



Bi-directional powerful chuck

# CKLB2 Series

- Operational stroke length: 5, 6, 8, 10, 12, 16, 20, 23mm



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                              | CKLB2-20CS  | CKLB2-25CS | CKLB2-32CS | CKLB2-40CS | CKLB2-50CS | CKLB2-63CS | CKLB2-80CS | CKLB2-100CS |
|---|---|------------|------------|------------|------------|------------|------------|-------------|
| Cylinder bore size mm                     | φ20   | φ25        | φ32        | φ40        | φ50        | φ63        | φ80        | φ100        |
| 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              | 5   | 6          | 8          | 10         | 12         | 16         | 20         | 23          |
| Rod diameter mm                           | φ6  | φ8         | φ10        | φ12        | φ14        | φ16        | φ16        | φ20         |
| Capacity of reciprocating cm <sup>3</sup> | 1.8   | 3.3        | 7.7        | 15.6       | 28.3       | 60.3       | 118.2      | 215.5       |
| Repeatability mm                          | ±0.01   |            |            |            |            |            |            |             |
| Product weight kg                         | 0.13  | 0.20       | 0.32       | 0.38       | 0.58       | 1.00       | 2.00       | 3.53        |
| Lubrication                               | Not required (use turbine oil Class 1 ISO VG32 for lubrication) |            |            |            |            |            |            |             |

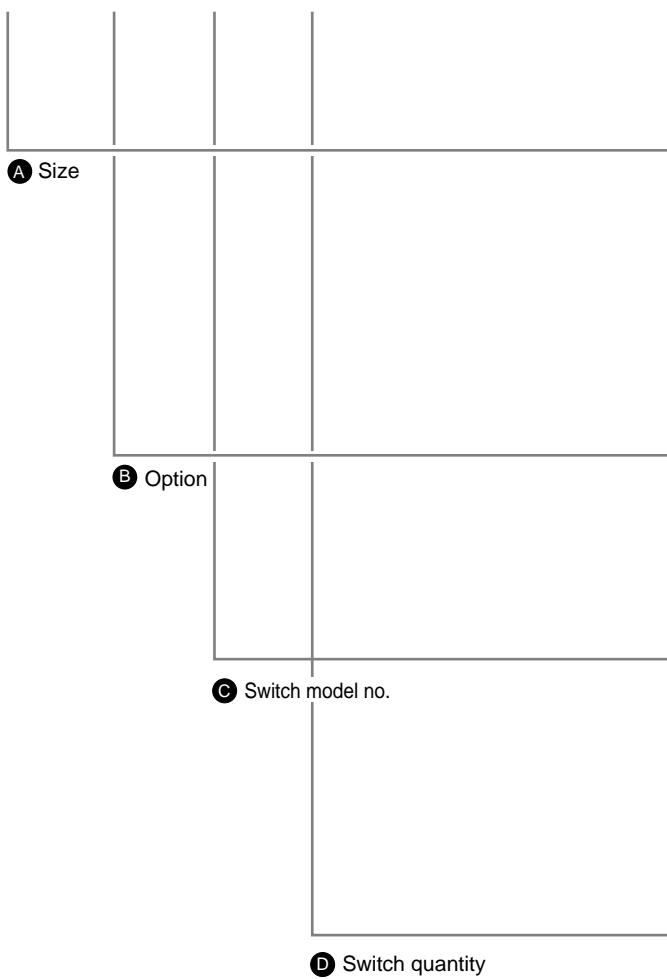
## Switch specifications

| 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                      | 10μA or less                   |

