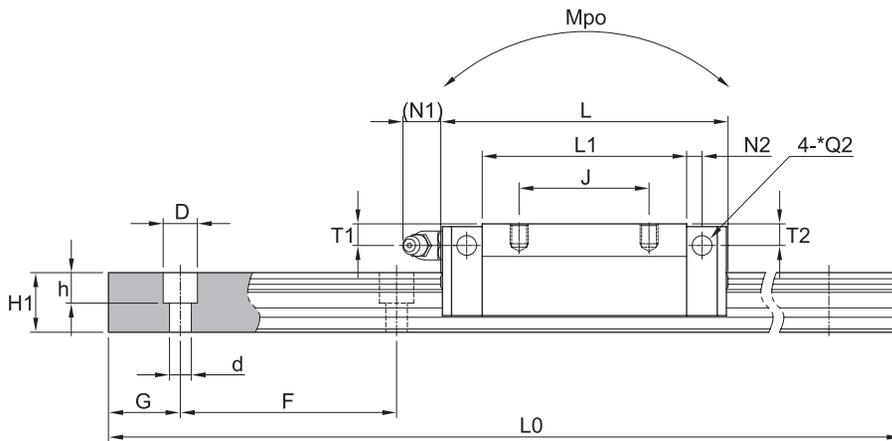


# Linear Rail System

## SBI High-load Linear Rail System



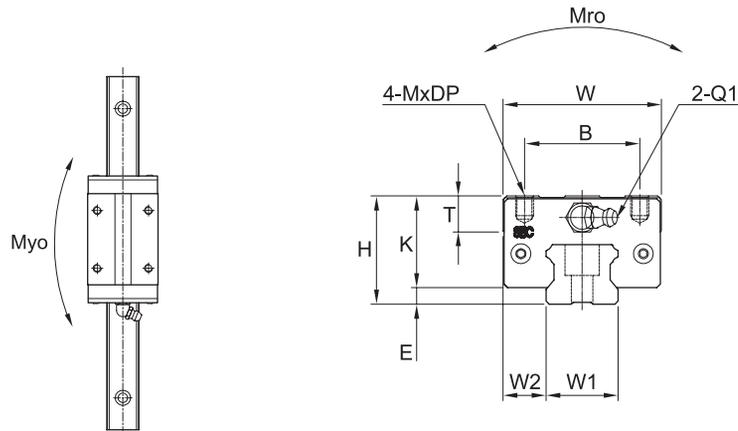
(Unit : mm)

Rail dimension									Basic load rating		Permissible static moment			Mass	
W1	W2	H1	F	Bolt hole			G	Max length of rail L0	[kN]		[kN · m]			Block [kg]	Rail [kg/m]
				d	D	h			C	Co	Mro	Mpo	Myo		
15	9.5	13	60	4.5	7.5	5.5	20	3000	14.1	24.1	0.16	0.17	0.17	0.23	1.3
15	9.5	13	60	4.5	7.5	5.5	20	3000	17.1	31.7	0.21	0.29	0.29	0.31	1.3
20	12	16.5	60	6	9.5	8.5	20	4000	22.2	38.2	0.36	0.33	0.33	0.36	2.2
20	12	16.5	60	6	9.5	8.5	20	4000	27.9	50	0.47	0.56	0.56	0.47	2.2
23	12.5	20	60	7	11	9	20	4000	31.5	52.1	0.56	0.56	0.56	0.68	3
23	12.5	20	60	7	11	9	20	4000	36.7	64.4	0.69	0.84	0.84	0.82	3
28	16	23	80	9	14	12	20	4000	42.8	65.4	0.85	0.77	0.77	1.06	4.25
28	16	23	80	9	14	12	20	4000	51.3	84.7	1.10	1.30	1.30	1.37	4.25
34	18	26	80	9	14	12	20	4000	59.5	89.1	1.42	1.28	1.28	1.83	6.02
34	18	26	80	9	14	12	20	4000	71.3	115.3	1.83	2.12	2.12	2.34	6.02
45	20.5	32	105	14	20	17	22.5	4000	79.2	116.3	2.48	1.90	1.90	3.30	9.77
45	20.5	32	105	14	20	17	22.5	4000	94.8	150.5	3.21	3.14	3.14	4.23	9.77
53	23.5	38	120	16	23	20	30	4000	127.3	181.8	4.81	2.97	2.97	4.42	13.72
53	23.5	38	120	16	23	20	30	4000	147.9	224.5	5.95	4.78	4.78	5.82	13.72
63	31.5	53	150	18	26	22	35	4000	188.3	261.7	8.24	5.57	5.57	9.10	23.17
63	31.5	53	150	18	26	22	35	4000	232.5	354.1	11.15	9.86	9.86	11.98	23.17

# Linear Rail System

## SBI High-load Linear Rail System

### SBI-HL/HLS/HLL



Model	Mounting dimension				Block dimensions													
	H	W	L	E	Mounting tap hole				L1	T±1	K	Grease fitting						
					B	J	M	DP				T1	N1	T2	N2	Q1	*Q2	
SBI15 HLS	24	34	56.8	3	26	26	M4	4	38.2	6	21	4.5	5.5	3.8	3.8	M4x0.7	Ø3.5	
SBI15 HL	24	34	63.8	3	26	26	M4	4	45.2	6	21	4.5	5.5	3.8	3.8	M4x0.7	Ø3.5	
SBI15 HLL	24	34	79.4	3	26	34	M4	4	60.8	6	21	4.5	5.5	3.8	3.8	M4x0.7	Ø3.5	
SBI25 HL	36	48	92	5.5	35	35	M6	6	70	12	30.5	6	12	5	5.5	M6x0.75	Ø3.5	
SBI25 HLL	36	48	108	5.5	35	50	M6	6	86	12	30.5	6	12	5	5.5	M6x0.75	Ø3.5	
SBI30 HL	42	60	107.6	7	40	40	M8	8	79.6	12	35	8.5	12	7.8	5	M6x0.75	Ø5.7	
SBI30 HLL	42	60	131.6	7	40	60	M8	8	103.6	12	35	8.5	12	7.8	5	M6x0.75	Ø5.7	
SBI35 HL	48	70	124.6	7.5	50	50	M8	8	94.6	15	40.5	8	12	8	6	M6x0.75	Ø5.7	
SBI35 HLL	48	70	152.6	7.5	50	72	M8	8	122.6	15	40.5	8	12	8	6	M6x0.75	Ø5.7	
SBI45 HL	60	86	142	9	60	60	M10	10	108	17	51	10.5	13.5	9.3	6.5	PT1/8	Ø5.7	
SBI45 HLL	60	86	174	9	60	80	M10	10	140	17	51	10.5	13.5	9.3	6.5	PT1/8	Ø5.7	
SBI55 HL	70	100	172.4	12	75	75	M12	12	131	21	58	12	13	12	8	PT1/8	Ø8.7	
SBI55 HLL	70	100	211.8	12	75	95	M12	12	170.4	21	58	12	13	12	8	PT1/8	Ø8.7	

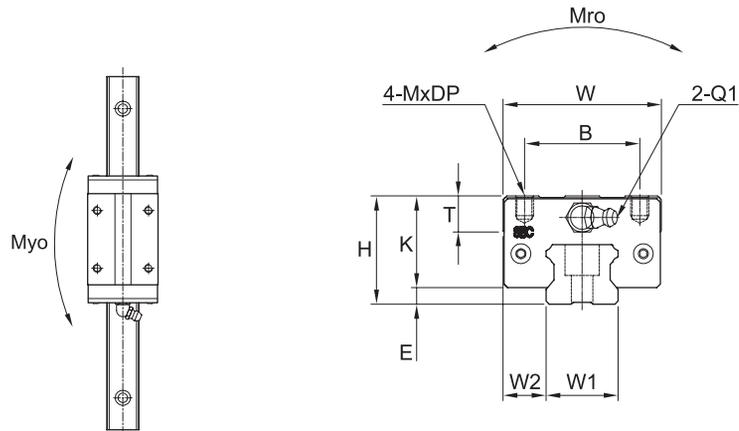
① C (Basic dynamic load rating), Co (Basic static load rating)

② \*Q2: The hole of side grease nipple is not made to prevent a foreign substance from going into inside.  
When you order the side grease nipple, we build it by ourselves.

# Linear Rail System

## SBI High-load Linear Rail System

### SBI-CL/CLS/CLL



Model	Mounting dimension				Block dimensions													
	H	W	L	E	Mounting tap hole				L1	T±1	K	Grease fitting						
					B	J	M	DP				T1	N1	T2	N2	Q1	*Q2	
SBI20 CLS	28	42	65.2	4.6	32	32	M5	5	43.2	7.8	23.4	4.8	12	4.3	5	M6x0.75	Ø3.5	
SBI20 CL	28	44	78.8	4.6	32	32	M5	5	56.8	7.8	23.4	4.8	12	3.8	5	M6x0.75	Ø3.5	
SBI20 CLL	28	44	96.4	4.6	32	50	M5	5	74.4	7.8	23.4	4.8	12	3.8	5	M6x0.75	Ø3.5	
SBI25 CL	33	48	92	5.5	35	35	M6	6	70	9	27.5	5.4	12	5.4	5	M6x0.75	Ø3.5	
SBI25 CLL	33	48	108	5.5	35	50	M6	6	86	9	27.5	5.4	12	5.4	5	M6x0.75	Ø3.5	

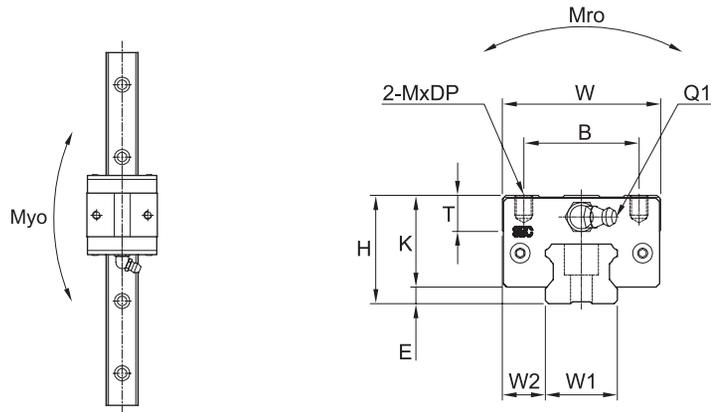
① C (Basic dynamic load rating), Co (Basic static load rating)

② \*Q2: The hole of side grease nipple is not made to prevent a foreign substance from going into inside.  
When you order the side grease nipple, we build it by ourselves.

# Linear Rail System

## SBI High-load Linear Rail System

### SBI-SV



Model	Mounting dimension				Block dimensions												
	H	W	L	E	Mounting tap hole			L1	T±	K	Grease fitting						
					B	M	DP				T1	N1	T2	N2	Q1	*Q2	
SBI15 SV	24	34	39.9	3	26	M4	4	21.3	6	21	4.5	5.5	3.8	3.8	M4x0.7	∅3.5	
SBI20 SV	28	44	49.1	4.6	32	M5	5	27.1	7.8	23.4	4.8	12	3.8	5	M6x0.75	∅3.5	
SBI25 SV	33	48	52.6	5.5	35	M6	6	30.6	9	27.5	5.4	12	5.4	5	M6x0.75	∅3.5	

① C (Basic dynamic load rating), Co (Basic static load rating)

② \*Q2: The hole of side grease nipple is not made to prevent a foreign substance from going into inside.  
When you order the side grease nipple, we build it by ourselves.

# Details of Special Greases / Rail Length (L Dimension) Configurable Type

## About Special Greases

The standard grease used in the linear guides can be changed to the following types.

Part Number	Product Name	Main Features
<b>L Type</b>	ET-100K (Made by Kyodo Yushi)	Excels in heat resistance, oxidation stability, adhesion and adhesive power. In addition, splash or leakage is little.
<b>G Type</b>	LG2 (Made by NSK Ltd.)	Special grease for linear guides, ball screws and etc. for clean-room use.

Product Name	Page	Grease Selection	Unit Price
Added to the price of Standard Type			
<b>Miniature Linear Guides</b>	P533-P568	<b>L</b> <b>G</b>	
⚠ Not applicable to Heat/Dust Resistant products or products with Lubrication Unit (listed on our website).			
<b>Medium/Heavy Load Linear Guide</b>	P569-P572		
⚠ Not applicable to Plastic Retainer Type.			

Add the unit price in the above table to the unit price of applicable standard product.

<Price Calculation Example> SEBL10L-270 (Standard Preload Type)

(Standard Type Unit Price) + (Additional Unit Price in the Table) = (Total)

**Ordering Example**

Part Number - L  
 SEBL10L - 270 (L Type Greased)  
 SEBL10G - 270 (G Type Greased)

⚠ Please add L or G after the part number of Regular Type when placing an order.

**Alterations**

Part Number - L  
 SEBL10L - 270

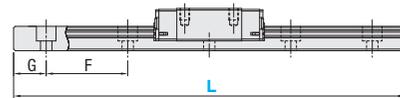
⚠ Confirm the details of alterations on the page shown in the table on the left.  
 ⚠ Not applicable to C-VALUE Products.

## Details of the Dimensions about L Dimension Configurable Type

Both ends of the rail are evenly cut for L Configurable. For the number of rail mounting holes (M) in that case, see the table below. In addition, G dimensions are calculated with the formula below.

$$G = \frac{L - (M - 1) \times F}{2}$$

Example: For SSEB13-168,  $G = \frac{168 - (7 - 1) \times 25}{2} = 9$  (mm)



### Miniature Linear Guides - Standard Rails

H	6, 8	10	13	16	20	Number of Mounting Holes M
L	26~35	36~47	46~57	71~87	101~139	2
L	36~50	48~67	58~82	88~127	140~199	3
L	51~65	68~87	83~107	128~167	200~259	4
L	66~80	88~107	108~132	168~207	260~319	5
L	81~95	108~127	133~157	208~247	320~379	6
L	96~110	128~147	158~182	248~287	380~439	7
L	111~125	148~167	183~207	288~327	440~499	8
L	126~129	168~187	208~232	328~367	500~559	9
L	-	188~207	233~257	368~407	560~619	10
L	-	208~227	258~282	408~447	620~679	11
L	-	228~247	283~307	448~487	680~699	12
L	-	248~267	308~332	488~527	-	13
L	-	268~274	333~357	528~567	-	14
L	-	-	358~382	568~607	-	15
L	-	-	383~407	608~647	-	16
L	-	-	408~432	648~669	-	17
L	-	-	433~457	-	-	18
L	-	-	458~469	-	-	19
F	15	20	25	40	60	

### Miniature Type - Wide Rails

H	6, 5	9	12	14	16	Number of Mounting Holes M
L	-	51~67	51~67	71~89	71~89	2
L	51~67	68~97	68~97	90~129	90~129	3
L	68~87	98~127	98~127	130~169	130~169	4
L	88~107	128~157	128~157	170~209	170~209	5
L	108~127	158~187	158~187	210~249	210~249	6
L	128~129	188~217	188~217	250~289	250~289	7
L	-	218~247	218~247	290~329	290~329	8
L	-	248~277	248~277	330~369	330~369	9
L	-	278~289	278~289	370~409	370~409	10
L	-	-	-	410~449	410~449	11
L	-	-	-	450~489	450~489	12
L	-	-	-	490~529	490~529	13
L	-	-	-	530~569	530~569	14
L	-	-	-	570~609	570~609	15
L	-	-	-	610~649	610~649	16
L	-	-	-	650~669	650~669	17
F	20	30	40			

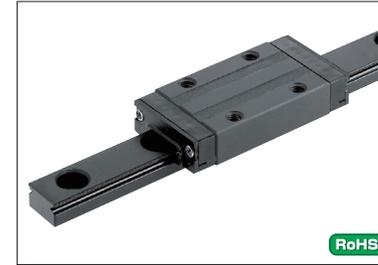
⚠ M (number of mounting holes) for H16 type will be Mx2 since there are two rows of mounting holes.  
 ⚠ Min. length of L dimension varies depending on the number of blocks. See each product page for details.

### Medium/Heavy Load Type

H	24, 28*1	28*2, 30	33, 36, 40	42, 45	Number of Mounting Holes M
L	101~131	-	-	-	2
L	132~191	160~199	160~201	201~279	3
L	192~251	200~259	202~261	281~343	4
L	252~311	260~319	262~321	344~423	5
L	312~371	320~379	322~381	424~503	6
L	372~431	380~439	382~441	504~583	7
L	432~491	440~499	442~501	584~663	8
L	492~551	500~559	502~561	664~743	9
L	552~611	560~619	562~621	744~823	10
L	612~671	620~679	622~681	824~903	11
L	672~731	680~739	682~741	904~983	12
L	732~791	740~799	742~801	984~1063	13
L	792~851	800~859	802~861	1064~1143	14
L	852~911	860~919	862~921	1144~1223	15
L	912~971	920~979	922~981	1224~1303	16
L	972~1031	980~1039	982~1041	1304~1383	17
L	1032~1091	1040~1099	1042~1101	1384~1463	18
L	1092~1151	1100~1159	1102~1161	1464~1543	19
L	1152~1211	1160~1219	1162~1221	1544~1623	20
L	1212~1271	1220~1279	1222~1281	1624~1703	21
L	1272~1331	1280~1339	1282~1341	1704~1783	22
L	1332~1391	1340~1399	1342~1401	1784~1863	23
L	1392~1451	1400~1459	1402~1461	1864~1943	24
L	1452~1511	1460~1519	1462~1521	1944~1959	25
L	1512~1571	1520~1579	1522~1581	-	26
L	1572~1631	1580~1639	1582~1641	-	27
L	1632~1691	1640~1699	1642~1701	-	28
L	1692~1751	1700~1759	1702~1761	-	29
L	1752~1811	1760~1819	1762~1821	-	30
L	1812~1871	1820~1879	1822~1881	-	31
L	1872~1931	1880~1939	1882~1941	-	32
L	1932~1959	1940~1959	1942~1959	-	33
F		60		80	

⚠ Min. length of L dimension varies depending on the number of blocks. See each product page for details.  
 ⚠ \*1. C-VALUE Super Heavy Load Applicable Dimension (P583)  
 ⚠ \*2. Medium/Heavy Load Applicable Dimension (P569-P580)

# Linear Guides with Low Temperature Black Chrome Plating



## Low Temperature Black Chrome Plated Linear Guide Features

Low temperature black chrome plating on linear guides is 5µm of fluoropolymer layer chemically deposited as black film on rails and blocks, and it has long-lasting rust prevention effect. The coating layer is immune to cracking from tight radii strike-folding and does not flake under repeated bending. Any superficial coating particles that may come off the rolling contact surfaces are mixed in with the grease and remain its lubricity. (Note) Surface treatment will not be applied to mounting holes of rails and blocks of low temperature black chrome plated linear guides.

