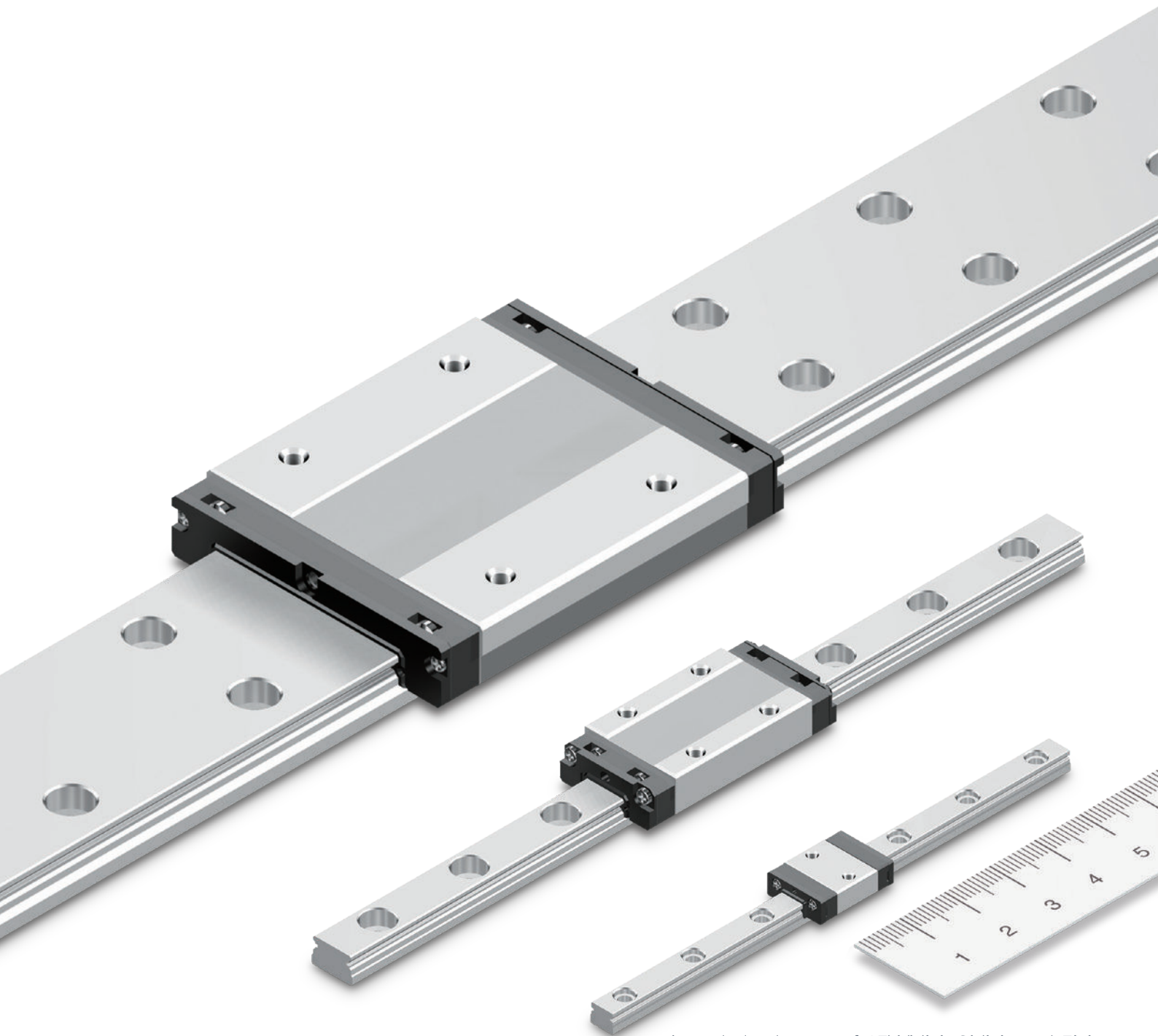




NEW

Miniature LM Guide **RSX**



Actual-size image of 15WNM, 9NM, and 5M

Optimized circulation for smooth movement  
Expanded lineup

## Structure and Features

The Model RSX uses two raceways and has more compact outer dimensions than models with four raceways. Despite being compact, its ball contact structure is capable of receiving loads in all directions, and can be used individually in locations with space limitations or where moments are applied.

