

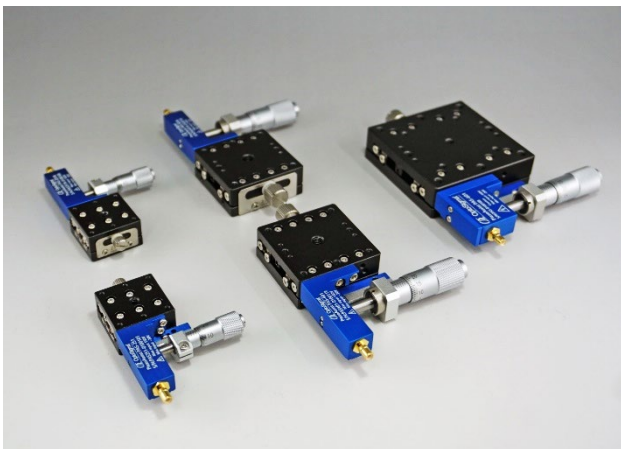
X Axis Piezo Assist Stage

TADC-1PA

RoHS

X-axis stage that allows fine adjustment of 20nm or less by adding a piezo assist mechanism to the manual stage. Ideal for manual stage units and systems that require high resolution position adjustment. Stage sizes 25x25, 40x40, 60x60mm are available.

- A dedicated controller for the piezo assist stage easily perform fine adjustment without any setting. The fine adjustment of the dial type knob can be used without resistance even in combination with a micrometer head.



Guide

► Use the piezo assist controller (PASC) to adjust the fine movement mechanism. A piezo assist controller connection cable (2m) is included with the piezo assist stage.



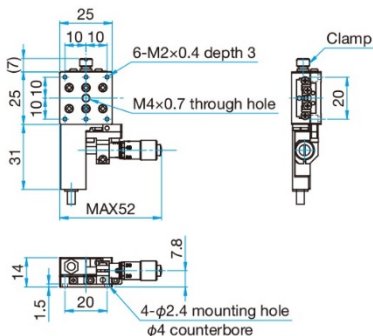
Attention

- When installing the stage, be careful not to give a shock to the micrometer bracket. Otherwise, the piezo assist mechanism may be damaged.
- When the power of the piezo assist dedicated controller (PASC) is turned off, the position adjustment of the piezo assist will be changed, and position for fine adjustment will be shifted.

Outline Drawing (mm)

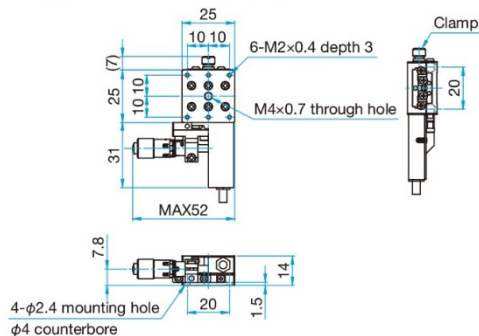
TADC-251SPA

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



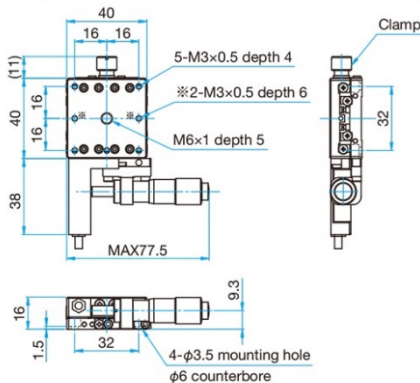
TADC-251SRPA

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



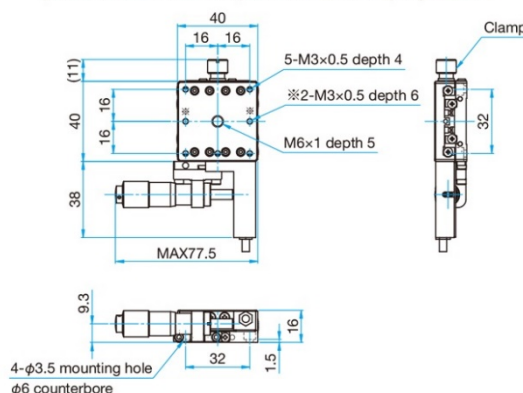
TADC-401SPA

Hexagon socket head cap screw (stainless steel construction) M3×6...4 screws, Spring washers



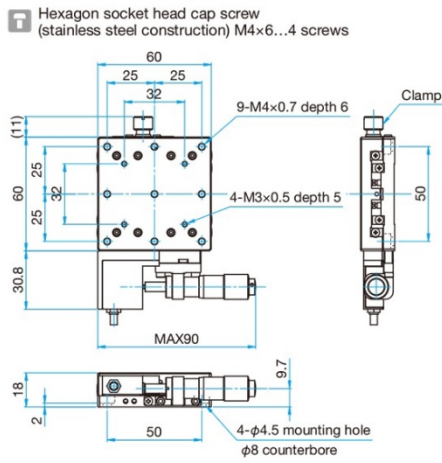
TADC-401SRPA

Hexagon socket head cap screw (stainless steel construction) M3×6...4 screws, Spring washers

