

NB

NEW

SLIDE GUIDE

SEBS-BS type / SEBS-WBS type

New addition to the NB miniature guide SEBS series
Extra compact, short block series is lined up!

Six block types are available to be utilized in various applications!



short block
SEBS-BS type



standard block
SEBS-B type



long block
SEBS-BY type



short block-wide type
SEBS-WBS type



standard block-wide type
SEBS-WB type



long block-wide type
SEBS-WBY type

ISO9001 / ISO14001



NIPPON BEARING CO., LTD.

SEBS-BS/SEBS-BSM TYPE

— Retained Ball Type —

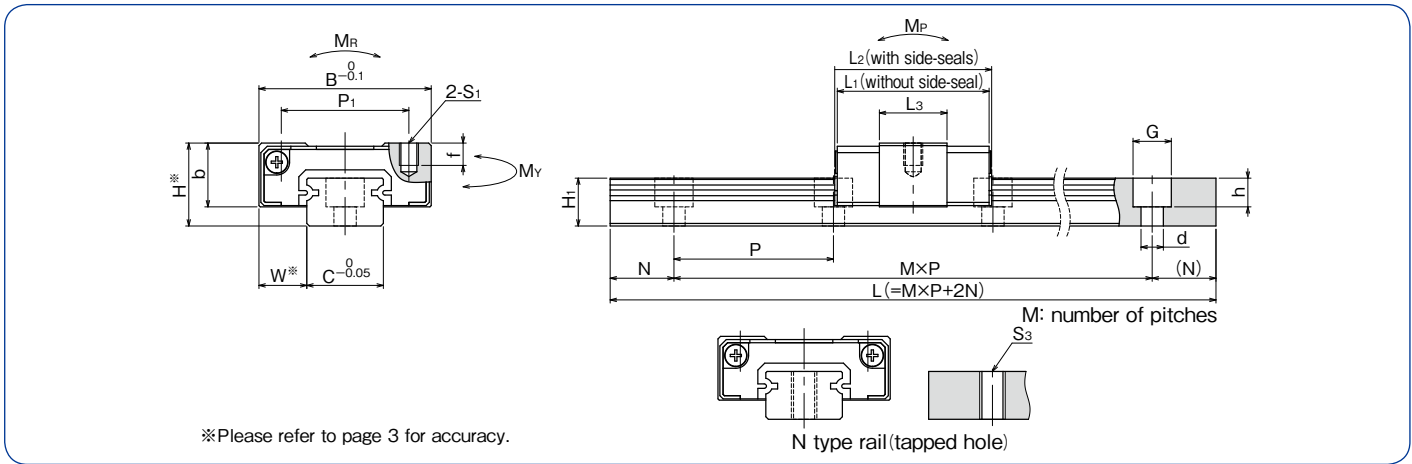
part number structure

example **SEBS 15B S M UU 2 T1 - 589 N P / W2**

- SEBS: anti-corrosion
- size
- block S: short
- return cap blank: resin M: stainless steel
- seal blank: without side-seal UU: with side-seals
- number of blocks attached to one rail
- preload symbol TO: clearance blank: standard T1: light
- symbol for number of axes* blank: single axis W2: 2 parallel axes W3: 3 parallel axes
- accuracy grade blank: high P: precision
- rail mounting hole blank: counterbore N: tapped hole
- total length of rail



* The symbol for the number of axes does not mean the number of rails ordered.



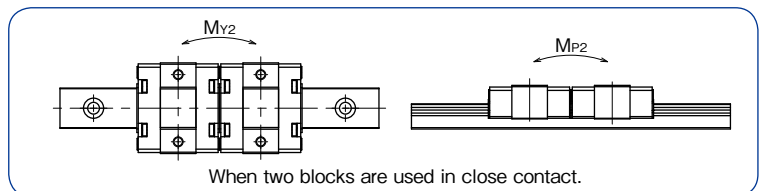
*Please refer to page 3 for accuracy.

