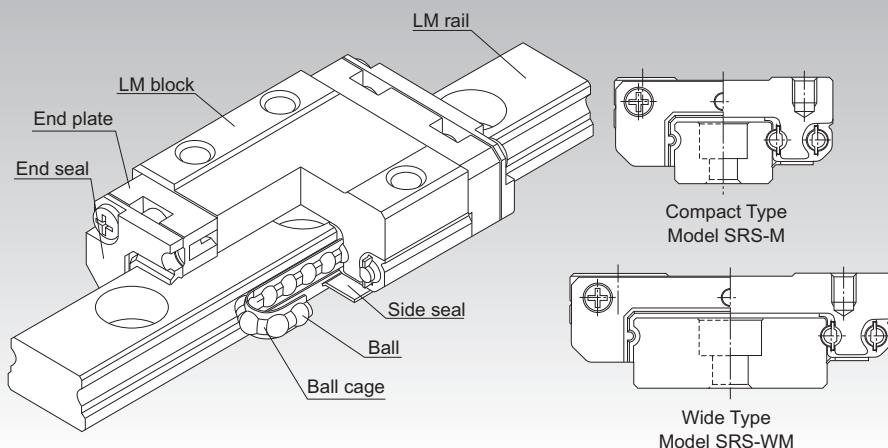


SRS



Miniature Caged Ball LM Guide Model SRS



Note: For the ball cage, see **A1-90**.

Selection Criteria **A1-10**

Design Highlights **A1-482**

Options **A1-507**

Model No. **A1-577**

Handling Precautions **A1-583**

Accessories for Lubrication **A24-1**

Mounting Procedure **B1-89**

Equivalent Moment Factor **A1-43**

Rated Loads in All Directions **A1-61**

Equivalent Factor in Each Direction **A1-63**

Radial Clearance **A1-73**

Accuracy Standards **A1-85**

Shoulder Height of the Mounting Base and the Corner Radius **A1-497**

Reference Error Tolerance for the Mounting Surface **A1-499**

Flatness of the Mounting Surface **A1-500**

Dimensions of Each Model with Options Attached **A1-521**

Structure and Features

Caged Ball LM Guide Model SRS has two raceways incorporated into its compact structure, enabling the model to receive loads in all directions, and to be used as a single axis in locations where a moment is applied. In addition, use of ball cages eliminates friction between balls, thus achieving high speed, low noise, reduced running sound, long service life, and long-term maintenance-free operation.

Low Dust Generation

Use of ball cages eliminates friction between balls and retains lubricant, thus achieving low dust generation. In addition, the LM block and LM rail use stainless steel, which is highly resistant to corrosion.

Compact

Because the LM rail has a low cross-sectional height and a compact structure with a single row of balls on either side, it can be installed in smaller areas.

Lightweight

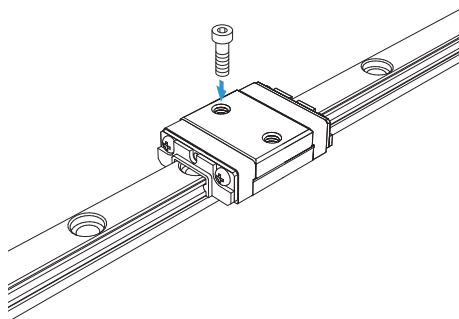
Since parts of the LM block (e.g., around the ball release hole) are made of resin and formed through injection molding, SRS is a lightweight, low-inertia type of LM Guide.

Types and Features

Model SRS5M

Dimensional Table⇒ **A1-156**

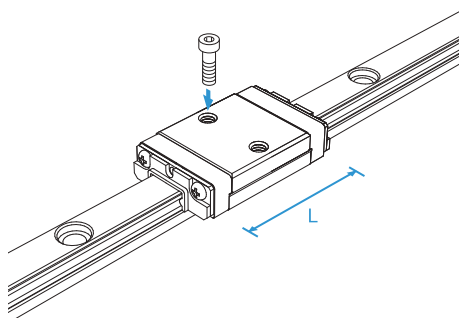
SRS5 is the smallest Caged Ball LM guide.



Model SRS5N

Dimensional Table⇒ **A1-156**

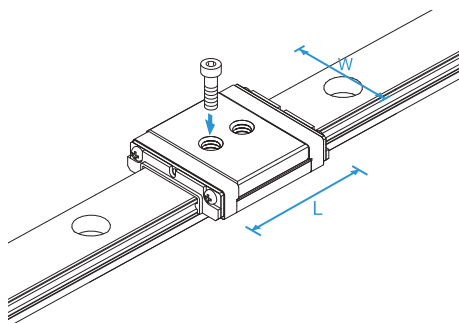
The overall LM block length (L) is greater than for model SRS5M; load rating and permissible moment are higher as well.



