



Hollow chuck Double acting/single acting

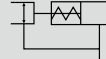
CKF Series

● Operating stroke length: 5, 7, 8, 16 mm

Double acting

Single acting (normally open)

Single acting (normally closed)



Specifications

Item	CKF					
	15CS	20CS	25CS	30CS	40CS	
Size						
Bore size	mm	ø30	ø40	ø50	ø80	
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					
Operating stroke length	mm	5	7	8	16	
Rod diameter	mm	ø16	ø24	ø28	ø34	
Volumetric capacity (reciprocating)	cm ³	2.5	5.2	7.3	73.2	
Hollow diameter	mm	ø5.5	ø8.4	ø10.4	ø16	
Repeatability	mm	±0.03				
Weight	kg	0.29	0.43	0.63	1.2	2.3
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
- LX
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFGD
- 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)

CKF - **15CS** - **O**

With switch (built-in magnet for switch)

CKF - **15CS** - **O** - **T2H** - **R**

A Size

B Option
*1, *2

C Switch model No.

D Switch quantity

⚠ Precautions for model No. selection

*1 : Y11 and Y21 are available for CKF-15CS, while Y11, Y12, Y21 and Y22 are available for CKF-20 to 30CS, and Y11 and Y21 are available for CKF-40CS.

*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.

[Example of model No.]

CKF-15CS-O-T2H-R

Model: Hollow 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

SW - **T2H**

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

CKF-30CS, 40CS

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

CKF - **T2H**

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

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

CKF - **T2V** - *

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

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

CKF-30CS, 40CS

- Mounting bracket set

CKF - **T**

- Mounting bracket set

CKF - **TV** - *

Code	Description					
A Size						
15CS						
20CS						
25CS						
30CS						
40CS						
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)					
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)					
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
			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					

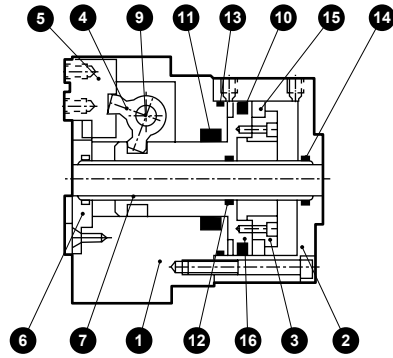
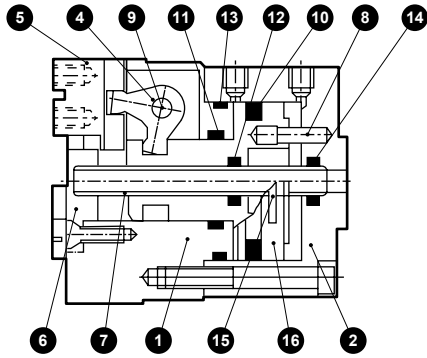
LCM
LCR
LCG
LCW
LCX
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCS2
RCC2
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HRL
LN
Hand
Chuk
MechHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKL2
CKLG2
CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF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

● CKF-15CS to 25CS

● CKF-30CS to 40CS



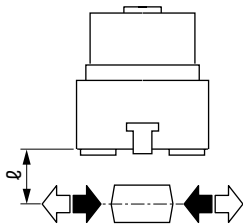
Cannot be disassembled

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Body	Aluminum alloy		9	Fulcrum axis	Steel	
2	Cylinder	Aluminum alloy		10	Piston packing	Nitrile rubber	
3	Piston B	Stainless steel		11	Rod packing	Nitrile rubber	
4	Arm	Steel		12	Guide rod packing seal	Nitrile rubber	
5	Finger	Steel		13	Cylinder gasket	Nitrile rubber	
6	Center guard	Aluminum alloy		14	Pipe fixing gasket	Nitrile rubber	
7	Guide pipe	Stainless steel		15	Magnet		
8	Rotation-stop pin	Stainless steel		16	Piston A	Stainless steel	

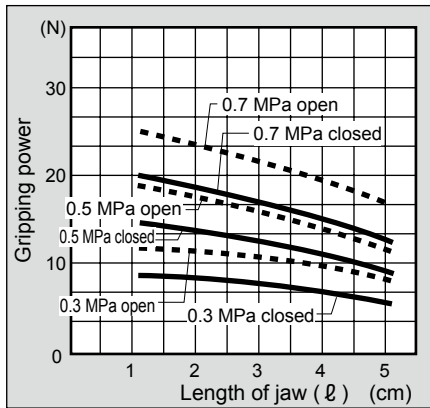
Gripping power performance data

- 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 L of hand with a supply pressure of 0.3, 0.5 and 0.7 MPa is shown.

