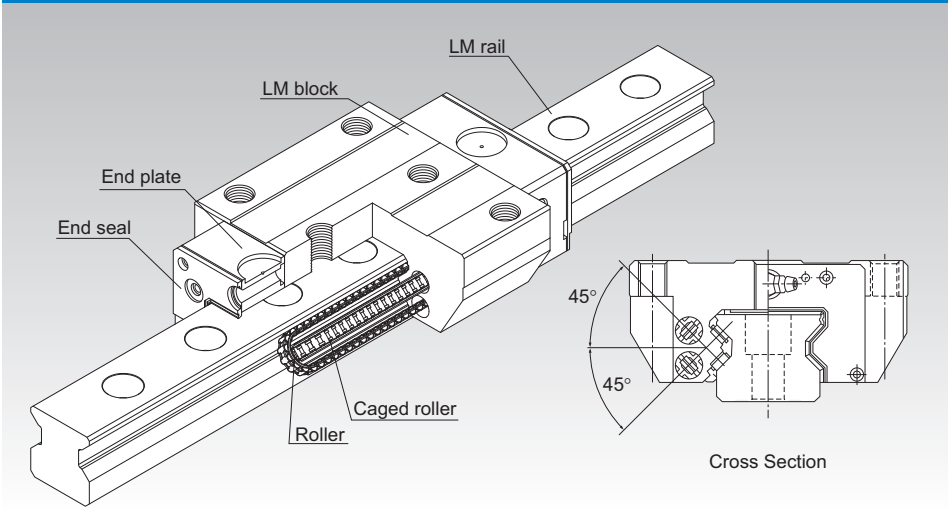
SRG

Ultra-Rigid Caged Roller LM Guide Model SRG



*For the caged roller, see A1-412.

Structure and Features

Rollers roll in four rows of raceways precision-ground on the LM rail and LM block, and roller cages and end plates incorporated in the LM block allow the balls to circulate.
The SRG is an ultra-rigid roller guide that uses roller cages to reduce friction, move smoothly, and achieve long-term maintenance-free operation.

Ultra-High Rigidity

Increased rigidity is achieved by using highly rigid rollers as the rolling elements and having the overall roller length more than 1.5 times greater than the roller diameter.

4-Way Equal Load

Since each row of rollers is arranged at a contact angle of 45° so that the LM block receives an equal load rating in all four directions (radial, reverse-radial, and lateral directions), high rigidity is ensured in all directions.

Smooth Motion through Skewing Prevention

The roller cage allows rollers to form an evenly spaced line while circulating, thus preventing the rollers from skewing as the block enters a loaded area. This minimizes rolling resistance fluctuation and achieves stable, smooth motion.

Long-Term Maintenance-Free Operation

Use of roller cages eliminates friction between rollers and increases grease retention, enabling long-term maintenance-free operation.

Global Standard Size

SRG is designed to have dimensions nearly equal to the Full-Ball LM Guide Model HSR, THK's pioneer LM System and the de facto global standard.

Wide Array of Options

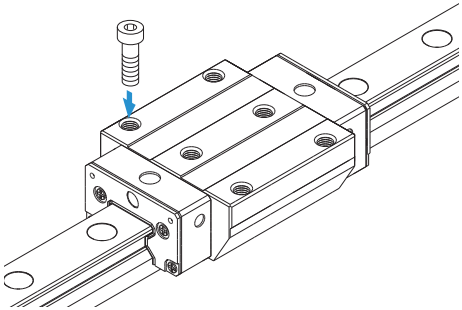
Various options are available, including end seals, inner seals, side seals, Laminated Contact Scraper LaCS, protectors, side scrapers, High Chemical Resistance Fluorine Seal FS, and GC caps, to accommodate various usage environments.

Types and Features

Models SRG15XA, 20XA

Dimensional Table⇒A1-422

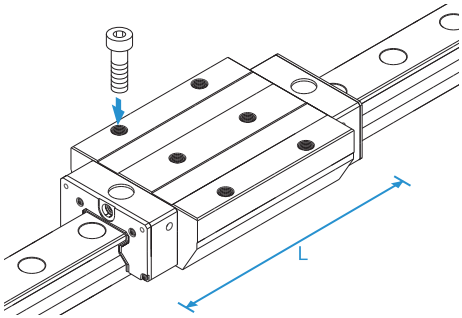
The flange of the LM block has tapped holes.
It can be mounted from the top or the bottom.



Model SRG20XLA

Dimensional Table⇒A1-422

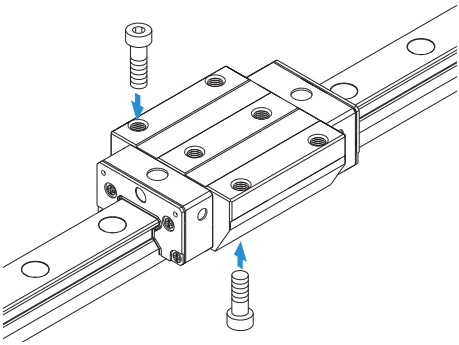
The LM block has the same cross-sectional shape as model SRG-A, but has a longer overall LM block length (L) and a greater load rating.



Model SRG-C

Dimensional Table⇒A1-422

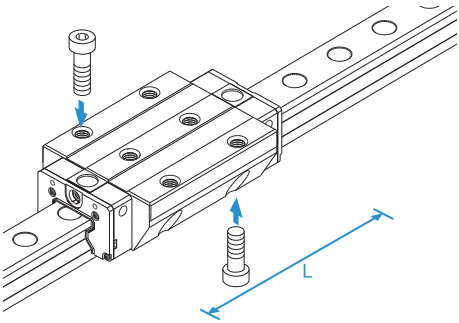
The flange of the LM block has tapped holes.
It can be mounted from the top or the bottom.
It is used in places where the table cannot have through holes for mounting bolts.



Model SRG-LC

Dimensional Table⇒A1-422

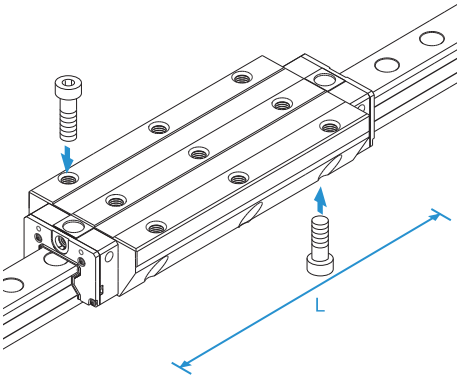
The LM block has the same cross-sectional shape as model SRG-C, but has a longer overall LM block length (L) and a greater load rating.



Model SRG-SLC

Dimensional Table⇒A1-424

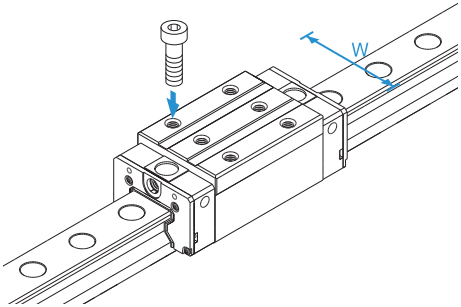
The LM block has the same cross-sectional shape as model SRG-LC, but has a longer overall LM block length (L) and a greater load rating.