## Description of Low Temperature Black Chrome Plated Model Type:

For low temperature black chrome plated products, change the first letter of part numbers "S" to "R".

	[Standard]	[Low Temperature Black Chrome Plated Products]
(Ex.)	SEB10-115	RSEB10-115
	SSEB16-270	RSEB16-270
	SKR24-520	RKR24-520
	SSVR33-700	RSSVR33-700

⚠ The precision grade and standard type of the existing products and C-VALUE products are not available. Only the high grade type of the existing products is available.  
 ⚠ Cannot be combined with Alteration WC (Parallel Use of 2 Rails).

Rail	Block Length	Block Type	Catalog Page	Carbon Steel				Stainless Steel			
				1 block		2 blocks		1 block		2 blocks	
				Selectable	Configurable	Selectable	Configurable	Selectable	Configurable	Selectable	Configurable
Standard	Standard	Standard	P533	REB	REBL	RE2B	RE2BL	RSEB	RSEBL	RSE2B	RSE2BL
	Long	Standard	P539	RELB	RELBL	RE2BL	RE2BL	RSELB	RSELBL	RSE2BL	RSE2BL
Wide	Standard	Standard	P555	REBW	REBWL	RE2BW	RE2BWL	RSEBW	RSEBWL	RSE2BW	RSE2BWL
	Long	Standard	P563	RELBW	RELBWL	RE2BW	RE2BWL	RSELBW	RSELBWL	RSE2BW	RSE2BWL

⚠ The high grade type of the existing products and C-VALUE products are not available. Only the standard type of the existing products is available.  
 ⚠ Cannot be combined with Alteration WC (Parallel Use of 2 Rails).

## Table: Low Temperature Black Chrome Plated Medium and Heavy Load Linear Guides

Rail	Block Length	Block Type	Catalog Page	Carbon Steel				Stainless Steel			
				1 block		2 blocks		1 block		2 blocks	
				Selectable	Configurable	Selectable	Configurable	Selectable	Configurable	Selectable	Configurable
Standard	Medium Load	Standard	P569, 589	RVR	RVRL	RV2R	RV2RL	RSVR	RSVRL	RSV2R	RSV2RL
		With Dowel Holes	P597	RVRN	RVRNL	RV2RN	RV2RNL	-	-	-	-
		Wide (Through Holes)	P569	RVW	RVWL	RV2W	RV2WL	-	-	-	-
	Heavy Load	Wide (Tapped Holes)	P569	RVWT	RVWTL	RV2WT	RV2WTL	-	-	-	-
		Standard	P575, 589	RXR	RXRL	RX2R	RX2RL	RSXR	RSXRL	RSX2R	RSX2RL
		With Dowel Holes	P597	RXRN	RXRNL	RX2RN	RX2RNL	-	-	-	-
Wide (Through Holes)	P575	RXW	RXWL	RX2W	RX2WL	-	-	-	-		
	Wide (Tapped Holes)	P575	RXWT	RXWTL	RX2WT	RX2WTL	-	-	-	-	

⚠ The high grade type of the existing products and C-VALUE products are not available. Only the standard type of the existing products is available.  
 ⚠ Cannot be combined with Alteration WC (Parallel Use of 2 Rails).

## Price of Low Temperature Black Chrome Plating Surface Treatment (For low temperature black chrome plated products, add the prices below for surface treatment to the unit price of Linear Guides.)

Part Number	Type	H	L	Unit Price		Part Number	Type	H	L	Unit Price		Part Number	Type	H	L	Unit Price	
				Block 1 pc.	Block 2 pcs.					Block 1 pc.	Block 2 pcs.					Block 1 pc.	Block 2 pcs.
Miniature Linear Guides - Standard Rails	Page P533, 539	8	40-55			Miniature Type - Wide Rails	Page P555, P563	9	50-110			Medium/Heavy Load Type	Page P569, P575, P589, P597	24	100-220		
			56-70						111-140						221-280		
			71-85						141-170						281-340		
			86-100						171-200						341-400		
			101-115						201-230						401-460		
			116-130						231-260						461-520		
			35-75						261-290						521-580		
			76-95						50-110						581-640		
			96-115						111-140						641-700		
			116-135						141-170						701-760		
			136-155						171-200						761-820		
			156-175						201-230						821-880		
			176-195						231-260						881-940		
			196-215						261-290						941-1000		
			216-235						70-150						160-280		
			236-255						151-190						281-340		
256-275			191-230			341-400											
45-95			231-270			401-460											
96-120			271-295			461-520											
121-145			296-320			521-580											
146-170			321-345			581-640											
171-195			346-370			641-700											
196-220			371-395			701-760											
221-245			396-420			761-820											
246-270			421-445			821-880											
271-295			446-470			881-940											
296-320			70-150			941-1000											
321-345			151-190			160-280											
346-370			191-230			281-340											
371-395			231-270			341-400											
396-420			271-310			401-460											
421-445			311-350			461-520											
446-470			351-390			521-580											
70-150			391-430			581-640											
151-190			431-470			641-700											
191-230			471-510			701-760											
231-270			511-550			761-820											
271-310			551-590			821-880											
311-350			591-630			881-940											
351-390			631-670			941-1000											
391-430																	
431-470																	



# Miniature Linear Guides

## Standard Blocks, Light Preload / Slight Clearance

Linear Guide  
Linear Guide: General Information Site  
MISUMI Linear Guides Search

For large quantity order,  
use this Search engine.  
MISUMI Linear Guides (Lg. Qty.) Search

= Selection Tips =  
Frame-surrounded products are compliant with the industry standards for the material (Stainless Steel) and the accuracy (Light Preload, High Grade Type). Select the block from these products firstly.

Points of comparison against similar products | The most basic type among all the industry standard specifications. Select from Light Preload Types with superior precision and rigidity.

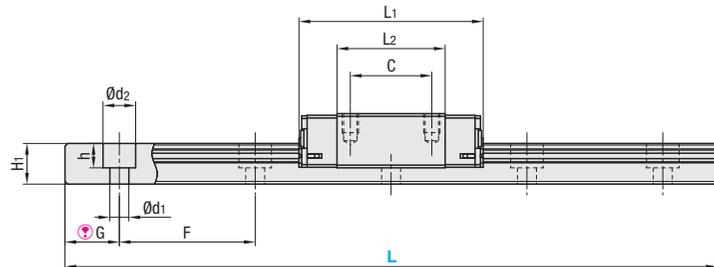
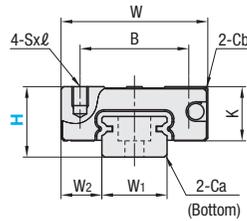
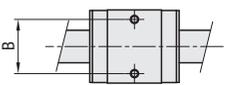
### Industry Standard



Material Hardness	Type			L Dimension	Number of Blocks
	Light Preload		Slight Clearance		
	High Grade	Precision Grade	Standard Grade		
Stainless Steel 56HRC~	SSEB	SSEBV	SSEBZ	Selectable	1
	SSE2B	SSE2BV	SSE2BZ	Configurable	2
	SSEBL	SSEBLV	SSEBLZ	Configurable	1
	SSE2BL	SSE2BLV	SSE2BLZ	Configurable	2
Carbon Steel 58HRC~	SEB	SEBV	SEBZ	Selectable	1
	SE2B	SE2BV	SE2BZ	Selectable	2
	SEBL	SEBLV	SEBLZ	Configurable	1
	SE2BL	SE2BLV	SE2BLZ	Configurable	2

Heat Resistant Temperature: -20 ~ 80°C  
 \*H6 is for stainless steel only.  
 \*H6 has no standard grade / precision grade.  
 \*For L Dimension Configurable Type, any L dim. on the Price List is not available.  
 SSEBL8-56 (Configurable): ○  
 SSEBL8-55 (Configurable): × → Place order for SSEB8-55 (Selectable)

### H6 Type



\*For L Configurable Type, G dimensions differ from those shown in the table below. For details, see P553.

**Precautions for Use**  
 \*Blocks are equipped with retainers (wire) to prevent balls from derailing. For how to handle the blocks, see P547.  
 \*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 securing 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 secured and will not affect the performance.

**Accessory**  
 \*H6 comes with Number 0, Class 1 Phillips button head screws (M2x6).  
 \*H8 comes with cap screws (M2x6).

**Others**  
 \*Filled with Lithium soap based grease (Multem Grease PS2 by Kyodo Yushi Co., Ltd.).  
 \*For Operating Life Calculation, see P549.  
 \*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).

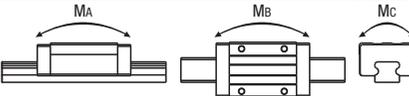
Part Number Type	H	L	Block Dimension				Guide Rail Dimension										
			W	L1	B	C	Sxℓ	L2	K	Cb	W1	W2	H1	Ca	Counterbored Hole d1xd2xh	F	G
Stainless Steel Industry Standard Specifications SSEB SSEBV SSEBZ SSE2B SSE2BV SSE2BZ SSEBL SSEBLV SSEBLZ SSE2BL SSE2BLV SSE2BLZ	6	25~100 (70)	12	17.4	8	-	M2x1.5	9.7	4.5	0.3	5	3.5	4	0.3	2.4x3.5x1	15	5
	8	40~265 (70)	17	23.6	12	8	M2x2.5	13.6	6.5	0.3	7	5	4.7	0.3	2.4x4.2x2.3	15	5
	10	35~355 (75)	20	30	15	10	M3x3	19	7.8	0.3	9	5.5	5.5	0.3	3.5x6x3.5	20	7.5
	13	45~720 (95)	27	33.9	20	15	M3x3.5	19.9	10	0.5	12	7.5	7.5	0.5	3.5x6x4.5	25	10
Carbon Steel SEB SEBV SEBZ SE2B SE2BV SE2BZ SEBL SEBLV SEBLZ SE2BL SE2BLV SE2BLZ	16	70~670 (110)	32	42.4	25	20	M3x4	27.4	12	0.5	15	8.5	9.5	0.5	3.5x6x4.5	40	15
	20	100~700 (160)	40	50	30	25	M4x6	34.6	15	0.5	20	10	11	0.5	6x9.5x5.5	60	20

\*Both ends of the rail are evenly cut for L Dimension Configurable Type. G dim. resulting from this cutting process will be more than indicated on the above table. For details about how to calculate the applicable G dim., see P553.  
 \*H8=145-265, H10=295-355 or H13=495-720 is applicable for Stainless Steel, High Grade Type only. For applicability of GH dim. see the Price Table on the next page.

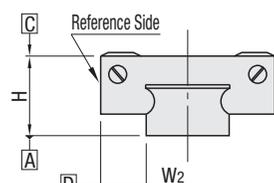
kgf=Nx0.101972

Unit: μm

H	Basic Load Rating		Allowable Static Moment			Mass	
	C (Dynamic) kN	Co (Static) kN	MA N·m	Me N·m	Mc N·m	Block kg	Guide Rail kg/m
6	0.3	0.6	0.8	0.8	1.5	0.004	0.13
8	0.9	1.5	4.1	4.1	5.2	0.01	0.19
10	1.5	2.5	5.1	5.1	10.2	0.02	0.31
13	2.2	3.3	8.8	9.5	16.1	0.04	0.61
16	3.6	5.4	21.6	23.4	39.6	0.06	1.02
20	5.2	8.5	48.4	48.4	86.4	0.12	1.65



### Preload and Accuracy Standards



Specifications	Light Preload, High Grade	Light Preload, Precision Grade	Slight Clearance, Standard Grade
Radial Clearance	-3~0	0~+10	0~+15
Height H Tolerance	±20	±10	±20
Pair Variation of Height H	15	7	40
Width W2 Tolerance	±25	±15	±25
Pair Variation of Width W2	20	10	40
Running Parallelism of Plane C against Plane A	See P547.		
Running Parallelism of Plane D against Plane B	See P547.		

\*Slight Clearance Type has clearance (Gap) between rails and blocks. If precision / rigidity is required, select Light Preload Type.

\*Unit price for Precision Grade Type is the following price x1.2.

H	L	Unit Price							
		Stainless Steel				Carbon Steel			
		High Grade	Standard Grade	High Grade	Standard Grade	High Grade	Standard Grade	High Grade	Standard Grade
6	25	-	-	-	-	-	-	-	-
	40	-	-	-	-	-	-	-	-
	55	-	-	-	-	-	-	-	-
	70	-	-	-	-	-	-	-	-
	85	-	-	-	-	-	-	-	-
	100	-	-	-	-	-	-	-	-
	115	-	-	-	-	-	-	-	-
	130	-	-	-	-	-	-	-	-
	145	-	-	-	-	-	-	-	-
	160	-	-	-	-	-	-	-	-
8	190	-	-	-	-	-	-	-	-
	205	-	-	-	-	-	-	-	-
	220	-	-	-	-	-	-	-	-
	235	-	-	-	-	-	-	-	-
	250	-	-	-	-	-	-	-	-
	265	-	-	-	-	-	-	-	-
	35	-	-	-	-	-	-	-	-
	55	-	-	-	-	-	-	-	-
	75	-	-	-	-	-	-	-	-
	95	-	-	-	-	-	-	-	-
10	115	-	-	-	-	-	-	-	-
	135	-	-	-	-	-	-	-	-
	155	-	-	-	-	-	-	-	-
	175	-	-	-	-	-	-	-	-
	195	-	-	-	-	-	-	-	-
	215	-	-	-	-	-	-	-	-
	235	-	-	-	-	-	-	-	-
	255	-	-	-	-	-	-	-	-
	275	-	-	-	-	-	-	-	-
	295	-	-	-	-	-	-	-	-
13	315	-	-	-	-	-	-	-	-
	335	-	-	-	-	-	-	-	-
	355	-	-	-	-	-	-	-	-
	45	-	-	-	-	-	-	-	-
	70	-	-	-	-	-	-	-	-
	95	-	-	-	-	-	-	-	-
	120	-	-	-	-	-	-	-	-
	145	-	-	-	-	-	-	-	-
	170	-	-	-	-	-	-	-	-
	195	-	-	-	-	-	-	-	-
16	220	-	-	-	-	-	-	-	-
	245	-	-	-	-	-	-	-	-
	270	-	-	-	-	-	-	-	-
	295	-	-	-	-	-	-	-	-
	320	-	-	-	-	-	-	-	-
	345	-	-	-	-	-	-	-	-
	370	-	-	-	-	-	-	-	-
	395	-	-	-	-	-	-	-	-
	420	-	-	-	-	-	-	-	-
	445	-	-	-	-	-	-	-	-
20	470	-	-	-	-	-	-	-	-
	495	-	-	-	-	-	-	-	-
	520	-	-	-	-	-	-	-	-
	545	-	-	-	-	-	-	-	-
	570	-	-	-	-	-	-	-	-
	595	-	-	-	-	-	-	-	-
	620	-	-	-	-	-	-	-	-
	645	-	-	-	-	-	-	-	-
	670	-	-	-	-	-	-	-	-
	695	-	-	-	-	-	-	-	-
20	720	-	-	-	-	-	-	-	-
	70	-	-	-	-	-	-	-	-
	110	-	-	-	-	-	-	-	-
	150	-	-	-	-	-	-	-	-
	190	-	-	-	-	-	-	-	-
	230	-	-	-	-	-	-	-	-
	270	-	-	-	-	-	-	-	-
	310	-	-	-	-	-	-	-	-
	350	-	-	-	-	-	-	-	-
	390	-	-	-	-	-	-	-	-
430	-	-	-	-	-	-	-	-	
470	-	-	-	-	-	-	-	-	
510	-	-	-	-	-	-	-	-	
550	-	-	-	-	-	-	-	-	
590	-	-	-	-	-	-	-	-	
630	-	-	-	-	-	-	-	-	
670	-	-	-	-	-	-	-	-	
710	-	-	-	-	-	-	-	-	
750	-	-	-	-	-	-	-	-	
790	-	-	-	-	-	-	-	-	
830	-	-	-	-	-	-	-	-	
870	-	-	-	-	-	-	-	-	
910	-	-	-	-	-	-	-	-	
950	-	-	-	-	-	-	-	-	
990	-	-	-	-	-	-	-	-	
1030	-	-	-	-	-	-	-	-	
1070	-	-	-	-	-	-	-	-	
1110	-	-	-	-	-	-	-	-	
1150	-	-	-	-	-	-	-	-	
1190	-	-	-	-	-	-	-	-	
1230	-	-	-	-	-	-	-	-	
1270	-	-	-	-	-	-	-	-	
1310	-	-	-	-	-	-	-	-	
1350	-	-	-	-	-	-	-	-	
1390	-	-	-	-	-	-	-	-	
1430	-	-	-	-	-	-	-	-	
1470	-	-	-	-	-	-	-	-	
1510	-	-	-	-	-	-	-	-	
1550	-	-	-	-	-	-	-	-	
1590	-	-	-	-	-	-	-	-	
1630	-	-	-	-	-	-	-	-	
1670	-	-	-	-	-	-	-	-	
1710	-	-	-	-	-	-	-	-	
1750	-	-	-	-	-	-	-	-	
1790	-	-	-	-	-	-	-	-	
1830	-	-	-	-	-	-	-	-	
1870	-	-	-	-	-	-	-	-	
1910	-	-	-	-	-	-	-	-	
1950	-	-	-	-	-	-	-	-	
1990	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	
2070	-	-	-	-	-	-	-	-	
2110	-	-	-	-	-	-	-	-	
2150	-	-	-	-	-	-	-	-	
2190	-	-	-	-	-	-	-	-	
2230	-	-	-	-	-	-	-	-	
2270	-	-	-	-	-	-	-	-	
2310	-	-	-	-	-	-	-	-	
2350	-	-	-	-	-	-	-	-	
2390	-	-	-	-	-	-	-	-	
2430	-	-	-	-	-	-	-	-	
2470	-	-	-	-	-	-	-	-	
2510	-	-	-	-	-	-	-	-	
2550	-	-	-	-	-	-	-	-	
2590	-	-	-	-	-	-	-	-	
2630	-	-	-	-	-	-	-	-	
2670	-	-	-	-	-	-	-	-	
2710	-	-	-	-	-	-	-	-	
2750	-	-	-	-	-	-	-	-	
2790	-	-	-	-	-	-	-	-	
2830	-	-	-	-	-	-	-	-	
2870	-	-	-	-	-	-	-	-	
2910	-	-	-	-	-	-	-	-	
2950	-	-	-	-	-	-	-	-	
2990	-	-	-	-	-	-	-	-	
3030	-	-	-	-	-	-	-	-	
3070	-	-	-	-	-	-	-	-	
3110	-	-	-	-	-	-	-	-	
3150	-	-	-	-	-				

# Miniature Linear Guides - Wide Rails

Standard Blocks with Dowel Holes, Light Preload

= For customers selecting MISUMI original specifications =  
 [Red Box] frame-surrounded products are compliant with the standard specifications (Stainless Steel, Light Preload, High Grade Type).  
 Select the block from this spec.

