

From Eye to Insight

Leica

MICROSYSTEMS

Stereo Microscopes for Assembly,
Inspection, and Quality Control

FOR QUALITY
THAT LASTS!

Leica EZ4,
Leica EZ4 W (Wi-Fi),
and Leica EZ4 E (Ethernet)



DEPENDABLE AND RUGGED FOR INDUSTRY AND ROUTINE RESEARCH

Manufacturers depend on affordable and reliable quality control to insure production profitability.

Visual quality control is an important part of a consistent quality management process.

The Leica E Series is designed to help you eliminate expensive quality defects, waste, and insufficient productivity. For R&D, the dependable, maintenance-free Leica E Series ensures efficient laboratory operations while minimizing downtime. Providing a bright object field that is rich in detail and a great working distance that allows a variety of microscope tools, the Leica E Series is ideal for sample identification and sorting.

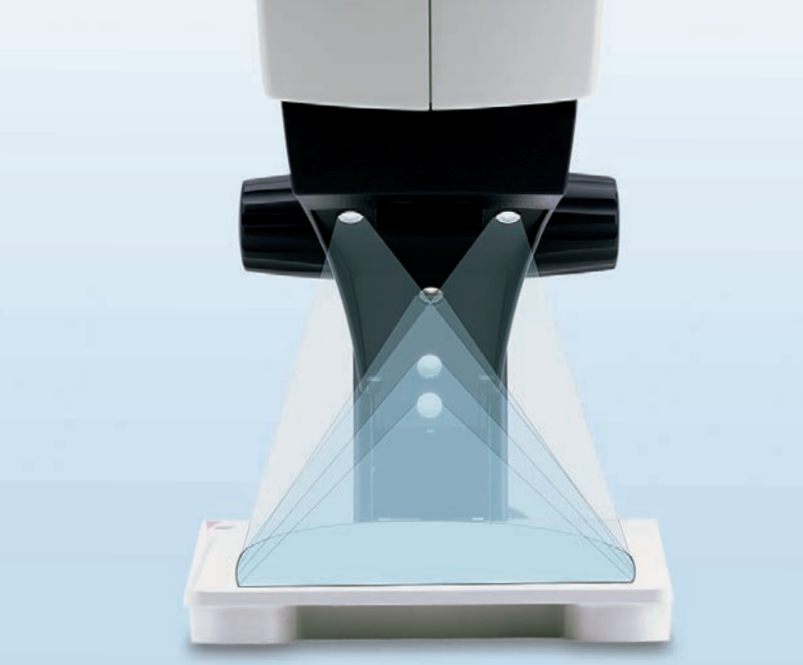
INTRODUCING THE LEICA E SERIES STEREO MICROSCOPES

Leica Microsystems presents four affordable stereo microscopes featuring renowned Leica Zoom® performance for industrial quality control and routine laboratory applications.

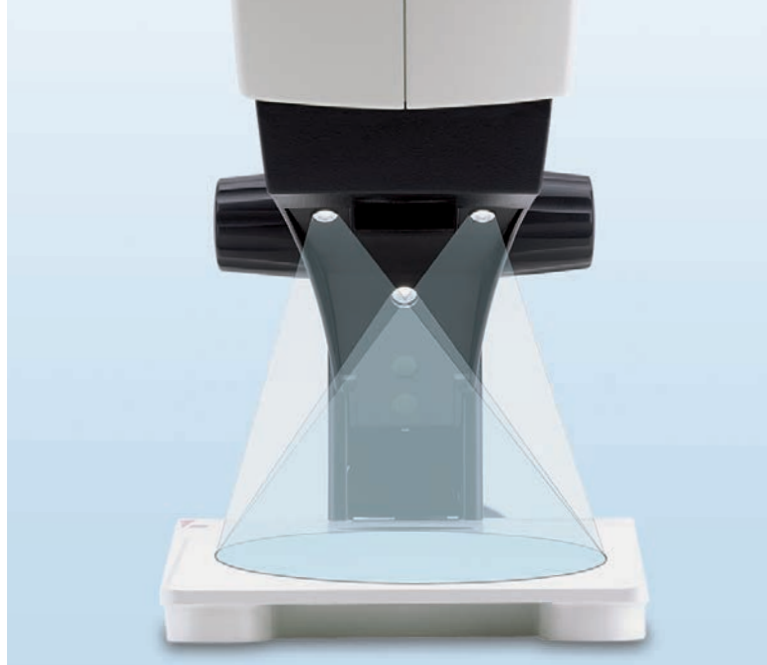
- › Leica EZ4 with fixed 10× eyepieces
- › Leica EZ4 with fixed 16× eyepieces
- › Leica EZ4 with open eyetubes (optional eyepiece selection)
- › Leica EZ4 W or Leica EZ4 E with integrated high definition digital camera and free LAS (Leica Application Software)

