

IS SERIES



Inspection Video Microscopes

Discover how inspections can be **extremely easy and quick** with OPTIKA!

Forget about looking into the eyepieces: go for **convenient, cost effective & extremely flexible** solutions. The digital microscopy camera technology allows you to observe small objects and to document your work, enabling also multiple viewers at the same time and thereby greatly improves collaboration.

Ergonomy plays an important role in inspections, and OPTIKA range is considering this aspect to **increase the efficiency and eliminate strains**.

Know more about the comprehensive OPTIKA range: suitable in a variety of quality control processes as well as R&D efforts or in repair and rework, in an endless range of segments.



IS Series



IS-01 - Overview

OPTIKA IS-01 is a compact, all-in-one video microscope with integrated HDMI camera and Android.

Ideal for achieving **high magnifications** and measurements, it is recommended when **repeatability** is required thanks to the click-stop magnification.

The professional 11.5" screen allows an **incredibly clear, deep and detailed image view** thanks to its high contrast LCD matrix and **1080p resolution**.

Its angle of view is adjustable in order to grant the best vision ergonomics.



Android system



Zoom objective,
0.7x - 5.0x with click
stops



1/3" CMOS 4MP HDR camera

It is possible to perform
measurements

On-board controls

Maximum magnification: **170x**
on 11.5" screen, with 1.4x lens
(supplied)

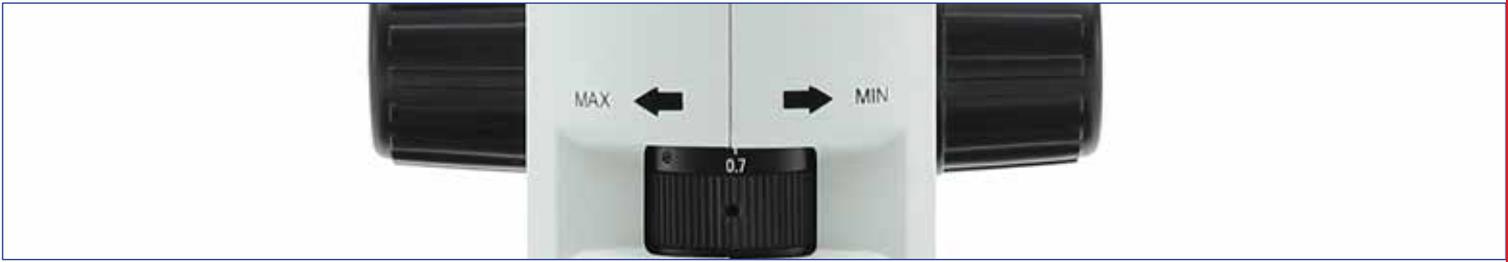
Double LED ring (for reflected
or oblique light) with separate
brightness control

Auxiliary lenses supplied:
- 0.5x (185 mm working distance)
- 1.0x (105mm working distance)
- 1.4x (110mm working distance)

