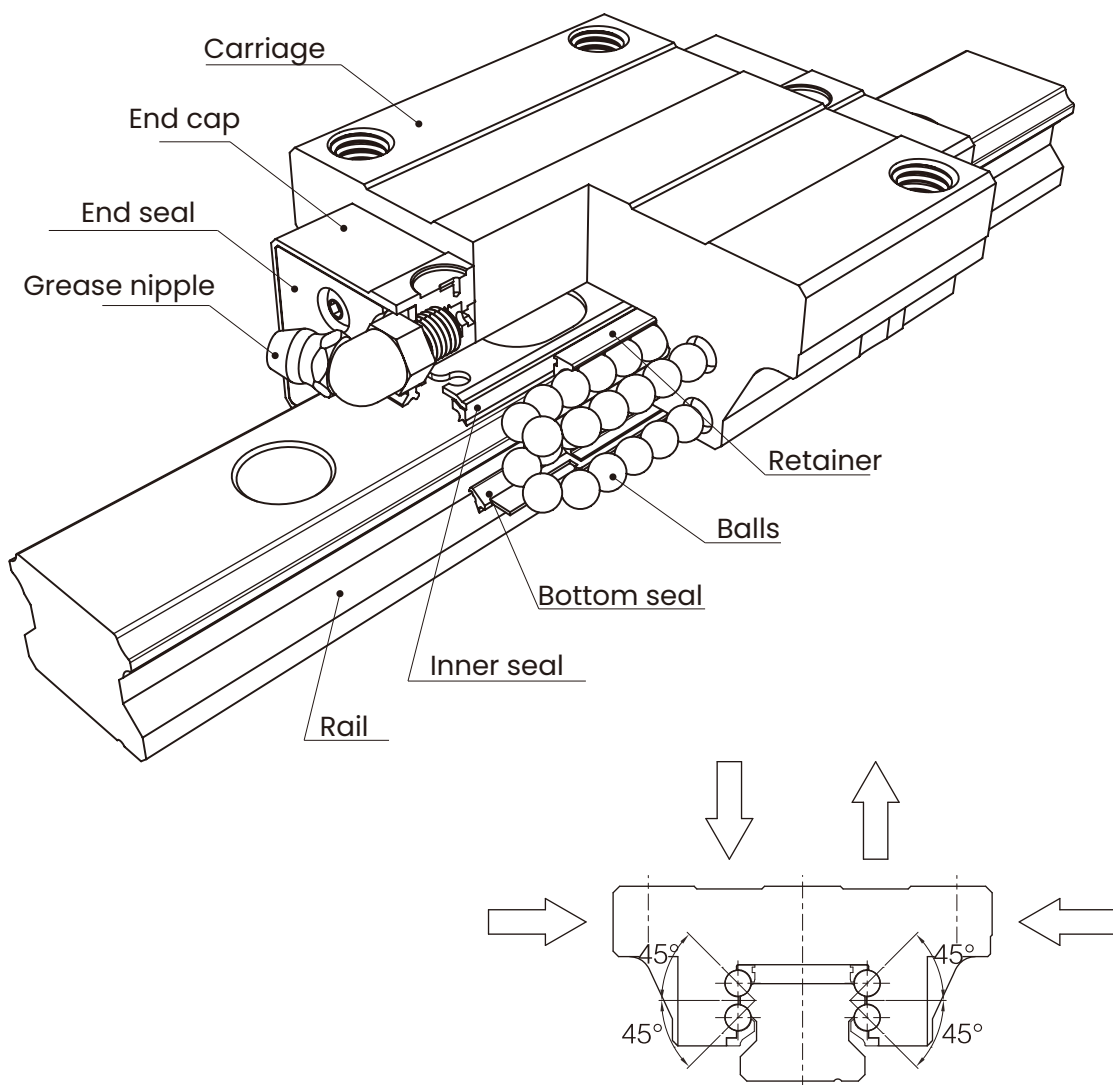


LMG series



Note : For reference only.

Characteristics

The four trains of balls are designed with a contact angle of 45° which enables it not only to bear load equally in radial, reversed radial and lateral directions but also can achieve high rigidity and high loading capacity. Therefore, it is suitable for all directional installation. Furthermore the unique self alignment function of LMG series can compensate the certain error while assembling, and which results in high precision and smooth motion.

- High rigidity
- Four-way equal load
- Self alignment capability
- Complete dust sealing system
- High positioning accuracy
- Smooth movement
- Low noise and high speed application
- Interchangeability
- Carriage common rail design
- International standard

Applications

- Machine Tool (CNC、Lathe ...)
- Industrial Robot
- Semiconductor Manufacturing Equipment
Other (Injection Molding Machine ...)

