



Toggle hand

# HJL Series



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

## Specifications

Descriptions		HJL			
Size		32CS	40CS	50CS	63CS
Cylinder bore size	mm	φ32	φ40	φ50	φ63
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		
Open angle	Degree	-3 to 28			
Rod diameter	mm	φ14	φ16	φ20	φ20
Capacity of reciprocating	cm <sup>3</sup>	21.9	37.0	72.3	118.4
Repeatability	mm	±0.1			
Product weight	kg	0.88	1.24	2.11	3.00
Lubrication		Not required (when lubricating, use turbine oil Class 1 ISO VG32)			

## 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 20 mA (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 <sup>2</sup>	
Lead wire	Standard 1m (oil resistant vinyl cabtire cable 2-conductor 0.2mm <sup>2</sup> )	Standard 1m (oil resistant vinyl cabtire cable 2-conductor 0.2mm <sup>2</sup> )

Note 1: Max. load current above: 20 mA 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

**HJL** - **40CS** - **T2H** - **R**

Ⓐ Size

Ⓑ Switch model no.  
\* indicates lead wire length.

Ⓒ Switch quantity

Symbol	Descriptions			
<b>Ⓐ Size</b>				
	<b>32CS</b>			
	<b>40CS</b>			
	<b>50CS</b>			
	<b>63CS</b>			
<b>Ⓑ Switch model no.</b>				
Axial lead wire	Radial lead wire	Contact	Indicator	Lead wire
<b>T2H*</b>	<b>T2V*</b>	Proximity	1 color indicator type	2-wire
<b>T3H*</b>	<b>T3V*</b>			
<b>*Lead wire length</b>				
<b>Blank</b>	1m (standard)			
<b>3</b>	3m (option)			
<b>5</b>	5m (option)			
<b>Ⓒ Switch quantity</b>				
<b>R</b>	One on open side			
<b>H</b>	One on closed side			
<b>D</b>	Two			

<Example of model number>

### HJL-40CS-T2H-R

Model: Toggle hand

- Ⓐ Size : 40CS
- Ⓑ Switch model no. : Proximity T2H switch, lead wire 1m
- Ⓒ Switch quantity : One on open side

### How to order switch

● For switch T\*H\*

- Switch body + mounting bracket

**HJL** - **T2H**

Switch model no.  
(Item above Ⓑ)

- Only switch body

**SW** - **T2H**

Switch model no.  
(Item above Ⓑ)

- Mounting bracket

**HJL** - **T**

Bracket

● For switch T\*V\*

- Switch body + mounting bracket

**HJL** - **T2V** - \*

Switch model no.  
(Item above Ⓑ)

- Only switch body

**SW** - **T2V**

Switch model no.  
(Item above Ⓑ)

- Mounting bracket

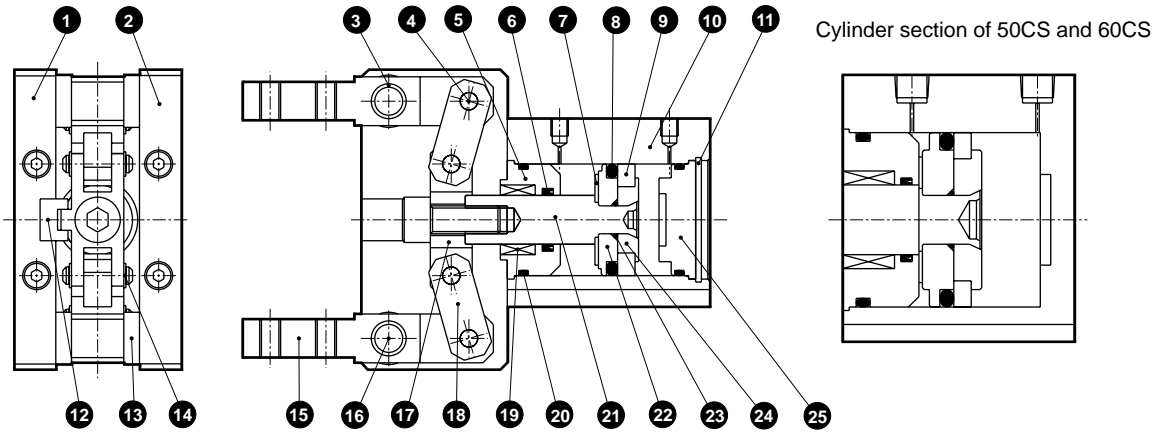
**HJL** - **TV** - \*

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

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CKL2 *-HC
CKH2
CKLB2
NCK/SCK/FCK
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Hand

