

Extended Contact Ball Slide Goniometers

$\alpha\beta$ Axis Extended Contact Ball Slide Goniometers

GOHT-60A

GOHT-60B

Stage Size 60 × 60 mm

RoHS

RoHS

High precision goniometers with integrated bearing ways for superior stiffness, accuracy and durability.

- Centering accuracy 10x better than typical dovetail goniometers.
- Designed for use in a variety of orientations. Not limited to horizontal mounting.
- Integral-guide structure offers high performance of rotation center displacement $\phi 0.007\text{mm}$.
- Disc clamp improves the stability of clamping.
- Designed for use with precision alignment pins for ease of assembly.



Attention

- ▶ Locking mechanism is operated using thumbscrew on side of stage.

Guide

- ▶ Attachment pins (GOHT-AP) can be purchased separately.
Reference E010 Catalog Code W7112
- ▶ Contact our Sales Division for information about custom center heights.
- ▶ Motorized version (OSMS-60***) also available.



OSMS-60A**

Reference G092

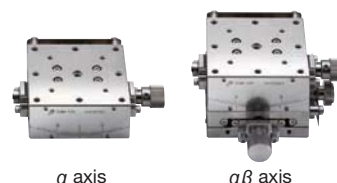
Catalog Code W9080

OSMS-60B**

Reference G094 Catalog Code W9098

- ▶ For the surface finishing, the white coating of electroless nickel plating is also available.

WEB Reference Catalog Code W7093(α axis), W7105($\alpha\beta$ axis)

 α axis $\alpha\beta$ axis

Specifications								
Part Number	METRIC	GOHT-60A35B	GOHT-60A60B	GOHT-60A85B	GOHT-60A105B	GOHT-60B35B	GOHT-60B60B	GOHT-60B85B
(Opposite Model)	METRIC	GOHT-60A35BR	GOHT-60A60BR	GOHT-60A85BR	GOHT-60A105BR	GOHT-60B35BR	GOHT-60B60BR	GOHT-60B85BR
Stage Size [mm]		60×60	60×60	60×60	60×60	60×60	60×60	60×60
Axes of Travel		α axis				$\alpha\beta$ axis		
Rotation Center Height [mm]		35±0.1	60±0.1	85±0.1	105±0.1	35±0.2	60±0.2	85±0.2
Angle Range [°]	(Upper) β axis	—	—	—	—	±20	±15	±10
	(Lower) α axis	±20	±15	±10	±8	±15	±10	±8
Vernier Readable Resolution		0.1°	0.1°	0.1°	0.1°	0.1°	0.1°	0.1°
Travel per Knob Rotation [°]	(Upper) β axis	—	—	—	—	about 2.2	about 1.46	about 1.15
	(Lower) α axis	about 2.2	about 1.46	about 1.15	about 0.95	about 1.46	about 1.15	about 0.95
Rotation Center Displacement [mm]		$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less
Guide Method		Extended contact ball bearing guide						
Primary Material		SUS440C quench hardened						
Finish		Super black chrome						
Load Capacity [N]		98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)
Max. Moment Capacity	Pitch [N·m]	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Roll [N·m]	6.0	6.0	6.0	6.0	3.0	3.0	3.0
	Yaw [N·m]	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Moment Stiffness	Roll [°/N·cm]	0.25	0.25	0.25	0.25	—	—	—
	Yaw [°/N·cm]	0.1	0.1	0.1	0.1	—	—	—
Parallelism [μm]		30	30	30	30	30	30	30
Weight [kg]		0.6	0.6	0.6	0.6	1.2	1.2	1.2

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Crossed Roller

Dovetail

Lapping

V Groove Screw

Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

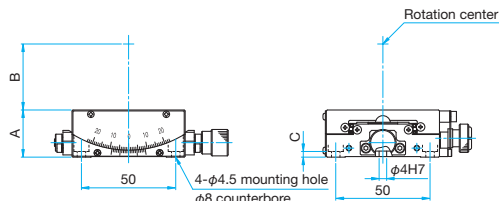
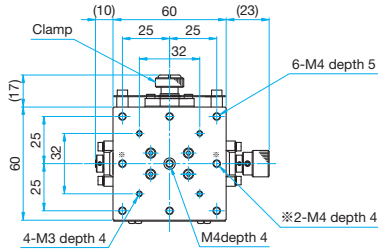
Others



