

# 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

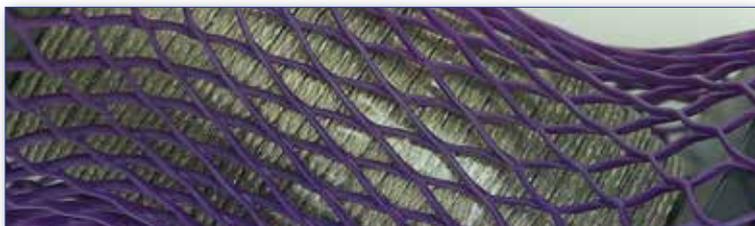
On-board controls

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

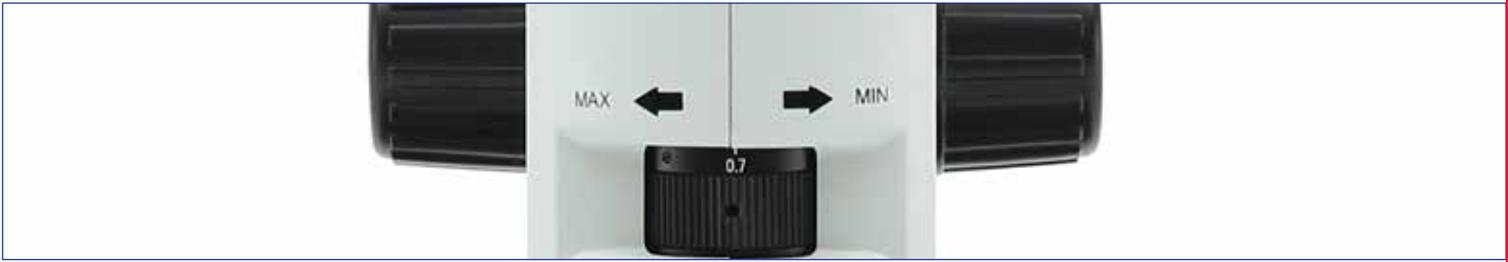
**Double LED ring** (for reflected  
or oblique light) with separate  
brightness control

**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

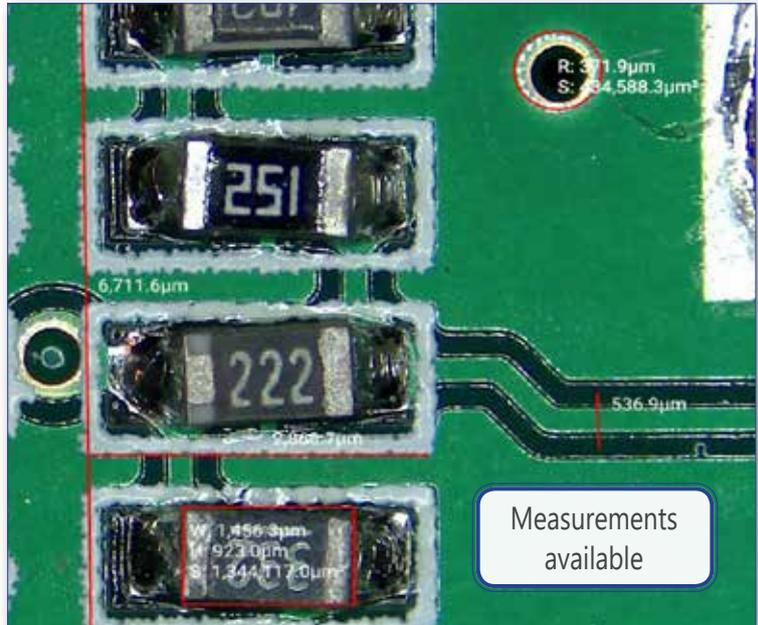


# IS-01 - Technical Specifications



## IS-01

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

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

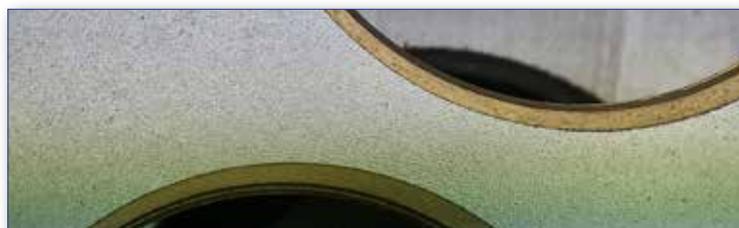
The camera is equipped with **1x-14x optical zoom** and 1x-6x electronic zoom.

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

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

### STAND

<b>Type:</b>	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.
<b>Pillar:</b>	Ø35×327 mm.
<b>Maximum Extension:</b>	577 mm.
<b>Depth from Pole (Closed):</b>	75 mm
<b>Tilt adjustment:</b>	+/- 90° degree.
<b>Swing adjustment:</b>	+/- 90° degree.
<b>Pivot:</b>	360° / 180° / 360° degree.
<b>Weight:</b>	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

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

**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
<b>Image Sensor:</b>	CMOS sensor Sony Exmor
<b>Sensor dimensions:</b>	1/2.8"
<b>Effective pixels:</b>	2 MP
<b>Output:</b>	HDMI
<b>Power:</b>	DC5V
<b>Operation control:</b>	Remote control
<b>Scanning:</b>	Progressive Scanning
<b>White balance :</b>	Manual/Auto/OnePush
<b>Exposure:</b>	Manual/Auto
<b>Shutter speed :</b>	1/50s(1/60s)-1/10000s
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<b>Operating Temp:</b>	0°C - 50°C
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<b>Digital Zoom</b>	1x-6x
<b>Working Distance:</b>	From 10cm to Infinity
<b>Focusing System:</b>	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)

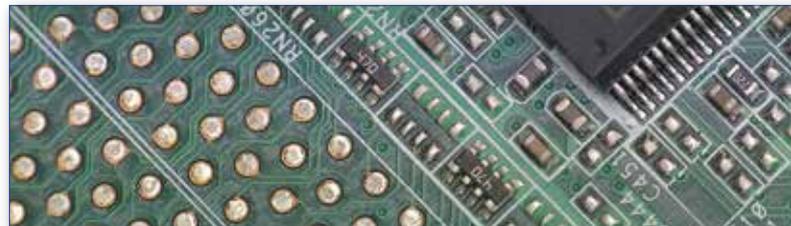


**Working distance is between 10 cm and infinity**, making it the ideal solution to inspect multi-layered and large objects



**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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## Headquarters and Manufacturing Facilities

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**OPTIKA® S.r.l.** Via Rigla, 30 - 24010 Ponteranica (BG) - ITALY - Tel.: +39 035.571.392 - [info@optikamicroscopes.com](mailto:info@optikamicroscopes.com)

## Optika Sales branches

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**OPTIKA® Spain** [spain@optikamicroscopes.com](mailto:spain@optikamicroscopes.com)  
**OPTIKA® China** [china@optikamicroscopes.com](mailto:china@optikamicroscopes.com)  
**OPTIKA® India** [india@optikamicroscopes.com](mailto:india@optikamicroscopes.com)

**OPTIKA® USA** [usa@optikamicroscopes.com](mailto:usa@optikamicroscopes.com)  
**OPTIKA® Central America** [camerica@optikamicroscopes.com](mailto:camerica@optikamicroscopes.com)