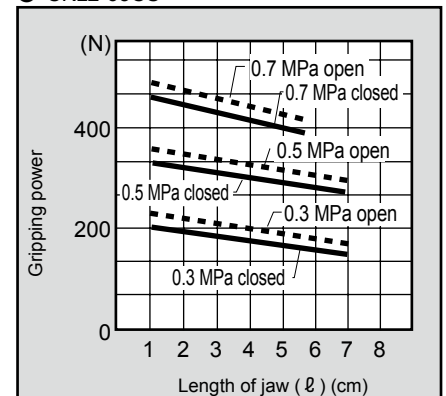
● CKL2-40CS



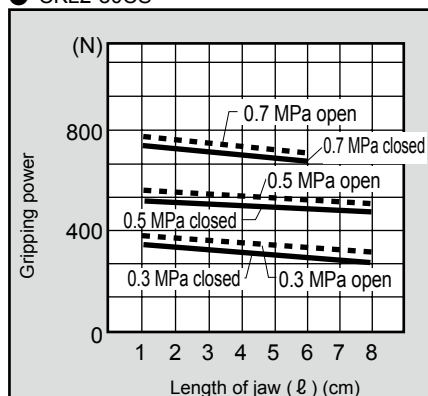
● CKL2-50CS



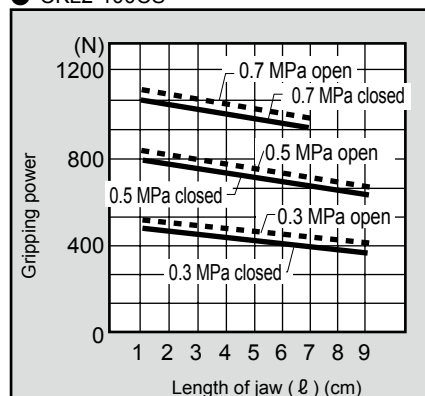
● CKL2-63CS



● CKL2-80CS



● CKL2-100CS



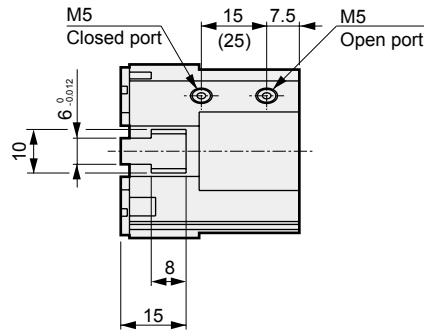
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
CHC

Dimensions

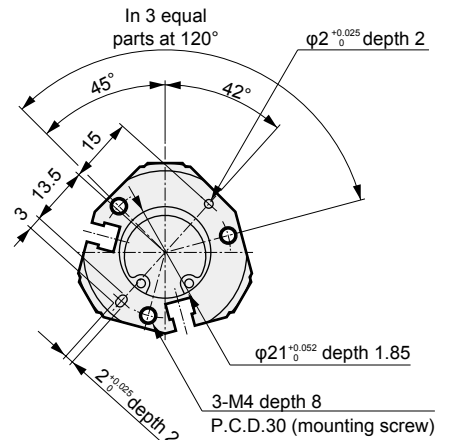
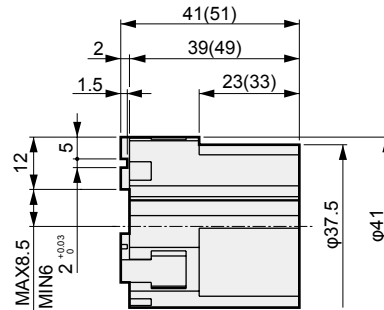
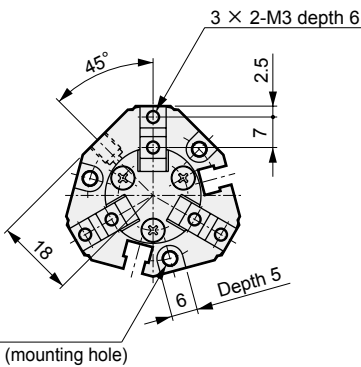
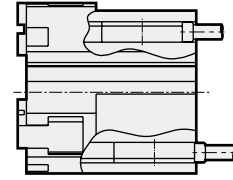


● CKL2-20CS standard/O/C

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

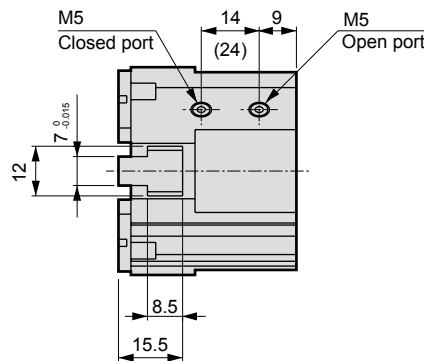


● With switch

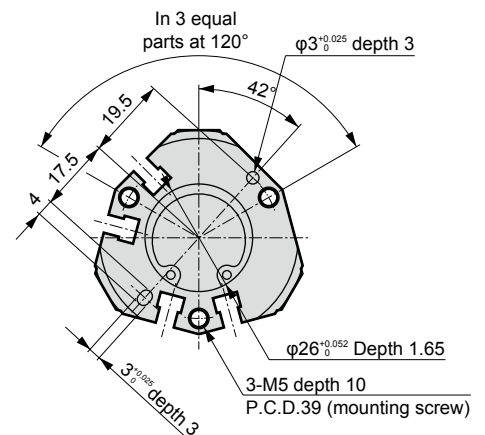
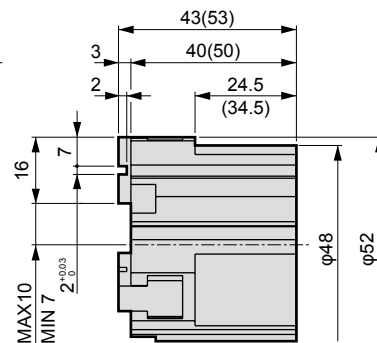
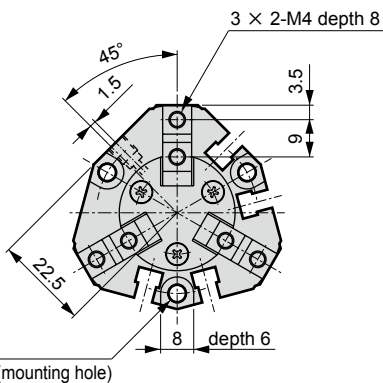
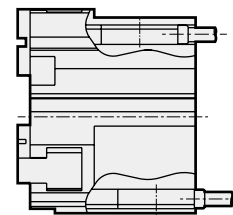


