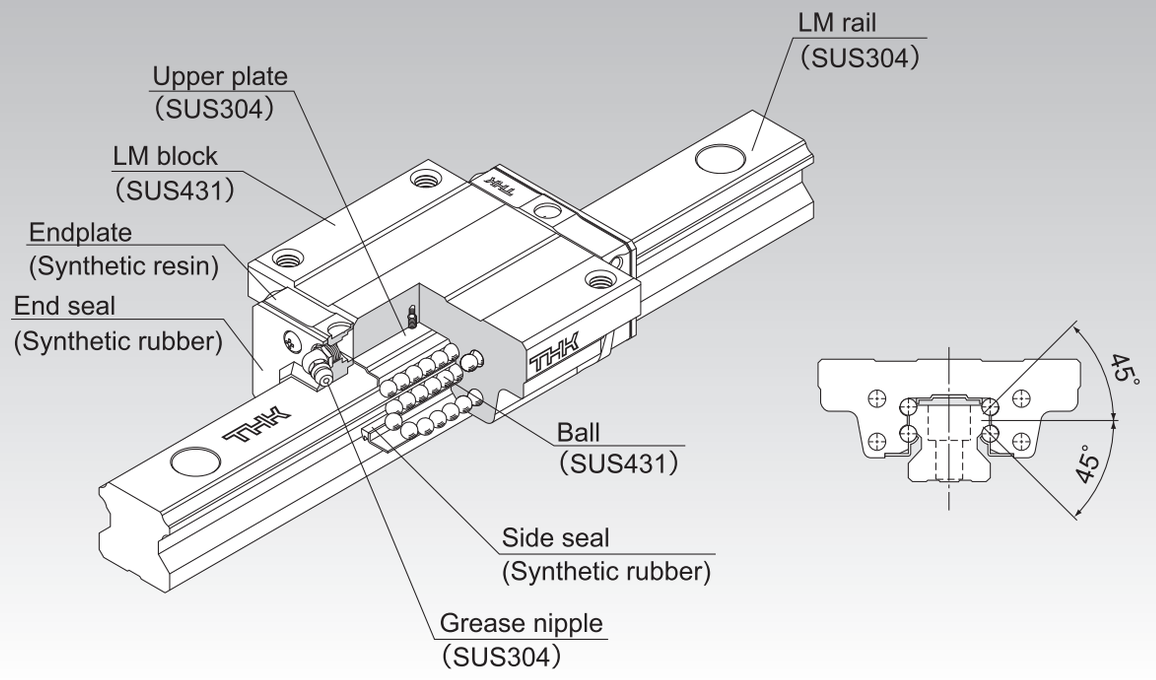
HSR-M2

LM Guide High Corrosion Resistance Type Model HSR-M2



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Structure and Features

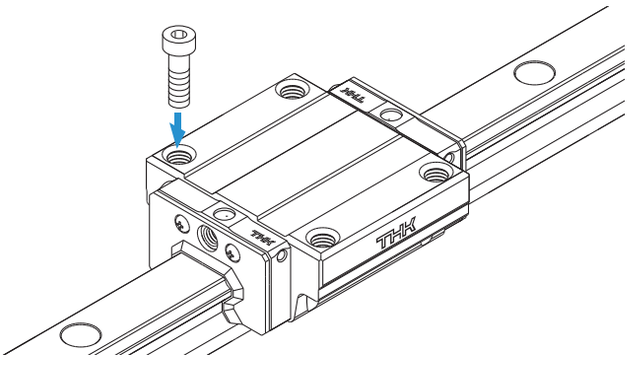
Balls roll in four rows of raceways precision-ground on an LM rail and an LM block, and endplates incorporated in the LM block allow the balls to circulate.
Each row of balls is placed at a contact angle of 45° so that the rated loads applied to the LM block are uniform in the four directions (radial, reverse radial and lateral directions), enabling the LM Guide to be used in all orientations.
The LM rail, LM block and balls are made of highly corrosion resistant stainless steel and the other metal parts are made of stainless steel, allowing superb corrosion resistance to be achieved. As a result, the need for surface treatment is eliminated.

Types and Features

Model HSR-M2A

Specification Table⇒A1-402

The flange of its LM block has tapped holes.



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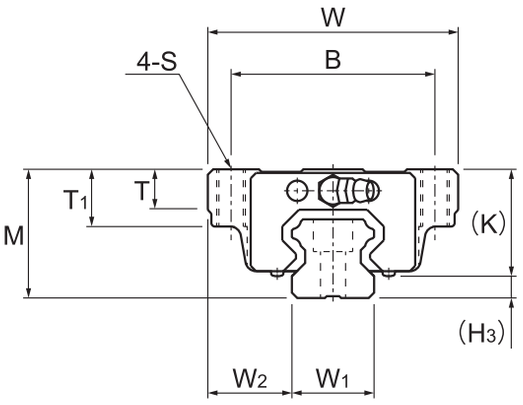
Model HSR-M2A



Model No.	Outer dimensions			LM block dimensions										H_3
	Height M	Width W	Length L	B	C	S	L_1	T	T_1	K	N	E	Grease nipple	
HSR 15M2A	24	47	56.6	38	30	M5	38.8	6.5	11	19.3	4.3	5.5	PB1021B	4.7
HSR 20M2A	30	63	74	53	40	M6	50.8	9.5	10	26	5	12	B-M6F	4
HSR 25M2A	36	70	83.1	57	45	M8	59.5	11	16	30.5	6	12	B-M6F	5.5

