

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 |

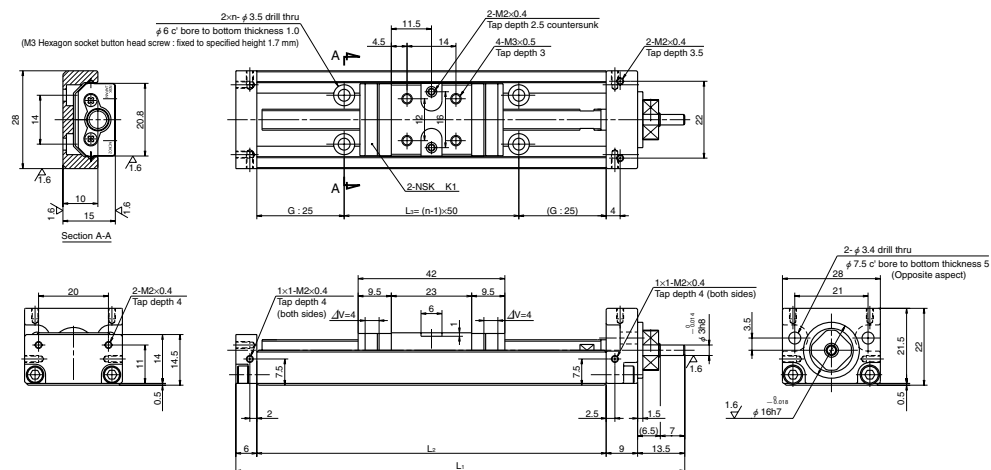
Note ※: Monocarrier "-02" is only used for MCM03

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 ⁻⁷ (kg·m ²) | Mass (kg) |
|------------------|---------------------|-------------------|----------------------|------------------|----------------|----------------|------------------------|--|-----------|
| | | | | L ₁ | L ₂ | L ₃ | | | |
| 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 _a | linear guides C | Support unit C _a | Rated running distance L _a (km) | Ball screw C _{0a} | Linear guides C ₀ | |
| 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) | | |

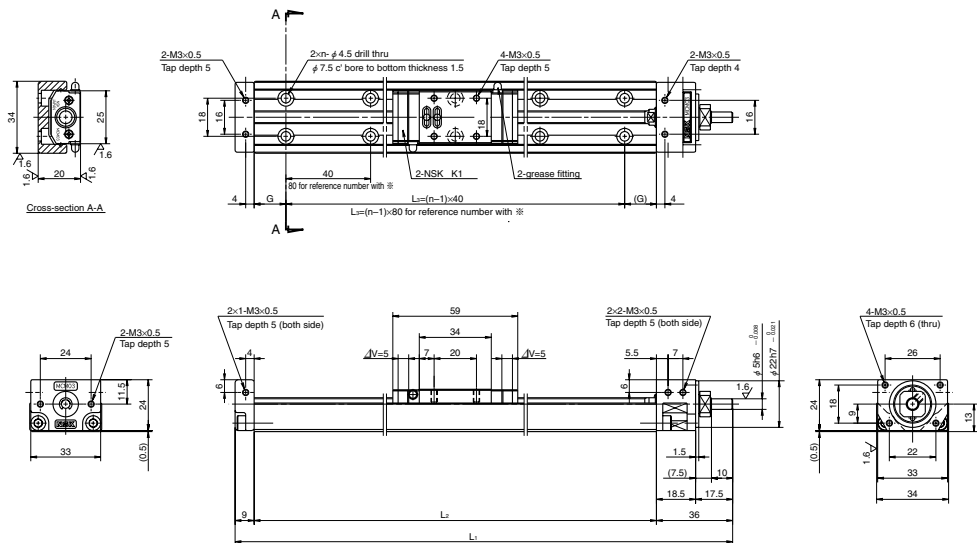
Basic static moment load of linear guide

| Slider | Basic static moment load (N·m) | | |
|--------|--------------------------------|-------------------------|-----------------------|
| | RollingM _{RO} | PitchingM _{PO} | YawingM _{YO} |
| Single | 24 | 8 | 8 |

MCM03

Accuracy grade: Precision (P)

Ball screw lead 1 and 2



Dimension of MCM03 (Single slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | | No. of mounting hole <i>n</i> | Inertia $\times 10^5$ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|------------------|----------------|------|----------------|-------------------------------|--|-----------|
| | | | | L ₁ | L ₂ | G | L ₃ | | | |
| ※MCM03005P01K00 | 50 | 56 | 1 | 160 | 115 | 17.5 | 80 | 2 | 0.015 | 0.6 |
| ※MCM03005P02K00 | | (66) | 2 | | | | | | | |
| MCM03010P01K00 | 100 | 131 | 1 | 235 | 190 | 15 | 160 | 5 | 0.021 | 0.7 |
| MCM03010P02K00 | | (141) | 2 | | | | | | | |
| ★MCM03015P01K00 | 150 | 181 | 1 | 285 | 240 | 20 | 200 | 6 | 0.025 | 0.8 |
| ★MCM03015P02K00 | | (191) | 2 | | | | | | | |

