

Structure and Features

SRG is an ultra-high rigidity Roller Guide that uses roller cages to allow low-friction, smooth motion and achieve long-term maintenance-free operation.

[Ultra-high Rigidity]

A higher 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 an loaded area. As a result, fluctuation of the rolling resistance is minimized, and stable, smooth motion is achieved.

[Long-term Maintenance-free Operation]

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

[Global Standard Size]

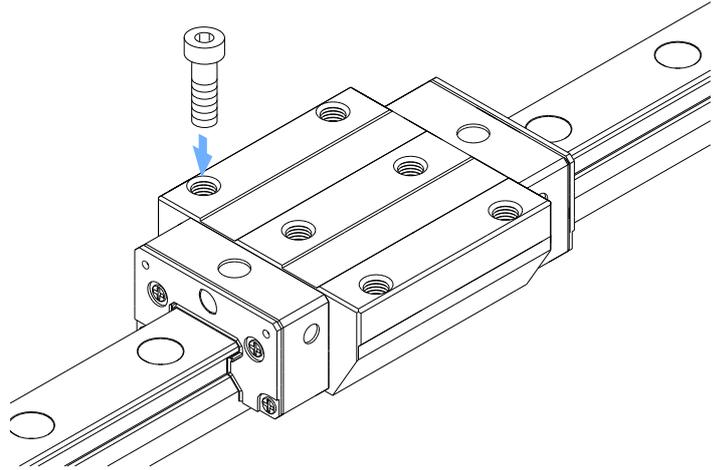
SRG is designed to have dimensions almost the same as that of Full Ball LM Guide model HSR, which THK as a pioneer of the linear motion system has developed and is practically a global standard size.

[Wide Array of Options]

Various options are available, including end seal, inner seal, side seal, Laminated Contact Scraper LaCS, protector, side scraper and Cap GC, to respond to diversified service environments.

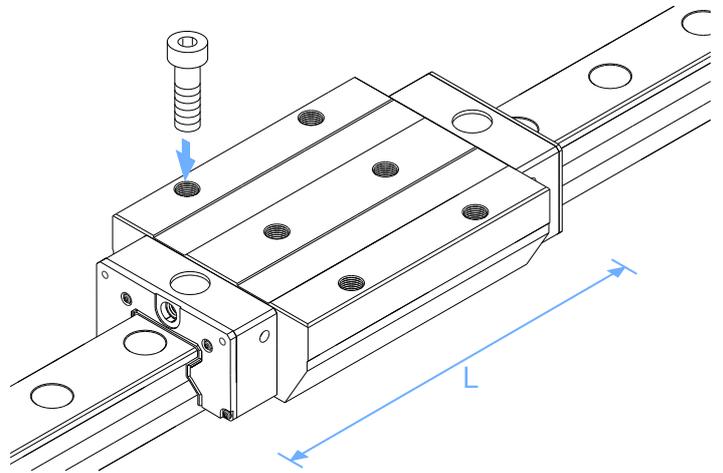
Models SRG-15A, 20A

Can be mounted from the top or the bottom.



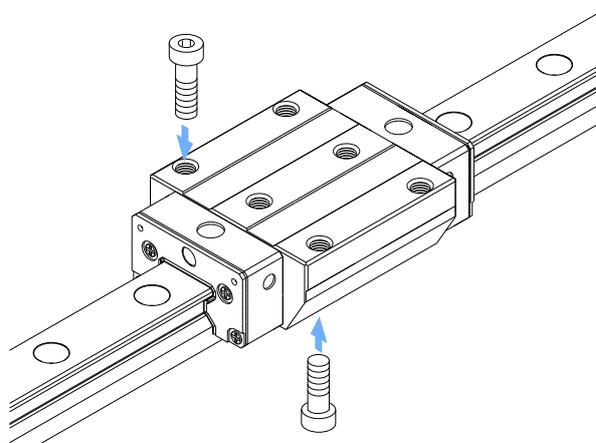
Model SRG-20LA

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 rated load.



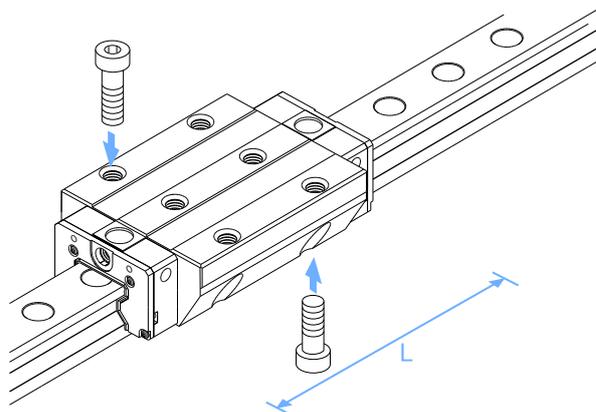
Model SRG-C

Can be mounted from the top or the bottom.
Used in places where the table cannot have
through holes for mounting bolts.



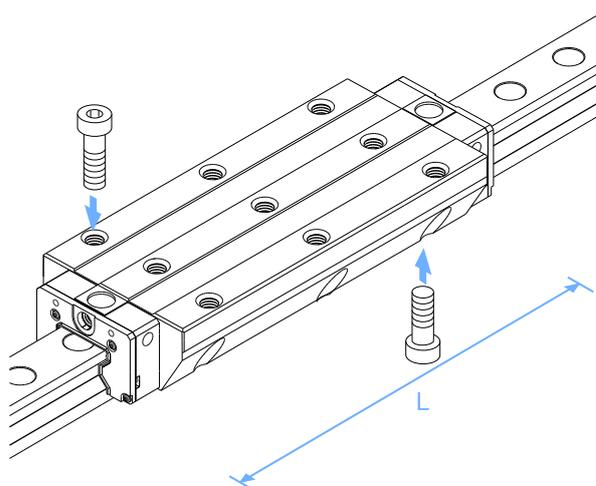
Model SRG-LC

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 rated load.



Model SRG-SLC

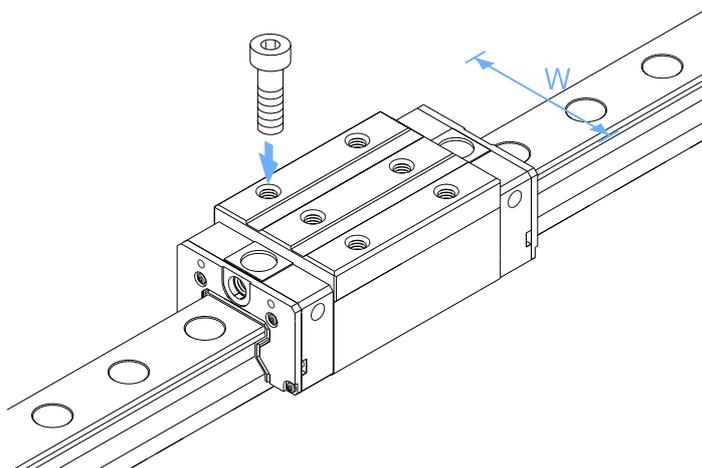
The LM block has the same cross-sectional shape
as model SRG-LC, but has a longer overall LM
block length (L) and a greater rated load.