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

**CKLB2 - 20CS - O - T2H - R**



| Symbol                    | Descriptions                      |           |                        |           |
|---------------------------|-----------------------------------|-----------|------------------------|-----------|
| <b>A Size</b>             |                                   |           |                        |           |
| 20CS                      |                                   |           |                        |           |
| 25CS                      |                                   |           |                        |           |
| 32CS                      |                                   |           |                        |           |
| 40CS                      |                                   |           |                        |           |
| 50CS                      |                                   |           |                        |           |
| 63CS                      |                                   |           |                        |           |
| 80CS                      |                                   |           |                        |           |
| 100CS                     |                                   |           |                        |           |
| <b>B Option</b>           |                                   |           |                        |           |
| Blank                     | Standard (double acting)          |           |                        |           |
| O                         | Single acting (normally open)     |           |                        |           |
| C                         | Single acting (normally closed)   |           |                        |           |
| Y1                        | With small jaw material: S45C     |           |                        |           |
| Y2                        | With small jaw material: MC nylon |           |                        |           |
| <b>C Switch model no.</b> |                                   |           |                        |           |
| Axial lead wire           | Radial lead wire                  | Contact   | Indicator              | Lead wire |
| T2H*                      | T2V*                              | Proximity | 1 color indicator type | 2-wire    |
| T3H*                      | T3V*                              |           | 3-wire                 |           |
| <b>*Lead wire length</b>  |                                   |           |                        |           |
| Blank                     | 1m (standard)                     |           |                        |           |
| 3                         | 3m (option)                       |           |                        |           |
| 5                         | 5m (option)                       |           |                        |           |
| <b>D Switch quantity</b>  |                                   |           |                        |           |
| R                         | One on open side                  |           |                        |           |
| H                         | One on closed side                |           |                        |           |
| D                         | Two                               |           |                        |           |

### ⚠ Note on model no. selection

Note 1: Small jaw is commonly used for inner and outer chuck.

Note 2: Refer to pages 494 to 497 for the dimensions and applicable model of the small jaw.  
When ordering as option, 2 pieces are provided.

<Example of model number>

**CKLB2-20CS-0-T2H-R**

- A** Size : 20CS
- B** Option : Single acting (normally open)
- C** Switch model no. : Proximity T2H, lead wire 1m
- D** Switch quantity : One on open side

### How to order switch

**SW - T2H**

↓  
Switch model no.  
(Item above **C**)

Note: When the type with two switches is selected, if the model has a short operation stroke, both switches may turn on depending on the workpiece size.

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

Bi-directional powerful chuck  
Chuck

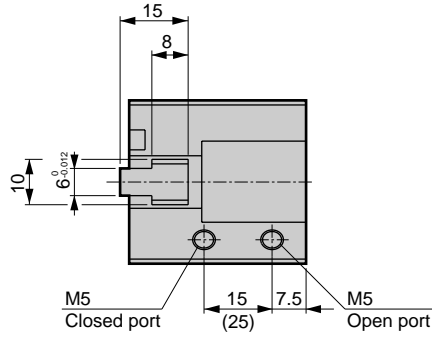


## Dimensions

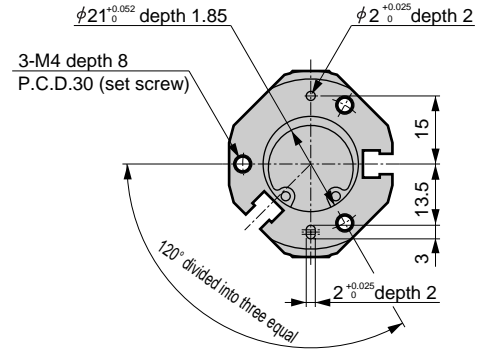
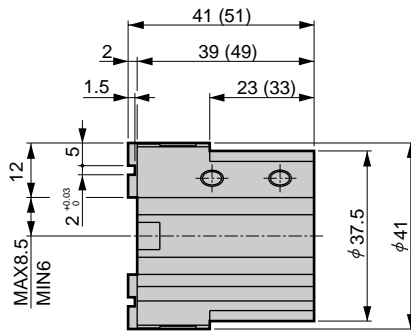
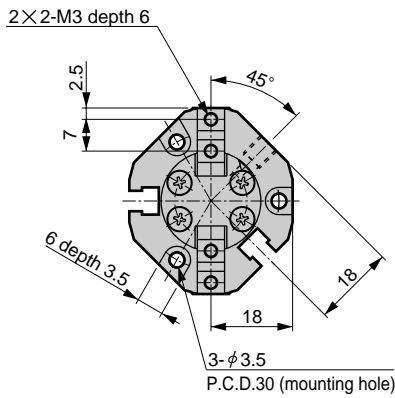
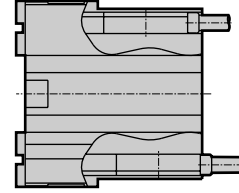
|              |
|--------------|
| RRC          |
| GRC          |
| RV3*         |
| NHS          |
| HR           |
| LN           |
| FH100        |
| HAP          |
| BSA2         |
| BHA/BHG      |
| LHA          |
| LHAG         |
| HKP          |
| HLA/HLB      |
| HLAG/HLBG    |
| HEP      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

