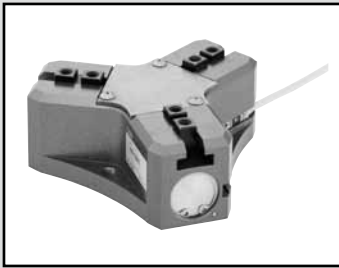


LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
CHC



Thin chuck
CKS Series

● Operating stroke length: 10, 12, 16, 20, 28, 32mm
Double acting



Specifications

Descriptions		CKS					
Size		08CS	12CS	16CS	20CS	25CS	32CS
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure MPa		0.7 (≈100 psi, 7 bar)					
Min. working pressure MPa		0.2 (≈29 psi, 2 bar)					
Ambient temperature °C		5 (41°F) to 60 (140°F)					
Port size		M5					
Operating stroke length mm		10	12	16	20	28	32
Bore size	Open direction	φ6×3	φ10×3	φ12×3	φ16×3	φ20×3	φ25×3
	Closed direction	φ8×3	φ12×3	φ16×3	φ20×3	φ25×3	φ32×3
Volumetric capacity (reciprocating) cm ³		1.2	3.5	7.6	15.5	33.8	62.2
Repeatability mm		±0.01					
Weight kg		0.16	0.26	0.40	0.63	1.14	1.8
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)					

Switch specifications

Descriptions	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 other switch specifications.

How to order

Without switch (built-in magnet for switch)

CKS - **16CS** - **Y1**

With switch (built-in magnet for switch)

CKS - **16CS** - **Y1** - **T2H** - **R**

Model No.

A Size

B Option
*1

C Switch model No.

* indicates the lead wire length.

D Switch quantity

Code	Content					
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.						
Axial lead wire	Radial lead wire	Contact	Voltage		Display	Lead wire
			AC	DC		
T2H*	T2V*	Proximity		●	1-color display	2-wire
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 : Refer to pages 1718 to 1719 for the dimensions and compatible model of the small jaw.
When ordered as an option, three are attached at shipment.

[Example of model No.]

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 1 m
- D** Switch quantity : 1 on open side

How to order switch

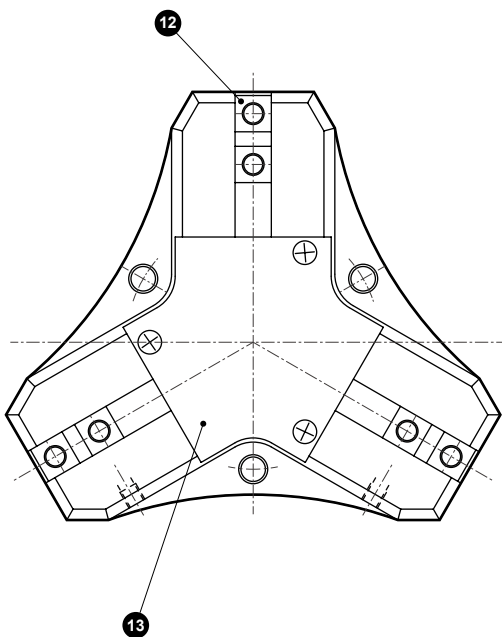
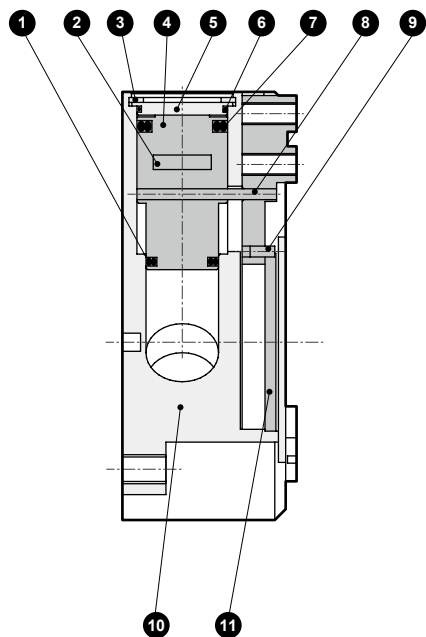
SW - **T2H***