Model SRS5WM

Dimensional Table⇒ **A1-160**

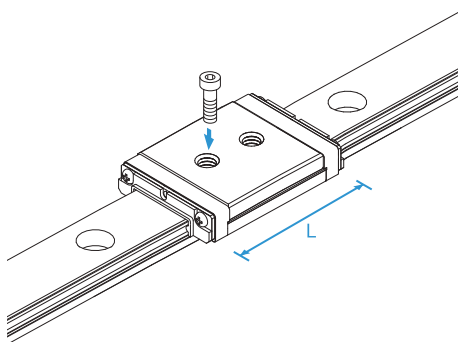
This model has a larger overall LM block length (L), width (W), load rating and permissible moment than model SRS5M.



Model SRS5WN

The overall LM block length (L) is greater than for model SRS5WM; load rating and permissible moment are higher as well.

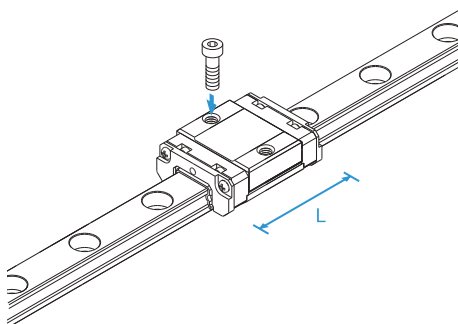
Dimensional Table⇒ **A1-160**



Model SRS-S

The overall LM block length (L) is less than that of model SRS-M.

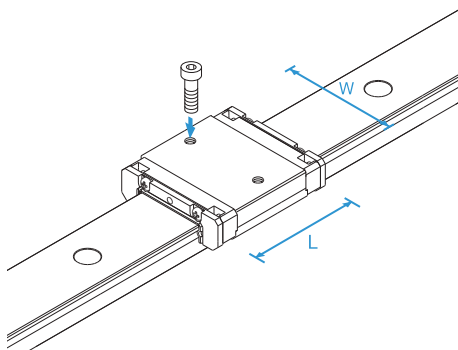
Dimensional Table⇒ **A1-156**



Model SRS-WS

This model has a longer overall LM block length (L), a greater width, and a larger load rating and permissible moment than SRS-S.

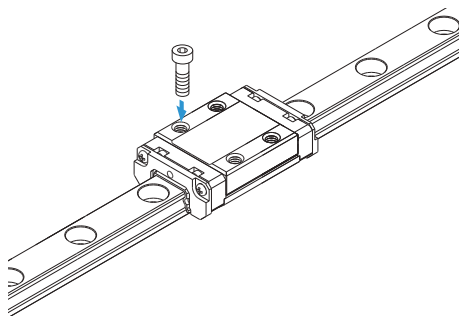
Dimensional Table⇒ **A1-160**



Model SRS-M

This model is the standard type of SRS.

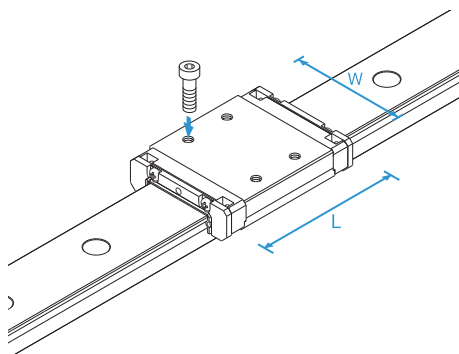
Dimensional Table⇒ **A1-156**



Model SRS-WM

This model has a longer overall LM block length (L), a greater width, and a larger load rating and permissible moment than SRS-M.

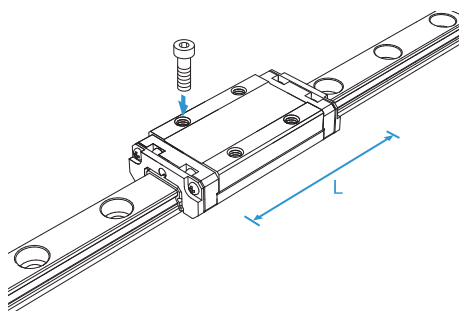
Dimensional Table⇒ **A1-160**



Model SRS-N

Compared with Model SRS-M, it has a longer total LM block length (L) and a higher load rating and permissible moment.

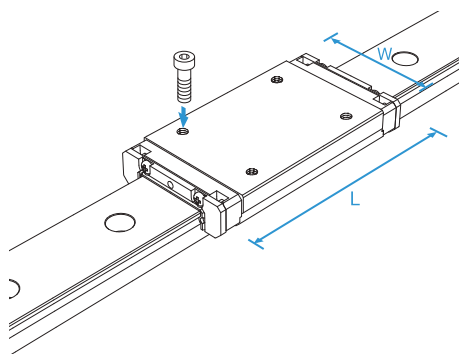
Dimensional Table⇒ **A1-156**



Model SRS-WN

Compared with Model SRS-WM, it has a longer total LM block length (L) and a higher load rating and permissible moment.

Dimensional Table⇒ **A1-160**



SRS-G

Dimensional Table⇒ **A1-156 to A1-162**

The SRS-G, a model equipped with uncaged, full-complement bearings, is also available. Due to its cageless design, however, the SRS-G's dynamic load rating is lower than that of standard SRS models. For specific data, please refer to the dimension tables in this catalog.

