

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 $\phi 0.007$ 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**

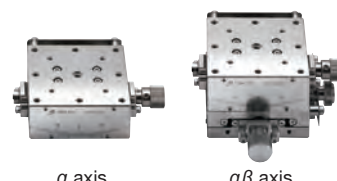
[Reference](#) G092[Catalog Code](#) W9080

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 [μ m]		30	30	30	30	30	30	30
Weight [kg]		0.6	0.6	0.6	0.6	1.2	1.2	1.2

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

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

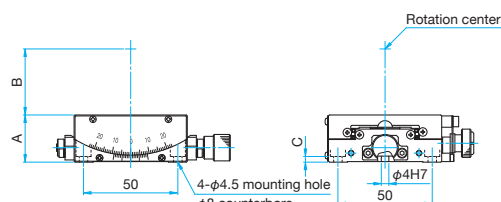
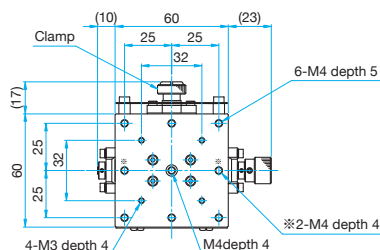
Others



Outline Drawing

GOHT-60A**B

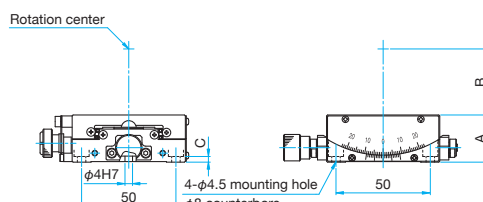
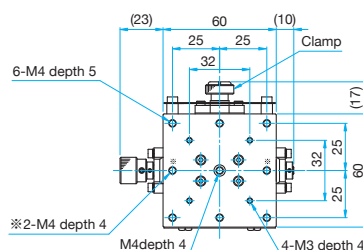
Hexagon socket head cap screw (stainless steel construction) M4x8...4 screws, Attachment pins for M4...1 pin



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

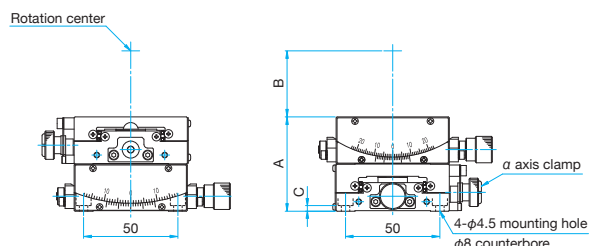
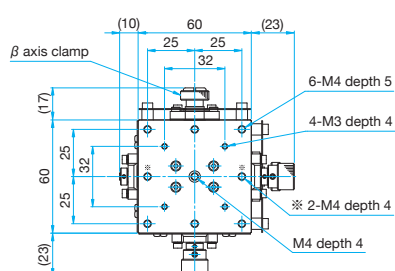
Hexagon socket head cap screw (stainless steel construction) M4x8...4 screws, Attachment pins for M4...1 pin



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

GOHT-60B**B

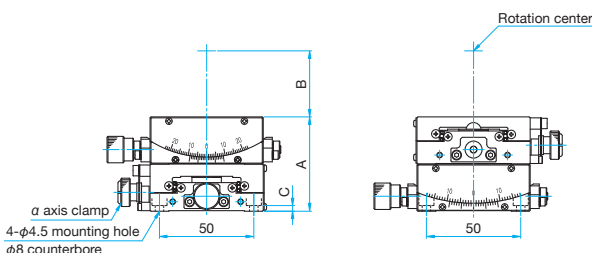
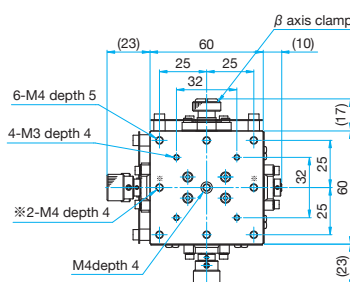
Hexagon socket head cap screw (stainless steel construction) M4x8...4 screws, Attachment pins for M4...1 pin



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

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

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