Model SRG-R

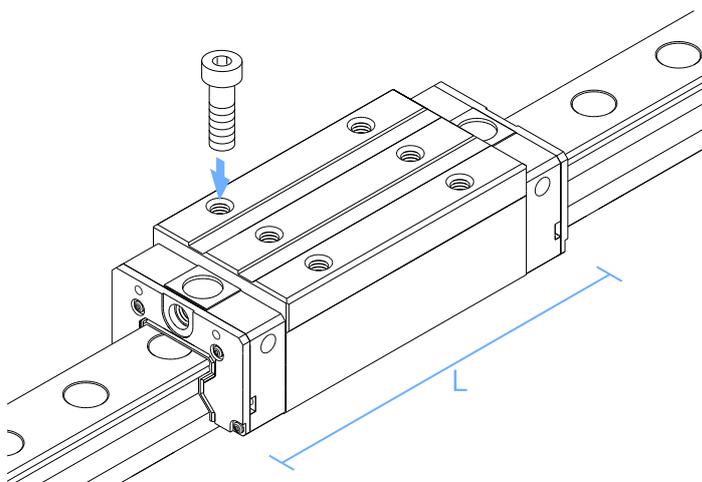
With this type, the LM block has a smaller width (W) and tapped holes.

Used in places where the space for table width is limited.



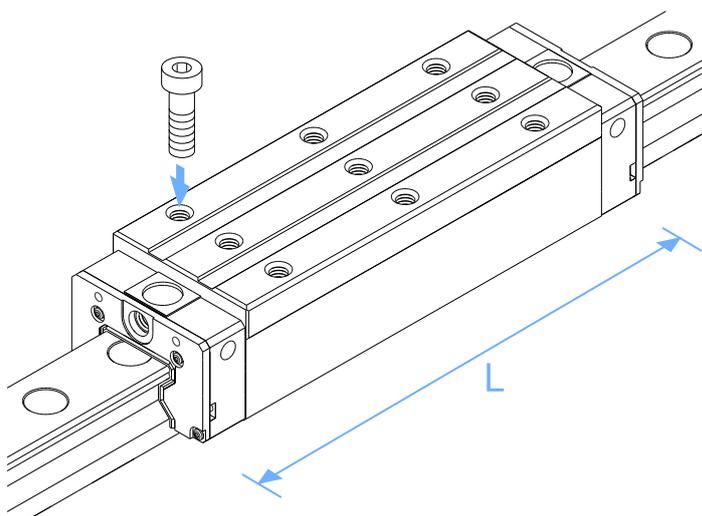
Model SRG-LR

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



Model SRG-SLR

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



Error Allowance of the Mounting Surface

The caged roller LM Guide Model SRG features high rigidity since it uses rollers as its rolling element and it also features a cage-retainer which prevents the rollers from skewing. However, high machining accuracy is required in the mounting surface. If the error on the mounting surface is large, it will affect the rolling resistance and the service life. The following shows the maximum permissible value according to the radial clearance.

Table1 Error Allowance in Parallelism (P) between Two Rails

Unit: mm

| Radial clearance Model No. | Normal | C1 | C0 |
|-------------------------------|--------|-------|-------|
| SRG 15 | 0.005 | 0.003 | 0.003 |
| SRG 20 | 0.008 | 0.006 | 0.004 |
| SRG 25 | 0.009 | 0.007 | 0.005 |
| SRG 30 | 0.011 | 0.008 | 0.006 |
| SRG 35 | 0.014 | 0.010 | 0.007 |
| SRG 45 | 0.017 | 0.013 | 0.009 |
| SRG 55 | 0.021 | 0.014 | 0.011 |
| SRG 65 | 0.027 | 0.018 | 0.014 |
| SRG 85 | 0.040 | 0.027 | 0.021 |
| SRG 100 | 0.045 | 0.031 | 0.024 |

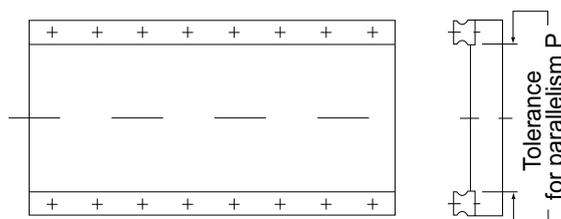


Fig.1

Table2 Error Allowance in Vertical Level (X) between Two Rails

Unit: mm

| Radial clearance | Normal | C1 | C0 |
|---|----------|----------|----------|
| Permissible error on the mounting surface X | 0.00030a | 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 $a = 500\text{mm}$
 Error allowance of the mounting surface $X = 0.0003 \times 500 = 0.15$

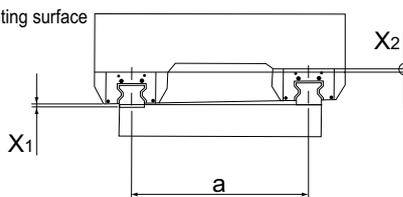


Fig.2

Table3 Error Allowance in Level (Y) in the Axial Direction

Unit: mm

| | |
|---|-----------|
| Permissible error on the mounting surface | 0.000036b |
|---|-----------|

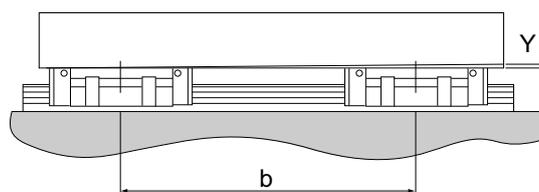
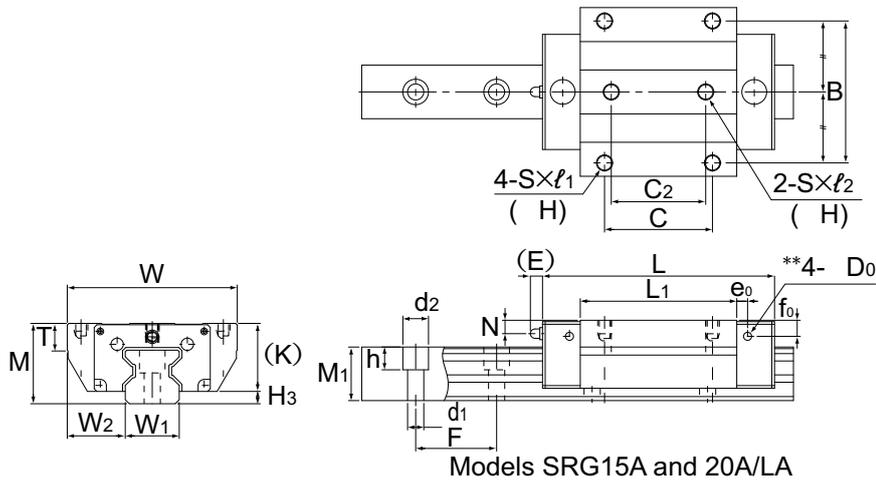


Fig.3

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



| Model No. | Outer dimensions | | | LM block dimensions | | | | | | | | | | | | | | | | | Grease nipple |
|---------------------|------------------|-------|---------------|---------------------|----|----------------|-----|-------|----------------|----------------|----------------|-----|----------------|------|-----|-----|----------------|----------------|----------------|-------|---------------|
| | Height | Width | Length | B | C | C ₂ | S | H | l ₁ | l ₂ | L ₁ | T | T ₁ | K | N | E | e ₀ | f ₀ | D ₀ | | |
| | M | W | L | | | | | | | | | | | | | | | | | | |
| SRG 15A | 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 20A SRG 20LA | 30 | 63 | 86.2 106.2 | 53 | 40 | 35 | M6 | (5.4) | 10 | 9 | 58 78 | 10 | (10) | 25.4 | 5 | 4.5 | 4 | 6 | 2.9 | PB107 | |
| SRG 25C SRG 25LC | 36 | 70 | 95.5 115.1 | 57 | 45 | 40 | M8 | 6.8 | — | — | 65.5 85.1 | 9.5 | 10 | 31.5 | 5.5 | 12 | 6 | 6.4 | 5.2 | B-M6F | |
| SRG 30C SRG 30LC | 42 | 90 | 111 135 | 72 | 52 | 44 | M10 | 8.5 | — | — | 75 99 | 12 | 14 | 37 | 6.5 | 12 | 6 | 7.5 | 5.2 | B-M6F | |

