# ISO15552 Standard Cylinder



## Features

1. High quality of aluminum tube provides a long service life.
2. High quality of seals ensures leakage free.
3. Various sensors for option.
4. With adjustable cushions on both ends.

## How to order

| IC | 32 | B | 50 | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Bore size** | **Magnet** | **Stroke** | **Sensor** | **Type** | **Number of sensor** | **Mounting parts** | **Rod end joint** | **Rod material** |
| **IC** :ISO15552 standard type<br>**ICD**:Double piston rod type<br>**ICA**:Stroke adjustable 25mm<br>**ICB**:Stroke adjustable 50mm | **32** :Ø32<br>**40** :Ø40<br>**50** :Ø50<br>**63** :Ø63<br>**80** :Ø80<br>**100** :Ø100 | **B** :W/I magnet<br>**C** :W/O magnet | | **Blank** :W/O sensor<br>**SF** :LED in front<br>  <br>AL-20<br>**ST** :LED on top<br>  <br>AL-21 | **Blank** :Reed switch<br>**D** :NPN<br>**E** :PNP | 1 pc<br>2 pcs | **Blank** :W/O mounting parts<br>**FA** :Front flange<br>**FB** :Rear flange<br>**TC** :Central trunnion (Tie-Rod)<br>**CA** :Male clevis<br>**CB** :Female clevis<br>**CR** :Angular trunnion with female clevis<br>**LB** :Foot mounting | **Blank** :W/O rod end joint<br>**Y** :Double knuckle joint<br>**I** :Single knuckle joint<br>**P** :Eyebolt floating joint<br>**T** :Basic floating joint<br>**L** :Axial foot type floating joint<br>**F** :Flange type floating joint | **Blank**:S45C<br>**S** :SUS304 |

* For ØIC32 ~ ØIC100 non-rotated type, please contact our sales

*Sensor please refer to P3-189~P3-190
*Repair kit to P3-12

## How to order mounting parts

| ZI | FA | – | 32 |
|---|---|---|---|
| **IC series** | **Mounting parts** | | **Bore size** |
| | **FA** :Front flange<br>**FB** :Rear flange<br>**TC** :Central trunnion (Tie-Rod)<br>**CA** :Male clevis<br>**CB** :Female clevis<br>**CR** :Angular trunnion with female clevis<br>**LB** :Foot mounting | | **32** :Ø32<br>**40** :Ø40<br>**50** :Ø50<br>**63** :Ø63<br>**80** :Ø80<br>**100** :Ø100 |

*Please refer to P3-10~P3-12

## How to order rod end joints

| ZNF | Y | – | M10 |
|---|---|---|---|
| | **Rod end joint** | | **Thread size** |
| | **Y**:Double knuckle joint<br>**I** :Single knuckle joint<br>**P**:Eyebolt floating joint<br>**T**:Basic floating joint<br>**L**:Axial foot type floating joint<br>**F**:Flange type floating joint | | **M10**:M10xP1.25 **(IC32)**<br>**M12**:M12xP1.25 **(IC40)**<br>**M16**:M16xP1.5 **(IC50, 63)**<br>**M20**:M20xP1.5 **(IC80, 100)** |

*Sensor please refer to P3-187~P3-188

## Specifications

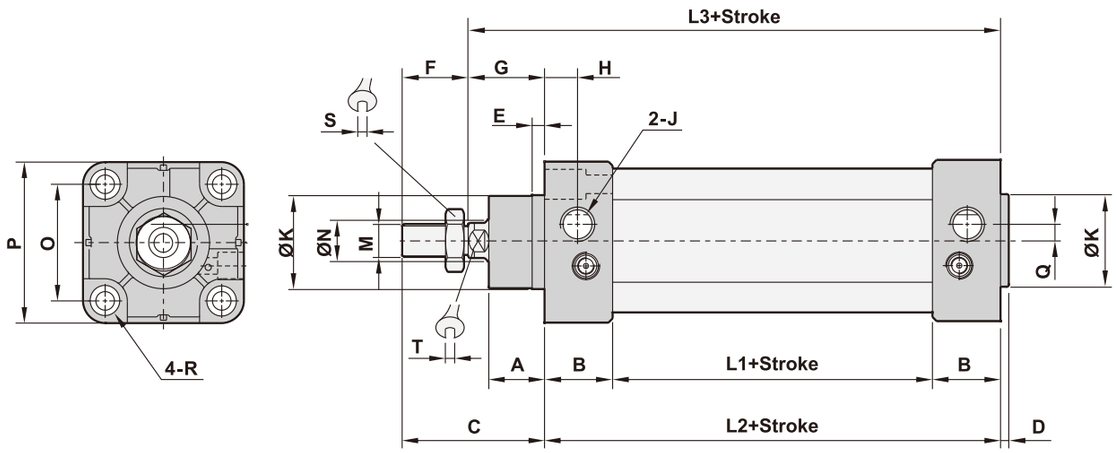
| Bore size | Ø32 | Ø40 | Ø50 | Ø63 | Ø80 | Ø100 |
|---|---|---|---|---|---|---|
| Port size | 1/8" | 1/4" | | 3/8" | | 1/2" |
| Fluid | Compressed air | | | | | |
| Acting | Double acting | | | | | |
| Operating pressure range | 1.5 ~ 9.5 kgf/cm² | | | | | |
| Barrel material | Aluminum alloy | | | | | |
| Cushion | Built in | | | | | |
| Magnet | Option | | | | | |
| Ambient temperature | -5°C ~ 60°C | | | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | | | |



## Dimensions

### ISO15552 Standard type Ø32~Ø100

IC:ISO15552 Standard type




(Unit: mm)

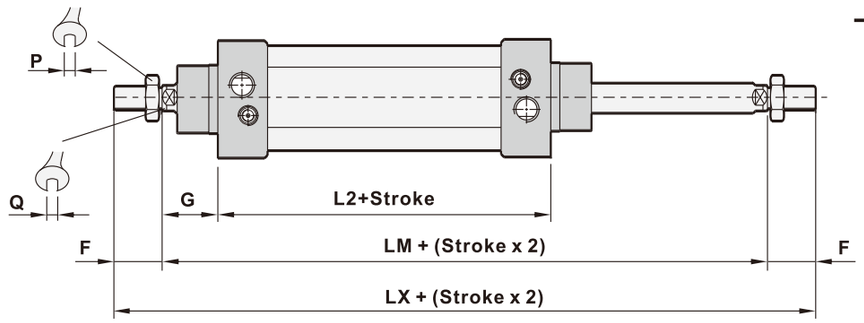
| Bore size | A | B | C | D | E | F | G | H | J | K |
|---|---|---|---|---|---|---|---|---|---|---|
| **Ø32** | 18 | 26 | 48 | 3 | 4.5 | 22 | 26 | 11.5 | G 1/8 | Ø30 |
| **Ø40** | 20.2 | 34 | 53.5 | 4 | 4.5 | 24 | 29.5 | 13.5 | G 1/4 | Ø34.5 |
| **Ø50** | 28 | 31 | 71 | 4 | 6 | 32 | 39 | 16 | G 1/4 | Ø39.7 |
| **Ø63** | 25.2 | 33 | 70.5 | 4 | 6 | 32 | 38.5 | 16 | G 3/8 | Ø44.7 |
| **Ø80** | 32.5 | 35.5 | 86 | 4 | 6 | 40 | 46 | 20.5 | G 3/8 | Ø44.7 |
| **Ø100** | 37 | 37 | 91 | 4.8 | 5.5 | 40 | 51 | 18 | G 1/2 | Ø54.8 |

| Bore size | L1 | L2 | L3 | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ø32** | 42 | 94 | 120 | M10xP1.25 | Ø12 | 32.5 | 47 | 4.3 | M6 | 17 | 10 |
| **Ø40** | 37 | 105 | 134.5 | M12xP1.25 | Ø16 | 38 | 55 | 5.3 | M6 | 19 | 13 |
| **Ø50** | 44 | 106 | 145 | M16xP1.5 | Ø20 | 46.5 | 65 | 7 | M8 | 24 | 17 |
| **Ø63** | 55 | 121 | 159.5 | M16xP1.5 | Ø20 | 56.5 | 78 | 8 | M8 | 24 | 17 |
| **Ø80** | 57 | 128 | 174 | M20xP1.5 | Ø25 | 72 | 95 | 9 | M10 | 26 | 22 |
| **Ø100** | 64 | 138 | 189 | M20xP1.5 | Ø25 | 89 | 115 | 13.5 | M10 | 26 | 22 |

## Dimensions

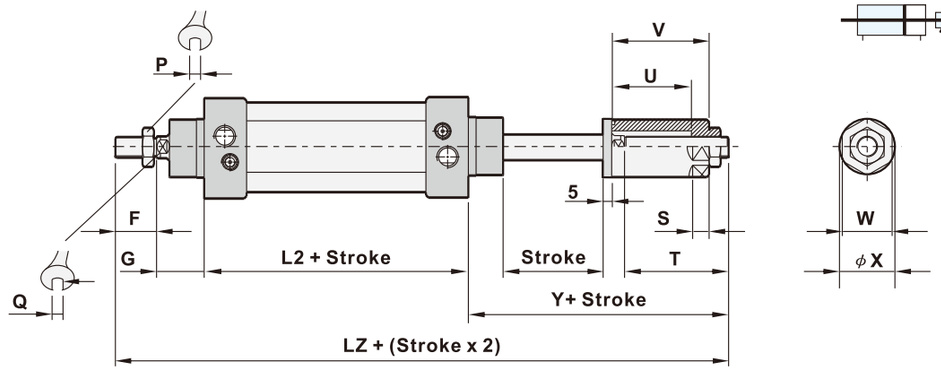
### ICD Double piston rod type ϕ 32~ ϕ 100

ICD:Double piston rod type




### ICA, ICB Adjustable type ϕ 32~ ϕ 100

ICA, ICB Adjustable type




(Unit: mm)

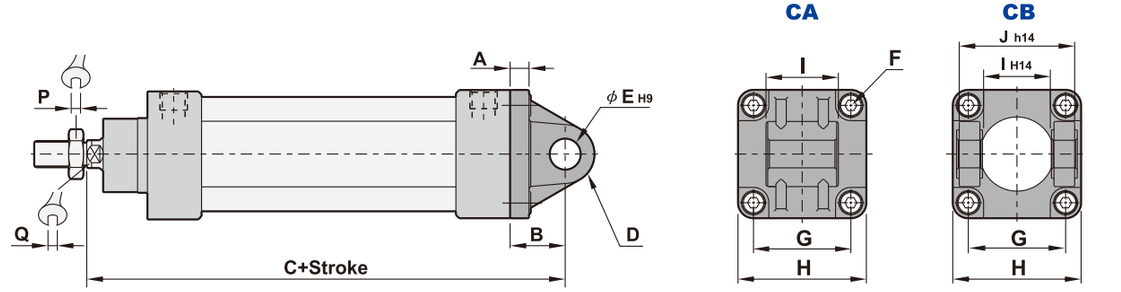
| Bore size | F | G | L2 | LM | LX | LZ | | P | Q | S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ICA | ICB | | | |
| ϕ 32 | 22 | 26 | 94 | 146 | 190 | 221.2 | 246.2 | 17 | 10 | 10 |
| ϕ 40 | 24 | 29.5 | 105 | 164 | 212 | 242.5 | 267.5 | 19 | 13 | 10 |
| ϕ 50 | 32 | 39 | 106 | 184 | 248 | 275.5 | 300.5 | 24 | 17 | 12 |
| ϕ 63 | 32 | 38.5 | 121 | 198 | 262 | 286.8 | 311.8 | 24 | 17 | 12 |
| ϕ 80 | 40 | 46 | 128 | 220 | 300 | 322.5 | 347.5 | 26 | 22 | 12 |
| ϕ 100 | 40 | 51 | 138 | 240 | 320 | 345.5 | 370.5 | 26 | 22 | 12 |

| Bore size | T | | U | | V | | W | X | Y | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ICA | ICB | ICA | ICB | ICA | ICB | | | ICA | ICB |
| ϕ 32 | 53.2 | 78.2 | 35 | 62 | 47 | 72 | 22 | ϕ 25 | 79.2 | 104.2 |
| ϕ 40 | 54.5 | 79.5 | 37 | 62 | 47 | 72 | 27 | ϕ 30 | 84 | 109 |
| ϕ 50 | 59.5 | 84.5 | 38 | 63 | 53 | 78 | 36 | ϕ 40 | 98.5 | 123.5 |
| ϕ 63 | 56.8 | 81.8 | 38 | 63 | 53 | 78 | 36 | ϕ 40 | 95.3 | 120.3 |
| ϕ 80 | 62.5 | 87.5 | 40 | 65 | 60 | 85 | 36 | ϕ 40 | 108.5 | 133.5 |
| ϕ 100 | 65.5 | 90.5 | 40 | 65 | 60 | 85 | 36 | ϕ 40 | 116.5 | 141.5 |



## Dimension of mounting parts

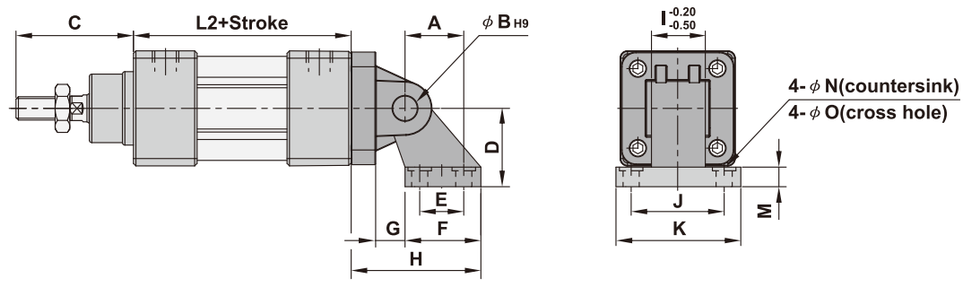
### CA, CB Male & Female clevis




(Unit: mm)

| Bore size | A | | B | C | D | E | F | G | H | I | J | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CA | CB | | | | | | | | | | | |
| ϕ 32 | 10 | 10 | 22 | 142 | R11 | ϕ 10 | M6 | 32.5 | 46 | $26^{-0.2}_{-0.6}$ | 45 | 17 | 10 |
| ϕ 40 | 10 | 10 | 25 | 160.8 | R13 | ϕ 12 | M6 | 38 | 54 | $28^{-0.2}_{-0.6}$ | 52 | 19 | 13 |
| ϕ 50 | 13 | 13 | 28 | 170 | R13 | ϕ 12 | M8 | 46.5 | 64 | $32^{-0.2}_{-0.6}$ | 60 | 24 | 17 |
| ϕ 63 | 13 | 13 | 33 | 190 | R17 | ϕ 16 | M8 | 56.5 | 77 | $40^{-0.2}_{-0.6}$ | 70 | 24 | 17 |
| ϕ 80 | 15 | 15 | 35 | 210.8 | R17 | ϕ 16 | M10 | 72 | 94 | $50^{-0.2}_{-0.6}$ | 90 | 26 | 22 |
| ϕ 100 | 15 | 15 | 40 | 230 | R21 | ϕ 20 | M10 | 89 | 114 | $60^{-0.2}_{-0.6}$ | 110 | 26 | 22 |

### CR Angular trunnion with female clevis

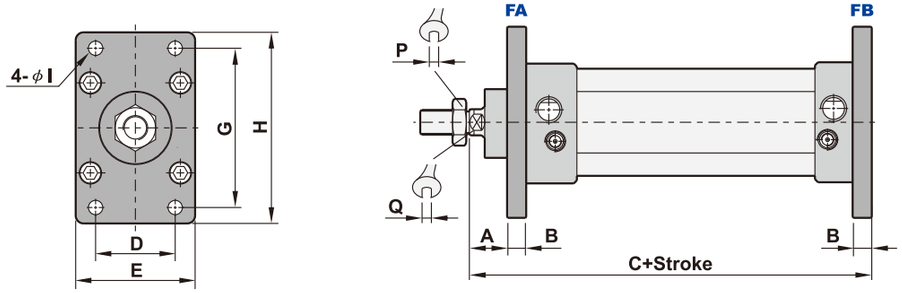



(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | J | K | L2 | M | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 32 | 21 | ϕ 10 | 48 | 32 | 18 | 31 | 10 | 50 | 26 | 38 | 51 | 94 | 8 | - | ϕ 6.6 |
| ϕ 40 | 24 | ϕ 12 | 53.5 | 36 | 22 | 35 | 12 | 56 | 28 | 41 | 54 | 105 | 10 | - | ϕ 6.6 |
| ϕ 50 | 33 | ϕ 12 | 71 | 45 | 30 | 45 | 13 | 68 | 32 | 50 | 65 | 106 | 12 | - | ϕ 9 |
| ϕ 63 | 37 | ϕ 16 | 70.5 | 50 | 35 | 50 | 17 | 77 | 40 | 52 | 67 | 120.2 | 12 | - | ϕ 9 |
| ϕ 80 | 47 | ϕ 16 | 86 | 63 | 40 | 60 | 19 | 93 | 50 | 66 | 86 | 128 | 14 | ϕ 18 | ϕ 11 |
| ϕ 100 | 55 | ϕ 20 | 91 | 71 | 50 | 70 | 22 | 106 | 60 | 76 | 96 | 138 | 15 | ϕ 18 | ϕ 11 |

## Dimension of mounting parts

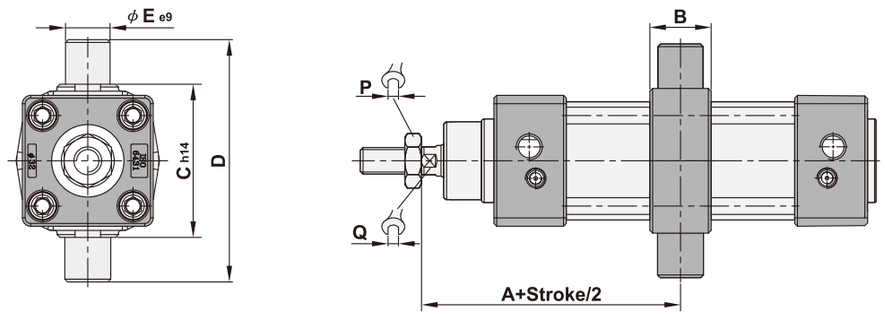
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | A | B | C | D | E | G | H | I | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 16 | 10 | 130 | 32 | 50 | 64 | 79 | ϕ7 | 17 | 10 |
| ϕ40 | 19.5 | 10 | 145 | 36 | 55 | 72 | 90 | ϕ9 | 19 | 13 |
| ϕ50 | 27 | 12 | 155 | 45 | 65 | 90 | 110 | ϕ9 | 24 | 17 |
| ϕ63 | 26.5 | 12 | 170 | 50 | 75 | 100 | 120 | ϕ9 | 24 | 17 |
| ϕ80 | 30 | 16 | 190 | 63 | 95 | 126 | 153 | ϕ12 | 26 | 22 |
| ϕ100 | 35 | 16 | 205 | 75 | 115 | 150 | 178 | ϕ14 | 26 | 22 |

### TC Central trunnion




* Profile barrel is changed to round barrel with 4 tie-rods for the order of ISO15552 standard cylinder with TC central trunnion (Please contact your sales the change of position for TC central trunnion).

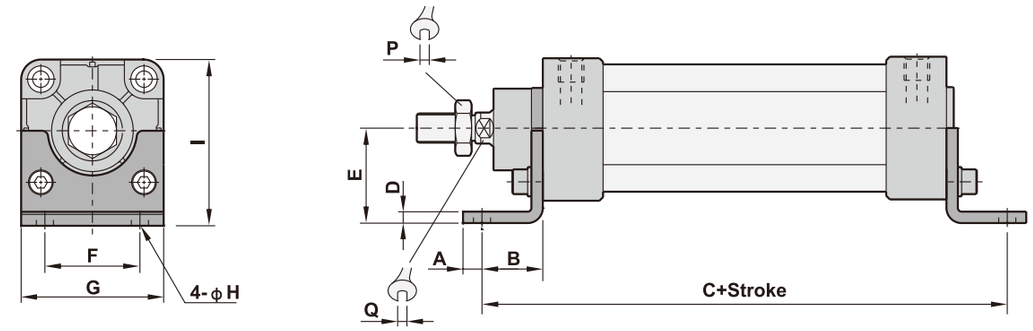
(Unit: mm)

| Bore size | A | B | C | D | E | P | Q |
|---|---|---|---|---|---|---|---|
| ϕ32 | 73 | 17 | 55 | 74 | ϕ12 | 17 | 10 |
| ϕ40 | 82 | 22 | 63 | 95 | ϕ16 | 19 | 13 |
| ϕ50 | 92 | 22 | 76 | 107 | ϕ16 | 24 | 17 |
| ϕ63 | 99 | 28 | 88 | 130 | ϕ20 | 24 | 17 |
| ϕ80 | 110 | 34 | 114 | 150 | ϕ20 | 26 | 22 |
| ϕ100 | 120 | 40 | 132 | 182 | ϕ25 | 26 | 22 |



## Dimension of mounting parts

### LB Foot mounting




(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 8 | 24 | 142 | 4 | 32 | 32 | 47 | ϕ7 | 56.5 | 17 | 10 |
| ϕ40 | 10 | 28 | 161 | 4 | 36 | 36 | 53 | ϕ9 | 63.5 | 19 | 13 |
| ϕ50 | 10 | 32 | 170 | 4 | 45 | 45 | 65 | ϕ9 | 77.5 | 24 | 17 |
| ϕ63 | 10 | 32 | 185 | 4 | 50 | 50 | 75 | ϕ9 | 87.5 | 24 | 17 |
| ϕ80 | 13 | 41 | 210 | 5 | 63 | 63 | 95 | ϕ12 | 110 | 26 | 22 |
| ϕ100 | 13 | 41 | 220 | 6 | 71 | 75 | 115 | ϕ14 | 127.5 | 26 | 22 |

## How to order Repair kit

**ZGCIN – 32**

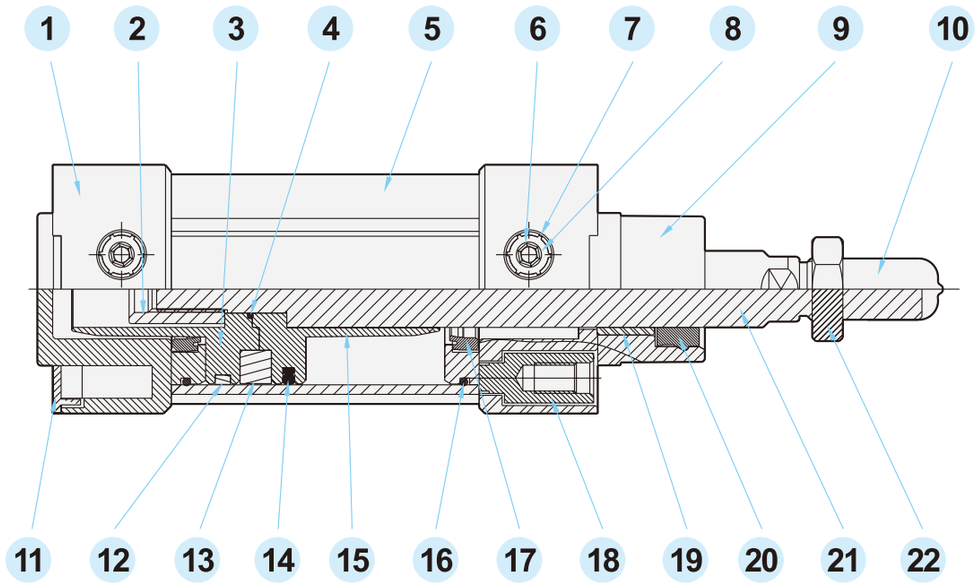
| Repair kit for IC Cylinder | Bore size |
|---|---|
| ZGCIN (IC) | 32 : ϕ32 |
| ZGCINB (ICD. ICA. ICB) | 40 : ϕ40 |
| | 50 : ϕ50 |
| | 63 : ϕ63 |
| | 80 : ϕ80 |
| | 100 : ϕ100 |

## Repair kit :

| ZGCIN | |
|---|---|
| **Description** | **Qty.** |
| Rod seal | 1 |
| O-ring for cushion needle | 2 |
| O-ring for front/rear cover | 2 |
| Cushion | 2 |
| U-Piston seal | 1 |

| ZGCINB | |
|---|---|
| **Description** | **Qty.** |
| Rod seal | 2 |
| O-ring for cushion needle | 2 |
| O-ring for front/rear cover | 2 |
| Cushion | 2 |
| U-Piston seal | 1 |

## Material of parts




| No. | Description | Material | Qty. |
|---|---|---|---|
| 1 | Rear cover | Aluminum alloy | 1 |
| 2 | Piston mounting nut | Brass+Ni | 1 |
| 3 | Rear piston | Aluminum alloy | 1 |
| 4 | O-ring | NBR | 1 |
| 5 | Barrel | Aluminum alloy | 1 |
| 6 | Cushion needle | Brass | 1 |
| 7 | Push on fastener | FeC | 2 |
| 8 | O-ring for cushion needle | NBR | 2 |
| 9 | Front cover | Aluminum alloy | 1 |
| 10 | Rubber cap | NBR | 1 |
| 11 | Rear plate | Plastic | 1 |

| No. | Description | Material | Qty. |
|---|---|---|---|
| 12 | Wear ring | Teflon+Graphite | 1 |
| 13 | Magnet | Rubber | 1 |
| 14 | U-Piston seal | NBR | 1 |
| 15 | Front piston | Aluminum alloy | 1 |
| 16 | O-ring for front/rear cover | NBR | 2 |
| 17 | Cushion | PU | 2 |
| 18 | Fixing bolt | Fe+Ni | 8 |
| 19 | Bushing | Brass | 1 |
| 20 | Rod seal | PU | 1 |
| 21 | Piston rod | S45C+Cr | 1 |
| 22 | Nut | Fe+Ni | 1 |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| $\phi$ 32 ~ $\phi$ 100 | Double acting | 25 ~ 1000 | 1800 |

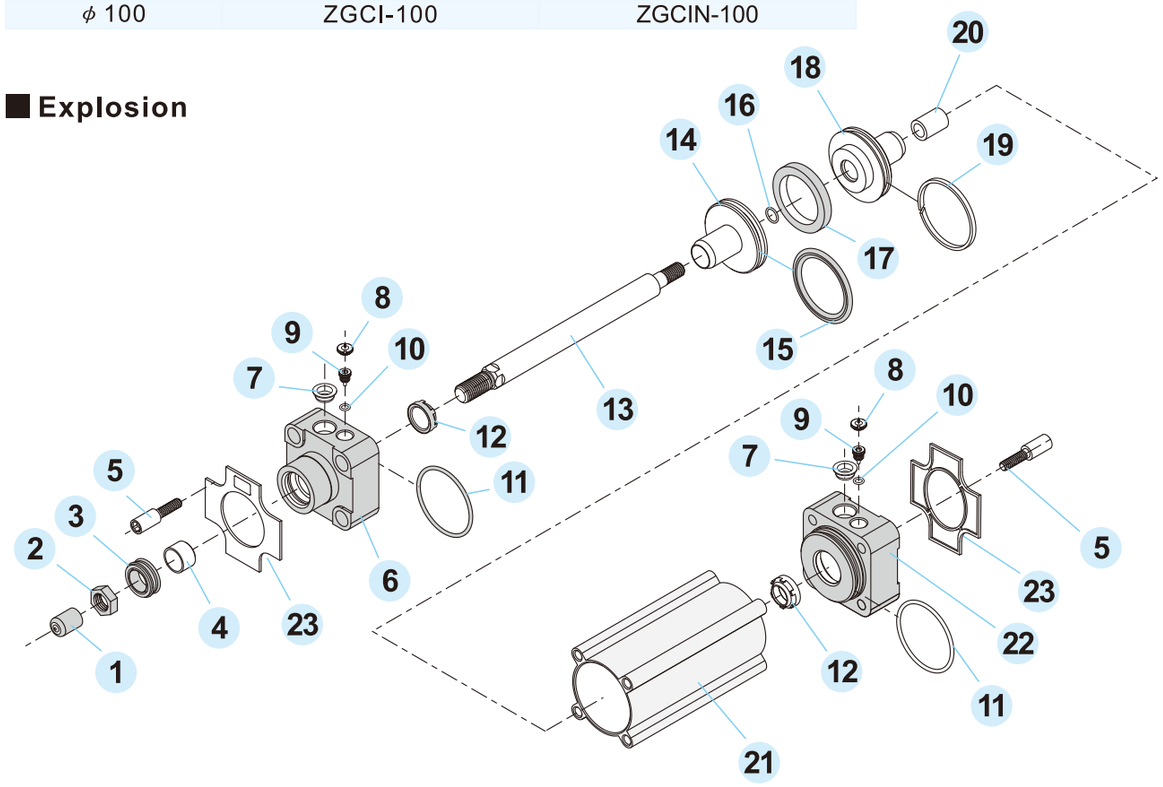
Note: Please contact our sales for non-standard stroke.



