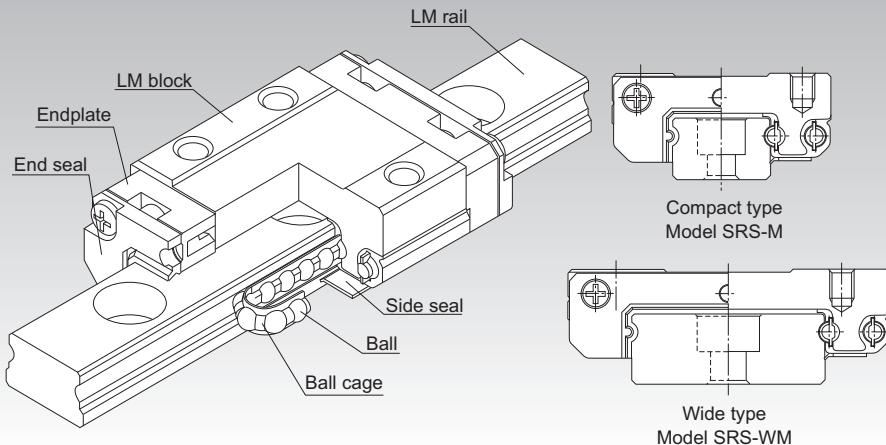


# SRS



## Caged Ball LM Guide Miniature Type Model SRS



\*For the ball cage, see **A1-88**.

**Point of Selection** **A1-10**

**Point of Design** **A1-434**

**Options** **A1-457**

**Model No.** **A1-522**

**Precautions on Use** **A1-528**

**Accessories for Lubrication** **A24-1**

**Mounting Procedure and Maintenance** **B1-89**

**Equivalent moment factor** **A1-43**

**Rated Loads in All Directions** **A1-58**

**Equivalent factor in each direction** **A1-60**

**Radial Clearance** **A1-70**

**Accuracy Standards** **A1-82**

**Shoulder Height of the Mounting Base and the Corner Radius** **A1-449**

**Permissible Error of the Mounting Surface** **A1-451**

**Flatness of the Mounting Surface** **A1-452**

**Dimensions of Each Model with an Option Attached** **A1-470**

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## Structure and Features

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Caged Ball LM Guide model SRS has a structure where two raceways are incorporated into the compact body, enabling the model to receive loads in all directions, and to be used in locations where a moment is applied with a single rail. In addition, use of ball cages eliminates friction between balls, thus achieving high speed, low noise, acceptable 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]

Since SRS has a compact structure where the rail cross section is designed to be low and that contains only two rows of balls, it can be installed in space-saving locations.

### [Lightweight]

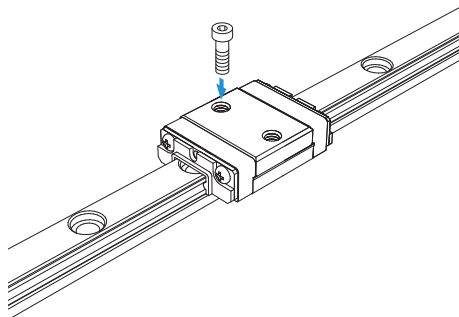
Since part of the LM block (e.g., around the ball relief hole) is made of resin and formed through insert molding, SRS is a lightweight, low inertia type of LM Guide.

## Types and Features

### Model SRS5M

Specification Table → **A1-154**

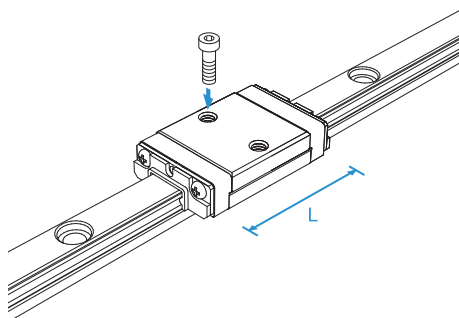
SRS5 is the smallest caged ball LM guide.



