



3-way jaw thin chuck Double acting/single acting

CKA Series

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

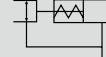
Double acting



Single acting (normally open)



Single acting (normally closed)



Specifications

Item	CKA							
	15CS	20CS	25CS	30CS	40CS	50CS	60CS	70CS
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							
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	6	5	7	9	20	25	30	38
Rod diameter mm	ø9	ø10	ø14	ø18	ø20		ø24	ø28
Volumetric capacity (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 (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 (*2)	

*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 : The weight of switch mounting bracket is 1.5 g.

*3 : 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
MecHnd/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)

CKA - **15CS** - **O**

With switch (built-in magnet for switch)

CKA - **15CS** - **O** - **T2H** - **R**

A Size

B Option
*1, *2

C Switch model No.
*3

D Switch quantity

⚠ Precautions for model No. selection

*1 : Y11 and Y21 are available for CKA-15CS, while Y12 and Y22 are available for CKA-20CS to 40CS, and Y11 and Y21 are available for CKA-50 to 70CS.

*2 : For the dimensions and compatible model of the attachment, refer to pages 1868 and 1869. When ordered as an option, three are attached at shipment.

*3 : As the switch groove of 50CS to 70CS has a different shape, a mounting bracket is required when ordering an individual switch.

[Example of model No.]

CKA-15CS-O-T2H-R

Model: Thin chuck

- A** Size : 15CS
- B** Option : Single acting, normally open
- C** Switch model No.: Proximity T2H switch, lead wire 1 m
- D** Switch quantity : 1 on open side

How to order switch

[T type switch]

SW - **T2H**

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

CKA-50CS to 70CS

- For switch T*H*
· Switch body + mounting bracket set

CKA - **T2H**

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

CKA-50CS to 70CS

- Mounting bracket set

CKA - **T**

- For switch T*V*
· Switch body + mounting bracket set

CKA - **T2V** - *

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

- Mounting bracket set

CKA - **TV** - *

(Select either R (open side) or H (closed side) for sections marked with an asterisk (*).)

Code	Description					
A Size						
15CS						
20CS						
25CS						
30CS						
40CS						
50CS						
60CS						
70CS						
B Option						
Blank	Standard (double acting)					
O	Single acting (normally open)					
C	Single acting (normally closed)					
Y11	With attachment (Material S50C) Outer mount chuck (attachment No.: 510 to 540, 710 to 770)					
Y12	With attachment (Material S50C) Inner mount chuck (attachment No.: 610 to 630)					
Y21	With attachment (Material MC nylon) Outer mount chuck (attachment No.: 510 to 540, 710 to 770)					
Y22	With attachment (Material MC nylon) Inner mount chuck (attachment No.: 610 to 630)					
C Switch model No.						
Axial lead wire	Radial lead wire	Contact	Voltage		Display	Lead wire
T2H*	T2V*		AC	DC		
T2H*	T2V*	Proximity		●	1-color	2-wire
T3H*	T3V*			●	display	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					

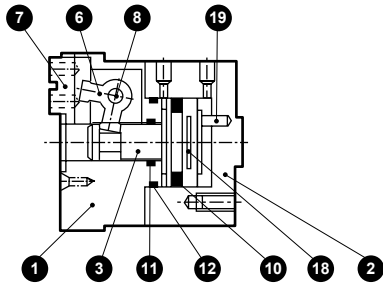
LCM
LCR
LCC
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF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

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.

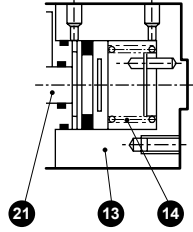
Internal structure and parts list

● CKA-15CS

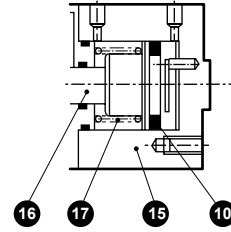
Standard (double acting)



O (normally open)

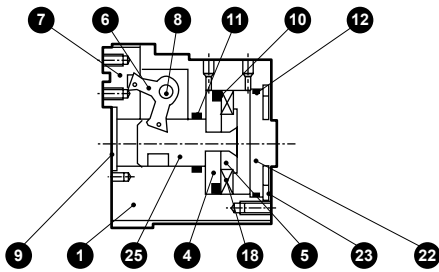


C (normally closed)