### Ultra Compact

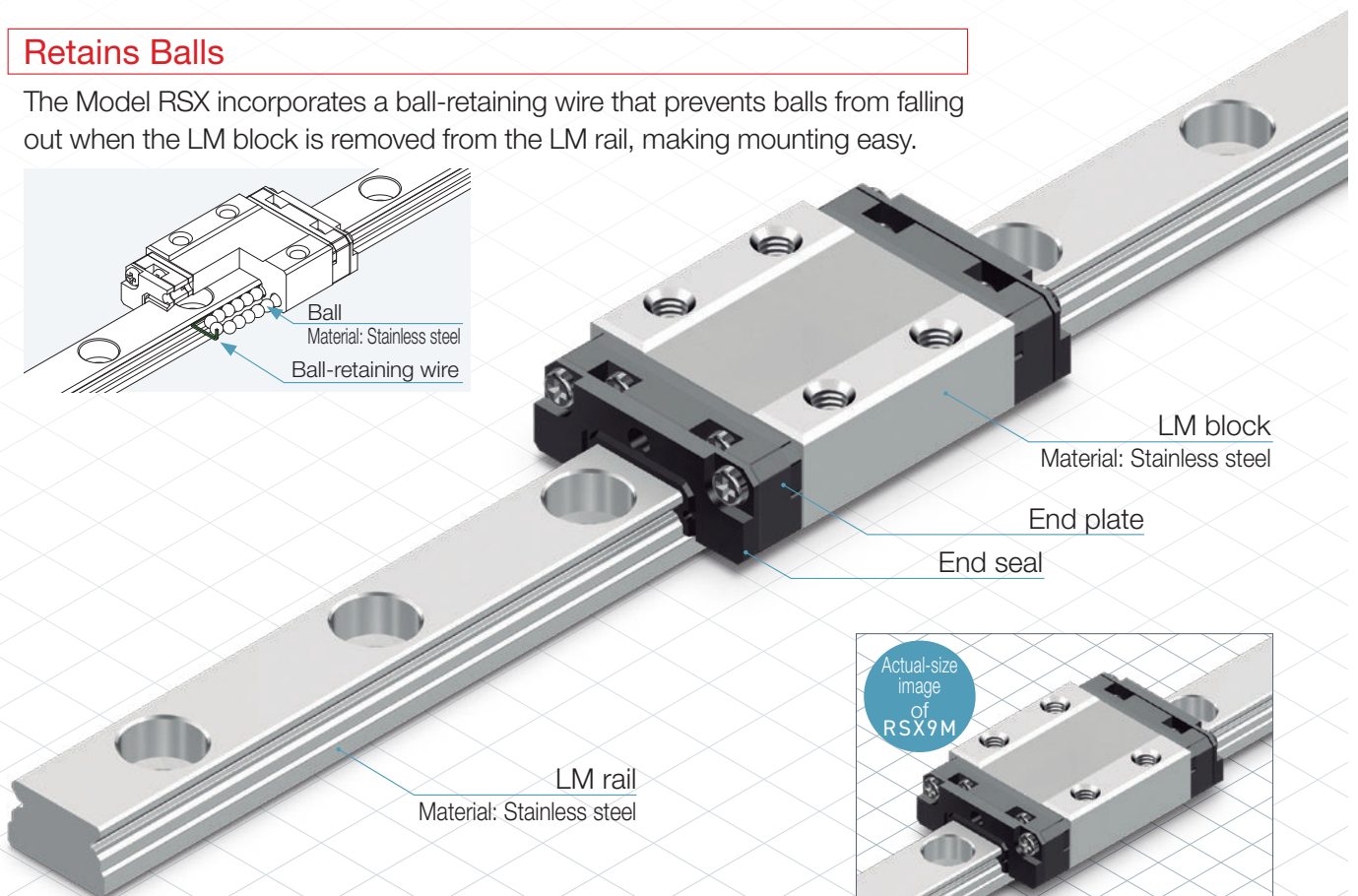
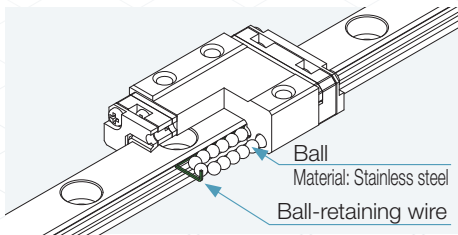
The Model RSX has one raceway on either side of the LM rail, and its compact design with low cross-sectional height allows it to be installed in locations with limited space.