Outline Drawing

GOHT-60A**B

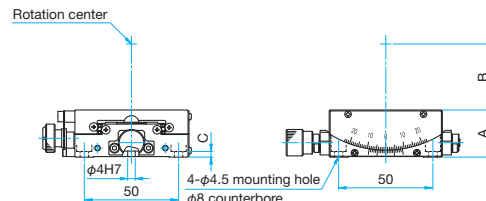
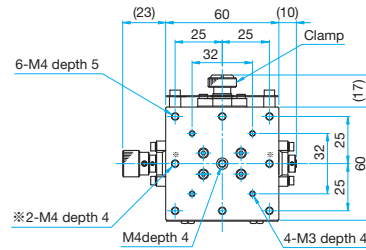
Hexagon socket head cap screw (stainless steel construction) M4x8...4 screws, Attachment pins for M4...1 pin



Part Number	A (mm)	B (mm)	C (mm)
GOHT-60A35B	25	35	3
GOHT-60A60B	25	60	3
GOHT-60A85B	20	85	2
GOHT-60A105B	20	105	2

GOHT-60A**BR

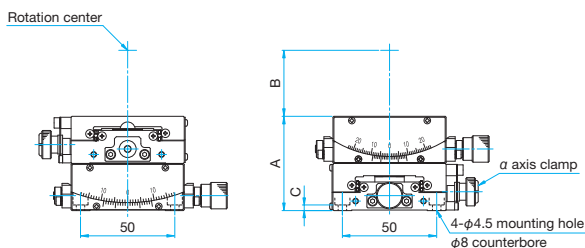
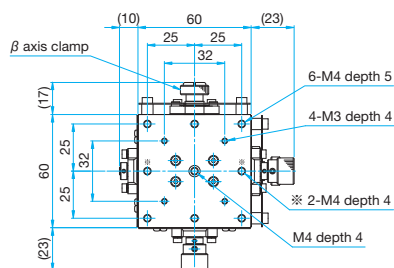
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Part Number	A (mm)	B (mm)	C (mm)
GOHT-60A35BR	25	35	3
GOHT-60A60BR	25	60	3
GOHT-60A85BR	20	85	2
GOHT-60A105BR	20	105	2

GOHT-60B**B

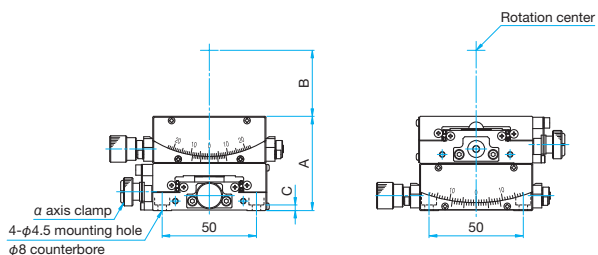
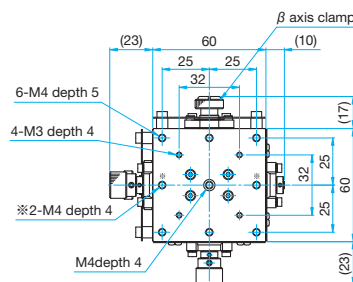
Hexagon socket head cap screw (stainless steel construction) M4x8...4 screws, Attachment pins for M4...1 pin



Part Number	A (mm)	B (mm)	C (mm)
GOHT-60B35B	50	35	3
GOHT-60B60B	45	60	2
GOHT-60B85B	40	85	2

GOHT-60B**BR

Hexagon socket head cap screw (stainless steel construction) M4x8...4 screws, Attachment pins for M4...1 pin



Part Number	A (mm)	B (mm)	C (mm)
GOHT-60B35BR	50	35	3
GOHT-60B60BR	45	60	2
GOHT-60B85BR	40	85	2

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15 × 15 mm

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Others

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GOHT-65A

Stage Size 65 x 65 mm

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- ▶ Locking mechanism is operated using thumbscrew on side of stage.