### Model SRS-5N

Specification Table → **A1-154**

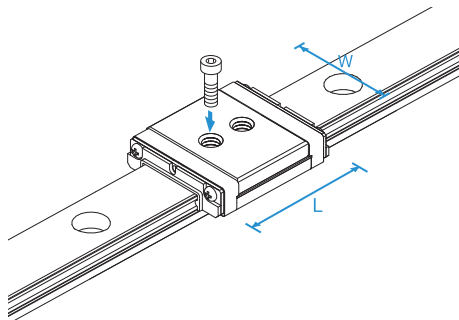
Overall LM block length (L) is greater than for model SRS5M; load rating and permissible moment are higher as well.



### Model SRS5WM

Specification Table → **A1-154**

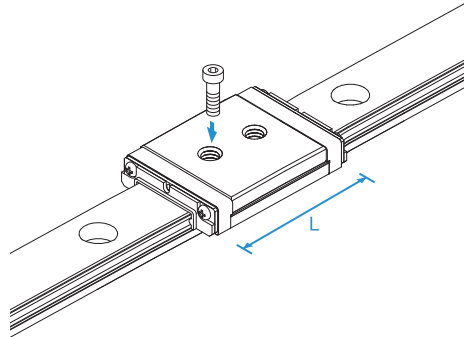
This model has a larger overall LM block length (L), width (W), rated load and permissible moment than model SRS5M.



## Model SRS-5WN

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

Specification Table⇒ **A1-154**

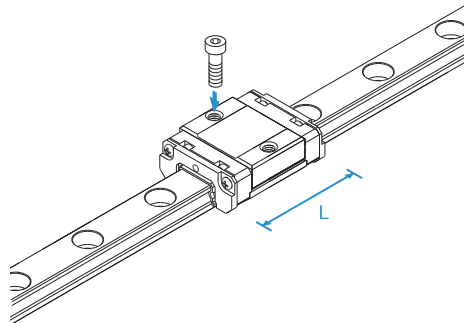


LM Guide

## Model SRS-S

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

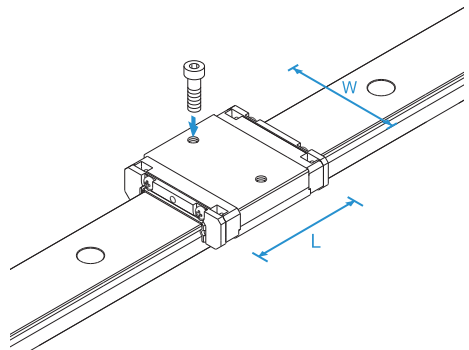
Specification Table⇒ **A1-156**



## Model SRS-WS

Has a longer overall LM block length (L), a greater width and a larger rated load and permissible moment than SRS-S.

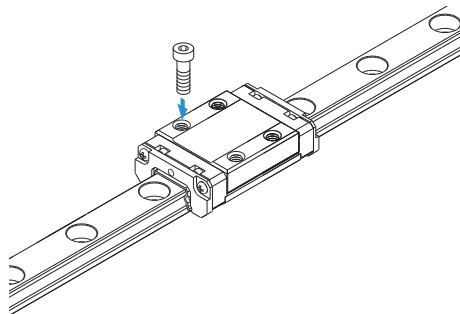
Specification Table⇒ **A1-158**



## Model SRS-M

A standard type of SRS.

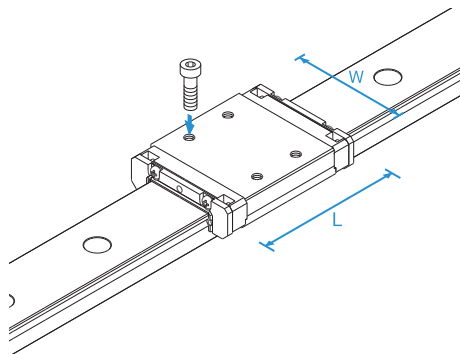
Specification Table⇒ **A1-156**



## Model SRS-WM

Has a longer overall LM block length (L), a greater width and a larger rated load and permissible moment than SRS-M.