● CKL2-25CS standard/O/C

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



● With switch



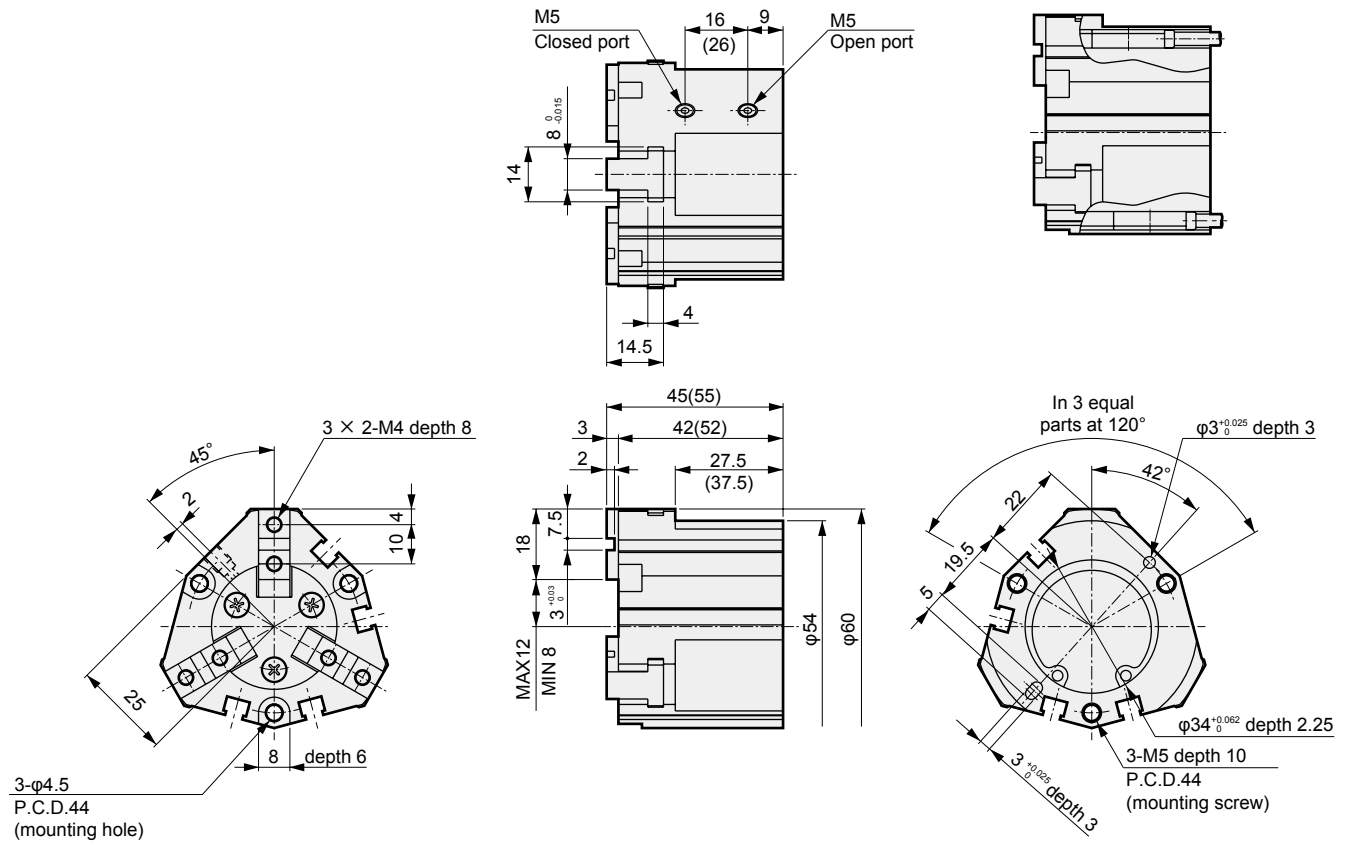
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
CHC

