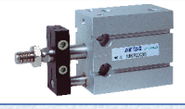
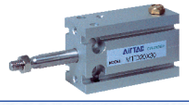
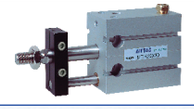
## Product series

| Series name | | | Acting type | Bore size | Collocation of sensor switch CS1–G DS1–G |
|---|---|---|---|---|---|
| Double acting type: MD |  | Double acting no–rotating type: MK |  | Double acting | 6 10 16 20 25 32 |
| Double rod type: MDD |  | Double rod no–rotating type: MKD |  | | |
| Adjustable stroke type: MDJ |  | Adjustable stroke no–rotating type: MKJ |  | | |
| Single acting type: MSD |  | Single acting no–rotating type: MSK |  | Single acting | |
| Single acting type: MTD |  | Single acting no–rotating type: MTK |  | | |
| Page | 290 | | 293 | | 403 |

MD,MK

## Installation and application

1. When load changes in the work, the cylinder with abundant output capacity shall be selected.
2. Relative cylinder with high temperature resistance or corrosion resistance shall be chosen under the condition of high temperature or corrosion;
3. Necessary protection measure shall be taken in the environment with larger humidity, much dust or water drops, oil dust and welding dregs.
4. Dirty substances in the pipe must be cleared away before cylinder is connected with pipeline to prevent the entrance of sundries into the cylinder.
5. The medium used by cylinder shall be filtered by the filter core of above 40 μ m.
6. As both of the front cover and piston of the cylinder are short, typically too large stroke can not be selected.
7. Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
8. The cylinder shall avoid the influence of side load in operation maintain the normal work of cylinder and extend the service life.
9. If the cylinder is dismantled and stored for a long time, pay attention to conduct anti-rust treatment to the surface. Anti-dust jam cap shall be added in air intake and outlet orifices.

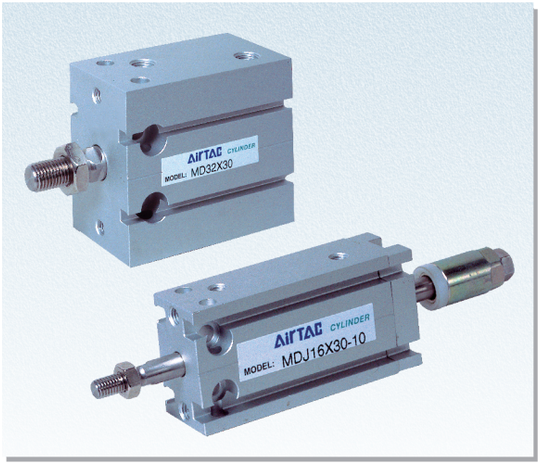
## Criteria for selection: Cylinder thrust

Unit：Newton(N)

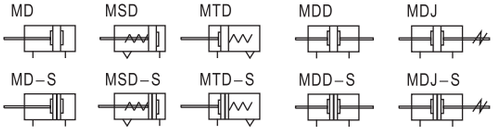
| Bore size (mm) | Rod size (mm) | Acting type | | Pressure area ($mm^2$) | Operating pressure(MPa) 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 3 | Single acting | Push side | 28.3 | - | 1.5 | 2.9 | 4.3 | 5.7 | 7.2 | 8.6 |
| | | | Pull side | 21.2 | - | - | 0.8 | 1.5 | 2.2 | 2.9 | 3.6 |
| | | Double acting | Push side | 28.3 | 2.8 | 5.7 | 8.5 | 11.3 | 14.1 | 17.0 | 19.8 |
| | | | Pull side | 21.2 | 2.1 | 4.2 | 6.4 | 8.5 | 10.6 | 12.7 | 14.8 |
| 10 | 4 | Single acting | Push side | 78.5 | - | 3.9 | 7.9 | 11.8 | 15.8 | 19.7 | 23.7 |
| | | | Pull side | 66.0 | - | 1.4 | 4.1 | 6.8 | 9.5 | 12.2 | 14.9 |
| | | Double acting | Push side | 78.5 | 7.9 | 15.7 | 23.6 | 31.4 | 39.3 | 47.1 | 55.0 |
| | | | Pull side | 66.0 | 6.6 | 13.2 | 19.8 | 26.4 | 33.0 | 39.6 | 46.2 |
| 16 | 6 | Single acting | Push side | 201.1 | - | 10.1 | 30.2 | 50.3 | 70.4 | 90.5 | 110.6 |
| | | | Pull side | 172.8 | - | 8.7 | 25.9 | 43.2 | 60.5 | 77.8 | 95.1 |
| | | Double acting | Push side | 201.1 | 20.1 | 40.2 | 60.3 | 80.4 | 100.5 | 120.6 | 140.7 |
| | | | Pull side | 172.8 | 17.3 | 34.6 | 51.8 | 69.1 | 86.4 | 103.7 | 121.0 |
| 20 | 8 | Single acting | Push side | 314.2 | - | 15.7 | 47.1 | 78.6 | 110.0 | 141.4 | 172.8 |
| | | | Pull side | 263.9 | - | 13.2 | 39.6 | 66.0 | 92.3 | 118.7 | 145.1 |
| | | Double acting | Push side | 314.2 | 31.4 | 62.8 | 94.2 | 125.7 | 157.1 | 188.5 | 219.9 |
| | | | Pull side | 263.9 | 26.4 | 52.8 | 79.2 | 105.6 | 131.9 | 158.3 | 184.7 |
| 25 | 10 | Single acting | Push side | 490.9 | - | 24.7 | 73.8 | 122.8 | 179.1 | 221.0 | 270.1 |
| | | | Pull side | 412.3 | - | 20.7 | 61.9 | 103.1 | 144.4 | 185.6 | 226.8 |
| | | Double acting | Push side | 490.9 | 49.1 | 98.2 | 147.3 | 196.3 | 245.4 | 294.5 | 343.6 |
| | | | Pull side | 412.3 | 41.2 | 82.5 | 123.7 | 164.9 | 206.2 | 247.4 | 288.6 |
| 32 | 12 | Single acting | Push side | 804.2 | - | 40.2 | 120.7 | 201.1 | 281.5 | 361.9 | 442.4 |
| | | | Pull side | 691.2 | - | 34.7 | 103.8 | 173.0 | 242.1 | 311.2 | 380.3 |
| | | Double acting | Push side | 804.2 | 80.4 | 160.8 | 241.3 | 321.7 | 402.1 | 482.5 | 563.0 |
| | | | Pull side | 691.2 | 69.1 | 138.2 | 270.3 | 276.5 | 345.6 | 414.7 | 483.8 |