## How to order Cylinder kit / Repair kit

| Bore size | Cylinder kit | Repair kit |
|---|---|---|
| $\phi$ 32 | ZGCI-32 | ZGCIN-32 |
| $\phi$ 40 | ZGCI-40 | ZGCIN-40 |
| $\phi$ 50 | ZGCI-50 | ZGCIN-50 |
| $\phi$ 63 | ZGCI-63 | ZGCIN-63 |
| $\phi$ 80 | ZGCI-80 | ZGCIN-80 |
| $\phi$ 100 | ZGCI-100 | ZGCIN-100 |

## Explosion




| No. | Description | Qty. |
|---|---|---|
| 1 | Rubber cap | 1 |
| 2 | Rod nut | 1 |
| 3 | Front seal | 1 |
| 4 | Bushing | 1 |
| 5 | Fixing bolt | 8 |
| 6 | Front cover | 1 |
| 7 | Port plug | 2 |
| 8 | Fixing nut | 2 |
| 9 | Cushion needle | 2 |
| 10 | O-ring | 2 |
| 11 | Front cover o-ring | 2 |
| 12 | Cushion seal | 2 |

| No. | Description | Qty. |
|---|---|---|
| 13 | Piston rod | 1 |
| 14 | Front piston | 1 |
| 15 | U-Piston seal | 1 |
| 16 | O-ring | 1 |
| 17 | Rubber magnet | 1 |
| 18 | Rear piston | 1 |
| 19 | Wear ring | 1 |
| 20 | Piston mounting nut | 1 |
| 21 | Aluminum barrel | 1 |
| 22 | Rear cover | 1 |
| 23 | Rear plate | 1 |

# ISO15552 Standard Cylinder



## Features

1. High quality of aluminum tube provides a long service life.
2. High quality of seals ensures leakage free.
3. With adjustable cushions on both ends.


## How to order

| ICE | 32 | B | 50 | SM | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| Type | Bore size | Magnet | Stroke | Sensor | Type | Number of sensor | Mounting parts | Rod end joint | Rod material |
| ICE:ISO15552 standard type<br>ICED:Double piston rod type<br>ICEA:Stroke adjustable 25mm<br>ICEB:Stroke adjustable 50mm | 32:Ø32<br>40:Ø40<br>50:Ø50<br>63:Ø63<br>80:Ø80<br>100:Ø100 | B:W/I magnet<br>C:W/O magnet | | Blank:W/O sensor<br>SM:LED in front<br>AL-76 | Blank:Reed switch<br>D:NPN<br>E:PNP | 1 pc<br>2 pcs | Blank:W/O mounting parts<br>FA:Front flange<br>FB:Rear flange<br>CA:Male clevis<br>CB:Female clevis<br>CR:Angular trunnion with female clevis<br>L:Axial foot type floating joint<br>F:Flange type floating joint<br>LB:Foot mounting | Blank:W/O rod end joint<br>Y:Double knuckle joint<br>I:Single knuckle joint<br>P:Eyebolt floating joint<br>T:Basic floating joint | Blank:S45C<br>S:SUS304 |

*Sensor please refer to P3-195
*Repair kit to P3-12

## How to order mounting parts

| ZI | FA | – | 32 |
|---|---|---|---|
| ICE series | Mounting parts | | Bore size |
| | FA:Front flange | | 32:Ø32 |
| | FB:Rear flange | | 40:Ø40 |
| | CA:Male clevis | | 50:Ø50 |
| | CB:Female clevis | | 63:Ø63 |
| | CR:Angular trunnion with female clevis | | 80:Ø80 |
| | LB:Foot mounting | | 100:Ø100 |

*Please refer to P3-18~P3-19

## How to order rod end joints

| ZNF | Y | – | M10 |
|---|---|---|---|
| | Rod end joint | | Thread size |
| | Y:Double knuckle joint | | M10:M10xP1.25 (ICE32) |
| | I:Single knuckle joint | | M12:M12xP1.25 (ICE40) |
| | P:Eyebolt floating joint | | M16:M16xP1.5 (ICE50, 63) |
| | T:Basic floating joint | | M20:M20xP1.5 (ICE80, 100) |
| | L:Axial foot type floating joint | | |
| | F:Flange type floating joint | | |

*Please refer to P3-187~P3-188

## Specifications

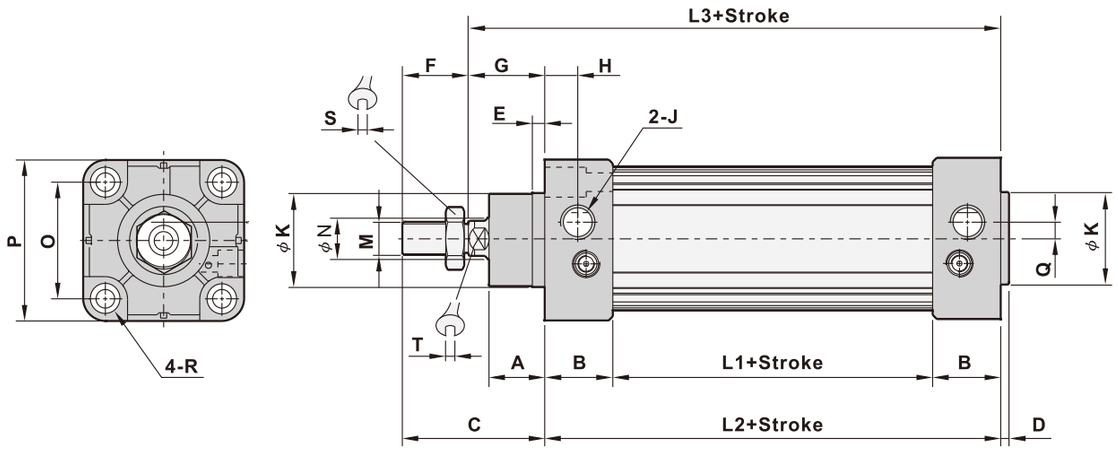
| Bore size | Ø32 | Ø40 | Ø50 | Ø63 | Ø80 | Ø100 |
|---|---|---|---|---|---|---|
| Port size | 1/8" | 1/4" | | 3/8" | | 1/2" |
| Fluid | Compressed air | | | | | |
| Acting | Double acting | | | | | |
| Operating pressure range | 1.5 ~ 9.5 kgf/cm² | | | | | |
| Barrel material | Aluminum alloy | | | | | |
| Cushion | Built in | | | | | |
| Magnet | Option | | | | | |
| Ambient temperature | -5°C ~ 60°C | | | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | | | |



## Dimensions

ICE Standard type Ø32~Ø100

ICE:ISO15552
Standard type




(Unit: mm)

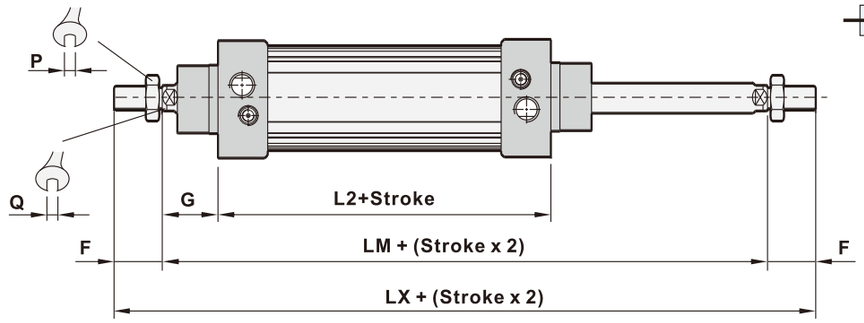
| Bore size | A | B | C | D | E | F | G | H | J | K |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø32 | 18 | 26 | 48 | 3 | 4.5 | 22 | 26 | 11.5 | G 1/8 | Ø30 |
| Ø40 | 20.2 | 34 | 53.5 | 4 | 4.5 | 24 | 29.5 | 13.5 | G 1/4 | Ø34.5 |
| Ø50 | 28 | 31 | 71 | 4 | 6 | 32 | 39 | 16 | G 1/4 | Ø39.7 |
| Ø63 | 25.2 | 33 | 70.5 | 4 | 6 | 32 | 38.5 | 16 | G 3/8 | Ø44.7 |
| Ø80 | 32.5 | 35.5 | 86 | 4 | 6 | 40 | 46 | 20.5 | G 3/8 | Ø44.7 |
| Ø100 | 37 | 37 | 91 | 4.8 | 5.5 | 40 | 51 | 18 | G 1/2 | Ø54.8 |

| Bore size | L1 | L2 | L3 | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ø32 | 42 | 94 | 120 | M10xP1.25 | Ø12 | 32.5 | 47 | 4.3 | M6 | 17 | 10 |
| Ø40 | 37 | 105 | 134.5 | M12xP1.25 | Ø16 | 38 | 55 | 5.3 | M6 | 19 | 13 |
| Ø50 | 44 | 106 | 145 | M16xP1.5 | Ø20 | 46.5 | 65 | 7 | M8 | 24 | 17 |
| Ø63 | 55 | 121 | 159.5 | M16xP1.5 | Ø20 | 56.5 | 78 | 8 | M8 | 24 | 17 |
| Ø80 | 57 | 128 | 174 | M20xP1.5 | Ø25 | 72 | 95 | 9 | M10 | 26 | 22 |
| Ø100 | 64 | 138 | 189 | M20xP1.5 | Ø25 | 89 | 115 | 13.5 | M10 | 26 | 22 |

## Dimensions

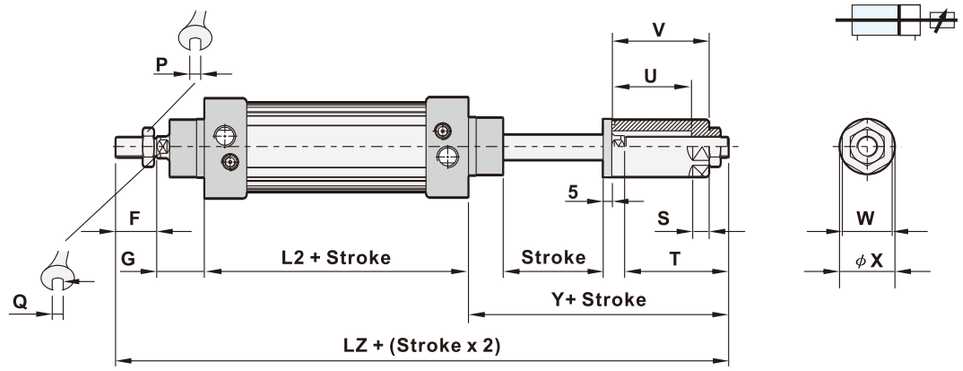
### ICED Double piston rod type ϕ 32~ ϕ 100

ICED:Double piston rod type




### ICEA, ICEB Adjustable type ϕ 32~ ϕ 100

ICEA, ICEB Adjustable type




(Unit: mm)

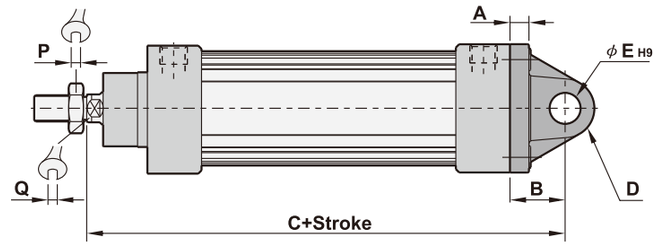
| Bore size | F | G | L2 | LM | LX | LZ | | P | Q | S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ICEA | ICEB | | | |
| ϕ 32 | 22 | 26 | 94 | 146 | 190 | 221.2 | 246.2 | 17 | 10 | 10 |
| ϕ 40 | 24 | 29.5 | 105 | 164 | 212 | 242.5 | 267.5 | 19 | 13 | 10 |
| ϕ 50 | 32 | 39 | 106 | 184 | 248 | 275.5 | 300.5 | 24 | 17 | 12 |
| ϕ 63 | 32 | 38.5 | 121 | 198 | 262 | 286.8 | 311.8 | 24 | 17 | 12 |
| ϕ 80 | 40 | 46 | 128 | 220 | 300 | 322.5 | 347.5 | 26 | 22 | 12 |
| ϕ 100 | 40 | 51 | 138 | 240 | 320 | 345.5 | 370.5 | 26 | 22 | 12 |

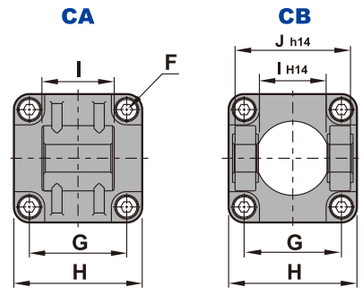
| Bore size | T | | U | | V | | W | X | Y | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ICEA | ICEB | ICEA | ICEB | ICEA | ICEB | | | ICEA | ICEB |
| ϕ 32 | 53.2 | 78.2 | 35 | 62 | 47 | 72 | 22 | ϕ 25 | 79.2 | 104.2 |
| ϕ 40 | 54.5 | 79.5 | 37 | 62 | 47 | 72 | 27 | ϕ 30 | 84 | 109 |
| ϕ 50 | 59.5 | 84.5 | 38 | 63 | 53 | 78 | 36 | ϕ 40 | 98.5 | 123.5 |
| ϕ 63 | 56.8 | 81.8 | 38 | 63 | 53 | 78 | 36 | ϕ 40 | 95.3 | 120.3 |
| ϕ 80 | 62.5 | 87.5 | 40 | 65 | 60 | 85 | 36 | ϕ 40 | 108.5 | 133.5 |
| ϕ 100 | 65.5 | 90.5 | 40 | 65 | 60 | 85 | 36 | ϕ 40 | 116.5 | 141.5 |



## Dimension of mounting parts

### CA, CB Male & Female clevis

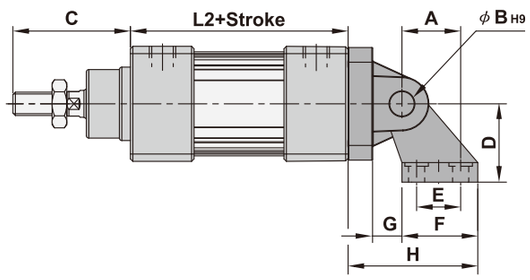


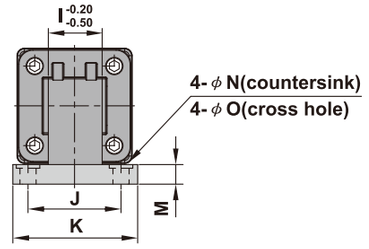




(Unit: mm)

| Bore size | A | | B | C | D | E | F | G | H | I | J | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CA | CB | | | | | | | | | | | |
| ϕ 32 | 10 | 10 | 22 | 142 | R11 | ϕ 10 | M6 | 32.5 | 46 | $26^{-0.2}_{-0.6}$ | 45 | 17 | 10 |
| ϕ 40 | 10 | 10 | 25 | 160.8 | R13 | ϕ 12 | M6 | 38 | 54 | $28^{-0.2}_{-0.6}$ | 52 | 19 | 13 |
| ϕ 50 | 13 | 13 | 28 | 170 | R13 | ϕ 12 | M8 | 46.5 | 64 | $32^{-0.2}_{-0.6}$ | 60 | 24 | 17 |
| ϕ 63 | 13 | 13 | 33 | 190 | R17 | ϕ 16 | M8 | 56.5 | 77 | $40^{-0.2}_{-0.6}$ | 70 | 24 | 17 |
| ϕ 80 | 15 | 15 | 35 | 210.8 | R17 | ϕ 16 | M10 | 72 | 94 | $50^{-0.2}_{-0.6}$ | 90 | 26 | 22 |
| ϕ 100 | 15 | 15 | 40 | 230 | R21 | ϕ 20 | M10 | 89 | 114 | $60^{-0.2}_{-0.6}$ | 110 | 26 | 22 |

### CR Angular trunnion with female clevis



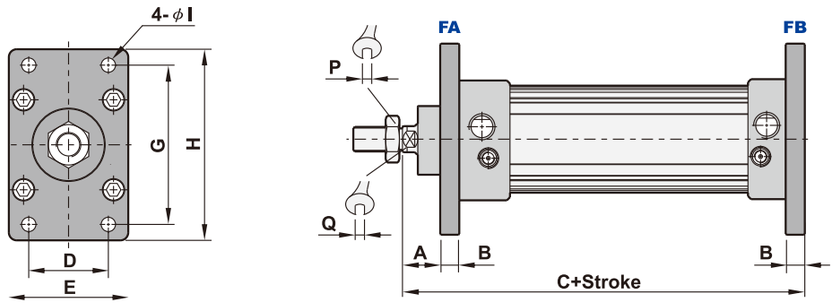




(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | J | K | L2 | M | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 32 | 21 | ϕ 10 | 48 | 32 | 18 | 31 | 10 | 50 | 26 | 38 | 51 | 94 | 8 | - | ϕ 6.6 |
| ϕ 40 | 24 | ϕ 12 | 53.5 | 36 | 22 | 35 | 12 | 56 | 28 | 41 | 54 | 105 | 10 | - | ϕ 6.6 |
| ϕ 50 | 33 | ϕ 12 | 71 | 45 | 30 | 45 | 13 | 68 | 32 | 50 | 65 | 106 | 12 | - | ϕ 9 |
| ϕ 63 | 37 | ϕ 16 | 70.5 | 50 | 35 | 50 | 17 | 77 | 40 | 52 | 67 | 120.2 | 12 | - | ϕ 9 |
| ϕ 80 | 47 | ϕ 16 | 86 | 63 | 40 | 60 | 19 | 93 | 50 | 66 | 86 | 128 | 14 | ϕ 18 | ϕ 11 |
| ϕ 100 | 55 | ϕ 20 | 91 | 71 | 50 | 70 | 22 | 106 | 60 | 76 | 96 | 138 | 15 | ϕ 18 | ϕ 11 |

## Dimension of mounting parts

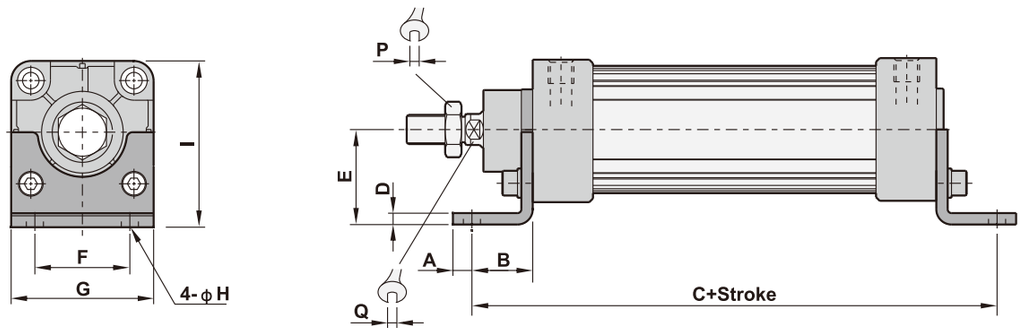
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | A | B | C | D | E | G | H | I | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 16 | 10 | 130 | 32 | 50 | 64 | 79 | ϕ7 | 17 | 10 |
| ϕ40 | 19.5 | 10 | 145 | 36 | 55 | 72 | 90 | ϕ9 | 19 | 13 |
| ϕ50 | 27 | 12 | 155 | 45 | 65 | 90 | 110 | ϕ9 | 24 | 17 |
| ϕ63 | 26.5 | 12 | 170 | 50 | 75 | 100 | 120 | ϕ9 | 24 | 17 |
| ϕ80 | 30 | 16 | 190 | 63 | 95 | 126 | 153 | ϕ12 | 26 | 22 |
| ϕ100 | 35 | 16 | 205 | 75 | 115 | 150 | 178 | ϕ14 | 26 | 22 |

### LB Foot mounting

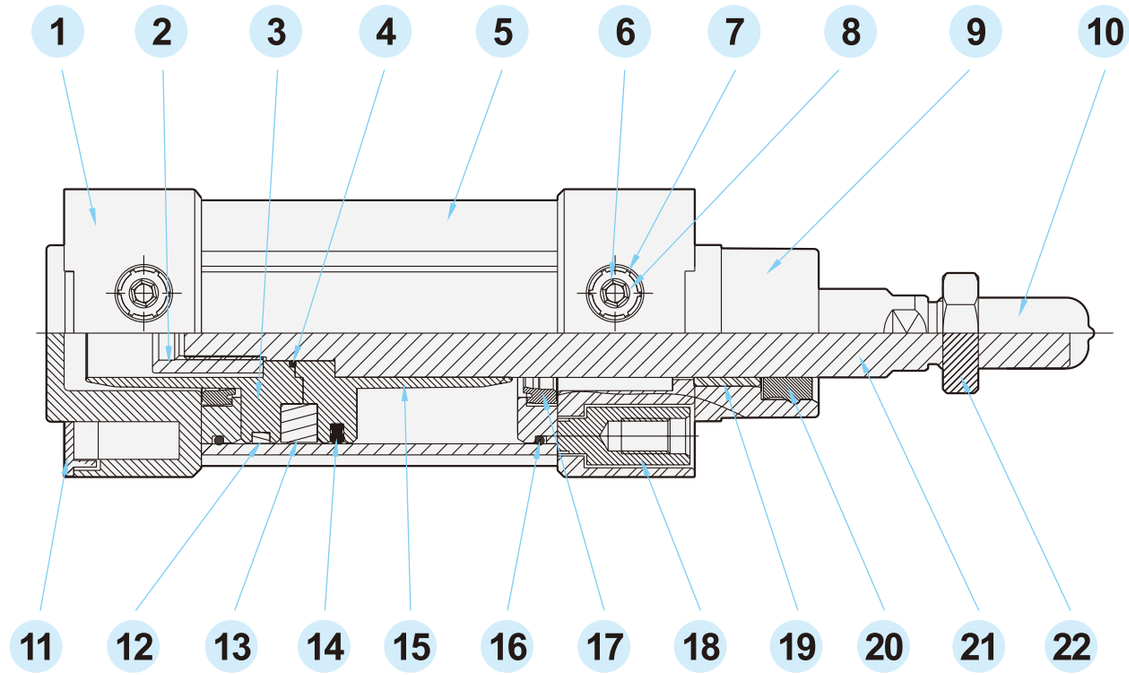



(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 8 | 24 | 142 | 4 | 32 | 32 | 47 | ϕ7 | 56.5 | 17 | 10 |
| ϕ40 | 10 | 28 | 161 | 4 | 36 | 36 | 53 | ϕ9 | 63.5 | 19 | 13 |
| ϕ50 | 10 | 32 | 170 | 4 | 45 | 45 | 65 | ϕ9 | 77.5 | 24 | 17 |
| ϕ63 | 10 | 32 | 185 | 4 | 50 | 50 | 75 | ϕ9 | 87.5 | 24 | 17 |
| ϕ80 | 13 | 41 | 210 | 5 | 63 | 63 | 95 | ϕ12 | 110 | 26 | 22 |
| ϕ100 | 13 | 41 | 220 | 6 | 71 | 75 | 115 | ϕ14 | 127.5 | 26 | 22 |



## Material of parts




| No. | Description | Material | Qty. |
|---|---|---|---|
| 1 | Rear cover | Aluminum alloy | 1 |
| 2 | Piston mounting nut | Brass+Ni | 1 |
| 3 | Rear piston | Aluminum alloy | 1 |
| 4 | O-ring | NBR | 1 |
| 5 | Barrel | Aluminum alloy | 1 |
| 6 | Cushion needle | Brass | 1 |
| 7 | Push on fastener | FeC | 2 |
| 8 | O-ring for cushion needle | NBR | 2 |
| 9 | Front cover | Aluminum alloy | 1 |
| 10 | Rubber cap | NBR | 1 |
| 11 | Rear plate | Plastic | 1 |

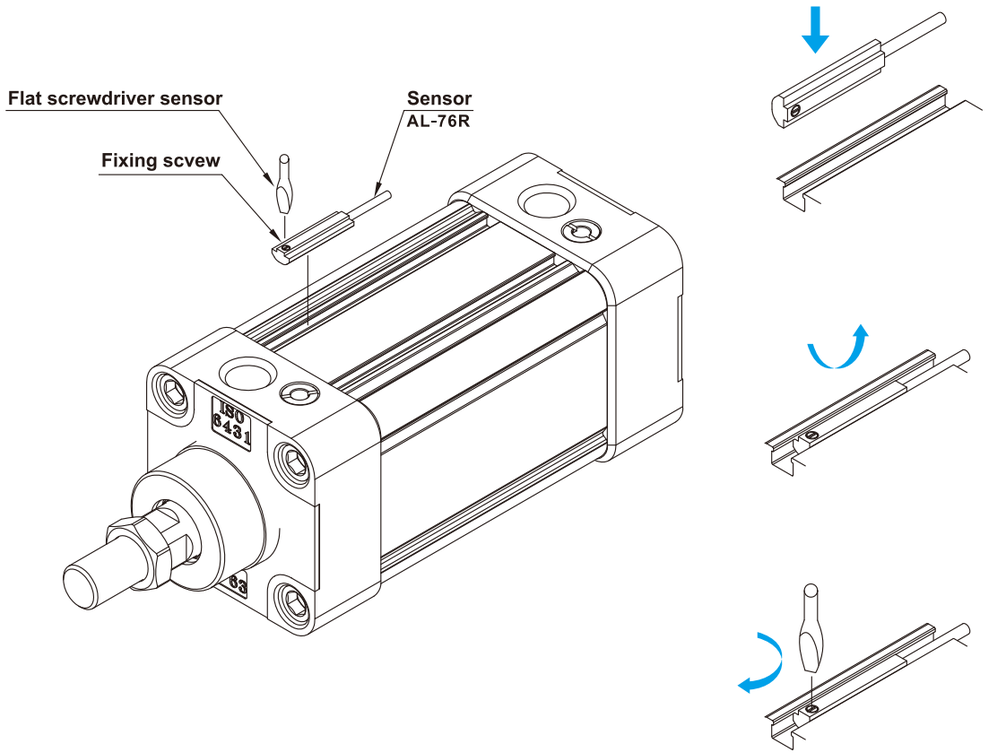
| No. | Description | Material | Qty. |
|---|---|---|---|
| 12 | Wear ring | Teflon+Graphite | 1 |
| 13 | Magnet | Rubber | 1 |
| 14 | U-Piston seal | NBR | 1 |
| 15 | Front piston | Aluminum alloy | 1 |
| 16 | O-ring for front/rear cover | NBR | 2 |
| 17 | Cushion | PU | 2 |
| 18 | Fixing bolt | Fe+Ni | 8 |
| 19 | Bushing | Brass | 1 |
| 20 | Rod seal | PU | 1 |
| 21 | Piston rod | S45C+Cr | 1 |
| 22 | Nut | Fe+Ni | 1 |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| $\phi$ 32 ~ $\phi$ 100 | Double acting | 25 ~ 1000 | 1800 |

Note: Please contact our sales for non-standard stroke.

