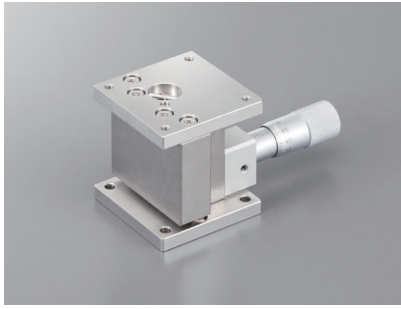
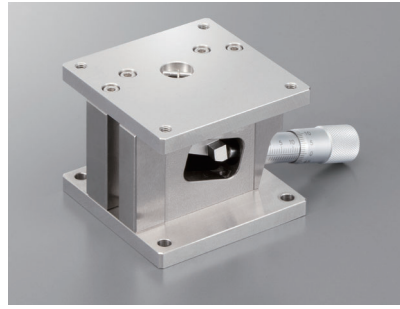


Horizontal Z-axis Stage BHE Series □40□60: BHE04006/BHE06010

RoHS



BHE04006



BHE06010

Manual linear stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Linear Ball

Cross Roller

Dovetail

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

1 Model

BHE04006

1 2

1 Stage table size

04	40mm
06	60mm

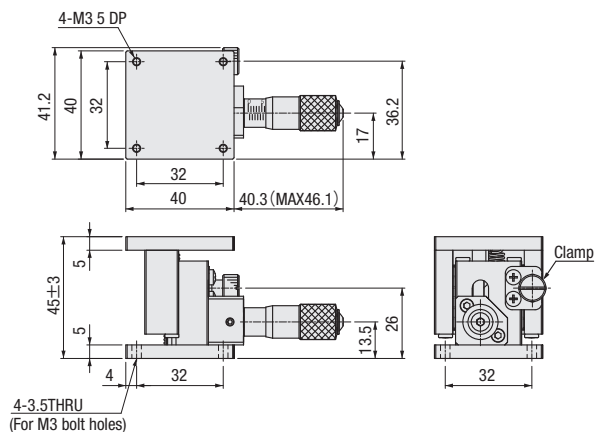
2 Travel distance

006	6mm
010	10mm

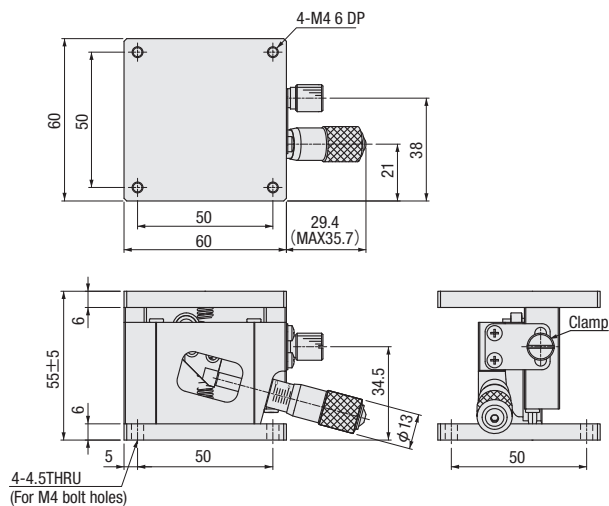
SPEC		
Model	BHE04006	BHE06010
Stage table size	40×40mm	60×60mm
Travel distance	±3mm	±5mm
Minimum reading of micrometer	±5μm	±10μm
Travel guide	Linear ball guide	Linear ball guide
Load capacity	3kgf [29.4N]	5kgf [49N]
Parallelism	80μm	80μm
Weight	0.3kg	0.7kg
Main material—Surface finishing	Steel—Electroless nickel plating	Steel—Electroless nickel plating
Provided screws (Hex socket screws)	4 of M3—10	4 of M4—12

Dimensional outline drawings

BHE04006



BHE06010



Manual linear stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Linear Ball

Cross Roller

Dovetail

25

30

40

50

60

70

80

100

120

Other

2

056

Horizontal Z-axis Cross Roller Guide Stage □25□40□60: B33-25/40/60

B33-60A



[Features]

- B33 series is cross roller guide stage that moves its surface up and down.
- A structure to transmit feeding of the micrometer using leverage.
- The end of model number "KG-" is high rigidity type.
- Available coarse-fine motion type.

