

## Description

The TPM-CX40 is an upright polarizing microscope offering great performance for a variety of research applications. The modular design offers capabilities to satisfy a wide range of demanding observational requirements.

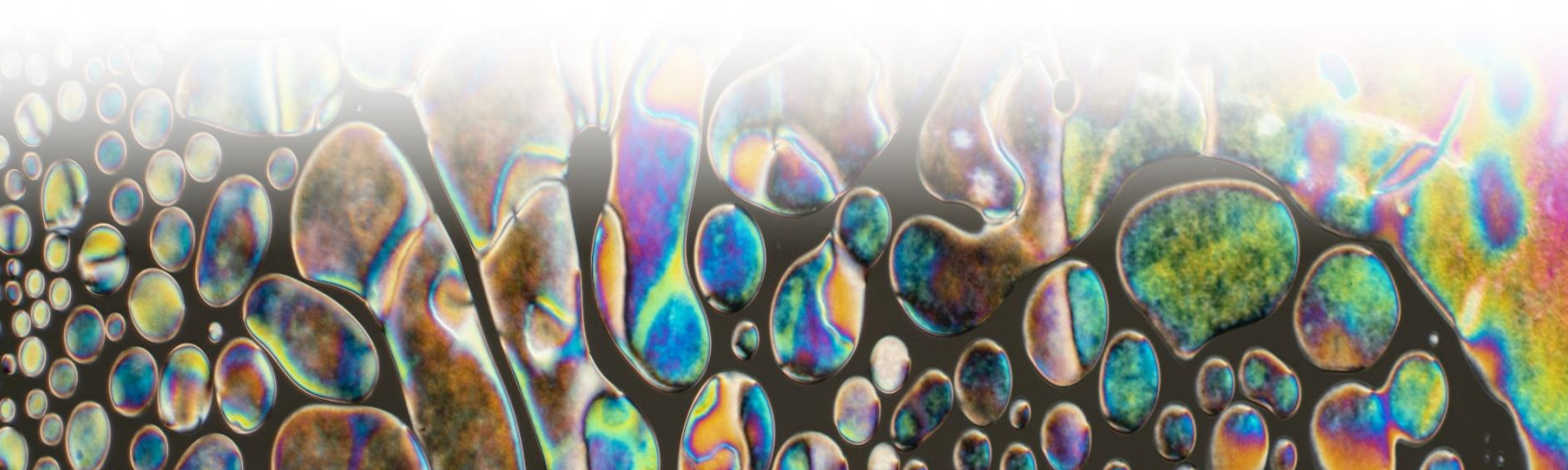


## Product Features

- Research-level microscope, uniquely suited for Thermal Microscopy Applications
- 20mm long working distance Polarizing Condenser
- Compatible with multiple long working distance objectives (includes 5X, 10X, 20X and 50X objectives by default)
- Rotating stage compatible with Instec Hot and Cold Stages for controlling sample temperature from -190°C to 1500°C
- Both transmitted light and reflected light configurations available
- Optional microscope digital camera for image/

## Design Features

- Heavy Y-Shaped base provides rigidity and stability
- Easily configure the TPM-CX40 to the application with the modular design
- Durable, chemical resistant finish
- Ergonomic design ensures comfortable and fatigue-free observation
- Manufactured based on HSF sustainability guidelines



