



*Inverted trinocular brightfield/phase contrast microscope, IOS, 6MP camera with 15.6" 4K monitor*

|   |                                   |  |
|---|-----------------------------------|--|
| <b>Observation Method - Transmitted Light</b> | Brightfield                       | Yes  |
|   | Phase contrast (Positive type)    | Yes  |
|   | Simple polarized light            | As optional                                |
| <b>Main Body</b>                              | Type                              | Inverted                                   |
|   | Construction material             | Aluminum die-cast                          |
| <b>Head</b>                                   | Type                              | Trinocular (Siedentopf)                    |
|   | Split ratio                       | 100/0 - 50/50                              |
|   | Inclination                       | 45°  |
|   | Interpupillary distance (mm)      | 50-75                                      |
|   | Diopter adjustment                | On left tube                               |
|   | Tube inner diameter (mm)          | 30   |
| <b>Eyepieces</b>                              | Field number (mm)                 | 22   |
|   | Magnification                     | 10x  |
|   | Planar type                       | Yes  |
|   | Micrometric scale                 | As optional                                |
|   | Diameter of micrometer glass (mm) | 26   |
|   | High eyepoint (for glass wearers) | Yes  |
|   | Rubber cup                        | Yes  |
|   | Retractable protections           | Yes  |
| <b>Nosepiece</b>                              | Positions                         | Quintuple                                  |
|   | Reversed                          | Yes  |
|   | Bi-directional                    | Yes  |
|   | Rotation on ball bearings         | Yes  |
|   | Objective thread                  | RMS  |
| <b>Objectives</b>                             | Optical system                    | $\infty$                                   |
|   | Anti-fungus treatment             | Yes  |
|   | Parfocal distance (mm)            | 45   |
|   | Standard magnifications           | 100x-400x                                  |
|   | Type                              | IOS LWD W-PLAN PH                          |
|   |                                   | IOS LWD W-PLAN PH<br>10x/0.25, W.D. 7.3 mm |
|   |                                   | IOS LWD W-PLAN PH<br>20x/0.40, W.D. 6.8 mm |

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|  |  | IOS LWD W-PLAN PH<br>40x/0.65, W.D. 3.0 mm   |
| <b>Stage</b>                                     | Type   | Fixed  |
|  | Dimensions (mm)                              | 250x160  |
|  | Material                                     | Anti-scratch painting  |
|  | Glass round insert                           | Yes  |
|  | Metal round insert                           | Yes  |
|  | Holder for Petri dish (mm)                   | As optional  |
|  | Holder for Terasaki plate                    | 96 well  |
|  | Holder for 2 slides                          | As optional  |
| Holder for Utermöhl chamber                      | As optional                                  |  |
| <b>Condenser - Single Position</b>               | Type   | Abbe   |
|  | Removable                                    | Yes  |
|  | Numerical aperture (N.A.)                    | 0.30   |
|  | Diaphragm                                    | Iris   |
|  | Slider for phase contrast                    | BF, 4x/10x, 20x/40x positions  |
|  | Slider for color filters                     | Yes  |
|  | Long working distance                        | Yes  |
|  | Working distance (for LWD) (mm)              | 72   |
| Extendable working distance (for LWD) (mm)       | up to 150                                    |  |
| <b>Focusing System</b>                           | Type   | Coaxial coarse & fine  |
|  | Focus modes                                  | Coarse & fine  |
|  | Fine graduations                             | 100  |
|  | Fine total travel (per single rotation) (mm) | 0,2  |
|  | Fine resolution (µm)                         | 2  |
|  | Adjustable tension                           | Yes  |
| <b>Transmitted Illumination</b>                  | Type   | X-LED  |
|  | X-LED type                                   | X-LED8   |
|  | Light source power (W)                       | 8  |
|  | Brightness control                           | Manual   |
|  | Lifetime (hours)                             | > 65,000   |
|  | Temperature (K)                              | 6,300  |
| Max. required power (W)                          | 13   |  |
| <b>Power Supply for Transmitted Illumination</b> | Type   | External   |
|  | Microscope connector                         | Jack, 2.1 mm   |
|  | Power plug type                              | Multi-plug (EU, UK, US)  |
|  | Input voltage                                | 100/240 Vac, 50/60 Hz  |
| Output voltage                                   | 6 Vdc 2.5 A                                  |  |
| <b>Accessories Included</b>                      | Dust cover                                   | Yes  |
|  | Allen wrench                                 | Yes  |
|  | Centering telescope                          | Yes  |
|  | Green filter                                 | Yes (IF550)  |
|  | User Manual                                  | Digital version (downloadable)   |
|  | Calibration slide                            | Yes  |
| <b>Additional Information</b>                    |  | Mechanical stage dimension 250x230 mm, X-Y translation range 120x80 mm (as optional).<br>Metallic interchangeable inserts for slides, Petri dishes, Terasaki, multi-Well plates (as optional). |

