

# C-II MCM Series

## C-II-1 MCM Series Reference Number Coding

[Body]  
 Reference number : **MC M 08 040 H 10 K 0 0**  
 Monocarrier  
 M type: MCM Series  
 Nominal size (rail width, Unit: 10mm)  
 Stroke (Unit: 10mm)  
 Accuracy grade (H: High grade, P: Precision grade)  
 NSK management number  
 Grease specification: O (standard AS2)  
 Clean grease specification: B (LG2)  
 Slider specification K: Single slider  
 (See page C9) D: Double slider  
 Ball screw lead (mm)

[With Option part]  
 Reference number : **MC E 08 040 H 10 K 0 0 K 0 0 0**  
 E: With MCM option part  
 NSK management number  
 Sensor unit  
 Cover unit  
 Motor bracket  
 Note : Optional components are available separately.

Table 2-1 Sensor unit (See page C35~38)

| Reference number code | Specification   | Reference number |
|-----------------------|---|------------------|
| 0                     | N/A   | —                |
| 1                     | Proximity switch (b-contact 3pieces)                    | MC - SRxx - 10   |
| 2                     | Proximity switch (a-contact 3pieces)                    | MC - SRxx - 11   |
| 3                     | Proximity switch (a-contact 1pieces, b-contact 2pieces) | MC - SRxx - 12   |
| 4                     | Photo sensor 3pieces                                    | MC - SRxx - 13   |

Table 2-2 Cover unit (See page C39~40)

| Reference number code | Specification  | Reference number        |
|-----------------------|----------------|-------------------------|
| 0                     | N/A            | —                       |
| 1                     | With top cover | MC - CVxxxx - 01 (02) ※ |
| 2                     | Full cover     | MC - CVxxxx - 00        |

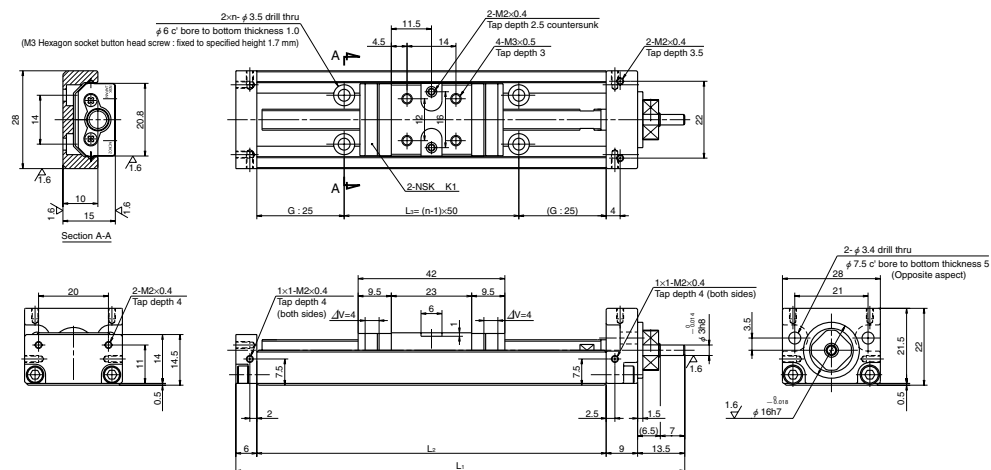
Note ※: Monocarrier "-02" is only used for MCM03