Model number coding

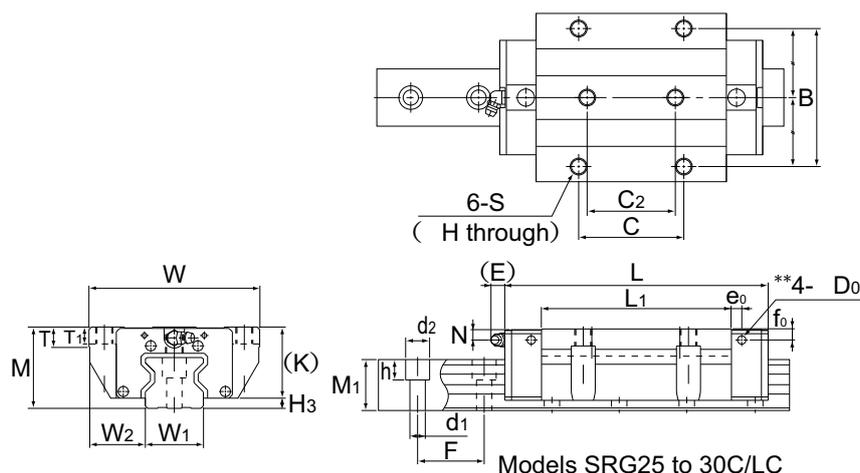
SRG30 LC 2 QZ TTHH C0 +1200L P Z T - II

| | | | | | | |
|--------------|--|--------------------|---|--|--------------------------------|---|
| Model number | Type of LM block | With QZ Lubricator | Contamination protection accessory symbol (*1) | LM rail length (in mm) | With plate cover | 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) Medium preload (C0) | Accuracy symbol (*3) Precision grade (P)/Super precision grade (SP) Ultra precision grade (UP) | Symbol for LM rail jointed use | |

(*1) See contamination protection accessory on A1-496 . (*2) See A1-72 . (*3) See A1-76 . (*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

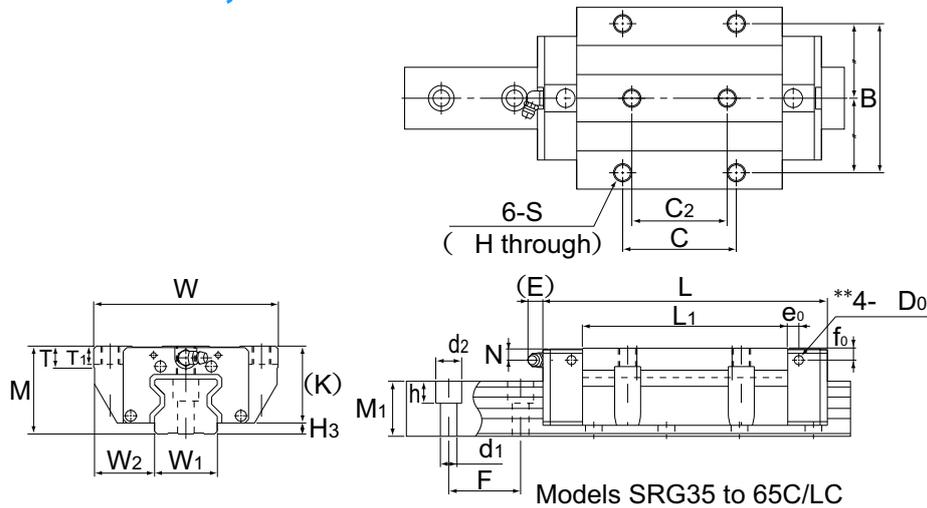
| H ₃ | LM rail dimensions | | | | | | Basic load rating* | | Static permissible moment kN-m* | | | | | Mass | |
|----------------|---------------------------------------|--------------------------|------------|----------------|-------------------------------------|------|--------------------|----------------|---------------------------------|----------------|---------------|----------------|----------------|-----------------|------|
| | Width W ₁ 0 -0.05 | Height M ₁ | Pitch F | Length* Max | d ₁ × d ₂ × h | C | C ₀ | M _A | | M _B | | M _C | LM block kg | LM rail kg/m | |
| | | | | | | | | 1 block | Double blocks | 1 block | Double blocks | 1 block | | | |
| 4 | 15 | 16 | 15.5 | 30 | 4.5 × 7.5 × 5.3 | 3000 | 11.3 | 25.8 | 0.21 | 1.24 | 0.21 | 1.24 | 0.24 | 0.20 | 1.58 |
| 4.6 | 20 | 21.5 | 20 | 30 | 6 × 9.5 × 8.5 | 3000 | 21 26.7 | 46.9 63.8 | 0.48 0.88 | 2.74 4.49 | 0.48 0.88 | 2.74 4.49 | 0.58 0.79 | 0.42 0.57 | 2.58 |
| 4.5 | 23 | 23.5 | 23 | 30 | 7 × 11 × 9 | 3000 | 27.9 34.2 | 57.5 75 | 0.641 1.07 | 3.7 5.74 | 0.641 1.07 | 3.7 5.74 | 0.795 1.03 | 0.7 0.9 | 3.6 |
| 5 | 28 | 31 | 26 | 40 | 9 × 14 × 12 | 3000 | 39.3 48.3 | 82.5 108 | 1.02 1.76 | 6.21 9.73 | 1.02 1.76 | 6.21 9.73 | 1.47 1.92 | 1.2 1.6 | 4.4 |

- Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-414 .)
 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 A1-472 or A1-492)
 The removing/mounting jig is not provided as standard. Contact THK before use.
 ** A pilot hole for side nipples, when a grease nipple for a model equipped with LaCS or QZ Lubricator is needed.
 Pilot holes for side nipples are not drilled through for models other than those stated above.
 For grease nipple mount machining, contact THK. (See A1-415)
- Note2) If the mounting holes (4 holes) of the LM block are back spot-faced, these models can be mounted on the table from the top and the bottom as with model SRG-C.
 The value in the parentheses represents a dimension if the mounting hole is back spot-faced.
 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.

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

C₅₀ :The basic dynamic load rating for a nominal load of 50 km
 C :The basic dynamic load rating in the dimensional table

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



| Model No. | Outer dimensions | | | LM block dimensions | | | | | | | | | | | | | | | | | Grease nipple |
|----------------------------------|------------------|-------|---------------------|---------------------|-----|----------------|-----|------|----------------|----------------|-------------------------|------|----------------|------|-----|----|----------------|----------------|----------------|---------|---------------|
| | Height | Width | Length | B | C | C ₂ | S | H | ℓ ₁ | ℓ ₂ | L ₁ | T | T ₁ | K | N | E | e ₀ | f ₀ | D ₀ | | |
| | M | W | L | | | | | | | | | | | | | | | | | | |
| SRG 35C SRG 35LC SRG 35SLC | 48 | 100 | 125 155 180.8 | 82 | 62 | 52 | M10 | 8.5 | — | — | 82.2 112.2 138.0 | 11.5 | 10 | 42 | 6.5 | 12 | 6 | 6 | 5.2 | B-M6F | |
| SRG 45C SRG 45LC SRG 45SLC | 60 | 120 | 155 190 231.5 | 100 | 80 | 60 | M12 | 10.5 | — | — | 107 142 183.5 | 14.5 | 15 | 52 | 10 | 16 | 7 | 7 | 5.2 | B-PT1/8 | |
| SRG 55C SRG 55LC SRG 55SLC | 70 | 140 | 185 235 292 | 116 | 95 | 70 | M14 | 12.5 | — | — | 129.2 179.2 236.2 | 17.5 | 18 | 60 | 12 | 16 | 9 | 8.5 | 5.2 | B-PT1/8 | |
| SRG 65C SRG 65LC SRG 65SLC | 90 | 170 | 244.9 303 380 | 142 | 110 | 82 | M16 | 14.5 | — | — | 171.7 229.8 306.8 | 19.5 | 20 | 78.5 | 17 | 16 | 9 | 13.5 | 5.2 | B-PT1/8 | |

