



α axis Goniometers
 α axis Goniometers

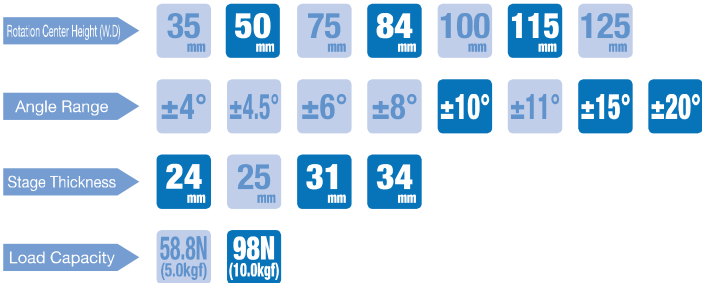
MGT11-60 Stage size ☐60mm
MGT11-120 Stage size ☐120mm

RoHS

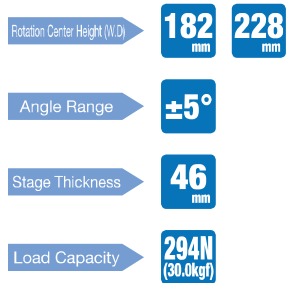
Goniometers used for orientation adjustment (correction) or sample adjustment.

- The goniometer of stage size ☐60mm (MGT1-60) uses worm gear for dovetail groove, ideal for orientation adjustment (angle adjustment or correction).
- The goniometer of stage size ☐120mm (MGT2-120) uses ball bearings, offering high stiffness and high precision.

■ Stage ☐60mm



■ Stage ☐120mm



Guide

- ▶ The opposite model of MGT11-60 is also available.
- ▶ The vernier scale of MGT1-120 is located on the knob.

X Axis

XY Axis

Z Axis

XZ Axis

XYZ Axis

Rotation

Goniometers /Tilt

Multiaxis

Linear Guide

☐15mm

☐25mm

☐40mm

☐50mm

☒60mm

☐70mm

☐80mm

☐100mm

☐120mm

Others

SPEC UP

Specifications						
Part Number		MGT11-60-50	MGT11-60-84	MGT11-60-115	MGT11-120-182	MGT11-120-228
Opposite Model		NEW MGT11-60-50R	NEW MGT11-60-84R	NEW MGT11-60-115R	—	—
Table Size [mm]		60×60	60×60	60×60	120×120	120×120
Rotation Center Height [mm]		50±0.1	84±0.1	115±0.1	182	228
Angle Range [°]		±20	±15	±10	±5	±5
Vernier Readable Resolution		5′	5′	5′	1′	1′
Travel per Knob Rotation [°]		about 1.03	about 0.71	about 0.58	about 0.33	about 0.33
Rotation Center Displacement [mm]		φ0.1 or less	φ0.1 or less	φ0.1 or less	φ0.05 or less	φ0.05 or less
Positioning Slide		Dovetail slide method	Dovetail slide method	Dovetail slide method	Ball bearing method	Ball bearing method
Primary Material		Brass	Brass	Brass	Aluminum	Aluminum
Finish		Super black chrome	Super black chrome	Super black chrome	Black anodized	Black anodized
Load Capacity [N]		98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)	294 (30.0kgf)	294 (30.0kgf)
Max. Moment Capacity	Pitch [N·m]	1.6	1.6	1.6	19.6	19.6
	Roll [N·m]	2.2	2.2	2.2	44.1	44.1
Moment Stiffness	Roll [″/N·cm]	0.3	0.3	0.3	0.02	0.02
Parallelism [μm]		50	50	50	100	100
Weight [kg]		1.0	0.9	0.85	2.1	2.1