Items not marked are available from standard stock.
 Items marked with ★ are designated as "quick delivery item" upon request.
 Bolt hole pitch L₃ on the items marked with ※ is 80 mm.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | Torque (N · cm) | |
|----------------------|-----------------|---------|
| | 1 | 0.2~1.7 |
| 2 | 0.2~1.7 | |

1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
2. Grease is packed into ball screw, linear guide parts and support unit.
3. Consult NSK for life estimates under large moment loads.
4. Optional spacer is required, when I put cover unit, sensor unit or the both together in ball screw lead of 1 and 2mm (See page C39).
5. Stroke limit = stroke + (3[margin] × 2)

Basic load rating

| Lead <i>l</i> (mm) | Shaft dia <i>d</i> (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | Support unit Load limit (N) |
|--------------------|-------------------------|---------------------------------|------------------------|-----------------------------------|--|----------------------------------|------------------------------------|-----------------------------|
| | | Ball screw <i>C_a</i> | linear guides <i>C</i> | Support unit <i>C_a</i> | Rated running distance <i>L_a</i> (km) | Ball screw <i>C_{0a}</i> | Linear guides <i>C₀</i> | |
| 1 | φ6 | 735 | 10900 | 2670 | 1 | 1230 | 4900 | 1040 |
| 2 | | 735 | 8650 | | 2 | | | |

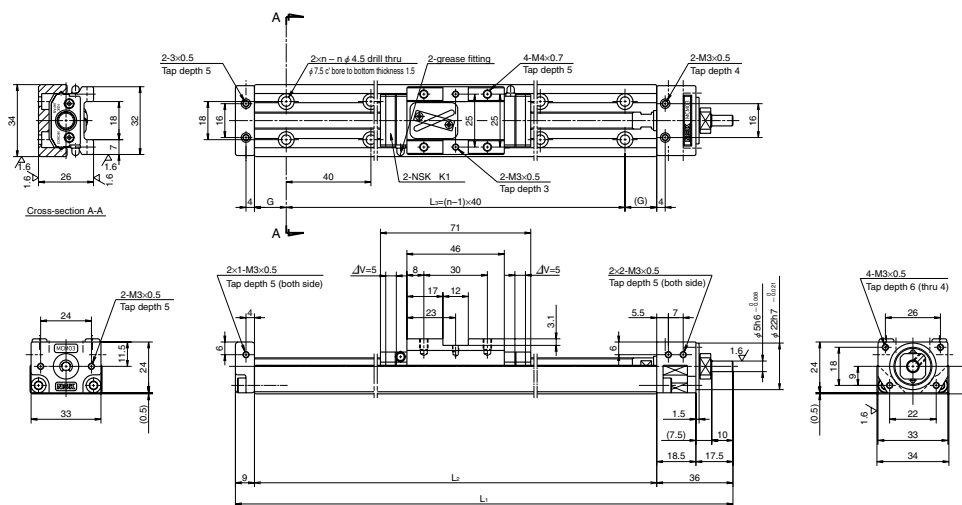
Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|--------------------------------|------------------------------|
| | Rolling <i>M_{RO}</i> | Pitching <i>M_{PO}</i> | Yawing <i>M_{YO}</i> |
| Single | 68 | 28 | 28 |

MCM03

Accuracy grade: High grade (H)

Ball screw lead 10 and 12



Dimension of MCM03 (Single slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | | No. of mounting hole <i>n</i> | Inertia $\times 10^5$ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|------------------|----------------|----|----------------|-------------------------------|--|-----------|
| | | | | L ₁ | L ₂ | G | L ₃ | | | |
| MCM03010H10K00 | 100 | 119 | 10 | 235 | 190 | 15 | 160 | 5 | 0.092 | 0.7 |
| MCM03010H12K00 | | (129) | 12 | | | | | | 0.109 | |
| ★MCM03015H10K00 | 150 | 169 | 10 | 285 | 240 | 20 | 200 | 6 | 0.105 | 0.8 |
| ★MCM03015H12K00 | | (179) | 12 | | | | | | 0.122 | |
| ★MCM03020H10K00 | 200 | 219 | 10 | 335 | 290 | 25 | 240 | 7 | 0.118 | 0.9 |
| ★MCM03020H12K00 | | (229) | 12 | | | | | | 0.135 | |
| ★MCM03025H10K00 | 250 | 269 | 10 | 385 | 340 | 30 | 280 | 8 | 0.131 | 1.0 |
| ★MCM03025H12K00 | | (279) | 12 | | | | | | 0.147 | |

Items not marked are available from standard stock.
 Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | Torque (N · cm) | |
|----------------------|-----------------|---------|
| | 10 | 0.3~3.0 |
| 12 | 0.3~3.0 | |