# Multi-mount cylinder

## MD Series




## Symbol




## Product feature

1. Manufactured by our enterprise.
2. There are several ways to fix the cylinder and it is convenient to install and use.
3. Several cylinders can be assembled together to effectively save the installation space.
4. The guide precision of piston rod is high and no additional lubricant is needed.
5. Cylinders of various specifications are optional.
6. The seal material with high temperature resistance is adopted to guarantee the normal operation of cylinder at 150℃(Option).

## Ordering code

Model can to be changed Ordering code. Example:
Production type: MDJ
Bore size: 32mm
Stroke: 50mm
Adjustable stroke: 30mm
Magnet: With magnet
Thread type: NPT

**Model: MDJ －32×50－30-S-T**

**Ordering code: MDJ 32 S 0050 030 T**

- Model
- Bore size
  - 06: Φ6mm
  - 10: Φ10mm
  - 16: Φ16mm
  - 20: Φ20mm
  - 25: Φ25mm
  - 32: Φ32mm
- Magnet
  - Blank: Without magnet
  - S: With magnet
- Stroke
  - 不足四碼前面補0
- Adjustable stroke
  - 不足三碼前面補0
- Thread type
  - P: PT
  - T: NPT
  - G: G

## Specification

| Bore size(mm) | | 6 | 10 | 16 | 20 | 25 | 32 |
|---|---|---|---|---|---|---|---|
| Acting type | MD, MDD, MDJ | Double acting | | | | | |
| | MSD, MTD | Single acting-Push type, Single acting-Pull type | | | | | |
| Fluid | | Air(to be filtered by 40 μ m filter element) | | | | | |
| Operating pressure | Double acting | 0.1~1.0MPa(14~145psi) | | | | | |
| | Single acting | 0.2~1.0MPa(28~145psi) | | | | | |
| Proof pressure | | 1.5MPa(215psi) | | | | | |
| Temperature ℃ | | -20~80 | | | | | |
| Speed range mm/s | | Double acting: 30~500 Single acting: 50~500 | | | | | |
| Stroke tolerance | | $^{+1.0}_{0}$ | | | | | |
| Cushion type | | Bumper | | | | | |
| Port size ① | | M5×0.8 | | | | | 1/8" |

① PT thread, NPT thread and G thread are available. Add) Refer to P403~426 for detail of sensor switch.

## Stroke

| Bore size (mm) | | Standard stroke (mm) | Max. stroke | Available stroke |
|---|---|---|---|---|
| 6 | Double acting | 5 10 15 20 25 30 35 | 35 | 40 |
| | Single acting | 5 10 15 20 | 20 | - |
| 10 | Double acting | 5 10 15 20 25 30 35 | 35 | 40 |
| | Single acting | 5 10 15 20 | 20 | - |
| 16 | Double acting | 5 10 15 20 25 30 40 50 | 50 | 70 |
| | Single acting | 5 10 15 20 | 20 | - |
| 20 | Double acting | 5 10 15 20 25 30 40 50 60 | 60 | 80 |
| | Single acting | 5 10 15 20 | 20 | - |
| 25 | Double acting | 5 10 15 20 25 30 40 50 60 | 60 | 80 |
| | Single acting | 5 10 15 20 | 20 | - |
| 32 | Double acting | 5 10 15 20 25 30 40 50 60 | 60 | 80 |
| | Single acting | 5 10 15 20 | 20 | - |

Note) 1.Within allowable stroke scope, when the stroke is larger than the maximum value, it shall be treated as non-standard one. Please contact the company for other special strokes.