Similar Products Comparison Points | MISUMI original specifications with dowel holes. Requires less time for assembly and has better repeatability.

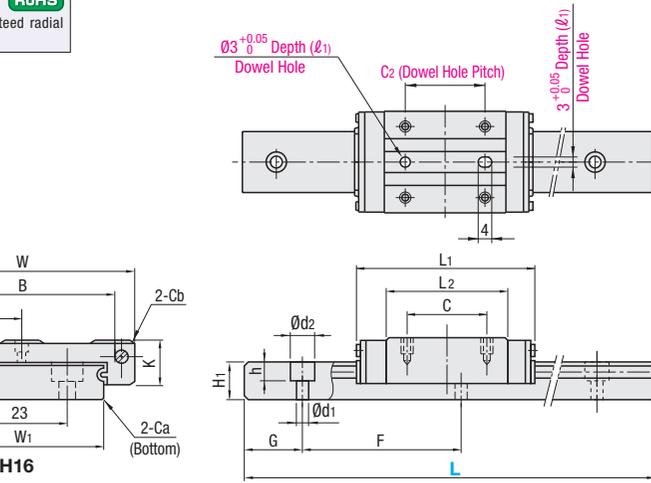
## MISUMI Original



Material	Hardness	Type		L Dimension	Number of Blocks	
		Light Preload	High Grade			
Stainless Steel 56HRC~		SSEBWN	Selectable	1	1	
		SSE2BWN	2			
		SSEBWNL	Configurable			2
		SSE2BWNL	2			
Carbon Steel 58HRC~		SEBWN	Selectable	1	1	
		SE2BWN	2			
		SEBWNL	Configurable			2
		SE2BWNL	2			

Heat Resistant Temperature: -20 ~ 80°C

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



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

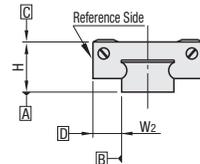
- Precautions for Use**
  - Blocks are equipped with retainers (wire) to prevent balls from falling off. For how to handle the blocks, see P. 525.
  - Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
  - Straight grooves 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 (Mullemp Grease PS2 by Kyodo Yushi Co., Ltd.). 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	Type	H	L	Block Dimension				Dowel Hole Dimensions				Guide Rail Dimension									
				W	L1	B	C	SxL	L2	K	Cb	N	C2 (L1)	W1	W2	H1	Ca	Counterbored Hole d1xd2xh	F	G	
Stainless Steel SSEBWN SSE2BWN SSEBWNL SSE2BWNL	Carbon Steel SEBWN SE2BWN SEBWNL SE2BWNL	9	50~290 (110)	25	31.1	18	12	M2.6x2.5	20.1	7	0.3	12.5	12	2.5	14	5.5	5.2	0.5	3.5x6x3.2	30	10
		12	50~290 (110)	30	38	21	12	M2.6x3	27	9	0.3	15	12	2.5	18	6	7.5	0.5	3.5x6x4.5	30	10
		14	70~470 (150)	40	44.3	28	15	M3x3.5	30.1	11	0.5	20	15	3.5	24	8	8	0.5	4.5x8x4.5	40	15
		16	70~670 (190)	60	55	45	20	M4x4.5	40	13	0.5	30	20	4	42	9	9.5	0.5	4.5x8x4.5	40	15

kgf=Nx0.101972

H	Basic Load Rating			Allowable Static Moment			Mass		
	C (Dynamic) kN	Co (Static) kN	MA N·m	Me N·m	Mc N·m	Block kg	Guide Rail kg/m		
9	1.4	2.2	7.8	7.8	15.5	0.02	0.50		
12	2.3	3.7	13.7	16.3	30.4	0.04	0.96		
14	3.5	5.3	20.6	22.3	52.1	0.08	1.40		
16	5.8	8.5	40.2	43.6	148	0.15	2.95		

### Preload and Accuracy Standards



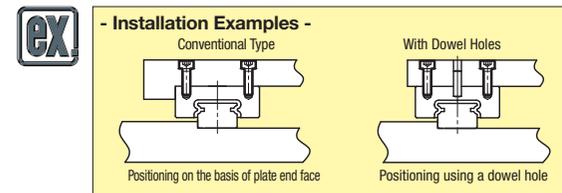
Specifications	Unit: µm
Radial Clearance	-3~0
Height H Tolerance	±20
Pair Variation of Height H	15
Width W2 Tolerance	±25
Pair Variation of Width W2	20
Running Parallelism of Plane C against Plane A	See P. 525
Running Parallelism of Plane D against Plane A	See P. 525

H	L	Unit Price			
		Stainless Steel		Carbon Steel	
		SSEBWN	SSE2BWN	SEBWN	SE2BWN
9	50	-	-	-	-
	80	-	-	-	-
	110	-	-	-	-
	140	-	-	-	-
	170	-	-	-	-
	200	-	-	-	-
	230	-	-	-	-
	260	-	-	-	-
12	290	-	-	-	-
	50	-	-	-	-
	80	-	-	-	-
	110	-	-	-	-
	140	-	-	-	-
	170	-	-	-	-
	200	-	-	-	-
	230	-	-	-	-
14	260	-	-	-	-
	290	-	-	-	-
	70	-	-	-	-
	110	-	-	-	-
	150	-	-	-	-
	190	-	-	-	-
	230	-	-	-	-
	270	-	-	-	-
	310	-	-	-	-
	350	-	-	-	-
	390	-	-	-	-
	430	-	-	-	-
16	470	-	-	-	-
	70	-	-	-	-
	110	-	-	-	-
	150	-	-	-	-
	190	-	-	-	-
	230	-	-	-	-
	270	-	-	-	-
	310	-	-	-	-
	350	-	-	-	-
	390	-	-	-	-
	430	-	-	-	-
	470	-	-	-	-
510	-	-	-	-	
550	-	-	-	-	
590	-	-	-	-	
630	-	-	-	-	
670	-	-	-	-	

### L Dimension Configurable Type (1mm Increment)

H	Unit Price			
	Stainless Steel		Carbon Steel	
	SSEBWNL	SSE2BWNL	SEBWNL	SE2BWNL
9				
12				
14				
16				

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.



Ordering Example

Part Number - L

- SSEBWN12 - 200 (L Type Greased)
- SSEBWN12L - 200 (L Type Greased)
- SSEBWN12G - 200 (G Type Greased)

Alternative grease types available.  
 P531

Alterations

Part Number - L - (MC, RLC, LLC, B3, B4)

SSE2BWNL16 - 450 - MC

Alterations	Code	Spec.
Tapped Hole	MC	Changes the rail mounting holes from counterbored holes to tapped holes.
Rail End Cut	LLC	Cuts rail ends. Ordering Code: LLC
Rail End Cut	RLC	Rail is cut with the product ID facing out (datum on other side).
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. There are restrictions for the L dimension length. See "Selectable Shortest Rail Length" for details. Selection Example: SEBWN9-200-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. There are restrictions for the L dimension length. See "Selectable Shortest Rail Length" for details. Selection Example: SEBWN14-420-B4

Additional Block Price

H	B3: Price Adder		B4: Price Adder	
	Stainless Steel	Carbon Steel	Stainless Steel	Carbon Steel
9				
12				
14				
16				

Selectable Shortest Rail Length for B3/B4

H	B3 (3-block)	B4 (4-block)
9	140	170
12	140	200
14	190	230
16	230	270

Options for Linear Guide

Position Retaining Parts

Block / Rail Fixing Parts

- Rail Push Plates
- Linear Lock
- Block Derailment Prevention Parts
- Stopper Bolts
- Linear Guide Lock Units

# Linear Guides for Medium Load

## Normal Clearance

= For customers using industry standard products =  
 Frame-surrounded products are compliant with the industry standard specifications (Standard Block Type).  
 Select the block from this spec.

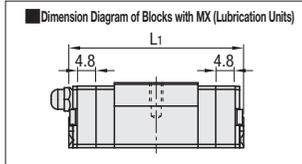
Similar Products Comparison Points | Select this product for high precision positioning, heavy load, and high frequency drive application.

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

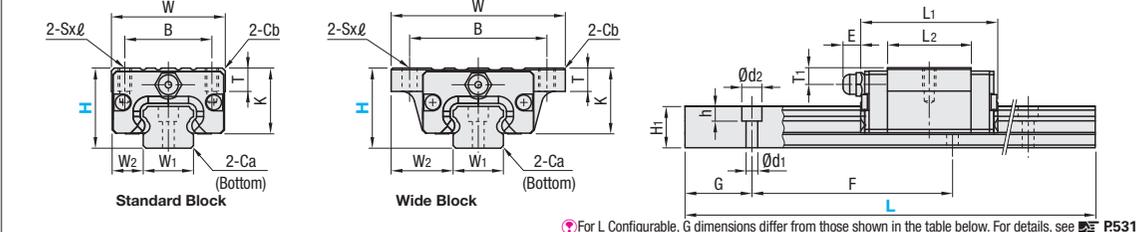


Block Type	Type				MX (Lubrication Units)	L Dimension	Material Hardness
	1 block		2 blocks				
Block Standard	Standard Grade	High Grade	Standard Grade	High Grade	Blank: None -MX: Provided	Selectable Configurable	Carbon Steel 58HRC~
	Wide Block Through-hole	SVR SVRL	SVRJ SVRLJ	SV2R SV2RL			
Thin-profile	SVW	-	SV2W	-		Selectable	
	SVWL	-	SV2WL	-		Configurable	
	SVWT	-	SV2WT	-		Selectable	
Thin-profile	SVWTL	-	SV2WTL	-		Configurable	

Heat Resistant Temperature: -20 ~ 80°C



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



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

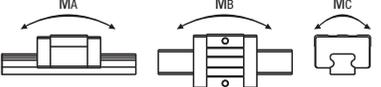
- Precautions for Use**
  - Blocks are equipped with retainers to prevent balls from falling off. For how to handle the blocks, see P.525.
  - Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
  - Straight grooves are provided 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).

Block Type	Part Number	MX	H	L	Block Dimension											Guide Rail Dimension									
					W	L1		B	Sx	L2	K	T	Cb	Grease Fitting			H1	W1	W2	Ca	Counterbore Hole d1xd2xh	F	G		
						Standard	MX							Mounting Hole	E	T1									
Standard Block	(1 block)	Blank: None -MX: Provided	24	100-1480 (160)	34	41	50.6	26	M4x7	25	20	7	0.85	M5xP0.8	6	5	12.5	15	9.5	0.5	3.5x6x4.5	60	20		
	(2 blocks)																							SV2R	SV2RL
	SVR																							SVRL	
	SVRJ																							SVRLJ	
Wide Block	(1 block)	Blank: None -MX: Provided	24	100-1480 (160)	52	41	50.6	41	4.5 (M5)	25	20	7	0.5	M5xP0.8	6	5	12.5	15	18.5	0.5	3.5x6x4.5	60	20		
	(2 blocks)																							SV2W	SV2WL
	SVW																							SVWL	
	SVWJ																							SVWLJ	
Wide Block	(1 block)	Blank: None -MX: Provided	28	160-1960 (220)	42	47	56.6	32	M5x8	27.6	22.5	7.5	1	M6xP0.75	13	6	15.5	20	11	0.6	6x9.5x8.5	60	20		
	(2 blocks)																							SV2RJ	SV2RLJ
	SVR																							SVRL	
	SVRJ																							SVRLJ	
Wide Block	(1 block)	Blank: None -MX: Provided	28	160-1960 (220)	59	47	56.6	49	5.5 (M6)	27.6	22.5	9	1	M6xP0.75	13	6	15.5	20	19.5	0.6	6x9.5x8.5	60	20		
	(2 blocks)																							SV2WT	SV2WTL
	SVW																							SVWL	
	SVWJ																							SVWLJ	
Wide Block	(1 block)	Blank: None -MX: Provided	33	160-1960 (220)	73	59	68.6	60	7 (M8)	37	26.5	10	1	M6xP0.75	13	6.8	18	23	25	0.8	7x11x9	60	20		
	(2 blocks)																							SV2RLJ	SV2RLJ
	SVR																							SVRL	
	SVRJ																							SVRLJ	

L Dimension: Dimensions in ( ) are for 2-Block Type.  
 Sx Dimensions: Dimensions in ( ) are for Wide Block Tapped Hole.

kgf=Nx0.101972

H	Basic Load Rating		Allowable Static Moment		Mass	
	C (Dynamic) kN	Co (Static) kN	Ma N·m	Mb N·m	Block kg	Guide Rail kg/m
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

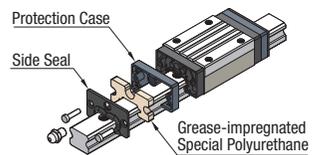


Preload and Accuracy Standards

Normal Clearance Type	Radial Clearance (µm)		Dimensional Accuracy (µm)	
	Standard Grade	High Grade	Standard Grade	High 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	±20
			H24, 28	20
			H33	30
			Running Parallelism of Plane C against Plane A	
			Running Parallelism of Plane D against Plane B	

See P.525

### Lubrication Units 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.

\*High Grade Types are not available.  
 \*Low Temperature Black Chrome Plating products are available in an L dimension of up to 1000.

H	Selectable L	Unit Price					
		1 block			2 blocks		
		SVR	SVW	SVWT	SV2R	SV2W	SV2WT
24	100						
	160						
	220						
	280						
	340						
	400						
	460						
	520						
	580						
	640						
	700						
	760						
	820						
	880						
940							
1000							
*1120							
*1240							
*1360							
*1480							
28	160						
	220						
	280						
	340						
	400						
	460						
	520						
	580						
	640						
	700						
	760						
	820						
	880						
	940						
1000							
*1120							
*1240							
*1360							
*1480							
*1600							
*1720							
*1840							
*1960							
33	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					
	1 block			2 blocks		
	SVRL	SVWL	SVWTL	SV2RL	SV2WL	SV2WTL
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 Rails with MX (Lubrication Unit) = Linear Guide Unit Price + MX Unit Price

Ordering Example

Part Number - L

SVR28 - 880 (With Lubrication Units)  
 RVR - 880 (Low Temperature Black Chrome Plating)  
 SVR28 - 880 (L Type Greased)  
 SVR28L - 880 (G Type Greased)

Low Temperature Black Chrome Plating and various Grease types available as alternative. (Except products with Lubrication Units) P.532

Alterations

Part Number - L - (TMS, TMC-etc.)

SVR28 - 880 - TMC

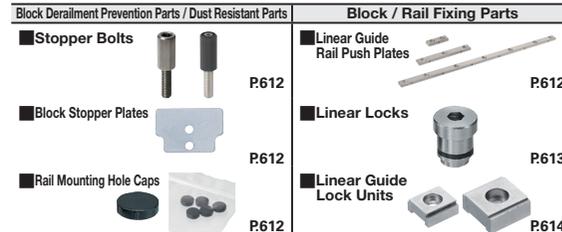
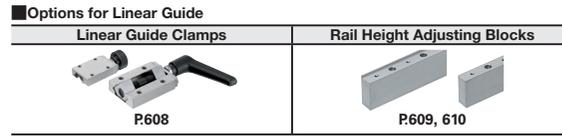
Alterations	Code	Spec.												
TMS: Tapped Hole Machining + 2 Stopper Plates	TMS	Adds tapped holes on both rail ends to avoid block fall-off.												
TMC: Tapped Hole Machining only	TMC	H24 H28, 33												
Block Stopper Plate		M3xP0.5 Depth 5 Tapped Hole For Stopper Plates Details, see P.612.												
Rail End Cut	LLC	Cuts rail ends.												
Left End Cut	LLC	Ordering Code: LLC												
Right End Cut	RLC	Ordering Code: LLC												
Rail is cut with the product ID facing out (datum on other side).		<table border="1"> <thead> <tr> <th>H</th> <th>L Cut</th> <th>N</th> </tr> </thead> <tbody> <tr><td>24</td><td>24</td><td>10</td></tr> <tr><td>28</td><td>28</td><td>10</td></tr> <tr><td>33</td><td>33</td><td>10</td></tr> </tbody> </table>	H	L Cut	N	24	24	10	28	28	10	33	33	10
H	L Cut	N												
24	24	10												
28	28	10												
33	33	10												
Parallel Use of 2 Rails	WC	For standard grade, pair variation of Height H between 2 rails is set within 20µm. Two rails are shipped as a pair. Specify the actual rail quantity (even number) to order, not "pairs".												
3-Block Specifications	B3	Add 2 blocks to 1-Block product to ship as 3-Block separate item. Selection Example: SVR24-400-B3												
4-Block Specifications	B4	Add 3 blocks to 1-Block product to ship as 4-Block separate item. Selection Example: SVR24-400-B4												

Additional Block Price

H	B3:1Code				B4:1Code			
	Standard	Wide	Standard MX	Wide MX	Standard	Wide	Standard MX	Wide MX
24								
28								
33								

Position of Grease Fitting (Reference plane on the front side)

1 block	Selectable Shortest Rail Length for B3 / B4		
	H	B3 (3-Block)	B4 (4-Block)
24	24	280	340
28	28	340	400
33	33	340	400



# Linear Guides for Medium Load

## With Plastic Retainers, Interchangeable, Light Preload

= For customers using industry standard products =  
Frame-surrounded products are compliant with the industry standard specifications (Standard Block Type).  
 Select the block from this spec.

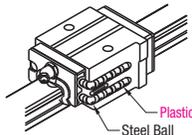
■ **Features:** Linear Guides with Plastic Retainers prevent contact between balls and result in low noise levels under high-speed operation.



