

## Features:

- Ultra-compact,lightweight,space-saving type.

Available with a comprehensive selection of bore size ( $\phi 12 \mathrm{~mm} \sim$ $\phi 100 \mathrm{~mm}$ ) for the various needs.

- The highly accurate, air-driven push-pull work.
- Ideal for machine designs with small space requirements sensor switches will not protrude from switch mounting groove.
- Sensor switch mounting allows for flexible designing requirements 3 faces on $\phi 12 \& \phi 16$,and all 4 faces including port side on $\phi 12$ $\sim \phi 100$.

| Model | MCJS |  |  |
| :--- | :---: | :---: | :---: |
| Tube I.D. (mm) | $12,16,20,25$ | 32,40 | $50,63,80,100$ |
| Port size RC(Pt) | M5 | PT 1/8 | PT 1/4 |
| Medium | Air |  |  |
| Operating pressure range | $0.5-9.9 \mathrm{kgf} / \mathrm{cm}^{2}$ |  |  |
| Proof pressure | $15 \mathrm{kgf} / \mathrm{cm}^{2}$ |  |  |
| Ambient temperature | $-5 \sim+60{ }^{\circ} \mathrm{C}$ (No freezing) |  |  |
| Cushion | With rubber cushion pad |  |  |
| Lubrication | Not required |  |  |
| Sensor switch | RCE,RCE1 |  |  |

## Order example:



STYLE:

| Code |  | Symbol | Description |
| :---: | :---: | :---: | :--- |
| $\mathbf{1}$ | $\mathbf{1}$ |  | Double acting / Male thread |
| $\mathbf{1}$ | $\mathbf{2}$ |  | Double acting / Female thread |
| $\mathbf{1}$ | $\mathbf{3}$ |  |  |
| $\mathbf{1}$ | $\mathbf{4}$ |  |  |
| $\mathbf{1}$ | $\mathbf{5}$ |  | Single acting / Normally extended Male thread |
| $\mathbf{1}$ | $\mathbf{6}$ |  | Single acting / Normally extended female thread |

※ Please contact us for the dimensions of dual rod style.

Double acting - Table for standard stroke

| Tube I.D. | Stroke (mm) | Max. stroke |
| :--- | :---: | :---: |
| $\phi 12$ | $5,10,15,20,25,30$ | 65 |
| $\phi 16$ | $5,10,15,20,25,30$ | 70 |
| $\phi 20,25$ | $5,10,15,20,25,30,35,40,45,50$ | 90 |
| $\phi 32,40$ | $5,10,15,20,25,30,35,40,45,50$ | 110 |
| $\phi 50 \sim 100$ | $10,15,20,25,30,35,40,45,50$ | 130 |

- Stroke out of specification is also available.
- Please consult us if stroke out of specification.

Single acting - Table for standard stroke

| Tube I.D. | Stroke (mm) |
| :---: | :---: |
| $\phi 12,16,20,25,32,40$ | 5,10 |
| $\phi 50$ | 10,20 |

