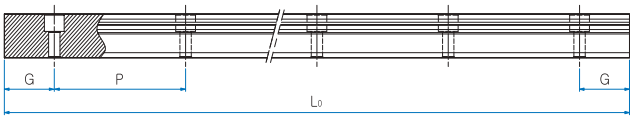
Standard and maximum length of a rail

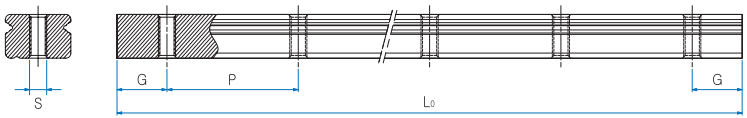


Unit : mm

Model No.	) □	□	□ □ □	□	5□	□□	□5□	□
Standard length	□	□	□	□	□	□	□	□
	□	□	□	□	□	□	□	□
	□	□	□	□	□	□	□	□
	⋮	⋮	□	□	□	□	□	□
	□	□	⋮	□	□	□	□	⋮
	□	□	□	⋮	⋮	⋮	⋮	□
	□	□	□	□	□	□	□	□
			□	□	□	□	□	□
				□	□	□□	□□	
Standard maximum length of a rail	□	□	□	□	□	□	□	□
Standard pitch P	□	□	□	□	□	□	□	□
G	□	□	□	□	□	□	□	□
Max. length	/...				0...			

K@3	K@5	K@7	K@/0	K@R0	K@R/1	K@/3	K@R/3
3.	3.	3.	5.	5.	//.	//.	//.
5.	6.	6.	//.	//.	/3.	/3.	/3.
7.	//.	//.	/3.	/3.	/7.	/7.	/7.
⋮	⋮	/2.	/7.	/7.	01.	01.	01.
/1.	04.	⋮	01.	01.	05.	05.	05.
/3.	07.	3..	⋮	⋮	⋮	⋮	⋮
/5.	13.	5/.	37.	37.	53.	53.	53.
		64.	53.	53.	57.	57.	57.
			7/.	7/.	7/.	7/.	7/.
77.	76.	0...	/77.	/77.	/77.	/77.	/77.
0.	1.	1.	2.	2.	2.	2.	2.
3	/.	/.	/3	/3	/3	/3	/3
/...		0...					

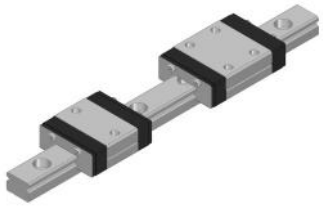
Standard tap hole type of a rail

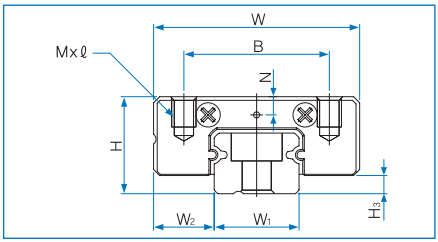


Model No.	S (Thru)
M5	M2.6
±M7	M3
±M9	M4
±M12 / HMT12	M4
±M15 / HMT15	M4
±M20	M6

Model No.	S (Thru)
±MB5	M3
±MB7	M4
±MB9	M4
HMB12 / HMBT12	M5
HMBT13	M5
HMB15 / HMBT15	M5

HM Series





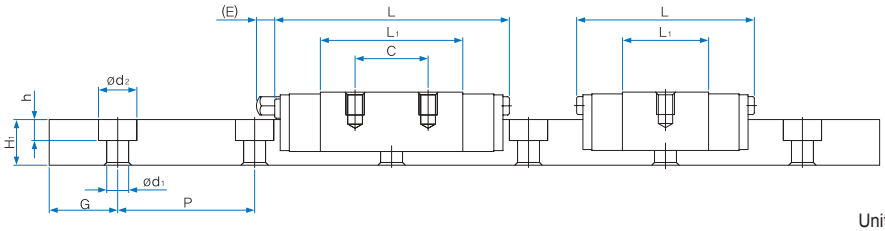
Model No.	External dimension			Dimensions of block							H_3
	Height H	Width W	Length L	B	C	M x ℓ	L_1	N	E	Greas nipple	
M 5C	6	12	17	8	–	M2 x 1.5	9.4	1.2	–	–	1
M 5N			20				12.4				
M 5N A				–	7	M2.6 x 1.5					
M 7C	8	17	19.8	12	–	M2 x 2.5	9.6	1.5	–	–	1.5
M 7N			24.3		8		14.1				
M 7L			31.8		13		21.6				
M 7L A					12						
M 9C	10	20	22.4	15	–	M3 x 3	11.8	2.2	–	–	2
M 9N			31.3		10		20.7				
M 9L			41.4		16		30.8				
M 9L A					15						
M 12C	13	27	26.4	20	–	M3 x 3.5	12.8	2.7	–	–	3
M 12N			34.9		15		21.3				
M 12L			45.4		20		31.8				
M 15C	16	32	34.4	25	–	M3 x 4	17.7	3.1	4	A–M3	4
M 15N			44.4		20		27.7				
M 15L			59.4		25		42.7				
M 20C	20	40	39.8	30	–	M4 x 6	22.2	4.2	4	A–M3	5
M 20N			51.8		25		34.2				
M 20L			69.8		30		52.2				

Composition of Model No.