### ● CKLB2-20CS standard/O/C

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

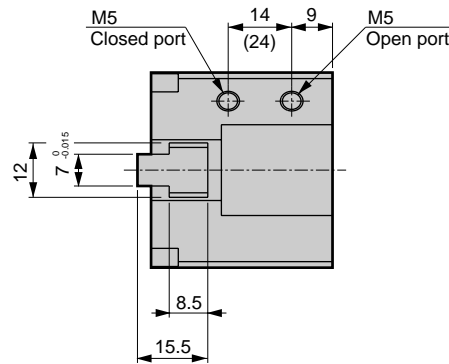


### ● With switch

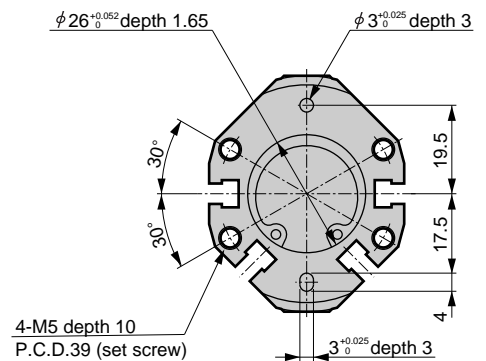
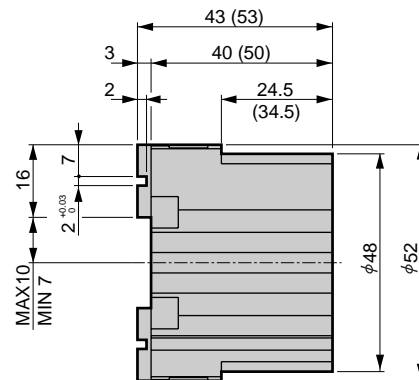
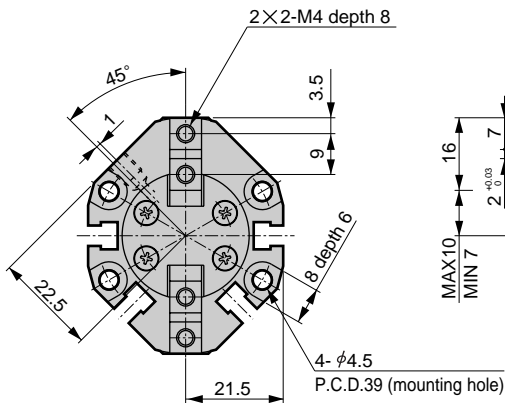
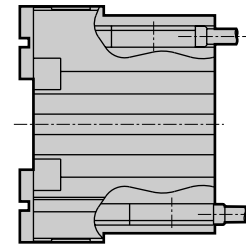