part number		assembly dimensions		block dimensions							guide rail dimensions					basic load rating			allowable static moment			mass						
resin return cap	stainless return cap	H	W	B	L ₁	L ₂	P ₁	S ₁	f	L ₃	b	H ₁	C	d	G	h	S ₃	N	P	dynamic C	static Co	M _P	M _Y	M _R	resin return cap	stainless return cap	guide rail g/100mm	block size
SEBS 7BS	SEBS 7BSM	8	5	17	18.2	19	12	M2	2.5	8.8	6.5	4.7	7	2.4	4.2	2.3	M3	5	15	0.92	1.05	1.57 13.6	1.32 11.4	3.86	7	10	21	7BS
SEBS 9BS	SEBS 9BSM	10	5.5	20	20.5	21.3	15	M3	3	10.1	7.8	5.5	9	3.5	6	3.5	M4	7.5	20	1.05	1.26	2.17 18.2	1.82 15.2	5.90	11	15	31	9BS
SEBS12BS	SEBS12BSM	13	7.5	27	24.2	24.6	20		3.5	10.6	10	7.5	12	3.5	6	4.5		M5	10	25	1.90	1.91	3.63 32.4	3.04 27.2	11.9	21	30	59
SEBS15BS	SEBS15BSM	16	8.5	32	30	30.4	25	4	15	12	9.5	15	3.5		6	4.5	M5		15	40	3.49	3.38	8.56 67.5	7.18 56.6	26.2	40	53	97

part number	standard rail length															maximum length mm								
	L mm															counterbore	tapped hole (N type)							
SEBS 7B	40	55	70	85	100	115	130	145	160	175	190	205	220	235	250	265	280	295	310	1,000	700			
SEBS 9B	55	75	95	115	135	155	175	195	215	235	255	275	295	315	335	355	375	395	415	435	455	475	1,300	1,000
SEBS12B	70	95	120	145	170	195	220	245	270	295	320	345	370	395	420	445	470	495						
SEBS15B	70	110	150	190	230	270	310	350	390	430	470	510	550	590	630	670								

Rails exceeding the maximum length may be fabricated if joints are used. Please contact NB for assistance.

part number	equivalent coefficient				
	Ep ₁	Ep ₂	Ey ₁	Ey ₂	Er
SEBS 7BS	6.70×10 ⁻¹	7.76×10 ⁻²	7.98×10 ⁻¹	9.25×10 ⁻²	2.74×10 ⁻¹
SEBS 9BS	5.83×10 ⁻¹	6.96×10 ⁻²	6.95×10 ⁻¹	8.30×10 ⁻²	2.15×10 ⁻¹
SEBS12BS	5.27×10 ⁻¹	5.90×10 ⁻²	6.28×10 ⁻¹	7.03×10 ⁻²	1.60×10 ⁻¹
SEBS15BS	3.95×10 ⁻¹	5.01×10 ⁻²	4.71×10 ⁻¹	5.97×10 ⁻²	1.30×10 ⁻¹



SEBS-WBS TYPE

– Retained Ball · Wide Type –

part number structure

example **SEBS 15WBS UU 2 T1 -589 N P /W2**

SEBS : anti-corrosion

size

block
S: short

seal
blank: without side-seal
UU: with side-seals

number of blocks attached to one rail

preload symbol
TO: clearance
blank: standard
T1: light

symbol for number of axes*
blank: single axis
W2: 2 parallel axes
W3: 3 parallel axes