## Internal structure and parts list



### Parts list

No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Body B	Aluminum alloy		14	E type snap ring	Carbon steel	
2	Body A	Aluminum alloy		15	Master key	Carbon steel	
3	DU dry bearing	Sintering oil impregnated alloy		16	Fulcrum axis	Carbon steel	
4	Operation axis	Carbon steel		17	Operation plate	Carbon steel	
5	Rod cover	Aluminum alloy		18	Link	Carbon steel	
6	Rod sealant	Nitrile rubber		19	Die slide bush	Copper alloy casting	
7	Cushion	Urethane rubber		20	Cylinder sealant	Nitrile rubber	
8	Piston seal	Nitrile rubber		21	Piston rod	Stainless steel	
9	Magnet			22	Piston A	Aluminum alloy	
10	Cylinder	Aluminum alloy		23	O ring	Nitrile rubber	
11	C type snap ring	Stainless steel	50CS, 60CS are not available	24	Piston B	Aluminum alloy	
12	Guide rail	Carbon steel		25	Cylinder guard	Aluminum alloy	50CS, 60CS are not available
13	Collar	Carbon steel					

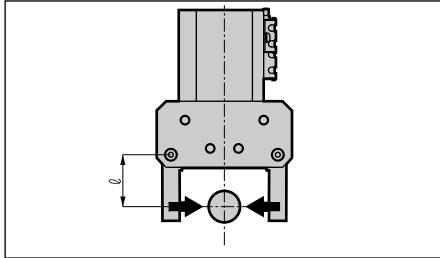
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### Gripping power performance data

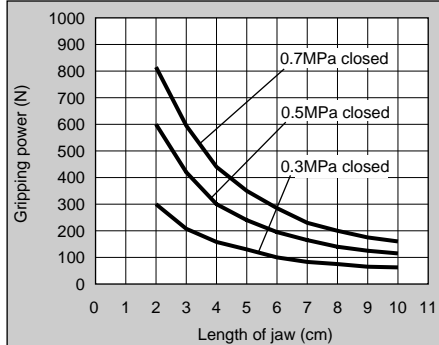
Gripping power that functions to open and closed directions with jaw length  $\ell$  of hand at supply pressure 0.3, 0.5 and 0.7 MPa is shown.

· Closed direction (➡) ——— (shown with continuous line)

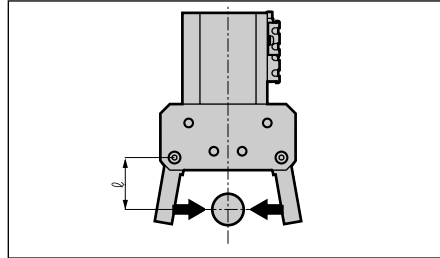
(Parallel)



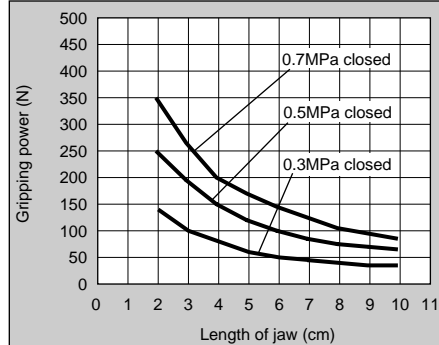
● HJL-32CS



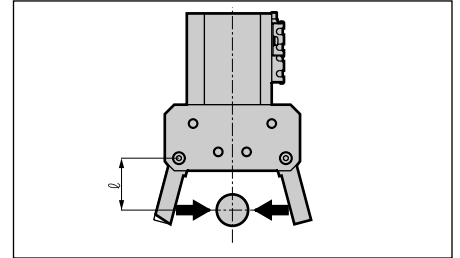
(10°)