Dimensions



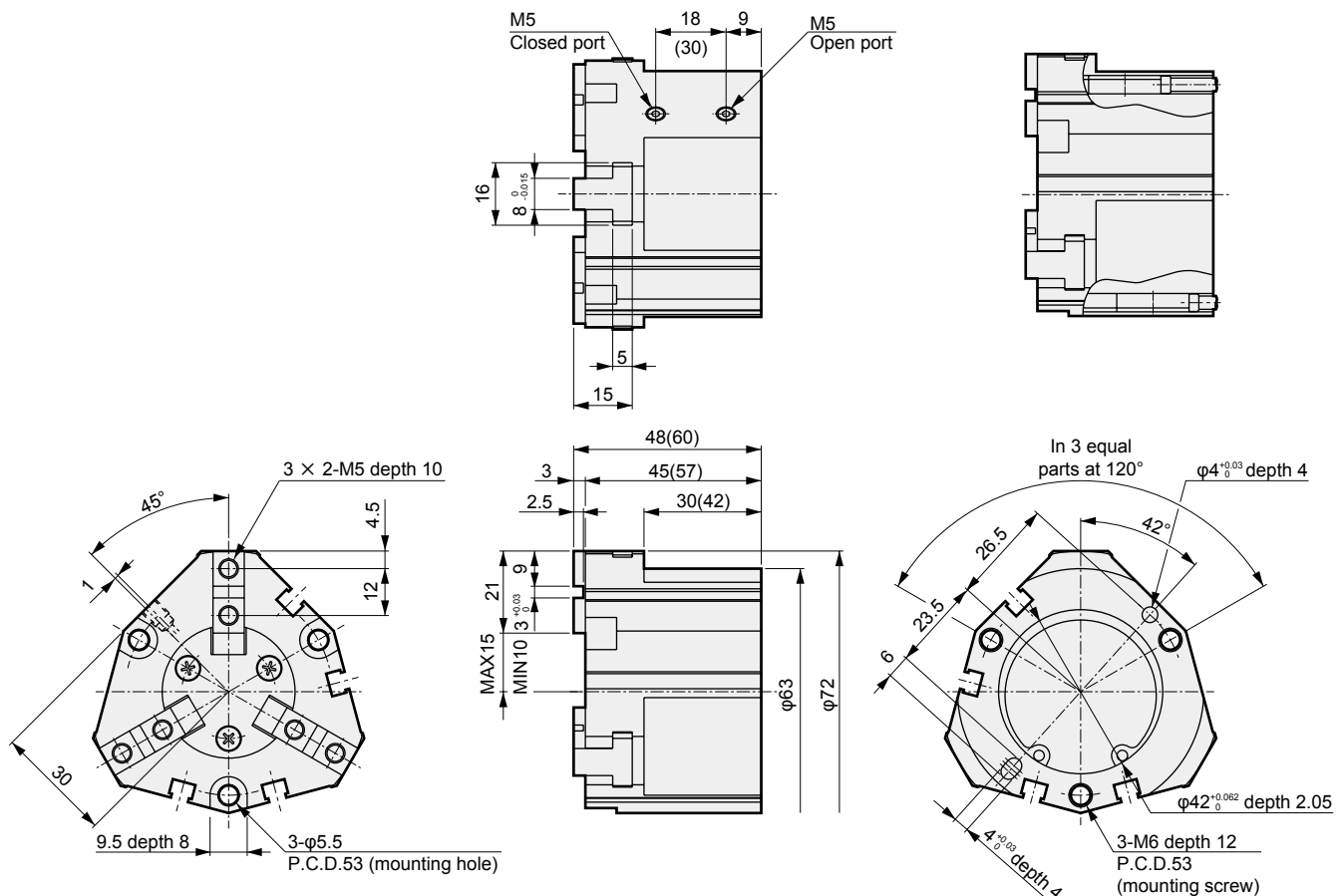
● CKL2-32CS standard/O/C

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



● CKL2-40CS standard/O/C

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



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

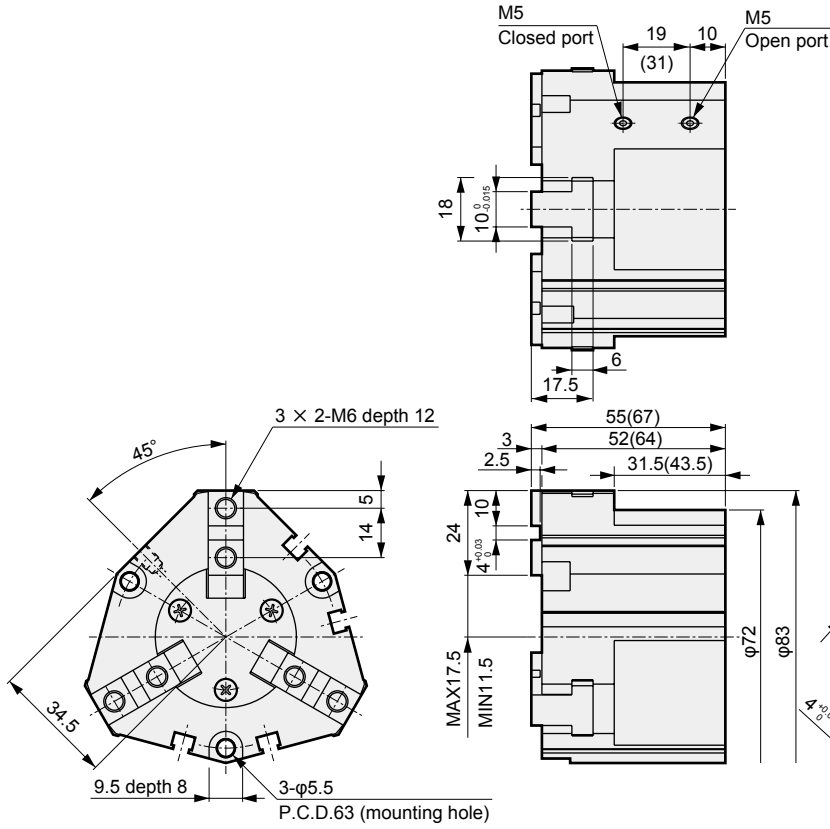
CKL2 Series

Dimensions

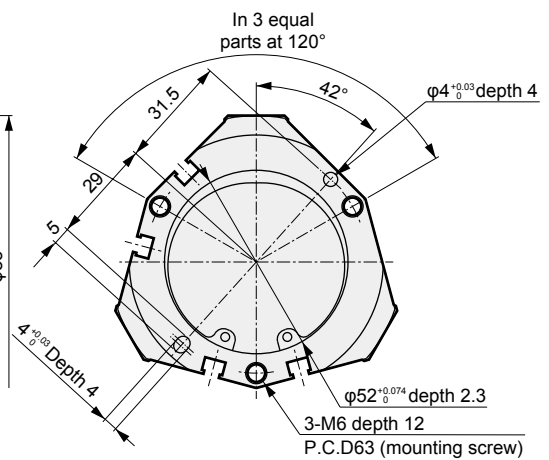
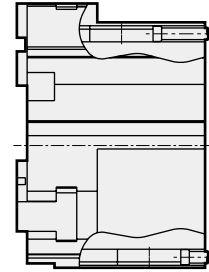


● CKL2-50CS standard/O/C

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

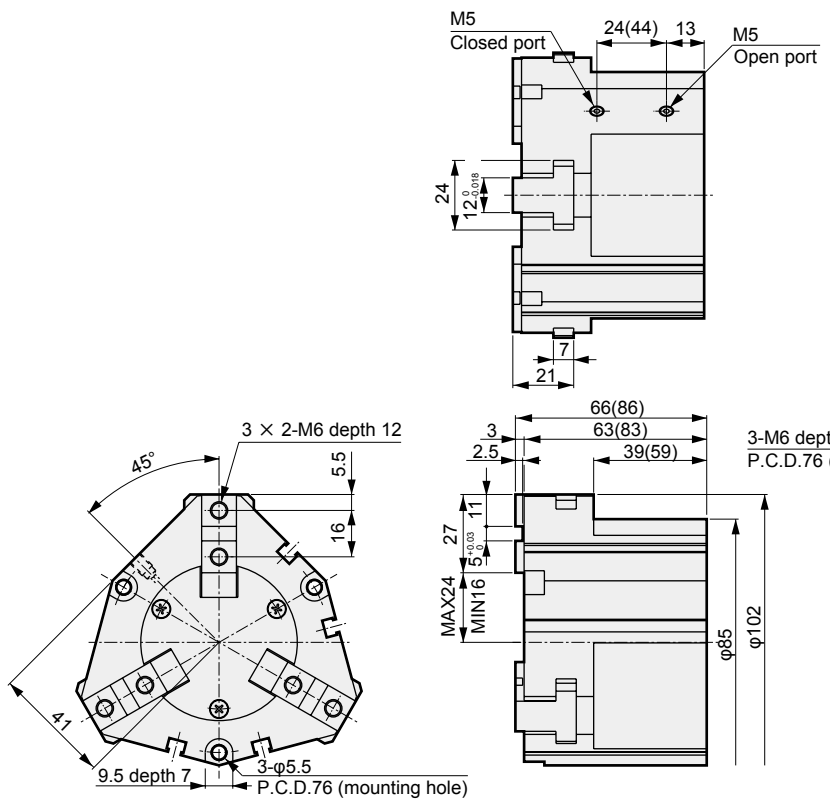


● With switch

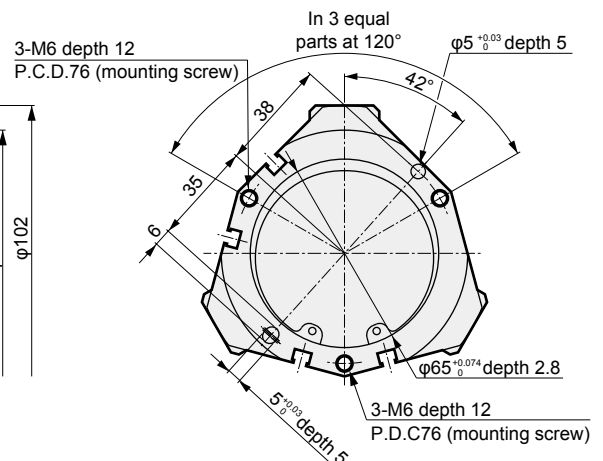
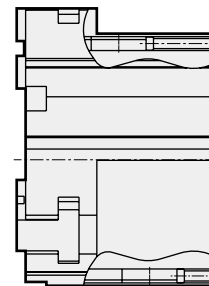


