



Powerful chuck with high gripping power

CKH2 Series

- Operating stroke length: 6, 8, 10, 12 mm

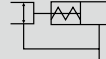
Double acting



Single acting (normally open)



Single acting (normally closed)



Specifications

Item	CKH2-50CS	CKH2-63CS	CKH2-80CS	CKH2-100CS
Bore size mm	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	6	8	10	12
Rod diameter mm	ø14	ø16	ø16	ø20
Volumetric capacity (reciprocating) cm ³	28.3	60.3	118.2	215.5
Repeatability mm	±0.01			
Weight kg	0.59	1.02	2.02	3.45
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
- 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
- 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)

CKH2 - **50CS** - **O**

With switch (built-in magnet for switch)

CKH2 - **50CS** - **O** - **T2H** - **R**

A Size

B Option

C Switch model No.

D Switch quantity

Code	Description				
A Size					
50CS					
63CS					
80CS					
100CS					
B Option					
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				
C Switch model No.					
Axial lead wire	Radial lead wire	Contact	Voltage	Display	Lead wire
			AC	DC	
T2H*	T2V*	Proximity		●	1-color display
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				

⚠ Precautions for model No. selection

*1 : Attachment is not available for inner diameter chuck.

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

[Example of model No.]

CKH2-50CS-O-T2H-R

- A** Size : 50CS
- 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

SW - **T2H**

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

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

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.

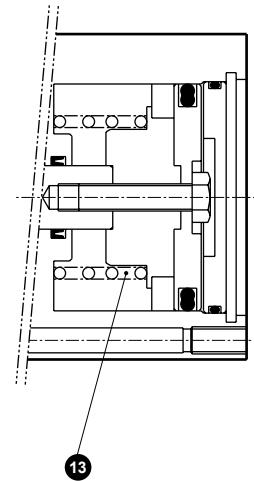
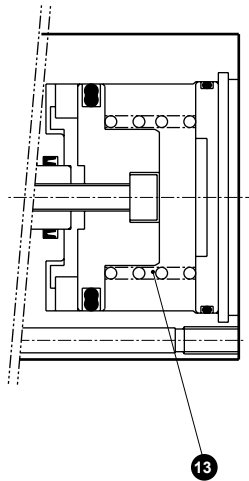
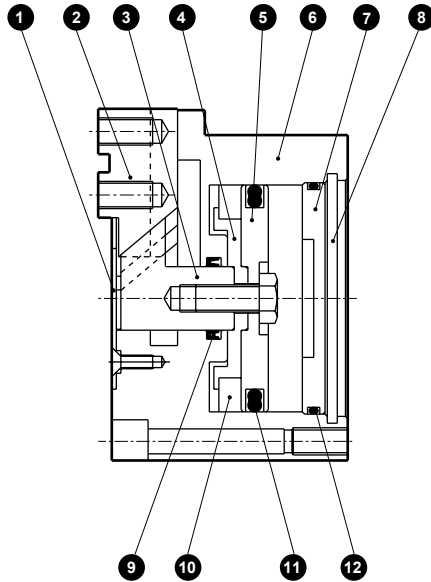
Internal structure and parts list

● CKH2-50CS to 100CS

Standard (double acting)

O (normally open)

C (normally closed)



Cannot be disassembled

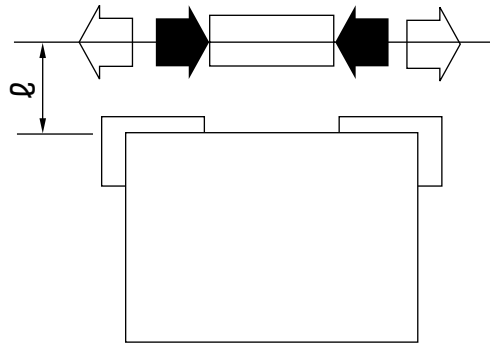
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Center guard	Stainless steel		8	C type snap ring	Stainless steel (50/60CS) Steel (80CS/100CS)	
2	Finger	Carbon steel		9	Lot sealant	Nitrile rubber	
3	Piston A	Carbon steel		10	Magnet		
4	Piston B	Aluminum alloy		11	Piston seal	Nitrile rubber	
5	Piston C	Aluminum alloy		12	Cylinder sealant	Nitrile rubber	
6	Body	Aluminum alloy		13	O spring	Stainless steel	
7	Cylinder guard	Aluminum alloy					