*Bearing steel material of rails for the type of MT12 and MT15 are available.

HM12		N	UU	2	G_1	—	1000L	20/40	P	A	T	Z	—	2
1	2	3	4	5	6		7	8	9	10	11	12		13

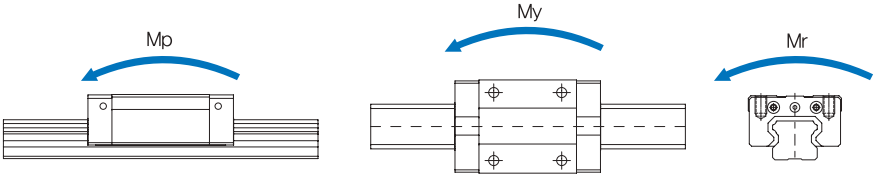
1. Model No. of Linear Motion Guide
2. Type of block : No symbol–Full-ball type
3. Form of block : C–Rectangular short type / N–Rectangular standard type / L–Rectangular long type
4. Type of seal : UU–End seal / UULF–End seal + LF seal (*1)
5. Number of blocks combined in 1 rail
6. Symbol of clearance : No symbol–Normal preload / G_1–Light preload (*2)
7. Length of rail
8. Size of G value : standard G value has no symbol.
9. Symbol of precision : No symbol–Moderate precision / H–High precision / P–Precision (*3)
10. No symbol–Rail counter bore type (A topside assembly) / A– Rail tap hole type (an underside assembly) (*4)
11. Connection symbol
12. Special symbol
13. Number of axis used on the same surface



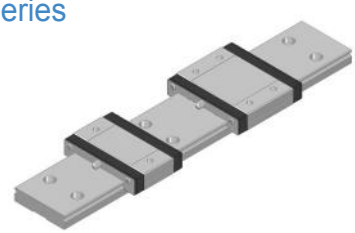
Unit : mm

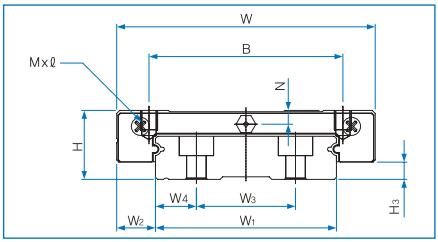
Dimensions of Rail						Basic load rating		Static allowance moment N·m					Mass	
Width W1	W2	Heigh H1	Value G	Pitch P	d1 x d2 x h	C N	Co N	Mp		My		Mr	Block g	Rail g/m
								1	2(contact)	1	2(contact)	1		
5 0 -0.02	3.5	3.7	5	15	2.4x3.6x0.8	516	757	1.3	7.1	1.3	7.1	2.01	3.1	139
						631	1,009	2.2	11.6	2.2	11.6	2.67	4.0	
7 0 -0.02	5	5	5	15	2.4x4.2x2.3	901	1,136	1.9	11.8	1.9	11.8	4.14	6.4	253
						1,197	1,703	4.2	23.1	4.2	23.1	6.22	9.0	
						1,631	2,650	10.1	50.0	10.1	50.0	9.67	12.6	
9 0 -0.02	5.5	6	7.5	20	3.5x6x3.5	1,180	1,485	3.1	17.9	3.1	17.9	6.90	9.9	391
						1,721	2,545	9.3	46.6	9.3	46.6	11.84	17.1	
						2,375	4,030	21.9	102.8	21.9	102.8	18.74	25.2	
12 0 -0.025	7.5	8	10	25	3.5x6.5x4.5	2,175	2,385	5.4	32.9	5.4	32.9	14.79	19.8	679
						3,023	3,816	14.4	75.8	14.4	75.8	23.66	31.5	
						4,246	6,200	34.8	169.1	34.8	169.1	38.44	45.9	
15 0 -0.025	8.5	10	15	40	3.5x6.5x4.5	3,418	3,895	12.2	71.6	12.2	71.6	29.99	37.8	1071
						4.540	5,842	28.6	148.7	28.6	148.7	44.99	57.6	
						6.492	9,737	73.5	351.2	73.5	351.2	74.98	85.5	
20 0 -0.03	10	11	20	60	6x9.5x5.5	4.512	5,299	20.7	115.9	20.7	115.9	54.05	80.1	1572
						6.191	8,328	50.2	252.7	50.2	252.7	84.94	119.7	
						8.396	12,870	118.6	554.4	118.6	554.4	131.27	176.4	