Model number coding

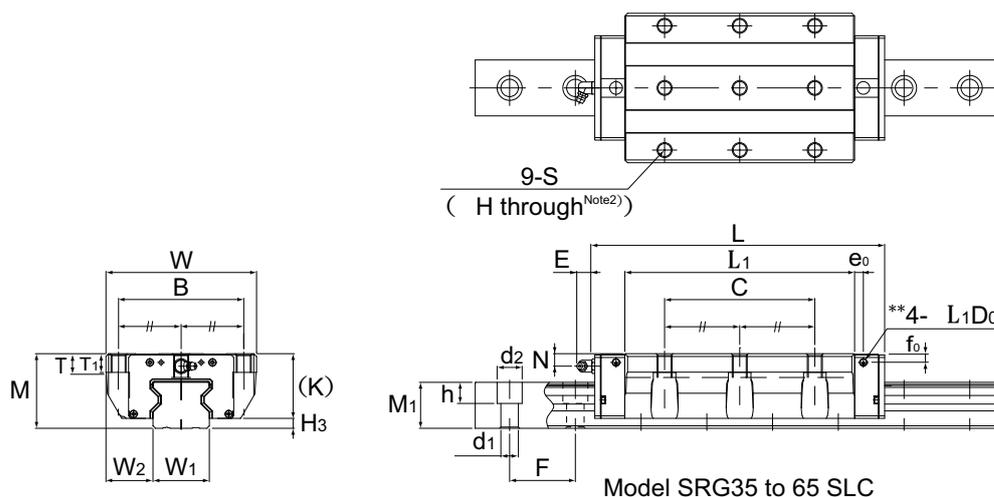
SRG45 LC 2 QZ TTHH C0 +1200L P Z T - II

| | | | | | | |
|--------------|--|--------------------|---|---|--------------------------------|---|
| Model number | Type of LM block | With QZ Lubricator | Contamination protection accessory symbol (*1) | LM rail length (in mm) | With plate cover | Symbol for No. of rails used on the same plane (*4) |
| | No. of LM blocks used on the same rail | | Radial clearance symbol (*2) | Accuracy symbol (*3) | Symbol for LM rail jointed use | |
| | | | Normal (No symbol) Light preload (C1) Medium preload (C0) | High accuracy grade (H)/Precision grade (P)/ Super precision grade (SP)/Ultra precision grade (UP) | | |

(*1) See contamination protection accessory on A1-496 . (*2) See A1-72 . (*3) See A1-76 . (*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

| H ₃ | LM rail dimensions | | | | | | Basic load rating* | | Static permissible moment kN-m* | | | | | Mass | |
|----------------|---------------------------------------|----------------|--------------------------|------------|--|------|--------------------|-------------------|---------------------------------|--------------------|----------------------|--------------------|----------------------|----------------------|-----------------|
| | Width W ₁ 0 -0.05 | W ₂ | Height M ₁ | Pitch F | Length* d ₁ × d ₂ × h | Max | C | C ₀ | M _A | | M _B | | M _C | LM block kg | LM rail kg/m |
| | | | | | | | | | 1 block | Double blocks | 1 block | Double blocks | 1 block | | |
| 6 | 34 | 33 | 30 | 40 | 9 × 14 × 12 | 3000 | 59.1 76 87.9 | 119 165 199 | 1.66 3.13 4.53 | 10.1 17 23.9 | 1.66 3.13 4.53 | 10.1 17 23.9 | 2.39 3.31 4.09 | 1.9 2.4 3.2 | 6.9 |
| 8 | 45 | 37.5 | 37 | 52.5 | 14 × 20 × 17 | 3090 | 91.9 115 139 | 192 256 328 | 3.49 6.13 9.99 | 20 32.2 50.0 | 3.49 6.13 9.99 | 20 32.2 50.0 | 4.98 6.64 8.91 | 3.7 4.5 6.3 | 11.6 |
| 10 | 53 | 43.5 | 43 | 60 | 16 × 23 × 20 | 3060 | 131 167 210 | 266 366 488 | 5.82 10.8 19.1 | 33 57 93.7 | 5.82 10.8 19.1 | 33 57 93.7 | 8.19 11.2 15.6 | 5.9 7.8 10.7 | 15.8 |
| 11.5 | 63 | 53.5 | 54 | 75 | 18 × 26 × 22 | 3000 | 219 278 352 | 441 599 811 | 12.5 22.7 41.3 | 72.8 120 202 | 12.5 22.7 41.3 | 72.8 120 202 | 16.8 22.1 30.9 | 12.5 16.4 22.3 | 23.7 |

Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-414)
 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 A1-472 or A1-492)

The removing/mounting jig is not provided as standard. Contact THK before use.

** A pilot hole for side nipples, when a grease nipple for a model equipped with LaCS or QZ Lubricator is needed.

Pilot holes for side nipples are not drilled through for models other than those stated above.

For grease nipple mount machining, contact THK. (See A1-415)

Note2) If the mounting holes (4 holes) of the LM block are back spot-faced, these models can be mounted on the table from the top and the bottom as with model SRG-C.

The value in the parentheses represents a dimension if the mounting hole is back spot-faced.

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.

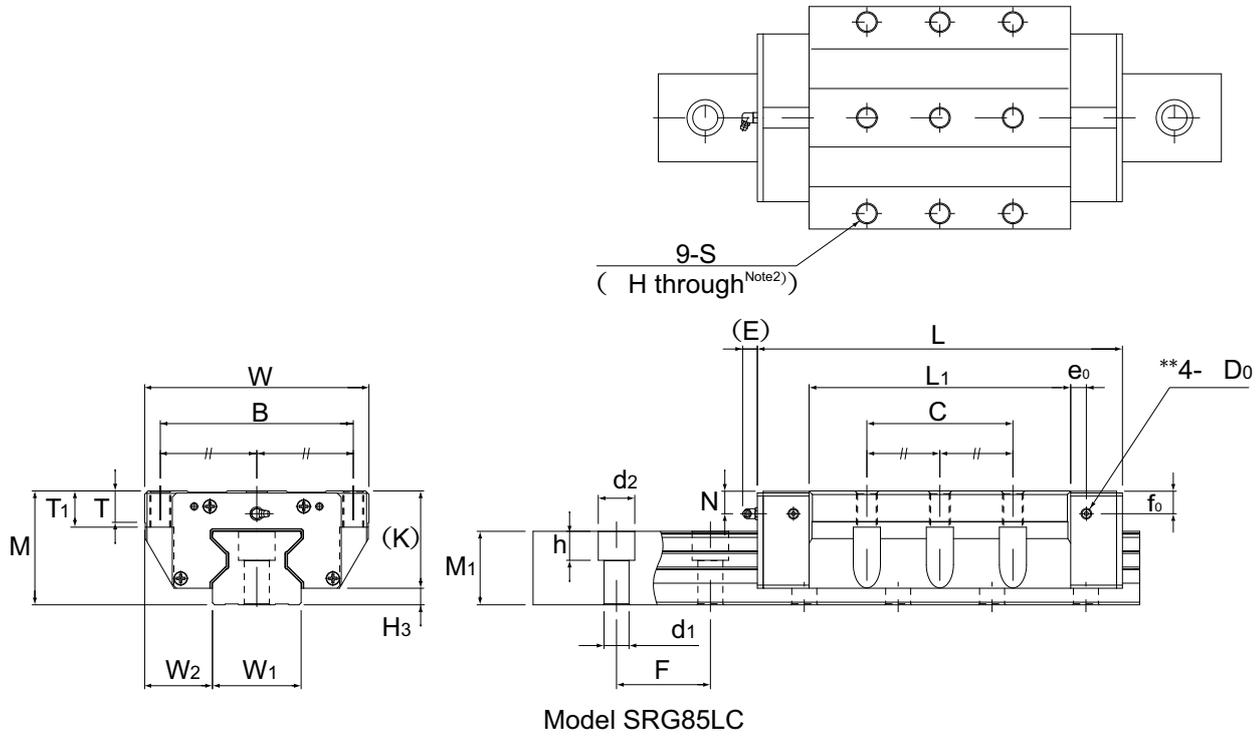
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