### Prevents Rust

The Model RSX uses an LM block, LM rail, and balls made of stainless steel, which has high corrosion resistance.

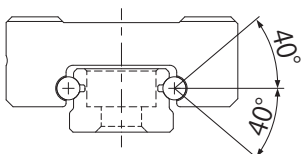
### Retains Balls

The Model RSX incorporates a ball-retaining wire that prevents balls from falling out when the LM block is removed from the LM rail, making mounting easy.

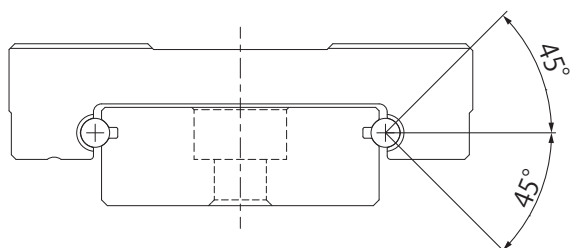


## Model RSX groove contact structure

The Model RSX can receive loads in all directions (4 directions).



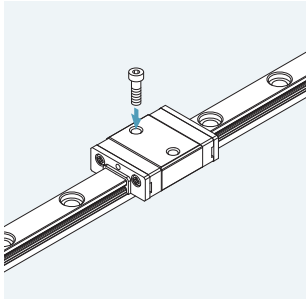
RSX5M, 7M, 9M, 5WM, 7WM, 9WM



RSX12M, 15M, 12WM, 15WM

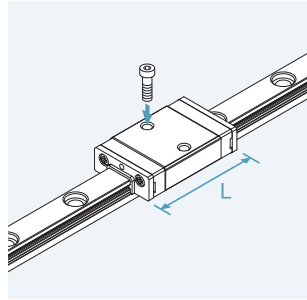
## RSX5M

The smallest model of RSX.



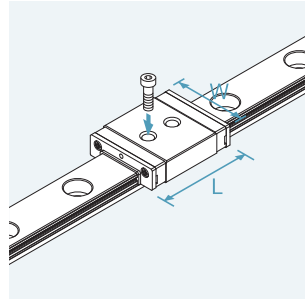
## RSX5NM

This type has a longer overall LM block length (L) and a larger rated load and permissible moment than the Model RSX5M.



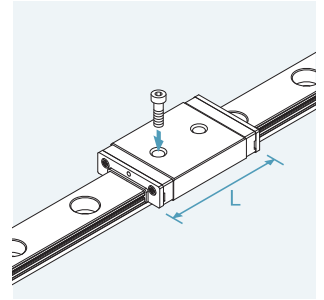
## RSX5WM

This type has a longer overall LM block length (L), a greater width, and a larger rated load and permissible moment than the Model RSX5M.



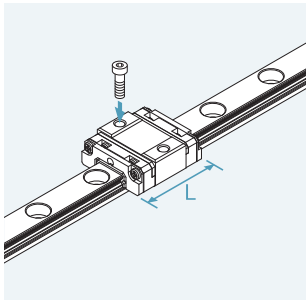
## RSX5WNM

This type has a longer overall LM block length (L) and a larger rated load and permissible moment than the Model RSX5WM.



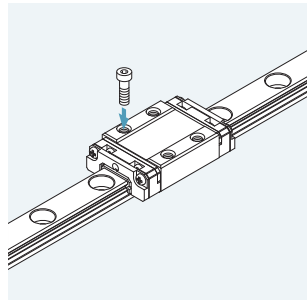
## RSX-SM

This type has a shorter overall LM block length (L) than the Model RSX-M.



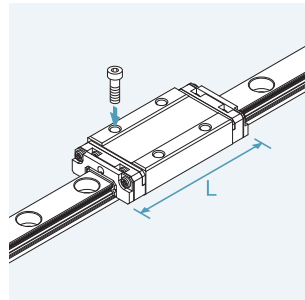
## RSX-M

The standard type of RSX.