※□70, 80 and B37 (micrometer pushing directly type - □60) shows next page
 P.2-083

RoHS

SURUGA SEIKI

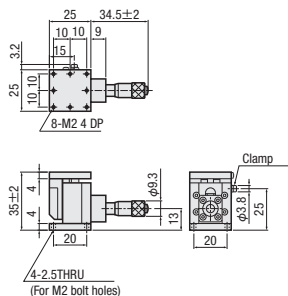
CAD 3D・2D

Dimensional outline drawings

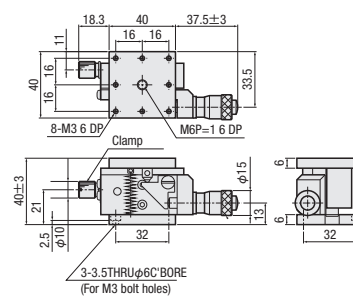
B33-60KGA



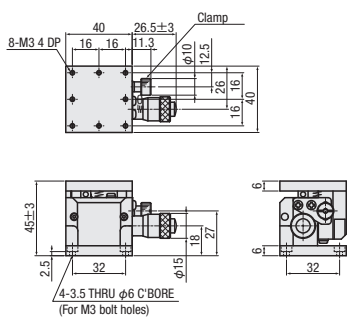
B33-25A



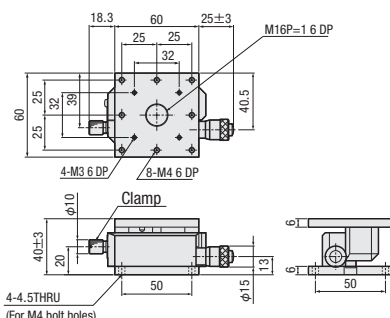
B33-40A



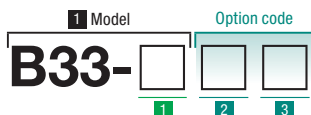
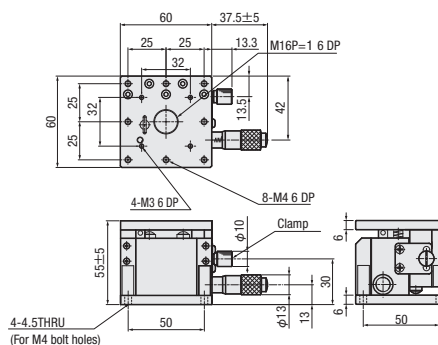
B33-40KGA



B33-60A



B33-60KGA



Select the option code as below.

1 Stage table size

25	25×25mm
40	40×40mm
60	60×60mm

2 Type

Blank	Standard
KG	High rigidity

3 Feeding position

A	Standard micrometer
B	Coarse-fine micrometer

※ Only A is applicable for B33-25.
 ※ Not available KGB for B33-40.

Low prices
 Linear ball guide
 BHE series



P.2-055~

SPEC									
Model	B33-25A	B33-40A	B33-40B	B33-40KGA	B33-60A	B33-60B	B33-60KGA	B33-60KGB	
Stage table size	25×25mm	40×40mm			60×60mm				
Travel distance	±2.0mm	±3.0mm	Coarse motion±3.0mm Fine motion±0.1mm		±3.0mm	Coarse motion±3.0mm Fine motion±0.1mm		±5.0mm Coarse motion±5.0mm Fine motion±0.1mm	
Minimum reading of micrometer	10µm/Scale		Coarse motion 10µm Fine motion 0.5µm		10µm/Scale		Coarse motion 10µm Fine motion 0.5µm		
Guide	Cross roller guide								
Load capacity	1.0kgf [9.8N]			2.0kgf [19.6N]	2.0kgf [19.6N]		4.0kgf [39.2N]		
Travel accuracy	Motion straightness 3µm								
Allowable load for moment	Pitch	0.7N · m	1.5N · m	1.5N · m	2.2N · m	1.5N · m	1.5N · m	4.1N · m	
	Yaw	0.5N · m	2.0N · m	2.0N · m	2.4N · m	4.2N · m	4.2N · m	6.2N · m	
	Roll	0.5N · m	2.3N · m	2.3N · m	3.6N · m	2.3N · m	2.3N · m	6.2N · m	
Moment rigidity	Pitch	4.08"/N · cm	1.63"/N · cm	1.63"/N · cm	0.52"/N · cm	0.72"/N · cm	0.72"/N · cm	0.23"/N · cm	
	Yaw	2.50"/N · cm	0.97"/N · cm	0.97"/N · cm	0.6"/N · cm	0.21"/N · cm	0.21"/N · cm	0.17"/N · cm	
	Roll	2.37"/N · cm	1.96"/N · cm	1.96"/N · cm	1.03"/N · cm	1.01"/N · cm	1.01"/N · cm	0.11"/N · cm	
Parallelism	50µm		100µm						
Motion varicality	15µm		20µm						
Weight	0.06kg	0.2kg	0.3kg	0.2kg	0.3kg	0.4kg	0.6kg	0.6kg	
Main material—Surface finishing	Aluminum—Black alumite processing								
Provided screws (Hex socket screws)	4 of M2—8		4 of M3—6			4 of M4—10			