### ● CKLB2-25CS standard/O/C

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



### ● With switch

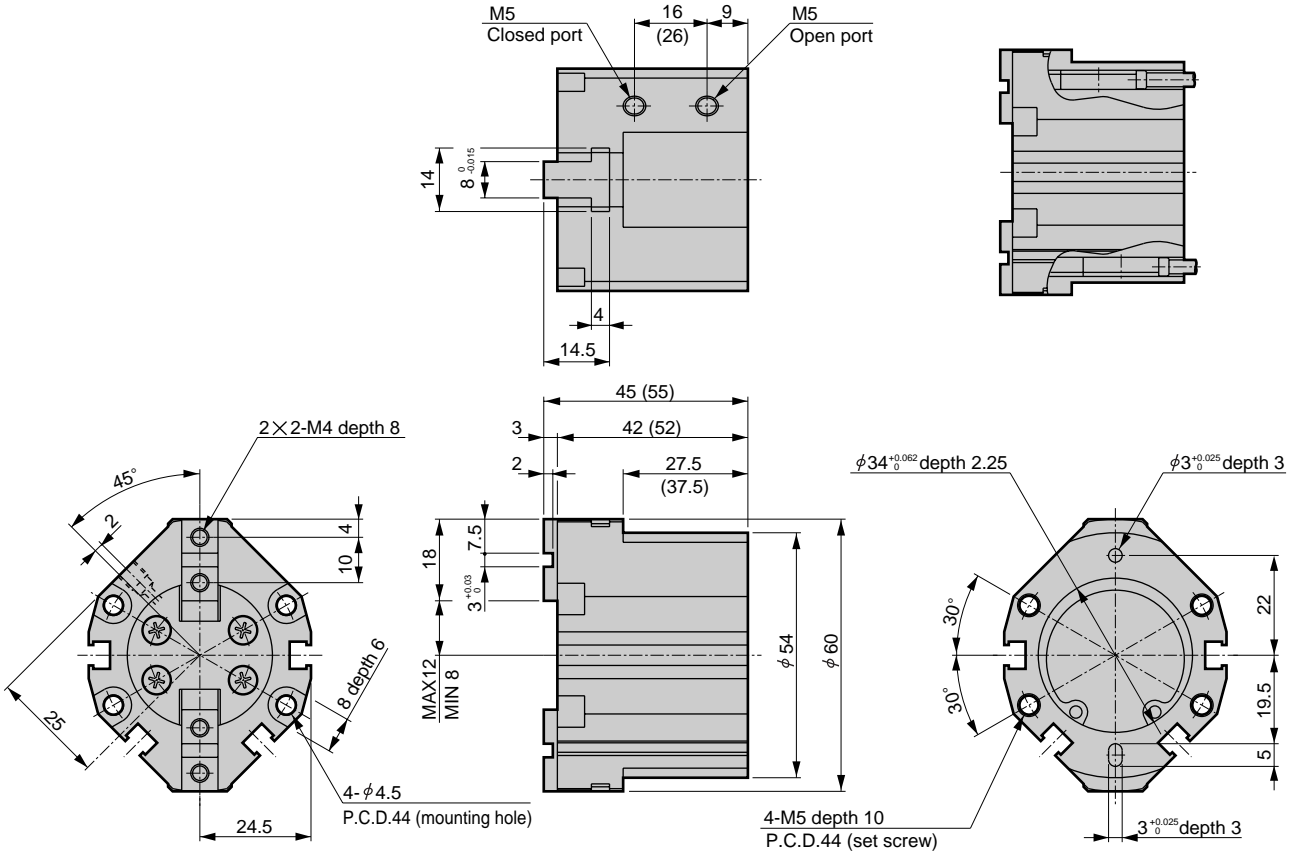


### Dimensions



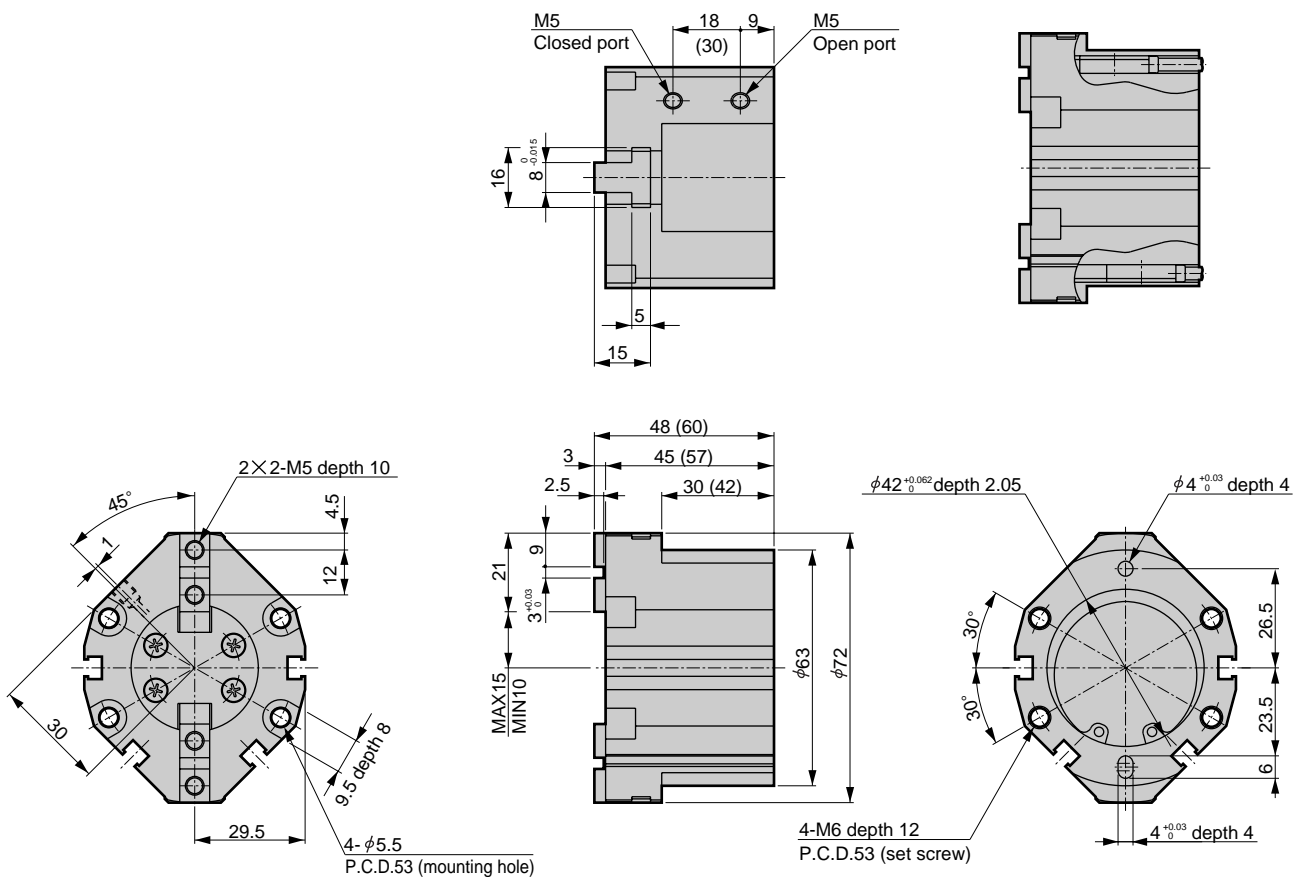
#### ● CKLB2-32CS standard/O/C

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



#### ● CKLB2-40CS standard/O/C

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



|              |
|--------------|
| 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         |
| <b>CKLB2</b> |
| NCK/SCK/FCK  |
| FJ           |
| FK           |
| Ending       |