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

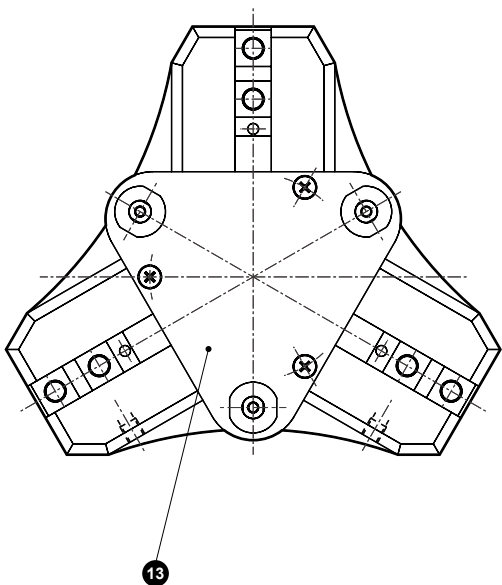
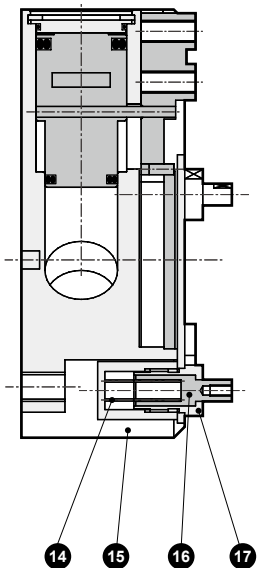
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LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
CKG
CK
CKA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

Internal structure and parts list

● CKS standard



● W (with spring)



Cannot be disassembled

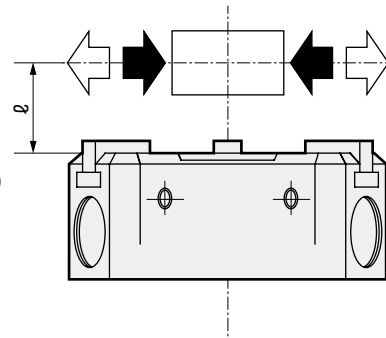
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston seal B	Nitrile rubber		10	Body	Aluminum alloy	
2	Magnet			11	Link	Steel	
3	C type snap ring	Stainless steel		12	Master key	Steel	
4	Piston	Aluminum alloy		13	Center guard	Stainless steel	
5	Cylinder guard	Aluminum alloy		14	Spring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

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

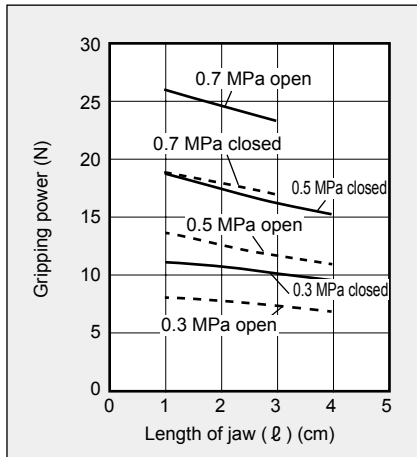
Gripping power performance data

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.

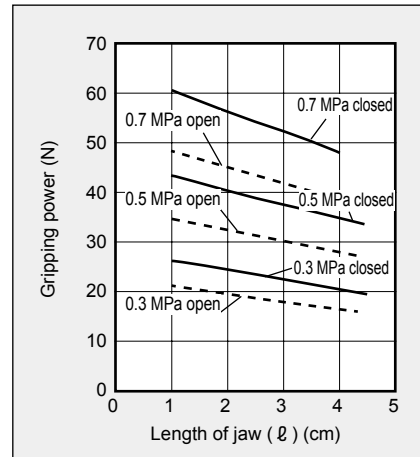
- Open direction (←) ----- (shown with broken line)
- Closed direction (→) ----- (shown with continuous line)



