

Manual Goniometer Stage Guidance



There are circular arc drive stages with a center of rotation on the center perpendicular of the table surface.

These stages are ideal for angle adjustment and postural alignment.

We provide a wide range of advanced stages for jigs, production equipment and devices.

■ Application

- Devices for assembling, adjusting optical pickups and camera angles.
- Sensor tilt adjustment etc.

Features



Dovetail goniometer stage B54/B55 ▶ P.2-137～

A dovetail goniometer stage which is applied a dovetail method for travel guide and worm gear for feeding mechanism.

Can be used for R&D, installation in devices and jigs.

Stage size	25×25mm	30×30mm	40×40mm	50×50mm	60×60mm	80×80mm
------------	---------	---------	---------	---------	---------	---------



Crossed roller goniometer stage Worm type B56/B57 ▶ P.2-149～

A high accuracy goniometer stage which is applied a crossed roller guide for travel guide and worm gear for feeding mechanism.

Good operation feeling. It is ideal for repeating drive frequency.

Stage size	50×50mm	60×60mm	70×70mm
------------	---------	---------	---------



Crossed roller goniometer stage Micro meter

A high resolution and high accuracy goniometer stage which is applied a crossed roller guide for travel guide and micrometer for feeding mechanism.

■ Center pushing type B58-A ▶ P.2-155～

Can save space around the stage.

Stage size	50×50mm	70×70mm
------------	---------	---------



■ Side pushing type B58-C ▶ P.2-159～

Ideal for use in applications where space is limited.

Stage size	40×40mm	50×50mm	60×60mm	70×70mm
------------	---------	---------	---------	---------

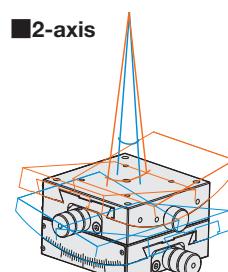
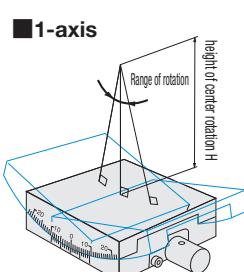
Center of rotation precision • Center of rotation height

▽ Center of rotation precision

Put a perfect circle ball to the center of rotation(on the actual center of rotation) height, and we recognized center of rotation tilt accuracy that amount of a perfect circle ball tilt(X.Y.Z) that occurs at the full-stroke.

▽ Heights of the center of rotation (Work-distance)

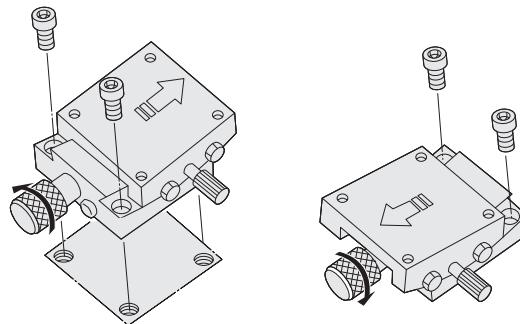
The center of rotation height becomes the height from the stage top surface to the perfect circle ball center.



For use correctly

▽How to mount

By rotating feeding screw in clockwise, you can find two bolt holes. You will find two more bolt holes by rotating it in counter clockwise. Use these holes to fix a stage with accessory screws.



▽About object on the upper or lower stage.

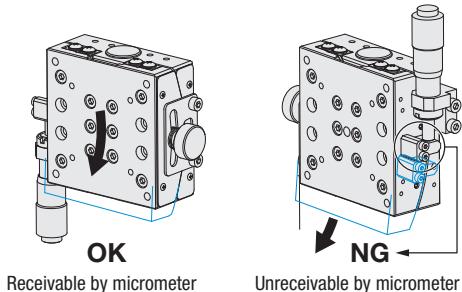
Stage surface might be deformed and mounting unflat object and set to the unflat place can affect to be deformed stage surface and decreasing accuracy.

[Flatness guideline: within 10µm]

▽Position of stage mounting

All products SPEC shows must be shown flat setting condition. Pay attention to mount such as up side down, vertical on the side and horizontal on the side. Load capacity and accuracy might be changed by the positioning.

Please feel free to ask us for more information.



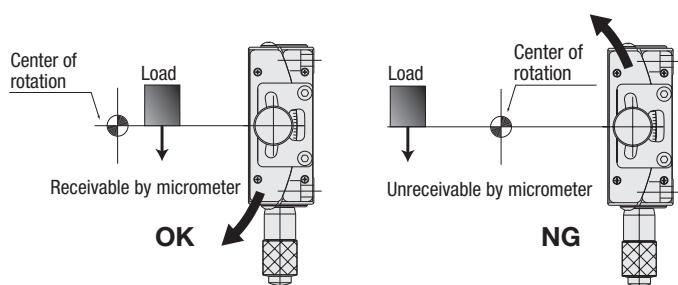
▼Posture characteristic list for each products

Travel guide [Feeding Type]	Inverted and reversed	Side horizontal	vertically use on the side
Dovetail [Worm gear]	○	○	○
Cross roller [Worm gear]	○	○	○
Cross roller [Micrometer]	○	○	△

○:Available under limit of load or moment

△:Accuracy might be decreased under limit of load or moment

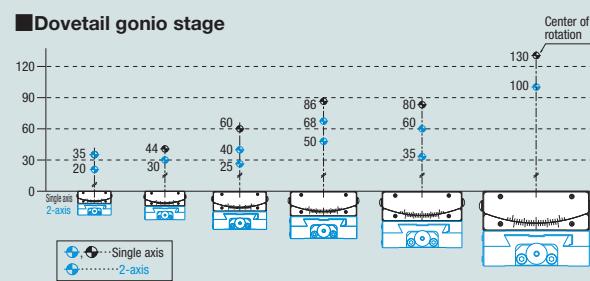
In case of vertically use on the side, it might be not able to use due to load position.



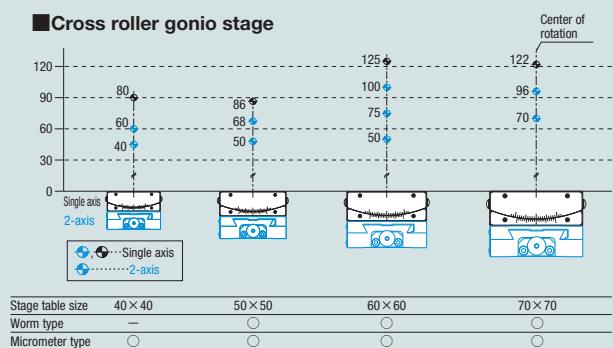
■Center of rotation height list

- It shows the center of rotation height for each stage size.
- Blue shows it is possible to configurate 2-axis type.

■Dovetail goniometer stage



■Cross roller goniometer stage



Manual Stage

Dovetail Goniometer Stage □25: B54/B55-25 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

■ 1-axis

B54-25 series B54-25LN



B54-25R series B54-25LNR



RoHS

■ 2-axis

B55-25N



B55-25NR



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Ideal for use in R&D, integrating device and much more.

■ Other 25×25mm stage

- Linear-motion stage



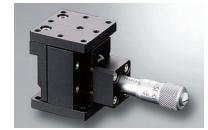
X-axis SS stage
BSS16-25 series
P.2-017~

- Rotation stage



B43-25 series
P.2-171~

- Horizontal Z-axis stage



B33-25A
P.2-082~

□25

□30

□40

□50

□60

□70

□80

□100

□120

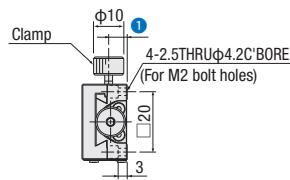
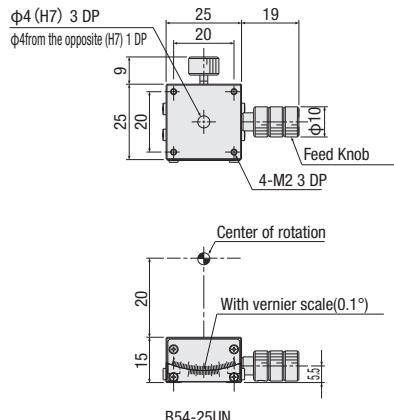
Other

SPEC

Axis	1-axis		2-axis
Model	B54-25UN	B54-25LN	B55-25N
(Opposite hand)	B54-25UNR	B54-25LNR	B55-25NR
Stage table size	25×25mm		
Heights of the center of rotation	20mm	35mm	20mm
Travel distance	±15°	±10°	(Up) ±15° (Down) ±10°
Vernier minimum reading	Vernier scale 0.1°		
Travel per Knob	≒2.0°		
Guide	Dovetail		
Load capacity	2.0kgf [19.6N]		
Allowable load for moment	Pitch	0.3N • m	
	Yaw	0.3N • m	
	Roll	0.3N • m	
Weight	0.07kg		0.14kg
Main material—Surface finishing	Brass—Black coating finish		
Provided screws (Hex socket screws)	4 of M2-6		

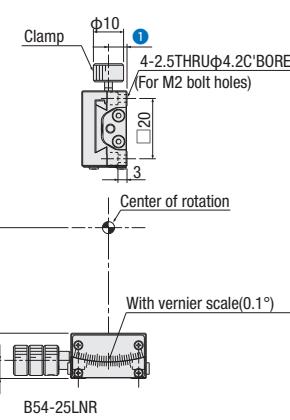
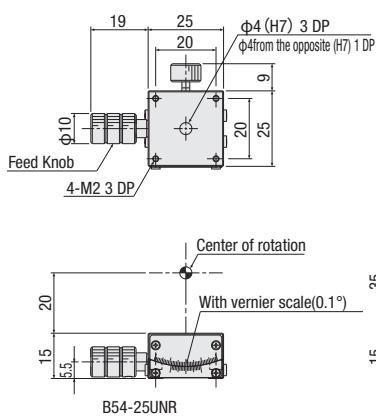
Dimensional outline drawings (1-axis)

B54-25 series



Model	WD (mm)	① (mm)
B54-25UN	20	6.2
B54-25LN	35	7.7

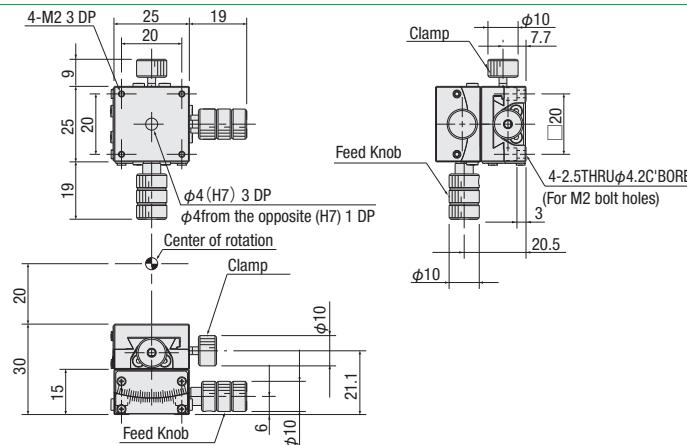
B54-25R series



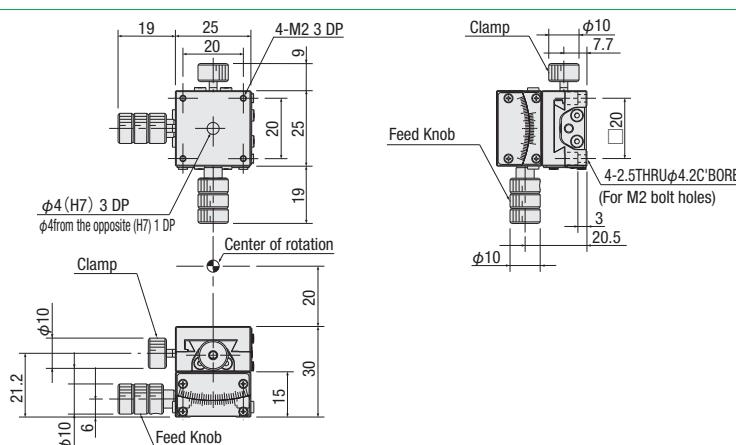
Model	WD (mm)	① (mm)
B54-25UNR	20	6.2
B54-25LNR	35	7.7

Dimensional outline drawings (2-axis)

B55-25N



B55-25NR



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

- 25
- 30
- 40
- 50
- 60
- 70
- 80
- 100
- 120
- Other

Manual Stage

Dovetail Goniometer Stage □30: B54/B55-30 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

■ 1-axis

B54-30 series B54-30L



B54-30R series B54-30LR



RoHS

■ 2-axis

B55-30U



B55-30UR

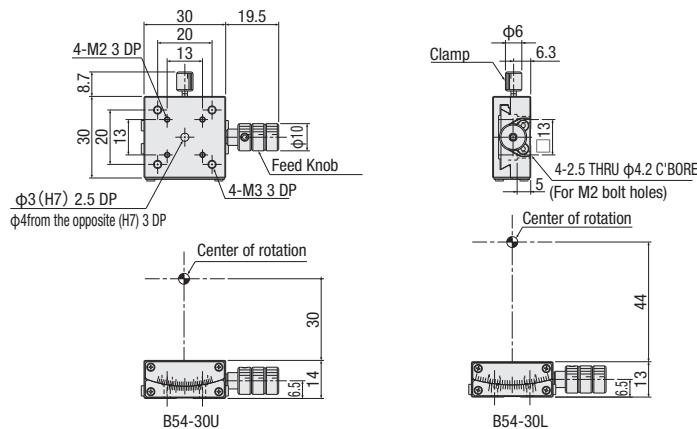


■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Ideal for use in R&D, integrating device and much more.

