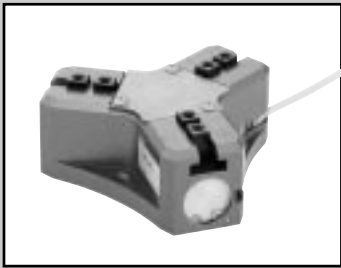


RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/
BHG
LHA
LHAG
HKP
HLA/
HLB
HLAG/
HLBG
HEP
HCP
HMF
HMFb
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2
-*.HC
CKH2
CKLB2
NCK/
SCK/FCK
FJ
FK
Ending



Thin chuck

CKS Series

● Operational stroke length: 10, 12, 16, 20, 28, 32mm



Specifications

Descriptions		CKS					
Size		08CS	12CS	16CS	20CS	25CS	32CS
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure MPa		0.7					
Min. working pressure MPa		0.2					
Ambient temperature °C		5 to 60					
Port size		M5					
Operational stroke length mm		10	12	16	20	28	32
Cylinder diameter	Open direction	φ 6×3	φ 10×3	φ 12×3	φ 16×3	φ 20×3	φ 25×3
	Closed direction	φ 8×3	φ 12×3	φ 16×3	φ 20×3	φ 25×3	φ 32×3
Capacity of reciprocating cm ³		1.2	3.5	7.6	15.5	33.8	62.2
Repeatability mm		± 0.01					
Product weight kg		0.16	0.26	0.40	0.63	1.14	1.8
Lubrication		Not required (use turbine oil Class 1 ISO VG32 for lubrication)					

Switch specifications

Descriptions	Proximity 2 wire	Proximity 3 wire
	T2H/T2V	T3H/T3V
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	10μA or less
Maximum shock resistance	980m/s ²	
Lead wire	Standard 1m (oil resistant vinyl cabtire cable 2-conductor 0.2mm ²)	Standard 1m (oil resistant vinyl cabtire cable 3-conductor 0.2mm ²)

Note 1: Maximum load current above: 20mA applies 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)

How to order

Without switch

CKS - 16CS - Y1

With switch

CKS - 16CS - Y1 - T2H - R

Model no.

A Size

B Option
Note 1

C Switch model no.

* indicates lead
wire length.

D Switch quantity

Symbol		Descriptions		
A Size				
08CS				
12CS				
16CS				
20CS				
25CS				
32CS				
B Option				
Blank	Standard (double acting)			
W	With spring			
Y1	With small jaw material: S50C			
Y2	With small jaw material: MC nylon			
C Switch model no.				
Radial lead wire	Radial lead wire	Contact	Indicator	Lead wire
T2H*	T2V*	Proximity	1 color indicator type	2-wire
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.

<Example of model number>

CKS-16CS-Y1-T2H-R

Thin chuck

- A Size: 16CS
- B Option: With small jaw Material: S50C
- C Switch model no.: Proximity T2H switch, lead wire 1m
- D Switch quantity: One on open side

How to order switch

SW - T2H*

Switch model no.
(Item above C)

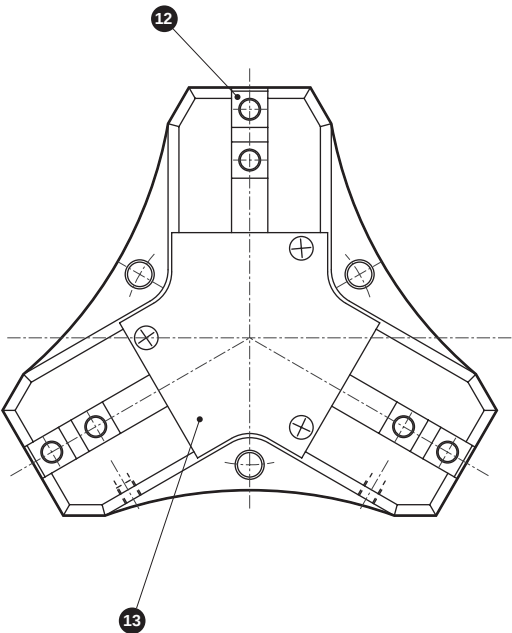
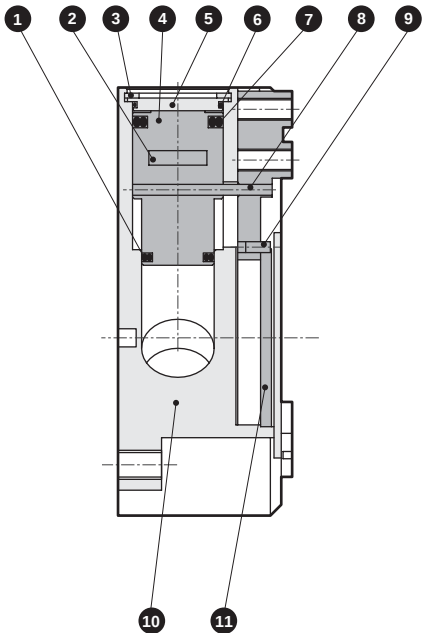
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BSA2
BHA/ BHG
LHA
LHAG
HKP
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HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Thin chuck
Chuck