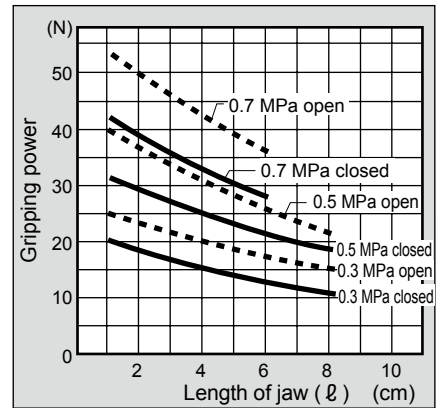
- Open direction (←) (shown with broken line)
- Closed direction (→) (shown with continuous line)



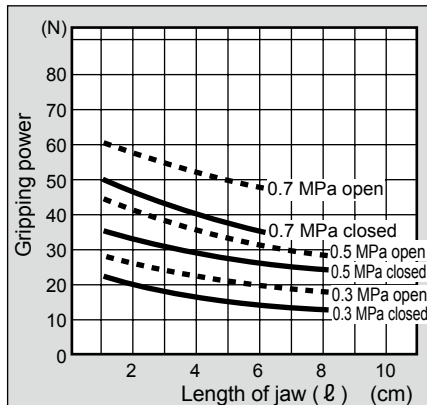
● CKF-15CS



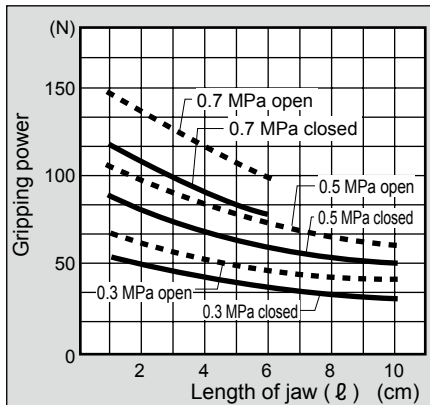
● CKF-20CS



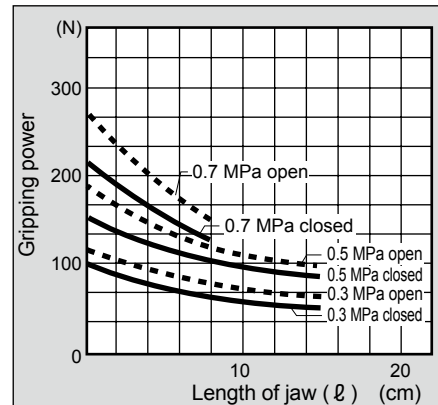
● CKF-25CS



● CKF-30CS



● CKF-40CS



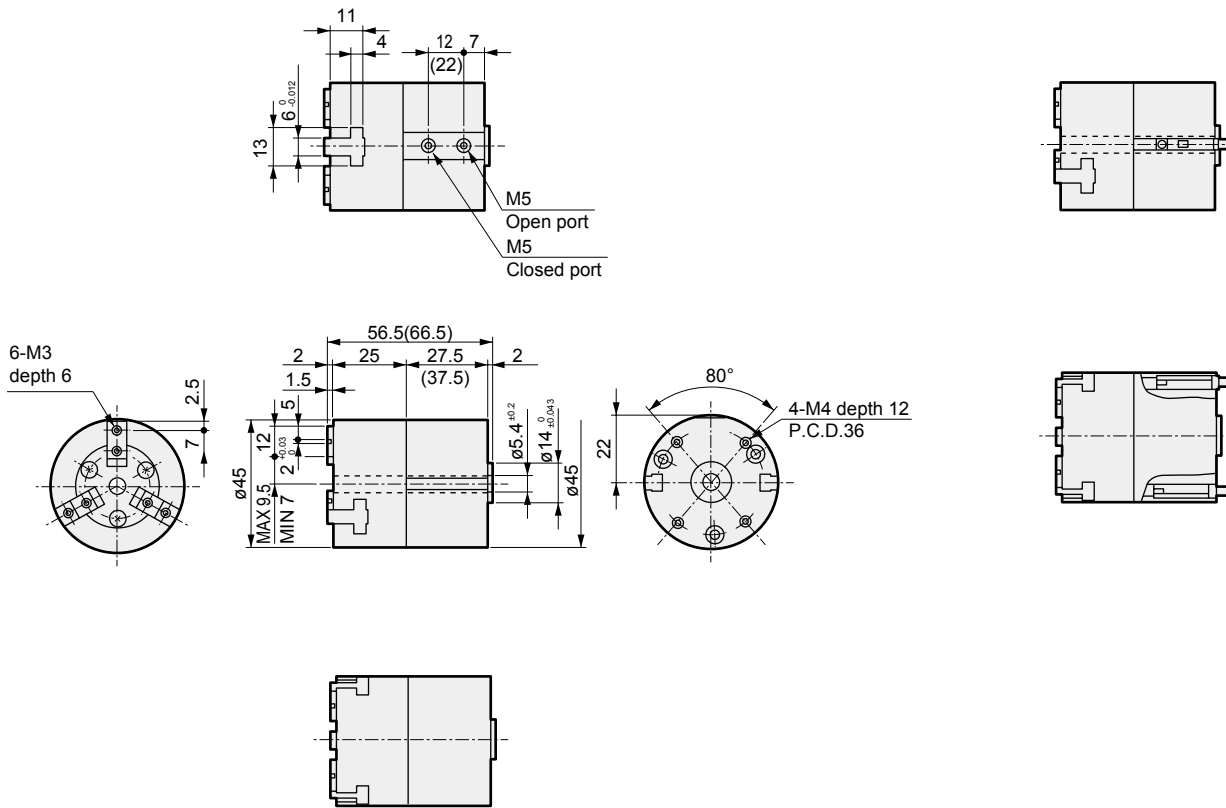
(Note) O type gripping power decreases approximately 20 to 30% in the closed direction compared to double acting.
C type gripping power decreases approximately 10 to 20% in the open direction compared to the double acting.
When making a selection, read the precautions for design and selection on page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

