Machine Vision Microscope

IM·series digital microscope
for measuring instruments, analysis systems
or bio-imaging systems
The new “Machine Vision Microscope” (MVM) is a purely digital microscope with all the features that make a microscope.

It has an apochromatically highly corrected microscope objective and a corresponding tube lens which magnifies each object point to a pixel of the Sony IMX series sensor. In addition, a coaxial incident light illumination as well as a diffuse ring light were installed.

The module offers an unprecedented level of usability. They come with their own image acquisition software, so they can be easily integrated into any network, system or production environment.
Designed, manufactured and tested in Germany to the highest optical standards.

IM·series  countless variations
Digital Microscope

The Machine Vision Microscope is part of the Imaging Module family in the 90° IM-compact M design and sturdy aluminum housing, with a single connection (Plug&Play). Imaging modules are optimized combinations of camera, optics, illumination and electronics for a specific application at the same or lower price than a combination of standard components. They are not only more robust and better adapted to the application, but also ensure the same configuration when re-ordered.

A coaxial incident light illumination and a diffuse ringlight were installed in this module.

Both lights are controlled and powered via the USB 3.1 port of the integrated camera. A specially developed control electronics allows alternating operation of the two light sources. The interaction of a highly sensitive sensor and very efficient LEDs with a powerful optical system allows this compact combination.

The new digital microscope can be easily integrated into measuring instruments, analysis systems or bio-imaging systems. With a repeatable optimized image for the corresponding application, it is also suitable for applications in computational microscopy and industry 4.0 environments. A constant image quality is guaranteed even with different modules and thus a perfect solution for stable deep learning applications.

One Unit
One Wire
Plug and Play
In addition to the integrated mounting threads, different static or adjustable adapters, mounting plates and mounting brackets are available. This enables easy adaptation according to your mounting preference.

We can offer you a selection of tripods for individual applications. You can find them in our ‘Microscope Accessories’ catalogue.

**Opto Viewer**

A very intuitive measurement and labeling software is integrated for stand alone applications as well as a comprehensive camera control for demanding integration tasks. Since each module is unchangeable in magnification, it is pre-calibrated at the factory and the settings are stored in its own electronics, so that measurements can be taken immediately.

Each imaging module is delivered with our software ‘Opto Viewer’ on request. The software is a Windows-based standard software. An imaging module with USB-C can be connected to a PC without much configuration effort.

**Mounting**

Image Capture with reduced Simplicity
Start | Stop | Save | Brightness
### Technical Specifications

<table>
<thead>
<tr>
<th>FoV (mm)</th>
<th>WD (mm)</th>
<th>Resolution (LP/mm)</th>
<th>Light (LED white)</th>
<th>Image</th>
<th>Frame-rate</th>
<th>Interface</th>
<th>Sensor (Sony Pregius *)</th>
<th>Order-number</th>
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</thead>
<tbody>
<tr>
<td>4,5 x 3,4</td>
<td>31</td>
<td>270</td>
<td>coax + ring</td>
<td>color</td>
<td>36</td>
<td>USB 3.0</td>
<td>5.0 MP</td>
<td>IC - 4352701 UCE</td>
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**Dimensions:** 70 x 150 x 40 mm, 0.5 kg  
* 88 x 150 x 40 mm, 0.5 kg  
**Conformity:** CE / RoHS / WEEE

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