

From Eye to Insight



Leica E Series

Technical Information

Leica E Series – Features, Specifications

Stereomicroscope	Leica EZ4 10×	Leica EZ4 16×
Type of microscope	10° Greenough	10° Greenough
Optical system	parfocal	parfocal
Magnification changer	zoom 4.4:1	zoom 4.4:1
Eyepieces for spectacle wearers	10×/20 fixed	16×/15 fixed
Diopter correction	–	–
Viewing angle	60°	60°
Working distance	100 mm	100 mm
Magnification range	8× to 35×	12.8× to 56×
Maximum resolution	170 Lp/mm	170 Lp/mm
Maximum numerical aperture	0.057 nA	0.057 nA
Object field diameter	5.7 to 25 mm	4.3 to 18.8 mm
Eyecups	replaceable	replaceable
Interpupillary distance	50 to 75 mm	50 to 75 mm
Beam path	100 % visual	100 % visual
Focusing drive	Individually adjustable ease of movement, 75 mm travel	Individually adjustable ease of movement, 75 mm travel
Grip	integrated	integrated
Illumination system		
LED incident light and transmitted light	integrated, independent or combined, dimmable	integrated, independent or combined, dimmable
Control	membrane switch	membrane switch
Incident light method	- maximum intensity with 5 LEDs, - angled incident light with LEDs, - side light with 3 LEDs	- maximum intensity with 5 LEDs, - angled incident light with LEDs, - side light with 3 LEDs
Dimmer	yes, for incident and transmitted light	yes, for incident and transmitted light
Auto OFF	after 2 hours	after 2 hours
LED service life	approx. 25,000 hours	approx. 25,000 hours
Light quality	homogeneous daylight, free of UV and IR	homogeneous daylight, free of UV and IR
Maintenance	maintenance-free	maintenance-free
Power supply	universal from 100 V to 240 V voltage-sensitive, integrated	universal from 100 V to 240 V, voltage-sensitive, integrated

Stereomicroscope	Leica EZ4, open	Leica EZ4 W and EZ4 E
Type of microscope	10° Greenough	10° Greenough
Optical system	parfocal	parfocal
Magnification changer	zoom 4.4:1	zoom 4.4:1
Eyepieces for spectacle wearers	replaceable, fixed or adjustable: 10×/20, 16×/16, 20×/12 not suitable for spectacle wearers	10×/20 fixed
Diopter correction	from +5 to −5 (adjustable eyepieces)	–
Viewing angle	60°	60°
Working distance	100 mm	100 mm
Magnification range	depending on eyepieces used: 8× to 70×	8× to 35×
Maximum resolution	170 Lp/mm	170 Lp/mm
Maximum numerical aperture	0.057 nA	0.057 nA
Object field diameter	depending on eyepieces used: 3.4 to 25 mm	5.7 to 25 mm
Eyecups	replaceable	replaceable
Interpupillary distance	50 to 75 mm	50 to 75 mm
Beam path	100 % visual	50 % visual and 50 % video/photo
Focusing drive	individually adjustable ease of movement, 75 mm travel	individually adjustable ease of movement, 75 mm travel
Grip	integrated	integrated
Illumination system		
LED incident light and transmitted light	integrated, independent or combined, dimmable	integrated, independent or combined, dimmable
Control	membrane switch	membrane switch
Incident light method	- maximum intensity with 5 LEDs, - angled incident light with LEDs, - side light with 3 LEDs	- maximum intensity with 5 LEDs, - angled incident light with LEDs, - side light with 3 LEDs
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Stereomicroscope	Leica EZ4 10×	Leica EZ4 16×
Accessories		
Measurement graticule/ stage micrometer		
Other		
Dimensions and weights	3.82 kg, 180 × 255 × 365	3.82 kg, 180 × 255 × 365
Ambient conditions, operation	+10°C to +40°C / rel. hum. to 35°C: 75 % / atmospheric pressure 700 to 1,060 hPa / storage: 20°C to 55°C	
Storage and transport	–20°C to + 52°C / rel. hum. 10 – 95 % (non-condensing) / atmospheric pressure 500 to 1,200 hPa	
Standards	CE Communauté Européenne / CSA Canadian Standards Association (USA, Canada)	