Specifications

(1) Non-Interchangeable type

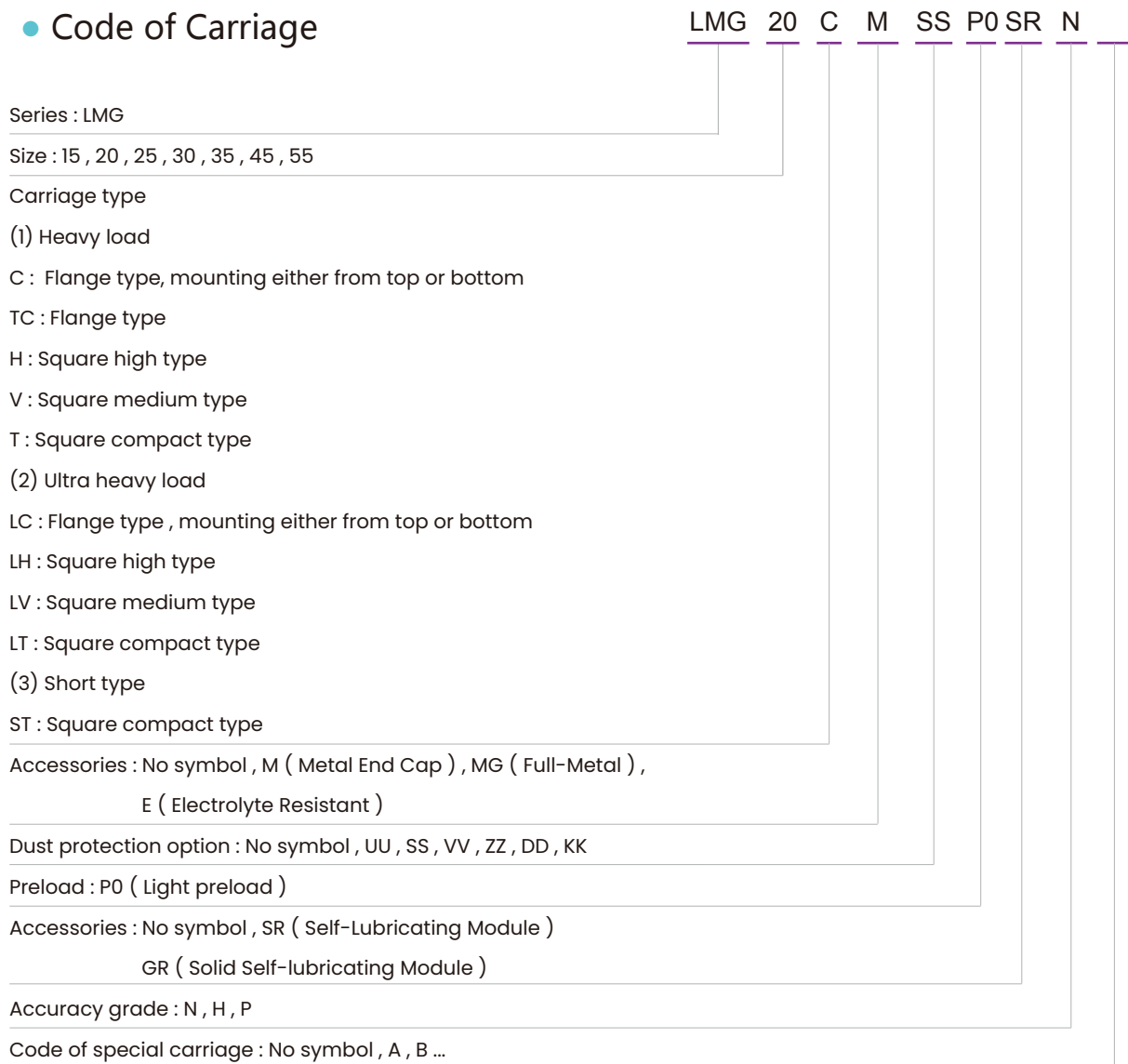
	LMG	20	C	M	2	SS	PI	SR	+R	1000-20/20	P	II
Series : LMG												
Size : 15 , 20 , 25 , 30 , 35 , 45 , 55												
Carriage type												
(1) Heavy load												
C : Flange type, mounting either from top or bottom												
TC : Flange type, mounting either from top or bottom												
H : Square high type												
V : Square medium type												
T : Square compact type												
(2) Ultra heavy load												
LC : Flange type, mounting either from top or bottom												
LH : Square high type												
LV : Square medium type												
LT : Square compact type												
(3) Medium load												
ST : Square compact type												
Accessories : No symbol, M (Metal End Cap), E (Electrolyte Resistant)												
Number of carriages per rail : 1 , 2 , 3 ...												
Dust protection option : No symbol , UU , SS , VV , ZZ , DD , KK												
Preload : P0 (Light preload) , P1 (Medium preload) , P2 (Heavy preload)												
Accessories : No symbol , SR (Self-Lubricating Module) , GR (Solid Self-lubricating Module)												
Code of special carriage : A , B ... (Standard rail is no symbol)												
Rail type : R , U* (Counter-bore type) , T (Tapped hole type)												
Rail length (mm)												
Rail hole pitch from start side (E1 , Refer to FigureA-23)												
Rail hole pitch to the end side (E2 , Refer to FigureA-23)												
Accuracy grade : N , H , P , SP , UP												
Code of special rail : A , B ... (Standard rail is no symbol)												
Number of rails per axis : No symbol , II , III , IV ...												

*U type rail is only applicable for LMG15 and LMG30, detail information please see the specification table for the corresponding model number.