2.The non-standard stroke within the scope of maximum stroke is transformed according to the standard stroke of the upper grade and its shape and dimension are equal to that of standard stroke cylinder of the upper grade. For instance, the non-standard stroke cylinder whose stroke is 23 is transformed from the standard cylinder whose standard stroke is 25, and their shape and dimension are the same.

## Explain of model

**MD －32×30 －S－P**

**MDD－32×30 －S－P**

**MDJ －32×30－30－S－P**

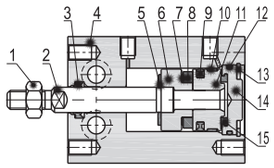
- Model
  - MD: Multi-mount cylinder(Double acting type)
  - MSD: Multi-mount cylinder(Single acting-push type)
  - MTD: Multi-mount cylinder(Single acting-pull type)
  - MDD: Multi-mount cylinder(Double rod type)
  - MDJ: Multi-mount cylinder(Adjustable stroke type)
- Bore size
  - 6 10 16 20 25 32
- Stroke
  - Refer to stroke table for details
- ① Thread type
  - P: PT
  - T: NPT
  - G: G
- Magnet
  - Blank: Without magnet
  - S: With magnet
- Adjustable stroke

| Model | Adjustable stroke |
|---|---|
| MDJ | 10: 10mm |
| | 20: 20mm |
| | 30: 30mm |
| Others | No this code |

① When the thread is standard, the code is blank.

## Inner structure and material of major parts

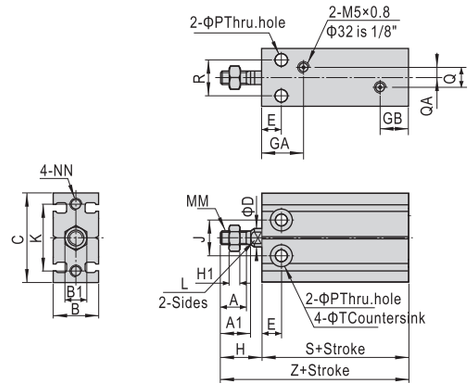
MD-S




| NO. | Item | Material |
|---|---|---|
| 1 | Rod nut | Carbon steel |
| 2 | Piston rod | Stainless steel |
| 3 | Rod packing | NBR |
| 4 | Body | Aluminum alloy |
| 5 | Bumper | TPU |
| 6 | Magnet holder | Aluminum alloy |
| 7 | Magnet washer | NBR |
| 8 | Magnet | Sintered metal(Neodymium-iron-boron) |
| 9 | Piston O-ring | NBR |
| 10 | Wear ring | Wear resistant material |
| 11 | Piston | Aluminum alloy |
| 12 | O-ring | NBR |
| 13 | C-clip | Spring steel |
| 14 | Back cover | Aluminum alloy |
| 15 | Bumper | TPU |

## Dimensions

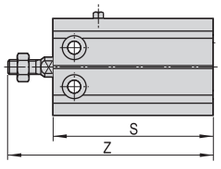
MD



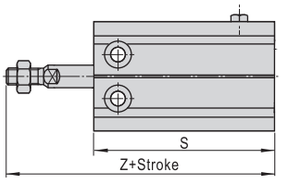

| Bore size\Item | A | A1 | B | B1 | C | D | E | GA | GB | H | H1 | J | K | L | MM | NN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 16.5 | 5.5 | 22 | 3 | 7 | 14 | 10 | 13 | 2.4 | 10 | 17 | - | M3 × 0.5 | M3 × 0.5Dp:5 |
| 10 | 10 | 11 | 16.5 | 7 | 24 | 4 | 7 | 15.5 | 10 | 16 | 2.2 | 11 | 18 | - | M4 × 0.7 | M3 × 0.5Dp:5 |
| 16 | 11 | 12.5 | 20 | 8 | 32 | 6 | 7 | 14.5 | 10 | 16 | 4 | 14 | 25 | 5 | M5 × 0.8 | M4 × 0.7Dp:5 |
| 20 | 12 | 14 | 26 | 10 | 40 | 8 | 9 | 19 | 11 | 19 | 5 | 16 | 30 | 6 | M6 × 1.0 | M5 × 0.8Dp:7.5 |
| 25 | 15.5 | 18 | 32 | 12 | 50 | 10 | 10 | 21.5 | 8.5 | 23 | 6 | 20 | 38 | 8 | M8 × 1.25 | M5 × 0.8Dp:8 |
| 32 | 19.5 | 22 | 40 | 17 | 62 | 12 | 11 | 23 | 12.5 | 27 | 6 | 24 | 48 | 10 | M10 × 1.25 | M6 × 1.0Dp:9 |

