

# HRW

## LM Guide

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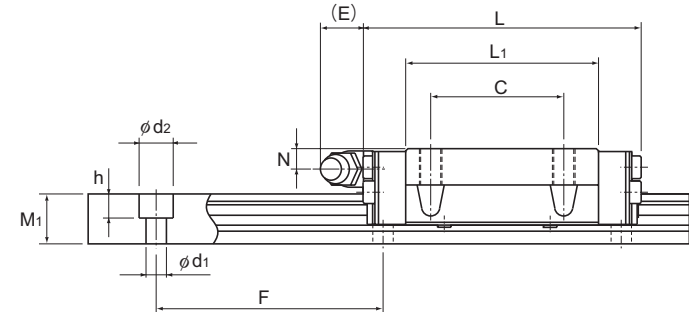
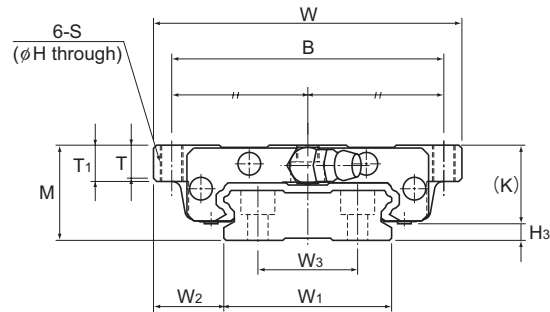
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#### Technical Descriptions

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\* Please see the separate "A Technical Descriptions of the Products".

# Models HRW-CA and HRW-CAM



Unit: mm

Model No.	Outer dimensions			LM block dimensions											Grease nipple	H <sub>3</sub>	LM rail dimensions						Basic load rating		Static permissible moment kN-m*					Mass	
	Height	Width	Length	B	C	H	S	L <sub>1</sub>	T	T <sub>1</sub>	K	N	E	Width			Height	Pitch	Length*	C	C <sub>0</sub>	M <sub>A</sub>		M <sub>B</sub>		M <sub>C</sub>	LM block	LM rail			
	M	W	L											W <sub>1</sub> ±0.05			W <sub>2</sub>	W <sub>3</sub>	M <sub>1</sub>	F	d <sub>1</sub> × d <sub>2</sub> × h	Max	kN	kN	1 block	Double blocks	1 block	Double blocks	1 block	kg	kg/m
HRW 17CA HRW 17CAM	17	60	50.8	53	26	3.3	M4	33.6	5.5	6	14.5	4	2	PB107	2.5	33	13.5	18	9	40	4.5 × 7.5 × 5.3	1900 (800)	4.31	8.14	0.0417	0.244	0.0417	0.244	0.128	0.15	2.1
HRW 21CA HRW 21CAM	21	68	58.8	60	29	4.4	M5	40	7.3	8	18	4.5	12	B-M6F	3	37	15.5	22	11	50	4.5 × 7.5 × 5.3	1900 (1000)	6.18	11.5	0.0701	0.398	0.0701	0.398	0.194	0.25	2.9
HRW 27CA HRW 27CAM	27	80	72.8	70	40	5.3	M6	51.8	9.5	10	24	6	12	B-M6F	3	42	19	24	15	60	4.5 × 7.5 × 5.3	3000 (1200)	11.5	20.4	0.156	0.874	0.156	0.874	0.398	0.5	4.3
HRW 35CA HRW 35CAM	35	120	106.6	107	60	6.8	M8	77.6	13	14	31	8	12	B-M6F	4	69	25.5	40	19	80	7 × 11 × 9	3000	27.2	45.9	0.529	2.89	0.529	2.89	1.49	1.4	9.9
HRW 50CA	50	162	140.5	144	80	8.6	M10	103.5	16.5	18	46.6	14	16	B-PT1/8	3.4	90	36	60	24	80	9 × 14 × 12	3000	50.2	81.5	1.25	6.74	1.25	6.74	3.46	4	14.6
HRW 60CA	60	200	158.9	180	80	10.5	M12	117.5	23.5	25	53.5	15	16	B-PT1/8	6.5	120	40	80	31	105	11 × 17.5 × 14	3000	63.8	102	1.76	12.3	1.76	12.3	5.76	5.7	27.8

Note) Since stainless steel is used in the LM block, LM rail and balls, these models are highly resistant to corrosion and environment.

