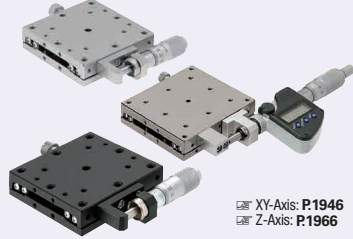


[High Precision] X-Axis, Linear Ball Slide

Micrometer Heads / Feed Screws / Digital Micrometer Heads / Coarse/Fine Micrometer Heads

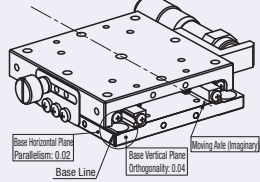
Features: Highly accurate, rigid, and economical stages. When the feed scale reading is not necessary, further cost savings can be achieved by selecting the screw feed types. XSKG has a fine feed of 0.25 pitch.

X-Axis



XY-Axis: P1946
Z-Axis: P1966

Standard Datum Configuration

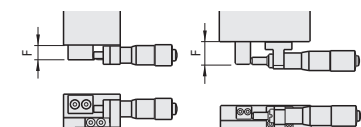


MISUMI's Linear Ball Guide Stages have parallel and orthogonal datum in relation to the motion axis. The data are as illustrated.

Shapes of Feed Brackets

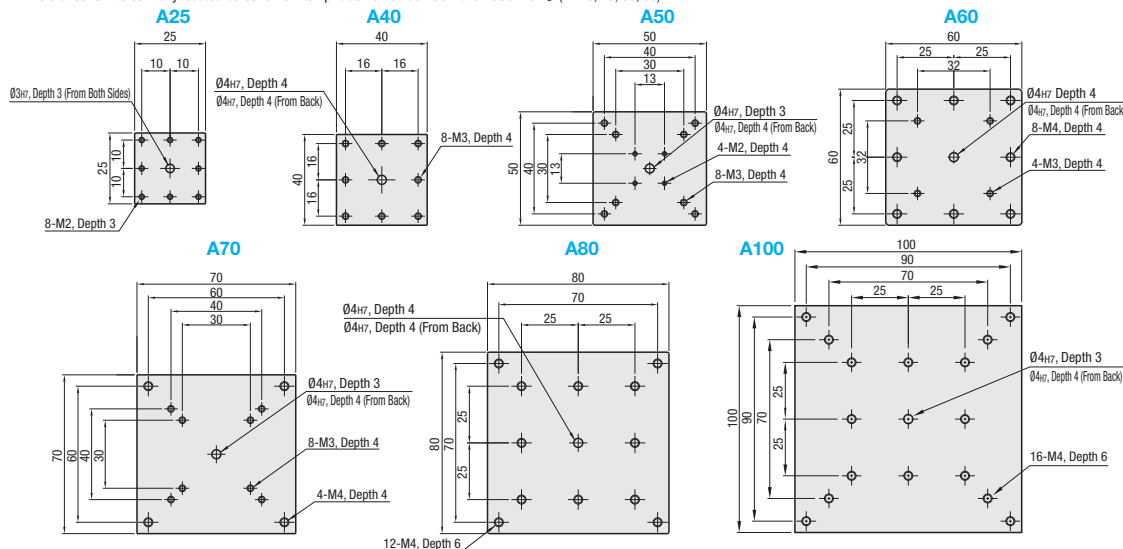
A25, 80, and 100 have different feed bracket configuration.

