

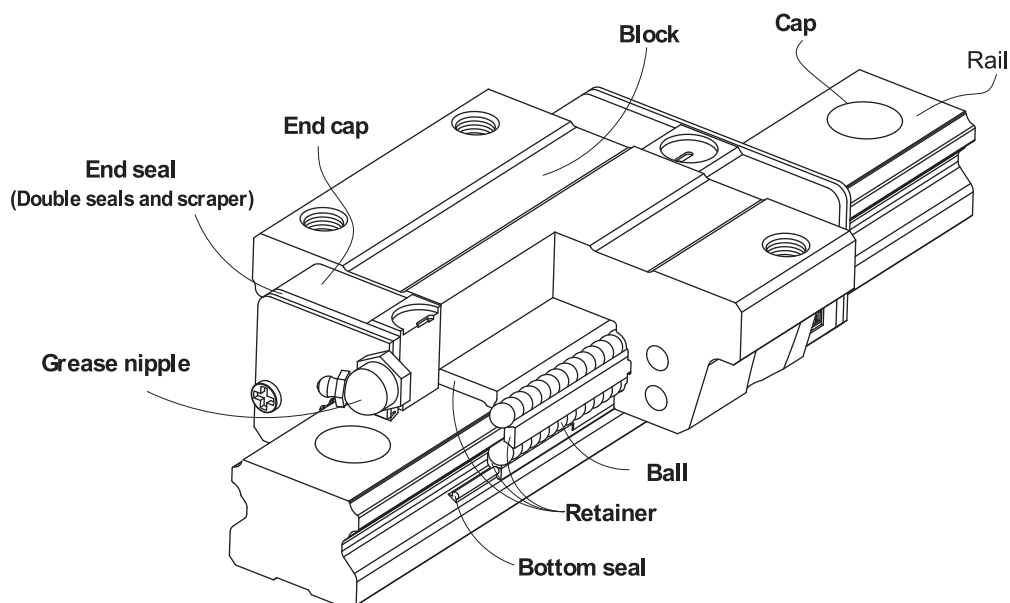
2-2 EG Series - Low Profile Ball Type Linear Guideway

2-2-1 Features of the EG Series Linear Guideway

The design of the EG series offers a low profile, high load capacity, and high rigidity. It also features an equal load rating in all four directions and self-aligning capability to absorb installation-error, allowing for higher accuracies. Additionally, the lower assembly height and the shorter length make the EG series more suitable for high-speed, automation machines and applications where space is limited.

The retainer is designed to hold the balls in the block even when it is removed from the rail.

2-2-2 Construction of EG Series



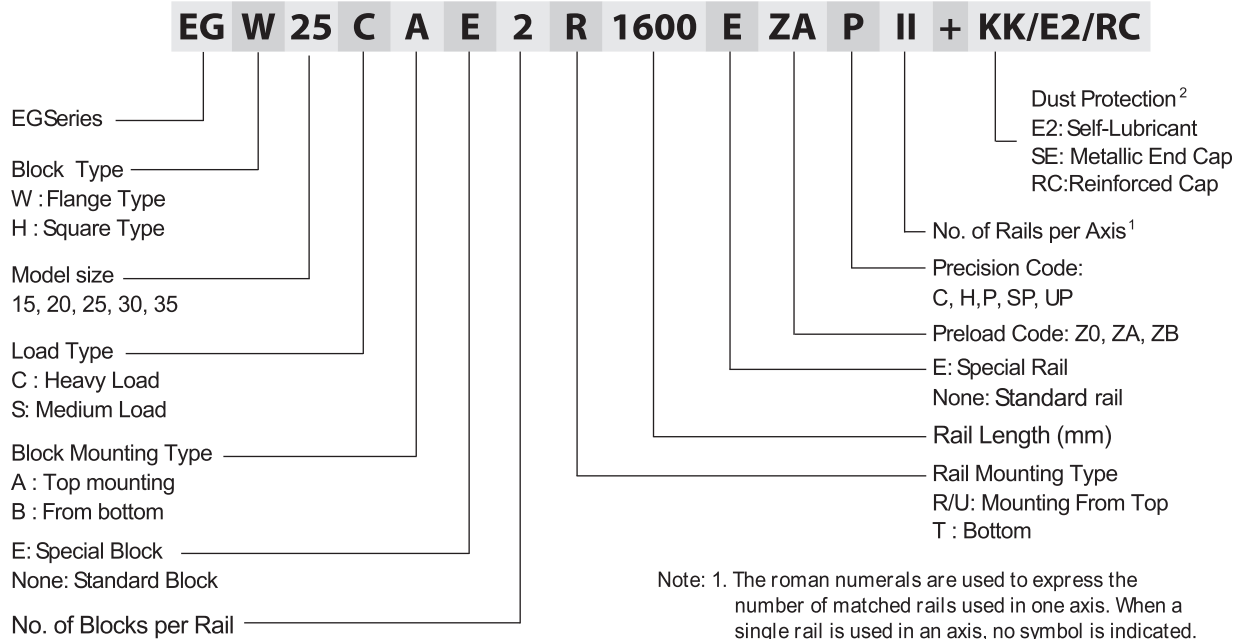
- Rolling circulation system: Block, rail, end cap and retainer
- Lubrication system: Grease nipple and piping Joint
- Dust protection system: End seal, bottom seal, cap and scraper