Note xxxxx: Reference number and stroke number

Table 2-3 The reference number of motor bracket

| Reference number code | Reference number |                |                |                |                |
|-----------------------|------------------|----------------|----------------|----------------|----------------|
|                       | MCM03            | MCM05          | MCM06          | MCM08          | MCM10          |
| 0                     | N/A              | N/A            | N/A            | N/A            | N/A            |
| 1                     | MC-BK03-146-00   | MC-BK05-145-00 | MC-BK06-145-00 | MC-BK08-145-00 | MC-BK10-170-00 |
| 2                     | MC-BK03-148-01   | MC-BK05-146-00 | MC-BK06-146-00 | MC-BK08-146-00 | MC-BK10-170-01 |
| 3                     | MC-BK03-231-00   | MC-BK05-148-00 | MC-BK06-148-00 | MC-BK08-160-00 | MC-BK10-190-00 |
| 4                     | —                | MC-BK05-160-00 | MC-BK06-160-00 | MC-BK08-170-00 | MC-BK10-270-00 |
| 5                     | —                | MC-BK05-250-00 | MC-BK06-170-00 | MC-BK08-170-01 | —              |
| 6                     | —                | —              | MC-BK06-170-01 | MC-BK08-190-00 | —              |
| 7                     | —                | —              | MC-BK06-250-00 | MC-BK08-250-00 | —              |
| 8                     | —                | —              | —              | MC-BK08-270-00 | —              |

## C-II-2 MCM Series dimension table of standard products MCM02



ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit (mm) | Ball screw lead (mm) | Body length (mm) |                |                | No. of mounting hole n | Inertia x10 <sup>-7</sup> (kg · m <sup>2</sup> ) | Mass (kg) |
|------------------|---------------------|-------------------|----------------------|------------------|----------------|----------------|------------------------|--|-----------|
|                  |                     |                   |                      | L <sub>1</sub>   | L <sub>2</sub> | L <sub>3</sub> |                        |  |           |
| MCM02005H01K     | 50                  | 58                | 1                    | 128.5            | 100            | 50             | 2                      | 0.93   | 0.26      |
| MCM02005P01K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02005H02K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02005P02K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02010H01K     | 100                 | 108               | 1                    | 178.5            | 150            | 100            | 3                      | 1.36   | 0.32      |
| MCM02010P01K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02010H02K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02010P02K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02015H01K     | 150                 | 158               | 1                    | 228.5            | 200            | 150            | 4                      | 1.81   | 0.39      |
| MCM02015P01K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02015H02K     |                     |                   |                      |                  |                |                |                        |  |           |
| MCM02015P02K     |                     |                   |                      |                  |                |                |                        |  |           |

Items not marked are available from standard stock.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | High grade |         | Precision |
|----------------------|------------|---------|-----------|
|                      | 1          | 2       | 0.2~1.6   |
| 1                    | 0.1~1.3    | 0.2~1.6 |           |
| 2                    |            |         |           |

- Frictional resistance of NSK K1 is included in the dynamic torque in the table.
- Grease is packed into ball screw, linear guide parts and support unit.
- Consult NSK for life estimates under large moment loads.
- Stroke limit = stroke + (4|margin|>2)

Basic load rating

| Lead ℓ (mm) | Shaft dia d (mm) | Basic dynamic load rating (N) |                 |                             |  | Basic static load rating (N) |                              | Support unit Load limit (N) |
|-------------|------------------|-------------------------------|-----------------|-----------------------------|--|------------------------------|------------------------------|-----------------------------|
|             |                  | Ball screw C <sub>a</sub>     | linear guides C | Support unit C <sub>a</sub> | Rated running distance L <sub>a</sub> (km) | Ball screw C <sub>0a</sub>   | Linear guides C <sub>0</sub> |                             |
| 1           | φ6               | 340 (High grade)              | 4910            | 615                         | 1  | 555 (High grade)             | 2120                         | 490                         |
|             |                  | 405 (Precision)               |                 |                             |  | 615 (Precision)              |                              |                             |
| 2           | φ6               | 340 (High grade)              | 3900            | 615                         | 2  | 555 (High grade)             | 2120                         | 490                         |
|             |                  | 405 (Precision)               |                 |                             |  | 615 (Precision)              |                              |                             |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) |                         |                       |
|--------|----------------------------------|-------------------------|-----------------------|
|        | RollingM <sub>RO</sub>           | PitchingM <sub>PO</sub> | YawingM <sub>YO</sub> |
| Single | 24                               | 8                       | 8                     |