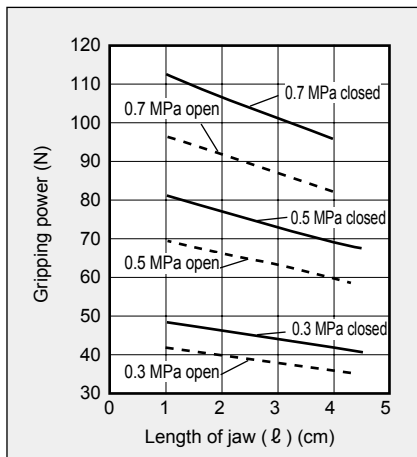
● CKS-08CS



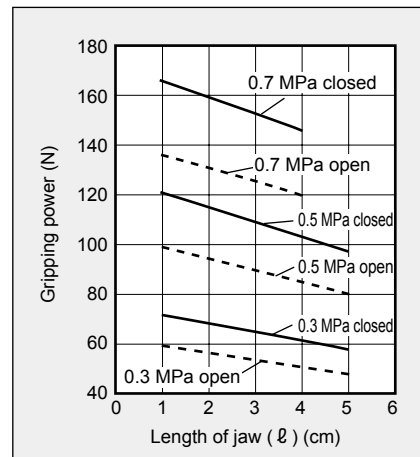
● CKS-12CS



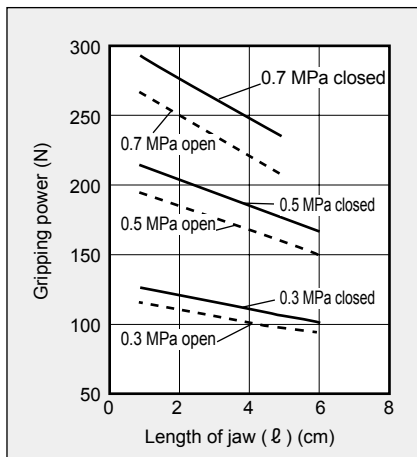
● CKS-16CS



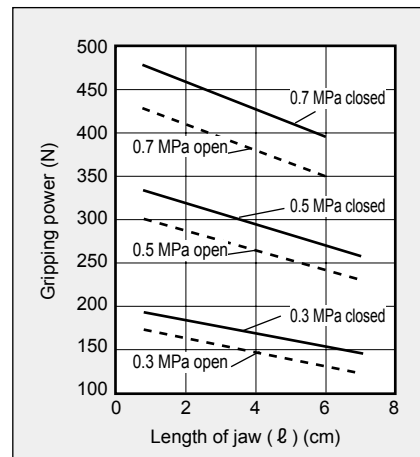
● CKS-20CS



● CKS-25CS



● CKS-32CS



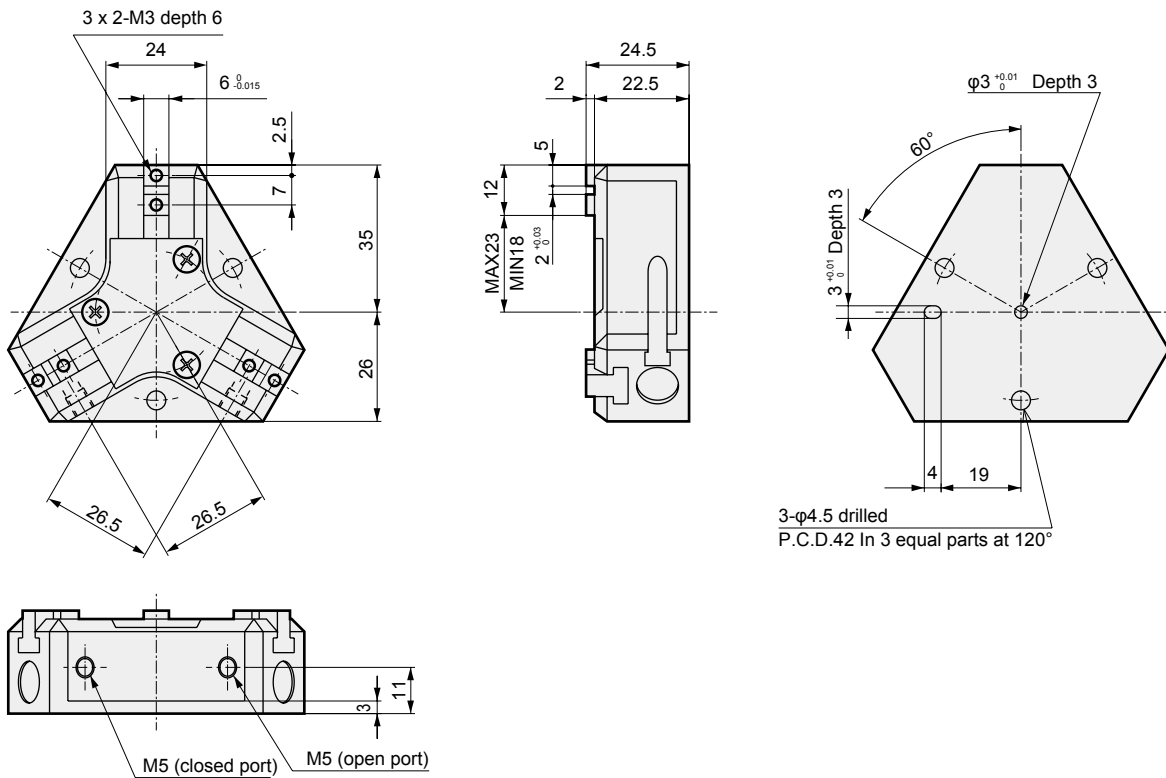
(Note) When making a selection, read the precautions for design and selection on page 1722.

