

X Axis Steel Extended Contact Translation Stages

XY Axis Steel Extended Contact Translation Stages

TSD-251

Stage Size 25 x 25 mm

RoHS

TSD-252

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Crossed Roller

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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

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.



Guide

- Vacuum-compatible stainless steel stages (TSDS-251/252) are also available.

TSDS-251 [Reference](#) E206 [Catalog Code](#) W7005

TSDS-252 [Reference](#) E208 [Catalog Code](#) W7031

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-251C	TSD-251S	TSD-252C	TSD-252S
(Opposite Model)	METRIC	—	TSD-251SR	—	TSD-252SR
Stage Size [mm]		25x25	25x25	25x25	25x25
Axes of Travel		X axis		XY axis	
Micrometer Position		Center	Side	Center	Side
Travel [mm]		±3	±3	±3	±3
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]		49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)
Travel Accuracy	Straightness [μm]	0.5	0.5	0.5	0.5
	Pitch ["]	30	30	30	30
	Yaw ["]	25	25	25	25
Max. Moment Capacity	Pitch [N·m]	3.0	3.0	3.0	3.0
	Roll [N·m]	3.7	3.7	3.0	3.0
	Yaw [N·m]	3.5	3.5	3.5	3.5
Moment Stiffness	Pitch ["/N·cm]	1.8	1.8	3.0	3.0
	Roll ["/N·cm]	1.1	1.1	2.2	2.2
	Yaw ["/N·cm]	1.1	1.1	2.2	2.2
Parallelism [μm]		30	30	30	30
Running Parallelism [μm]		7	7	10	10
Orthogonality [μm]		—	—	10	10
Options		FP/DL	FP/DL	FP/DL	FP
Weight [kg]		0.07	0.07	0.1	0.1

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-42525	0.25	—	E008
DL	Differential Micrometer Heads	MDC-6.5	0.5	0.01	

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

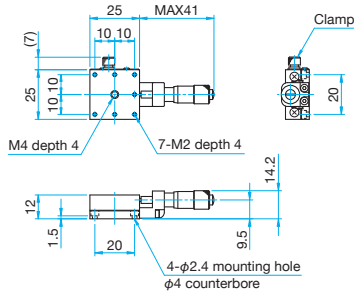
* Installation may not be possible depending on the direction of DL.

* The suffix “-C” type uses adhesive for fixing the micrometer. Please contact our International Sales Division for more information on replacement.

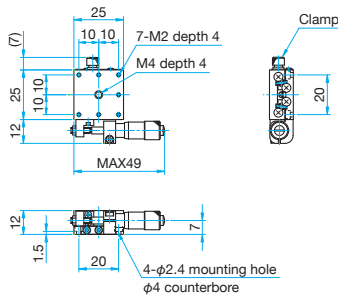


Outline Drawing

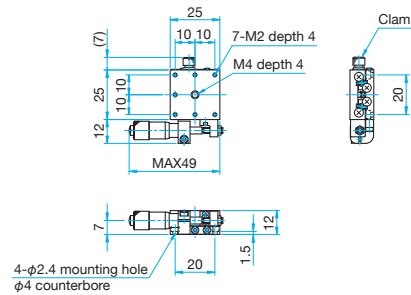
TSD-251C Hexagonal socket head cap screw M2x4...4 screws



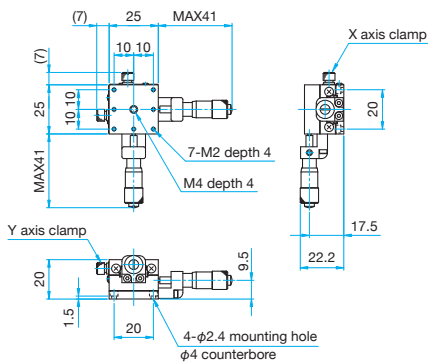
TSD-251S Hexagonal socket head cap screw M2x4...4 screws



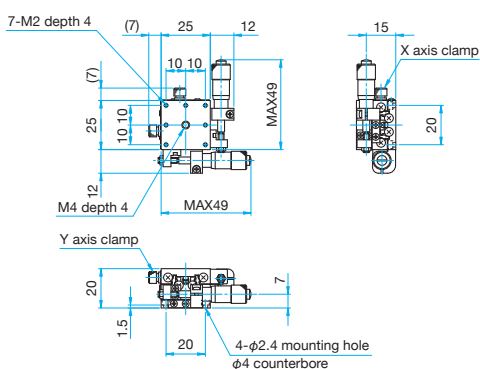
TSD-251SR Hexagonal socket head cap screw M2x4...4 screws



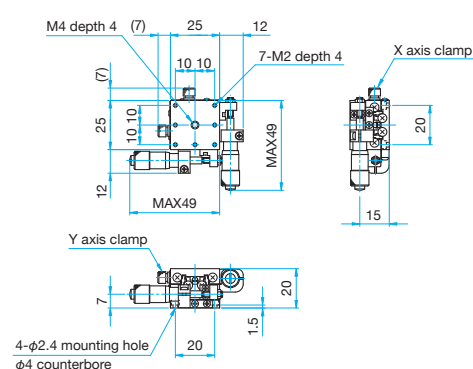
TSD-252C Hexagonal socket head cap screw M2x4...4 screws



TSD-252S Hexagonal socket head cap screw M2x4...4 screws



TSD-252SR Hexagonal socket head cap screw M2x4...4 screws



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