

X Axis Steel Extended Contact Translation Stages

XY Axis Steel Extended Contact Translation Stages

TSD-1001

Stage Size 100 × 100 mm

TSD-1002

RoHS

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Crossed Roller

Dovetail

Lapping

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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

Hardened steel linear 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.

There are options for micrometer position and fine pitch screws.



Attention

- ▶ Micrometer brackets may extend above the top surface of some stages. Check drawings for detailed information.
- ▶ Note that based upon payload size, rated travel could be reduced.

Specifications

Part Number	METRIC	TSD-1001C	TSD-1001S	TSD-1002C	TSD-1002S
(Opposite Model)	METRIC	—	TSD-1001SR	—	TSD-1002SR
Stage Size [mm]		100×100	100×100	100×100	100×100
Axes of Travel		X axis		XY axis	
Micrometer Position		Center	Side	Center	Side
Travel [mm]		±12.5	±12.5	±12.5	±12.5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		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]		588 (60.0kgf)	588 (60.0kgf)	588 (60.0kgf)	588 (60.0kgf)
Travel Accuracy	Straightness [μm]	0.5	0.5	0.5	0.5
	Pitch [″]	25	25	25	25
	Yaw [″]	15	15	15	15
Max. Moment Capacity	Pitch [N·m]	35.0	35.0	35.0	35.0
	Roll [N·m]	41.7	41.7	35.0	35.0
	Yaw [N·m]	32.0	32.0	32.0	32.0
Moment Stiffness	Pitch [″/N·cm]	0.02	0.02	0.03	0.03
	Roll [″/N·cm]	0.01	0.01	0.03	0.03
	Yaw [″/N·cm]	0.02	0.02	0.04	0.04
Parallelism [μm]		20	20	40	40
Running Parallelism [μm]		8	8	15	15
Orthogonality [μm]		—	—	10	10
Options		FP/DG	FP	FP/DG	FP
Weight [kg]		1.5	1.5	2.6	2.6

Option

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62555	0.25	—	E008
DG	Micrometer Heads (Digital display)	MHN2-25M	0.5	0.001	

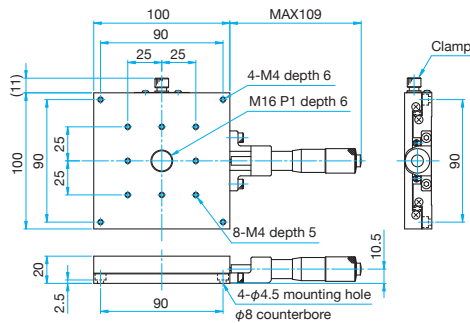
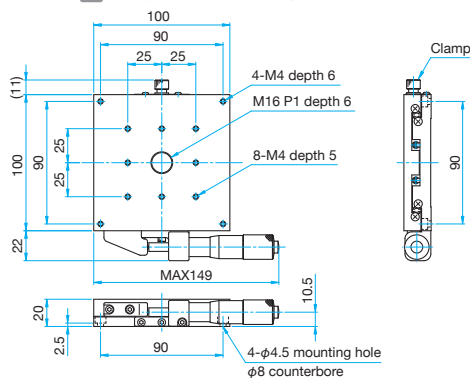
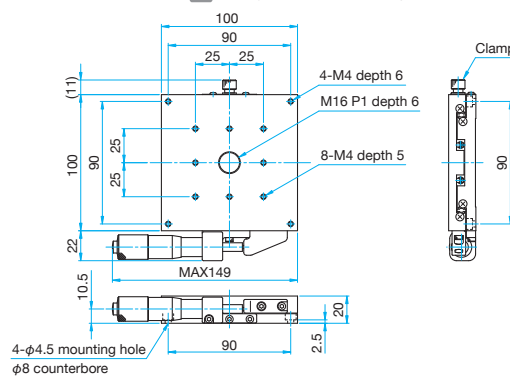
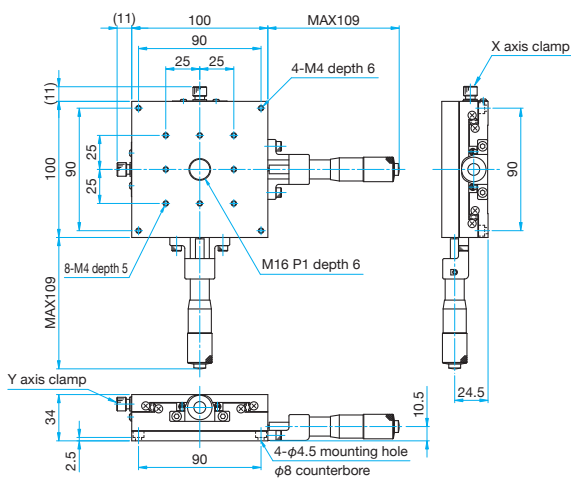
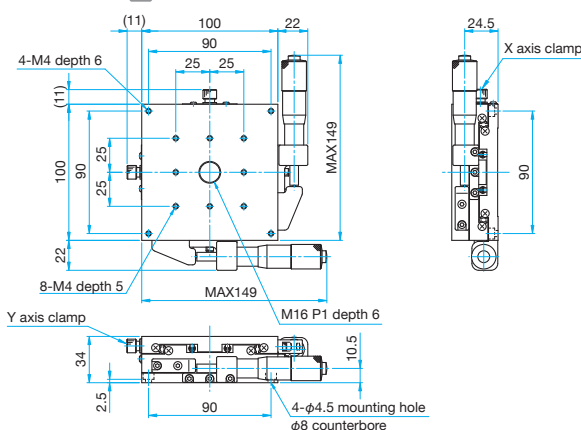
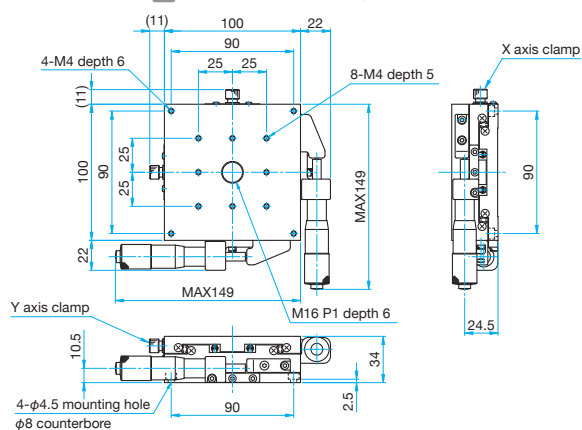
* Please add an option code as the part number suffix to specify various optional specifications.

* DG is a digital display type. [Reference](#) F005 [Catalog Code](#) W8002

* Replacement work requires a special tool (MNS). [Reference](#) F006 [Catalog Code](#) W8005



Outline Drawing

TSD-1001C Hexagonal socket head cap screw M4×8...4 screws**TSD-1001S** Hexagonal socket head cap screw M4×8...4 screws**TSD-1001SR** Hexagonal socket head cap screw M4×8...4 screws**TSD-1002C** Hexagonal socket head cap screw M4×8...4 screws**TSD-1002S** Hexagonal socket head cap screw M4×8...4 screws**TSD-1002SR** Hexagonal socket head cap screw M4×8...4 screws

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