2-2-3 Model Number of EG Series

EG series linear guideways are classified into non-interchangeable and interchangeable types. The sizes of these two types are the same as one another. The main difference is that the interchangeable type of blocks and rails can be freely exchanged and they can maintain P-class accuracy. Because of strict dimensional control, the interchangeable type linear guideways are a wise choice for customers when rails do not need to be matched for an axis. The model number of the EG series identifies the size, type, accuracy class, preload class, etc.

EG Series

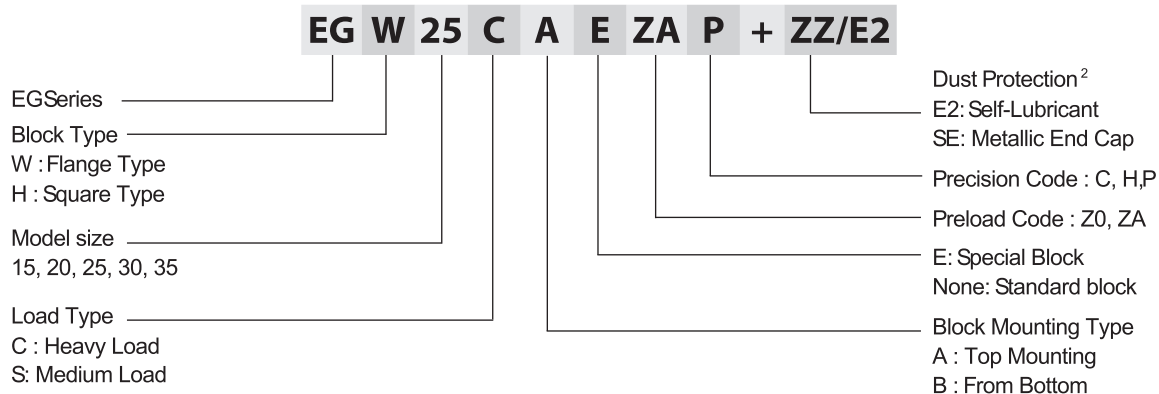
(1) Non-interchangeable type



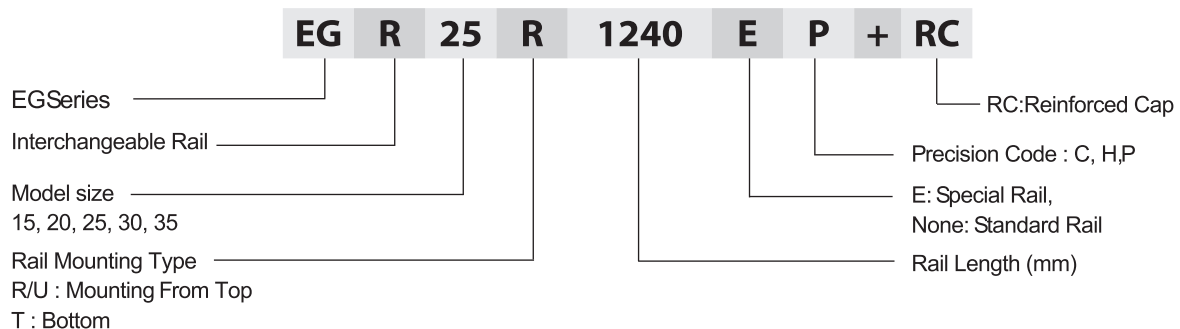
Note: 1. The roman numerals are used to express the number of matched rails used in one axis. When a single rail is used in an axis, no symbol is indicated.
2. No symbol indicates standard protection (end seal and bottom seal).
ZZ : End seal, bottom seal and scraper
KK: Double seals, bottom seal and scraper.
DD: Double seals and bottom seal