● CKL2-63CS standard/O/C

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



● With switch

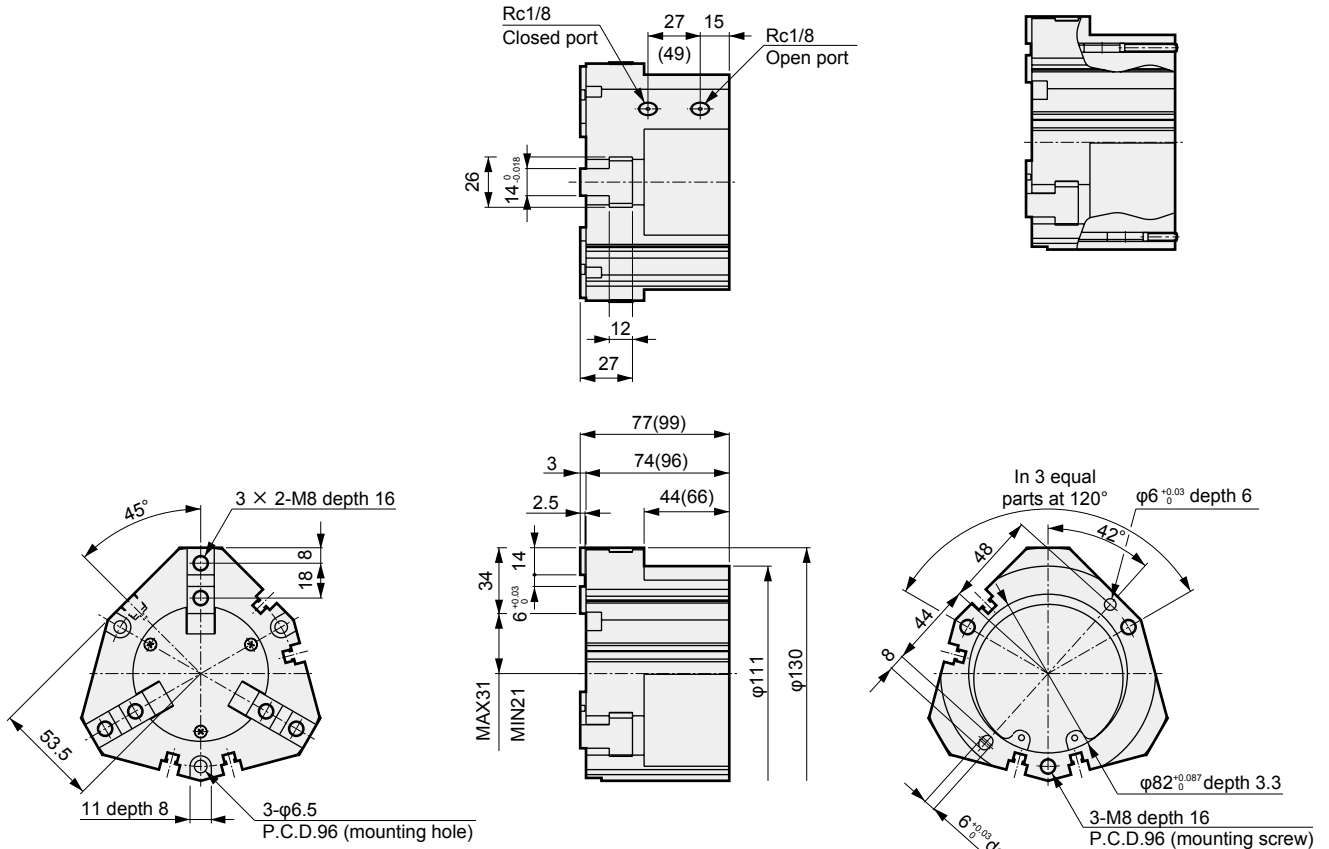


LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
CHC

Dimensions

● CKL2-80CS standard/O/C

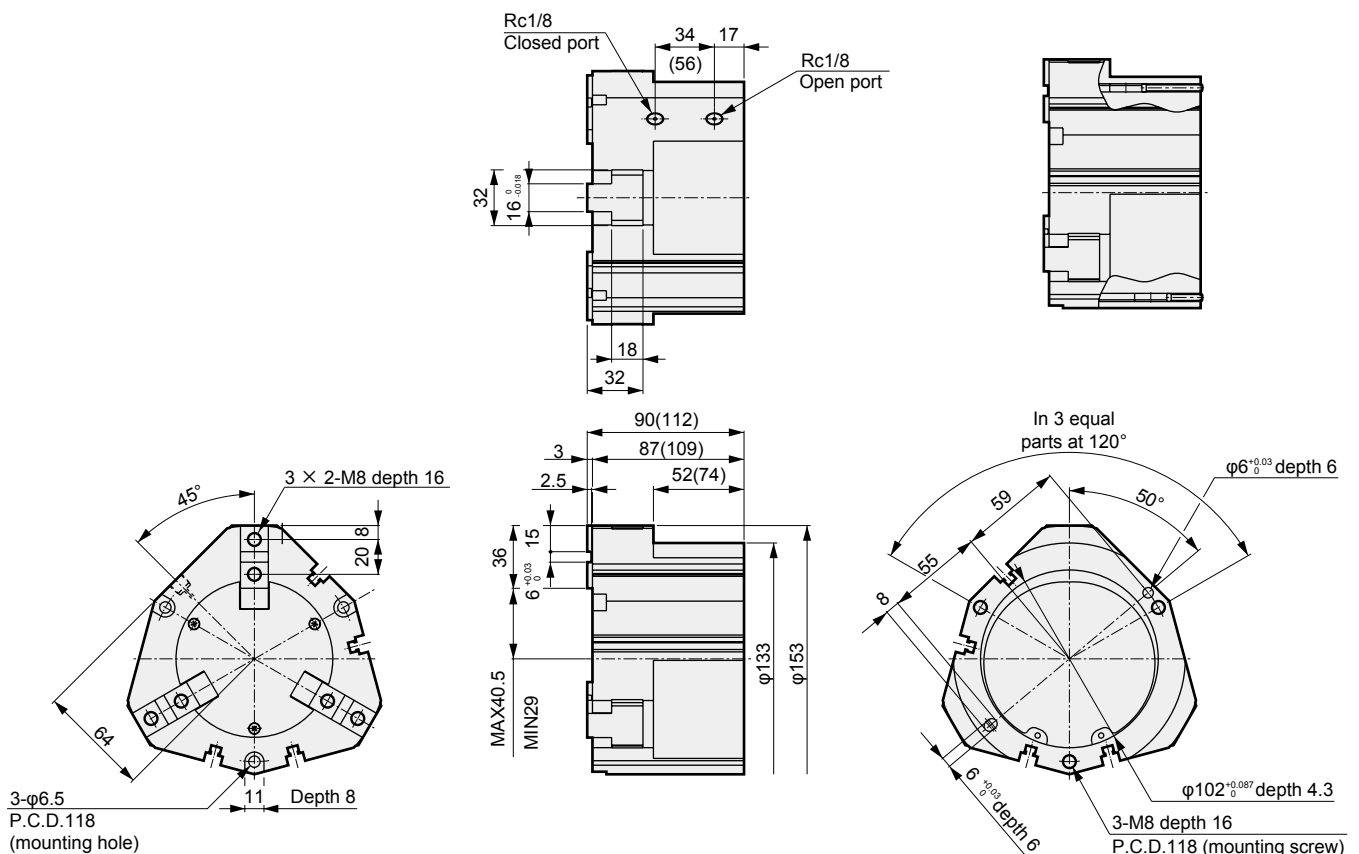
· Dimensions in () are for O [normally open] and C [normally closed] specifications.