BENEFITS AT A GLANCE

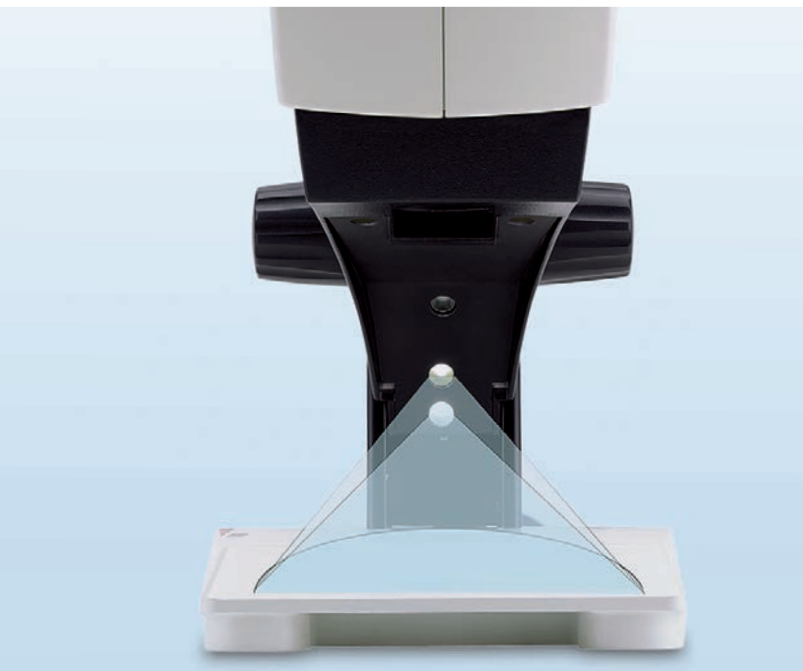
- › The Leica E Series features a 4.4:1 zoom range.
- › The complete product line for quality assurance includes a model for digital documentation (Leica EZ4 W or Leica EZ4 E) and measurements (Leica EZ4, optional eyepiece selection).
- › Features high-quality image, color, and detail fidelity
- › Mechanical precision provides decades of maintenance-free operation
- › Ideal for learning and performing quality control and routine laboratory techniques
- › Leica's exclusive LED illumination system is dimmable for incident and transmitted light.
- › Features unique 3-way incident light technology
- › Precise zoom and focus systems provide the finest, most exact control



