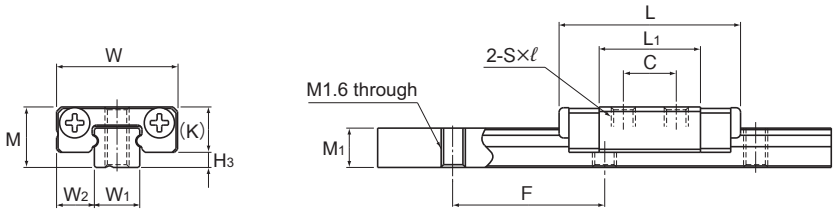
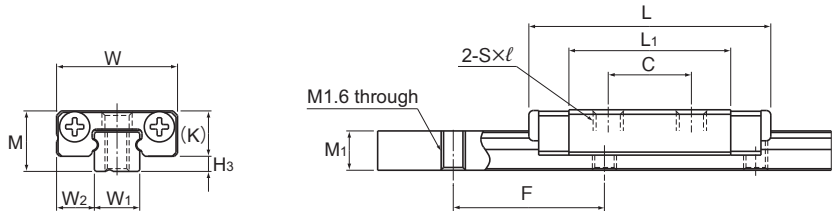
Models RSR-M, RSR-N and RSR-TN



Model RSR3M



Model RSR3N

Model No.	Outer dimensions			LM block dimensions										H_3
	Height M	Width W	Length L	B	C	S×ℓ	L_1	T	K	N	E	Greasing hole d	Grease nipple	
RSR 3M RSR 3N	4	8	12 16	—	3.5 5.5	M1.6×1.3 M2×1.3	6.7 10.7	—	3	—	—	—	—	1
RSR 5M RSR 5N RSR 5TN	6	12	16.9 20.1 20.1	8 — 8	— 7 —	M2×1.5 M2.6×1.8 M2×1.5	8.8 12 12	—	4.5	0.8	—	0.8	—	1.5

Note) Since stainless steel is used in the LM block, LM rail and balls, these models are highly resistant to corrosion and environment. Models RSR3M and 3N do not have an oil hole. When lubricating them, apply a lubricant directly to the LM rail raceways. No contamination protection seal for RSR3M/3N.
To secure the LM rail of models RSR5M and 5N, use cross-recessed head screws for precision equipment (No. 0 pan head screw, class 1) M2.

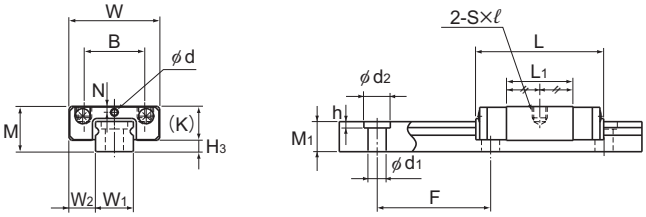
Model number coding

2 RSR5 M UU C1 +130L P M -Ⅱ

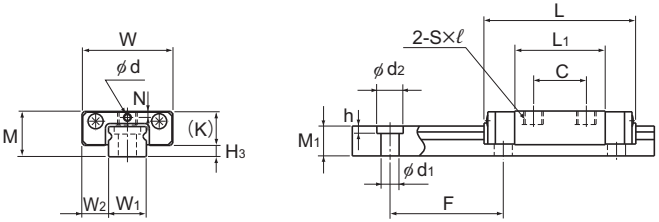
- **2** — No. of LM blocks used on the same rail
- **RSR5 M** — Model number
- **UU** — Contamination protection accessory symbol (*1)
- **C1** — Radial clearance symbol (*2) Normal (No symbol) Light preload (C1)
- **+130L** — LM rail length (in mm)
- **P** — Accuracy symbol (*3) Normal grade (No Symbol)/Precision grade (P)
- **M** — Stainless steel LM rail
- **-Ⅱ** — Symbol for No. of rails used on the same plane (*4)

(*1) See contamination protection accessory on **A1-510**. (*2) See **A1-71**. (*3) See **A1-83**. (*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.)