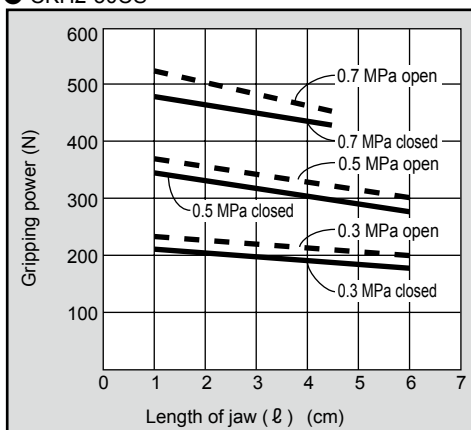
Gripping power performance data

- 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)

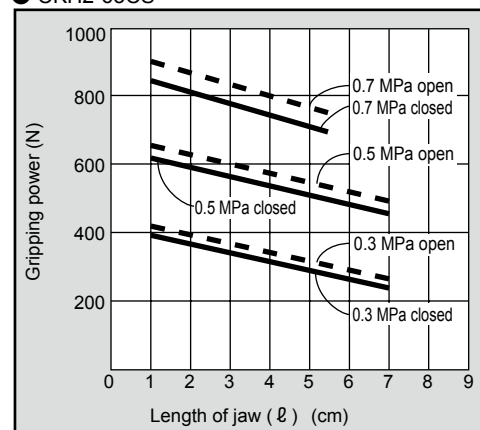
(Note) O type gripping power decreases approximately 20 to 30% in the closed direction compared to double acting.
 C type gripping power decreases approximately 10 to 20% in the open direction compared to the double acting.
 When making a selection, read the precautions for design and selection on page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



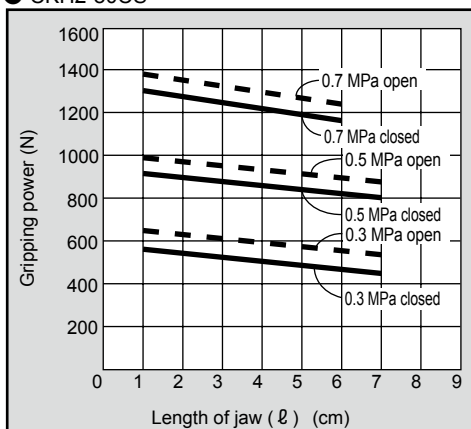
● CKH2-50CS



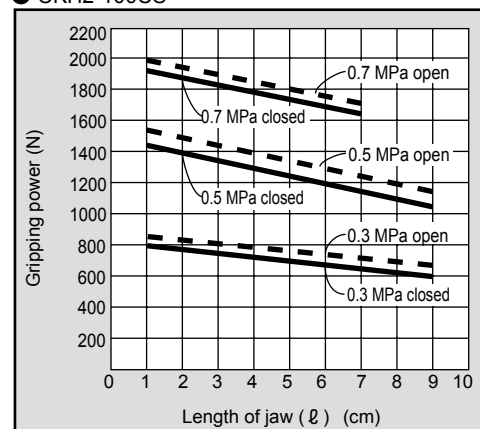
● CKH2-63CS



● CKH2-80CS



● CKH2-100CS



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STR2
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ULK*
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JSG
JSC3/JSC4
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JSB3
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LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
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Hand
Chuk
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
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CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