Models SRG-V/R

Dimensional Table⇒A1-430

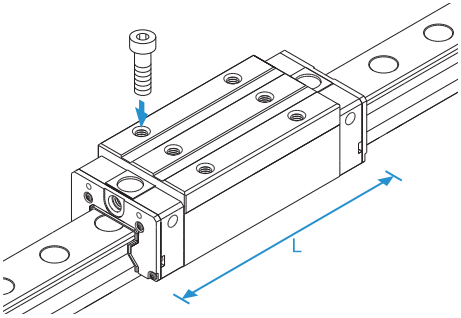
With this type, the LM block has a smaller width (W) and tapped holes.
It is used in places where the space for table width is limited.



Models SRG-LV/LR

Dimensional Table⇒A1-430

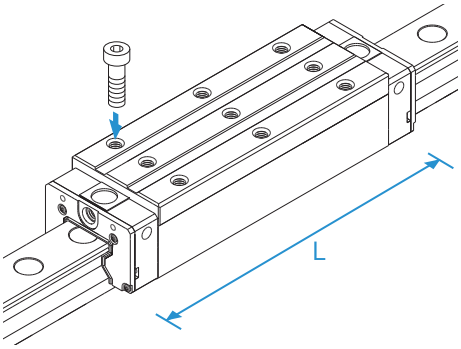
The LM block has the same cross-sectional shape as the Model SRG-V/R, but has a longer overall LM block length (L) and a greater load rating.



Models SRG-SLV/SLR

Dimensional Table⇒A1-432

The LM block has the same cross-sectional shape as the Model SRG-LV/LR, but has a longer overall LM block length (L) and a greater load rating.



SRG-G

Dimensional Table⇒A1-422 to A1-435

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

Reference Error Tolerance for the Mounting Surface

The Caged Roller LM Guide Model SRG features high rigidity because it uses rollers as its rolling element. It also contains a roller cage that prevents the rollers from skewing. However, high machining accuracy is required in the mounting surface. Large error on the mounting surface will affect the rolling resistance and the service life. The following shows the reference error tolerance according to the radial clearance.

Table 1: Reference Horizontal Error Tolerance (P) between Two Rails

Unit: μm

Radial clearance / Model No.	Normal	C1	C0
SRG 15X	5	3	3
SRG 20X	8	6	4
SRG 25X	9	7	5
SRG 30X	11	8	6
SRG 35	14	10	7
SRG 45	17	13	9
SRG 55	21	14	11
SRG 65	27	18	14
SRG 85	40	27	21
SRG 100	45	31	24

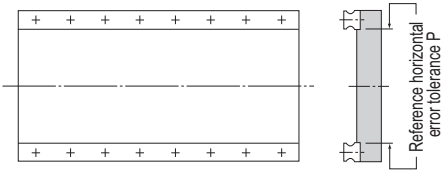


Fig. 1

Table 2: Reference Vertical Error Tolerance (X) between Two Rails

Unit: mm

Radial clearance	Normal	C1	C0
Reference vertical error tolerance X	0.0003a	0.00021a	0.00011a

$X = X_1 + X_2$ X_1 : Level difference on the rail mounting surface
X_2 : Level difference on the block mounting surface

Example of calculation

Rail span when a = 500 mm

Reference vertical error tolerance $X = 0.0003 \times 500 = 0.15$

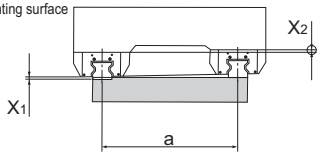


Fig. 2

Table 3: Reference Vertical Error Tolerance (Y) in the Axial Direction

Unit: mm

Reference vertical error tolerance Y	0.000036b

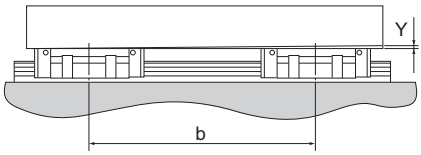
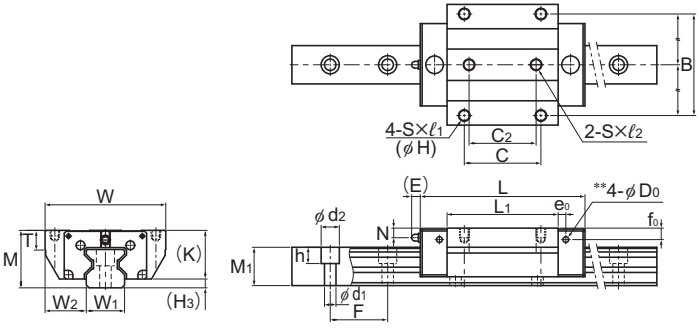


Fig. 3

Models SRG-A, SRG-LA, SRG-C, and SRG-LC



Models SRG15X and 20X A/LA

Model No.	Outer dimensions			LM block dimensions															Grease nipple
	Height M	Width W	Length L	B	C	C_2	S	H*	ℓ_1	ℓ_2	L_1	T	T_1*	K	N	E	e_0	f_0	D_0	
SRG 15XA SRG 15XGA	24	47	69.2	38	30	26	M5	(4.3)	8	7.5	45	7	(8)	20	4	4.5	4	6	2.9	PB107
SRG 20XA SRG 20XGA	30	63	86.2	53	40	35	M6	(5.4)	10	9	58	10	(10)	25.4	5	4.5	4	6	2.9	PB107
SRG 20XLA SRG 20XGLA	30	63	106.2	53	40	35	M6	(5.4)	10	9	78	10	(10)	25.4	5	4.5	4	6	2.9	PB107
SRG 25XC SRG 25XGC	36	70	95.1	57	45	40	M8	6.8	—	—	65.5	9.5	10	31.5	5.5	12	6	7.3	5.2	B-M6F
SRG 25XLC SRG 25XGLC	36	70	115.1	57	45	40	M8	6.8	—	—	85.5	9.5	10	31.5	5.5	12	6	7.3	5.2	B-M6F
SRG 30XC SRG 30XGC	42	90	111	72	52	44	M10	8.5	—	—	75	12	14	37	6.5	12	6	7.5	5.2	B-M6F
SRG 30XLC SRG 30XGLC	42	90	135	72	52	44	M10	8.5	—	—	99	12	14	37	6.5	12	6	7.5	5.2	B-M6F

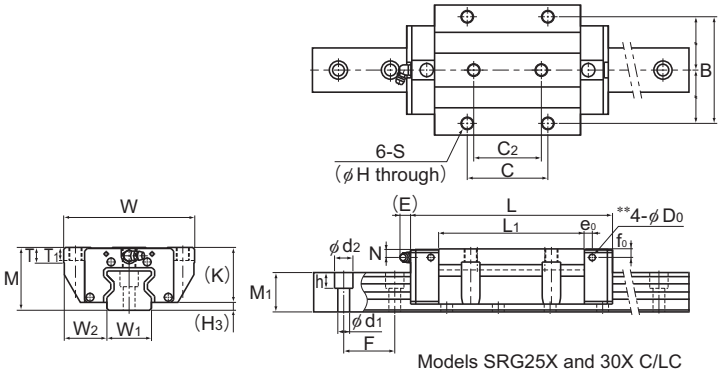
Note) The SRG-G is equipped with uncaged, full-complement bearings.

