

C-2 MCM Series

C-2-1 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: 10 mm)
 Stroke (Unit: 10 mm)
 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 1 Sensor unit (See page C37)

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

xx: Reference number
 Note: Sensor rail is not included in a sensor unit. If you require the rail, please request separately. (See page C38 to 40.)

Table 2 Cover unit (See page C41 - 42)

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

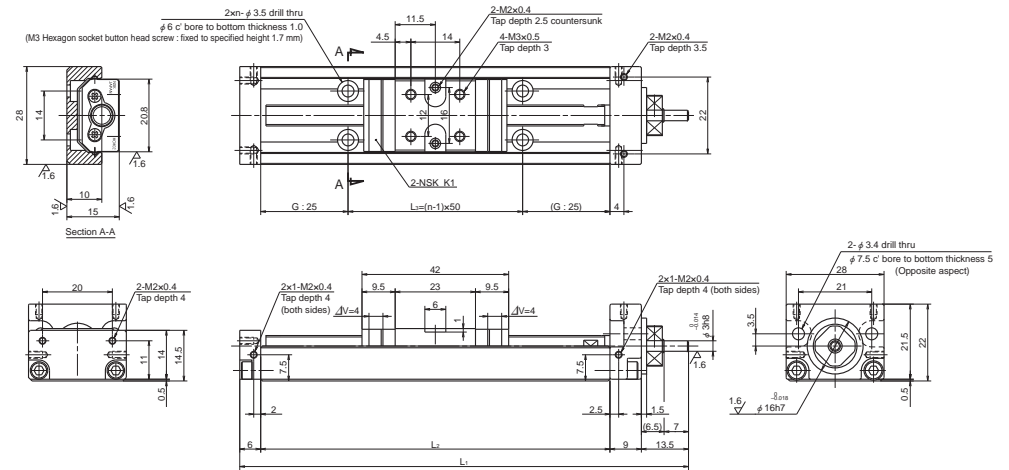
xxxx: Reference number and stroke number
 *: Monocarrier ".02" is only used for MCM03
 Note: When a sensor unit is used, the full cover unit cannot be used.

Table 3 The reference number of motor bracket (See page C43 - 58)

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-2-2 MCM Series Dimension Table of Standard Products

MCM02



Dimension of MCM02 (Single slider)

Reference number	Nominal stroke (mm)	Stroke limit (mm)	Ball screw lead (mm)	Body length (mm)			No. of mounting hole <i>n</i>	Inertia $\times 10^7$ (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			2						
MCM02005P02K									
MCM02010H01K	100	108	1	178.5	150	100	3	1.36	0.32
MCM02010P01K									
MCM02010H02K			2						
MCM02010P02K									
MCM02015H01K	150	158	1	228.5	200	150	4	1.81	0.39
MCM02015P01K									
MCM02015H02K			2						
MCM02015P02K									

Note: Items not marked are available from standard stock.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	High grade		Precision
	1	0.1 - 1.3	
2	0.1 - 1.3		

- Notes:
 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 + (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	$\phi 6$	340 (High grade) 405 (Precision)	4910	615	1	555 (High grade) 615 (Precision)	2120	490
2		340 (High grade) 405 (Precision)				3900		