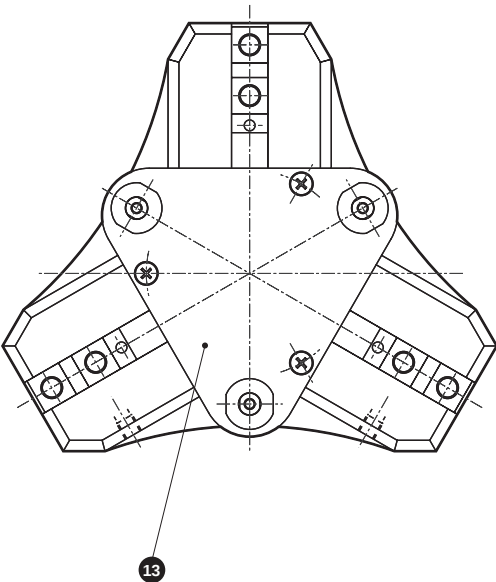
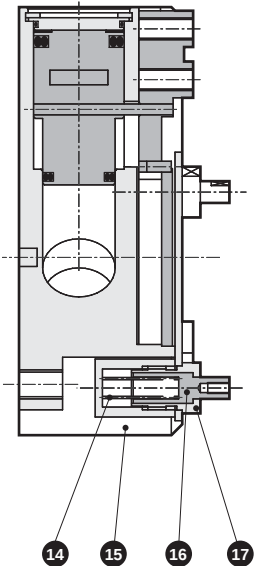
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BHA/ BHG
LHA
LHAG
HKP
HLA/ HLB
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BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Internal structure and parts list

● CKS standard



● W (with spring)

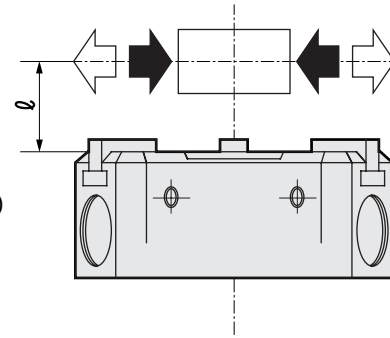


No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Piston seal B	Nitrile rubber		10	Body	Aluminum alloy	
2	Magnet			11	Link	Steel	
3	C type snap ring	Stainless steel		12	Master key	Steel	
4	Piston	Aluminum alloy		13	Center guard	Stainless steel	
5	Cylinder guard	Aluminum alloy		14	Spring	Steel	
6	Cylinder sealant	Nitrile rubber		15	Case	Stainless steel	
7	Piston seal A	Nitrile rubber		16	Pin	Stainless steel	
8	Operation axis A	Alloy steel		17	Nut	Stainless steel	
9	Operation axis B	Alloy steel					

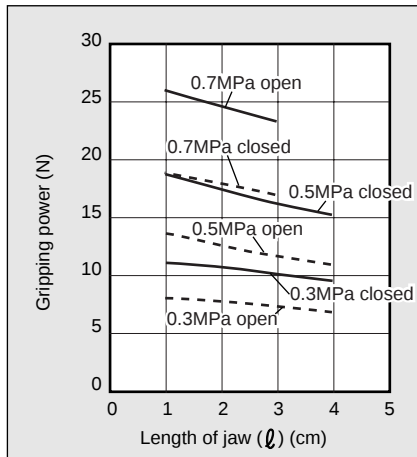
Gripping performance data

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

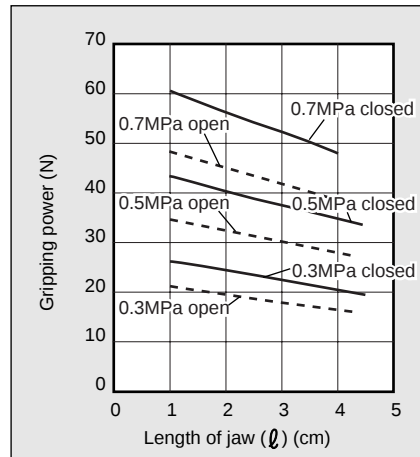
- Open direction (←) - - - - - (shown with broken line)
- Closed direction (→) - - - - - (shown with continuous line)