Flatness of the LM Rail and the LM Block Mounting Surface

Since the Model SRS has Gothic-arch grooves, any precision errors in the mounting surface may negatively affect its operability. Therefore, we recommend using SRS on mounting surfaces made with high precision.

Table 1: Flatness of the LM Rail and the LM Block Mounting Surface

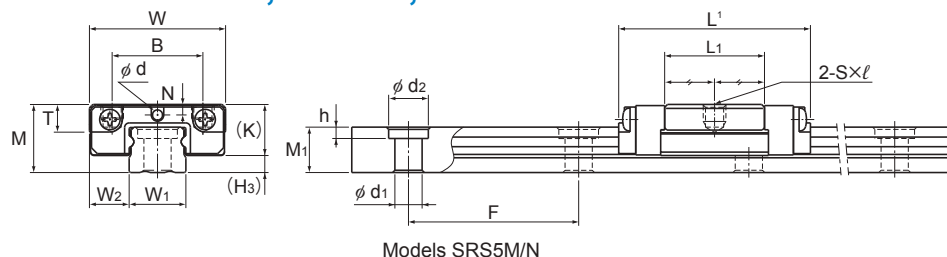
Unit: mm

Model No.	Flatness error
SRS 5	0.015/200
SRS 7	0.025/200
SRS 9	0.035/200
SRS 12	0.050/200
SRS 15	0.060/200
SRS 20	0.070/200
SRS 25	0.070/200

Notes: As many factors can affect the mounting precision, we recommend using values 70% or less than those shown.

The above figures apply to normal clearances. When using two or more rails with C1 clearance, we recommend using values 50% or less than those shown.

Models SRS-S, SRS-M, and SRS-N



Model No.	Outer dimensions			LM block dimensions								H ₃
	Height	Width	Length ¹									
	M	W	L	B	C	S×ℓ	L ₁	T	K	N	d	
SRS 5M SRS 5GM	6	12	16.9	8	—	M2×1.5	8.8	1.7	4.5	0.93	0.8	1.5
SRS 5N SRS 5GN	6	12	20.1	8	—	M2×1.5	12	1.7	4.5	0.93	0.8	1.5
SRS 7S SRS 7GS	8	17	19	12	—	M2×2.3	9	3.3	6.7	1.6	1.2	1.3
SRS 7M SRS 7GM	8	17	23.4	12	8	M2×2.3	13.4	3.3	6.7	1.6	1.2	1.3
SRS 7N SRS 7GN	8	17	31	12	13	M2×2.3	21	3.3	6.7	1.6	1.2	1.3
SRS 9XS SRS 9XGS	10	20	21.5	15	—	M3×2.8	10.5	4.5	8.5	2.4	1.6	1.5
SRS 9XM SRS 9XGM	10	20	30.8	15	10	M3×2.8	19.8	4.5	8.5	2.4	1.6	1.5
SRS 9XN SRS 9XGN	10	20	40.8	15	16	M3×2.8	29.8	4.5	8.5	2.4	1.6	1.5
SRS 12S SRS 12GS	13	27	25	20	—	M3×3.2	11.2	5.7	11	3	2	2.1
SRS 12M SRS 12GM	13	27	34.4	20	15	M3×3.2	20.6	5.7	11	3	2	2.1
SRS 12N SRS 12GN	13	27	47.1	20	20	M3×3.2	33.3	5.7	11	3	2	2.1

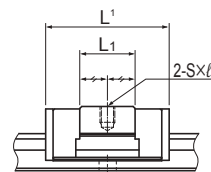
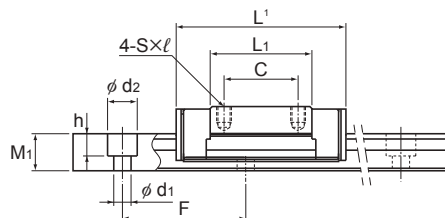
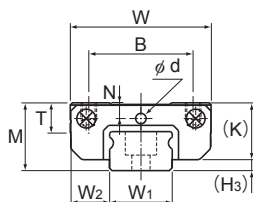
Model number coding

2 SRS12M QZ UU C1 +220L P M - II

Model No.	With QZ Lubricator	Contamination protection accessory symbol	LM rail length (in mm)	Stainless steel LM rail	Symbol for No. of rails used on the same plane
No. of LM blocks used on the same rail	Radial clearance symbol	Normal (No symbol)/Light preload (C1)	Accuracy symbol	Normal grade (No Symbol)/High accuracy grade (H)	Precision grade (P)

Notes: 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).