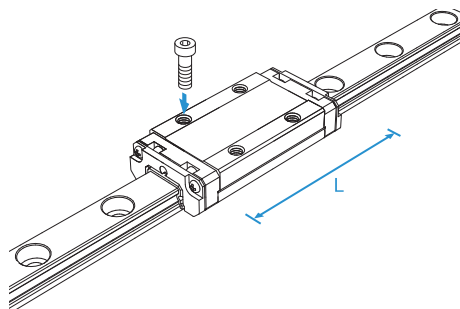
Specification Table⇒ **A1-158**



## 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.

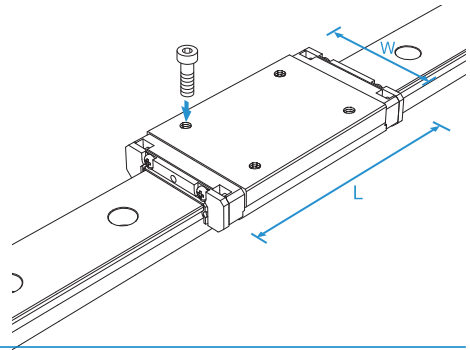
Specification Table⇒ **A1-156**



## 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.

Specification Table ⇒ [A1-158](#)



LM Guide

## SRS-G

Specification Table ⇒ [A1-154](#) to [A1-158](#)

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

The values in Table1 apply when the clearance is a normal clearance. If the clearance is C1 clearance and two rails are used in combination, we recommend using 50% or less of the value in the table.

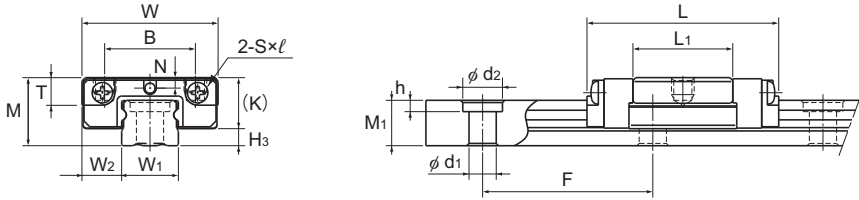
Note) Since SRS has Gothic-arch grooves, any accuracy error in the mounting surface may negatively affect the operation. Therefore, we recommend using SRS on a highly accurate mounting surface.

Table1 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

## Models SRS5M, SRS5N, SRS5WM, SRS5WN



Models SRS5M, SRS5N

Model No.	Outer dimensions			LM block dimensions							H <sub>3</sub>
	Height	Width	Length	B	C	S × l	L <sub>1</sub>	T	K	N	
	M	W	L								
SRS 5M SRS 5GM	6	12	16.9	8	—	M2 × 1.5	8.8	1.7	4.5	0.93	1.5
SRS 5N SRS 5GN	6	12	20.1	8	—	M2 × 1.5	12	1.7	4.5	0.93	1.5
SRS 5WM SRS 5WGM	6.5	17	22.1	—	6.5	M3 through	13.7	2.7	5	1.1	1.5
SRS 5WN SRS 5WGN	6.5	17	28.1	—	11	M3 through	19.7	2.7	5	1.1	1.5

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

To secure the LM rail of model SRS5M, use cross-recessed head screws for precision equipment (No. 0 pan head screw, class 1) M2.

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

The balls will fall out of the LM block if it is removed from the LM rail.

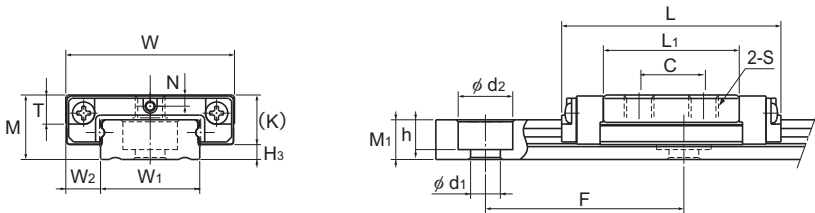
### Model number coding

<b>2</b>	<b>SRS5WM</b>	<b>UU</b>	<b>C1</b>	<b>+150L</b>	<b>P</b>	<b>M</b>	<b>- II</b>
No. of LM blocks used on the same rail	Model number	Contamination protection accessory symbol (*1)	Radial clearance symbol (*2) Normal (No symbol) Light preload (C1)	LM rail length (in mm)	Accuracy symbol (*3) Normal grade (No Symbol)/Precision grade (P)	Stainless steel LM rail	Symbol for No. of rails used on the same plane (*4)

(\*1) See contamination protection accessory on **A1-494**. (\*2) See **A1-70**. (\*3) See **A1-82**. (\*4) See **A1-13**.

Note) This model number indicates that a single-rail unit constitutes one set. (i.e. If you are using 2 shafts in parallel, the required number of sets is 2.)