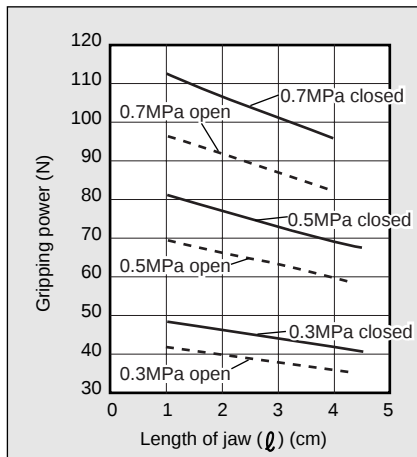
● CKS-08CS



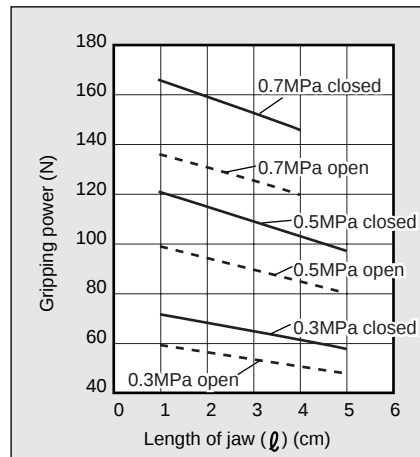
● CKS-12CS



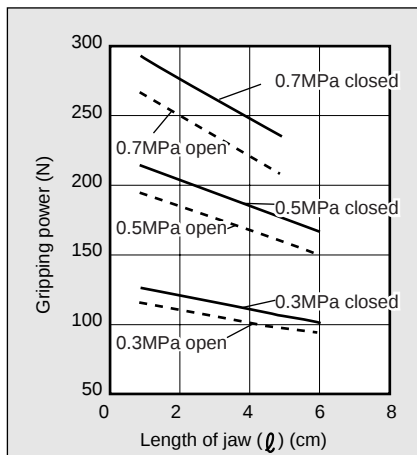
● CKS-16CS



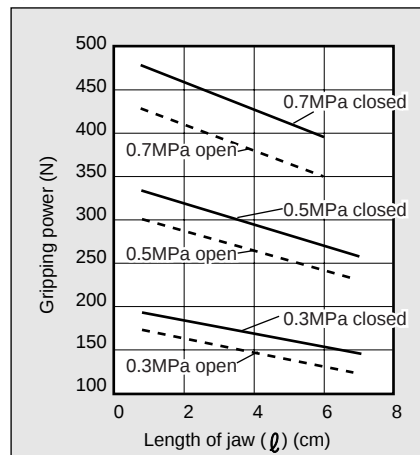
● CKS-20CS



● CKS-25CS



● CKS-32CS



(Note) 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.

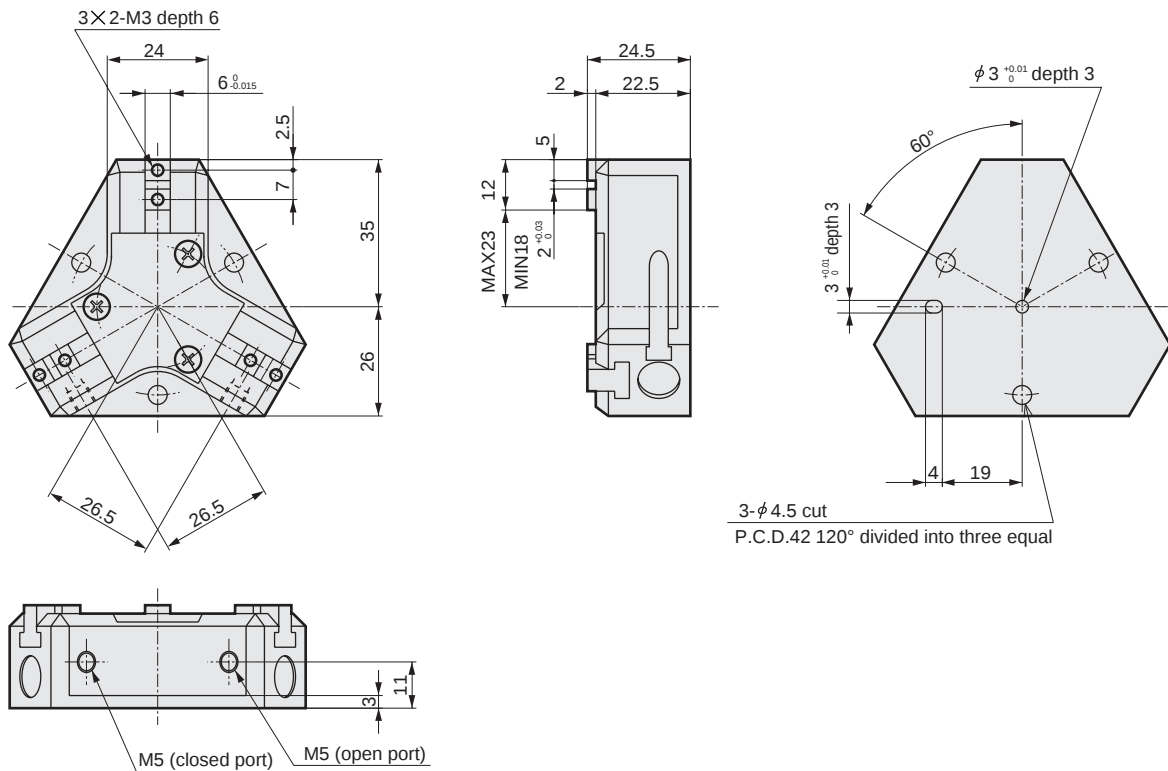
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GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
HKP
HLA/HLB
HLAG/HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