Models RSR5M/5TN



Model RSR5N

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	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
	3 $^{0}_{-0.02}$	2.5	2.6	10	—	220	0.18 0.3	0.27 0.44	0.293 0.726	2.11 4.33	0.293 0.726	2.11 4.33	0.45 0.73		0.0011 0.0016	0.055
	5 $^{0}_{-0.02}$	3.5	4	15	2.4×3.5×1	480	0.32 0.55 0.55	0.59 0.96 0.96	0.884 1.84 1.84	6.51 11.9 11.9	0.884 1.84 1.84	6.51 11.9 11.9	1.53 2.49 2.49		0.003 0.004 0.004	0.14

Note) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-264**.)
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

- Recommended tightening torque when mounting the LM rail/block

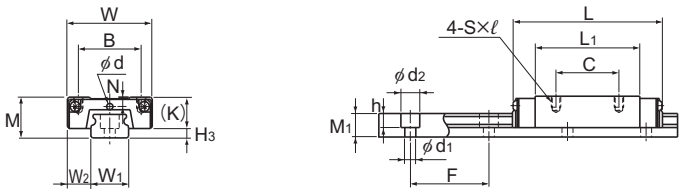
Table1 shows recommended bolt tightening torques when mounting the LM block and LM rail of models RSR3M/3N.

Table1 Recommended Tightening Torques of Mounting Bolts

Model No. of screw	Recommended tightening torque (N-m)
M1.6	0.09
M2	0.19

Note) Applicable to austenite stainless steel hexagonal-socket-head type bolts.

Models RSR-M, RSR-KM, RSR-VM and RSR-N



Models RSR7 to 12N/7M/9KM/12VM

Model No.	Outer dimensions			LM block dimensions										H_3
	Height	Width	Length								Greasing hole	Grease nipple		
	M	W	L	B	C	S×ℓ	L_1	T	K	N	E	d		
RSR 7M RSR 7N	8	17	23.4 33	12	8 13	M2×2.5	13.4 23	—	6.5	1.7	—	1.2	—	1.5
RSR 9KM RSR 9N	10	20	30.8 40.8	15	10 16	M3×3	19.8 29.8	—	7.8	2.4	—	1.5	—	2.2
RSR 12VM RSR 12N	13	27	35 47.7	20	15 20	M3×3.5	20.6 33.3	—	10	3	—	2	—	3
RSR 15VM RSR 15N	16	32	42.9 60.7	25	20 25	M3×4	25.7 43.5	—	12	3.5	3.6 3.7	—	PB107	4
RSR 20VM RSR 20N	25	46	66.5 86.3	38	38	M4×6	45.2 65	5.7	17.5	5	6.4	—	A-M6F	7.5

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

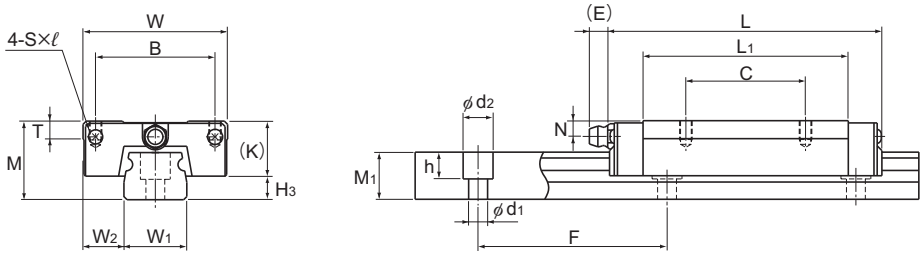
Model number coding

2 RSR15V M UU C1 +230L P M -II

- **2** — No. of LM blocks used on the same rail
- **RSR15V** — Model number
- **M** — Stainless steel LM rail
- **UU** — Contamination protection accessory symbol (*1)
- **C1** — Radial clearance symbol (*2) Normal (No symbol) Light preload (C1)
- **+230L** — LM rail length (in mm)
- **P** — Accuracy symbol (*3) Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)
- **-II** — Symbol for No. of rails used on the same plane (*4)

(*1) See contamination protection accessory on **A1-510**. (*2) See **A1-71**. (*3) See **A1-83**. (*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.)