Specifications

(2) Interchangeable type

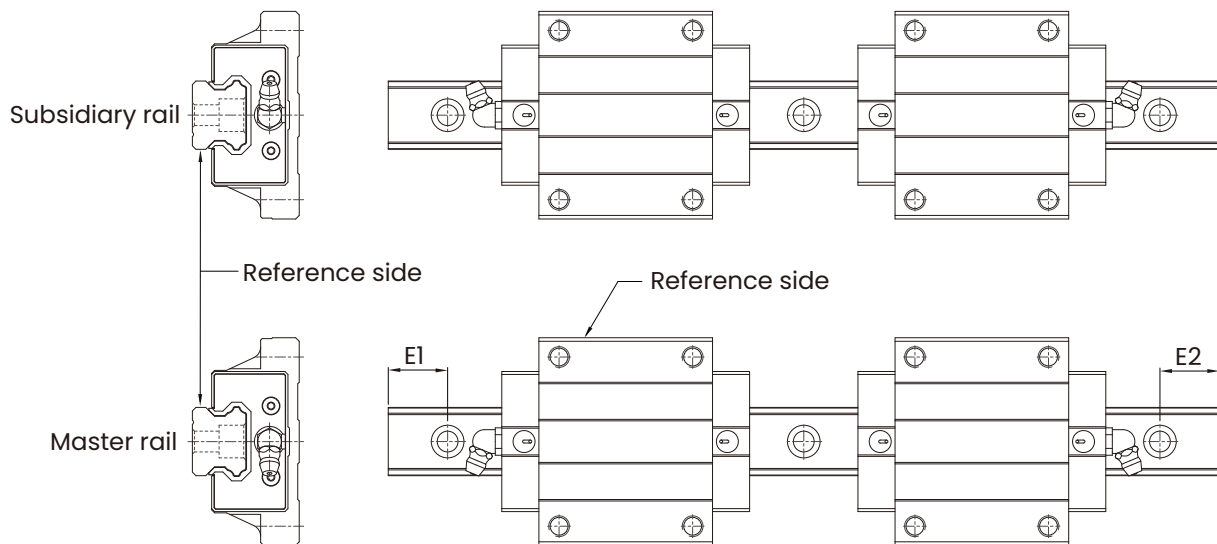
- Code of Carriage



● Code of Rail

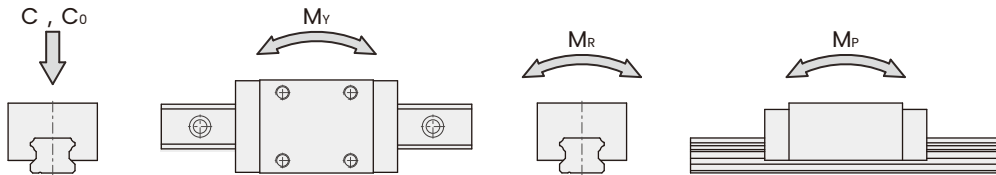
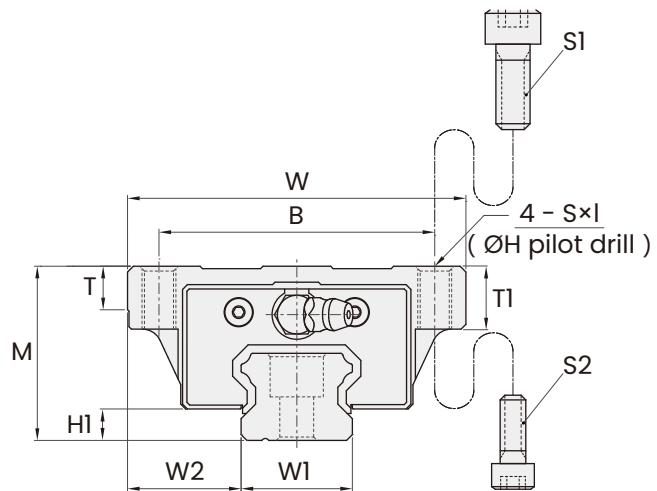
	LMG	20	R	1000	-20	/20	N
Series : LMG							
Size : 15 , 20 , 25 , 30 , 35 , 45 , 55							
Rail type : R , U* (Counter-bore type) , T (Tapped hole type)							
Rail length (mm)							
Rail hole pitch from start side (E1 , see Figure below)							
Rail hole pitch to the end side (E2 , see Figure below)							
Accuracy grade : N , H , P							
Code of special rail : No symbol , A , B ...							

*U type rail is only applicable for LMG15 and LMG30, detail information please see the specification table for the corresponding model number.



Dimensions of LMG...C / LC

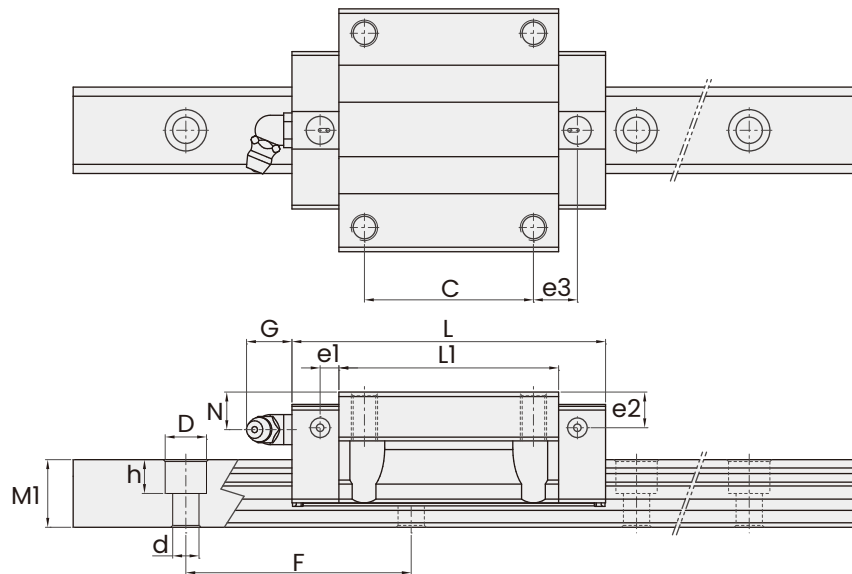
Model No.	Bolt Size		Pilot drill H
	S1	S2	
LMG15	M5	M4	4.4
LMG20	M6	M5	5.3
LMG25	M8	M6	6.9
LMG30	M10	M8	8.6
LMG35	M10	M8	8.6
LMG45	M12	M10	10.4
LMG55	M14	M12	12.5



Unit (mm)