Thin chuck
Chuck



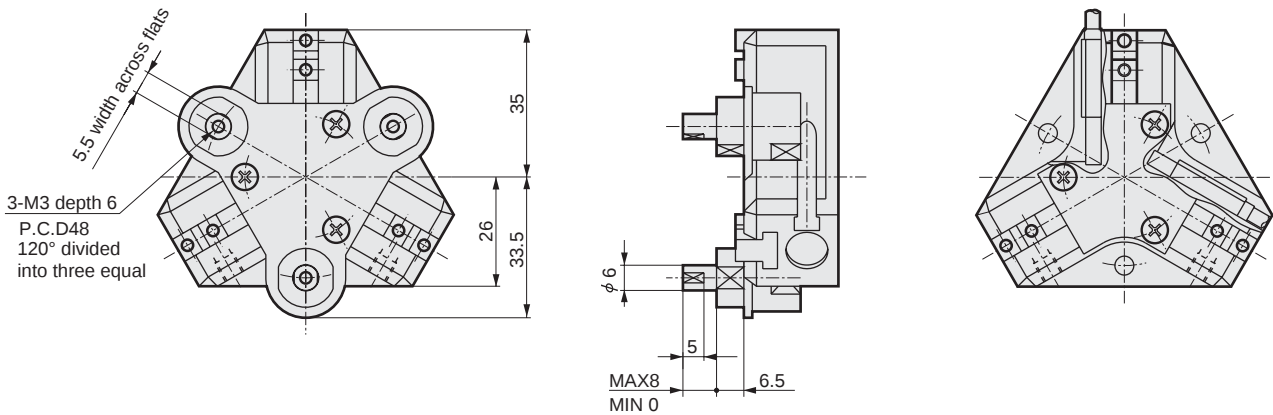
Dimensions

● CKS-08CS standard



● CKS-08CS-W (with spring) (spring force (3 pcs.) 2.1 to 4.8N)