● With switch

● CKL2-100CS standard/O/C

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



● With switch

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



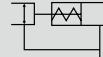
Position locking powerful chuck

CKL2-* -HC Series

● Operating stroke length: 8, 10, 12, 16, 20 mm

Double acting

Single acting (normally closed)



Specifications

Descriptions	CKL2-32CS-HC	CKL2-40CS-HC	CKL2-50CS-HC	CKL2-63CS-HC	CKL2-80CS-HC
Bore size mm	φ32	φ40	φ50	φ63	φ80
Working fluid	Compressed air				
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)				
Min. working pressure MPa	0.4 (≈58 psi, 4 bar)				
Ambient temperature °C	5 (41°F) to 60 (140°F)				
Port size	M5				Rc1/8
Operating stroke length mm	8	10	12	16	20
Rod diameter mm	φ10	φ12	φ14	φ16	φ16
Volumetric capacity (reciprocating) cm ³	7.7	15.6	28.3	60.3	118.2
Repeatability mm	±0.01				
Weight kg	0.42	0.60	0.82	1.66	3.20
Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)				

*1 : Use open port only, since spring clamp method is used.

Do not supply compressed air from the closed port. It may cause damage.

*2 : Do not plug closed port.

*3 : When using in a poor environment, contaminants inhaled from the closed port may cause air leakage. In that case, use a filter to prevent contaminants from entering.

*4 : Since gripping power differs depending on clamp position (open end, intermediate position or closed end) and clamp distance (jaw length), consider safety factors carefully for selection.

Switch specifications

Descriptions	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 other switch specifications.

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

How to order

Without switch (built-in magnet for switch)

CKL2 - **32CS** - **HC** - **Y1**

With switch (built-in magnet for switch)

CKL2 - **32CS** - **HC** - **Y1** - **T2H** - **R**

A Size

B Option

C Switch model No.

D Switch quantity

Code	Content				
A Size					
32CS					
40CS					
50CS					
63CS					
80CS					
B Option					
Y1	With small jaw Material: S45C				
Y2	With small jaw Material: MC nylon				
C Switch model No.					
Axial lead wire	Radial lead wire	Contact	Voltage	Display	Lead wire
			AC	DC	
T2H*	T2V*	Proximity		●	1-color
T3H*	T3V*			●	display
* Lead wire length					
Blank	1 m (standard)				
3	3 m (option)				
5	5 m (option)				
D Switch quantity					
R	1 on open side				
H	1 on closed side				
D	2				

⚠ Precautions for model No. selection

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

*2 : Refer to pages 1718 to 1719 for the dimensions and compatible model of the small jaw.
When ordered as an option, three are attached at shipment.

[Example of model No.]

CKL2-32CS-HC-Y1-T2H-R

- A** Size : 32CS
- B** Option : With small jaw Material: S45C
- C** Switch model No.: Proximity T2H switch, lead wire 1 m
- D** Switch quantity : 1 on open side

How to order switch

SW - **T2H**

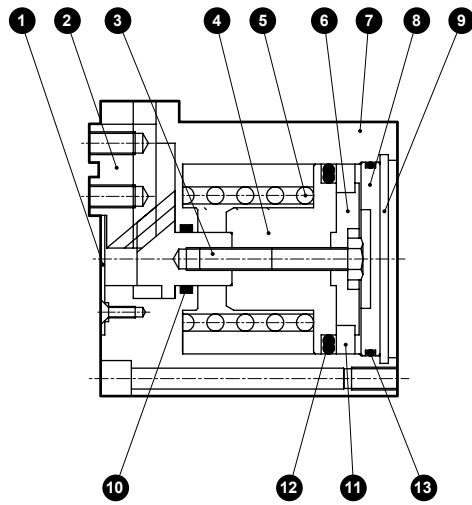
↓
Switch model No.
(Item C above)

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

CKL2-* -HC Series

Internal structure and parts list

● CKL2-32CS to 80CS-HC



Cannot be disassembled

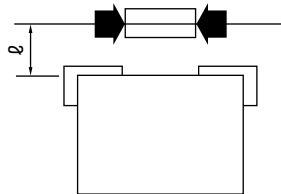
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Center guard	Stainless steel		7	Body	Aluminum alloy	
2	Master key	Carbon steel		8	Cylinder guard	Aluminum alloy	
3	Piston A	32CS: Stainless steel 40CS to 80CS: Carbon steel		9	Snap ring	Stainless steel	Steel (40, 80CS)
4	Piston B	Aluminum alloy		10	Rod packing	Nitrile rubber	
5	Spring	Stainless steel		11	Magnet		
6	Piston C	Aluminum alloy		12	Piston packing	Nitrile rubber	
				13	Cylinder gasket	Nitrile rubber	

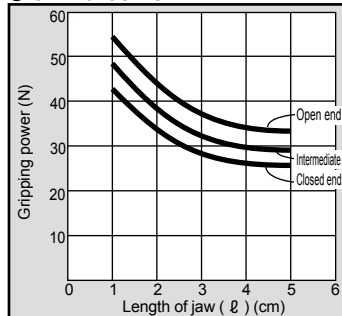
Gripping power performance data

The gripping power in the closing direction with jaw length ℓ of hand is shown.