Stable and resistant base to allocate specimen

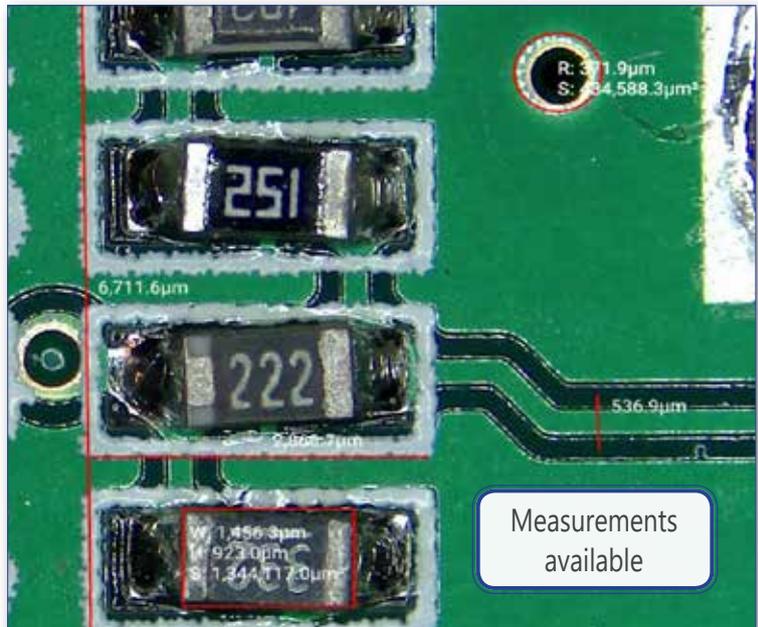


IS-01 - Technical Specifications



IS-01

| Part | Description |
|--------------------------------|--|
| Observation mode: | Brightfield, incident light. |
| Stand: | Base dimensions: 320x260mm. Vertical column with precision rack Rack range: 225mm. |
| Camera: | 1/3" CMOS 4MP HDR Camera. |
| Objective: | Zoom objective, 0.7x - 5.0x with click stops. |
| Auxiliary Lenses: | - 0.5x (185mm working distance) - 1.0x (105mm working distance) - 1.4x (110mm working distance). |
| Screen: | 11.5" Full HD HDMI LCD Screen. |
| Connections: | - HDMI video output - USB 2.0 for mouse connection - mini USB - Sd Card port for image/video storing. |
| Illumination: | Double LED Ring with separate brightness control. |
| Accessories (Included): | 1.5m USB cable, Wireless Mouse, 8GB SD card, 30 cm HDMI cable and Power supply. |



3 IS-02 - Overview

Advanced video inspection system, consisting in an extremely solid, accurate **boom stand** and a **full HD autofocus camera (C-HAF)**.

OPTIKA C-HAF is a real-time full HD auto-focus inspection camera, with 2 MP resolution to view crystal clear **1080p** images/videos on HD monitor, through HDMI connection at **60 fps**. Its angle of view is **fully adjustable**.

Achieve **instant focus** without the need to constantly adjust your lens with the incredibly fast focusing system (acquisition time is lower than 1 sec.). The working distance is between 10cm and infinity, making it the ideal solution to inspect multi-layered objects, extremely quickly.

The camera is equipped with **1x-14x optical zoom** and 1x-6x electronic zoom.

All functions are controlled **directly from the screen**.

The boom stand is equipped with a special joint to enable any rotation (both transverse and longitudinal): the longitudinal movement is through the sliding of the horizontal rail (lockable); whilst also the overall height is both adjustable and lockable.



Reduce inspection time with real-time focus from any angle



IS-02 - Technical Specifications



IS-02

CAMERA

| | |
|---------------------------|--------------------------|
| Image Sensor: | CMOS sensor Sony Exmor |
| Sensor dimensions: | 1/2.8" |
| Effective pixels: | 2 MP |
| Output: | HDMI |
| Power: | DC5V |
| Operation control: | Remote control |
| Scanning: | Progressive Scanning |
| White balance : | Manual/Auto/OnePush |
| Exposure: | Manual/Auto |
| Shutter speed : | 1/50s(1/60s)-1/10000s |
| SNR: | >50dB |
| Frame Rate: | 1080p@60fps |
| Operating Temp: | 0°C - 50°C |
| Weight: | 500g |
| Optical Zoom | 1x-14x |
| Digital Zoom | 1x-6x |
| Working Distance: | From 10cm to Infinity |
| Focusing System: | Autofocus / Manual focus |

STAND

Type: High-performance boom stand. 3D-joint for easy camera positioning. Sliding horizontal rail for longitudinal positioning. Adjustable longitudinal limit. Adjustable and lockable height. Mount for LCD screen.

Base dimensions: 210×257 mm.

Pillar: Ø32×425 mm.

Horizontal arm: 750 mm (movement range 330 mm).

Swivel: 360°

Tilt: 180°

Weight: 16.25 kg

SCREEN

11.5" Full HD HDMI LCD Screen. 360° rotating. Freely inclinable for ergonomic vision.

ACCESSORIES

Accessories Included: Wireless mouse, 30 cm HDMI cable, 8 GB micro SD, Power supply.

No need to constantly re-adjust the lens focus

1/2.8" CMOS 2MP camera with powerful 1x-14x optical zoom (plus electronic zoom)

High-performance boom stand with special joint for customized camera positioning

On-board controls and cross grid

Working distance is between 10 cm and infinity, making it the ideal solution to inspect multi-layered and large objects

Sliding horizontal rail for longitudinal positioning; adjustable longitudinal limit; adjustable and lockable height

Sensor's main features are the high sensitivity and incredible color fidelity: save money (no need of external illuminators or ring lights)

Wireless mouse and SD card are included

3 IS-03 - Overview

Advanced video inspection system, consisting in an extremely compact, flexible **boom stand** and a **full HD autofocus camera (C-HAF)**.

OPTIKA C-HAF is a real-time full HD auto-focus inspection camera, with 2 MP resolution to view crystal clear **1080p** images/videos on HD monitor, through HDMI connection at **60 fps**. Its angle of view is **fully adjustable**.

Achieve **instant focus** without the need to constantly adjust your lens with the incredibly fast focusing system (acquisition time is lower than 1 sec.). The working distance is between 10cm and infinity, making it the ideal solution to inspect multi-layered objects, extremely quickly.

