

# Z Axis Aluminium Translation Stages (Vertical Mounting)

Stage Size 25 × 25 mm / 40 × 40 mm / 60 × 60 mm / 65 × 65 mm

TADC-SZ

RoHS

Aluminum translation stage with high stiffness bearing ways. Cost effective and light weight.

- High quality translation stage with smooth travel. Optimal for positioning and alignment.
- Unique steel bearing ways with 4-point extended contact yield stable load capacity in all directions.
- Long life, maintenance free.



### Attention

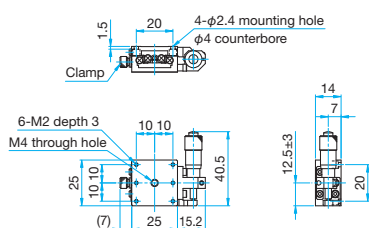
- Micrometer brackets may extend above the top surface of some stages. Check drawings for more information.



### Outline Drawing

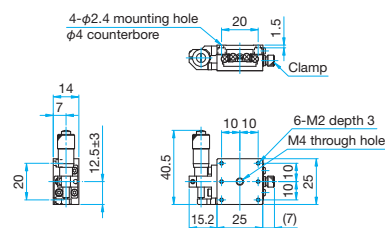
#### TADC-251SZ

Hexagon socket head cap screw (stainless steel construction) M2×4...4 screws



#### TADC-251SRZ

Hexagon socket head cap screw (stainless steel construction) M2×4...4 screws



### Specifications

Part Number	METRIC	TADC-251SZ	TADC-401SZ	TADC-601SZ	TADC-651SZ25-M6
	INCH	—	—	—	TADC-651SZ25UU
(Opposite Model)	METRIC	TADC-251SRZ	TADC401SRZ	TADC601SRZ	TADC-651SRZ25-M6
	INCH	—	—	—	TADC-651SRZ25UU
Stage Size [mm]		25×25	40×40	60×60	65×65
Axes of Travel		Z axis			
Micrometer Position		Side			
Travel [mm]		±3	±6.5	±6.5	±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		Aluminum			
Finish		Black anodized			
Load Capacity [N]		14.7N (1.5kgf)	24.5N (2.5kgf)	29.4N (3.0kgf)	39.2N (4.0kgf)
Travel Accuracy	Straightness [μm]	3	3	3	3
Max. Moment Capacity	Pitch [N·m]	1.47	2.5	4.9	4.9
	Roll [N·m]	1.47	2.5	4.9	4.9
Moment Stiffness	Pitch [°/N·cm]	6	0.66	0.4	0.4
Running Parallelism [μm]		20	10	10	10
Weight [kg]		0.05	0.15	0.2	0.31

Application Systems

Optics &amp; Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators &amp; Adjusters

Motorized Stages

Light Sources &amp; 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 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

Others



# Z Axis Aluminium Translation Stages (Vertical)

Stage Size 25 × 25 mm / 40 × 40 mm / 60 × 60 mm / 65 × 65 mm

TADC-L

RoHS

Aluminum translation stage with high stiffness bearing ways. Cost effective and light weight.

- High quality translation stage with smooth travel. Optimal for positioning and alignment.
- Unique steel bearing ways with 4-point extended contact yield stable load capacity in all directions.
- Long life, maintenance free.
- Special L brackets are attached to the TADC-SZ series.



### Guide

- ▶ Vertical mounting type stages without a L angle bracket are also available. [Reference](#) E104 [Catalog Code](#) W7514

### Attention

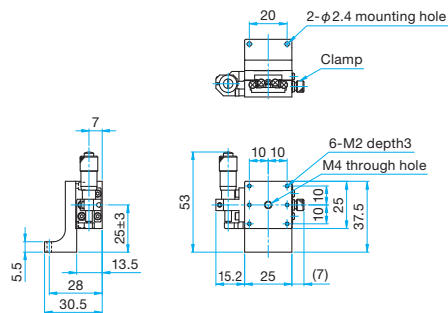
- ▶ Micrometer brackets may extend above the top surface of some stages. Check drawings for more information.
- ▶ Note that some samples might not be able to be fixed on the stage depending on their shapes, or required travel might not be ensured.



