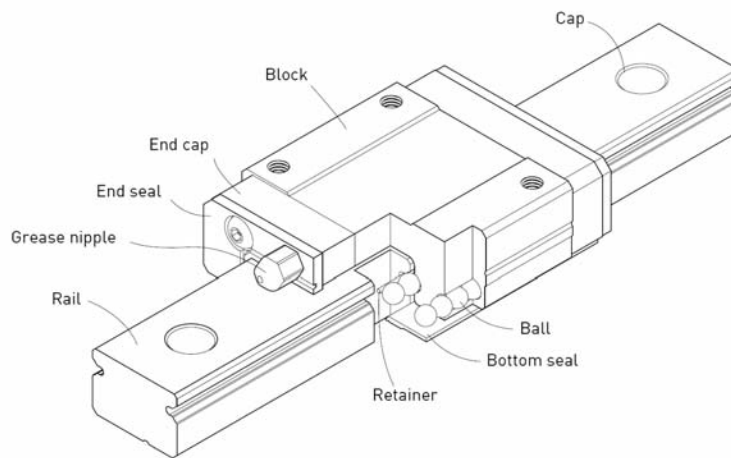


“LGMN” Series of Miniature Linear Guideway

**Features of LGMN Series:**

1. Tiny and light weight, suitable for miniature equipment.
2. All materials for block and rail are in special grade of stainless steel which including steel ball, ball retainer for anti-corrosion purpose.
3. Gothic arch contact design can sustain the load from all directions and offer high rigidity and high accuracy.
4. Steel balls will be held by miniature retainer to avoid the balls from falling out even when the blocks are removed from the rail installation.

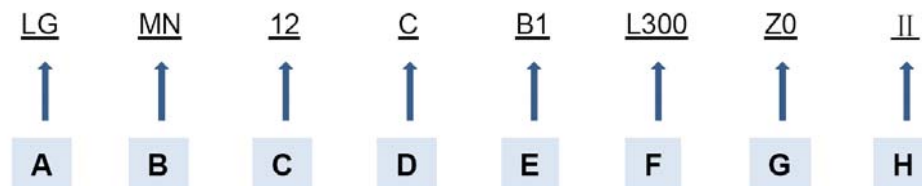


- Rolling circulation system: Block, rail, end cap and retainer
- Lubrication system: The grease nipple is available for MGN15, grease gun can be used for lubricating.
- Dust protection system: End seal, bottom seal (optional size 9,12,15), cap (size12,15)

**Application**

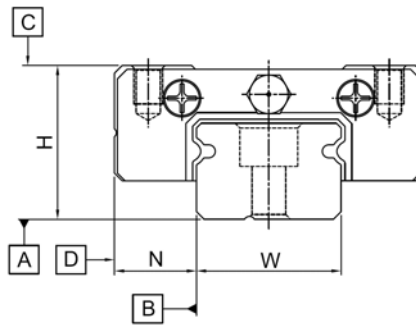
LGMN series can be used in many fields, such as semiconductor equipment, PCB assembly equipment, medical equipment, robotics, measuring equipment, office automation equipment, and other miniature sliding machinery.

**Model Number**



- A→linear guideway.
- B→MN series.
- C→model size: 9,12,15.
- D→block type: C (standard load), H (heavy load).
- E→quantity of bloks per rail.
- F→length of the rail.
- G→preload: ZF, Z0, Z1.
- H→quantity of rails per axis.

## Accuracy Grades



Unit:mm

| Accuracy Grades                                     | Normal (C)               | High (H) | Precision (P) |
|---|--------------------------|----------|---------------|
| Dimensional tolerance of height H                   | ± 0.08                   | ± 0.02   | ± 0.01        |
| Dimensional tolerance of width N                    | ± 0.04                   | ± 0.025  | ± 0.015       |
| Pair Variation of height H                          | 0.03                     | 0.02     | 0.01          |
| Pair Variation of width N (Master Rail)             | 0.03                     | 0.025    | 0.015         |
| Running parallelism of block surface C to surface A | According to Table Below |          |               |
| Running parallelism of block surface D to surface B | According to Table Below |          |               |

### Accuracy of running parallelism

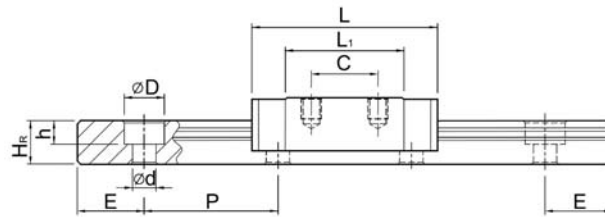
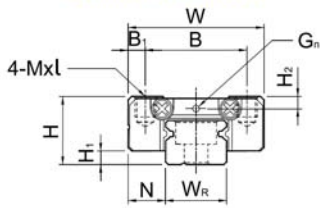
| Rail Length (mm) | Accuracy (µm) |    |     | Rail Length (mm) | Accuracy (µm) |    |    |
|------------------|---------------|----|-----|------------------|---------------|----|----|
| ~50              | 12            | 6  | 2   | 315~400          | 18            | 11 | 6  |
| 50 ~ 80          | 13            | 7  | 3   | 400~500          | 19            | 12 | 6  |
| 80 ~ 125         | 14            | 8  | 3.5 | 500~630          | 20            | 13 | 7  |
| 125 ~ 200        | 15            | 9  | 4   | 630~800          | 22            | 14 | 8  |
| 200 ~ 250        | 16            | 10 | 5   | 800~1,000        | 23            | 16 | 9  |
| 250 ~ 315        | 17            | 11 | 5   | 1,000~1,200      | 25            | 18 | 11 |