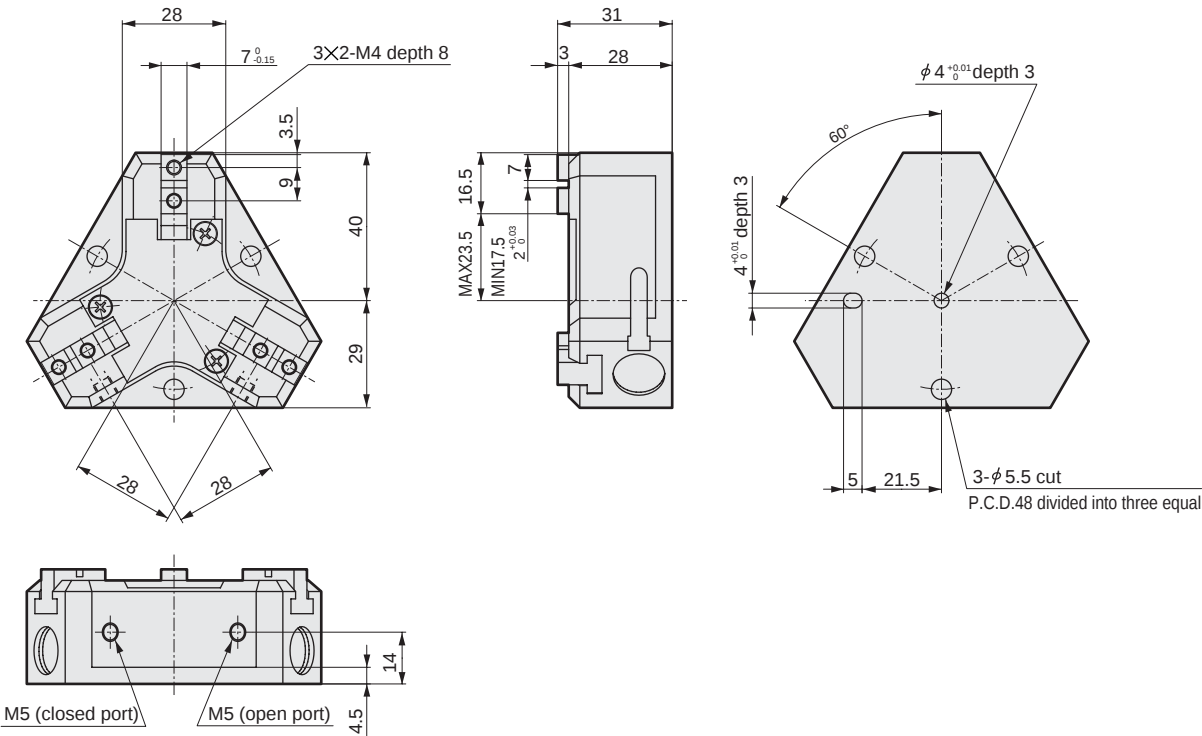
● With switch



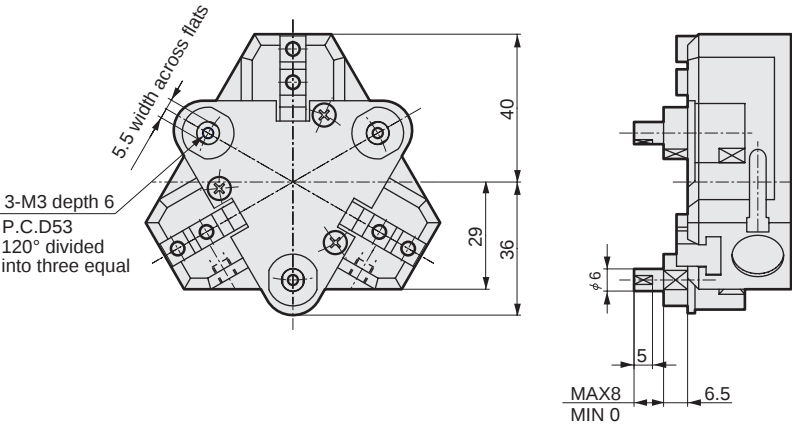
Dimensions

CAD

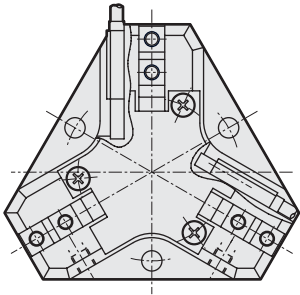
- CKS-12CS standard



- CKS-12CS-W (with spring) (spring force (3 pcs.) 4.5 to 11.4N)



- With switch



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
HLB
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

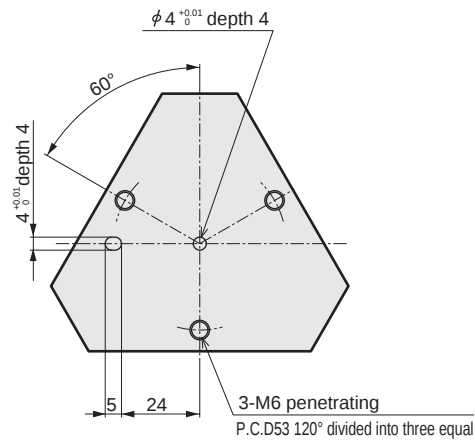
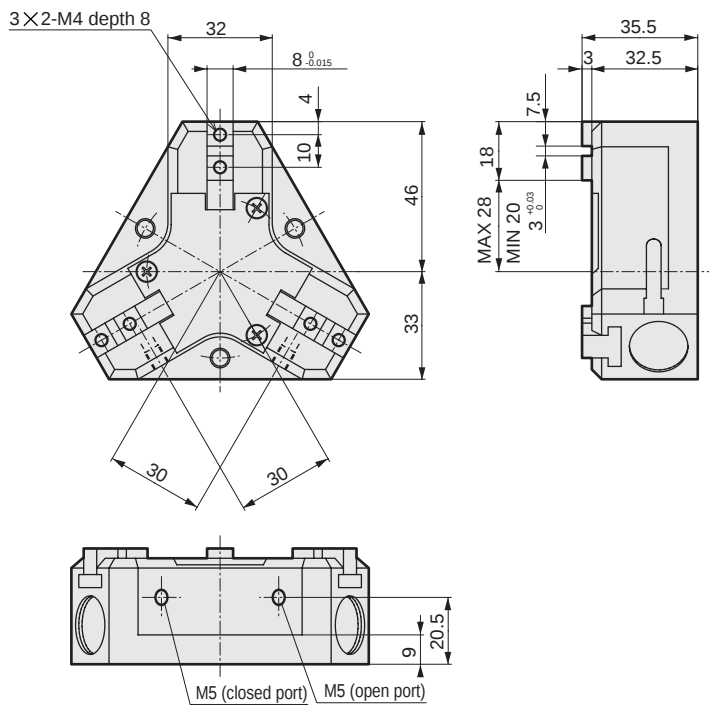
Thin chuck