Model No.	External dimension			Carriage dimension												
	Height	Width	Length	B	C	Mounting hole S×l	l1	T	T1	H1	N	e1	e2	e3	G	Grease nipple
	M	W	L													
LMG15 C	24	47	58.5	38	30	M5×8	39.5	5.5	8	4.5	5	3.3	4	8.6	5	M4×0.7
LMG20 C	30	63	75.2	53	40	M6×10	52.5	7	10	4.6	8.5	4.5	7	10.8	12	M6×0.75
LMG20 LC	30	63	87.6	53	40	M6×10	64.9	7	10	4.6	8.5	4.5	7	17	12	M6×0.75
LMG25 C	36	70	84	57	45	M8×13	58.8	9	13	6	10	5	9.5	11.8	12	M6×0.75
LMG25 LC	36	70	103	57	45	M8×13	77.8	9	13	6	10	5	9.5	21.3	12	M6×0.75
LMG30 C	42	90	98	72	52	M10×15	69.8	10	15	8	8	6	8	14	12	M6×0.75
LMG30 LC	42	90	120.2	72	52	M10×15	92	10	15	8	8	6	8	25.1	12	M6×0.75
LMG35 C	48	100	111.2	82	62	M10×15	80.2	10	15	9.5	8	7.5	8	15.6	12	M6×0.75
LMG35 LC	48	100	136.6	82	62	M10×15	105.6	10	15	9.5	8	7.5	8	28.3	12	M6×0.75
LMG45 C	60	120	138.2	100	80	M12×18	102.2	12	18	11	10	8.5	10	17.6	13.5	PT 1/8
LMG45 LC	60	120	169.9	100	80	M12×18	133.9	12	18	11	10	8.5	10	33.5	13.5	PT 1/8
LMG55 C	70	140	166	116	95	M14×25	126	15	25	13	12	9	10.5	33.5	13.5	PT 1/8
LMG55 LC	70	140	204	116	95	M14×25	164	15	25	13	12	9	10.5	42.5	13.5	PT 1/8

Dimensions of LMG...C / LC



Unit (mm)

Model No.	Rail dimension					Basic load rating		Static moment rating				Weight		
	Width	W2	Height	Pitch	Mounting bolt hole	Dynamic	Static	M _P (KN·m)		M _V (KN·m)		M _R KN·m	Carriage Kg	Rail Kg/m
	W1		M1	F	D×h×d	C KN	C ₀ KN	Single Carriage	Double Carriages	Single Carriage	Double Carriages			
LMG15 C	15	16	13	60	7.5×5.3×4.5*	11.1	16.2	0.11	0.61	0.11	0.61	0.13	0.19	1.29
LMG20 C	20	21.5	15	60	9.5×8.5×6	18.9	27.4	0.23	1.29	0.23	1.29	0.28	0.42	1.92
LMG20 LC	20	21.5	15	60	9.5×8.5×6	22.4	33.7	0.35	1.84	0.35	1.84	0.35	0.53	1.92
LMG25 C	23	23.5	18	60	11×9×7	26.4	36.4	0.35	1.94	0.35	1.94	0.43	0.62	2.67
LMG25 LC	23	23.5	18	60	11×9×7	32.3	48.6	0.60	3.09	0.60	3.09	0.57	0.81	2.67
LMG30 C	28	31	23	80	14×12×9*	37.5	49.6	0.58	3.13	0.58	3.13	0.72	1.10	4.48
LMG30 LC	28	31	23	80	14×12×9*	45.9	66.1	0.98	4.96	0.98	4.96	0.96	1.43	4.48
LMG35 C	34	33	26	80	14×12×9	49.9	64.8	0.88	4.80	0.88	4.80	1.14	1.50	6.24
LMG35 LC	34	33	26	80	14×12×9	61.1	86.3	1.48	7.39	1.48	7.39	1.52	1.94	6.24
LMG45 C	45	37.5	32	105	20×17×14	80.4	101.0	1.77	9.17	1.77	9.17	2.35	2.83	10.25
LMG45 LC	45	37.5	32	105	20×17×14	98.3	135.0	2.97	14.54	2.97	14.54	3.13	3.68	10.25
LMG55 C	53	43.5	44	120	23×20×16	118.0	156.0	3.23	16.27	3.23	16.27	4.34	6.35	15.08
LMG55 LC	53	43.5	44	120	23×20×16	147.0	206.0	5.33	25.61	5.33	25.61	5.68	7.67	15.08

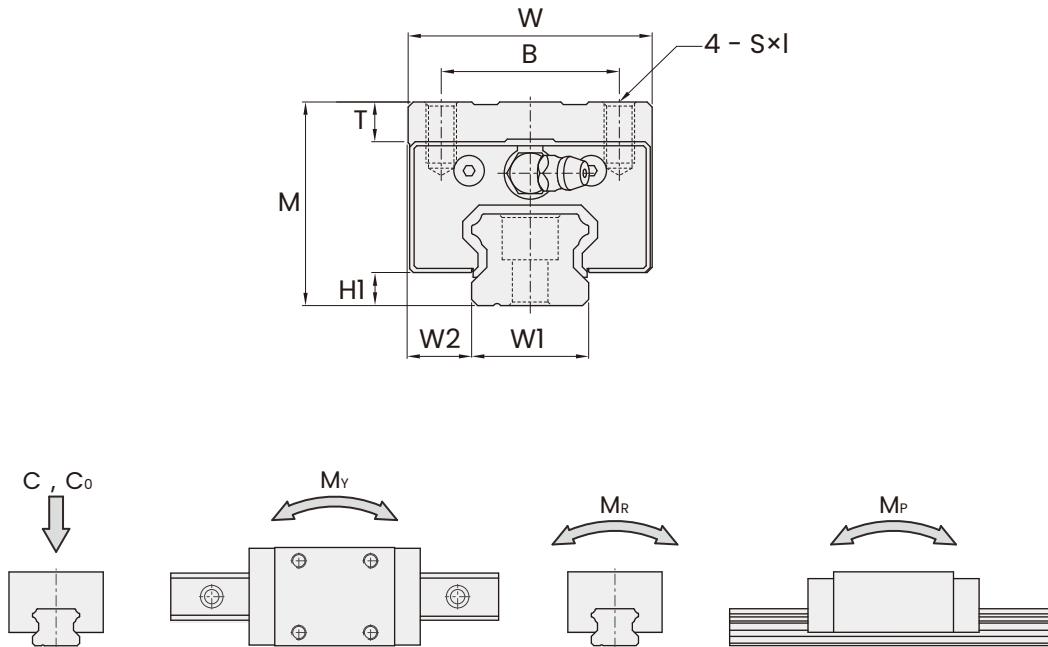
*1. Rail mounting holes for M3 bolt (6×4.5×3.5) and M4 bolt (7.5×5.3×4.5) are available for LMG15 rail.