Models SRS5WM, SRS5WN

Unit: mm

LM rail dimensions							Basic Load Rating		Static permissible moment N•m*					Mass	
Width	Height	Pitch	Length*	$d_1 \times d_2 \times h$	Max	C	C <sub>0</sub>	M <sub>A</sub>		M <sub>B</sub>		M <sub>C</sub>		LM block	LM rail
						N	N	1 block	Double blocks	1 block	Double blocks	1 block	Double blocks		
5 <sup>0</sup> <sub>-0.02</sub>	3.5	4	15	2.4×3.5×1	220	439 366	468 527	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 <sup>0</sup> <sub>-0.02</sub>	3.5	4	15	2.4×3.5×1	220	515 448	586 703	1.12 1.34	7.45 8.82	1.31 1.57	8.73 10.3	1.52 1.83	0.003	0.13	
10 <sup>0</sup> <sub>-0.02</sub>	3.5	4	20	3×5.5×3	220	584 498	703 820	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 <sup>0</sup> <sub>-0.02</sub>	3.5	4	20	3×5.5×3	220	746 640	996 1170	3.01 3.54	16.8 19.6	3.53 4.15	19.7 23	5.08 5.97	0.007	0.27	

Note) The maximum length under "Length\*" indicates the standard maximum length of an LM rail. (See **A1-160**.)

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

The SRS-G, equipped with uncaged, full-complement bearings, comes with an oil hole.

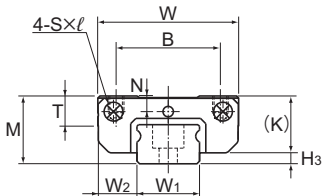
- Reference bolt tightening torque when mounting an LM block for model SRS 5/5W is shown in the table below.

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

\* Tightening above the tightening torque affects accuracy.  
Be sure to tighten at or below the defined tightening torque.

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



Model No.	Outer dimensions			LM block dimensions							H <sub>3</sub>
	Height	Width	Length	B	C	S×ℓ	L <sub>1</sub>	T	K	N	
	M	W	L	B	C	S×ℓ	L <sub>1</sub>	T	K	N	
SRS 7S SRS 7GS	8	17	19	12	—	M2×2.3	9	3.3	6.7	1.6	1.3
SRS 7M SRS 7GM	8	17	23.4	12	8	M2×2.3	13.4	3.3	6.7	1.6	1.3
SRS 7N SRS 7GN	8	17	31	12	13	M2×2.3	21	3.3	6.7	1.6	1.3
SRS 9XS SRS 9XGS	10	20	21.5	15	—	M3×2.8	10.5	4.5	8.5	2.4	1.5
SRS 9XM SRS 9XGM	10	20	30.8	15	10	M3×2.8	19.8	4.5	8.5	2.4	1.5
SRS 9XN SRS 9XGN	10	20	40.8	15	16	M3×2.8	29.8	4.5	8.5	2.4	1.5
SRS 12S SRS 12GS	13	27	25	20	—	M3×3.2	11.2	5.7	11	3	2
SRS 12M SRS 12GM	13	27	34.4	20	15	M3×3.2	20.6	5.7	11	3	2
SRS 12N SRS 12GN	13	27	47.1	20	20	M3×3.2	33.3	5.7	11	3	2
SRS 15S SRS 15GS	16	32	32	25	—	M3×3.5	14.7	6.5	13.3	3	2.7
SRS 15M SRS 15GM	16	32	43	25	20	M3×3.5	25.7	6.5	13.3	3	2.7
SRS 15N SRS 15GN	16	32	60.8	25	25	M3×3.5	43.5	6.5	13.3	3	2.7
SRS 20M SRS 20GM	20	40	50	30	25	M4×6	34	9	16.6	4	3.4
SRS 25M SRS 25GM	25	48	77	35	35	M6×7	56	11	20	5	5

Note) 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.

