



WELD Inspect

All-in-one Digital Inverted Microscope for weld bead analysis and measurement. Ultra HD imaging system with motorised zoom optics, auto-focus, built-in illumination, and dedicated software for weld measurements, documentation and reporting.

Premium image quality and fast auto-focus. Large field of view range, 82 to 3 mm (3.23" to 0.12"), equivalent to ~2.6x - 70x optical magnification. 1 to 4 μm measurement resolution depending on image geometry.

System includes INSPECTIS© Basics software, USB3.0 or PCIe converter, 5 pcs tempered glass windows, PC communication cable and protection cover for the instrument. Dedicated weld bead measurement software bundle with Nikon NIS Elements D is ordered separately.

Additional software modules, 50mm calibration micrometre scale with accredited certificate, circular aperture plates, Low-friction screen protector for glass window (5 pcs kit) and rigid transport flight-case are available and ordered separately.

Highlights:

- Ultra HD, 8.3 megapixel camera with 27:1 motorised zoom optics and large aperture glare-free illumination
- High resolution lens system with fast auto-focus and aperture control for outstanding image quality
- Rigid aluminium housing with coated steel base and stainless-steel top plate for maximum stability
- Large aperture, long life tempered Gorilla® Glass window with low-friction hard screen protector
- Powered by Nikon metrology NIS Elements D and welding geometry measurement software

Also available with:

- 250x optics, 62.5 to 2.4 mm field of view (2.46" to 0.094")
- Illumination with built-in crossed polarisation filters
- Full HD 2.1 megapixel camera system



"Ultra Resolution, Fast and Reliable"

System Specifications

System:

Video Output	Ultra HD 2160p/30 fps
Imager	8.5 Mpixels. 3840(H) x 2160(V) 16:9 format. Progressive scan CMOS image sensor
Pixel Size (resolution)	1.62 µm x 1.62 µm
I/O Ports	HDMI video output, 5P MiniDin Power input, 8P MiniDin PC communication
Camera and Lens controls	Zoom, Iris, Manual/Auto Brightness, Manual/Auto Focus, Contrast, Clarity, White Balance
Illumination	Built-in large-aperture white LED RingLight with diffuser. (Crossed polariser filter set is ordered separately)
Storage / Operating Environment	-20° - +60°C, 20 - 95% RH, non-condensing / -5° - +40°C, 20 - 95% RH, non-condensing
Size	200 (W) x 170 (D) x 235 (H) mm
Weight	5.2 kg

Optics 200x magnification version (included):

Lens system	20:1 Optical Zoom (27:1 combined D-zoom) with Auto Focus and Iris Control
On-Screen Magnification	~ 7.4x to ~ 200x on 28" monitor (equivalent to ~2.6x to ~70x optical magnification)
Horizontal Field of View	~ 82 mm (~ 3.23") at min zoom / ~ 3 mm (~ 0.12") at max zoom

Optics 250x magnification version (optional):

Lens system	20:1 Optical Zoom (27:1 combined D-zoom) with Auto Focus and Iris Control
On-Screen Magnification	~ 9.7x to ~ 250x on 28" monitor (equivalent to ~3.4x to ~88x optical magnification)
Horizontal Field of View	~ 62.5 mm (~ 2.46") min zoom / ~ 2.4 mm (~ 0.094") max zoom

Software:

General purpose inspection	INSPECTIS© Basics image capture software with built-in camera controls (included)
General purpose inspection	INSPECTIS© Pro image capture and metrology with built-in camera controls (optional)
Weld examination and measurement	Nikon metrology NIS Elements D with LIM welding geometry module software (ordered separately)

Ordering information:

Product No.	Product Name
HD-250	WeldInspect WI20, 8.0MP Ultra HD Digital Inverted Microscope system
HD-240	WeldInspect WI20, 2.1MP Full HD Digital Inverted Microscope system
HD-138	Weld bead measurement software bundle with Nikon NIS Elements D
* -P	Upgrade with Crossed Polariser filter set
* -X	Upgrade to 250x magnification optics

Ordering information spare parts and optional accessories:

Product No.	Product Name
HD-132	INSPECTIS© Pro, Image Capture, Utility and Metrology software with built-in Camera Controls
HD-241	Inspectis Glass windows, hardened (5 pcs kit)
HD-245	Inspectis Low-friction screen protector for glass window (5 pcs kit)
HD-243	Calibration Micrometer Scale, 100mm
HD-244	Calibration Micrometer Scale, 100mm with accredited certificate (UKAS)
HD-242	Inspectis Metallic window plate with circular aperture
HD-248	Inspectis Flight Case for WeldInspect WI20

4K
ULTRA HD

FULL HD
1080P

HDMI
HIGH SPEED VIDEO LINK

Reseller

 **INSPECTIS**

Quality of Inspection

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