## Outline Drawing

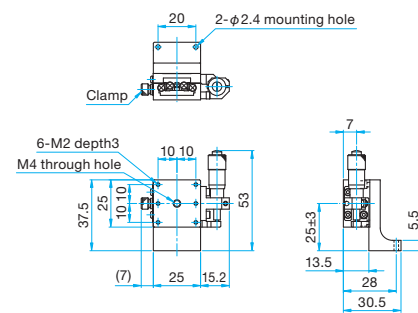
### TADC-253L

Hexagon socket head cap screw (stainless steel construction) M2×8...2 screw



### TADC-253RL

Hexagon socket head cap screw (stainless steel construction) M2×8...2 screw



## Specifications

Part Number	METRIC	TADC-253L	TADC-403L	TADC-603L	TADC-653L25-M6
	INCH	—	TADC-403LUU	—	TADC-653L25UU
(Opposite Model)	METRIC	TADC-253RL	TADC-403RL	TADC-603RL	TADC-653RL25-M6
	INCH	—	TADC-403RLUU	—	TADC-653RL25UU
Stage Size [mm]		25×25	40×40	60×60	65×65
Axes of Travel		Z axis			
Micrometer Position		Side			
Travel [mm]		±3	±6.5	±6.5	±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		Aluminum			
Finish		Black anodized			
Load Capacity [N]		14.7N (1.5kgf)	24.5N (2.5kgf)	29.4N (3kgf)	39.2N (4.0kgf)
Travel Accuracy	Straightness [μm]	3	3	3	3
Max. Moment Capacity	Pitch [N·m]	1.47	2.5	4.9	4.9
	Roll [N·m]	1.47	2.5	4.9	4.9
Moment Stiffness	Pitch [°/N·cm]	16.0	0.66	0.3	0.5
Running Parallelism [μm]		20	10	10	20
Weight [kg]		0.07	0.2	0.36	0.51

Application Systems

Optics &amp; Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators &amp; Adjusters

Motorized Stages

Light Sources &amp; 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 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

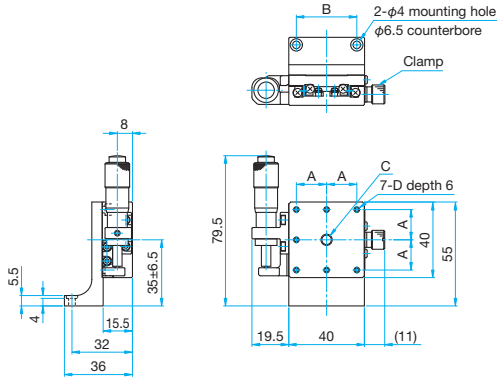
Others



**Outline Drawing**

**TADC-403L/403LUU**

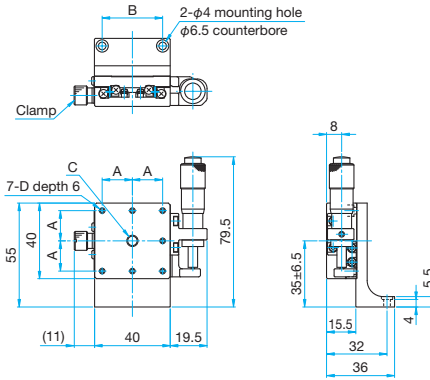
Hexagon socket head cap screw (stainless steel construction) M3x8...2 screws  
Hexagon socket head cap screw (stainless steel construction) 6-32UNCx5/16...2 screws (UU)



Part Number	A (mm)	B (mm)	C	D
TADC-403L	16	32	M6 P1 depth 5	M3
TADC-403LUU	15.875	31.75	1/4-20UNC depth 5	6-32UNC