Stereomicroscope	Leica EZ4, open	Leica EZ4 W and EZ4 E
Accessories		
Measurement graticule/ stage micrometer	for length measurements, for use with adjustable eyepieces	
Other		
Dimensions and weights	3.64 kg, 280 × 255 × 365	4.17 kg, 180 × 155 × 365
Ambient conditions, operation	+10°C to +40°C / rel. hum. to 35°C: 75 % / atmospheric pressure 700 to 1,060 hPa / storage: 20°C to 55°C	
Storage and transport	–20°C to + 52°C / rel. hum. 10 – 95 % (non-condensing) / atmospheric pressure 500 to 1,200 hPa	
Standards	CE Communauté Européenne / CSA Canadian Standards Association (USA, Canada)	
Digital camera		
Exposure time		1 msec – 500 msec
Live image		30 fps – depends on mode and resolution setting
Full frame image acquisition		5.0 megapixels max.
Movie clip		1,920 x 1,080 max.
Color depth		24-bit
Data format		JPEG / TIFF / BMP / MP4 (choices depend on capture device)
Operating systems		Windows 7, 8, Windows Vista, Macintosh OS X, Mobile devices (iOS 7, 8 and Android 4.2+)
Software available		Leica AirLab (mobile devices), Leica LAS EZ (PC), Leica LAS (PC), Leica Acquire (Mac)
Min. computer config.		PC / Mac, Intel Core 2 Duo, > 2.4 GHz, 4 GB RAM, 24-bit graphics, 1,248 × 1,024
Min. display specification		1,920 × 1,080 resolution, HDMI connection, DVI connection possible with HDMI/DVI adapter cable (not provided)
WLAN Specification		only valid for EZ4 W *
Network Standard		IEEE 802.11n
Operating Frequency		2.4 GHz

* Note: The quantity of mobile device connections and their stability depends on the Wi-Fi traffic and network performance in the environment.

Leica E Series – Optical Data

EZ4 (10 447 197), EZ4 W (10 450 629) and EZ4 E (10 450 811)				EZ4 with 16× eyepieces (10 447 198)			
Eyepieces	Position at magnification-changer	Magnification total	Object field Ø in mm	Eyepieces	Position at magnification-changer	Magnification total	Object field Ø in mm
10×/20	8	8×	25	16×/15	13	12.8×	18.8
	10	10×	20		16	16×	15
	12.5	12.5×	16		20	20×	12
	16	16×	12.5		25	25.6×	9.4
	20	20×	10		32	32×	7.5
	25	25×	8		40	40×	6
	30	30×	6.7		50	48×	5
	35	35×	5.7		56	56×	4.3

EZ4 without eyepieces (10 447 199) + eyepieces 10×/20				EZ4 without eyepieces (10 447 199) + eyepieces 16×/16			
Eyepieces	Position at magnification-changer	Magnification total	Object field Ø in mm	Eyepieces	Position at magnification-changer	Magnification total	Object field Ø in mm
10×/20	0.8	8×	25	16×/16	0.8	12.8×	20
	1	10×	20		1	16×	16
	1.25	12.5×	16		1.25	20×	12.8
	1.6	16×	12.5		1.6	25.6×	10
	2	20×	10		2	32×	8
	2.5	25×	8		2.5	40×	6.4
	3	30×	6.7		3	48×	5.3
	3.5	35×	5.7		3.5	56×	4.6

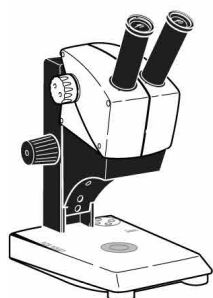
EZ4 without eyepieces (10 447 199) + eyepieces 20×/12			
Eyepieces	Position at magnification-changer	Magnification total	Object field Ø in mm
20×/12	0.8	16×	15
	1	20×	12
	1.25	25×	9.6
	1.6	32×	7.5
	2	40×	6
	2.5	50×	4.8
	3	60×	4
	3.5	70×	3.4