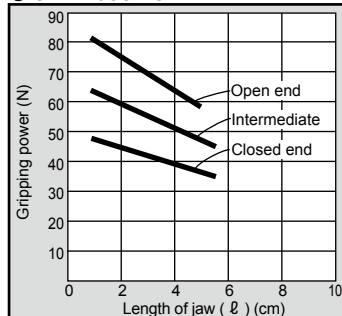
· Closed direction (■) (shown with continuous line)



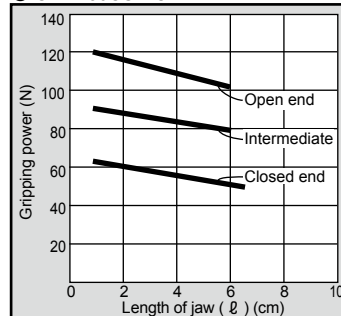
● CKL2-32CS-HC



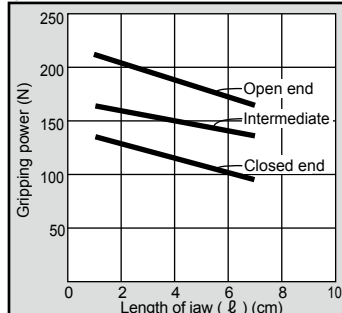
● CKL2-40CS-HC



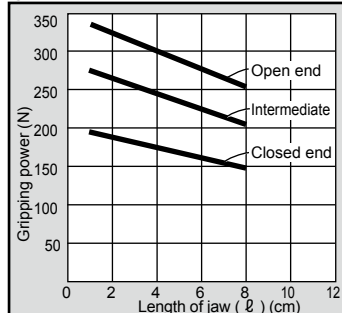
● CKL2-50CS-HC



● CKL2-63CS-HC



● CKL2-80CS-HC



(Note) When making a selection, read the precautions for design and selection on page 1722.