The codes of rail type are LMG15R for M4 bolt, and LMG15U for M3 bolt.

2. Rail mounting holes for M6 bolt (11×9×7) and M8 bolt (14×12×9) are available for LMG30 rail.

The codes of rail type are LMG30R for M8 bolt, and LMG30U for M6 bolt.

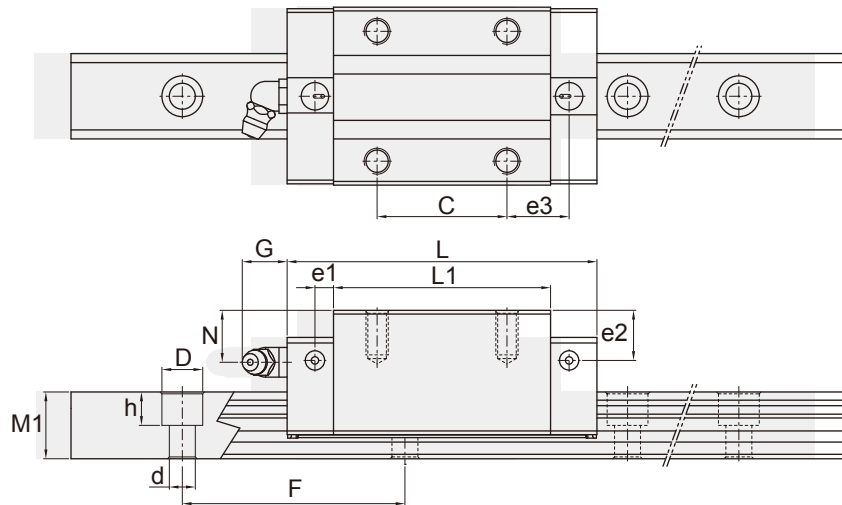
Dimensions of LMG...H / LH



Unit (mm)

Model No.	External dimension			Carriage dimension											
	Height	Width	Length	B	C	Mounting hole $S \times l$	L1	T	H1	N	e1	e2	e3	G	Grease nipple
	M	W	L												
LMG15 H	28	34	58.5	26	26	M4×7	39.5	6	4.5	9	3.3	8	10.6	5	M4×0.7
LMG15 LH	28	34	72.6	26	34	M4×7	53.6	6	4.5	9	3.3	8	13.7	5	M4×0.7
LMG20 H	30	44	75.2	32	36	M5×8	52.5	6	4.6	8.5	4.5	7	12.8	12	M6×0.75
LMG20 LH	30	44	87.6	32	50	M5×8	64.9	6	4.6	8.5	4.5	7	12	12	M6×0.75
LMG25 H	40	48	84	35	35	M6×12	58.8	8	6	14	5	13.5	16.8	12	M6×0.75
LMG25 LH	40	48	103	35	50	M6×12	77.8	8	6	14	5	13.5	18.8	12	M6×0.75
LMG30 H	45	60	98	40	40	M8×12	69.8	8	8	11	6	11	20	12	M6×0.75
LMG30 LH	45	60	120.2	40	60	M8×12	92	8	8	11	6	11	21.1	12	M6×0.75
LMG35 H	55	70	111.2	50	50	M8×14	80.2	11	9.5	15	7.5	15	21.6	12	M6×0.75
LMG35 LH	55	70	136.6	50	72	M8×14	105.6	11	9.5	15	7.5	15	23.3	12	M6×0.75
LMG45 H	70	86	138.2	60	60	M10×20	102.2	16	11	20	8.5	20	27.6	13.5	PT 1/8
LMG45 LH	70	86	169.9	60	80	M10×20	133.9	16	11	20	8.5	20	33.5	13.5	PT 1/8
LMG55 H	80	100	166	75	75	M12×18	126	17	13	22	9	20.5	33.5	13.5	PT 1/8
LMG55 LH	80	100	204	75	95	M12×18	164	17	13	22	9	20.5	42.5	13.5	PT 1/8

Dimensions of LMG...H / LH



Unit (mm)