MCJS Dimensions $\phi 12 \sim \phi 100$
N COMPACT CYLINDERS

MCJS-12

$\phi 32, \phi 40$

$\phi 50 \sim \phi 100$

\$ 20, $\phi 25$
$\phi 80, \phi 100$




4- $\phi O$ counter bore $D D$
4-MM screw depth BD

## MCJS-11



| Code <br> Tube I.D. | $\mathbf{A M}$ | $\mathbf{A Q}$ | $\mathbf{B}$ | $\mathbf{H 1}$ | $\mathbf{K 1}$ | $\mathbf{L}$ | $\mathbf{Q}$ |
| ---: | :---: | :---: | ---: | ---: | ---: | ---: | :---: |
| 12 | 9 | 10.5 | 8 | 15.5 | 3 | 4 | $\mathrm{M} 5 \times 0.8$ |
| 16 | 9 | 10.5 | 8 | 15.5 | 3 | 4 | $\mathrm{M} 5 \times 0.8$ |
| 20 | 12 | 14 | 13 | 18.5 | 3 | 5 | $\mathrm{M} 8 \times 1.25$ |
| 25 | 15 | 17.5 | 17 | 22.5 | 3 | 6 | $\mathrm{M} 10 \times 1.25$ |
| 32 | 20.5 | 23.5 | 22 | 28.5 | 5 | 8 | $\mathrm{M} 14 \times 1.5$ |
| 40 | 20.5 | 23.5 | 22 | 28.5 | 5 | 8 | $\mathrm{M} 14 \times 1.5$ |
| 50 | 26 | 28.5 | 26 | 33.5 | 3 | 11 | $\mathrm{M} 18 \times 1.5$ |
| 63 | 26 | 28.5 | 26 | 33.5 | 3 | 11 | $\mathrm{M} 18 \times 1.5$ |
| 80 | 32.5 | 35.5 | 32 | 51 | 10 | 13 | $\mathrm{M} 22 \times 1.5$ |
| 100 | 32.5 | 35.5 | 35 | 55 | 14 | 14 | $\mathrm{M} 26 \times 1.5$ |

Outer size table

| $\begin{aligned} & \text { Code } \\ & \text { Tube I.D. } \end{aligned}$ | BD | C | D | DD | E | EE | F | G | H | I | K | KK | LH | MM | N | 0 | PA | PB | S(※1) | T | U | V | ZZ(※1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 7 | 1 | 6 | 3.5 | 15.5 | M $5 \times 0.8$ | 5 | 11-0.1 | 5 | 32 | 3 | M3 $\times 0.5$ Screw depth 6 | - | $4 \times 0.7$ | 3.5 | 6 | 6.5 | 6.5 | 22 (17) | - | 12.5 | 25 | 27 |
| 16 | 7 | 1.5 | 6 | 3.5 | 20 | M $5 \times 0.8$ | 5 | 11-0.1 | 5.5 | 38 | 3 | $\begin{gathered} \text { M3 } \times 0.5 \\ \text { Screw depth } 6 \end{gathered}$ |  | $\times 0.7$ | 3.5 | 6 | 7.2 | 7.2 | 28.5(18.5) | - | 14.5 | 29 | 34 (24) |
| 20 | 10 | - | 10 | 7 | 25.5 | $\times 0.8$ | 8 | - | 4.5 | 47 | 3 | $\begin{gathered} \text { M } 5 \times 0.0 .8 \\ \text { Screw depth } 7 \\ \hline \end{gathered}$ |  | M6×1.0 | 5.5 | 9 | 9 | 5.5 | 29.5(19.5) |  | 18 | 36 | 34 (24) |
| 25 | 10 | - | 12 | 7 | 28 | $\times 0.8$ | 10 |  | 5 | 52 | 3 | $\begin{array}{\|c} \text { M6 } 1.0 \\ \text { Screw depth } 12 \end{array}$ |  | $\times 1.0$ | 5.5 | 9 | 11 | 5.5 | 32.5(22.5) |  | 20 | 40 | 37.5(27.5) |
| 32 | 10 | - | 16 | 7 | 34 | 18(\% | 14 | - | 7 | 60 | 5 | $\begin{gathered} \mathrm{M} 8 \times 1.25 \\ \text { Screw depth } 13 \end{gathered}$ | 49.5 | +1.0 | 5.5 | 9 | 10. | 7.5 | 33 (23) | 14 | 22. | 45 | 40 (30) |
| 40 | 10 | - | 16 | 7 | 40 | 1/8 | 14 | - | 7 | 70 | 7 | $\begin{array}{\|c\|} \hline \text { M8x } 1.25 \\ \text { Screw depth } 13 \\ \hline \end{array}$ | 57 | $\times 1$ | 5.5 | 9 | 11 | 8 | 9.5(29.5) | 14 | 26 | 52 | 6.5(36.5) |
| 50 | 14 | - | 20 | 8 | 50 | $1 / 4(\% 3)$ | 17 | - | 8 | 86 | 6 |  | 71 | M8×1.25 | 6.6 | 11 | 10.5 | 10.5 | 40.5(30.5) | 19 | 32 | 64 | 48.5(38.5) |
| 63 | 18 | - | 20 | 10.5 | 60 | 14(* | 17 | - | 8 | 103 | 6 | $\begin{array}{\|c\|} \hline \text { M10× } 1.5 \\ \text { Screw depth } 15 \\ \hline \end{array}$ | 84 | $10 \times 1.5$ | 9 | 14 | 15 | 10.5 | 46 (36) | 19 | 38.5 | 77 | 54 (44) |
| 80 | 22 | 2.5 | 25 | 13.5 | 77 | 1/4 | 22 | 45-0.1 | 15.5 | 132 | 10 | $\begin{array}{\|c\|} \hline \text { M16 } \times 2 \\ \text { Screw depth } 21 \\ \hline \end{array}$ | 104 | M12×1.75 | 11 | 17.5 | 20 | 12 | 52 (42) | 26 | 49 | 98 | 67.5(57.5) |
| 100 | 22 | 2.5 | 30 | 13.5 | 94 | PT 1/4 | 27 | 50-0.11 | 19.5 | 156 | 14 | $\begin{array}{\|c\|} \hline \\ \hline \text { M20 } 2.2 .5 \\ \text { Screw depth } 27 \\ \hline \end{array}$ | 123.5 | M12 $\times 1.75$ | 11 | 17.5 | 22 | 13 | 57.5(47.5) | 26 | 58.5 | 117 | 77 (67) |

