

# [High Precision] Linear Ball Guide Stages

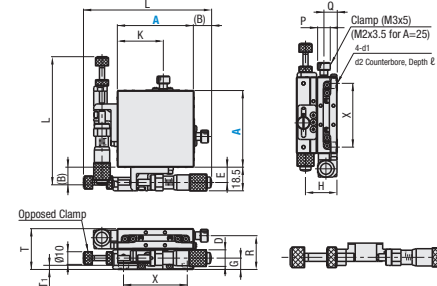
## XY-Axis Opposed Clamp with Knobs

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

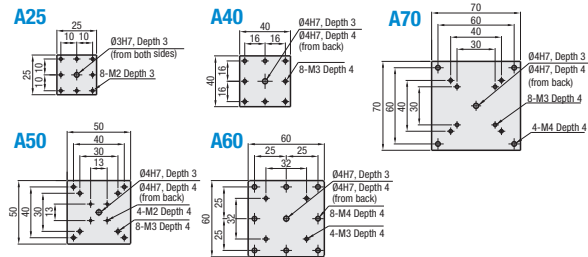
### XY-Axis Opposed Clamp with Knobs

Type	Main Body		Ball		Spring		Micrometer Head Bracket		Tip Holder
	Material	Surface Treatment	Material	Hardness	Material	Material	Surface Treatment	Material	
XYSGNT	440C Stainless Steel	Electroless Nickel Plating	440C Stainless Steel	58HRC~	304 Stainless Steel PB	5052 Aluminum Alloy	Clear Anodize	303 Stainless Steel	
						303 Stainless Steel*	—		

### XYSGNT25



### Mounting Holes Dimensions of the Top Table



- \* Bracket material will be different for 25 square only.
- Ⓢ For Micrometer Head and opposed clamp materials, see Adjust Screws ANKSS on P.1695.
- Ⓢ Opposed Clamp shaft has a hex socket (2.5 hex, depth 2.5) on the end.

Part Number	Top View				Front View				Side View				Accessories (4 pcs.)					
	Type	A	(B)	E	K	L	D	G	T	T <sub>1</sub>	R	H	P	Q	X	d <sub>1</sub>	d <sub>2</sub>	ℓ
XYSGNT	25	30	7	15	84.5	9.3	6.7	24	3.7	20.5	18.7	6	8.5	20	2.5	4.2	2.5	SCB2-4
	40	23.8		26										32	3.5	6	3.5	SCB3-6
	50	18.8	12	31	100.3	13	8.9	32	4.5	26.5	24.9	10	10.5	40	4.5	8	4	SCB4-6
	60	13.8		36										50	4.5	8	4.5	SCB4-6
	70	14.3		46.5			10	36	6	29.5	28		11.5	60	4.5	8	4.5	SCB4-6

### Performance

Type	A	Stage Surface (mm)	Travel Distance (mm)	Horizontal Load Capacity (N)	Accuracy				Moment Load Capacity (N•m)			Moment Rigidity (°/N•cm)			Parallelism	Orthogonality	Weight (kg)
					Straightness	Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling			
XYSGNT	25	25x25	±3.2	38.2	3 μm	10 μm	30"	25"	2.0	2.0	3.5	3.0	2.2	2.2	30 μm	10 μm	0.14
	40	40x40		95.1					5.0	5.0	5.0	0.63	0.70	0.63			0.46
	50	50x50		144.1	1 μm	12 μm	25"	15"	6.0	6.8	6.0	0.24	0.28	0.24			0.56
	60	60x60	±6.5	192.1					9.0	10.0	9.0	0.13	0.16	0.13			0.8
	70	70x70		219.5					12.9	13.8	12.9	0.09	0.10	0.90			1.16

**Part Number Example** **XYSGNT60**

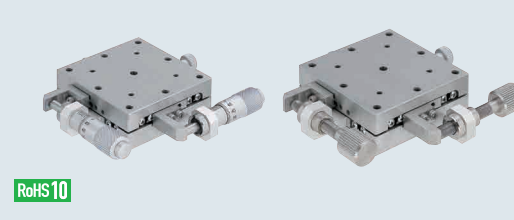
- Ⓢ Micrometer Head Resolution: 10 μm/division
- Ⓢ Knob Cover HDCVR13 (Sold Separately): Ø13 mm head or Feed Screw knob can be increased in diameter to Ø30 by installing the cover. P.2035
- Ⓢ Extension Cover HDEX13 (Sold Separately): Ø13 mm head or Feed Screw knobs can be extended by installing the cover. P.2035