## Sensor mounting example





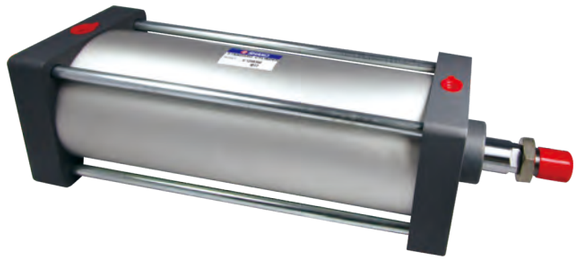

Memo...

# ISO15552 Standard Cylinder (Tie-Rod)



## Features

1. Tie rod cylinder.
2. High quality of aluminum tube provides a long service life.
3. High quality of seals ensures leakage free.
4. Various sensors for option.
5. With adjustable cushions on both ends.



## How to order

| ICL | 125 | B | 50 | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Bore size** | **Magnet** | **Stroke** | **Sensor** | **Type** | **Number of sensor** | **Mounting parts** | **Rod end joint** | **Rod material** |
| **ICL** :ISO15552 standard type<br>**ICLD** :Double piston rod type<br>**ICLA** :Stroke adjustable 25mm<br>**ICLB** :Stroke adjustable 50mm | **125** :Ø125<br>**160** :Ø160<br>**200** :Ø200 | **B** :W/I magnet<br>**C** :W/O magnet | | **Blank** :W/O sensor<br>**SF** :LED in front<br>AL-20<br>**ST** :LED on top<br>AL-21 | **Blank** :Reed switch<br>**D** :NPN<br>**E** :PNP | 1 pc<br>2 pcs | **Blank** :W/O mounting parts<br>**FA** :Front flange<br>**FB** :Rear flange<br>**TC** :Central trunnion<br>**CA** :Male clevis<br>**CB** :Female clevis<br>**CR** :Angular trunnion with female clevis<br>**LB** :Foot mounting | **Blank** :W/O rod end joint<br>**Y** :Double knuckle joint<br>**I** :Single knuckle joint<br>**P** :Eyebolt floating joint<br>**T** :Basic floating joint | **Blank** :S45C<br>**S** :SUS304 |

*Sensor please refer to P3-189~P3-190
*Repair kit to P3-27

## How to order mounting parts

| ZI | FA | – | 125 |
|---|---|---|---|
| **ICL series** | **Mounting parts** | | **Bore size** |
| | **FA** :Front flange<br>**FB** :Rear flange<br>**TC** :Central trunnion<br>**CA** :Male clevis<br>**CB** :Female clevis<br>**CR** :Angular trunnion with female clevis<br>**LB** :Foot mounting | | **125** :Ø125<br>**160** :Ø160<br>**200** :Ø200 |

*Please refer to P3-25~P3-27

## How to order rod end joints

| ZNF | Y | – | M27 |
|---|---|---|---|
| | **Rod end joint** | | **Thread size** |
| | **Y** :Double knuckle joint<br>**I** :Single knuckle joint<br>**P** :Eyebolt floating joint<br>**T** :Basic floating joint | | **M27** :M27xP2 **(ICL125)**<br>**M36** :M36xP2 **(ICL160, 200)** |

*Please refer to P3-187~P3-188

## Specifications

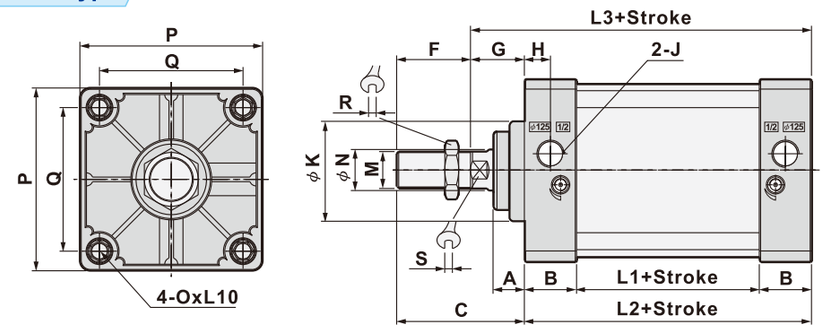
| Bore size | Ø125 | Ø160 | Ø200 |
|---|---|---|---|
| Port size | 1/2" | 3/4" | |
| Fluid | Compressed air | | |
| Acting | Double acting | | |
| Operating pressure range | 1.5 ~ 9.5 kgf/cm² | | |
| Barrel material | Aluminum alloy | | |
| Cushion | Built in | | |
| Magnet | Option | | |
| Ambient temperature | -5°C ~ 60°C | | |
| Piston speed | 50 ~ 700mm/Sec. | | |



## Dimensions

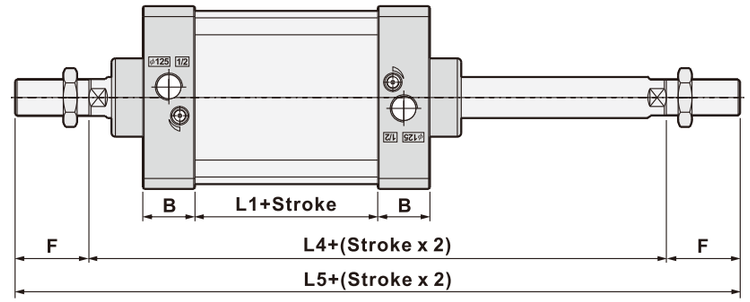
### ISO15552 Standard type

ICL:ISO15552 Standard type



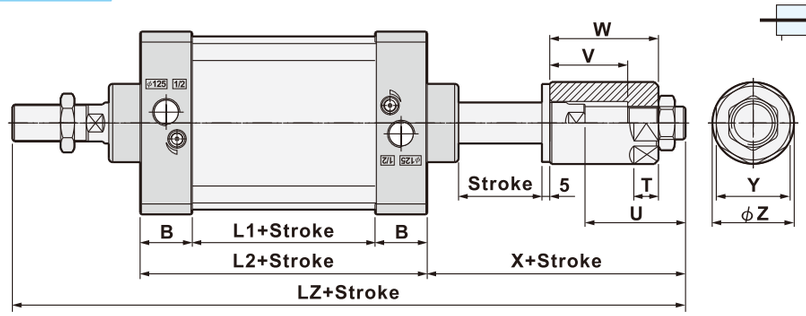

### ICLD Double piston rod type

ICLD:Double piston rod type




### ICLA, ICLB Adjustable type

ICLA, ICLB Adjustable type



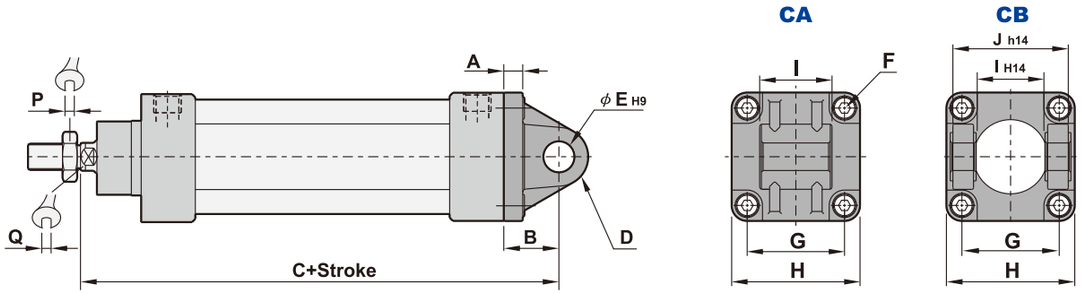

(Unit: mm)

| Bore size | A | B | C | F | G | H | I | J | K | M | N | O | L1 | L2 | L3 | L4 | L5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ**125** | 24.5 | 40 | 119 | 54 | 65 | 26.5 | 110 | G1/2 | ϕ60 | M27xP2 | ϕ32 | M12 | 80 | 160 | 225 | 290 | 398 |
| ϕ**160** | 38 | 50 | 152 | 72 | 80 | 25.5 | 140 | G3/4 | ϕ65 | M36xP2 | ϕ40 | M16 | 80 | 180 | 260 | 340 | 484 |
| ϕ**200** | 38 | 50 | 167 | 72 | 95 | 23.5 | 175 | G3/4 | ϕ75 | M36xP2 | ϕ40 | M16 | 84 | 184 | 279 | 374 | 518 |

| Bore size | LZ | | U | | V | | W | | X | | P | Q | R | S | T | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ICLA | ICLB | ICLA | ICLB | ICLA | ICLB | ICLA | ICLB | ICLA | ICLB | | | | | | | |
| ϕ**125** | 409 | 434 | 65 | 90 | 57 | 82 | 74 | 99 | 130 | 155 | 140 | 110 | 40 | 27 | 21 | 50 | ϕ55 |
| ϕ**160** | 491 | 516 | 79 | 104 | 69 | 94 | 89 | 114 | 159 | 184 | 180 | 140 | 50 | 36 | 21 | 55 | ϕ60 |
| ϕ**200** | 525 | 550 | 79 | 104 | 69 | 94 | 89 | 114 | 174 | 199 | 220 | 175 | 50 | 36 | 21 | 55 | ϕ60 |

## Dimension of mounting parts

### CA, CB Male & Female clevis

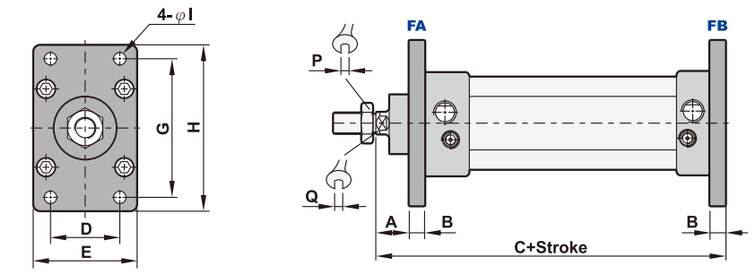



(Unit: mm)

| Bore size | A | | B | C | D | E | F | G | H | I | J | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CA | CB | | | | | | | | | | | |
| φ125 | 17 | 19 | 50 | 275 | R25 | φ25 | M12 | 110 | 140 | $70^{-0.5}_{-1.2}$ | 130 | 40 | 27 |
| φ160 | 19.5 | 19.5 | 55 | 315 | R30 | φ30 | M16 | 140 | 180 | $90^{-0.5}_{-1.2}$ | 170 | 50 | 36 |
| φ200 | 23 | 22 | 60 | 339 | R30 | φ30 | M16 | 175 | 220 | $90^{-0.5}_{-1.2}$ | 170 | 50 | 36 |

## Dimension of mounting parts

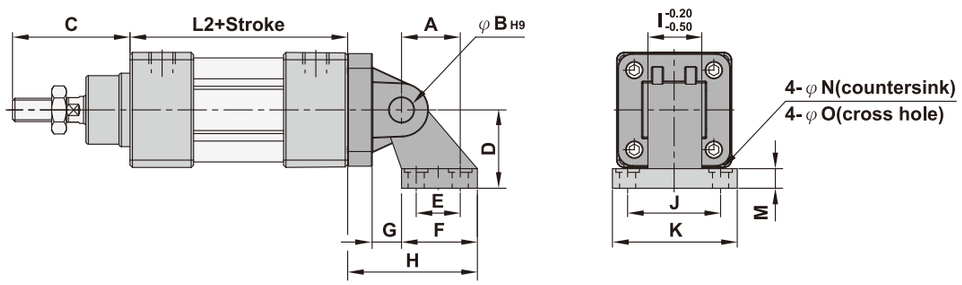
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | A | B | C | D | E | G | H | I | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|
| φ125 | 45 | 20 | 245 | 90 | 140 | 180 | 224 | φ16.5 | 40 | 27 |
| φ160 | 60 | 20 | 280 | 115 | 180 | 230 | 280 | φ18.5 | 50 | 36 |
| φ200 | 70 | 25 | 304 | 135 | 220 | 270 | 320 | φ24 | 50 | 36 |

### CR Angular trunnion with female clevis

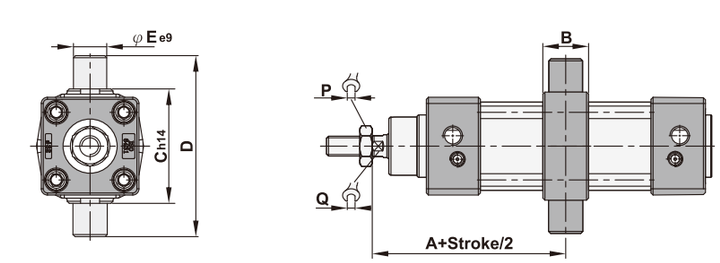



(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | J | K | L2 | M | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| φ125 | 70 | φ25 | 119 | 90 | 60 | 90 | 26 | 135 | 70 | 94 | 124 | 160 | 20 | φ20 | φ14 |
| φ160 | 97 | φ30 | 152 | 115 | 88 | 126 | 25 | 171 | 90 | 118 | 156 | 180 | 25 | φ20 | φ14 |
| φ200 | 105 | φ30 | 167 | 135 | 90 | 130 | 31 | 185 | 90 | 122 | 162 | 184 | 30 | φ26 | φ18 |

P3-25

### TC Central trunnion



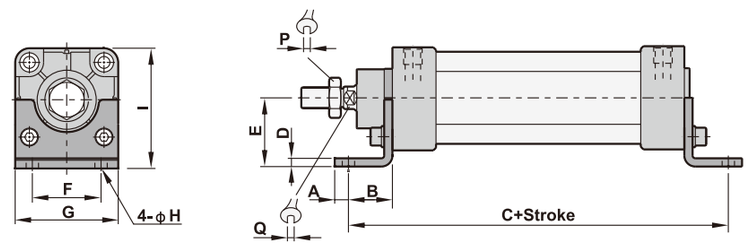

(Unit: mm)

| Bore size | A | B | C | D | E | P | Q |
|---|---|---|---|---|---|---|---|
| φ125 | 115 | 40 | 158 | 210 | φ25 | 40 | 27 |
| φ160 | 126 | 46 | 200 | 264 | φ32 | 50 | 36 |
| φ200 | 126 | 46 | 246 | 314 | φ32 | 50 | 36 |

P3-26

## Dimension of mounting parts

### LB Foot mounting




(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| φ125 | 20 | 45 | 250 | 8 | 90 | 90 | 140 | φ16.5 | 160 | 40 | 27 |
| φ160 | 20 | 60 | 300 | 8 | 115 | 115 | 180 | φ18.5 | 205 | 50 | 36 |
| φ200 | 30 | 70 | 324 | 9 | 135 | 135 | 220 | φ24 | 245 | 50 | 36 |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| φ125~φ200 | Double acting | 25 ~ 1500 | 2200 |

Note: Please contact our sales for non-standard stroke.

## How to order Repair kit

| ZGCIN – | 125 |
|---|---|
| Repair kit for IC Cylinder | Bore size |
| ZGCIN (ICL) | 125 : φ125 |
| ZGCINB (ICLD. ICLA. ICLB) | 160 : φ160 |
| | 200 : φ200 |

## Repair kit :

| ZGCIN | |
|---|---|
| Description | Qty. |
| Rod seal | 1 |
| O-ring for cushion needle | 2 |
| O-ring for front/rear cover | 2 |
| Cushion | 2 |
| U-Piston seal | 2 |

| ZGCINB | |
|---|---|
| Description | Qty. |
| Rod seal | 2 |
| O-ring for cushion needle | 2 |
| O-ring for front/rear cover | 2 |
| Cushion | 2 |
| U-Piston seal | 2 |



Memo...



# ISO6430 Standard Cylinder



## Features

1. Identical to ISO6430 standard.
2. High quality of aluminum tube provides a long service life.
3. High quality of seals ensures leakage free.
4. Various sensors for option.
5. With adjustable cushions on both ends.

## How to order

| TC | 32 | B | 50 | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Bore size** | **Magnet** | **Stroke** | **Sensor** | **Type** | **Number of sensor** | **Mounting parts** | **Rod end joint** | **Rod material** |
| TC :ISO6430 standard type<br>TCD:Double piston rod type<br>TCA:Stroke adjustable 25mm<br>TCB:Stroke adjustable 50mm | 32 :Ø32<br>40 :Ø40<br>50 :Ø50<br>63 :Ø63<br>80 :Ø80<br>100 :Ø100 | B :W/I magnet<br>C :W/O magnet | | Blank :W/O sensor<br>SF :LED in front<br>AL-20<br>ST :LED on top<br>AL-21 | Blank :Reed switch<br>D :NPN<br>E :PNP | 1 pc<br>2 pcs | Blank :W/O mounting parts<br>FA :Front flange<br>FB :Rear flange<br>CA :Male clevis<br>CB :Female clevis<br>LB :Foot mounting | Blank :W/O rod end joint<br>Y :Double knuckle joint<br>I :Single knuckle joint<br>P :Eyebolt floating joint<br>T :Basic floating joint<br>L :Axial foot type floating joint<br>F :Flange type floating joint | Blank :S45C<br>S :SUS304 |

*For ϕTC32~ϕTC100 non-rotated type, please contact our sales.

*Sensor please refer to P3-189~P3-190
*Repair kit to P3-33

## How to order mounting parts

| ZT | FA | – | 32 |
|---|---|---|---|
| **TC series** | **Mounting parts** | | **Bore size** |
| | FA :Front flange<br>FB :Rear flange<br>CA :Male clevis<br>CB :Female clevis<br>LB :Foot mounting | | 32 :Ø32<br>40 :Ø40<br>50 :Ø50<br>63 :Ø63<br>80 :Ø80<br>100 :Ø100 |

*Please refer to P3-32~P3-33

## How to order rod end joints

| ZNF | Y | – | M10 |
|---|---|---|---|
| | **Rod end joint** | | **Thread size** |
| | Y :Double knuckle joint<br>I :Single knuckle joint<br>P :Eyebolt floating joint<br>T :Basic floating joint<br>L :Axial foot type floating joint<br>F :Flange type floating joint | | M10 :M10xP1.25 **(TC32)**<br>M12 :M12xP1.25 **(TC40)**<br>M16 :M16xP1.5 **(TC50, 63)**<br>M20 :M20xP1.5 **(TC80, 100)** |

*Please refer to P3-187~P3-188

## Specifications

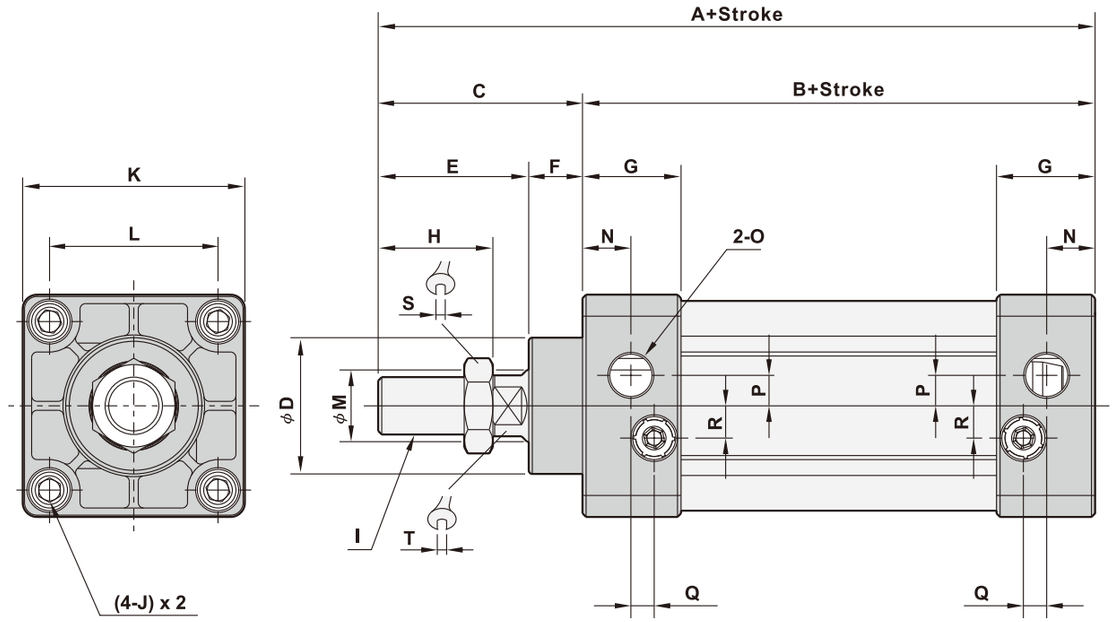
| Bore size | Ø32 | Ø40 | Ø50 | Ø63 | Ø80 | Ø100 |
|---|---|---|---|---|---|---|
| Port size | 1/8" | 1/4" | | 3/8" | | 1/2" |
| Fluid | Compressed air | | | | | |
| Acting | Double acting | | | | | |
| Operating pressure range | 1.5 ~ 9.5 kgf/cm² | | | | | |
| Barrel material | Aluminum alloy | | | | | |
| Cushion | Built in | | | | | |
| Magnet | Option | | | | | |
| Ambient temperature | -5°C ~ 60°C | | | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | | | |



## Dimensions

### ISO6430 Standard type

TC:ISO6430 Standard type



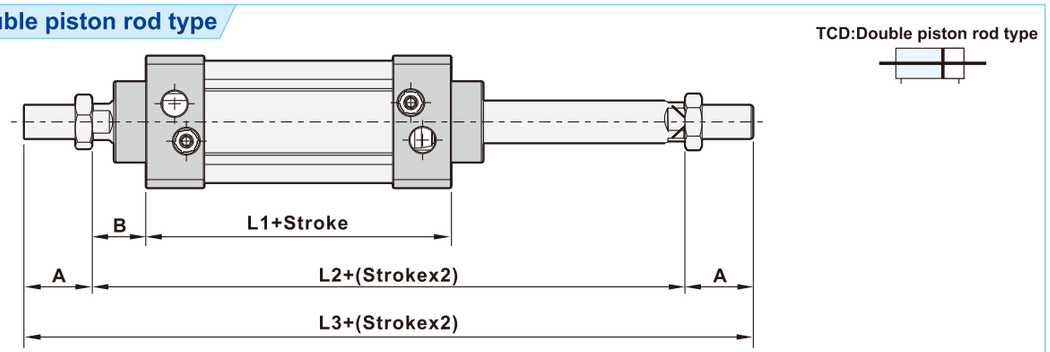

(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 140 | 93 | 47 | ϕ28 | 32 | 15 | 27.5 | 22 | M10xP1.25 | M6xP1.0 |
| ϕ40 | 142 | 93 | 49 | ϕ32 | 34 | 15 | 27.5 | 24 | M12xP1.25 | M6xP1.0 |
| ϕ50 | 150 | 93 | 57 | ϕ34 | 42 | 15 | 27.5 | 32 | M16xP1.5 | M6xP1.0 |
| ϕ63 | 153 | 96 | 57 | ϕ34 | 42 | 15 | 29 | 32 | M16xP1.5 | M8xP1.25 |
| ϕ80 | 183 | 108 | 75 | ϕ47 | 54 | 21 | 33 | 40 | M20xP1.5 | M10xP1.5 |
| ϕ100 | 189 | 114 | 75 | ϕ47 | 54 | 21 | 33 | 40 | M20xP1.5 | M10xP1.5 |

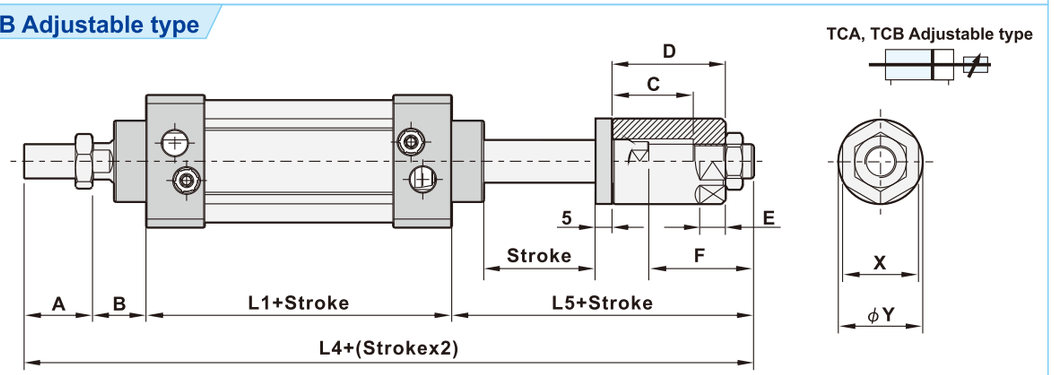
| Bore size | K | L | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 45 | 33 | ϕ12 | 13.75 | G 1/8 | 3.5 | 6.5 | 7 | 17 | 10 |
| ϕ40 | 50 | 37 | ϕ16 | 13.5 | G 1/4 | 6 | 6 | 7 | 19 | 13 |
| ϕ50 | 62 | 47 | ϕ20 | 13.5 | G 1/4 | 8.5 | 5.5 | 9 | 24 | 17 |
| ϕ63 | 75 | 56 | ϕ20 | 14.5 | G 3/8 | 8.5 | 5.5 | 9 | 24 | 17 |
| ϕ80 | 94 | 70 | ϕ25 | 16.5 | G 3/8 | 10 | 7.5 | 14 | 26 | 22 |
| ϕ100 | 112 | 84 | ϕ25 | 16.5 | G 1/2 | 11 | 7.5 | 14 | 26 | 22 |

## Dimensions

### TCD Double piston rod type




### TCA, TCB Adjustable type




(Unit: mm)

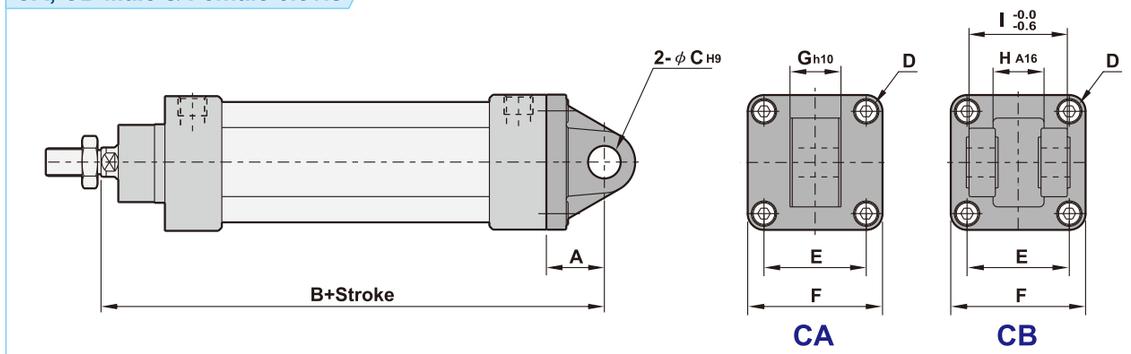
| Bore size | A | B | C | | D | | E | F | |
|---|---|---|---|---|---|---|---|---|---|
| | | | TCA | TCB | TCA | TCB | | TCA | TCB |
| ϕ32 | 22 | 25 | 35 | 62 | 47 | 72 | 10 | 49 | 74 |
| ϕ40 | 24 | 25 | 37 | 62 | 47 | 72 | 10 | 50 | 75 |
| ϕ50 | 32 | 25 | 38 | 63 | 53 | 78 | 12 | 57 | 82 |
| ϕ63 | 32 | 25 | 38 | 63 | 53 | 78 | 12 | 57 | 82 |
| ϕ80 | 40 | 35 | 40 | 65 | 60 | 85 | 12 | 62 | 87 |
| ϕ100 | 40 | 35 | 40 | 65 | 60 | 85 | 12 | 62 | 88 |

| Bore size | L1 | L2 | L3 | L4 | | L5 | | X | Y |
|---|---|---|---|---|---|---|---|---|---|
| | | | | TCA | TCB | TCA | TCB | | |
| ϕ32 | 93 | 143 | 187 | 214 | 239 | 74 | 99 | 22 | ϕ25 |
| ϕ40 | 93 | 143 | 191 | 217 | 242 | 75 | 100 | 27 | ϕ30 |
| ϕ50 | 93 | 143 | 207 | 232 | 257 | 82 | 107 | 36 | ϕ40 |
| ϕ63 | 96 | 146 | 210 | 235 | 260 | 82 | 107 | 36 | ϕ40 |
| ϕ80 | 108 | 178 | 258 | 280 | 305 | 97 | 122 | 36 | ϕ40 |
| ϕ100 | 114 | 184 | 264 | 286 | 312 | 97 | 123 | 36 | ϕ40 |