1N≒0.102kgf



HMB Series





Model No.	External dimensions			Dimensions of block							H_3
	Height H	Width W	Length L	B	C	M x ℓ	L_1	N	E	Grease nipple	
MB 5C	6.5	17	21	13	–	M2.5 x 1.5	13.4	1.4	–	–	1.3
MB 5N			25		–		17.4		–	–	
MB 7C	9	25	24	19	–	M3 x 3	12.6	1.7	–	–	2
MB 7N			33		10		21.6		–	–	
MB 7L			43.5		19		32.1		–	–	
MB 9C	12	30	28.1	21	–	M3 x 3	16.5	3.2	–	–	3
MB 9N			40.2		12		28.6		–	–	
MB 9L			52	23	24		40.4		–	–	
MB 12C	14	40	31.1	28	–	M3 x 3.5	17.5	3	–	–	4
MB 12N			44.5		15		30.9		–	–	
MB 12L			59.7		28		46.1		–	–	
MBT 13C	15	50	35.3	35	–	M4 x 4.5	18.7	3.1	3.5	A–M3	3
MBT 13N			49.2		18		32.6				
MBT 13L			68.6		35		52				
MB 15C	16	60	42.8	45	–	M4 x 4.5	25.2	3.5	4	A–M3	4
MB 15N			56.6		20		39				
MB 15L			75.8		35		58.2				

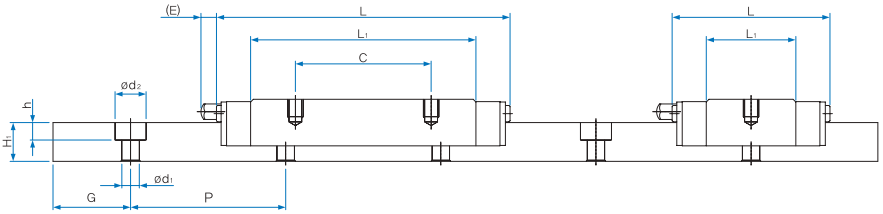
*Bearing steel material of rails for the type of MBT12 and MBT15 are available.

*MB13 is available only with bearing steel.

Composition of Model No.

HM12		N	UU	2	G_1	—	1000L	20/40	P	A	T	Z	—	2
1	2	3	4	5	6		7	8	9	10	11	12		13

1. Model No. of Linear Motion Guide
2. Type of block : No symbol–Full-ball type
3. Form of block : C–Rectangular short type / N–Rectangular standard type / L–Rectangular long type
4. Type of seal : UU–End seal / UULF–End seal + LF seal (*1)
5. Number of blocks combined in 1 rail
6. Symbol of clearance : No symbol–Normal preload / G_1–Light preload (*2)
7. Length of rail
8. Size of G value : standard G value has no symbol.
9. Symbol of precision : No symbol–Moderate precision / H–High precision / P–Precision (*3)
10. No symbol–Rail counter bore type (A topside assembly) / A– Rail tap hole type (an underside assembly) (*4)
11. Connection symbol
12. Special symbol
13. Number of axis used on the same surface



Unit : mm

Dimensions of Rail								Basic load rating		Static allowance moment N·m					Mass	
Width W1	W2	W3	W4	Heigh H1	Value G	Pitch P	d1 x d2 x h	C N	Co N	Mp 1	Mp 2(contact)	My 1	My 2(contact)	Mr 1	Block g	Rail g/m
10 $^{0}_{-0.025}$	3.5	–	–	4	5	20	2.9x4.8x1.6	668	1,094	2.6	13.3	2.6	13.3	5.63	5.3	299
								806	1,430	4.4	21.4	4.4	21.4	7.36	6.8	
14 $^{0}_{-0.05}$	5.5	–	–	5.5	10	30	3.5x6x3.2	1,102	1,514	3.4	19.5	3.4	19.5	10.83	11.7	560
								1,631	2,650	10.1	51.1	10.1	51.1	18.95	18.9	
								2,166	3,975	22.5	106.1	22.5	106.1	28.42	27.9	
18 $^{0}_{-0.05}$	6	–	–	7	10	30	3.5x6x4.5	1,515	2,121	6.2	33.4	6.2	33.4	19.41	23.4	912
								2,197	3,606	18.2	87.6	18.2	87.6	33.00	39.6	
								2,878	5,303	37.8	172.9	37.8	172.9	48.52	54.9	
24 $^{0}_{-0.05}$	8	–	–	8.5	15	40	4.5x8x4.5	2,753	3,339	10.3	57.3	10.3	57.3	40.73	40.5	1369
								4,015	5,723	31.2	152.2	31.2	152.2	69.83	68.4	
								5,539	9,062	73.8	338.7	73.8	338.7	110.56	99.9	
30 $^{0}_{-0.05}$	10	–	–	9	15	40	4.5x8x4.5	3,694	4,351	14.3	82.8	14.3	82.8	66.1	60.0	2086
								5,457	7,599	43.7	219.3	43.7	219.3	115.5	103.8	
								7,576	12,142	111.5	517.4	111.5	517.4	184.6	165.0	
42 $^{0}_{-0.05}$	9	23	9.5	9.5	15	40	4.5x8x4.5	4,954	6,056	26.9	145.3	26.9	145.3	128.40	85.5	2886
								6,579	9,085	62.5	306.5	62.5	306.5	192.60	126.0	
								9,076	14,384	147.8	680.6	147.8	680.6	304.94	183.6	

1N≒0.102kgf