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

Dimensions

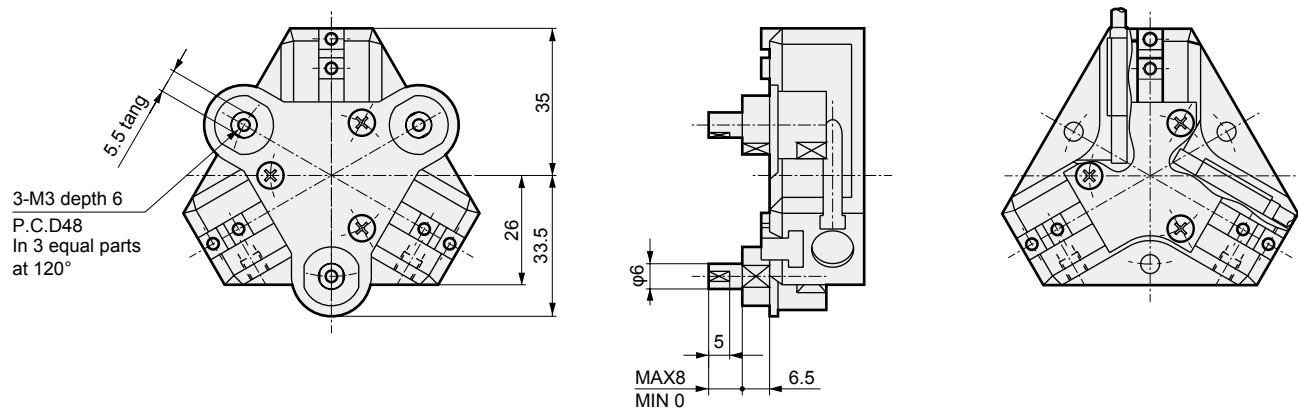


● CKS-08CS standard



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

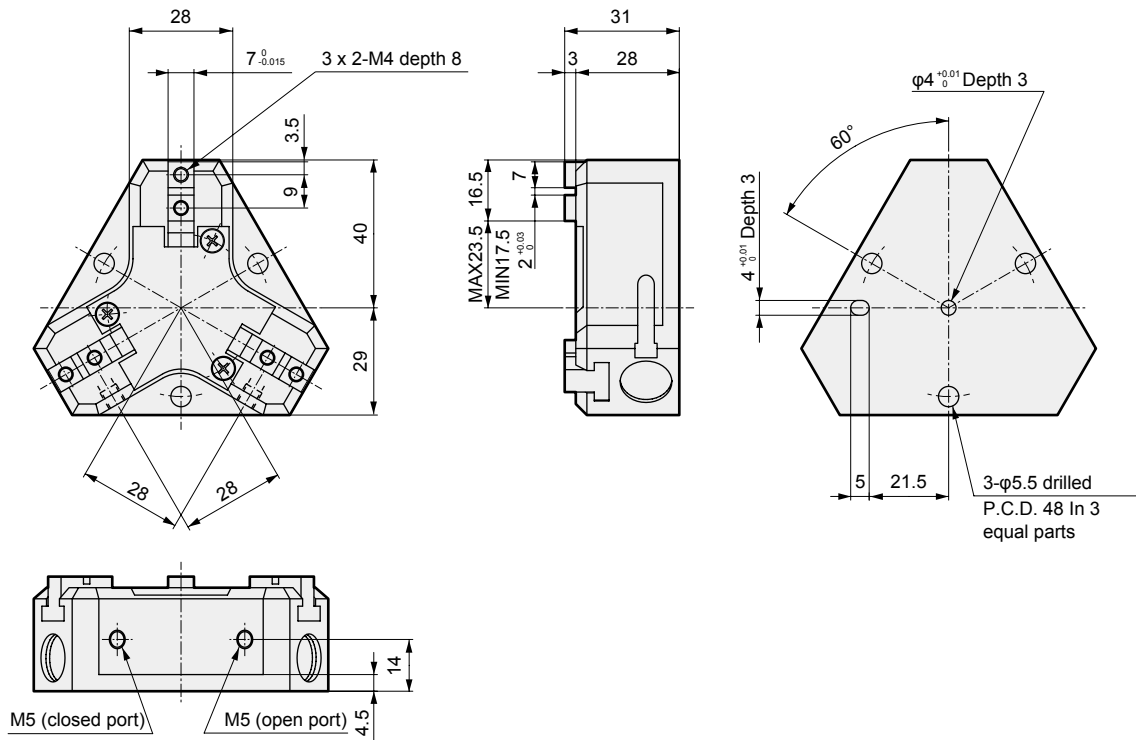
● With switch



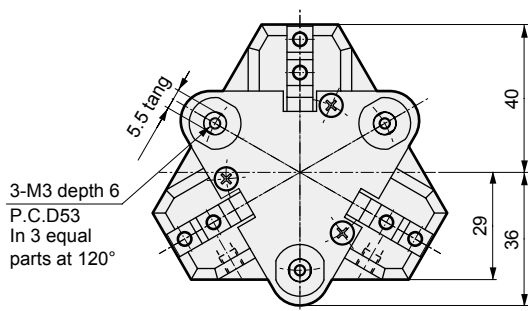
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- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*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

