



3-way jaw long stroke chuck double acting/single acting

CK Series

- Operational stroke length: 20, 40mm



Specifications

Descriptions		CK		
Size		1CS	1.5CS	2CS
Cylinder bore size	mm	ϕ 25	ϕ 44	
Actuation		Double acting/single acting		
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	20		40
Rod diameter	mm	ϕ 12	ϕ 16	
Capacity of reciprocating	cm ³	7.9	26.4	52.8
Repeatability	mm	\pm 0.03		
Product weight	kg	0.85	1.90	2.90
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 1)	30 VDC or less, 100mA or less
Light	LED (ON lighting)	
Leakage current	1mA or less	10 μ A or less

Note 1: Maximum load current above: 20mA is applied at 25°C. The current will be lower than 20mA if ambient temperature around switch is higher than 25°C. (5 to 10mA with 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

CK - 1CS - O

With switch

CK - 1CS - O - T3H - R

A Size

B Option
Note 1

C Switch model no.
Note 2

D Switch quantity

Symbol	Descriptions			
A Size				
1CS				
1.5CS				
2CS				
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	Indicator	Lead wire
T2H*	T2V*			
T3H*	T3V*	3-wire		
*Lead wire length				
Blank	1m (standard)			
3	3m (option)			
5	5m (option)			
D Switch quantity				
R	One on open side			
H	One on closed side			
D	Two			

⚠ Note on model no. selection

Note 1: Refer to pages 494 to 497 for the dimensions and applicable model of the small jaw.
When ordering as option, 3 pieces are provided.

Note 2: Switches other than **C** switch model no. are available. (Custom order) Refer to Ending 1 for details.

<Example of model number>

CK-1CS-O-T3H-R

Model: Long stroke chuck

A Size : 1CS

B Option : Single acting, normally open type

C Switch model no. : Proximity T3H switch, lead wire 1m

D Switch quantity : One on open side

How to order switch

SW - T2H

Switch model no.
(Item above **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

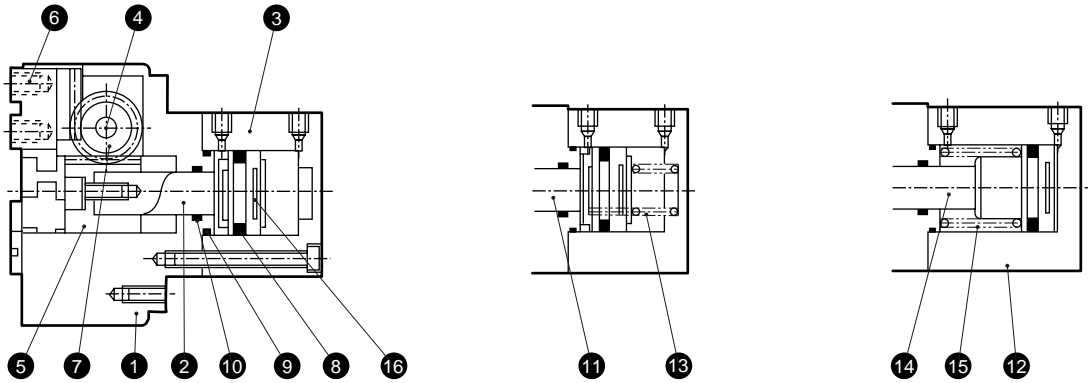
3-way jaw long stroke chuck
Chuck

Internal structure and parts list

● Standard (double acting) type

● O (normally open) type

● C (normally closed) type

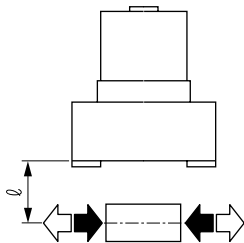


No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Chuck body	Aluminum alloy		10	Rod packing seal	Nitrile rubber	
2	Piston	Steel		11	Piston	Steel	
3	Cylinder	Aluminum alloy		12	Cylinder	Aluminum alloy	
4	Pinion gear axis	Steel		13	Spring	Stainless steel	
5	Rack	Steel		14	Piston	Steel	
6	Master key	Steel		15	Spring	Stainless steel	
7	Pinion gear	Steel		16	Magnet	MC	Nickeling
8	Piston packing seal	Nitrile rubber					
9	Cylinder gasket	Nitrile rubber					

Gripping performance data

Gripping power which functions to open direction and closed direction with length L of hand jaw at supply pressure 0.3, 0.5 or 0.7 MPa is shown.