| Bore size\Item | P | Q | QA | R | T | S | | Z | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without magnet | With magnet | Without magnet | With magnet |
| 6 | 3.2 | – | – | 7 | 6Dp:5 | 33 | 33 | 46 | 46 |
| 10 | 3.2 | – | – | 9 | 6Dp:5.6 | 36 | 36 | 52 | 52 |
| 16 | 4.5 | 3 | 1.5 | 12 | 7.6Dp:6.5 | 30 | 40 | 46 | 56 |
| 20 | 5.5 | 9 | 4.5 | 16 | 9.3Dp:8 | 36 | 46 | 55 | 65 |
| 25 | 5.5 | 12 | 6 | 20 | 9.3Dp:9 | 40 | 50 | 63 | 73 |
| 32 | 6.6 | 13 | 4.5 | 24 | 11Dp:11.5 | 42 | 52 | 69 | 79 |

MSD



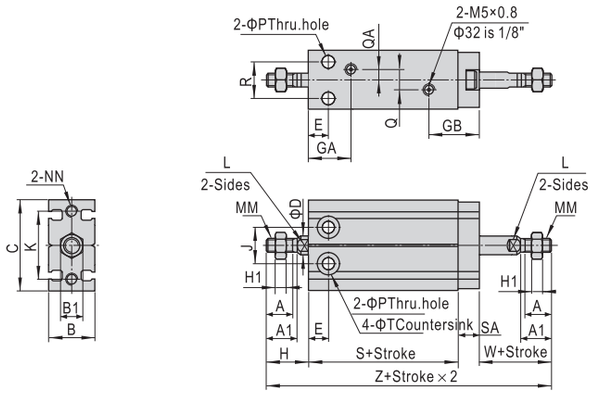

MTD




| Item | S(Without magnet) | | | | S(With magnet) | | | | Z(Without magnet) | | | | Z(With magnet) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bore size\Stroke | 5St | 10St | 15St | 20St | 5St | 10St | 15St | 20St | 5St | 10St | 15St | 20St | 5St | 10St | 15St | 20St |
| 6 | 43 | 48 | 58 | 63 | 43 | 48 | 58 | 63 | 56 | 61 | 71 | 76 | 56 | 61 | 71 | 76 |
| 10 | 46 | 51 | 61 | 66 | 46 | 51 | 61 | 66 | 62 | 67 | 77 | 82 | 62 | 67 | 77 | 82 |
| 16 | 45 | 50 | 65 | 70 | 55 | 60 | 75 | 80 | 61 | 66 | 81 | 86 | 71 | 76 | 91 | 96 |
| 20 | 51 | 56 | 71 | 76 | 61 | 66 | 81 | 86 | 70 | 75 | 90 | 95 | 80 | 85 | 100 | 105 |
| 25 | 55 | 60 | 75 | 80 | 65 | 70 | 85 | 90 | 78 | 83 | 98 | 103 | 88 | 93 | 108 | 113 |
| 32 | 57 | 62 | 77 | 82 | 67 | 72 | 87 | 92 | 84 | 89 | 104 | 109 | 94 | 99 | 114 | 119 |

Remark) The unmarked dimension is the same as MD standard type.

## MDD

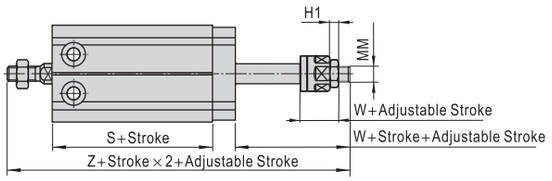



| Bore size\Item | A | A1 | B | B1 | C | D | E | GA | GB | H | H1 | J | K | L | P | Q | MM | NN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 16.5 | 5.5 | 22 | 3 | 7 | 14 | 16 | 13 | 2.4 | 10 | 17 | - | 3.2 | – | M3×0.5 | M3×0.5Dp:5 |
| 10 | 10 | 11 | 16.5 | 7 | 24 | 4 | 7 | 15.5 | 16 | 16 | 2.4 | 11 | 18 | - | 3.2 | – | M4×0.7 | M3×0.5Dp:5 |
| 16 | 11 | 12.5 | 20 | 8 | 32 | 6 | 7 | 14.5 | 17.5 | 16 | 4 | 14 | 25 | 5 | 4.5 | 3 | M5×0.8 | M4×0.7Dp:5 |
| 20 | 12 | 14 | 26 | 10 | 40 | 8 | 9 | 19 | 20 | 19 | 5 | 16 | 30 | 6 | 5.5 | 9 | M6×1.0 | M5×0.8Dp:7.5 |
| 25 | 15.5 | 18 | 32 | 12 | 50 | 10 | 10 | 21.5 | 17.5 | 23 | 6 | 20 | 38 | 8 | 5.5 | 12 | M8×1.25 | M5×0.8Dp:8 |
| 32 | 19.5 | 22 | 40 | 17 | 62 | 12 | 11 | 23 | 22.5 | 27 | 6 | 24 | 48 | 10 | 6.6 | 13 | M10×1.25 | M6×1.0Dp:9 |