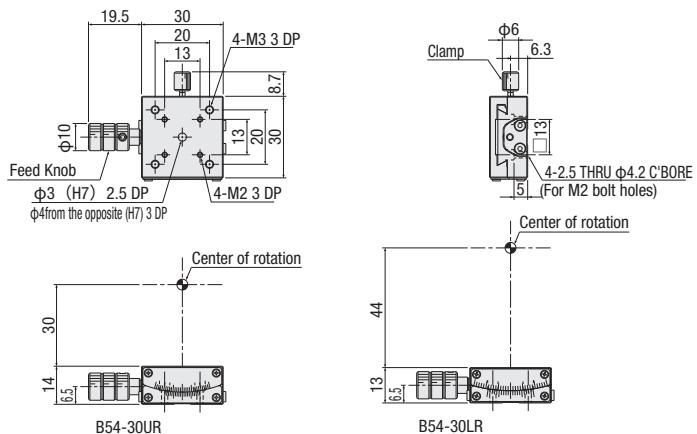
SPEC			
Axis	1-axis		2-axis
Model	B54-30U	B54-30L	B55-30U
(Opposite hand)	B54-30UR	B54-30LR	B55-30UR
Stage table size		30x30mm	
Heights of the center of rotation	30mm	44mm	30mm
Travel distance		±10°	
Vernier minimum reading	Vernier scale 0.1°		
Travel per Knob	≈ 2.06°	≈ 1.5°	(Up) ≈ 2.06° (Down) ≈ 1.5°
Guide	Dovetail		
Load capacity	1.0kgf [9.8N]		
Allowable load for moment	Pitch	0.5N • m	
	Yaw	0.5N • m	
	Roll	0.5N • m	
Weight	0.10kg		0.20kg
Main material—Surface finishing	Brass—Black coating finish		
Provided screws (Hex socket screws)	4 of M2-8		

Dimensional outline drawings (1-axis)

B54-30 series

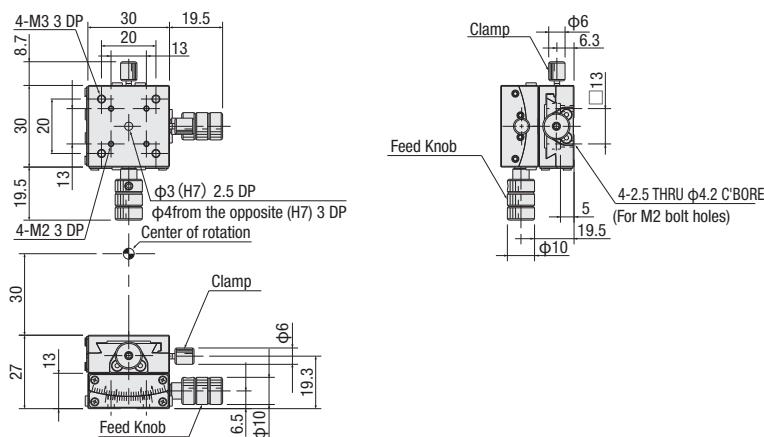


B54-30R series

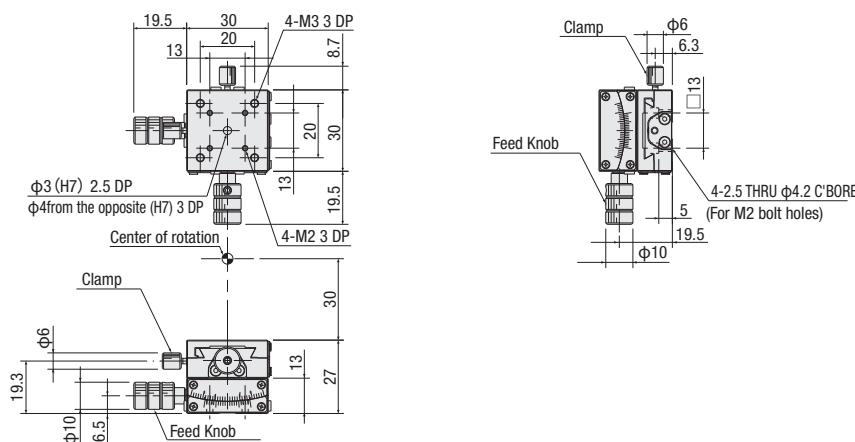


Dimensional outline drawings (2-axis)

B55-30U



B55-30UR



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

140

Manual Stage

Dovetail Goniometer Stage□40: B54/B55-40 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

■ 1-axis

B54-40 series B54-40LN



B54-40R series B54-40LNR



RoHS

■ 2-axis

B55-40 series B55-40N



B55-40R series B55-40NR



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Ideal for use in R&D, integrating device and much more.

■ Other 40×40mm stage

• Goniometer stage



Micrometer
Side pushing type
B58-40 series
P.2-159～

• Linear-motion stage



X-axis SS stage
BSS16-40 series
P.2-019～

• Z-axis stage



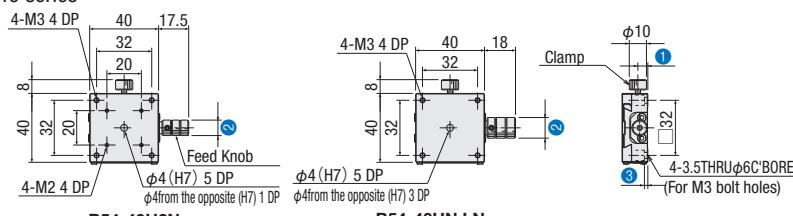
B33-40KGA
P.2-082～

SPEC

Axis	1-axis			2-axis	
Model	B54-40U2N	B54-40UN	B54-40LN	B55-40-2N	B55-40N
(Opposite hand)	B54-40U2NR	B54-40UNR	B54-40LNR	B55-40-2NR	B55-40NR
Stage table size	40×40mm				
Heights of the center of rotation	25mm	40mm	60mm	25mm	40mm
Travel distance	±20°	±15°	±10°	(Up) ±20° (Down) ±15°	(Up) ±15° (Down) ±10°
Vernier minimum reading	Vernier scale 0.1°				
Travel per Knob	÷2.2°	÷1.89°	÷1.33°	(Up) ÷2.2° (Down) ÷1.89°	(Up) ÷1.89° (Down) ÷1.33°
Guide	Dovetail				
Load capacity	3.0kgf [29.4N]			2.8kgf [27.4N]	2.7kgf [26.4N]
Allowable load for moment	Pitch	0.8N · m			0.8N · m
	Yaw	1.0N · m			1.0N · m
	Roll	1.0N · m			0.8N · m
Weight	0.18kg	0.24kg		0.42kg	0.48kg
Main material-Surface finishing	Brass—Black coating finish				
Provided screws (Hex socket screws)	4 of M3-6	4 of M3-8			

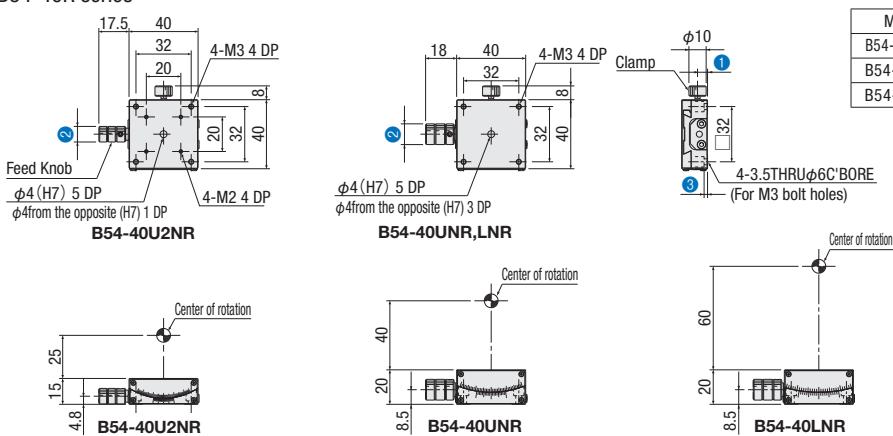
Dimensional outline drawings (1-axis)

B54-40 series



Model	WD (mm)	① (mm)	② (φ)	③ (mm)
B54-40U2N	25	5.8	9	2
B54-40UN	40	9.7	12	5
B54-40LN	60	9.7	12	5

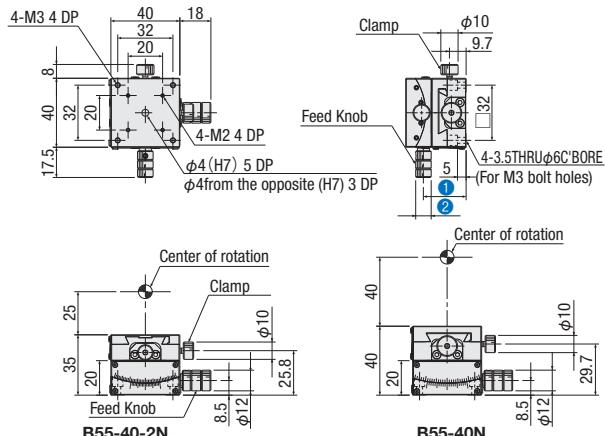
B54-40R series



Model	WD (mm)	① (mm)	② (φ)	③ (mm)
B54-40U2NR	25	5.8	9	2
B54-40UNR	40	9.7	12	5
B54-40LNR	60	9.7	12	5

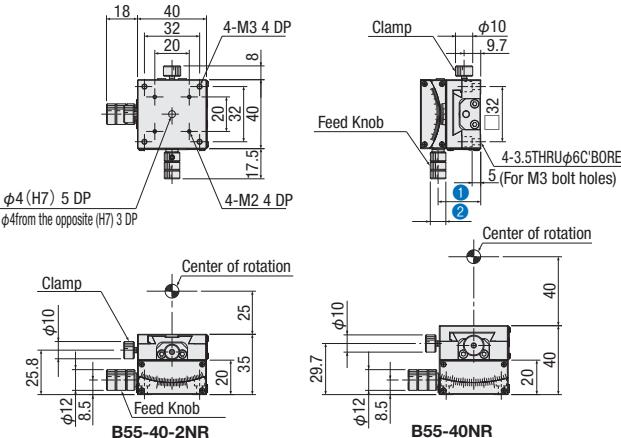
Dimensional outline drawings (2-axis)

B55-40 series



Model	WD (mm)	① (mm)	② (φ)
B55-40-2N	25	24.8	9
B55-40N	40	28.5	12

B55-40R series



Model	WD (mm)	① (mm)	② (φ)
B55-40-2NR	25	24.8	9
B55-40NR	40	28.5	12

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Goniometer

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

Manual Stage

Dovetail Goniometer Stage □50: B54/B55-50 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

■ 1-axis

B54-50 series B54-50L



B54-50R series B54-50LR



RoHS

■ 2-axis

B55-50 series B55-50U



B55-50R series B55-50UR



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Ideal for use in R&D, integrating device and much more.