Note) For the high corrosion resistance type LM Guide, a stainless steel end plate is optionally available. (symbol···I)

Model number coding

HSR20M2 A 2 UU C1 I +820L P T -II

- HSR20M2: Model number (high corrosion resistance type LM Guide)
- A: Type of LM block
- 2: No. of LM blocks used on the same rail
- UU: Contamination protection accessory symbol (*1)
- C1: Radial clearance symbol (*2) Normal (No symbol) Light preload (C1)
- I: End plate is made of stainless steel
- +820L: LM rail length (in mm)
- P: Accuracy symbol (*3) Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)/Super precision grade (SP) Ultra precision grade (UP)
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane (*4)

(*1) See contamination protection accessory on **A1-524**. (*2) See **A1-74**. (*3) See **A1-78**. (*4) See **A1-13**.

Note) This model number indicates that a single-rail unit constitutes one set. (i.e., required number of sets when 2 rails are used in parallel is 2 at a minimum.)

Download data by searching for the corresponding model number on the Technical Support site. https://tech.thk.com

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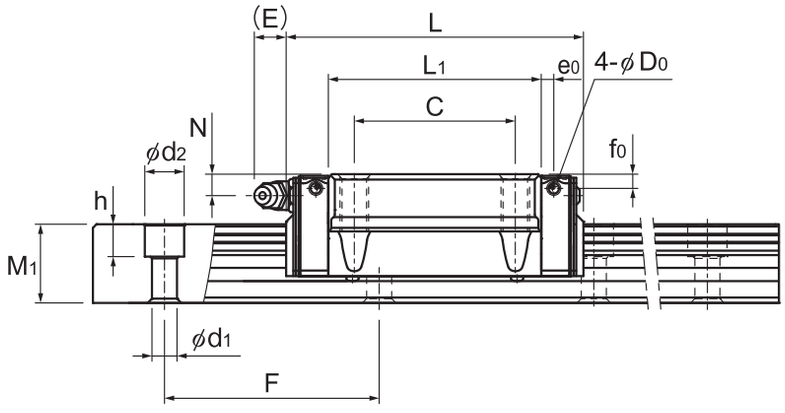

Unit: mm

	LM rail dimensions						Basic load rating		Static permissible moment N·m*					Mass	
	Width		Height	Pitch		Length*	C	C_0	M_A		M_B		M_C	LM block	LM rail
	W_1 ±0.05	W_2	M_1	F	$d_1 \times d_2 \times h$	Max	kN	kN	1 block	Double blocks	1 block	Double blocks	1 block	kg	kg/m
	15	16	15	60	4.5×7.5×5.3	1000	2.11	2.04	12.1	68.6	12.1	68.6	12.7	0.2	1.5
	20	21.5	18	60	6×9.5×8.5	1000	3.89	3.57	28.5	156	28.5	156	30.2	0.35	2.3
	23	23.5	22	60	7×11×9	1000	5.57	5.15	46.1	256.5	46.1	256.5	51.6	0.59	3.3

Note) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-404**.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS.
The basic load rating of the high corrosion resistance type LM Guide is smaller than ordinary stainless steel LM Guides. Please take care.

Options⇒A1-485

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Standard Length and Maximum Length of the LM Rail

Table1 shows the standard lengths and the maximum lengths of model HSR-M2 variations. If the maximum length of the desired LM rail exceeds them, jointed rails will be used. Contact THK for details.
For special rail lengths, it is recommended to use a value corresponding to the G,g dimension from the table. As the G,g dimension increases, this portion becomes less stable, and the accuracy performance is severely impacted.

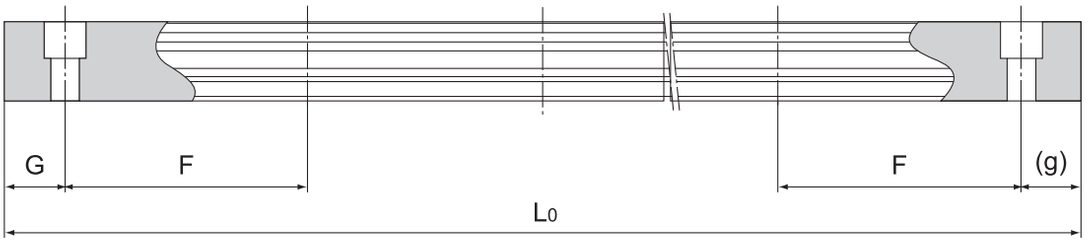

Table1 Standard Length and Maximum Length of the LM Rail for Model HSR-M2 Unit: mm

Model No.	HSR 15M2	HSR 20M2	HSR 25M2
LM rail standard length (L_0)	160 280 460 640	280 460 640 820	280 460 640 820 1000
Standard pitch F	60	60	60
G,g	20	20	20
Max length	1000	1000	1000

Note1) The maximum length varies with accuracy grades. Contact THK for details.
Note2) If jointed rails are not allowed and a greater length than the maximum values above is required, contact THK.

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