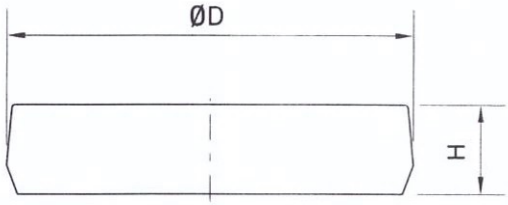
MG Series

Miniature Type



● **Bolt caps for rail mounting holes**

Rail mounting hole caps prevent foreign matter from accumulating in the mounting holes. Caps are included with the rail package.

Table 2-4-9 **Dimensions of Bolt Caps for Rail Mounting Holes**

Rail size	Bolt size	Diameter(D) (mm)	Thickness(H) (mm)
MGN12	M3	6.15	1.2
MGN15	M3	6.15	1.2
MGW12	M4	8.15	2.2
MGW14	M4	8.15	2.2
MGW15	M4	8.15	2.2

2-4-15 Mounting Surface Accuracy Tolerance

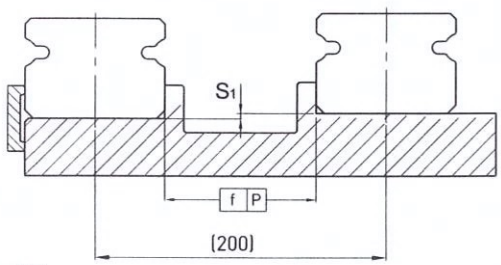


Table 2-4-10 **Max. Parallelism Tolerance (P)** unit: μm

Size	Preload classes			Size	Preload classes		
	ZF	Z0	Z1		ZF	Z0	Z1
MG2	2	2	2	MG9	4	4	3
MG3	2	2	2	MG12	9	9	5
MG5	2	2	2	MG14	10	10	6
MG7	3	3	3	MG15	10	10	6

Table 2-4-11 **Max. Tolerance of Reference Surface Height (S_1)** unit: μm

Size	Preload classes			Size	Preload classes		
	ZF	Z0	Z1		ZF	Z0	Z1
MG2	15	15	2	MG9	35	35	6
MG3	15	15	2	MG12	50	50	12
MG5	20	20	2	MG14	60	60	20
MG7	25	25	3	MG15	60	60	20

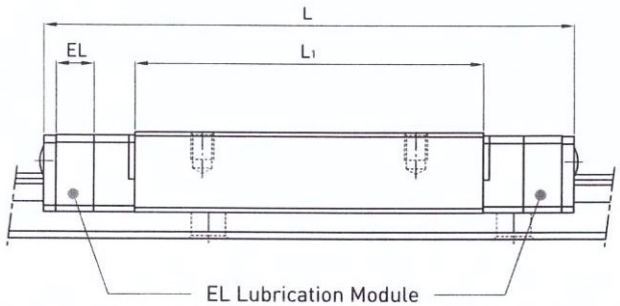
Table 2-4-12 **Permissible Error of Mounting Surface** unit: mm

Size	Flatness of the Mounting Surface	Size	Flatness of the Mounting Surface
MG2	0.012/200	MG9	0.035/200
MG3	0.012/200	MG12	0.050/200
MG5	0.015/200	MG14	0.060/200
MG7	0.025/200	MG15	0.060/200

Note: The values above are suitable for preload of ZF/Z0. For preload of Z1 or using two(or more) rails on the same plane, 50% or less of the values above are recommended.

MG Series
Miniature Type

(4) Dimension Table for EL Type



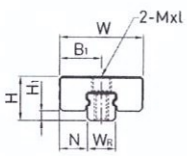
unit : mm

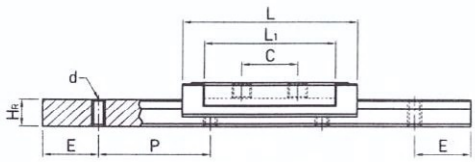
Model No.	Lubrication device (R_1)	Block length (L_1)	Total length (L)
MGN7C	3.5	13.5	29.5
MGN7H		21.8	37.8
MGN9C	5	18.9	38.9
MGN9H		29.9	49.9
MGN12C	5	21.7	44.7
MGN12H		32.4	55.4
MGW9C	5	27.5	49.3
MGW9H		38.5	60.7
MGW12C	5	31.3	56.1
MGW12H		45.6	70.4