Note) The maximum length under "Length\*" indicates the standard maximum length of an LM rail. (See B-112.)  
 Static permissible moment\*: 1 block: static permissible moment value with 1 LM block  
 Double blocks: static permissible moment value with 2 blocks closely contacting with each other

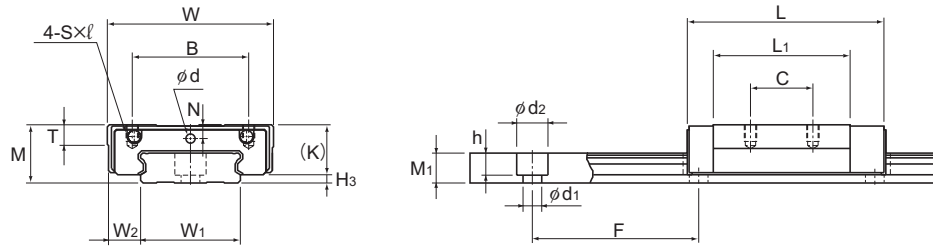
### Model number coding

**HRW35 CA 2 UU C1 M +1000L P T M**

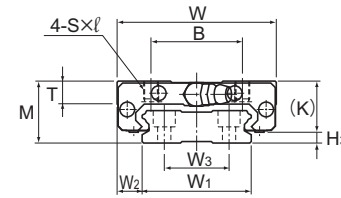
Model number	Type of LM block	Contamination protection accessory symbol (*1)	Stainless steel LM block	LM rail length (in mm)	Symbol for LM rail jointed use	Stainless steel LM rail
	No. of LM blocks used on the same rail	Radial clearance symbol (*2)	Normal (No symbol) Light preload (C1) Medium preload (C0)	Accuracy symbol (*3)	Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)/Super precision grade (SP) Ultra precision grade (UP)	

(\*1) See contamination protection accessory on A-368. (\*2) See A-114. (\*3) See A-119.

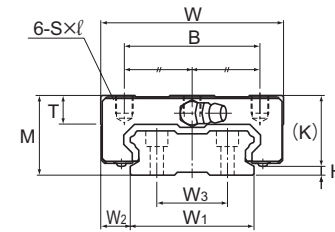
# Models HRW-CR, HRW-CRM and HRW-LRM



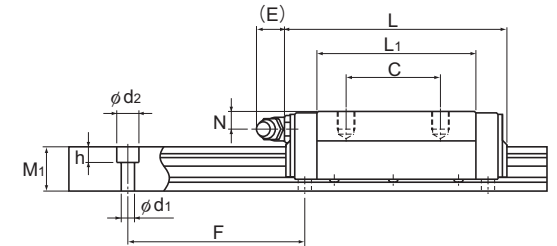
Models HRW12 and 14LRM



Models HRW17 and 21CR/CRM



Models HRW27 to 50CR/CRM



Unit: mm

Model No.	Outer dimensions			LM block dimensions										H <sub>3</sub>	LM rail dimensions					Basic load rating		Static permissible moment kN·m*					Mass		
	Height	Width	Length	B	C	S×l	L <sub>1</sub>	T	K	N	E	Greas- ing hole d	Grease nipple		Width	Height	Pitch	Length*	C	C <sub>0</sub>	M <sub>A</sub>		M <sub>B</sub>		M <sub>C</sub>	LM block	LM rail		
	M	W	L												W <sub>1</sub> ±0.05	W <sub>2</sub>	W <sub>3</sub>	M <sub>1</sub>	F	d <sub>1</sub> ×d <sub>2</sub> ×h	Max	kN	kN	1 block	Double blocks	1 block	Double blocks	1 block	kg
HRW 12LRM	12	30	37	21	12	M3×3.5	27	4	10	2.8	—	2.2	—	18	6	—	6.5	40	4.5×8×4.5	(1000)	3.29	7.16	0.0262	0.138	0.013	0.069	0.051	0.045	0.79
HRW 14LRM	14	40	45.5	28	15	M3×4	32.9	5	12	3.3	—	2.2	—	24	8	—	7.2	40	4.5×7.5×5.3	(1430)	5.38	11.4	0.0499	0.273	0.025	0.137	0.112	0.08	1.2
HRW 17CR HRW 17CRM	17	50	50.8	29	15	M4×5	33.6	6	14.5	4	2	—	PB107	33	8.5	18	9	40	4.5×7.5×5.3	1900 (800)	4.31	8.14	0.0417	0.244	0.0417	0.244	0.128	0.12	2.1
HRW 21CR HRW 21CRM	21	54	58.8	31	19	M5×6	40	8	18	4.5	12	—	B-M6F	37	8.5	22	11	50	4.5×7.5×5.3	1900 (1000)	6.18	11.5	0.0701	0.398	0.0701	0.398	0.194	0.19	2.9
HRW 27CR HRW 27CRM	27	62	72.8	46	32	M6×6	51.8	10	24	6	12	—	B-M6F	42	10	24	15	60	4.5×7.5×5.3	3000 (1200)	11.5	20.4	0.156	0.874	0.156	0.874	0.398	0.37	4.3
HRW 35CR HRW 35CRM	35	100	106.6	76	50	M8×8	77.6	14	31	8	12	—	B-M6F	69	15.5	40	19	80	7×11×9	3000	27.2	45.9	0.529	2.89	0.529	2.89	1.49	1.2	9.9
HRW 50 CR	50	130	140.5	100	65	M10×15	103.5	18	46.6	14	16	—	B-PT1/8	90	20	60	24	80	9×14×12	3000	50.2	81.5	1.25	6.74	1.25	6.74	3.46	3.2	14.6