※Lifting quantity error may occur by stroke position due to principle of leverage.

Manual linear stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Linear Ball

Cross Roller

Dovetail

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

Horizontal Z-axis Cross Roller Guide Stage □60□70□80: B33-70/80, B37-60

B33-70KGA



- B33 series is cross roller guide stage that moves its surface up and down.
- A structure to transmit feeding of the micrometer using leverage.
- The end of model number "KG-" is high rigidity type.
- Available coarse-fine motion type.
- B37-60 moves working face up and down with micrometer.
- Can be kept long travel distance in comparison with B33 series.

※ □25~□60 (leverage type) shows the previous page
P.2-082

RoHS

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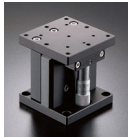
CAD 3D·2D

Dimensional outline drawings

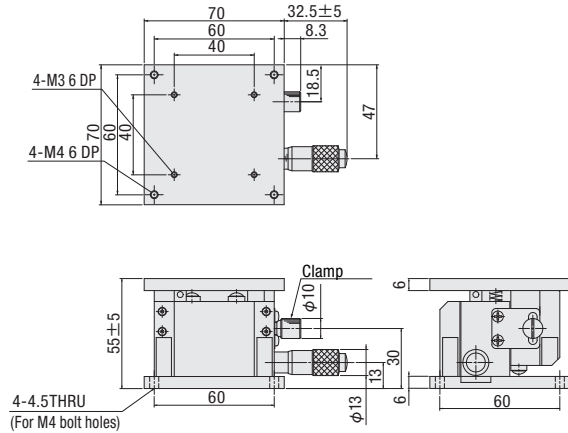
B33-80A



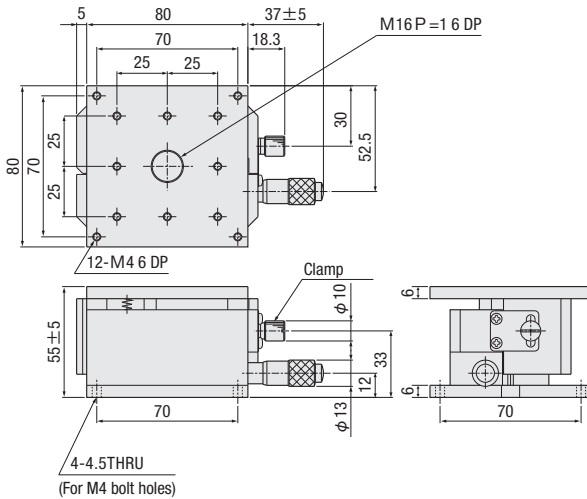
B37-60



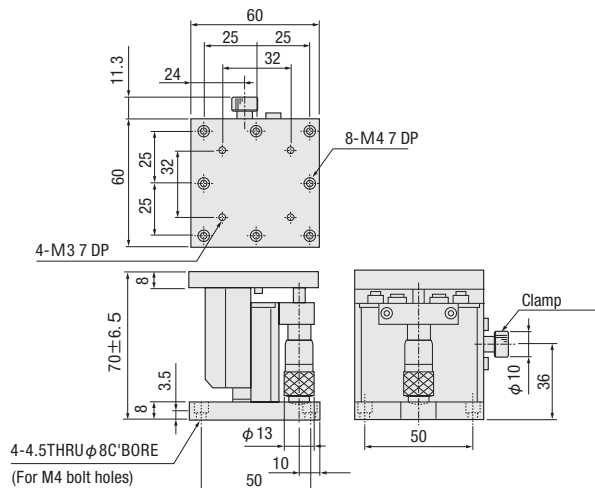
B33-70KGA



B33-80A



B37-60



- X
- XY
- Z
- Horizontal Z
- XZ
- Horizontal XZ
- XYZ
- Horizontal XYZ
- Goniometer
- Rotary
- Unit
- Accessories
- Linear Ball

Cross Roller

Dovetail

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

1 Model Option code

B33- □ □ □

1 2 3

Please select option below.

Micrometer pushing directly type

B37-60

1 Stage table size

70	70×70mm
80	80×80mm

2 Type

Blank	Standard
KG	High rigidity

3 Feeding position

A	Standard micrometer
B	Coarse-fine micrometer

⊗ Only KGA・KGB available for B33-70.
⊗ Available only A・B for B33-80.

Low prices

Linear ball guide BHE series



▶ P.2-055~

SPEC