A25 A80, A100



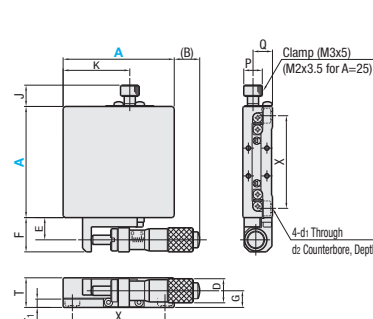
Mounting Hole Dimensions of the Top Table

*Tolerance for the centrally located bores for low temp. black chromed XSGB and XSCGB is H₈. (A=25, 40, 60, 80)



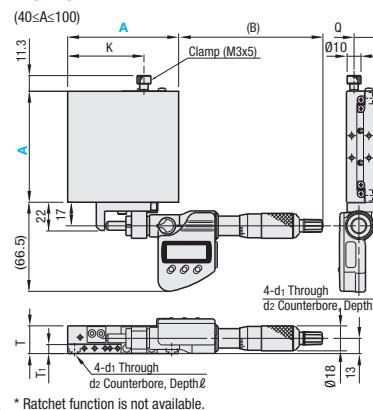
Micrometer Heads

XSG (25≤A<100)
XSGB (LTBC Plating) (A=25, 40, 60, 80)



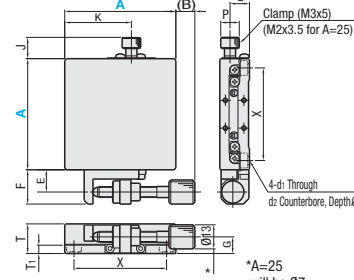
Digital Micrometer Heads

XSDG* (40≤A<100)



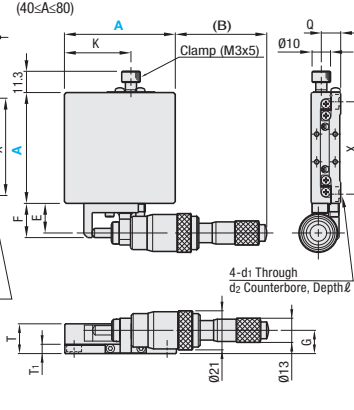
Feed Screws

XSCG (Lead 0.5) (25≤A<100)
XSBG (Lead 1.0) (40≤A<100)
XSCGB (LTBC Plating, Lead 0.5) (A=25, 40, 60, 80)



Coarse/Fine Micrometer Heads

XSKG (40≤A<80)



Micrometer Head (XSG, XSGB) / Feed Screw (XSCG, XSBG, XSCGB) Standard Stages Similar Products (available for limited sizes only): XLBS (P1920)

Part Number	Top View		Front View								Side View				Accessory (4 pcs.)				
	A	(B) Micrometer Feed Screw	E	F	J	K	D	G	T	T ₁	P	Q	X	d ₁	d ₂	ℓ	Type	M-L	
XSG	25*	25	11	7	9	6.8	15	9.3	7	12	3.7	6	8.5	20	2.5	4.2	2.5	SCB2-4	
XSCG	40*	23.5	20	12	18.5	11.3	26	13	8.9	16	4.5	10	10.5	32	3.5	6	3.5	SCB3-6	
XSBG	50	18.5	15	12	18.5	11.3	31	13	8.9	16	4.5	10	10.5	40	3.5	6	3.5	SCB3-6	
XSGB (* only)	60*	13.5	10	12	18.5	11.3	36	13	8.9	16	5	10	10.5	50	4.5	8	4	SCB4-6	
XSCGB (* only)	70	14	10.5	12	18.5	11.3	46.5	13	10	18	6	10	11.5	60	4.5	8	4.5	SCB4-6	
XSGB (* only)	80*	43.5	10	17	22*	11.3	55	18	10.8	20	6.5	10	14.5	70	4.5	8	5.3	SCB4-6	
XSCGB (* only)	100	28.5	-5*	17	22*	11.3	67.5	18	10.8	20	6.5	10	14.5	90	4.5	8	5.3	SCB4-6	

(*1) Stroke of XSCG80/100, XSBG80/100, XSCGB80 is ±5.5mm. (*2) Ends of feed screw knob are at 5mm inside of the carriage edges for XSCG and XSBG. (*3) When dimension A of Feed Screw Type XSCG, XSBG, XSCGB is 80 or 100, F will be 20.