■ Other 50×50mm stage

• Cross roller goniometer stage



Worm type
B56-50 series
▶ P.2-149~



Micrometer
Center pushing type
B58-50A series
▶ P.2-155~



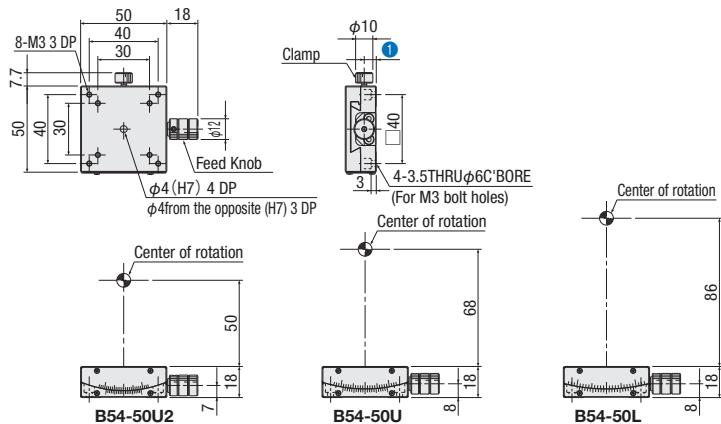
Micrometer
Side pushing type
B58-50C series
▶ P.2-161~

SPEC

Axis	1-axis			2-axis			
Model	B54-50U2	B54-50U	B54-50L	B55-50U2	B55-50U		
(Opposite hand)	B54-50U2R	B54-50UR	B54-50LR	B55-50U2R	B55-50UR		
Stage table size	50×50mm						
Heights of the center of rotation	50mm	68mm	86mm	50mm	68mm		
Travel distance	$\pm 10^\circ$		$\pm 8^\circ$		$\pm 10^\circ$ (Up) $\pm 10^\circ$ (Down) $\pm 8^\circ$		
Vernier minimum reading	Vernier scale 0.1°						
Travel per Knob	$\frac{1}{1.55}^\circ$	$\frac{1}{1.2}^\circ$	$\frac{1}{0.97}^\circ$	(Up) $\frac{1}{1.55}^\circ$ (Down) $\frac{1}{1.2}^\circ$	(Up) $\frac{1}{1.2}^\circ$ (Down) $\frac{1}{0.97}^\circ$		
Guide	Dovetail						
Load capacity	3.0kgf [29.4N]			2.5kgf [24.5N]			
Allowable load for moment	Pitch	1.0N · m			1.0N · m		
	Yaw	1.2N · m			1.2N · m		
	Roll	1.2N · m			1.0N · m		
Weight	0.36kg			0.72kg			
Main material-Surface finishing	Brass - Black coating finish						
Provided screws (Hex socket screws)	4 of M3-6						

Dimensional outline drawings (1-axis)

B54-50 series



Model	WD (mm)	① (mm)
B54-50U2	50	7
B54-50U	68	8
B54-50L	86	8

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

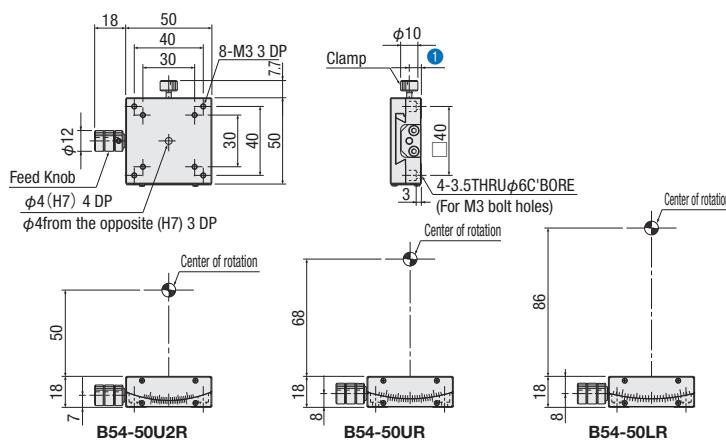
Dovetail

Cross
Roller

- 25
- 30
- 40
- 50
- 60
- 70
- 80
- 100
- 120
- Other

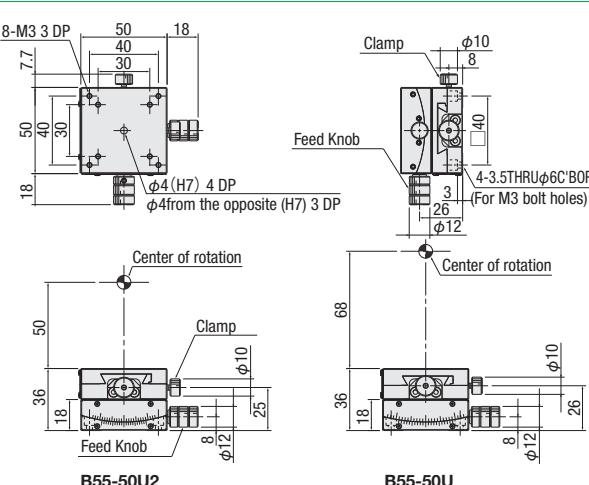
Dimensional outline drawings (2-axis)

B54-50R series

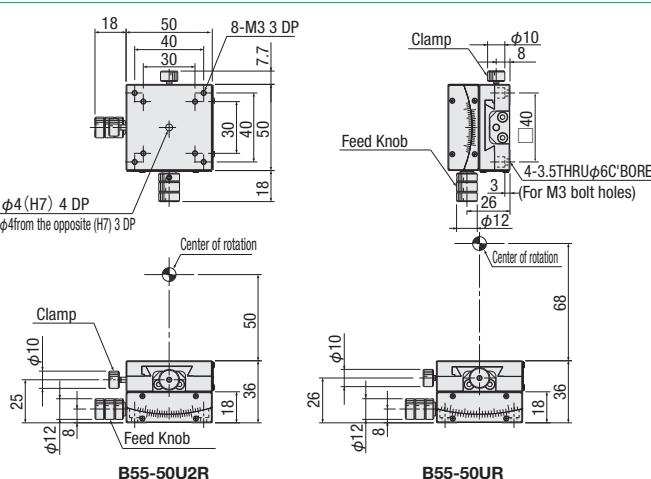


Model	WD (mm)	① (mm)
B54-50U2R	50	7
B54-50LR	68	8
B54-50UR	86	8

B55-50 series



B55-50R series



Manual Stage

Dovetail Goniometer Stage □60: B54/B55-60 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

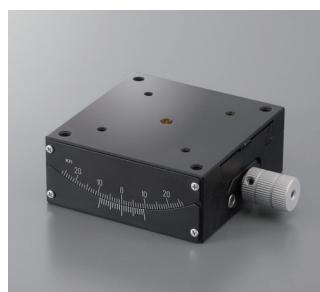
Accessories

Dovetail

Cross Roller

■ 1-axis

B54-60 series B54-60U2N



B54-60R series B54-60U2NR



RoHS

■ 2-axis

B55-60 series B55-60N



B55-60R series B55-60NR



■ Other 60mm x 60mm stage

- Cross roller goniometer stage



Worm type
B56-60 series
P.2-151~



Micrometer
Side pushing type
B58-60C series
P.2-163~

■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Ideal for use in R&D, integrating device and much more.

□25

□30

□40

□50

□60

□70

□80

□100

□120

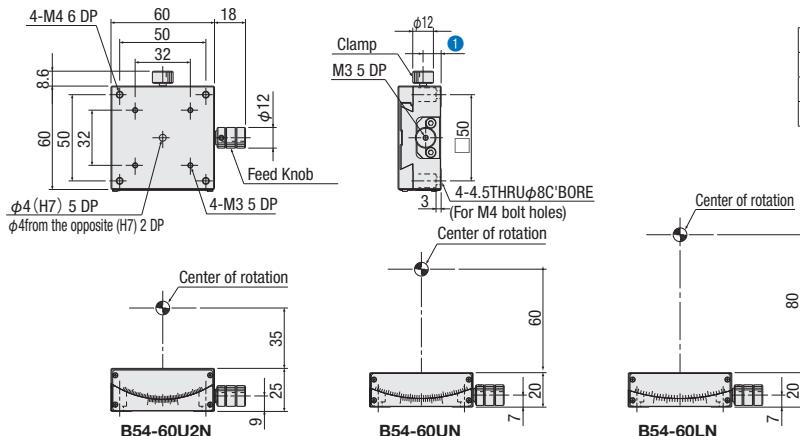
Other

SPEC

Axis	1-axis			2-axis			
Model	B54-60U2N	B54-60UN	B54-60LN	B55-60-2N	B55-60N		
(Opposite hand)	B54-60U2NR	B54-60UNR	B54-60LNR	B55-60-2NR	B55-60NR		
Stage table size			60×60mm				
Heights of the center of rotation	35mm	60mm	80mm	35mm	60mm		
Travel distance	±25°	±20°	±15°	(Up) ±25° (Down) ±20°	(Up) ±20° (Down) ±15°		
Vernier minimum reading			Vernier scale 0.1°				
Travel per Knob	÷2.0°	÷1.3°	÷1.0°	(Up) ÷2.0° (Down) ÷1.3°	(Up) ÷1.3° (Down) ÷1.0°		
Guide			Dovetail				
Load capacity	6.0kgf [58.8N]			5.3kgf [51.9N]	5.4kgf [52.9N]		
Allowable load for moment	Pitch	1.5N · m			1.5N · m		
	Yaw	2.0N · m			2.0N · m		
	Roll	2.0N · m			1.5N · m		
Weight	0.72kg	0.58kg		1.30kg	1.16kg		
Main material — Surface finishing	Brass — Black coating finish						
Provided screws (Hex socket screws)	4 of M4-8						

Dimensional outline drawings (1-axis)

B54-60 series



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

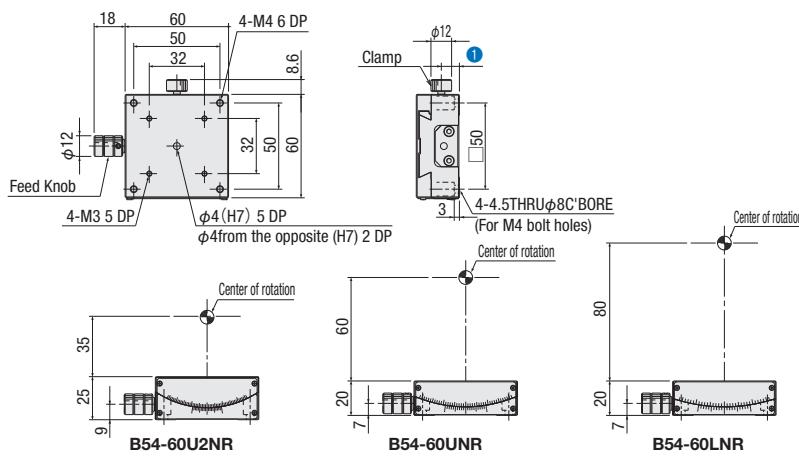
Unit

Accessories

Dovetail

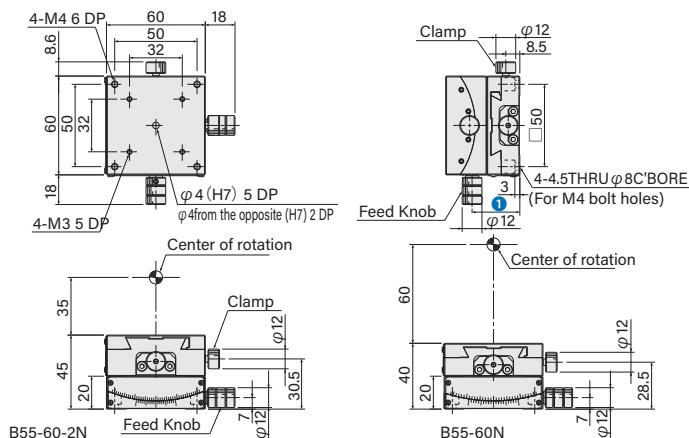
Cross
Roller

B54-60R series

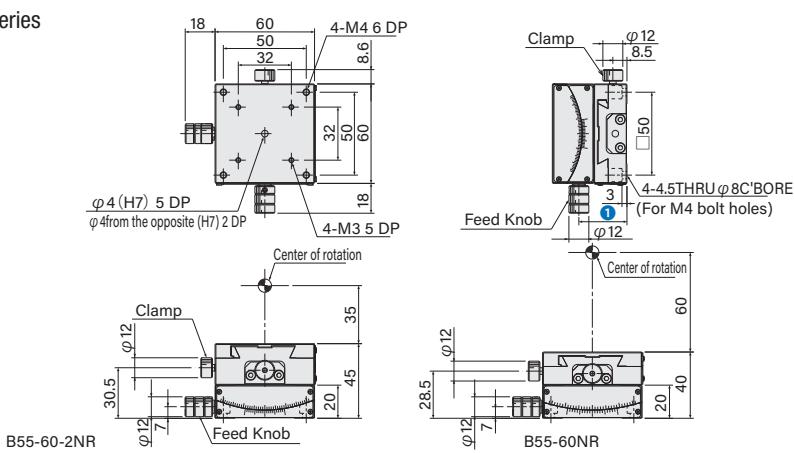


Dimensional outline drawings (2-axis)

B55-60 series



B55-60R series



- 25
- 30
- 40
- 50
- 60
- 70
- 80
- 100
- 120
- Other**

Manual Stage

Dovetail Goniometer Stage □80: B54/B55-80 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

■ 1-axis

B54-80 series B54-80L



B54-80R series B54-80LR



RoHS

■ 2-axis

B55-80



B55-80R



■ Other 80×80mm stage

• Linear-motion stage



X-axis SS stage
BSS16-80 series
P.2-027～



Thin type XY-axis stage
BSS23-80 series
P.2-041～

• Horizontal Z-axis stage



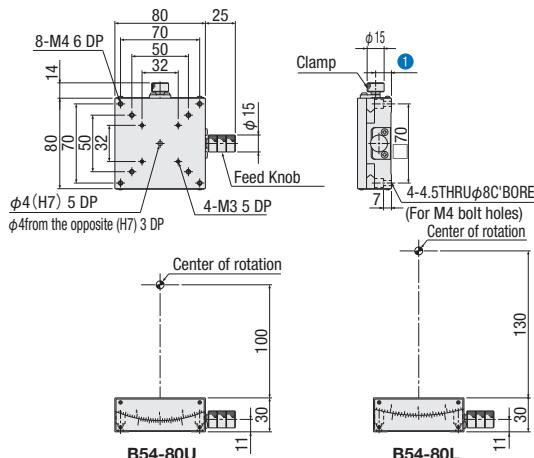
B33-80 series
P.2-083～

■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Ideal for use in R&D, integrating device and much more.

