

Specifications E-M10 Mark IV

Type

Lens mount	Micro Four Thirds
Body material	Engineering plastics

Image Sensor

Type	4/3" Live MOS sensor
Effective pixels	20.3 Megapixels

Engine

Type	TruePic VIII
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Filter

Dust reduction filter	Supersonic Wave Filter
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Viewfinder

Type	Electronical Viewfinder
Pixel number	2,360 K dots
Diopter adjustment	-4.0 - +2.0 diopters / built-in type
Field of view	Approx. 100%
Magnification	Max. 1.23 x with a 50mm lens set to infinity at -1 dioptre
Eye point	19.2 mm at -1 dioptre from eyepiece lens
Brightness adjustment	Adaptive Brightness Technology / Manual settings: +/- 2 levels
Correction of colour temperature	+/- 3 levels

Live View

Displayed information	Aperture, Shutter speed, Auto bracket, AE lock, Focus mode, Shooting mode, Battery check, IS activating mode, Face / Eye detection mode, Record mode, ISO, Sequential shooting mode, White Balance, Metering mode, Exposure compensation value, AF frame display, AF confirmation mark, Shooting information, Spot metering area, Super FP, Flash status, Touch Panel Condition, Focal length, Flash mode, Histogram, Level Gauge, Highlight & Shadow, Focus peaking, Number of storable pictures, Custom, Face detection, Flash intensity, Wi-Fi
Field of view	Approx. 100%
Magnification levels	5 / 7 / 10 / 14 x

Image Stabiliser

Type	Sensor shift
Modes	Five-dimensional, vertical or horizontal activation, automatic
Effective Compensation Range	Up to 4.5 EV steps* CIPA
Lens IS priority	Available
Live View stabilisation	Available

*When using M.Zuiko Digital ED 14-42mm F3.5-5.6 EZ (focal length =42mm (35mm equivalent: 84mm))

Focusing System

Method	Contrast Detection AF system
Focus areas	121 points / All target, Group target (9-areas), Single target
AF lock	Available, Locked by first position of shutter release button in single AF mode, AE/AF lock button (customised)
Modes	Manual focus, Single AF, Continuous AF, Single AF + MF, AF Tracking, Super Spot AF, Face Detection AF
AF illuminator	Equipped
Manual focus	Available, With enlarged focusing area or focus peaking
AF targeting pad	Available (activate/deactivate with double tap on rear monitor)
Face Detection extension	Eye Detect AF: Off, Near side priority
Predictive AF	Available
AF tracking	Available, Available in continuous AF mode

Exposure System

Modes	Programme automatic, Aperture priority, Shutter priority, Manual, Bulb, Time, i-Auto, Advanced Photo Modes, Scene Modes, Art Filter, Movie, Live Time, Live Composite
Exposure compensation	+/- 5 EV (1/3 steps) Note: Movie shooting, monitor and EVF displays only up to ±3 EV .
AE lock	Available

Advanced Photo Modes

Modes	Live Composite, Live Bulb, Multiple Exposure, HDR Backlight*, Silent, Panorama, Keystone Compensation, AE bracketing, AE bracketing * 4 images automatically shot and combined into a single image composite
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Scene Modes

Number of scene modes	21
Modes	Portrait, e-Portrait, Landscape with Portrait, Night Scene with portrait, Children, Sports, Panning, Night Scene, Hand-held Starlight, Fireworks, Light trails, Landscape, Sunset, Beach and Snow, Candle, Silent mode, Backlight HDR, Macro, Nature Macro, Documents, Multi Focus

Multi-Exposure

Max. number of frames	2 frames (shooting)
Frame assistance	Live View
Auto gain control	Available

Light Metering

Method	TTL open aperture light metering
Zones	324 zones Multi-pattern Sensing System
Detection range	-2 - 20 EV (f2.8, ISO 100)
Modes	ESP light metering, Spot metering, Centre weighted metering, Highlight, Shadow

Art Filter

Modes	Pop Art, Soft Focus, Pale & Light Colour, Light Tone, Grainy Film, Pin Hole, Diorama, Cross Process, Gentle Sepia, Dramatic Tone, Key Line, Water colour, Vintage, Partial Colour*, Bleach Bypass, Instant Film
Variation / Effect	Available