Dimensions

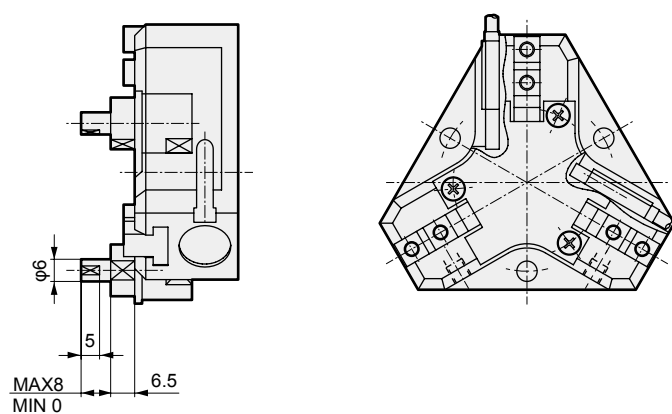
● CKS-12CS standard



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



● With switch

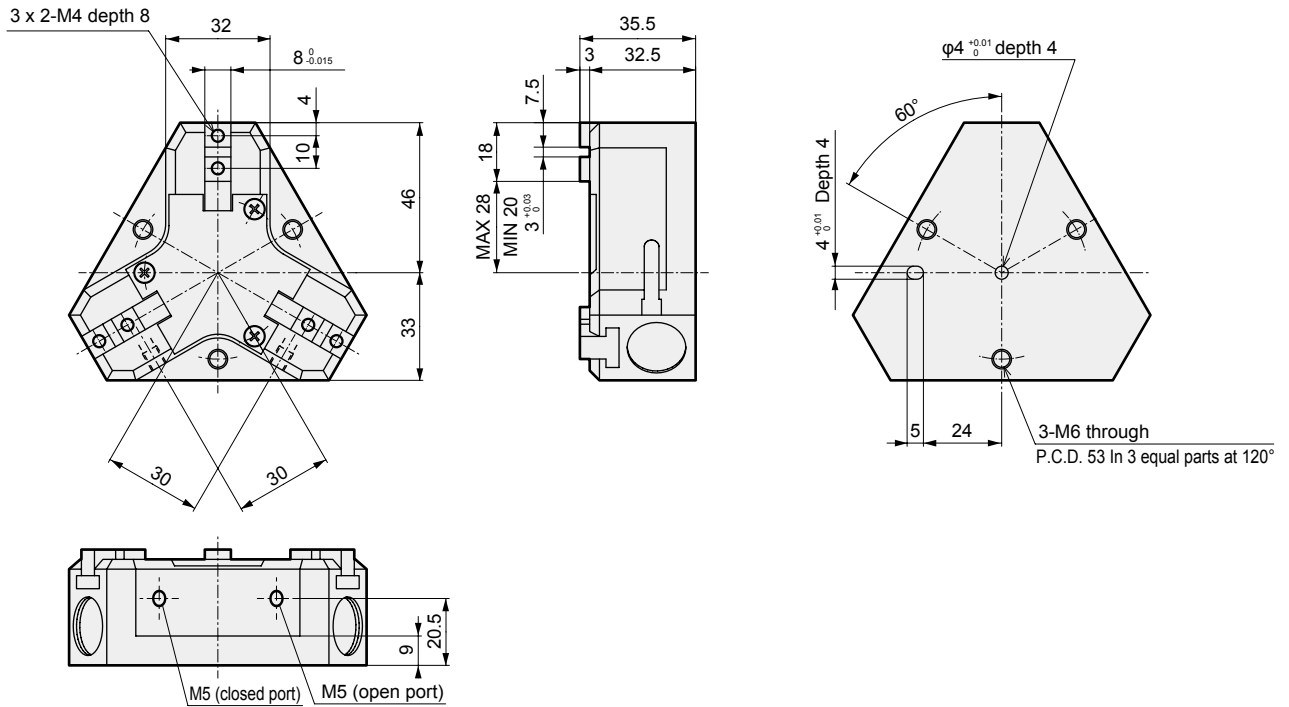


LCW
LCR
LCG
LCX
LCM
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STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending
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CKA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