Dimensions

● CKF-15CS standard/O/C

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

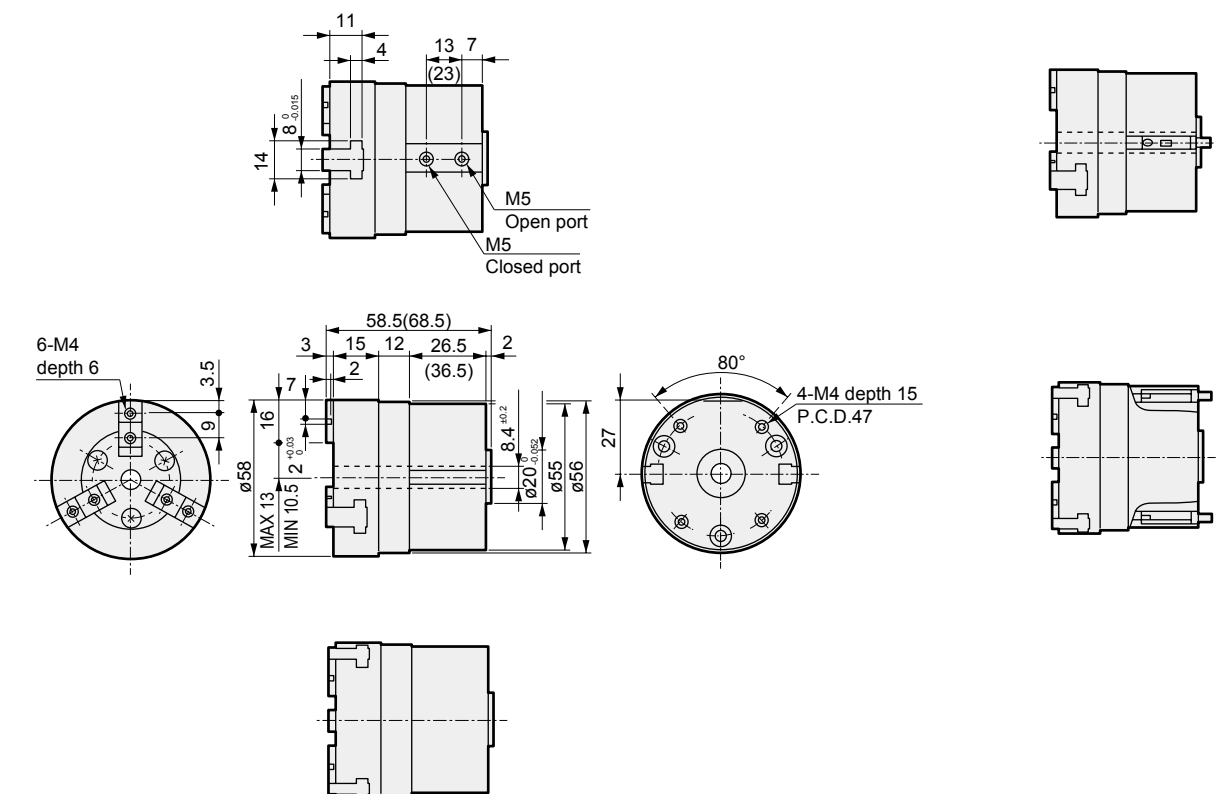
● With switch



● CKF-20CS standard/O/C

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

● With switch



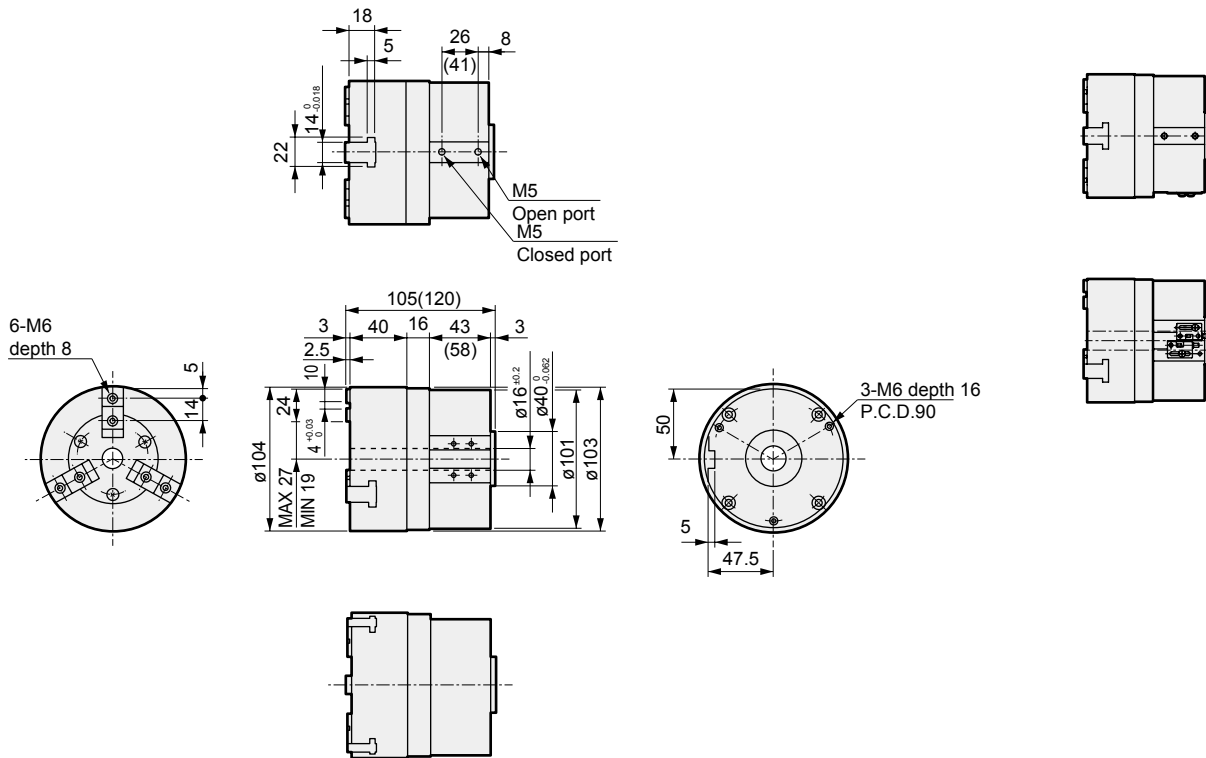
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HCA
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CKL2-HC
CKH2
CKLB2
CKG
CK
CKA
CKS
CKS-F
CKF
CKJ
CHC

Dimensions

● CKF-40CS standard/O/C

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

● With switch



LCM
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LCG
LCW
LCX
STM
STG
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STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
UB
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