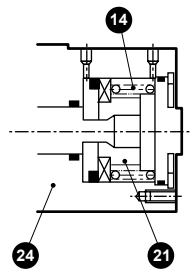


● CKA-20CS to 40CS

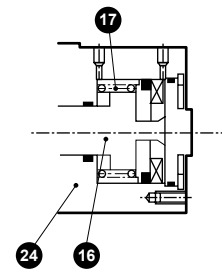
Standard (double acting)



O (normally open)

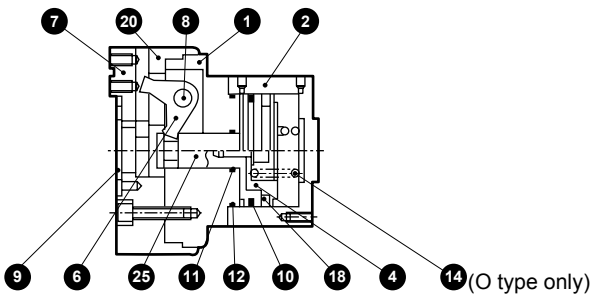


C (normally closed)

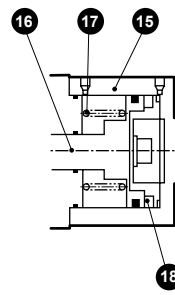


● CKA-50CS to 70CS

Standard (double acting)/O (normally open)



C (normally closed)



Cannot be disassembled

No.	Part name	Material	No.	Part name	Material	No.	Part name	Material	No.	Part name	Material
1	Body	Aluminum alloy	8	Fulcrum axis	Steel	15	C cylinder	Aluminum alloy	22	Cylinder guard	Aluminum alloy
2	Cylinder	Aluminum alloy	9	Center guard	Stainless steel	16	C piston rod	Stainless steel	23	Snap ring	Stainless steel
3	Piston A	Stainless steel	10	Piston packing	Nitrile rubber	17	C spring	Steel	24	O, C body	Aluminum alloy
4	Piston B	Aluminum alloy	11	Rod packing	Nitrile rubber	18	Magnet	Plastic magnet	25	Piston	Aluminum alloy
5	Piston C	Aluminum alloy	12	Cylinder gasket	Nitrile rubber	19	Rotation-stop pin	Stainless steel			
6	Arm	Steel	13	O cylinder	Aluminum alloy	20	Chuck cover	Aluminum alloy			
7	Finger	Steel	14	O spring	Steel	21	O piston B	Stainless steel			

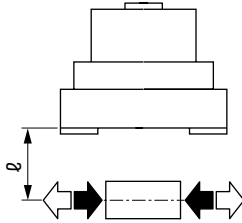
Note) Structures differ to some extent by model.

- 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**
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending
- CKL2
- CKLG2
- CKL2-HC
- CKH2
- CKLB2
- CKG
- CK
- CKA**
- CKS
- CKS-F
- CKF
- CKJ
- CHC

Gripping power performance data

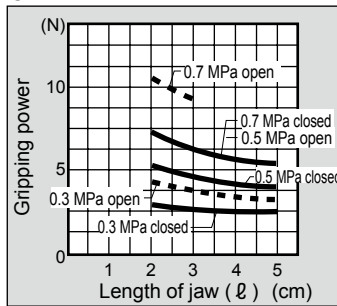
- Gripping power represents the thrust (per one finger) in the arrow direction shown in the figure.
- The gripping power in the opening/closing directions with jaw length L of hand with a supply pressure of 0.3, 0.5 and 0.7 MPa is shown.