※1: S( )and $\mathrm{ZZ}($ ) indicate the size of that without magnet ring.
※2:Without magnet with stroke $=5 \mathrm{~mm}, \mathrm{EE}=\mathrm{M} 5 \times 0.8, \mathrm{PA}=11.5, \mathrm{~PB}=5.5$
※3:Without magnet with stroke $=5 \mathrm{~mm}, \mathrm{EE}=\mathrm{PT} 1 / 8, \mathrm{PA}=12, \mathrm{~PB}=8$
$※ 4:$ Without magnet with stroke $=5 \mathrm{~mm}, \mathrm{EE}=\mathrm{PT} 1 / 8$

## B

Female thread


Male thread


| $\begin{aligned} & \hline \text { Code } \\ & \text { Tube I.D. } \end{aligned}$ | Without magnet |  |  | Magnet |  |  | L | L1 | LD | LG | LH | LT | LX | LY | LZ | X | Y |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | LS | A | B | LS |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 36.8 | 17 | 5 | 41.8 | 22 | 10 | 15 | 25.5 | 4.5 | 2.8 | 17 | 2 | 34 | 29.5 | 44 | 8 | 4.5 |
| 16 | 38.8 | 18.5 | 6.5 | 48.8 | 28.5 | 16.5 | 15.5 | 25.5 | 4.5 | 2.8 | 19 | 2 | 38 | 33.5 | 48 | 8 | 5 |
| 20 | 41.2 | 19.5 | 7.5 | 51.2 | 29.5 | 17.5 | 14.5 | 28.5 | 6.6 | 4 | 24 | 3.2 | 48 | 42 | 62 | 9.2 | 5.8 |
| 25 | 44.7 | 22.5 | 7.5 | 54.7 | 32.5 | 17.5 | 15 | 32.5 | 6.6 | 4 | 26 | 3.2 | 52 | 46 | 66 | 10.7 | 5.8 |

## FAC

Female thread


Male thread


| Code | Without magnet |  | Magnet |  | FD | FT | FV | FX | FZ | L | L1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tube I.D. | A | $\mathbf{B}$ | $\mathbf{A}$ | $\mathbf{B}$ |  |  |  |  |  |  |  |
| $\mathbf{1 2}$ | 32 | 17 | 37 | 22 | 4.5 | 5.5 | 25 | 45 | 55 | 15 | 25.5 |
| $\mathbf{1 6}$ | 34 | 18.5 | 44 | 28.5 | 4.5 | 5.5 | 30 | 45 | 55 | 15.5 | 25.5 |
| $\mathbf{2 0}$ | 34 | 19.5 | 44 | 29.5 | 6.6 | 8 | 39 | 48 | 60 | 14.5 | 28.5 |
| $\mathbf{2 5}$ | 37.5 | 22.5 | 47.5 | 32.5 | 6.6 | 8 | 42 | 52 | 64 | 15 | 32.5 |