Model number coding

SRG30X LC 2 QZ TTHH C0 +1240L P Z T -II

- SRG30X: Model number
- LC: Type of LM block
- 2: No. of LM blocks used on the same rail
- QZ: With QZ Lubricator
- TTHH: Contamination protection accessory symbol
- C0: Radial clearance symbol — Normal (No symbol), Light preload (C1), Medium preload (C0)
- +1240L: LM rail length (in mm)
- P: Accuracy symbol — High accuracy grade (H)/Precision grade (P), Super precision grade (SP)/Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRG25X and 30X C/LC

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*						Mass	
		Width		Height	Pitch		Length*	C	C_0	M_A		M_B		M_C		LM block	LM rail
	H_3	W_1 0 -0.05	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
	4	15	16	15.5	30	4.5×7.5×5.3	3000	11.3 11.3	25.8 30.9	0.21 0.25	1.24 1.49	0.21 0.25	1.24 1.49	0.24 0.3		0.2	1.58
	4.6	20	21.5	20	30	6×9.5×8.5	3000	21 20.6	46.9 54.4	0.48 0.56	2.74 3.25	0.48 0.56	2.74 3.25	0.58 0.68		0.42	2.58
	4.6	20	21.5	20	30	6×9.5×8.5	3000	26.7 25.9	63.8 73.1	0.88 0.99	4.49 5.27	0.88 0.99	4.49 5.25	0.79 0.91		0.57	2.58
	4.5	23	23.5	23	30	7×11×9	3000	27.9 26.7	57.5 65	0.64 0.76	3.7 4.31	0.64 0.76	3.7 4.31	0.8 0.9		0.7	3.6
	4.5	23	23.5	23	30	7×11×9	3000	34.2 32.9	75 85	1.07 1.27	5.74 6.69	1.07 1.27	5.74 6.69	1.03 1.18		0.9	3.6
	5	28	31	26	40	9×14×12	3000	39.3 38.7	82.5 96.9	1.02 1.23	6.21 7.25	1.02 1.23	6.21 7.25	1.47 1.62		1.2	4.4
	5	28	31	26	40	9×14×12	3000	48.3 47.4	108 126	1.76 2.04	9.73 11.3	1.76 2.04	9.73 11.3	1.92 2.11		1.6	4.4

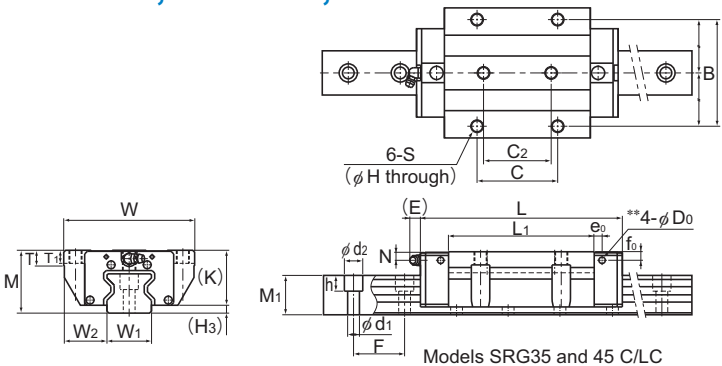
Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-436**.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see **A1-12**, Lubricant: see **A24-2**)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See **A1-519** or **A1-541**)
The removing/mounting jig is not provided as standard. Contact THK before use.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator.
Pilot holes for side nipples are not drilled through for models other than those stated above.
For grease nipple mount machining, contact THK. (See **A1-438**)
Note2) H*, T_1* If the mounting holes (4 holes) of the LM block are machined with an inverted counterbore, these models can be mounted on the table from the top and the bottom as with the Model SRG-C.
The value in the parentheses represents a dimension if the mounting hole is machined with an inverted counterbore.
Contact THK for details.
Note3) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km.
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

$$C_{50} = C \times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Models SRG-C, SRG-LC, and SRG-SLC



Models SRG35 and 45 C/LC

Model No.	Outer dimensions			LM block dimensions																
	Height	Width	Length																	Grease nipple
	M	W	L	B	C	C_2	S	H	ℓ_1	ℓ_2	L_1	T	T_1	K	N	E	e_0	f_0	D_0	
SRG 35C SRG 35GC	48	100	125	82	62	52	M10	8.5	—	—	82.2	11.5	10	42	6.5	12	6	6	5.2	B-M6F
SRG 35LC SRG 35GLC	48	100	155	82	62	52	M10	8.5	—	—	112.2	11.5	10	42	6.5	12	6	6	5.2	B-M6F
SRG 35SLC SRG 35GSLC	48	100	180.8	82	100	—	M10	8.5	—	—	138	11.5	10	42	6.5	12	6	6	5.2	B-M6F
SRG 45C SRG 45GC	60	120	155	100	80	60	M12	10.5	—	—	107	14.5	15	52	10	16	7	7	5.2	B-PT1/8
SRG 45LC SRG 45GLC	60	120	190	100	80	60	M12	10.5	—	—	142	14.5	15	52	10	16	7	7	5.2	B-PT1/8
SRG 45SLC SRG 45GSLC	60	120	231.5	100	120	—	M12	10.5	—	—	183.5	14.5	15	52	10	16	7	7	5.2	B-PT1/8

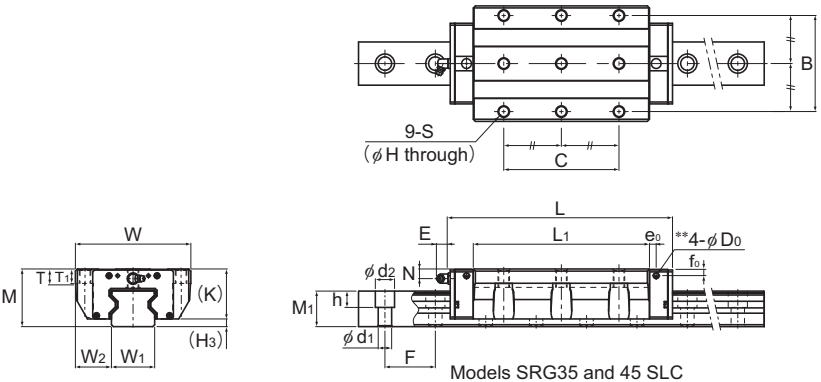
Note) The SRG-G is equipped with uncaged, full-complement bearings.

Model number coding

SRG45 LC 2 QZ TTHH C0 +1200L P Z T -II

- SRG45: Model number
- LC: Type of LM block
- 2: No. of LM blocks used on the same rail
- QZ: With QZ Lubricator
- TTHH: Contamination protection accessory symbol
- C0: Radial clearance symbol — Normal (No symbol)/Light preload (C1); Medium preload (C0)/Heavy preload (CN1); Super heavy preload (CN2)
- +1200L: LM rail length (in mm)
- P: Accuracy symbol — High accuracy grade (H)/Precision grade (P); Super precision grade (SP)/Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRG35 and 45 SLC

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*					Mass	
		Width		Height	Pitch		Length*	C	C0	MA		MB		MC	LM block	LM rail
	H3	W1 0 -0.05	W2	M1	F	d1×d2×h	Max	kN	kN	1 block	Double blocks	1 block	Double blocks	1 block	kg	kg/m
	6	34	33	30	40	9×14×12	3000	59.1 55.3	119 131	1.66 1.77	10.1 11.1	1.66 1.77	10.1 11.1	2.39 2.69	1.9	6.9
	6	34	33	30	40	9×14×12	3000	76 71.4	165 182	3.13 3.39	17 18.8	3.13 3.39	17 18.8	3.31 3.74	2.4	6.9
	6	34	33	30	40	9×14×12	3000	87.9 83.4	199 222	4.53 5	23.9 26.6	4.53 5	23.9 26.6	4.09 4.56	3.2	6.9
	8	45	37.5	37	52.5	14×20×17	3090	91.9 87.8	192 216	3.49 3.9	20 22.5	3.49 3.9	20 22.5	4.98 5.87	3.7	11.6
	8	45	37.5	37	52.5	14×20×17	3090	115 110	256 288	6.13 6.87	32.2 36.3	6.13 6.87	32.2 36.3	6.64 7.83	4.5	11.6
	8	45	37.5	37	52.5	14×20×17	3090	139 133	328 368	9.99 11.1	50 56	9.99 11.1	50 56	8.91 10	6.3	11.6