(2) Interchangeable type

○ Model Number of EG Block



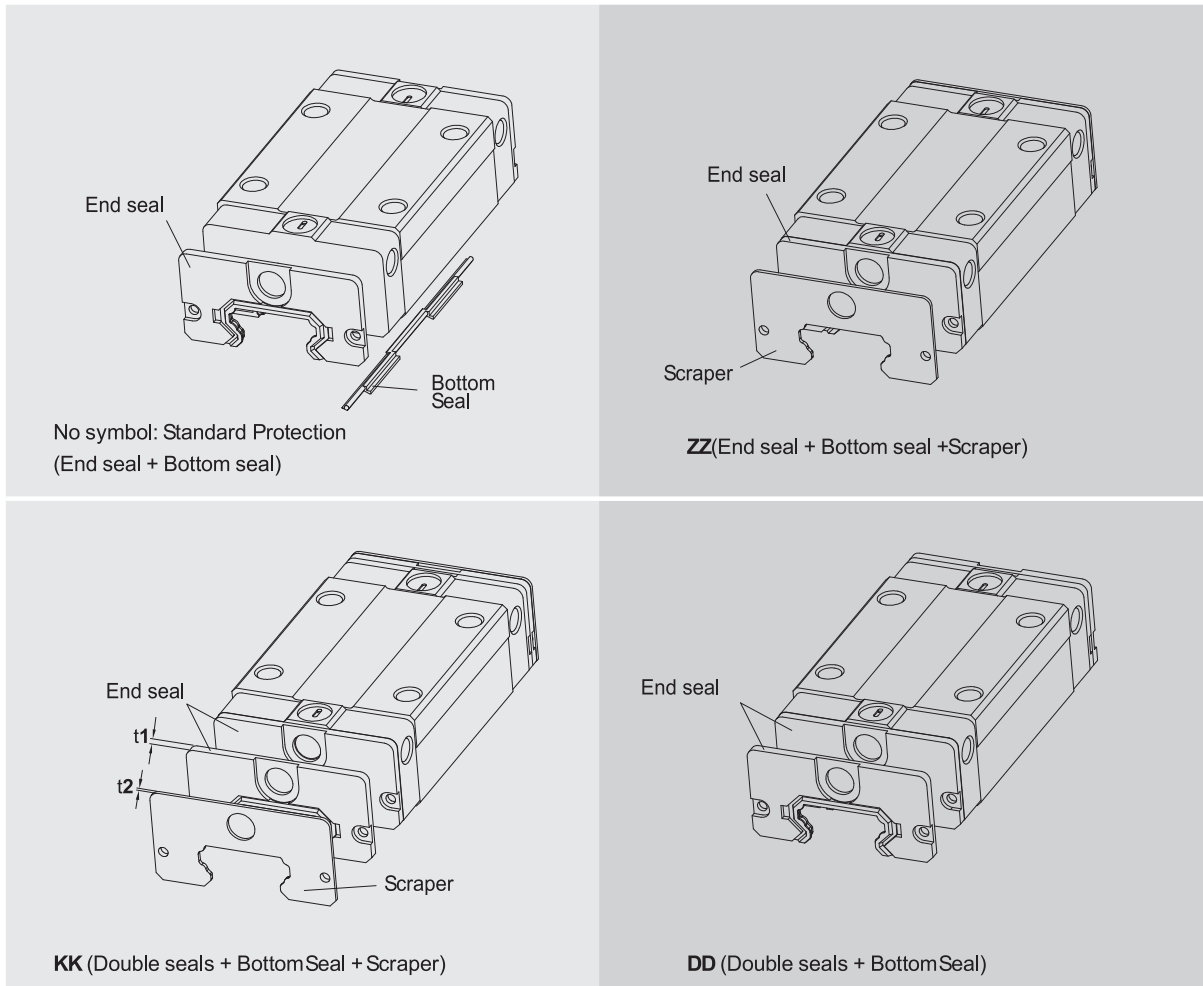
○ Model Number of EG Rail



2-2-8 Dust Protection Equipment

(1) Codes of equipment

If the following equipment is needed, please indicate the code followed by the model number.