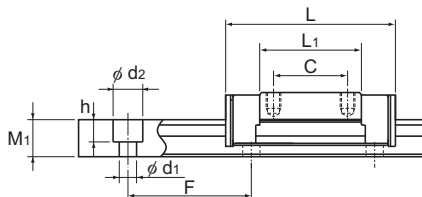
### Model number coding

<b>2</b>	<b>SRS20M</b>	<b>QZ</b>	<b>UU</b>	<b>C1</b>	<b>+220L</b>	<b>P</b>	<b>M</b>	<b>-II</b>
Model number	With QZ Lubricator	Contamination protection accessory symbol (*1)	LM rail length (in mm)	Stainless steel LM rail	Symbol for No. of rails used on the same plane (*4)			
No. of LM blocks used on the same rail		Radial clearance symbol (*2) Normal (No symbol)/Light preload (C1)		Accuracy symbol (*3) Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)				

(\*1) See contamination protection accessory on **A1-494**. (\*2) See **A1-70**. (\*3) See **A1-82**. (\*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.)

Those models equipped with QZ Lubricator cannot have a grease nipple. When desiring a grease nipple for a model attached with QZ, contact THK.



Unit: mm

LM rail dimensions						Basic load rating		Static permissible moment N·m*					Mass	
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		
						1 block	Double blocks	1 block	Double blocks	1 block			kg	kg/m
W <sub>1</sub>	W <sub>2</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
7 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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	112 118	18.3 21.1	0.024	0.36
12 <sup>0</sup> <sub>-0.02</sub>	7.5	7.5	25	3.5 × 6 × 4.5	1430	2.70 2.07	2.10 2.10	4.62 4.17	37.5 38.1	4.62 4.17	37.5 38.1	13.8 13.8	0.017	0.65
12 <sup>0</sup> <sub>-0.02</sub>	7.5	7.5	25	3.5 × 6 × 4.5	1430	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 <sup>0</sup> <sub>-0.02</sub>	7.5	7.5	25	3.5 × 6 × 4.5	1430	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
15 <sup>0</sup> <sub>-0.02</sub>	8.5	9.5	40	3.5 × 6 × 4.5	1600	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 <sup>0</sup> <sub>-0.02</sub>	8.5	9.5	40	3.5 × 6 × 4.5	1600	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 <sup>0</sup> <sub>-0.02</sub>	8.5	9.5	40	3.5 × 6 × 4.5	1600	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 <sup>0</sup> <sub>-0.03</sub>	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	349 281	104 91.4	0.11	1.68
23 <sup>0</sup> <sub>-0.03</sub>	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

Note) If a grease nipple is required, please specify "with grease nipple" when ordering. (This option is available for models SRS15, SRS15W, SRS20, and SRS25.)  
 If an oil hole is desired, please specify "with oil hole" when ordering. (This option is available for models SRS7, SRS7W, SRS9W, SRS12, and SRS12W.)  
 The SRS-G, equipped with uncaged, full-complement bearings, comes with an oil hole or grease nipple.  
 The maximum length under "Length\*" indicates the standard maximum length of an LM rail. (See **A1-160**.)  
 Static permissible moment\* 1 block: static permissible moment value with 1 LMblock  
 Double blocks: static permissible moment value with 2 blocks closely contacting with each other

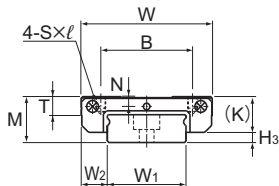
- Reference bolt tightening torque when mounting an LM block for model SRS 7 is shown in the table below.

Reference tightening torque

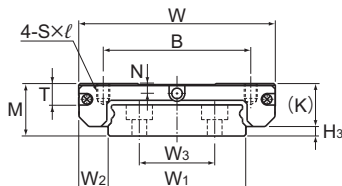
Model No.	Model No. of screw	Screw depth (mm)	Reference tightening torque (N·m)*
SRS 7	M2	2.3	0.4

\* Tightening above the tightening torque affects accuracy.  
 Be sure to tighten at or below the defined tightening torque.