1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
2. Grease is packed into ball screw, linear guide parts and support unit.
3. Consult NSK for life estimates under large moment loads.
4. Stroke limit = stroke + (9.5[margin] × 2)

Basic load rating

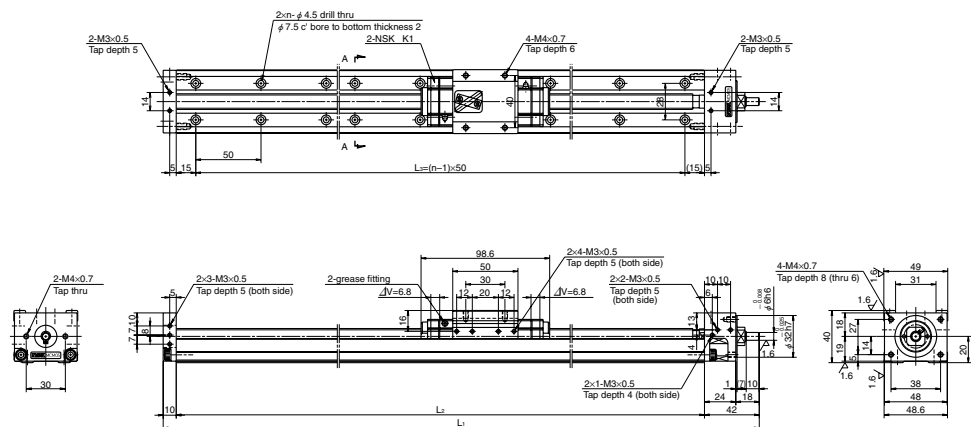
| Lead <i>l</i> (mm) | Shaft dia <i>d</i> (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | Support unit Load limit (N) |
|--------------------|-------------------------|---------------------------------|------------------------|-----------------------------------|--|----------------------------------|------------------------------------|-----------------------------|
| | | Ball screw <i>C_a</i> | linear guides <i>C</i> | Support unit <i>C_a</i> | Rated running distance <i>L_a</i> (km) | Ball screw <i>C_{0a}</i> | Linear guides <i>C₀</i> | |
| 10 | φ8 | 1230 | 6250 | 2670 | 10 | 1690 | 6620 | 1040 |
| 12 | | 1230 | 5880 | | 12 | | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|--------------------------------|------------------------------|
| | Rolling <i>M_{RO}</i> | Pitching <i>M_{PO}</i> | Yawing <i>M_{YO}</i> |
| Single | 92 | 51 | 51 |

MCM05

Accuracy grade: High grade (H)



Dimension of MCM05 (Single slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | No. of mounting hole n | Inertia ×10 ⁻⁴ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|------------------|----------------|----------------|------------------------|--|-----------|
| | | | | L ₁ | L ₂ | L ₃ | | | |
| MCM05005H05K00 | 50 | 80 | 5 | 232 | 180 | 150 | 4 | 0.025 | 1.4 |
| MCM05005H10K00 | | (95) | | | | | | | |
| MCM05010H05K00 | 100 | 130 | 5 | 282 | 230 | 200 | 5 | 0.031 | 1.6 |
| MCM05010H10K00 | | (145) | | | | | | | |
| ★MCM05015H05K00 | 150 | 180 | 5 | 332 | 280 | 250 | 6 | 0.036 | 1.8 |
| MCM05015H10K00 | | (195) | | | | | | | |
| MCM05020H05K00 | 200 | 230 | 5 | 382 | 330 | 300 | 7 | 0.042 | 2.0 |
| MCM05020H10K00 | | (245) | | | | | | | |
| MCM05025H10K00 | 250 | 280 (295) | 10 | 432 | 380 | 350 | 8 | 0.057 | 2.2 |
| MCM05030H10K00 | 300 | 330 | 10 | 482 | 430 | 400 | 9 | 0.063 | 2.3 |
| MCM05030H20K00 | | (345) | | | | | | | |
| MCM05040H10K00 | 400 | 430 | 10 | 582 | 530 | 500 | 11 | 0.074 | 2.7 |
| MCM05040H20K00 | | (445) | | | | | | | |
| MCM05050H10K00 | 500 | 530 | 10 | 682 | 630 | 600 | 13 | 0.085 | 3.1 |
| MCM05050H20K00 | | (545) | | | | | | | |
| MCM05060H10K00 | 600 | 630 | 10 | 782 | 730 | 700 | 15 | 0.096 | 3.5 |
| MCM05060H20K00 | | (645) | | | | | | | |

Items not marked are available from standard stock. Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | 5 | 1.0~4.8 |
|----------------------|----|---------|
| | 10 | 1.1~5.8 |
| | 20 | 1.6~7.9 |

- 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 + (15[margin] × 2)