Dimensions

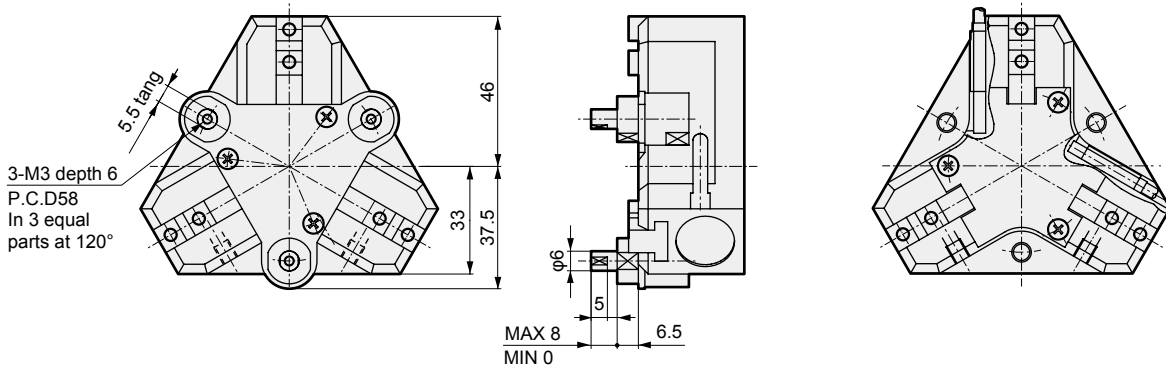


● CKS-16CS standard



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

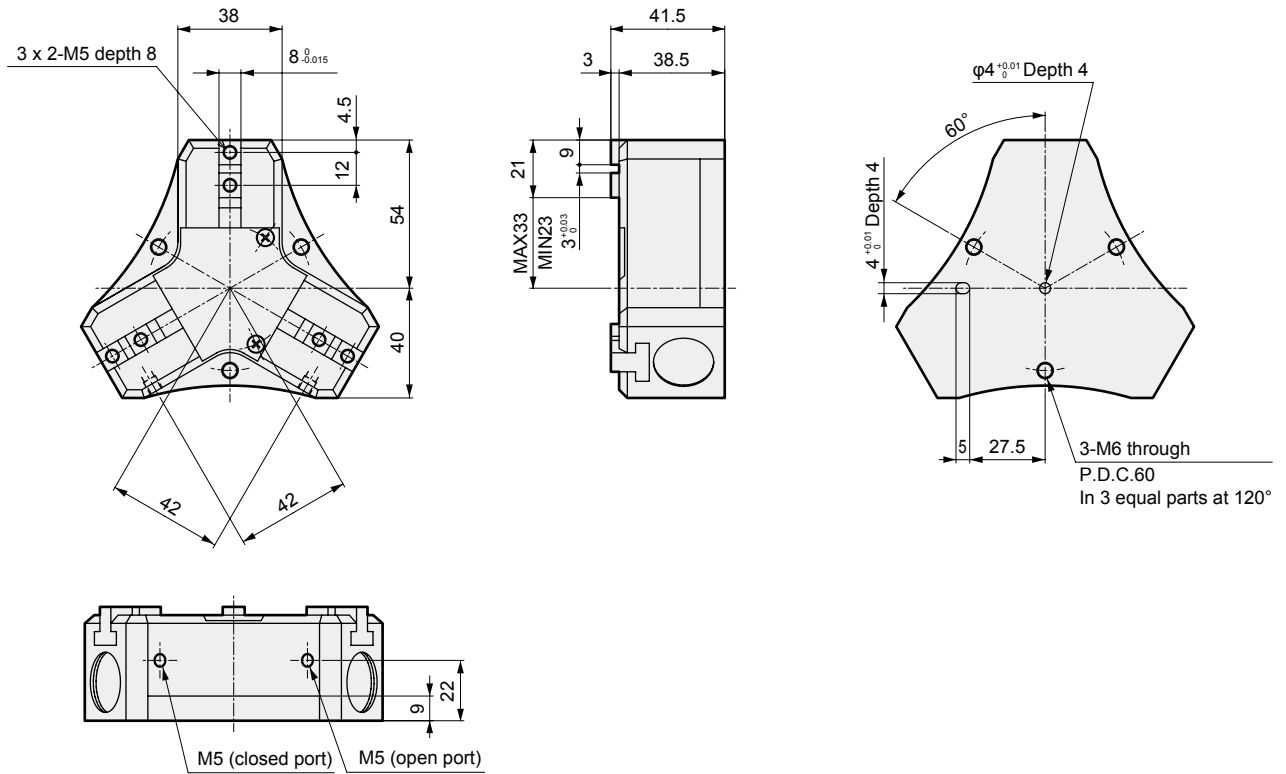
● With switch



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

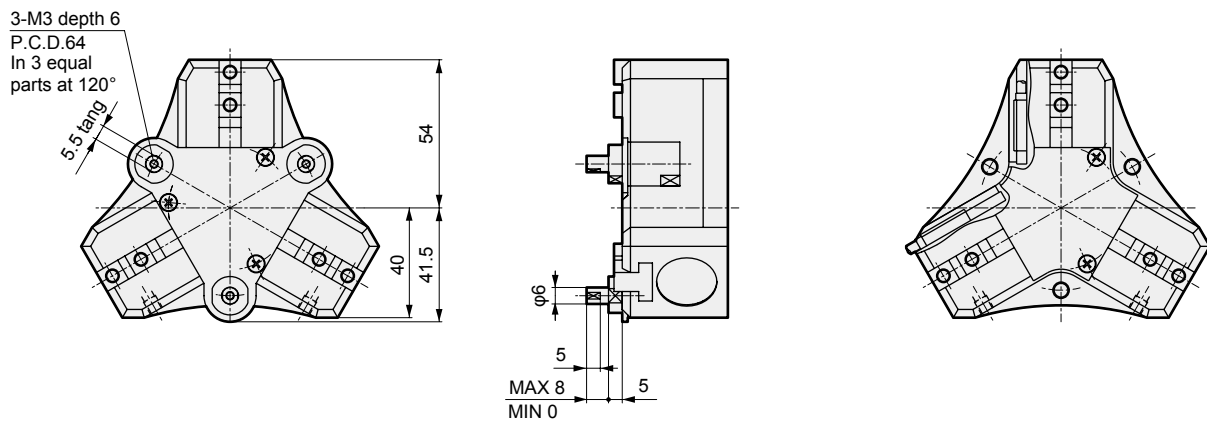
Dimensions

● CKS-20CS standard



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

● With switch

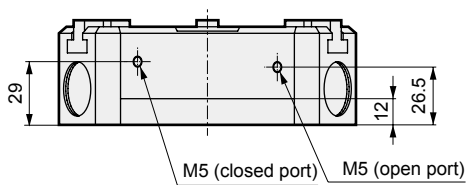
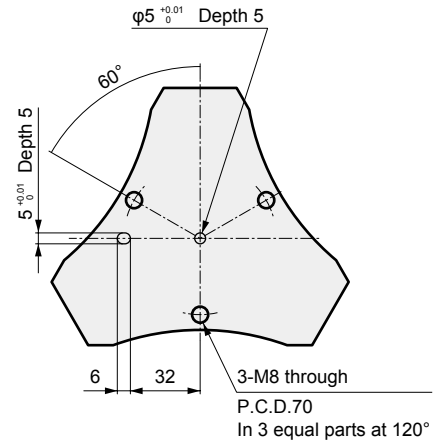
