


[High Precision] XY-Axis Linear Ball Slide

Coarse / Fine Micrometer Head

■ **Features:** Highly accurate and rigid stages. Even an XY stack is only 40mm high or less, and orthogonality alignment is not needed. Coarse/Fine Feed type suitable for any application.

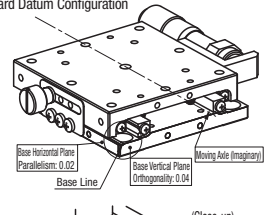
XY-Axis Coarse / Fine Micrometer Head



X-Axis: **P1921**

RoHS 10

Standard Datum Configuration



Base Horizontal Plane Parallelism: 0.02

Base Vertical Plane Orthogonality: 0.04

Moving Axis (Imaginary)

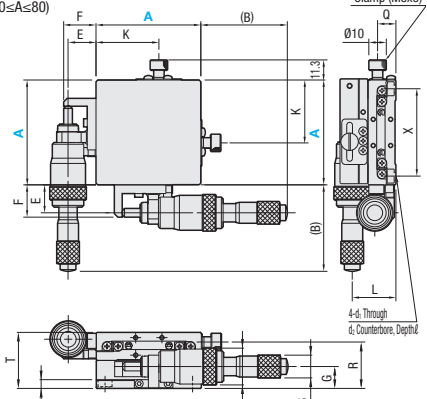
Base Line

(Close-up)

Base Line (Groove)

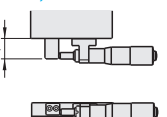
MISUMI's Linear Ball Guide Stages have parallel and orthogonal datum in relation to the motion axis. The data are as illustrated.

XYSKG
(40≤A≤80)



A80 and 100 have different configuration.

A80, A100



| Type | Main Body | Ball | Spring | Micrometer Head Bracket | Tip Holder |
|--------------|--|---|--------------------------------|--|-----------------------------------|
| | <div><div>Material</div><div>Surface Treatment</div></div> | <div><div>Material</div><div>Hardness</div></div> | <div><div>Material</div></div> | <div><div>Material</div><div>Surface Treatment</div></div> | <div><div>Material</div></div> |
| XYSKG | EN 1.4125 Equiv. Electroless Nickel Plating | EN 1.4125 Equiv. 58HRC~ | SUS304WPB | EN AW-5052 Equiv. | Clear Anodize EN 1.4305 Equiv. |

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.

| Part Number | Type | A | (B) | E | F | K | G | R | T | T ₁ | Q | L | X | d ₁ | d ₂ | ℓ | Accessory (4 pcs.) |
|--------------|------|----|------|----|------|------|------|------|----|----------------|------|------|----|----------------|----------------|-----|--------------------|
| XYSKG | | 40 | 60 | 16 | 18.5 | 26 | 11.6 | 26.5 | 32 | 4.5 | 10.5 | 27.6 | 32 | 3.5 | 6 | 3.5 | SCB3-6 |
| | | 50 | 55 | | | 31 | | | | | | | 40 | | | | |
| | | 60 | 50 | | | 36 | | | | | | | 50 | | | | |
| | | 70 | 50.5 | | | 46.5 | | | | | | | 60 | | | | SCB4-6 |
| | | 80 | 49.5 | | | 55 | | | | | | | 70 | | | | |

•Performance

| Part Number | Type | A | Stage Surface (mm) | Travel Distance (mm) | Horizontal Load Capacity (N) | Travel Accuracy | | | | Moment Load Capacity (N · m) | | | Moment Rigidity (1/N · cm) | | | Parallelism | Weight (kg) | Unit Price | |
|--------------|------|----|--------------------|-------------------------------|------------------------------|-----------------|--------------------|----------|--------|------------------------------|--------|---------|----------------------------|--------|---------|-------------|-------------|------------|------|
| | | | | | | Straightness | Motion Parallelism | Pitching | Yawing | Pitching | Yawing | Rolling | Pitching | Yawing | Rolling | | | | |
| XYSKG | | 40 | 40x40 | ±6.5mm Fine Feed 0.2 mm | Coarse | 95.1 | 1μm | 12μm | 25" | 15" | 5.0 | 5.0 | 5.0 | 0.63 | 0.70 | 0.63 | 30μm | 0.44 | |
| | | 50 | 50x50 | | | | | | | | 6.0 | 6.8 | 6.0 | 0.24 | 0.28 | 0.24 | | 0.54 | |
| | | 60 | 60x60 | | | | | | | | 9.0 | 10.0 | 9.0 | 0.13 | 0.16 | 0.13 | | 0.78 | |
| | | 70 | 70x70 | | | | | | | | 12.9 | 13.8 | 12.9 | 0.09 | 0.10 | 0.09 | | 1.14 | |
| | | 80 | 80x80 | | | | | | | | 17.7 | 18.2 | 17.7 | 0.06 | 0.08 | 0.06 | | 40μm | 1.78 |