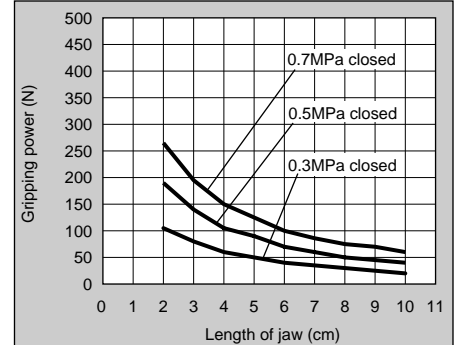
● HJL-32CS



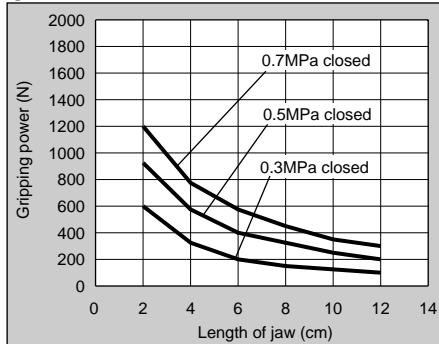
(20°)



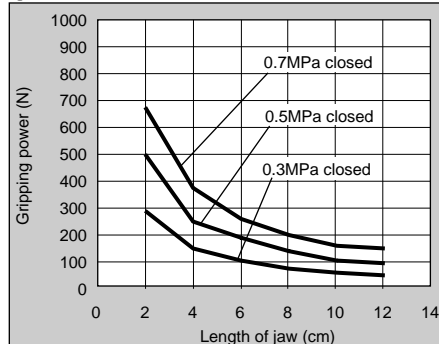
● HJL-32CS



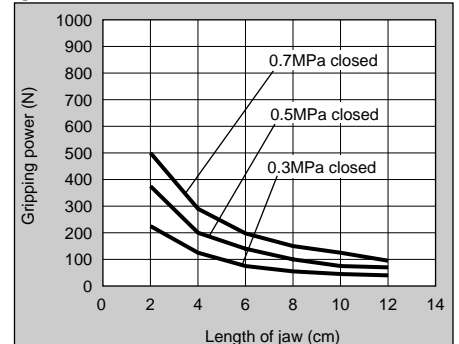
● HJL-40CS



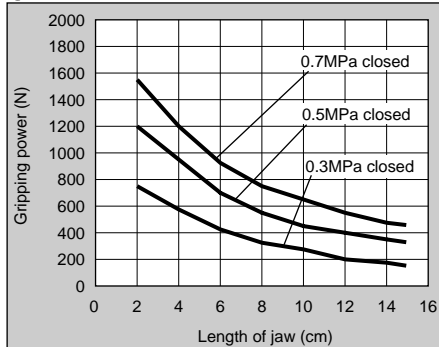
● HJL-40CS



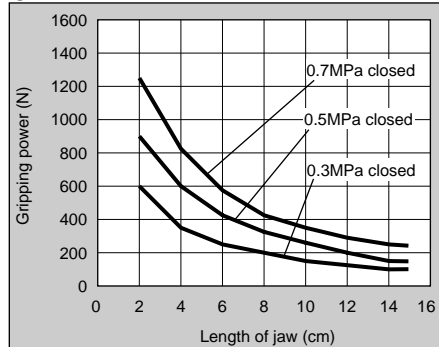
● HJL-40CS



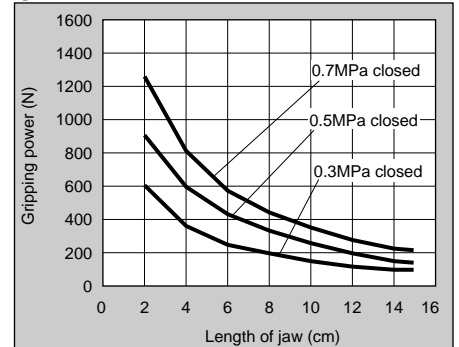
● HJL-50CS



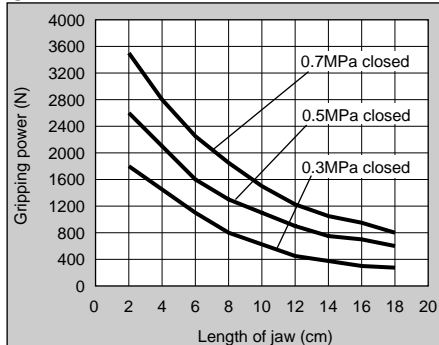