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

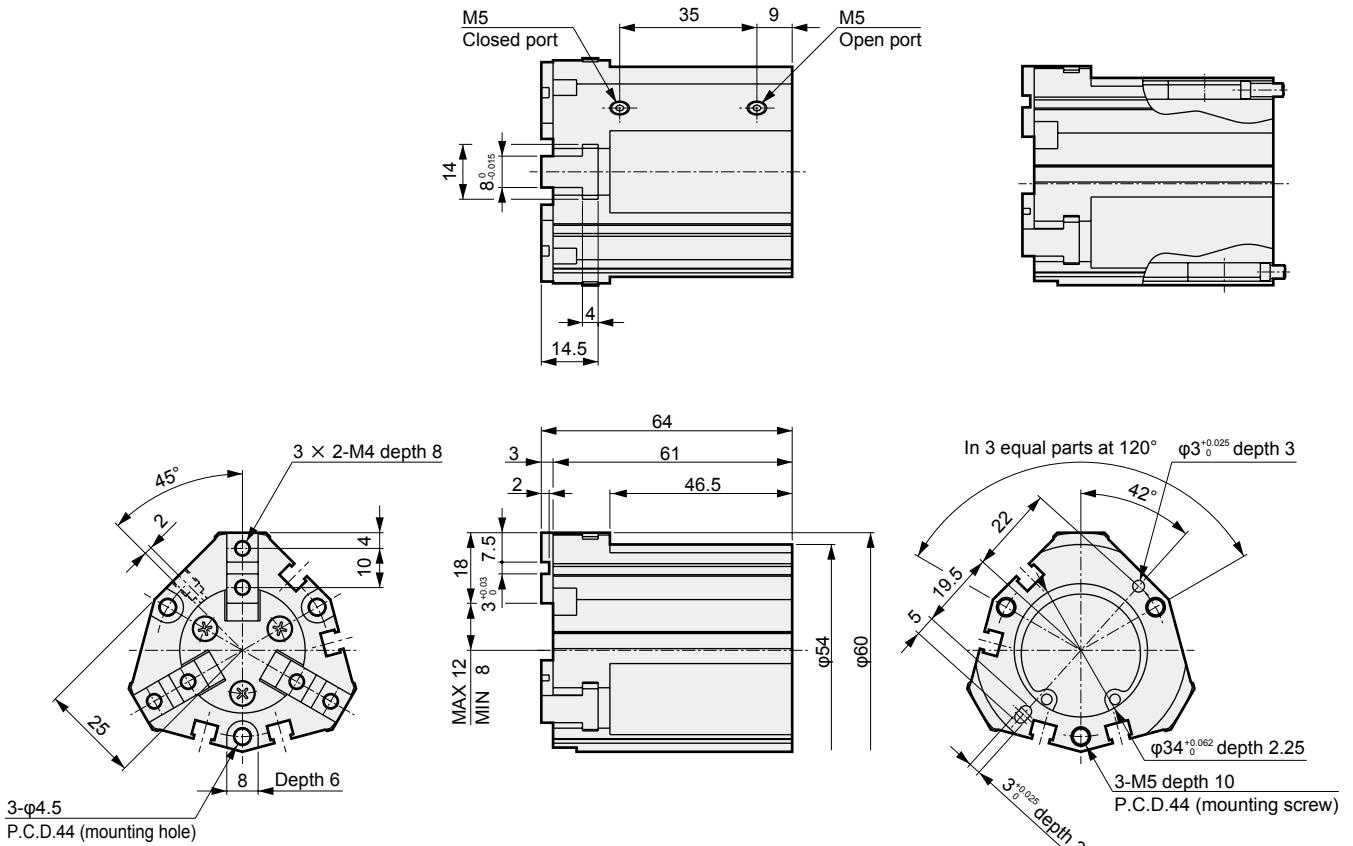
CKL2-***-HC** Series

Position locking powerful chuck

Dimensions

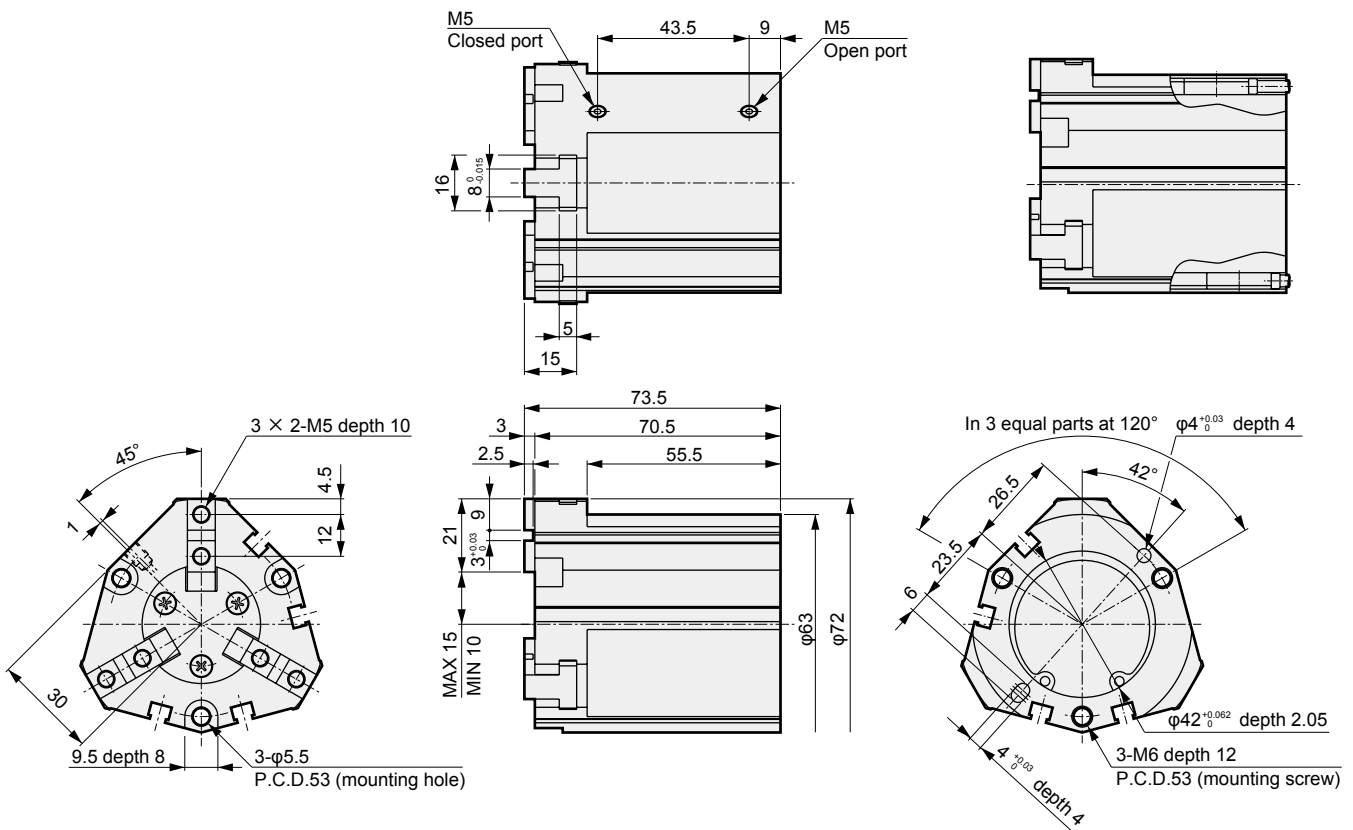
● CKL2-32CS-HC standard

● With switch



● CKL2-40CS-HC standard

● With switch



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

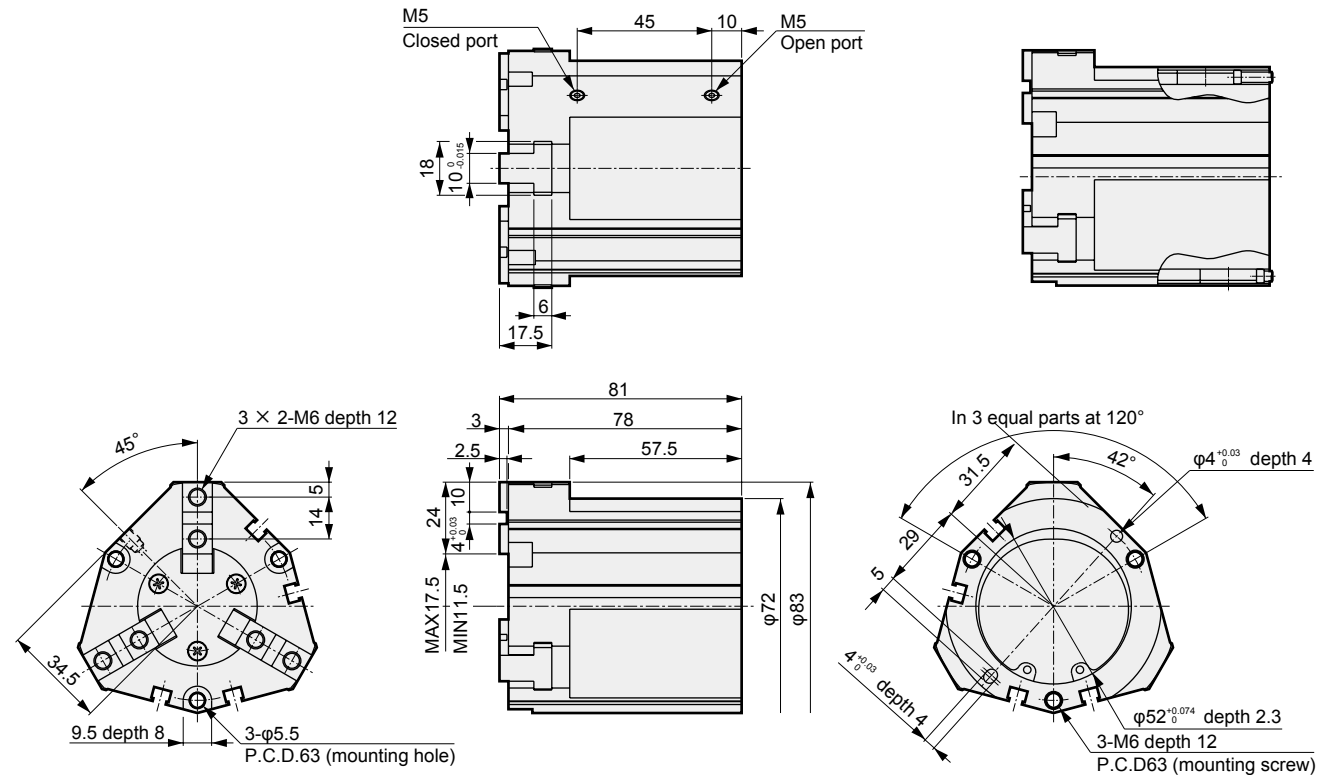
CKL2-* -HC Series