Performance

Part Number	Type	Stage Surface (mm)	Load Capacity (N)		Travel Accuracy			Moment Load Capacity (N·m)			Moment Rigidity (N/cm)			Parallelism	Weight (kg)		Unit Price				
			Horizontal	Vertical	Straightness	Motion Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing		Rolling	Microstage	Feed Screw	XSG	XSCG	XSBG	XSGB
XSG	25*	25x25	39.2	9.8	3μm	10μm	30°	25°	2.0	2.0	3.5	1.9	1.1	1.1	30μm	0.07	0.07	-	-	-	-
XSCG	40*	40x40	98	9.8	3μm	10μm	30°	25°	5.0	5.0	5.0	0.42	0.35	0.21	15μm	0.23	0.23	-	-	-	-
XSBG	50	50x50	147	49	1μm	7μm	25°	15°	6.8	6.8	6.0	0.15	0.14	0.09	15μm	0.28	0.28	-	-	-	-
XSGB (* only)	60*	60x60	196	49	1μm	7μm	25°	15°	10.0	10.0	9.0	0.08	0.08	0.05	15μm	0.40	0.40	-	-	-	-
XSCGB (* only)	70	70x70	225.4	49	3μm	8μm	25°	15°	13.8	13.8	12.9	0.06	0.05	0.03	20μm	0.58	0.58	-	-	-	-
XSGB (* only)	80*	80x80	264.6	49	3μm	8μm	25°	15°	18.2	18.2	17.7	0.04	0.04	0.02	20μm	0.90	0.84	-	-	-	-
XSCGB (* only)	100	100x100	343	49	3μm	8μm	25°	15°	31.8	31.8	30.7	0.02	0.02	0.01	20μm	1.33	1.27	-	-	-	-

XSG, XSGB Micrometer Head Resolution: 10μm/division (*4) Straightness of XSBG and XSCGB40/60 is 3μm.

Digital Micrometer Heads (XSDG) / Coarse/Fine Micrometer Head (XSKG)

Part Number	Type	Top View		Front View								Side View				Accessory (4 pcs.)	
		A	(B) XSDG Travel Distance (mm)	E	F	K	G	T	T ₁	Q	X	d ₁	d ₂	ℓ	Type	M-L	
XSDG	40	121.5	60	16	18.5	26	11.6	16	4.5	10.5	32	3.5	6	3.5	SCB3-6		
XSDG	50	116.5	55	16	18.5	31	11.6	16	4.5	10.5	40	3.5	6	3.5	SCB3-6		
XSDG	60	111.5	50	16	18.5	36	11.4	16	5	10.5	50	4.5	8	4	SCB4-6		
XSKG	70	112	50.5	16	18.5	46.5	12.5	18	6	11.5	60	4.5	8	4.5	SCB4-6		
XSKG	80	104	49.5	17	25	55	10.8	20	6.5	14.5	70	4.5	8	5.3	SCB4-6		
XSKG	100	89	±12.5	-	-	67.5	-	20	6.5	14.5	90	4.5	8	5.3	SCB4-6		

Performance

Part Number	Type	Stage Surface (mm)	Load Capacity (N)		Travel Accuracy			Moment Load Capacity (N·m)			Moment Rigidity (N/cm)			Parallelism	Weight (kg)		Unit Price				
			Horizontal	Vertical	Straightness	Motion Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing		Rolling	XSDG	XSKG	XSDG	XSKG		
XSDG	40	40x40	98	49	1μm	7μm	25°	15°	5.0	5.0	5.0	0.42	0.35	0.21	15μm	0.43	0.30	-	-	-	-
XSDG	50	50x50	147	49	1μm	7μm	25°	15°	6.8	6.8	6.0	0.15	0.14	0.09	15μm	0.48	0.35	-	-	-	-
XSDG	60	60x60	196	49	1μm	7μm	25°	15°	10.0	10.0	9.0	0.08	0.08	0.05	15μm	0.60	0.47	-	-	-	-
XSDG	70	70x70	225.4	49	3μm	8μm	25°	15°	13.8	13.8	12.9	0.06	0.05	0.03	20μm	0.78	0.65	-	-	-	-
XSDG	80	80x80	264.6	49	3μm	8μm	25°	15°	18.2	18.2	17.7	0.04	0.04	0.02	20μm	1.10	0.97	-	-	-	-
XSDG	100	100x100	343	49	3μm	8μm	25°	15°	31.8	31.8	30.7	0.02	0.02	0.01	20μm	1.53	-	-	-	-	-