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

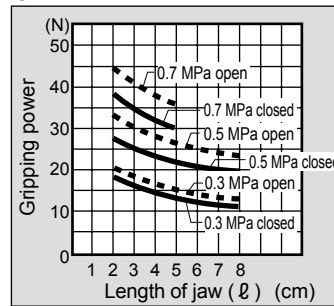


(Note) O type gripping power decreases approximately 20 to 30% in the closed direction compared to double acting.
 C type gripping power decreases approximately 10 to 20% in the open direction compared to the double acting.
 When making a selection, read the precautions for design and selection on page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

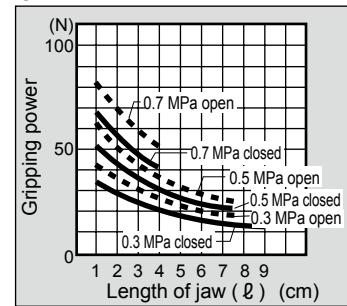
● CKA-15CS



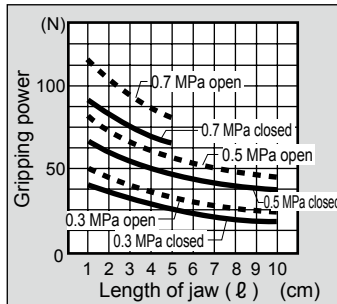
● CKA-20CS



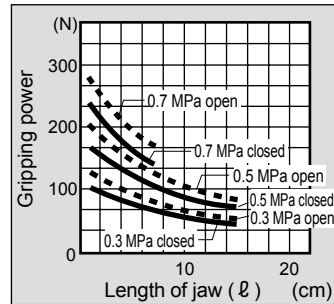
● CKA-25CS



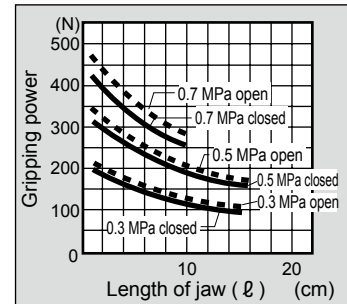
● CKA-30CS



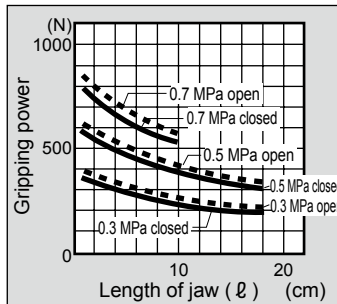
● CKA-40CS



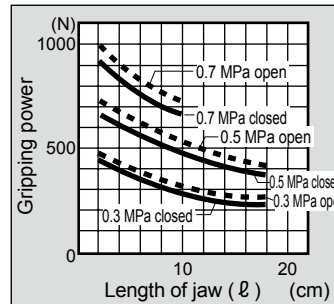
● CKA-50CS



● CKA-60CS



● CKA-70CS



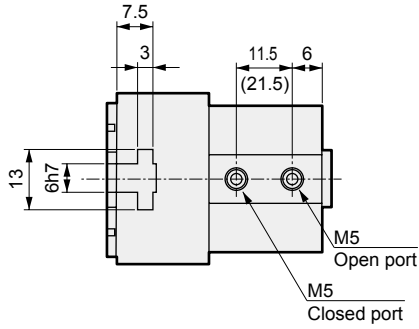
LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF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

Dimensions

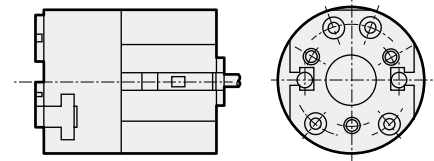
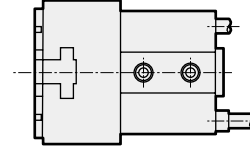


● CKA-15CS standard/O/C

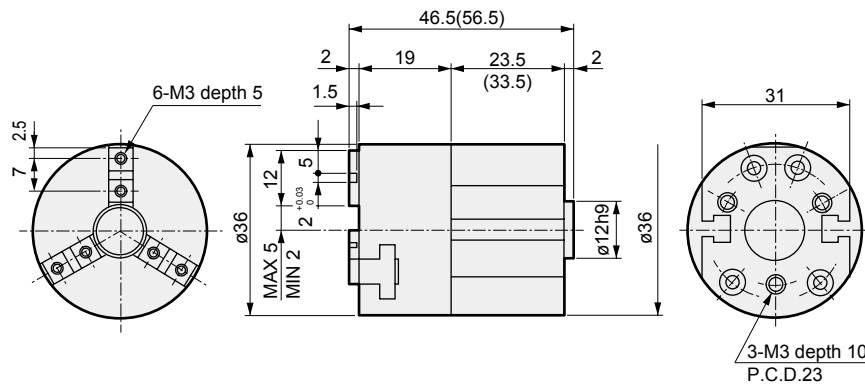
● Dimensions in () are for O [normally open] and C [normally closed] specifications.



