

# 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



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

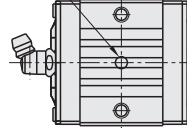
RoHS10

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

Heat Resistant Temperature: -20 ~ 80°C

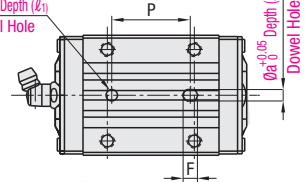
• Medium Load

$\phi a \pm 0.05$  Depth ( $\ell_1$ )  
Dowel Hole



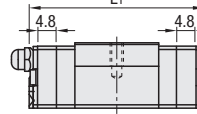
• Heavy Load

$\phi a \pm 0.05$  Depth ( $\ell_1$ )  
Dowel Hole



### Dimension Diagram of Blocks with MX (Lubrication Units)

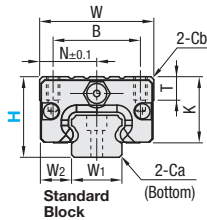
• Medium Load  $L_1$



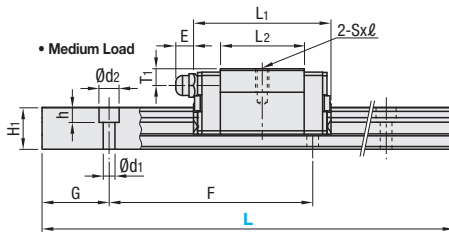
• Heavy Load  $L_1$



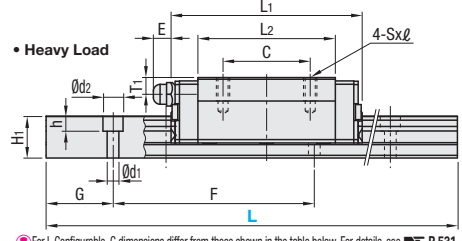
### Medium and Heavy Load



• Medium Load



• 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](http://download.misumi.jp/mol/fa_soft.html).

	Part Number		H	L	Block Dimension										Guide Rail Dimension														
	Type	MX			W	Std.	MX	B	C	Sxℓ	L2	K	T	Cb	Grease Fitting Mounting Hole	E	T1	Dowel Hole Dimensions	H1	W1	W2	Ca	Counterbored Hole	F	G				
Medium Load	(1 block) SVRN SVRNL (2 blocks) SV2RN SV2RNL	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	
			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) SXRN SXRNL (2 blocks) SX2RN SX2RNL	Blank: None -MX: With MX	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

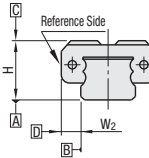
L Dimension: Dimensions in ( ) are for 2-Block Type.

kgf=N×0.101972

Block	H	Basic Load Rating			Allowable Static Moment			Mass		
		C (Dynamic) kN	Co (Static) kN	MA, Mb N-m	Mc N-m	Block Standard	Block Wide	Guide Rail	kg	kg/m
Medium Load	24	5.0	8.23	33	57	0.15	0.20	1.5		
	28	7.2	12.1	58	135	0.20	0.25	2.4		
	33	11.7	19.6	109	225	0.30	0.40	3.4		
Heavy Load	24	8.6	14.2	69	98	0.20	0.25	1.5		
	28	12.5	21.3	155	232	0.30	0.35	2.4		
	33	20.2	34.5	275	393	0.45	0.60	3.4		



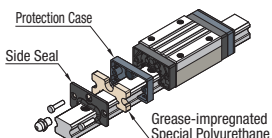
### Preload and Accuracy Standards



### Normal Clearance Type

Radial Clearance (µm)	Dimensional Accuracy (µm)	Standard Grade
H24 -4~+2	Height H Tolerance	±100
H28 -5~+2	Pair Variation of Height H	20
H33 -6~+3	Width W2 Tolerance	±100
	Pair Variation of Width W2	H24, 28: 20 H33: 30
	Running Parallelism of Plane C against Plane A	See P525
	Running Parallelism of Plane D against Plane B	

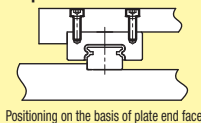
### Lubrication Unit MX



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.



### Installation Examples - Conventional Type



### With Dowel Holes

