

## CTTPS<sub>1/2</sub> – CRYO TIP/TILT/PISTON STAGE 1/2



### Features

- Driven by Cryo Linear Actuators
- Play free
- Self locking; no power dissipation when "off"
- Materials: stainless steel, titanium
- 20 mK to 375 K, vacuum compatible
- Sub-nanometer stability
- 1/2" mounting hole (12,7 mm)
- Optics side-clamped with a spring-loaded screw
- Membrane eliminates erratic lateral motion

### Description / Applications

The CTTPS<sub>1/2</sub> accepts 1/2" or 12,7 mm optical elements and can be operated in a cryo-vacuum environment. It is actuated with JPE's Cryo Linear Actuators (CLA). Play of the tip / tilt / piston motion is eliminated by built-in preload springs. The optics are clamped from the side with a single spring-loaded screw.

### Specifications

General info	
Type of motion	Tip / tilt / piston
Dimensions	See drawings below
Operational environmental conditions	20 mK to 375 K, ambient to UHV
Weight	160 g
Stepping motion	
Tip / tilt range	-7,2 deg to 7,2 deg
Piston range	-1,5 mm to 1,5 mm
Actuator	CLA2201
Minimal step size	μrad
Drive voltage	-30 V to 120 V
Forces and load capacity	
Mounting hole diameter	1/2" or 12,7 mm
Free aperture diameter	11,5 mm
Load capacity	100 g
Materials	
Main body	Titanium, stainless steel 316L
CLA2201	Stainless steel 316L, ceramic, piezo actuator*
*Piezo actuator	Low voltage multilayer, ceramic insulated
Electronics CPSC	
Controller Base Cabinet	CAB
Driver for stepping and scanning	CADM

## Ordering Information

### Available models

CTTPS1/2 Cryo Tip/Tilt/Piston Stage 1/2"

### Available Options

-HV Upgrade to High Vacuum compatibility  
-UHV Upgrade to Ultra High Vacuum compatibility

### Accessories

AKM1 Accessory Kit Mechanical 1  
AKE1 Accessory Kit Electrical 1

### Mechanical and electrical information

Download 3D step files and manuals from:  
<https://www.jpe-innovations.com/cryo-nano-products/>

### Contact

For quotations, specials, or engineering services, please contact us at:  
<https://www.jpe-innovations.com/contact/>

## Drawings