Coarse/Fine Micrometer Head Resolution Coarse:10μm, Fine: 0.5μm

For orders larger than indicated quantity, please request a quotation.

Ordering Example

Part Number

XYSKG40

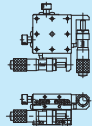
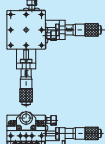
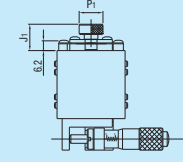
Alterations

Part Number

XYSKG40

(CR, A, H)

A

| Alterations | Position of Micrometer Head and Feed Screw | | Reinforced Clamp | | | | | | | | | |
|----------------|---|---|---|---|----------------|----------------|----------------|------|----|----|------|----|
| Spec. | Side Mount - Right / Left Reversed | Center | Disc Clamp | | | | | | | | | |
| |  |  | <table><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</td><td>14.8</td><td>15</td></tr></table> <div></div> <p>⊗ Combination with alteration A is not available.</p> <p>A disc clamping method that does not apply loads on the stage surface. Better position holding performance than the standard clamping method.</p> | A | J ₁ | P ₁ | 40, 50, 60, 70 | 15.8 | 10 | 80 | 14.8 | 15 |
| | A | J ₁ | P ₁ | | | | | | | | | |
| 40, 50, 60, 70 | 15.8 | 10 | | | | | | | | | | |
| 80 | 14.8 | 15 | | | | | | | | | | |
| Code | CR | A | H | | | | | | | | | |

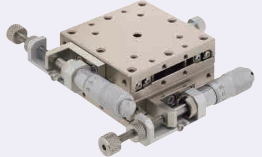
- ⚙ Mounting dimensions of micrometer head, feed screw and clamp are different from those of standard products. See the CAD data for details.
- ⚙ Knob Cover HDCVR13 (Sold Separately): 013 micrometer head or feed screw knob can be increased in diameter to 030 by installing the cover. **P.1989**
- ⚙ Knob Cover HDCVR13 (Sold Separately): 013 micrometer knob diameter can be increased by installing the cover. **P.2004**
- ⚙ Extension Cover HDEXT13 (Sold Separately): Feed knob of 013 micrometer head and feed screw can be extended. **P.2004**

[High Precision] XY-Axis Linear Ball Slide

Opposed Clamp with Knob

■ **Features:** Side mounted micrometer shaft is opposed by a knobbed screw to improve vibration resistance and secures greater locking power.

XY-Axis, Opposed Clamp with Knob

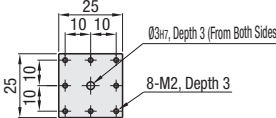


X-Axis: **P1924**

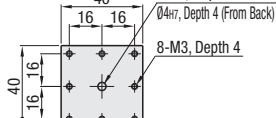
RoHS 10

Mounting Hole Dimensions of the Top Table

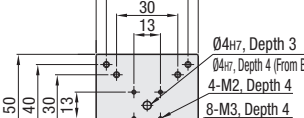
A25



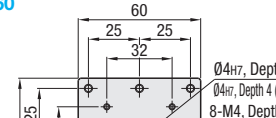
A40



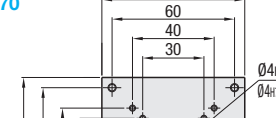
A50



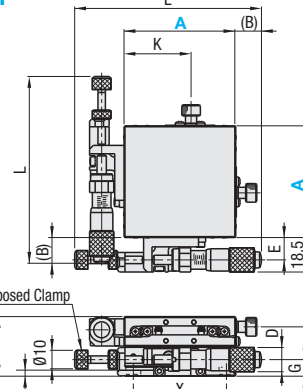
A60



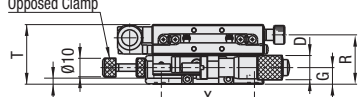
A70



XYSGNT




Opposed Clamp



XYSGNT25

Has different feed bracket configuration.



