

Extended Contact Micrometer Goniometers

Stage Size 40 × 40 mm

GOHT-40A-S

RoHS

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

- Integrated Extended Contact Bearing Ways for simpler construction, higher load and durability, and lower cost.
- Centering accuracy 10x better than typical dovetail goniometers.
- Designed for use in a variety of orientations. Not limited to horizontal mounting.
- Designed for use with precision alignment pins for ease of assembly.



Guide

- ▶ Attachment pins (GOHT-AP) can be purchased separately.
Reference E010 **Catalog Code** W7112
- ▶ Contact our sales team for information about custom center heights.
- ▶ Motorized version (OSMS-40A***) also available.
Reference G090 **Catalog Code** W9079

Attention

- ▶ Locking mechanism is operated using thumbscrew on side of stage.
- ▶ When assembled to an $\alpha\beta$ axis stage, the micrometer head of the α axis stage interferes. Please contact our Sales Division for more information.

Specifications					
Part Number	METRIC	GOHT-40A20BMS	GOHT-40A40BMS	GOHT-40A60BMS	GOHT-40A75BMS
	INCH	GOHT-40A20BMSUU	GOHT-40A40BMSUU	GOHT-40A60BMSUU	GOHT-40A75BMSUU
(Opposite Model)	METRIC	GOHT-40A20BMSR	GOHT-40A40BMSR	GOHT-40A60BMSR	GOHT-40A75BMSR
	INCH	GOHT-40A20BMSRUU	GOHT-40A40BMSRUU	GOHT-40A60BMSRUU	GOHT-40A75BMSRUU
Stage Size [mm]		40×40	40×40	40×40	40×40
Axes of Travel		α axis			
Micrometer Position		Side	Side	Side	Side
Rotation Center Height [mm]		20±0.1	40±0.1	60±0.1	75±0.1
Angle Range [°]		±11	±7	±5.5	±4.5
Travel per Knob Rotation [°]		about 0.9	about 0.55	about 0.42	about 0.35
Rotation Center Displacement [mm]		φ0.007 or less	φ0.007 or less	φ0.007 or less	φ0.007 or less
Guide Method		Extended contact ball bearing guide			
Primary Material		SUS440C quench hardened			
Finish		Super black chrome			
Load Capacity [N]		58.8 (6.0kgf)	58.8 (6.0kgf)	58.8 (6.0kgf)	58.8 (6.0kgf)
Max. Moment Capacity	Pitch [N·m]	2.0	2.0	2.0	2.0
	Roll [N·m]	3.0	3.0	3.0	3.0
	Yaw [N·m]	2.0	2.0	2.0	2.0
Moment Stiffness	Roll [°/N·cm]	0.6	0.6	0.6	0.6
	Yaw [°/N·cm]	0.6	0.6	0.6	0.6
Parallelism [μm]		30	30	30	30
Weight [kg]		0.2	0.2	0.2	0.2

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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

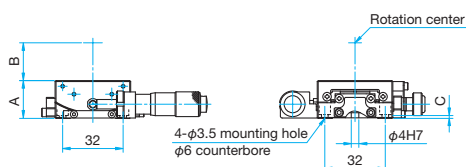
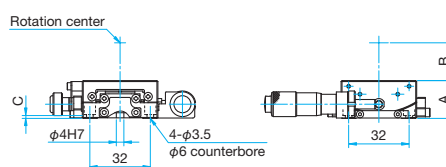
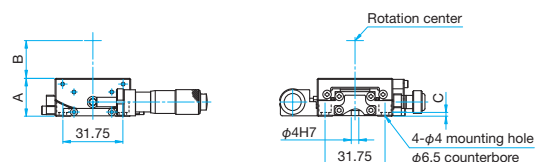
80 × 80 mm

100 × 100 mm

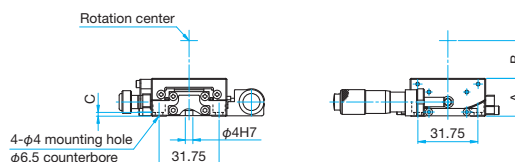
120 × 120 mm

Others

Technical drawing of a 6-hole clamp. The drawing shows a top view and a side view. Dimensions are given in millimeters (mm). The top view shows a square plate with a side length of 40 mm. The distance between the centers of the holes is 16 mm. The distance from the center of the holes to the edge is 16 mm. The distance from the center of the holes to the corner is 17 mm. The distance from the center of the holes to the edge of the plate is 20 mm. The side view shows the thickness of the plate is 8 mm. The drawing includes labels for the clamp, the 6-M3 depth 5, the M4 depth D, and the 2-M3 depth 3.