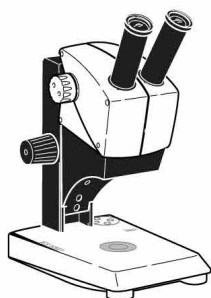
Leica Stereomicroscope EZ4

Leica Stereomicroscope EZ4 W and EZ4 E

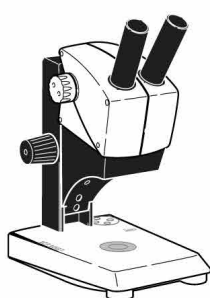
Leica E Series Assembly – Diagram



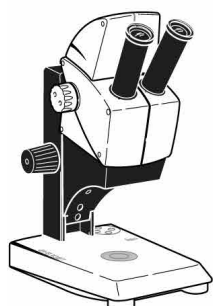
Leica EZ4 (10×)
10 447 197



Leica EZ4 (16×)
10 447 198

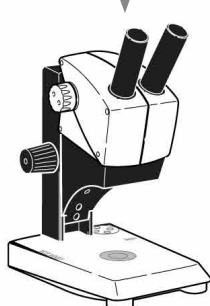


Leica EZ4
10 447 199



Leica EZ4 W
10 450 629

Leica EZ4 E
10 450 811



Leica EZ4 W open
10 450 861



Eyepieces for non-eyeglass wearers:

Eyepieces, fixed:

10×/20 (10 447 281)
16×/16 (10 447 132)
20×/12 (10 447 134)

Eyepieces, adjustable:

10×/20 (10 447 282)
16×/16 (10 447 133)
20×/12 (10 447 135)



Eyepieces for eyeglass wearers:

Eyepieces, fixed:

10×/20B (10 447 278)
16×/15B (10 447 138)

Eyepieces, adjustable:

10×/20B (10 447 280)
16×/15B (10 447 139)

Leica E Series – Standard Delivery

E Series stereomicroscopes

10 447 197	Leica EZ4 with 10× eyepieces, 4.4:1 zoom ratio, magnification from 8 – 35×, 60° eyetube angle, 100 mm working distance, high eyepoint eyepieces, integrated LED illumination for incident and transmitted light, power supply 100 – 240 V
10 447 198	Leica EZ4 with 16× eyepieces, 4.4:1 zoom ratio, magnification from 12.8 – 56×, 60° eyetube angle, 100 mm working distance, high eyepoint eyepieces, integrated LED illumination for incident and transmitted light, power supply 100 – 240 V
10 447 199	Leica EZ4 without eyepieces 4.4:1 zoom ratio, 60° eyetube angle, 100 mm working distance, integrated LED illumination for incident and transmitted light, power supply 100 – 240 V
10 450 629	Leica EZ4 W with 10× eyepieces, 4.4:1 zoom ratio, magnification from 8 – 35×, 60° eyetube angle, 100 mm working distance, high eyepoint eyepieces, integrated CMOS camera 5.0 Megapixel, USB2, HDMI, WiFi, network, integrated LED illumination for incident and transmitted light, power supply 100 – 240 V
10 450 861	Leica EZ4 W without eyepieces, 4.4:1 zoom ratio, 60° eyetube angle, 100 mm working distance, integrated CMOS camera 5.0 Megapixel, USB2, HDMI, WiFi, network, integrated LED illumination for incident and transmitted light, power supply 100 – 240 V
10 450 811	Leica EZ4 E with 10× eyepieces, 4.4:1 zoom ratio, magnification from 8 – 35×, 60° eyetube angle, 100 mm working distance, high eyepoint eyepieces, integrated CMOS camera 5.0 Megapixel, USB2, HDMI, integrated LED illumination for incident and transmitted light, power supply 100 – 240 V
10 450 805	Wireless remote camera control for fine tuning the HD image and making additional camera settings when no computer is in use

