BSP IKO

Reduced stroke length

- Non recirculating ball type linear slide
- Balls contained in resin cage
- Smooth movement
- Light and compact
- U-shaped guide rail and table
- High performance
- Durability
- Max. speed: 3m/s
- Max. working temperature: +100°C (occasional +120°C)

stainless steel

Applications
- Measuring equipment, writing heads
- Hard disks, scanners

Info.
- To obtain high operating accuracy, do not exceed 20% of basic static load
- Centre the load on the rail or table.
- No stop at the end of the stroke
- Sensitive to dust: in case of contamination, clean with a chemical product then regrease with a high-grade lubricant.
- * For M2.6 holes, M2.5 screws can be used
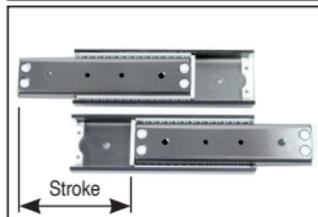
Stroke up to 63mm

| Part number	Nominal dimensions (mm)			Max. stroke length	Table dimensions (mm)			
	W	H	L		L1	n1-M1	h1	t1
BSP1025SL	10	6	25	15	15	2-M2,6*	5,80	1,10
BSP1035SL	10	6	35	26	25	2-M2,6*	5,80	1,10
BSP1045SL	10	6	45	38	35	2-M2,6*	5,80	1,10
BSP1530SL	15	8	30	22	14	2-M3	7,00	1,20
BSP1540SL	15	8	40	24	24	2-M3	7,00	1,20
BSP1550SL	15	8	50	32	34	2-M3	7,00	1,20
BSP1560SL	15	8	60	40	40	2-M3	7,00	1,20
BSP2040SL	20	10	40	22	24	2-M3	9,00	1,40
BSP2050SL	20	10	50	28	34	2-M3	9,00	1,40
BSP2060SL	20	10	60	34	40	2-M3	9,00	1,40
BSP2070SL	20	10	70	40	45	2-M3	9,00	1,40
BSP2080SL	20	10	80	53	50	2-M3	9,00	1,40
BSP2550SL	25	10	50	26	34	2-M3	9,00	1,60
BSP2560SL	25	10	60	32	40	2-M3	9,00	1,60
BSP2570SL	25	10	70	40	45	2-M3	9,00	1,60
BSP2580SL	25	10	80	51	50	2-M3	9,00	1,60
BSP25100SL	25	10	100	63	60	2-M3	9,00	1,60

Dimensions in mm

FOR BSP 10:
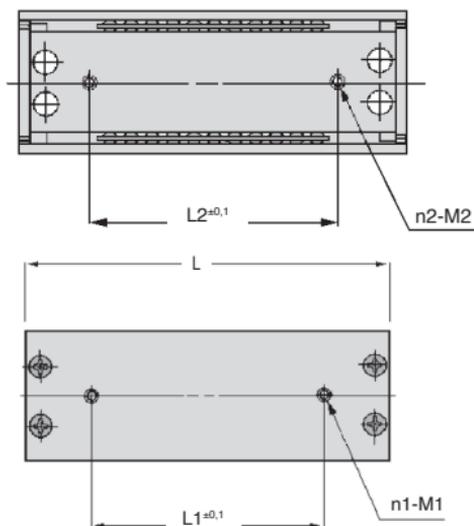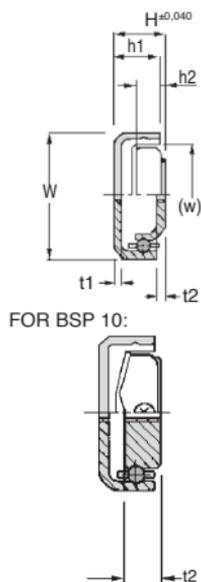
		Frame dimensions (mm)			Dynamic load C (N)	Static load Co (N)	Weight (g)	Stock*	Price each. 1 to 3
w	L2	n2-M2	h2	t2					
6,20	15	2-M2,6*	3,70	2,70	294	156	6,20	✔	47,26 €
6,20	25	2-M2,6*	3,70	2,70	343	196	8,80	✔	50,62 €
6,20	35	2-M2,6*	3,70	2,70	392	235	11,30	✔	52,55 €
11,20	14	2-M3	4,50	1,20	343	196	11,00	✔	64,28 €
11,20	24	2-M3	4,50	1,20	470	303	14,70	✔	69,29 €
11,20	34	2-M3	4,50	1,20	548	382	18,40	✔	75,15 €
11,20	40	2-M3	4,50	1,20	627	460	22,10	✔	80,68 €
16,00	24	2-M3	6,20	1,40	627	382	23,70	-	75,41 €
16,00	34	2-M3	6,20	1,40	744	490	29,70	-	80,94 €
16,00	40	2-M3	6,20	1,40	852	597	35,70	-	87,88 €
16,00	45	2-M3	6,20	1,40	960	705	41,70	-	97,08 €
16,00	50	2-M3	6,20	1,40	980	764	47,60	✔	103,71 €
20,50	34	2-M3	5,70	1,60	744	490	37,60	✔	85,75 €
20,50	40	2-M3	5,70	1,60	852	597	45,30	-	94,12 €
20,50	45	2-M3	5,70	1,60	960	705	52,90	-	101,36 €
20,50	50	2-M3	5,70	1,60	980	764	60,50	-	114,76 €
20,50	60	2-M3	5,70	1,60	1170	980	75,80	-	128,48 €

