

[High Precision] Linear Ball Micrometer Head / Feed Screw

■ **Features:** Highly accurate, rigid, and economical stages. Even an XY stack is only 40mm high or less, and orthogonality alignment is not needed.

■ **XY-Axis**

☑ X-Axis P.1921
☑ Z-Axis P.1966

RoHS 10

⊕ 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.

■ **Micrometer Head**

XYSG
(25≤A≤100)

XYSGB (Low Temp. Black Chrome Plating)
(25≤A≤80)

■ **Feed Screw (Pitch 0.5)**

XYSCG
(25≤A≤100)

XYSCGB (Low Temp. Black Chrome Plating)
(25≤A≤80)

Type	Main Body	Ball	Spring	Micrometer Head Bracket	Tip Holder
XYSG (Micrometer)	Material: SUS440C, Surface Treatment: Electroless Nickel Plating	Material: SUS440C, Hardness: 58HRC-	Material: SUS304WPB	Material: A5052, Surface Treatment: Clear Anodize	Material: SUS303, Surface Treatment: -
XYSCG (Feed Screw)	Material: SUS440C, Surface Treatment: Low Temp. Black Chrome Plating	Material: SUS440C, Hardness: 58HRC-	Material: SUS304WPB	Material: A5052, Surface Treatment: Black Anodize	Material: SUS303, Surface Treatment: Low Temp. Black Chrome Plating
XYSGB (Micrometer, Low Temp. Black Chrome Plating)	Material: SUS440C, Surface Treatment: Low Temp. Black Chrome Plating	Material: SUS440C, Hardness: 58HRC-	Material: SUS304WPB	Material: A5052, Surface Treatment: Black Anodize	Material: SUS303, Surface Treatment: Low Temp. Black Chrome Plating
XYSCGB (Feed Screw, Low Temp. Black Chrome Plating)	Material: SUS440C, Surface Treatment: Low Temp. Black Chrome Plating	Material: SUS440C, Hardness: 58HRC-	Material: SUS304WPB	Material: A5052, Surface Treatment: Black Anodize	Material: SUS303, Surface Treatment: Low Temp. Black Chrome Plating

⊕ For Micrometer Head and Feed Screw materials, see P2005.
⊕ For top surface mounting dimensions, see Linear Ball Slide X-Axis Stages on P.1921. ⊕ See the CAD data for details.

■ Micrometer Head (XYSG, XYSGB) / Feed Screw (XYSCG, XYSCGB)

Part Number	Top View											Side View						Accessory (4 pcs.)					
	Type	A	(B)		Travel Distance (mm)	E	F	J	K	D	G	R	T	T ₁	P	Q	L		X	d ₁	d ₂	ℓ	Type M-L
XYSG	25*	25	11	Feed Screw	±3.2	7	9	6.8	15	9.3	7	20.5	24	3.7	6	8.5	19	20	2.5	4.2	2.5	SCB2-4	
XYSCG	40*	23.5	20	Micrometer	±6.5	12	18.5		26			8.9	26.5	32	4.5	10.5	24.9	32	6	3.5	6	3.5	SCB3-6
XYSGB	50	18.5	15						31	13								40	6	4	4	SCB4-6	
(* only)	60*	14	10.3					11.3	36			10	29.5	36	6	11.5	28	60	8	4.5	8	4.5	SCB4-6
XYSCGB	70	14.5	10.8						46.5									70	8	5.3	8	5.3	SCB4-6
(* only)	80*	43.5	10		±12.5*	17	22*		55	18		10.8	34.5	40	6.5	14.5	30.8	80	8	5.3	8	5.3	SCB4-6
(* only)	100	28.5	-5*						67.5									90	8	5.3	8	5.3	SCB4-6

*1. Ends of feed screw knob are at 5mm inside of the carriage edges for XYSCG and XYSCGB. *2. Stroke of XYSCG80 and 100 is ±6.5mm. *3. When dimension A of Feed Screw Type XYSCG and XYSCGB are 80 or 100, F will be 20.

• Performance

Part Number	Type	Stage Surface (mm)	Horizontal Load Capacity (N)	Travel Accuracy				Moment Load Capacity (N · m)			Moment Rigidity (N / cm)			Parallelsism	Weight (kg)	Unit Price			
				Straightness	Motion Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling			XYSG	XYSCG	XYSGB	XYSCGB
XYSG	25*	25x25	38.2	3μm	10μm	30*	25*	2.0	2.0	2.0	3.00	2.20	3.00	30μm	0.14				
XYSCG	40*	40x40	95.1	1μm**	12μm	25*	15*	5.0	5.0	5.0	0.63	0.70	0.63	40μm	0.46				
XYSGB	50	50x50	144.1					6.0	6.8	6.0	0.24	0.28	0.24	30μm	0.56				
(* only)	60*	60x60	192.1					9.0	10.0	9.0	0.13	0.16	0.13	40μm	0.80				
XYSCGB	70	70x70	219.5					12.9	13.8	12.9	0.09	0.10	0.09	40μm	1.16				
(* only)	80*	80x80	255.8	3μm	15μm			17.7	18.2	17.7	0.06	0.08	0.06	40μm	1.80				
(* only)	100	100x100	329.6					30.7	31.8	30.7	0.03	0.04	0.03	40μm	2.66				

⊕ XYSG, XYSGB Micrometer Head Resolution: 10μm/division *4. XYSGB, XYSCGB40 and 60 straightness is 3μm.

Ordering Example

Part Number: XYSG40, XYSCG60

- ⊕ Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer head knobs can be increased in diameter by installing the cover. P2004
- ⊕ Extension Cover HDEX113 (Sold Separately): Feed knob of Ø13 micrometer head and feed screw can be extended. P2004

Alterations

Part Number: XYSCG40 - (CR, A, H, P, MN)

Alterations	Position of Micrometer Head and Feed Screw		Reinforced Clamp		No Micrometer Head																					
	Side Mount - Right / Left Reversed	Center	Disc Clamp	Opposed Clamp	No Micrometer Head																					
Spec.			<table border="1" style="width: 100%; text-align: center;"> <tr> <th>A</th> <th>J₁</th> <th>P₁</th> </tr> <tr> <td>40, 50, 60, 70</td> <td>15.8</td> <td>10</td> </tr> <tr> <td>80, 100</td> <td>14.8</td> <td>15</td> </tr> </table>	A	J ₁	P ₁	40, 50, 60, 70	15.8	10	80, 100	14.8	15	<table border="1" style="width: 100%; text-align: center;"> <tr> <th>A</th> <th>(B)</th> </tr> <tr> <td>*25</td> <td>17.5</td> </tr> <tr> <td>40</td> <td>24.5</td> </tr> <tr> <td>50</td> <td>19.5</td> </tr> <tr> <td>60</td> <td>14.5</td> </tr> <tr> <td>70</td> <td>4.0</td> </tr> </table>	A	(B)	*25	17.5	40	24.5	50	19.5	60	14.5	70	4.0	
	A	J ₁	P ₁																							
40, 50, 60, 70	15.8	10																								
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Code	CR	A	H	P	MN																					

- ⊕ For 25 Square Opposed Clamp, the bracket material is SUS303. ⊕ Standard Stages Similar Products: XYLSB (P.1942)
- ⊕ When Position Change Alteration is selected, mounting dimensions of micrometer head, feed screw and clamp are different from those of standard products. See the CAD data for details.
- ⊕ For micrometer head or feed screw mounted in positions other than shown below, see "Specification Selectable Type" (P.1989).