Linear Guides for Medium Load (Dust Resistant)

With Double Seals & Metal Scrapers / Normal Clearance

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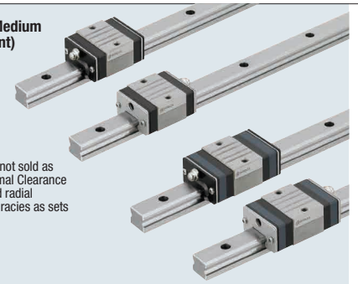


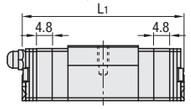
ⓘ Blocks and rails are not sold as separate items. Normal Clearance Type has guaranteed radial clearances and accuracies as sets of blocks and rails.

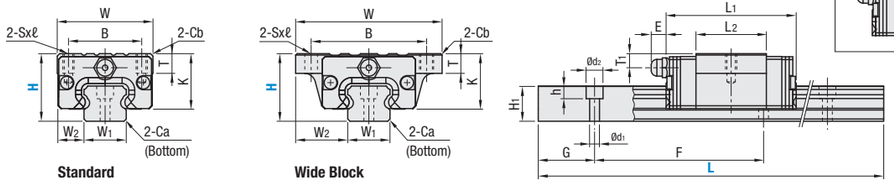
RoHS10

	Type: Double-Sealed	Type: With Metal Scrapers	MX (Lubrication Units)	L Dimension	Number of Blocks	Material Hardness
Standard	SVRD	SVRK	Blank: None -MX: Provided	Selectable	1	Carbon Steel 58 HRC min.
	SV2RD	SV2RK			2	
	SVRDL	SVRKL		Configurable	1	
	SV2RDL	SV2RKL			2	
Wide Block	SVWD	SVWK		Selectable	1	
	SV2WD	SV2WK			2	
	SVWDL	SVWKL		Configurable	1	
	SV2WDL	SV2WKL			2	

Heat Resistant Temperature: -20–80°C

Dimension Diagram of Blocks with MX (Lubrication Units)





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

Precautions for Use

- ⓘ Blocks are equipped with retainers (wire) to prevent balls from derailing. For blocks, see **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.
- ⓘ Running parallelism is the value measured after the rail is mounted (it is not the value measured before the rails are fastened with screws.).

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**.

	Part Number: Type (1 Block)	Part Number: Type (2 Blocks)	MX	H	L	Block Dimensions: W	L_1: Standard	L_1: MX	B	S x ℓ	L_2	K	T	Cb	Grease Fittings: Mounting Holes	Grease Fittings: E	Grease Fittings: T_1	Guide Rail Dimensions: H_1	W_1	W_2	Ca	Counterbored Holes: d_1 x d_2 x h	F	G
Standard	SVRD	SV2RD	Blank: None	24	160–1480	34	46 (42.6)	55.6 (52.2)	26	M4 x 7	25	20	7	0.85	M5 x P0.8	6	5	12.5	15	9.5	0.5	3.5 x 6 x 4.5	60	20
	SVRK	SV2RK		28	220–1960	42	53.4 (49)	63 (58.6)	32	M5 x 8	27.6	22.5	7.5	1	M6 x P0.75	13	6	15.5	20	11	0.6	6 x 9.5 x 8.5	60	20
	SVRDL	SV2RDL		33		48	66 (61.4)	75.6 (71)	35	M6 x 9	37	26.5	8	1	M6 x P0.75	13	6.8	18	23	12.5	0.8	7 x 11 x 9	60	20
	SVRKL	SV2RKL																						
Wide Block	SVWD	SV2WD	-MX: Provided	24	160–1480	52	46 (42.6)	55.6 (52.2)	41	4.5	25	20	7	0.5	M5 x P0.8	6	5	12.5	15	18.5	0.5	3.5 x 6 x 4.5	60	20
	SVWK	SV2WK		28	220–1960	59	53.4 (49)	63 (58.6)	49	5.5	27.6	22.5	9	1	M6 x P0.75	13	6	15.5	20	19.5	0.6	6 x 9.5 x 8.5	60	20
	SVWDL	SV2WDL		33		73	66 (61.4)	75.6 (71)	60	7	37	26.5	10	1	M6 x P0.75	13	6.8	18	23	25	0.8	7 x 11 x 9	60	20
	SVWKL	SV2WKL																						

ⓘ Dimensions in ( ) are for Metal Scraper Type.