[illegible][illegible]

Technical drawing of the front view of a 40mm diameter, 17mm high, 4-hole flange. The drawing shows a circular flange with four mounting holes. Dimensions include a total diameter of 40mm, a hole diameter of 15.875mm, and a hole pitch of 15.875mm. Thread specifications are given for the mounting holes: 6-6-32UNC depth 5, 8-32UNC depth D, and 2-6-32UNC depth 3. A clamp is shown attached to the side of the flange.

E183

Extended Contact Micrometer Goniometers

Stage Size 60 × 60 mm

GOHT-60A-S

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

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Guide

- ▶ Attachment pins (GOHT-AP) can be purchased separately.
Reference E010 **Catalog Code** W7112
- ▶ Contact our sales team for information about custom center heights.
- ▶ Motorized version (OSMS-60A***) also available.
Reference G092 **Catalog Code** W9080

Attention

- ▶ Locking mechanism is operated using thumbscrew on side of stage.
- ▶ When assembled to an $\alpha\beta$ axis stage, the micrometer head of the α axis stage interferes. Please contact our Sales Division for more information.

Specifications					
Part Number	METRIC	GOHT-60A35BMS	GOHT-60A60BMS	GOHT-60A85BMS	GOHT-60A105BMS
(Opposite Model)	METRIC	GOHT-60A35BMSR	GOHT-60A60BMSR	GOHT-60A85BMSR	GOHT-60A105BMSR
Stage Size [mm]		60×60	60×60	60×60	60×60
Axes of Travel		α axis			
Micrometer Position		Side	Side	Side	Side
Rotation Center Height [mm]		35±0.1	60±0.1	85±0.1	105±0.1
Angle Range [°]		±7	±4.5	±3.5	±3
Travel per Knob Rotation [°]		about 0.38	about 0.38	about 0.3	about 0.25
Rotation Center Displacement [mm]		φ0.007 or less	φ0.007 or less	φ0.007 or less	φ0.007 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)
Max. Moment Capacity	Pitch [N·m]	3.0	3.0	3.0	3.0
	Roll [N·m]	6.0	6.0	6.0	6.0
	Yaw [N·m]	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
Weight [kg]		0.6	0.6	0.6	0.6

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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