**TADC-403RL/403RLUU**

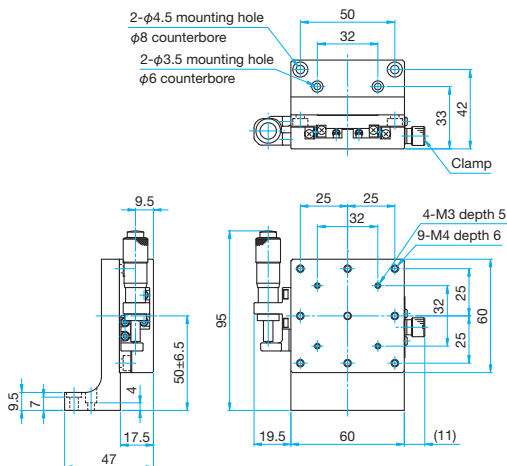
Hexagon socket head cap screw (stainless steel construction) M3x8...2 screws  
Hexagon socket head cap screw (stainless steel construction) 6-32UNCx5/16...2 screws (UU)



Part Number	A (mm)	B (mm)	C	D
TADC-403RL	16	32	M6 P1 depth 5	M3
TADC-403RLUU	15.875	31.75	1/4-20UNC depth 5	6-32UNC

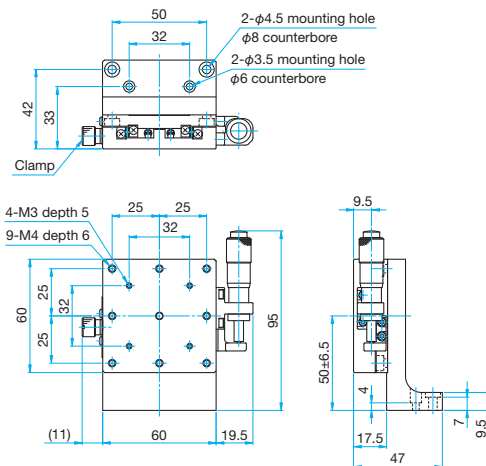
**TADC-603L**

Hexagonal socket head cap screw (stainless steel construction) M3x8...2 screws



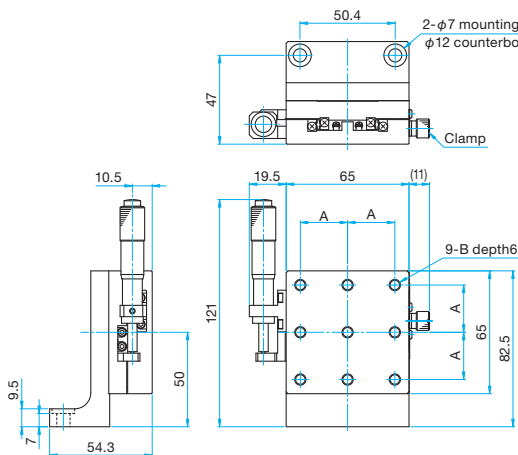
**TADC-603RL**

Hexagonal socket head cap screw (stainless steel construction) M3x8...2 screws



**TADC-653L25-M6/653L25UU**

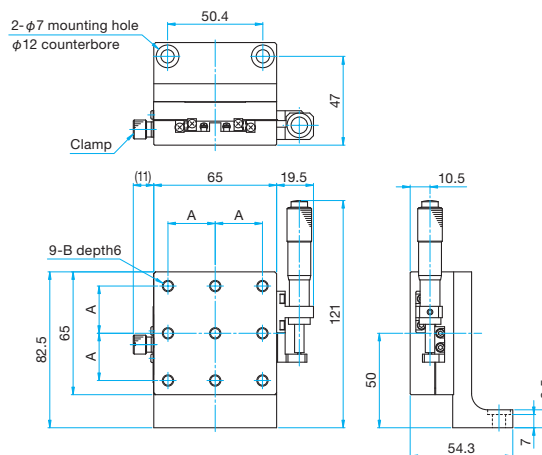
Hexagon socket head cap screw (stainless steel construction) M6x12...2 screws (M6)  
Hexagon socket head cap screw (stainless steel construction) 1/4-20UNCx1/2...2 screws (UU)



Part Number	A (mm)	B
TADC-653L25-M6	25	M6
TADC-653L25UU	25.4	1/4-20UNC

**TADC-653RL25-M6/653RL25UU**

Hexagon socket head cap screw (stainless steel construction) M6x12...2 screws (M6)  
Hexagon socket head cap screw (stainless steel construction) 1/4-20UNCx1/2...2 screws (UU)



Part Number	A (mm)	B
TADC-653RL25-M6	25	M6
TADC-653RL25UU	25.4	1/4-20UNC

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