

# Miniature Linear Guides - Dust Resistant

## Standard Blocks, Light Preload

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

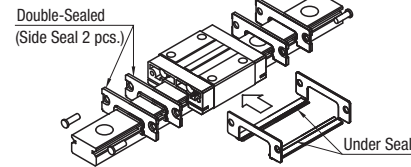
Industry Standard



Material Hardness	Type		L Dimension	Number of Blocks
	Standard Rail	Wide Rail		
Stainless Steel 56HRC~	SSEBD	SSEBWD	Selectable	1
	SSE2BD	SSE2BWD		2
	SSEBDL	SSEBWDL	Configurable	1
	SSE2BDL	SSE2BWDL		2

Heat Resistant Temperature: -20 ~ 80°C

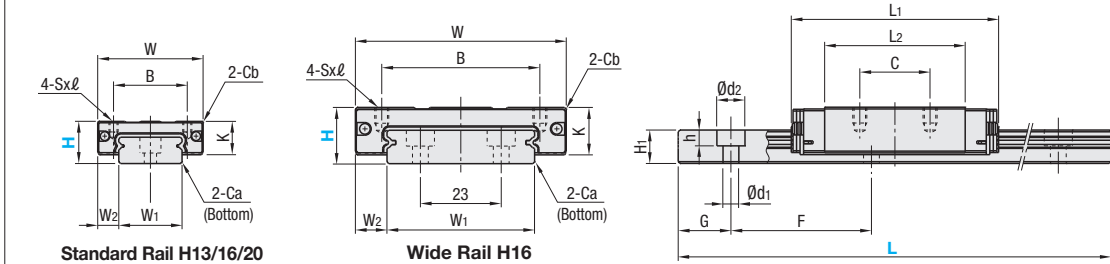
**Dust Resistant Type Structure**



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

RoHS10

- 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.



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 (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	SxL	L2	K	Cb	H1	W1	W2	Ca	Counterbored Hole d1xd2xh	F	G
Standard Rail (1 block) SSEBD (2 blocks) SSE2BD SSEBDL SSE2BDL		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) SSEBWD (2 blocks) SSE2BWD SSEBWDL SSE2BWDL		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

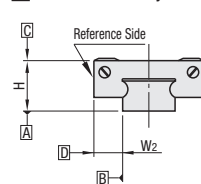
Dimensions in ( ) are for 2-Block Type.

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**

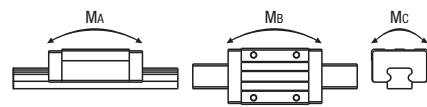


Specifications		Light Preload, High Grade
Radial Clearance		-3~0
Height H Tolerance		±20
Pair Variation of Height H		15
Width W2 Tolerance		±25
Pair Variation of Width W2		20
Running Parallelism of Plane C against Plane A		See P. 525
Running Parallelism of Plane D against Plane A		See P. 525

**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	-	-
	350	-	-
	390	-	-
	430	-	-
	470	-	-
	510	-	-
550	-	-	
590	-	-	
630	-	-	
670	-	-	

### Wide Rail

H	L	Unit Price	
		1 block	2 blocks
14	70	-	-
	110	-	-
	150	-	-
	190	-	-
	230	-	-
	270	-	-
	310	-	-
	350	-	-
	390	-	-
	430	-	-
	470	-	-
	110	-	-
	150	-	-
	190	-	-
	230	-	-
270	-	-	
310	-	-	
350	-	-	
390	-	-	
430	-	-	
470	-	-	
510	-	-	
550	-	-	
590	-	-	
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	SSEBDL	SSE2BDL	SSEBWDL	SSE2BWDL
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 - L  
SSEBD13 - 220

Alterations Example: Part Number - L - (RLC, LLC, B3, B4)  
SSEBWD14 - 350 - RLC

Alterations	Code	Spec.																				
Rail End Cut	Left End Cut LLC	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></td> </tr> <tr> <td></td> <td>16</td> <td>10</td> <td>5</td> </tr> <tr> <td>Wide Rail</td> <td>14</td> <td></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			16	10	5	Wide Rail	14		10		16	5	10
		H	L Cut	N																		
Standard Rail	13	5																				
	16	10	5																			
Wide Rail	14		10																			
	16	5	10																			
Right End Cut RLC	Rail is cut with the product ID facing out (datum on other side).	<ul style="list-style-type: none"> <li>Applicable to Selectable Type only.</li> <li>Overall length will be shorter by cutting.</li> <li>Not applicable to L45 of H13.</li> </ul>																				
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: SSEBD13-270-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: SSEBWD14-430-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