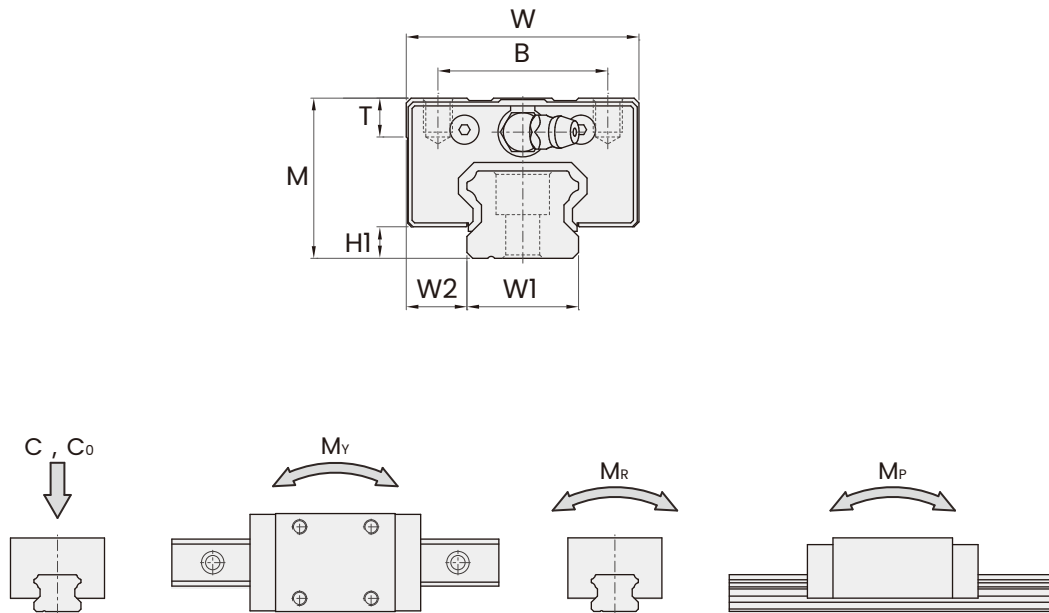
Model No.	Rail dimension					Basic load rating		Static moment rating				Weight		
	Width		Height	Pitch	Mounting bolt hole	Dynamic	Static	M _P (KN·m)		M _V (KN·m)		M _R KN·m	Carriage Kg	Rail Kg/m
	W1	W2	M1	F	D×h×d	C KN	C0 KN	Single Carriage	Double Carriages	Single Carriage	Double Carriages			
LMG15 H	15	9.5	13	60	7.5×5.3×4.5*	11.1	16.2	0.11	0.61	0.11	0.61	0.13	0.19	1.29
LMG15 LH	15	9.5	13	60	7.5×5.3×4.5*	13.9	21.6	0.19	1.00	0.19	1.00	0.17	0.27	1.29
LMG20 H	20	12	15	60	9.5×8.5×6	18.9	27.4	0.23	1.29	0.23	1.29	0.28	0.33	1.92
LMG20 LH	20	12	15	60	9.5×8.5×6	22.4	33.7	0.35	1.84	0.35	1.84	0.35	0.41	1.92
LMG25 H	23	12.5	18	60	11×9×7	26.4	36.4	0.35	1.94	0.35	1.94	0.43	0.55	2.67
LMG25 LH	23	12.5	18	60	11×9×7	32.3	48.6	0.60	3.09	0.60	3.09	0.57	0.72	2.67
LMG30 H	28	16	23	80	14×12×9*	37.5	49.6	0.58	3.13	0.58	3.13	0.72	0.87	4.48
LMG30 LH	28	16	23	80	14×12×9*	45.9	66.1	0.98	4.96	0.98	4.96	0.96	1.13	4.48
LMG35 H	34	18	26	80	14×12×9	49.9	64.8	0.88	4.80	0.88	4.80	1.14	1.44	6.24
LMG35 LH	34	18	26	80	14×12×9	61.1	86.3	1.48	7.39	1.48	7.39	1.52	1.88	6.24
LMG45 H	45	20.5	32	105	20×17×14	80.4	101.0	1.77	9.17	1.77	9.17	2.35	2.85	10.25
LMG45 LH	45	20.5	32	105	20×17×14	98.3	135.0	2.97	14.54	2.97	14.54	3.13	3.70	10.25
LMG55 H	53	23.5	44	120	23×20×16	118.0	156.0	3.23	16.27	3.23	16.27	4.34	6.18	15.08
LMG55 LH	53	23.5	44	120	23×20×16	147.0	206.0	5.33	25.61	5.33	25.61	5.68	7.45	15.08

*1.Rail mounting hloes for M3 bolt (6×4.5×3.5) and M4 bolt (7.5×5.3×4.5) are available for LMG15 rail.

The codes of rail type are LMG15R for M4 bolt, and LMG15U for M3 bolt.

2.Rail mounting hloes for M6 bolt (11×9×7) and M8 bolt (14×12×9) are available for LMG30 rail.

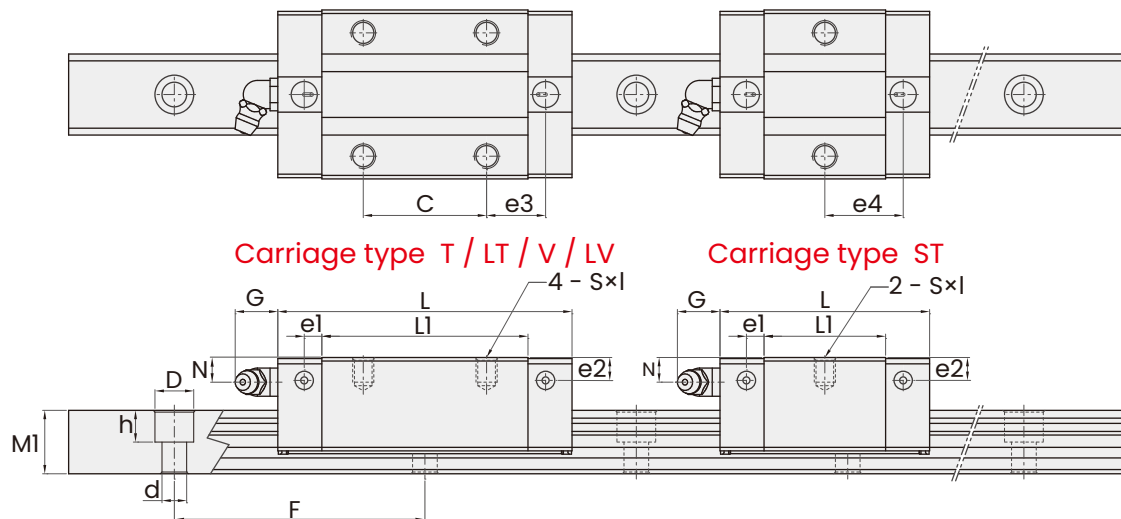
The codes of rail type are LMG30R for M8 bolt, and LMG30U for M6 bolt.