Bi-directional powerful chuck  
Chuck



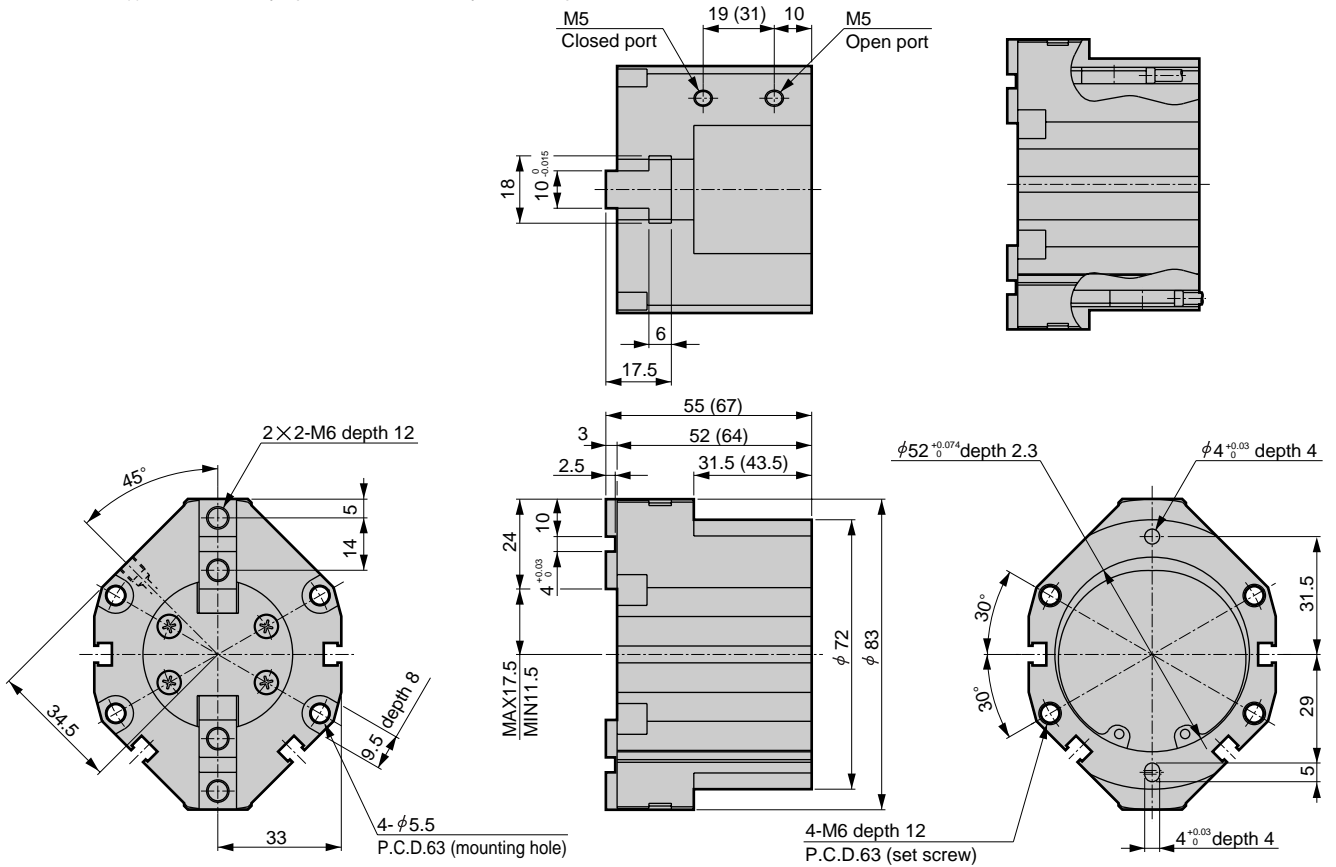
## Dimensions

|                 |
|-----------------|
| 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<br>-*.HC   |
| CKH2            |
| <b>CKLB2</b>    |
