

X Axis Steel Extended Contact Translation Stages

XY Axis Steel Extended Contact Translation Stages

TSD-651-M6/UU

RoHS

TSD-652-M6/UU

Hardened steel linear translation stages with integrated bearing ways and a black chrome finish. Our “Extended Contact” technology yields superior stability, stiffness, accuracy, and durability. These XY stages are integrated and therefore have a lower profile vs. (2) single axis stages combined.

- Bottom counter bore clearance holes are sized and spaced to accept both M6 or 1/4 size screws for mounting these stages down to a table.
- Both M6 or 1/4-20 inch tapped hole versions available.
- Both left and right hand adjustment versions available.
- Multiple actuator options available. Standard micrometer, sub-micron micrometer, fine pitch screw.
- All stages are equipped with a robust knurled head locking screw.



Attention

- Micrometer brackets may extend above the top surface of some stages. Check drawings for detailed information.

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

Crossed Roller

Dovetail

Lapping

V Groove Screw

Others

15 x 15 mm

25 x 25 mm

40 x 40 mm

60 x 60 mm

65 x 65 mm

80 x 80 mm

100 x 100 mm

120 x 120 mm

Others

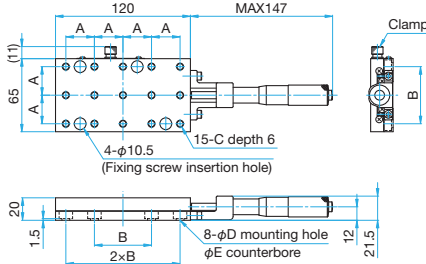
Specifications

Part Number	METRIC	TSD-65121C-M6	TSD-65121S-M6	TSD-65171S-M6	TSD-65122C-M6	TSD-65122S-M6	TSD-65172S-M6
	INCH	TSD-65121CUU	TSD-65121SUU	TSD-65171SUU	TSD-65122CUU	TSD-65122SUU	TSD-65172SUU
Stage Size [mm]		65x120	65x120	65x170	65x120	65x120	65x170
Axes of Travel		X axis			XY axis		
Micrometer Position		Center	Side	Side	Center	Side	Side
Travel [mm]		±20	±20	±25	±20	±20	±25
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide					
Primary Material		Steel					
Finish		Super black chrome					
Load Capacity [N]		392 (40kgf)	392 (40kgf)	490 (50kgf)	392 (40kgf)	392 (40kgf)	490 (50kgf)
Travel Accuracy	Straightness [µm]	3	3	5	3	3	5
	Pitch ["]	25	25	25	25	25	25
	Yaw ["]	15	15	15	15	15	15
Max. Moment Capacity	Pitch [N·m]	19.6	19.6	29.4	9.8	9.8	9.8
	Roll [N·m]	9.8	9.8	9.8	9.8	9.8	9.8
	Yaw [N·m]	9.8	9.8	14.7	9.8	9.8	10
Moment Stiffness	Pitch ["/N·cm]	0.1	0.1	0.07	0.3	0.3	0.27
	Roll ["/N·cm]	0.2	0.2	0.2	0.3	0.3	0.27
	Yaw ["/N·cm]	0.2	0.2	0.2	0.3	0.3	0.27
Parallelism [µm]		50	50	50	100	100	100
Running Parallelism [µm]		12	12	15	25	25	30
Weight [kg]		1.0	1.0	1.7	2.4	2.4	3.4



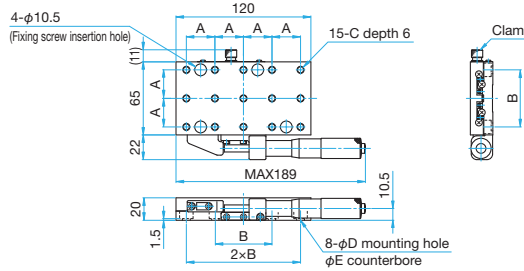
Outline Drawing

TSD-65121C-M6/65121CUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



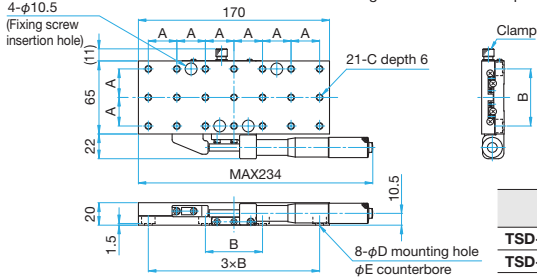
Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-65121C-M6	25	50	M6 P1	6.5	11
TSD-65121CUU	25.4	50.8	1/4-20UNC	7	12