Basic load rating

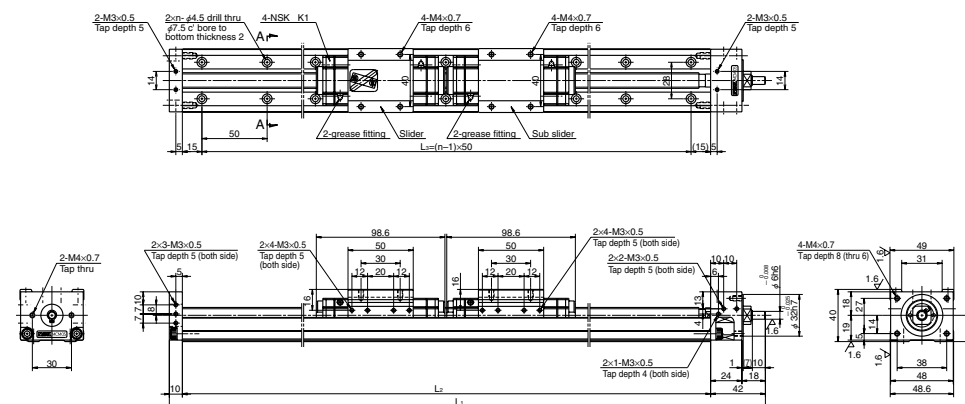
| Lead ℓ (mm) | Shaft dia d (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | | Support unit Load limit (N) |
|-------------|------------------|-------------------------------|-----------------|-----------------------------|--|------------------------------|------------------------------|--------------|-----------------------------|
| | | Ball screw C _a | linear guides C | Support unit C _a | Rated running distance L _r (km) | Ball screw C _{0a} | Linear guides C ₀ | Support unit | |
| 5 | φ 12 | 3760 | 15600 | 4400 | 5 | 6310 | 10900 | 1450 | |
| 10 | | 2260 | 12400 | | 10 | | | | |
| 20 | | 2260 | 9850 | | 20 | | | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|-------------------------|-----------------------|
| | RollingM _{RO} | PitchingM _{PO} | YawingM _{YO} |
| Single | 229 | 89 | 89 |

MCM05 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCM05 (Double slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | No. of mounting hole n | Inertia ×10 ⁻⁴ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|------------------|----------------|----------------|------------------------|--|-----------|
| | | | | L ₁ | L ₂ | L ₃ | | | |
| ★MCM05006H10D00 | 60 | 83 (110) | 10 | 332 | 280 | 250 | 6 | 0.058 | 2.3 |
| ★MCM05011H10D00 | 110 | 133 (160) | 10 | 382 | 330 | 300 | 7 | 0.064 | 2.5 |
| ★MCM05016H10D00 | 160 | 183 (210) | 10 | 432 | 380 | 350 | 8 | 0.070 | 2.7 |
| ★MCM05021H10D00 | 210 | 233 | 10 | 482 | 430 | 400 | 9 | 0.075 | 2.8 |
| ★MCM05021H20D00 | | (260) | 20 | | | | | | |
| ★MCM05031H10D00 | 310 | 333 | 10 | 582 | 530 | 500 | 11 | 0.086 | 3.2 |
| ★MCM05031H20D00 | | (360) | 20 | | | | | | |
| ★MCM05041H10D00 | 410 | 433 | 10 | 682 | 630 | 600 | 13 | 0.098 | 3.6 |
| ★MCM05041H20D00 | | (460) | 20 | | | | | | |
| ★MCM05051H10D00 | 510 | 533 | 10 | 782 | 730 | 700 | 15 | 0.109 | 4.2 |
| ★MCM05051H20D00 | | (560) | 20 | | | | | | |

Items not marked are available from standard stock. Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | 10 | 1.5~7.6 |
|----------------------|----|----------|
| | 20 | 2.3~11.8 |

- 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 + (11.4[margin] × 2)

Basic load rating

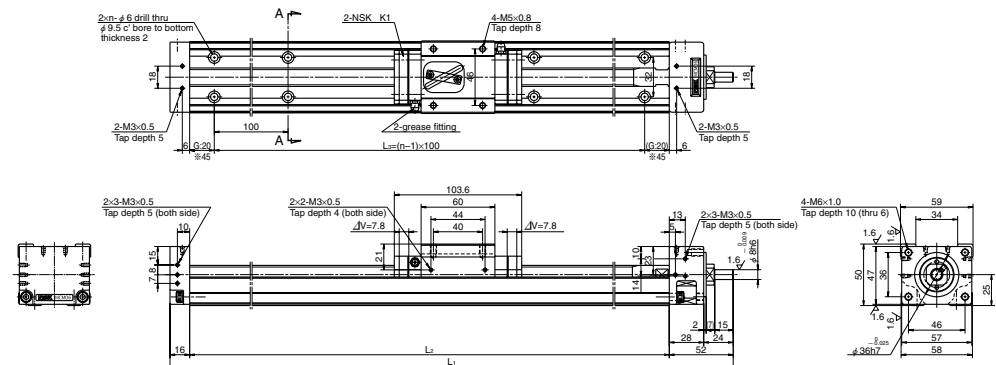
| Lead ℓ (mm) | Shaft dia d (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | | Support unit Load limit (N) |
|-------------|------------------|-------------------------------|-----------------|-----------------------------|--|------------------------------|------------------------------|--------------|-----------------------------|
| | | Ball screw C _a | linear guides C | Support unit C _a | Rated running distance L _r (km) | Ball screw C _{0a} | Linear guides C ₀ | Support unit | |
| 5 | φ 12 | 3760 | 15600 | 4400 | 5 | 6310 | 10900 | 1450 | |
| 10 | | 2260 | 12400 | | 10 | | | | |
| 20 | | 2260 | 9850 | | 20 | | | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|-------------------------|-----------------------|
| | RollingM _{RO} | PitchingM _{PO} | YawingM _{YO} |
| Double | 455 | 765 | 765 |