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

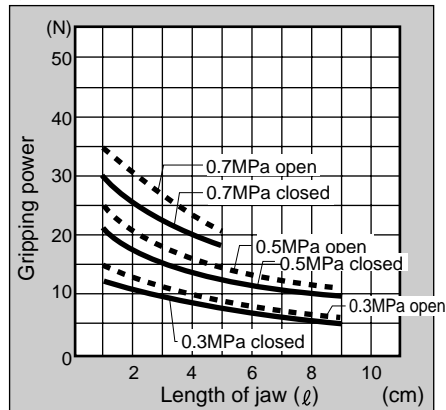


(Note) O type gripping power decreases approximate 20 to 30 % comparing to double acting type to closed direction.

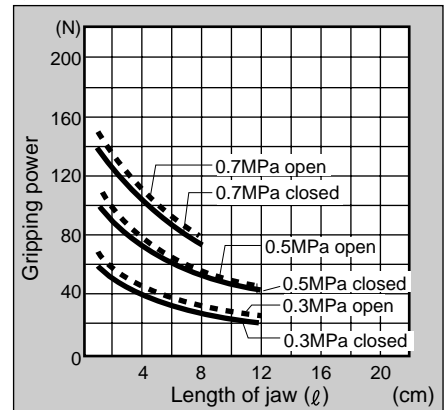
C type gripping power decreases approximate 10 to 20 % comparing to double acting type to open direction.

Grip performance data indicates the grip for one jaw. There are three jaws, so multiply the holding force in the graph by three when making a selection.