## Dimension of mounting parts

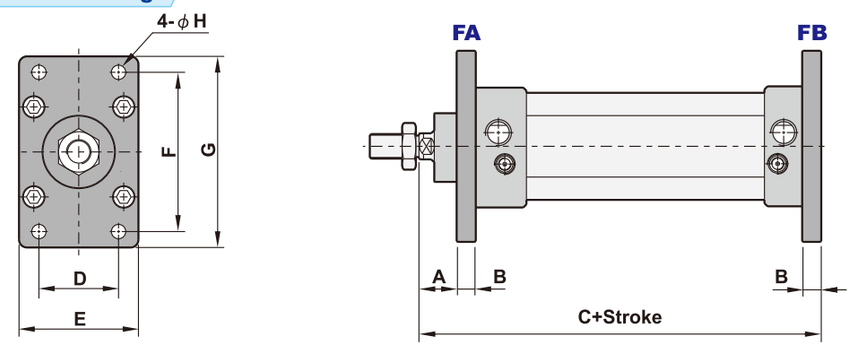
### CA, CB Male & Female clevis




(Unit: mm)

| Bore size | A | | B | | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CA | CB | CA | CB | | | | | | | |
| ϕ32 | 34 | 19 | 152 | 137 | ϕ12 | M6XP1.0 | 33 | 48 | 16 | 16.3 | 32 |
| ϕ40 | 34 | 19 | 152 | 137 | ϕ14 | M6XP1.0 | 37 | 50 | 20 | 20.3 | 44 |
| ϕ50 | 34 | 19 | 152 | 137 | ϕ14 | M6XP1.0 | 47 | 62 | 20 | 20.3 | 52 |
| ϕ63 | 34 | 19 | 155 | 140 | ϕ14 | M8XP1.25 | 56 | 75 | 20 | 20.3 | 52 |
| ϕ80 | 48 | 32 | 191 | 175 | ϕ20 | M10XP1.5 | 70 | 94 | 32 | 32.3 | 64 |
| ϕ100 | 48 | 32 | 197 | 181 | ϕ20 | M10XP1.5 | 84 | 112 | 32 | 32.3 | 64 |

### FA, FB Front & Rear flange

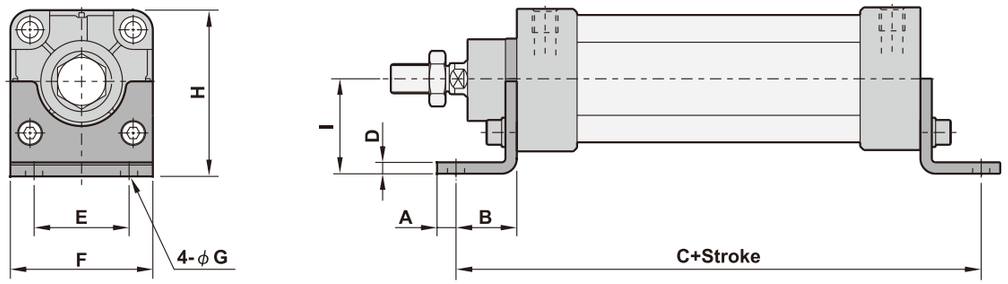



(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| ϕ32 | 15 | 10 | 128 | 33 | 47 | 58 | 72 | ϕ7 |
| ϕ40 | 15 | 10 | 128 | 36 | 52 | 70 | 84 | ϕ7 |
| ϕ50 | 15 | 10 | 128 | 47 | 65 | 86 | 104 | ϕ9 |
| ϕ63 | 13 | 12 | 133 | 56 | 76 | 98 | 116 | ϕ9 |
| ϕ80 | 19 | 16 | 159 | 70 | 95 | 119 | 143 | ϕ12 |
| ϕ100 | 19 | 16 | 165 | 84 | 115 | 138 | 162 | ϕ12 |

## Dimension of mounting parts

### LB Foot mounting




(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 9.5 | 20.5 | 134 | 3 | 33 | 50 | ϕ9 | 50.5 | 28 |
| ϕ40 | 14.5 | 23.5 | 140 | 3 | 37 | 57 | ϕ12 | 55 | 30 |
| ϕ50 | 12 | 28 | 149 | 3 | 47 | 68 | ϕ12 | 67.5 | 36.5 |
| ϕ63 | 13 | 31 | 158 | 3 | 56 | 80 | ϕ12 | 78.5 | 41 |
| ϕ80 | 16 | 30 | 168 | 4 | 70 | 97 | ϕ14 | 96 | 49 |
| ϕ100 | 18 | 30 | 174 | 4 | 84 | 112 | ϕ14 | 113 | 57 |

## How to order Repair kit

| ZGCTN – 32 | |
|---|---|
| **Repair kit for TC Cylinder** | **Bore size** |
| ZGCTN (TC)<br>ZGCTNB (TCD. TCA. TCB) | 32 : ϕ32<br>40 : ϕ40<br>50 : ϕ50<br>63 : ϕ63<br>80 : ϕ80<br>100 : ϕ100 |

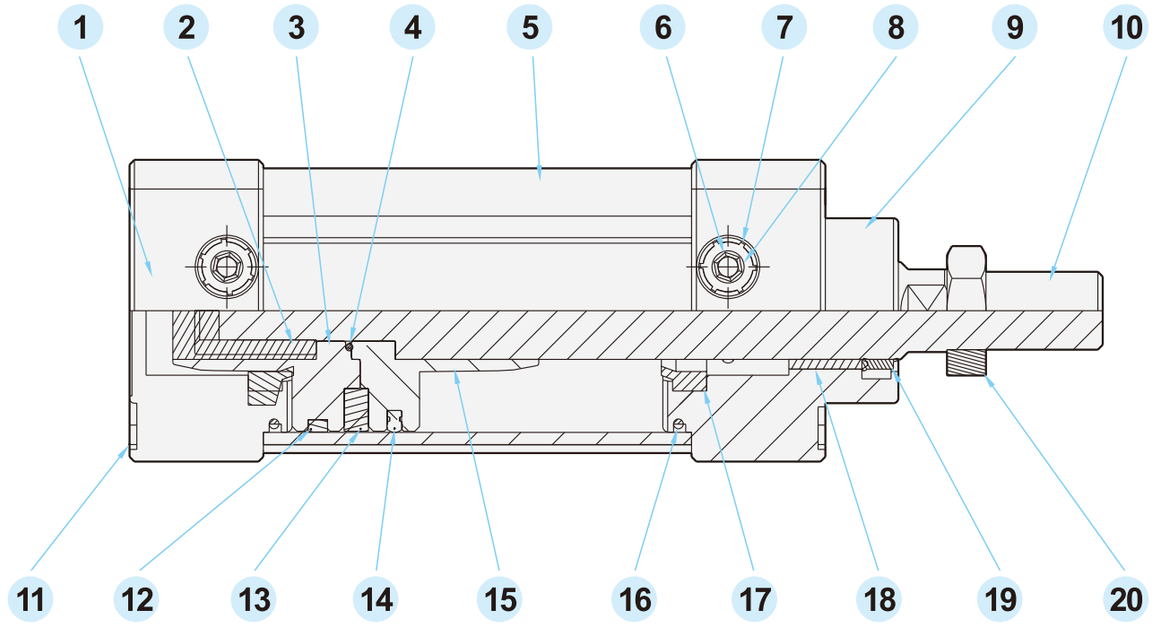
## Repair kit :

| ZGCTN | |
|---|---|
| **Description** | **Qty.** |
| Rod seal | 1 |
| O-ring for cushion needle | 2 |
| O-ring for front/rear cover | 2 |
| Cushion | 2 |
| U-Piston seal | 1 |

| ZGCTNB | |
|---|---|
| **Description** | **Qty.** |
| Rod seal | 2 |
| O-ring for cushion needle | 2 |
| O-ring for front/rear cover | 2 |
| Cushion | 2 |
| U-Piston seal | 1 |



## Material of parts




| No. | Description | Material | Qty. | No. | Description | Material | Qty. |
|---|---|---|---|---|---|---|---|
| 1 | Rear cover | Aluminum alloy | 1 | 11 | Fixing bolt | Fe+Ni | 8 |
| 2 | Piston mounting nut | Brass+Ni | 1 | 12 | Wear ring | Teflon+Graphite | 1 |
| 3 | Rear piston | Aluminum alloy | 1 | 13 | Magnet | Rubber | 1 |
| 4 | O-ring | NBR | 1 | 14 | U-Piston seal | NBR | 1 |
| 5 | Barrel | Aluminum alloy | 1 | 15 | Front piston | Aluminum alloy | 1 |
| 6 | Cushion needle | Brass | 2 | 16 | O-ring for front/rear cover | NBR | 2 |
| 7 | Push on fastener | FeC | 2 | | | | |
| 8 | O-ring for cushion needle | NBR | 2 | 17 | Cushion | PU | 2 |
| | | | | 18 | Bushing | Brass | 1 |
| 9 | Front cover | Aluminum alloy | 1 | 19 | Rod seal | PU | 1 |
| 10 | Piston rod | S45C+Cr | 1 | 20 | Nut | Fe+Ni | 1 |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| ϕ32 ~ ϕ100 | Double acting | 25 ~ 1000 | 1800 |

Note: Please contact our sales for non-standard stroke.

# ISO6430 Standard Cylinder (Tie-Rod)



## Features

1. Identical to ISO6430 standard.
2. High quality of aluminum tube provides a long service life.
3. High quality of seals ensures leakage free.
4. Various sensors for option.
5. With adjustable cushions on both ends.

## How to order

| STC | 32 | B | 50 | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Bore size** | **Magnet** | **Stroke** | **Sensor** | **Type** | **Number of sensor** | **Mounting parts** | **Rod end joint** | **Rod material** |
| **STC** :ISO6430 standard type<br>**STCD** :Double piston rod type<br>**STCA** :Stroke adjustable 25mm<br>**STCB** :Stroke adjustable 50mm | **32** :Ø32<br>**40** :Ø40<br>**50** :Ø50<br>**63** :Ø63<br>**80** :Ø80<br>**100** :Ø100 | **B**:W/I magnet<br>**C**:W/O magnet | | **Blank**:W/O sensor<br>**SF**:LED in front  AL-20<br>**ST**:LED on top  AL-21 | **Blank**:Reed switch<br>**D**:NPN<br>**E**:PNP | 1 pc<br>2 pcs | **Blank** :W/O mounting parts<br>**FA** :Front flange<br>**FB** :Rear flange<br>**TC** :Central trunnion<br>**CA** :Male clevis<br>**CB** :Female clevis<br>**LB** :Foot mounting | **Blank**:W/O rod end joint<br>**Y**:Double knuckle joint<br>**I** :Single knuckle joint<br>**P**:Eyebolt floating joint<br>**T**:Basic floating joint<br>**L**:Axial foot type floating joint<br>**F**:Flange type floating joint | **Blank**:S45C<br>**S**:SUS304 |

*Sensor please refer to P3-189~P3-190
*Repair kit to P3-33

## How to order mounting parts

| ZT | FA | — | 32 |
|---|---|---|---|
| **STC series** | **Mounting parts** | | **Bore size** |
| | **FA** :Front flange | | **32** :Ø32 |
| | **FB** :Rear flange | | **40** :Ø40 |
| | **TC** :Central trunnion | | **50** :Ø50 |
| | **CA** :Male clevis | | **63** :Ø63 |
| | **CB** :Female clevis | | **80** :Ø80 |
| | **LB** :Foot mounting | | **100** :Ø100 |

*Please refer to P3-38~P3-39

## How to order rod end joints

| ZNF | Y | — | M10 |
|---|---|---|---|
| | **Rod end joint** | | **Thread size** |
| | **Y**:Double knuckle joint | | **M10** :M10xP1.25 **(STC32)** |
| | **I** :Single knuckle joint | | **M12** :M12xP1.25 **(STC40)** |
| | **P**:Eyebolt floating joint | | **M16** :M16xP1.5 **(STC50, 63)** |
| | **T**:Basic floating joint | | **M20** :M20xP1.5 **(STC80, 100)** |
| | **L**:Axial foot type floating joint | | |
| | **F**:Flange type floating joint | | |

*Please refer to P3-187~P3-188

## Specifications

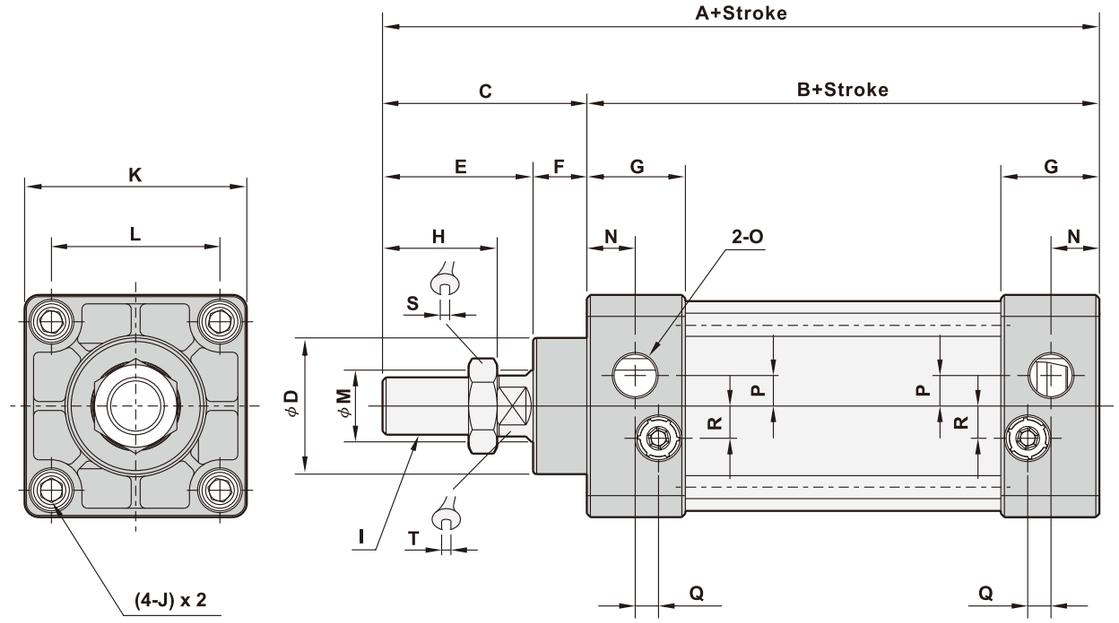
| Bore size | Ø32 | Ø40 | Ø50 | Ø63 | Ø80 | Ø100 |
|---|---|---|---|---|---|---|
| Port size | 1/8" | 1/4" | | 3/8" | | 1/2" |
| Fluid | Compressed air | | | | | |
| Acting | Double acting | | | | | |
| Operating pressure range | 1.5 ~ 9.5 kgf/cm² | | | | | |
| Barrel material | Aluminum alloy | | | | | |
| Cushion | Built in | | | | | |
| Magnet | Option | | | | | |
| Ambient temperature | -5°C ~ 60°C | | | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | | | |



## Dimensions

### ISO6430 Standard type

STC:ISO6430 Standard type




(Unit: mm)

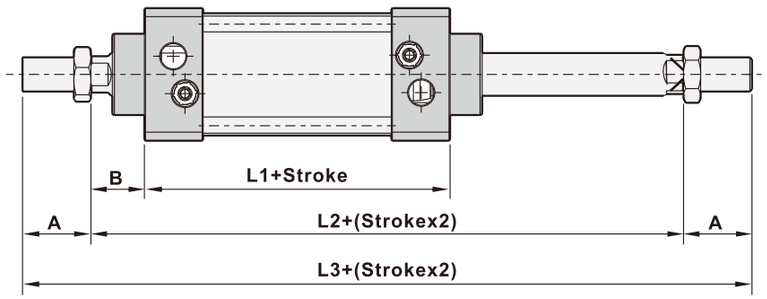
| Bore size | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| **φ32** | 140 | 93 | 47 | φ28 | 32 | 15 | 27.5 | 22 | M10xP1.25 | M6xP1.0 |
| **φ40** | 142 | 93 | 49 | φ32 | 34 | 15 | 27.5 | 24 | M12xP1.25 | M6xP1.0 |
| **φ50** | 150 | 93 | 57 | φ34 | 42 | 15 | 27.5 | 32 | M16xP1.5 | M6xP1.0 |
| **φ63** | 153 | 96 | 57 | φ34 | 42 | 15 | 29 | 32 | M16xP1.5 | M8xP1.25 |
| **φ80** | 183 | 108 | 75 | φ47 | 54 | 21 | 33 | 40 | M20xP1.5 | M10xP1.5 |
| **φ100** | 189 | 114 | 75 | φ47 | 54 | 21 | 33 | 40 | M20xP1.5 | M10xP1.5 |

| Bore size | K | L | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|
| **φ32** | 45 | 33 | φ12 | 13.75 | G 1/8 | 3.5 | 6.5 | 7 | 17 | 10 |
| **φ40** | 50 | 37 | φ16 | 13.5 | G 1/4 | 6 | 6 | 7 | 19 | 13 |
| **φ50** | 62 | 47 | φ20 | 13.5 | G 1/4 | 8.5 | 5.5 | 9 | 24 | 17 |
| **φ63** | 75 | 56 | φ20 | 14.5 | G 3/8 | 8.5 | 5.5 | 9 | 24 | 17 |
| **φ80** | 94 | 70 | φ25 | 16.5 | G 3/8 | 10 | 7.5 | 14 | 26 | 22 |
| **φ100** | 112 | 84 | φ25 | 16.5 | G 1/2 | 11 | 7.5 | 14 | 26 | 22 |

## Dimensions

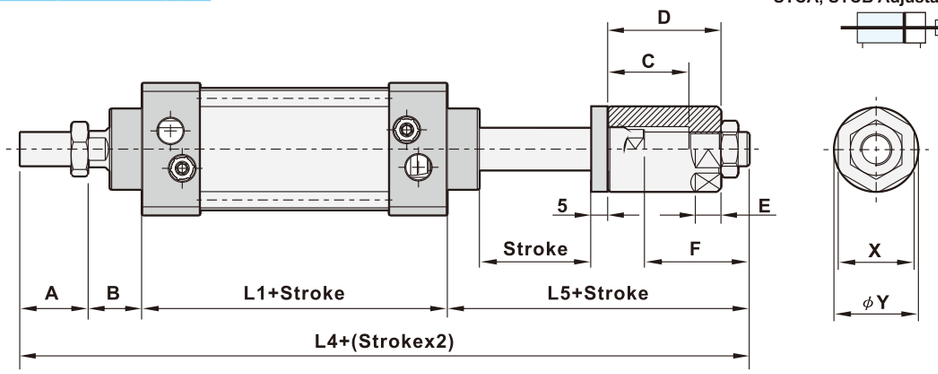
### STCD Double piston rod type

STCD:Double piston rod type




### STCA, STCB Adjustable type

STCA, STCB Adjustable type




(Unit: mm)

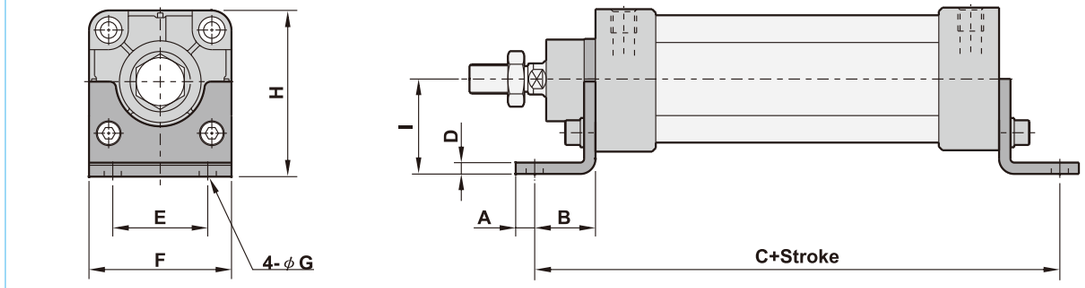
| Bore size | A | B | C | | D | | E | F | |
|---|---|---|---|---|---|---|---|---|---|
| | | | STCA | STCB | STCA | STCB | | STCA | STCB |
| ϕ32 | 22 | 25 | 35 | 62 | 47 | 72 | 10 | 49 | 74 |
| ϕ40 | 24 | 25 | 37 | 62 | 47 | 72 | 10 | 50 | 75 |
| ϕ50 | 32 | 25 | 38 | 63 | 53 | 78 | 12 | 57 | 82 |
| ϕ63 | 32 | 25 | 38 | 63 | 53 | 78 | 12 | 57 | 82 |
| ϕ80 | 40 | 35 | 40 | 65 | 60 | 85 | 12 | 62 | 87 |
| ϕ100 | 40 | 35 | 40 | 65 | 60 | 85 | 12 | 62 | 88 |

| Bore size | L1 | L2 | L3 | L4 | | L5 | | X | Y |
|---|---|---|---|---|---|---|---|---|---|
| | | | | STCA | STCB | STCA | STCB | | |
| ϕ32 | 93 | 143 | 187 | 214 | 239 | 74 | 99 | 22 | ϕ25 |
| ϕ40 | 93 | 143 | 191 | 217 | 242 | 75 | 100 | 27 | ϕ30 |
| ϕ50 | 93 | 143 | 207 | 232 | 257 | 82 | 107 | 36 | ϕ40 |
| ϕ63 | 96 | 146 | 210 | 235 | 260 | 82 | 107 | 36 | ϕ40 |
| ϕ80 | 108 | 178 | 258 | 280 | 305 | 97 | 122 | 36 | ϕ40 |
| ϕ100 | 114 | 184 | 264 | 286 | 312 | 97 | 123 | 36 | ϕ40 |



## Dimension of mounting parts

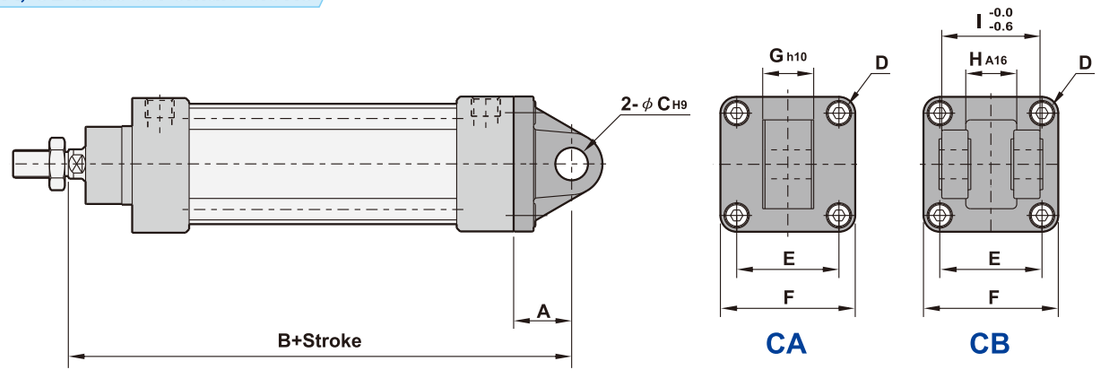
### LB Foot mounting




(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| ϕ32 | 9.5 | 20.5 | 134 | 3 | 33 | 50 | ϕ9 | 50.5 | 28 |
| ϕ40 | 14.5 | 23.5 | 140 | 3 | 37 | 57 | ϕ12 | 55 | 30 |
| ϕ50 | 12 | 28 | 149 | 3 | 47 | 68 | ϕ12 | 67.5 | 36.5 |
| ϕ63 | 13 | 31 | 158 | 3 | 56 | 80 | ϕ12 | 78.5 | 41 |
| ϕ80 | 16 | 30 | 168 | 4 | 70 | 97 | ϕ14 | 96 | 49 |
| ϕ100 | 18 | 30 | 174 | 4 | 84 | 112 | ϕ14 | 113 | 57 |

### CA, CB Male & Female clevis

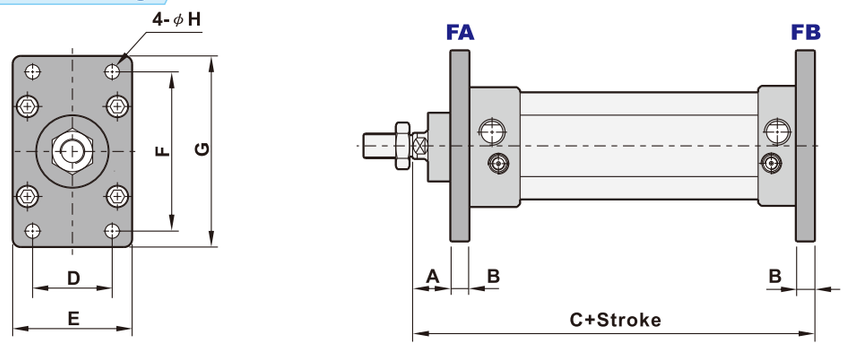



(Unit: mm)

| Bore size | A | | B | | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CA | CB | CA | CB | | | | | | | |
| ϕ32 | 34 | 19 | 152 | 137 | ϕ12 | M6XP1.0 | 33 | 48 | 16 | 16.3 | 32 |
| ϕ40 | 34 | 19 | 152 | 137 | ϕ14 | M6XP1.0 | 37 | 50 | 20 | 20.3 | 44 |
| ϕ50 | 34 | 19 | 152 | 137 | ϕ14 | M6XP1.0 | 47 | 62 | 20 | 20.3 | 52 |
| ϕ63 | 34 | 19 | 155 | 140 | ϕ14 | M8XP1.25 | 56 | 75 | 20 | 20.3 | 52 |
| ϕ80 | 48 | 32 | 191 | 175 | ϕ20 | M10XP1.5 | 70 | 94 | 32 | 32.3 | 64 |
| ϕ100 | 48 | 32 | 197 | 181 | ϕ20 | M10XP1.5 | 84 | 112 | 32 | 32.3 | 64 |

## Dimension of mounting parts

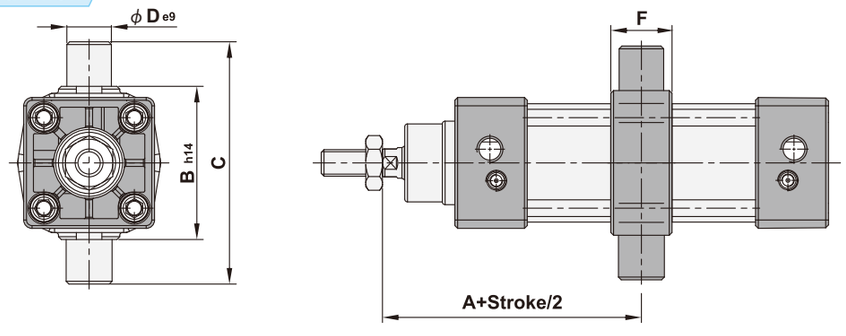
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| ϕ32 | 15 | 10 | 128 | 33 | 47 | 58 | 72 | ϕ7 |
| ϕ40 | 15 | 10 | 128 | 36 | 52 | 70 | 84 | ϕ7 |
| ϕ50 | 15 | 10 | 128 | 47 | 65 | 86 | 104 | ϕ9 |
| ϕ63 | 13 | 12 | 133 | 56 | 76 | 98 | 116 | ϕ9 |
| ϕ80 | 19 | 16 | 159 | 70 | 95 | 119 | 143 | ϕ12 |
| ϕ100 | 19 | 16 | 165 | 84 | 115 | 138 | 162 | ϕ12 |

### TC Central trunnion



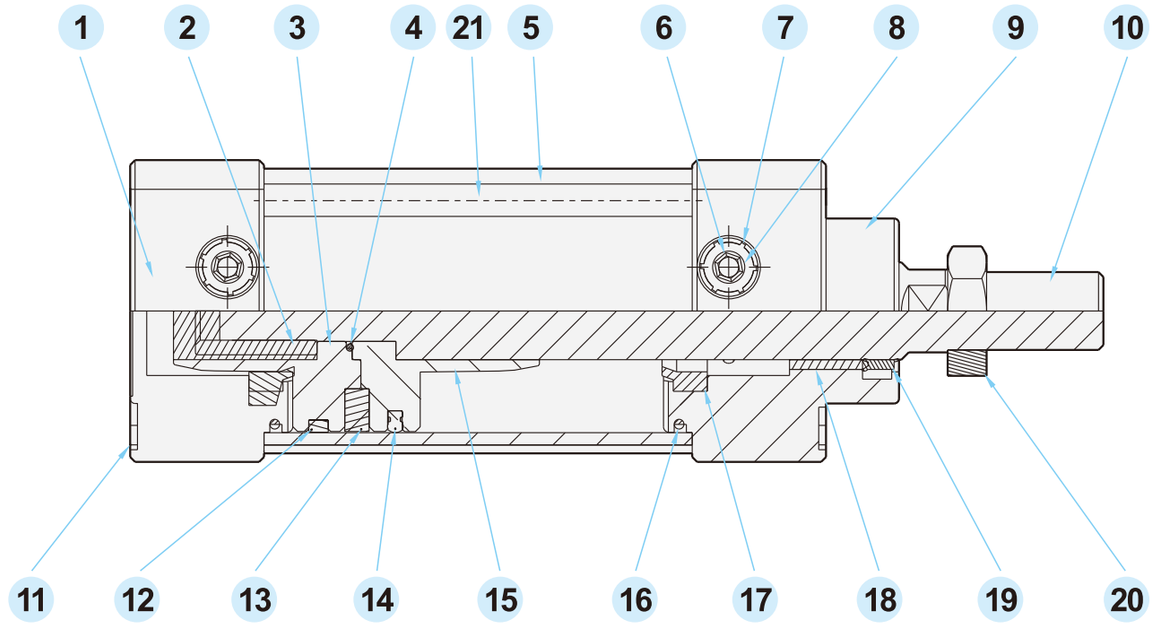

(Please contact your sales the change of position for TC central trunnion).

