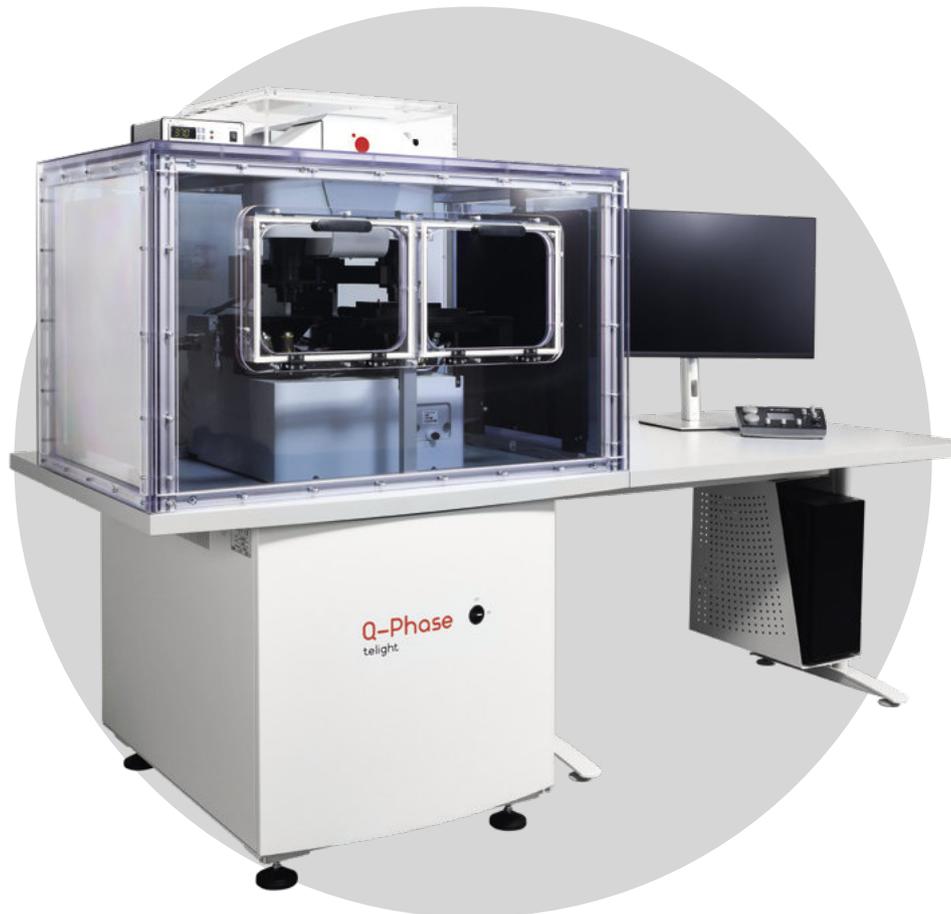


# Q-Phase

QPI solution for reliable automated segmentation  
and cell culture analysis



**Q-Phase is a holographic microscope based on a patented technology for Quantitative Phase Imaging (QPI).** Q-Phase creates time-lapse phase images with realistic values for precise measurement of biophysical cell parameters including cell dry mass distribution.

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# Specifications

## Microscope

- ✓ **Microscope configuration**  
transmission inverted microscope
- ✓ **Microscopy techniques**  
holography (quantitative phase imaging), epifluorescence, simulated DIC, brightfield, high-pass filtered phase
- ✓ **Objectives**  
magnification 4x to 60x
- ✓ **Objective turret**  
6-position, motorized exchange
- ✓ **Light source**  
LED
- ✓ **Operating wavelength**  
660 nm
- ✓ **Sample stage**  
motorized, 130 mm × 90 mm travel range
- ✓ **Focusing**  
motorized objective turret, 8 mm travel range
- ✓ **Piezo-focusing**  
optional, travel range 500 µm
- ✓ **Lateral resolution**  
4 µm with 4x NA 0.1 objective  
0.58 µm with 60x NA 1.4 objective
- ✓ **Field of view**  
objective and camera dependent,  
up to 1.48 mm × 1.48 mm with 4x objective
- ✓ **Acquisition framerate**  
16 fps (higher framerates on request)
- ✓ **Reconstructed phase image size**  
1200 × 1200 px
- ✓ **Illumination power at sample plane**  
down to 0.9 mW/cm<sup>2</sup>
- ✓ **Phase detection sensitivity**  
down to 0.011 rad
- ✓ **Power**  
230 V/50 Hz (120 V/60 Hz optional), 1200 VA
- ✓ **Dimensions (W × L × H)**  
1100 mm × 950 mm × 1620 mm microscope  
with incubator, 2515 mm × 974 mm × 1620 mm  
total with operator table
- ✓ **Weight**  
350 kg (including microscope table,  
fluorescence module and microscope incubator)
- ✓ **Field and aperture diaphragms**
- ✓ **Side port available** for fluorescence
- ✓ **Microscope table** with anti-vibration suspension
- ✓ **Control panel** with multifunctional touchscreen,  
sample stage joystick and rotary knobs
- ✓ **Microscope incubator** with computer temperature  
setting and temperature data logging (optional)
- ✓ **Incubation chamber** for precise and long-term control  
of temperature, humidity and CO<sub>2</sub> concentrations  
(optional) module or other additional techniques



## Fluorescence module (optional)

- ✓ **Light engines**  
Lumencor with 3 channels (optionally up to 5 channels)
- ✓ **Detectors**  
Andor Zyla 4.2 PLUS sCMOS (2048 px × 2048 px)
- ✓ **Filters**  
3 multichannel filter cubes, motorized channel switching