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

C₅₀ :The basic dynamic load rating for a nominal load of 50 km

C :The basic dynamic load rating in the dimensional table

Model SRG-LC



Model SRG85LC

| Model No. | Outer dimensions | | | LM block dimensions | | | | | | | | | | | | | | Grease nipple |
|-----------|------------------|-------|--------|---------------------|-----|-----|------|----------------|----|----------------|-----|----|----|----------------|----------------|----------------|---------|---------------|
| | Height | Width | Length | B | C | S | H | L ₁ | T | T ₁ | K | N | E | e ₀ | f ₀ | D ₀ | | |
| | M | W | L | | | | | | | | | | | | | | | |
| 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

Model number

Type of LM block

Contamination protection accessory symbol (*1)

LM rail length (in mm)

With plate cover

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)
Medium preload (C0)

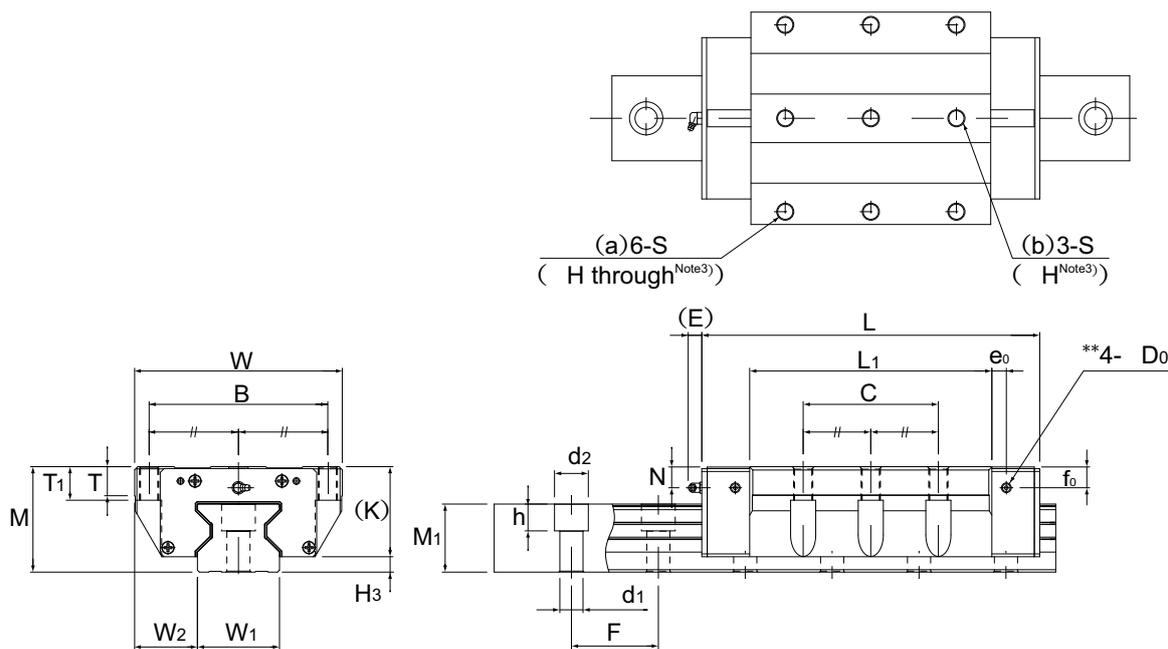
Symbol for LM rail jointed use

Accuracy symbol (*3)
Precision grade (P)/Super precision grade (SP)
Ultra precision grade (UP)

(*1) See contamination protection accessory on A1-496 . (*2) See A1-72 . (*3) See A1-76 . (*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.



Model SRG100LC

Unit: mm

| H ₃ | 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 | | |
| | W ₁ 0 -0.05 | | | | | | W ₂ | M ₁ | F | d ₁ × d ₂ × h | Max | | | kN | kN |
| 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 A1-414 .)
 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 A1-472 or A1-492)

The removing/mounting jig is not provided as standard. Contact THK before use.

** A pilot hole for side nipples, when a grease nipple for a model equipped with LaCS or QZ Lubricator is needed.

Pilot holes for side nipples are not drilled through for models other than those stated above.

For grease nipple mount machining, contact THK. (See A1-415)

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.

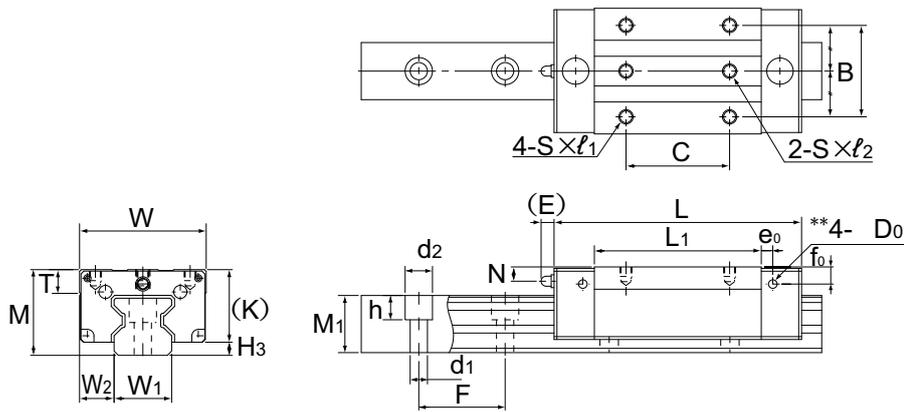
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

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

C₅₀ :The basic dynamic load rating for a nominal load of 50 km

C :The basic dynamic load rating in the dimensional table

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



Models SRG15V and 20V/LV

| Model No. | Outer dimensions | | | LM block dimensions | | | | | | | | | | | | | | | Grease nipple |
|---------------------|------------------|-------|---------------|---------------------|----------|----|----|----------------|----------------|----------------|-----|------|-----|-----|----------------|----------------|----------------|-------|---------------|
| | Height | Width | Length | B | C | S | ℓ | ℓ ₁ | ℓ ₂ | L ₁ | T | K | N | E | e ₀ | f ₀ | D ₀ | | |
| | M | W | L | | | | | | | | | | | | | | | | |
| SRG 15V | 24 | 34 | 69.2 | 26 | 26 | M4 | — | 5 | 7.5 | 45 | 6 | 20 | 4 | 4.5 | 4 | 6 | 2.9 | PB107 | |
| SRG 20V SRG 20LV | 30 | 44 | 86.2 106.2 | 32 | 36 50 | M5 | — | 7 | 9 | 58 78 | 8 | 25.4 | 5 | 4.5 | 4 | 6 | 2.9 | PB107 | |
| SRG 25R SRG 25LR | 40 | 48 | 95.5 115.1 | 35 | 35 50 | M6 | 9 | — | — | 65.5 85.1 | 9.5 | 35.5 | 9.5 | 12 | 6 | 10.4 | 5.2 | B-M6F | |
| SRG 30R SRG 30LR | 45 | 60 | 111 135 | 40 | 40 60 | M8 | 10 | — | — | 75 99 | 12 | 40 | 9.5 | 12 | 6 | 10.5 | 5.2 | B-M6F | |