Specifications

Part Number	METRIC	GOHT-65A50B-M6	GOHT-65A75B-M6	GOHT-65A100B-M6	GOHT-65B50B-M6	GOHT-65B75B-M6
	INCH	GOHT-65A50BUU	GOHT-65A75BUU	GOHT-65A100BUU	GOHT-65B50BUU	GOHT-65B75BUU
(Opposite Model)	METRIC	GOHT-65A50BR-M6	GOHT-65A75BR-M6	GOHT-65A100BR-M6	GOHT-65B50BR-M6	GOHT-65B75BR-M6
	INCH	GOHT-65A50BRUU	GOHT-65A75BRUU	GOHT-65A100BRUU	GOHT-65B50BRUU	GOHT-65B75BRUU
Stage Size [mm]		65×65	65×65	65×65	65×65	65×65
Axes of Travel		α axis			$\alpha\beta$ axis	
Rotation Center Height [mm]		50±0.1	75±0.1	100±0.1	50±0.2	75±0.2
Angle Range [°]	(Upper) β axis	—	—	—	±20	±15
	(Lower) α axis	±20	±15	±10	±15	±10
Vernier Readable Resolution		0.1°	0.1°	0.1°	0.1°	0.1°
Travel per Knob Rotation [°]	(Upper) β axis	—	—	—	about 1.70	about 1.22
	(Lower) α axis	about 1.70	about 1.22	about 0.95	about 1.22	about 0.95
Rotation Center Displacement [mm]		$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less	$\phi 0.007$ or less
Guide Method		Extended contact ball bearing guide				
Primary Material		SUS440C quench hardened				
Finish		Super black chrome				
Load Capacity [N]		98 (10kgf)	98 (10kgf)	98 (10kgf)	98 (10kgf)	98 (10kgf)
Max. Moment Capacity	Pitch [N·m]	3.5	3.5	3.5	3.5	3.5
	Roll [N·m]	6.5	6.5	6.5	3.5	3.5
	Yaw [N·m]	3.5	3.5	3.5	3.5	3.5
Moment Stiffness	Roll [°/N·cm]	0.3	0.3	0.3	—	—
	Yaw [°/N·cm]	0.3	0.3	0.3	—	—
Parallelism [μ m]		30	30	30	30.0	30.0
Weight [kg]		0.75	0.75	0.75	1.5	1.5

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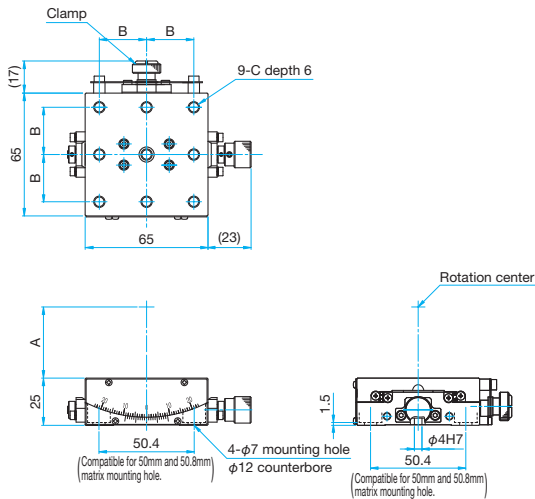
Others



Outline Drawing

GOHT-65A**B-M6/65A**BUU

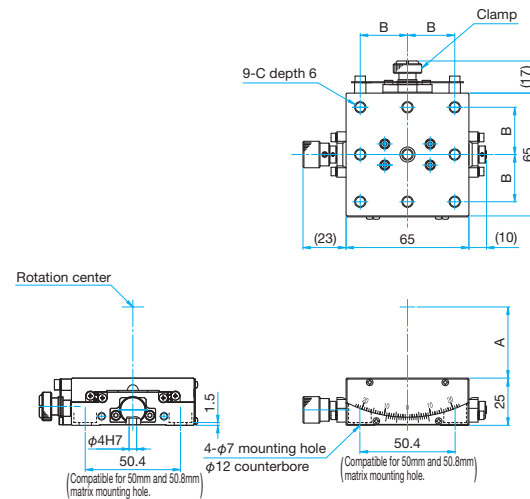
- Low head hexagon socket head cap screw (stainless steel construction)
M6×6...4 screws, Attachment pins for M6...1 pin (M6)
Low head hexagon socket head cap screw (stainless steel construction)
1/4-20UNC×1/4...4 screws, Attachment pins for 1/4-20UNC...1 pin (UU)