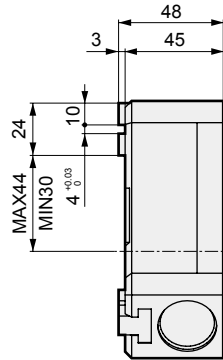
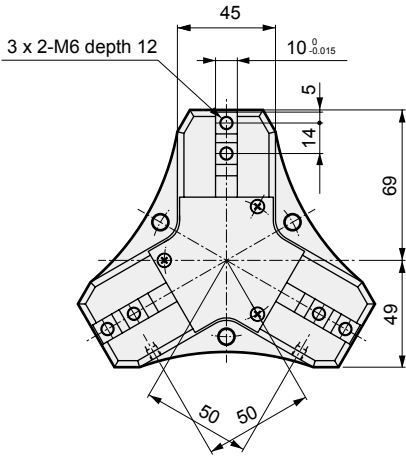


LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuck
MechHnd/Chuck
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FJ
FK
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CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
CHC

Dimensions

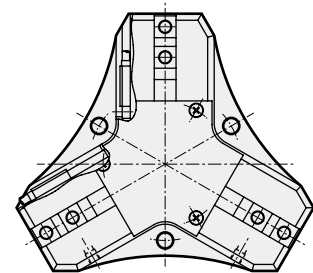
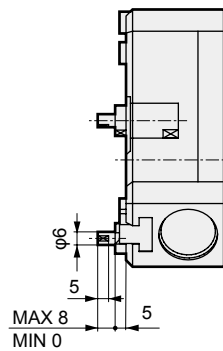
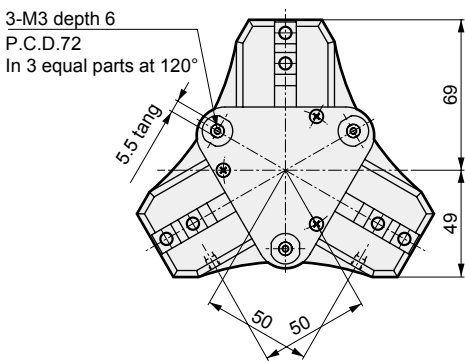