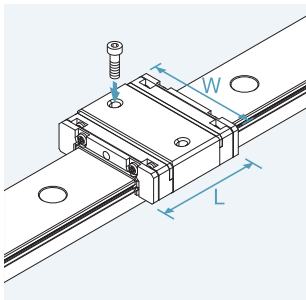
## RSX-NM

This type has a longer overall LM block length (L) and a higher rated load and permissible moment than the Model RSX-M.



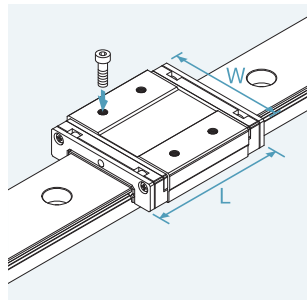
## RSX-WSM

This type has a longer overall LM block length (L), a greater width, and a higher rated load and permissible moment than the Model RSX-SM.



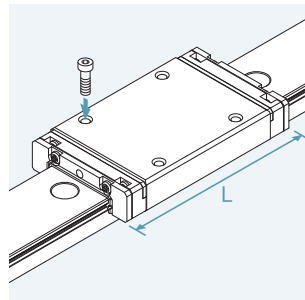
## RSX-WM

This type has a longer overall LM block length (L), a greater width, and a larger rated load and permissible moment than the Model RSX-M.



## RSX-WNM

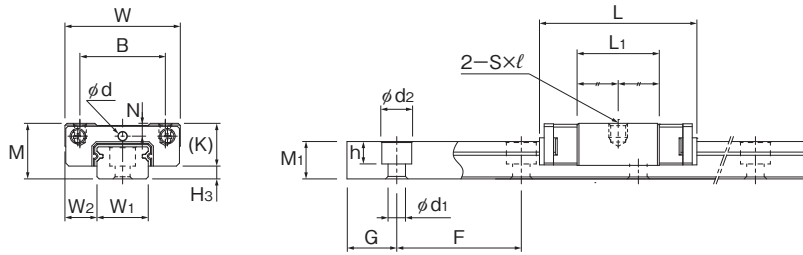
This type has a longer overall LM block length (L) and a larger rated load and permissible moment than the Model RSX-WM.



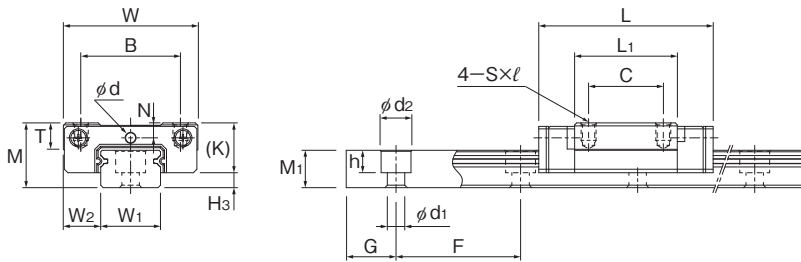
	Block type	RSX5M	RSX7M	RSX9M	RSX12M	RSX15M
Standard type	Short block (S)	—	★	★	★	★
	Standard block	★	○	○	○	○
	Long block (N)	★	★	★	★	★
Wide type (W)	Short block (S)	—	★	★	★	★
	Standard block	★	○	○	○	○
	Long block (N)	★	★	★	★	★