(Unit: mm)

| Bore size | A | B | C | D | F |
|---|---|---|---|---|---|
| ϕ32 | 71.5 | 55 | 87 | ϕ16 | 22 |
| ϕ40 | 71.5 | 63 | 113 | ϕ25 | 28 |
| ϕ50 | 71.5 | 76 | 126 | ϕ25 | 28 |
| ϕ63 | 73 | 88 | 138 | ϕ25 | 30 |
| ϕ80 | 89 | 114 | 164 | ϕ25 | 32 |
| ϕ100 | 92 | 132 | 182 | ϕ25 | 38 |



## Material of parts




| No. | Description | Material | Qty. | No. | Description | Material | Qty. |
|---|---|---|---|---|---|---|---|
| 1 | Rear cover | Aluminum alloy | 1 | 12 | Wear ring | Teflon+Graphite | 1 |
| 2 | Piston mounting nut | Brass+Ni | 1 | 13 | Magnet | Rubber | 1 |
| 3 | Rear piston | Aluminum alloy | 1 | 14 | U-Piston seal | NBR | 1 |
| 4 | O-ring | NBR | 1 | 15 | Front piston | Aluminum alloy | 1 |
| 5 | Barrel | Aluminum alloy | 1 | 16 | O-ring | NBR | 2 |
| 6 | Cushion needle | Brass | 2 | 17 | Cushion | PU | 2 |
| 7 | Push on fastener | FeC | 2 | 18 | Bushing | Brass | 1 |
| 8 | O-ring | NBR | 2 | 19 | Rod seal | PU | 1 |
| 9 | Front cover | Aluminum alloy | 1 | 20 | Nut | Fe+Ni | 1 |
| 10 | Piston rod | S45C+Cr | 1 | 21 | Tie-Rod | S45C+Zn | 4 |
| 11 | Fixing bolt | Fe+Ni | 8 | | | | |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| ϕ32 ~ ϕ100 | Double acting | 25 ~ 1500 | 2200 |

Note: Please contact our sales for non-standard stroke.

## Features

1. Identical to ISO6432 $\phi$ 8 ~ $\phi$ 25.
2. Adjustable cushion at both ends is able to absorb vibration from high speed impact and provide stable movement.
3. Built in magnet for sensor use.
4. Caps are rolled and polished, which provides stable quality.
5. Stainless steel SUS304 barrel provides stable movement and features high quality and durable life.
6. Stainless steel SUS304 barrel features corrosion resistance and strongly mechanical strength.


## How to order

| PC | 32 | B50 | C | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| Type | Bore size | Stroke | Cushion | Sensor | Type | Number of sensor | Mounting parts | Rod end joint | Rod material |
| **PC** :Standard integrated clevis<br>**PCC** :Boss-cut<br>**PCD** :Double rod<br>**PCA** :Stroke adjustable 25mm<br>**PCB** :Stroke adjustable 50mm<br>**PCH** :Hollow double rod<br>**PCG** :Dual stroke/Single rod/Boss-cut<br>**PCM** :Dual stroke/Double rod<br>**PCF** :Dual stroke/Single rod/Standard<br>**APC** :Single acting/Spring return/Standard<br>**APCC** :Single acting/Spring return/Boss-cut<br>**APD** :Single acting/Spring extended/Standard<br>**APDC** :Single acting/Spring extended/Boss-cut | **8** :Ø8<br>**10** :Ø10<br>**12** :Ø12<br>**16** :Ø16<br>**20** :Ø20<br>**25** :Ø25<br>**32** :Ø32<br>**40** :Ø40 | | **Blank** :W/O cushion<br>**C** :W/I cushion<br>Ø16 ~ Ø40 | **Blank** :W/O sensor<br>**SF** :LED in front<br>  <br>AL-20<br>**ST** :LED on top<br>  <br>AL-21 | **Blank** :Reed switch<br>**D** :NPN<br>**E** :PNP | 1 pc<br>2 pcs | **Blank** :W/O mounting parts<br>**FA** :Front flange<br>**FB** :Rear flange<br>**CB** :Female clevis<br>**LB** :Foot mounting | **Blank** :W/O rod end joint<br>**Y** :Double knuckle joint<br>**I** :Single knuckle joint<br>**P** :Eyebolt floating joint<br>**T** :Basic floating joint<br>**L** :Axial foot type floating joint<br>**F** :Flange type floating joint | **Blank** :S45C<br>(For Ø8, Ø10: SUS304)<br>**S** :SUS304 |

*Sensor please refer to P3-189~P3-190

## How to order mounting parts

| ZIPC | FA | — | 20 |
|---|---|---|---|
| PC series | Mounting parts | | Bore size |
| | **FA** :Front flange<br>**FB** :Rear flange<br>**CB** :Female clevis<br>**LB** :Foot mounting | | **12** :Ø12<br>**16** :Ø16<br>**20** :Ø20<br>**25** :Ø25<br>**32** :Ø32<br>**40** :Ø40 |

*Please refer to P3-48

## How to order rod end joints

| ZNF | Y | — | M6 |
|---|---|---|---|
| | Rod end joint | | Thread size |
| | **Y** :Double knuckle joint (Ø12 ~ Ø40)<br>**I** :Single knuckle joint (Ø12 ~ Ø40)<br>**P** :Eyebolt floating joint (Ø12 ~ Ø40)<br>**T** :Basic floating joint (Ø8 ~ Ø40)<br>**L** :Axial foot type floating joint (Ø20 ~ Ø40)<br>**F** :Flange type floating joint (Ø20 ~ Ø40) | | **M4** :M4xP0.7 **(PC8, 10)**<br>**M6** :M6xP1.0 **(PC12, 16)**<br>**M8** :M8xP1.25 **(PC20)**<br>**M10** :M10xP1.25 **(PC25, 32)**<br>**M12** :M12xP1.25 **(PC40)** |

*Please refer to P3-187~P3-188

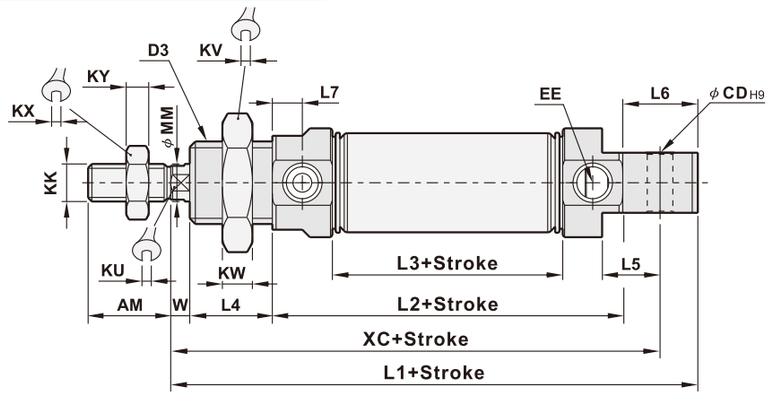
## Specifications

| Bore size | Ø8 | Ø10 | Ø12 | Ø16 | Ø20 | Ø25 | Ø32 | Ø40 |
|---|---|---|---|---|---|---|---|---|
| Port size | M5xP0.8 | | | | 1/8" | | | |
| Fluid | Compressed air | | | | | | | |
| Acting | Double acting or single acting | | | | | | | |
| Cushion | Adjustable type | | | | | | | |
| Operating pressure range | 1.5 ~ 8.5 kgf/cm² | | | | | | | |
| Max. operating pressure | 9.5 kgf/cm² | | | | | | | |
| Barrel material | Stainless steel SUS304 | | | | | | | |
| Magnet | Built-in | | | | | | | |
| Ambient temperature | -5°C ~ 60°C | | | | | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | | | | | |

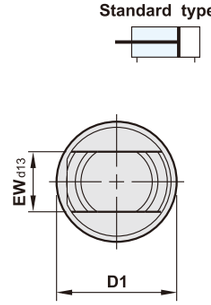


## Dimensions

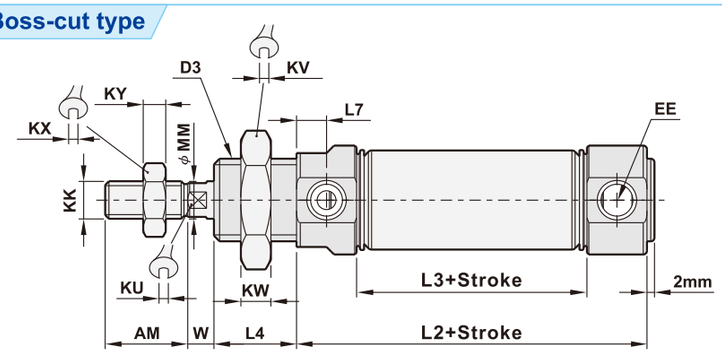
### PC Standard integrated clevis type



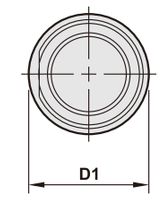

PC:ISO6432
Standard type




### PCC Boss-cut type




PCC:ISO6432
Standard boss-cut type



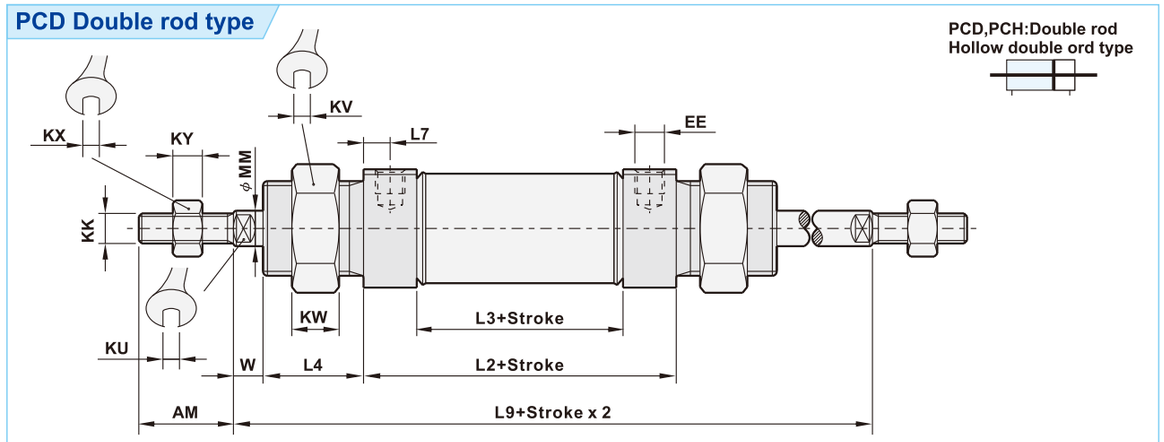

(Unit: mm)

| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **φ8** | 12 | 17 | φ4 | M12xP1.25 | 71.4 | 43.4 | 25.4 | 12 | 6 | 12 | 4.5 |
| **φ10** | 12 | 17 | φ4 | M12xP1.25 | 71.4 | 43.4 | 25.4 | 12 | 6 | 12 | 4.5 |
| **φ12** | 16 | 20 | φ6 | M16xP1.5 | 84.4 | 45.4 | 27.4 | 17 | 9 | 17 | 4.5 |
| **φ16** | 16 | 20 | φ6 | M16xP1.5 | 90 | 51 | 31 | 17 | 9 | 17 | 5 |
| **φ20** | 20 | 29 | φ8 | M22xP1.5 | 109 | 67 | 36 | 18 | 12 | 18 | 7.75 |
| **φ25** | 22 | 29 | φ8 | M22xP1.5 | 117.5 | 69.5 | 37.5 | 20 | 12 | 20 | 8 |
| **φ32** | 22 | 37 | φ10 | M27xP2.0 | 133 | 83 | 47 | 20 | 13.5 | 22 | 9 |
| **φ40** | 24 | 45 | φ10 | M33xP2.0 | 138 | 85 | 49 | 20 | 13.5 | 22 | 9 |

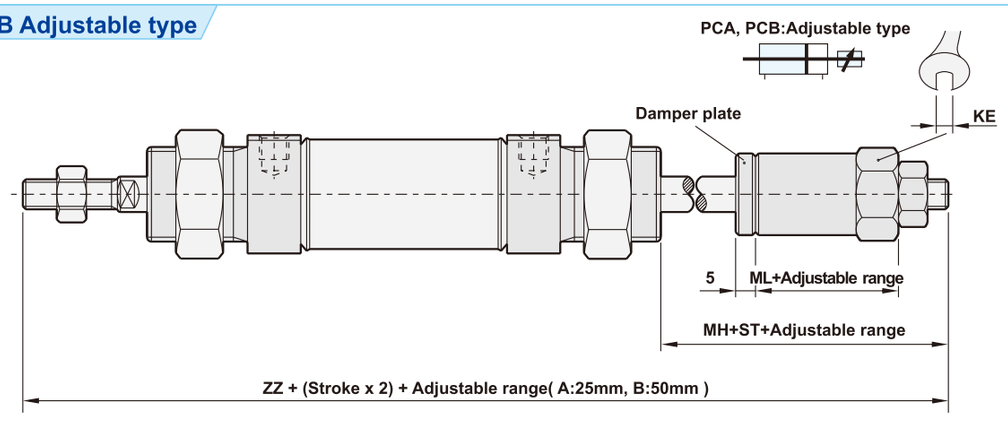
| Bore size | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **φ8** | M4xP0.7 | 3.4 | 17 | 4 | 7 | 3.2 | φ4 | 4 | 8 | 64 | M5xP0.8 |
| **φ10** | M4xP0.7 | 3.4 | 17 | 4 | 7 | 3.2 | φ4 | 4 | 8 | 64 | M5xP0.8 |
| **φ12** | M6xP1.0 | 5 | 22 | 6 | 10 | 5 | φ6 | 5 | 12 | 75 | M5xP0.8 |
| **φ16** | M6xP1.0 | 5 | 22 | 6 | 10 | 5 | φ6 | 5 | 12 | 82 | M5xP0.8 |
| **φ20** | M8xP1.25 | 7 | 30 | 6 | 13 | 6 | φ8 | 6 | 16 | 95 | G 1/8 |
| **φ25** | M10xP1.25 | 9 | 30 | 6 | 17 | 6 | φ10 | 8 | 16 | 104 | G 1/8 |
| **φ32** | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | φ12 | 8 | 22 | 120 | G 1/8 |
| **φ40** | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | φ16 | 11 | 26 | 125 | G 1/8 |

## Dimensions

### PCD Double rod type




### PCA, PCB Adjustable type




(Unit: mm)

| Bore size | AM | L2 | L3 | L4 | L7 | L9 | EE | KU | KV | KW | KX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ**8** | 12 | 43.4 | 25.4 | 12 | 4.5 | 77 | M5xP0.8 | 3.4 | 17 | 4 | 7 |
| ϕ**10** | 12 | 43.4 | 25.4 | 12 | 4.5 | 77 | M5xP0.8 | 3.4 | 17 | 4 | 7 |
| ϕ**12** | 16 | 45.4 | 27.4 | 17 | 4.5 | 89.4 | M5xP0.8 | 5 | 22 | 6 | 10 |
| ϕ**16** | 16 | 51 | 31 | 17 | 5 | 95 | M5xP0.8 | 5 | 22 | 6 | 10 |
| ϕ**20** | 20 | 67 | 36 | 18 | 7.75 | 115 | G 1/8 | 7 | 30 | 6 | 13 |
| ϕ**25** | 22 | 69.5 | 37.5 | 20 | 8 | 125.5 | G 1/8 | 9 | 30 | 6 | 17 |
| ϕ**32** | 22 | 83 | 47 | 20 | 9 | 139 | G 1/8 | 10 | 32 | 8 | 17 |
| ϕ**40** | 24 | 85 | 49 | 20 | 9 | 147 | G 1/8 | 14 | 41 | 8 | 19 |

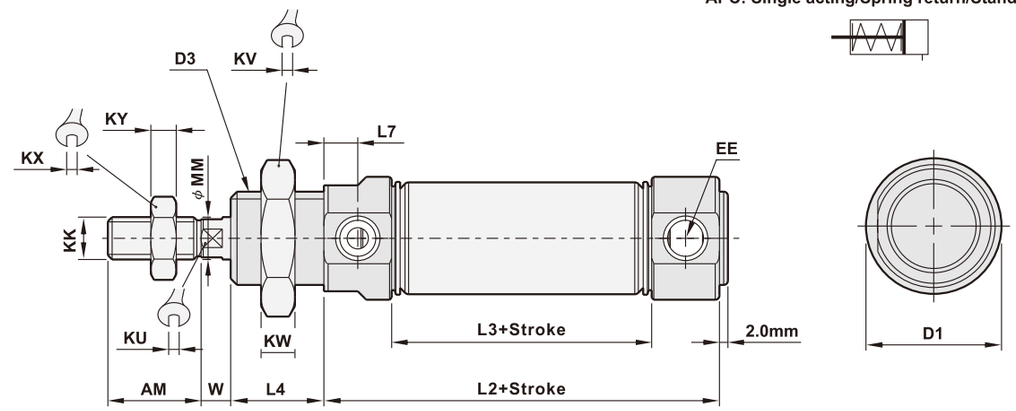
| Bore size | KY | MM | W | KK | ZZ | MH | ML | KE |
|---|---|---|---|---|---|---|---|---|
| ϕ**8** | 3.2 | ϕ4 | 4 | M4xP0.7 | 108 | 23.8 | 13 | 8 |
| ϕ**10** | 3.2 | ϕ4 | 4 | M4xP0.7 | 108 | 23.8 | 13 | 8 |
| ϕ**12** | 5 | ϕ6 | 5 | M6xP1 | 134.4 | 34 | 20 | 12 |
| ϕ**16** | 5 | ϕ6 | 5 | M6xP1 | 140 | 34 | 20 | 12 |
| ϕ**20** | 6 | ϕ8 | 6 | M8xP1.25 | 162 | 33 | 20 | 17 |
| ϕ**25** | 6 | ϕ10 | 8 | M10xP1.25 | 172.5 | 33 | 20 | 17 |
| ϕ**32** | 6 | ϕ12 | 8 | M10xP1.25 | 188 | 35 | 22 | 22 |
| ϕ**40** | 7 | ϕ16 | 11 | M12xP1.25 | 195 | 35 | 22 | 27 |



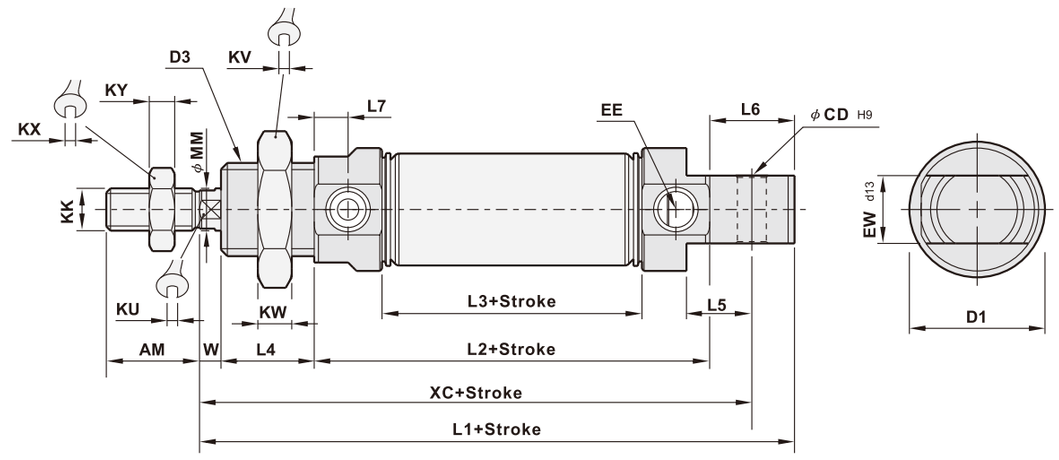
## Dimensions

### APCC Single acting/Spring return/Boss-cut

APCC: Single acting/Spring return/Boss-cut
APC: Single acting/Spring return/Standard




### APC Single acting/Spring return/Standard




(Unit: mm)

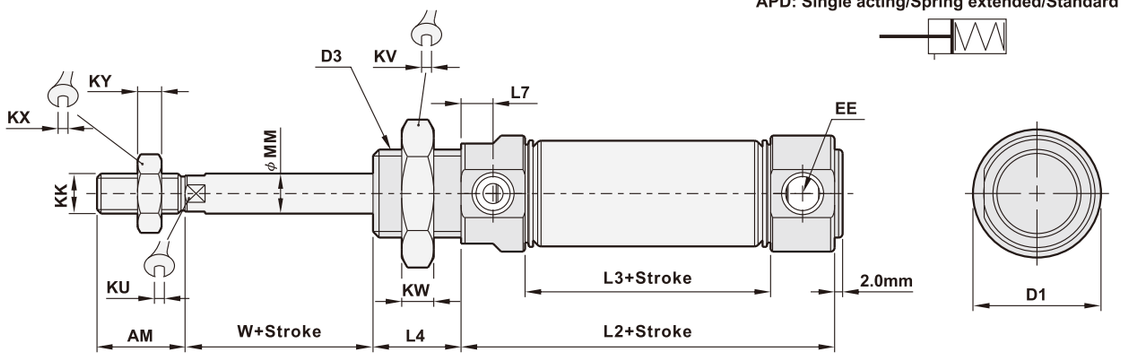
| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ**20** | 20 | 29 | ϕ8 | M22xP1.5 | 134 | 92 | 61 | 18 | 12 | 18 |
| ϕ**25** | 22 | 29 | ϕ8 | M22xP1.5 | 142.5 | 94.5 | 62.5 | 20 | 12 | 20 |
| ϕ**32** | 22 | 37 | ϕ10 | M27xP2.0 | 158 | 108 | 72 | 20 | 13.5 | 22 |
| ϕ**40** | 24 | 45 | ϕ10 | M33xP2.0 | 163 | 110 | 74 | 20 | 13.5 | 22 |

| Bore size | L7 | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ**20** | 7.75 | M8xP1.25 | 7 | 30 | 6 | 13 | 6 | ϕ8 | 6 | 16 | 120 | G 1/8 |
| ϕ**25** | 8 | M10xP1.25 | 9 | 30 | 6 | 17 | 6 | ϕ10 | 8 | 16 | 129 | G 1/8 |
| ϕ**32** | 9 | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | ϕ12 | 8 | 22 | 145 | G 1/8 |
| ϕ**40** | 9 | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | ϕ16 | 11 | 26 | 150 | G 1/8 |

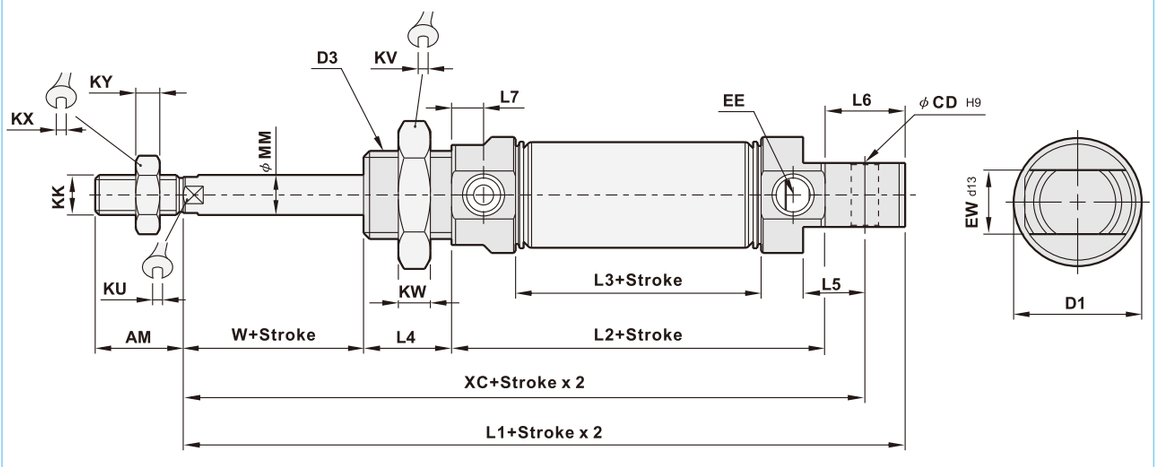
## Dimensions

### APDC Single acting/Spring extended/Boss-cut

APDC: Single acting/Spring extended/Boss-cut
APD: Single acting/Spring extended/Standard




### APD Single acting/Spring extended/Standard




(Unit: mm)

| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ20 | 20 | 29 | ϕ8 | M22xP1.5 | 134 | 92 | 61 | 18 | 12 | 18 |
| ϕ25 | 22 | 29 | ϕ8 | M22xP1.5 | 142.5 | 94.5 | 62.5 | 20 | 12 | 20 |
| ϕ32 | 22 | 37 | ϕ10 | M27xP2.0 | 158 | 108 | 72 | 20 | 13.5 | 22 |
| ϕ40 | 24 | 45 | ϕ10 | M33xP2.0 | 163 | 110 | 74 | 20 | 13.5 | 22 |

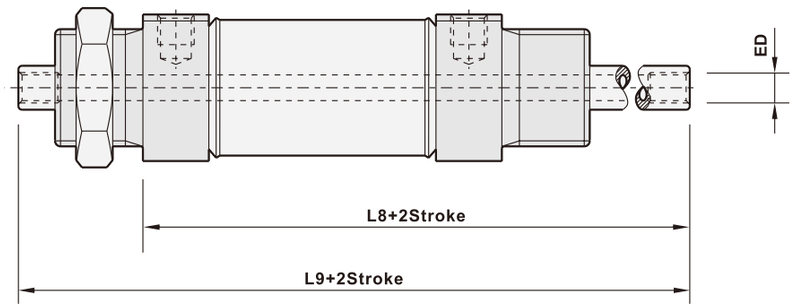
| Bore size | L7 | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ20 | 7.75 | M8xP1.25 | 7 | 30 | 6 | 13 | 6 | ϕ8 | 6 | 16 | 120 | G 1/8 |
| ϕ25 | 8 | M10xP1.25 | 9 | 30 | 6 | 17 | 6 | ϕ10 | 8 | 16 | 129 | G 1/8 |
| ϕ32 | 9 | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | ϕ12 | 8 | 22 | 145 | G 1/8 |
| ϕ40 | 9 | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | ϕ16 | 11 | 26 | 150 | G 1/8 |



## Dimensions

### PCH Hollow double rod type

PCD, PCH:
Double rod, Hollow double rod type




(Unit: mm)

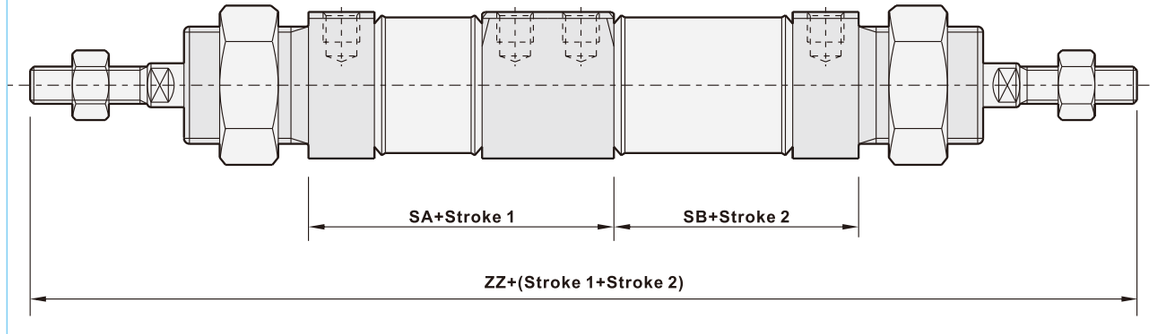
| Bore size | L8 | L9 | ED |
|---|---|---|---|
| ϕ25 | 98 | 126 | M5xP0.8x20 |
| ϕ32 | 112 | 140 | PT1/8 |
| ϕ40 | 116 | 147 | PT1/8 |

- Suitable for vacuum pad.
- Vacuum pad and other devices could be directly screwed on to rod end.
- Permanent magnetic is built-in.

