

Trinocular Microscope with Digital Camera



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Model: MSCT3108SWISS

Introduction

The MSCT3108SWISS Research Inverted Microscope is an advanced optical platform designed for live cell imaging. It combines exceptional optical performance with robust

mechanical construction, enabling high-resolution, high-contrast microscopy. With an ergonomic design and user-friendly features, this microscope simplifies laboratory workflows and enhances research efficiency.

Applications

- Crystal-clear imaging for cell culture observations
- Newly developed contrast observation capabilities
- Suitable for various live-cell imaging applications

Features

1. Ergonomic and Adjustable Viewing Head

- 20-45° adjustable binocular head
- Interpupillary distance: 65mm
- Elevates eye point by 78mm for fatigue-free operation

2. Integrated Button Controls

- Manual and automatic operation modes
- Quick switching of objectives, brightness, and fluorescence settings via button panels

3. **Auto-Focus (AF)**

- One-key autofocus adjusts Z-axis height efficiently
- Eliminates manual fine adjustments, boosting productivity

4. **360° Low-Position Platform Handwheel**

- Ergonomic design reduces operator fatigue
- Simplifies long-duration tasks

5. **Tilting Transmission Lighting Structure**

- Ensures spacious workspace
- Facilitates easy specimen replacement

6. **Electric Nosepiece**

- Quick switching of objectives through side buttons or PC control
- Enhances operational convenience

7. **Waste Liquid Drainage Structure**

- Integrated drainage grooves prevent contamination
- Protects sensitive optical components

8. Integrated Panel Control

- Front digital display shows real-time settings
- Simplifies repetitive experimental operations

9. High Scalability

- Configurable single-layer or double-layer optical paths
- Customizable for various applications and modifications

10. Advanced Software

- Features include fluorescence intensity analysis, image stitching, and focus stacking
- Tools for cell counting, annotation, and real-time image processing

Technical Specifications

1. **Microscopy System:** Inverted LED microscope for brightfield and phase contrast with image analysis.
2. **Optical System:** Infinity color-corrected optics.
3. **Magnification:** 40x-1000x.
4. **Viewing Head:** Tilttable 20-45° binocular with interpupillary distance (50-76mm).
5. **Eyepieces:** Wide-field PL10X/22mm with diopter adjustment.
6. **Objectives:** Long Working Distance Plan Semi-Apochromatic:

- 4X/NA=0.13, WD=17mm
- 10X/NA=0.3, WD=8.8mm
- 20X/NA=0.45, WD=6.5-7.6mm
- 40X/NA=0.6, WD=2.85-4.05mm
- 60X/NA=0.7, WD=1.42-2.1mm
- 100X/NA=1.35, WD=0.13mm (Oil Immersion)

7. **Nosepiece:** Electric sextuple nosepiece with DIC slot.
8. **Stage:** Manual mechanical stage (300mm x 240mm) with 135mm x 85mm travel range.
9. **Illumination:** Koehler transmission with adjustable condenser holder.
10. **Camera:** USB3.0 cooled CMOS camera (3840x2160 pixels, 45fps).
11. **Software Features:** Live imaging, measurements, annotations, fluorescence synthesis, and cell counting.

Additional Specifications

Item	Specifications	MSCT3108SWISS
Optical System	Infinity color-corrected system	Yes
Fluorescence Module	8-hole attachment with filters and manual shutter	Yes
Stage	Manual with pressure clamps and replaceable discs	Yes
Electric Control Box	Digitally adjustable output with forced air cooling	Yes
Accessories Included	Image analysis software, DELL Precision workstation, manual	Yes

Included Accessories

1. Image Analysis Software
2. Dust Cover
3. Instruction Manual
4. 1X C-Mount Adapter

This comprehensive system offers cutting-edge functionality, exceptional performance, and ease of use, making it ideal for researchers in live-cell imaging and microscopy.