● HJL-50CS



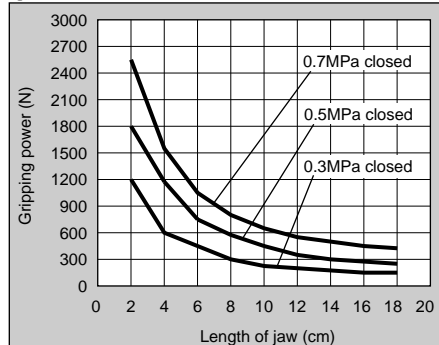
● HJL-50CS



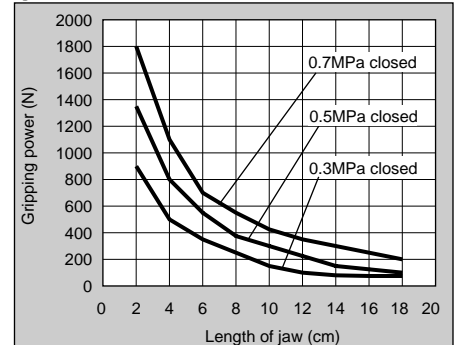
● HJL-63CS



● HJL-63CS



● HJL-63CS



(Note) Grip performance data indicates the grip for one jaw. Since two jaws are used, double the grip in the graph when making a selection.

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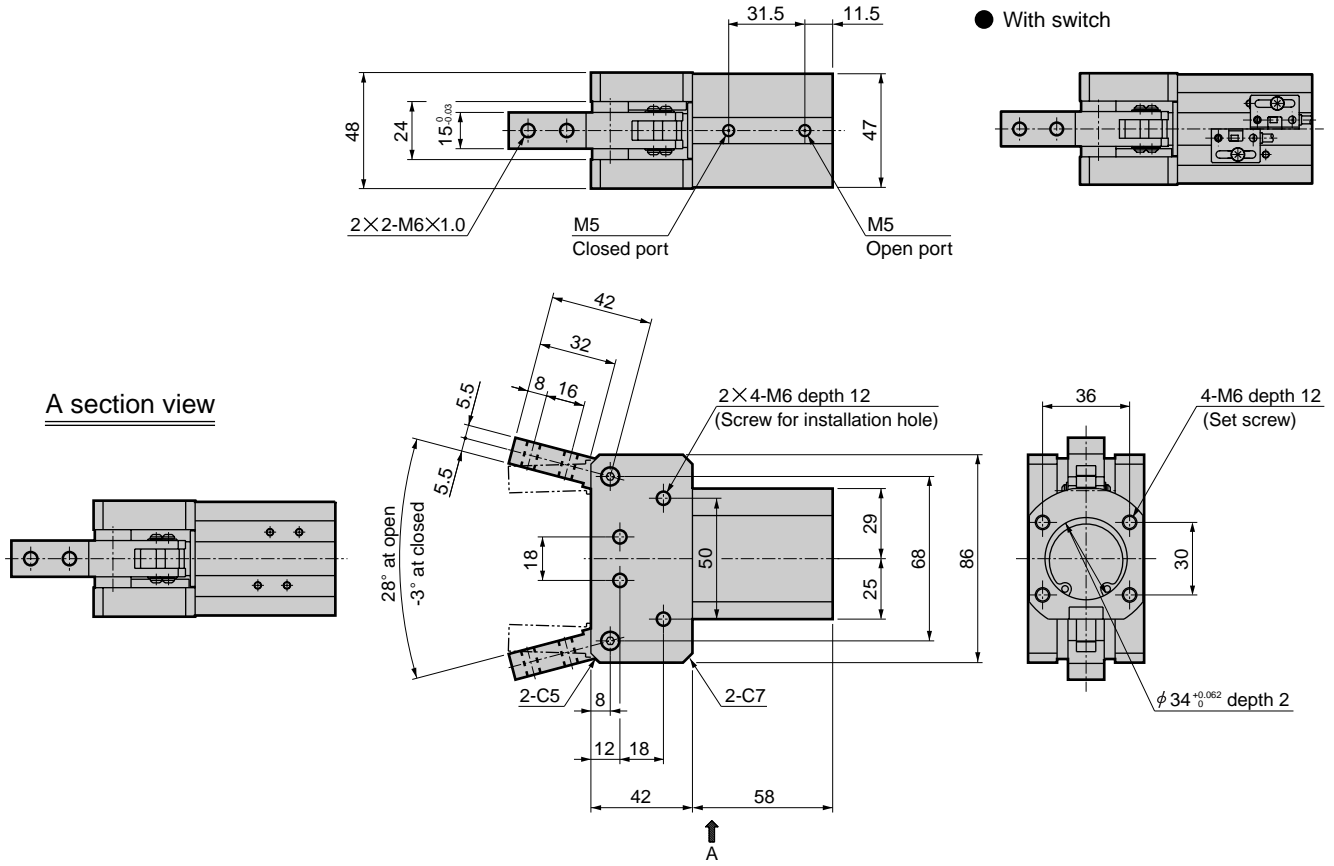
Toggle hand  
Hand