## Structural Features

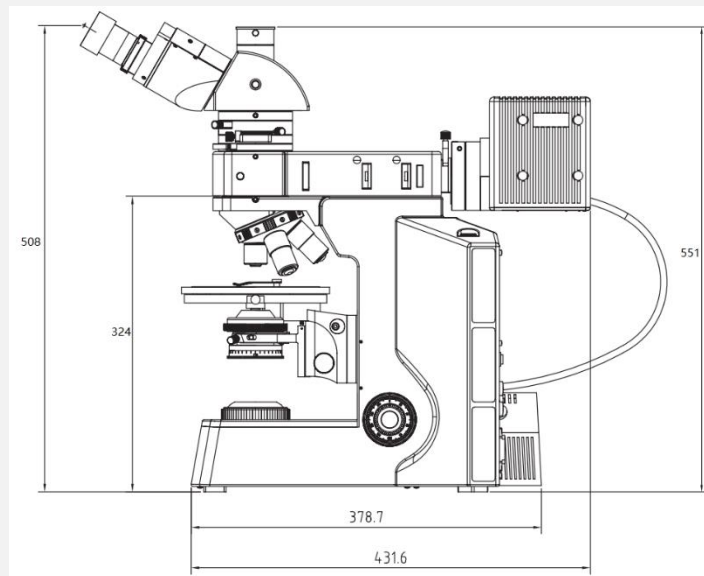
### Research-level Microscope:

- Intermediate tube for conoscopic observation with removable internal Bertrand lens analyzer and compensators (attachable Gyps  $1\lambda$ , Mical  $1/4\lambda$ , & quartz wedge I-IV)
- Centerable Bertrand lens with rotating switch and focusing adjustment, making it easier to observe interference patterns.
- Removable analyzer and polarizers, with  $360^\circ$  rotation and  $2^\circ$  increments.



### Microscope Stage:

Large 160mm stage with  $360^\circ$  rotation, can be positioned and locked into place with locking screw. Graphite coated stage is anticorrosive and antifriction. Rotation indices are printed with a special material that will not fade or wear out after long-term operation. Convenient screwdriver storage located in arm for making adjustments to stage and microscope modules.



## Optical Features

Reflection Illuminator: Preset slot design of reflective illuminator with polarizer, spectroscope, field stop, and aperture stop.

- polarizer can easily be removed from the optical path to ensure maximum reflected light intensity
- The spectroscope can be moved out of the optical path to ensure that all the imaging light can enter the observation cylinder during transmission observation and improve the imaging quality under the interferogram and orthogonal polarization

Universal Objectives: 4 long distance objectives are included: 5X (NA0.15, WD10.8), 10X (NA0.3, WD 10.0), 20X (NA0.40, WD11.9), and 50X (NA0.55, WD7.9). Please contact Instec for compatibility between Instec thermal stages and TPM-CX40 objectives.



## Ordering Information

Part Number	Description
TPM-CX40-TR	The upgraded model of TPM-CX40 for both Transmission and Reflection modes: a complete polarizing microscope for both transmitted and reflected light, long working distance condenser (20mm), a rotatable analyzer with 2° increments. Customized rotatable stage for Instec hot and cold stages.
C-TPM-CX40-1x	Optional C-mount adaptor with 1X magnification, specifically for TPM-CX40 (Included)
C-TPM-CX40-0.65x	Optional C-mount adaptor with 0.65X magnification, specifically for TPM-CX40
C-TPM-CX40-0.5x	Optional C-mount adaptor with 5X magnification, specifically for TPM-CX40
MITO2-20MC	Optional C-mount ready microscope CCD camera system, 20 Megapixel, RGB color image. Includes Instec WinDV software for automatic temperature overlay. Real time video output capable.
CX40-5X-10.8	5X objective with 0.15 numerical aperture and 10.8mm working distance (Included)
CX40-10X-10.0	10X objective with 0.3 numerical aperture and 10.0mm working distance (Included)
CX40-20X-11.9	20X objective with 0.40 numerical aperture and 11.9mm working distance (Included)
CX40-50X-7.9	50X objective with 0.55 numerical aperture and 7.9mm working distance (Included)

## Other products to consider....



**HCS621GXY** heating and cooling stage with 30mm diameter hexagonal sample area. Temperature range -190°C to 600°C. Gas-tight chamber for inert gas purge to prevent condensation. Includes XY positioning, and option to add electrical feedthroughs. CWD=11.5mm WD=5mm.



**HCS302** Open-frame heating and cooling stage with 38mm x 50mm sample area. External XY upgrade kit compatible with glass-slides or INSTEC Liquid Crystal Holder. Temperature Range -190°C to 400°C. CWD=10.3mm WD=5.4mm.