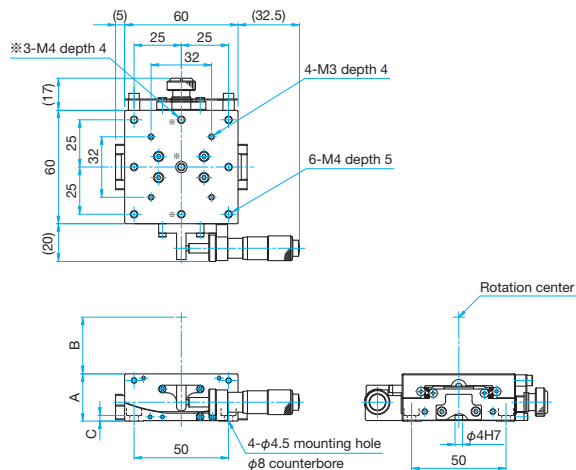
Others



Outline Drawing

GOHT-60ABMS**

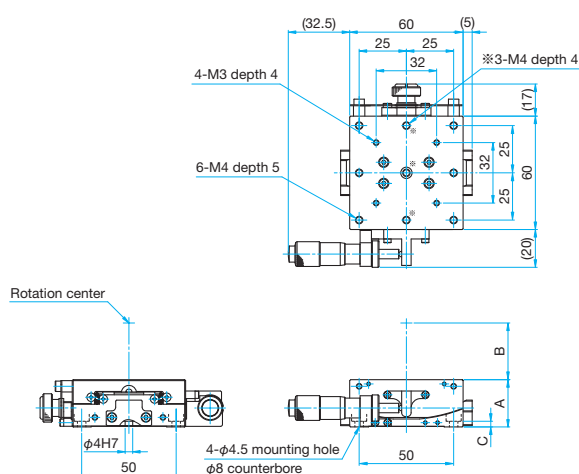
Hexagon socket head cap screw (stainless steel construction) M4×8...4 screws
Attachment pin for M4...1 pin



Part Number	A (mm)	B (mm)	C (mm)
GOHT-60A35BMS	25	35	3
GOHT-60A60BMS	25	60	3
GOHT-60A85BMS	20	85	2
GOHT-60A105BMS	20	105	2

GOHT-60ABMSR**

Hexagon socket head cap screw (stainless steel construction) M4×8...4 screws
Attachment pin for M4...1 pin



Part Number	A (mm)	B (mm)	C (mm)
GOHT-60A35BMSR	25	35	3
GOHT-60A60BMSR	25	60	3
GOHT-60A85BMSR	20	85	2
GOHT-60A105BMSR	20	105	2

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Others

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25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

Others

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Stage Size 65 × 65 mm

GOHT-65A-S

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Specifications

Part Number	METRIC	GOHT-65A50BMS-M6	GOHT-65A75BMS-M6	GOHT-65A100BMS-M6
	INCH	GOHT-65A50BMSUU	GOHT-65A75BMSUU	GOHT-65A100BMSUU
(Opposite Model)	METRIC	GOHT-65A50BMSR-M6	GOHT-65A75BMSR-M6	GOHT-65A100BMSR-M6
	INCH	GOHT-65A50BMSRUU	GOHT-65A75BMSRUU	GOHT-65A100BMSRUU
Stage Size [mm]		65×65	65×65	65×65
Axes of Travel		α axis		
Micrometer Position		Side	Side	Side
Rotation Center Height [mm]		50±0.1	75±0.1	100±0.1
Angle Range [°]		±10	±7	±6
Travel per Knob Rotation [°]		about 0.44	about 0.32	about 0.25
Rotation Center Displacement [mm]		φ0.007 or less	φ0.007 or less	φ0.007 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)
Max. Moment Capacity	Pitch [N·m]	3.0	3.0	3.0
	Roll [N·m]	6.0	6.0	6.0
	Yaw [N·m]	3.0	3.0	3.0
Moment Stiffness	Roll [°/N·cm]	0.25	0.25	0.25
	Yaw [°/N·cm]	0.1	0.1	0.1
Parallelism [μm]		30	30	30
Weight [kg]		0.7	0.7	0.7

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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

