

TS62 Microscope Thermal Stage



Instec's TS62 is a Thermo Electric Cooler (Peltier) based thermal stage that can cool down to -30°C without using liquid nitrogen or a circulation chiller. This is very convenient for performing long duration experiments at cold temperatures. It also simplifies the system set up and reduces operating costs.



Hot & Cold Stages

Features

- Programmable Precision Temperature Control from -30°C to 120°C
- Peltier-Based Microscope Thermal Stage
- Controlled Fast Heating and Cooling Rate
- Accommodate Up To 38 mm x 68 mm Sample Size
- Large Viewing Aperture
- Removable and Exchangeable Windows
- Dual Pane Windows for Better Thermal Isolation
- Variable Sample Chamber Height
- Integrated Aperture Window Defrost System
- Gas Purge Sample Chamber
- Easy Side Sample Loading with Standard Microscope Slides
- Vertical and Horizontal Mounting
- Optional Precision X-Y Micropositioner for Sample Positioning

Technical Specifications

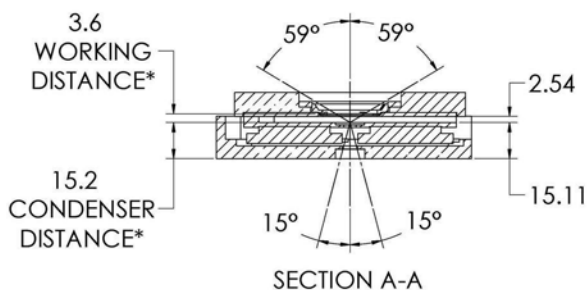
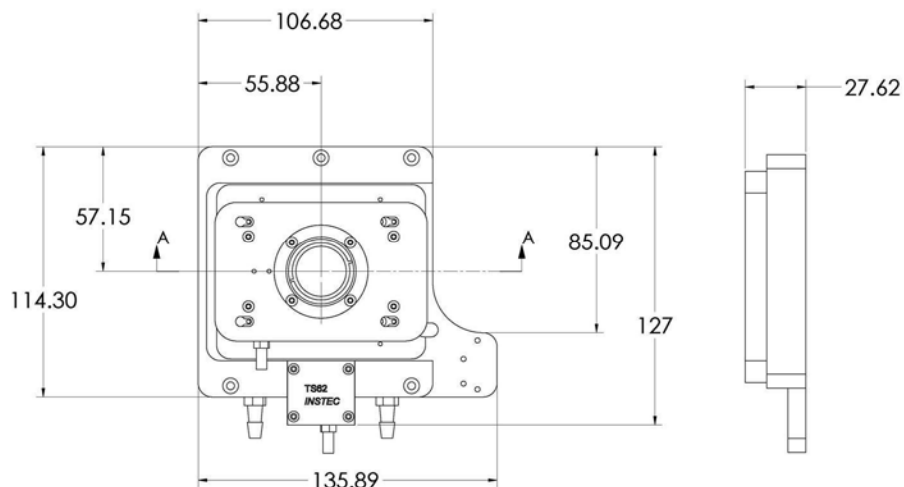
Temperature Range	-30°C to 120°C Optional higher temperature limit available
Temperature Resolution	0.01°C with mK1000
Temperature Stability	±0.01°C at 37°C with mK1000
Minimum Heating and Cooling Rate	±0.1°C per hour
Maximum Heating Rate	+50°C per minute at 37°C
Maximum Cooling Rate	-50°C per minute at 37°C
Temperature Control Method	PID with Linear Variable DC
Temperature Control Sensor	100 Ω Platinum RTD
Minimum Objective Working Distance	3.6 mm
Minimum Condenser Working Distance	15.2 mm
Sample Area	38 mm x 68 mm
Chamber Height	2.5 mm (up to 7 mm when using optional spacers)
Sample Viewing Aperture	19 mm for reflected light 5 mm for transmitted light
X-Y Micropositioner (optional)	10 μm resolution

Ordering Information

Part Number	Description
TS62-mK1000	TS62 thermal stage with mK1000, 115V/230V, WP115F or WP230F and software included
XY-TS62	Precision X-Y Micropositioner with sample holders and accessories
MT-TS62-01	Mount adaptor for LCH-S2, LCH-S3, and LCH-S4, for use with X-Y Micropositioner
MT-TS62-02	Mount adaptor for LCH-S2, LCH-S3, and LCH-S4, for use without X-Y Micropositioner
SP06-TS62	1.5 mm spacer set to increase sample chamber height
SP12-TS62	3.0 mm spacer set to increase sample chamber height

Accessories	Description
mK1000 Options	Please refer to the mK1000 Temperature Controller section for mK1000 controller options (e.g. IEEE-mK1000: IEEE 488 communication port)

Physical Dimensions & Cross Section View



*DISTANCE IS CALCULATED WITH BOTH WINDOWS INSTALLED