## Dimensions

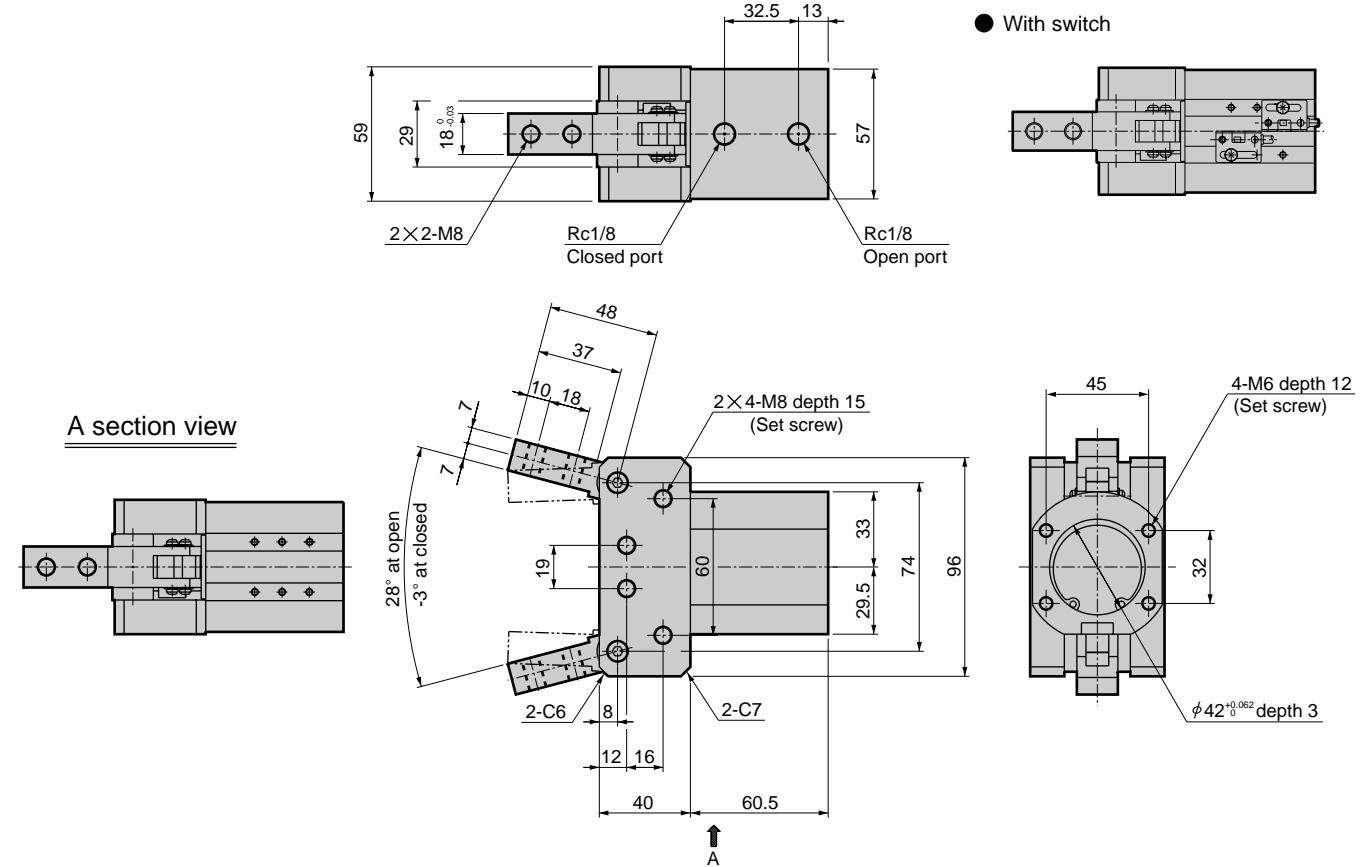


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### ● HJL-32CS



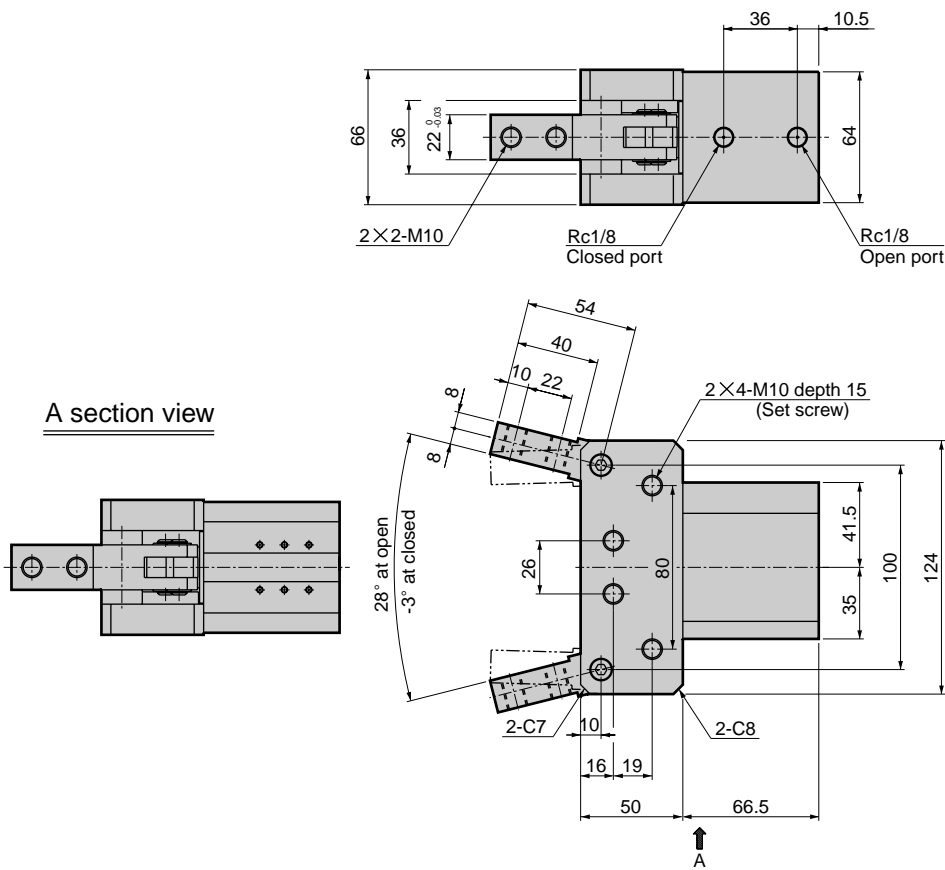