| NCK/<br>SCK/FCK |
| FJ              |
| FK              |
| Ending          |

● CKLB2-50CS standard/O/C

● With switch

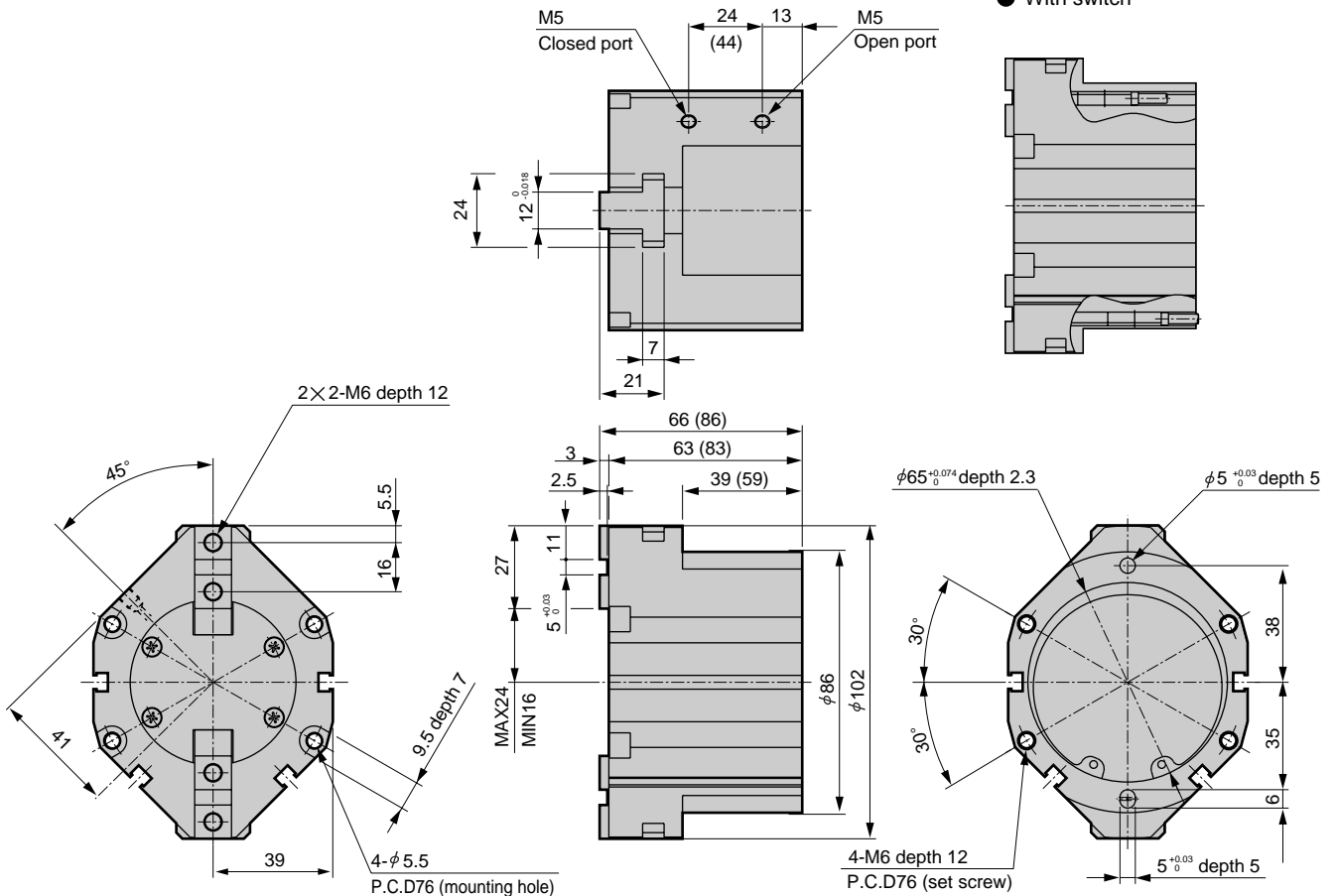
· Dimension in ( ) for O [normally open] and C [normally closed] specifications.