| Bore size\Item | QA | R | SA | T | W | S | | Z | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without magnet | With magnet | Without magnet | With magnet |
| 6 | – | 7 | 6 | 6Dp:5 | 13 | 38 | 38 | 70 | 70 |
| 10 | – | 9 | 6 | 6Dp:5.6 | 16 | 36 | 36 | 74 | 74 |
| 16 | 1.5 | 12 | 7.5 | 7.6Dp:6.5 | 16 | 30 | 40 | 69.5 | 79.5 |
| 20 | 4.5 | 16 | 9 | 9.3Dp:8 | 19 | 36 | 46 | 83 | 93 |
| 25 | 6 | 20 | 9 | 9.3Dp:9 | 23 | 40 | 50 | 95 | 105 |
| 32 | 4.5 | 24 | 10 | 11Dp:11.5 | 27 | 42 | 52 | 106 | 116 |

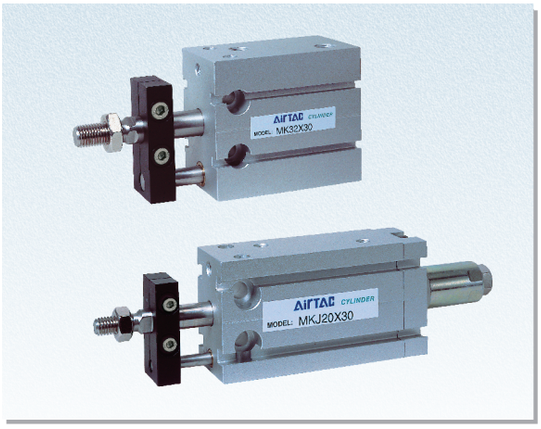
MD,MK

## MDJ

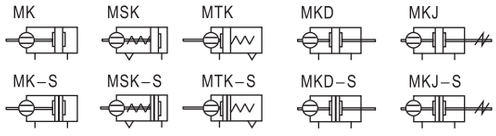



| Bore size\Item | MM | H1 | W | S | | Z | |
|---|---|---|---|---|---|---|---|
| | | | | Without magnet | With magnet | Without magnet | With magnet |
| 6 | M3×0.5 | 2.4 | 13 | 38 | 38 | 70 | 70 |
| 10 | M4×0.7 | 2.2 | 14.7 | 36 | 36 | 72.7 | 72.7 |
| 16 | M5×0.8 | 4 | 17 | 30 | 40 | 70.5 | 80.5 |
| 20 | M6×1.0 | 5 | 21 | 36 | 46 | 85 | 95 |
| 25 | M8×1.25 | 6 | 25 | 40 | 50 | 97 | 107 |
| 32 | M10×1.25 | 6 | 27 | 42 | 52 | 106 | 116 |

Remark) The unmarked dimension is the same as MD standard type.




## Symbol




## Product feature

1. Manufactured by our enterprise.
2. There are several fixation ways for the cylinder, and also convenient to install and use.
3. Several cylinders can be assembled together to effectively save the installation space.
4. The guide precision of piston rod is high and no additional lubricant is needed.
5. Fixated block is attached to piston rod, which prevents it from rotating.
6. Various cylinders are available for your choice.
7. The seal material with high temperature resistance is adopted to guarantee the normal operation of cylinder at 150℃(Option).

## Ordering code

Model can to be changed Ordering code. Example:
Production type: MKJ
Bore size: 32mm
Stroke: 50mm
Adjustable stroke: 30mm
Magnet: With magnet
Thread type: NPT
**Model: MKJ –32 × 50–30-S-T**
**Ordering code: MKJ 32 S 0050 030 T**

- Model
- Bore size: 06: Φ6mm; 10: Φ10mm; 16: Φ16mm; 20: Φ20mm; 25: Φ25mm; 32: Φ32mm
- Magnet: Blank: Without magnet; S: With magnet
- Stroke: 不足四碼前面補0
- Adjustable stroke: 不足三碼前面補0
- Thread type: P: PT; T: NPT; G: G

## Specification

| Bore size(mm) | | 6 | 10 | 16 | 20 | 25 | 32 |
|---|---|---|---|---|---|---|---|
| Acting type | MK, MKD, MKJ | Double acting | | | | | |
| | MSK, MTK | Single acting-Push type, Single acting-Pull type | | | | | |
| Fluid | | Air(to be filtered by 40 μ m filter element) | | | | | |
| Operating pressure | Double acting | 0.1~1.0MPa(14~145psi) | | | | | |
| | Single acting | 0.2~1.0MPa(28~145psi) | | | | | |
| Proof pressure | | 1.5MPa(215psi) | | | | | |
| Temperature ℃ | | -20~80 | | | | | |
| Speed range mm/s | | Double acting: 30~500 Single acting: 50~500 | | | | | |
| Stroke tolerance | | $^{+1.0}_{0}$ | | | | | |
| Cushion type | | Bumper | | | | | |
| Port size ① | | M5 × 0.8 | | | | | 1/8" |

① PT thread, NPT thread and G thread are available. Add) Refer to P403~426 for detail of sensor switch.