|                                      |   |                       |
|--------------------------------------|---|-----------------------|
| <b>Product Dimensions</b>            | Height (mm)                             | 495                   |
|                                      | Width (mm)                              | 230                   |
|                                      | Depth (mm)                              | 540                   |
| <b>Product Weight</b>                | (kg)                                    | 9                     |
| <b>Camera General specifications</b> | USB output                              | Yes                   |
|                                      | C-Mount                                 | Yes                   |
|                                      | Dimensions (mm)                         | 68 x 68 x 46          |
|                                      | Weight (kg)                             | 0.265                 |
| <b>Sensor</b>                        | Camera resolution (n° of pixels: W x H) | 3072x2048             |
|                                      | Color / Monochrome                      | Color                 |
|                                      | Sensor Size                             | 1/1.8"                |
|                                      | Sensor Technology                       | CMOS                  |
|                                      | Sensor Type                             | SONY EXMOR            |
|                                      | Image Format                            | 3/2                   |
|                                      | Pixel Size (mm)                         | 2.4x2.4               |
|                                      | Acquisition technology                  | Rolling shutter       |
|                                      | Signal/Noise Ratio (DB)                 | 41.74                 |
|                                      | Dynamic range (DB)                      | 66.8                  |
|                                      | G sensitivity                           | 425mV at 1/30s        |
|                                      | Dark Signal                             | 0.15mV at 1/30s       |
|                                      | ADC conversion                          | 8 Bit - 12Bit         |
|                                      | Color Depth                             | 1, 4, 8, 24 Bit       |
|                                      | Exposure time                           | 0.1 msec - 15 sec     |
|                                      | Binning                                 | 1x1; 2x2              |
| IR filter                            | Yes                                     |                       |
| IR filter range (nm)                 | 380-650 (IR CUT)                        |                       |
| <b>USB</b>                           | Camera resolution (MP)                  | 6.3                   |
|                                      | USB standard                            | USB3.0                |
|                                      | Frame rate full resolution (fps)        | 30@3072x2048          |
|                                      | Frame rate other resolution (fps)       | 38@1536x1024          |
| <b>Camera Power Supply</b>           | Connector                               | USB                   |
|                                      | Output voltage                          | PC USB                |
| <b>Camera accessories</b>            | Calibration slide                       | Yes                   |
|                                      | USB cable (1.8m)                        | Yes                   |
| <b>Environment</b>                   | Working Temperature                     | -10°C up to +50°C     |
|                                      | Storage Temperature                     | -20°C up to +60°C     |
|                                      | Relative Humidity                       | 30% to 80%            |
|                                      | Storage Humidity                        | 10% to 60%            |
| <b>Operating System</b>              | OS                                      | Windows 11            |
| <b>Available Software</b>            | PC SW                                   | PROVIEW               |
| <b>HDMI Monitor</b>                  | Touch Screen                            | Yes                   |
|                                      | Display size                            | 15.6"                 |
|                                      | Display resolution                      | 3840x2160             |
|                                      | Contrast ratio                          | 1000:1                |
|                                      | Luminous flux (lumen)                   | 350                   |
|                                      | Power plug type                         | European              |
|                                      | Input voltage                           | 110/240 Vac, 50/60 Hz |
|                                      | Output voltage                          | 5 Vdc 4 A             |

|           |                  |   |
|-----------|------------------|---|
|           | Dimensions (mm)  | 356 x 225 x 12  |
|           | Weight (Kg)      | 0.8   |
| <b>PC</b> | Operating system | Windows 11  |
|           | CPU              | IntelCore or AMD Ryzen  |
|           | Graphic card     | Embedded, max resolution 4K   |
|           | RAM              | 16GB  |
|           | Power plug type  | Multiplug   |
|           | Storage          | SSD min 256GB   |
|           | WiFi             | Yes   |
|           | Ports            | USB3.0 (3x), USB2.0 (1x), USB-C (1x), Ethernet (2x), HDMI (1x), Display Port (1x) |