Chuck



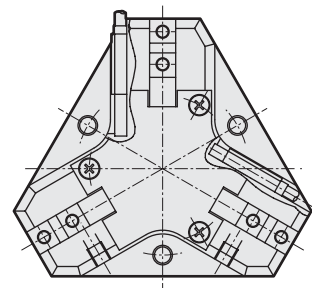
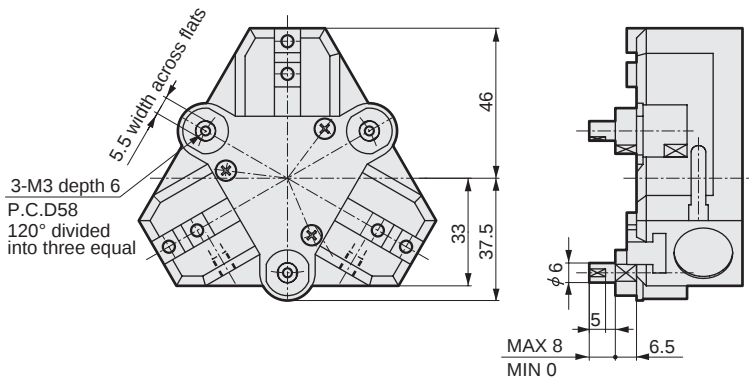
Dimensions

● CKS-16CS standard



● CKS-16CS-W (with spring) (spring force (3 pcs.) 7.2 to 19N)

