

Linear Guides for Medium/Heavy Load

With Dowel Holes, Normal Clearance

■ **Features:** MISUMI original specifications **with dowel holes**. Requires less time for assembly and has better repeatability.

Lubrication Unit **MX**
Provides long term maintenance-free operation.

MISUMI Original



RoHS10

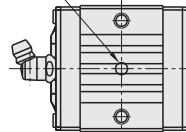
❗ Blocks and rails are not sold as separate items. Normal Clearance Type has guaranteed radial clearances and accuracies as sets of blocks and rails.

Block Standard	Type		MX (Lubrication Units)	L Dimension	Number of Blocks	 Material
	Medium Load	Heavy Load				 Hardness
	SVRN	SXRN	Blank: None -MX: Provided	Selectable	1	Carbon Steel 58HRC~
	SV2RN	SX2RN		2		
	SVRNL	SXRNL		1		
SV2RNL	SX2RNL	2				

Heat Resistant Temperature: -20 ~ 80°C

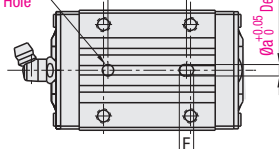
• **Medium Load**

Øa $\begin{smallmatrix} +0.05 \\ 0 \end{smallmatrix}$ Depth (ℓ₁)
Dowel Hole



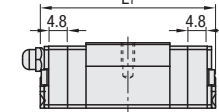
• **Heavy Load**

Øa $\begin{smallmatrix} +0.05 \\ 0 \end{smallmatrix}$ Depth (ℓ₁)
Dowel Hole

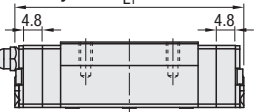


■ **Dimension Diagram of Blocks with MX (Lubrication Units)**

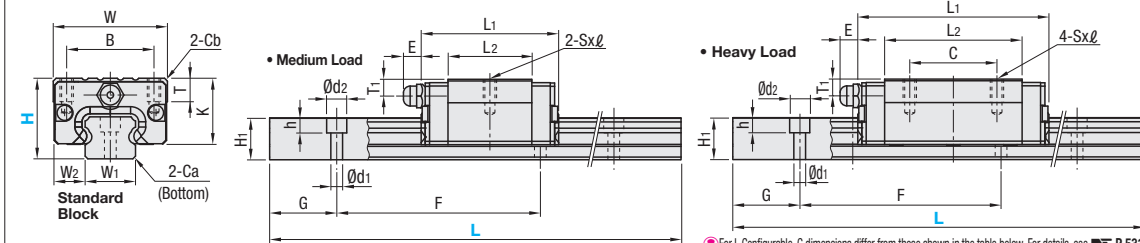
• **Medium Load**



• **Heavy Load**



Medium and Heavy Load



❗ For L Configurable, G dimensions differ from those shown in the table below. For details, see **P. 531**.

■ **Precautions for Use**

- ❗ Blocks are equipped with retainers to prevent balls from falling off.
- For how to handle the blocks, see **P. 525**.
- ❗ Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
- ❗ Straight grooves are provided on datum planes. Be sure to match the datum lines when using.
- ❗ Rails cannot be connected end to end.
- ❗ The accuracy of Linear Guides is guaranteed after mounting the rail (after fastening screws on the rail and pushing it onto the datum plane).
- ❗ Minor bending of the rail will be adjusted after being mounted and will not affect the performance.

■ **Others**

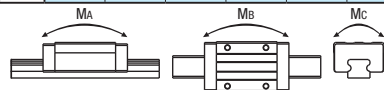
- Filled with Lithium soap based grease (Alvania Grease S2 by Showa Shell Sekiyu K.K.).
- Grease Fittings: Straight Type for H24 and Angled Type for H28 and H33.
- Grease Fitting is screw-in type, and thus, can be repositioned.
- For operating life calculation, see **P. 527**.
- For operating life calculations, use our free calculation software from http://download.misumi.jp/mol/fa_soft.html.

	Part Number			H	L	Block Dimension																	Guide Rail Dimension									
	Type	MX	W			L ₁		B	C	S×ℓ	L ₂	K	T	Cb	Grease Fitting			Dowel Hole Dimensions							H ₁	W ₁	W ₂	Ca	Counterbored Hole d1×d2×h	F	G	
						Std.	MX								E	T ₁	N	Øa	F	P	ℓ ₁											
Medium Load	(1 block) SVRN	(2 blocks) SV2RN	Blank: None - MX: With MX	24	100~1480 (160)	34	41	50.6	26	-	M4x7	25	20	7	0.85	M5xP0.8	6	5	17	3	-	-	4	12.5	15	9.5	0.5	3.5x6x4.5	60	20		
	(1 block) SVRNL	(2 blocks) SV2RNL		28	160~1960 (220)	42	47	56.6	32	-	M5x7.5	27.6	22.5	7.5	1	M6xP0.75	13	6	21	4	-	-	5	15.5	20	11	0.6	6x9.5x8.5	60	20		
				33	160~1960 (220)	48	59	68.6	35	-	M6x9	37	26.5	8	1	M6xP0.75	13	6.8	24	4	-	-	5	18	23	12.5	0.8	7x11x9	60	20		
Heavy Load	(1 block) SXRNL	(2 blocks) SX2RN		24	100~1480 (220)	34	57	66.6	26	26	M4x7	41	20	7	0.85	M5xP0.8	6	5	17	3	4	24	4	12.5	15	9.5	0.5	3.5x6x4.5	60	20		
				28	160~1960 (220)	42	67	76.6	32	32	M5x7.5	47.6	22.5	7.5	1	M6xP0.75	13	6	21	4	5	28	5	15.5	20	11	0.6	6x9.5x8.5	60	20		
				33	160~1960 (280)	48	83	92.6	35	35	M6x9	61	26.5	8	1	M6xP0.75	13	6.8	24	4	5	35	5	18	23	12.5	0.8	7x11x9	60	20		

