# [High Precision] Linear Ball Guides

X-Axis Selectable Feed Mechanism, continued

# Micrometer Head (XSG, XSGB) / Feed Screw (XSCG, XSBG, XSCGB) O Standard Stages Similar Products (available for limited sizes only): XLBS P2079

Part Numb	Part Number									Fro	nt View		Side View						Accessories (4 pcs.)	
Tuno	٨	(B)		Travel Distance	E	E		v	D	C	т	т	р	0	v	d.	d	ø	Type M-L	
Туре	A	Micrometer	Feed Screw	(mm)	<b>E</b>	г	J	n	U	G	· ·	11	r	ų	^	u <sub>1</sub>	a <sub>2</sub>	ĩ	Type IVI-L	
XSG	<b>25</b> *	25	11	±3.2	7	9	6.8	15	9.3	7	12	3.7	6	8.5	20	2.5	4.2	2.5	SCB2-4	
XSCG	<b>40</b> *	23.5	20					26				4.5			32	3.5	0	3.5	SCB3-6	
XSBG	50	18.5	15		10	105		31	10	8.9	16	4.5		10.5	40	3.5	0	3.5	SCB3-6	
(40≤A≤100)	<b>60</b> *	13.5	10	±6.5	12	12 18.5	11.3	36	13	3		5	10		50			4	SCB4-6	
· /	70	14.5	10.5	1			11.3	46.5	1	10	18	6	1 10	11.5	60	4.5	0	4.5	SCB4-6	
XSGB (* only)	<b>80</b> *	43.5	10	±12.5 <sup>(*1)</sup>	10 5(1) 17		]	55	18	10.8	20	6.5	]	14.5	70	4.0	0	5.0	SCB4-6	
XSCGB (* only)	100	28.5	-5(*2)	±12.5	17	22(*3)		67.5	1 10	10.0	20	0.0		14.5	90			5.3	SCB4-6	

(\*1) Stroke for XSCG80/100, XSBG80/100, XSCGB80 is ±6.5 mm. (\*2) For XSCG and XSCGB, the ends of Feed Screw knob are at 5 mm inside of the carriage edges (\*3) When dimension A of Feed Screw Type XSCG and XSCGB is 80 or 100, F will be 20.

#### Performance

Part Numb	Part Number Stage Surface		Load Capacity (N)			Travel Accurac	у		Moment	Load Capaci	ity (N•m)	Mome	nt Rigidity ("	/N•cm)	Parallelism	Weig	ht (kg)
Туре	Α	(mm)	Horizontal	Vertical	Straightness	traightness Motion Parallelism Pitching Yawing		Pitching	Yawing	Rolling	Pitching	Yawing	Rolling	Parallelism	Micrometer	Feed Screw	
XSG	<b>25</b> *	25 x 25	39.2	9.8	3 µm	10 µm	30"	25"	2.0	2.0	3.5	3.2	1.1	2.2	30 µm	0.07	0.09
XSCG	40*	40 x 40	98						5.0	5.0	5.0	0.42	0.35	0.21		0.23	0.23
XSBG	50	50 x 50	147		1 µm	7.000			6.8	6.8	6.0	0.15	0.14	0.09	15 um	0.28	0.28
(40≤A≤100)	<b>60</b> *	60 x 60	196	49	(*4)	7 µm	25"	15"	10.0	10.0	9.0	0.08	0.08	0.05	1 15 μ	0.40	0.40
· · ·	70	70 x 70	225.4	49			20	15	13.8	13.8	12.9	0.06	0.05	0.03	]	0.58	0.58
XSGB (* only)	80*	80 x 80	264.6		2.00	0.000	1		18.2	18.2	17.7	0.04	0.04	0.02	20 um	0.90	0.84
XSCGB (* only)	100	100 x 100	343		3 µm	8 µm			31.8	31.8	30.7	0.02	0.02	0.01	20 µm	1.33	1.27

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

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

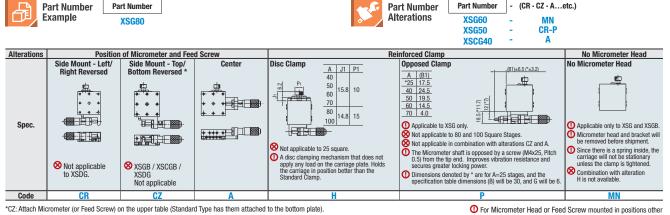
Part Numbe	er				Top View				F	ront Viev	N			Side Viev	v		Accessories (4 pcs.)
Tune			XSDG		XSKG	-	-	v	<u> </u>	T	-	0	v			0	Tune M I
Туре	A	(B)	Travel Distance (mm)	(B)	Travel Distance (mm)	<b>-</b>	F	ĸ	G	1	1	ų	x	u <sub>1</sub>	u <sub>2</sub>	Ľ	Type M-L
	40	121.5		60				26			4.5		32	2.5	6	25	SCB3-6
XSDG	50	116.5		55		16	18.5	31	11.6	16	4.5	10.5	40	3.5	0	3.5	SCB3-6
	60	111.5	±6.5	50	Coarse Feed ±6.5	01	10.0	36			5		50			4	SCB4-6
XSKG	70	112		50.5	Fine Feed 0.2			46.5	12.5	18	6	11.5	60	4.5		4.5	SCB4-6
(40≤A≤80)	80	104	±12.5	49.5		17	25	55	11	20	6.5	14.5	70	4.5	0	5.2	SCB4-6
, ,	100	80	±12.0					67.5		20	0.5	14.5	QN			0.5	SCB4-6