SPEC			
Axis	1-axis		2-axis
Model	B54-80U	B54-80L	B55-80
(Opposite hand)	B54-80UR	B54-80LR	B55-80R
Stage table size	80×80mm		
Heights of the center of rotation	100mm	130mm	100mm
Travel distance	±18°	±15°	(Up) ±18° (Down) ±15°
Vernier minimum reading	Vernier scale 0.1°		
Travel per Knob	1.0°		
Guide	Dovetail		
Load capacity	5.0kgf [49.0N]		4.3kgf [42.1N]
Allowable load for moment	Pitch	2.0N • m	2.0N • m
	Yaw	3.0N • m	3.0N • m
	Roll	3.0N • m	2.0N • m
Weight	0.64kg		1.28kg
Main material—Surface finishing	Aluminum—Black coating finish		
Provided screws (Hex socket screws)	4 of M4–12		

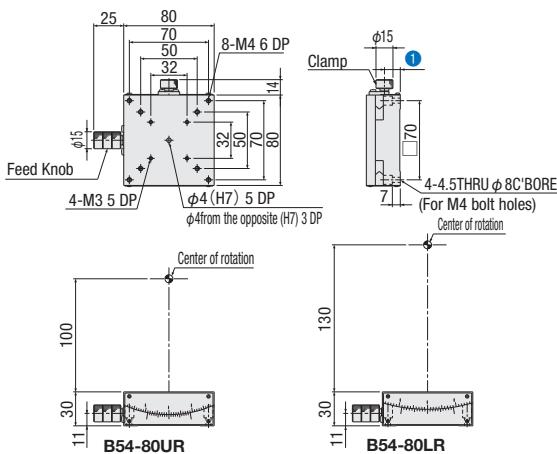
Dimensional outline drawings (1-axis)

B54-80 series



Model	WD (mm)	① (mm)
B54-80U	100	14
B54-80L	130	13

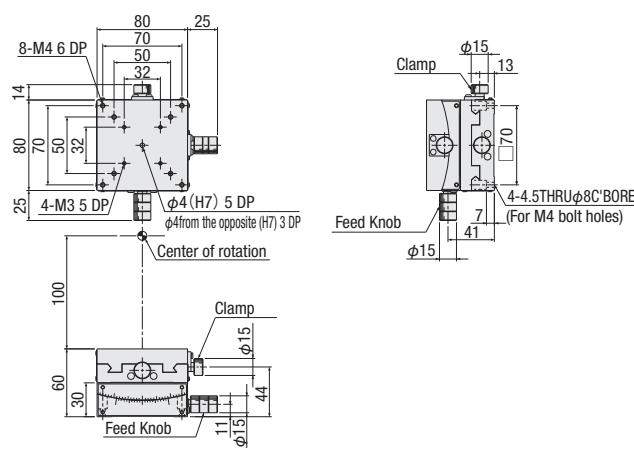
B54-80R series



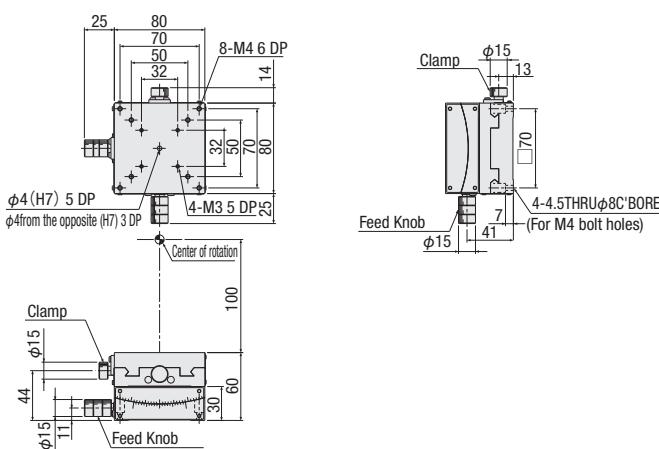
Model	WD (mm)	① (mm)
B54-80UR	100	14
B54-80LR	130	13

Dimensional outline drawings (2-axis)

B55-80



B55-80R



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

148

Manual Stage

Cross Roller Goniometer Stage (Worm type) □50: B56/B57-50 Series

■ 1-axis

B56-50 series B56-50W



B56-50R series B56-50WR



RoHS

■ 2-axis

B57-50 series B57-50U



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism.
Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in repeatability motion with good operation.

■ Other 50 x 50mm stage

• Cross roller goniometer stage



Micrometer
Center pushing type
B58-50A series
P.2-155~



Micrometer
Side pushing type
B58-50C series
P.2-161~

■ Adaptor plate

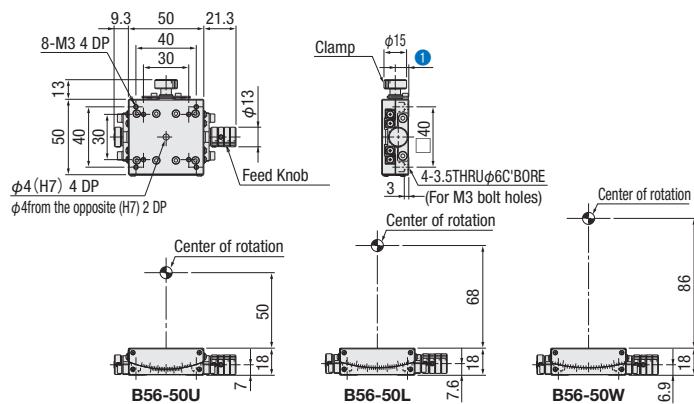


Conversion plate for mounting
difference size stage
A49 series
P.2-183~

SPEC							
Axis	1-axis			2-axis			
Model	B56-50U	B56-50L	B56-50W	B57-50U	B57-50L		
(Opposite hand)	B56-50UR	B56-50LR	B56-50WR	B57-50UR	B57-50LR		
Stage table size			50×50mm				
Heights of the center of rotation	50±0.2mm	68±0.2mm	86±0.2mm	50±0.4mm	68±0.4mm		
Center of rotation precision		Under 0.01mm			—		
Travel distance	±10.0°	±8.0°	±6.0°	(Up) ±10° (Down) ±8°	(Up) ±8° (Down) ±6°		
Vernier minimum reading			Vernier scale 0.1°				
Travel per Knob	÷1.56°	÷1.20°	÷0.96°	(Up) ÷1.56° (Down) ÷1.20°	(Up) ÷1.20° (Down) ÷0.96°		
Guide	Cross roller guide						
Load capacity	3.0kgf [29.4N]			2.7kgf [26.5N]			
Allowable load for moment	Pitch	1.5N · m			1.5N · m		
	Yaw	1.2N · m			1.2N · m		
	Roll	2.5N · m			1.5N · m		
Moment rigidity	Pitch	0.42"/N · cm			0.65"/N · cm		
	Yaw	0.16"/N · cm			0.32"/N · cm		
	Roll	0.23"/N · cm			0.65"/N · cm		
Weight	0.31kg			0.62kg			
Main material — Surface finishing	Brass/Phosphor bronze — Nickel and Chrome plated						
Provided screws (Hex socket screws)	4 of M3-6						

Dimensional outline drawings (1-axis)

B56-50 series



Model	WD (mm)	① (mm)
B56-50U	50	9
B56-50L	68	9.9
B56-50W	86	9.9

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

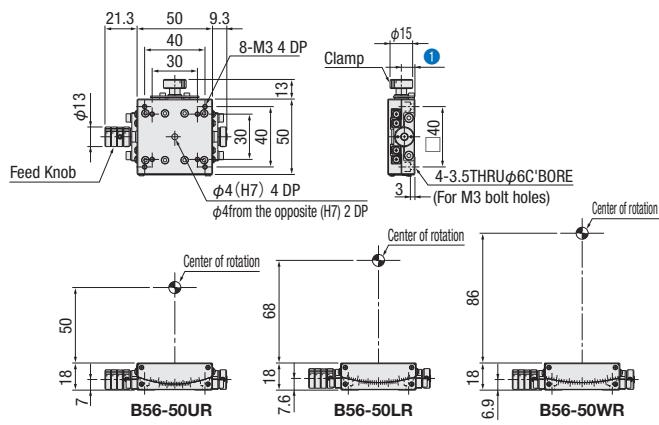
□120

Other

2

150

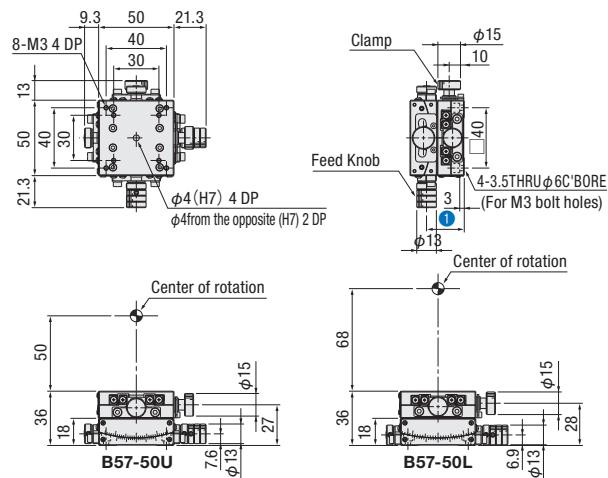
B56-50R series



Model	WD (mm)	① (mm)
B56-50UR	50	9
B56-50LR	68	9.9
B56-50WR	86	9.9

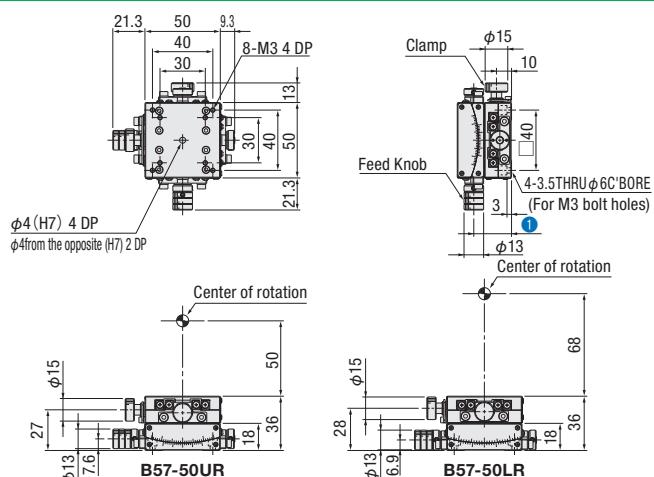
Dimensional outline drawings (2-axis)

B57-50 series



Model	WD (mm)	① (mm)
B57-50U	50	25
B57-50L	68	25.8

B57-50R series



Model	WD (mm)	① (mm)
B57-50UR	50	25
B57-50LR	68	25.8

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

150

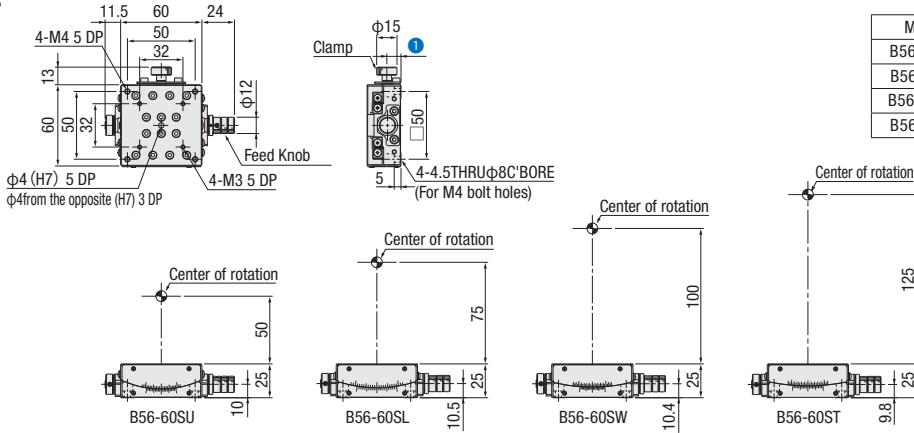
Cross Roller Goniometer Stage (Worm type) □60: B56/B57-60S Series

1-axis		SPEC					
Axis	1-axis						
Model	B56-60SU	B56-60SL	B56-60SW				
(Opposite hand)	B56-60SUR	B56-60SLR	B56-60SWR				
Stage table size							
Heights of the center of rotation	50±0.2mm	75±0.2mm	100±0.2mm				
Center of rotation precision	Under 0.01mm						
Travel distance	±10.0°	±8.0°	±5.0°				
Vernier minimum reading	Vernier scale 0.10°						
Travel per Knob	÷ 2.25°	÷ 1.60°	÷ 1.25°				
Guide							
Load capacity	5.0kgf [49.0N]						
Pitch	1.5N • m						
Yaw	2.0N • m						
Roll	2.6N • m						
Moment rigidity	Pitch	0.27"/N • cm					
	Yaw	0.09"/N • cm					
	Roll	0.10"/N • cm					
Weight	0.33kg						
Main material-Surface finishing	Aluminum-Aluminum Provided surfaces (4 way coated surface)						

RoHS

Dimensional outline drawings (1-axis)