XSKG: Coarse / Fine Micrometer Head Coarse Resolution 10μm, Fine Resolution 0.5μm XSDG: Digital Micrometer Head Resolution 1μm

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

XSG80

Alterations Part Number - (CR, CZ, A... etc.)

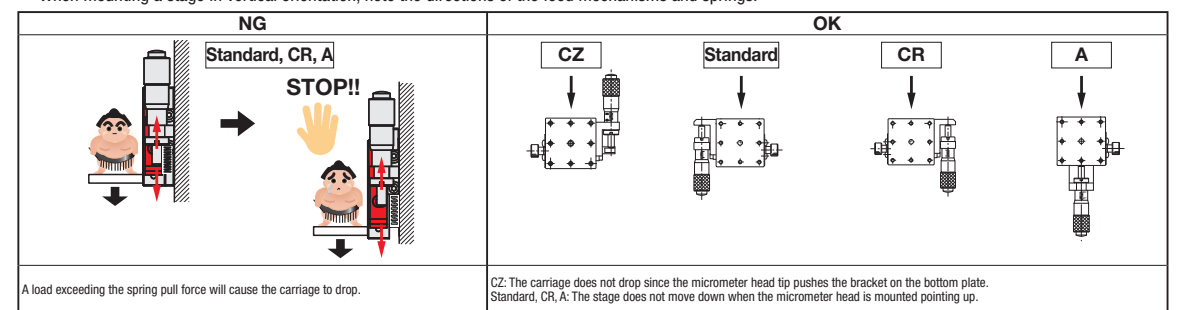
XSG60 - MN
XSG80 - CR-P
XSG40 - A

Alterations	Position of Micrometer Head and Feed Screw			Reinforced Clamp		No Micrometer Head
	Side Mount, Right/Left Reversed	Side Mount, Top/Bottom Reversed * 5	Center	Disc Clamp	Opposed Clamp (B ₁ ±6.5(*±3.2))	
Spec.						
Code	CR	CZ	A	H	P	MN

*5 CZ: The micrometer head or the feed screw will be mounted on the top table (mounted on the bottom plate for Standard Type).
For micrometer head or feed screw mounted in positions other than shown below, see "Specification Selectable Type" (P.1989).
For 25 Square Opposed Clamp, the bracket material is EN 1.4305 Equiv.

Vertical Use of X-Axis Stages

When mounting a stage in vertical orientation, note the directions of the feed mechanisms and springs.



A load exceeding the spring pull force will cause the carriage to drop.

CZ: The carriage does not drop since the micrometer head tip pushes the bracket on the bottom plate. Standard, CR, A: The stage does not move down when the micrometer head is mounted pointing up.

However, do not apply a load exceeding the specified vertical load capacity.

See the CAD data for details.

Type	Main Body		Ball		Spring	Micrometer Head Bracket		Tip Holder	
	Material	Surface Treatment	Material	Hardness	Material	Material	Surface Treatment	Material	Surface Treatment
XSG	EN 1.4125 Equiv.	Electroless Nickel Plating	EN 1.4125 Equiv.	58HRC~	SUS304WPB	EN AW-5052 Equiv.	Clear Anodize	EN 1.4305 Equiv.	-
XSCGB		LTBC Plating							

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