## FBC

Male thread


| $\begin{aligned} & \text { Code } \\ & \text { Tube I.D. } \end{aligned}$ | Without magnet |  | Magnet |  | FD | FT | FV | FX | FZ | L | L1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | A | B |  |  |  |  |  |  |  |
| 12 | 27.5 | 17 | 32.5 | 22 | 4.5 | 5.5 | 25 | 45 | 55 | 5 | 15.5 |
| 16 | 29.5 | 18.5 | 39.5 | 28.5 | 4.5 | 5.5 | 30 | 45 | 55 | 5.5 | 15.5 |
| 20 | 32 | 19.5 | 42 | 29.5 | 6.6 | 8 | 39 | 48 | 60 | 4.5 | 18.5 |
| 25 | 35.5 | 22.5 | 45.5 | 32.5 | 6.6 | 8 | 42 | 52 | 64 | 5 | 22.5 |

CB
Male thread
Female thread

※Use the same CB pin with MCJQ.

| $\begin{array}{\|l\|} \hline \text { Code } \\ \text { Tube I.D. } \end{array}$ | Without magnet |  |  | Magnet |  |  | CD | CT | CU | CW | CX | CZ | L | L1 | RR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | CL | A | B | CL |  |  |  |  |  |  |  |  |  |
| 12 | 42 | 17 | 36 | 47 | 22 | 41 | 5 | 4 | 7 | 14 | 5 | 10 | 5 | 15.5 | 6 |
| 16 | 45 | 18.5 | 39 | 55 | 28.5 | 49 | 5 | 4 | 10 | 15 | 6.5 | 12 | 5.5 | 15.5 | 6 |
| 20 | 51 | 19.5 | 42 | 61 | 29.5 | 52 | 8 | 5 | 12 | 18 | 8 | 16 | 4.5 | 18.5 | 9 |
| 25 | 57.5 | 22.5 | 47.5 | 67.5 | 32.5 | 57.5 | 10 | 5 | 14 | 20 | 10 | 20 | 5 | 22.5 | 10 |



| $\begin{array}{\|l\|} \hline \text { Code } \\ \text { Tube I.D. } \end{array}$ | Without magnet |  |  | Magnet |  |  | L | L1 | LD | LG | LH | LT | LX | LY | LZ | X | Y |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | LS | A | B | LS |  |  |  |  |  |  |  |  |  |  |  |
| 32 | 47.2 | 23 | 7 | 57.2 | 33 | 17 | 17 | 38.5 | 6.6 | 4 | 30 | 3.2 | 57 | 57 | 71 | 11.2 | 5.8 |
| 40 | 53.7 | 29.5 | 13.5 | 63.7 | 39.5 | 23.5 | 17 | 38.5 | 6.6 | 4 | 33 | 3.2 | 64 | 64 | 78 | 11.2 | 7 |
| 50 | 56.7 | 30.5 | 7.5 | 66.7 | 40.5 | 17.5 | 18 | 43.5 | 9 | 5 | 39 | 3.2 | 79 | 78 | 95 | 14.7 | 8 |
| 63 | 62.2 | 36 | 10 | 72.2 | 46 | 20 | 18 | 43.5 | 11 | 5 | 46 | 3.2 | 95 | 91.5 | 113 | 16.2 | 9 |
| 80 | 79 | 42 | 12 | 89 | 52 | 22 | 25.5 | 61 | 13 | 7 | 59 | 4.5 | 118 | 114 | 140 | 19.5 | 11 |
| 100 | 90 | 47.5 | 13.5 | 100 | 57.5 | 23.5 | 29.5 | 65 | 13 | 7 | 71 | 6 | 137 | 136 | 162 | 23 | 12.5 |