B56-60S series



Model	W.D. (mm)	① (mm)
B56-60SU	50	10.5
B56-60SL	75	11.2
B56-60SW	100	16.4
B56-60ST	125	16.3

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

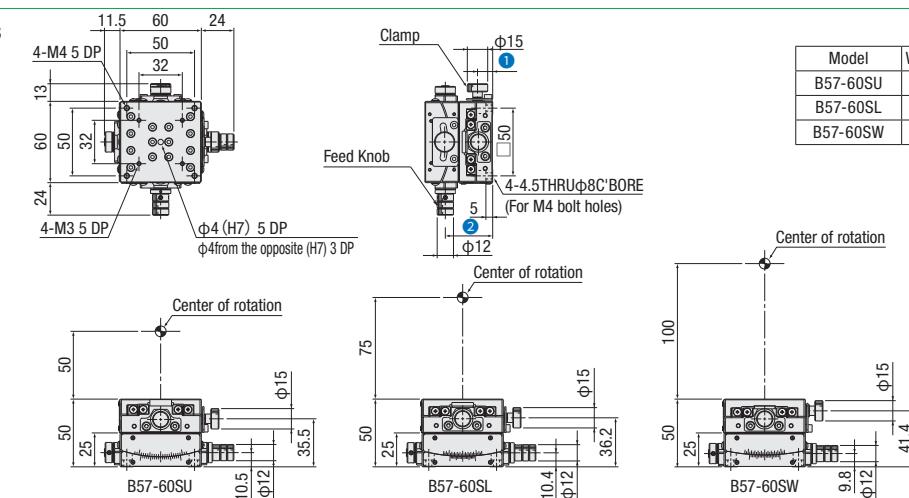
□120

Other

**2-B56
152**

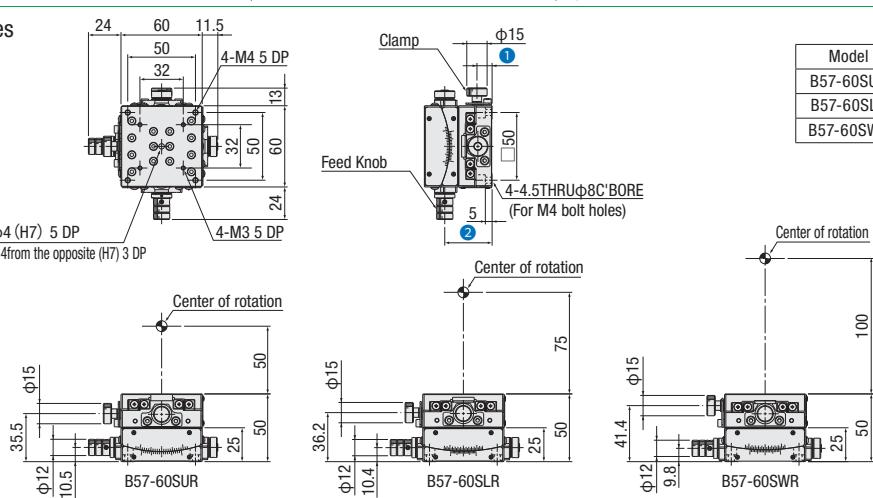
Dimensional outline drawings (2-axis)

B57-60S series



Model	W.D. (mm)	① (mm)	② (mm)
B57-60SU	50	11.3	35.0
B57-60SL	75	16.4	35.5
B57-60SW	100	16.3	35.4

B57-60SR series



Model	W.D. (mm)	① (mm)	② (mm)
B57-60SUR	50	11.3	35.0
B57-60SLR	75	16.4	35.5
B57-60SWR	100	16.3	35.4

Manual Stage

Cross Roller Goniometer Stage (Worm type) □70: B56/B57-70S Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2-B56
153

■ 1-axis

B56-70S series B56-70SU



B56-70SR series B56-70SUR



RoHS

■ 2-axis

B57-70S series B57-70SU



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism.
Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in repeatability motion with good operation.

■ Other 70×70mm Stage

- Cross roller goniometer stage



Micrometer
Center pushing type
B58-70A series
P.2-157～

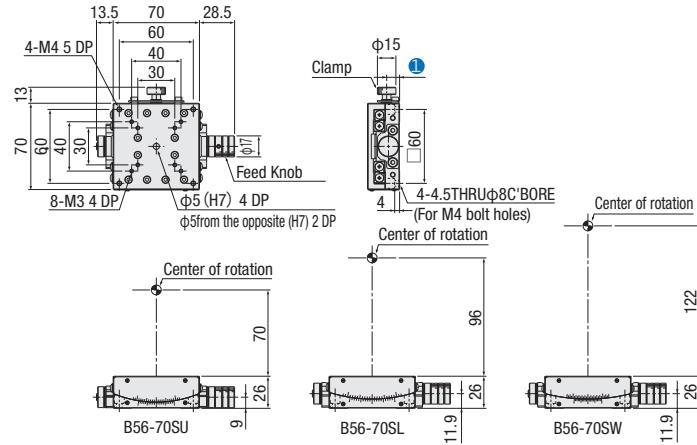


Micrometer
Side pushing type
B58-70C series
P.2-165～

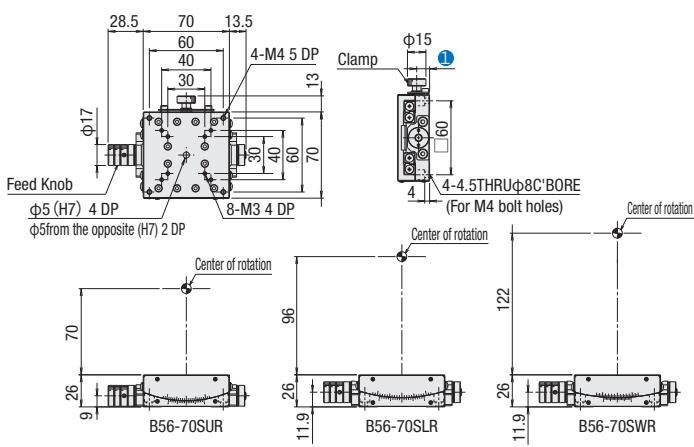
SPEC							
Axis	1-axis			2-axis			
Model	B56-70SU	B56-70SL	B56-70SW	B57-70SU	B57-70SL		
(Opposite hand)	B56-70SUR	B56-70SLR	B56-70SWR	B57-70SUR	B57-70SLR		
Stage table size	70×70mm						
Heights of the center of rotation	70±0.2mm	96±0.2mm	122±0.2mm	70±0.4mm	96±0.4mm		
Center of rotation precision	Under 0.01mm						
Travel distance	±9.0°	±7.0°	±5.0°	(Up) ±9° (Down) ±7°	(Up) ±7° (Down) ±5°		
Vernier minimum reading	Vernier scale 0.1°						
Travel per Knob	÷1.53°	÷1.20°	÷0.96°	(Up) ÷1.53° (Down) ÷1.20°	(Up) ÷1.20° (Down) ÷0.96°		
Guide	Cross roller guide						
Load capacity	5.0kgf [49.0N]			4.5kgf [44.1N]			
Allowable load for moment	Pitch	3.6N · m			3.6N · m		
	Yaw	2.8N · m			2.8N · m		
	Roll	5.7N · m			3.6N · m		
Moment rigidity	Pitch	0.17"/N · cm			0.23"/N · cm		
	Yaw	0.06"/N · cm			0.12"/N · cm		
	Roll	0.06"/N · cm			0.23"/N · cm		
Weight	0.57kg			1.14kg			
Main material—Surface finishing	Aluminum—White alumite processing						
Provided screws (Hex socket screws)	4 of M4—8						

Dimensional outline drawings (1-axis)

B56-70S series

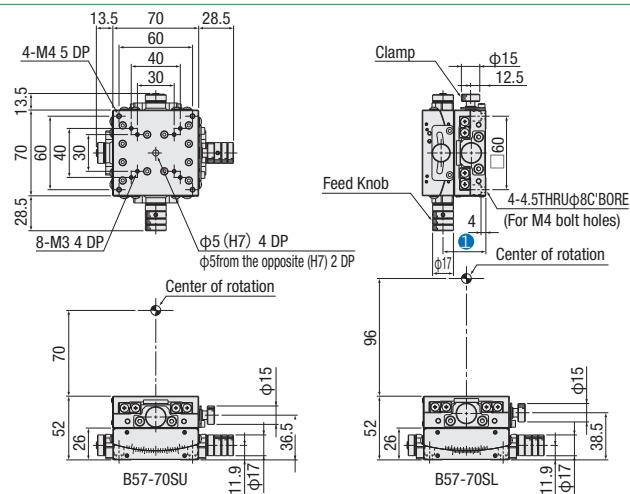


B56-70SR series

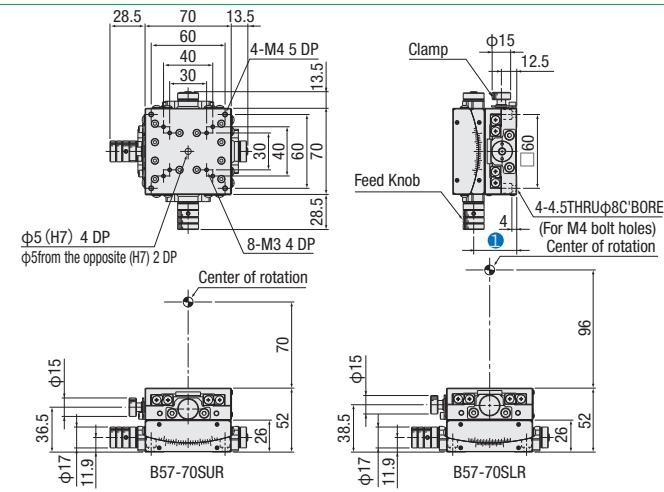


Dimensional outline drawings (2-axis)

B57-70S series



B57-70SR series



X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

Manual Stage

Cross Roller Goniometer Stage (Micrometer Center Pushing Type) □50: B58/B59-50A Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

■ 1-axis

B58-50A series (B58-50LA)



B58-50AR series (B58-50UAR)



RoHS

■ 2-axis

B59-50A series (B59-50UA)



B59-50AR series (B59-50UAR)



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in fine positioning.

■ Other 50×50mm Stage

- Dovetail goniometer stage



B54-50 series
P.2-143～

- Cross roller goniometer stage



Worm type
B56-50 series
P.2-149～

- Cross roller goniometer stage



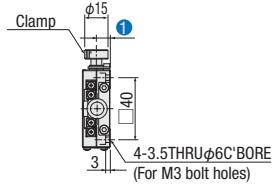
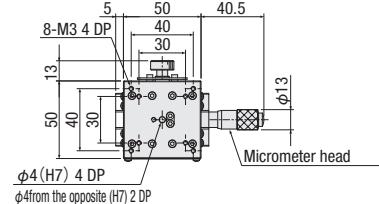
Micrometer
Side pushing type
B58-50C series
P.2-161～

SPEC

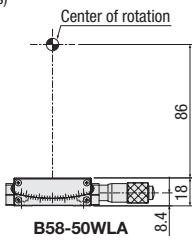
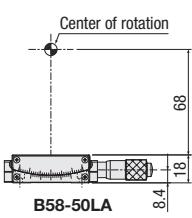
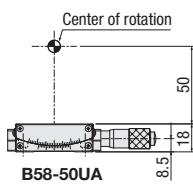
Axis	1-axis			2-axis	
Model	B58-50UA	B58-50LA	B58-50WLA	B59-50UA	B59-50LA
(Opposite hand)	B58-50UAR	B58-50LAR	B58-50WLAR	B59-50UAR	B59-50LAR
Stage table size			50×50mm		
Feeding position			Center		
Heights of the center of rotation	50±0.2mm	68±0.2mm	86±0.2mm	50±0.4mm	68±0.4mm
Center of rotation precision			Under 0.01mm		
Travel distance			±3.0°	(Up) ±3.0° (Down) ±3.0°	
Minimum reading of micrometer	≒35"/Scale	≒27"/Scale	≒22"/Scale	(Up) ≒35" (Down) ≒27"	(Up) ≒27" (Down) ≒22"
Guide			Cross roller guide		
Load capacity		3.0kgf [29.4N]		2.8kgf [27.4N]	
Allowable load for moment	Pitch	1.5N · m		1.5N · m	
	Yaw	1.2N · m		1.2N · m	
	Roll	2.5N · m		1.5N · m	
Moment rigidity	Pitch	0.60"/N · cm		0.97"/N · cm	
	Yaw	0.26"/N · cm		0.52"/N · cm	
	Roll	0.37"/N · cm		0.97"/N · cm	
Weight		0.22kg		0.44kg	
Main material-Surface finishing		Aluminum-White alumite processing			
Provided screws (Hex socket screws)		4 of M3-6			

Dimensional outline drawings (1-axis)

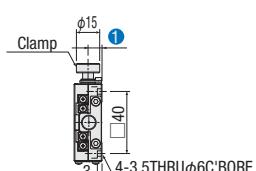
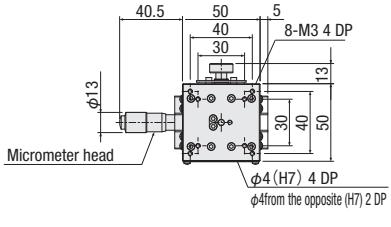
B58-50A series