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



Models SRS7W, 9W, 12W



Model SRS15W

Model No.	Outer dimensions			LM block dimensions							H <sub>3</sub>
	Height	Width	Length	B	C	S × l	L <sub>1</sub>	T	K	N	
	M	W	L	B	C	S × l	L <sub>1</sub>	T	K	N	
SRS 7WS SRS 7WGS	9	25	22.5	19	—	M3×2.8	11.9	3.8	7.2	1.8	1.8
SRS 7WM SRS 7WGM	9	25	31	19	10	M3×2.8	20.4	3.8	7.2	1.8	1.8
SRS 7WN SRS 7WGN	9	25	40.9	19	17	M3×2.8	30.3	3.8	7.2	1.8	1.8
SRS 9WS SRS 9WGS	12	30	26.5	21	—	M3×2.8	14.5	4.9	9.1	2.3	2.9
SRS 9WM SRS 9WGM	12	30	39	21	12	M3×2.8	27	4.9	9.1	2.3	2.9
SRS 9WN SRS 9WGN	12	30	50.7	23	24	M3×2.8	38.7	4.9	9.1	2.3	2.9
SRS 12WS SRS 12WGS	14	40	30.5	28	—	M3×3.5	16.9	5.7	11	3	3
SRS 12WM SRS 12WGM	14	40	44.5	28	15	M3×3.5	30.9	5.7	11	3	3
SRS 12WN SRS 12WGN	14	40	59.5	28	28	M3×3.5	45.9	5.7	11	3	3
SRS 15WS SRS 15WGS	16	60	41.5	45	—	M4×4.5	24.9	6.5	13.3	3	2.7
SRS 15WM SRS 15WGM	16	60	55.5	45	20	M4×4.5	38.9	6.5	13.3	3	2.7
SRS 15WN SRS 15WGN	16	60	74.5	45	35	M4×4.5	57.9	6.5	13.3	3	2.7

Note) 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.

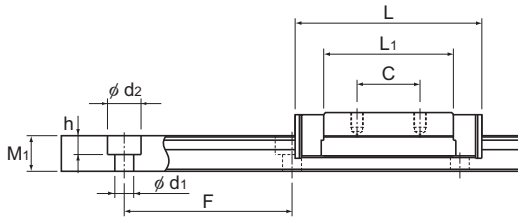
### Model number coding

<b>2</b>	<b>SRS15WM</b>	<b>QZ</b>	<b>UU</b>	<b>C1</b>	<b>+550L</b>	<b>P</b>	<b>M</b>	<b>-II</b>
No. of LM blocks used on the same rail	Model number	With QZ Lubricator	Contamination protection accessory symbol (*1)	Radial clearance symbol (*2) Normal (No symbol)/Light preload (C1)	LM rail length (in mm)	Stainless steel LM rail	Accuracy symbol (*3) Normal grade (No Symbol)/High accuracy grade (H) Precision grade (P)	Symbol for No. of rails used on the same plane (*4)

(\*1) See contamination protection accessory on **A1-494**. (\*2) See **A1-70**. (\*3) See **A1-82**. (\*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.)

Those models equipped with QZ Lubricator cannot have a grease nipple. When desiring a grease nipple for a model attached with QZ, contact THK.



Unit: mm

LM rail dimensions							Basic load rating		Static permissible moment N·m*					Mass	
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
W <sub>1</sub>	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
14 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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	91.2 101	24.2 27	0.026	0.56
18 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	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 <sup>0</sup> <sub>-0.02</sub>	8	—	8.5	40	4.5×8×4.5	1600	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 <sup>0</sup> <sub>-0.02</sub>	8	—	8.5	40	4.5×8×4.5	1600	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 <sup>0</sup> <sub>-0.02</sub>	8	—	8.5	40	4.5×8×4.5	1600	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
42 <sup>0</sup> <sub>-0.02</sub>	9	23	9.5	40	4.5×8×4.5	1800	6.64 5.59	5.94 6.78	25.4 29	158 178	25.4 29	158 178	123 140	0.087	2.87
42 <sup>0</sup> <sub>-0.02</sub>	9	23	9.5	40	4.5×8×4.5	1800	9.12 7.43	8.55 8.59	51.2 52.7	290 293	51.2 52.7	290 293	176 178	0.13	2.87
42 <sup>0</sup> <sub>-0.02</sub>	9	23	9.5	40	4.5×8×4.5	1800	12.4 9.87	12.1 15.3	106 133	532 671	106 133	532 671	250 317	0.201	2.87

Note) If a grease nipple is required, please specify "with grease nipple" when ordering. (This option is available for models SRS15, SRS15W, SRS20, and SRS25.)

If an oil hole is desired, please specify "with oil hole" when ordering. (This option is available for models SRS7, SRS7W, SRS9W, SRS12, and SRS12W.)