Grease nipples are not installed when there is a QZ Lubricator. Contact THK if you want to use a grease nipple for a model with a QZ. No symbol for single LM block. See **A1-547** for contamination protection accessories. See **A1-73** for radial clearance symbol. See **A1-85** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRS7 to 12M/N

Models SRS7 to 12S
Unit: mm

LM rail dimensions						Basic load rating ¹		Static permissible moment N·m ⁴					Mass	
Width		Height	Pitch		Length ²	C	C ₀	M _A		M _B		M _C	LM block	LM rail
W ₁ 0 -0.02	W ₂	M ₁	F	d ₁ × d ₂ × h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m
5	3.5	4	15	2.4 × 3.5 × 1	220	0.439 0.366	0.468 0.527	0.74 0.79	5.11 5.76	0.86 0.94	5.99 6.91	1.21 1.37	0.002	0.13
5	3.5	4	15	2.4 × 3.5 × 1	220	0.515 0.448	0.586 0.703	1.12 1.34	7.45 8.82	1.31 1.57	8.73 10.3	1.52 1.83	0.003	0.13
7	5	4.7	15	2.4 × 4.2 × 2.3	480	1.09 0.946	0.964 1.16	1.60 1.96	12.6 14.7	1.83 2.25	14.5 16.9	3.73 4.49	0.005	0.25
7	5	4.7	15	2.4 × 4.2 × 2.3	480	1.51 1.16	1.29 1.54	3.09 3.61	17.2 25.5	3.69 4.14	17.3 29.4	5.02 6.57	0.009	0.25
7	5	4.7	15	2.4 × 4.2 × 2.3	480	2.01 1.63	2.31 2.51	7.77 8.08	43.2 46.9	8.96 9.32	50.0 54.2	8.96 9.72	0.012	0.25
9	5.5	5.5	20	3.5 × 6 × 3.3	1240	1.78 1.37	1.53 1.53	3.15 2.85	22.2 22.6	3.61 3.27	25.6 26	7.04 7.04	0.009	0.36
9	5.5	5.5	20	3.5 × 6 × 3.3	1240	2.69 2.22	2.75 3.06	9.31 9.87	52.2 57.9	10.7 11.4	60.3 66.9	12.7 14.1	0.016	0.36
9	5.5	5.5	20	3.5 × 6 × 3.3	1240	3.48 2.94	3.98 4.59	18.7 21.1	96.5 111	21.6 24.4	112 128	18.3 21.1	0.024	0.36
12	7.5	7.5	25	3.5 × 6 × 4.5	2000	2.70 2.07	2.10 2.10	4.62 4.17	37.5 38.1	4.62 4.17	37.5 37.5	13.8 13.8	0.017	0.65
12	7.5	7.5	25	3.5 × 6 × 4.5	2000	4.00 3.36	3.53 3.55	12.0 12.1	78.5 79.0	12.0 12.1	78.5 79.0	23.1 23.2	0.027	0.65
12	7.5	7.5	25	3.5 × 6 × 4.5	2000	5.82 4.72	5.30 6.83	28.4 34.8	151 195	28.4 34.8	151 195	34.7 44.7	0.049	0.65

¹ Length L shown in the table is the length with the contamination protection accessories, code UU or SS.
If other contamination protection accessories or lubricant equipment are installed, the total block length will increase. (See **A1-521** or **A1-543**)

² The maximum length indicates the standard maximum length of an LM rail. (See **A1-164**.)

³ The basic load rating is for a load in the radial direction.

Use **A1-61** on Table 7 to calculate the load rating for loads in the reverse-radial direction or lateral direction.

⁴ Static permissible moment 1 block: the static permissible moment with one LM block

2 blocks: the static permissible moment with two LM blocks in close contact with each other

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

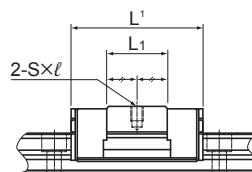
The SRS-G is equipped with uncaged, full-complement bearings

Using a lubrication hole other than for greasing may cause damage.

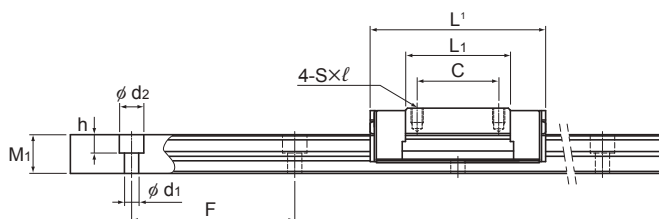
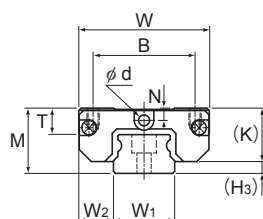
For the SRS5M/N LM Guide, the balls will fall out of the block if it is removed from the rail.

To secure the LM rail of Model SRS5, use M2 cross-recessed head screws for precision equipment (No. 0 pan head screw, class 1).