MCM06

Accuracy grade: High grade (H)



Dimension of MCM06 (Single slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | No. of mounting hole <i>n</i> | Inertia $\times 10^{-4}$ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------------|---|-----------|
| | | | | <i>L</i> ₁ | <i>L</i> ₂ | <i>L</i> ₃ | | | |
| ※MCM06005H05K00 | 50 | 85 | 5 | 258 | 190 | 100 | 2 | 0.083 | 2.7 |
| ★MCM06005H10K00 | | (102) | 10 | | | | | | |
| MCM06010H05K00 | 100 | 135 | 5 | 308 | 240 | 200 | 3 | 0.103 | 3.0 |
| MCM06010H10K00 | | (152) | 10 | | | | | | |
| MCM06020H05K00 | 200 | 235 | 5 | 408 | 340 | 300 | 4 | 0.142 | 3.8 |
| MCM06020H10K00 | | (252) | 10 | | | | | | |
| MCM06030H05K00 | 300 | 335 (352) | 5 | 508 | 440 | 400 | 5 | 0.180 | 4.5 |
| MCM06030H10K00 | | | 10 | | | | | 0.150 | |
| MCM06030H20K00 | | | 20 | | | | | 0.196 | |
| MCM06040H05K00 | 400 | 435 (452) | 5 | 608 | 540 | 500 | 6 | 0.219 | 5.2 |
| MCM06040H10K00 | | | 10 | | | | | 0.180 | |
| MCM06040H20K00 | | | 20 | | | | | 0.225 | |
| ★MCM06050H05K00 | 500 | 535 (552) | 5 | 708 | 640 | 600 | 7 | 0.258 | 6.0 |
| MCM06050H10K00 | | | 10 | | | | | 0.209 | |
| MCM06050H20K00 | | | 20 | | | | | 0.255 | |
| ★MCM06060H10K00 | 600 | 635 (652) | 10 | 808 | 740 | 700 | 8 | 0.239 | 6.7 |
| ★MCM06060H20K00 | | | 20 | | | | | 0.284 | |
| MCM06070H10K00 | 700 | 735 (752) | 10 | 908 | 840 | 800 | 9 | 0.268 | 7.4 |
| MCM06070H20K00 | | | 20 | | | | | 0.314 | |
| ★MCM06080H10K00 | 800 | 835 (852) | 10 | 1008 | 940 | 900 | 10 | 0.298 | 8.1 |
| ★MCM06080H20K00 | | | 20 | | | | | 0.343 | |

Dimension G is 45 for those marked with ※.

Items not marked are available from standard stock.

Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | 5 | |
|----------------------|-----------|-----------|
| | 1.9~ 7.4 | 1.9~ 7.4 |
| | 2.2~ 8.6 | 2.2~ 8.6 |
| | 20 | |
| | 2.8~ 11.0 | 2.8~ 11.0 |

1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
2. Grease is packed into ball screw, linear guide parts and support unit.
3. Consult NSK for life estimates under large moment loads.
4. Stroke limit = stroke + (17.5[margin] × 2)