● With switch

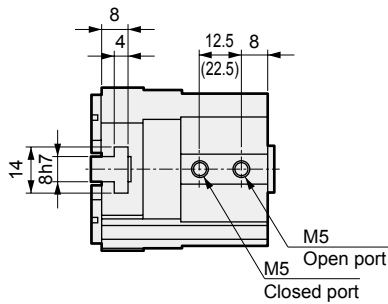


Note: When using T□H or T□V, the switches of both project from the end face of body head side.

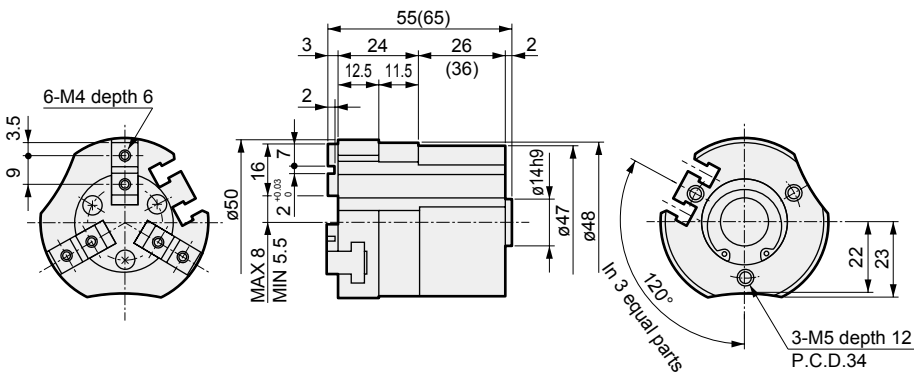
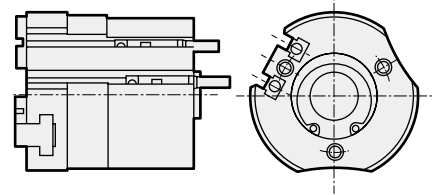


● CKA-20CS standard/O/C

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



● With switch



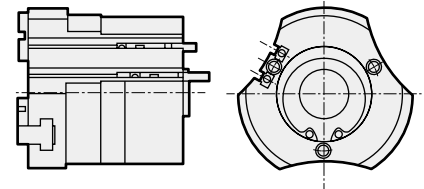
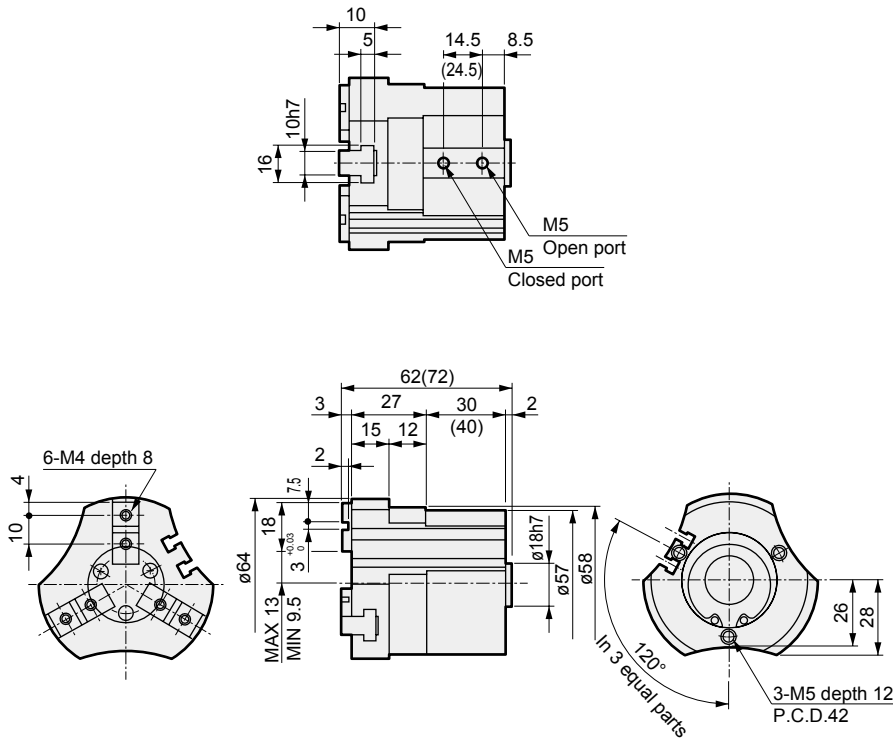
LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF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

