

HCS301i Inverted Microscope Hot & Cold Stage



Instec's HCS301i hot and cold stage is designed specifically for inverted optical microscopes. It features a wider temperature range, from -80 °C to 250 °C, than the Peltier based thermal stages.

Features

- Programmable Precision Temperature Control from -80 °C to 250 °C
- Hot and Cold Stage System Designed Specifically for Inverted Microscopes
- Controlled Fast Heating and Cooling Rate
- Large Viewing Aperture
- Removable and Exchangeable Windows
- Dual Pane Windows for Better Thermal Isolation
- Integrated Aperture Window Defrost System
- Gas Purge Sample Chamber
- Inner Lid for Improved Sample Temperature Uniformity
- Optional Microscope Rotational Stage Mounting Accessories
- Optional Higher Temperature Limit Available



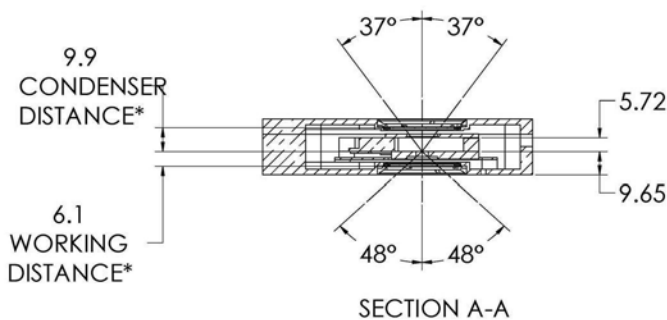
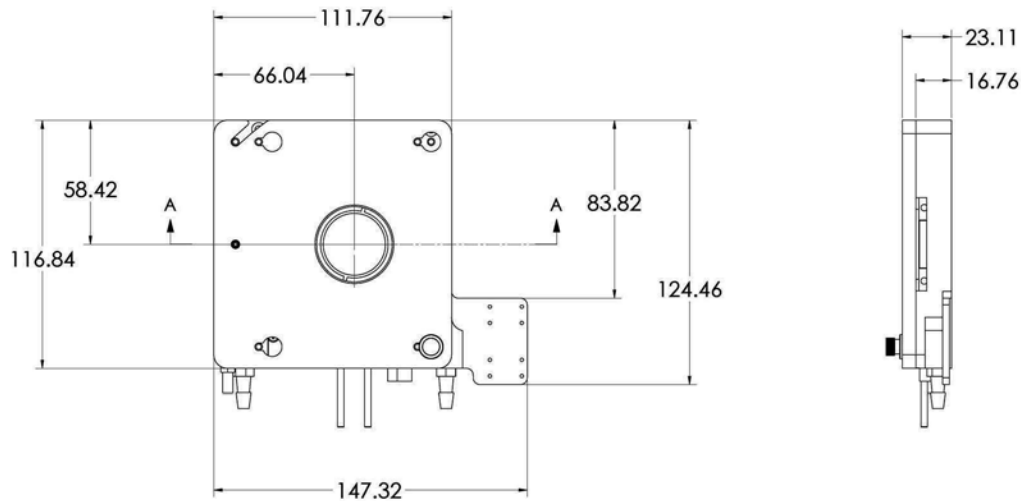
Technical Specifications

Temperature Range	-80 °C to 250 °C Optional higher temperature limit available Below ambient operation requires optional cooling accessory
Temperature Resolution	0.01 °C with mK1000
Temperature Stability	±0.01 °C at 100 °C with mK1000
Minimum Heating and Cooling Rate	±0.1 °C per hour
Maximum Heating Rate	+100 °C per minute at 100 °C
Maximum Cooling Rate	-50 °C per minute at 100 °C (when using LN2-P4)
Temperature Control Method	Switching PID
Temperature Control Sensor	100 Ω Platinum RTD
Minimum Objective Working Distance	6.1 mm (shorter working distance optional)
Minimum Condenser Working Distance	9.9 mm (short condenser distance optional)
Sample Area	22 mm x 25 mm
Chamber Height	5.0 mm
Sample Viewing Aperture	5 mm

Ordering Information

Part Number	Description
HCS301i-mK1000	HCS301i, inverted microscope hot and cold stage with mK1000, 115V/230V, software included
Accessories	Description
mK1000 Options	Please refer to the mK1000 Temperature Controller section for mK1000 controller options (e.g. IEEE-mK1000: IEEE 488 communication port)
LN2-SYS	Liquid nitrogen cooling accessory. Please refer to the LN2-SYS section for selections of liquid nitrogen cooling accessories
WPC3A/WPC3U	115V or 230V circulation water pump system for rapid sample chamber cooling to as low as 5° C
WP115F/WP230F	115V or 230V circulation water pump for frame cooling
MTR-SYS	Adaptor ring for microscope mounting. Contact Instec for microscope specific ring availability

Physical Dimensions & Cross Section View



*DISTANCE IS CALCULATED WITH BOTH WINDOWS INSTALLED