○ : Previously released  
★ : Added to lineup

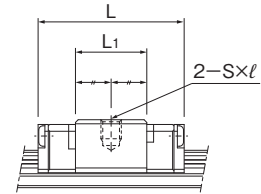
# Specification Table



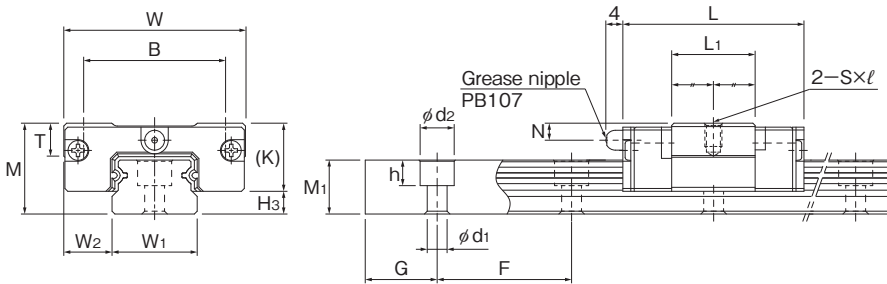
RSX5M/NM



RSX7M/NM, 9M/NM, 12M/NM

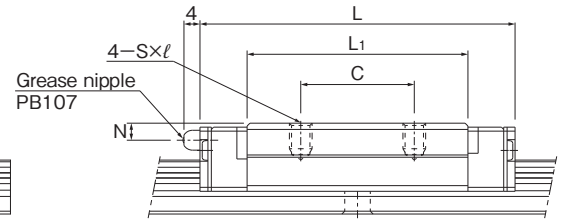


RSX7SM, 9SM, 12SM



RSX15M

RSX15SM

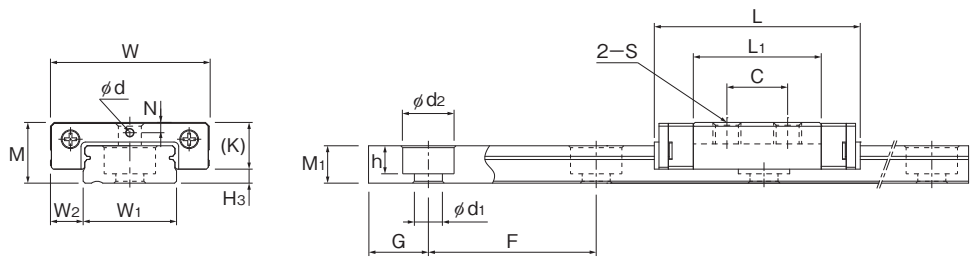


RSX15M/NM

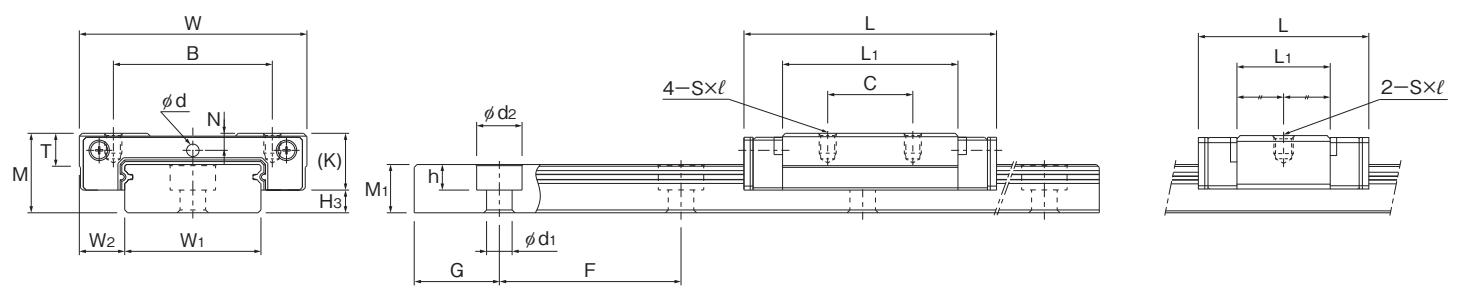
Unit: mm

Model No.	Outer dimensions			LM block dimensions									H <sub>3</sub>	LM rail dimensions								Basic load rating		Mass	
	Height M	Width W	Length L	B	C	S × ℓ	L <sub>1</sub>	T	K	N	Greasing hole d	Width W <sub>1</sub> <sub>0 -0.02</sub>		W <sub>2</sub>	Height M <sub>1</sub>	G	Pitch F	d <sub>1</sub> × d <sub>2</sub> × h	Max. length	C (kN)	C <sub>0</sub> (kN)	LM block (kg)	LM rail (kg/m)		
RSX 5M	6	12	16.9	8	-	M2×1.5	8.8	-	4.5	0.93	0.8	1.5	5	3.5	4	5	15	2.4×3.5×1	220	0.37	0.53	0.002	0.136		
RSX 5NM	6	12	20.1	8	-	M2×1.5	12	-	4.5	0.93	0.8	1.5	5	3.5	4	5	15	2.4×3.5×1	220	0.45	0.7	0.003	0.136		
RSX 7SM	8	17	19	12	-	M2×2.6	9	-	6.5	1.7	1.2	1.5	7	5	4.7	5	15	2.4×4.2×2.3	480	0.95	1.16	0.005	0.227		
RSX 7M	8	17	23.4	12	8	M2×2.6	13.4	-	6.5	1.7	1.2	1.5	7	5	4.7	5	15	2.4×4.2×2.3	480	1.16	1.54	0.008	0.227		