Models SRS-S, SRS-M, and SRS-N



Model SRS15S



Models SRS15M/N, 20M, 25M

Model No.	Outer dimensions			LM block dimensions										H ₃
	Height	Width	Length ¹								Lubrication hole	Grease nipple		
	M	W	L	B	C	S×ℓ	L ₁	T	K	N	E		d	
SRS 15S SRS 15GS	16	32	32	25	—	M3×3.5	14.7	6.5	13.3	3	— 4	3 —	— PB107	2.7
SRS 15M SRS 15GM	16	32	43	25	20	M3×3.5	25.7	6.5	13.3	3	— 4	3 —	— PB107	2.7
SRS 15N SRS 15GN	16	32	60.8	25	25	M3×3.5	43.5	6.5	13.3	3	— 4	3 —	— PB107	2.7
SRS 20M SRS 20GM	20	40	50	30	25	M4×6	34	9	16.6	4	— 3.5	3 —	— PB107	3.4
SRS 25M SRS 25GM	25	48	77	35	35	M6×7	56	11	20	5	— 4	4 —	— PB1021B	5

Model number coding

2 SRS20M QZ UU C1 +220L P M -II

Model No.
No. of LM blocks used on the same rail

With QZ Lubricator

Contamination protection accessory symbol

Radial clearance symbol
Normal (No symbol)/Light preload (C1)

LM rail length (in mm)

Stainless steel LM rail

Accuracy symbol
Normal grade (No Symbol)/High accuracy grade (H)
Precision grade (P)

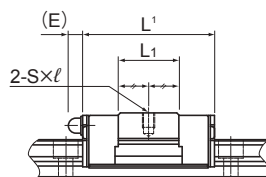
Symbol for No. of rails used on the same plane

Notes: 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).

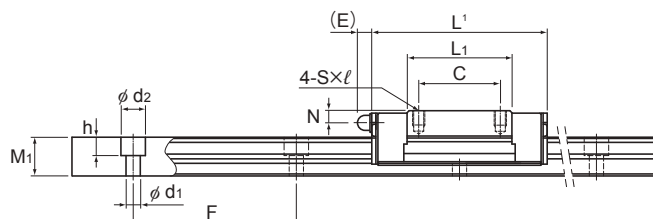
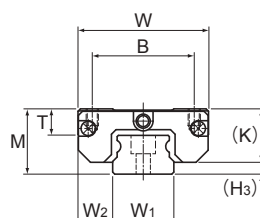
Grease nipples are not installed when there is a QZ Lubricator. Contact THK if you want to use a grease nipple for a model with a QZ.

No symbol for single LM block. See **A1-547** for contamination protection accessories. See **A1-73** for radial clearance symbol.

See **A1-85** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Model SRS15GS



Models SRS15GM/GN, 20GM, 25GM

Unit: mm

LM rail dimensions						Basic load rating ³		Static permissible moment N·m ⁴					Mass	
Width		Height	Pitch		Length ²	C	C ₀						LM block	LM rail
W ₁	W ₂	M ₁	F	d ₁ × d ₂ × h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m
15 ⁰ _{-0.02}	8.5	9.5	40	3.5 × 6 × 4.5	2000	4.50 4.01	3.39 4.24	9.54 12.6	77.5 92.7	9.54 12.6	77.5 92.7	24.1 30.1	0.033	0.96
15 ⁰ _{-0.02}	8.5	9.5	40	3.5 × 6 × 4.5	2000	6.66 5.59	5.7 5.72	26.2 24.8	154 158	26.2 24.8	154 158	40.4 40.6	0.047	0.96
15 ⁰ _{-0.02}	8.5	9.5	40	3.5 × 6 × 4.5	2000	9.71 8.27	8.55 11.9	59.7 82.3	312 433	59.7 82.3	312 433	60.7 84.5	0.095	0.96
20 ⁰ _{-0.03}	10	11	60	6 × 9.5 × 8	1800	7.75 5.95	9.77 9.4	54.3 44.7	296 242	62.4 53.3	341 289	104 91.4	0.11	1.68
23 ⁰ _{-0.03}	12.5	15	60	7 × 11 × 9	1800	16.5 13.3	20.2 22.3	177 181	932 962	177 181	932 962	248 255	0.24	2.6

¹ Length L shown in the table is the length with the contamination protection accessories, code UU or SS.
If other contamination protection accessories or lubricant equipment are installed, the total block length will increase. (See **A1-521** or **A1-543**)

² The maximum length indicates the standard maximum length of an LM rail. (See **A1-164**.)

³ The basic load rating is for a load in the radial direction.

Use **A1-61** on Table 7 to calculate the load rating for loads in the reverse-radial direction or lateral direction.

⁴ Static permissible moment 1 block: the static permissible moment with one LM block
 2 blocks: the static permissible moment with two LM blocks in close contact with each other

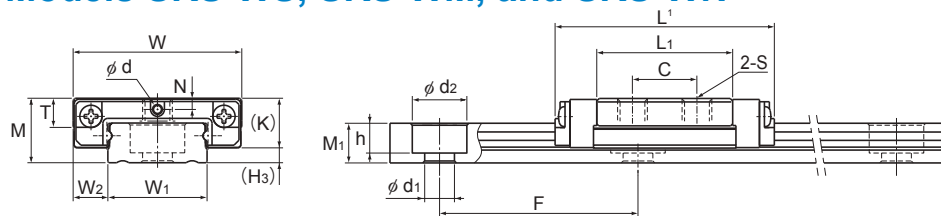
Notes: Since stainless steel is used in the LM block, LM rail, and balls, these models are highly resistant to corrosion and environment.

The SRS-G is equipped with uncaged, full-complement bearings

For the SRS15S/M/N, 20M, and 25M, if a grease nipple is required, please specify upon ordering.

Using a lubrication hole other than for greasing may cause damage.