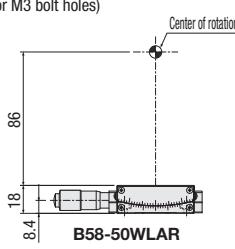
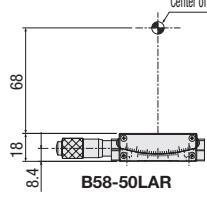
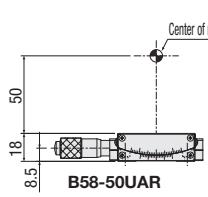
Model	WD (mm)	● (mm)
B58-50UA	50	9
B58-50LA	68	9.9
B58-50WLA	86	9.9



B58-50AR series

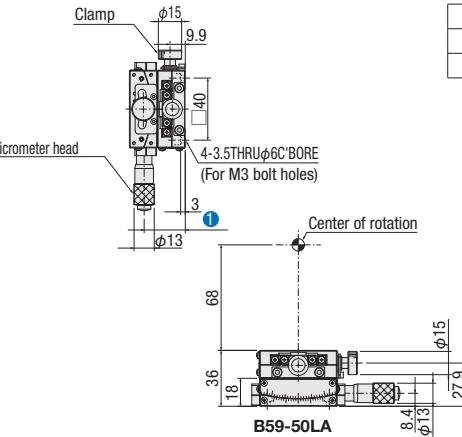
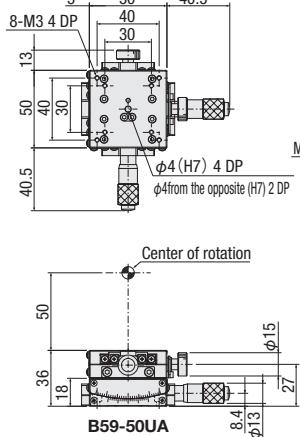


Model	WD (mm)	● (mm)
B58-50UAR	50	9
B58-50LAR	68	9.9
B58-50WLAR	86	9.9

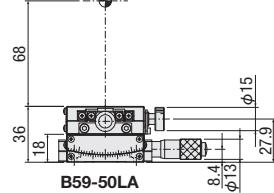
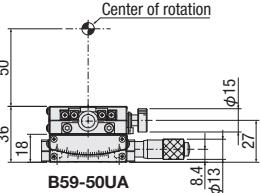


Dimensional outline drawings (2-axis)

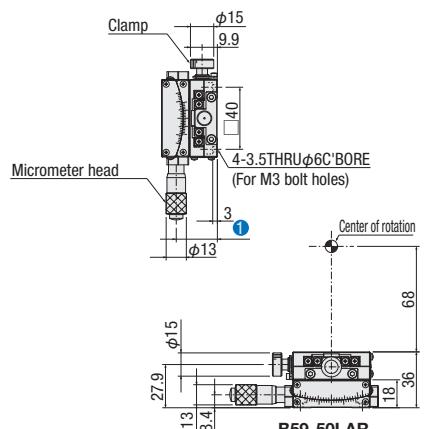
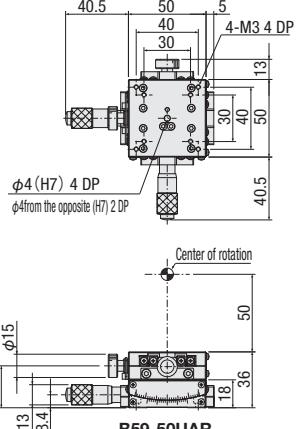
B59-50A series



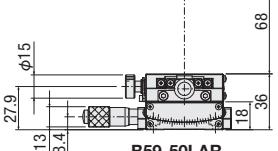
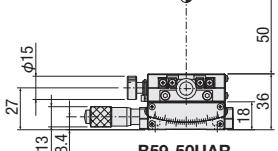
Model	WD (mm)	● (mm)
B59-50UA	50	26.5
B59-50LA	68	26.4



B59-50AR series



Model	WD (mm)	● (mm)
B59-50UAR	50	26.5
B59-50LAR	68	26.4



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

156

Manual Stage

Cross Roller Goniometer Stage (Micrometer Center Pushing Type) □70: B58/B59-70A Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

■ 1-axis

B58-70A series (B58-70LA)



B58-70AR series (B58-70LAR)



RoHS

■ 2-axis

B59-70A series (B59-70UA)



B59-70AR series (B59-70UAR)



■ Other 70×70mm Stage

• Cross roller goniometer stage



Worm type
B56-70 series
P.2-153～



Micrometer
Side pushing type
B58-70C series
P.2-165～

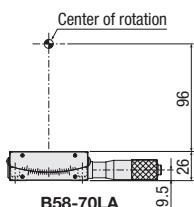
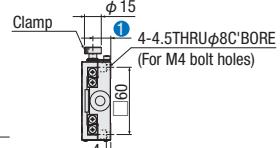
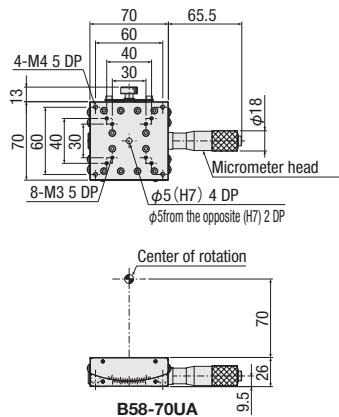
■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in fine positioning.

Cross Roller

SPEC					
Axis		1-axis		2-axis	
Model	B58-70UA	B58-70LA	B58-70WLA	B59-70UA	B59-70LA
(Opposite hand)	B58-70UAR	B58-70LAR	B58-70LAR	B59-70UAR	B59-70LAR
Stage table size			70×70mm		
Feeding position			Center		
Heights of the center of rotation	70±0.2mm	96±0.2mm	122±0.2mm	70±0.4mm	96±0.4mm
Center of rotation precision		Under 0.01mm			
Travel distance		±3.0°		(Up) ±3.0° (Down) ±3.0°	
Minimum reading of micrometer	≒24"/Scale	≒18"/Scale	≒15"/Scale	(Up) ≒24" (Down) ≒18"	(Up) ≒18" (Down) ≒15"
Guide			Cross roller guide		
Load capacity		5.0kgf [49.0N]		4.5kgf [44.1N]	
Allowable load for moment	Pitch	3.6N · m		3.6N · m	
	Yaw	2.8N · m		2.8N · m	
	Roll	5.7N · m		3.6N · m	
Moment rigidity	Pitch	0.17"/N · cm		0.23"/N · cm	
	Yaw	0.06"/N · cm		0.12"/N · cm	
	Roll	0.06"/N · cm		0.23"/N · cm	
Weight		0.52kg		1.04kg	
Main material-Surface finishing		Aluminum-White alumite processing			
Provided screws (Hex socket screws)		4 of M4-8			

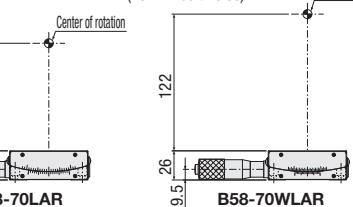
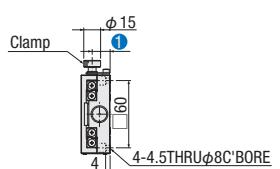
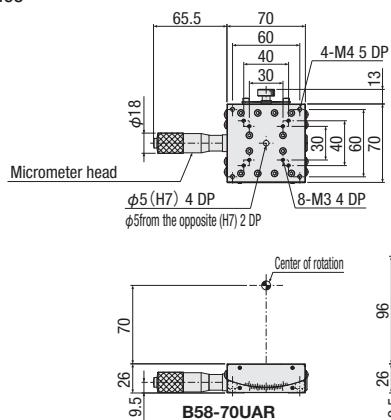
Dimensional outline drawings (1-axis)

B58-70A series



Model	WD (mm)	● (mm)
B58-70UA	70	16
B58-70LA	96	17.5
B58-70WLA	122	17.5

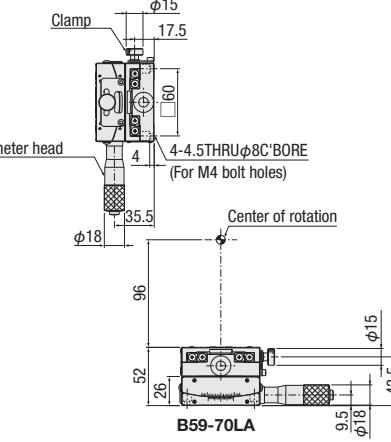
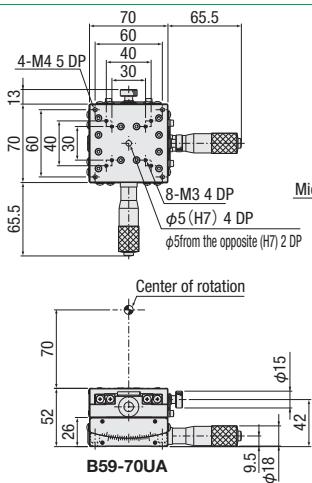
B58-70AR series



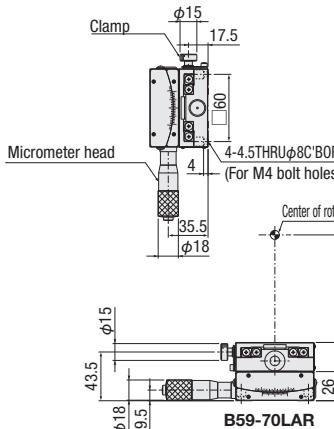
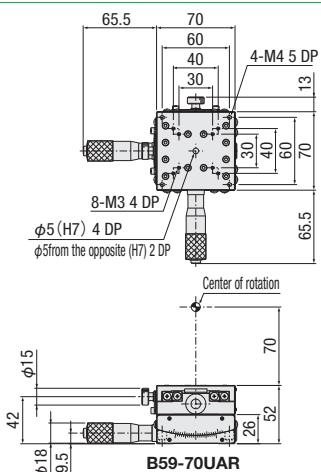
Model	WD (mm)	● (mm)
B58-70UAR	70	16
B58-70LAR	96	17.5
B58-70WALAR	122	17.5

Dimensional outline drawings (2-axis)

B59-70A series



B59-70AR series



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

158

Manual Stage

Cross Roller Goniometer Stage (Micrometer Side Pushing Type) □40: B58/B59-40 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

■ 1-axis

B58-40C series (B58-40LC)



B58-40CR series (B58-40LCR)



RoHS

■ 2-axis

B59-40 series (B59-40W)



B59-40R series (B59-40WR)



■ Other 40×40mm Stage

• Dovetail goniometer stage



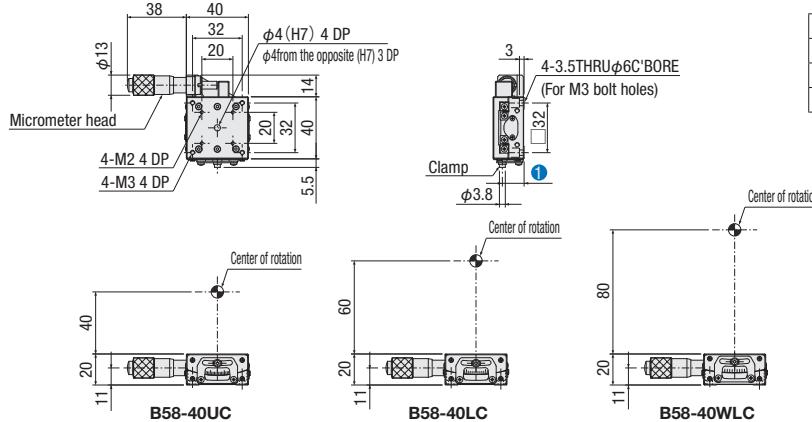
B54-40 series
P.2-141～

■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in fine positioning.

