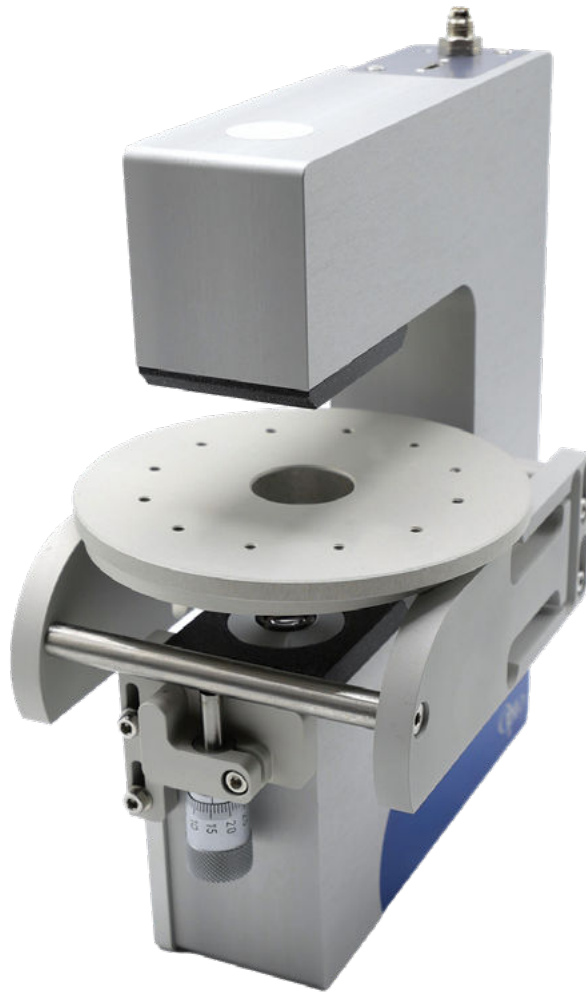


# Digital Microscope for Microfluidics

**P/N: 1IMCB01**



## CONTENTS

- IM profile | M digital microscope
- Manual XYZ $\Phi$  Stage for profile M
- USB 3.1 Gen1, cable, straight, USB-C screwable, 3m
- USB key with OptoViewer software
- Manual Assembly Instructions of IM-AM-00001 document

## DESCRIPTION

The Opto microscope is an optimized and plug-and-play solution for microfluidic experiments. 40mm in width, a field of view of 1.3 x 0.84, and a resolution of 360 LP/mm, it is a compact and ready-to-use transmission light microscope. Intended for high-speed applications such as process monitoring in microfluidic droplet generation, flow cytometry, and general microfluidics, the microscope has a USB 3.1 interface with 5x magnification in color.

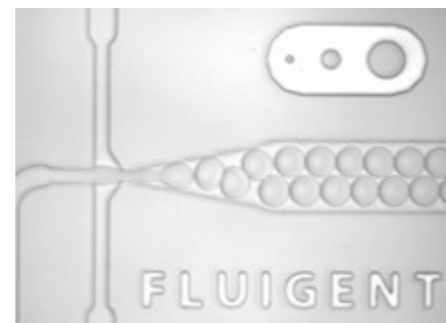
The OptoViewer software provides fast visualization, and the ability to photograph and record. In addition, the integrated droplet routine allows for live microfluidic droplet or particle size measurement and counting.

## BENEFITS & FEATURES

- **Ready to use:** All-in-one digital microscope with integrated software
- **High-performance:** High speed image acquisition up to 166 fps, micrometer / pixel resolution with large field of vision, high contrast transmission brightfield illumination
- **High reproducibility:** fixed optical parameters
- **Compact:** W140 x L193 x H40
- **Dedicated to microfluidics:** microfluidic specifications designed, droplet microfluidic software plug-in for droplet measurement & tracking

## APPLICATIONS

- **Droplet microfluidics:** single emulsions, double emulsions, microbead particles, nanoparticles, GUVs, etc....
- **Flow cytometry**
- **(Single-) Cell analysis**
- **General microfluidics (lab on a chip)**



## SPECIFICATIONS

<b>Magnification</b>	5X
<b>FoV [mm]</b>	1.3 x 0.84
<b>Resolution [LP/mm]</b>	360
<b>Working Distance WD [mm]</b>	13
<b>Object Space Resolution [µm/Pixel]</b>	0.7
<b>Depth of Field DoF [mm]</b>	0.008
<b>Sensor</b>	IMX392LQR-C   2.35 MP   Color   166 fps
<b>Dimensions [mm]</b>	W140 x L193 x H40
<b>Weight [g]</b>	1400
<b>Interface</b>	USB3.1 Gen 1 Type C
<b>Illumination</b>	Transmitted light   white   4000K
<b>Control Software</b>	OptoViewer 2.0
<b>Certifications</b>	CE / RoHS / WEEE-Reg.-No. DE 68564667

