

# [High Precision] Linear Ball Micrometer Head / Feed Screw

Features: High Precision/rigidity Linear Ball Slide XYZ-Axis Stages. Further cost savings is possible by selecting the Feed Screw Type.

**XYZ-Axis** RoHS10

For top surface mounting dimensions, see Linear Ball Slide X-Axis Stages on P1921.

**Micrometer Head**  
**XYZSG**  
 (25≤A≤80)  
**XYZSGB (Black)**  
 (A=25, 40, 60, 80)

4-d1 Through  
d2 Counterbore, Depth ℓ

**Feed Screw (Pitch 0.5)**  
**XYZSCG**  
 (25≤A≤80)

4-d1 Through  
d2 Counterbore, Depth ℓ

Type		Main Body		Ball		Spring		Micrometer Head Bracket		Tip Holder	
Micrometer Head	Feed Screw	M Material	S Surface Treatment	M Material	H Hardness	M Material	M Material	S Surface Treatment	M Material	S Surface Treatment	
XYZSG	XYZSCG	SUS440C	Electless Nickel Plating	SUS440C	58HRC~	SUS304WPB	A5052	Clear Anodize	SUS303	-	
XYZSGB	-	SUS440C	Low Temp. Black Chrome Plating	SUS440C	58HRC~	SUS304WPB	A5052	Black Anodize	SUS303	Low Temp. Black Chrome Plating	

For Micrometer Head and Feed Screw materials, see P2005 and P2006.

Micrometer Head (XYZSG, XYZSGB) / Feed Screw (XYZSCG) Standard Stages with Similar Specifications: Combination of XLBS (P1942) and ZLBS (P1965)

Part Number	Front View											Side View											Accessory (4 pcs.)			
	Type	A	H	(C)		K1	Q	J	(B)		Travel Distance (mm)	E	F	N	T	D	G	P	G1	X	d1	d2		ℓ	Type	M-L
				Micrometer	Feed Screw				Micrometer	Feed Screw																
XYZSG XYZSCG XYZSGB (*only)	25*	36.5	37	23	10	8.5	6.8	25	11	±3.2	7	11.7	7	3.7	9.3	7	6	10	20	2.5	4.2	2.5	SCB2-4			
	40*	67	58.5	55	14	10.5	11.3	23.5	20.3	±6.5	12	18.5	5	4.5	13	8.9	10	13	32	3.5	6	3.5	SCB3-6			
	50	62	58.5	55	19	10.5	11.3	18.5	15.3	±6.5	12	18.5	20	4.5	13	8.9	10	13	40	3.5	6	3.5	SCB3-6			
	60*	57	58.5	55	24	10.5	11.3	13.5	10.3	±6.5	12	18.5	21	5	13	8.9	10	13	50	4.5	8	4	SCB4-6			
	70	61	58.5	55	23.5	11.5	11.3	14	10.8	±6.5	12	18.5	12	6	13	10	10	14	60	4.5	8	4.5	SCB4-6			
	80*	60	96	55	25	14.5	11.3	43.5	10	±12.5 <sup>1</sup>	17	26 <sup>2</sup>	20	6.5	18	10.8	10	16.5	70	4.5	8	5.3	SCB4-6			

\*1 XYZSCG80 stroke is ±6.5mm. \*2 When feed screw XYZSCG A=80, F=23.5.

**Performance**

Part Number	Stage Surface (mm)	Load Capacity (N)	Travel Accuracy			Moment Load Capacity (N · m)			Moment Rigidity (N / cm)			Weight (kg)	Unit Price						
			Straightness	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling		XYZSG	XYZSCG	XYZSGB				
XYZSG XYZSCG XYZSGB (* only)	25*	25x25	9.8	3µm	30"	25"	2.0	2.0	2.0	4.10	3.30	4.90	0.37						
	40*	40x40					5.0	5.0	5.0	0.98	0.91	1.05	0.78						
	50	50x50					1µm Black Linear Ball Slides: 3µm	25"	15"	6.0	6.0	6.0	0.38	0.37	0.39	1.00			
	60*	60x60								9.0	9.0	9.0	0.21	0.21	0.21	1.38			
	70	70x70								12.9	12.9	12.9	0.14	0.13	0.15	2.00			
	80*	80x80								17.7	17.7	17.7	0.10	0.10	0.10	3.00			

- XYZSG and XYZSGB: Micrometer Head Resolution: 10µm/division
- Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer knob diameter can be increased by installing the cover. P2004
- Extension Cover HDEXT13 (Sold Separately): Feed knob of Ø13 micrometer head and feed screw can be extended. P2004

**Ordering Example** Part Number  
XYZSG40

**Alterations** Part Number - (C, CU, A, R)  
XYZSG40 - C

Alterations	Position of Micrometer Head and Feed Screw			
Spec.	<b>Side Up</b>  The micrometer heads may interfere depending on each axis stroke position. Please check and verify the usable stroke ranges with the CAD data.	<b>Side Down</b>  Not applicable to XYZSGB.	<b>Center</b> 	<b>Reversed</b> 
Code	C	CU	A	R

Mounting dimensions of micrometer head, feed screw and clamp are different from those of standard products. See the CAD data for details.