Dimensions

● CKA-25CS standard/O/C

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

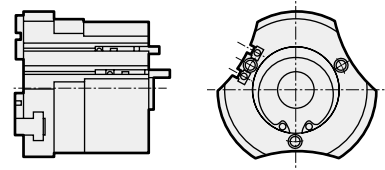
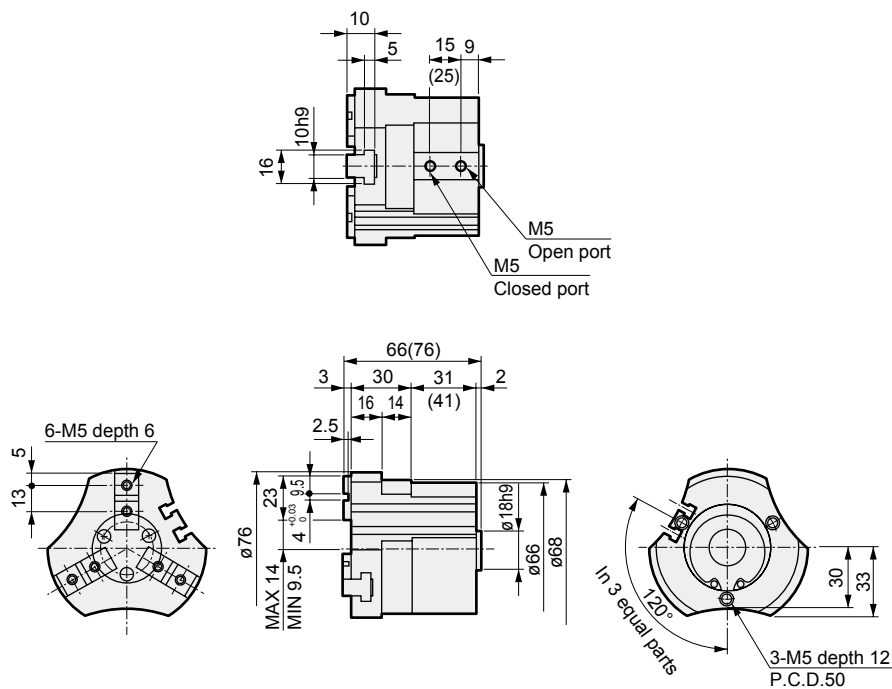
● With switch



● CKA-30CS 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
Chuk
MechMtlChuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