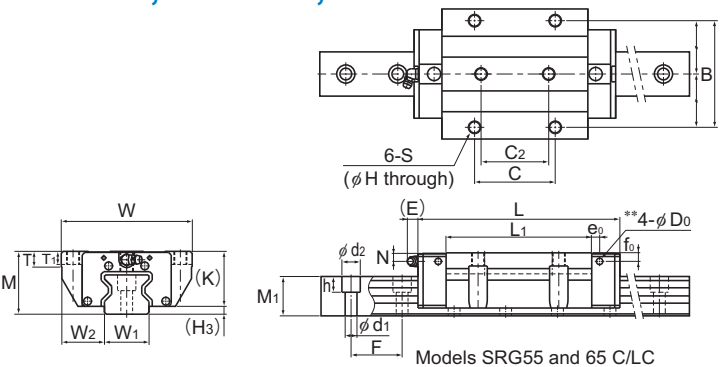
Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A**1-436**.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see A**1-12**, Lubricant: see A**24-2**)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See A**1-519** or A**1-541**)
The removing/mounting jig is not provided as standard. Contact THK before use.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator. Pilot holes for side nipples are not drilled through for models other than those stated above.
For grease nipple mount machining, contact THK.
Note2) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km.
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

$$C_{50} = C \times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Models SRG-C, SRG-LC, and SRG-SLC



Models SRG55 and 65 C/LC

Model No.	Outer dimensions			LM block dimensions																
	Height	Width	Length																	Grease nipple
	M	W	L	B	C	C_2	S	H	ℓ_1	ℓ_2	L_1	T	T_1	K	N	E	e_0	f_0	D_0	
SRG 55C SRG 55GC	70	140	185	116	95	70	M14	12.5	—	—	129.2	17.5	18	60	12	16	9	8.5	5.2	B-PT1/8
SRG 55LC SRG 55GLC	70	140	235	116	95	70	M14	12.5	—	—	179.2	17.5	18	60	12	16	9	8.5	5.2	B-PT1/8
SRG 55SLC SRG 55GSLC	70	140	292	116	150	—	M14	12.5	—	—	236.2	17.5	18	60	12	16	9	8.5	5.2	B-PT1/8
SRG 65C SRG 65GC	90	170	244.9	142	110	82	M16	14.5	—	—	171.7	19.5	20	78.5	17	16	9	13.5	5.2	B-PT1/8
SRG 65LC SRG 65GLC	90	170	303	142	110	82	M16	14.5	—	—	229.8	19.5	20	78.5	17	16	9	13.5	5.2	B-PT1/8
SRG 65SLC SRG 65GSLC	90	170	380	142	200	—	M16	14.5	—	—	306.8	19.5	20	78.5	17	16	9	13.5	5.2	B-PT1/8

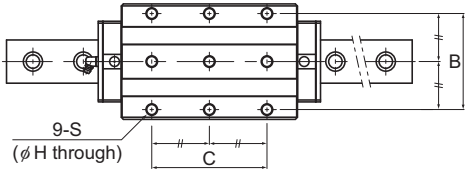
Note) The SRG-G is equipped with uncaged, full-complement bearings.

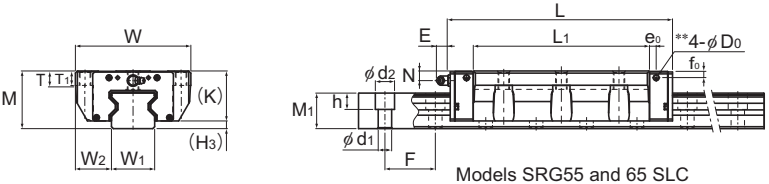
Model number coding

SRG65 LC 2 QZ TTHH C0 +1270L P Z T -II

- SRG65: Model number
- LC: Type of LM block
- 2: No. of LM blocks used on the same rail
- QZ: With QZ Lubricator
- TTHH: Contamination protection accessory symbol
- C0: Radial clearance symbol — Normal (No symbol)/Light preload (C1); Medium preload (C0)/Heavy preload (CN1); Super heavy preload (CN2)
- +1270L: LM rail length (in mm)
- P: Accuracy symbol — High accuracy grade (H)/Precision grade (P); Super precision grade (SP)/Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.





Models SRG55 and 65 SLC

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*						Mass	
		Width		Height	Pitch		Length*	C	C_0	M_A		M_B		M_C		LM block	LM rail
	H_3	W_1 0 -0.05	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
	10	53	43.5	43	60	16×23×20	3060	131 125	266 300	5.82 6.5	33 37.2	5.82 6.5	33 37.2	8.19 9.55		5.9	15.8
	10	53	43.5	43	60	16×23×20	3060	167 160	366 411	10.8 12.1	57 64	10.8 12.1	57 64	11.2 13.1		7.8	15.8
	10	53	43.5	43	60	16×23×20	3060	210 199	488 544	19.1 21	93.7 104	19.1 21	93.7 104	15.6 17.3		10.7	15.8
	11.5	63	53.5	54	75	18×26×22	3000	219 214	441 511	12.5 14.8	72.8 83.8	12.5 14.8	72.8 83.8	16.8 19.4		12.5	23.7
	11.5	63	53.5	54	75	18×26×22	3000	278 264	599 670	22.7 25.3	120 135	22.7 25.3	120 135	22.1 25.5		16.4	23.7
	11.5	63	53.5	54	75	18×26×22	3000	352 332	811 899	41.3 45.2	202 224	41.3 45.2	202 224	30.9 25.6		22.3	23.7

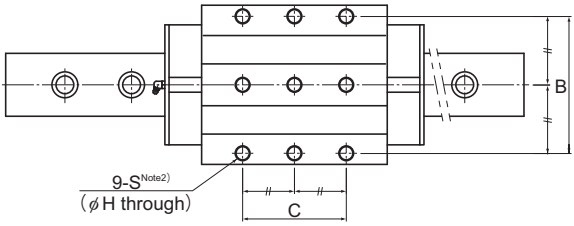
Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-436**.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see **A1-12**, Lubricant: see **A24-2**)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See **A1-519** or **A1-541**)
The removing/mounting jig is not provided as standard. Contact THK before use.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator. Pilot holes for side nipples are not drilled through for models other than those stated above.
For grease nipple mount machining, contact THK.
Note2) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km.
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

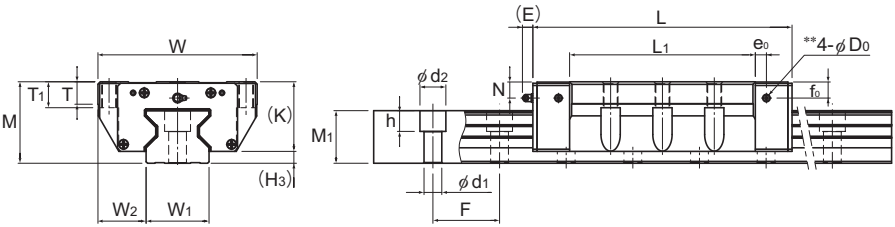
$$C_{50} = C \times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Model SRG-LC