## Stroke

| Bore size (mm) | | Standard stroke (mm) | Max. stroke | Available stroke |
|---|---|---|---|---|
| 6 | Double acting | 5 10 15 20 25 30 35 | 35 | 40 |
| | Single acting | 5 10 15 20 | 20 | - |
| 10 | Double acting | 5 10 15 20 25 30 35 | 35 | 40 |
| | Single acting | 5 10 15 20 | 20 | - |
| 16 | Double acting | 5 10 15 20 25 30 40 50 | 50 | 70 |
| | Single acting | 5 10 15 20 | 20 | - |
| 20 | Double acting | 5 10 15 20 25 30 40 50 60 | 60 | 80 |
| | Single acting | 5 10 15 20 | 20 | - |
| 25 | Double acting | 5 10 15 20 25 30 40 50 60 | 60 | 80 |
| | Single acting | 5 10 15 20 | 20 | - |
| 32 | Double acting | 5 10 15 20 25 30 40 50 60 | 60 | 80 |
| | Single acting | 5 10 15 20 | 20 | - |

Note) 1.Within allowable stroke scope, when the stroke is larger than the maximum value, it shall be treated as non-standard one. Please contact the company for other special strokes.
2.The non-standard stroke within the scope of maximum stroke is transformed according to the standard stroke of the upper grade and its shape and dimension are equal to that of standard stroke cylinder of the upper grade. For instance, the non-standard stroke cylinder whose stroke is 23 is transformed from the standard cylinder whose standard stroke is 25, and their shape and dimension are the same.

## Explain of model

**MK –32 × 30 –S–P**
**MKD –32 × 30 –S–P**
**MKJ –32 × 30–30–S–P**

- Model
  - MK: Multi-mount cylinder (Double acting no–rotating type)
  - MSK: Multi-mount cylinder (Single acting-push no–rotating type)
  - MTK: Multi-mount cylinder (Single acting-pull no–rotating type)
  - MKD: Multi-mount cylinder (Double rod no–rotating type)
  - MKJ: Multi-mount cylinder (Adjustable stroke no–rotating type)
- Bore size: 6 10 16 20 25 32
- Stroke: Refer to stroke table for details
- ① Thread type: P: PT; T: NPT; G: G
- Magnet: Blank: Without magnet; S: With magnet
- Adjustable stroke

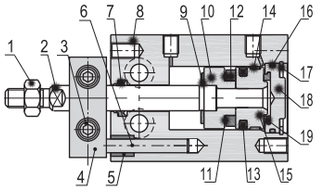
| Model | Adjustable stroke |
|---|---|
| MKJ | 10: 10mm |
| | 20: 20mm |
| | 30: 30mm |
| Others | No this code |

① When the thread is standard, the code is blank.

MD,MK

## Inner structure and material of major parts

MK–S

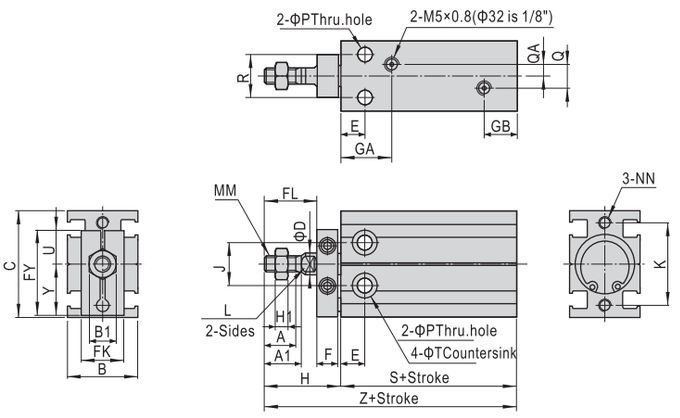



| NO. | Item | Material |
|---|---|---|
| 1 | Rod nut | Carbon steel |
| 2 | Piston rod | Stainless steel |
| 3 | Screw | Carbon steel |
| 4 | No-rotating plate | Aluminum alloy |
| 5 | Bushing | Brass |
| 6 | Fixed rod | Stainless steel |
| 7 | Rod packing | NBR |
| 8 | Body | Aluminum alloy |
| 9 | Bumper | TPU |
| 10 | Magnet holder | Aluminum alloy |
| 11 | Magnet washer | NBR |
| 12 | Magnet | Sintered metal(Neodymium-iron-boron) |
| 13 | Piston O–ring | NBR |
| 14 | Wear ring | Wear resistant material |
| 15 | Piston | Aluminum alloy |
| 16 | O–ring | NBR |
| 17 | C–clip | Spring steel |
| 18 | Back cover | Aluminum alloy |
| 19 | Bumper | TPU |