Model number coding

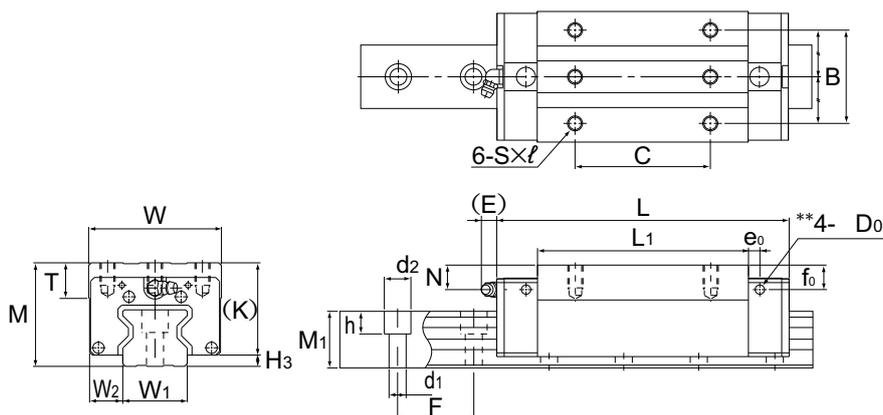
SRG30 LR 2 QZ TTHH C0 +1200L P Z T - II

| | | | | | | |
|--------------|--|--------------------|---|--|--------------------------------|---|
| Model number | Type of LM block | With QZ Lubricator | Contamination protection accessory symbol (*1) | LM rail length (in mm) | With plate cover | 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) Medium preload (C0) | Accuracy symbol (*3) Precision grade (P)/Super precision grade (SP) Ultra precision grade (UP) | Symbol for LM rail jointed use | |

(*1) See contamination protection accessory on A1-496 . (*2) See A1-72 . (*3) See A1-76 . (*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.



Models SRG25 to 30R/LR/LV

Unit: mm

| H ₃ | LM rail dimensions | | | | | | Basic load rating* | | Static permissible moment kN-m* | | | | | Mass | |
|----------------|---------------------------------------|----------------|--------------------------|------------|---|---------|----------------------|----------------|---------------------------------|----------------|---------------|----------------|----------------|-----------------|------|
| | Width W ₁ 0 -0.05 | W ₂ | Height M ₁ | Pitch F | Length* d ₁ × d ₂ × h Max | C kN | C ₀ kN | M _A | | M _B | | M _C | LM block kg | LM rail kg/m | |
| | | | | | | | | 1 block | Double blocks | 1 block | Double blocks | 1 block | | | |
| 4 | 15 | 9.5 | 15.5 | 30 | 4.5 × 7.5 × 5.3 | 3000 | 11.3 | 25.8 | 0.21 | 1.24 | 0.21 | 1.24 | 0.24 | 0.15 | 1.58 |
| 4.6 | 20 | 12 | 20 | 30 | 6 × 9.5 × 8.5 | 3000 | 21 26.7 | 46.9 63.8 | 0.48 0.88 | 2.74 4.49 | 0.48 0.88 | 2.74 4.49 | 0.58 0.79 | 0.28 0.38 | 2.58 |
| 4.5 | 23 | 12.5 | 23 | 30 | 7 × 11 × 9 | 3000 | 27.9 34.2 | 57.5 75 | 0.641 1.07 | 3.7 5.74 | 0.641 1.07 | 3.7 5.74 | 0.795 1.03 | 0.6 0.8 | 3.6 |
| 5 | 28 | 16 | 26 | 40 | 9 × 14 × 12 | 3000 | 39.3 48.3 | 82.5 108 | 1.02 1.76 | 6.21 9.73 | 1.02 1.76 | 6.21 9.73 | 1.47 1.92 | 0.9 1.2 | 4.4 |

Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-414 .)

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 A1-472 or A1-492)

The removing/mounting jig is not provided as standard. Contact THK before use.

** A pilot hole for side nipples, when a grease nipple for a model equipped with LaCS or QZ Lubricator is needed.

Pilot holes for side nipples are not drilled through for models other than those stated above.

For grease nipple mount machining, contact THK. (See A1-415)

Note2) The basic dynamic load rating of the roller guide is a value based on a nominal life of 100 km.

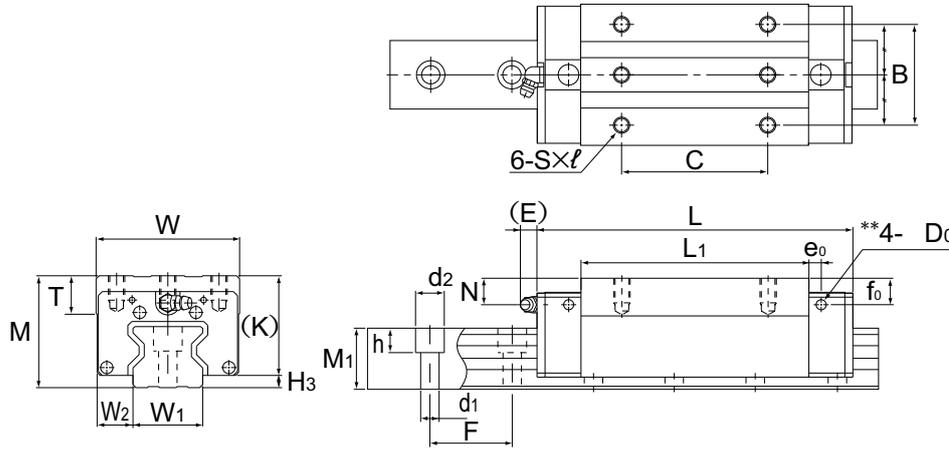
The conversion to basic dynamic load rating for a nominal life of 50 km can be obtained from the following equation.

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

C₅₀ :The basic dynamic load rating for a nominal load of 50 km

C :The basic dynamic load rating in the dimensional table

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



Models SRG35 to 65R/LR/LV

| Model No. | Outer dimensions | | | LM block dimensions | | | | | | | | | | | | | | Grease nipple |
|----------------------------------|------------------|-------|---------------------|---------------------|------------------|-----|----|----------------|----------------|-------------------------|------|------|------|----|----------------|----------------|----------------|---------------|
| | Height | Width | Length | B | C | S | ℓ | ℓ ₁ | ℓ ₂ | L ₁ | T | K | N | E | e ₀ | f ₀ | D ₀ | |
| | M | W | L | | | | | | | | | | | | | | | |
| SRG 35R SRG 35LR SRG 35SLR | 55 | 70 | 125 155 180.8 | 50 | 50 72 100 | M8 | 12 | — | — | 82.2 112.2 138.0 | 18.5 | 49 | 13.5 | 12 | 6 | 13 | 5.2 | B-M6F |
| SRG 45R SRG 45LR SRG 45SLR | 70 | 86 | 155 190 231.5 | 60 | 60 80 120 | M10 | 20 | — | — | 107 142 183.5 | 24.5 | 62 | 20 | 16 | 7 | 17 | 5.2 | B-PT1/8 |
| SRG 55R SRG 55LR SRG 55SLR | 80 | 100 | 185 235 292 | 75 | 75 95 150 | M12 | 18 | — | — | 129.2 179.2 236.2 | 27.5 | 70 | 22 | 16 | 9 | 18.5 | 5.2 | B-PT1/8 |
| SRG 65V SRG 65LV SRG 65SLV | 90 | 126 | 244.9 303 380 | 76 | 70 120 200 | M16 | 20 | — | — | 171.7 229.8 306.8 | 19.5 | 78.5 | 17 | 16 | 9 | 13.5 | 5.2 | B-PT1/8 |