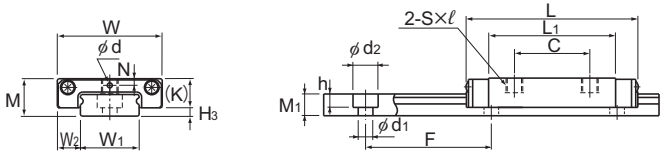
Models RSR15 and 20VM/N

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	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
	7 $^{0}_{-0.02}$	5	4.7	15	2.4×4.2×2.3	480	0.88 1.59	1.37 2.5	2.93 8.68	20.8 49.9	2.93 8.68	20.8 49.9	5 9.12	0.013 0.018	0.23
	9 $^{0}_{-0.02}$	5.5	5.5	20	3.5×6×3.3	1240	1.47 2.6	2.25 3.96	7.34 18.4	43.3 97	7.34 18.4	43.3 97	10.4 18.4	0.018 0.027	0.32
	12 $^{0}_{-0.025}$	7.5	7.5	25	3.5×6×4.5	1430	2.65 4.3	4.02 6.65	11.4 28.9	74.9 163	10.1 25.5	67.7 145	19.2 31.8	0.037 0.055	0.58
	15 $^{0}_{-0.025}$	8.5	9.5	40	3.5×6×4.5	1600	4.41 7.16	6.57 10.7	23.7 63.1	149 330	21.1 55.6	135 293	38.8 63	0.069 0.093	0.925
	20 $^{0}_{-0.03}$	13	15	60	6×9.5×8.5	1800	8.82 14.2	12.7 20.6	75.4 171	435 897	66.7 151	389 795	96.6 157	0.245 0.337	1.95

Note) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-264**.)
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

Models RSR-WM(WTM) and RSR-WN(WTN)



Models RSR3 to 7WM/WN

Model No.	Outer dimensions			LM block dimensions										H_3
	Height M	Width W	Length L	B	C	S×ℓ	L_1	T	K	N	E	Greasing hole d	Grease nipple	
RSR 3WM	4.5	12	14.9	—	4.5	M2×1.7	8.5	—	3.5	0.8	—	0.8	—	1
RSR 3WN			19.9		8		13.3							
RSR 5WM	6.5	17	22.1	—	6.5	M3×2.3	13.7	—	5	1.1	—	0.8	—	1.5
RSR 5WTM			22.1	13	—	M2.5×1.5	13.7							
RSR 5WN			28.1	—	11	M3×2.3	19.7							
RSR 5WTN			28.1	13	—	M2.5×1.5	19.7							
RSR 7WM	9	25	31	—	12	M4×3.5	20.4	—	7	1.6	—	1.2	—	2
RSR 7WTM			31	19	8	M3×3	20.4							
RSR 7WN			40.9	—	18	M4×3.5	30.3							
RSR 7WTN			40.9	19	17	M3×3	30.3							

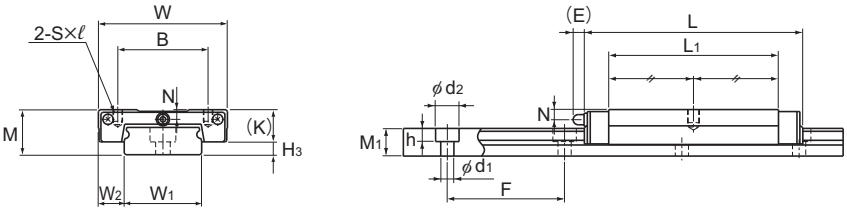
Note) The LM block, rail, and ball material are composed of stainless steel and are corrosion resistant to general environments. To secure the LM rail of models RSR3WM and 3WN, use cross-recessed head screws for precision equipment (No. 0 pan head screw, class 1) M2.