Model SRG85LC

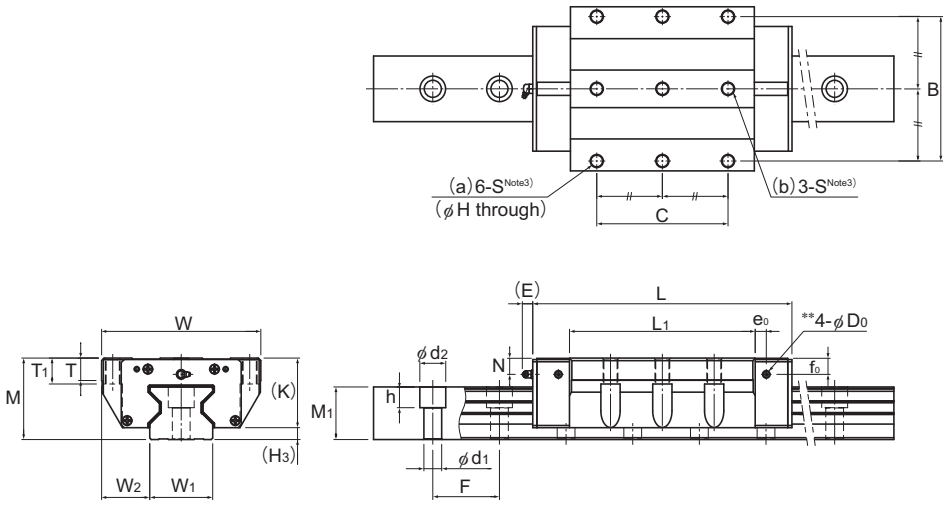
Model No.	Outer dimensions			LM block dimensions													Grease nipple
	Height M	Width W	Length L	B	C	S	H	L_1	T	T_1	K	N	E	e_0	f_0	D_0	
SRG 85LC	110	215	350	185	140	M20	17.8	250.8	30	35	94	22	16	15	22	8.2	B-PT1/8
SRG 100LC	120	250	395	220	200	M20	17.8	280.2	35	38	104	23	16	15	23	8.2	B-PT1/4

Model number coding

SRG85 LC 2 TT C0 +2610L P Z T -II

- SRG85: Model number
- LC: Type of LM block
- 2: No. of LM blocks used on the same rail
- TT: Contamination protection accessory symbol
- C0: Radial clearance symbol — Normal (No symbol), Light preload (C1), Medium preload (C0)
- +2610L: LM rail length (in mm)
- P: Accuracy symbol — Precision grade (P)/Super precision grade (SP), Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Model SRG100LC

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*						Mass	
		Width		Height	Pitch		Length*	C	C0	MA		MB		MC		LM block	LM rail
	H3	W1 0 -0.05	W2	M1	F	d1×d2×h	Max	kN	kN	1 block	Double blocks	1 block	Double blocks	1 block		kg	kg/m
	16	85	65	71	90	24×35×28	3000	497	990	45.3	239	45.3	239	51.9		26.2	35.7
	16	100	75	77	105	26×39×32	3000	601	1170	60	319	60	319	72.3		37.6	46.8

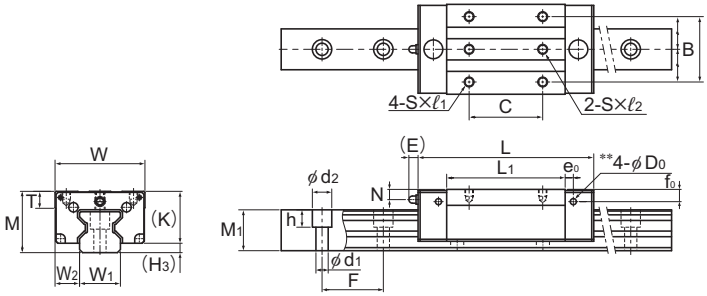
Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A**1-436**.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see A**1-12**, Lubricant: see A**24-2**)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See A**1-519** or A**1-541**)
The removing/mounting jig is not provided as standard. To obtain one, please contact THK.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator. In all cases other than those indicated above, the side nipple pilot holes will not be through holes. For grease nipple mount machining, contact THK.
Note2) The LM block mounting holes (9 holes) of SRG85LC are all through holes (full thread).
Note3) The LM block mounting holes in part (a) (6 holes) of SRG100LC are through holes (full thread). The LM block mounting holes in part (b) (3 holes) have effective thread depth of 22 mm.
Note4) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km. The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

$$C_{50}=C\times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Models SRG-V, SRG-LV, SRG-R, and SRG-LR



Models SRG15X and 20X V/LV

Model No.	Outer dimensions			LM block dimensions														Grease nipple
	Height M	Width W	Length L	B	C	S	ℓ	ℓ1	ℓ2	L1	T	K	N	E	e0	f0	D0	
SRG 15XV SRG 15XGV	24	34	69.2	26	26	M4	—	5	7.5	45	6	20	4	4.5	4	6	2.9	PB107
SRG 20XV SRG 20XGV	30	44	86.2	32	36	M5	—	7	9	58	8	25.4	5	4.5	4	6	2.9	PB107
SRG 20XLV SRG 20XGLV	30	44	106.2	32	50	M5	—	7	9	78	8	25.4	5	4.5	4	6	2.9	PB107
SRG 25XR SRG 25XGR	40	48	95.1	35	35	M6	9	—	—	65.5	9.5	35.5	9.5	12	6	11.3	5.2	B-M6F
SRG 25XLR SRG 25XGLR	40	48	115.1	35	50	M6	9	—	—	85.5	9.5	35.5	9.5	12	6	11.3	5.2	B-M6F
SRG 30XR SRG 30XGR	45	60	111	40	40	M8	10	—	—	75	12	40	9.5	12	6	10.5	5.2	B-M6F
SRG 30XLR SRG 30XGLR	45	60	135	40	60	M8	10	—	—	99	12	40	9.5	12	6	10.5	5.2	B-M6F

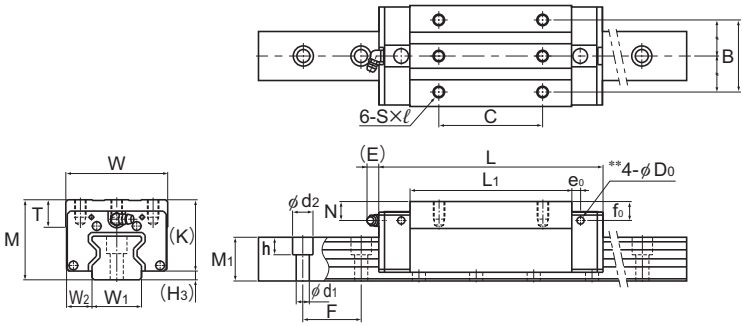
Note) The SRG-G is equipped with uncaged, full-complement bearings.