## Preload Classes

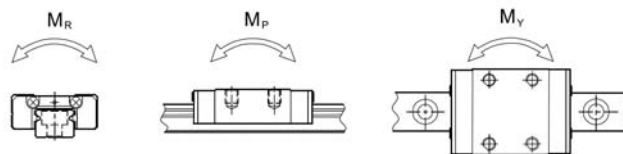
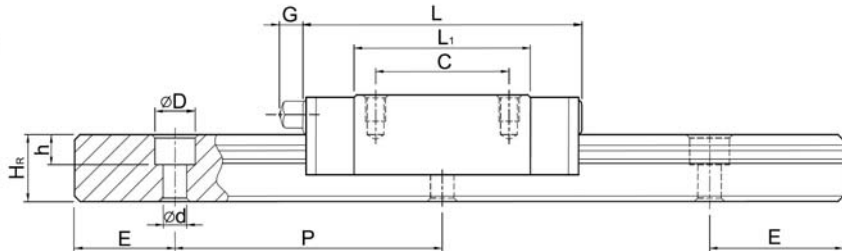
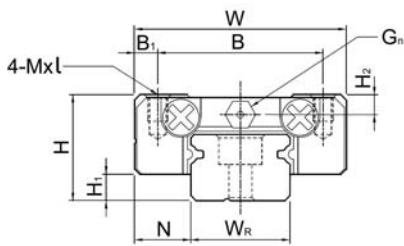
| Class              | Code | Preload             | Accuracy |
|--------------------|------|---------------------|----------|
| Light Clearance    | ZF   | Clearance<br>4~10µm | C        |
| Very Light Preload | Z0   | 0                   | C~P      |
| Light Preload      | Z1   | 0.02C               | C~P      |

Dimensions:

**LGMN9, LGMN12**



**LGMN15**



| Code    | Dimensions of Assembly |    |     | Dimensions of Block |    |    |      |      |   |      |        |     |    | Dimensions of Rail |   |     |     |    | Mounting Bolt for Rail (mm) | Dynamic Load C (kgf) | Static Load Co (kgf) | Static Rated Moment (kgf-m) |     |     | Weight |            |           |
|---------|------------------------|----|-----|---------------------|----|----|------|------|---|------|--------|-----|----|--------------------|---|-----|-----|----|-----------------------------|----------------------|----------------------|-----------------------------|-----|-----|--------|------------|-----------|
|         | H                      | H1 | N   | W                   | B  | C  | L1   | L    | G | Gn   | MxL    | H2  | WR | Hr                 | D | h   | d   | P  |                             |                      |                      | E                           | MR  | MP  | MY     | Block g/pc | Rail kg/m |
| LGMN9C  | 10                     | 2  | 5.5 | 20                  | 15 | 10 | 18.9 | 28.9 | / | Φ1.2 | M3x4   | 1.8 | 9  | 6.5                | 6 | 3.5 | 3.5 | 20 | 7.5                         | M3x8                 | 190                  | 260                         | 1.2 | 0.7 | 0.7    | 13         | 0.38      |
| LGMN9H  |                        |    |     |                     |    | 16 | 29.9 | 39.9 | / |      |        |     |    |                    |   |     |     |    |                             |                      |                      |                             | 3.1 | 3.5 | 3.5    |            |           |
| LGMN12C | 13                     | 3  | 7.5 | 27                  | 20 | 15 | 21.7 | 34.7 | / | Φ1.4 | M3x3.5 | 2.5 | 12 | 8                  | 6 | 4.5 | 3.5 | 25 | 10                          | M3x8                 | 265                  | 345                         | 2.2 | 0.8 | 0.8    | 16         | 0.65      |
| LGMN12H |                        |    |     |                     |    | 20 | 32.4 | 45.4 | / |      |        |     |    |                    |   |     |     |    |                             |                      |                      |                             | 2.6 | 1.4 | 1.4    |            |           |
| LGMN15C | 16                     | 4  | 8.5 | 32                  | 25 | 20 | 26.7 | 42.1 | / | M3   | M3x4   | 3   | 15 | 10                 | 6 | 4.5 | 3.5 | 40 | 15                          | M3x10                | 470                  | 570                         | 4.6 | 2.2 | 2.2    | 51         | 1.06      |
| LGMN15H |                        |    |     |                     |    | 25 | 43.4 | 58.8 | / |      |        |     |    |                    |   |     |     |    |                             |                      |                      |                             | 7.5 | 5.9 | 5.9    |            |           |