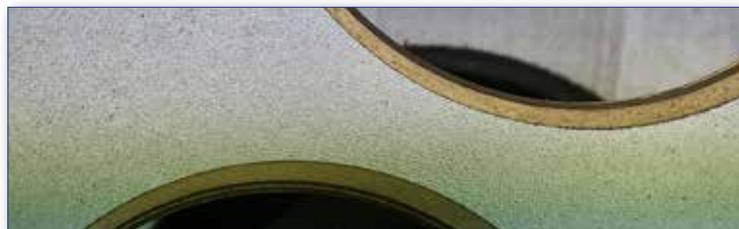
The camera is equipped with **1x-14x optical zoom** and 1x-6x electronic zoom.

All functions are controlled **directly from the screen**.

Highly versatile flexible arm stand, 360°rotating, it is ideal when needing to process high and large samples and on every bench thanks to its compact footprint, saving valuable space on the bench. A wall mounting system is also included.



Reduce inspection time with real-time focus from any angle



IS-03 - Technical Specifications



IS-03

CAMERA

| | |
|---------------------------|--------------------------|
| Image Sensor: | CMOS sensor Sony Exmor |
| Sensor dimensions: | 1/2.8" |
| Effective pixels: | 2 MP |
| Output: | HDMI |
| Power: | DC5V |
| Operation control: | Remote control |
| Scanning: | Progressive Scanning |
| White balance : | Manual/Auto/OnePush |
| Exposure: | Manual/Auto |
| Shutter speed : | 1/50s(1/60s)-1/10000s |
| SNR: | >50dB |
| Frame Rate: | 1080p@60fps |
| Operating Temp: | 0°C - 50°C |
| Weight: | 500g |
| Optical Zoom | 1x-14x |
| Digital Zoom | 1x-6x |
| Working Distance: | From 10cm to Infinity |
| Focusing System: | Autofocus / Manual focus |

STAND

| | |
|----------------------------------|---|
| Type: | High-performance flexible arm stand. 3D-joint for easy camera positioning, freely rotatable and tiltable. Adjustable and lockable height. Table mount and wall mount. Mount for LCD screen. |
| Pillar: | Ø35×327 mm. |
| Maximum Extension: | 577 mm. |
| Depth from Pole (Closed): | 75 mm |
| Tilt adjustment: | +/- 90° degree. |
| Swing adjustment: | +/- 90° degree. |
| Pivot: | 360° / 180° / 360° degree. |
| Weight: | 7.50 kg |

SCREEN

11.5" Full HD HDMI LCD Screen. 360° rotating. Freely inclinable for ergonomic vision.

ACCESSORIES

Accessories Included: Wireless mouse, 30 cm HDMI cable 8 GB micro SD, Power supply.

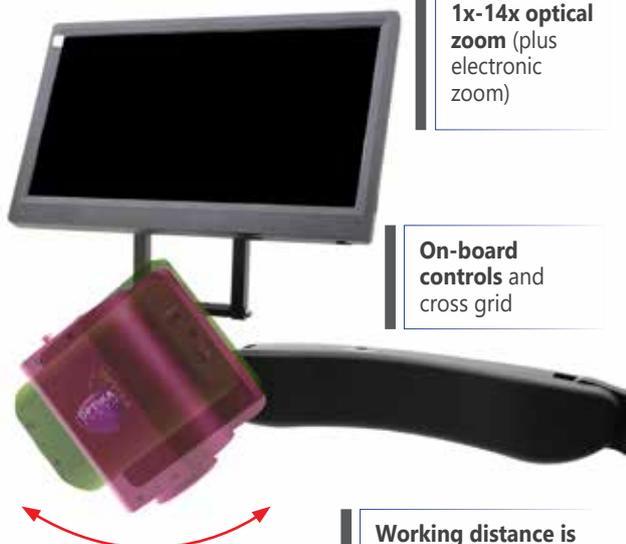
No need to constantly re-adjust the lens focus

1/2.8" CMOS 2MP camera with **powerful 1x-14x optical zoom** (plus electronic zoom)

On-board controls and cross grid

Working distance is between 10 cm and infinity, making it the ideal solution to inspect multi-layered and large objects