CKH2 Series

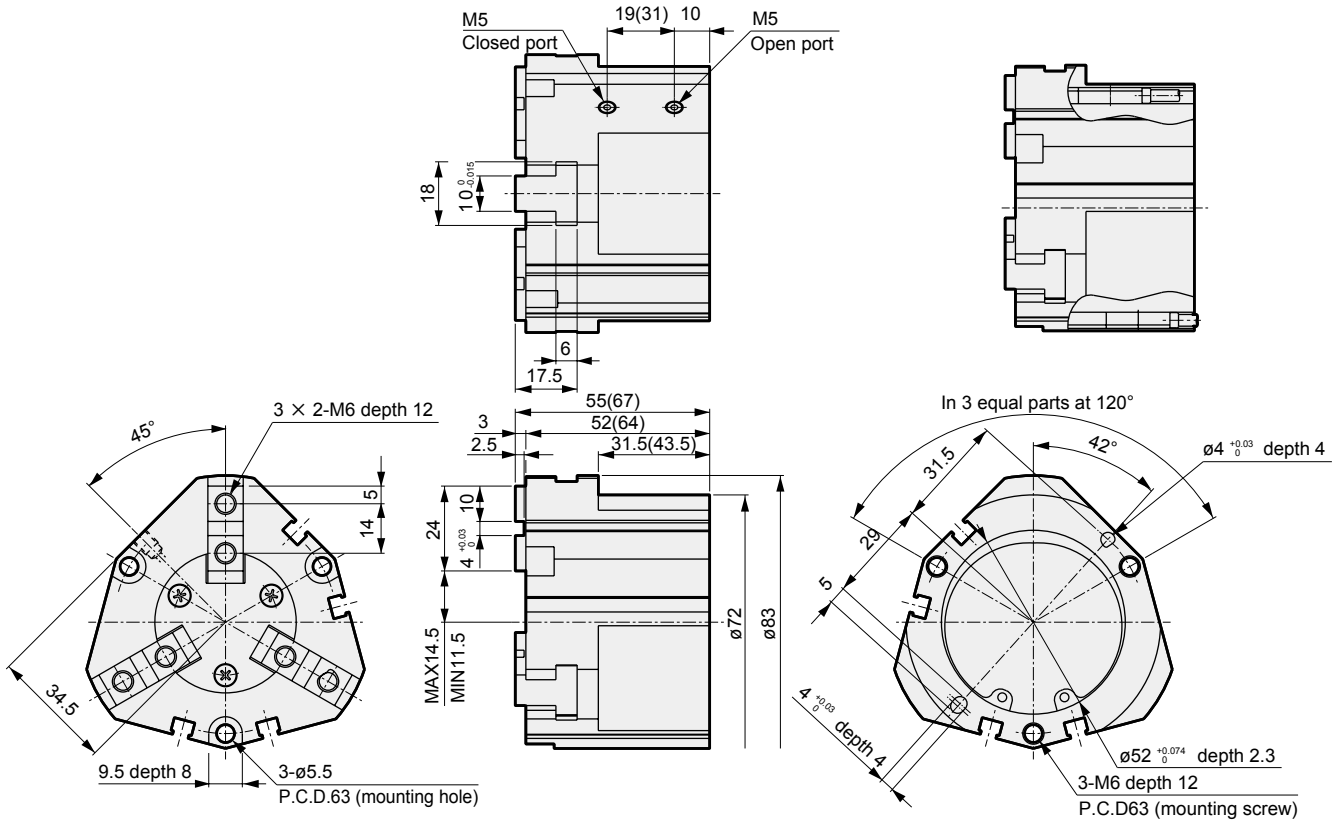
Dimensions



● CKH2-50CS standard/O/C

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

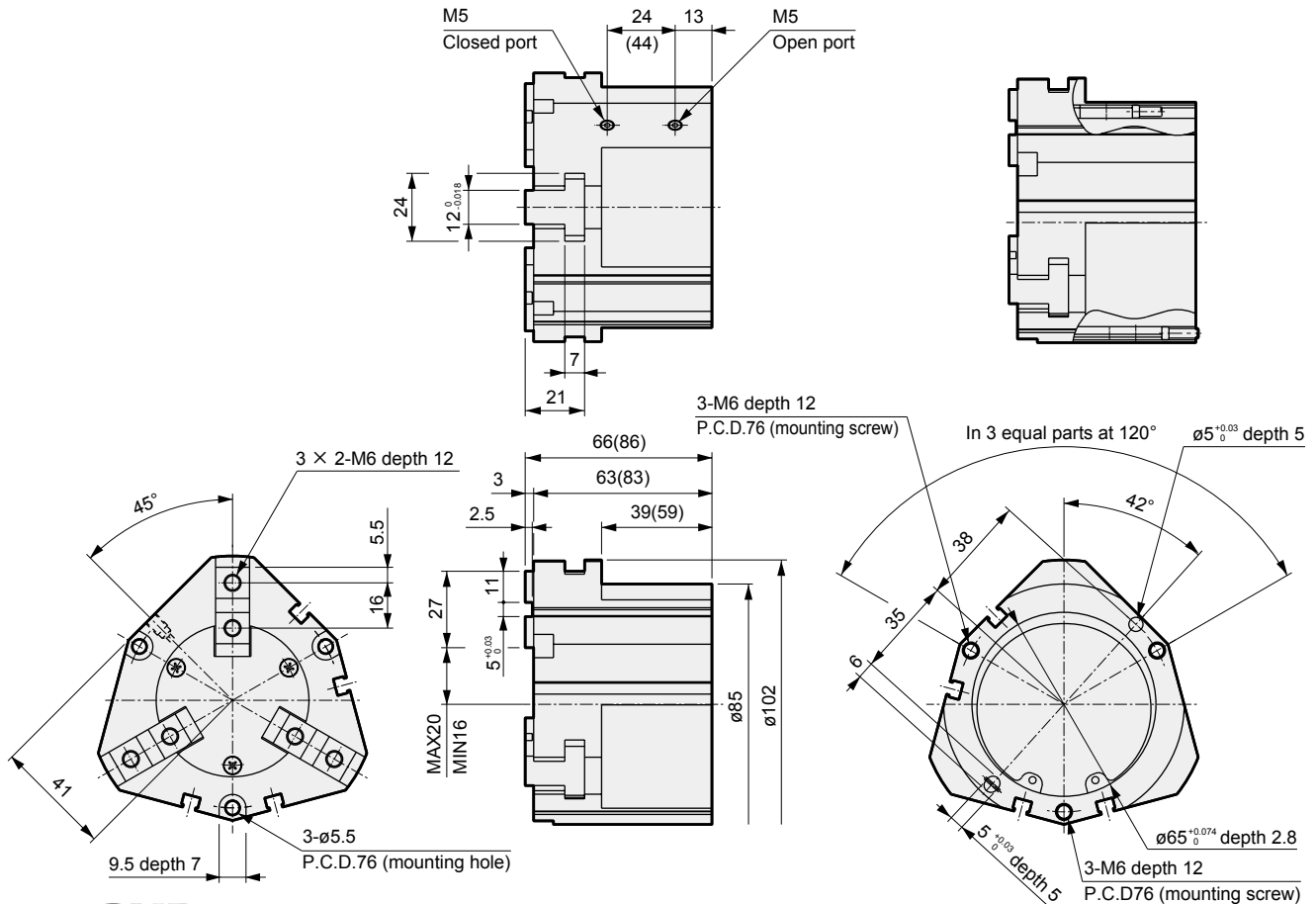