*Please refer to page 3-42 PC standard integrated clevis type for other dimensions.

### PCM Dual stroke/Double rod

PCM:
Dual stroke/Double rod




(Unit: mm)

| Bore size | SA | SB | ZZ |
|---|---|---|---|
| ϕ25 | 85.5 | 53.5 | 239 |
| ϕ32 | 101.5 | 65.5 | 267 |
| ϕ40 | 103 | 67 | 280 |

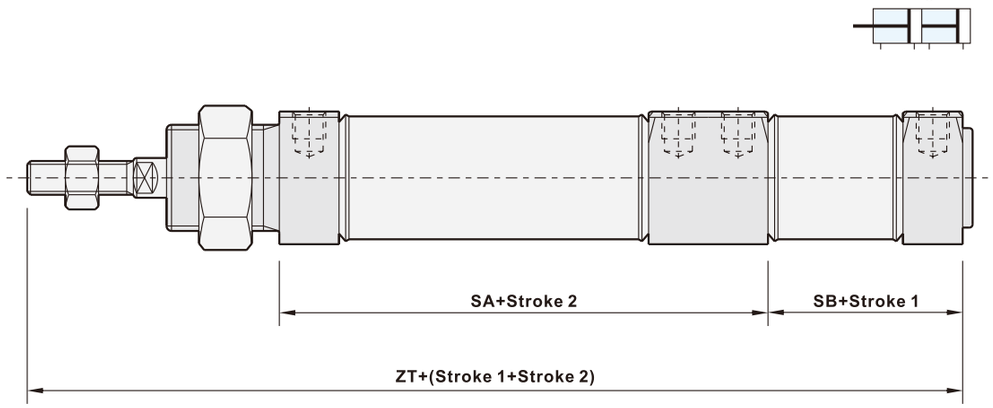
- Two cylinders are constructed as one cylinder in a shrinking back configuration.
- Cylinder stroke could be controlled in three or four steps.
- One end of piston rod is fixed, the cylinder barrel executes the movement, the cylinder must connected with flexible line connections.
- Applicable to positioning transportation, quantitative filling, right and left displacement, capable flow control...etc, which is for accuracy and speedy purpose.

*Please refer to page 3-42 PC standard integrated clevis type for other dimensions.

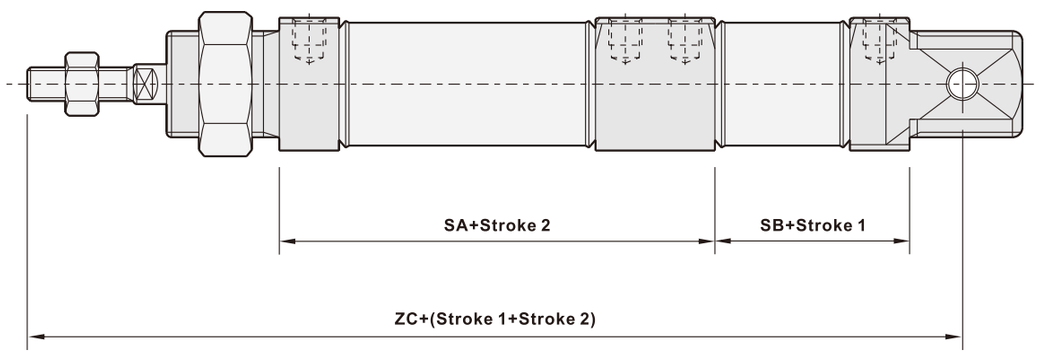
## Dimensions

### PCG Dual stroke/Single rod/Boss-cut

PCG:Dual stroke/Single rod/Boss-cut
PCF:Dual stroke/Single rod/Standard




### PCF Dual stroke/Single rod/Standard




(Unit: mm)

| Bore size | SA | SB | ZC | ZT |
|---|---|---|---|---|
| ϕ32 | 101.5 | 65.5 | 225.5 | 217 |
| ϕ40 | 103 | 67 | 234 | 225 |

*Please refer to page 3-42 PC standard integrated clevis type for other dimensions.

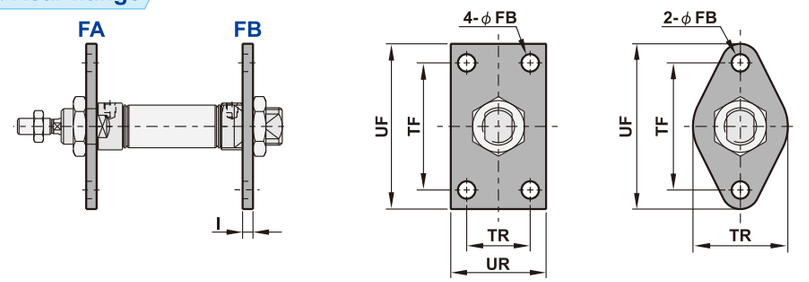
- The cylinder constructed as one cylinder in line allows double the output force.
- Cylinder stroke could be controlled in three steps.
- Applicable to position transportation, quantitative filling and flow control, right and left displacement.
- Adjustable cushions on both ends.
- Permanent magnet is built-in.





## Dimension of mounting parts

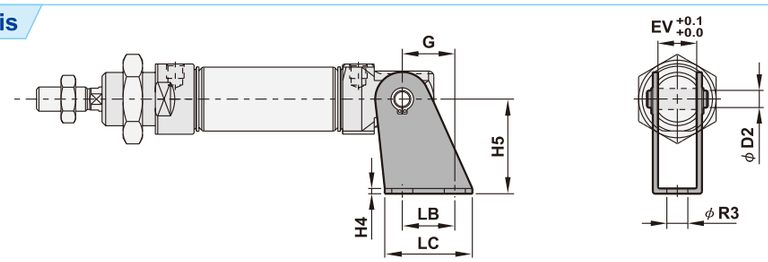
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | TF | TR | UF | UR | I | FB | Bore size | TF | TR | UF | UR | I | FB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ12 | 40 | -- | 52 | 30 | 3 | ϕ5.5 | ϕ25 | 50 | -- | 66 | 40 | 3 | ϕ6.5 |
| ϕ16 | 40 | -- | 52 | 30 | 3 | ϕ5.5 | ϕ32 | 50 | 26 | 64 | 40 | 3 | ϕ7 |
| ϕ20 | 50 | -- | 66 | 40 | 3 | ϕ6.5 | ϕ40 | 54 | 30 | 74 | 50 | 4 | ϕ7 |

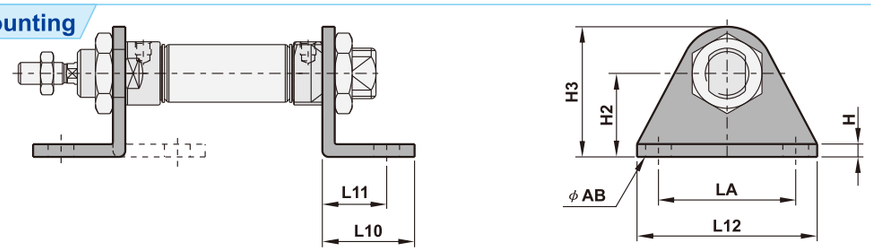
### CB Female clevis




(Unit: mm)

| Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 | Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ12 | 15 | 25 | 12 | 3 | 27 | 15 | $\phi 6^{+0.03}_{+0.0}$ | ϕ6 | ϕ25 | 20 | 32 | 16 | 3 | 30 | 18.5 | $\phi 8^{+0.04}_{+0.0}$ | ϕ7 |
| ϕ16 | 15 | 25 | 12 | 3 | 27 | 15 | $\phi 6^{+0.03}_{+0.0}$ | ϕ6 | ϕ32 | 25 | 40 | 22 | 3 | 40 | 22.5 | $\phi 10^{+0.03}_{+0.0}$ | ϕ9 |
| ϕ20 | 20 | 32 | 16 | 3 | 30 | 18.5 | $\phi 8^{+0.04}_{+0.0}$ | ϕ7 | ϕ40 | 25 | 40 | 26 | 3 | 40 | 22.5 | $\phi 10^{+0.03}_{+0.0}$ | ϕ9 |

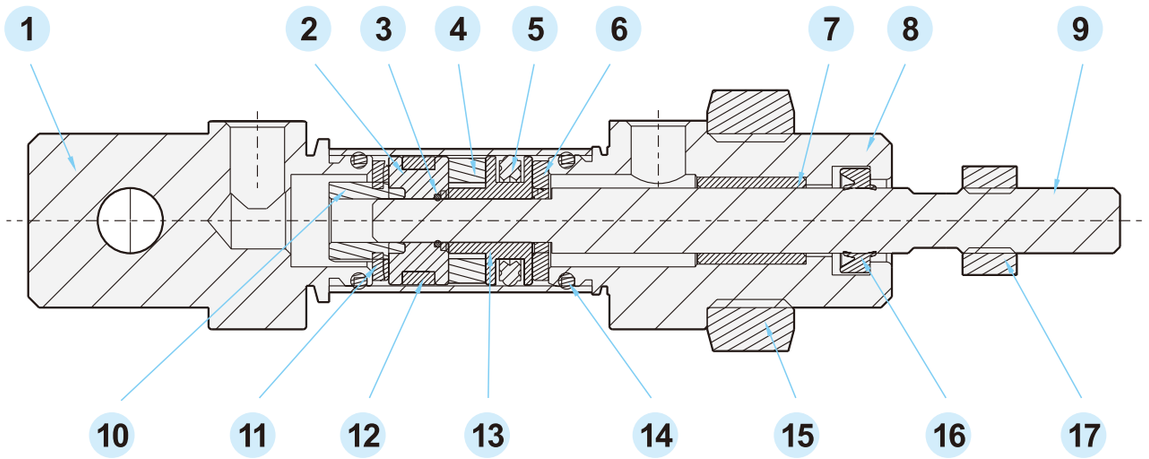
### LB Foot mounting




(Unit: mm)

| Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB | Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ12 | 20.5 | 14 | 42 | 32 | 3 | 20 | 33 | ϕ6 | ϕ25 | 26 | 17 | 54 | 40 | 3 | 25 | 45 | ϕ7 |
| ϕ16 | 20.5 | 14 | 42 | 32 | 3 | 20 | 33 | ϕ6 | ϕ32 | 25 | 18 | 64 | 50 | 3.5 | 28 | 48 | ϕ7 |
| ϕ20 | 26 | 17 | 54 | 40 | 3 | 25 | 45 | ϕ7 | ϕ40 | 30 | 20 | 74 | 54 | 4 | 31.5 | 60 | ϕ7 |

## Material of parts




| No. | Description | Material | Qty. | No. | Description | Material | Qty. |
|---|---|---|---|---|---|---|---|
| 1 | Rear cover | Aluminum alloy | 1 | 10 | Nut | Fe+Ni | 1 |
| 2 | Wear ring | Teflon +Graphite | 1 | 11 | Rear piston | Aluminum alloy | 1 |
| 3 | O-ring | NBR | 1 | 12 | Barrel | SUS304 | 1 |
| 4 | Magnet | Rubber | 1 | 13 | Front piston | Aluminum alloy | 1 |
| 5 | U piston seal | NBR | 1 | 14 | O-ring | NBR | 2 |
| 6 | Bumper | NBR | 2 | 15 | Fixing nut | SS41+Ni | 1 |
| 7 | Bushing | Brass | 1 | 16 | Rod seal | NBR | 1 |
| 8 | Front cover | Aluminum alloy | 1 | 17 | Nut | Fe+Ni | 1 |
| 9 | Piston rod | S45C+Cr | 1 | | | | |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| $\phi$8 ~ $\phi$12 | Double acting | 5 ~ 250 | 300 |
| $\phi$16 ~ $\phi$40 | Double acting | 5 ~ 500 | 900 |
| $\phi$20 ~ $\phi$40 | Single acting | 25, 50 | --- |

Note: Please contact our sales for non-standard stroke.



Memo...



## Features

1. Identical to ISO6432 Ø20 ~ Ø25.
2. Miniature size and space saving.

## How to order

| PCL | 32 | B50 | M | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| Type | Bore size | Stroke | Magnet | Sensor | Type | Number of sensor | Mounting parts | Rod end joint | Rod material |
| **PCL** :Standard integrated clevis(Aluminum)<br>**PCCL** :Boss-cut<br>**PCLD** :Double rod<br>**PCLA** :Stroke adjustable 25mm<br>**PCLB** :Stroke adjustable 50mm<br>**APCL** :Single acting/Spring return/Standard<br>**APCCL** :Single acting/Spring return/Boss-cut<br>**APDL** :Single acting/Spring extended/Standard<br>**APDCL** :Single acting/Spring extended/Boss-cut | **20** :Ø20<br>**25** :Ø25<br>**32** :Ø32<br>**40** :Ø40 | | **Blank** :W/O magnet<br>**M** :W/I magnet | **Blank** :W/O sensor<br>**SF** :LED in front<br>  <br>AL-20<br>**ST** :LED on top<br>  <br>AL-21 | **Blank** :Reed switch<br>**D** :NPN<br>**E** :PNP | 1 pc<br>2 pcs | **Blank** :W/O mounting parts<br>**FA** :Front flange<br>**FB** :Rear flange<br>**CB** :Female clevis<br>**LB** :Foot mounting | **Blank** :W/O rod end joint<br>**Y** :Double knuckle joint<br>**I** :Single knuckle joint<br>**P** :Eyebolt floating joint<br>**T** :Basic floating joint<br>**L** :Axial foot type floating joint<br>**F** :Flange type floating joint | **Blank** :S45C<br>**S** :SUS304 |

*Sensor please refer to P3-189~P3-190

## How to order mounting parts

| ZIPC | FA | — | 20 |
|---|---|---|---|
| PCL series | Mounting parts | | Bore size |
| | **FA** :Front flange<br>**FB** :Rear flange<br>**CB** :Female clevis<br>**LB** :Foot mounting | | **20** :Ø20<br>**25** :Ø25<br>**32** :Ø32<br>**40** :Ø40 |

*Please refer to P3-56

## How to order rod end joints

| ZNF | Y | — | M20 |
|---|---|---|---|
| | Rod end joint | | Thread size |
| | **Y** :Double knuckle joint<br>**I** :Single knuckle joint<br>**P** :Eyebolt floating joint<br>**T** :Basic floating joint<br>**L** :Axial foot type floating joint<br>**F** :Flange type floating joint | | **M8** :M8xP1.25 **(PCL20)**<br>**M10** :M10xP1.25 **(PCL25, 32)**<br>**M12** :M12xP1.25 **(PCL40)** |

*Please refer to P3-187~P3-188

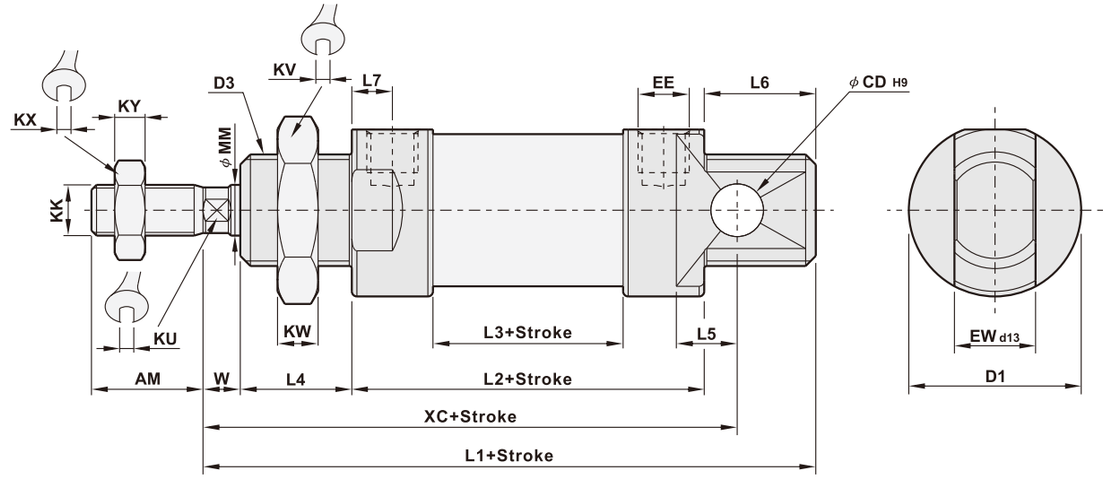
## Specifications

| Bore size | Ø20 | Ø25 | Ø32 | Ø40 |
|---|---|---|---|---|
| Port size | 1/8" | | | |
| Fluid | Compressed air | | | |
| Acting | Double acting or single acting | | | |
| Operating pressure range | 1.5 ~ 8.5 kgf/cm² | | | |
| Max operating pressure | 9.5 kgf/cm² | | | |
| Barrel material | Aluminum alloy | | | |
| Ambient temperature | -5°C ~ 60°C | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | |
| Magnet | Option | | | |

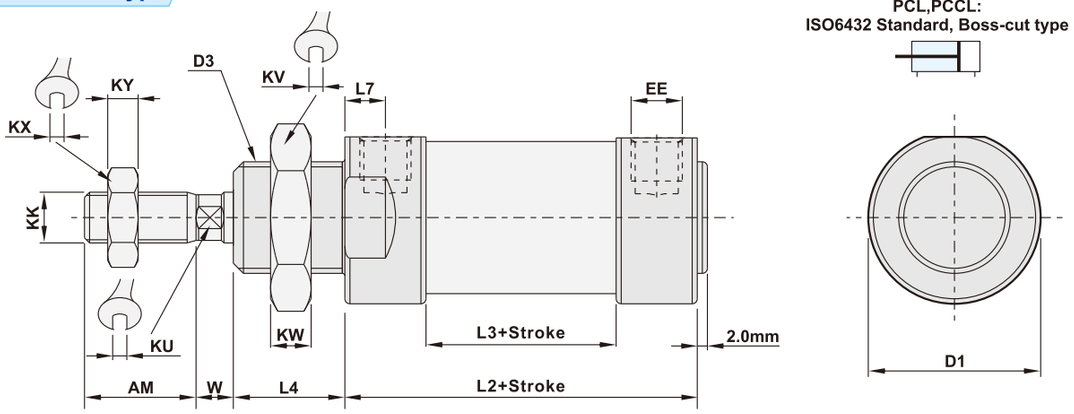


## Dimensions

### PCL Standard integrated clevis type




### PCCL Boss-cut type




(Unit: mm)

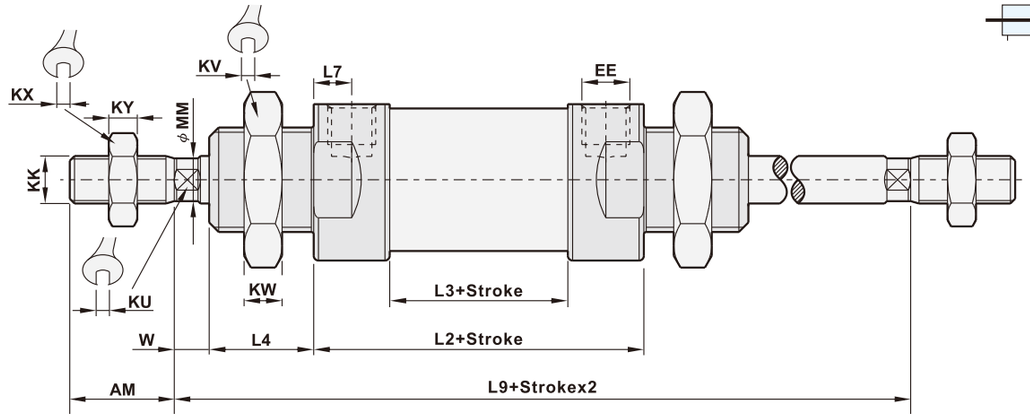
| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ø20** | 20 | 29 | Ø8 | M22xP1.5 | 109 | 67 | 36 | 18 | 12 | 18 | 7.75 |
| **Ø25** | 22 | 34 | Ø8 | M22xP1.5 | 117.5 | 69.5 | 37.5 | 20 | 12 | 20 | 8 |
| **Ø32** | 22 | 39.5 | Ø10 | M27xP2.0 | 133 | 83 | 47 | 20 | 13.5 | 22 | 9 |
| **Ø40** | 24 | 49 | Ø10 | M33xP2.0 | 138 | 85 | 49 | 20 | 13.5 | 22 | 9 |

| Bore size | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ø20** | M8xP1.25 | 7 | 30 | 6 | 13 | 6 | Ø8 | 6 | 16 | 95 | G 1/8 |
| **Ø25** | M10xP1.25 | 9 | 30 | 6 | 17 | 6 | Ø10 | 8 | 16 | 104 | G 1/8 |
| **Ø32** | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | Ø12 | 8 | 22 | 120 | G 1/8 |
| **Ø40** | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | Ø16 | 11 | 26 | 125 | G 1/8 |

## Dimensions

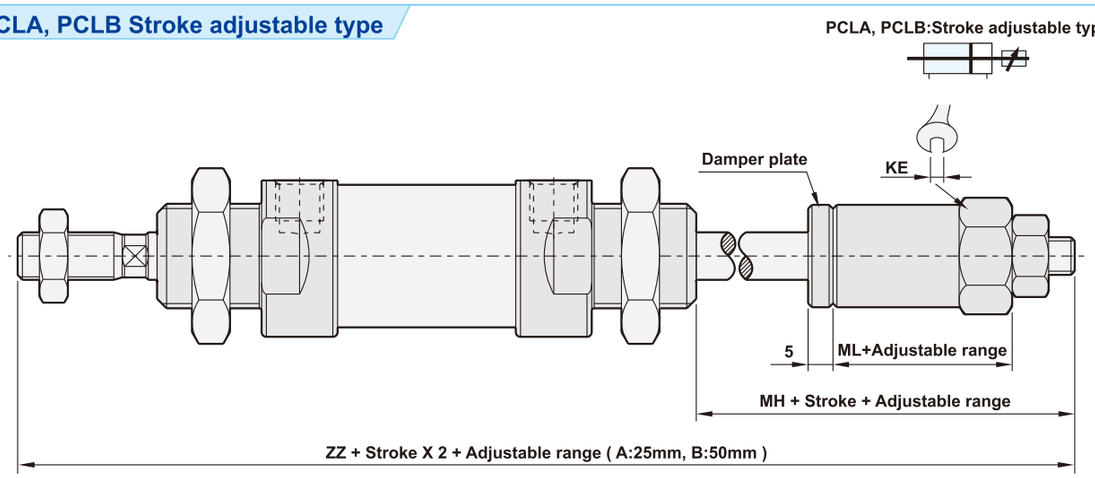
### PCLD Double rod type

PCLD:Double rod




### PCLA, PCLB Stroke adjustable type

PCLA, PCLB:Stroke adjustable type




(Unit: mm)

| Bore size | AM | L2 | L3 | L4 | L7 | EE | KU | KV | KW | KX | KY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| φ 20 | 20 | 67 | 36 | 18 | 7.75 | G 1/8 | 7 | 30 | 6 | 13 | 6 |
| φ 25 | 22 | 69.5 | 37.5 | 20 | 8 | G 1/8 | 9 | 30 | 6 | 17 | 6 |
| φ 32 | 22 | 83 | 47 | 20 | 9 | G 1/8 | 10 | 32 | 8 | 17 | 6 |
| φ 40 | 24 | 85 | 49 | 20 | 9 | G 1/8 | 14 | 41 | 8 | 19 | 7 |

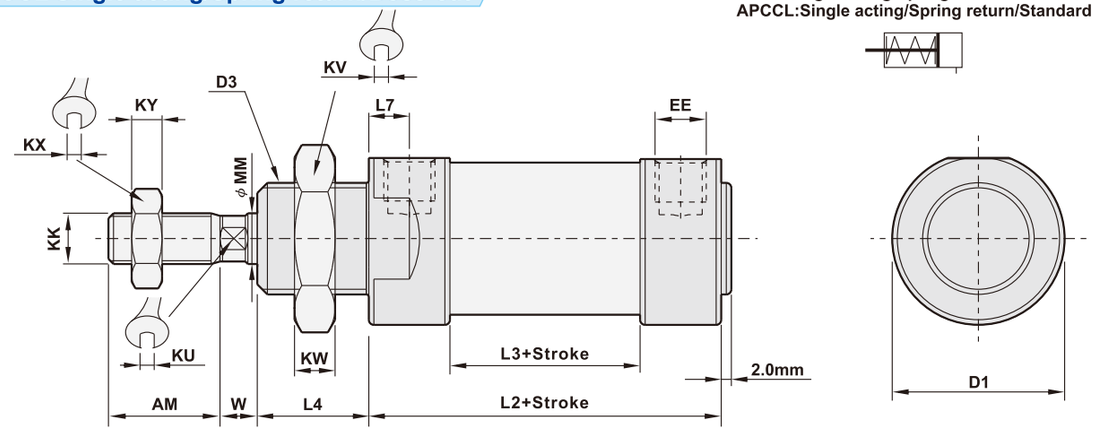
| Bore size | MM | W | KK | L9 | ZZ | MH | ML | KE |
|---|---|---|---|---|---|---|---|---|
| φ 20 | φ 8 | 6 | M8xP1.25 | 115 | 162 | 33 | 20 | 17 |
| φ 25 | φ 10 | 8 | M10xP1.25 | 125.5 | 172.5 | 33 | 20 | 17 |
| φ 32 | φ 12 | 8 | M10xP1.25 | 139 | 188 | 35 | 22 | 22 |
| φ 40 | φ16 | 11 | M12xP1.25 | 147 | 195 | 35 | 22 | 27 |