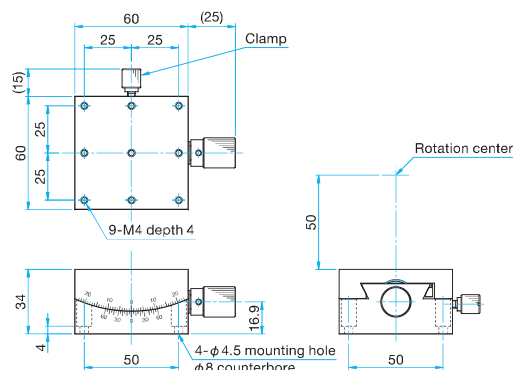
Catalog Code W7100

Catalog Code W7101

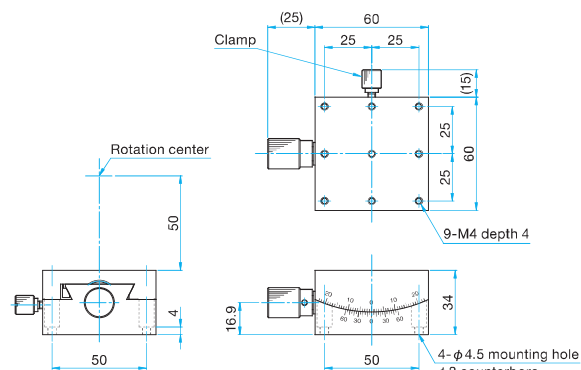


Outline Drawing

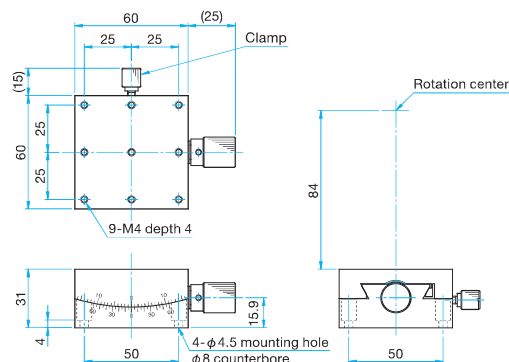
MGT11-60-50 Hexagonal socket head cap screw M4x8...4 screws



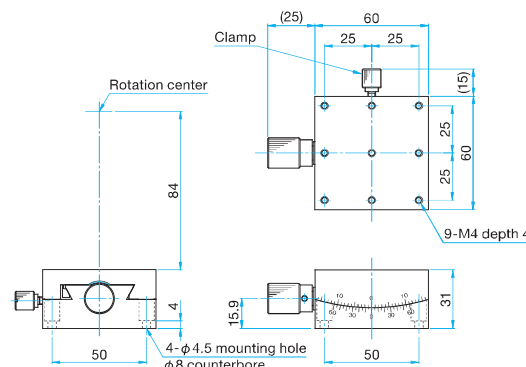
MGT11-60-50R Hexagonal socket head cap screw M4x8...4 screws



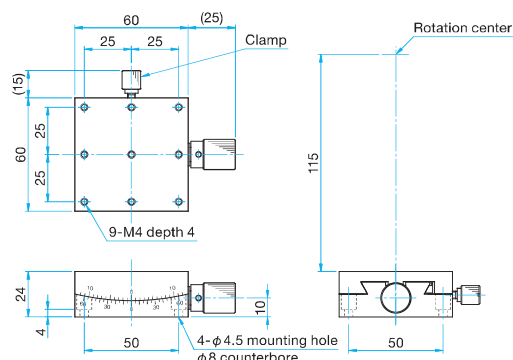
MGT11-60-84 Hexagonal socket head cap screw M4x8...4 screws



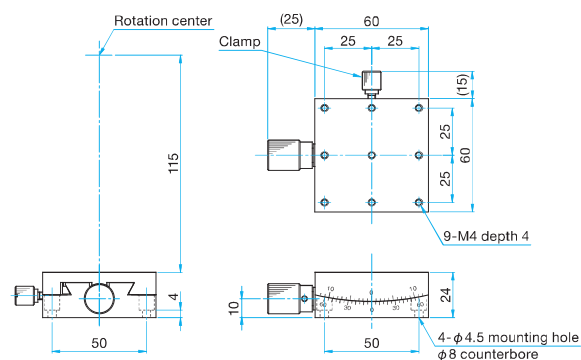
MGT11-60-84R Hexagonal socket head cap screw M4x8...4 screws



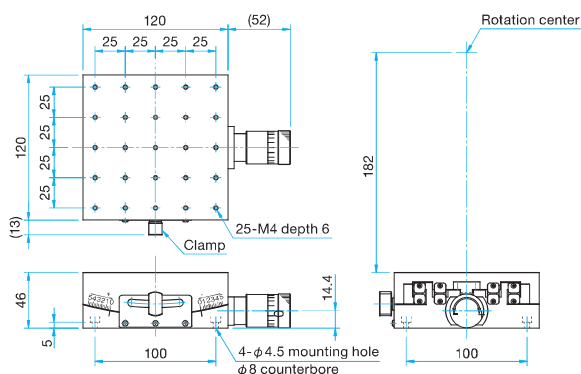
MGT11-60-115 Hexagonal socket head cap screw M4x8...4 screws