● With switch



● CKH2-63CS standard/O/C

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

● With switch

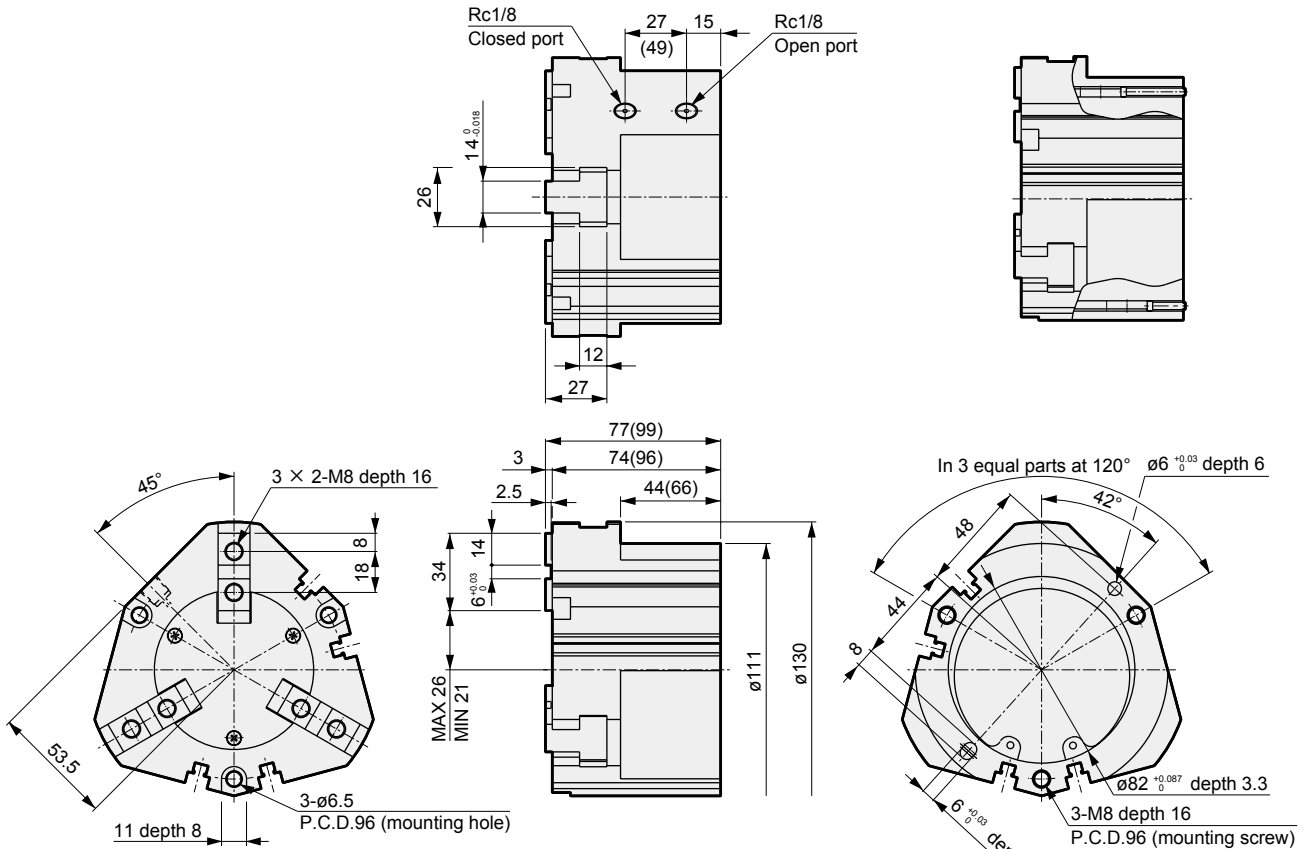


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