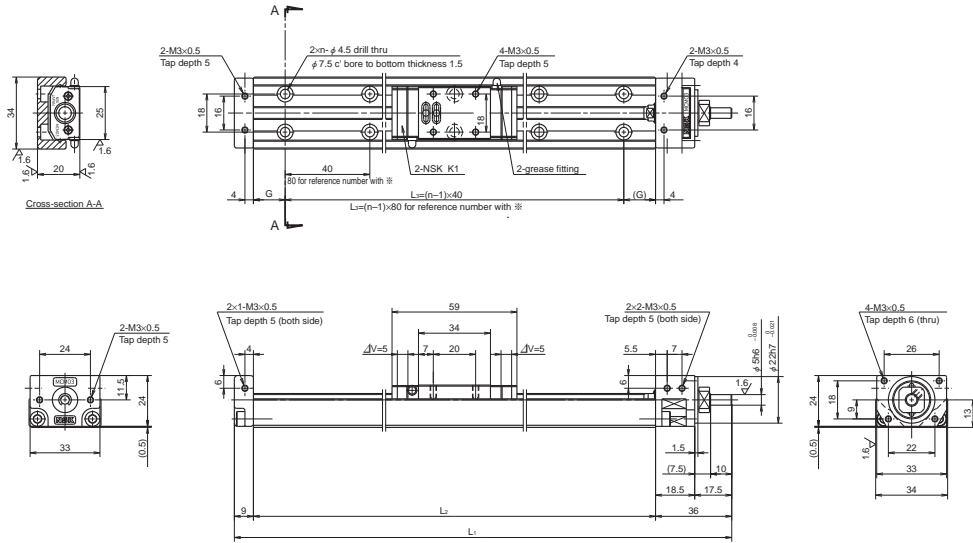
Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{R0}	Pitching M_{P0}	Yawing M_{Y0}
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 n	Inertia $\times 10^{-5}$ (kg · m ²)	Mass (kg)
				L ₁	L ₂	G	L ₃			
※MCM03005P01K00	50	56 (66)	1	160	115	17.5	80	2	0.015	0.6
※MCM03005P02K00			2							
MCM03010P01K00	100	131 (141)	1	235	190	15	160	5	0.021	0.7
MCM03010P02K00			2							
☆MCM03015P01K00	150	181 (191)	1	285	240	20	200	6	0.025	0.8
☆MCM03015P02K00			2							

- Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Bolt hole pitch L₃ on the items marked with ※ is 80 mm.

Monocarrier dynamic torque specification (N · cm)

Notes:

Ball screw lead (mm)	0.2 – 1.7	
	1	2
Ball screw lead (mm)	1	2

Notes:
 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 using a cover unit, sensor unit or the both together in ball screw lead of 1 and 2 mm (See page C41).
 5. Stroke limit = stroke + (3 [margin] × 2)

Basic load rating

Lead (mm)	Shaft dia (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	735	10900	2670	1	1230	4900	1040
2					2			

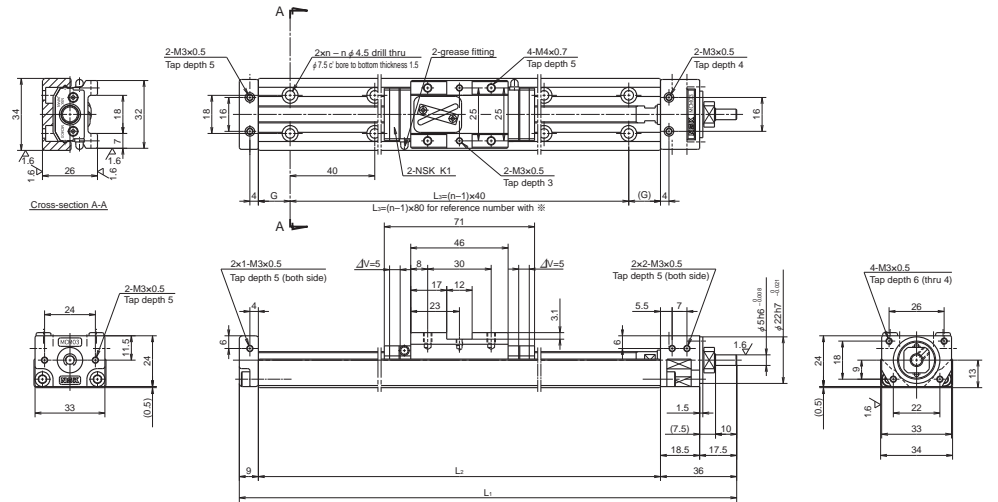
Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{VO}
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 n	Inertia $\times 10^{-5}$ (kg · m ²)	Mass (kg)
				L ₁	L ₂	G	L ₃			
☆※MCM03005H10K00	50	69 (79)	10	185	140	30	80	2	0.080	0.6
☆※MCM03005H12K00			12							
MCM03010H10K00	100	119 (129)	10	235	190	15	160	5	0.092	0.7
MCM03010H12K00			12							
☆MCM03015H10K00	150	169 (179)	10	285	240	20	200	6	0.105	0.8
☆MCM03015H12K00			12							
MCM03020H10K00	200	219 (229)	10	335	290	25	240	7	0.118	0.9
☆MCM03020H12K00			12							
☆MCM03025H10K00	250	269 (279)	10	385	340	30	280	8	0.131	1.0
☆MCM03025H12K00			12							

- Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Bolt hole pitch L₃ on the items marked with ※ is 80 mm.