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## XY-Axis Low Profile

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

### XY-Axis Low Profile



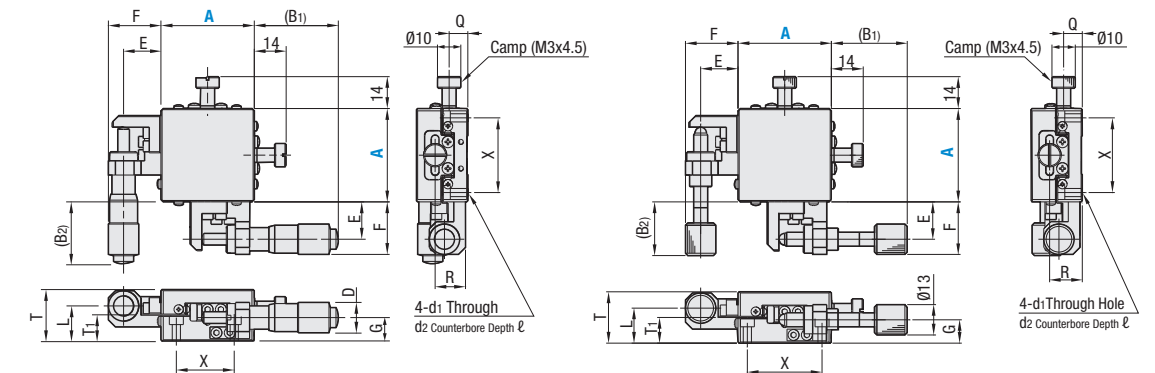
RoHS 10

### Micrometer Head

XYSSG (A=40, 60, 80, 100)

### Feed Screw (Pitch 0.5)

XYSSCG (A=40, 60, 80, 100)



### Micrometer Head (XYSSG) / Feed Screw (XYSSCG)

Part Number	Top View				Front View				Side View				Accessories (4 pcs.)							
	Type	A	Micrometer (B <sub>1</sub> )	Feed Screws (B <sub>2</sub> )	Travel Distance (mm)	E	F	D	G	T	L	T <sub>1</sub>	Q	R	X	d <sub>1</sub>	d <sub>2</sub>	ℓ	Type M-L	
XYSSG XYSSCG	40	36	26.5	32.5	23	±6.5	16	22.5	13	10	22	15	10.5	8	14	32	3.5	6	3.5	SCB3-10
	60	20.3	16.5	16.8	13	±6.5	16	22.5	13	10	22	15	10.5	8	14	50	4.5	8	4.5	SCB4-10
	80	39	32	0	-7*1	±12.5*2	23	32*2	18*2	15	26	17	12.5	9.5	16.5	70	4.5	8	6.5	SCB4-10
	100	29	22	-10	-17	±12.5*2	23	32*2	18*2	15	26	17	12.5	9.5	16.5	90	4.5	8	6.5	SCB4-10

\*1 The Feed Screw's end is at 7 mm inside of the stage end face. \*2 For XYSSCG Feed Screw Type A=80 and 100, travel distance per rotation is ±6.5, F=30, and D=13.

### Performance

Type	A	Stage Surface (mm)	Load Capacity (N)	Accuracy				Moment Capacity (N•m)			Moment Rigidity (°/N•cm)			Parallelism	Weight (kg)
				Straightness	Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling		
XYSSG XYSSCG	40	40 x 40	88.2	3 μm	12 μm	40"	20"	4.5	5.0	4.5	0.80	0.68	0.85	30 μm	0.34
	60	60 x 60	186.2					9.0	8.1	9.0	0.21	0.19	0.20		
	80	80 x 80	255.8					16.4	15.9	16.4	0.09	0.06	0.08	40 μm	1.32
	100	100 x 100	329.3					27.6	28.6	27.6	0.06	0.03	0.06		

Ⓢ XYSSG: Micrometer Head Resolution 10 μm/division

**Part Number Example** **XYSSG40**

**Part Number Alterations** **XYSSG40 - CR**

Alterations	Position of Micrometer and Feed Screw		No Micrometer Head
	Side Mount - Right / Left Reversed	Center	
Spec.			
Code	CR	A	MN

- Ⓢ 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.
- Ⓢ Knob Cover HDCVR13 (Sold Separately): Ø13 mm knob diameter can be increased by installing the cover. P.2035
- Ⓢ Extension Cover HDEX13 (Sold Separately): Ø13 mm head or Feed Screw knobs can be extended by installing the cover. P.2035