(2) End seal and bottom seal

Protects against contaminants entering the block. Reduces potential for groove damage resulting in a reduction of life ratings.

(3) Double seals

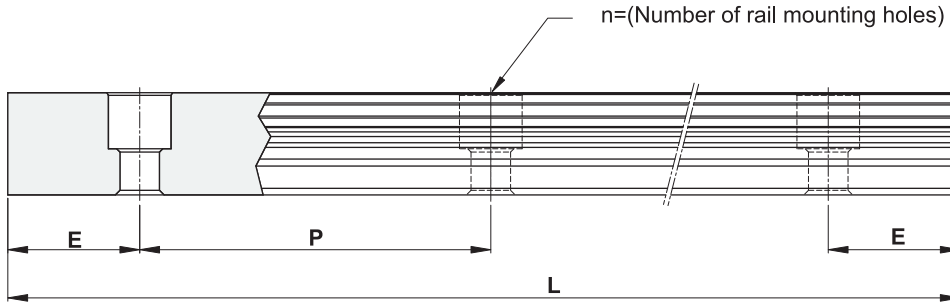
Removes foreign matter from the rail preventing contaminants from entering the block.

Table 2-2-12 Dimensions of end seal

Size	Thickness (t1) (mm)
EG15	2
EG20	2
EG25	2
EG30	2
EG35	2

2-2-12 Standard and Maximum Lengths of Rail

HIWIN offers a number of standard rail lengths. Standard rail lengths feature end mounting hole placements set to predetermined values (E). For non-standard rail lengths, be sure to specify the E-value to be no greater than 1/2 the pitch (P) dimension. An E-value greater than this will result in unstable rail ends.



$$L = (n-1) \times P + 2 \times E \quad \dots \dots \dots \text{Eq.2.2}$$

- L : Total length of rail (mm)
- n : Number of mounting holes
- P : Distance between any two holes (mm)
- E : Distance from the center of the last hole to the edge (mm)

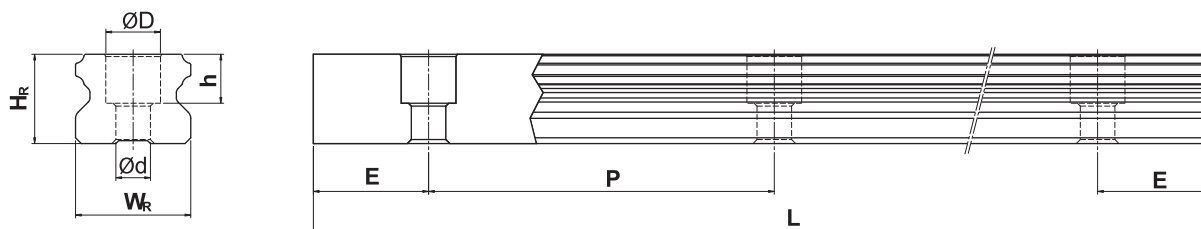
Table 2-2-20 Rail Standard Length and Max. Length

unit: mm

Item	EGR15	EGR20	EGR25	EGR30	EGR35
Standard Length L(n)	160 (3)	220 (4)	220 (4)	280 (4)	280 (4)
	220 (4)	280 (5)	280 (5)	440 (6)	440 (6)
	280 (5)	340 (6)	340 (6)	600 (8)	600 (8)
	340 (6)	460 (8)	460 (8)	760 (10)	760 (10)
	460 (8)	640 (11)	640 (11)	1,000 (13)	1,000 (13)
	640 (11)	820 (14)	820 (14)	1,640 (21)	1,640 (21)
	820 (14)	1,000 (17)	1,000 (17)	2,040 (26)	2,040 (26)
		1,240 (21)	1,240 (21)	2,520 (32)	2,520 (32)
	1,600 (27)	1,600 (27)	3,000 (38)	3,000 (38)	
Pitch (P)	60	60	60	80	80
Distance to End (E _s)	20	20	20	20	20
Max. Standard Length	1960 (33)	4,000 (67)	4,000 (67)	3,960 (50)	3,960 (50)
Max. Length	2000	4,000	4,000	4,000	4,000