Model	Stage table size (mm)	Travel distance (mm)	Minimum reading of micrometer	Load capacity	Travel accuracy			Allowable load for moment (N·m)			Moment rigidity (N/cm)			Parallelism (Within)	Motion varicativity (Within)	Weight (kg)	Main material - Surface finishing	Provided screws (Hex socket screws)
					Microm straightness	Pitch	Yaw	Pitch	Yaw	Roll	Pitch	Yaw	Roll					
B33-	70×70	±5.0	10μm/Scale	4.0kgf [39.2N]	3μm	4.1	6.2	6.2	0.23	0.17	0.11	100μm	20μm	0.6	Aluminum-White Alumite finishing	4 of M4-10		
																	Coarse motion ±5.0mm	Coarse motion 10μm
	Fine motion ±0.1mm	Fine motion 0.5μm	4.1	6.2		6.2	0.23	0.17	0.11									
	4.1	6.2	6.2	0.23		0.17	0.11											
80×80	±5.0	10μm/Scale	10μm/Scale	3.0kgf [29.4N]	2.5	6.3	3.8	0.22	0.06	0.55	1.0	Aluminum-Black alumite processing	1.0	4 of M4-8				
															Coarse motion ±5.0mm	Coarse motion 10μm	2.5	6.3
80×80	±5.0	10μm/Scale	10μm/Scale	3.0kgf [29.4N]	2.5	6.3	3.8	0.22	0.06	0.55	1.0	Aluminum-Black alumite processing	1.0	4 of M4-8				
															Coarse motion ±5.0mm	Coarse motion 10μm	2.5	6.3
80×80	±5.0	10μm/Scale	10μm/Scale	5.0kgf [49N]	8.3	5.7	6.3	0.39	0.25	0.16	0.5	Aluminum-Black alumite processing	0.5	4 of M4-8				
															Coarse motion ±5.0mm	Coarse motion 10μm	8.3	5.7

※Lifting quantity error may occur by stroke position due to principle of leverage.

Horizontal XZ-axis Cross Roller Guide Stage □25~□80: B63-25/40/60/80

B63-□A
(Feeding position A)



B63-□C
(Feeding position C)



- Stages combining X-axis cross roller and horizontal Z-axis.
- Selectable micrometer center pushing or side pushing.
- Available opposite hand type.

RoHS

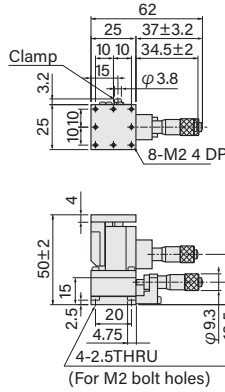
CAD 3D·2D



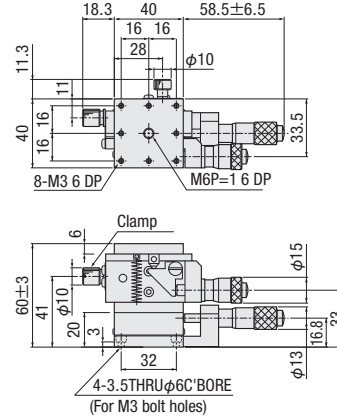
Dimensional outline drawings

※See CAD data for more details.