| Type | Main Body | Ball | Spring | Micrometer Head Bracket | Tip Holder |
|---------------|--|---|--------------------------------|--|--------------------------------|
| | <div><div>Material</div><div>Surface Treatment</div></div> | <div><div>Material</div><div>Hardness</div></div> | <div><div>Material</div></div> | <div><div>Material</div><div>Surface Treatment</div></div> | <div><div>Material</div></div> |
| XYSGNT | EN 1.4125 Equiv. Electroless Nickel Plating | EN 1.4125 Equiv. 58HRC~ | SUS304WPB | EN AW-5052 Equiv. Clear Anodize | EN 1.4305 Equiv. |

* Bracket material will be different for 25 square only.

For micrometer head and opposed clamp materials, see Adjust Screws ANKSS on **P.1712**.

Opposed clamp shaft has a hex socket (2.5 hex, depth 2.5) on the end.

| Part Number | Type | A | (B) | E | K | L | D | G | T | T ₁ | R | H | P | Q | X | d ₁ | d ₂ | ℓ | Accessory (4 pcs.) |
|---------------|------|----|------|----|------|-------|-----|-----|----|----------------|------|------|----|------|----|----------------|----------------|-----|--------------------|
| 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 | 12 | 26 | 100.3 | 13 | 8.9 | 32 | 4.5 | 26.5 | 24.9 | 10 | 10.5 | 32 | 3.5 | 6 | 3.5 | SCB3-6 |
| | | 50 | 18.8 | | 31 | | | | | | | | | | 40 | | | | |
| | | 60 | 13.8 | | 36 | | | | | | | | | | 50 | | | | |
| | | 70 | 14.3 | | 46.5 | | | | | | | | | | 60 | | | | SCB4-6 |

•Performance

| Part Number | Type | A | Stage Surface (mm) | Travel Distance (mm) | Horizontal Load Capacity (N) | Travel Accuracy | | | | Moment Load Capacity (N · m) | | | Moment Rigidity (1/N · cm) | | | Parallelism | Orthogonality | Weight (kg) | Unit Price |
|---------------|------|----|--------------------|----------------------|------------------------------|-----------------|-------------|----------|--------|------------------------------|--------|---------|----------------------------|--------|---------|-------------|---------------|-------------|------------|
| | | | | | | Straightness | Parallelism | Pitching | Yawing | Pitching | Yawing | Rolling | Pitching | Yawing | Rolling | | | | |
| XYSGNT | | 25 | 25x25 | ±3.2 | 38.2 | 3μm | 10μm | 30" | 25" | 2.0 | 2.0 | 3.5 | 3.0 | 2.2 | 2.2 | 30μm | 10μm | 0.14 | |
| | | 40 | 40x40 | ±6.5 | 95.1 | 1μm | 12μm | 25" | 15" | 5.0 | 5.0 | 5.0 | 0.63 | 0.70 | 0.63 | | | 0.46 | |
| | | 50 | 50x50 | | 144.1 | | | | | 6.0 | 6.8 | 6.0 | 0.24 | 0.28 | 0.24 | | | 0.56 | |
| | | 60 | 60x60 | | 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 | |

⚙ Micrometer Head Resolution: 10μm/division

⚙ Knob Cover HDCVR13 (Sold Separately): 013 micrometer head or feed screw knob can be increased in diameter to 030 by installing the cover. **P.2004**

⚙ Extension Cover HDEXT13 (Sold Separately): Feed knob of 013 micrometer head and feed screw can be extended. **P.2004**

Ordering Example

Part Number

XYSGNT60

- ⚙ For orders larger than indicated quantity, please request a quotation.