Model number coding

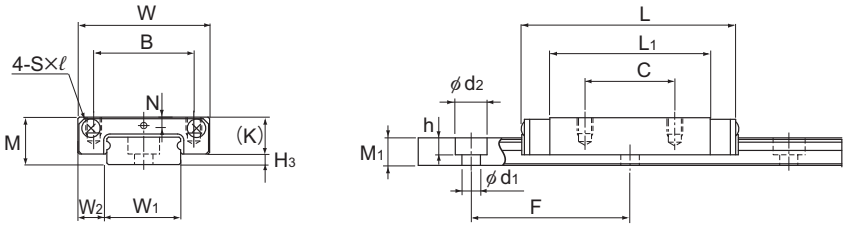
2 RSR7WM UU C1 +130L P M

- **2** — No. of LM blocks used on the same rail
- **RSR7WM** — Model number
- **UU** — Contamination protection accessory symbol (*1)
- **C1** — Radial clearance symbol (*2): Normal (No symbol), Light preload (C1)
- **+130L** — LM rail length (in mm)
- **P** — Accuracy symbol (*3): Normal grade (No Symbol)/High accuracy grade (H), Precision grade (P)
- **M** — Stainless steel LM rail

(*1) See contamination protection accessory on **A1-510**. (*2) See **A1-71**. (*3) See **A1-83**.



Models RSR5WTM/WTN



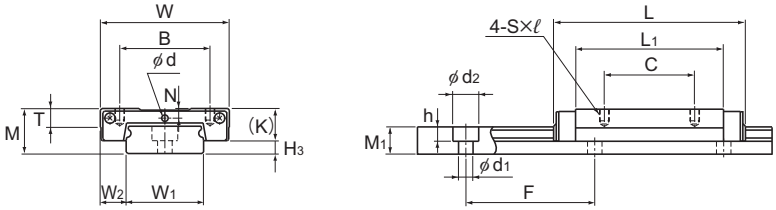
Models RSR7WTM/WTN

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	W_2	W_3	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
	6 $^{0}_{-0.02}$	3	—	2.6	15	2.4×4×1.5	480	0.25 0.39	0.47 0.75	0.668 1.57	4.44 9.06	0.668 1.57	4.44 9.06	1.48 2.36		0.002 0.003	0.12
	10 $^{0}_{-0.025}$	3.5	—	4	20	3×5.5×3	480	0.51 0.51 0.75 0.75	0.96 0.96 1.4 1.4	1.97 1.97 4.06 4.06	13.1 13.1 23.5 23.5	1.97 1.97 4.06 4.06	13.1 13.1 23.5 23.5	4.89 4.89 7.13 7.13		0.007 0.007 0.01 0.01	0.28
	14 $^{0}_{-0.05}$	5.5	—	5.2	30	3.5×6×3.2	480	1.37 1.37 2.04 2.04	2.16 2.16 3.21 3.21	7.02 7.02 14.7 14.7	40.7 40.7 77.6 77.6	7.02 7.02 14.7 14.7	40.7 40.7 77.6 77.6	15.4 15.4 22.9 22.9		0.021 0.021 0.026 0.026	0.51

Note) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-264.)
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