RSX 7NM	8	17	31	12	13	M2×2.6	21	-	6.5	1.7	1.2	1.5	7	5	4.7	5	15	2.4×4.2×2.3	480	1.63	2.51	0.012	0.227		
RSX 9SM	10	20	21.5	15	-	M3×2.8	10.5	-	7.8	2.4	1.6	2.2	9	5.5	5.5	7.5	20	3.5×6×3.3	1240	1.37	1.53	0.008	0.32		
RSX 9M	10	20	30.8	15	10	M3×2.8	19.8	-	7.8	2.4	1.6	2.2	9	5.5	5.5	7.5	20	3.5×6×3.3	1240	2.22	3.06	0.018	0.32		
RSX 9NM	10	20	40.8	15	16	M3×2.8	29.8	-	7.8	2.4	1.6	2.2	9	5.5	5.5	7.5	20	3.5×6×3.3	1240	2.94	4.59	0.024	0.32		
RSX 12SM	13	27	25.6	20	-	M3×3.5	11.2	5.3	10	3	2	3	12	7.5	7.5	10	25	3.5×6×4.5	2000	2.07	2.1	0.015	0.65		
RSX 12M	13	27	35	20	15	M3×3.5	20.6	5.3	10	3	2	3	12	7.5	7.5	10	25	3.5×6×4.5	2000	3.36	4.21	0.037	0.65		
RSX 12NM	13	27	47.7	20	20	M3×3.5	33.3	5.3	10	3	2	3	12	7.5	7.5	10	25	3.5×6×4.5	2000	4.72	6.83	0.047	0.65		
RSX 15SM	16	32	31.9	25	-	M3×4	14.7	5.8	12	3	-	4	15	8.5	9.5	15	40	3.5×6×4.5	2000	4.01	4.24	0.03	0.96		
RSX 15M	16	32	42.9	25	20	M3×4	25.7	5.8	12	3	-	4	15	8.5	9.5	15	40	3.5×6×4.5	2000	5.59	6.78	0.069	0.96		
RSX 15NM	16	32	60.7	25	25	M3×4	43.5	5.8	12	3	-	4	15	8.5	9.5	15	40	3.5×6×4.5	2000	8.27	11.8	0.089	0.96		

Note) Max. length indicates the standard maximum length of the LM rail.  
 Note) RSX15 has a PB107 grease nipple installed. Models RSX5 to 12 are equipped with greasing holes.