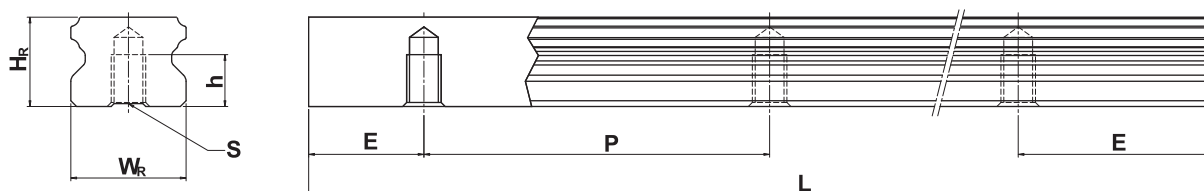
- Note :
1. Tolerance of E value for standard rail is 0.5~0.5 mm. Tolerance of E value for jointed rail is 0~0.3 mm.
 2. Maximum standard length means the max. rail length with standard E value on both sides.
 3. If different E value is needed, please contact HIWIN.

Dimensions for EGR-U (large mounting hole, rail mounting from top)



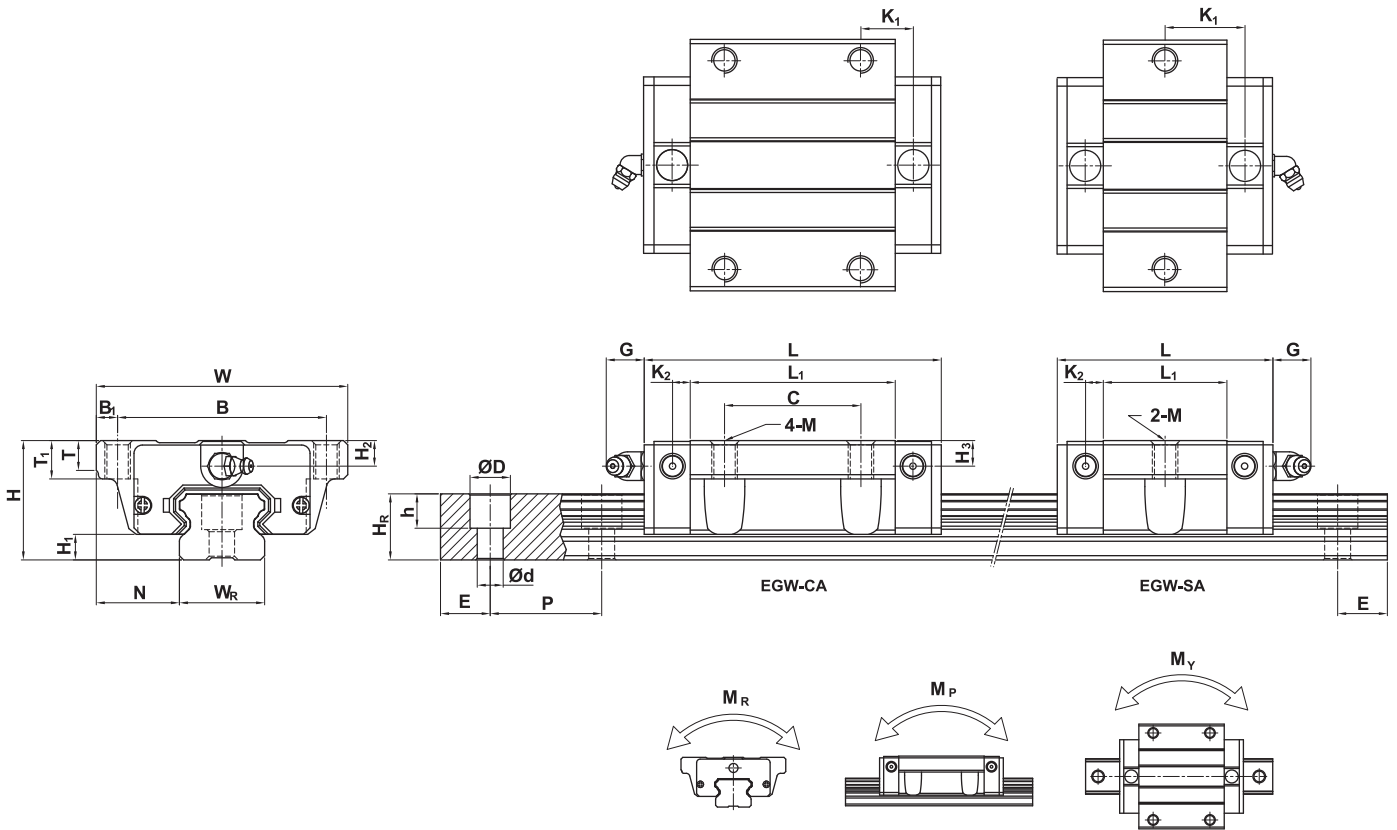
Model No.	Mounting Bolt for Rail(mm)	Dimensions of Rail (mm)							Weight (kg/m)
		W_R	H_R	D	h	d	P	E	
EGR15U	M4x16	15	12.5	7.5	5.3	4.5	60	20	1.23
EGR30U	M8x25	28	23	14	12	9	80	20	4.23