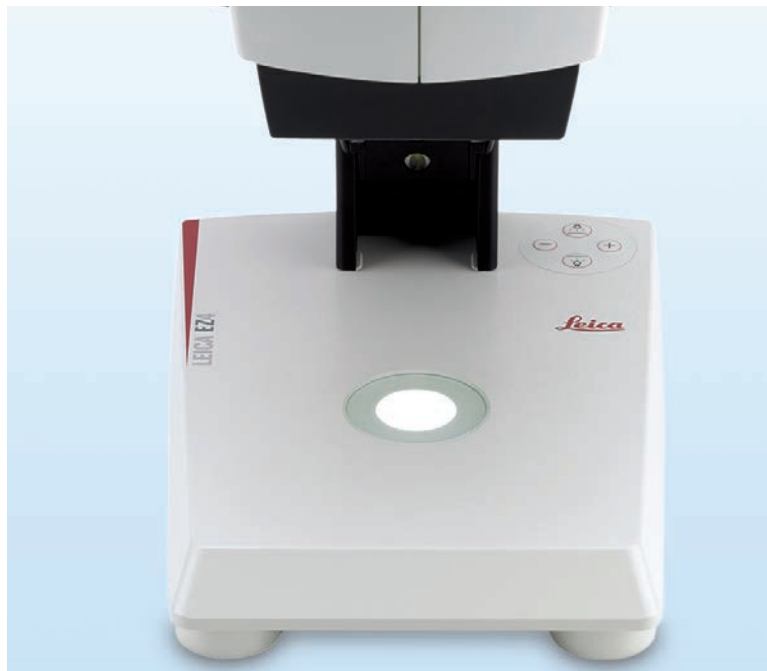
All 5 LEDs provide maximum brightness



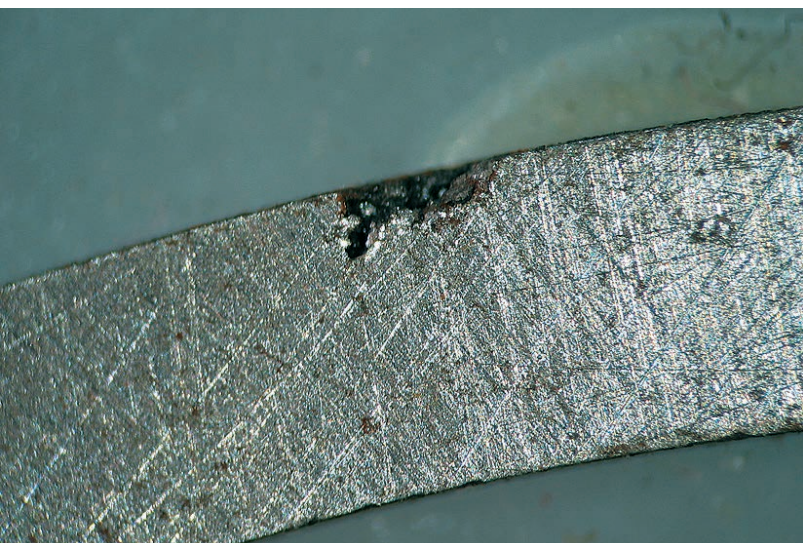
Steep incident light for shadow-free illumination of the sample



Side light for surface examination



Transmitted light for transparent and semi-transparent samples



Oxidation location on a sample



Offset grid on a print sheet

LEICA EZ4: RELIABLE ROUTINE INSPECTION

EYEPIECES

- › Provide optimal viewing for those with and without eyeglasses
- › Soft eyecups protect eyeglasses and can be removed and cleaned
- › Sealed in place (exception: Leica EZ4 with open eyepiece tubes)
- › Feature 60° viewing angle and adjustable interpupillary distance from 50 mm to 75 mm

ILLUMINATION & MICROSCOPE STAND

- › LED incident light and transmitted light illumination can be activated independently or combined; membrane keypad provides comfortable control
- › Base provides excellent stability and has an integrated low handrest for comfort
- › Water-tight glass stage plate and membrane keypad are sealed to prevent accidental damage from spilled liquids and are easy to clean
- › Vibration-resistant feet prevent sliding and movement while adjusting the instrument
- › Built-in hand grip provides easy, safe carrying and transport

OPTICS

- › Features a 4.4:1 zoom range
- › Magnification changer remains sensitive, precise, and smoothly adjustable, even after years of intense use
- › Tension adjustable focus drive is easy to move for comfortable focusing
- › Renowned Leica image quality, resolution, and detail definition



LEICA EZ4 W AND LEICA EZ4 E: DIGITAL DOCUMENTATION MADE EASY

The Leica EZ4 W or Leica EZ4 E camera offers an economical, integrated solution for viewing fast live images in High Definition (HD). The complete system allows the user to view specimens on a High Definition display and through the eyepieces, with or without a computer connection for versatile workstation possibilities.



Users can connect to the Leica EZ4 W either through its own **internal Wi-Fi signal** using Wi-Fi mode or through the facilities' network using Ethernet mode.



The EZ4 E **exclusively** uses your facilities' **network (WLAN or LAN)** to allow users to connect to the microscope. This is an ideal solution if you don't want to add additional Wi-Fi access points to your network.

ADVANTAGES

- › In Ethernet mode, the connection to the camera is provided through your own network, allowing a maximum number of users to connect to the camera. To use this to full extent, all devices have to be on the same network as the microscope.
- › In USB mode you can connect your PC directly via USB cable to the camera, which is helpful when you aim for the fastest live images e.g. of moving samples.
- › Computer users can use the Leica Imaging software to connect to the camera and work with the images. For PC use Leica Application Suite software, and use Leica Acquire for Mac.
- › Use lots of options with Leica AirLab App: It enables camera setup, annotations, measuring, image capture, and sharing to email, photo folders, or other social media connections. Leica AirLab App is available free of charge for Android and iOS devices.
- › Stay flexible if there is no PC or mobile device around: Just capture images directly onto a memory card.
- › Fine-tune camera settings conveniently, capture images onto the SD card, and view the SD card gallery – all possible with the remote.
- › Project your images: Use the HDMI port for screen projections or output to HD screens.
- › You don't need any extra cables: The built-in camera is powered and controlled directly from the microscope.



PERFECT ILLUMINATION IN EVERY SITUATION

MAXIMUM VARIABILITY

Innovative LED illumination provides many options. The built-in incident light can be used individually or in combination with the transmitted light version. The image does not reflect the incident light LEDs in the glass stage plate. It is also possible to dim the light to desired brightness. With the membrane keypad, illumination settings are easily and exactly reproduced.