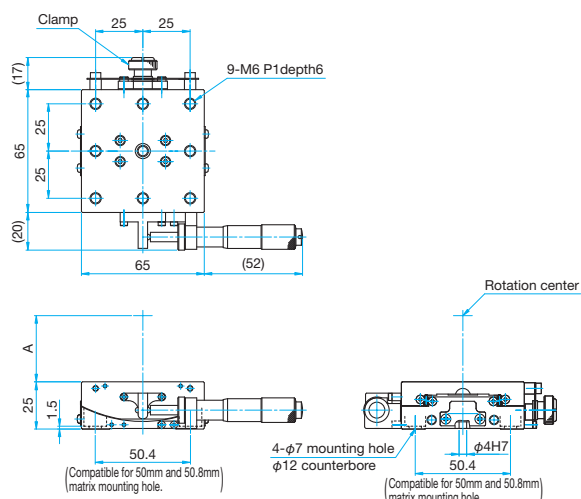
Others



Outline Drawing

GOHT-65A**BMS

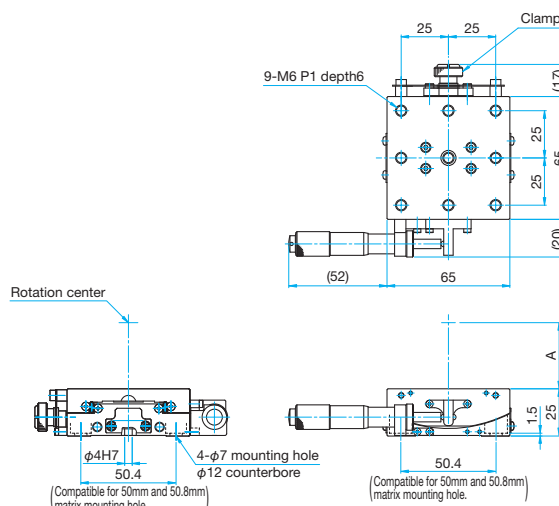
Hexagon socket head cap screw (stainless steel construction) M6×8...4 screws
Attachment pins for M6...1 pin



Part Number	A (mm)
GOHT-65A50BMS-M6	50
GOHT-65A75BMS-M6	75
GOHT-65A100BMS-M6	100

GOHT-65A**BMSR

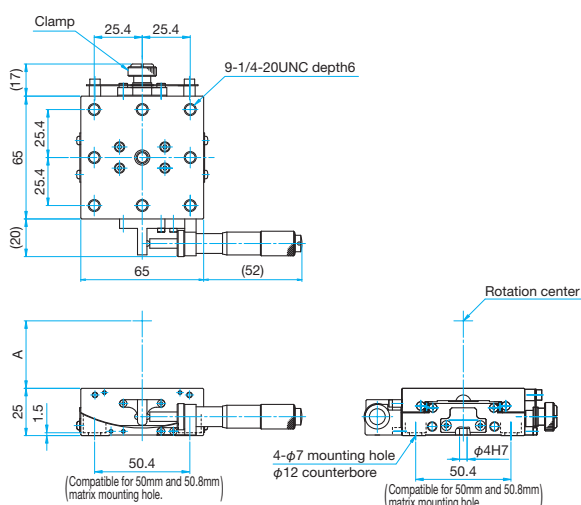
Hexagon socket head cap screw (stainless steel construction) M6×8...4 screws
Attachment pins for M6...1 pin



Part Number	A (mm)
GOHT-65A50BMSR-M6	50
GOHT-65A75BMSR-M6	75
GOHT-65A100BMSR-M6	100

GOHT-65A**BMSUU

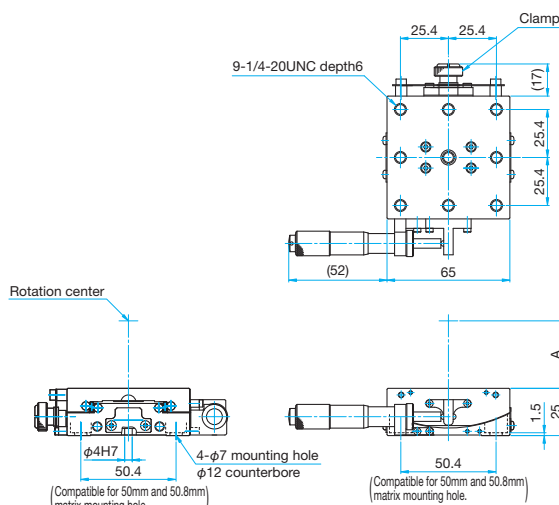
Low head hexagon socket head cap screw (stainless steel construction)
1/4-20UNC×1/4...4 screws, Attachments pin for 1/420UNC...1 pin



Part Number	A (mm)
GOHT-65A50BMSUU	50
GOHT-65A75BMSUU	75
GOHT-65A100BMSUU	100

GOHT-65A**BMSRUU

Low head hexagon socket head cap screw (stainless steel construction)
1/4-20UNC×1/4...4 screws, Attachment pins for 1/420UNC...1 pin



Part Number	A (mm)
GOHT-65A50BMSRUU	50
GOHT-65A75BMSRUU	75
GOHT-65A100BMSRUU	100

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65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

Others