Eyepieces for EZ4 with open tubes

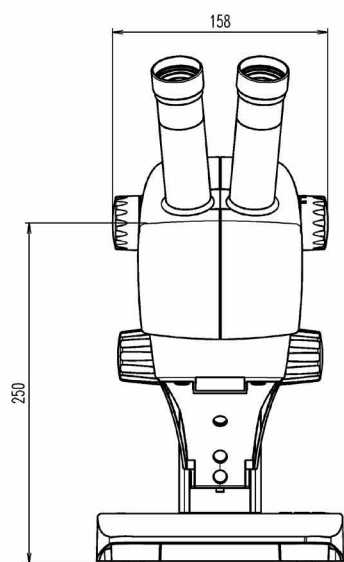
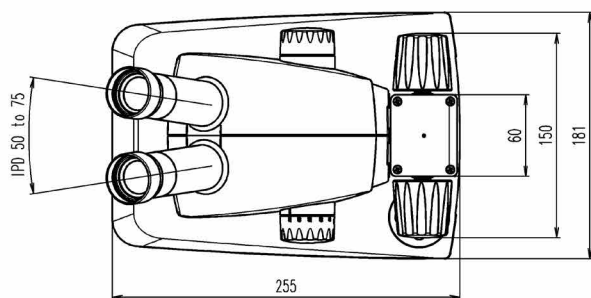
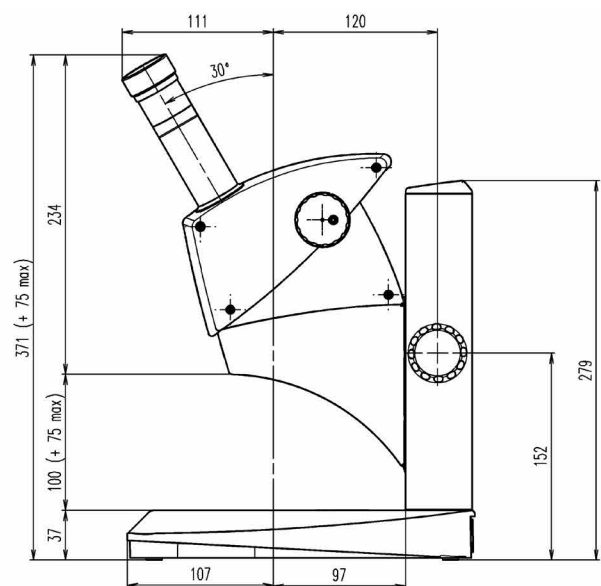
10 447 281	Eyepiece 10×/20, fixed, E Series
10 447 282	Eyepiece 10×/20, adjustable, E Series
10 447 132	Eyepiece 16×/16, fixed, S and E Series
10 447 133	Eyepiece 16×/16, adjustable, S and E Series
10 447 134	Eyepiece 20×/12, fixed, S and E Series
10 447 135	Eyepiece 20×/12, adjustable, S and E Series
10 447 278	Eyepiece 10×/20B, for spectacle wearers
10 447 280	Eyepiece 10×/20B, adjustable, for spectacle wearers
10 447 138	Eyepiece 16×/15B, for spectacle wearers
10 447 139	Eyepiece 16×/15B, adjustable, for spectacle wearers

Accessories for measurements with adjustable eyepieces

10 446 447	Graticule 10 mm / 0.1 mm, S Series
10 446 448	Graticule 5 mm / 0.1 mm, S Series
10 446 449	Graticule 5 mm / 0.05 mm
10 446 450	Crosshair graticule
10 447 000	Graticule, 100 graduations / 0.002"
10 447 001	Graticule, 100 graduations / 0.001"
10 447 002	Graticule, 150 graduations / 0.0005"
10 310 345	Stage micrometer 50 mm, 0.1 / 0.01mm graduation
10 447 037	Stage micrometer 1", 0.001" graduation
10 447 477	Soft carrying case