MD,MK

## Dimensions

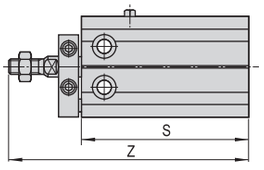
MK



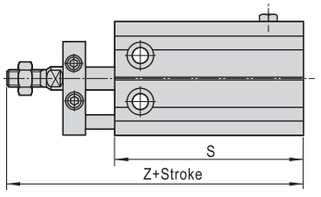

| Bore size\Item | A | A1 | B | B1 | C | D | E | F | FL | FK | FY | GA | GB | H | H1 | J | K | L | Y | P | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 16.5 | 5.5 | 22 | 3 | 7 | 8 | 9 | 11 | 19 | 14 | 10 | 18 | 2.4 | 10 | 17 | - | 10.9 | 3.2 | 7 |
| 10 | 10 | 11 | 16.5 | 7 | 24 | 4 | 7 | 8 | 12 | 13 | 20.5 | 15.5 | 10 | 21 | 2.2 | 11 | 18 | - | 11.9 | 3.2 | 9 |
| 16 | 11 | 12.5 | 20 | 8 | 32 | 6 | 7 | 8 | 17 | 13 | 26.5 | 14.5 | 10 | 26 | 4 | 14 | 25 | 5 | 15.9 | 4.5 | 12 |
| 20 | 12 | 14 | 26 | 10 | 40 | 8 | 9 | 8 | 20 | 16 | 32 | 19 | 11 | 29 | 5 | 16 | 30 | 6 | 19.8 | 5.5 | 16 |
| 25 | 15.5 | 18 | 32 | 12 | 50 | 10 | 10 | 10 | 22 | 19 | 40 | 21.5 | 8.5 | 33 | 6 | 20 | 38 | 8 | 24.8 | 5.5 | 20 |
| 32 | 19.5 | 22 | 40 | 17 | 62 | 12 | 11 | 12 | 29 | 24 | 49 | 23 | 12.5 | 42 | 6 | 24 | 48 | 10 | 30.8 | 6.6 | 24 |

| Bore size\Item | MM | NN | Q | QA | T | U | Without magnet | | With magnet | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | S | Z | S | Z |
| 6 | M3 × 0.5 | M3 × 0.5Dp:5 | – | – | 6Dp:5 | 8.1 | 33 | 51 | 33 | 51 |
| 10 | M4 × 0.7 | M3 × 0.5Dp:5 | – | – | 6Dp:5.6 | 8.6 | 36 | 57 | 36 | 57 |
| 16 | M5 × 0.8 | M4 × 0.7Dp:5 | 3 | 1.5 | 7.6Dp:6.5 | 10.6 | 30 | 56 | 40 | 66 |
| 20 | M6 × 1.0 | M5 × 0.8Dp:7.5 | 9 | 4.5 | 9.3Dp:8 | 12.2 | 36 | 65 | 46 | 75 |
| 25 | M8 × 1.25 | M5 × 0.8Dp:8 | 12 | 6 | 9.3Dp:9 | 15.2 | 40 | 73 | 50 | 83 |
| 32 | M10 × 1.25 | M6 × 1.0Dp:9 | 13 | 4.5 | 11Dp:11.5 | 18.2 | 42 | 84 | 52 | 94 |