Models RSR-WV, RSR-WVM and RSR-WN



Models RSR9, 12WV/WVM/WN

Model No.	Outer dimensions			LM block dimensions										
	Height	Width	Length									Greasing hole	Grease nipple	
	M	W	L	B	C	S×ℓ	L_1	T	K	N	E	d		H_3
RSR 9WV * RSR 9WVM * RSR 9WN	12	30	39 39 50.7	21 21 23	12 12 24	M2.6×3 M2.6×3 M3×3	27 27 38.7	—	7.8	2	—	1.6	—	4.2
RSR 12WV * RSR 12WVM * RSR 12WN	14	40	44.5 44.5 59.5	28	15 15 28	M3×3.5	30.9 30.9 45.9	4.5	10	3	—	2	—	4
* RSR 14WVM	15	50	50	35	18	M4×4.5	34.3	6	11.5	3	4	—	PB107	3.5
RSR 15WV * RSR 15WVM * RSR 15WN	16	60	55.5 55.5 74.5	45	20 20 35	M4×4.5	38.9 38.9 57.9	5.6	12	3.5	3	—	PB107	4

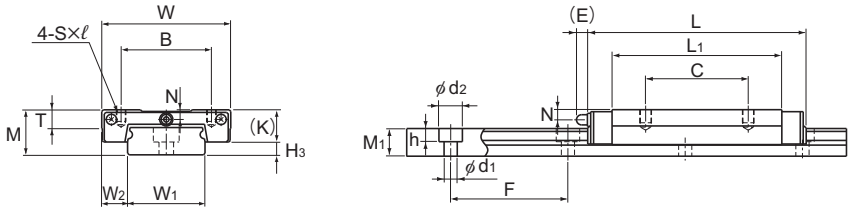
Note) *The LM block, rail, and ball material are composed of stainless steel and are corrosion resistant to general environments.

Model number coding

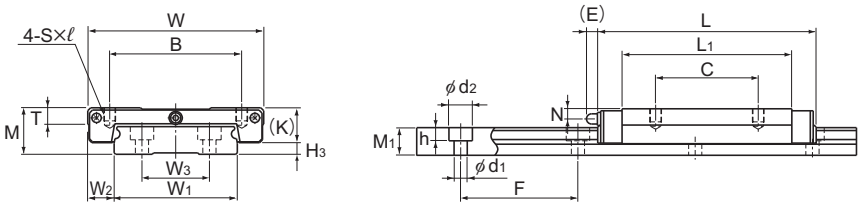
2 RSR12WV M UU C1 +310L H M

- 2 — No. of LM blocks used on the same rail
- RSR12WV — Model number
- M — Stainless steel LM rail
- UU — Contamination protection accessory symbol (*1)
- C1 — Radial clearance symbol (*2) Normal (No symbol)/Light preload (C1)
- +310L — LM rail length (in mm)
- H — Accuracy symbol (*3) Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)

(*1) See contamination protection accessory on A1-510. (*2) See A1-71. (*3) See A1-83.



Model RSR14WVM



Models RSR15WV/WVM/WN

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	W_2	W_3	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
	18 $^{0}_{-0.05}$	6	—	7.5	30	3.5×6×4.5	1430	2.45 2.45 3.52	3.92 3.92 5.37	16 16 31	92.9 92.9 161	16 16 31	92.9 92.9 161	36 36 49.4		0.035 0.035 0.051	1.08
	24 $^{0}_{-0.05}$	8	—	8.5	40	4.5×8×4.5	1600	4.02 4.02 5.96	6.08 6.08 9.21	24.5 24.5 53.9	138 138 274	21.7 21.7 47.3	123 123 242	59.5 59.5 90.1		0.075 0.075 0.101	1.5
	30 $^{0}_{-0.05}$	10	—	9	40	4.5×7.5×5.3	1800	6.01	9.08	43.2	233	38.2	208	110		0.096	2
	42 $^{0}_{-0.05}$	9	23	9.5	40	4.5×8×4.5	1800	6.66 6.66 9.91	9.8 9.8 14.9	50.3 50.3 110	278 278 555	44.4 44.4 97.3	248 248 490	168 168 255		0.17 0.17 0.21	3

Note) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-264**.)
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