Linear Guides for Medium Load

With Dowel Hole / Normal Clearance

Linear Guides for Medium Load – With Dowel Hole

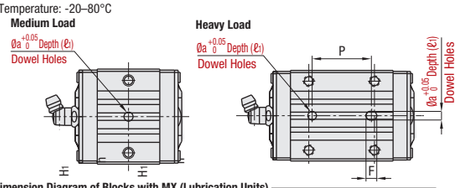
Normal Clearance

RoHS10

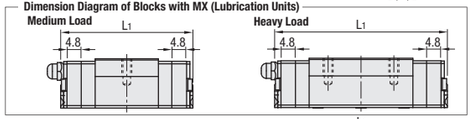
! Blocks and rails are not sold as separate items. Normal Clearance Type has guaranteed radial clearances and accuracies as sets of blocks and rails.

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

Heat Resistant Temperature: -20–80°C

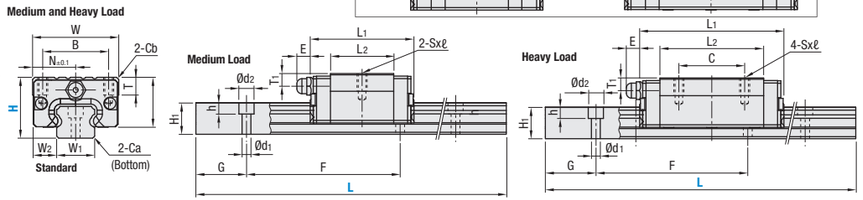


Dimension Diagram of Blocks with MX (Lubrication Units)



! For L Dimension Confi gurable Type, G dimensions differ from those shown in the table below. For details, see **P.608**.

Medium and Heavy Load



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

Lubrication Units MX New
Provides long term maintenance-free operation.

Precautions for Use

- ! Blocks are equipped with retainers to prevent balls from falling out. For proper block handling, **P.602**.
- ! 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 (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 **P.604**, or by using our free software at, http://www.misumiusa.com/lg-bs_software/

	Part Number Type		MX	H	L	Block Dimensions W	L1 Standard	L1 MX	B	S x ℓ	L2	K	T	Cb	Grease Fittings Mounting Holes	Dowel Hole Dimensions E	T1	N	Øa	F	P	ℓ1	Guide Rail Dimensions H1	W1	W2	Ca	Counterbored Holes d1 x d2 x h	F	G
Medium Load	1 Block SVRN SVRNL	2 Blocks SV2RN SV2RNL	Blank: None	24	100–1480 (160)	34	41	50.6	26	M4 x 7	25	20	7	0.85	M5 x P0.8	6	5	17	3	—	—	4	12.5	15	9.5	0.5	3.5 x 6 x 4.5	60	20
				28	160–1960 (220)	42	47	56.6	32	M5 x 8	27.6	22.5	7.5	1	M6 x P0.75	13	6	21	4	—	—	5	15.5	20	11	0.6	6 x 9.5 x 8.5	60	20
				33		48	59	68.6	35	M6 x 9	37	26.5	8	1	M6 x P0.75	13	6.8	24	4	—	—	5	18	23	12.5	0.8	7 x 11 x 9	60	20
Heavy Load	1 Block SXRN SXRNL	2 Blocks SX2RN SX2RNL	-MX: With MX	24	100–1480 (220)	34	57	66.6	26	M4 x 7	41	20	7	0.85	M5 x P0.8	6	5	17	3	4	24	4	12.5	15	9.5	0.5	3.5 x 6 x 4.5	60	20
				28	160–700 (220)	42	67	76.6	32	M5 x 7.5	47.6	22.5	7.5	1	M6 x P0.75	13	6	21	4	5	28	5	15.5	20	11	0.6	6 x 9.5 x 8.5	60	20
				33	160-700 (280)	48	83	92.6	35	M6 x 9	61	26.5	8	1	M6 x P0.75	13	6.8	24	4	5	35	5	18	23	12.5	0.8	7 x 11 x 9	60	20

! L Dimension: Dimensions in ( ) are for the minimum rail length of the 2-Block Type.