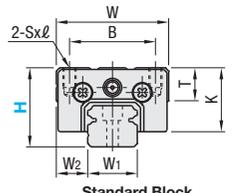
RoHS

	Type		Block	Rail	L Dimension	Material Hardness
	1 block	2 blocks				
Standard	SVRZ	SV2RZ	SVRB	SRZL	Selectable	Carbon Steel 58HRC~
	SVRLZ	SV2RLZ		SRZLF	Configurable	
	SVWZ	SV2WZ		SVWB	SRZL	
Wide Block Through Hole	SVWLZ	SV2WLZ	SVWB	SRZL	Selectable	Carbon Steel 58HRC~
	SVWTZ	SV2WTZ		SVWB	SRZLF	
Wide Block Tapped Hole	SVWTLZ	SV2WTLZ	SVWTB	SRZL	Selectable	Carbon Steel 58HRC~
	SVWTZ	SV2WTZ		SVWTB	SRZLF	

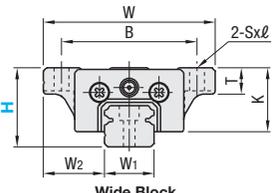
Heat Resistant Temperature: 0 ~ 50°C



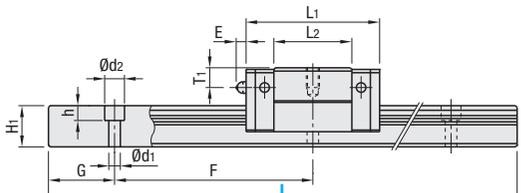
Plastic Retainer  
Steel Ball



Standard Block



Wide Block



For L Configurable, G dimensions differ from those shown in the table below. For details, see P531.

- **Precautions for Use**

  - Blocks are equipped with retainers to prevent balls from falling off. For how to handle the blocks, see P525.
  - For interchangeable, Light Preload Type, rails and blocks can be interchanged.
  - 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**

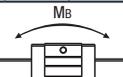
  - Filled with Lithium soap based grease (Alvania Grease S2 by Showa Shell Sekiyu K.K).
  - Grease Fittings: Straight Type for H24 and Angled Type for H28, H33 and H42.
  - Grease Fitting is screw-in type, and thus, can be repositioned.
  - For Operating Life Calculation, see P527.
  - For operating life 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							Grease Fitting			Guide Rail Dimension						
	1 block	2 blocks			W	L1	B	Sxℓ	L2	K	T	Mounting Hole	E	T1	H1	W1	W2	Counterbored Hole d1xd2xh	F	G	
	SVRZ SVRLZ	SV2RZ SV2RLZ																			
Standard Block (Block) SVRB (Rail) SRZL SRZLF	24	100~1480 (160)	34	40.4	26	M4x6	23.6	19	10	Ø3	3	6	12.5	15	9.5	3.5x6x4.5	60	20			
	28	160~1960 (220)	42	47.2	32	M5x7	30	22	12	M6xP0.75	11	5.5	15.5	20	11	6x9.5x8.5	60	20			
	33	160~1960 (220)	48	59.6	35	M6x9	38	26	12	M6xP0.75	11	7	18	23	12.5	7x11x9	60	20			
	42	200~1960 (280)	60	67.4	40	M8x12	42	33	13	M6xP0.75	11	8	23	28	16	7x11x9	80	20			
Wide Block (Block) SVWB SVWTB (Rail) SRZL SRZLF	24	100~1480 (160)	52	40.4	41	4.5 (M5)	23.6	19	8	Ø3	3	6	12.5	15	18.5	3.5x6x4.5	60	20			
	28	160~1960 (220)	59	47.2	49	5.5 (M6)	30	22	10	M6xP0.75	11	5.5	15.5	20	19.5	6x9.5x8.5	60	20			
	33	160~1960 (220)	73	59.6	60	7 (M8)	38	26	11	M6xP0.75	11	7	18	23	25	7x11x9	60	20			
	42	200~1960 (280)	90	67.4	72	9 (M10)	42	33	11	M6xP0.75	11	8	23	28	31	7x11x9	80	20			

Ⓛ Dimension: Dimensions in ( ) are for 2-Block Type.  
 Ⓢxℓ Dimensions: Dimensions in ( ) are for Wide Block Tapped Hole.

kgf=Nx0.101972

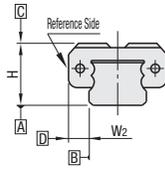
H	Basic Load Rating		Allowable Static Moment			Mass		
	C (Dynamic) kN	Co (Static) kN	MA N·m	Mb N·m	Mc N·m	Block kg Standard	Block kg Wide	Guide Rail kg/m
24	4.9	7.8	21	18	39	0.14	0.17	1.4
28	7.25	11.8	40	34	80	0.19	0.24	2.3
33	12.7	20.8	96	81	164	0.34	0.44	3.1
42	18.7	29.6	153	128	282	0.58	0.76	4.8


■ **Preload and Accuracy Standards** Interchangeable, Light Preload Type

Radial Clearance (µm)	
H24, 28	-4~0
H33, 42	-5~0

Dimensional Accuracy (µm)		Interchangeable
Height H Tolerance	±20	
Pair Variation of Height H	15	
Width W2 Tolerance	±30	
Pair Variation of Width W2	25	
Running Parallelism of Plane C against Plane A	See P525	
Running Parallelism of Plane D against Plane B	See P525	



H	Selectable L	Unit Price									
		1 block			2 blocks		Rail	Block			
		SVRZ	SVWZ	SVWTZ	SV2RZ	SV2WZ	SV2WTZ	SRZL	SVRB	SVWB	SVWTB
100											
160											
220											
280											
340											
400											
460											
520											
580											
640											
700											
760											
820											
880											
940											
1000											
1060											
1120											
1180											
1240											
1300											
1360											
1420											
1480											
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1120											
1180											
1240											
1300											
1360											
1420											
1480											
1540											
1600											
1660											
1720											
1780											
1840											
1900											
1960											

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

H	Unit Price						
	1 block			2 blocks		Rails	
	SVRLZ	SVWLZ	SVWTLZ	SV2RLZ	SV2WLZ	SV2WTLZ	SRZLF
24							
28							
33							
42							

# Linear Guides for Heavy Load

## Normal Clearance

= For customers using industry standard products =  
 Frame-surrounded products are compliant with the industry standard specifications (Standard Block Type).  
 Select the block from this spec.

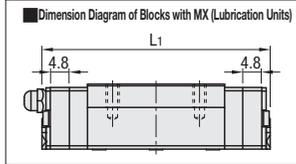
Similar Products Comparison Points | Select this product for high precision positioning, heavy load, and high frequency drive application.

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

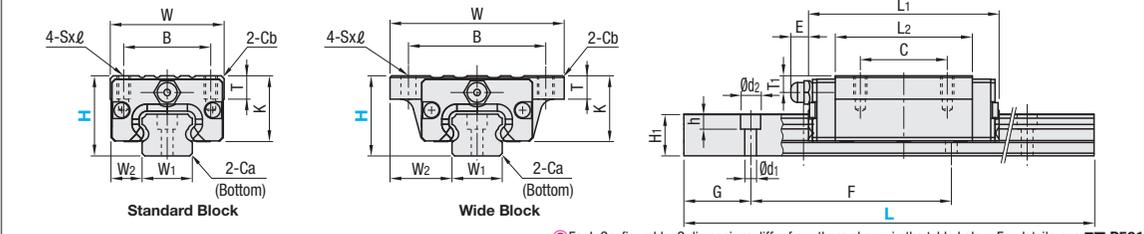


Type	1 block		2 blocks		MX (Lubrication Units)	L Dimension	Material Hardness	
	Standard Grade	High Grade	Standard Grade	High Grade				
Standard Block	SXR	SXRJ	SX2R	SX2RJ	Blank: None -MX: Provided	Selectable	Carbon Steel 58HRC~	
	SXRL	SXRLJ	SX2RL	SX2RLJ				
Wide Block	SXW		SX2W					Configurable
	SXWL		SX2WL					
	SXWT		SX2WT					
	SXWTL		SX2WTL					

Heat Resistant Temperature: -20 ~ 80°C



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



For L Configurable, G dimensions differ from those shown in the table below. For details, see P531.

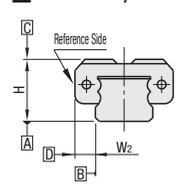
- Precautions for Use
  - Blocks are equipped with retainers to prevent balls from falling off. For how to handle the blocks, see P525.
  - Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
  - Straight grooves are provided 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 P527.
  - 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	Type	MX	H	L	Block Dimension										Guide Rail Dimension									
					W	Standard	MX	B	C	Sxℓ	L2	K	T	Cb	Grease Fitting Mounting Hole	E	T1	H1	W1	W2	Ca	Countersink Hole d1xd2xh	F	G
Standard Block	(1 block)	Blank: None -MX: Provided	24	100-1480 (160)	34	57	66.6	26	26	M4x7	41	20	7	0.85	M5xP0.8	6	5	12.5	15	9.5	0.5	3.5x6x4.5	60	20
	(2 blocks)				42	67	76.6	32	32	M5x8	47.6	22.5	7.5	1	M6xP0.75	13	6	15.5	20	11	0.6	6x9.5x8.5	60	20
					48	83	92.6	35	35	M6x9	61	26.5	8	1	M6xP0.75	13	6.8	18	23	12.5	0.8	7x11x9	60	20
					52	57	66.6	41	26	4.5 (M5)	41	20	7	0.5	M5xP0.8	6	5	12.5	15	18.5	0.5	3.5x6x4.5	60	20
Wide Block	(1 block)	Blank: None -MX: Provided	28	160-1960 (220)	59	67	76.6	49	32	5.5 (M6)	47.6	22.5	9	1	M6xP0.75	13	6	15.5	20	19.5	0.6	6x9.5x8.5	60	20
	(2 blocks)				73	83	92.6	60	35	7 (M8)	61	26.5	10	1	M6xP0.75	13	6.8	18	23	25	0.8	7x11x9	60	20
					52	57	66.6	41	26	4.5 (M5)	41	20	7	0.5	M5xP0.8	6	5	12.5	15	18.5	0.5	3.5x6x4.5	60	20
					59	67	76.6	49	32	5.5 (M6)	47.6	22.5	9	1	M6xP0.75	13	6	15.5	20	19.5	0.6	6x9.5x8.5	60	20

L Dimension: Dimensions in ( ) are for 2-Block Type.  
 Sxℓ Dimensions: Dimensions in ( ) are for Wide Block Tapped Hole. kgf=Nx0.101972

H	Basic Load Rating			Allowable Static Moment			Mass		
	C (Dynamic) kN	Co (Static) kN	MA, Ms N·m	MA, Ms N·m	Mc N·m	Block kg	Guide Rail kg/m	Standard	Wide
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

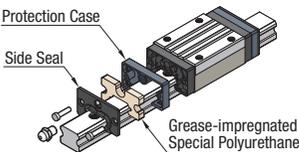
Radial Clearance (μm)	Dimensional Accuracy (μm)	Standard Grade	High Grade
H24	-4~+2	±100	±40
H28	-5~+2	20	15
H33	-6~+3	±100	±20

Pair Variation of Height H: H24, 28: 20; H33: 30  
 Pair Variation of Width W2: H24, 28: 20; H33: 30

Running Parallelism of Plane C against Plane A: ±0.02  
 Running Parallelism of Plane D against Plane B: ±0.02

See P525

Lubrication Units **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 P530.

\*High Grade Types are not available.  
 \*Low Temperature Black Chrome Plating products are available in an L dimension of up to 1000.

H	Selectable L	Unit Price					
		1 block			2 blocks		
		SXR	SXW	SXWT	SX2R	SX2W	SX2WT
24	100						
24	160						
24	220						
24	280						
24	340						
24	400						
24	460						
24	520						
24	580						
24	640						
24	700						
24	760						
24	820						
24	880						
24	940						
24	1000						
24	*1120						
24	*1240						
24	*1360						
24	*1480						
28	160						
28	220						
28	280						
28	340						
28	400						
28	460						
28	520						
28	580						
28	640						
28	700						
28	760						
28	820						
28	880						
28	940						
28	1000						
28	1120						
28	1240						
28	*1360						
28	*1480						
28	*1600						
28	*1720						
28	*1840						
28	*1960						
33	160						
33	220						
33	280						
33	340						
33	400						
33	460						
33	520						
33	580						
33	640						
33	700						
33	760						
33	820						
33	880						
33	940						
33	1000						
33	1120						
33	1240						
33	*1360						
33	*1480						
33	*1600						
33	*1720						
33	*1840						
33	*1960						

Ordering Example  
 Part Number - L  
 SXR28 - 880 (With Lubrication Units)  
 SXR-MX28 - 880 (Low Temperature Black Chrome Plating)  
 SXRL28 - 880 (L Type Greased)  
 SXRL28L - 880 (L Type Greased)  
 SXRL28G - 880 (G Type Greased)  
 Low Temperature Black Chrome Plating and various Grease types available as alternative (Except Blocks with Lubrication Units) P532

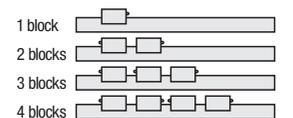
Alterations  
 Part Number - L - (TMS, TMC-etc.)  
 SXR33 - 880 - TMC

Alterations	Code	Spec.
TMS: Tapped Hole Machining + 2 Stopper Plates	TMS TMC	Adds tapped holes on both rail ends to avoid block fall-off.
TMC: Tapped Hole Machining only		H24 H28, 33
Block Stopper Plate	LLC RLC	M3xP0.5 Depth 5 Tapped Hole For Stopper Plates Details, see P612.
Rail End Cut		Cuts rail ends. Overall length will be shorter by cutting. Not applicable to H dimension 24 of L dimension 100.
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. Specify the actual rail quantity (even number) to order, not "pairs". 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: SXR24-400-B3. Not applicable to High Grade Type.
4-Block Specifications	B4	Add 3 blocks to 1-Block product to ship as 4-Block separate item. Selection Example: SXR24-400-B4. Not applicable to High Grade Type.

Additional Block Price

H	B3:1Code				B4:1Code			
	Standard	Wide	Standard MX	Wide MX	Standard	Wide	Standard MX	Wide MX
24								
28								
33								

Position of Grease Fitting (Reference plane on the front side)



Selectable Shortest Rail Length for B3/B4

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

Options for Linear Guide

Linear Guide Clamps	Rail Height Adjusting Blocks
P608	P609, 610
Block Derailment Prevention Parts / Dust Resistant Parts	Block / Rail Fixing Parts
Stopper Bolts P612	Rail Push Plates P612
Block Stopper Plates P612	Linear Locks P613
Rail Mounting Hole Caps P612	Linear Guide Lock Units P614

L Dimension Configurable Type (1mm Increment)

H	Unit Price					
	1 block			2 blocks		
	SXRL	SXWL	SXWTL	SX2RL	SX2WL	SX2WTL
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 Rails with MX (Lubrication Unit) = Linear Guide Unit Price + MX Unit Price

# Linear Guides for Heavy Load

## With Plastic Retainers, Interchangeable, Light Preload

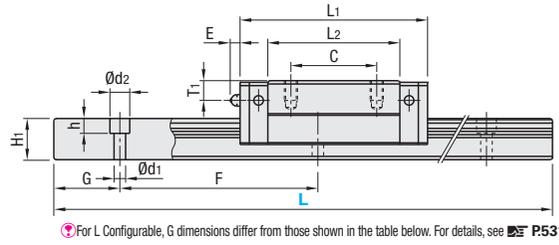
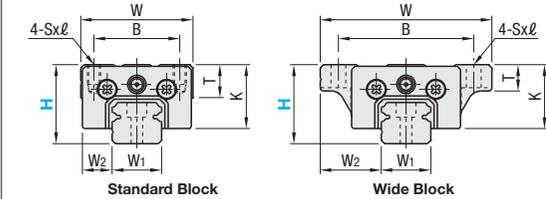
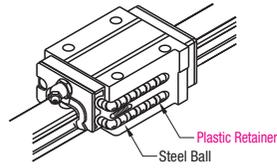
= For customers using industry standard products =  
 Frame-surrounded products are compliant with the industry standard specifications (Standard Block Type).  
 Select the block from this spec.

**Features:** Linear Guides with Plastic Retainers prevent contact between balls and result in low noise levels under high-speed operation.



	Type		Block	Rail	L Dimension	Material Hardness
	1 block	2 blocks				
Standard	SXRZ	SX2RZ	SXRZ	SRZL	Selectable	Carbon Steel 58HRC~
	SXRLZ	SX2RLZ		SRZLF	Configurable	
Wide Block Through Hole	SXWZ	SX2WZ	SXWB	SRZL	Selectable	
	SXWLZ	SX2WLZ		SRZLF	Configurable	
Wide Block Tapped Hole	SXWTZ	SX2WTZ	SXWTB	SRZL	Selectable	
	SXWTLZ	SX2WTLZ		SRZLF	Configurable	

Heat Resistant Temperature: 0 ~ 50°C



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.
  - For interchangeable, Light Preload Type, rails and blocks can be interchanged.
  - 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.