Model number coding

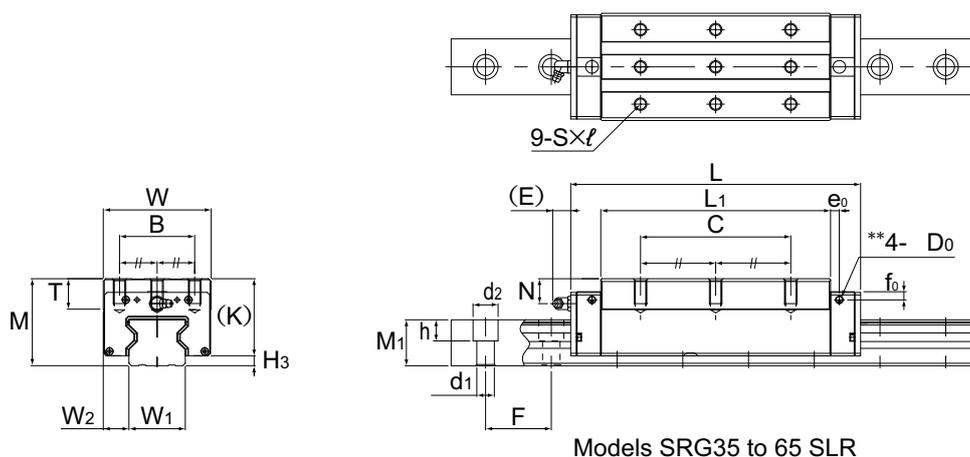
SRG45 LR 2 QZ TTHH C0 +1200L P Z T - II

| | | | | | | |
|--------------|--|--------------------|---|--|--------------------------------|---|
| Model number | Type of LM block | With QZ Lubricator | Contamination protection accessory symbol (*1) | LM rail length (in mm) | With plate cover | 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) Medium preload (C0) | Accuracy symbol (*3) Precision grade (P)/Super precision grade (SP) Ultra precision grade (UP) | Symbol for LM rail jointed use | |

(*1) See contamination protection accessory on A1-496 . (*2) See A1-72 . (*3) See A1-76 . (*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.



Models SRG35 to 65 SLR

Unit: mm

| H ₃ | LM rail dimensions | | | | | | Basic load rating* | | Static permissible moment kN-m* | | | | | Mass | |
|----------------|---------------------------------------|----------------|--------------------------|------------|--|------|--------------------|----------------------|---------------------------------|--------------------|----------------------|--------------------|----------------------|---------------------|-----------------|
| | Width W ₁ 0 -0.05 | W ₂ | Height M ₁ | Pitch F | Length* d ₁ × d ₂ × h | Max | C kN | C ₀ kN | M _A | | M _B | | M _C | LM block kg | LM rail kg/m |
| | | | | | | | | | 1 block | Double blocks | 1 block | Double blocks | 1 block | | |
| 6 | 34 | 18 | 30 | 40 | 9 × 14 × 12 | 3000 | 59.1 76 87.9 | 119 165 199 | 1.66 3.13 4.53 | 10.1 17 23.9 | 1.66 3.13 4.53 | 10.1 17 23.9 | 2.39 3.31 4.09 | 1.6 2.1 2.6 | 6.9 |
| 8 | 45 | 20.5 | 37 | 52.5 | 14 × 20 × 17 | 3090 | 91.9 115 139 | 192 256 328 | 3.49 6.13 9.99 | 20 32.2 50.0 | 3.49 6.13 9.99 | 20 32.2 50.0 | 4.98 6.64 8.91 | 3.2 4.1 5.4 | 11.6 |
| 10 | 53 | 23.5 | 43 | 60 | 16 × 23 × 20 | 3060 | 131 167 210 | 266 366 488 | 5.82 10.8 19.1 | 33 57 93.7 | 5.82 10.8 19.1 | 33 57 93.7 | 8.19 11.2 15.6 | 5 6.9 9.2 | 15.8 |
| 11.5 | 63 | 31.5 | 54 | 75 | 18 × 26 × 22 | 3000 | 219 278 352 | 441 599 811 | 12.5 22.7 41.3 | 72.8 120 202 | 12.5 22.7 41.3 | 72.8 120 202 | 16.8 22.1 30.9 | 9.0 12.1 16.1 | 23.7 |

Note1) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See A1-414 .)
 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 A1-472 or A1-492)
 The removing/mounting jig is not provided as standard. Contact THK before use.

** A pilot hole for side nipples, when a grease nipple for a model equipped with LaCS or QZ Lubricator is needed. Pilot holes for side nipples are not drilled through for models other than those stated above. For grease nipple mount machining, contact THK. (See A1-415)

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.

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

C₅₀ :The basic dynamic load rating for a nominal load of 50 km
 C :The basic dynamic load rating in the dimensional table

Standard Length and Maximum Length of the LM Rail

Table4 shows the standard lengths and the maximum lengths of model SRG 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.