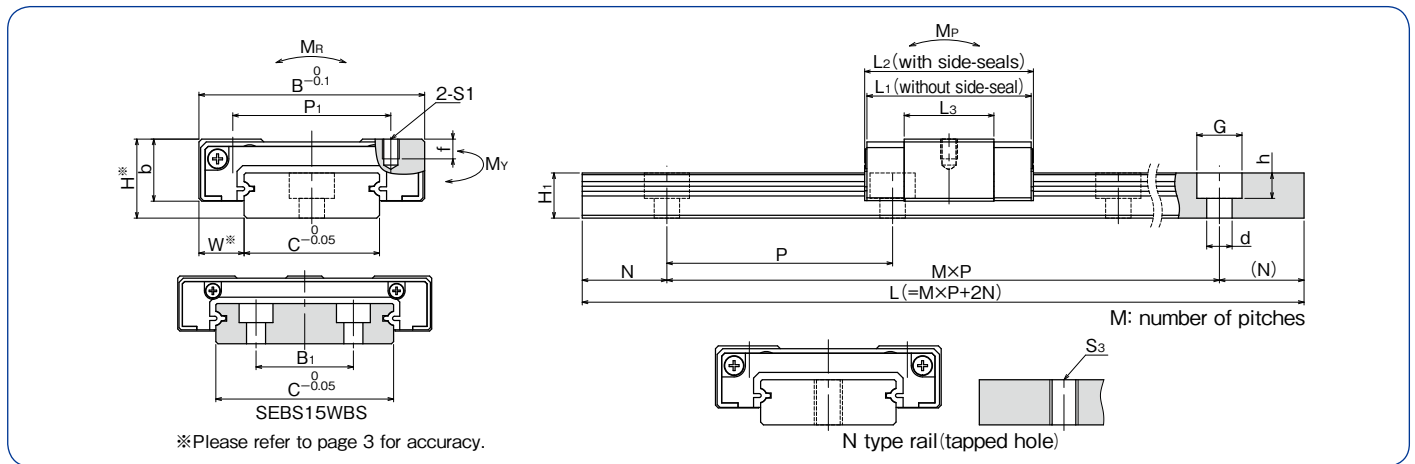
accuracy grade
blank: high
P: precision

rail mounting hole
blank: counterbore
N: tapped hole

total length of rail



* The symbol for the number of axes does not mean the number of rails ordered.



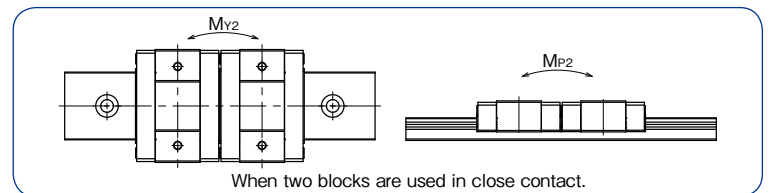
*Please refer to page 3 for accuracy.

part number	assembly dimensions		block dimensions						guide rail dimensions						basic load rating			allowable static moment			mass				
	H	W	B	L ₁	L ₂	P ₁	S ₁	f	L ₃	b	H ₁	C	B ₁	d×G×h	S ₃	N	P	dynamic C	static C _o	M _P	M _Y	M _o	block g	guide rail g/100mm	block size
SEBS 7WBS	9	5.5	25	21.1	21.9	19	M3	2.8	10.7	7	5.2	14	—	3.5×6×3.2	M4	10	30	1.05	1.26	2.17	1.82	9.07	12	51	7WBS
SEBS 9WBS	12	6	30	24.2	25	21			13	9	7.5	18	—	3.5×6×4.5				1.73	2.01	4.35	3.65	18.6	21	96	9WBS
SEBS 12WBS	14	8	40	29.7	30.1	28	M4	3.5	15.9	11	8	24	—	4.5×8×4.5	M5	15	40	2.53	2.86	7.38	6.19	35.1	43	137	12WBS
SEBS 15WBS	16	9	60	39.4	39.8	45			4.5	24	13	9.5	42					23	5.15	5.91	22.9	19.2	125	98	286

part number	standard rail length																		maximum length mm				
	L mm																		counterbore	tapped hole (N type)			
SEBS 7WB	50	80	110	140	170	200	230	260	290	320	350	380	410	440	470	1,000	700						
SEBS 9WB	50	80	110	140	170	200	230	260	290	320	350	380	410	440	470	500	530	1,300	1,000				
SEBS 12WB	70	110	150	190	230	270	310	350	390	430	470	510	550	590	630	670	710						
SEBS 15WB	70	110	150	190	230	270	310	350	390	430	470	510	550	590	630	670	710	750	790	830	870		