Basic load rating

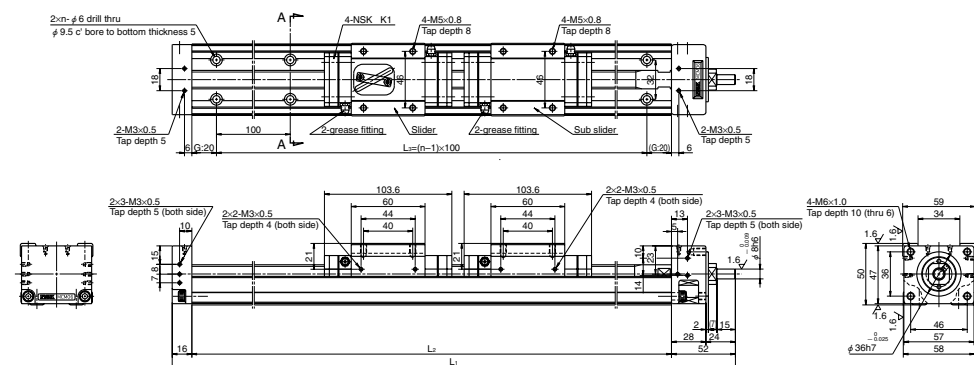
| Lead <i>l</i> (mm) | Shaft dia <i>d</i> (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | Support unit Load limit (N) |
|--------------------|-------------------------|----------------------------------|------------------------|------------------------------------|---|-----------------------------------|-------------------------------------|-----------------------------|
| | | Ball screw <i>C</i> _a | linear guides <i>C</i> | Support unit <i>C</i> _a | Rated running distance <i>L</i> _a (km) | Ball screw <i>C</i> _{0a} | Linear guides <i>C</i> ₀ | |
| 5 | φ 16 | 7310 | 25200 | 6550 | 5 | 13500 | 17000 | 2730 |
| 10 | φ 15 | 7060 | 20000 | | 10 | 12700 | | |
| 20 | | 4560 | 15900 | | 20 | 7750 | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|---------------------------------|-------------------------------|
| | Rolling <i>M</i> _{RO} | Pitching <i>M</i> _{PO} | Yawing <i>M</i> _{YO} |
| Single | 415 | 174 | 174 |

MCM06 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCM06 (Double slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | No. of mounting hole <i>n</i> | Inertia $\times 10^{-4}$ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------------|---|-----------|
| | | | | <i>L</i> ₁ | <i>L</i> ₂ | <i>L</i> ₃ | | | |
| ★MCM06011H05D00 | 110 | 133 (164) | 5 | 408 | 340 | 300 | 4 | 0.145 | 4.4 |
| ★MCM06011H10D00 | | | 10 | | | | | 0.136 | |
| ★MCM06021H05D00 | | | 5 | | | | | 0.184 | |
| ★MCM06021H10D00 | 210 | 233 (264) | 10 | 508 | 440 | 400 | 5 | 0.166 | 5.1 |
| ★MCM06021H20D00 | | | 20 | | | | | 0.257 | |
| ★MCM06031H05D00 | | | 5 | | | | | 0.223 | |
| ★MCM06031H10D00 | 310 | 333 (364) | 10 | 608 | 540 | 500 | 6 | 0.195 | 5.8 |
| ★MCM06031H20D00 | | | 20 | | | | | 0.286 | |
| ★MCM06041H05D00 | | | 5 | | | | | 0.262 | |
| ★MCM06041H10D00 | 410 | 433 (464) | 10 | 708 | 640 | 600 | 7 | 0.224 | 6.6 |
| ★MCM06041H20D00 | | | 20 | | | | | 0.316 | |
| ★MCM06051H10D00 | | | 10 | | | | | 0.254 | |
| ★MCM06051H20D00 | 510 | 533 (564) | 20 | 808 | 740 | 700 | 8 | 0.345 | 7.3 |
| ★MCM06061H10D00 | | | 10 | | | | | 0.283 | |
| ★MCM06061H20D00 | | | 20 | | | | | 0.375 | |
| ★MCM06071H10D00 | 710 | 733 (764) | 10 | 1008 | 940 | 900 | 10 | 0.313 | 8.7 |
| ★MCM06071H20D00 | | | 20 | | | | | 0.404 | |

Items not marked are available from standard stock. Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | 5 | |
|----------------------|-----------|-----------|
| | 2.3~ 8.5 | 2.3~ 8.5 |
| | 2.7~ 10.9 | 2.7~ 10.9 |
| | 20 | |
| | 4.0~ 15.9 | 4.0~ 15.9 |

1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
2. Grease is packed into ball screw, linear guide parts and support unit.
3. Consult NSK for life estimates under large moment loads.
4. Stroke limit = stroke + (11.4[margin] × 2)