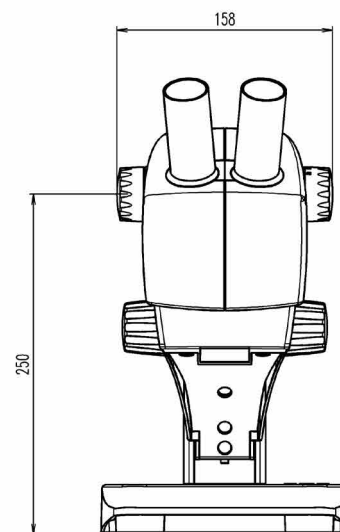
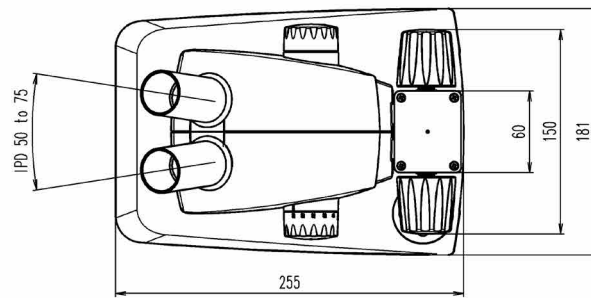
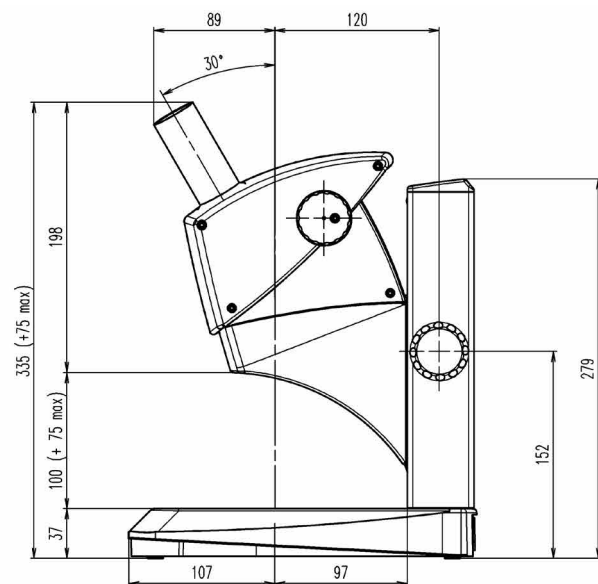
Leica EZ4 Dimensions

Measurements in mm



10 447 197 Leica EZ4 with 10× eyepieces
10 447 198 Leica EZ4 with 16× eyepieces

Leica EZ4 Dimensions

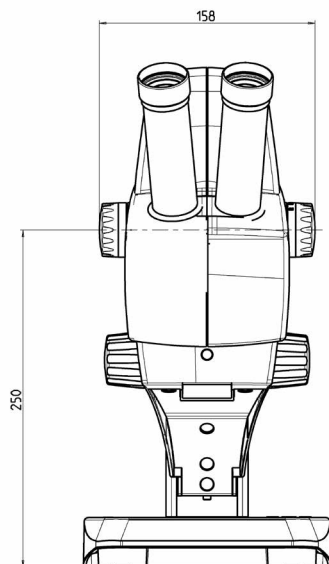
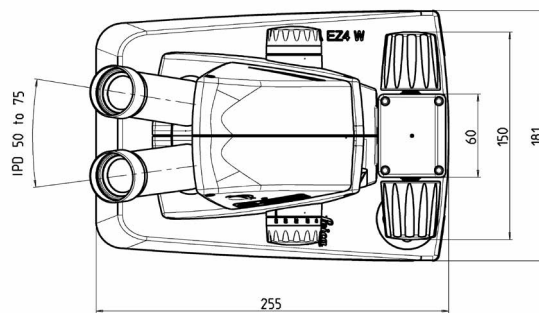
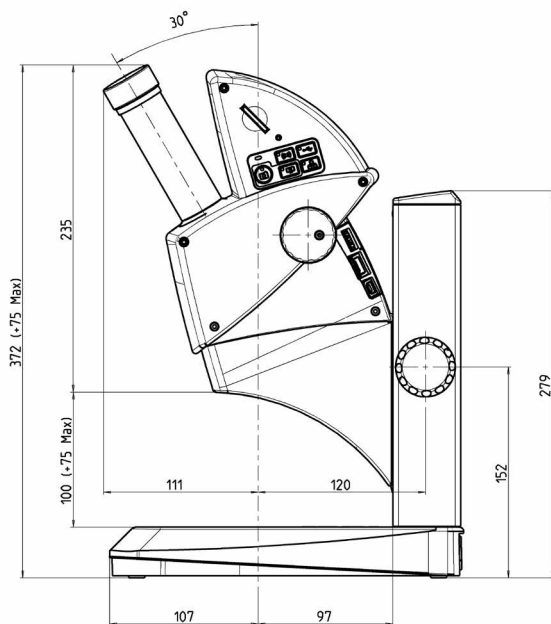


10 447 199 Leica EZ4 without eyepieces

Leica EZ4 W, EZ4 E

Dimensions

Measurements in mm



10 450 629 Leica EZ4 W (with 10× eyepieces and integrated digital WiFi HD camera)

10 450 811 Leica EZ4 E (with 10× eyepieces and integrated digital HD camera)