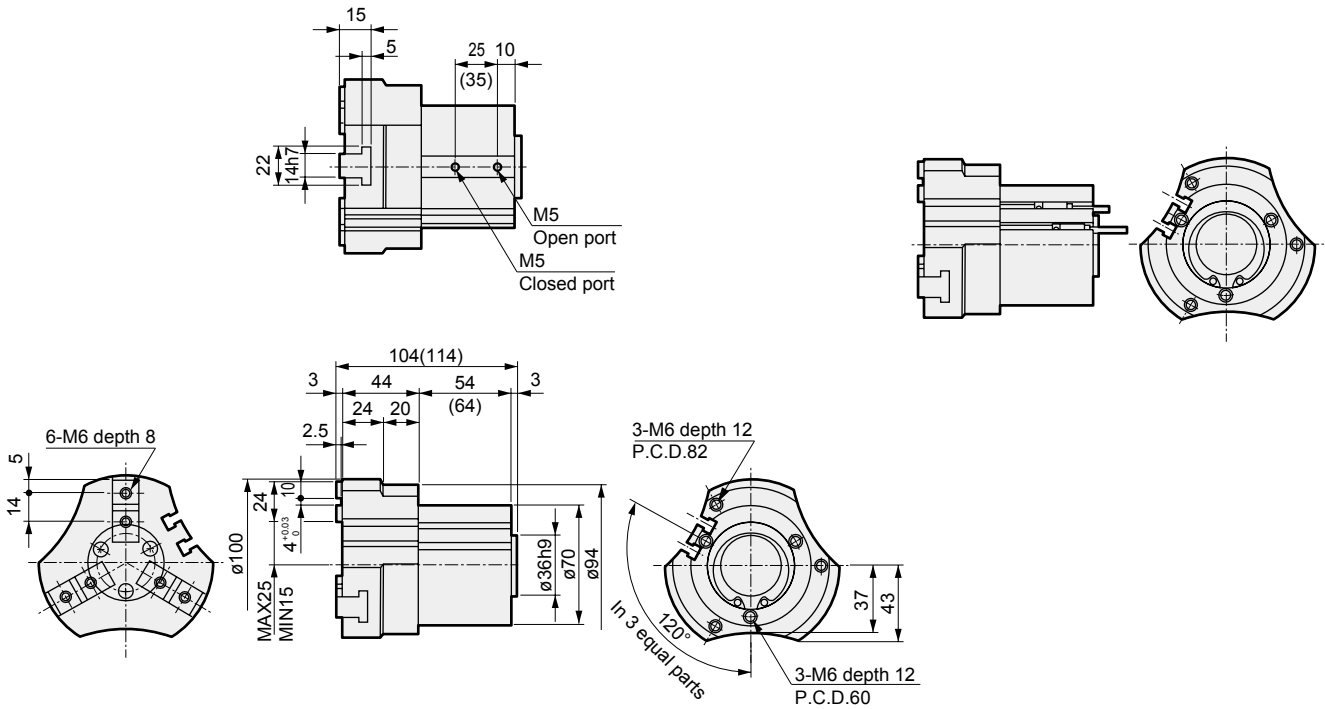
Dimensions



● CKA-40CS standard/O/C

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

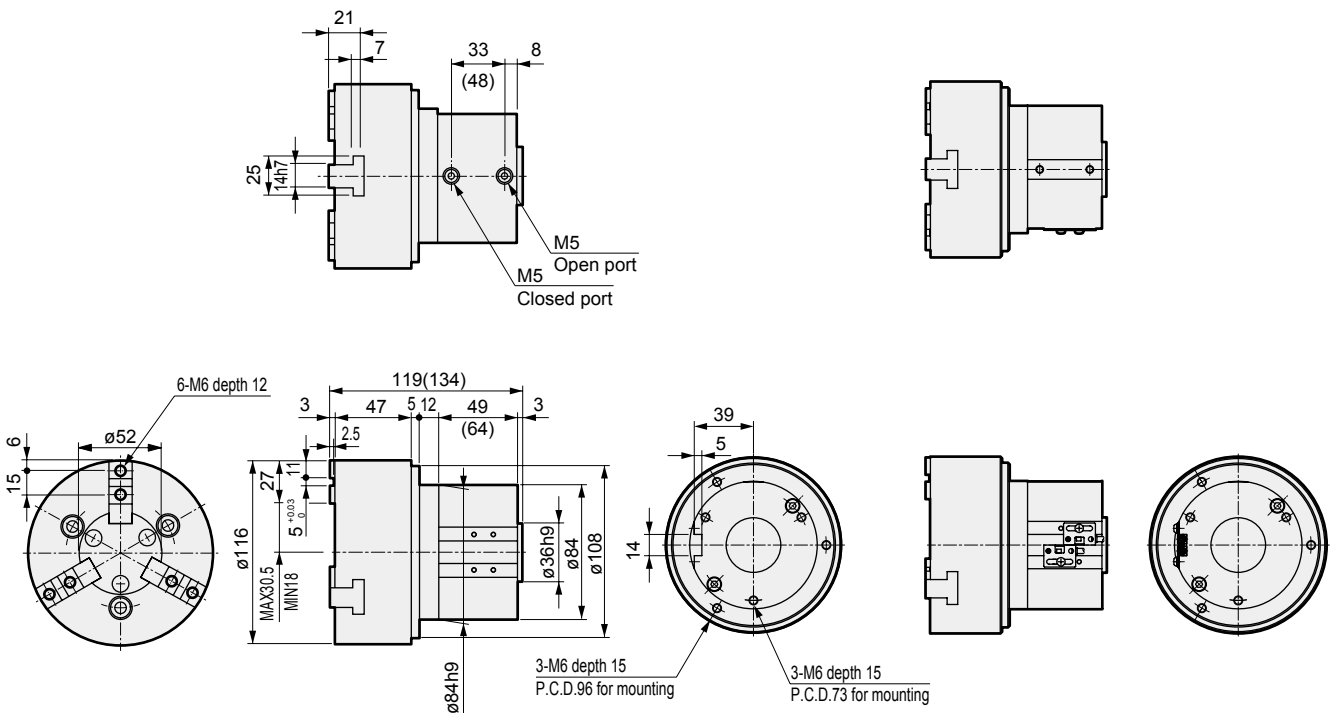
● With switch



● CKA-50CS standard/O/C

● Dimensions in () are for [normally closed] specifications.