REALISTIC ILLUMINATION

The Leica EZ4, Leica EZ4 W or Leica EZ4 E use the most modern LED technology that provides the light spectrum of daylight which allows you to evaluate and compare samples in true color. Since the illumination is not UV or infrared, warming is minimal and temperature-sensitive samples are well-protected.

MAINTENANCE-FREE FOR LIFE

Compared to incandescent light, the light-emitting diodes used in the Leica EZ4, Leica EZ4 W or Leica EZ4 E are insensitive to vibration. They have a minimum life-span of 25,000 hours with constant color temperature throughout their entire life. Due to low heat generation and efficient heat management, Leica EZ4, Leica EZ4 W or Leica EZ4 E do not require a fan. The viewed image remains current-free, and digital recordings are vibration-free.



1



2



3

- 1: The membrane keypad for comfortable incident and transmitted light adjustment and for dimming the LEDs
- 2: Highest luminosity with all 5 power LEDs
- 3: Steep incident light with the 3 upper diodes

SPECIFICATIONS / FEATURES

Stereo Microscope	Leica ES2	Leica EZ4 10×	Leica EZ4 16×	Leica EZ4 open	Leica EZ4 W Leica EZ4 E Digital 10×
Optical system	10° Greenough, parfocal	10° Greenough, parfocal	10° Greenough, parfocal	10° Greenough, parfocal	10° Greenough, parfocal
Magnification changer	2-level, 3:1	zoom 4.4:1	zoom 4.4:1	zoom 4.4:1	zoom 4.4:1
Eyepieces for spectacle wearers	10×/20 fixed	10×/20 fixed	16×/15 fixed	replaceable, fixed or adjustable: 10×/20, 16×/16 20×/12 not suitable for spectacles	10×/20 fixed
Diopter correction				from +5 to -5 (adj. eyepieces)	
Viewing angle	60°	60°	60°	60°	60°
Working distance	100 mm	100 mm	100 mm	100 mm	100 mm
Magnification range	10×/30×	8× to 35×	13× to 56×	8× to 70×	8× to 35×
Max. resolution	159 Lp/mm	170 Lp/mm	170 Lp/mm	170 Lp/mm	170 Lp/mm
Max. num. aperture	0.053 nA	0.057 nA	0.057 nA	0.057 nA	0.057 nA
Object field diameter	20 mm/6.7 mm	5.7 to 25 mm	4.3 to 18.8 mm	3.4 to 25 mm	5.7 to 25 mm
Eyecups	replaceable	replaceable	replaceable	replaceable	replaceable
Interpupillary distance	50 to 75 mm	50 to 75 mm	50 to 75 mm	50 to 75 mm	50 to 75 mm
Beam path	100 % visual	100 % visual	100 % visual	100 % visual	50 % visual / 50 % camera
Focusing drive torque	individually adjustable, 75 mm stroke (all instruments)				
Grip	integrated	integrated	integrated	integrated	integrated
LED illumination system	integrated, independent or combined incident and transmitted light (all instruments)				
Control	On/Off switch	membrane switch	membrane switch	membrane switch	membrane switch
Incident light method	angled incident light with 3 LEDs	choice of 3 methods: maximum intensity with 5 LEDs, top light with three LED's, side light with 2 LED's			
Dimmer	–	yes, for incident and transmitted light	yes, for incident and transmitted light	yes, for incident and transmitted light	yes, for incident and transmitted light
Auto OFF	–	after 2 hours	after 2 hours	after 2 hours	after 2 hours
LED service life	approx. 25,000 h	approx. 25,000 h	approx. 25,000 h	approx. 25,000 h	approx. 25,000 h
Light quality	homogeneous daylight 6,500° reflected, 4,500° transmitted, free of UV and IR radiation (all instruments)				
Maintenance	maintenance-free	maintenance-free	maintenance-free	maintenance-free	maintenance-free
Power supply	universal from 100 V to 240 V, voltage-sensitive, integrated (all instruments)				
Digital camera					integrated 5.0× megapixel CMOS camera
› WiFi mode					› WiFi broadcasting (only available for Leica EZ4 W)
› USB mode					› USB cable connection to PC
› Ethernet mode					› Ethernet cable connection to network
› SD mode					› Capture to SD card
HDMI port					High Definition output for desktop or large HD displays
Integrated slot					SD (Secure Digital)
Recording					switch for image capture
Software					› Leica software for PC/MAC › Leica apps for mobile devices
Graticules, stage micrometers				for length stage micrometer usable in adjustable eyepieces	

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