Model number coding

SRG30X LR 2 QZ TTHH C0 +1240L P Z T -II

- SRG30X: Model number
- LR: Type of LM block
- 2: No. of LM blocks used on the same rail
- QZ: With QZ Lubricator
- TTHH: Contamination protection accessory symbol
- C0: Radial clearance symbol
  - Normal (No symbol)
  - Light preload (C1)
  - Medium preload (C0)
- +1240L: LM rail length (in mm)
- P: Accuracy symbol
  - High accuracy grade (H)/Precision grade (P)
  - Super precision grade (SP)/Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRG25X and 30X R/LR

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*					Mass	
		Width		Height	Pitch		Length*	C	C_0	M_A		M_B		M_C	LM block	LM rail
	H_3	W_1 0 -0.05	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
	4	15	9.5	15.5	30	4.5×7.5×5.3	3000	11.3 11.3	25.8 30.9	0.21 0.25	1.24 1.49	0.21 0.25	1.24 1.49	0.24 0.3	0.15	1.58
	4.6	20	12	20	30	6×9.5×8.5	3000	21 20.6	46.9 54.4	0.48 0.56	2.74 3.25	0.48 0.56	2.74 3.25	0.58 0.68	0.28	2.58
	4.6	20	12	20	30	6×9.5×8.5	3000	26.7 25.9	63.8 73.1	0.88 0.99	4.49 5.27	0.88 0.99	4.49 5.25	0.79 0.91	0.38	2.58
	4.5	23	12.5	23	30	7×11×9	3000	27.9 26.7	57.5 65	0.64 0.76	3.7 4.31	0.64 0.76	3.7 4.31	0.8 0.9	0.6	3.6
	4.5	23	12.5	23	30	7×11×9	3000	34.2 32.9	75 85	1.07 1.27	5.74 6.69	1.07 1.27	5.74 6.69	1.03 1.18	0.8	3.6
	5	28	16	26	40	9×14×12	3000	39.3 38.7	82.5 96.9	1.02 1.23	6.21 7.25	1.02 1.23	6.21 7.25	1.47 1.62	0.9	4.4
	5	28	16	26	40	9×14×12	3000	48.3 47.4	108 126	1.76 2.04	9.73 11.3	1.76 2.04	9.73 11.3	1.92 2.11	1.2	4.4

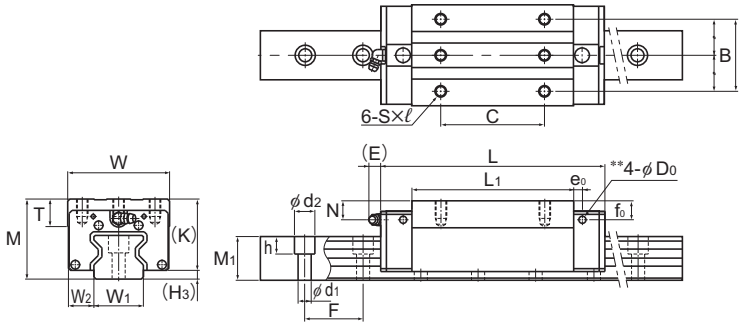
Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See **A1-436**.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see **A1-12**, Lubricant: see **A24-2**)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See **A1-519** or **A1-541**)
The removing/mounting jig is not provided as standard. To obtain one, please contact THK.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator. In all cases other than those indicated above, the side nipple pilot holes will not be through holes. For grease nipple mount machining, contact THK.
Note2) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km. The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

$$C_{50} = C \times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Models SRG-R, SRG-LR, and SRG-SLR



Models SRG35 and 45 R/LR

Model No.	Outer dimensions			LM block dimensions														
	Height	Width	Length															Grease nipple
	M	W	L	B	C	S	ℓ	ℓ_1	ℓ_2	L_1	T	K	N	E	e_0	f_0	D_0	
SRG 35R SRG 35GR	55	70	125	50	50	M8	12	—	—	82.2	18.5	49	13.5	12	6	13	5.2	B-M6F
SRG 35LR SRG 35GLR	55	70	155	50	72	M8	12	—	—	112.2	18.5	49	13.5	12	6	13	5.2	B-M6F
SRG 35SLR SRG 35GSLR	55	70	180.8	50	100	M8	12	—	—	138	18.5	49	13.5	12	6	13	5.2	B-M6F
SRG 45R SRG 45GR	70	86	155	60	60	M10	20	—	—	107	24.5	62	20	16	7	17	5.2	B-PT1/8
SRG 45LR SRG 45GLR	70	86	190	60	80	M10	20	—	—	142	24.5	62	20	16	7	17	5.2	B-PT1/8
SRG 45SLR SRG 45GSLR	70	86	231.5	60	120	M10	20	—	—	183.5	24.5	62	20	16	7	17	5.2	B-PT1/8

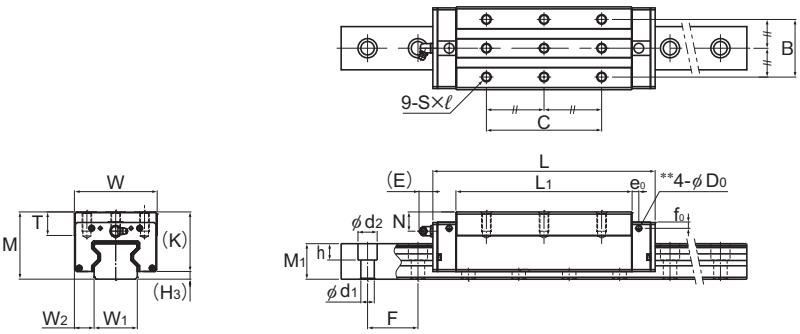
Note) The SRG-G is equipped with uncaged, full-complement bearings.

Model number coding

SRG45 LR 2 QZ TTHH C0 +1200L P Z T -II

- SRG45: Model number
- LR: Type of LM block
- 2: No. of LM blocks used on the same rail
- QZ: With QZ Lubricator
- TTHH: Contamination protection accessory symbol
- C0: Radial clearance symbol — Normal (No symbol), Light preload (C1), Medium preload (C0)
- +1200L: LM rail length (in mm)
- P: Accuracy symbol — High accuracy grade (H)/Precision grade (P), Super precision grade (SP)/Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRG35 and 45 SLR

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*					Mass	
		Width		Height	Pitch		Length*	C	C0	MA		MB		MC	LM block	LM rail
	H3	W1 0 -0.05	W2	M1	F	d1×d2×h	Max	kN	kN	1 block	Double blocks	1 block	Double blocks	1 block	kg	kg/m
	6	34	18	30	40	9×14×12	3000	59.1 55.3	119 131	1.66 1.77	10.1 11.1	1.66 1.77	10.1 11.1	2.39 2.69	1.6	6.9
	6	34	18	30	40	9×14×12	3000	76 71.4	165 182	3.13 3.39	17 18.8	3.13 3.39	17 18.8	3.31 3.74	2.1	6.9
	6	34	18	30	40	9×14×12	3000	87.9 83.4	199 222	4.53 5	23.9 26.6	4.53 5	23.9 26.6	4.09 4.56	2.6	6.9
	8	45	20.5	37	52.5	14×20×17	3090	91.9 87.8	192 216	3.49 3.9	20 22.5	3.49 3.9	20 22.5	4.98 5.87	3.2	11.6
	8	45	20.5	37	52.5	14×20×17	3090	115 110	256 288	6.13 6.87	32.2 36.3	6.13 6.87	32.2 36.3	6.64 7.83	4.1	11.6
	8	45	20.5	37	52.5	14×20×17	3090	139 133	328 368	9.99 11.1	50 56	9.99 11.1	50 56	8.91 10	5.4	11.6