Part Number Example

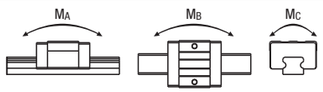
Part Number - L

SVRD28 - 880
SVRD-MX28 - 880 (With Lubrication Units)
SVRD28L - 880 (L Type Greased)
SVRD28G - 880 (G Type Greased)

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

kgf=Nx0.101972

H	Basic Load Rating: C (Dynamic) kN	Basic Load Rating: Co (Static) kN	Allowable Static Moment: M_A, M_B N·m	Allowable Static Moment: M_C N·m	Mass: Block kg: Double-Sealed: Standard	Mass: Block kg: Double-Sealed: Wide	Mass: Block kg: With Metal Scrapers: Standard	Mass: Block kg: With Metal Scrapers: Wide	Mass: Guide Rail kg/m
24	5.0	8.23	33	57	0.16	0.21	0.16	0.21	1.5
28	7.2	12.1	58	135	0.22	0.27	0.22	0.27	2.4
33	11.7	19.6	109	225	0.33	0.43	0.34	0.44	3.4



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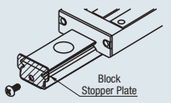
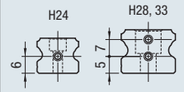
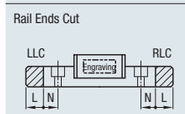
Part Number Alterations

Part Number - L - (TMS, TMC, RLC, LLC, etc.)
SVRD28 - 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 Stopper Plates Details **P.685**.
Rail Ends Cut Rail is cut with the product ID facing out (datum on other side).	Left End Cut LLC Right End Cut RLC	Cuts rail ends. **Ordering Code:** LLC ⓘ Applicable to Selectable Type only. ⓘ Overall length will be shorter by cutting.
Parallel Use of 2 Rails	WC	Pair variation of Height H between 2 rails is set within 20µm. Two rails are shipped as a pair. ⓘ Must be ordered in multiples of 2. ⊗ Not applicable to High Grade Type. ⊗ Not applicable to low temperature chrome plated products.
3-Block Specifications	B3	Add 2 Blocks to 1-block product to ship as 3-block separate item. Selection Example: SVRD24-400-B3
4-Block Specifications	B4	Add 3 Blocks to 1-block product to ship as 4-block separate item. Selection Example: SVRD24-400-B4







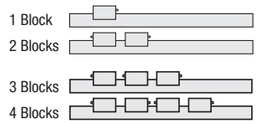
H	L Cut	N
24	10	10
28		
33		

Selectable Shortest Rail Length

H	B3 (3-Block)	B4 (4-Block)
24	280	340
28	340	400
33	340	400

Position of Grease Fitting

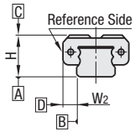
(Reference plane on the front side)



Preload & Accuracy Standards

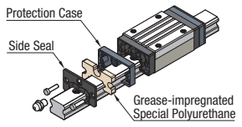
Normal Clearance Type

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



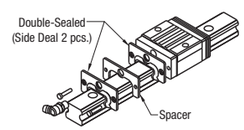
Dimension Precision (µm)		Standard Grade
Height H Tolerance		±100
Pair Variation of Height H		20
Width W_2 Tolerance		±100
Pair Variation of Width W_2	H24, 28	20
	H33	30
Running Parallelism of Plane C against Plane A		Refer to **P.602**
Running Parallelism of Plane D against Plane B		

Lubrication Units MX



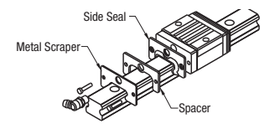
– Blocks with Lubrication Units MX provide long term maintenance-free operation. Reduces maintenance cost. Most suitable where the design does not allow access for additional lubrication. For details, refer to **P.599**.

Double-Sealed



– The double seal scheme with two layers of side seals enhances the sealing effect and prevents intrusion of foreign substances into the block.
– Can be used where dust and machining chips exist.
ⓘ Sliding resistance of Double-Sealed Type is higher than that of Standard Type.

With Metal Scrapers



– Larger foreign substances adhered to the rail can be removed by attaching metal scrapers on the external side of the side seals.
– Can be used in areas with high temperature dusts such as weld spatter.