Models SRS-WS, SRS-WM, and SRS-WN



Models SRS5WM/WN

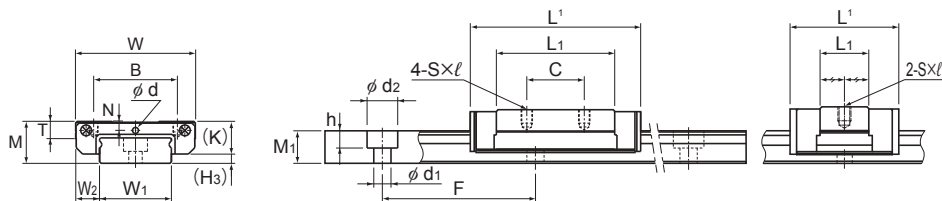
Model No.	Outer dimensions			LM block dimensions								H ₃
	Height	Width	Length ¹								Lubrication hole	
	M	W	L	B	C	S×ℓ	L ₁	T	K	N	d	
SRS 5WM	6.5	17	22.1	—	6.5	M3 through	13.7	2.7	5	1.1	0.8	1.5
SRS 5WGM	6.5	17	28.1	—	11	M3 through	19.7	2.7	5	1.1	0.8	1.5
SRS 7WS	9	25	22.5	19	—	M3×2.8	11.9	3.8	7.2	1.8	1.2	1.8
SRS 7WGS	9	25	31	19	10	M3×2.8	20.4	3.8	7.2	1.8	1.2	1.8
SRS 7WN	9	25	40.9	19	17	M3×2.8	30.3	3.8	7.2	1.8	1.2	1.8
SRS 7WGN	9	25	40.9	19	17	M3×2.8	30.3	3.8	7.2	1.8	1.2	1.8
SRS 9WS	12	30	26.5	21	—	M3×2.8	14.5	4.9	9.1	2.3	1.6	2.9
SRS 9WGS	12	30	39	21	12	M3×2.8	27	4.9	9.1	2.3	1.6	2.9
SRS 9WM	12	30	50.7	23	24	M3×2.8	38.7	4.9	9.1	2.3	1.6	2.9
SRS 9WGM	12	30	50.7	23	24	M3×2.8	38.7	4.9	9.1	2.3	1.6	2.9
SRS 9WN	12	30	50.7	23	24	M3×2.8	38.7	4.9	9.1	2.3	1.6	2.9
SRS 9WGN	12	30	50.7	23	24	M3×2.8	38.7	4.9	9.1	2.3	1.6	2.9
SRS 12WS	14	40	30.5	28	—	M3×3.5	16.9	5.7	11	3	2	3
SRS 12WGS	14	40	44.5	28	15	M3×3.5	30.9	5.7	11	3	2	3
SRS 12WM	14	40	59.5	28	28	M3×3.5	45.9	5.7	11	3	2	3
SRS 12WGM	14	40	59.5	28	28	M3×3.5	45.9	5.7	11	3	2	3
SRS 12WN	14	40	59.5	28	28	M3×3.5	45.9	5.7	11	3	2	3
SRS 12WGN	14	40	59.5	28	28	M3×3.5	45.9	5.7	11	3	2	3

Model number coding

2	SRS12WM	QZ	UU	C1	+470L	P	M	-II
No. of LM blocks used on the same rail	Model No.	With QZ Lubricator	Contamination protection accessory symbol	LM rail length (in mm)	Radial clearance symbol Normal (No symbol)/Light preload (C1)	Accuracy symbol Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)	Stainless steel LM rail	Symbol for No. of rails used on the same plane

Notes: 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).

Grease nipples are not installed when there is a QZ Lubricator. Contact THK if you want to use a grease nipple for a model with a QZ. No symbol for single LM block. See **A1-547** for contamination protection accessories. See **A1-73** for radial clearance symbol. See **A1-85** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRS7 to 12WM/WN