SPEC					
Axis	1-axis			2-axis	
Model	B58-40UC	B58-40LC	B58-40WLC	B59-40	B59-40W
(Opposite hand)	B58-40UCR	B58-40LCR	B58-40WLCR	B59-40R	B59-40WR
Stage table size			40×40mm		
Feeding position			Side		
Heights of the center of rotation	40±0.2mm	60±0.2mm	80±0.2mm	40±0.4mm	60±0.4mm
Center of rotation precision		Under 0.01mm			
Travel distance	±7.0°	±4.0°		(Up) ±7.0° (Down) ±4.0°	(Up) ±4.0° (Down) ±4.0°
Minimum reading of micrometer	÷42"/Scale	÷30"/Scale	÷23"/Scale	(Up) ÷42" (Down) ÷30"	(Up) ÷30" (Down) ÷23"
Guide			Cross roller guide		
Load capacity		3.0kgf [29.4N]		2.8kgf [27.4N]	
Allowable load for moment	Pitch	1.0N · m		1.0N · m	
	Yaw	0.8N · m		0.8N · m	
	Roll	0.9N · m		0.9N · m	
Moment rigidity	Pitch	1.30"/N · cm		1.57"/N · cm	
	Yaw	1.15"/N · cm		2.30"/N · cm	
	Roll	0.27"/N · cm		1.57"/N · cm	
Weight		0.13kg		0.26kg	
Main material-Surface finishing		Aluminum-Black alumite processing			
Provided screws (Hex socket screws)		4 of M3-6			

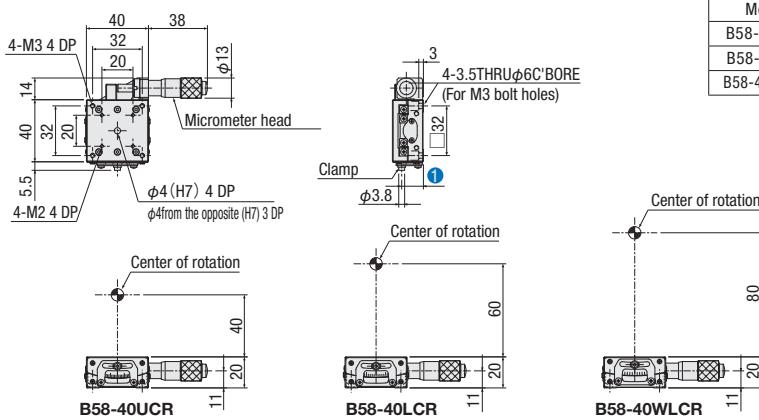
Dimensional outline drawings (1-axis)

B58-40C series



Model	WD (mm)	① (mm)
B58-40UC	40	14
B58-40LC	60	14
B58-40WLC	80	15

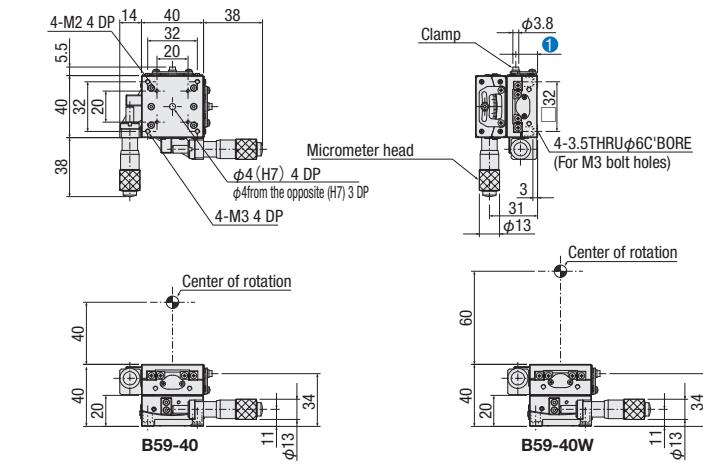
B58-40CR series



Model	WD (mm)	① (mm)
B58-40UCR	40	14
B58-40LCR	60	14
B58-40WLCB	80	15

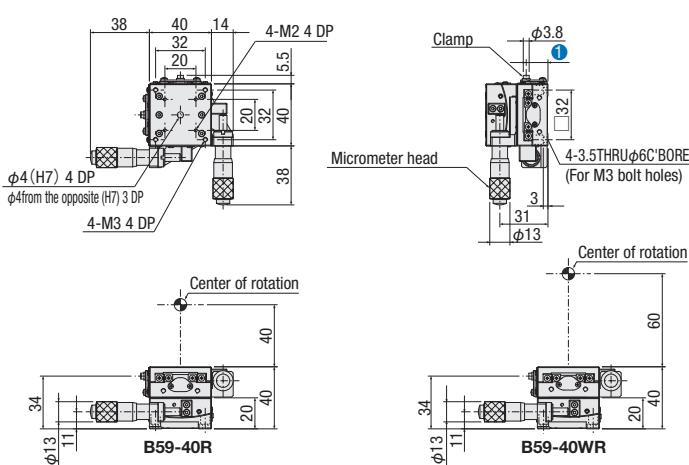
Dimensional outline drawings (2-axis)

B59-40 series



Model	WD (mm)	① (mm)
B59-40	40	14
B59-40W	60	15

B59-40R series



Model	WD (mm)	① (mm)
B59-40R	40	14
B59-40WR	60	15

Manual Stage

Cross Roller Goniometer Stage (Micrometer Side Pushing Type) □50: B58/B59-50 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

■ 1-axis

B58-50C series (B58-50LC)



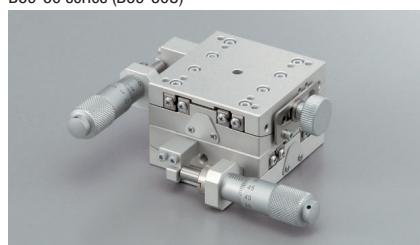
B58-50CR series (B58-50LCR)



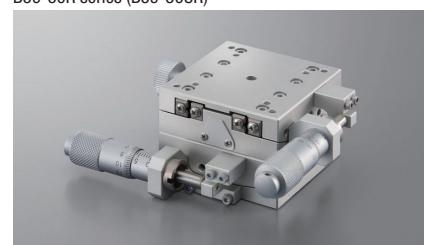
RoHS

■ 2-axis

B59-50 series (B59-50U)



B59-50R series (B59-50UR)



■ Other 50×50mm Stage

• Dovetail goniometer stage



B54-50 series
P.2-143～

• Cross roller goniometer stage



Worm type
B56-50 series
P.2-149～



Micrometer
Center pushing type
B58-50A series
P.2-155～

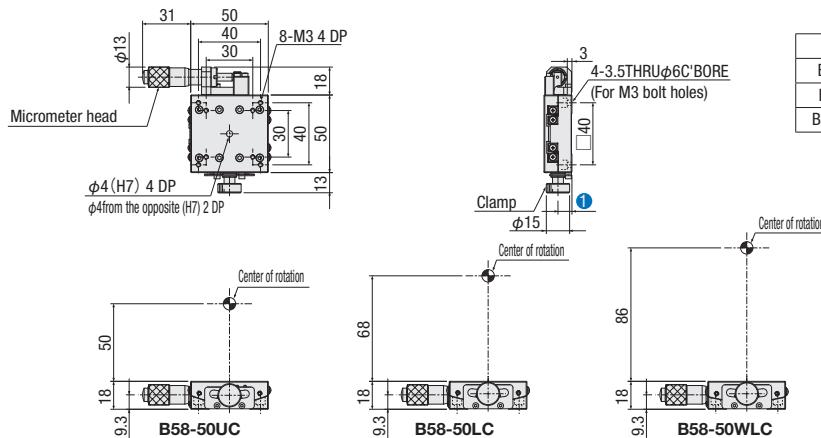
■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in fine positioning.

Cross Roller

SPEC							
Axis	1-axis			2-axis			
Model	B58-50UC	B58-50LC	B58-50WLC	B59-50U	B59-50L		
(Opposite hand)	B58-50UCR	B58-50LCR	B58-50WLCR	B59-50UR	B59-50LR		
Stage table size			50×50mm				
Feeding position			Side				
Heights of the center of rotation	50±0.2mm	68±0.2mm	86±0.2mm	50±0.4mm	68±0.4mm		
Center of rotation precision		Under 0.01mm					
Travel distance		±3.0°		(Up) ±3.0° (Down) ±3.0°			
Minimum reading of micrometer	≒35"/Scale	≒27"/Scale	≒22"/Scale	(Up) ≒35" (Down) ≒27"	(Up) ≒27" (Down) ≒22"		
Guide			Cross roller guide				
Load capacity	3.0kgf [29.4N]			2.8kgf [27.4N]			
Allowable load for moment	Pitch	1.5N · m			1.5N · m		
	Yaw	1.2N · m			1.2N · m		
	Roll	2.5N · m			1.5N · m		
Moment rigidity	Pitch	0.60"/N · cm			0.97"/N · cm		
	Yaw	0.26"/N · cm			0.52"/N · cm		
	Roll	0.37"/N · cm			0.97"/N · cm		
Weight	0.23kg			0.46kg			
Main material-Surface finishing	Aluminum-White alumite processing						
Provided screws (Hex socket screws)	4 of M3-6						

Dimensional outline drawings (1-axis)

B58-50C series



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Goniometer

Rotary

Unit

Accessories

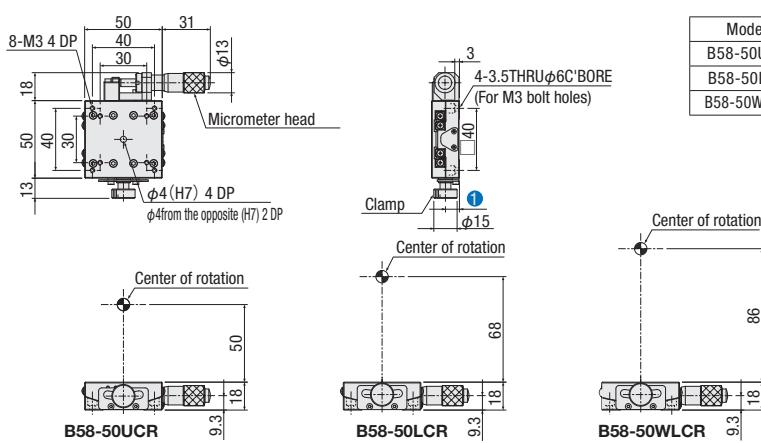
Dovetail

Cross Roller

- 25
- 30
- 40
- 50
- 60
- 70
- 80
- 100
- 120
- Other

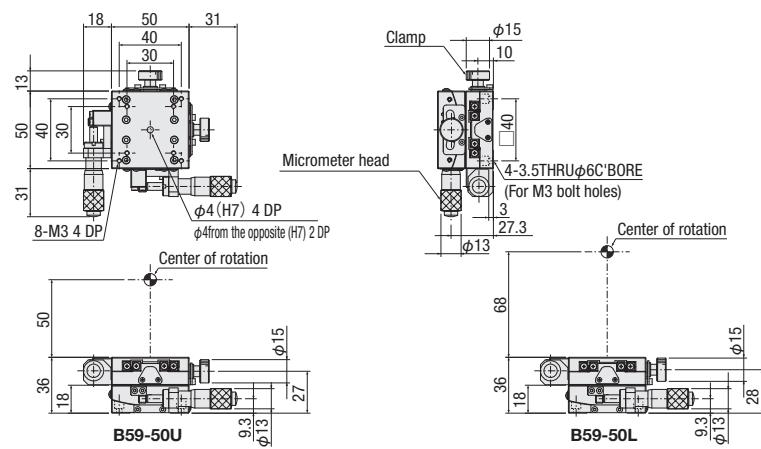
2
162

B58-50CR series

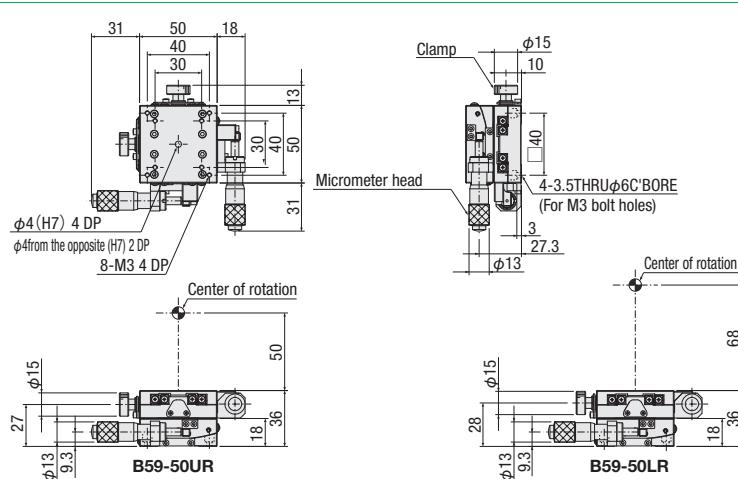


Dimensional outline drawings (2-axis)

B59-50 series



B59-50R series



Manual Stage

Cross Roller Goniometer Stage (Micrometer Side Pushing Type) □60: B58/B59-60 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

■ 1-axis

B58-60C series (B58-60LC)



B58-60CR series (B58-60LCR)



RoHS

■ 2-axis

B59-60 series (B59-60T)

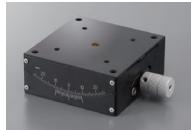


B59-60R series (B59-60TR)



■ Other 60×60mm Stage

• Dovetail goniometer stage



Worm type
B54-60 series
P.2-145～

• cross roller goniometer stage



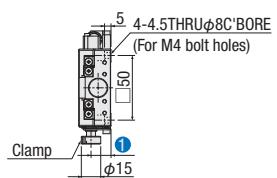
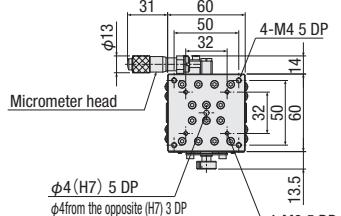
Worm type
B56-60U series
P.2-151～

■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in fine positioning.