Dimensions



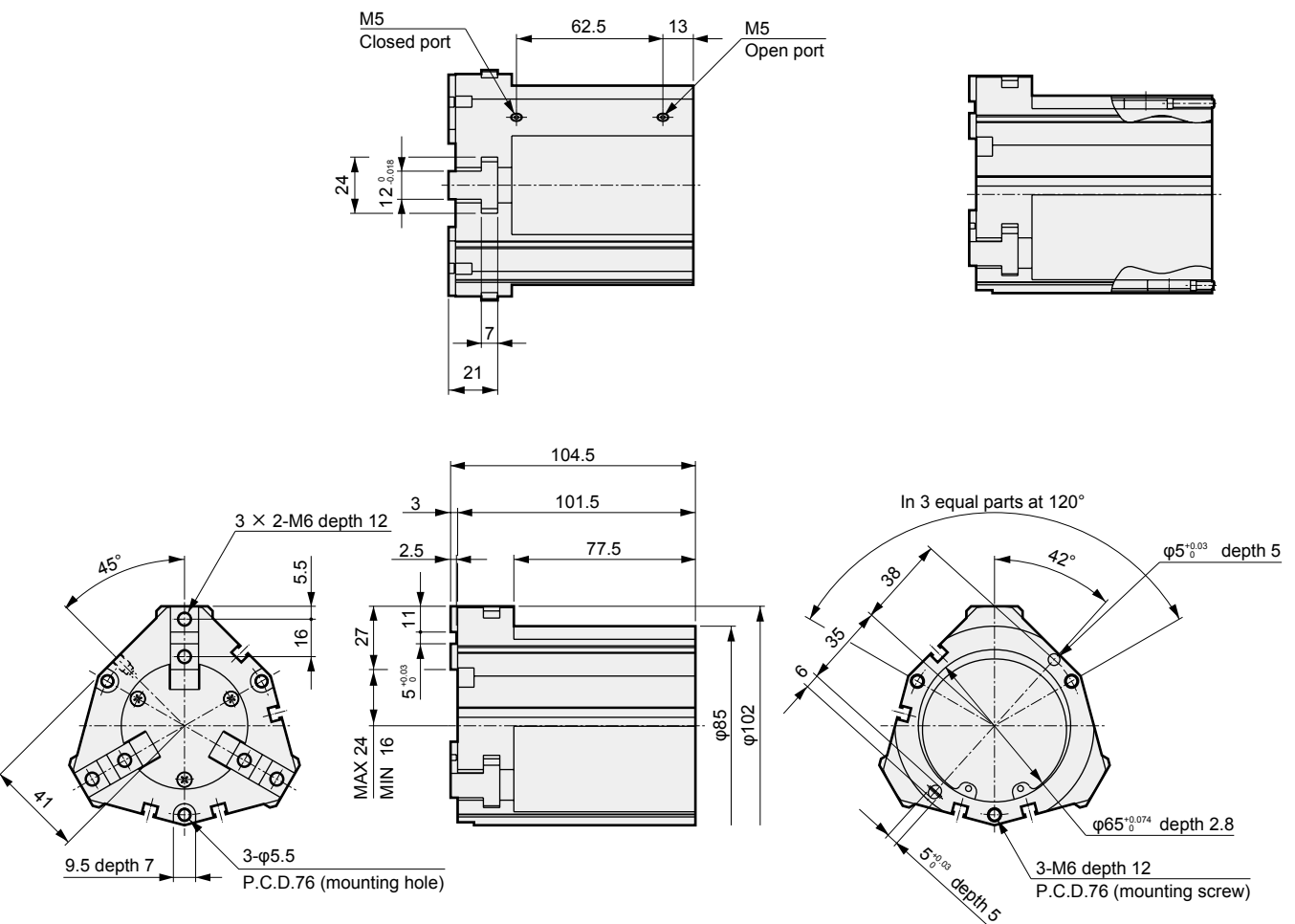
● CKL2-50CS-HC standard

● With switch



● CKL2-63CS-HC standard

● With switch



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

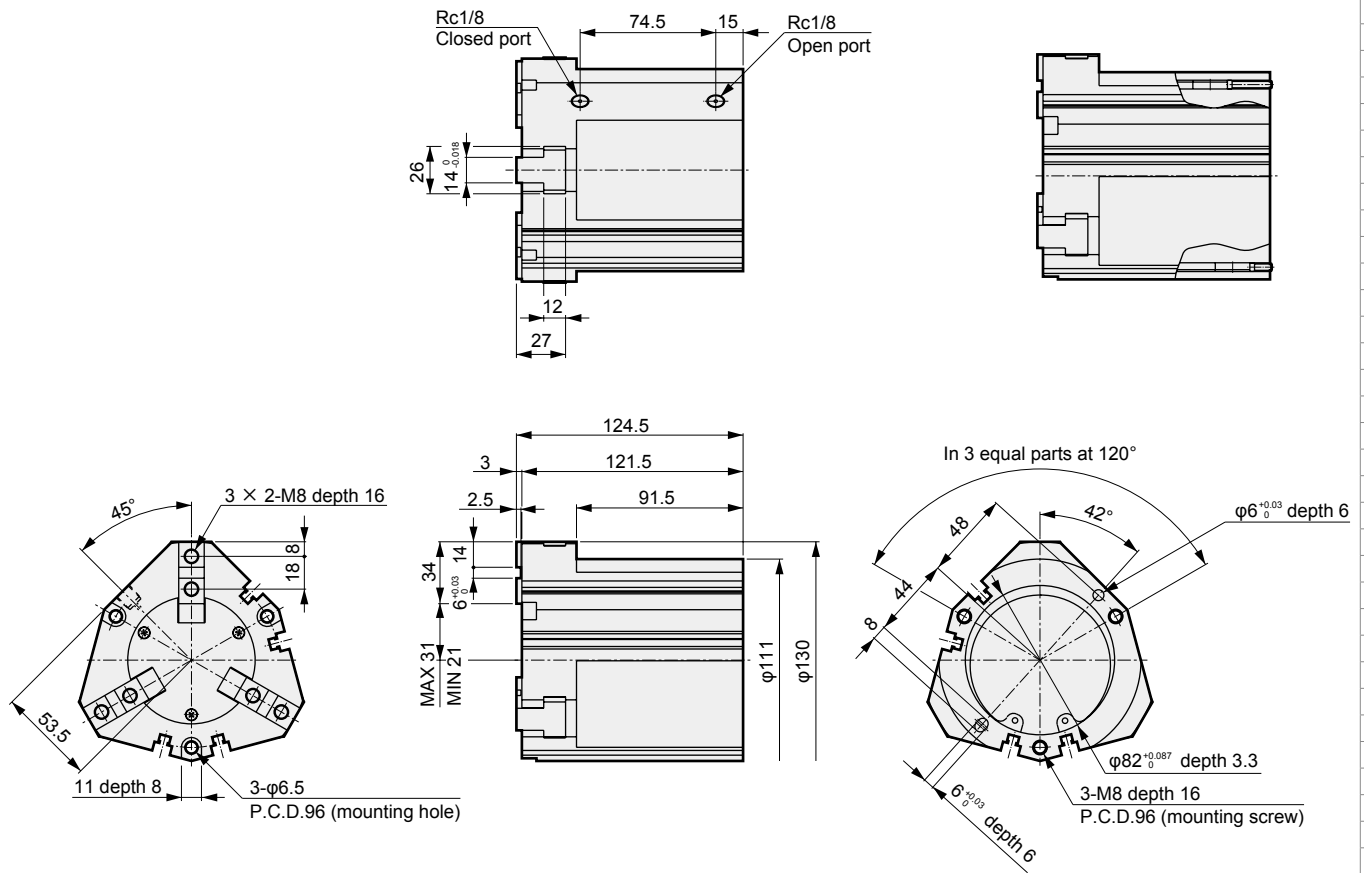
CKL2-* -HC Series

Position locking powerful chuck

Dimensions

● CKL2-80CS-HC standard

● With switch



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