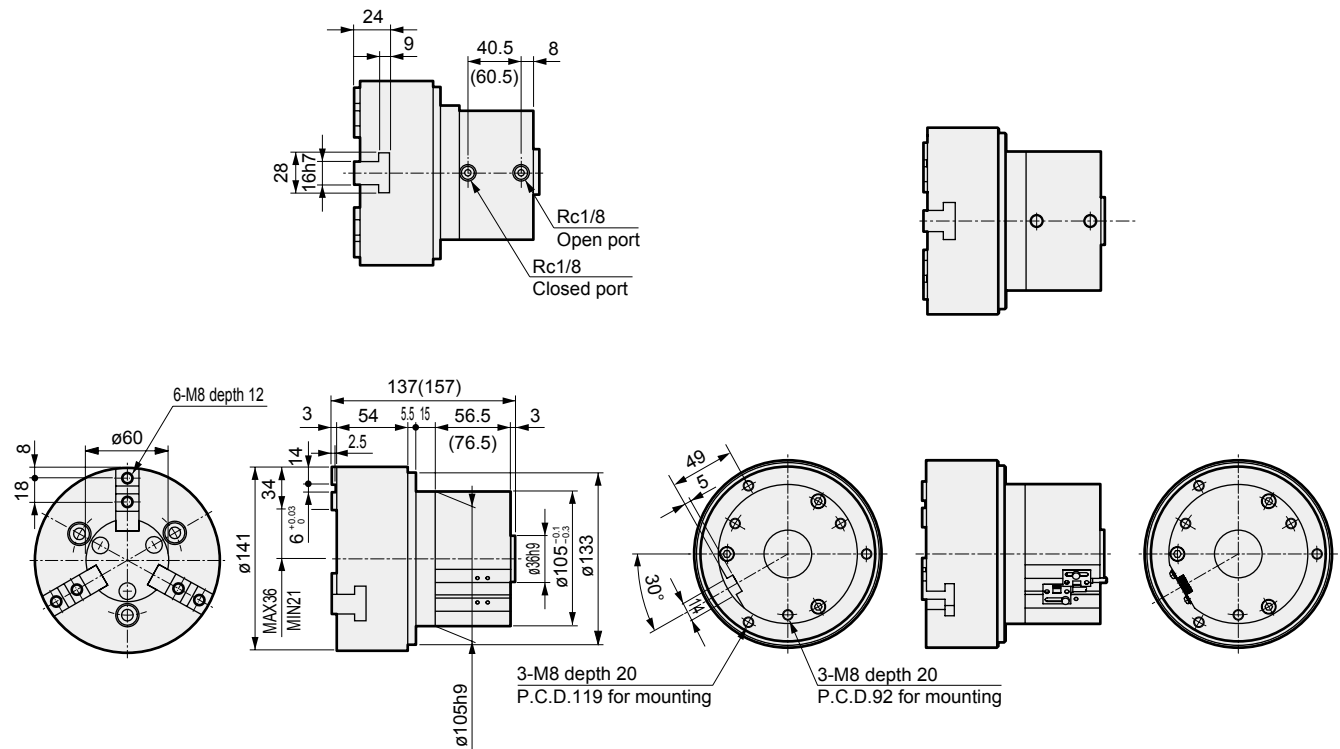
● With switch



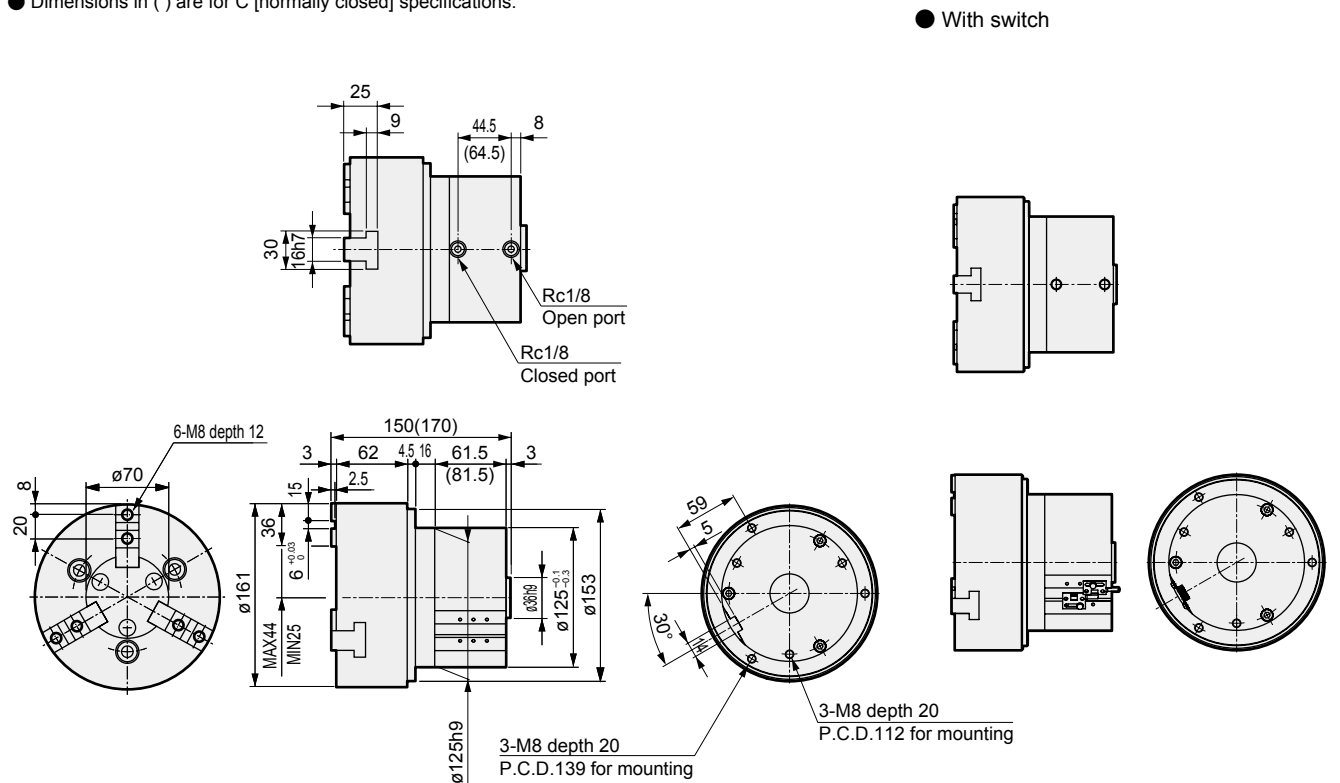
LCM
LCR
LCG
LCW
LX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF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

Dimensions

- CKA-60CS standard/O/C
- Dimensions in () are for C [normally closed] specifications.



- CKA-70CS standard/O/C
- Dimensions in () are for C [normally closed] specifications.



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