● With switch

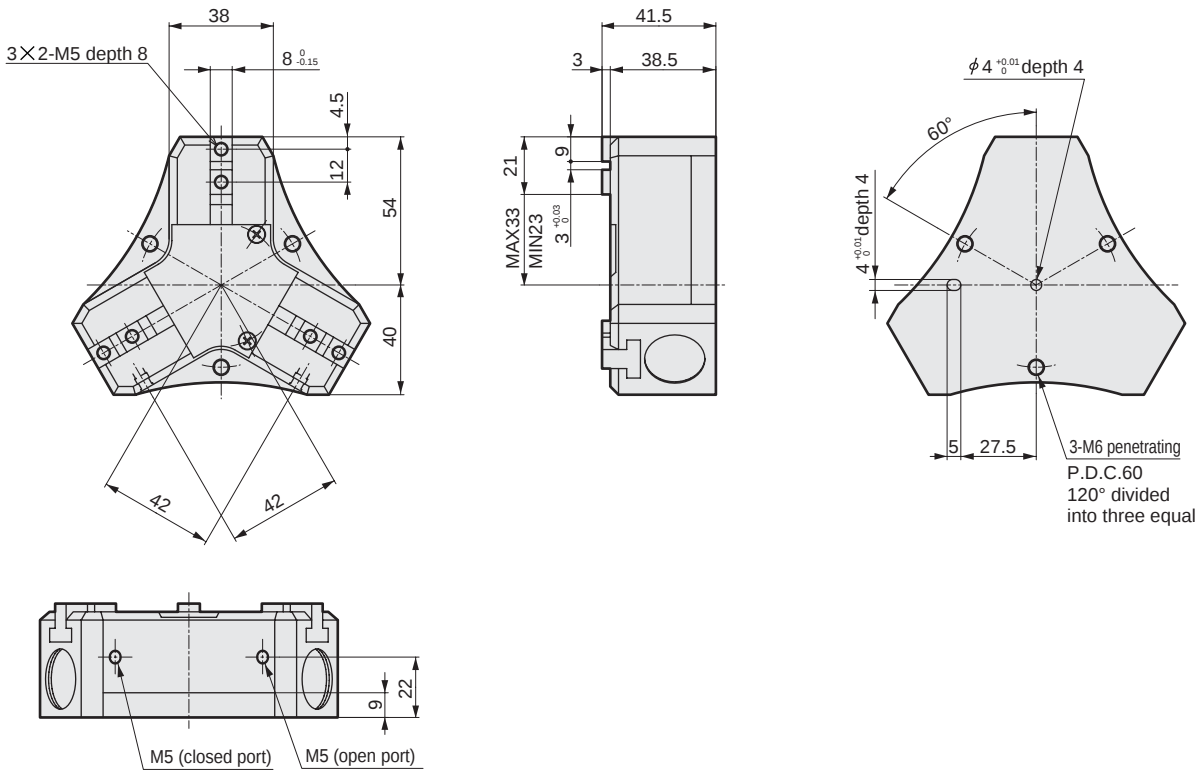


Dimensions

CAD

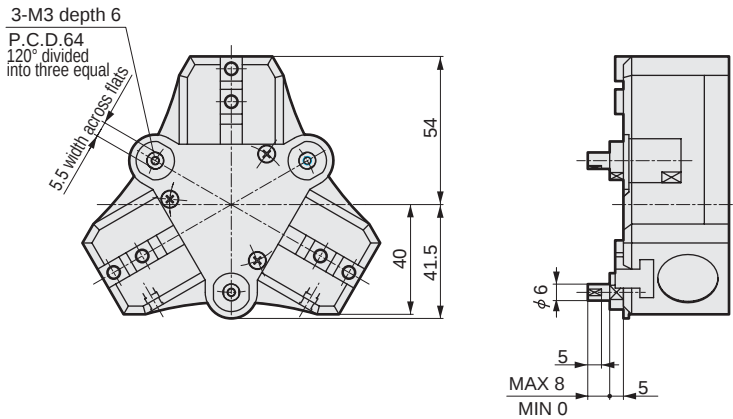
●

CKS-20CS standard



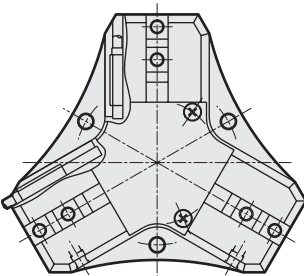
●

CKS-20CS-W (with spring) (spring force (3 pcs.) 7.5 to 28N)



●

With switch



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

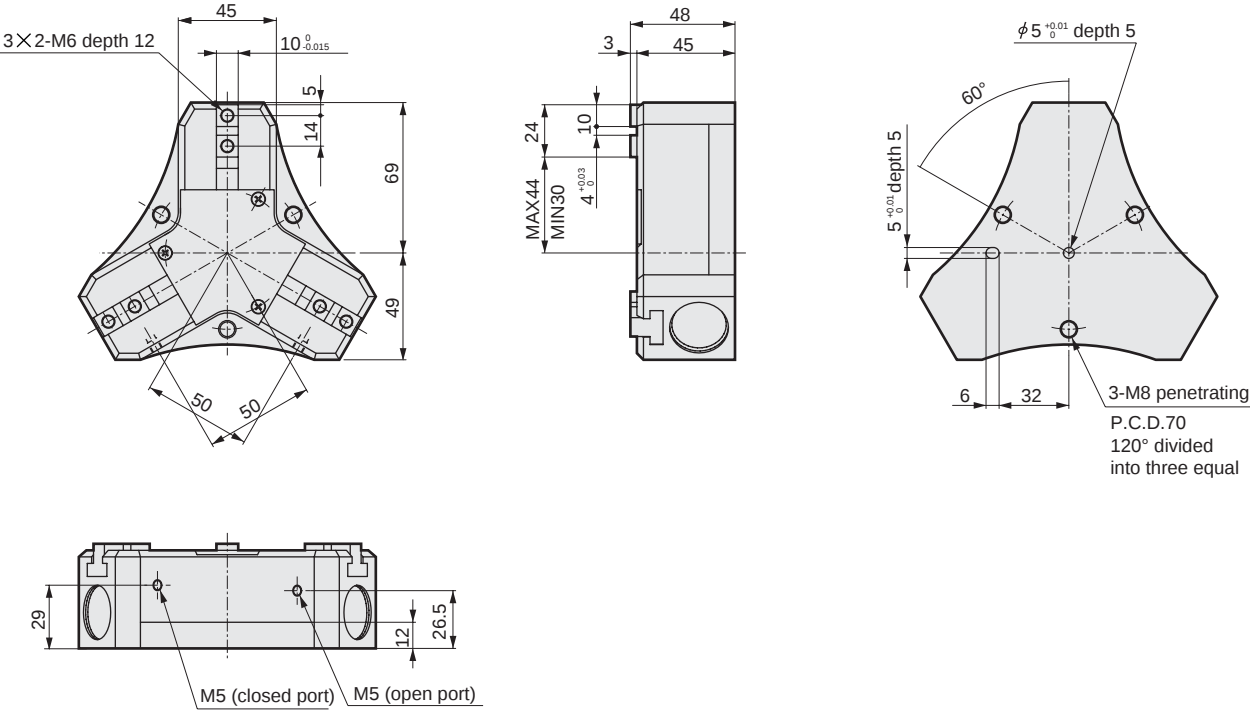
Thin chuck

Chuck

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

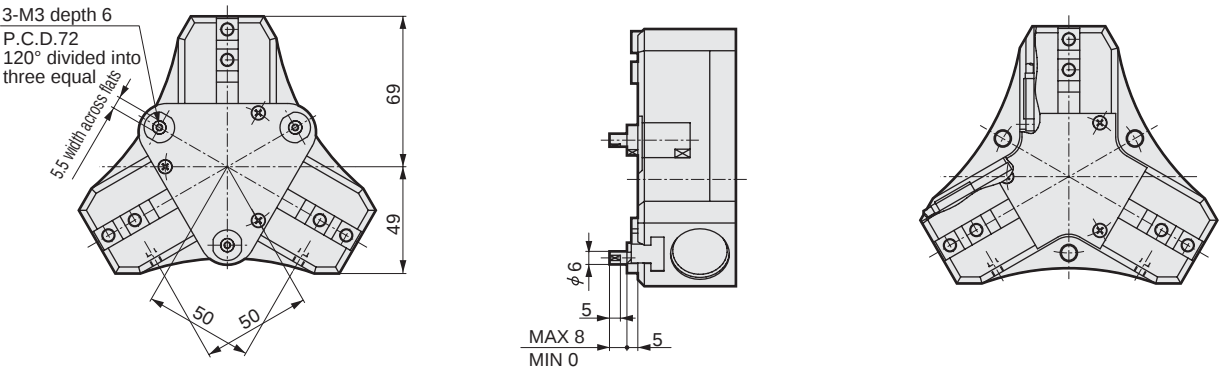
Dimensions

● CKS-25CS standard



● CKS-25CS-W (with spring) (spring force (3 pcs.) 15 to 39N)