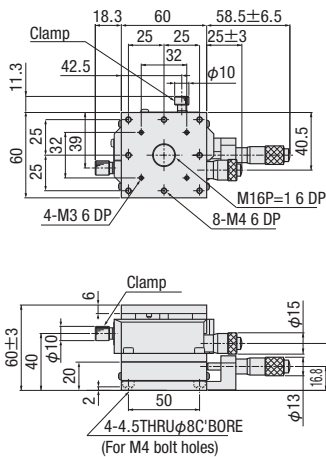
B63-25A



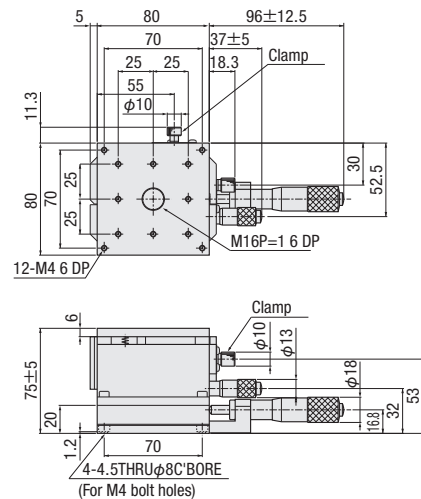
B63-40A



B63-60A



B63-80A



Configuration

Model	B63-	25A	25C	40A	40C	60A	60C	Reference page	80A	80C	Reference page
Z	B33-		25A		40A		60A	▶ P.2-082	80A		▶ P.2-083
X	B11-	25AN	25CN	40A	40C	60A	60C	▶ P.2-063~	80A	80C	▶ P.2-065~

1 Model
B63-□C
 1 2 3 Select the option code as below.

1 Stage table size

25	25×25mm
40	40×40mm
60	60×60mm
80	80×80mm

Specification	2 Feeding position		3 Operating position	
	Center	Side	Standard	Opposite attached micrometer
Code	A	C	Blank	R

※Only X-axis is opposite for R.

SPEC Main material: Aluminum Surface finishing: Black alumite processing

Model	Feeding position	Opposite type	Travel distance (mm)		Load capacity	Allowable load for moment (N · m)			Moment rigidity (N · cm)			Parallelism (Within)	Motion varicallity (Within)	Weight (kg)	Provided screws (Hex socket screws)			
			X-axis	Z-axis		Pitch	Yaw	Roll	Pitch	Yaw	Roll							
B63-	25	A: Center C: Side	Blank: Standard R: Opposite attached micrometer	±3.2	±2.0	1.0kgf [9.8N]	0.7	0.5	0.4	7.11	5.22	4.3	80μm	25μm	0.10	4 of M2 - 6		
	40			±6.5	±3.0		1.5	2.0	2.0	2.01	1.39	2.24					0.35	4 of M3 - 6
	60			±12.5	±5.0		2.5	6.3	3.8	0.27	0.11	0.59					0.63	4 of M4 - 6
	80													1.48※				

※1.47kg for B63-80C · CR

Manual linear stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Linear Ball

Cross Roller

Dovetail

□25

□30

□40

□50

□60

□70

□80

□100

□120

Other

2

084

Manual Stage

Horizontal XYZ-axis Thin Type Cross Roller Guide Stage □40□60□80: B72-40/60/80

B72-□A
(Feeding position A)



B72-□C
(Feeding position C)



- Stages combining thin type XY-axis cross roller guide and horizontal Z-axis.
- Selectable micrometer center pushing or side pushing.
- Available opposite type.