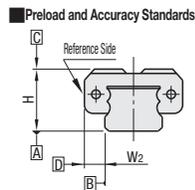
- Others**
- Filled with Lithium soap based grease (Alvania Grease S2 by Showa Shell Sekiyu K.K.).
  - Grease Fittings: Straight Type for H24 and Angled Type for H28, H33 and H42.
  - Grease Fitting is screw-in type, and thus, can be repositioned.
  - For Operating Life Calculation, see P.527
  - For 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	Block Dimension										Guide Rail Dimension							
	Type			W	L1	B	C	Sxℓ	L2	K	T	Grease Fitting			H1	W1	W2	Counterbored Hole d1xd2xh	F	G	
	1 block	2 blocks										Mounting Hole	E	T1							
Standard Block (Block)	SXRZ	SX2RZ	24	100-1480 (160)	34	56.8	26	26	M4x6	40	19.4	10	∅3	3	6	12.5	15	9.5	3.5x6x4.5	60	20
	SXRLZ	SX2RLZ	28	160-1960 (220)	42	65.2	32	32	M5x7	48	22	12	M6xP0.75	11	5.5	15.5	20	11	6x9.5x8.5	60	20
	SXRZ	SX2RZ	33	160-1960 (220)	48	81.6	35	35	M6x9	60	26	12	M6xP0.75	11	7	18	23	12.5	7x11x9	60	20
	SXRZ	SX2RZ	42	200-1960 (280)	60	96.4	40	40	M8x12	71	33	13	M6xP0.75	11	8	23	28	16	7x11x9	80	20
Wide Block (Block)	SXWZ	SX2WZ	24	100-1480 (160)	52	56.8	41	26	4.5 (M5)	40	19.4	8	∅3	3	6	12.5	15	18.5	3.5x6x4.5	60	20
	SXWLZ	SX2WLZ	28	160-1960 (220)	59	65.2	49	32	5.5 (M6)	48	22	10	M6xP0.75	11	5.5	15.5	20	19.5	6x9.5x8.5	60	20
	SXWTZ	SX2WTZ	33	160-1960 (220)	73	81.6	60	35	7 (M8)	60	26	11	M6xP0.75	11	7	18	23	25	7x11x9	60	20
	SXWTLZ	SX2WTLZ	42	200-1960 (280)	90	96.4	72	40	9 (M10)	71	33	11	M6xP0.75	11	8	23	28	31	7x11x9	80	20

L Dimension: Dimensions in ( ) are for 2-Block Type.  
 Sxℓ Dimensions: Dimensions in ( ) are for Wide Block Tapped Hole.

kgf=Nx0.101972

H	Basic Load Rating		Allowable Static Moment			Mass		
	C (Dynamic) kN	Co (Static) kN	MA N·m	Mb N·m	Mc N·m	Block kg	Wide	Guide Rail kg/m
24	7.9	15.6	74	62	78	0.2	0.26	1.4
28	11.1	21.8	124	104	149	0.28	0.35	2.3
33	17.9	33.5	242	203	266	0.51	0.66	3.1
42	27.3	50.5	415	350	480	0.85	1.20	4.8



**Preload and Accuracy Standards**

Interchangeable, Light Preload Type

Radial Clearance (μm)	
H24, 28	-4~0
H33, 42	-5~0

Dimensional Accuracy (μm)		Interchangeable
Height H Tolerance	±20	
Pair Variation of Height H	15	
Width W2 Tolerance	±30	
Pair Variation of Width W2	25	
Running Parallelism of Plane C against Plane A	See	
Running Parallelism of Plane D against Plane B	P.525	

H	Selectable L	Unit Price									
		1 block			2 blocks			Rail	Block		
		SXRZ	SXWZ	SXWTZ	SX2RZ	SX2WZ	SX2WTZ	SRZL	SXRZ	SXWB	SXWTB
100											
160											
220											
280											
340											
400											
460											
520											
580											
640											
700											
760											
820											
880											
940											
1000											
1060											
1120											
1180											
1240											
1300											
1360											
1420											
1480											
160											
220											
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1120											
1180											
1240											
1300											
1360											
1420											
1480											
1540											
1600											
1660											
1720											
1780											
1840											
1900											
1960											
200											
280											
360											
440											
520											
600											
680											
760											
840											
920											
1000											
1080											
1160											
1240											
1320											
1400											
1480											
1560											
1640											
1720											
1800											
1880											
1960											

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

H	Unit Price						
	1 block		2 blocks		Rails		
	SXRZ	SXWZ	SXWTZ	SX2RZ	SX2WZ	SX2WTZ	SRZLF
24							
28							
33							
42							

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.

Part Number - L  
 SXRZ28 - 1840

Alterations Part Number - L (RLC, LLC~etc.)  
 SXRZ28 - 640 - RLC

Alterations	Code	Spec.															
Rail End Cut LLC	Left End Cut LLC	Cuts rail ends. Endrimming Code LLC <table border="1"> <tr><th>H</th><th>L Cut</th><th>N</th></tr> <tr><td>24</td><td></td><td></td></tr> <tr><td>28</td><td>10</td><td>10</td></tr> <tr><td>33</td><td></td><td></td></tr> <tr><td>42</td><td></td><td></td></tr> </table>	H	L Cut	N	24			28	10	10	33			42		
H	L Cut	N															
24																	
28	10	10															
33																	
42																	
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.															
3-Block Specifications	B3	Add 2 blocks to 1-Block product to ship as 3-Block separate item. Selection Example: SXRZ24-400-B3															
4-Block Specifications	B4	Add 3 blocks to 1-Block product to ship as 4-Block separate item. Selection Example: SXRZ24-400-B4															

**Additional Block Price**

H	B3:1Code			B4:1Code		
	Standard	Wide Through Holes	Wide Tapped Holes	Standard	Wide Through Holes	Wide Tapped Holes
24						
28						
33						
42						

Position of Grease Fitting (Reference plane on the front side)

	H	B3 (3-Block)	B4 (4-Block)
1 block	24	340	400
2 blocks	28	400	460
3 blocks	33	400	520
4 blocks	42	440	520

**Options for Linear Guide**

Linear Guide Clamps	Rail Height Adjusting Blocks
<b>Block Derailment Prevention Parts / Dust Resistant Parts</b>	<b>Block / Rail Fixing Parts</b>
<b>Stopper Bolts</b> 	<b>Rail Push Plates</b> 
<b>Block Stopper Plates</b> 	<b>Linear Locks</b> 
<b>Rail Mounting Hole Caps</b> 	<b>Linear Guide Lock Units</b> 



# MISUMI C-VALUE Linear Guides for Super Heavy Load Normal Clearance

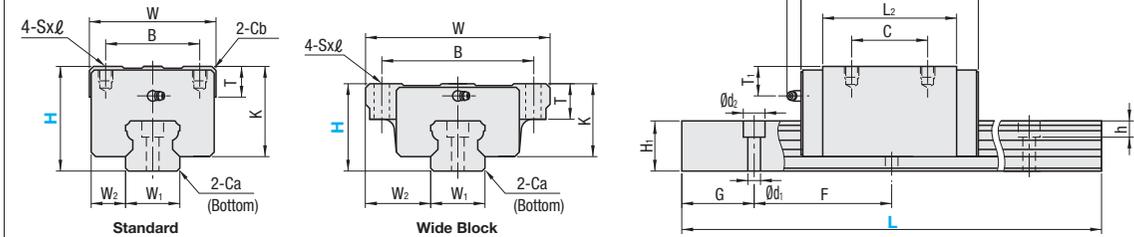
**Similar Products Comparison Points** | Select C-VALUE Products for medium-accuracy positioning, medium/low load, and medium-to-low frequency drive applications. When you consider using C-VALUE Products, select an appropriate model after comparing the specifications with those of the existing products. P.581



Block Type	Type		L Dimension	Material / Hardness
	1 block	2 blocks		
Standard Block	C-SHR	C-SH2R	Selectable	Rails / Blocks: Carbon Steel 58-62HRC
	C-SHRL	C-SH2RL	Configurable	
Wide Block	C-SHWT	C-SH2WT	Selectable	
	C-SHWTL	C-SH2WTL	Configurable	

Heat Resistant Temperature: -20 ~ 80°C

The mounting dimensions are same for the existing and C-VALUE Products.



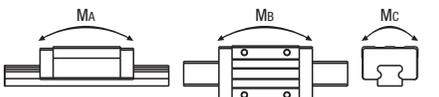
For L Configurable, G dimensions differ from those shown in the table below. For details, see P.531.

- Precautions for Use**
  - This product is All Ball Type. Blocks are equipped with retainers to prevent balls from derailing. 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.
  - Thick grooves are provided on the datum planes of blocks and rails. Be sure to match the datum planes 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 H28 and Angled Type for H30, H36, H40, H42 and H45.
  - Grease Fitting is screw-in type, and thus, can be repositioned.
  - For installation and maintenance of Linear Guides, see P.529.

Part Number	TYPE	H	L	Block Dimension										Guide Rail Dimension													
				1 block		2 blocks		W	L1	B	C	Sxℓ	L2	K	T	Cb	Grease Fitting			H1	W1	W2	Ca	Counterbored Hole		F	G
				1 block	2 blocks	Mounting Hole	E										T1	d1xd2xh	F					G			
Standard	C-SHR C-SHRL	C-SH2R C-SH2RL	28	220-1960	34	55.9	26	26	M4x5	39.5	24.8	10.2	0.5	M4x0.7	7	9.5	13	15	9.5	0.5	4.5x7.5x6	60	20				
			30	220-1960	44	74	32	36	M5x5	54	25.4	8.2	0.5	M6x1	14	6.5	16.5	20	12	0.5	6x9.5x8.5	60	20				
			40	220-1960	48	80	35	35	M6x6.5	59	34.2	12.15	1.0	M6x1	14	11.5	20	23	12.5	0.9	7x11x9	60	20				
			45	280-1960	60	95.3	40	40	M8x10	69.3	38	11	1.0	M6x1	14	11	23	28	16	1.0	9x14x12	80	20				
Wide Block	C-SHWT C-SHWTL	C-SH2WT C-SH2WTL	24	220-1960	47	55.9	38	30	M5x8	39.5	20.8	8	-	M4x0.7	7	5.5	13	15	16	0.5	4.5x7.5x6	60	20				
			30	220-1960	63	74	53	40	M6x10	54	25.4	10	-	M6x1	14	6.5	16.5	20	21.5	0.5	6x9.5x8.5	60	20				
			36	220-1960	70	80	57	45	M8x12	59	30.2	12	-	M6x1	14	7.5	20	23	23.5	0.9	7x11x9	60	20				
			42	280-1960	90	95.3	72	52	M10x15	69.3	35	15	-	M6x1	14	8	23	28	31	1.0	9x14x12	80	20				

**Allowable Load** kgf=N×0.10972

H	Basic Load Rating			Allowable Static Moment			Mass		
	C (Dynamic) kN	CO kN	MA N·m	Mb N·m	Mc N·m	Block kg	Guide Rail kg/m	Standard	Wide
24 28	5.1	10.2	54.2	54.2	79.9	0.20	0.20	1.32	
30	8.6	16.8	117.3	117.3	178.6	0.29	0.40	2.28	
36 40	11.0	20.8	158.3	158.3	254.0	0.55	0.62	3.17	
42 45	16.0	29.4	263.4	263.4	432.5	0.85	1.42	4.54	



**Preload and Accuracy Standards Interchangeable, Light Preload Type**

Radial Clearance (μm)	
H24 H28	-4~+4
H30	-5~+5
H36 H40	-6~+6
H42 H45	-7~+7

Dimensional Accuracy (μm)	
Height H Tolerance	±120
Variation of Height H	40
Width W2 Tolerance	±120
Variation of Width W2	40
Running Parallelism of Plane C against Plane A	See P.525
Running Parallelism of Plane D against Plane B	See P.525

H	Selectable L	Unit Price			
		1 block		2 blocks	
		C-SHR	C-SHWT	C-SH2R	C-SH2WT
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
24 (SHWT) 28 (SHR)	1060				
	1120				
	1180				
	1240				
	1300				
	1360				
	1420				
	1480				
	1540				
	1600				
	1660				
	1720				
	1780				
	1840				
	1900				
	1960				
30	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	1060				
	1120				
	1180				
	1240				
	1300				
	1360				
	1420				
	1480				
	1540				
	1600				
	1660				
	1720				
	1780				
	1840				
	1900				
	1960				
36 (SHWT) 40 (SHR)	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	1060				
	1120				
	1180				
	1240				
	1300				
	1360				
	1420				
	1480				
	1540				
	1600				
	1660				
	1720				
	1780				
	1840				
	1900				
	1960				
42 (SHWT) 45 (SHR)	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	1080				
	1160				
	1240				
	1320				
	1400				
	1480				
	1560				
	1640				
	1720				
	1800				
	1880				
	1960				

**Ordering Example**  
Part Number - L  
C-SHR28 - 880  
C-SHWT24 - 880

**Alterations**  
Part Number - L - (B3)  
C-SHR30 - 820 - B3

Alterations	Code	Spec.
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. Selection Example: C-SHR30-400-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. Selection Example: C-SHR30-400-B4

**L Dimension Configurable Type (10mm Increment)**

H	Unit Price			
	1 block		2 blocks	
	C-SHRL	C-SHWTL	C-SH2RL	C-SH2WTL
24	-	-	-	-
28	-	-	-	-
30	-	-	-	-
36	-	-	-	-
40	-	-	-	-
42	-	-	-	-
45	-	-	-	-

For calculation of L Dimension Configurable Type (10mm Increment), add the above amount to the unit price of the Selectable Type longer than, and closest to this L Dimension Configurable Type.

**Position of Grease Fitting (Reference plane on the front side)** | **Selectable Shortest Rail Length for B3/B4**

Block Count	H	B3 (3-block)	B4 (4-block)
1 block		24, 28	340, 400
2 blocks		30	400, 460
3 blocks		36, 40	400, 520
4 blocks		42, 45	440, 520

**Additional Block Price**

H	Unit Price			
	B3		B4	
	C-SHR	C-SHWT	C-SHR	C-SHWT
24	-	-	-	-
28	-	-	-	-
30	-	-	-	-
36	-	-	-	-
40	-	-	-	-
42	-	-	-	-
45	-	-	-	-

# Linear Guides for Extra Super Heavy Load

With Plastic Retainers, Interchangeable, Light Preload

Similar Products Comparison Points | Select this product for high precision positioning, heavy load, and high frequency drive application.

**Industry Standard**

	Type		Block	Rail	L Dimension	Material Hardness
	1 block	2 blocks				
Standard	SERZ	SE2RZ	SERB	SHZL	Selectable	Carbon Steel 58HRC ~
	SERLZ	SE2RLZ		SHZLF	Configurable	
Wide Block Through Hole	SEWZ	SE2WZ	SEWB	SHZL	Selectable	
	SEWLZ	SE2WLZ		SHZLF	Configurable	
Wide Block Tapped Hole	SEWTZ	SE2WTZ	SEWTB	SHZL	Selectable	
	SEWTLZ	SE2WTLZ		SHZLF	Configurable	

Heat Resistant Temperature: 0 ~ 50°C

Standard Block

Wide Block

- Precautions for Use**

  - Blocks are equipped with retainers to prevent balls from falling off. For how to handle the blocks, see P525.
  - For interchangeable, Light Preload Type, rails and blocks can be interchanged.
  - 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**

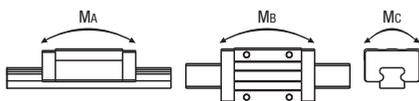
  - Filled with Lithium soap based grease (Alvania Grease S2 by Showa Shell Sekiyu K.K.).
  - Angled Grease Fitting Type
  - Grease Fitting is screw-in type, and thus, can be repositioned.
  - For Operating Life Calculation, see P527
  - For operating life calculations, use our free calculation software 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				W	L1	B	C	Sxℓ	L2	K	T	Grease Fitting			H1	W1	W2	Counterbored Hole d1xdzdxh	F	G
	1 block	2 blocks											Mounting Hole	E	T1						
Standard Block	SERZ	SE2RZ	30	220~1960	44	91.8	32	50	M5x6	72	25	12	M6xP0.75	11	5	18	20	12	6x9.5x8.5	60	20
	SERLZ	SE2RLZ	36	220~1960	48	107	35	50	M6x6	86	29	12	M6xP0.75	11	6	22	23	12.5	7x11x9	60	20
	(Block) SERB	(Rail) SHZL SHZLF	42	280~1960	60	124.6	40	60	M8x8	98	33	14	M6xP0.75	11	7	26	28	16	9x14x12	80	20
Wide Block	SEWZ	SE2WZ	30	220~1960	63	91.8	53	40	6(M6)	72	25	10	M6xP0.75	11	5	18	20	21.5	6x9.5x8.5	60	20
	SEWLZ	SE2WLZ	36	220~1960	70	107	57	45	7(M8)	86	29	11	M6xP0.75	11	6	22	23	23.5	7x11x9	60	20
	(Block) SEWB SEWTB	(Rail) SHZL SHZLF	42	280~1960	90	124.6	72	52	9(M10)	98	33	11	M6xP0.75	11	7	26	28	31	9x14x12	80	20

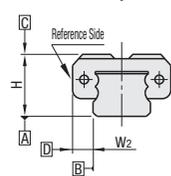
Sxℓ Dimensions: Dimensions in ( ) are for Wide Block Tapped Hole.

kgf=Nx0.101972

H	Basic Load Rating		Allowable Static Moment			Mass		
	C (Dynamic) kN	Co (Static) kN	MA N·m	Mb N·m	Mc N·m	Block kg	Standard	Wide
30	21.6	44.5	360	305	298	0.48	0.65	2.6
36	32	62.5	615	515	490	0.69	0.93	3.6
42	46	91.5	1060	885	870	1.16	1.60	5.2



**Preload and Accuracy Standards Interchangeable, Light Preload Type**



Radial Clearance (µm)	
H30, 36	-5~0
H42	-7~0

Dimensional Accuracy (µm) Interchangeable	
Height H Tolerance	±20
Pair Variation of Height H	15
Width W2 Tolerance	±30
Pair Variation of Width W2	25
Running Parallelism of Plane C against Plane A	See P525
Running Parallelism of Plane D against Plane B	See P525

= For customers using industry standard products =  
SERZ Frame-surrounded products are compliant with the industry standard specifications (Standard Block Type).  
 Select the block from this spec.

H	Selectable L	Unit Price									
		1 block			2 blocks			Rail	Block		
		SERZ	SEWZ	SEWTZ	SE2RZ	SE2WZ	SE2WTZ	SHZL	SERB	SEWB	SEWTB
220											
280											
340											
400											
460											
520											
580											
640											
700											
760											
820											
880											
940											
1000											
1060											
1120											
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1540											
1600											
1660											
1720											
1780											
1840											
1900											
1960											

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

H	1 block		Unit Price			Rails
	SERLZ	SEWTLZ	SE2RLZ	SE2WTLZ	SE2WTZLZ	
30						SHZLF
36						
42						

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.