Dimensions for EGR-T (rail mounting from bottom)



Model No.	Dimensions of Rail (mm)						Weight (kg/m)
	W_R	H_R	S	h	P	E	
EGR15T	15	12.5	M5 x 0.8P	7	60	20	1.26
EGR20T	20	15.5	M6 x 1P	9	60	20	2.15
EGR25T	23	18	M6 x 1P	10	60	20	2.79
EGR30T	28	23	M8 x 1.25P	14	80	20	4.42
EGR35T	34	27.5	M8 x 1.25P	17	80	20	6.34

(2) EGW-SA / EGW-CA



Model No.	Dimensions of Assembly (mm)			Dimensions of Block (mm)											Dimensions of Rail (mm)					Mounting Bolt for Rail (mm)	Basic Dynamic Load Rating C(kN)	Basic Static Load Rating C ₀ (kN)	Static Rated Moment			Weight										
	H	H ₁	N	W	B	B ₁	C	L ₁	L	K ₁	K ₂	G	M	T	T ₁	H ₂	H ₃	W _R	H _R				D	h	d	P	E	M _R (kN-m)	M _P (kN-m)	M _Y (kN-m)	Block (kg)	Rail (kg/m)				
EGW 15SA	24	4.5	18.5	52	41	5.5	-	23.1	40.1	14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.35	9.40	0.08	0.04	0.04	0.12	1.25
EGW 15CA								26	39.8	56.8	10.15																		7.83	16.19	0.13	0.10	0.10	0.21		
EGW 20SA	28	6	19.5	59	49	5	-	29	50	18.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.23	12.74	0.13	0.06	0.06	0.19	2.08	
EGW 20CA								32	48.1	69.1	12.3																		10.31	21.13	0.22	0.16	0.16	0.32		
EGW 25SA	33	7	25	73	60	6.5	-	35.5	59.1	21.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.40	19.50	0.23	0.12	0.12	0.35	2.67	
EGW 25CA								35	59	82.6	16.15																		16.27	32.40	0.38	0.32	0.32	0.59		
EGW 30SA	42	10	31	90	72	9	-	41.5	69.5	26.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.42	28.10	0.40	0.21	0.21	0.62	4.35	
EGW 30CA								40	70.1	98.1	21.05																		23.70	47.46	0.68	0.55	0.55	1.04		
EGW 35SA	48	11	33	100	82	9	-	45	75	28.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.66	37.38	0.56	0.31	0.31	0.84	6.14	
EGW 35CA								50	78	108	20																		33.35	64.84	0.98	0.69	0.69	1.45		

Note : 1 kgf = 9.81 N

