## MCRPM series

MAGNETICALLY COUPLED RODLESS CYLINDER


Table for standard stroke

| Tube I.D. | Stroke (mm) | Max. stroke |  |
| :--- | :--- | :---: | :---: |
|  |  | Pad | Air |
| $\phi 20$ | $100,150,200,250,300$ | 1500 | 1000 |
| $\phi 25$ |  | 2000 | 1000 |
|  | 700,800 | 2000 | 900 |

※: Minimum stroke unit 1 mm .

## Features

- 50 \% space saving.
- Magnetic transit design. Magnetic force transits the movement with piston side magnet and silder magnet.
- Stainless tube, light weighted and durable.
- All series are without switch types.


## Specification

| Model | MCRPM |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Acting type | Double acting |  |  |  |
| Tube I.D. (mm) | 20 | 25 | 32 | 40 |
| Port size | Rc1/8 |  |  | Rc1/4 |
| Medium | Air |  |  |  |
| Max. operating pressure | 0.7 MPa |  |  |  |
| Min. operating pressure | 0.18 MPa |  |  |  |
| Proof pressure | 1 MPa |  |  |  |
| Ambient temperature | $+5^{\circ} \mathrm{C} \sim+60{ }^{\circ} \mathrm{C}$ |  |  |  |
| Lubricator | Without lubrication |  |  |  |
| Available speed range | $100 \sim 500 \mathrm{~mm} / \mathrm{sec}$ |  |  |  |
| Holding force (N) | 231 | 363 |  |  |

## Order example



Cylinder weight unit:g

| Model | Basic weight <br> MCRPM | Stroke 100 mm <br> MCRPM |
| :---: | :---: | :---: |
| Tube I.D. |  |  |
| $\phi 20$ | 413 | 43 |
| $\phi 25$ | 657 | 46 |
| $\phi 32$ | 1,177 | 66 |
| $\phi 40$ | 1,996 | 83 |

Dimensions


| Code <br> Tube I.D. | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{F}$ | $\mathbf{G}$ | $\mathbf{I}$ | $\mathbf{J}$ | $\mathbf{K}$ | $\mathbf{L}$ | $\mathbf{M M}$ | $\mathbf{N}$ | $\mathbf{N A}$ | $\mathbf{N N}$ | $\mathbf{R}$ | $\mathbf{S}$ | $\mathbf{T}$ | $\mathbf{W}$ | $\mathbf{X}$ | $\mathbf{Z Z}$ | $\mathbf{P}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 8 | 36 | 26 | 21.6 | 2 | 13 | 7.5 | 28 | 6 | 8 | 66 | $\mathrm{M} 4 \times 0.7$ | 18 | 24 | $\mathrm{M} 20 \times 1.5$ | 12 | 106 | 10.5 | 50 | 25 | 132 | $\mathrm{Rc} 1 / 8$ |
| 25 | 8 | 46 | 32 | 26.4 | 2 | 13 | 7.5 | 34 | 8 | 10 | 70 | $\mathrm{M} 5 \times 0.8$ | 18.5 | 30 | $\mathrm{M} 26 \times 1.5$ | 15 | 111 | 10.5 | 50 | 30 | 137 | $\mathrm{Rc} 1 / 8$ |
| 32 | 8 | 60 | 32 | 33.6 | 2 | 16 | 8 | 40 | 8 | 15 | 80 | $\mathrm{M} 6 \times 1.0$ | 20 | 36 | $\mathrm{M} 26 \times 1.5$ | 18 | 124 | 14 | 50 | 40 | 156 | $\mathrm{Rc} 1 / 8$ |
| 40 | 10 | 70 | 41 | 41.6 | 3 | 16 | 11 | 50 | 10 | 16 | 92 | $\mathrm{M} \times 1.0$ | 26 | 46 | $\mathrm{M} 32 \times 2.0$ | 23 | 150 | 13 | 60 | 40 | 182 | $\mathrm{Rc} 1 / 4$ |

MCRPM Inside structure \& Parts list $\phi 20-\phi 40$

## Cushion pad type



## Cushion air type



Material

| No. | Cushion |  | Part name | Material | Note |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Air | Pad |  |  |  |
| 1 | $\bigcirc$ | $\bigcirc$ | Cover | Aluminum alloy | Anodized |
| 2 |  | $\bigcirc$ | End collar | Aluminum alloy |  |
| 3 | $\bigcirc$ | $\bigcirc$ | Silder body | Aluminum alloy | Anodized |
| 4 | $\bigcirc$ | $\bigcirc$ | Body cover | Aluminum alloy | Anodized |
| 5 | $\bigcirc$ | $\bigcirc$ | Body wear ring | POM |  |
| 6 | $\bigcirc$ | $\bigcirc$ | Piston | Aluminum alloy |  |
| 7 | $\bigcirc$ | $\bigcirc$ | Shaft | Stainless steel |  |
| 8 | $\bigcirc$ | $\bigcirc$ | Silder side yoke | Carbon steel | Ni plated |
| 9 | $\bigcirc$ | $\bigcirc$ | Silder side magnet | Magnet material | Ni plated |
| 10 | $\bigcirc$ | $\bigcirc$ | Piston side yoke | Carbon steel | Ni plated |
| 11 | $\bigcirc$ | $\bigcirc$ | Piston side magnet | Magnet material | Ni plated |


| No. | Cushion |  | Part name |  | Material |  | Note |
| :---: | :---: | :---: | :--- | :---: | :---: | :---: | :---: |
|  | Air | Pad |  |  |  |  |  |
| 12 |  |  | Tube | Stainless steel |  |  |  |
| 13 |  |  | Lubretainer | Special resin |  |  |  |
| 14 |  |  | Cushion | NBR |  |  |  |
| 15 |  |  | Piston seal | NBR |  |  |  |
| 16 |  |  | Wear ring | POM |  |  |  |
| 17 |  |  | Cover nut | Carbon steel | Ni plated |  |  |
| 18 |  |  | O ring | NBR |  |  |  |
| 19 |  |  | Needle valve | Carbon steel |  |  |  |
| 20 |  |  | O ring | NBR |  |  |  |
| 21 |  |  | Steel ball | Stainless steel |  |  |  |
| 22 |  |  | Cushion | NBR |  |  |  |