Ordering Example: Part Number **SERZ30** - L **1840**

Alterations: Part Number **SERZ30** - L **1840** - (RLC, LLC...etc.) **RLC**

Alterations	Code	Spec.
Rail End Cut LLC	Left End Cut LLC	Cuts rail ends. Ordering Code: LLC H L Cut N 30 36 42 10 10
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.
3-Block Specifications	B3	Add 2 blocks to 1-Block product to ship as 3-Block separate item. Selection Example: SERZ30-400-B3
4-Block Specifications	B4	Add 3 blocks to 1-Block product to ship as 4-Block separate item. Selection Example: SERZ30-400-B4

**Additional Block Price**

H	B3:1Code			B4:1Code		
	Standard	Wide Through Holes	Wide Tapped Holes	Standard	Wide Through Holes	Wide Tapped Holes
30						
36						
42						

**Position of Grease Fitting (Reference plane on the front side**

# MISUMI C-VALUE Linear Guides for Extra Super Heavy Load Normal Clearance

**Similar Products Comparison Points** | Select C-VALUE Products for medium-accuracy positioning, medium/low load, and medium-to-low frequency drive applications. When you consider using C-VALUE Products, select an appropriate model after comparing the specifications with those of the existing products. **P.585**

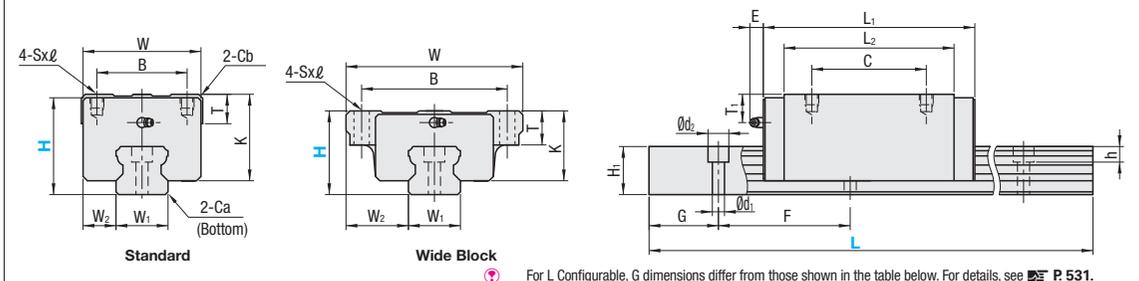


	Type		L Dimension	Material Hardness
	1 block	2 blocks		
Standard Block	C-SER	C-SE2R	Selectable	Rails / Blocks: Carbon Steel 58-62HRC
	C-SERL	C-SE2RL	Configurable	
	C-SEWT	C-SE2WT	Selectable	
	C-SEWTL	C-SE2WTL	Configurable	

Heat Resistant Temperature: -20 ~ 80°C



The mounting dimensions are same for the existing and C-VALUE Products.



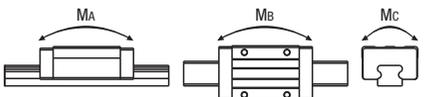
For L Configurable, G dimensions differ from those shown in the table below. For details, see **P.531**.

- Precautions for Use**
  - This product is All Ball Type. Blocks are equipped with retainers to prevent balls from derailing. For how to handle the blocks, see **P.525**.
  - For interchangeable, Light Preload Type, rails and blocks can be interchanged.
  - 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 products whose H is other than 24.
  - Grease Fitting is screw-in type, and thus, can be repositioned.
  - For installation and maintenance of Linear Guides, see **P.529**.

	Part Number		H	L	Block Dimension										Guide Rail Dimension									
	Type				Block Dimension										Guide Rail Dimension									
	1 block	2 blocks			W	L1	B	C	Sxℓ	L2	K	T	Cb	Grease Fitting			H1	W1	W2	Ca	Counterbored Hole		F	G
Standard	C-SER C-SERL	C-SE2R C-SE2RL	30	220~1960	44	98	32	50	M5x5	78	25.4	8.2	0.5	M4x0.7	14	6.5	16.5	20	12	0.5	6x9.5x8.5	60	20	
			40	220~1960	48	109	35	50	M6x6.5	88	34.2	12.15	1.0	M6x1	14	11.5	20	23	12.5	0.9	7x11x9	60	20	
			45	280~1960	60	131	40	60	M8x10	105	38	11	1.0	M6x1	14	11	23	28	16	1.0	9x14x12	80	20	
Wide Block	C-SEWT C-SEWTL	C-SE2WT C-SE2WTL	30	220~1960	63	98	53	40	M6x10	78	25.4	10	-	M6x1	14	6.5	16.5	20	21.5	0.5	6x9.5x8.5	60	20	
			36	220~1960	70	109	57	45	M8x12	88	30.2	12	-	M6x1	14	7.5	20	23	23.5	0.9	7x11x9	60	20	
			42	280~1960	90	131	72	52	M10x15	105	35	15	-	M6x1	14	8	23	28	31	1.0	9x14x12	80	20	

kgf=N×0.10972

H	Basic Load Rating		Allowable Static Moment			Mass		
	C (Dynamic) kN	Co kN	MA N·m	Mb N·m	Mc N·m	Block Standard	Block Wide	Guide Rail kg/m
30	11.3	24.8	260.7	260.7	263.3	0.38	0.53	2.28
36 40	14.8	31.9	380.2	380.2	388.9	0.68	0.78	3.17
42 45	21.8	45.7	654.1	654.1	672.9	1.12	1.77	4.54



**Preload and Accuracy Standards**

**Interchangeable, Light Preload Type**

Radial Clearance (µm)	
H24 H30	-5~+5
H36 H40	-6~+6
H42 H45	-7~+7

Dimensional Accuracy (µm)	
Height H Tolerance	±120
Variation of Height H	40
Width W2 Tolerance	±120
Variation of Width W2	40
Running Parallelism of Plane C against Plane A	See
Running Parallelism of Plane D against Plane B	<b>P.525</b>

Similar Product Page **P.585**

**Ordering Example**

Part Number - L  
 C-SER30 - 880  
 C-SEWT30 - 880

**Alterations**

Part Number - L - (B3)  
 C-SER30 - 1840 - B3

Alterations	Code	Spec.
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. Selection Example: C-SER30-400-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. Selection Example: C-SER30-400-B4

**L Dimension Configurable Type (10mm Increment)**

H	Unit Price			
	1 block		2 blocks	
	C-SERL	C-SEWTL	C-SE2RL	C-SE2WTL
30	-	-	-	-
36	-	-	-	-
40	-	-	-	-
42	-	-	-	-
45	-	-	-	-

For calculation of L Dimension Configurable Type (10mm increment), add the above amount to the unit price of the Selectable Type longer than, and closest to this L Dimension Configurable Type.

**Position of Grease Fitting (Reference plane on the front side)**

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

H	B3 (3-block)	B4 (4-block)
30	400	460
36, 40	460	580
42, 45	520	600

**Additional Block Price**

H	Unit Price			
	B3		B4	
	C-SER	C-SEWT	C-SER	C-SEWT
30	-	-	-	-
36	-	-	-	-
40	-	-	-	-
42	-	-	-	-
45	-	-	-	-

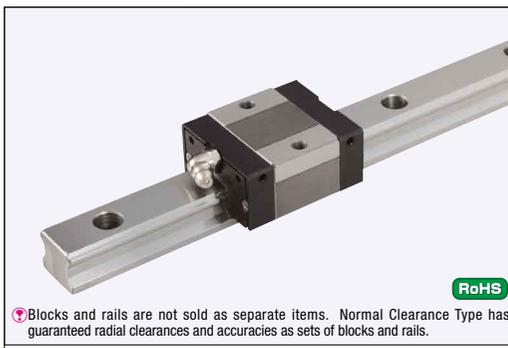
L	Unit Price			
	1 block		2 blocks	
	C-SER	C-SEWT	C-SE2R	C-SE2WT
220				
280				
340				
400				
460				
520				
580				
640				
700				
760				
820				
880				
940				
1000				
1060				
1120				
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1640				
1720				
1800				
1880				
1960				

36 (C-SEWT)  
40 (C-SER)

42 (C-SEWT)  
45 (C-SER)



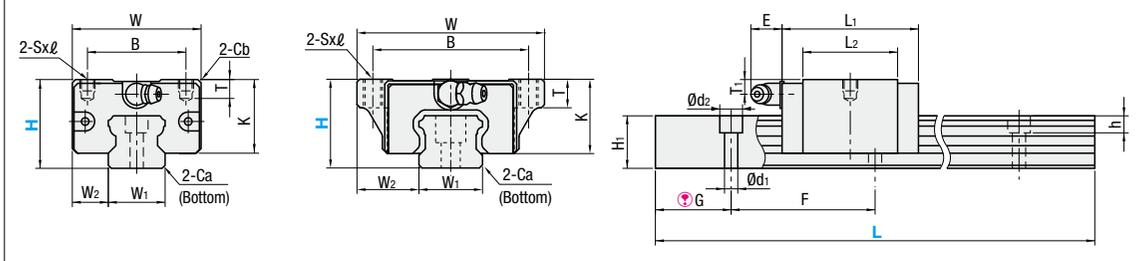
Points of comparison against similar products | Select C-VALUE Products for medium-accuracy positioning, medium/low load, and medium-to-low frequency drive application. When you consider using C-VALUE Products, select an appropriate model after comparing the specifications with those of the existing products. P589, P593



Type	1 block		2 blocks		L Dimension	Material Hardness
	Standard Grade	Standard Grade	Standard Grade	Standard Grade		
Standard Block	C-SVR	C-SV2R	C-SVRL	C-SV2RL	Selectable	Rails / Blocks: Carbon Steel 58HRC~62HRC
Wide Block	C-SVWT	C-SV2WT	C-SVWTL	C-SV2WTL	Configurable	
	C-SVRL	C-SV2RL	C-SVWTL	C-SV2WTL	Selectable	
	C-SVWT	C-SV2WT	C-SVWTL	C-SV2WTL	Configurable	

Heat Resistant Temperature: -20 ~ 80°C

For L Dimension Configurable Type, any L dim. on the Price List is not available. C-SVRL24-170 (Configurable): ○ C-SVRL24-160 (Selectable): X → Place order for C-SVR24-160 (Selectable)



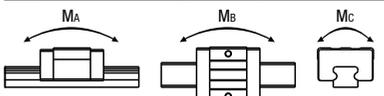
- Precautions for Use
  - This product is All Ball Type. Blocks are equipped with retainers to prevent balls from derailing. For how to handle the blocks, see P547.
  - Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
  - Thick grooves are provided on the datum planes of blocks and rails. Be sure to match the datum planes 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.)
  - 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 installation and maintenance of Linear Guides, see P551.

H	Type	H	L	Block Dimension										Guide Rail Dimension							
				W	L1	B	Sxℓ	L2	K	T	Cb	Grease Fitting			H1	W1	W2	Ca	Counterbored Hole d1xd2xh	F	G
				Mounting Hole	E	T1	M4x0.7	6	5.5	13	15	9.5	0.5	4.5x7.5x6	60	20					
Standard Block	(1 block) C-SVR (2 blocks) C-SV2R C-SVRL C-SV2RL	24	100~1480 (160)	34	39.3	26	M4x5	22.9	20.8	6.2	0.5	M4x0.7	6	5.5	13	15	9.5	0.5	4.5x7.5x6	60	20
		28	160~1960 (220)	42	47.8	32	M5x5	27.8	23.4	7.2	0.5	M6x1	12	4.5	16.5	20	11	0.5	6x9.5x8.5	60	20
		33	160~1960 (220)	48	56.2	35	M6x6	35.2	27.2	8.15	1	M6x1	12	4.5	20	23	12.5	0.9	7x11x9	60	20
		42	280~1960	60	66.4	40	M8x8	40.4	35	8.5	1.0	M6x1	14	8	23	28	16	1	9x14x12	80	20
Wide Block	(1 block) C-SVWT (2 blocks) C-SV2WT C-SVWTL C-SV2WTL	24	100~1480 (160)	52	39.3	41	M5x7	22.9	20.8	7	-	M4x0.7	7	5.5	13	15	18.5	0.5	4.5x7.5x6	60	20
		28	160~1960 (220)	59	47.8	49	M6x9	27.8	23.4	9	-	M6x1	14	4.5	16.5	20	19.5	0.5	6x9.5x8.5	60	20

Both ends of the rail are evenly cut for L Dimension Configurable Type. G dim. resulting from this cutting process will become other than indicated on the above table. For details about how to calculate the applicable G dim., see P553.

kgf=N×0.10972

H	Basic Load Rating		Allowable Static Moment			Mass		
	C (Dynamic) kN	Co kN	MA N·m	Mb N·m	Mc N·m	Block kg Standard	Guide Rail kg/m Wide	kg/m
24	3.2	5.2	13.3	13.3	40.8	0.07	0.098	1.32
28	4.7	7.1	18.6	18.6	75.2	0.11	0.15	2.28
33	6.9	10.6	38.0	38.0	129.7	0.18	0.26	3.17
42	9.3	13.7	52.4	52.4	201.9	0.48	-	4.54



Preload and Accuracy Standards

Normal Clearance Type

Radial Clearance (μm)	
H24	-4~+4
H28	-5~+5
H33	-6~+6
H42	-7~+7

Dimensional Accuracy (μm)	
Height H Tolerance	±120
Variation of Height H	40
Width W2 Tolerance	±120
Variation of Width W2	40
Running Parallelism of Plane C against Plane A	See P547
Running Parallelism of Plane D against Plane B	See P547

H	L	Unit Price			
		1 block		2 blocks	
		C-SVR	C-SVWT	C-SV2R	C-SV2WT
24	100				
	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
28	1060				
	1120				
	1180				
	1240				
	1300				
	1360				
	1420				
	1480				
	1540				
	1600				
	1660				
	1720				
	1780				
	1840				
	1900				
	1960				
33	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
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1240					
1300					
1360					
1420					
1480					
1540					
1600					
1660					
1720					
1780					
1840					
1900					
1960					
42	280				
	360				
	440				
	520				
	600				
	680				
	760				
	840				
	920				
	1000				
	1080				
	1160				
	1240				
	1320				
	1400				
	1480				
1560					
1640					
1720					
1800					
1880					
1960					

L Dimension Configurable Type (10mm Increment) Additional Price

H	Unit Price			
	1 block		2 blocks	
	C-SVRL	C-SVWTL	C-SV2RL	C-SV2WTL
24				
28				
33				
42				

L Dimension Configurable Type (10mm Increment)  
Add the above amount to the unit price of the Selectable Type longer than, and closest to this L Dimension Configurable Type.

Ordering Example

Part Number	L
C-SVR28	880
C-SVWT28	880

Alterations

Part Number	L	(B3)
C-SVR28	640	B3

Alterations	Code	Spec.
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. Selection Example: C-SVR24-400-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. Selection Example: C-SVR24-400-B4

Additional Block Price

H	B3: /1Code		B4: /1Code	
	C-SVR	C-SVWT	C-SVR	C-SVWT
24				
28				
33				
42				

Position of Grease Fitting (Reference plane on the front side)

Selectable Shortest Rail Length for B3/B4

H	B3 (3-block)	B4 (4-block)
24	340	400
28	400	460
33	400	520
42	440	520

# Linear Guides for Heavy Load - Stainless Steel

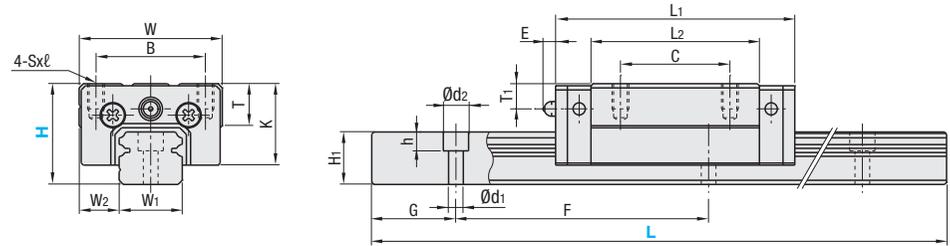
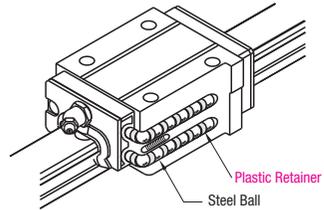
## With Plastic Retainers, Interchangeable, Light Preload

**Features:** Linear Guides with Plastic Retainers prevent contact between balls and result in low noise levels under high-speed operation.



Material Hardness	Type		Block	Rail	L Dimension
	1 block	2 blocks			
Stainless Steel (SUS440C Equivalent) 57HRC~	SSXRZ	SSX2RZ	SSXRB	SSRZL	Selectable
	SSXRLZ	SSX2RLZ		SSRZLF	Configurable

Heat Resistant Temperature: 0 ~ 50°C



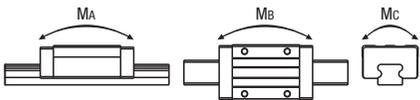
For L Configurable, G dimensions differ from those shown in the table below. For details, see P.531.

- Precautions for Use**
  - Blocks are equipped with retainers to prevent balls from falling off. For how to handle the blocks, see P.525.
  - For Interchangeable, Light Preload Type, rails and blocks can be interchanged.
  - 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).

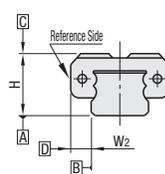
Part Number Type	L	Block Dimension										Guide Rail Dimension								
		1 block		2 blocks		H	W	L <sub>1</sub>	B	C	Sxℓ	L <sub>2</sub>	K	T	Grease Fitting			Counterbored Hole		
		1 block	2 blocks	Mounting Hole	E										T <sub>1</sub>	H <sub>1</sub>	W <sub>1</sub>	W <sub>2</sub>	d <sub>1</sub> x <sub>2</sub> x <sub>z</sub>	F
SSXRZ SSXRLZ	24	100-1480 (160)	34	56.8	26	26	M4x6	40	19.4	10	Ø3	3	6	12.5	15	9.5	3.5x6x4.5	60	20	
(Block) SSXRB	(Rail) SSRZL	28	160-1480 (220)	42	65.2	32	32	M5x7	48	22	12	M6xP0.75	11	5.5	15.5	20	11	6x9.5x8.5	60	20
		33	160-1480 (220)	48	81.6	35	35	M6x9	60	26	12	M6xP0.75	11	7	18	23	12.5	7x11x9	60	20

L Dimension: Dimensions in ( ) are for 2-Block Type. kgf=Nx0.101972

H	Basic Load Rating		Allowable Static Moment			Mass	
	C (Dynamic) kN	Co (Static) kN	MA N·m	Mb N·m	Mc N·m	Block kg	Guide Rail kg/m
24	7.9	15.6	74	62	78	0.20	1.4
28	11.1	21.8	124	104	149	0.28	2.3
33	17.9	33.5	242	203	266	0.51	3.1



### Preload and Accuracy Standards



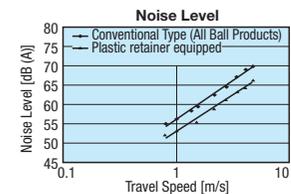
### Interchangeable, Light Preload Type

Radial Clearance (µm)	
H24, 28	-4~-0
H33	-5~-0

Dimensional Accuracy (µm)	Interchangeable
Height H Tolerance	±20
Pair Variation of Height H	15
Width W <sub>2</sub> Tolerance	±30
Pair Variation of Width W <sub>2</sub>	25
Running Parallelism of Plane C against Plane A	
Running Parallelism of Plane D against Plane B	

See P.525

### Features of Plastic Retainers: Low noise levels and improved sound quality



- Lack of mutual contact between balls results in low noise levels and improved sound quality.
- Since there is no mutual contact abrasion between the balls, particle generation is less than those of conventional products.