Monocarrier dynamic torque specification (N · cm)

Notes:

Ball screw lead (mm)	0.3 – 3.0	
	10	12
Ball screw lead (mm)	10	12

Notes:
 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

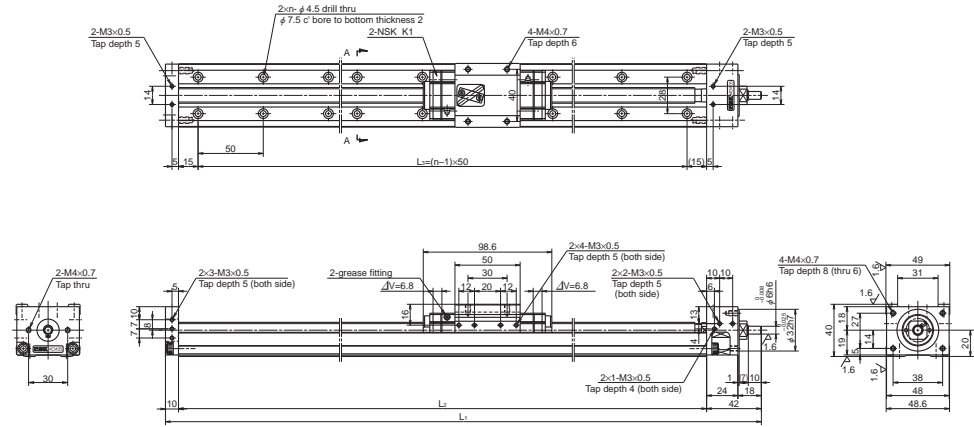
Lead (mm)	Shaft dia (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C _a	Linear guides C	Support unit C _a	Rated running distance L _a (km)	Ball screw C _{0a}	Linear guides C ₀	
10	φ8	1230	6250	2670	10	1690	6620	1040
12					12			

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{VO}
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 $\times 10^{-4}$ (kg · m ²)	Mass (kg)
				L_1	L_2	L_3			
MCM05005H05K00	50	(95)	5	232	180	150	4	0.025	1.4
MCM05005H10K00			10						
MCM05005H20K00			20						
MCM05010H05K00	100	(145)	5	282	230	200	5	0.031	1.6
MCM05010H10K00			10						
MCM05010H20K00			20						
MCM05015H05K00	150	(195)	5	332	280	250	6	0.036	1.8
MCM05015H10K00			10						
MCM05015H20K00			20						
MCM05020H05K00	200	(245)	5	382	330	300	7	0.042	2.0
MCM05020H10K00			10						
MCM05020H20K00			20						
MCM05025H05K00	250	(295)	5	432	380	350	8	0.047	2.2
MCM05025H10K00			10						
MCM05025H20K00			20						
MCM05030H05K00	300	(345)	5	482	430	400	9	0.053	2.3
MCM05030H10K00			10						
MCM05030H20K00			20						
MCM05040H05K00	400	(445)	5	582	530	500	11	0.064	2.7
MCM05040H10K00			10						
MCM05040H20K00			20						
MCM05050H05K00	500	(545)	5	682	630	600	13	0.076	3.1
MCM05050H10K00			10						
MCM05050H20K00			20						
MCM05060H05K00	600	(645)	5	782	730	700	15	0.087	3.5
MCM05060H10K00			10						
MCM05060H20K00			20						

Notes: 1. Items not marked are available from standard stock.
2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	Stroke limit (mm)	
	5	1.0 – 4.8
	10	1.1 – 5.8
20	1.6 – 7.9	

Notes:

- 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

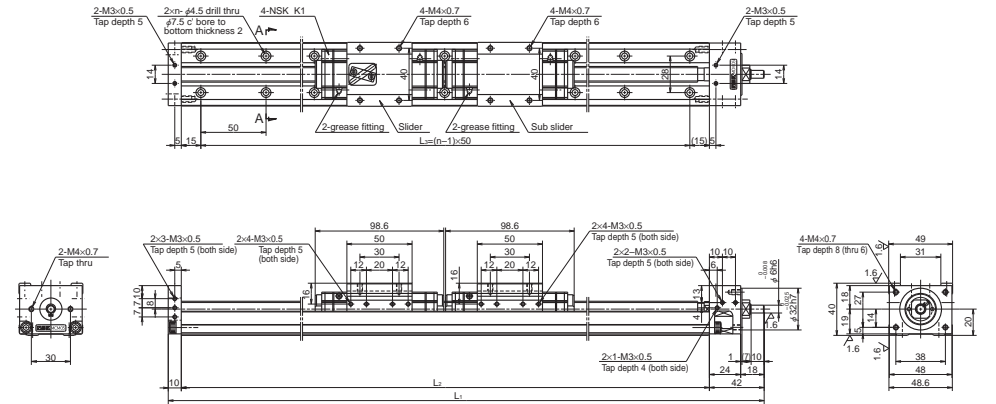
Lead l (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Rated running distance L_a (km)	Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_a	Ball screw C_{0a}		Linear guides C_0		
5	$\phi 12$	3760	15600	4400	5	6310	10900	1450	
10		2260	12400		10	3780			
20		2260	9850		20	3780			

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{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 $\times 10^{-4}$ (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						

Notes: 1. Items not marked are available from standard stock.
2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	Stroke limit (mm)	
	10	1.5 – 7.6
20	2.3 – 11.8	

Notes:

- 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

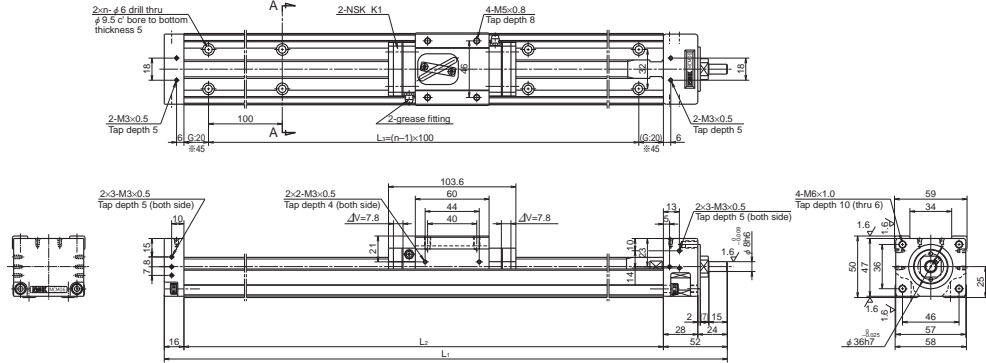
Lead l (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_a	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	$\phi 12$	3760	15600	4400	5	6310	10900	1450
10		2260	12400		10	3780		
20		2260	9850		20	3780		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{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 n	Inertia $\times 10^{-4} \text{ (kg} \cdot \text{m}^2)$	Mass (kg)
				L_1	L_2	L_3			
※MCM06005H05K00	50	85 (102)	5	258	190	100	2	0.083	2.7
☆MCM06005H10K00			10					0.077	
☆MCM06005H20K00			20					0.122	
MCM06010H05K00	100	135 (152)	5	308	240	200	3	0.103	3.0
MCM06010H10K00			10					0.092	
☆MCM06010H20K00			20					0.137	
☆MCM06015H05K00	150	185 (202)	5	358	290	200	3	0.122	3.5
☆MCM06015H10K00			10					0.106	
☆MCM06015H20K00			20					0.152	
MCM06020H05K00	200	235 (252)	5	408	340	300	4	0.142	3.8
MCM06020H10K00			10					0.121	
☆MCM06020H20K00			20					0.167	
☆MCM06025H05K00	250	285 (302)	5	458	390	300	4	0.161	4.2
☆MCM06025H10K00			10					0.136	
☆MCM06025H20K00			20					0.181	
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	
☆MCM06060H05K00	600	635 (652)	5	808	740	700	8	0.297	6.7
☆MCM06060H10K00			10					0.239	
☆MCM06060H20K00			20					0.284	
☆MCM06070H05K00	700	735 (752)	5	908	840	800	9	0.335	7.4
MCM06070H10K00			10					0.268	
MCM06070H20K00			20					0.314	
☆MCM06080H05K00	800	835 (852)	5	1008	940	900	10	0.374	8.1
☆MCM06080H10K00			10					0.298	
☆MCM06080H20K00			20					0.343	

Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Dimension G is 45 for those marked with ※.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	5		1.9 – 7.4	
	10		2.2 – 8.6	
	20		2.8 – 11.0	

Notes:

- 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

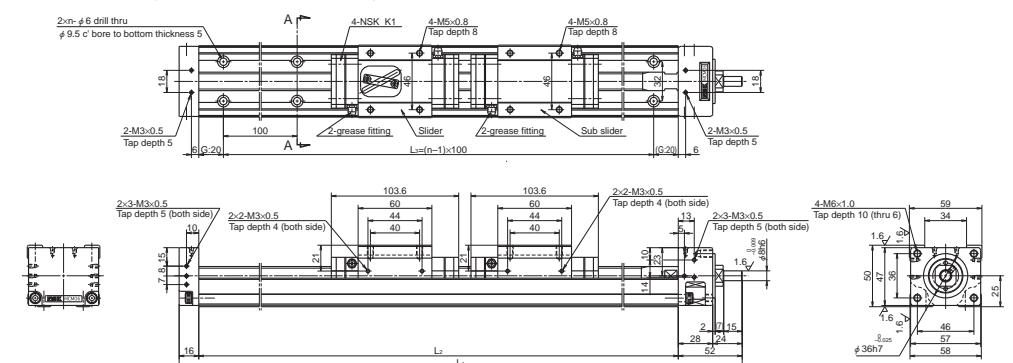
Lead l (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_a	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	$\phi 16$	7310	25200	6550	5	13500	17000	2730
10	$\phi 15$	7060	20000		10	12700		
20		4560	15900		20	7750		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{VO}
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 n	Inertia $\times 10^{-4} \text{ (kg} \cdot \text{m}^2)$	Mass (kg)
				L_1	L_2	L_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)	5	508	440	400	5	0.166	5.1
☆MCM06021H20D00			10					0.223	
☆MCM06031H05D00			5					0.257	
☆MCM06031H10D00	310	333 (364)	5	608	540	500	6	0.223	5.8
☆MCM06031H20D00			10					0.195	
☆MCM06041H05D00			5					0.286	
☆MCM06041H10D00	410	433 (464)	5	708	640	600	7	0.262	6.6
☆MCM06041H20D00			10					0.224	
☆MCM06051H05D00			5					0.316	
☆MCM06051H10D00	510	533 (564)	5	808	740	700	8	0.254	7.3
☆MCM06051H20D00			10					0.345	
☆MCM06061H10D00			10					0.283	
☆MCM06061H20D00	610	633 (664)	10	908	840	800	9	0.375	8.0
☆MCM06071H10D00			10					0.313	
☆MCM06071H20D00			20					0.404	

Notes: 1. Items not marked are available from standard stock.
 2. 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	
	10		2.7 – 10.9	
	20		4.0 – 15.9	

Notes:

- 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

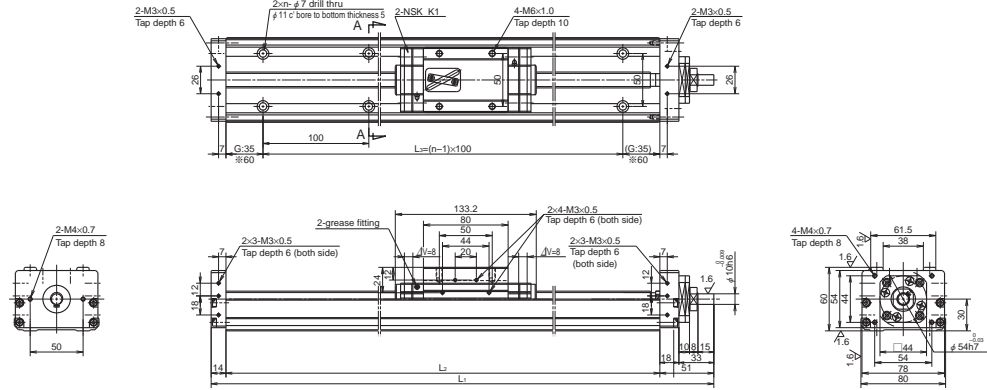
Lead l (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_a	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	$\phi 16$	7310	25200	6550	5	13500	17000	2730
10	$\phi 15$	7060	20000		10	12700		
20		4560	15900		20	7750		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{VO}
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 n	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
☆※MCM08005H10K00			10					0.100	
☆MCM08010H10K00	100	135 (151)	5	335	270	200	3	0.120	4.6
☆MCM08010H20K00			10					0.114	
☆MCM08015H05K00	150	185 (201)	5	385	320	200	3	0.139	5.1
☆MCM08015H10K00			10					0.129	
☆MCM08015H20K00			20					0.205	
☆MCM08020H05K00	200	235 (251)	5	435	370	300	4	0.159	5.5
MCM08020H10K00			10					0.144	
MCM08020H20K00			20					0.220	
☆MCM08025H05K00	250	285 (301)	5	485	420	300	4	0.178	6.0
☆MCM08025H10K00			10					0.159	
☆MCM08025H20K00			20					0.235	
☆MCM08030H05K00	300	335 (351)	5	535	470	400	5	0.198	6.5
MCM08030H10K00			10					0.173	
MCM08030H20K00			20					0.249	
☆MCM08040H05K00	400	435 (451)	5	635	570	500	6	0.236	7.4
MCM08040H10K00			10					0.203	
MCM08040H20K00			20					0.279	
☆MCM08050H05K00	500	535 (551)	5	735	670	600	7	0.275	8.4
MCM08050H10K00			10					0.232	
MCM08050H20K00			20					0.308	
☆MCM08060H05K00	600	635 (651)	5	835	770	700	8	0.314	9.3
MCM08060H10K00			10					0.262	
MCM08060H20K00			20					0.338	
☆MCM08070H05K00	700	735 (751)	5	935	870	800	9	0.353	10.5
MCM08070H10K00			10					0.291	
MCM08070H20K00			20					0.367	
☆MCM08080H05K00	800	835 (851)	5	1035	970	900	10	0.391	11.2
MCM08080H10K00			10					0.320	
MCM08080H20K00			20					0.396	

- Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Dimension G is 60 for those marked with ※.

Monocarrier dynamic torque specification (N · cm)

Notes:

Ball screw lead (mm)	5	
	1.0 - 5.9	
	10	2.0 - 7.8
	20	2.5 - 10.8

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

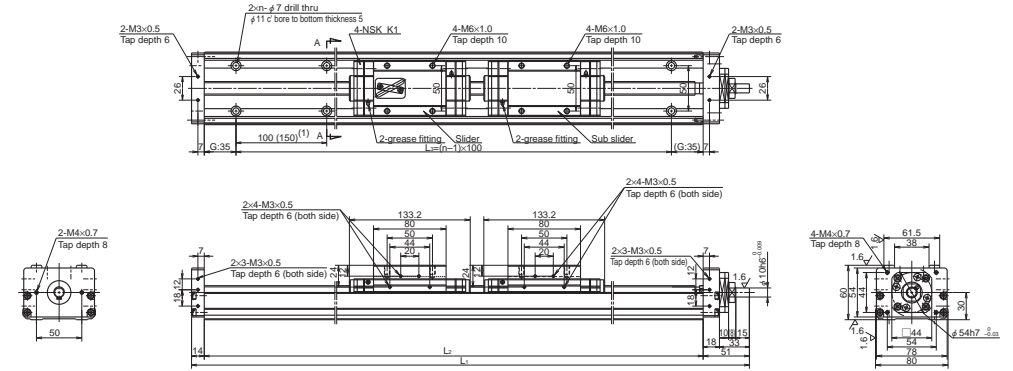
Lead l (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_s	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	ϕ 16	7310	30800	7100	5	13500	22800	3040
10	ϕ 15	7060	24400		10	12700		
20		4560	19400	20	7750			