TSD-65121S-M6/65121SUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



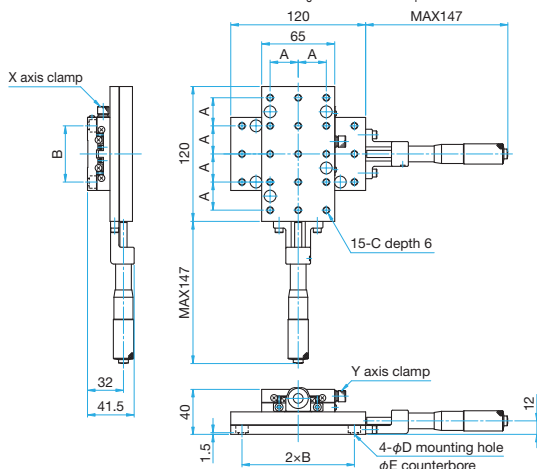
Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-65121S-M6	25	50	M6 P1	6.5	11
TSD-65121SUU	25.4	50.8	1/4-20UNC	7	12

TSD-65171S-M6/65171SUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



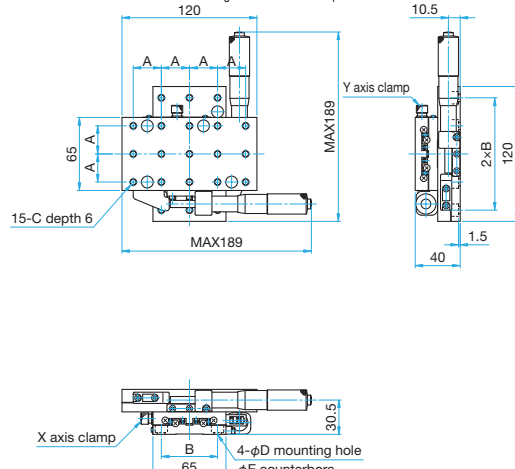
Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-65171S-M6	25	50	M6 P1	6.5	11
TSD-65171SUU	25.4	50.8	1/4-20UNC	7	12

TSD-65122C-M6/65122CUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



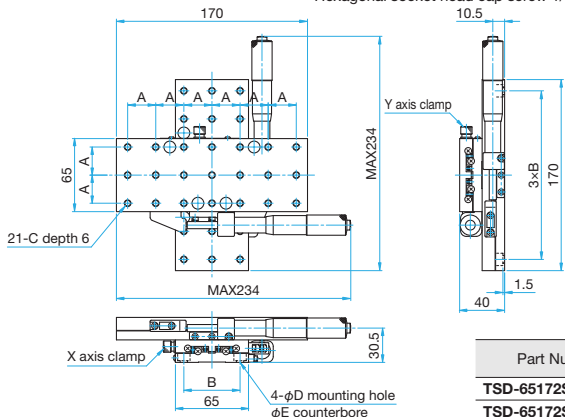
Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-65122C-M6	25	50	M6 P1	6.5	11
TSD-65122CUU	25.4	50.8	1/4-20UNC	7	12

TSD-65122S-M6/65122SUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-65122S-M6	25	50	M6 P1	6.5	11
TSD-65122SUU	25.4	50.8	1/4-20UNC	7	12

TSD-65172S-M6/65172SUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-65172S-M6	25	50	M6 P1	6.5	11
TSD-65172SUU	25.4	50.8	1/4-20UNC	7	12

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

MotORIZED Stages

Light Sources & Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

Crossed Roller

Dovetail

Lapping

V Groove Screw

Others

15 x 15 mm

25 x 25 mm

40 x 40 mm

60 x 60 mm

65 x 65 mm

80 x 80 mm

100 x 100 mm

120 x 120 mm

Others