Depending on availability - Dimensions in mm

Accuracy

The operational accuracy of the BSP linear slide is shown in the table below
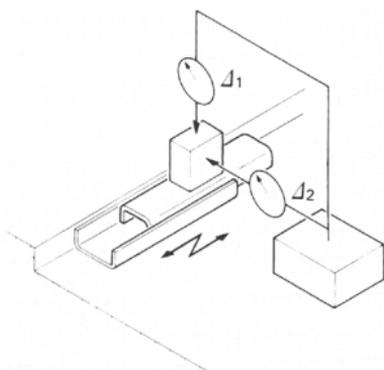
Stroke length (mm)	Working parallelism between frame centre and assembly surface of the table D1 (μm)	Working parallelism between frame centre and assembly surface of the table D2 (μm)
0 to 18	0,003	0,006
18 to 30	0,004	0,008
30 to 50	0,005	0,010
50 to 80	0,006	0,012

Load rating

Basic dynamic load rating

The basic dynamic load rating is defined as a constant load, both in direction and magnitude to which a group of identical Precision Linear Slides are subjected individually and where 90% of the slides in that group can travel for 50km without suffering material damage due to rolling contact fatigue.

Basic static load rating

The basic static load rating is defined as a static load that gives a prescribed constant stress at the centre of the contact area between the rolling element and track whilst supporting the maximum load.

Life expectancy

The life expectancy of BSP linear slides is given by the following formulae:

$$L = 50 \left(\frac{C}{P} \right)$$

$$Lh = \frac{10^6 L}{2 S n_1 \times 60}$$

where:

L: Life expectancy in kilometres, 10^3 m

C: Basic dynamic load rating, (N)

P: Applied load, (N)

Lh: Life expectancy in hours, (h)

S: Stroke length, (mm)

n_1: Number of strokes per minute, (spm)

Precautions when using

1- To obtain consistently high accuracy in operation, the applied load should not exceed 20% of the basic static load rating.

2- To maximize the accuracy of BSP or BSPG slides, centre the applied load over the table or bed and choose a slide length that is greater than the stroke length required.

3- Unevenly applied loads and high fluctuating velocities may dislocate the position of the ball cage in the sliding parts. Therefore, it is recommended that the cage is periodically repositioned to its proper location by cycling the BSP type over its full stroke length.

4- The precision Linear Slide does not incorporate a mechanical stop. When over stroke can be expected during normal operation, add a mechanical stop at an appropriate location.

5- In order to ensure smooth motion of BSP and BSR linear slides, before operating them for the first time, it is recommended to remove the rust prevention oil with a suitable cleaning agent, and then apply a high grade lubricating oil or grease to the raceways.