● CKS-25CS standard



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

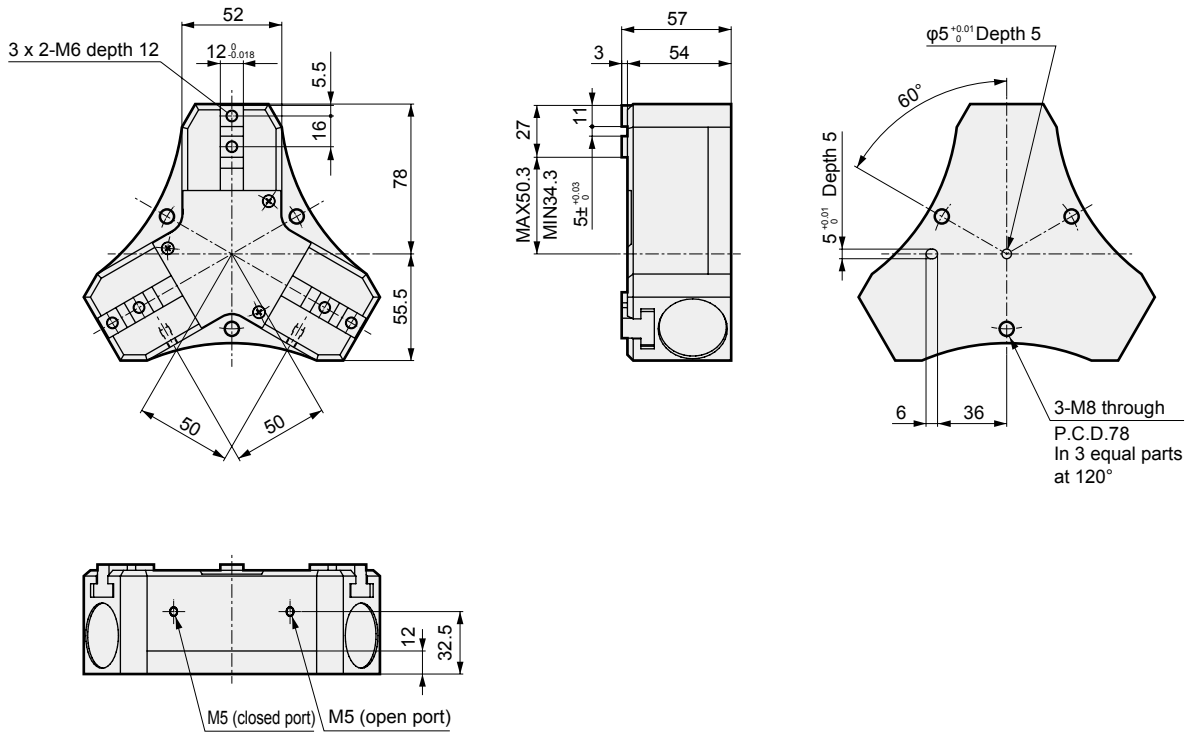
● With switch



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

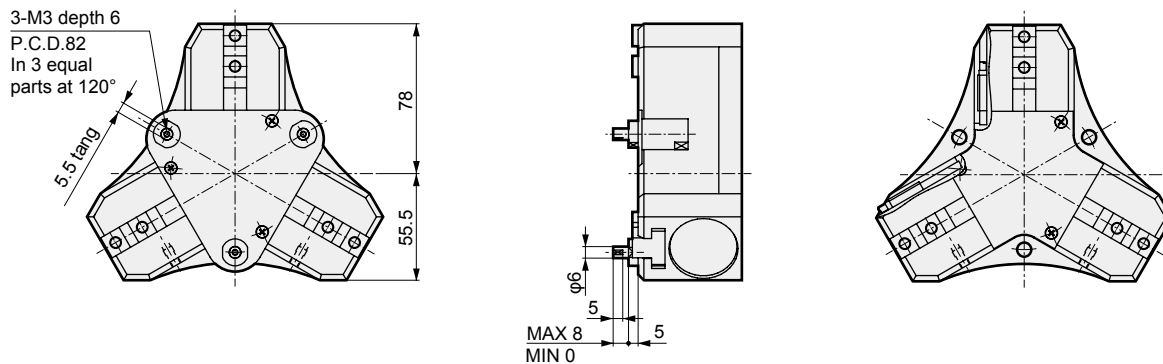
Dimensions

● CKS-32CS standard



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

● With switch



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