H	Selectable L	Unit Price			
		Set	Rail	Block	
24	100	SSXRZ	SSX2RZ	SSRZL	SSXRB
	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	1060				
	1120				
1180					
1240					
1300					
1360					
1420					
1480					
28	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	1060				
	1120				
	1180				
1240					
1300					
1360					
1420					
1480					
33	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
	1060				
	1120				
	1180				
1240					
1300					
1360					
1420					
1480					

H	Unit Price		
	Set	Rails	
24	SSXRLZ	SSX2RLZ	SSRZLF
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.

Ordering Example: Part Number - L  
SSXRZ28 - 640

Alterations Example: Part Number - L - (RLC, LLC...etc.)  
SSXRZ28 - 640 - RLC

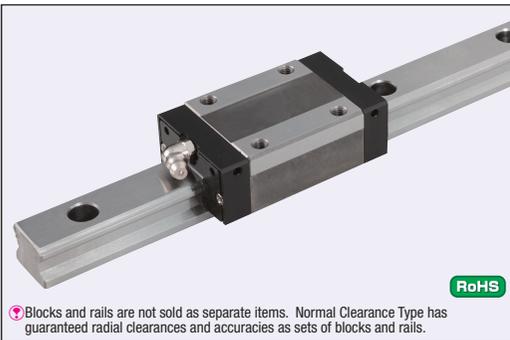
Alterations	Code	Spec.
Rail End Cut LLC	Left End Cut LLC	Cuts rail ends. Ordering Code LLC
		H L Cut N
		24 10 10
		28 10 10
		33 10 10
		Applicable to Selectable Type only.
		Overall length will be shorter by cutting.
3-Block Specifications	B3	Add 2 blocks to 1-Block product to ship as 3-Block separate item. Selection Example: SSXRZ24-400-B3
4-Block Specifications	B4	Add 3 Blocks to 1-Block product to ship as 4-Block separate item. Selection Example: SSXRZ24-400-B4

Position of Grease Fitting (Reference plane on the front side)	Additional Block Price	
	H	1Code
1 block		B3 B4
2 blocks	24	
3 blocks	28	
4 blocks	33	
	Selectable Shortest Rail Length for B3/B4	
	H	B3 (3-Block) B4 (4-Block)
	24	340 400
	28	400 460
	33	400 520

### Options for Linear Guide

Linear Guide Clamps	Rail Height Adjusting Blocks
<b>Block Derailment Prevention Parts / Dust Resistant Parts</b>	<b>Block / Rail Fixing Parts</b>
<ul style="list-style-type: none"> <li>Stopper Bolts</li> <li>Block Stopper Plates</li> <li>Rail Mounting Hole Caps</li> </ul>	<ul style="list-style-type: none"> <li>Rail Push Plates</li> <li>Linear Locks</li> <li>Linear Guide Lock Units</li> </ul>
P612	P612
P612	P613
P612	P614

Points of comparison against similar products | Select C-VALUE Products for medium-accuracy positioning, medium/low load, and medium-to-low frequency drive application. When you consider using C-VALUE Products, select an appropriate model after comparing the specifications with those of the existing products. P595, P599



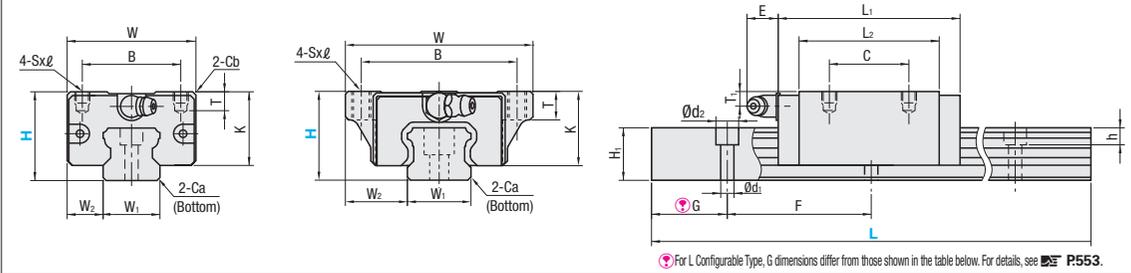
	Type		L Dimension	Material Hardness
	1 block	2 blocks		
Block Standard	C-SXR	C-SX2R	Selectable	Rails / Blocks: Carbon Steel 58HRC~62HRC
	C-SXRL	C-SX2RL	Configurable	
Wide Block Tapped Hole	C-SXWT	C-SX2WT	Selectable	
	C-SXWTL	C-SX2WTL	Configurable	

Heat Resistant Temperature: -20 ~ 80°C

For L Dimension Configurable Type, any L dim. on the Price List is not available.  
 C-SXRL24-170 (Configurable): ○  
 C-SXRL24-160 (Selectable): × ... Place order for C-SXR24-160 (Selectable)

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

The installation dimensions are same for the existing and C-VALUE Products (except for Rail Counterbored Hole dia. corresponding to H dim. 24).



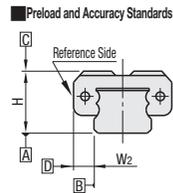
- Precautions for Use**
  - This product is All Ball Type. Blocks are equipped with retainers to prevent balls from derailing. For how to handle the blocks, see P547.
  - Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
  - Thick grooves are provided on the datum planes of blocks and rails. Be sure to match the datum planes when using.
  - Rails cannot be connected end to end.
  - The accuracy of Linear Guides is guaranteed after securing 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 secured 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 installation and maintenance of Linear Guides, see P551.

H	Type	H	L	Block Dimension											Guide Rail Dimension							
				W	L1	B	C	Sxℓ	L2	K	T	Cb	Grease Fitting			H1	W1	W2	Ca	Counterbored Hole d1xd2xh	F	G
				Mounting Hole	E	T1																
Standard	(1 block) C-SXR (2 blocks) C-SX2R C-SXRL C-SX2RL	24	100~1480 (160)	34	55.9	26	26	M4x5	39.5	20.8	6.2	0.5	M4x0.7	7	5.5	13	15	9.5	0.5	4.5x7.5x6	60	20
		28	160~1960 (220)	42	66.7	32	32	M5x5	46.7	23.4	7.2	0.5	M6x1	14	4.5	16.5	20	11	0.5	6x9.5x8.5	60	20
		33	160~1960 (220)	48	80	35	35	M6x6	59	27.2	8.15	1	M6x1	14	4.5	20	23	12.5	0.9	7x11x9	60	20
		42	280~1960	60	95.3	40	40	M8x8	69.3	35	8.5	1.0	M6x1	14	8	23	28	16	1	9x14x12	80	20
Wide Block	(1 block) C-SXWT (2 blocks) C-SX2WT C-SXWTL C-SX2WTL	24	100~1480 (160)	52	55.9	41	26	M5x7	39.5	20.8	7	-	M4x0.7	7	5.5	13	15	18.5	0.5	4.5x7.5x6	60	20
		28	160~1960 (220)	59	66.7	49	32	M6x9	46.7	23.4	9	-	M6x1	14	4.5	16.5	20	19.5	0.5	6x9.5x8.5	60	20
		33	160~1960 (220)	73	80	60	35	M8x10	59	27.2	10	-	M6x1	14	4.5	20	23	25	0.9	7x11x9	60	20

L Dimension: Dimensions in ( ) are for 2-Block Type.  
 Both ends of the rail are evenly cut for L Dimension Configurable Type. G dim. resulting from this cutting process will become other than indicated on the above table. For details about how to calculate the applicable G dim., see P553.

**Allowable Load** kgf=N×0.10972

H	Basic Load Rating			Allowable Static Moment			Mass		
	C (Dynamic) kN	Co kN	MA N·m	Mb N·m	Mc N·m	Block kg		Guide Rail kg/m	
						Standard	Wide		
24	4.9	9.7	48.4	48.4	75.7	0.13	0.17	1.32	
28	7.7	14.1	81.9	81.9	150.4	0.18	0.24	2.28	
33	10.6	19.7	141.2	141.2	240.8	0.3	0.44	3.17	
42	15.5	28.1	239.9	239.9	414.8	0.77	-	4.54	

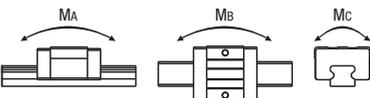


**Normal Clearance Type**

Radial Clearance (μm)	
H24	-4~+4
H28	-5~+5
H33	-6~+6
H42	-7~+7

**Dimensional Accuracy (μm)**

Height H Tolerance	±120
Variation of Height H	40
Width W2 Tolerance	±120
Variation of Width W2	40
Running Parallelism of Plane C against Plane A	See P547
Running Parallelism of Plane D against Plane B	



H	L	Unit Price			
		1 block		2 blocks	
		C-SXR	C-SXWT	C-SX2R	C-SX2WT
24	100				
	160				
	220				
	280				
	340				
	400				
	460				
	520				
	580				
	640				
	700				
	760				
	820				
	880				
	940				
	1000				
28	1060				
	1120				
	1180				
	1240				
	1300				
	1360				
	1420				
	1480				
	1540				
	1600				
	1660				
	1720				
	1780				
	1840				
	1900				
	33	1960			
2020					
2080					
2140					
2200					
2260					
2320					
2380					
2440					
2500					
2560					
2620					
2680					
2740					
2800					
42		2860			
	2920				
	2980				
	3040				
	3100				
	3160				
	3220				
	3280				
	3340				
	3400				
	3460				
	3520				
	3580				
	3640				
	3700				
	3760				

**L Dimension Configurable Type (10mm Increment) Additional Price**

H	Unit Price			
	1 block		2 blocks	
	C-SXRL	C-SXWTL	C-SX2RL	C-SX2WTL
24				
28				
33				
42				

L Dimension Configurable Type (10mm Increment)  
 Add the above amount to the unit price of the Selectable Type longer than, and closest to this L Dimension Configurable Type.

Ordering Example  
 Part Number - L  
 C-SXR28 - 880  
 C-SXWT28 - 880

Alterations  
 Part Number (Type, H) - L - (B3)  
 C-SXR28 - 640 - B3

Alterations	Code	Spec.
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. Selection Example: C-SXR24-400-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. Selection Example: C-SXR24-400-B4

**Position of Grease Fitting (Reference plane on the front side)**

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

H	B3 (3-block)	B4 (4-block)
24	340	400
28	400	460
33	440	520
42	440	520

**Additional Block Price**

H	Unit Price			
	B3: /1Code		B4: /1Code	
	C-SXR	C-SXWT	C-SXR	C-SXWT
24				
28				
33				
42				

# Miniature Linear Guides - Heat Resistant

Short / Standard / Long Blocks, Light Preload

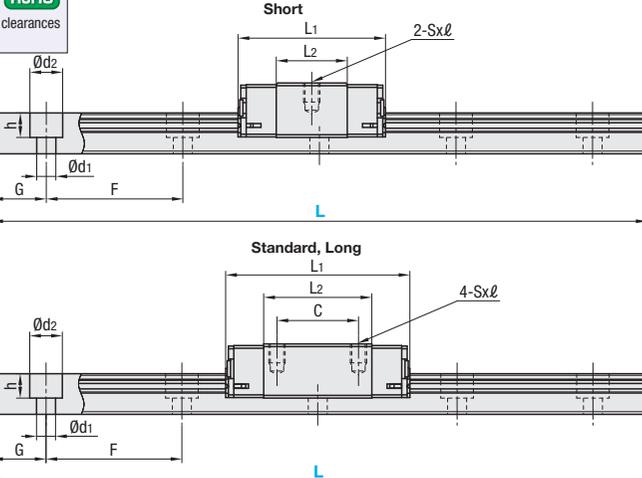
**Features:** Usable at up to 150°C of operating temperature since heat resistant parts and grease are employed.

Industry Standard



Material Hardness	Type			L Dimension	Number of Blocks
	Light Preload				
	Short	Standard	Long		
Stainless Steel 56HRC~	SSEBST	SSEBT	SSELBT	Selectable	1
	SSE2BST	SSE2BT	SSEL2BT		2
	SSEBSLT	SSEBLT	SSELBLT	Configurable	1
	SSE2BSLT	SSE2BLT	SSEL2BLT		2

Heat Resistant Temperature: -20 ~ 150°C



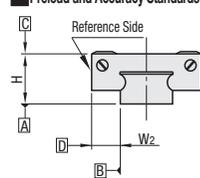
For L Configurable, G dimensions differ from those shown in the table below. For details, see P. 531.

- Precautions for Use**
  - Blocks are equipped with retainers (wire) 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.
- Accessory**
  - H8 comes with cap screws (M2x6).
- Others**
  - Filled with heat resistant grease (Du Pont KRYTOX GPL225).
  - Stainless steel and fluoro-rubber are used for return caps and seals respectively.
  - 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	Type	H	L	Block Type	Block Dimension				Guide Rail Dimension												
					W	L1	B	C	Sxℓ	L2	K	Cb	H1	W1	W2	Ca	Counterbored Hole d1xdzℓh	F	G		
Short (1 block) SSEBST SSEBSLT	(2 blocks) SSE2BST SSE2BSLT	8	40~130 (70)	Short	17	19.6	-	-	M2x2.5	9.6	6.5	0.3	4.7	7	5	0.3	2.4x4.2x2.3	15	5		
				Standard	17	23.6	12	8	13	22	11.9	19	7.8	0.3	5.5	9	5.5	0.3	3.5x6x3.5	20	7.5
				Long	20	32	15	10	16	29	19.9	31.8	10	0.5	7.5	12	7.5	0.5	3.5x6x4.5	25	10
Standard (1 block) SSEBT SSEBLT	(2 blocks) SSE2BT SSE2BLT	10	35~275 (95)	Short	27	27	-	-	M3x3.5	13	10	0.5	7.5	12	7.5	0.5	3.5x6x4.5	25	10		
				Standard	27	33.9	20	15	20	31.8	17.7	27.4	12	0.5	9.5	15	8.5	0.5	3.5x6x4.5	40	15
				Long	32	45.8	25	20	25	43.3	27.4	43.3	12	0.5	9.5	15	8.5	0.5	3.5x6x4.5	40	15
Long (1 block) SSELBT SSELBLT	(2 blocks) SSEL2BT SSEL2BLT	13	45~470 (120)	Short	32	32.7	-	-	M3x4	17.7	12	0.5	9.5	15	8.5	0.5	3.5x6x4.5	40	15		
				Standard	32	42.4	25	20	25	43.3	27.4	43.3	12	0.5	9.5	15	8.5	0.5	3.5x6x4.5	40	15
				Long	32	58.3	25	20	25	43.3	27.4	43.3	12	0.5	9.5	15	8.5	0.5	3.5x6x4.5	40	15

H	Block Type	Basic Load Rating		Allowable Static Moment			Mass	
		C (Dynamic) kN	Co (Static) kN	MA N-m	Mb N-m	Mc N-m	Block kg	Guide Rail kg/m
8	Short	0.79	1.27	1.9	1.6	4.6	0.008	0.19
	Standard	0.9	1.5	4.1	4.1	5.2	0.01	
	Long	1.6	2.4	7.5	7.5	9	0.02	
10	Short	1.16	1.68	3.1	2.6	7.9	0.015	0.31
	Standard	1.5	2.5	5.1	5.1	10.2	0.02	
	Long	2.2	3.7	12.3	12.3	13	0.03	
13	Short	1.63	2.38	5.2	4.4	14.8	0.025	0.61
	Standard	2.2	3.3	8.8	9.5	16.1	0.04	
	Long	3.5	5.3	24.5	26.4	32.3	0.06	
16	Short	3.08	4.23	12.3	10.3	32.6	0.05	1.02
	Standard	3.6	5.4	21.6	23.4	39.6	0.06	
	Long	5.8	8.7	57.8	62.6	67.6	0.1	

Preload and Accuracy Standards



Specifications	Unit: μm
Radial Clearance	-3~0
Height H Tolerance	±20
Pair Variation of Height H	15
Width W2 Tolerance	±25
Pair Variation of Width W2	20
Running Parallelism of Plane C against Plane A	See P. 525
Running Parallelism of Plane D against Plane A	See P. 525

H	L	Unit Price					
		Short	Standard	Long	Short	Standard	Long
8	40	SSEBST	SSE2BST	SSEBT	SSE2BT	SSELBT	SSEL2BT
	55	-	-	-	-	-	-
	70	-	-	-	-	-	-
	85	-	-	-	-	-	-
	100	-	-	-	-	-	-
	115	-	-	-	-	-	-
	130	-	-	-	-	-	-
	35	-	-	-	-	-	-
	55	-	-	-	-	-	-
	75	-	-	-	-	-	-
10	95	-	-	-	-	-	-
	115	-	-	-	-	-	-
	135	-	-	-	-	-	-
	155	-	-	-	-	-	-
	175	-	-	-	-	-	-
	195	-	-	-	-	-	-
	215	-	-	-	-	-	-
	235	-	-	-	-	-	-
	255	-	-	-	-	-	-
	275	-	-	-	-	-	-
13	45	-	-	-	-	-	-
	70	-	-	-	-	-	-
	95	-	-	-	-	-	-
	120	-	-	-	-	-	-
	145	-	-	-	-	-	-
	170	-	-	-	-	-	-
	195	-	-	-	-	-	-
	220	-	-	-	-	-	-
	245	-	-	-	-	-	-
	270	-	-	-	-	-	-
16	295	-	-	-	-	-	-
	320	-	-	-	-	-	-
	345	-	-	-	-	-	-
	370	-	-	-	-	-	-
	395	-	-	-	-	-	-
	420	-	-	-	-	-	-
	445	-	-	-	-	-	-
	470	-	-	-	-	-	-
	70	-	-	-	-	-	-
	110	-	-	-	-	-	-
16	150	-	-	-	-	-	-
	190	-	-	-	-	-	-
	230	-	-	-	-	-	-
	270	-	-	-	-	-	-
	310	-	-	-	-	-	-
	350	-	-	-	-	-	-
	390	-	-	-	-	-	-
	430	-	-	-	-	-	-
	470	-	-	-	-	-	-
	510	-	-	-	-	-	-
550	-	-	-	-	-	-	
590	-	-	-	-	-	-	
630	-	-	-	-	-	-	
670	-	-	-	-	-	-	

L Dimension Configurable Type (1mm Increment)

H	Unit Price					
	Short	Standard	Long	Short	Standard	Long
8	SSEBSLT	SSE2BSLT	SSEBLT	SSE2BLT	SSELBLT	SSEL2BLT
10	-	-	-	-	-	-
13	-	-	-	-	-	-
16	-	-	-	-	-	-

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.