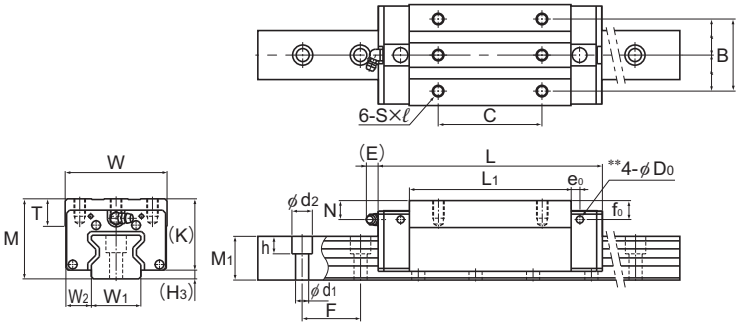
Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-436.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see A1-12, Lubricant: see A24-2)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See A1-519 or A1-541)
The removing/mounting jig is not provided as standard. To obtain one, please contact THK.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator.
In all cases other than those indicated above, the side nipple pilot holes will not be through holes.
For grease nipple mount machining, contact THK.
Note2) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km.
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

$$C_{50}=C\times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Models SRG-V, SRG-LV, SRG-SLV, SRG-R, SRG-LR, and SRG-SLR



Models SRG55R/LR and 65V/LV

Model No.	Outer dimensions			LM block dimensions														Grease nipple
	Height M	Width W	Length L	B	C	S	ℓ	ℓ_1	ℓ_2	L_1	T	K	N	E	e_0	f_0	D_0	
SRG 55R SRG 55GR	80	100	185	75	75	M12	18	—	—	129.2	27.5	70	22	16	9	18.5	5.2	B-PT1/8
SRG 55LR SRG 55GLR	80	100	235	75	95	M12	18	—	—	179.2	27.5	70	22	16	9	18.5	5.2	B-PT1/8
SRG 55SLR SRG 55GSLR	80	100	292	75	150	M12	18	—	—	236.2	27.5	70	22	16	9	18.5	5.2	B-PT1/8
SRG 65V SRG 65GV	90	126	244.9	76	70	M16	20	—	—	171.7	19.5	78.5	17	16	9	13.5	5.2	B-PT1/8
SRG 65LV SRG 65GLV	90	126	303	76	120	M16	20	—	—	229.8	19.5	78.5	17	16	9	13.5	5.2	B-PT1/8
SRG 65SLV SRG 65GSLV	90	126	380	76	200	M16	20	—	—	306.8	19.5	78.5	17	16	9	13.5	5.2	B-PT1/8

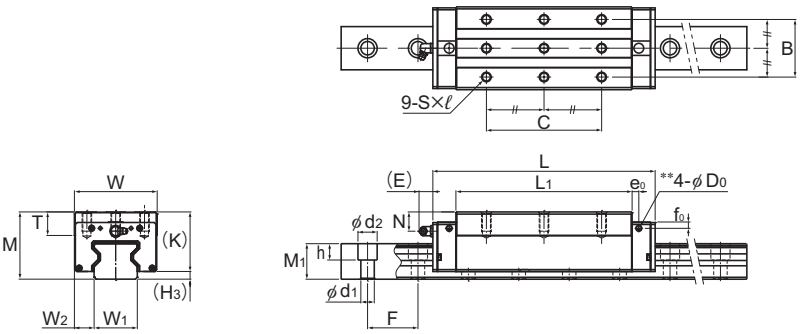
Note) The SRG-G is equipped with uncaged, full-complement bearings.

Model number coding

SRG65 LV 2 QZ TTHH C0 +1270L P Z T -II

- SRG65: Model number
- LV: Type of LM block
- 2: No. of LM blocks used on the same rail
- QZ: With QZ Lubricator
- TTHH: Contamination protection accessory symbol
- C0: Radial clearance symbol — Normal (No symbol), Light preload (C1), Medium preload (C0)
- +1270L: LM rail length (in mm)
- P: Accuracy symbol — High accuracy grade (H)/Precision grade (P), Super precision grade (SP)/Ultra precision grade (UP)
- Z: With plate cover
- T: Symbol for LM rail jointed use
- -II: Symbol for No. of rails used on the same plane

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.)
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.
See **A1-545** for contamination protection accessories, see **A1-75** for radial clearance symbol. See **A1-79** for accuracy symbol. See **A1-13** for symbol for number of rails used on the same plane.



Models SRG55SLR and 65SLV

Unit: mm

		LM rail dimensions						Basic load rating*		Static permissible moment kN·m*						Mass	
		Width		Height	Pitch		Length*	C	C_0	M_A		M_B		M_C		LM block	LM rail
	H_3	W_1 0 -0.05	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
	10	53	23.5	43	60	16×23×20	3060	131 125	266 300	5.82 6.5	33 37.2	5.82 6.5	33 37.2	8.19 9.55		5	15.8
	10	53	23.5	43	60	16×23×20	3060	167 160	366 411	10.8 12.1	57 64	10.8 12.1	57 64	11.2 13.1		6.9	15.8
	10	53	23.5	43	60	16×23×20	3060	210 199	488 544	19.1 21	93.7 104	19.1 21	93.7 104	15.6 17.3		9.2	15.8
	11.5	63	31.5	54	75	18×26×22	3000	219 214	441 511	12.5 14.8	72.8 83.8	12.5 14.8	72.8 83.8	16.8 19.4		9	23.7
	11.5	63	31.5	54	75	18×26×22	3000	278 264	599 670	22.7 25.3	120 135	22.7 25.3	120 135	22.1 25.5		12.1	23.7
	11.5	63	31.5	54	75	18×26×22	3000	352 332	811 899	41.3 45.2	202 224	41.3 45.2	202 224	30.9 25.6		16.1	23.7

Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-436.)
Static permissible moment* 1 block: the static permissible moment with one LM block
Double blocks: static permissible moment when two LM blocks are in close contact with each other
For oil lubrication, be certain to let THK know the mounting orientation and where the LM block piping joint should be attached.
(Mounting orientation: see A1-12, Lubricant: see A24-2)
Total block length L : The total block length L shown in the table is the length with the dust proof parts, code UU or SS. If other contamination protection accessories or lubricant equipment are installed, the total block length will increase.
(See A1-519 or A1-541)
The removing/mounting jig is not provided as standard. Contact THK before use.
** These are the side nipple pilot holes for when a grease nipple is desired for a product with LaCS or a QZ Lubricator. Pilot holes for side nipples are not drilled through for models other than those stated above.
For grease nipple mount machining, contact THK.
Note2) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km.
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

$$C_{50} = C \times 1.23$$

C_{50} : The basic dynamic load rating for a nominal load of 50 km
C : The basic dynamic load rating in the dimensional table

Options⇒A1-505

Standard Lengths and Maximum Lengths of LM Rails

Table 4 shows the standard lengths and the maximum lengths of model SRG 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.