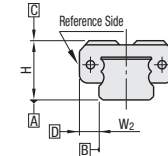
❗ L Dimension: Dimensions in () are for 2-Block Type.

kgf=N×0.101972

Block	H	Basic Load Rating		Allowable Static Moment		Mass	
		C (Dynamic) kN	Co (Static) kN	MA, Ms N·m	Mc N·m	Block kg	Guide Rail kg/m
Medium Load	24	5.0	8.23	33	57	0.15	0.20
	28	7.2	12.1	58	135	0.20	0.25
	33	11.7	19.6	109	225	0.30	0.40
Heavy Load	24	8.6	14.2	69	98	0.20	0.25
	28	12.5	21.3	155	232	0.30	0.35
	33	20.2	34.5	275	393	0.45	0.60



■ **Preload and Accuracy Standards**



■ **Normal Clearance Type**

Radial Clearance (μm)	Standard Grade
H24	-4~+2
H28	-5~+2
H33	-6~+3

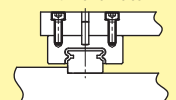
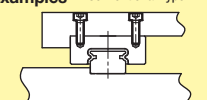
Dimensional Accuracy (μm)	Standard Grade
Height H Tolerance	±100
Pair Variation of Height H	20
Width W ₂ Tolerance	±100
Pair Variation of Width W ₂	H24, 28 H33
Running Parallelism of Plane C against Plane A	See P525
Running Parallelism of Plane D against Plane B	



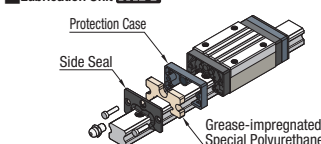
■ **Installation Examples**

Conventional Type

With Dowel Holes



■ **Lubrication Unit MX**



■ **Advantages of Lubrication Unit MX:**
Provides long term maintenance-free operation. Reduces maintenance cost. Most suitable where the design does not allow lubrication.
For details, see **P. 530**.

❗ marked sizes are not available for Low Temperature Black Chrome Plated Type.

H	L	Unit Price			
		Medium Load		Heavy Load	
		1 block SVRN	2 blocks SV2RN	1 block SXRNL	2 blocks SX2RNL
24	100				
	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
28	*1120				
	*1240				
	*1360				
	*1480				
	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
33	880				
	940				
	1000				
	*1120				
	*1240				
	*1360				
	*1480				
	*1600				
	*1720				
	*1840				
	*1960				
	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	*1120				
	*1240				
	*1360				
	*1480				
	*1600				
	*1720				
	*1840				
	*1960				

■ **L Dimension Configurable Type (1mm Increment)**

H	Unit Price			
	Medium Load		Heavy Load	
	1 block SVRNL	2 blocks SV2RNL	1 block SXRNL	2 blocks SX2RNL
24				
28				
33				

❗ For calculation of L Dimension Configurable Type (1mm Increment), add the above amount to the unit price of the Selectable Type longer than, and closest to this L Dimension Configurable Type.

■ **MX (Lubrication Unit) Unit Price**

H	Unit Price	
	1 block	2 blocks
24		
28		
33		

❗ Price of Guide Rail with MX (Lubrication Unit) = Linear Guide Unit Price + MX Unit Price



Ordering
Example

Part Number - L

SVRN28 - 880 (With Lubrication Units)
SVRN-MX28 - 880 (LTBC Plating)
SVRN28 - 880 (L Type Greased)
SVRN28L - 880 (G Type Greased)
SVRN28G - 880

LTBC Plating and various Grease types available as alternative (Except Blocks with Lubrication Units).

❗ P532



Alterations

Part Number - L -

SVRN28 - 880 - (TMS, TMC, LLC, RLC, B3, B4)

TMC

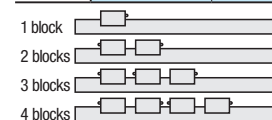
Alterations	Code	Spec.
TMS: Tapped Hole Machining + 2 Stopper Plates TMC: Tapped Hole Machining only	TMS TMC	Adds tapped holes on both rail ends to avoid block fall-off. H24 H28, 33 M3×P0.5 Depth 5 Tapped Hole For Stopper Plates Details, see P. 612 . ❗ Applicable to Carbon Steel Type only.
Rail End Cut LLC	Left End Cut LLC	Cuts rail ends. Ordering Code: LLC H L Cut N 24 10 10 28 33
Rail is cut with the product ID facing out (datum on other side).	Right End Cut RLC	❗ Applicable to Selectable Type only. ❗ Overall length will be shorter by cutting. ❗ Not applicable to H dimension 24 or L dimension 100.
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. Selection Example: SXRNL24-400-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. Selection Example: SXRNL24-400-B4

■ **Medium Load**

H	B3: Price Adder		B4: Price Adder	
	Standard	Standard MX	Standard	Standard MX
24				
28				
33				

■ **Heavy Load**

H	B3: Price Adder		B4: Price Adder	
	Standard	Standard MX	Standard	Standard MX
24				
28				
33				



■ **Selectable Shortest Rail Length for B3/B4**

H	Medium Load		Heavy Load	
	B3 (3-block)	B4 (4-block)	B3 (3-block)	B4 (4-block)
24	280	340	340	400
28	340	400	400	460
33	340	400	400	520