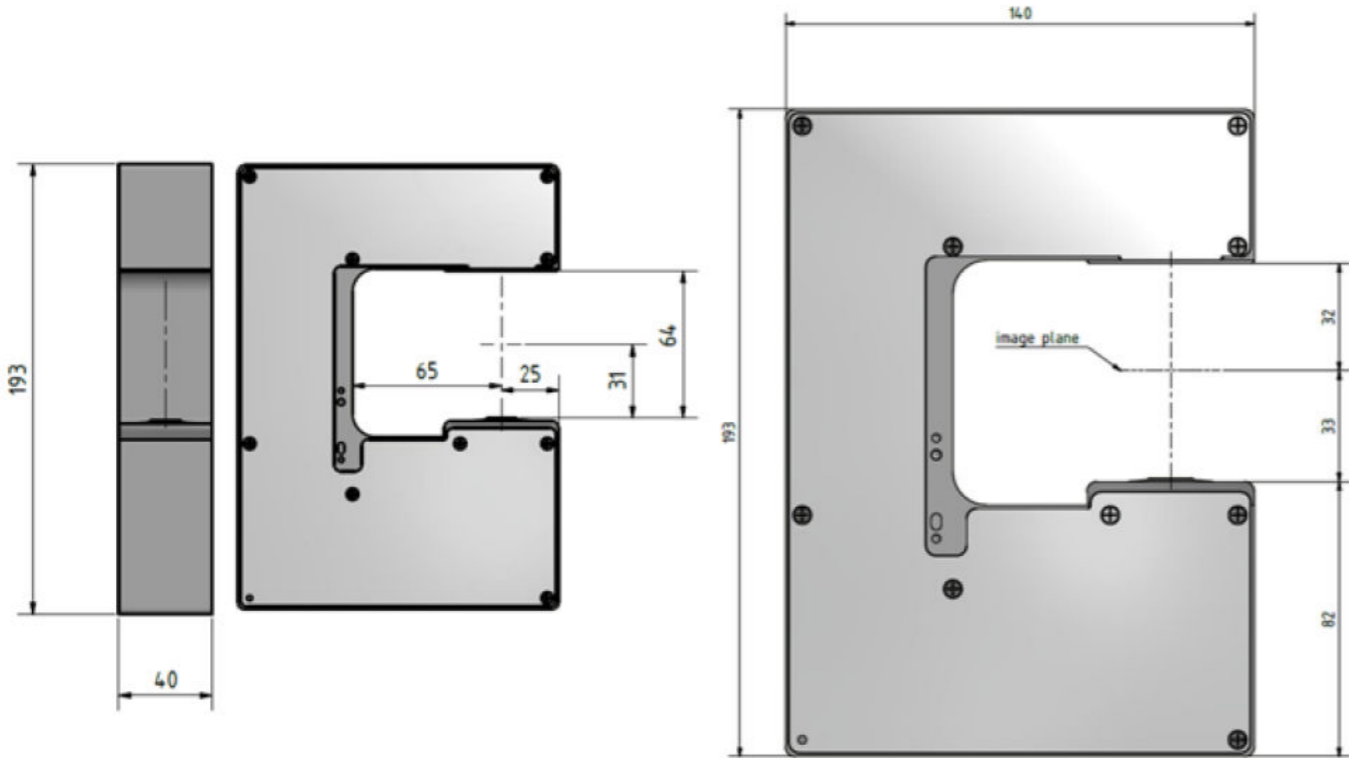
## CONTENTS

- IM profile | M digital microscope
- Manual XYZΦ Stage for profile M
  - » Enables high-precision sample positioning
  - » Integrated fastening threads in sample holder for flexible fixation
  - » Mechanism: manual sliding stage for planar xyΦ-movement (2 linear + 1 rotational degrees of freedom)
  - » Travel range of the sliding table [mm]: ± 5, ± 180°
  - » Focus travel range [mm]: 3
  - » Maximum load [kg]: 1
  - » Plate size [mm]: Ø102
  - » Material: aluminum, matt anodized
- USB 3.1 Gen1, cable, straight, USB-C screwable, 3m
- USB key with OptoViewer software
- Manual Assembly Instructions of IM-AM-00001 document



## TECHNICAL DRAWING

Program with Python, take the Plug&Play integration in LabVIEW or use the free OptoViewer included in the package – choose which software integration is best suited for your application. Everything from Opto, everything from one source.



Any questions? E-mail us at:

[support@fluigent.com](mailto:support@fluigent.com)

Or call our technical support team directly



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