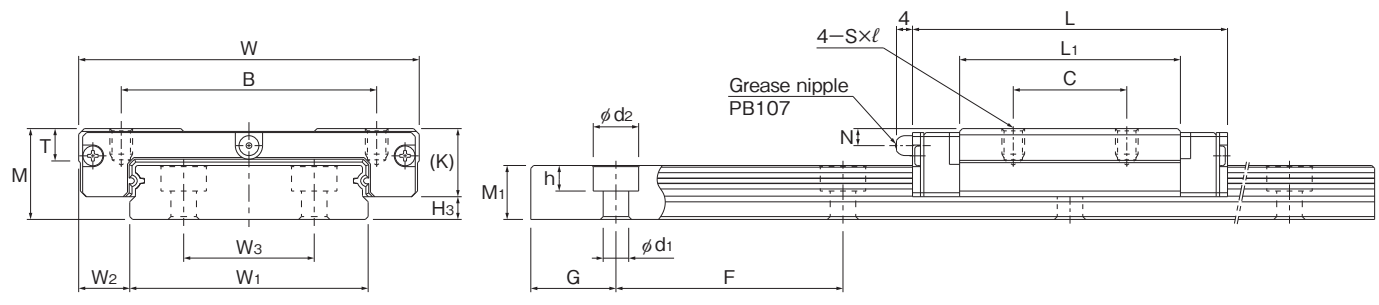


RSX5WM/NM

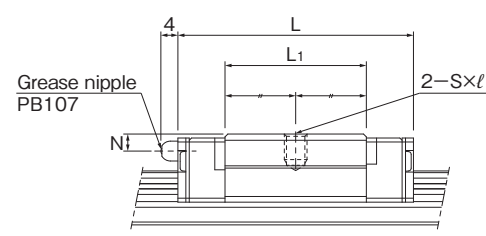


RSX7WM/NM, 9WM/NM, 12WM/NM

RSX7WSM, 9WSM, 12WSM



RSX15WM/NM



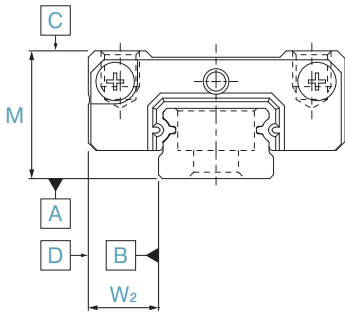
RSX15WSM

Unit: mm

Model No.	Outer dimensions			LM block dimensions									H <sub>3</sub>	LM rail dimensions										Basic load rating		Mass	
	Height M	Width W	Length L	B	C	S × l	L <sub>1</sub>	T	K	N	Greasing hole d	Width W <sub>1</sub> <sub>0-0.02</sub>		W <sub>2</sub>	W <sub>3</sub>	Height M <sub>1</sub>	G	Pitch F	d <sub>1</sub> × d <sub>2</sub> × h	Max. length	C (kN)	C <sub>0</sub> (kN)	LM block (kg)	LM rail (kg/m)			
RSX5WM	6.5	17	22.1	-	6.5	M3 through	13.7	-	5	1.1	0.8	1.5	10	3.5	-	4	5	20	3×5.5×3	220	0.5	0.82	0.006	0.276			
RSX5WNM	6.5	17	28.1	-	11	M3 through	19.7	-	5	1.1	0.8	1.5	10	3.5	-	4	5	20	3×5.5×3	220	0.64	1.17	0.008	0.276			
RSX 7WSM	9	25	22.5	19	-	M3×2.8	11.9	-	7	1.8	1.2	2	14	5.5	-	5.2	10	30	3.5×6×3.2	480	1.06	1.35	0.011	0.54			
RSX 7WM	9	25	31	19	10	M3×2.8	20.4	-	7	1.8	1.2	2	14	5.5	-	5.2	10	30	3.5×6×3.2	480	1.63	2.51	0.018	0.54			
RSX 7WNM	9	25	40.9	19	17	M3×2.8	30.3	-	7	1.8	1.2	2	14	5.5	-	5.2	10	30	3.5×6×3.2	480	2.12	3.66	0.027	0.54			
RSX 9WSM	12	30	26.5	21	-	M3×2.8	14.5	-	8.3	2.3	1.6	3.7	18	6	-	7.5	10	30	3.5×6×4.5	1430	1.73	2.14	0.018	1.01			
RSX 9WM	12	30	39	21	12	M3×2.8	27	-	8.3	2.3	1.6	3.7	18	6	-	7.5	10	30	3.5×6×4.5	1430	2.8	4.28	0.035	1.01			
RSX 9WNM	12	30	50.7	23	24	M3×2.8	38.7	-	8.3	2.3	1.6	3.7	18	6	-	7.5	10	30	3.5×6×4.5	1430	3.48	5.81	0.048	1.01			
RSX 12WSM	14	40	30.5	28	-	M3×3.5	16.9	4.5	10	3	2	4	24	8	-	8.5	15	40	4.5×8×4.5	2000	3.05	3.68	0.033	1.52			
RSX 12WM	14	40	44.5	28	15	M3×3.5	30.9	4.5	10	3	2	4	24	8	-	8.5	15	40	4.5×8×4.5	2000	4.46	6.31	0.075	1.52			
RSX 12WNM	14	40	59.5	28	28	M3×3.5	45.9	4.5	10	3	2	4	24	8	-	8.5	15	40	4.5×8×4.5	2000	5.93	9.46	0.091	1.52			
RSX 15WSM	16	60	41.5	45	-	M4×4.5	24.9	5.6	12	3	-	4	42	9	23	9.5	15	40	4.5×8×4.5	2000	5.59	6.78	0.083	2.87			
RSX 15WM	16	60	55.5	45	20	M4×4.5	38.9	5.6	12	3	-	4	42	9	23	9.5	15	40	4.5×8×4.5	2000	7.43	10.1	0.17	2.87			
RSX 15WNM	16	60	74.5	45	35	M4×4.5	57.9	5.6	12	3	-	4	42	9	23	9.5	15	40	4.5×8×4.5	2000	9.87	15.2	0.195	2.87			

Note) Max. length indicates the standard maximum length of the LM rail.  
 Note) RSX15 has a PB107 grease nipple installed. Models RSX5 to 12 are equipped with greasing holes.