MSK



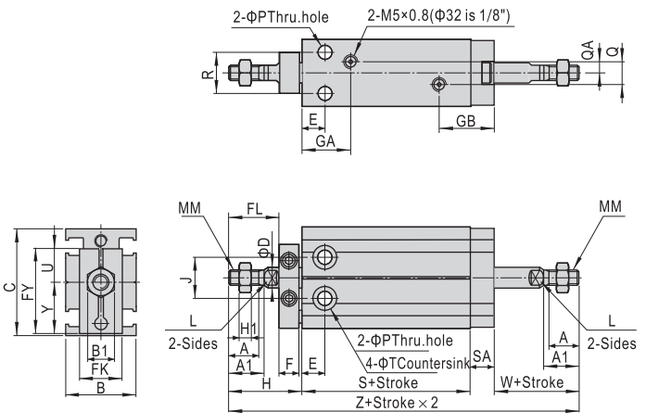

MTK



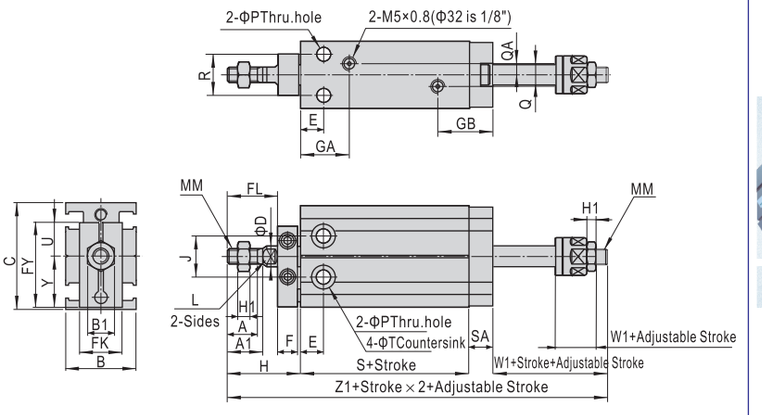

| Item | S(Without magnet) | | | | S(With magnet) | | | | Z(Without magnet) | | | | Z(With magnet) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bore size\Stroke | 5St | 10St | 15St | 20St | 5St | 10St | 15St | 20St | 5St | 10St | 15St | 20St | 5St | 10St | 15St | 20St |
| 6 | 43 | 48 | 58 | 63 | 43 | 48 | 58 | 63 | 61 | 66 | 76 | 81 | 61 | 66 | 76 | 81 |
| 10 | 46 | 51 | 61 | 66 | 46 | 51 | 61 | 66 | 67 | 72 | 82 | 87 | 67 | 72 | 82 | 87 |
| 16 | 45 | 50 | 65 | 70 | 55 | 60 | 75 | 80 | 71 | 76 | 91 | 96 | 81 | 86 | 101 | 106 |
| 20 | 51 | 56 | 71 | 76 | 61 | 66 | 81 | 86 | 80 | 85 | 100 | 105 | 90 | 95 | 110 | 115 |
| 25 | 55 | 60 | 75 | 80 | 65 | 70 | 85 | 90 | 88 | 93 | 108 | 113 | 98 | 103 | 118 | 123 |
| 32 | 57 | 62 | 77 | 82 | 67 | 72 | 87 | 92 | 99 | 104 | 119 | 124 | 109 | 114 | 129 | 134 |

Remark) The unmarked dimension is the same as MK standard type.

MKD




MKJ




| Bore size\Item | A | A1 | B | B1 | C | D | E | F | FL | FK | FY | GA | GB | H | H1 | J | L | P | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 16.5 | 5.5 | 22 | 3 | 7 | 8 | 9 | 11 | 19 | 14 | 16 | 18 | 2.4 | 10 | - | 3.2 | 10.9 |
| 10 | 10 | 11 | 16.5 | 7 | 24 | 4 | 7 | 8 | 12 | 13 | 20.5 | 15.5 | 16 | 21 | 2.2 | 11 | - | 3.2 | 11.9 |
| 16 | 11 | 12.5 | 20 | 8 | 32 | 6 | 7 | 8 | 17 | 13 | 26.5 | 14.5 | 17.5 | 26 | 4 | 14 | 5 | 4.5 | 15.9 |
| 20 | 12 | 14 | 26 | 10 | 40 | 8 | 9 | 8 | 20 | 16 | 32 | 19 | 20 | 29 | 5 | 16 | 6 | 5.5 | 19.8 |
| 25 | 15.5 | 18 | 32 | 12 | 50 | 10 | 10 | 10 | 22 | 19 | 40 | 21.5 | 17.5 | 33 | 6 | 20 | 8 | 5.5 | 24.8 |
| 32 | 19.5 | 22 | 40 | 17 | 62 | 12 | 11 | 12 | 29 | 24 | 49 | 23 | 22.5 | 42 | 6 | 24 | 10 | 6.6 | 30.8 |

| Bore size\Item | MM | Q | QA | R | SA | T | U | W | W1 | Without magnet | | | With magnet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | S | Z | Z1 | S | Z | Z1 |
| 6 | M3 × 0.5 | – | – | 7 | 6 | 6Dp:5 | 8.1 | 13 | 13 | 38 | 75 | 75 | 38 | 75 | 75 |
| 10 | M4 × 0.7 | – | – | 9 | 6 | 6Dp:5.6 | 8.6 | 16 | 14.7 | 36 | 79 | 77.7 | 36 | 79 | 77.7 |
| 16 | M5 × 0.8 | 3 | 1.5 | 12 | 7.5 | 7.6Dp:6.5 | 10.6 | 16 | 17 | 30 | 79.5 | 80.5 | 40 | 89.5 | 90.5 |
| 20 | M6 × 1.0 | 9 | 4.5 | 16 | 9 | 9.3Dp:8 | 12.2 | 19 | 21 | 36 | 93 | 95 | 46 | 103 | 105 |
| 25 | M8 × 1.25 | 12 | 6 | 20 | 9 | 9.3Dp:9 | 15.2 | 23 | 25 | 40 | 105 | 107 | 50 | 115 | 117 |
| 32 | M10 × 1.25 | 13 | 4.5 | 24 | 10 | 11Dp:11.5 | 18.2 | 27 | 27 | 42 | 121 | 121 | 52 | 131 | 131 |

# Memo

Note

MD,MK