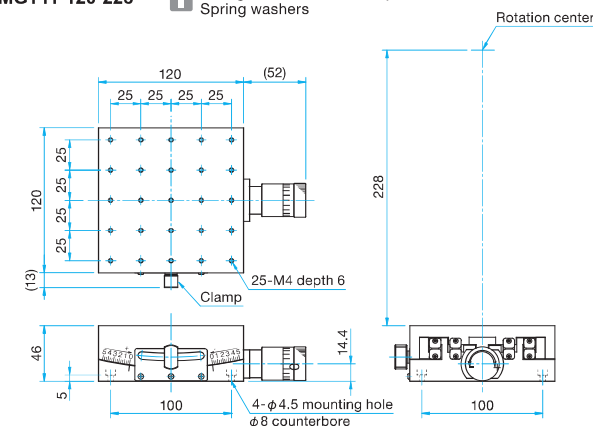
MGT11-60-115R Hexagonal socket head cap screw M4x8...4 screws



MGT11-120-182 Hexagonal socket head cap screw M4x10...4 screws
Spring washers



MGT11-120-228 Hexagonal socket head cap screw M4x10...4 screws
Spring washers



Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

F A Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

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X Axis

XY Axis

Z Axis

XZ Axis

XYZ Axis

Rotation

Goniometers /Tilt

Multiaxis

Linear Guide

□15mm

□25mm

□40mm

□50mm

□60mm

□70mm

□80mm

□100mm

□120mm

Others



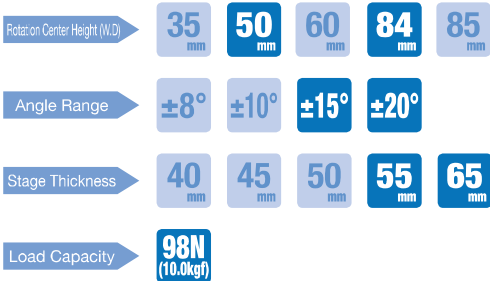
$\alpha\beta$ axis Goniometers
 $\alpha\beta$ axis Goniometers

MGT12-60 Stage size ☐60mm
MGT12-120 Stage size ☐120mm

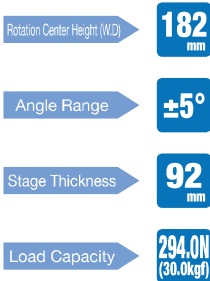
RoHS

Goniometers fitted with dovetail slide and worm gear, suitable for orientation adjustment (angle adjustment or correction).

Stage ☐60mm



Stage ☐120mm



Guide

- ▶ The opposite model of MGT12-60 is also available.
- ▶ The vernier scale of MGT12-120 is located on the knob.

SPEC UP

Specifications				
Part Number		MGT12-60-50	MGT12-60-84	MGT12-120-182
Opposite Model		NEW MGT12-60-50R	NEW MGT12-60-84R	—
Table Size [mm]		60×60	60×60	120×120
Rotation Center Height [mm]		50±0.1	84±0.1	182
Angle Range [°]	(Upper) β axis	±20	±15	±5
	(Lower) α axis	±15	±10	±5
Vernier Readable Resolution		5'	5'	1'
Travel per Knob Rotation [°]	(Upper) β axis	about 1.03	about 0.71	about 0.33
	(Lower) α axis	about 0.7	about 0.58	about 0.33
Rotation Center Displacement [mm]		$\phi 0.1$ or less	$\phi 0.1$ or less	$\phi 0.1$ or less
Positioning Slide		Dovetail slide method	Dovetail slide method	Ball bearing method
Primary Material		Brass	Brass	Aluminum
Finish		Super black chrome	Super black chrome	Black anodized
Load Capacity [N]		98 (10.0kgf)	98 (10.0kgf)	294.0 (30.0kgf)
Max. Moment Capacity	Pitch [N·m]	1.6	1.6	19.6
	Roll [N·m]	1.6	1.6	19.6
Parallelism [μ m]		100	100	200
Weight [kg]		1.9	1.75	4.2

Configuration			
Part Number	MGT12-60-50	MGT12-60-84	MGT12-120-182
(Upper) β axis	MGT11-60-50	MGT11-60-84	MGT21-120-182
(Lower) α axis	MGT11-60-84	MGT11-60-115	MGT21-120-228
Opposite Model	MGT12-60-50R	MGT12-60-84R	
(Upper) β axis	MGT11-60-50R	MGT11-60-84R	
(Lower) α axis	MGT11-60-84R	MGT11-60-115R	

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- Manual Positions
- Motion Control Products
- Optical & Mirror Holder
- F A Parts
- Measurement & Control
- FA Electrical Parts
- Tool & Measure
- Cleanroom & AntiStatic
- Index

- X Axis
- XY Axis
- Z Axis
- XZ Axis
- XYZ Axis
- Rotation
- Goniometers /Tilt
- Multiaxis
- Linear Guide

- ☐15mm
- ☐25mm
- ☐40mm
- ☐50mm
- ☒60mm
- ☐70mm
- ☐80mm
- ☐100mm
- ☐120mm
- Others

Others