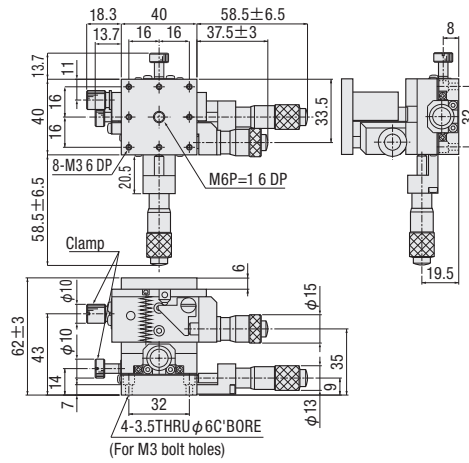
RoHS

SURUGA SEIKI

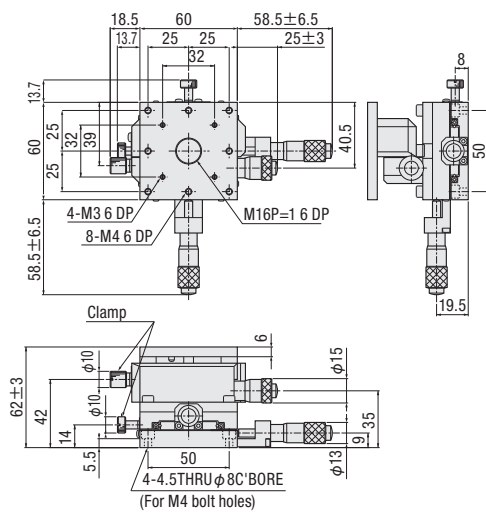
CAD
3D·2D

Dimensional outline drawings

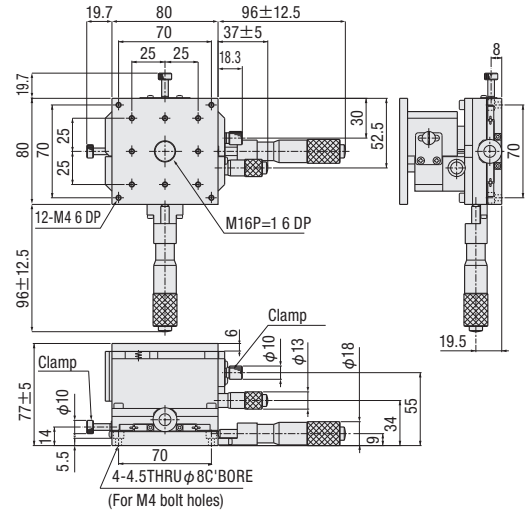
B72-40A



B72-60A



B72-80A



Configuration

Model	B72-	40A	40C	60A	60C	Reference page	80A	80C	Reference page
Z	B33-		40A		60A	P.2-082	80A		P.2-083
XY	B23-	40A	40C	60A	60C	P.2-073 ~	80A	80C	P.2-075 ~

1 Model

Option code

B72-□CR

1

2

3

Select the option code as below.

1 Stage table size

40	40×40mm
60	60×60mm
80	80×80mm

2 Feeding position

Specification	Center		Side	
	Center	Side	Standard	Opposite attached micrometer
Code	A	C	Blank	R

※Only XY-axis is opposite for R.

SPEC

• Main material: Aluminum • Surface finishing: Black alumite processing

Model	Feeding position	Operating position	Travel distance (mm)		Load capacity	Allowable load for moment (N · m)			Moment rigidity (N · cm)			Parallelsim (Within)	Motion vertically (Within)	Weight (kg)	Provided screws (Hex socket screws)		
			XY-axis	Z-axis		Pitch	Yaw	Roll	Pitch	Yaw	Roll						
																0.7	0.8
B72-	A: Center C: Side	Blank: Standard R: Opposite attached micrometer	±6.5	±3.0	0.8kgf [7.8N]	0.7	0.8	0.7	2.20	1.47	2.60	150μm	30μm	0.41	4 of M3 - 10		
					2.0kgf [19.6N]	1.5	1.9	2.3	0.91	0.34	1.16					0.75	4 of M4 - 10
			±12.5	±5.0	2.8kgf [27.4N]	2.5	4.2	3.8	0.35	0.19	0.66						

Manual linear stage

X

XY

Z

Horizontal Z

XZ

Horizontal XZ

XYZ

Horizontal XYZ

Goniometer

Rotary

Unit

Accessories

Linear Ball

Cross Roller

Dovetail

Other

Other

Other

Other

Other

Other

Other

Other

Other

Other