Basic load rating

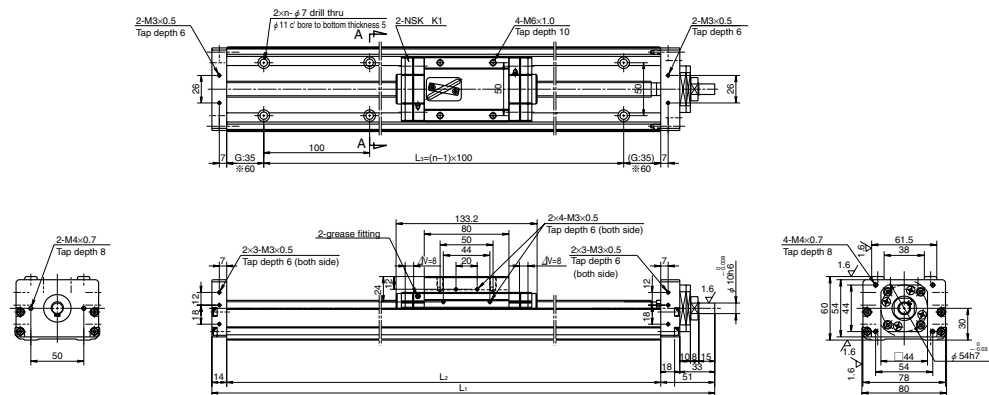
| Lead <i>l</i> (mm) | Shaft dia <i>d</i> (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | Support unit Load limit (N) |
|--------------------|-------------------------|----------------------------------|------------------------|------------------------------------|---|-----------------------------------|-------------------------------------|-----------------------------|
| | | Ball screw <i>C</i> _a | linear guides <i>C</i> | Support unit <i>C</i> _a | Rated running distance <i>L</i> _a (km) | Ball screw <i>C</i> _{0a} | Linear guides <i>C</i> ₀ | |
| 5 | φ 16 | 7310 | 25200 | 6550 | 5 | 13500 | 17000 | 2730 |
| 10 | φ 15 | 7060 | 20000 | | 10 | 12700 | | |
| 20 | | 4560 | 15900 | | 20 | 7750 | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|---------------------------------|-------------------------------|
| | Rolling <i>M</i> _{RO} | Pitching <i>M</i> _{PO} | Yawing <i>M</i> _{YO} |
| Double | 825 | 1220 | 1220 |

MCM08

Accuracy grade: High grade (H)



Dimension of MCM08 (Single slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | No. of mounting hole <i>n</i> | Inertia $\times 10^4$ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|------------------|----------------|----------------|-------------------------------|--|-----------|
| | | | | L ₁ | L ₂ | L ₃ | | | |
| ★※MCM08005H05K00 | 50 | 85 (101) | 5 | 285 | 220 | 100 | 2 | 0.101 | 4.1 |
| ★ MCM08010H05K00 | 100 | 135 (151) | 5 | 335 | 270 | 200 | 3 | 0.120 | 4.6 |
| MCM08010H10K00 | | 10 | 0.114 | | | | | | |
| ★※MCM08015H05K00 | 150 | 185 (201) | 5 | 385 | 320 | 200 | 3 | 0.139 | 5.1 |
| ★ MCM08020H05K00 | 200 | 235 (251) | 5 | 435 | 370 | 300 | 4 | 0.159 | 5.5 |
| MCM08020H10K00 | | 10 | 0.144 | | | | | | |
| MCM08030H10K00 | 300 | 335 (351) | 10 | 535 | 470 | 400 | 5 | 0.173 | 6.5 |
| MCM08030H20K00 | | 20 | 0.249 | | | | | | |
| MCM08040H10K00 | 400 | 435 (451) | 10 | 635 | 570 | 500 | 6 | 0.203 | 7.4 |
| MCM08040H20K00 | | 20 | 0.279 | | | | | | |
| MCM08050H10K00 | 500 | 535 (551) | 10 | 735 | 670 | 600 | 7 | 0.232 | 8.4 |
| MCM08050H20K00 | | 20 | 0.308 | | | | | | |
| MCM08060H10K00 | 600 | 635 (651) | 10 | 835 | 770 | 700 | 8 | 0.262 | 9.3 |
| MCM08060H20K00 | | 20 | 0.338 | | | | | | |
| ★ MCM08070H10K00 | 700 | 735 (751) | 10 | 935 | 870 | 800 | 9 | 0.291 | 10.5 |
| ★ MCM08070H20K00 | | 20 | 0.367 | | | | | | |
| ★ MCM08080H10K00 | 800 | 835 (851) | 10 | 1035 | 970 | 900 | 10 | 0.320 | 11.2 |
| ★ MCM08080H20K00 | | 20 | 0.396 | | | | | | |

Dimension G is 60 for those marked with ※.

Items not marked are available from standard stock. Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | 5 | |
|----------------------|----------|-----------|
| | 1.0~ 5.9 | 2.0~ 7.8 |
| | 2.0~ 7.8 | 2.5~ 10.8 |

- 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 + (17.5[margin] × 2)