Note) Since stainless steel is used in the LM block, LM rail and balls, these models are highly resistant to corrosion and environment.

Note) The maximum length under "Length\*" indicates the standard maximum length of an LM rail. (See B-112.)  
 Static permissible moment\*: 1 block: static permissible moment value with 1 LM block  
 Double blocks: static permissible moment value with 2 blocks closely contacting with each other

## Model number coding

**HRW27 CR 2 UU C1 M +820L P T M**

Model number	Type of LM block	Contamination protection accessory symbol (*1)	Stainless steel LM block	LM rail length (in mm)	Symbol for LM rail jointed use	Stainless steel LM rail
		No. of LM blocks used on the same rail	Radial clearance symbol (*2)	Accuracy symbol (*3)	Normal grade (No Symbol)/High accuracy grade (H)	
			Light preload (C1)	Precision grade (P)/Super precision grade (SP)	Ultra precision grade (UP)	
			Medium preload (C0)			

(\*1) See contamination protection accessory on A-368. (\*2) See A-114. (\*3) See A-119.

## Standard Length and Maximum Length of the LM Rail

Table1 shows the standard lengths and the maximum lengths of model HRW variations. If the maximum length of the desired LM rail exceeds them, jointed rails will be used. Contact THK for details. For the G dimension when a special length is required, we recommend selecting the corresponding G value from the table. The longer the G dimension is, the less stable the G area may become after installation, thus causing an adverse impact to accuracy.

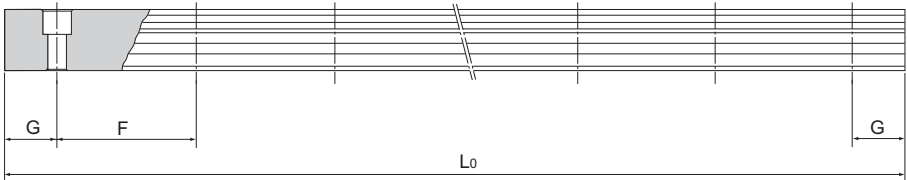


Table1 Standard Length and Maximum Length of the LM Rail for Model HRW

Unit: mm

Model No.	HRW 12	HRW 14	HRW 17	HRW 21	HRW 27	HRW 35	HRW 50	HRW 60
LM rail standard length (L <sub>0</sub> )	70	70	110	130	160	280	280	570
	110	110	190	230	280	440	440	885
	150	150	310	380	340	760	760	1200
	190	190	470	480	460	1000	1000	1620
	230	230	550	580	640	1240	1240	2040
	270	270		780	820	1560	1640	2460
	310	310					2040	
	390	390						
	470	470						
		550						
	670							
Standard pitch F	40	40	40	50	60	80	80	105
G	15	15	15	15	20	20	20	22.5
Max length	(1000)	(1430)	1900 (800)	1900 (1000)	3000 (1200)	3000	3000	3000

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.

Note3) The figures in the parentheses indicate the maximum lengths of stainless steel made models.