2-4-19 Dimensions for MGN/MGW Series

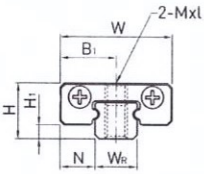
(1) MGN-C / MGN-H

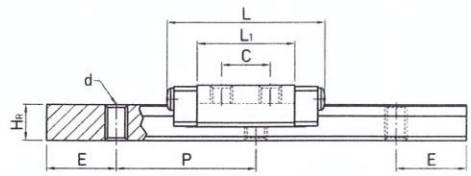
MGN2



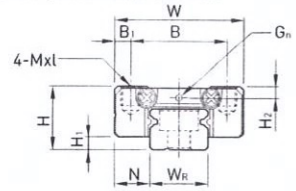


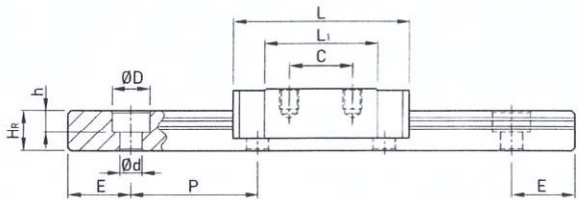
MGN3



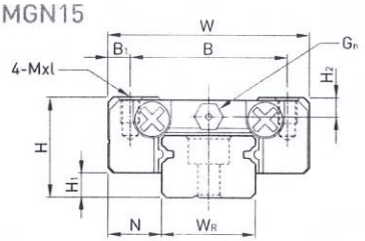


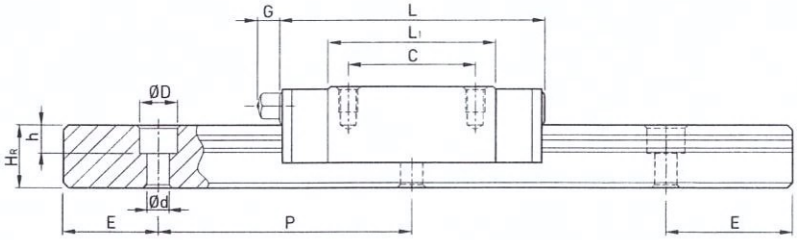
MGN7, MGN9, MGN12

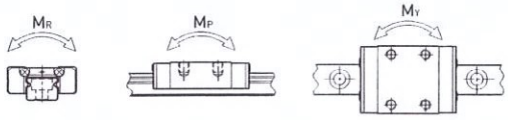




MGN15







Model No.	Dimensions of Assembly (mm)			Dimensions of Block (mm)											Dimensions of Rail (mm)					Mounting Bolt for Rail	Basic Dynamic Load Rating	Basic Static Load Rating	Static Rated Moment			Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	G	G_n	Mxl	H_2	W_R	H_R	D	h	d	P	E	(mm)	C(kN)	C_0(kN)	M_R N-m	M_P N-m	M_Y N-m	Block kg	Rail kg/m
MGN 2C	3.2	0.7	2	6	-	3	4	9.5	12.5	-	-	M1.4 THRU	-	2	2	M1 THRU			8	4	M1	0.22	0.4	0.42	0.63	0.63	0.001	0.03
MGN 3C	4	1	2.5	8	-	4	3.5	7	11.3	-	-	M1.6x1.3	-	3	2.6	M1.6 THRU			10	5	M1.6	0.29	0.44	0.7	0.5	0.5	0.001	0.05
MGN 3H							5.5	11	15.3			M2x1.3										0.39	0.68	1.0	1.3	1.3	0.002	
MGN 7C	8	1.5	5	17	12	2.5	8	13.5	22.5	-	Ø1.2	M2x2.5	1.5	7	4.8	4.2	2.3	2.4	15	5	M2x6	0.98	1.24	4.70	2.84	2.84	0.010	0.22
MGN 7H							13	21.8	30.8													1.37	1.96	7.64	4.80	4.80	0.015	
MGN 9C	10	2	5.5	20	15	2.5	10	18.9	28.9	-	Ø1.4	M3x3	1.8	9	6.5	6	3.5	3.5	20	7.5	M3x8	1.86	2.55	11.76	7.35	7.35	0.016	0.38
MGN 9H							16	29.9	39.9													2.55	4.02	19.60	18.62	18.62	0.026	
MGN 12C	13	3	7.5	27	20	3.5	15	21.7	34.7	-	Ø2	M3x3.5	2.5	12	8	6	4.5	3.5	25	10	M3x8	2.84	3.92	25.48	13.72	13.72	0.034	0.65
MGN 12H							20	32.4	45.4													3.72	5.88	38.22	36.26	36.26	0.054	
MGN 15C	16	4	8.5	32	25	3.5	20	26.7	42.1	4.5	M3	M3x4	3	15	10	6	4.5	3.5	40	15	M3x10	4.61	5.59	45.08	21.56	21.56	0.059	1.06
MGN 15H							25	43.4	58.8													6.37	9.11	73.50	57.82	57.82	0.092	

Note : 1. 1 kgf = 9.81N

2. MG2, MG3 blocks should not be removed from the rail. If removing the blocks is necessary, the blocks shoud be kept on the block inserts.