Basic load rating

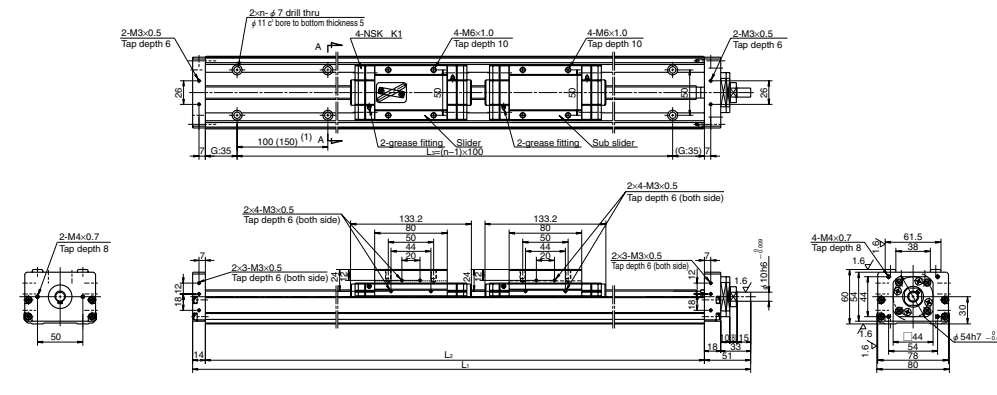
| Lead <i>l</i> (mm) | Shaft dia <i>d</i> (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | | Support unit Load limit (N) |
|--------------------|-------------------------|---------------------------------|------------------------|-----------------------------------|--|----------------------------------|------------------------------------|------|-----------------------------|
| | | Ball screw <i>C_a</i> | linear guides <i>C</i> | Support unit <i>C_a</i> | Rated running distance <i>L_a</i> (km) | Ball screw <i>C_{0a}</i> | Linear guides <i>C₀</i> | | |
| 5 | φ 16 | 7310 | 30800 | 7100 | 5 | 13500 | 22800 | 3040 | |
| 10 | φ 15 | 7060 | 24400 | | 10 | 12700 | | | |
| 20 | | 4560 | 19400 | | 20 | 7750 | | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|--------------------------------|------------------------------|
| | Rolling <i>M_{RO}</i> | Pitching <i>M_{PO}</i> | Yawing <i>M_{YO}</i> |
| Single | 770 | 300 | 300 |

MCM08 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCM08 (Double slider)

ΔV is thickness of NSK K1

| Reference number | Nominal stroke (mm) | Stroke limit(mm) (K1 is not equipped) | Ball screw lead (mm) | Body length (mm) | | | No. of mounting hole <i>n</i> | Inertia $\times 10^4$ (kg · m ²) | Mass (kg) |
|------------------|---------------------|---------------------------------------|----------------------|------------------|----------------|----------------|-------------------------------|--|-----------|
| | | | | L ₁ | L ₂ | L ₃ | | | |
| ★●MCM08008H10D00 | 80 | 104 (136) | 10 | 435 | 370 | 300 | 3 | 0.169 | 6.5 |
| ★ MCM08018H10D00 | 180 | 204 (236) | 10 | 535 | 470 | 400 | 5 | 0.199 | 7.5 |
| MCM08018H20D00 | | 20 | 0.351 | | | | | | |
| ★ MCM08028H10D00 | 280 | 304 (336) | 10 | 635 | 570 | 500 | 6 | 0.228 | 8.4 |
| MCM08028H20D00 | | 20 | 0.380 | | | | | | |
| ★ MCM08038H10D00 | 380 | 404 (436) | 10 | 735 | 670 | 600 | 7 | 0.257 | 9.4 |
| MCM08038H20D00 | | 20 | 0.409 | | | | | | |
| ★ MCM08048H10D00 | 480 | 504 (536) | 10 | 835 | 770 | 700 | 8 | 0.287 | 10.3 |
| MCM08048H20D00 | | 20 | 0.439 | | | | | | |
| ★ MCM08058H10D00 | 580 | 604 (636) | 10 | 935 | 870 | 800 | 9 | 0.316 | 11.5 |
| MCM08058H20D00 | | 20 | 0.468 | | | | | | |
| ★ MCM08068H10D00 | 680 | 704 (736) | 10 | 1035 | 970 | 900 | 10 | 0.346 | 12.2 |
| MCM08068H20D00 | | 20 | 0.498 | | | | | | |

Dimension (1) is 150mm for those marked with ●.

Items not marked are available from standard stock. Items marked with ★ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

| Ball screw lead (mm) | 10 | |
|----------------------|-----------|-----------|
| | 2.5~ 10.8 | 4.0~ 17.2 |

- 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 + (11.8[margin] × 2)

Basic load rating

| Lead <i>l</i> (mm) | Shaft dia <i>d</i> (mm) | Basic dynamic load rating (N) | | | | Basic static load rating (N) | | | Support unit Load limit (N) |
|--------------------|-------------------------|---------------------------------|------------------------|-----------------------------------|--|----------------------------------|------------------------------------|------|-----------------------------|
| | | Ball screw <i>C_a</i> | linear guides <i>C</i> | Support unit <i>C_a</i> | Rated running distance <i>L_a</i> (km) | Ball screw <i>C_{0a}</i> | Linear guides <i>C₀</i> | | |
| 5 | φ 16 | 7310 | 30800 | 7100 | 5 | 13500 | 22800 | 3040 | |
| 10 | φ 15 | 7060 | 24400 | | 10 | 12700 | | | |
| 20 | | 4560 | 19400 | | 20 | 7750 | | | |

Basic static moment load of linear guide

| Slider | Basic static moment load (N · m) | | |
|--------|----------------------------------|--------------------------------|------------------------------|
| | Rolling <i>M_{RO}</i> | Pitching <i>M_{PO}</i> | Yawing <i>M_{YO}</i> |
| Double | 1540 | 2050 | 2050 |