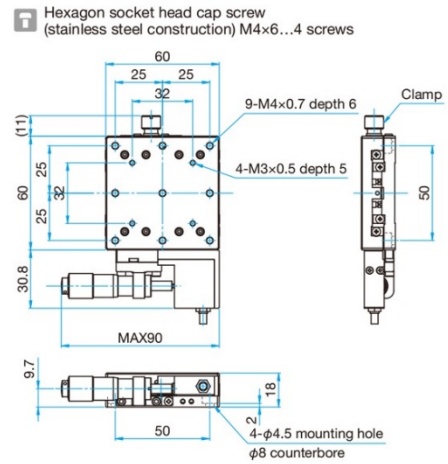


Outline Drawing (mm)

TADC-601SPA



TADC-601SRPA



Specifications

Part Number	TADC-251SPA	TADC-401SPA	TADC-601SPA
(Opposite Model)	TADC-251SRPA	TADC-401SRPA	TADC-601SRPA
Stage Size [mm]	25 × 25	40 × 40	60 × 60
Axes of travel		X Axis	
Travel of Coarse Drive [mm]	±3	±6.5	±6.5
Travel of Fine Drive [μm]	>25μm	>30μm	>30μm
Micrometer Position	Side		
Travel/ rotation [mm]	0.5	0.5	0.5
Micrometer Readable Resolution [mm]	0.01	0.01	0.01
Piezo resolution	<20nm	<20nm	<20nm
Guide Method	Extended Contact Ball Bearing Guide		
Primary Material	Aluminum		
Finish	Black anodized		
Load Capacity [N]	39.2(4.0kgf)	49(5kgf)	49(5kgf)
Travel Accuracy / Straightness [μm]	3	3	3
Max. Moment Capacity	Pitch [N·m]	2	4.9
	Roll [N·m]	1.9	4.9
	Yaw [N·m]	1.9	4.9
Moment	Pitch ["/N·cm]	2.5	0.3
Stiffness	Roll ["/N·cm]	2	0.25
Parallelism [μm]	30	30	30
Running Parallelism [μm]	10	10	10
Weight [kg]	0.07	0.16	0.25

Controller Dedicated for Piezo Assist Stage

PASC RoHS

Dedicated controller that drives the piezo assist stage series. Lineup includes 1-axis type and 3-axis type.



- The fine adjustment mechanism of the piezo assist stage is operated by turning the dial knob.

Guide

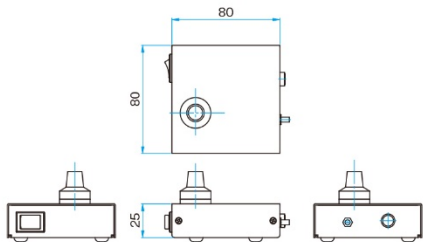
► Two types of AC adapters are available. The basic performance are same, please select according to the required standards.

Attention

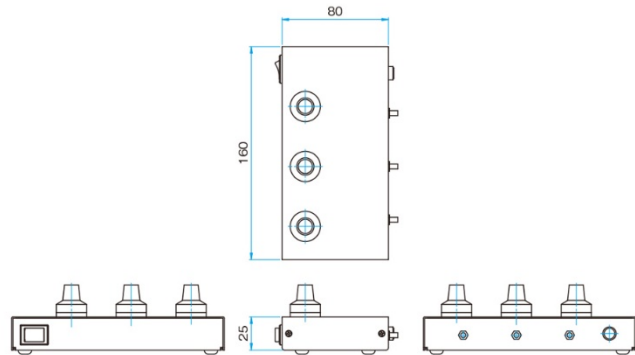
► Applicable size of DC jack is dia.4mm. When preparing the power supply by the customer, pay attention to the plug diameter.

Outline Drawing (mm)

PADC-101



PASC-103



Specifications

Part Number	PASC-101	PASC-103	AC-ADP-0618	AC-ADP-0620
Number of Control Axes	1 Axis	3 Axes	—	—
Power Voltage	DC6V 0.8A	DC6V 1.8A	DC6V 1.8A	DC6V 2.0A
Compatible AC Adapter	AC-ADP-0618/AC-ADP-0620		—	—
Operating temperature	5 - 40°C		—	—
Storage Temperature	-20 - 60° C		—	—
Ambient Humidity	20 - 80%RH (without condensation)		—	—
Dimension (Except projection) [mm]	80x80x25	160x80x25	44x26.5x60	43.5x40.2x60
DoE Level	—	—	Level IV	Level VI
CCC	—	—	—	○
Weight [kg]	0.12	0.28	0.14	0.2