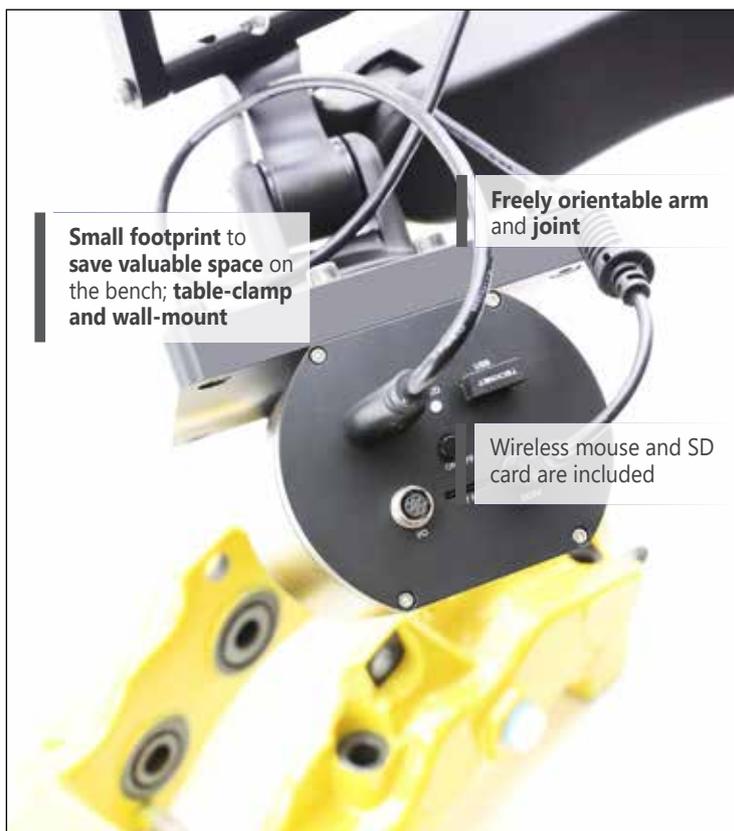
Sensor's main features are the **high sensitivity** and **incredible color fidelity**: save money (no need of external illuminators or ring lights)



Small footprint to save valuable space on the bench; **table-clamp and wall-mount**

Freely orientable arm and joint

Wireless mouse and SD card are included



Real-time Full HD Auto-Focus Inspection Camera

OPTIKA C-HAF is a real-time full HD auto-focus inspection camera, with 2 MP resolution to view crystal clear **1080p** images/videos on HD monitor, through HDMI connection at **60 fps**. Its angle of view is **fully adjustable**.

Achieve **instant focus** without the need to constantly adjust your lens with the incredibly fast focusing system (acquisition time is lower than 1 sec.) without the inconvenience of having to constantly re-adjust the lens focus.

Working distance is between 10cm and infinity, making it the ideal solution to inspect multi-layered objects, extremely quickly. The camera is equipped with **1x-14x optical zoom** and 1x-6x electronic zoom.

All functions are controlled **directly from the screen**, with the support of mouse, and images and videos can be directly acquired on SD card (mouse and SD card are included).

Main functions are:

- Possibility to perform automatic or manual white balance, independently setting RGB parameters for a perfect color reproduction
- Choose between automatic or manual exposure
- With HDR function, a sequence of images is captured at different exposures, and they are combined into a single image
- Trigger function allows the connection with an external controller and the file acquisition is possible with a determined sequence
- Possibility to set horizontal and vertical lines, in different colors and positions, to generate a custom grid directly on the HDMI screen

OPTIKA C-HAF comes with fixing holes to be connected with "custom" supports or brackets.

It is available also combined with a boom stand (as **IS-02**) or a compact stand with table clamp or wall-mount (as **IS-03**).



Reduce inspection time with real-time focus from any angle

C-HAF - Technical Specifications

No need to constantly re-adjust the lens focus.



1/2.8" CMOS 2MP camera with **powerful 1x-14x optical zoom** (plus electronic zoom)

| Part | Description |
|---------------------------|--------------------------|
| Image Sensor: | CMOS sensor Sony Exmor |
| Sensor dimensions: | 1/2.8" |
| Effective pixels: | 2 MP |
| Output: | HDMI |
| Power: | DC5V |
| Operation control: | Remote control |
| Scanning: | Progressive Scanning |
| White balance : | Manual/Auto/OnePush |
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| Operating Temp: | 0°C - 50°C |
| Weight: | 500g |
| Optical Zoom | 1x-14x |
| Digital Zoom | 1x-6x |
| Working Distance: | From 10cm to Infinity |
| Focusing System: | Autofocus / Manual focus |

Sensor's main features are the **high sensitivity** and **incredible color fidelity**: save money (no need of external illuminators or ring lights)

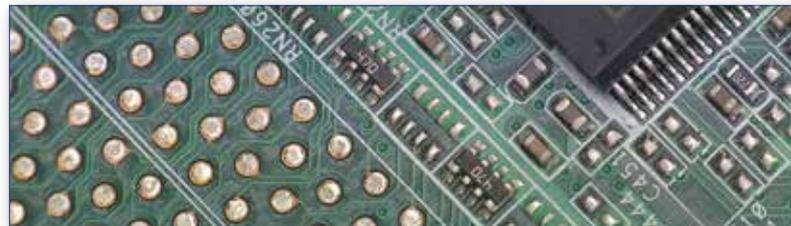


Working distance is between 10 cm and infinity, making it the ideal solution to inspect multi-layered and large objects



On-board controls and cross grid

Wireless mouse and SD card are included



v 1.3.0 - OPTIKA reserves the right to make corrections, modifications, enhancements, improvements and other changes to its products at any time without notice.

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