P3-53

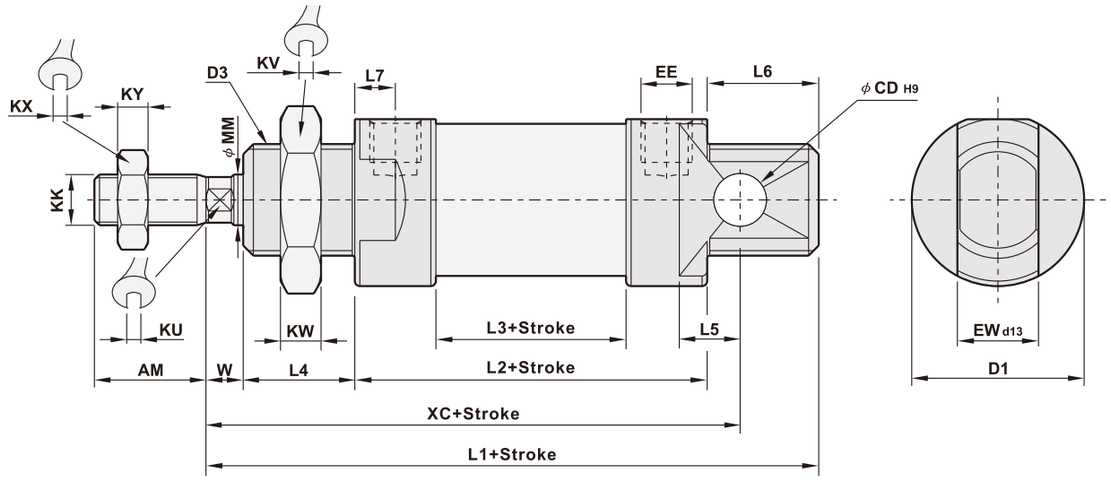
## Dimensions

### APCCL Single acting/Spring return/Boss-cut

APCL:Single acting/Spring return/Boss-cut
APCCL:Single acting/Spring return/Standard




### APCL Single acting/Spring return/Standard




(Unit: mm)

| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|---|---|---|
| φ 20 | 20 | 29 | φ 8 | M22xP1.5 | 134 | 92 | 61 | 18 | 12 | 18 |
| φ 25 | 22 | 34 | φ 8 | M22xP1.5 | 142.5 | 94.5 | 62.5 | 20 | 12 | 20 |
| φ 32 | 22 | 39.5 | φ 10 | M27xP2.0 | 158 | 108 | 72 | 20 | 13.5 | 22 |
| φ 40 | 24 | 49 | φ 10 | M33xP2.0 | 163 | 110 | 74 | 20 | 13.5 | 22 |

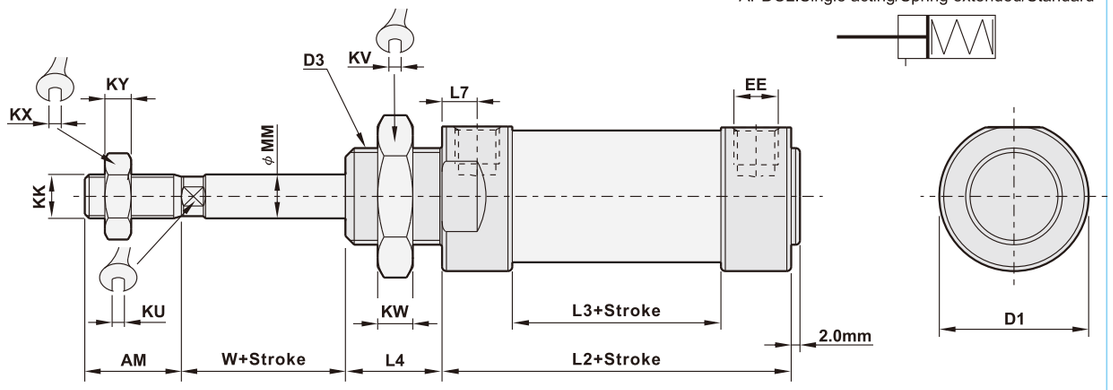
| Bore size | L7 | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| φ 20 | 7.75 | M8xP1.25 | 7 | 30 | 6 | 13 | 6 | φ 8 | 6 | 16 | 120 | G 1/8 |
| φ 25 | 8 | M10xP1.25 | 9 | 30 | 6 | 17 | 6 | φ 10 | 8 | 16 | 129 | G 1/8 |
| φ 32 | 9 | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | φ 12 | 8 | 22 | 145 | G 1/8 |
| φ 40 | 9 | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | φ 16 | 11 | 26 | 150 | G 1/8 |

P3-54

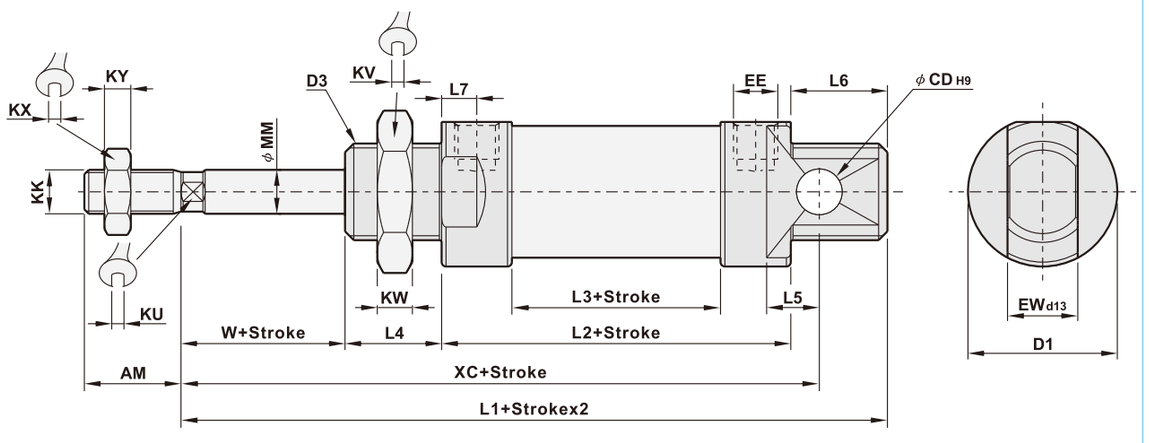
## Dimensions

### APDCL Single acting/Spring extended/Boss-cut

APDL:Single acting/Spring extended/Boss-cut
APDCL:Single acting/Spring extended/Standard




### APDL Single acting/Spring extended/Standard




(Unit: mm)

| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 20 | 20 | 29 | ϕ 8 | M22xP1.5 | 134 | 92 | 61 | 18 | 12 | 18 |
| ϕ 25 | 22 | 34 | ϕ 8 | M22xP1.5 | 142.5 | 94.5 | 62.5 | 20 | 12 | 20 |
| ϕ 32 | 22 | 39.5 | ϕ 10 | M27xP2.0 | 158 | 108 | 72 | 20 | 13.5 | 22 |
| ϕ 40 | 24 | 49 | ϕ 10 | M33xP2.0 | 163 | 110 | 74 | 20 | 13.5 | 22 |

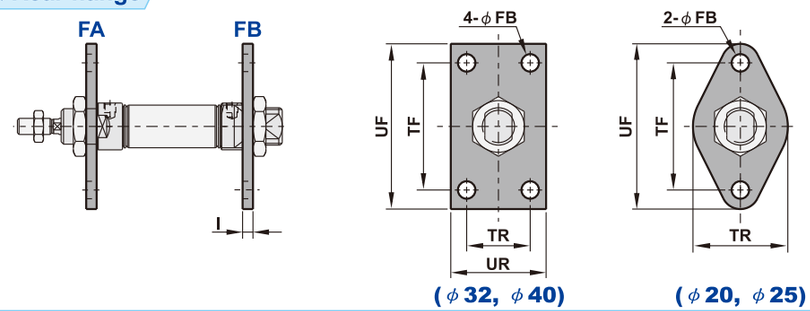
| Bore size | L7 | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 20 | 7.75 | M8xP1.25 | 7 | 30 | 6 | 13 | 6 | ϕ 8 | 6 | 16 | 120 | G 1/8 |
| ϕ 25 | 8 | M10xP1.25 | 9 | 30 | 6 | 17 | 6 | ϕ 10 | 8 | 16 | 129 | G 1/8 |
| ϕ 32 | 9 | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | ϕ 12 | 8 | 22 | 145 | G 1/8 |
| ϕ 40 | 9 | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | ϕ 16 | 11 | 26 | 150 | G 1/8 |





## Dimension of mounting parts

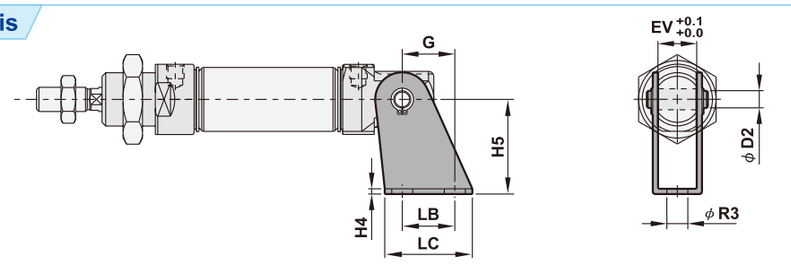
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | TF | TR | UF | UR | I | FB | Bore size | TF | TR | UF | UR | I | FB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 20 | 50 | – | 66 | 40 | 3 | ϕ 6.5 | ϕ 32 | 50 | 26 | 64 | 40 | 3 | ϕ 7 |
| ϕ 25 | 50 | -- | 66 | 40 | 3 | ϕ 6.5 | ϕ 40 | 54 | 30 | 74 | 50 | 4 | ϕ 7 |

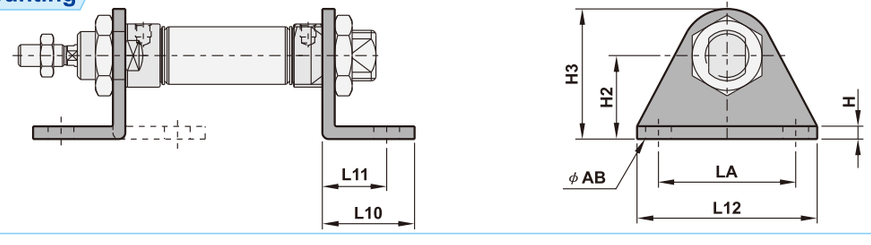
### CB Female clevis




(Unit: mm)

| Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 | Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 20 | 20 | 32 | 16 | 3 | 30 | 18.5 | ϕ 8 +0.04 +0.0 | ϕ 7 | ϕ 32 | 25 | 40 | 22 | 3 | 40 | 22.5 | ϕ 10 +0.03 +0.0 | ϕ 9 |
| ϕ 25 | 20 | 32 | 16 | 3 | 30 | 18.5 | ϕ 8 +0.04 +0.0 | ϕ 7 | ϕ 40 | 25 | 40 | 26 | 3 | 40 | 22.5 | ϕ 10 +0.03 +0.0 | ϕ 9 |

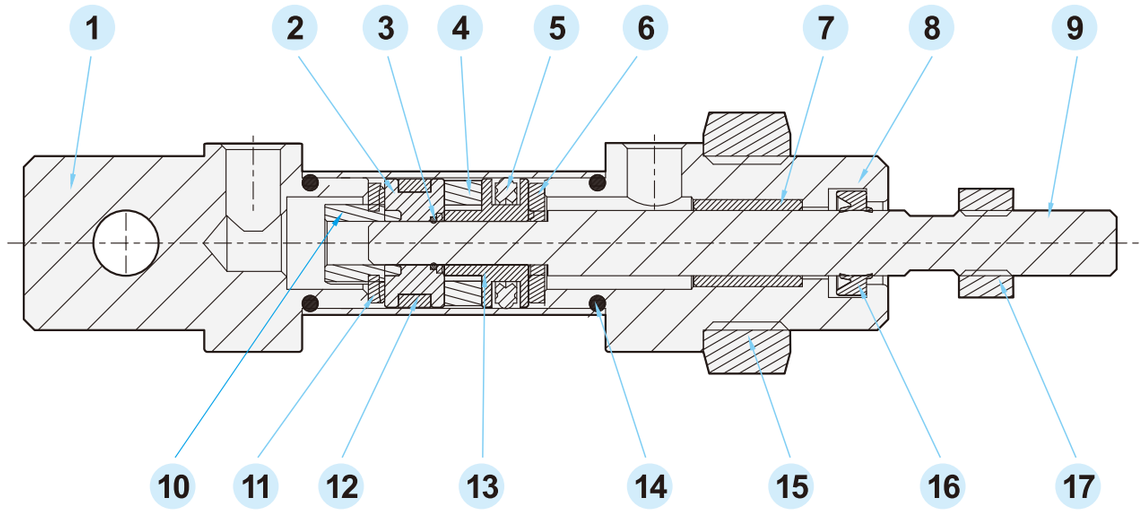
### LB Foot mounting




(Unit: mm)

| Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB | Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ϕ 20 | 26 | 17 | 54 | 40 | 3 | 25 | 45 | ϕ 7 | ϕ 32 | 25 | 18 | 64 | 50 | 3.5 | 28 | 48 | ϕ 7 |
| ϕ 25 | 26 | 17 | 54 | 40 | 3 | 25 | 45 | ϕ 7 | ϕ 40 | 30 | 20 | 74 | 54 | 4 | 31.5 | 60 | ϕ 7 |

## Material of parts




| No. | Description | Material | Qty. | No. | Description | Material | Qty. |
|---|---|---|---|---|---|---|---|
| 1 | Rear cover | Aluminum alloy | 1 | 10 | Nut | Fe+Ni | 1 |
| 2 | Wear ring | Teflon+Graphite | 1 | 11 | Rear piston | Aluminum alloy | 1 |
| 3 | O-ring | NBR | 1 | 12 | Barrel | Aluminum alloy | 1 |
| 4 | Magnet | Rubber | 1 | 13 | Front piston | Aluminum alloy | 1 |
| 5 | U piston seal | NBR | 1 | 14 | O-ring | NBR | 2 |
| 6 | Bumper | NBR | 2 | 15 | Fixing nut | SS41+Ni | 1 |
| 7 | Bushing | Brass | 1 | 16 | Rod seal | NBR | 1 |
| 8 | Front cover | Aluminum alloy | 1 | 17 | Nut | Fe+Ni | 1 |
| 9 | Piston rod | S45C+Cr | 1 | | | | |

## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| $\phi$20 | Double acting | 5 ~ 500 | 900 |
| $\phi$25 ~ $\phi$40 | Double acting | 5 ~ 500 | 1200 |
| $\phi$20 ~ $\phi$40 | Single acting | 25, 50 | --- |

Note: Please contact our sales for non-standard stroke.

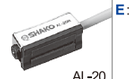


Memo...

## Features

1. Built in magnet for sensor use.
2. Caps are rolled and polished, which provides stable quality.
3. Stainless steel SUS304 barrel provides stable movement and features high quality and durable life.
4. Stainless steel SUS304 barrel features corrosion resistance and strongly mechanical strength.

## How to order

| PMA | 32 | B50 | C | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| Type | Bore size | Stroke | Cushion | Sensor | Type | Number of sensor | Mounting parts | Rod end joint | Rod material |
| **PMA**:Standard type<br>**PMAC**:Boss-cut<br>**PMAD**:Double rod<br>**PMAA**:Stroke adjustable 25mm<br>**PMAB**:Stroke adjustable 50mm | **16**:Ø16<br>**20**:Ø20<br>**25**:Ø25<br>**32**:Ø32<br>**40**:Ø40<br>**50**:Ø50<br>**63**:Ø63 | | **Blank**:W/O cushion<br>**C**:W/I cushion | **Blank**:W/O sensor<br>**SF**:LED in front  AL-20<br>**ST**:LED on top  AL-21 | **Blank**:Reed switch<br>**D**:NPN<br>**E**:PNP | 1 pc<br>2 pcs | **Blank**:W/O mounting parts<br>**FA**:Front flange (Ø16 ~ Ø25)<br>**FB**:Rear flange (Ø16 ~ Ø25)<br>**CB**:Female clevis (Ø16 ~ Ø32)<br>**LB**:Foot mounting (Ø16 ~ Ø40) | **Blank**:W/O rod end joint<br>**Y**:Double knuckle joint (Ø16 ~ Ø40)<br>**I**:Single knuckle joint (Ø16 ~ Ø40)<br>**P**:Eyebolt floating joint (Ø16 ~ Ø40)<br>**T**:Basic floating joint (Ø16 ~ Ø63)<br>**L**:Axial foot type floating joint (Ø20 ~ Ø63)<br>**F**:Flange type floating joint (Ø20 ~ Ø63) | **Blank**:S45C<br>**S**:SUS304 |

*Sensor please refer to P3-189~P3-190

## How to order mounting parts

| ZIPC | FA | — | 20 |
|---|---|---|---|
| PMA series | Mounting parts | | Bore size |
| | **FA**:Front flange (Ø16 ~ Ø25)<br>**FB**:Rear flange (Ø16 ~ Ø25)<br>**CB**:Female clevis (Ø16 ~ Ø32)<br>**LB**:Foot mounting (Ø16 ~ Ø40) | | **16**:Ø16<br>**20**:Ø20<br>**25**:Ø25<br>**32**:Ø32<br>**40**:Ø40 |

*Please refer to P3-63

## How to order rod end joints

| ZNF | Y | — | M6 |
|---|---|---|---|
| | Rod end joint | | Thread size |
| | **Y**:Double knuckle joint (Ø16 ~ Ø40)<br>**I**:Single knuckle joint (Ø16 ~ Ø40)<br>**P**:Eyebolt floating joint (Ø16 ~ Ø40)<br>**T**:Basic floating joint (Ø16 ~ Ø63)<br>**L**:Axial foot type floating joint (Ø20 ~ Ø63)<br>**F**:Flange type floating joint (Ø20 ~ Ø63) | | **M6**:M6xP1.0 **(PMA16)**<br>**M8**:M8xP1.25 **(PMA20)**<br>**M10**:M10xP1.25 **(PMA25, 32)**<br>**M12**:M12xP1.25 **(PMA40)**<br>**M14**:M14xP1.5 **(PMA50, 63)** |

*Please refer to P3-187~P3-188

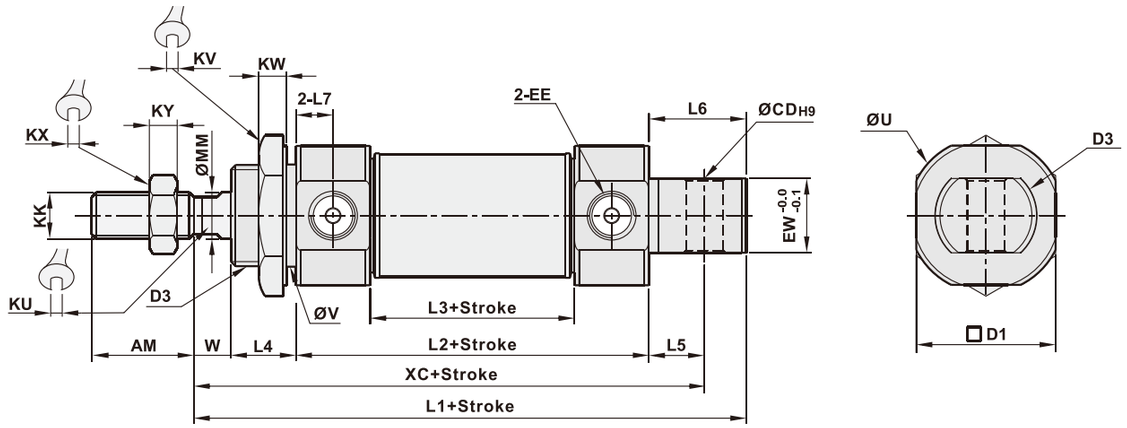
## Specifications

| Bore size | Ø16 | Ø20 | Ø25 | Ø32 | Ø40 | Ø50 | Ø63 |
|---|---|---|---|---|---|---|---|
| Port size | M5xP0.8 | 1/8" | | | | 1/4" | |
| Fluid | Compressed air | | | | | | |
| Acting | Double acting | | | | | | |
| Operating pressure range | 1.5 ~ 8.5 kgf/cm² | | | | | | |
| Max. operating pressure | 9.5 kgf/cm² | | | | | | |
| Barrel material | Stainless steel SUS304 | | | | | | |
| Magnet | Built-in | | | | | | |
| Ambient temperature | -5°C ~ 60°C | | | | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | | | | |

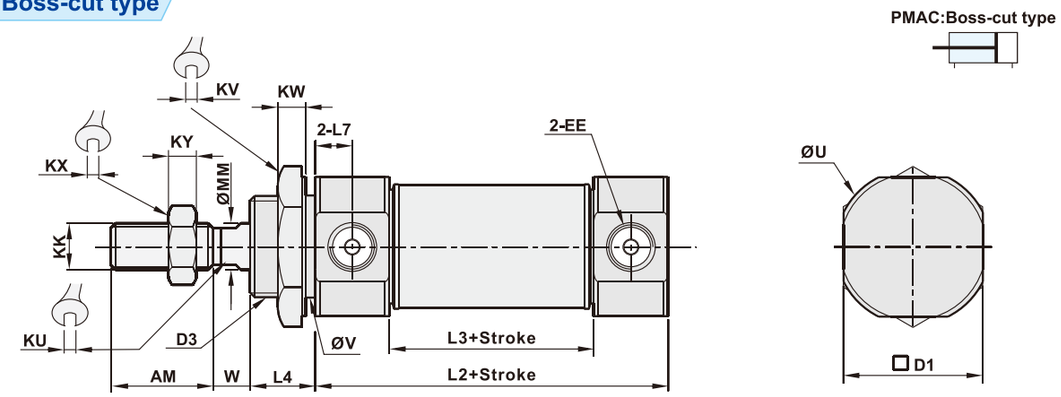


## Dimensions

### PMA Standard integrated clevis type




### PMAC Boss-cut type



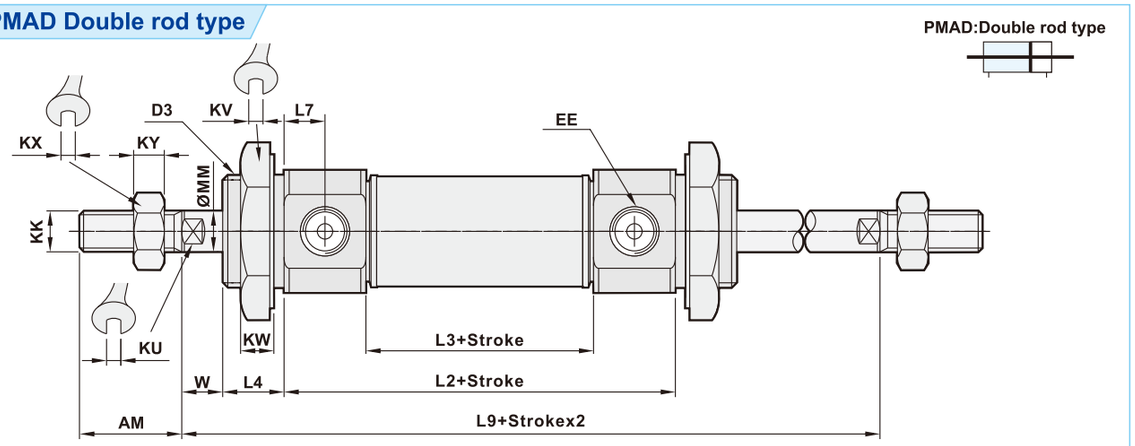

(Unit: mm)

| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ø16** | 16 | 18.3 | Ø6 | M16xP1.5 | 98 | 60 | 40 | 16 | 9 | 16 | 5 |
| **Ø20** | 20 | 24 | Ø8 | M22xP1.5 | 117 | 76 | 44 | 12 | 12 | 21 | 8 |
| **Ø25** | 22 | 30 | Ø8 | M22xP1.5 | 119 | 76 | 44 | 14 | 12 | 21 | 8 |
| **Ø32** | 22 | 34.5 | Ø10 | M24xP2.0 | 125 | 76 | 44 | 14 | 15 | 27 | 8 |
| **Ø40** | 24 | 42.5 | Ø12 | M30xP2.0 | 125 | 76 | 42.6 | 14 | 15 | 27 | 8.4 |

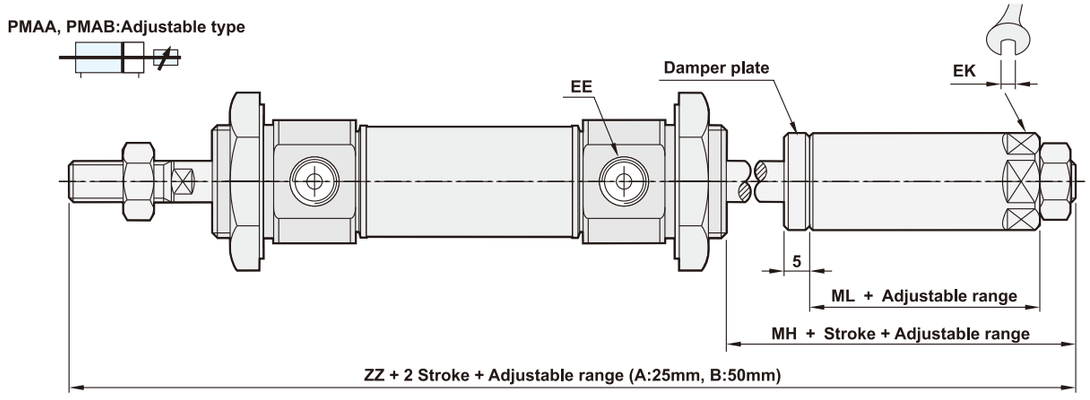
| Bore size | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ø16** | M6xP1.0 | 5 | 22 | 6 | 10 | 5 | Ø6 | 6 | 12 | 91 | M5xP0.8 | Ø20 | Ø16 |
| **Ø20** | M8xP1.25 | 6 | 30 | 6 | 13 | 6 | Ø8 | 8 | 16 | 108 | G 1/8 | Ø28 | Ø22 |
| **Ø25** | M10xP1.25 | 8 | 30 | 6 | 17 | 6 | Ø10 | 8 | 16 | 110 | G 1/8 | Ø33.5 | Ø22 |
| **Ø32** | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | Ø12 | 8 | 16 | 113 | G 1/8 | Ø37.5 | Ø24 |
| **Ø40** | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | Ø16 | 8 | 20 | 113 | G 1/8 | Ø46.5 | Ø30 |

## Dimensions

### PMAD Double rod type




### PMAA, PMAB Adjustable type




(Unit: mm)