Dimensions of LMG...ST / T / LT / V / LV


Unit (mm)

Model No.	External dimension			Carriage dimension												
	Height	Width	Length	B	C	Mounting hole S×I	L1	T	H1	N	e1	e2	e3	e4	G	Grease nipple
	M	W	L													
LMG15 ST	24	34	41	26	-	M4×5	22	6	4.5	5	3.3	4	14.9	14.8	5	M4×0.7
LMG15 T	24	34	58.5	26	26	M4×5	39.5	6	4.5	5	3.3	4	10.6	-	5	M4×0.7
LMG15 LT	24	34	72.6	26	34	M4×5	53.6	6	4.5	5	3.3	4	13.7	-	5	M4×0.7
LMG20 ST	28	42	47.6	32	-	M5×6	24.9	6	4.6	6.5	4.5	5	-	17	12	M6×0.75
LMG20 T	28	42	75.2	32	32	M5×6	52.5	6	4.6	6.5	4.5	5	14.8	-	12	M6×0.75
LMG25 ST	33	48	59.9	35	-	M6×7	34.5	8	6	7	5	6.5	22.2	22.3	12	M6×0.75
LMG25 T	33	48	84	35	35	M6×7	58.8	8	6	7	5	6.5	16.8	-	12	M6×0.75
LMG25 V	36	48	84	35	35	M6×9	58.8	8	6	10	5	9.5	16.8	-	12	M6×0.75
LMG25 LV	36	48	103	35	50	M6×9	77.8	8	6	10	5	9.5	16.8	-	12	M6×0.75
LMG30 T	42	60	98	40	40	M8×10	69.8	8	8	8	6	8	20	-	12	M6×0.75
LMG30 LT	42	60	120.2	40	60	M8×10	92	8	8	8	6	8	21.1	-	12	M6×0.75
LMG35 T	48	70	111.2	50	50	M8×12	80.2	10	9.5	8	7.5	8	21.6	-	12	M6×0.75
LMG35 LT	48	70	136.6	50	72	M8×12	105.6	10	9.5	8	7.5	8	23.3	-	12	M6×0.75
LMG45 T	60	86	138.2	60	60	M10×17	102.2	16	11	10	8.5	10	27.6	-	13.5	PT 1/8
LMG45 LT	60	86	169.9	60	80	M10×17	133.9	16	11	10	8.5	10	33.5	-	13.5	PT 1/8
LMG55 T	70	100	166	75	75	M12×18	126	17	13	12	9	10.5	33.5	-	13.5	PT 1/8
LMG55 LT	70	100	204	75	95	M12×18	164	17	13	12	9	10.5	42.5	-	13.5	PT 1/8

Dimensions of LMG...ST / T / LT / V / LV



Unit (mm)

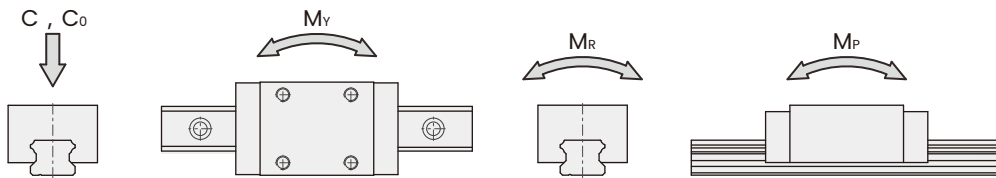
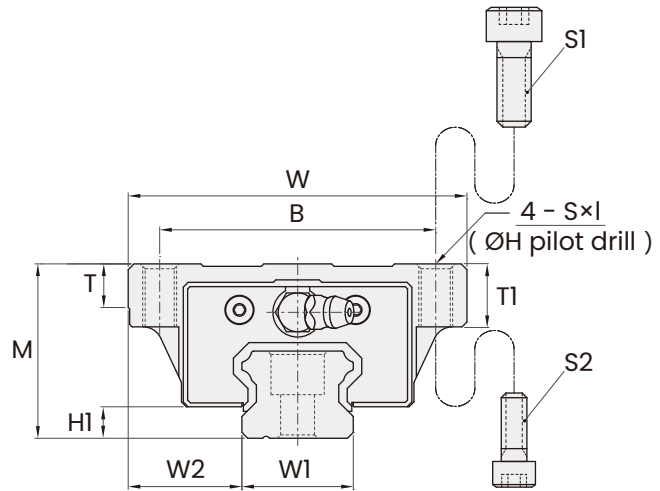
Model No.	Rail dimension					Basic load rating		Static moment rating				Weight		
	Width	Height	Pitch	Mounting bolt hole	Dynamic	Static	M _P (KN-m)		M _V (KN-m)		M _R KN-m	Carriage Kg	Rail Kg/m	
	W1						W2	M1	F	D×h×d				C KN
LMG15 ST	15	9.5	13	60	7.5×5.3×4.5*	6.7	8.1	0.04	0.25	0.04	0.25	0.06	0.09	1.29
LMG15 T	15	9.5	13	60	7.5×5.3×4.5*	11.1	16.2	0.11	0.61	0.11	0.61	0.13	0.15	1.29
LMG15 LT	15	9.5	13	60	7.5×5.3×4.5*	13.9	21.6	0.19	1.00	0.19	1.00	0.17	0.21	1.29
LMG20 ST	20	11	15	60	9.5×8.5×6	7.4	9.4	0.04	0.33	0.04	0.33	0.07	0.15	1.92
LMG20 T	20	11	15	60	9.5×8.5×6	18.9	27.4	0.23	1.29	0.23	1.29	0.28	0.28	1.92
LMG25 ST	23	12.5	18	60	11×9×7	13.1	16.9	0.11	0.71	0.11	0.71	0.18	0.26	2.67
LMG25 T	23	12.5	18	60	11×9×7	26.4	36.4	0.35	1.94	0.35	1.94	0.43	0.41	2.67
LMG25 V	23	12.5	18	60	11×9×7	26.4	36.4	0.35	1.94	0.35	1.94	0.43	0.47	2.67
LMG25 LV	23	12.5	18	60	11×9×7	32.3	48.6	0.60	3.09	0.60	3.09	0.57	0.61	2.67
LMG30 T	28	16	23	80	14×12×9*	37.5	49.6	0.58	3.13	0.58	3.13	0.72	0.79	4.48
LMG30 LT	28	16	23	80	14×12×9*	45.9	66.1	0.98	4.96	0.98	4.96	0.96	1.02	4.48
LMG35 T	34	18	26	80	14×12×9	49.9	64.8	0.88	4.80	0.88	4.80	1.14	1.14	6.24
LMG35 LT	34	18	26	80	14×12×9	61.1	86.3	1.48	7.39	1.48	7.39	1.52	1.47	6.24
LMG45 T	45	20.5	32	105	20×17×14	80.4	101.0	1.77	9.17	1.77	9.17	2.35	2.17	10.25
LMG45 LT	45	20.5	32	105	20×17×14	98.3	135.0	2.97	14.54	2.97	14.54	3.13	2.81	10.25
LMG55 T	53	23.5	44	120	23×20×16	118.0	156.0	3.23	16.27	3.23	16.27	4.34	5.20	15.08
LMG55 LT	53	23.5	44	120	23×20×16	147.0	206.0	5.33	25.61	5.33	25.61	5.68	6.17	15.08