Rails exceeding the maximum length may be fabricated if joints are used. Please contact NB for assistance.

part number	equivalent coefficient				
	Ep ₁	Ep ₂	Ey ₁	Ey ₂	Er
SEBS 7WBS	5.83×10 ⁻¹	6.96×10 ⁻²	6.95×10 ⁻¹	8.30×10 ⁻²	1.40×10 ⁻¹
SEBS 9WBS	4.63×10 ⁻¹	6.05×10 ⁻²	5.52×10 ⁻¹	7.21×10 ⁻²	1.09×10 ⁻¹
SEBS 12WBS	3.89×10 ⁻¹	5.28×10 ⁻²	4.64×10 ⁻¹	6.29×10 ⁻²	8.17×10 ⁻²
SEBS 15WBS	2.58×10 ⁻¹	4.06×10 ⁻²	3.07×10 ⁻¹	4.83×10 ⁻²	4.71×10 ⁻²



ACCURACY

The SEBS slide guides are available in two grades of accuracy: high grade and precision grade (P).

	unit/mm	
accuracy grade	high	precision
accuracy symbol	blank	P
allowable dimensional difference in height H	±0.020	±0.010
paired difference for height H	0.015	0.007
allowable dimensional difference in width W	±0.025	±0.015
paired difference for width W	0.020	0.010
running parallelism of surface C to surface A	refer to Figure 1 and 2	
running parallelism of surface D to surface B		

Figure 1 Accuracy

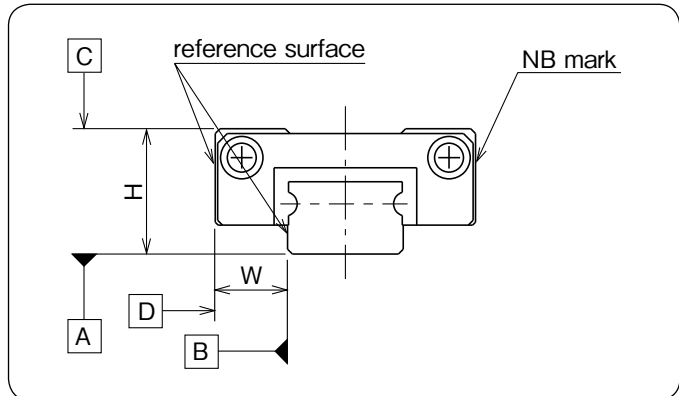
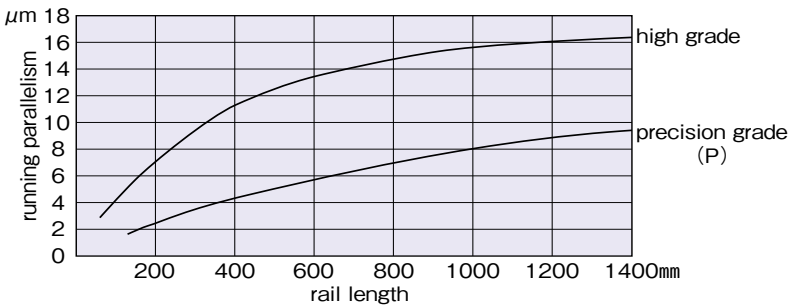


Figure 2 Motion Accuracy



PRELOAD

SEBS slide guides are available with a standard preload (blank), light preload (T1), and a positive-clearance (T0).

size	preload and symbol		
	clearance T0	standard blank	light T1
SEBS 7BS	+3~+6	-3~0	-4~-2
SEBS 9BS			
SEBS12BS			
SEBS15BS	+4~+8		-7~-3
SEBS 7WBS	+3~+6	-3~0	-4~-2
SEBS 9WBS			
SEBS12WBS			
SEBS15WBS			

preload	symbol	operating conditions
clearance	T0	light motion is required. installation errors to be absorbed.
standard	blank	minute vibration is applied. accurate motion is required. moment is applied in a given direction.
light	T1	light vibration is applied. light torsional load is applied. moment is applied.

※Please refer to NB general catalog for standard block and long block.



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