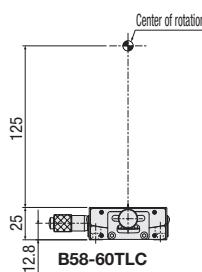
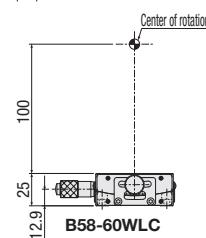
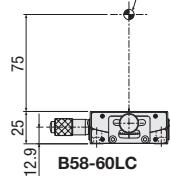
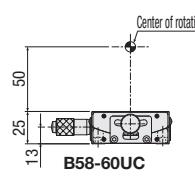
SPEC												
Axis	1-axis				2-axis							
Model (Opposite hand)	B58-60UC	B58-60LC	B58-60WLC	B58-60TLC	B59-60	B59-60W	B59-60T					
Stage table size					60×60mm							
Feeding position					Side							
Heights of the center of rotation	50±0.2mm	75±0.2mm	100±0.2mm	125±0.2mm	50±0.4mm	75±0.4mm	100±0.4mm					
Center of rotation precision				Under 0.01mm			—					
Travel distance	±4.0°	±3.0°	±2.5°		(Up) ±4.0° (Down) ±4.0°	(Up) ±4.0° (Down) ±3.0°	(Up) ±3.0° (Down) ±2.5°					
Minimum reading of micrometer	÷33"/Scale	÷24"/Scale	÷18"/Scale	÷15"/Scale	(Up) ÷33" (Down) ÷24"	(Up) ÷24" (Down) ÷18"	(Up) ÷18" (Down) ÷15"					
Guide	Cross roller guide											
Load capacity	5.0kgf [49.0N]				4.7kgf [46.0N]							
Allowable load for moment	Pitch	1.5N • m				1.5N • m						
	Yaw	2.0N • m				2.0N • m						
	Roll	2.6N • m				1.5N • m						
Moment rigidity	Pitch	0.27"/N • cm				0.37"/N • cm						
	Yaw	0.09"/N • cm				0.18"/N • cm						
	Roll	0.10"/N • cm				0.37"/N • cm						
Weight	0.31kg	0.30kg			0.62kg	0.60kg						
Main material-Surface finishing	Aluminum-Black alumite processing											
Provided screws (Hex socket screws)	4 of M4-10											

Dimensional outline drawings (1-axis)

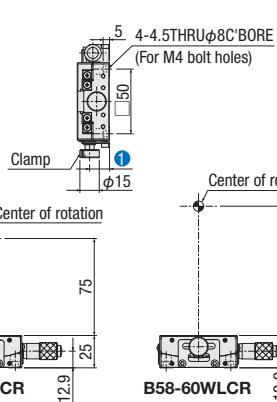
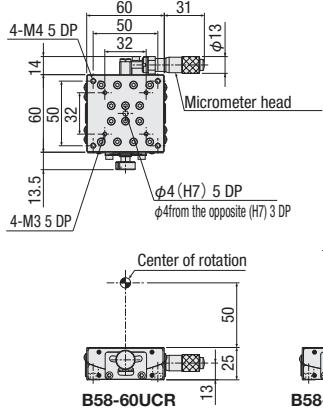
B58-60C series



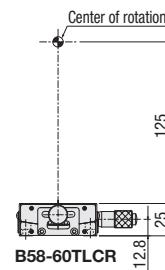
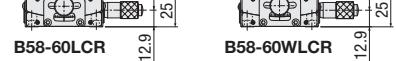
Model	WD (mm)	① (mm)
B58-60UC	50	15.5
B58-60LC	75	15.9
B58-60WLC	100	16.4
B58-60TLC	125	16.3



B58-60CR series

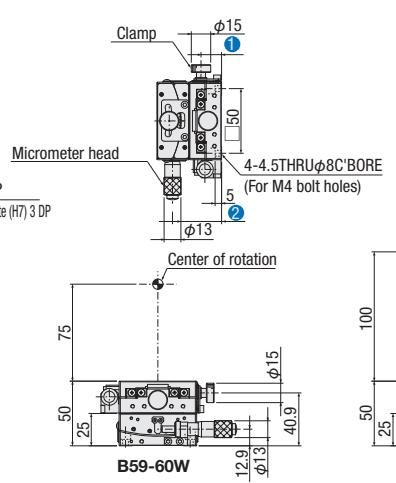
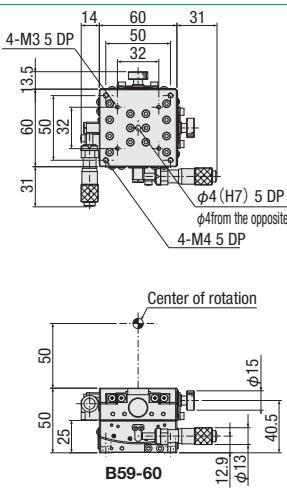


Model	WD (mm)	① (mm)
B58-60UCR	50	15.5
B58-60LCR	75	15.9
B58-60WLCR	100	16.4
B58-60TLCR	125	16.3

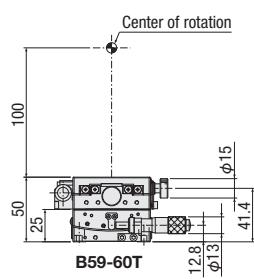
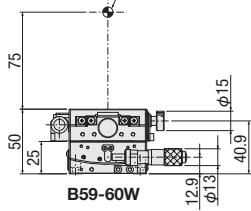
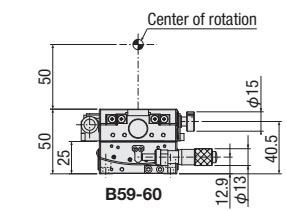


Dimensional outline drawings (2-axis)

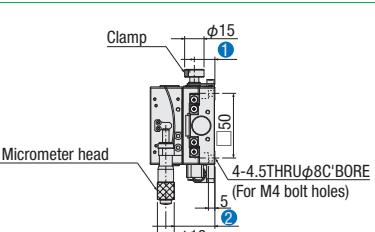
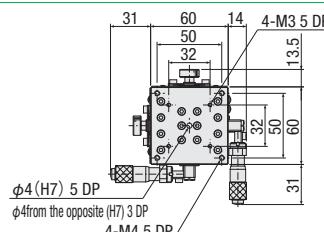
B59-60 series



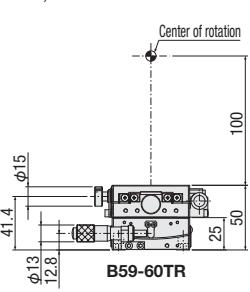
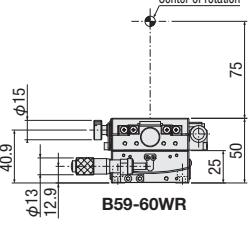
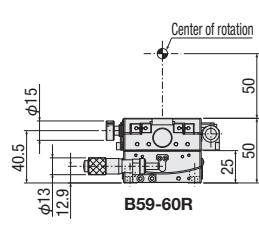
Model	WD (mm)	① (mm)	② (mm)
B59-60	50	15.9	38.0
B59-60W	75	16.4	37.9
B59-60T	100	16.3	37.9



B59-60R series



Model	WD (mm)	① (mm)	② (mm)
B59-60R	50	15.9	38.0
B59-60WR	75	16.4	37.9
B59-60TR	100	16.3	37.9



Manual goniometer stage

X
XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

164

Manual Stage

Cross Roller Goniometer Stage (Micrometer Side Pushing Type) □70: B58/B59-70 Series

Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross
Roller

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

■ 1-axis

B58-70C series (B58-70WLC)



B58-70CR series (B58-70WLCR)



RoHS

■ 2-axis

B59-70 series (B59-70U)



B59-70R series (B59-70UR)



■ High cost performance goni stage which dovetail system is adapted for a travel guide, and worm gear system is adapted for feeding mechanism. Center of rotation runout accuracy is under 0.01mm(1-axis)
Ideal for use in fine positioning.

■ Other 70×70mm Stage

• Cross roller goniometer stage



Worm type
B56-70 series
P.2-153～



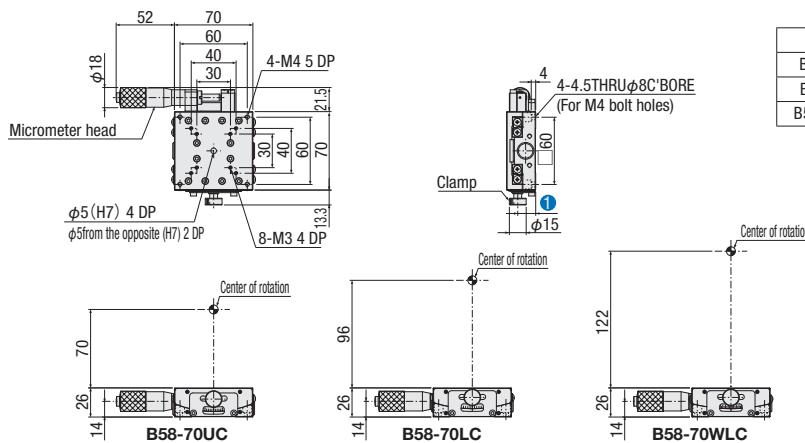
Micrometer
Center pushing type
B58-70A series
P.2-157～

SPEC

Axis	1-axis			2-axis	
Model	B58-70UC	B58-70LC	B58-70WLC	B59-70U	B59-70L
(Opposite hand)	B58-70UCR	B58-70LCR	B58-70WLCR	B59-70UR	B59-70LR
Stage table size			70×70mm		
Feeding position			Side		
Heights of the center of rotation	70±0.2mm	96±0.2mm	122±0.2mm	70±0.4mm	96±0.4mm
Center of rotation precision		Under 0.01mm			
Travel distance		±3.0°		(Up) ±3.0° (Down) ±3.0°	
Minimum reading of micrometer	≒25"/Scale	≒19"/Scale	≒15"/Scale	(Up) ≒25" (Down) ≒19"	(Up) ≒19" (Down) ≒15"
Guide			Cross roller guide		
Load capacity		5.0kgf [49.0N]		4.5kgf [44.1N]	
Allowable load for moment	Pitch	3.6N · m		3.6N · m	
	Yaw	2.8N · m		2.8N · m	
	Roll	5.7N · m		3.6N · m	
Moment rigidity	Pitch	0.17"/N · cm		0.23"/N · cm	
	Yaw	0.06"/N · cm		0.12"/N · cm	
	Roll	0.06"/N · cm		0.23"/N · cm	
Weight		0.53kg		1.06kg	
Main material-Surface finishing		Aluminum-White alumite processing			
Provided screws (Hex socket screws)		4 of M4-8			

Dimensional outline drawings (1-axis)

B58-70C series



Manual goniometer stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Dovetail

Cross Roller

□25

□30

□40

□50

□60

□70

□80

□100

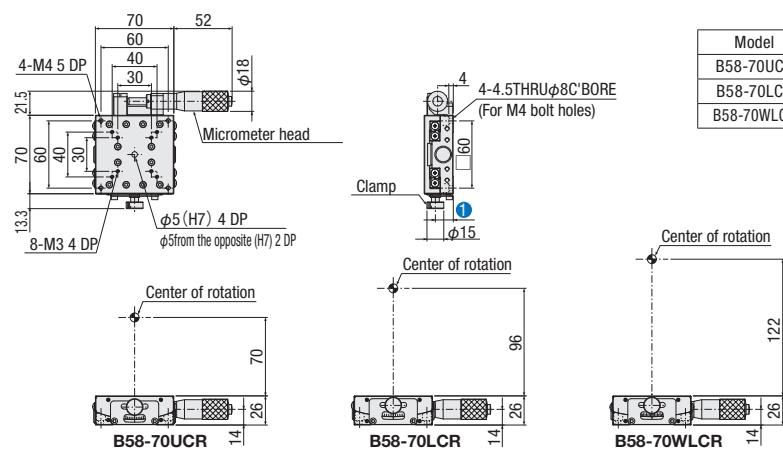
□120

Other

2

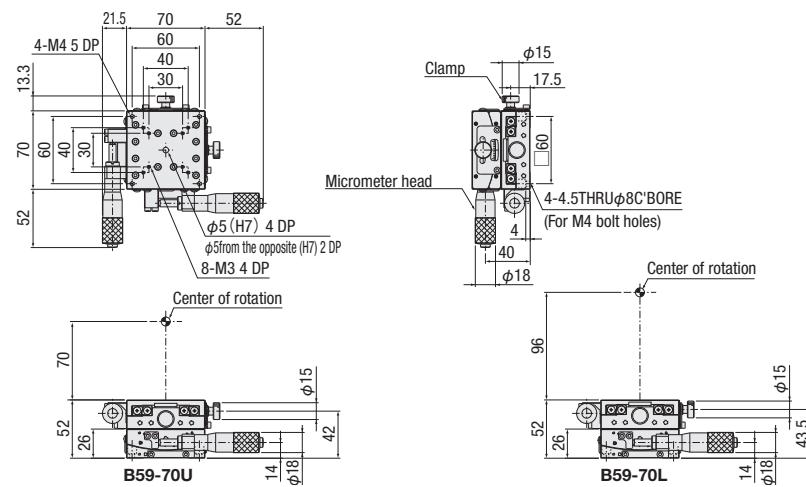
166

B58-70CR series



Dimensional outline drawings (2-axis)

B59-70 series



B59-70R series