The SRS-G, equipped with uncaged, full-complement bearings, comes with an oil hole or grease nipple.

The maximum length under "Length\*" indicates the standard maximum length of an LM rail. (See **A1-160**.)

Static permissible moment\* 1 block: static permissible moment value with 1 LMblock

Double blocks: static permissible moment value with 2 blocks closely contacting with each other

- Reference bolt tightening torque when mounting an LM block for model SRS 7W is shown in the table below.

Reference tightening torque

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

\* Tightening above the tightening torque affects accuracy.  
Be sure to tighten at or below the defined tightening torque.

## Standard Length and Maximum Length of the LM Rail

Table2 shows the standard lengths and the maximum lengths of model SRS 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.

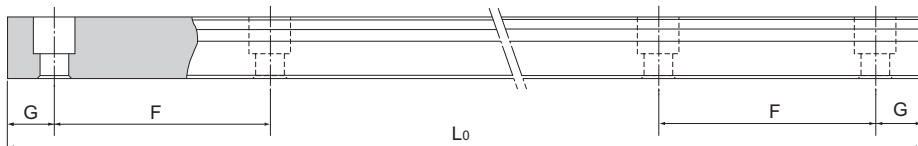


Table2 Standard Length and Maximum Length of the LM Rail for Model SRS

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 length (L <sub>0</sub> )	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
				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	5	5	5	10	7.5	10	10	15	15	15	20	20
Max length	220	220	480	480	1240	1430	1430	1600	1600	1800	1800	1800

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.

## Greasing Hole

### [Grease Nipple and Greasing Hole for Model SRS]

The standard version of Model SRS is not equipped with either a grease nipple or an oil hole. Grease nipple installation and greasing hole drilling are performed at THK. When ordering SRS, indicate that the desired model requires a grease nipple or greasing hole. Model SRS-G (full-ball type) has a grease nipple and a greasing hole as standard. (For greasing hole dimensions and supported grease nipple types and dimensions, see Table3.)

When using SRS under harsh conditions, use QZ Lubricator\* (optional) or Laminated Contact Scraper LaCS\* (optional).

Note1) Grease nipple is not available for models SRS5, 5W, 7, 7W, 9X, 9W, 12 and 12W. They can have a greasing hole.

Note2) Using a greasing hole other than for greasing may cause damage.

Note3) For QZ Lubricator\*, see **A1-487**. For Laminated Contact Scraper LaCS\*, see **A1-464**.

Note4) When desiring a grease nipple for a model attached with QZ Lubricator, contact THK.

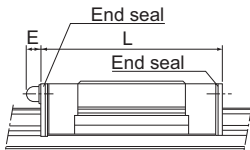


Fig.1 Dimensions of the Grease Nipple for Model SRS

Note) For the L dimension, see the corresponding specification table.

Table3 Table of Grease Nipple and Greasing Hole Dimensions

Unit: mm

Model No.	E	Grease nipple or greasing hole	
SRS	5	— $\phi$ 0.8 drilled hole	
	5W	— $\phi$ 0.8 drilled hole	
	7	— $\phi$ 1.2 drilled hole	
	7W	— $\phi$ 1.2 drilled hole	
	9X	— $\phi$ 1.6 drilled hole	
	9W	— $\phi$ 1.6 drilled hole	
	12	— $\phi$ 2.0 drilled hole	
	12W	— $\phi$ 2.0 drilled hole	
	15	4.0 (5.0)	PB107
	15W	4.0 (5.0)	PB107
	20	3.5 (5.0)	PB107
	25	4.0 (5.5)	PB1021B
	SRS-G	5W	— $\phi$ 0.8 drilled hole
		5WG	— $\phi$ 0.8 drilled hole
7G		— $\phi$ 1.2 drilled hole	
7GW		— $\phi$ 1.2 drilled hole	
9GX		— $\phi$ 1.6 drilled hole	
9GW		— $\phi$ 1.6 drilled hole	
12G		— $\phi$ 2.0 drilled hole	
12GW		— $\phi$ 2.0 drilled hole	
15G		4.0 (5.0)	PB107
15GW		4.0 (5.0)	PB107
20G		3.5 (5.0)	PB107
25G		4.0 (5.5)	PB1021B

Note) Figures in the parentheses indicate dimensions without a seal.