### Performance

Part Number	Part Number Stage Surface		Load Cap	acity (N)		Travel Accura	су		Mome	ent Capacity	(N•m)	Mome	nt Rigidity ("	/N•cm)	Parallelism	Weight (kg)	
Туре	A	(mm)	Horizontal	Vertical	Straightness	Motion Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling	raranensin	XSDG	XSKG
	40	40 x 40	98						5.0	5.0	5.0	0.42	0.35	0.21		0.43	0.30
XSDG	50	50 x 50	147		1	7.000			6.8	6.8	6.0	0.15	0.14	0.09	15.000	0.48	0.35
	60	60 x 60	196	49	1 µm	7 µm	05"	151	10.0	10.0	9.0	0.08	0.08	0.05	15 µm	0.60	0.47
XSKG	70	70 x 70	225.4	49			25"	15	13.8	13.8	12.9	0.06	0.05	0.03	] [	0.78	0.65
(40≤A≤80)	80	80 x 80	264.6		0	0	]		18.2	18.2	17.7	0.04	0.04	0.02	00	1.10	0.97
(	100	100 x 100	343		3 µm	8 µm			31.8	31.8	30.7	0.02	0.02	0.01	20 µm	1 53	

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

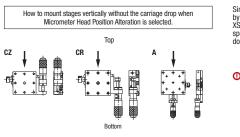
• Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer knob diameter can be increased by installing the cover. P.2035 • Extension Cover HDEXT13 (Sold Separately): Ø13 Micrometer Head or Feed Screw knobs can be extended by installing the cover. P.2035



\*CZ: Attach Micrometer (or Feed Screw) on the upper table (Standard Type has them attached to the bottom plate

#### <sup>O</sup> When using an X-Axis Stage in a vertical orientation.

(Not Good) The carriage may drop if mounted vertically with the Micrometer Head pointed down with XSG\_ (r -CR, -AR, -A selected) A load exceeding the spring pull force will cause the carriage to drop.



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O Mounting dimensions of Micrometer Head, Feed Screw and Clamp

than shown below, see "Specification Selectable Type". (P.2084)

are different from those of standard products

# [High Precision] Linear Ball Guides Stages X-Axis Knobbed Opposed Clamp

X-Axis Knobbed Opposed Clamp crometer Head Bracket Main Body Ball Spring Туре Surface Material Material Hardne Materia Material Treatmen 440C 440C 5052 Aluminum 304 Stainle XSGN1 Stainless Stainless 58HRCluminum Alloy Steel WPE Steel Stee Allov К Clamp 6 4-d1 Through d<sub>2</sub> Cou XSGNT25 Has different feed bracket configuration. Opposed Clamp ፼⊒፼≢੶₋₽₽₽₽₽₩ \*Bracket material will be different when A=25 O For the Micrometer head and Opposed Clamp material details, see Adjustment Screws ANKSS (P.1695). RoHS10

() There is a hex socket (2.5mm hex, depth 2.5) on the end of the Opposed Clamp screw

Part Number Top View							Front	View				Side	View	Accessories (4 pcs.)				
Туре	A	(B)	E	F	J	К	L	D	G	Т	T <sub>1</sub>	Р	Q	Х	d <sub>1</sub>	d <sub>2</sub>	ł	Type M-L
	25	30	7	12	6.8	15	84.5	9.3	6.7	12	3.7	6	8.5	20	2.5	4.2	2.5	SCB2-4
	40	23.8				26					4.5			32	0.5	0	0.5	0000.0
XSGNT	50	18.8	10	10.5	11.0	31	100.0	10	8.9	16	4.5	10	10.5	40	3.5	6	3.5	SCB3-6
	60	13.8	12	18.5	11.3	36	100.3	13			5	10		50	4.5		4	0004.0
	70	14.3				46.5			10	18	6		11.5	60	4.5	8	4.5	SCB4-6

Part Numbe	Part Number S		Travel	Load Capacity (N)		Travel Accuracy				Moment Capacity (N•m)			Momen	t Rigidity ('	Parallelism	Weight	
Туре	Α	(mm)	Distance (mm)	Horizontal	Vertical	Straightness	Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling	Paranensin	(kg)
	25	25 x 25	±3.2	39.2	9.8	3 µm	10 µm	30"	25"	2.0	2.0	3.5	1.9	1.1	1.1	30 µm	0.07
	40	40 x 40		98						5.0	5.0	5.0	0.42	0.35	0.21		0.23
XSGNT	50	50 x 50		147	49	1	7.000	25"	15"	6.8	6.8	6.0	0.15	0.14	0.09	15.000	0.28
	60	60 x 60	±6.5	196	49	1 µm	7 µm	20	15	10.0	10.0	9.0	0.08	0.08	0.05	15 µm	0.40
	70	70 x 70	]	225.4						13.8	13.8	12.9	0.06	0.05	0.03		0.58

O Micrometer Head Resolution: 10 µm/division

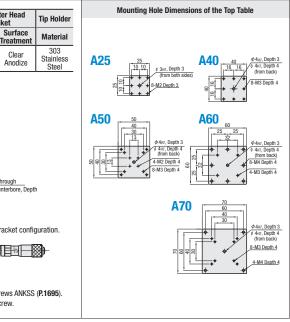
O Knob Cover HDCVR13 (Sold Separately): Ø13 Micrometer Head or Feed Screw knob can be increased in diameter to Ø30 by installing the cover. O Extension Cover HDEXT13 (Sold Separately): Ø13 Micrometer Head or Feed Screw knobs can be extended by installing the cover



Part Number XSGNT60

**Positioning Stages** 

Travel per Rotation	Small	Medium	Large
 Stroke	Short	Medium	Long
Load Capacity	Light	Medium	Heavy



Positioning Stage