# From Eye to Insight





# **Technical specifications**

### Mateo TL base configuration

Mateo 12 base configuration	
Light source	LED
Contrast methods	Transmitted light (brightfield and phase contrast)
Condenser	S40/0.45 condenser, working distance 50 mm
Phase turret	Encoded 3-position turret (BF, PH0, PH1)
Objective nosepiece	Encoded 4-position nosepiece
Preinstalled objectives	HI PLAN 4x /0.10 PH0 HI PLAN I 10x /0.22 PH1
Stage	Fixed stage (L*W) 262 mm x 212 mm
Focusing	Coarse and fine focusing, travel range 7 mm, min. adjustment 2 $\mu m$
Camera	Integrated CMOS, 6 megapixel color camera, sensor size 1 / 1.8", pixel dimensions 2.4 µm x 2.4 µm, sensor format H: 3072 px; V: 2048 px
Software	Stand-alone operating system. PC is not required.
Image output	JPEG and TIFF
Display	Color monitor with adjustable tilt, 15.6 inch, 1920 pixels x 1080 pixels
Onboard storage	Total storage 16 GB (Approximately 9 GB for the operating system and 7 GB for storing images and logfiles)
USB ports	1x USB 3.0 and 2x USB 2.0
Data transfer	USB or WIFI connection to smart device (optional)
Dimension (depth x width x height)	Monitor in display position: 310 mm x 376 mm x 530 mm Monitor in folded position: 310 mm x 376 mm x 385 mm
Weight	11 kg
Transportation aid	Supporting handle on the back of microscope
Other items included in the base configuration	Wireless mouse, mouse pad, dust cover, power adaptor, power cord, user manual and quick start guide

### Optional accessories

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Objectives	HI PLAN I 20x/0.30 PH1 HI PLAN I 40x/0.50 PH1		
Object guide kit	Including  one attachable object guide  holding frame #1 for petri dishes 35 mm & 60 mm, glass slides, chambered slides and chambered coverglasses  holding frame #2 for multi-well plates		
Software module	Confluency module		
WIFI dongle	WIFI Dongle 2.4 GHZ for data transfer		

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From Eye to Insight



Digital transmitted light inverted microscope for cell culture



# Mateo TL makes the process of cell culture checks effortless for every team member, with intuitive setup and use.

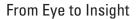
It improves reproducibility for your experiments through objective confluency evaluation across individuals or experiments.

#### **Benefits:**

- Simple to use, also for non-experts
- Go from setup to first image in under 1 minute
- One common criterion for consistent confluency measurements
- Enhance your team's comfort

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#### Simple to use, also for non-experts

Empower your entire team to observe and take images of samples easily and intuitively,

- All lab members, regardless of expertise, can set up contrasting methods correctly using the interactive assisted contrast setup feature.
- > Observe and take images of samples easily with the intuitive and user-friendly software interface.
- Mateo TL eases the training burden on technicians, supervisors, and senior researchers.

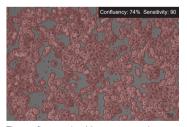


# Go from setup to first image in under 1 minute

Benefit from a ready-to-use system which you can start working on right away.

In regulated environment, you can add Installation Qualification (IQ) and Operational Qualification (OQ) to the service plan, which helps to document and verify that Mateo TL is installed and operating according to Leica's specifications.

#### One common criterion for consistent confluency measurements



The confluency algorithm measures the percentage of area covered by cells in the image.

Mateo TL confluency module enables you to:

- > Eliminate subjective estimations.
- Achieve consistency in your confluency measurements between different users and experiments.
- > Take the guesswork out of confluency evaluation.
- Improves experiment reproducibility.



#### Enhance your team's comfort

Minimize fatigue by eliminating the need to use oculars

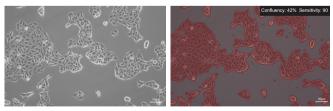
Mateo TL can be placed inside a laminar flow hood of compatible dimension for convenient cell culture work inside the hood, which also helps to minimize cell contamination.

### **Confluency Check Workflow with Mateo TL**

In life science research, such as cancer, stem cells, or regenerative medicine, experiments often require cells in specific growth conditions. These conditions include cell morphology and confluency which are checked regularly.



For researchers who need consistent experimental outcomes, Mateo TL is an intuitive-to-use digital transmitted light inverted microscope that enables all lab members to check and document cell growth status conveniently and comfortably, and measure confluency consistently, thereby increasing the confidence in the success of their downstream experiments.



Phase-contrast image of a MDCK-cell culture and its respective confluency measured by Mateo TL.