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{VO}
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 n	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			20					0.199	
☆MCM08018H20D00	180	204 (236)	10	535	470	400	5	0.351	7.5
☆MCM08028H10D00			20					0.228	
☆MCM08028H20D00	280	304 (336)	10	635	570	500	6	0.380	8.4
☆MCM08038H10D00			20					0.257	
☆MCM08038H20D00	380	404 (436)	10	735	670	600	7	0.409	9.4
☆MCM08048H10D00			20					0.287	
☆MCM08048H20D00	480	504 (536)	10	835	770	700	8	0.439	10.3
☆MCM08058H10D00			20					0.316	
☆MCM08058H20D00	580	604 (636)	10	935	870	800	9	0.468	11.5
☆MCM08068H10D00			20					0.346	
☆MCM08068H20D00	680	704 (736)	10	1035	970	900	10	0.498	12.2
			20					0.498	

- Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Dimension (1) is 150mm for those marked with ※.

Monocarrier dynamic torque specification (N · cm)

Notes:

Ball screw lead (mm)	10	
	2.5 - 10.8	
	20	4.0 - 17.2

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 + (11.8 [margin] × 2)

Basic load rating

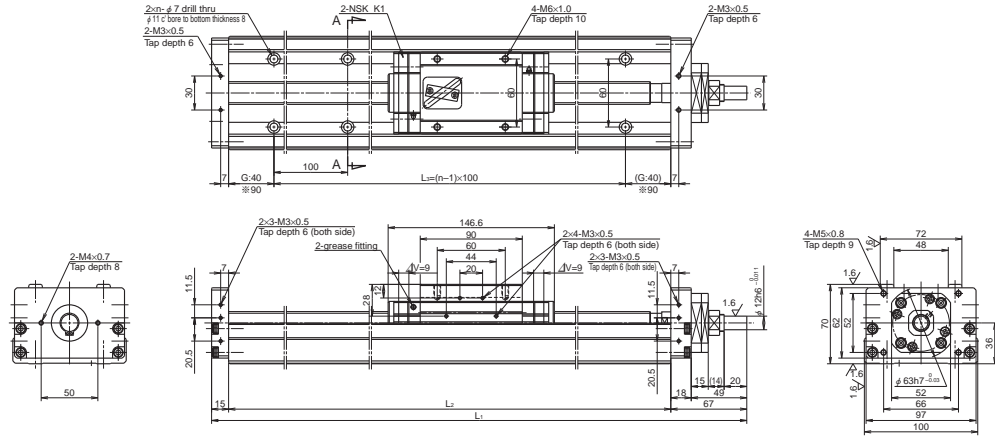
Lead l (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_s	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	ϕ 16	7310	30800	7100	5	13500	22800	3040
10	ϕ 15	7060	24400		10	12700		
20		4560	19400	20	7750			

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{VO}
Double	1540	2050	2050

MCM10

Accuracy grade: High grade (H)



Dimension of MCM10 (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			
☆ MCM10010H10K00	100	130	10	362	280	200	3	0.332	7.8
☆ MCM10010H20K00		150	20						
☆ MCM10015H10K00	150	180	10	412	330	300	4	0.378	8.7
☆ MCM10015H20K00		200	20						
☆ MCM10020H10K00	200	230	10	462	380	300	4	0.425	9.5
☆ MCM10020H20K00		280	20						
☆ MCM10025H10K00	250	280	10	512	430	400	5	0.472	10.4
☆ MCM10025H20K00		300	20						
☆ MCM10030H10K00	300	330	10	562	480	400	5	0.519	11.2
☆ MCM10030H20K00		350	20						
☆ MCM10040H10K00	400	430	10	662	580	500	6	0.612	13.0
☆ MCM10040H20K00		450	20						
☆ MCM10050H10K00	500	530	10	762	680	600	7	0.706	14.6
☆ MCM10050H20K00		550	20						
☆ MCM10060H10K00	600	630	10	862	780	700	8	0.800	16.3
☆ MCM10060H20K00		650	20						
☆ MCM10070H10K00	700	730	10	962	880	800	9	0.893	18.0
☆ MCM10070H20K00		750	20						
☆ MCM10080H10K00	800	830	10	1062	980	900	10	0.987	19.7
☆ MCM10080H20K00		850	20						
☆ MCM10090H10K00	900	930	10	1162	1080	1000	11	1.081	21.4
☆ MCM10090H20K00		950	20						
☆ MCM10100H10K00	1000	1030	10	1262	1180	1000	11	1.174	23.1
☆ MCM10100H20K00		1050	20						

- Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Dimension G is 90 for those marked with ※.
 4. Dimension G is 15 for those marked with ◇.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	10	2.7 - 10.8
	20	3.1 - 12.7

Notes:

- 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

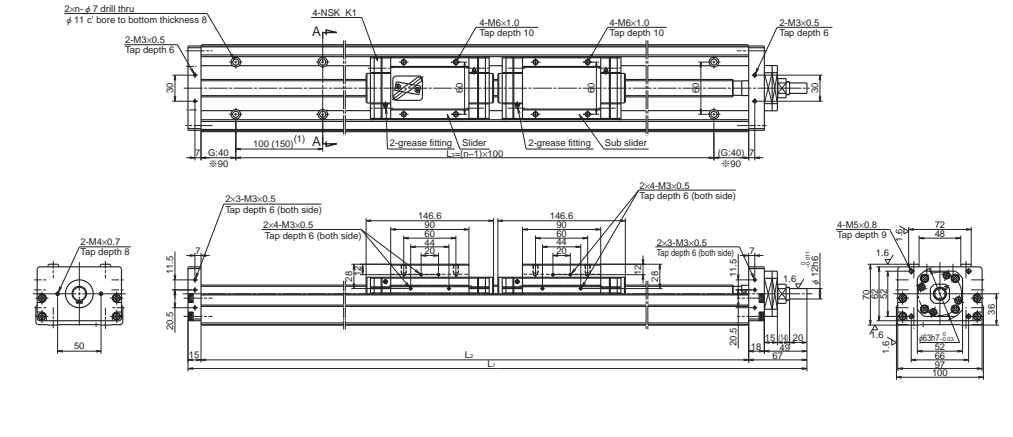
Lead ℓ (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C _a	Linear guides C	Support unit C _a	Rated running distance L _a (km)	Ball screw C _{0a}	Linear guides C ₀	
10	φ 20	10900	33500	7600	10	21700	29400	3380
20		7060	26600		20	12700		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{YO}
Single	1170	425	425

MCM10 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCM10 (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			
☆ MCM10007H10D00	70	86 (122)	10	462	380	300	3	0.463	11.0
☆ MCM10017H10D00									
☆ MCM10017H20D00	170	(222)	20	562	480	400	5	0.785	12.7
☆ MCM10027H10D00									
☆ MCM10027H20D00	270	(322)	20	662	580	500	6	0.650	13.4
☆ MCM10037H10D00									
☆ MCM10037H20D00	370	(422)	20	762	680	600	7	0.972	15.1
☆ MCM10047H10D00									
☆ MCM10047H20D00	470	(522)	20	862	780	700	8	1.066	17.8
☆ MCM10057H10D00									
☆ MCM10057H20D00	570	(622)	20	962	880	800	9	0.931	19.5
☆ MCM10067H10D00									
☆ MCM10067H20D00	670	(722)	20	1062	980	900	10	1.253	21.2
☆ MCM10087H10D00									
☆ MCM10087H20D00	870	(922)	20	1262	1180	1000	11	1.212	23.6
☆ MCM10087H20D00									

- Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Dimension G is 90 for those marked with ※.
 4. Dimension (1) is 150mm for those marked with ◇.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	10	4.2 - 15.6
	20	5.0 - 19.6

Notes:

- 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 + (8.4 [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	
10	φ 20	10900	33500	7600	10	21700	29400	3380
20		7060	26600		20	12700		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{YO}
Double	2340	2940	2940