Models SRS7 to 12WS
Unit: mm

LM rail dimensions							Basic load rating ³		Static permissible moment N·m ⁴					Mass	
Width			Height	Pitch		Length ²	C	C ₀						LM block	LM rail
W ₁ ⁰ -0.02	W ₂	W ₃	M ₁	F	d ₁ ×d ₂ ×h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m
10	3.5	—	4	20	3×5.5×3	220	0.584 0.498	0.703 0.82	1.57 1.79	9.59 11.1	1.83 2.15	11.24 13.3	3.58 4.18	0.005	0.27
10	3.5	—	4	20	3×5.5×3	220	0.746 0.64	0.996 1.17	3.01 3.54	16.8 19.6	3.53 4.15	19.7 23	5.08 5.97	0.007	0.27
14	5.5	—	5.2	30	3.5×6×3.2	480	1.38 1.06	1.35 1.35	2.89 2.58	19.6 20.0	3.32 2.96	22.7 23.1	9.95 9.95	0.011	0.56
14	5.5	—	5.2	30	3.5×6×3.2	480	2.01 1.63	1.94 2.51	6.47 8.87	36.4 51.5	7.71 10.2	42.3 59.5	14.33 20.3	0.018	0.56
14	5.5	—	5.2	30	3.5×6×3.2	480	2.56 2.12	3.28 3.66	15.0 16.6	78.9 87.7	17.4 19.2	91.0 101	24.2 27	0.026	0.56
18	6	—	7.5	30	3.5×6×4.5	1430	2.03 1.73	1.84 2.14	4.49 5.15	32.1 36.9	5.15 5.92	38.9 42.6	17.4 20.2	0.018	1.01
18	6	—	7.5	30	3.5×6×4.5	1430	3.29 2.67	3.34 3.35	14.0 13.9	78.6 69.7	16.2 16.6	91.0 96.7	31.5 31.7	0.031	1.01
18	6	—	7.5	30	3.5×6×4.5	1430	4.20 3.48	4.37 5.81	25.1 33.2	130 172	29.1 40	151 208	41.3 54.9	0.049	1.01
24	8	—	8.5	40	4.5×8×4.5	2000	3.58 3.05	3.15 3.68	9.77 11.1	63 72.6	9.77 11.1	63 72.6	39.5 46.2	0.034	1.52
24	8	—	8.5	40	4.5×8×4.5	2000	5.48 4.46	5.3 5.32	26.4 25.7	143 146	26.4 25.7	143 146	66.5 66.8	0.055	1.52
24	8	—	8.5	40	4.5×8×4.5	2000	7.13 5.93	7.07 9.46	49.2 64.7	249 332	49.2 64.7	249 332	88.7 119	0.091	1.52

¹ Length L shown in the table is the length with the contamination protection accessories, code UU or SS.

If other contamination protection accessories or lubricant equipment are installed, the total block length will increase. (See **A1-521** or **A1-543**)

² The maximum length indicates the standard maximum length of an LM rail. (See **A1-164**.)

³ The basic load rating is for a load in the radial direction.

Use **A1-61** on Table 7 to calculate the load rating for loads in the reverse-radial direction or lateral direction.

⁴ Static permissible moment 1 block: the static permissible moment with one LM block

2 blocks: the static permissible moment with two LM blocks in close contact with each other

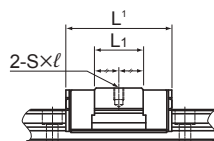
Notes: Since stainless steel is used in the LM block, LM rail, and balls, these models are highly resistant to corrosion and environment.

The SRS-G is equipped with uncaged, full-complement bearings

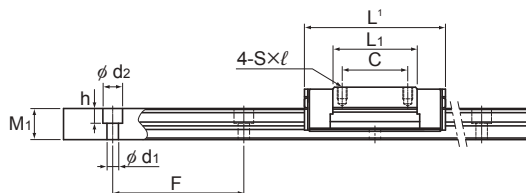
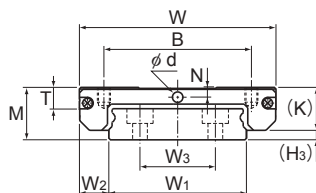
Using a lubrication hole other than for greasing may cause damage.

For models SRS5WM/WN, the balls will fall out of the block if it is removed from the rail.

Models SRS-WS, SRS-WM, and SRS-WN



Model SRS15WS



Model SRS15WM/WN

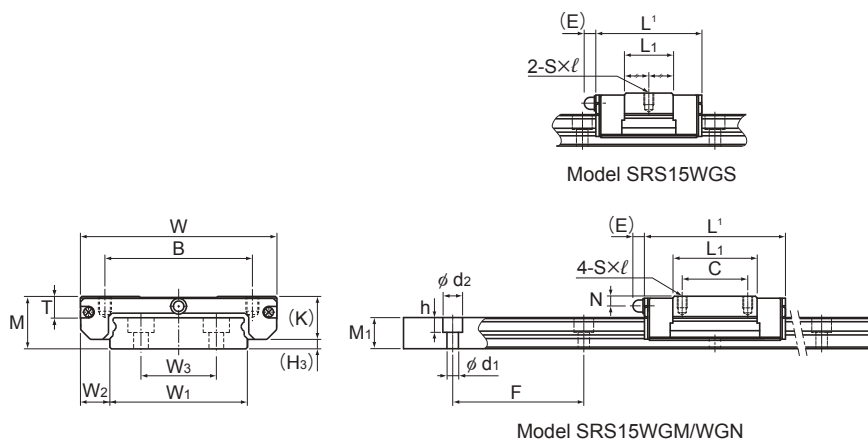
Model No.	Outer dimensions			LM block dimensions										Grease nipple	H ₃
	Height	Width	Length ¹										Lubrication hole		
	M	W	L	B	C	S × l	L ₁	T	K	N	E	d			
SRS 15WS	16	60	41.5	45	—	M4×4.5	24.9	6.5	13.3	3	—	3	—	—	2.7
SRS 15WGS											4	—	PB107		
SRS 15WM	16	60	55.5	45	20	M4×4.5	38.9	6.5	13.3	3	—	3	—	—	2.7
SRS 15WGM											4	—	PB107		
SRS 15WN	16	60	74.5	45	35	M4×4.5	57.9	6.5	13.3	3	—	3	—	—	2.7
SRS 15WGN											4	—	PB107		