## Accuracy Standards



### Accuracy Standards

Unit: mm

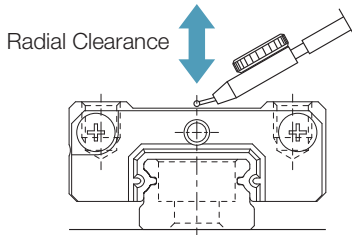
Model No.	Accuracy standards	Normal grade	High accuracy grade	Precision grade
		No symbol	H	P
RSX5/5W	Dimensional tolerance in height (M)	±0.03	—	±0.015
	Difference in height (M)	0.015	—	0.005
	Dimensional tolerance in width (W <sub>2</sub> )	±0.03	—	±0.015
	Difference in width (W <sub>2</sub> )	0.015	—	0.005
	Running parallelism of surface C against surface A	See the table on the right		
RSX7/7W	Running parallelism of surface D against surface B	See the table on the right		
	Dimensional tolerance in height (M)	±0.04	±0.02	±0.01
RSX9/9W	Difference in height (M)	0.03	0.015	0.007
	Dimensional tolerance in width (W <sub>2</sub> )	±0.04	±0.025	±0.015
RSX12/12W	Difference in width (W <sub>2</sub> )	0.03	0.02	0.01
	Running parallelism of surface C against surface A	See the table on the right		
RSX15/15W	Running parallelism of surface D against surface B	See the table on the right		

## Running Parallelism

Unit: μm

Model No.	LM rail length (mm)		Running parallelism values		
	Above	Or less	Normal grade	High accuracy grade	Precision grade
RSX5/5W	—	25	2.5	—	1.5
	25	50	3.5	—	2
	50	100	5.5	—	3
	100	150	7	—	4
	150	200	8.4	—	5
RSX7/7W	—	40	8	4	1
	40	70	10	4	1
	70	100	11	4	2
	100	130	12	5	2
	130	160	13	6	2
	160	190	14	7	2
	190	220	15	7	3
	220	250	16	8	3
	250	280	17	8	3
	280	310	17	9	3
	310	340	18	9	3
	340	370	18	10	3
	370	400	19	10	3
	400	430	20	11	4
	430	460	20	12	4
RSX9/9W	460	520	21	12	4
RSX12/12W	520	550	22	12	4
RSX15/15W	550	640	22	13	4
	640	670	23	13	4
	670	700	23	13	5
	700	820	23	14	5
	820	850	24	14	5
	850	970	24	15	5
	970	1030	25	16	5
	1030	1150	25	16	6
	1150	1330	26	17	6
	1330	1420	27	18	6
1420	1510	27	18	7	
1510	1830	28	19	7	
1830	2000	28	19	8	

## Radial Clearance Specifications



### Radial Clearance Specifications

Unit: μm

Model No.	Normal (No symbol)	Light preload (C1)
RSX5/5W	0 to ±1.5	-1 to 0
RSX7/7W	-2 to +2	-3 to 0
RSX9/9W	-2 to +2	-4 to 0
RSX12/12W	-3 to +3	-6 to 0
RSX15/15W	-5 to +5	-10 to 0

## Model Number Coding

Select an option   
 Fixed symbol

2
RSX9WSM
UU
C1
F
+
220L
P
F
M
-
II

No. of LM blocks used on the same rail  
No symbol: 1 block

Model number  
Contamination protection accessory symbol (Only UU seal available)  
No symbol: Without seal

Radial clearance symbol  
No symbol: Normal clearance  
C1: Light preload

LM rail length (in mm)

Accuracy symbol  
No symbol: Normal grade  
H: High accuracy grade  
P: Precision grade

Symbol for No. of rails used on the same plane  
No symbol: 1 rail  
Stainless steel LM rail

With surface treatment on the LM block  
No symbol: No surface treatment

\*Model RSX5 is available in normal or precision grade accuracy.

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