Part Number Example

Part Number	-	L	
SVRN28	-	880	
SVRN-MX28	-	880	(With Lubrication Units)
RVRN28	-	880	(Low Temperature Black Chrome Plating)
SVRN28L	-	880	(L Type Greased)
SVRN28G	-	880	(G Type Greased)

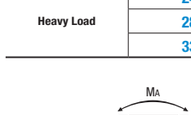
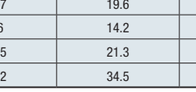
Low Temperature Black Chrome Plating and various Grease types available as alternative (Except Blocks with Lubrication Units).

Linear Guides for Medium Load

With Dowel Hole / Normal Clearance, *continued*

Part Number Alterations

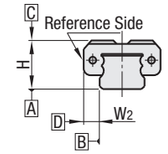
Part Number	-	L	- (TMS, TMC, RLC, LLC, B3, B4)
SVRN28	-	880	- TMC

Alterations	Code	Specifications
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.  M3 x P0.5 Depth 5 Tapped Hole For Stopper Plates Details **P.685**. ! Applicable to Carbon Steel Type only.
Rail Ends Cut  Rail is cut with the product ID facing out (datum on other side).	Left End Cut LLC Right End Cut RLC	Rail ends cut. **Ordering Code:** LLC H: 24, 28, 33 / L Cut: 10 / N: 10 ! Applicable to Selectable Type only. ! Cutting will shorten overall length. ⊗ Not applicable to H dimension 24 and L dimension 100.
3-Block Specifications	B3	Add 2 Blocks to 1-block product to ship as 3-block separate item. Selection Example: SXRN24-400-B3
4-Block Specifications	B4	Add 3 Blocks to 1-block product to ship as 4-block separate item. Selection Example: SXRN24-400-B4

Preload & Accuracy Standards

Normal Clearance Type

Radial Clearance (µm)	
H24	-4–+2
H28	-5–+2
H33	-6–+3



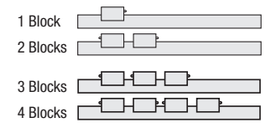
Dimension Accuracy (µm)		Standard Grade
Height H Tolerance		±100
Pair Variation of Height H		20
Width W_2 Tolerance		±100
Pair Variation of Width W_2	H24, 28	20
	H33	30
Running Parallelism of Plane C against Plane A		Refer to **P.602**
Running Parallelism of Plane D against Plane B		

Selectable Shortest Rail Length for B3/B4

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

Position of Grease Fitting

(Reference plane on the front side)



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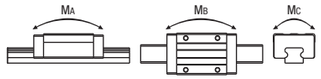
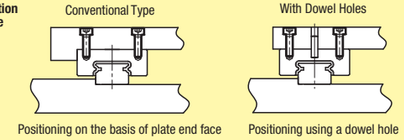
	H	Basic Load Rating C (Dynamic) kN	Basic Load Rating Co (Static) kN	Allowable Static Moment MA, MB N•m	Allowable Static Moment Mc N•m	Mass Block kg Standard	Mass Block kg Wide	Mass Guide Rails kg/m
Medium Load	24	5.0	8.23	33	57	0.15	0.20	1.5
	28	7.2	12.1	58	135	0.20	0.25	2.4
	33	11.7	19.6	109	225	0.30	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

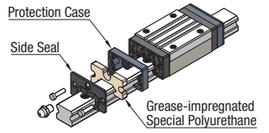


Application Example

Installation Example



Lubrication Units MX



Blocks with Lubrication Units MX provide long term maintenance-free operation. Reduces maintenance cost. Most suitable where the design does not allow access for additional lubrication. For details, see **P.599**.