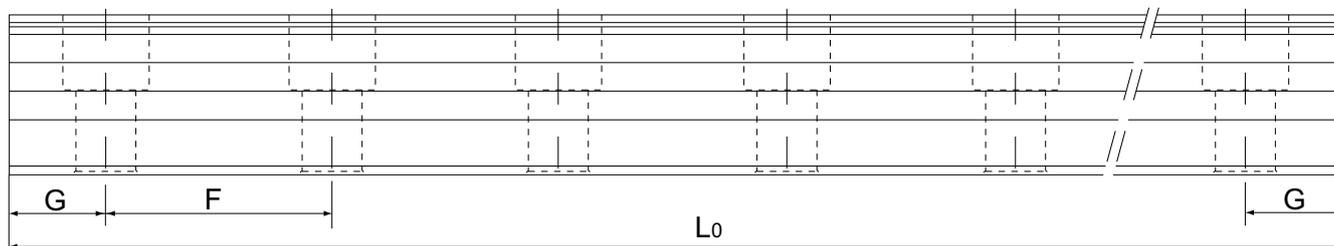


Table4 Standard Length and Maximum Length of the LM Rail for Model SRG

Unit: mm

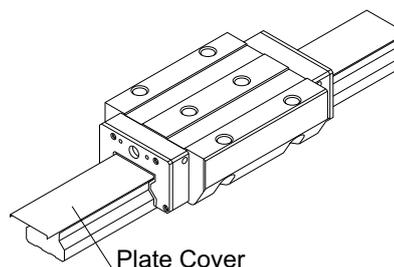
| Model No. | SRG 15 | SRG 20 | SRG 25 | SRG 30 | SRG 35 | SRG 45 | SRG 55 | SRG 65 | SRG 85 | SRG 100 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| LM rail standard length (L_0) | 160 | 220 | 220 | 280 | 280 | 570 | 780 | 1270 | 1530 | 1340 |
| | 220 | 280 | 280 | 360 | 360 | 675 | 900 | 1570 | 1890 | 1760 |
| | 280 | 340 | 340 | 440 | 440 | 780 | 1020 | 2020 | 2250 | 2180 |
| | 340 | 400 | 400 | 520 | 520 | 885 | 1140 | 2620 | 2610 | 2600 |
| | 400 | 460 | 460 | 600 | 600 | 990 | 1260 | | | |
| | 460 | 520 | 520 | 680 | 680 | 1095 | 1380 | | | |
| | 520 | 580 | 580 | 760 | 760 | 1200 | 1500 | | | |
| | 580 | 640 | 640 | 840 | 840 | 1305 | 1620 | | | |
| | 640 | 700 | 700 | 920 | 920 | 1410 | 1740 | | | |
| | 700 | 760 | 760 | 1000 | 1000 | 1515 | 1860 | | | |
| | 760 | 820 | 820 | 1080 | 1080 | 1620 | 1980 | | | |
| | 820 | 940 | 940 | 1160 | 1160 | 1725 | 2100 | | | |
| | 940 | 1000 | 1000 | 1240 | 1240 | 1830 | 2220 | | | |
| | 1000 | 1060 | 1060 | 1320 | 1320 | 1935 | 2340 | | | |
| | 1060 | 1120 | 1120 | 1400 | 1400 | 2040 | 2460 | | | |
| | 1120 | 1180 | 1180 | 1480 | 1480 | 2145 | 2580 | | | |
| | 1180 | 1240 | 1240 | 1560 | 1560 | 2250 | 2700 | | | |
| | 1240 | 1360 | 1300 | 1640 | 1640 | 2355 | 2820 | | | |
| | 1360 | 1480 | 1360 | 1720 | 1720 | 2460 | 2940 | | | |
| | 1480 | 1600 | 1420 | 1800 | 1800 | 2565 | 3060 | | | |
| 1600 | 1720 | 1480 | 1880 | 1880 | 2670 | | | | | |
| | 1840 | 1540 | 1960 | 1960 | 2775 | | | | | |
| | 1960 | 1600 | 2040 | 2040 | 2880 | | | | | |
| | 2080 | 1720 | 2200 | 2200 | 2985 | | | | | |
| | 2200 | 1840 | 2360 | 2360 | 3090 | | | | | |
| | | 1960 | 2520 | 2520 | | | | | | |
| | | 2080 | 2680 | 2680 | | | | | | |
| | | 2200 | 2840 | 2840 | | | | | | |
| | | 2320 | 3000 | 3000 | | | | | | |
| | | 2440 | | | | | | | | |
| Standard pitch F | 30 | 30 | 30 | 40 | 40 | 52.5 | 60 | 75 | 90 | 105 |
| 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.

Plate Cover

By covering the LM rail's mounting holes with ultra-thin stainless steel (SUS304) plates, the sealability of the end seals increase 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 Model SRG with plate cover is not a standard specification. (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 A1-521) is required. Please contact THK for details.

Note 3) Plate covers are available for models SRG 35 to 65.

Greasing Hole

[Greasing Hole for Model SRG]

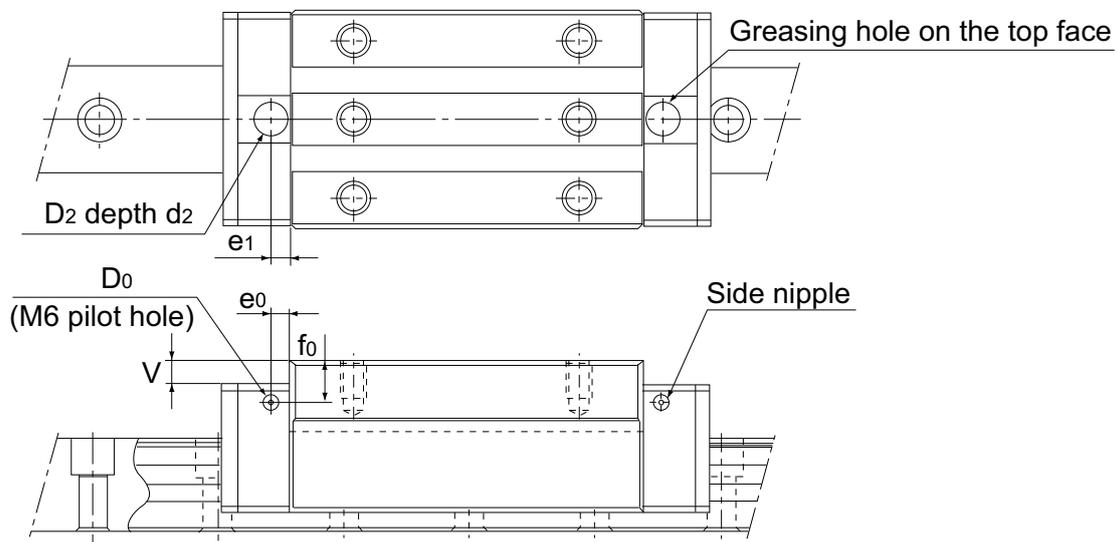
Model SRG allows lubrication from both the side and top faces of the LM block. The greasing hole of standard types is not drilled through in order to prevent foreign material from entering the LM block. When using the greasing hole, contact THK.

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

If the mounting orientation of the LM Guide is other than horizontal use, the lubricant may not reach the raceway completely.

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 A 1-12 and A 24-2 , respectively.



Unit: mm

| Model No. | | Pilot hole for side nipple | | | Applicable nipple | Greasing hole on the top face | | | | |
|-----------|----------------------|----------------------------|----------------|----------------|-------------------|-------------------------------|----------|------|----------------|----------------|
| | | e ₀ | f ₀ | D ₀ | | D ₂ | (O-ring) | V | e ₁ | d ₂ |
| SRG | 15A 15V | 4 | 6 | 2.9 | PB107 | 9.2 | (P6) | 0.5 | 5.5 | 1.5 |
| | 20A 20LA | 4 | 6 | 2.9 | PB107 | 9.2 | (P6) | 0.5 | 6.5 | 1.5 |
| | 20V 20LV | 4 | 6 | 2.9 | PB107 | 9.2 | (P6) | 0.5 | 6.5 | 1.5 |
| | 25C 25LC | 6 | 6.4 | 5.2 | M6F | 10.2 | (P7) | 0.5 | 6 | 1.5 |
| | 25R 25LR | 6 | 10.4 | 5.2 | M6F | 10.2 | (P7) | 4.5 | 6 | 1.5 |
| | 30C 30LC | 6 | 7.5 | 5.2 | M6F | 10.2 | (P7) | 0.4 | 6 | 1.4 |
| | 30R 30LR | 6 | 10.5 | 5.2 | M6F | 10.2 | (P7) | 3.4 | 6 | 1.4 |
| | 35C 35LC 35SLC | 6 | 6 | 5.2 | M6F | 10.2 | (P7) | 0.4 | 6 | 1.4 |
| | 35R 35LR 35SLR | 6 | 13 | 5.2 | M6F | 10.2 | (P7) | 7.4 | 6 | 1.4 |
| | 45C 45LC 45SLC | 7 | 7 | 5.2 | M6F | 10.2 | (P7) | 0.4 | 7 | 1.4 |
| | 45R 45LR 45SLR | 7 | 17 | 5.2 | M6F | 10.2 | (P7) | 10.4 | 7 | 1.4 |
| | 55C 55LC 55SLC | 9 | 8.5 | 5.2 | M6F | 10.2 | (P7) | 0.4 | 11 | 1.4 |
| | 55R 55LR 55SLR | 9 | 18.5 | 5.2 | M6F | 10.2 | (P7) | 10.4 | 11 | 1.4 |
| | 65C 65LC 65SLC | 9 | 13.5 | 5.2 | M6F | 10.2 | (P7) | 0.4 | 10 | 1.4 |
| | 65V 65LV 65SLV | 9 | 13.5 | 5.2 | M6F | 10.2 | (P7) | 0.4 | 10 | 1.4 |
| | 85LC | 15 | 22 | 8.2 | PT1/8 | 13 | (P10) | 0.4 | 10 | 1 |
| | 100LC | 15 | 23 | 8.2 | PT1/8 | 13 | (P10) | 0.4 | 10 | 1 |

Note1) The greasing interval is longer than that of full-roller types because of the roller cage effect. However, the actual greasing interval may vary depending on the service environment, such as a high load and high speed. Contact THK for details.

Note2) Upper surface lubrication is for oil lubrication only. Contact THK if you are considering using the greasing hole on the top face for grease lubrication.