Part Number	A (mm)	B (mm)	C
GOHT-65A50B-M6	50	25	M6 P1
GOHT-65A50BUU	50	25.4	1/4-20UNC
GOHT-65A75B-M6	75	25	M6 P1
GOHT-65A75BUU	75	25.4	1/4-20UNC
GOHT-65A100B-M6	100	25	M6 P1
GOHT-65A100BUU	100	25.4	1/4-20UNC

GOHT-65A**BR-M6/65A**BRUU

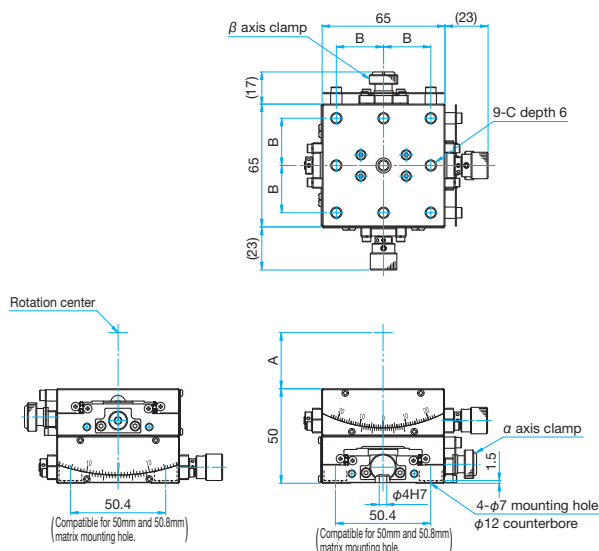
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Part Number	A (mm)	B (mm)	C
GOHT-65A50BR-M6	50	25	M6 P1
GOHT-65A50BRUU	50	25.4	1/4-20UNC
GOHT-65A75BR-M6	75	25	M6 P1
GOHT-65A75BRUU	75	25.4	1/4-20UNC
GOHT-65A100BR-M6	100	25	M6 P1
GOHT-65A100BRUU	100	25.4	1/4-20UNC

GOHT-65B**B-M6/65B**BUU

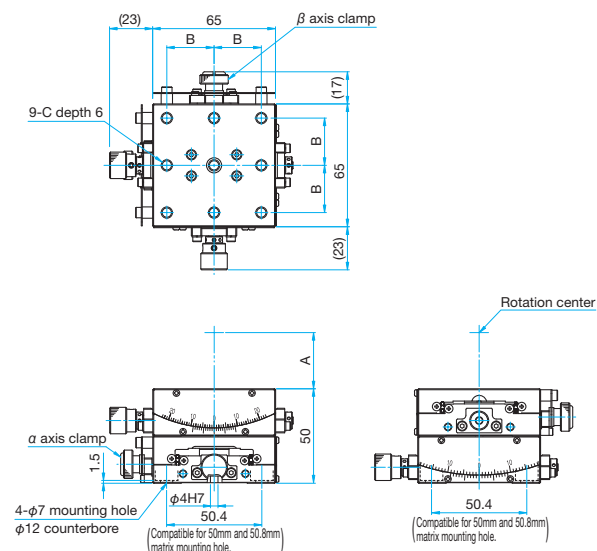
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1/4-20UNC×1/4...4 screws, Attachment pins for 1/4-20UNC...1 pin (UU)



Part Number	A (mm)	B (mm)	C
GOHT-65B50B-M6	50	25	M6 P1
GOHT-65B50BUU	50	25.4	1/4-20UNC
GOHT-65B75B-M6	75	25	M6 P1
GOHT-65B75BUU	75	25.4	1/4-20UNC

GOHT-65B**BR-M6/65B**BRUU

- Low head hexagon socket head cap screw (stainless steel construction)
M6×6...4 screws, Attachment pins for M6...1 pin (M6)
Low head hexagon socket head cap screw (stainless steel construction)
1/4-20UNC×1/4...4 screws, Attachment pins for 1/4-20UNC...1 pin (UU)



Part Number	A (mm)	B (mm)	C
GOHT-65B50BR-M6	50	25	M6 P1
GOHT-65B50BRUU	50	25.4	1/4-20UNC
GOHT-65B75BR-M6	75	25	M6 P1
GOHT-65B75BRUU	75	25.4	1/4-20UNC

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