● CKLB2-63CS standard/O/C

● With switch

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





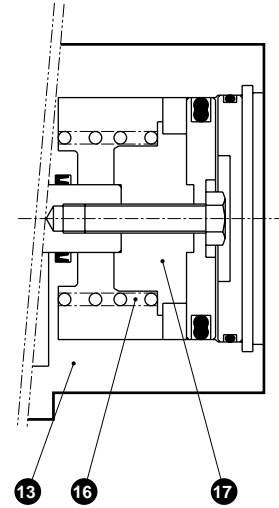
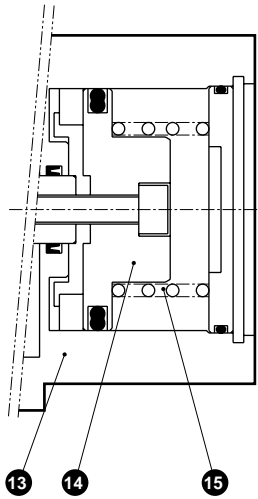
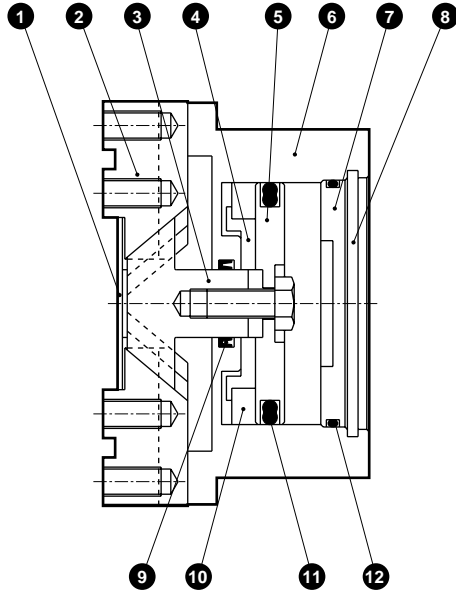
## Internal structure and parts list

● CKLB2-20CS to 100CS

Standard (double acting) type

O (normally open) type

C (normally closed) type



## Parts list

| No. | Parts name     | Material   | Remarks           | No. | Parts name          | Material        | Remarks |
|-----|----------------|--|-------------------|-----|---------------------|-----------------|---------|
| 1   | Center cover   | Stainless steel  |                   | 9   | Rod packing seal    | Nitrile rubber  |         |
| 2   | Master key     | Carbon steel   |                   | 10  | Magnet              |                 |         |
| 3   | Piston A       | 20CS to 32CS: Stainless steel<br>40CS to 100CS: Carbon steel |                   | 11  | Piston packing seal | Nitrile rubber  |         |
| 4   | Piston B       | Aluminum alloy   |                   | 12  | Cylinder gasket     | Nitrile rubber  |         |
| 5   | Piston C       | Aluminum alloy   |                   | 13  | O, C body           | Aluminum alloy  |         |
| 6   | Body           | Aluminum alloy   |                   | 14  | O piston C          | Aluminum alloy  |         |
| 7   | Cylinder guard | Aluminum alloy   |                   | 15  | O spring            | Stainless steel |         |
| 8   | Snap ring      | Stainless steel  | Steel (80, 100CS) | 16  | C spring            | Stainless steel |         |
|     |                |  |                   | 17  | C piston B          | Aluminum alloy  |         |

Note) \*1 20CS to 32CS are stainless steel and 40CS to 100CS are carbon steel.