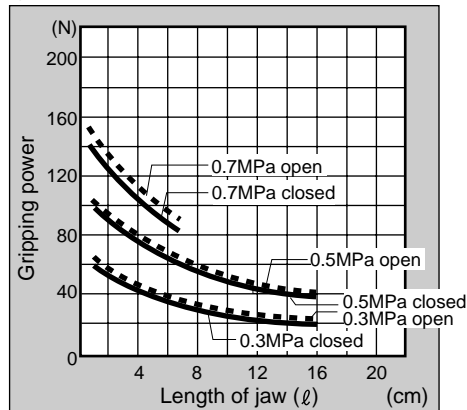
● CK-1CS



● CK-1.5CS



● CK-2CS



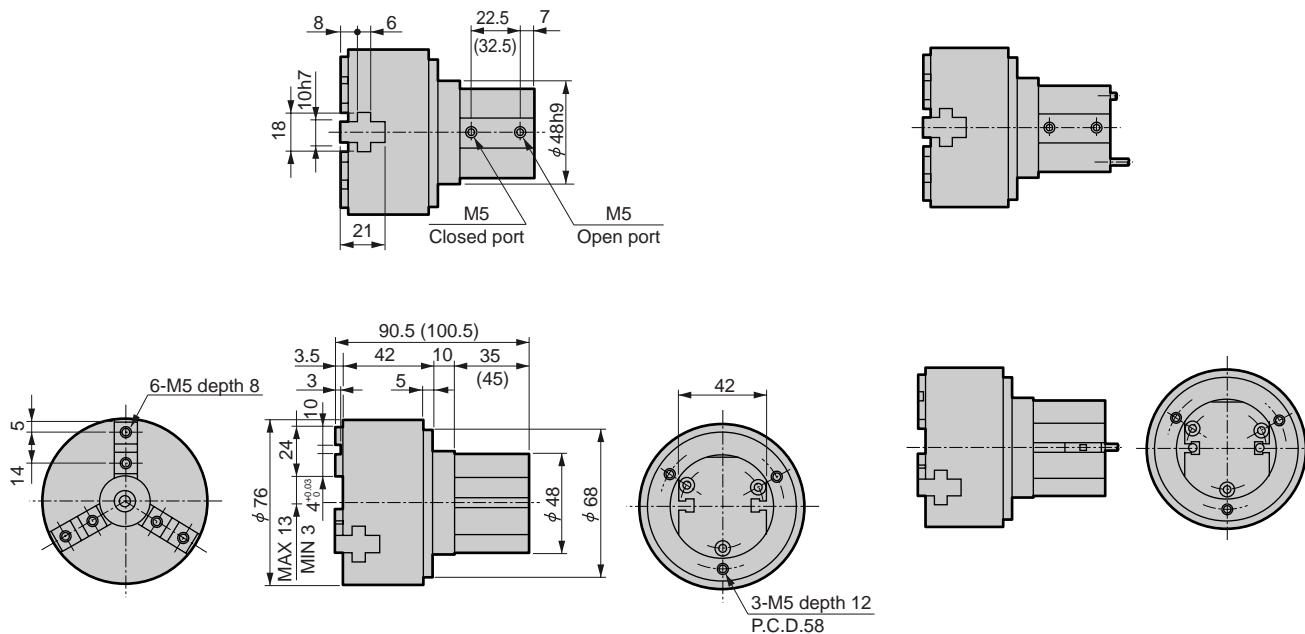
Dimensions



● CK-1CS standard/O/C

- Dimension in () for C [normally closed] specifications

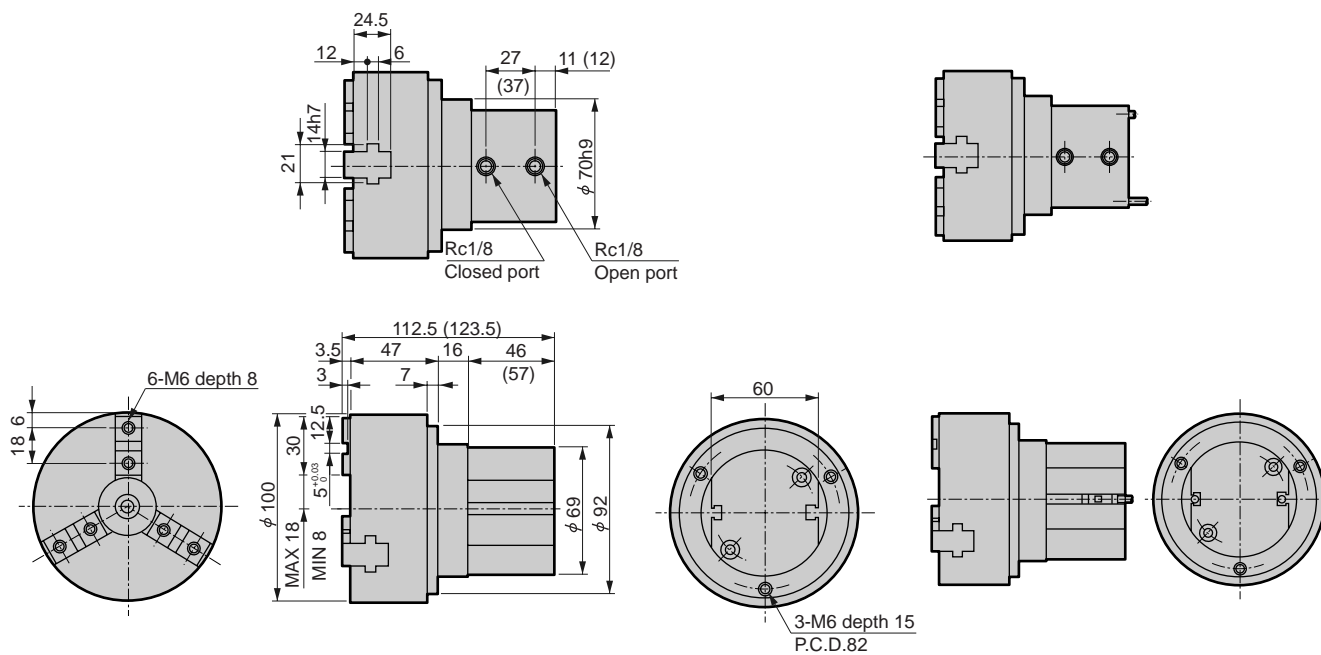
● With switch



● CK-1.5CS standard/O/C

- Dimension in () for C [normally closed] specifications

● With switch



RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
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FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

3-way jaw long stroke chuck
Chuck

Dimensions



RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
HKP
HLA/HLB
HLAG/HLBG
HEP
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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

● CK-2CS standard/O/C

● Dimension in () for C [normally closed] specifications