Model number coding

2 SRS15WM QZ UU C1 +550L P M -II

No. of LM blocks used on the same rail	Model No.	With QZ Lubricator	Contamination protection accessory symbol	LM rail length (in mm)	Radial clearance symbol Normal (No symbol)/ Light preload (C1)	Stainless steel LM rail	Accuracy symbol Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)	Symbol for No. of rails used on the same plane
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Notes: 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).
 Grease nipples are not installed when there is a QZ Lubricator. Contact THK if you want to use a grease nipple for a model with a QZ.
 No symbol for single LM block. See **A1-547** for contamination protection accessories. See **A1-73** for radial clearance symbol.
 See **A1-85** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Unit: mm

LM rail dimensions							Basic load rating		Static permissible moment N·m ³					Mass	
Width			Height	Pitch		Length ²	C	C ₀	M _A		M _B		M _C	LM block	LM rail
W ₁	W ₂	W ₃	M ₁	F	d ₁ × d ₂ × h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m
42	9	23	9.5	40	4.5×8×4.5	2000	6.64	5.94	25.4	158	25.4	158	123	0.087	2.87
							5.59	6.78	29	178	29	178	140		
42	9	23	9.5	40	4.5×8×4.5	2000	9.12	8.55	51.2	290	51.2	290	176	0.13	2.87
							7.43	8.59	52.7	293	52.7	293	178		
42	9	23	9.5	40	4.5×8×4.5	2000	12.4	12.1	106	532	106	532	250	0.201	2.87
							9.87	15.3	133	671	133	671	317		

¹ Length L shown in the table is the length with the contamination protection accessories, code UU or SS.
If other contamination protection accessories or lubricant equipment are installed, the total block length will increase. (See **■1-521** or **■1-543**)

² The maximum length indicates the standard maximum length of an LM rail. (See **■1-164**.)

³ Static permissible moment 1 block: the static permissible moment with one LM block
 2 blocks: the static permissible moment with two LM blocks in close contact with each other

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

The SRS-G is equipped with uncaged, full-complement bearings

For the SRS15WS/WM/WN, if a grease nipple is required, please specify upon ordering.

Using a lubrication hole other than for greasing may cause damage.

Standard Lengths and Maximum Lengths of LM Rails

Table 2 shows the standard lengths and the maximum lengths of model SRS variations. If the maximum length of the desired LM rail exceeds these values, jointed rails will be used. Contact THK for details.

For special rail lengths, it is recommended to use a value corresponding to the G and g dimensions from the table. As the G and g dimensions increase, this portion becomes less stable, and the accuracy performance is severely impacted.

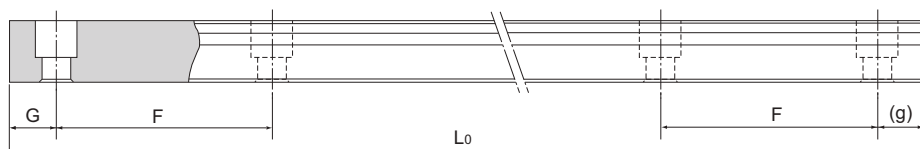


Table 2: Standard Lengths and Maximum Lengths of LM Rails for Model SRS

Unit: mm

Model No.	SRS 5	SRS 5W	SRS 7	SRS 7W	SRS 9	SRS 9W	SRS 12	SRS 12W	SRS 15	SRS 15W	SRS 20	SRS 25
LM rail standard lengths (L_0)	40	50	40	50	55	50	70	70	70	110	220	220
	55	70	55	80	75	80	95	110	110	150	280	280
	70	90	70	110	95	110	120	150	150	190	340	340
	100	110	85	140	115	140	145	190	190	230	460	460
	130	130	100	170	135	170	170	230	230	270	640	640
	160	150	115	200	155	200	195	270	270	310	880	880
		170	130	260	175	260	220	310	310	430	1000	1000
				290	195	290	245	390	350	550		
					275	320	270	470	390	670		
					375		320	550	430	790		
							370		470			
							470		550			
							570		670			
									870			
Standard pitch F	15	20	15	30	20	30	25	40	40	40	60	60
G, g	5	5	5	10	7.5	10	10	15	15	15	20	20
Max length	220	220	480	480	1240	1430	2000	2000	2000	2000	1800	1800

Notes: The maximum length varies with accuracy grades. Contact THK for details.

If jointed rails are not allowed and a greater length than the maximum values above is required, contact THK.

Reference bolt tightening torques when mounting an LM block

Reference bolt-tightening torques when mounting an LM block for Model SRS are shown in Table 3. Tightening above the tightening torque affects accuracy. Be sure to tighten at or below the defined tightening torque.

Table 3: Reference tightening torque

Model No.	Model No. of screw	Screw depth (mm)	Reference tightening torque (N·m)
SRS 5	M2	1.5	0.4
SRS 5W	M3	2.3	0.4
SRS 7	M2	2.3	0.4
SRS 7W	M3	2.8	0.4