*1.Rail mounting hoes for M3 bolt (6×4.5×3.5) and M4 bolt (7.5×5.3×4.5) are available for LMG15 rail.
The codes of rail type are LMG15R for M4 bolt, and LMG15U for M3 bolt.

2.Rail mounting hoes for M6 bolt (11×9×7) and M8 bolt (14×12×9) are available for LMG30 rail.
The codes of rail type are LMG30R for M8 bolt, and LMG30U for M6 bolt.

Dimensions of LMG...TC

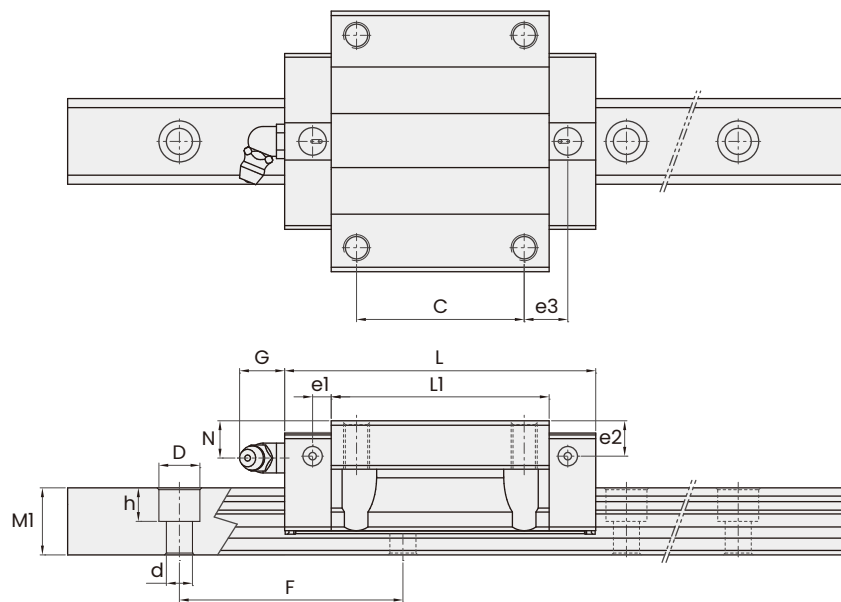
Model No.	Bolt Size		Pilot drill
	S1	S2	
LMG15	M5	M4	4.4
LMG20	M6	M5	5.3
LMG25	M8	M6	6.9
LMG30	M10	M8	8.6
LMG35	M10	M8	8.6



Unit (mm)

Model No.	External dimension			Carriage dimension												
	Height	Width	Length	B	C	Mounting hole SxI	L1	T	T1	H1	N	e1	e2	e3	G	Grease nipple
	M	W	L													
LMG15 TC	24	52	58.5	41	26	M5×7	39.5	5	7	4.5	5	3.3	4	10.6	5	M4×0.7
LMG20 TC	28	59	75.2	49	32	M6×9	52.5	5	9	4.6	6.5	4.5	5	14.8	12	M6×0.75
LMG25 TC	33	73	84	60	35	M8×10	58.8	6	10	6	7	5	6.5	16.8	12	M6×0.75
LMG30 TC	42	90	98	72	40	M10×15	69.8	12	15.2	8	8	6	8	20	12	M6×0.75
LMG35 TC	48	100	111.2	82	50	M10×15	80.2	10	15.3	9.5	8	7.5	8	21.6	12	M6×0.75

Dimensions of LMG...TC



Unit(mm)

Model No.	Width		Rail dimension			Basic load rating		Static moment rating				Weight		
	W1	W2	Height M1	Pitch F	Mounting bolt hole D×h×d	Dynamic C KN	Static C ₀ KN	M _P (KN·m)		M _V (KN·m)		M _R KN·m	Carriage Kg	Rail Kg/m
								Single Carriage	Double Carriages	Single Carriage	Double Carriages			
LMG15 TC	15	18.5	13	60	7.5×5.3×4.5*	11.1	16.2	0.11	0.61	0.11	0.61	0.13	0.20	1.29
LMG20 TC	20	19.5	15	60	9.5×8.5×6	18.9	27.4	0.23	1.29	0.23	1.29	0.28	0.36	1.92
LMG25 TC	23	25	18	60	11×9×7	26.4	36.4	0.35	1.94	0.35	1.94	0.43	0.58	2.67
LMG30 TC	28	31	23	80	14×12×9*	37.5	49.6	0.58	3.13	0.58	3.13	0.72	1.10	4.48
LMG35 TC	34	33	26	80	14×12×9	49.9	64.8	0.88	4.80	0.88	4.80	1.14	1.50	6.24

*1.Rail mounting hloes for M3 bolt (6×4.5×3.5) and M4 bolt (7.5×5.3×4.5) are available for LMG15 rail.

The codes of rail type are LMG15R for M4 bolt, and LMG15U for M3 bolt.

2.Rail mounting hloes for M6 bolt (11×9×7) and M8 bolt (14×12×9) are available for LMG30 rail.

The codes of rail type are LMG30R for M8 bolt, and LMG30U for M6 bolt.