## FAC



Male thread


| $\begin{array}{l\|} \hline \text { Code } \\ \text { Tube I.D. } \\ \hline \end{array}$ | Without magnet |  | Magnet |  | FD | FT | FV | FX | FZ | L | L1 | M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | A | B |  |  |  |  |  |  |  |  |
| 32 | 40 | 23 | 50 | 33 | 5.5 | 8 | 48 | 56 | 65 | 17 | 38.5 | 34 |
| 40 | 46.5 | 29.5 | 56.5 | 39.5 | 5.5 | 8 | 54 | 62 | 72 | 17 | 38.5 | 40 |
| 50 | 48.5 | 30.5 | 58.5 | 40.5 | 6.6 | 9 | 67 | 76 | 89 | 18 | 43.5 | 50 |
| 63 | 54 | 36 | 64 | 46 | 9 | 9 | 80 | 92 | 108 | 18 | 43.5 | 60 |
| 80 | 67.5 | 42 | 77.5 | 52 | 11 | 11 | 99 | 116 | 134 | 25.5 | 61 | 77 |
| 100 | 77 | 47.5 | 87 | 57.5 | 11 | 11 | 117 | 136 | 154 | 29.5 | 65 | 94 |

## FBC

Male thread


Female thread


| Code <br> Tube I.D. | Without magnet |  | Magnet |  | FD | FT | FV | FX | FZ | L | L1 | M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | A | B |  |  |  |  |  |  |  |  |
| 32 | 38 | 23 | 48 | 33 | 5.5 | 8 | 48 | 56 | 65 | 7 | 28.5 | 34 |
| 40 | 44.5 | 29.5 | 54.5 | 39.5 | 5.5 | 8 | 54 | 62 | 72 | 7 | 28.5 | 40 |
| 50 | 47.5 | 30.5 | 57.5 | 40.5 | 6.6 | 9 | 67 | 76 | 89 | 8 | 33.5 | 50 |
| 63 | 53 | 36 | 63 | 46 | 9 | 9 | 80 | 92 | 108 | 8 | 33.5 | 60 |
| 80 | 68.5 | 42 | 78.5 | 52 | 11 | 11 | 99 | 116 | 134 | 15.5 | 51 | 77 |
| 100 | 78 | 47.5 | 88 | 57.5 | 11 | 11 | 117 | 136 | 154 | 19.5 | 55 | 94 |

CB

Male thread


Female thread

※Use the same CB pin with MCJQ.

| Code <br> Tube I.D. | Without magnet |  | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C L}$ | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C L}$ | $\mathbf{C D}$ | $\mathbf{C T}$ | $\mathbf{C U}$ | $\mathbf{C W}$ | $\mathbf{C X}$ | $\mathbf{C Z}$ | $\mathbf{L}$ | $\mathbf{L} 1$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 2}$ | 60 | 23 | 50 | 70 | 33 | 60 | 10 | 5 | 14 | 20 | 18 | 36 | 7 | 28.5 | $\mathbf{M} 6 \times 1.0$ | 10 |
| $\mathbf{4 0}$ | 68.5 | 29.5 | 58.5 | 78.5 | 39.5 | 68.5 | 10 | 6 | 14 | 22 | 18 | 36 | 7 | 28.5 | $\mathrm{M} 6 \times 1.0$ | 10 |
| $\mathbf{5 0}$ | 80.5 | 30.5 | 66.5 | 90.5 | 40.5 | 76.5 | 14 | 7 | 20 | 28 | 22 | 44 | 8 | 33.5 | $\mathrm{M} 8 \times 1.25$ | 14 |
| $\mathbf{6 3}$ | 88 | 36 | 74 | 98 | 46 | 84 | 14 | 8 | 20 | 30 | 22 | 44 | 8 | 33.5 | $\mathrm{M} 10 \times 1.5$ | 14 |
| $\mathbf{8 0}$ | 113.5 | 42 | 95.5 | 123.5 | 52 | 105.5 | 18 | 10 | 27 | 38 | 28 | 56 | 15.5 | 51 | $\mathrm{M} 12 \times 1.75$ | 18 |
| $\mathbf{1 0 0}$ | 134 | 47.5 | 112 | 144 | 57.5 | 122 | 22 | 13 | 31 | 45 | 32 | 64 | 19.5 | 55 | $\mathrm{M} 12 \times 1.75$ | 22 |