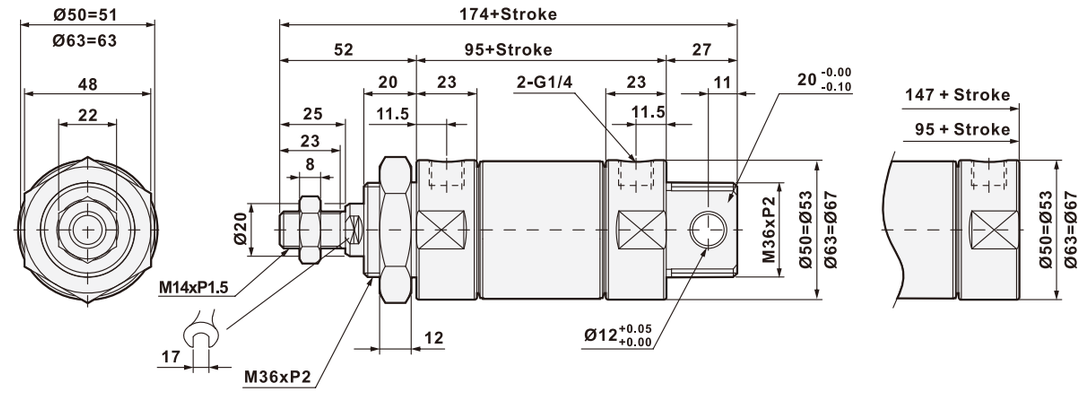
| Bore size | AM | D3 | L2 | L3 | L4 | L7 | L9 | EE | KU | KV |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø16 | 16 | M16xP1.5 | 60 | 40 | 16 | 5 | 104 | M5xP0.8 | 5 | 22 |
| Ø20 | 20 | M22xP1.5 | 76 | 44 | 12 | 8 | 116 | G1/8 | 6 | 30 |
| Ø25 | 22 | M22xP1.5 | 76 | 44 | 14 | 8 | 120 | G1/8 | 8 | 30 |
| Ø32 | 22 | M24xP2.0 | 76 | 44 | 14 | 8 | 120 | G1/8 | 10 | 32 |
| Ø40 | 24 | M30xP2.0 | 76 | 46.2 | 14 | 8.4 | 120 | G1/8 | 14 | 41 |

| Bore size | KW | KX | KY | MM | W | KK | ZZ | MH | ML | KE |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø16 | 6 | 10 | 5 | Ø6 | 6 | M6xP1.0 | 145 | 31 | 20 | 12 |
| Ø20 | 6 | 13 | 6 | Ø8 | 8 | M8xP1.25 | 159 | 31 | 20 | 17 |
| Ø25 | 6 | 17 | 6 | Ø10 | 8 | M10xP1.25 | 165 | 31 | 20 | 17 |
| Ø32 | 8 | 17 | 6 | Ø12 | 8 | M10xP1.25 | 167 | 33 | 22 | 22 |
| Ø40 | 8 | 19 | 7 | Ø16 | 8 | M12xP1.25 | 171 | 35 | 22 | 27 |

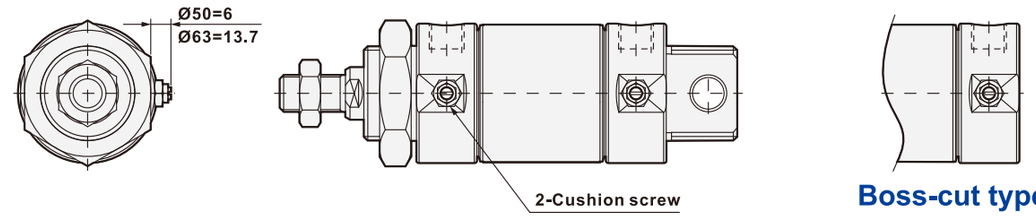


## Dimensions

### Standard type (Ø50~Ø63)




### With Cushion (Ø50~Ø63)



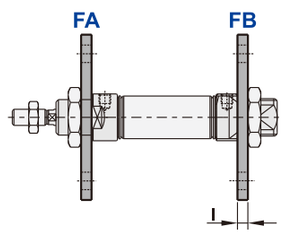

## Stroke table

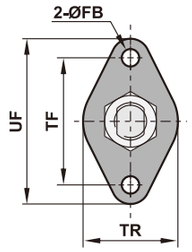
| Bore size | Acting | Standard stroke (mm) | Max. Standard stroke (mm) |
|---|---|---|---|
| Ø16 ~ Ø63 | Duble acting | 5 ~ 500 | 900 |

Note: Please contact our sales for non-standar stroke.

## Dimension of mounting parts

### FA, FB Front & Rear flange



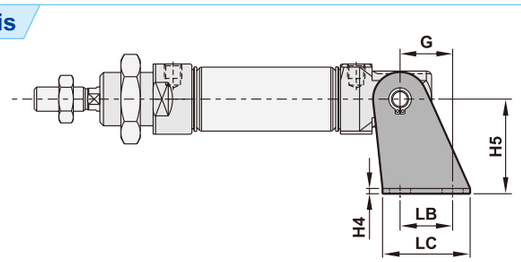



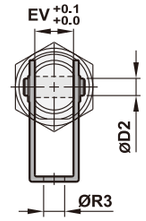

(Unit: mm)

| Bore size | TF | TR | UF | UR | I | FB |
|---|---|---|---|---|---|---|
| Ø16 | 40 | -- | 52 | 30 | 3 | Ø5.5 |
| Ø20 | 50 | -- | 66 | 40 | 3 | Ø6.5 |

| Bore size | TF | TR | UF | UR | I | FB |
|---|---|---|---|---|---|---|
| Ø25 | 50 | -- | 66 | 40 | 3 | Ø6.5 |

### CB Female clevis



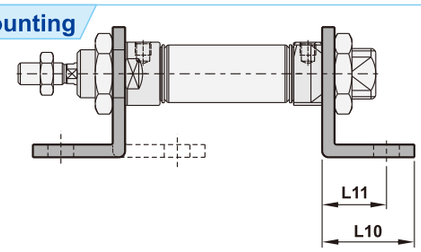



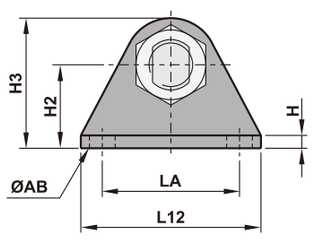

(Unit: mm)

| Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 |
|---|---|---|---|---|---|---|---|---|
| Ø16 | 15 | 25 | 12 | 3 | 27 | 15 | Ø6 +0.03 +0.0 | Ø6 |
| Ø20 | 20 | 32 | 16 | 3 | 30 | 18.5 | Ø8 +0.04 +0.0 | Ø7 |

| Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 |
|---|---|---|---|---|---|---|---|---|
| Ø25 | 20 | 32 | 16 | 3 | 30 | 18.5 | Ø8 +0.04 +0.0 | Ø7 |
| Ø32 | 25 | 40 | 22 | 3 | 40 | 22.5 | Ø10 +0.04 +0.0 | Ø9 |

### LB Foot mounting




(Unit: mm)

| Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB |
|---|---|---|---|---|---|---|---|---|
| Ø16 | 20.5 | 14 | 42 | 32 | 3 | 20 | 33 | Ø6 |
| Ø20 | 26 | 17 | 54 | 40 | 3 | 25 | 45 | Ø7 |
| Ø25 | 26 | 17 | 54 | 40 | 3 | 25 | 45 | Ø7 |

| Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB |
|---|---|---|---|---|---|---|---|---|
| Ø32 | 25 | 18 | 64 | 50 | 3.5 | 28 | 48 | Ø7 |
| Ø40 | 30 | 20 | 74 | 54 | 4 | 31.5 | 60 | Ø7 |



Memo...



## Features

1. Miniature size and space saving.

## How to order

| PMAL | 32 | B50 | M | SF | D | 1 | FA | Y | S |
|---|---|---|---|---|---|---|---|---|---|
| Type | Bore size | Stroke | Magnet | Sensor | Type | Number of sensor | Mounting parts | Rod end joint | Rod material |
| PMAL :Standard type<br>PMALC :Boss-cut<br>PMALD :Double rod<br>PMALA :Stroke adjustable 25mm<br>PMALB :Stroke adjustable 50mm | 20 :Ø20<br>25 :Ø25<br>32 :Ø32<br>40 :Ø40 | | Blank :W/O magnet<br>M :W/I magnet | Blank :W/O sensor<br>SF :LED in front<br>  <br>AL-20<br>ST :LED on top<br>  <br>AL-21 | Blank :Reed switch<br>D :NPN<br>E :PNP | 1 pc<br>2 pcs | Blank :W/O mounting parts<br>FA :Front flange (Ø20, Ø25)<br>FB :Rear flange (Ø20, Ø25)<br>CB :Female clevis (Ø20 ~ Ø32)<br>LB :Foot mounting | Blank :W/O rod end joint<br>Y :Double knuckle joint<br>I :Single knuckle joint<br>P :Eyebolt floating joint<br>T :Basic floating joint<br>L :Axial foot type floating joint<br>F :Flange type floating joint | Blank :S45C<br>S :SUS304 |

*Sensor please refer to P3-189~P3-190

## How to order mounting parts

| ZIPC | FA | — | 20 |
|---|---|---|---|
| PMAL series | Mounting parts | | Bore size |
| | FA :Front flange (Ø20, Ø25)<br>FB :Rear flange (Ø20, Ø25)<br>CB :Female clevis (Ø20 ~ Ø32)<br>LB :Foot mounting | | 20 :Ø20<br>25 :Ø25<br>32 :Ø32<br>40 :Ø40 |

*Please refer to P3-68

## How to order rod end joints

| ZNF | Y | — | M8 |
|---|---|---|---|
| | Rod end joint | | Thread size |
| | Y :Double knuckle joint<br>I :Single knuckle joint<br>P :Eyebolt floating joint<br>T :Basic floating joint<br>L :Axial foot type floating joint<br>F :Flange type floating joint | | M8 :M8xP1.25 **(PMAL20)**<br>M10 :M10xP1.25 **(PMAL25, 32)**<br>M12 :M12xP1.25 **(PMAL40)** |

*Please refer to P3-187~P3-188

## Specifications

| Bore size | Ø20 | Ø25 | Ø32 | Ø40 |
|---|---|---|---|---|
| Port size | 1/8" | | | 1/4" |
| Fluid | Compressed air | | | |
| Acting | Double acting | | | |
| Operating pressure range | 1.5 ~ 8.5 kgf/cm² | | | |
| Max. operating pressure | 9.5 kgf/cm² | | | |
| Barrel material | Aluminum alloy | | | |
| Ambient temperature | -5°C ~ 60°C | | | |
| Piston speed | 50 ~ 700mm/Sec. | | | |
| Magnet | Option | | | |



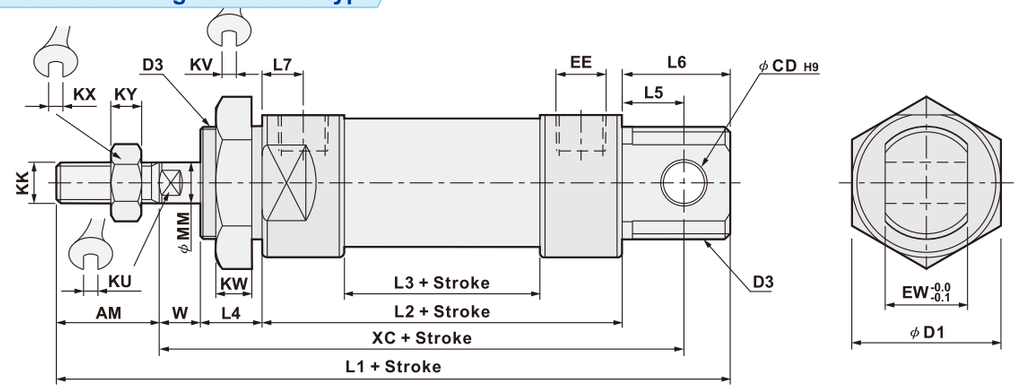
## Stroke table

| Bore size | Acting | Standard stroke(mm) | Max. Standard stroke(mm) |
|---|---|---|---|
| $\phi$ 20 | Double acting | 5 ~ 500 | 900 |
| $\phi$ 25 ~ $\phi$ 40 | | 5 ~ 500 | 1200 |

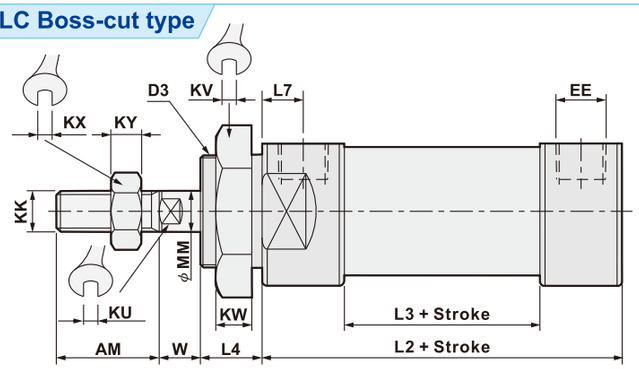
Note: Please contact our sales for non-standard stroke.

## Dimensions

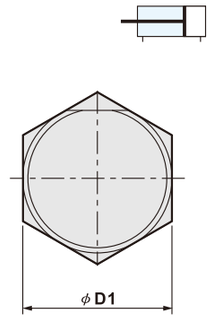
### PMAL Standard integrated clevis type




### PMALC Boss-cut type




PMALC:Boss-cut type




(Unit: mm)

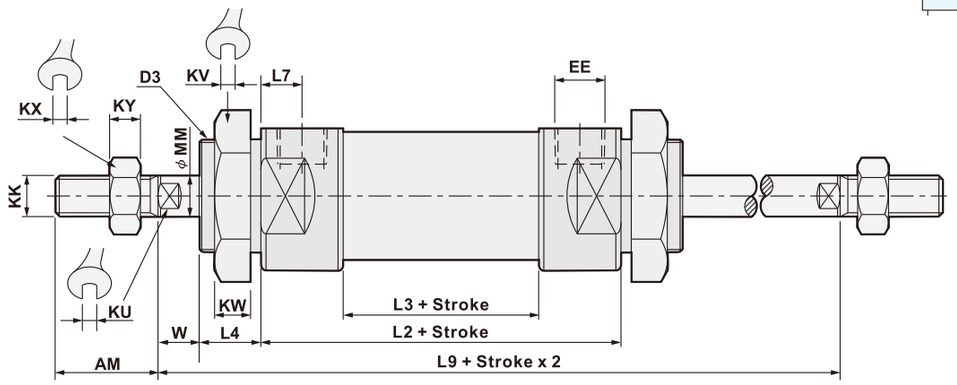
| Bore size | AM | D1 | CD | D3 | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $\phi$ **20** | 20 | $\phi$ 29 | $\phi$ 8 | M22xP1.5 | 131 | 70 | 38 | 12 | 12 | 21 | 8 |
| $\phi$ **25** | 22 | $\phi$ 34 | $\phi$ 8 | M22xP1.5 | 135 | 70 | 38 | 14 | 12 | 21 | 8 |
| $\phi$ **32** | 22 | $\phi$ 39.5 | $\phi$ 10 | M24xP2.0 | 141 | 70 | 38 | 14 | 15 | 27 | 8 |
| $\phi$ **40** | 24 | $\phi$ 49.5 | $\phi$ 12 | M30xP2.0 | 165 | 92 | 48 | 14 | 15 | 27 | 11 |

| Bore size | KK | KU | KV | KW | KX | KY | MM | W | EW | XC | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $\phi$ **20** | M8xP1.25 | 6 | 30 | 6 | 11 | 4 | $\phi$ 8 | 8 | 16 | 102 | G 1/8 |
| $\phi$ **25** | M10xP1.25 | 8 | 30 | 6 | 17 | 6 | $\phi$ 10 | 8 | 16 | 104 | G 1/8 |
| $\phi$ **32** | M10xP1.25 | 10 | 32 | 8 | 17 | 6 | $\phi$ 12 | 8 | 16 | 107 | G 1/8 |
| $\phi$ **40** | M12xP1.25 | 14 | 41 | 8 | 19 | 7 | $\phi$ 16 | 8 | 20 | 129 | G 1/4 |

## Dimensions

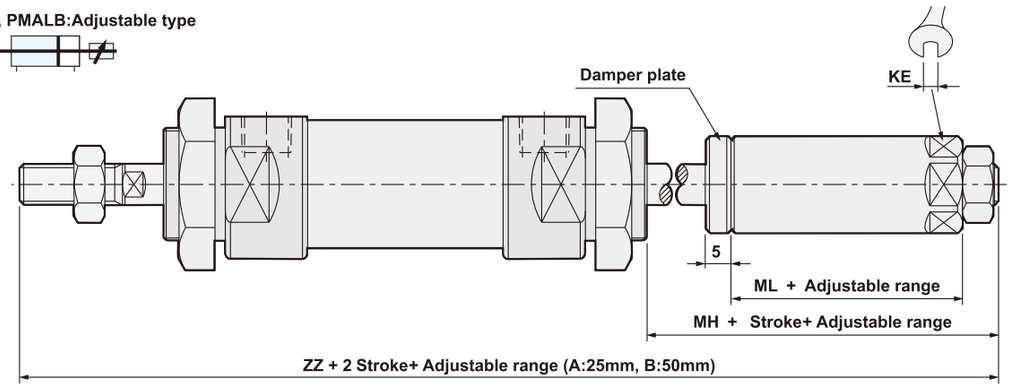
### PMALD Double rod type

PMALD:Double rod type




### PMALA, PMALB Adjustable type

PMALA, PMALB:Adjustable type




(Unit: mm)

| Bore size | AM | D3 | L2 | L3 | L4 | L7 | L9 | EE | KE | KU |
|---|---|---|---|---|---|---|---|---|---|---|
| φ **20** | 20 | M22xP1.5 | 70 | 38 | 12 | 8 | 110 | G1/8 | 17 | 6 |
| φ **25** | 22 | M22xP1.5 | 70 | 38 | 14 | 8 | 114 | G1/8 | 17 | 8 |
| φ **32** | 22 | M24xP2.0 | 70 | 38 | 14 | 8 | 114 | G1/8 | 22 | 10 |
| φ **40** | 24 | M30xP2.0 | 92 | 48 | 14 | 11 | 136 | G1/4 | 27 | 14 |

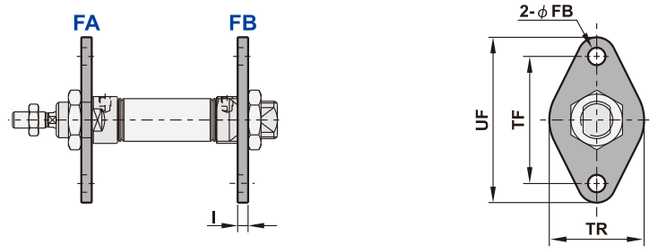
| Bore size | KV | KK | KW | KX | KY | MH | ML | MM | W | ZZ |
|---|---|---|---|---|---|---|---|---|---|---|
| φ **20** | 30 | M8xP1.25 | 6 | 11 | 4 | 31 | 20 | φ8 | 8 | 153 |
| φ **25** | 30 | M10xP1.25 | 6 | 17 | 6 | 31 | 20 | φ10 | 8 | 159 |
| φ **32** | 32 | M10xP1.25 | 8 | 17 | 6 | 33 | 22 | φ12 | 8 | 161 |
| φ **40** | 41 | M12xP1.25 | 8 | 19 | 7 | 35 | 22 | φ16 | 8 | 187 |





## Dimension of mounting parts

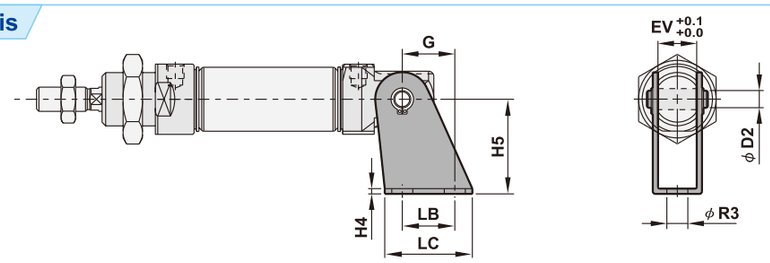
### FA, FB Front & Rear flange




(Unit: mm)

| Bore size | TF | TR | UF | UR | I | FB |
|---|---|---|---|---|---|---|
| φ **20** | 50 | -- | 66 | 40 | 3 | φ6.5 |
| φ **25** | 50 | – | 66 | 40 | 3 | φ6.5 |

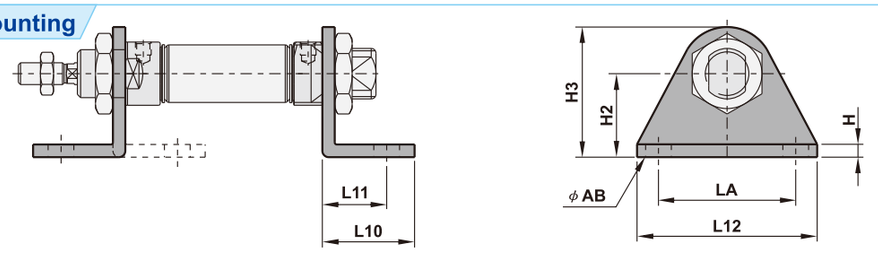
### CB Female clevis




(Unit: mm)

| Bore size | LB | LC | EV | H4 | H5 | G | D2 | R3 |
|---|---|---|---|---|---|---|---|---|
| φ **20** | 20 | 32 | 16 | 3 | 30 | 18.5 | φ8 +0.04 +0.0 | φ7 |
| φ **25** | 20 | 32 | 16 | 3 | 30 | 18.5 | φ8 +0.04 +0.0 | φ7 |
| φ **32** | 25 | 40 | 22 | 3 | 40 | 22.5 | φ10 +0.03 +0.0 | φ9 |

### LB Foot mounting




(Unit: mm)

| Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB |
|---|---|---|---|---|---|---|---|---|
| φ **20** | 26 | 17 | 54 | 40 | 3 | 25 | 45 | φ7 |
| φ **25** | 26 | 17 | 54 | 40 | 3 | 25 | 45 | φ7 |

| Bore size | L10 | L11 | L12 | LA | H | H2 | H3 | AB |
|---|---|---|---|---|---|---|---|---|
| φ **32** | 25 | 18 | 64 | 50 | 3.5 | 28 | 48 | φ7 |
| φ **40** | 30 | 20 | 74 | 54 | 4 | 31.5 | 60 | φ7 |

## Features

1. Miniature size, short length, efficiently reduce installation space.
2. Full thread design on cylinder body, suitable for panel mounting and plug mounting.

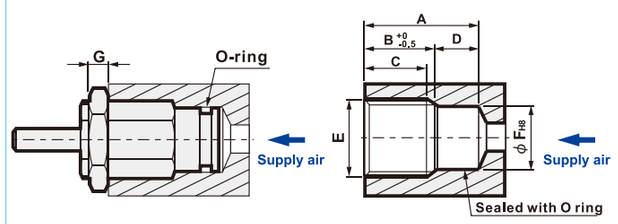
PJ APJ

## How to order

| PJ | B | 10 | B05 |
|---|---|---|---|
| **PIN cylinder** | **Mounting** | **Bore size** | **Stroke** |
| PJ : Double acting<br>APJ : Single acting-Spring return | Blank : Panel mounting<br>B : Plug mounting | 6 : $\phi$6<br>10 : $\phi$10 | 5mm<br>10mm<br>15mm |

*PJ is with panel mounting type only

### When plug mounting




plug mounting machining dimension for mounting

| Bore size | code / Stroke | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|---|
| $\phi$6 | 5 | 16 | 12.5 | 10 | 3.5 | M10x1.0 | 8.5 | 3 |
| | 10 | 23 | 19.5 | 17 | | | | |
| | 15 | 30 | 26.5 | 24 | | | | |
| $\phi$10 | 5 | 17 | 13.5 | 10.5 | 3.5 | M15x1.5 | 12 | 4 |
| | 10 | 23.5 | 20 | 17 | | | | |
| | 15 | 30.5 | 27 | 24 | | | | |

## Specifications

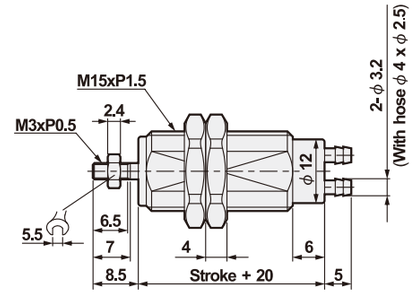
| Bore size | $\phi$6 | | $\phi$10 | |
|---|---|---|---|---|
| Acting | Double acting | Single acting | Double acting | Single acting |
| Port size | Barb fitting 4x2.5 | M5 | | |
| Fluid | Compressed air | | | |
| Cushion | None | | | |
| Operating pressure range | 1.5 ~ 7 kgf/cm$^2$ | 2 ~ 7 kgf/cm$^2$ | 1.5 ~ 7 kgf/cm$^2$ | |
| Proof pressure | 9.5 kgf/cm$^2$ | | | |
| Body material | Bronze alloy | | | |
| Magnet | W/O magnet | | | |
| Ambient temperature | -5℃ ~ 60℃ | | | |
| Piston speed | 50~500mm/Sec | | | |

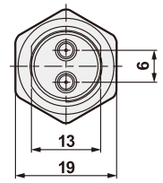


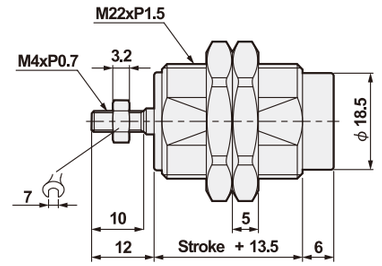
## Dimensions

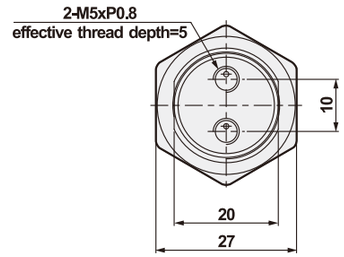
### PJ06, 10

PJ: Double acting



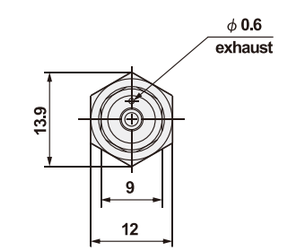



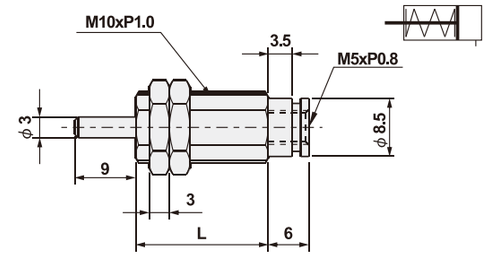



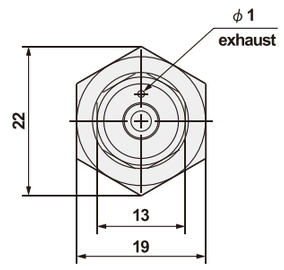



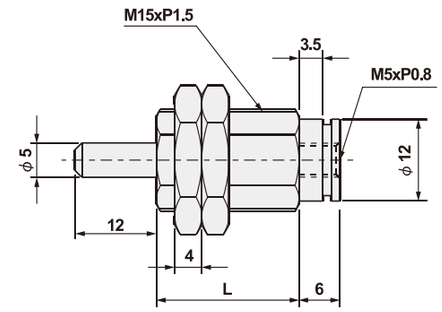

### APJ06, 10

APJ: Single acting-Spring return




| Model | $\phi$6 | | | $\phi$10 | | |
|---|---|---|---|---|---|---|
| Stroke | 5 | 10 | 15 | 5 | 10 | 15 |
| L | 12.5 | 19.5 | 26.5 | 14.5 | 21 | 28 |