Ordering Example: Part Number - L - SSEBT10 - 195

Alterations Example: Part Number - L - (MC, RLC, LLC, B3, B4) SSEL16 - 450 - MC

Alterations	Code	Spec.
Tapped Hole	MC	Changes the rail mounting holes from counterbored holes to tapped holes. H MC 8 M3 10 M4 13 M4 16 M5
Rail End Cut	LLC, RLC	Cuts rail ends. Ordering Code LLC H L Cut N 10 2.5 5 13 5 5 16 10 5 Rail is cut with the product ID facing out (datum on other side). Applicable to Selectable Type only. Overall length will be shorter by cutting. Not applicable to H8. Not applicable to L35 of H10 and L45 of H13.
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. There are restrictions for the L dimension length. See "Selectable Shortest Rail Length" for details. Selection Example: SSEBST10-95-B3
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. There are restrictions for the L dimension length. See "Selectable Shortest Rail Length" for details. Selection Example: SSELBT16-550-B4

Additional Block Price				Selectable Shortest Rail Length for B3/B4			
H	Block	B3: Price Adder	B4: Price Adder	H	Block	B3 (3-block)	B4 (4-block)
8	Short	-	-	8	Short	85	100
	Standard	-	-		Standard	85	115
	Long	-	-		Long	-	-
10	Short	-	-	10	Short	95	115
	Standard	-	-		Standard	115	155
	Long	-	-		Long	155	195
13	Short	-	-	13	Short	120	145
	Standard	-	-		Standard	145	170
	Long	-	-		Long	170	220
16	Short	-	-	16	Short	150	190
	Standard	-	-		Standard	190	230
	Long	-	-		Long	230	270

Options for Linear Guide

Position Retaining Parts	Block / Rail Fixing Parts
Rail Push Plates P607	Rail Push Plates P612
Rail Height Adjusting Blocks P609	Linear Lock P613
Block Derailment Prevention Parts	Linear Guide Lock Units P614
Stopper Bolts P612	

# Miniature Linear Guides - Dust Resistant

## Standard Blocks, Light Preload

**Features:** **Dust Resistant** Heavy Load Linear Guide usable where dust and machining chips exist.

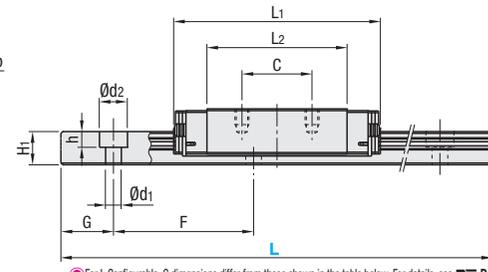
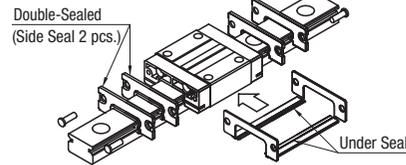
Industry Standard



Material Hardness	Type		L Dimension	Number of Blocks
	Light Preload			
	Standard Rail	Wide Rail		
Carbon Steel 58HRC~	SEBD	SEBWD	Selectable	1
	SE2BD	SE2BWD		2
	SEBDL	SEBWDL	Configurable	1
	SE2BDL	SE2BWDL		2

Heat Resistant Temperature: -20 ~ 80°C

### Dust Resistant Type Structure

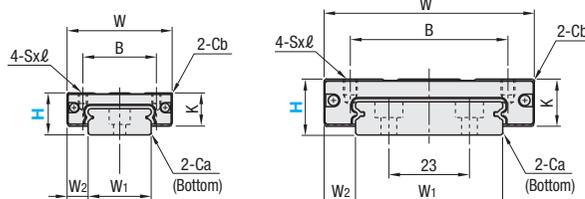


For L Configurable, G dimensions differ from those shown in the table below. For details, see P.531.

- Intrusion of foreign substances into the blocks can be prevented by enhanced sealing effects with two-ply side seal and under seals.
- Can be used where dust and machining chips exist.
- Do not use in areas with high temperature dusts such as weld spatter.

RoHS

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



Standard Rail H13/16/20  
Wide Rail H14

Wide Rail H16

- Precautions for Use**
- Blocks are equipped with retainers (wire) 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 (Multemp Grease PS2 by Kyodo Yushi Co., Ltd.). 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	Type	H	L	Block Dimension							Guide Rail Dimension							
				W	L1	B	C	Sx	L2	K	Cb	H1	W1	W2	Ca	Counterbored Hole d1xd2xh	F	G
Standard Rail (1 block) SEBD SEBDL (2 blocks) SE2BD SE2BDL		13	45~470 (120)	27	36.9	20	15	M3x3.5	19.9	11	0.5	7.5	12	7.5	0.5	3.5x6x4.5	25	10
		16	70~670 (150)	32	45.4	25	20	M3x4	27.4	13	0.5	9.5	15	8.5	0.5	3.5x6x4.5	40	15
		20	100~700 (160)	40	53	30	25	M4x6	34.6	16	0.5	11	20	10	0.5	6x9.5x5.5	60	20
Wide Rail (1 block) SEBWD SEBWDL (2 blocks) SE2BWD SE2BWDL		14	70~470 (150)	40	47.3	28	15	M3x3.5	30.1	12	0.5	8	24	8	0.5	4.5x8x4.5	40	15
		16	70~670 (190)	60	58	45	20	M4x4.5	40	14	0.5	9.5	42	9	0.5	4.5x8x4.5	40	15

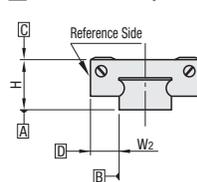
Dimensions in ( ) are for 2-Block Type.

kgf=N×0.101972

Unit: μm

H	Basic Load Rating	Allowable Static Moment			Mass			
		C (Dynamic) kN	Co (Static) kN	MA N-m	MB N-m	MC N-m	Block kg	Guide Rail kg/m
Standard Rail	13	2.2	3.3	8.8	9.5	16.1	0.045	0.61
	16	3.6	5.4	21.6	23.4	39.6	0.065	1.02
	20	5.2	8.5	48.4	48.4	86.4	0.13	1.65
Wide Rail	14	3.5	5.3	20.6	22.3	52.1	0.085	1.40
	16	5.8	8.5	40.2	43.6	148	0.16	2.95

### Preload and Accuracy Standards

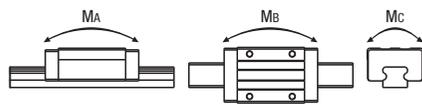


Specifications		Light Preload, High Grade
Radial Clearance		-3~0
Height H Tolerance		±20
Pair Variation of Height H		15
Width W2 Tolerance		±25
Pair Variation of Width W2		20
Running Parallelism of Plane C against Plane A		See P.525
Running Parallelism of Plane D against Plane A		See P.525

### Seal Resistance (N)

Rail Width	Height (H)	Standard	Dust Resistant
Standard	13	0.7	1.0
	16	0.8	1.1
	20	1.2	1.5
Wide	14	1.0	1.3
	16	1.2	1.5

Data above are reference values.



### Standard Rail

H	L	Unit Price	
		1 block	2 blocks
13	45	-	-
	70	-	-
	95	-	-
	120	-	-
	145	-	-
	170	-	-
	195	-	-
	220	-	-
	245	-	-
	270	-	-
	295	-	-
	320	-	-
	345	-	-
	370	-	-
	395	-	-
16	420	-	-
	445	-	-
	470	-	-
	70	-	-
	110	-	-
	150	-	-
	190	-	-
	230	-	-
	270	-	-
	310	-	-
20	350	-	-
	390	-	-
	430	-	-
	470	-	-
	510	-	-
	550	-	-
	590	-	-
	630	-	-
	670	-	-
	700	-	-

### Wide Rail

H	L	Unit Price	
		1 block	2 blocks
14	70	-	-
	110	-	-
	150	-	-
	190	-	-
	230	-	-
	270	-	-
	310	-	-
	350	-	-
	390	-	-
	430	-	-
	470	-	-
	70	-	-
	110	-	-
	150	-	-
	190	-	-
16	230	-	-
	270	-	-
	310	-	-
	350	-	-
	390	-	-
	430	-	-
	470	-	-
	510	-	-
	550	-	-
	590	-	-
20	630	-	-
	670	-	-

### L Dimension Configurable Type (1mm Increment)

H	Unit Price			
	Standard Rail		Wide Rail	
	1 block	2 blocks	1 block	2 blocks
13-14	SEBDL	SE2BDL	SEBWDL	SE2BWDL
16				
20				

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.

Ordering Example: Part Number SEBD13 - L 220

Alterations Example: Part Number SEBWD14 - L 350 - (RLC, LLC, B3, B4) RLC

Alterations	Code	Spec.																				
Rail End Cut	Left End Cut LLC Right End Cut RLC	Cuts rail ends. Ordering Code LLC <table border="1"> <thead> <tr> <th></th> <th>H</th> <th>L Cut</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>Standard Rail</td> <td>13</td> <td>5</td> <td>5</td> </tr> <tr> <td></td> <td>16</td> <td>10</td> <td>5</td> </tr> <tr> <td>Wide Rail</td> <td>14</td> <td>5</td> <td>10</td> </tr> <tr> <td></td> <td>16</td> <td>5</td> <td>10</td> </tr> </tbody> </table>		H	L Cut	N	Standard Rail	13	5	5		16	10	5	Wide Rail	14	5	10		16	5	10
	H	L Cut	N																			
Standard Rail	13	5	5																			
	16	10	5																			
Wide Rail	14	5	10																			
	16	5	10																			
3-Block Specifications	B3	Add 2 blocks to 1-block product to ship as 3-block separate item. There are restrictions for the L dimension length. See "Selectable Shortest Rail Length" for details. Selection Example: SEBD13-270-B3																				
4-Block Specifications	B4	Add 3 blocks to 1-block product to ship as 4-block separate item. There are restrictions for the L dimension length. See "Selectable Shortest Rail Length" for details. Selection Example: SEBWD14-430-B4																				

### Additional Block Price

H	Rail	B3: Price Adder	B4: Price Adder
13	Standard	-	-
	Wide	-	-
14	Standard	-	-
	Wide	-	-
16	Standard	-	-
	Wide	-	-
20	Standard	-	-
	Wide	-	-

### Selectable Shortest Rail Length for B3/B4

H	Block	B3 (3-block)	B4 (4-block)
13	Standard	145	195
	Wide	-	-
14	Standard	-	-
	Wide	190	230
16	Standard	190	230
	Wide	230	270
20	Standard	220	280
	Wide	-	-

### Options for Linear Guide

Position Retaining Parts	Block / Rail Fixing Parts
<p>Rail Push Plates P607</p>	<p>Rail Push Plates P612</p>
<p>Rail Height Adjusting Blocks P609</p>	<p>Linear Lock P613</p>
<p>Block Derailment Prevention Parts P612</p>	<p>Linear Guide Lock Units P614</p>
<p>Stopper Bolts P612</p>	

# Linear Guides for Medium Load - Dust Resistant

## With Double Seals / Metal Scrapers, Normal Clearance

= For customers using industry standard products =  
 Frame-surrounded products are compliant with the industry standard specifications (Standard Block Type).  
 Select the block from this spec.

**Features:** Dust Resistant Heavy Load Linear Guide usable where dust and machining chips exist.

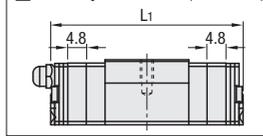
**Lubrication Units MX**  
 Provides long term maintenance-free operation.



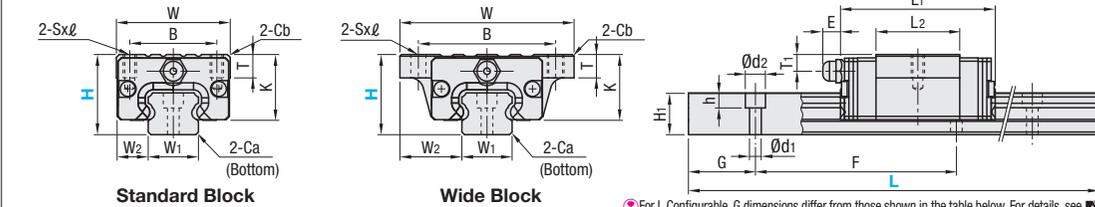
Type	MX (Lubrication Units)		L Dimension	Number of Blocks	Material Hardness
	Double-Sealed	With Metal Scrapers			
Standard Block	SVRD	SVRK	Selectable	1	Carbon Steel 58HRC~
	SV2RD	SV2RK		2	
	SVRDL	SVRKL	Configurable	1	
	SV2RDL	SV2RKL		2	
Wide Block	SVWD	SVWK	Selectable	1	Carbon Steel 58HRC~
	SV2WD	SV2WK		2	
	SVWDL	SVWKL	Configurable	1	
	SV2WDL	SV2WKL		2	

Heat Resistant Temperature: -20 ~ 80°C

Dimension Diagram of Blocks with MX (Lubrication Units)



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



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	Type	MX	H	Block Dimension										Guide Rail Dimension										
				L	W	L1		B	SxL	L2	K	T	Cb	Grease Fitting			H1	W1	W2	Ca	Counterbored Hole	F	G	
						Mounting Hole	E							T1	d	d2								xh
Standard Block	(1 block)	Blank: None -MX: Provided	24	160	34	46	55.6	26	M4x7	25	20	7	0.85	M5xP0.8	6	5	12.5	15	9.5	0.5	3.5x6x4.5	60	20	
			28	220	42	53.4	63	32	M5x8	27.6	22.5	7.5	1	M6xP0.75	13	6	15.5	20	11	0.6	6x9.5x8.5	60	20	
	(2 blocks)	33	220	48	66	75.6	35	M6x9	37	26.5	8	1	M6xP0.75	13	6.8	18	23	12.5	0.8	7x11x9	60	20		
		33	1960	48	66	75.6	35	M6x9	37	26.5	8	1	M6xP0.75	13	6.8	18	23	12.5	0.8	7x11x9	60	20		
	Wide Block	(1 block)	Blank: None -MX: Provided	24	160	52	46	55.6	41	4.5	25	20	7	0.5	M5xP0.8	6	5	12.5	15	18.5	0.5	3.5x6x4.5	60	20
				28	220	59	53.4	63	49	5.5	27.6	22.5	9	1	M6xP0.75	13	6	15.5	20	19.5	0.6	6x9.5x8.5	60	20
(2 blocks)		33	220	66	75.6	35	M6x9	37	26.5	8	1	M6xP0.75	13	6.8	18	23	12.5	0.8	7x11x9	60	20			
		33	1960	66	75.6	35	M6x9	37	26.5	8	1	M6xP0.75	13	6.8	18	23	12.5	0.8	7x11x9	60	20			

Dimensions in ( ) are for Metal Scraper Type.

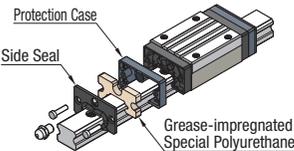
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H	Basic Load Rating		Allowable Static Moment			Mass					Guide Rail kg/m
	C (Dynamic) kN	Co (Static) kN	MA	MB	N-m	Mc	Block kg				
							Double-Sealed	With Metal Scrapers	Standard	Wide	
24	5.0	8.23	33	57	0.16	0.21	0.16	0.21	1.5		
28	7.2	12.1	58	135	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		

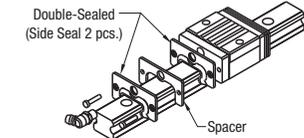
Preload and Accuracy Standards

Normal Clearance Type	Dimensional Accuracy (µm)		Standard Grade
	Radial Clearance (µm)	Height H Tolerance	
H24	-4~+2	±100	
H28	-5~+2	20	
H33	-6~+3	±100	
	Pair Variation of Height H	20	
	Width W2 Tolerance	±100	
	Pair Variation of Width W2	H24·28: 20	
		H33: 30	
	Running Parallelism of Plane C against Plane A	See P.525	
	Running Parallelism of Plane D against Plane B		

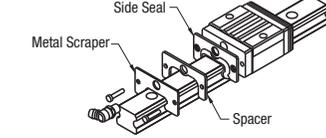
Lubrication Units MX



Double-Sealed



With Metal Scrapers



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.

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.

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.

H	Selectable L	Unit Price							
		1 block				2 blocks			
		SVRD	SVRK	SVWD	SVWK	SV2RD	SV2RK	SV2WD	SV2WK
160									
220									
280									
340									
400									
460									
520									
580									
640									
700									
760									
820									
880									
940									
1000									
1120									
1240									
1360									
1480									
1600									
1720									
1840									
1960									
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	Selectable L	Unit Price							
		1 block				2 blocks			
		SVRDL	SVRKL	SVWDL	SVWKL	SV2RDL	SV2RKL	SV2WDL	SV2WKL
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.

Ordering Example

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

Alternative grease types available (Except Blocks with Lubrication Units)  
 P.532

Alterations

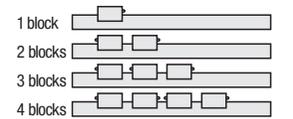
Part Number	L	Price
SVRD28	- 880	(TMS, TMC, RLC, LLC...etc.)
		TMC

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 M3xP0.5 Depth 5 Tapped Hole For Stopper Plates Details, see P.621.
Rail End Cut	Left End Cut LLC Right End Cut RLC	Cuts rail ends. Ordering Code LLC H L Cut N 24 10 10 28 10 10 33 10 10 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. Specify the actual rail quantity (even number) to order, not "pairs". 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

Additional Block Price

H	B3: 1Code				B4: 1Code			
	Double-Sealed	With Metal Scrapers						
24								
28								
33								

Position of Grease Fitting (Reference plane on the front side)



Selectable Shortest Rail Length for B3/B4

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

MX (Lubrication Unit) Unit Price

H	Unit Price	
	1 block	2 blocks
24		
28		
33		

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