● With switch

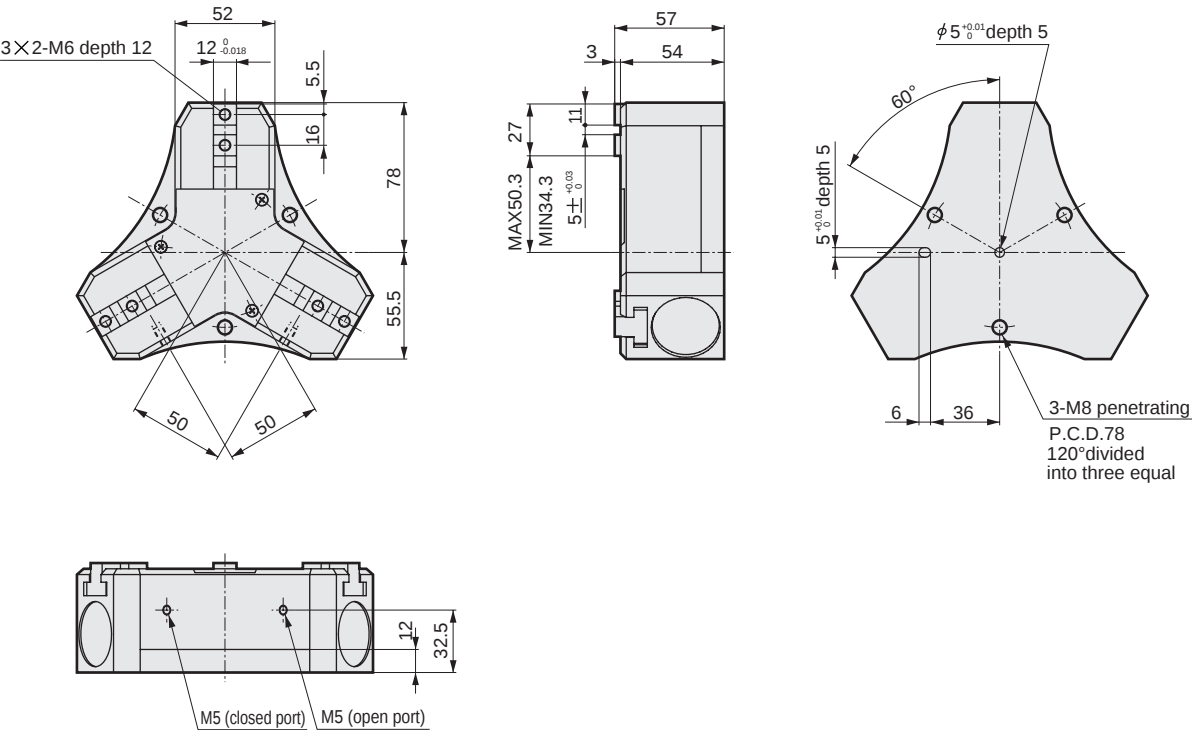


Dimensions

CAD

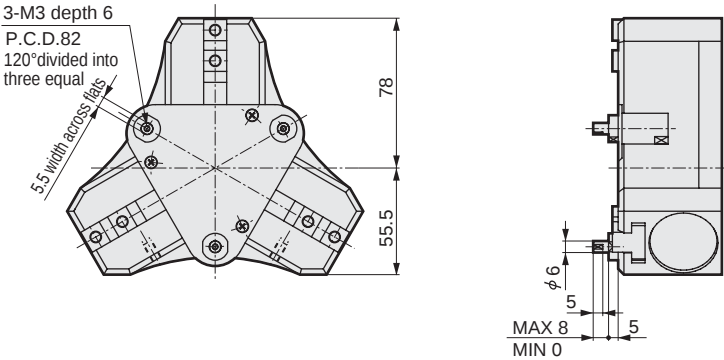
●

CKS-32CS standard



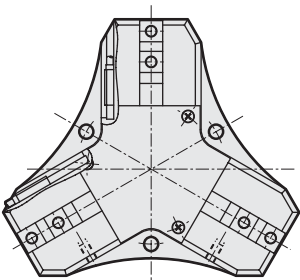
●

CKS-32CS-W (with spring) (spring force (3 pcs.) 26 to 67N)



●

With switch



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
HL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Thin chuck

Chuck