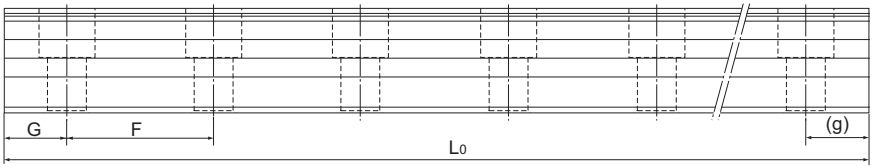


Table 4: Standard Lengths and Maximum Lengths of LM Rails for Model SRG

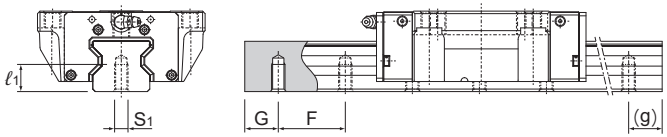
Unit: mm

Model No.	SRG 15X	SRG 20X	SRG 25X	SRG 30X	SRG 35	SRG 45	SRG 55	SRG 65	SRG 85	SRG 100
LM rail standard lengths (L_o)	160 220 280 340 400 460 520 580 640 700 760 820 940 1000 1060 1120 1180 1240 1360 1480 1600	220 280 340 400 460 520 580 640 700 760 820 940 1000 1060 1120 1180 1240 1360 1480 1600 1720 1840 1960 2080 2200	220 280 340 400 460 520 580 640 700 760 820 940 1000 1060 1120 1180 1240 1300 1360 1420 1480 1540 1600 1720 1840 1960 2080 2200 2320 2440	280 360 440 520 600 680 760 840 920 1000 1080 1160 1240 1320 1400 1480 1560 1640 1720 1800 1880 1960 2040 2200 2360 2520 2680 2840 3000	280 360 440 520 600 680 760 840 920 1000 1080 1160 1240 1320 1400 1480 1560 1640 1720 1800 1880 1960 2040 2200 2360 2520 2680 2840 3000	570 675 780 885 990 1095 1200 1305 1410 1515 1620 1725 1830 1935 2040 2145 2250 2355 2460 2565 2670 2775 2880 2985 3090	780 900 1020 1140 1260 1380 1500 1620 1740 1860 1980 2100 2220 2340 2460 2580 2700 2820 2940 3060	1270 1570 2020 2620	1530 1890 2250 2610	1340 1760 2180 2600
Standard pitch F	30	30	30	40	40	52.5	60	75	90	105
G, g	20	20	20	20	20	22.5	30	35	45	40
Max length	3000	3000	3000	3000	3000	3090	3060	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.

Tapped-Hole Type LM Rail

Model SRG rails also include a type where the LM rail is tapped from the bottom. This type is useful when mounting from the bottom of the base and when increased contamination protection is desired.



(1) A tapped-hole LM rail is available only for products of Precision grade accuracy or lower.
(2) For standard pitches of the taps and the G and g dimensions, see **A1-436** on Table 4.

Table 5: Dimensions of the LM Rail Tap

Unit: mm

Model No.	S_1	Effective tap depth ℓ_1
SRG 15X	M4	8
SRG 20X	M5	10
SRG 25X	M6	12
SRG 30X	M8	16
SRG 35	M8	16
SRG 45	M12	24
SRG 55	M14	28
SRG 65	M16	32

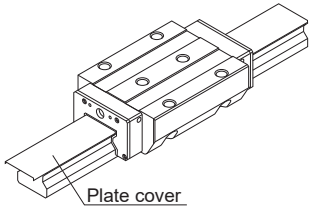
Model number coding

SRG30XC2UU+1000LP K

Symbol for tapped-hole LM rail type

Plate Cover

By covering the LM rail's mounting holes with ultra-thin stainless steel (SUS304) plates, the adhesion of the end seals increases drastically, helping prevent foreign materials and liquid from entering from the top of the LM rail. Contact THK for further details regarding mounting.



Note 1) The plate cover is not a standard specification for Model SRG. (Please note it is not possible to add just the plate cover afterwards.)
Note 2) The LM block must be removed from the LM rail when mounting. When doing this, a removing/mounting jig (see **A1-573**) is required. Please contact THK for details.
Note 3) Plate covers are available for models SRG 25X to 65.
Note 4) Plate covers cannot be used in combination with a tapped-hole LM rail.

Lubrication Hole

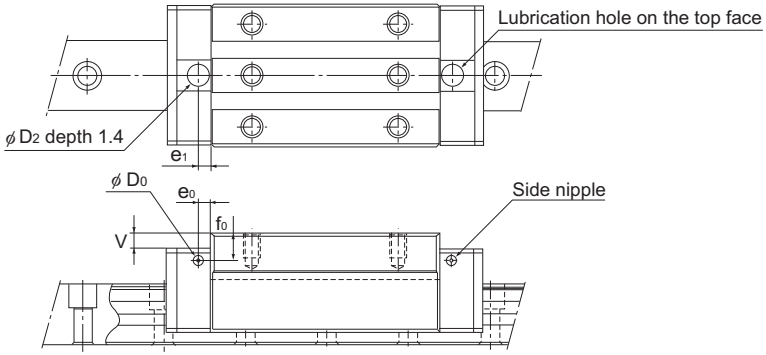
Lubrication Hole for Model SRG

Model SRG allows lubrication from both the side and top faces of the LM block. The lubrication hole of standard types is not drilled through in order to prevent foreign material from entering the LM block. When using the lubrication hole, contact THK.

When using the lubrication hole on the top face of models SRG-R/LR/SLR, a separate lubrication adapter is required. Contact THK for details.

The lubricant may not reach the raceway if the LM Guide is not installed in a horizontal orientation. Be sure to let THK know the mounting orientation and the exact position in each LM block where the grease nipple or the piping joint should be attached.

For the mounting orientation and the lubrication, see **A1-12** and **A24-2**, respectively.



Unit: mm

Model No.		Pilot hole for side nipple			Applicable nipple	Lubrication hole on the top face			
		e_0	f_0	D_0		D_2	(O-ring)	V	e_1
SRG	15XA 15XV	4	6	2.9	PB107	9.2	(P6)	0.4	5.5
	20XA 20XLA	4	6	2.9	PB107	9.2	(P6)	0.4	6.5
	20XV 20XLV	4	6	2.9	PB107	9.2	(P6)	0.4	6.5
	25XC 25XLC	6	7.3	5.2	M6F	10.2	(P7)	0.4	6
	25XR 25XLR	6	11.3	5.2	M6F	10.2	(P7)	4.5	6
	30XC 30XLC	6	7.5	5.2	M6F	10.2	(P7)	0.4	6
	30XR 30XLR	6	10.5	5.2	M6F	10.2	(P7)	3.4	6
	35C 35LC 35SLC	6	6	5.2	M6F	10.2	(P7)	0.4	6
	35R 35LR 35SLR	6	13	5.2	M6F	10.2	(P7)	7.4	6
	45C 45LC 45SLC	7	7	5.2	M6F	10.2	(P7)	0.4	7
	45R 45LR 45SLR	7	17	5.2	M6F	10.2	(P7)	10.4	7
	55C 55LC 55SLC	9	8.5	5.2	M6F	10.2	(P7)	0.4	11
	55R 55LR 55SLR	9	18.5	5.2	M6F	10.2	(P7)	10.4	11
	65C 65LC 65SLC	9	13.5	5.2	M6F	10.2	(P7)	0.4	10
	65V 65LV 65SLV	9	13.5	5.2	M6F	10.2	(P7)	0.4	10
	85LC	15	22	8.2	PT1/8	13	(P10)	0.4	10
	100LC	15	23	8.2	PT1/8	13	(P10)	0.4	10

Note) Upper surface lubrication is oil lubrication only. Contact THK if you are considering using the lubrication hole on the top face for grease lubrication.