Dimensions

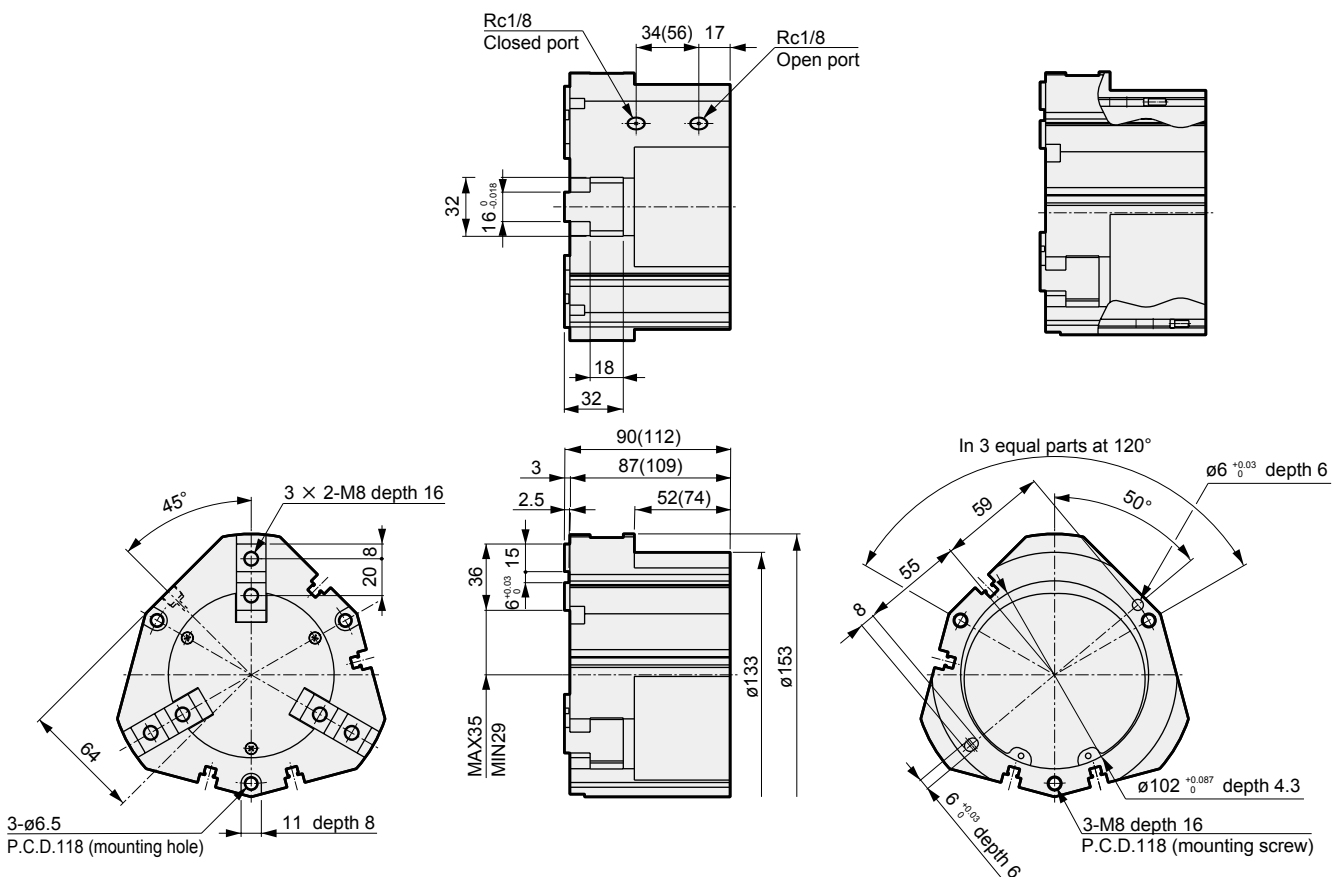
- CKH2-80CS standard/O/C
 - Dimensions in () are for O [normally open] and C [normally closed] specifications.

- With switch



- CKH2-100CS standard/O/C
 - Dimensions in () are for O [normally open] and C [normally closed] specifications.

- With switch



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