### ● HJL-40CS



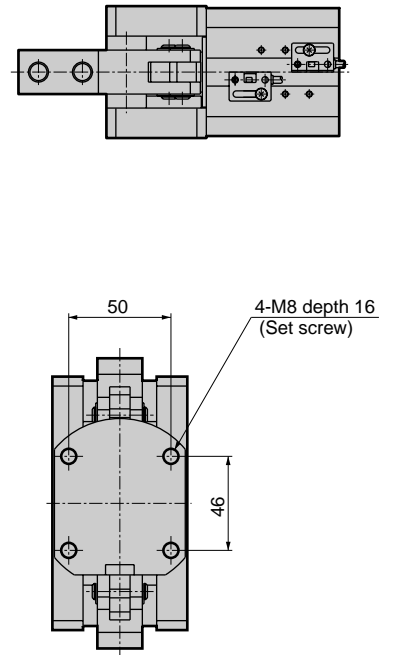
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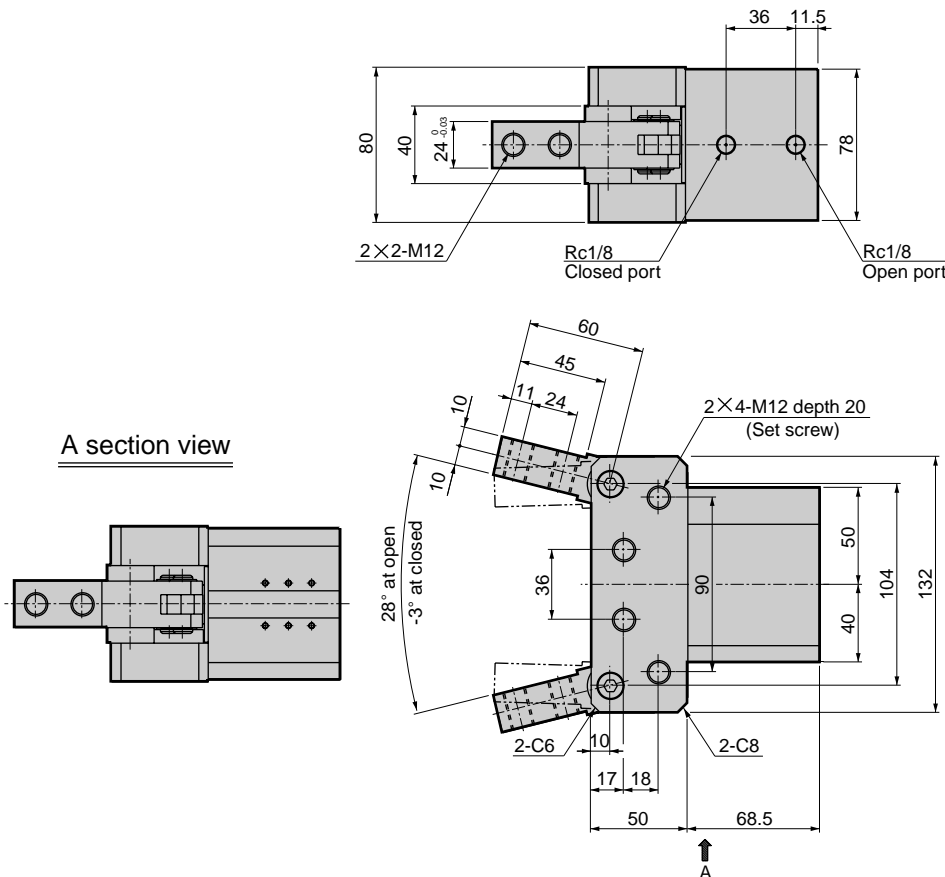
#### ● HJL-50CS



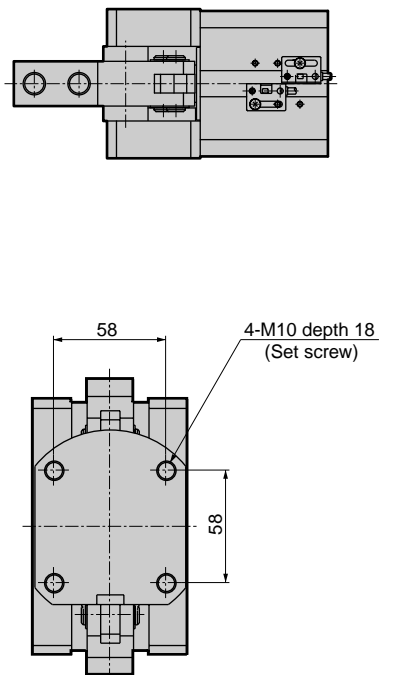
#### ● With switch



#### ● HJL-63CS



#### ● With switch



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Toggle hand  
Hand