Sensitivity

Auto	ISO LOW* - 6400
Manual	ISO LOW - 25600 (adjustable in 1/3 EV step) *approx. 80

Shutter

Shutter type	Computerised focal-plane shutter
Self timer	2 s / 12 s / Custom
Modes	Single frame, Sequential shooting, Self timer

Shutter Speeds

Standard operation	
Shutter speed range	1/4000 - 60 s (in 1/3 EV steps)
Bulb mode	Up to 30 minutes (selectable longest time in the menu, default: 8 minutes)
Silent mode	
Shutter type	Electronic shutter
Shutter speed	1/16000 - 60 s
Anti-shock mode	
Shutter type	Electronic first curtain shutter
Shutter speed	1/320* - 60 s * For speeds over 1/320 sec., mechanical shutter will automatically be selected.

White Balance

Manual White balance (One-Touch)	Available
One-touch white balance	4 custom settings can be registered
Custom WB	1 setting can be registered at Kelvin temperature (2000K - 14000K)
Preset values	Sunlight, Shade, Overcast, Tungsten, Flourescent 1, Flash
Auto Flash adjustment	Off / Auto WB / Flash
Keep warm colour	On / Off

Sequence Shooting

Speed (H)	Approx. 8.7 fps
Speed (L)	5 fps (IS on)
Max. number of frames	Up to card capacity (RAW) Up to card capacity (JPG / Large Normal mode)
Conditions	Memory card: TOSHIBA SDHC UHS-II R260 W240 EXCERIA™ PRO Note: Depending on shooting conditions, the sequential shooting speed may reduce speed during shooting.

Sequence Shooting

Speed (H)	Approx. 15 fps
Speed (L)	Approx. 6.3 fps
	Max. number of frames: RAW 42 / JPG (LF): 49
	Max. number of frames: RAW 945 / JPG (LF): Up to card capacity

Image Processing

Art Filter bracketing	Available
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Flash

Modes	AUTO, Manual, Manual (Full, 1/4, 1/16, 1/64), Red-eye reduction, Slow synchronisation with red-eye reduction, Slow synchronisation, Slow synchronisation 2nd curtain, Fill-in, Off, TTL-Auto
Type	Built-in
Flash compensation	+/- 3 EV / 1/3 EV steps
Guide number	7.2 (ISO 200)
X-sync speed	1/250 s / 1/4000 s (Super FP Mode)

External Flash Control

X-sync speed	1/250 s / 1/4000 s (Super FP Mode)
Type	TTL AUTO, AUTO, MANUAL, FP TTL AUTO, FP MANUAL
Modes	Auto, Red-eye reduction, Slow synchronisation, 2nd curtain and slow synchronisation, Fill-in for exclusive flash, Manual
	<small>Note: Some functions are only available if they are supported by the external flash.</small>
Compatible external flash	FL-14, FL-20, FL-36R, FL-50R, FL-300R, FL-600R, FL-700WR, FL-900R, STF-8

Wireless Flash Control

Compatible external flash	FL-36R, FL-50R, FL-300R, FL-600R, FL-700WR, FL-900R
Control method	Triggered and controlled (Olympus Wireless RC Flash system)
	Commander flash: FL-900R, FL-700WR, FL-600R, STF-8 (no control with internal flash)
	Available when used together with flashes from the Olympus wireless RC flash system.

Radio control

Radio wireless control	Available when attaching optional flash commander.
Compatible commander	FC-WR, FL-700WR
	<small>For more details see specifications of commander units.</small>
Compatible receiver	FL-700WR, FR-WR + wireless RC system flash
Modes	Auto, FP Manual, FP TTL, FP TTL Auto, Manual

Monitor

Monitor type	Tiltable LCD - Touch Panel
Monitor size	7.6 cm / 3.0" (3:2)
Resolution	1,037 K dots
Brightness adjustment	+/- 7 levels

Monitor

Colour balance	+/- 7 levels Vivid (default) / Natural
Touch Control functions	Shutter release, AF area enlargement, AF area selection, Art Filter, Enlargement, Enlargement playback, Frame forward/backward, Live Guide, Scene Modes, Shooting mode, Super Control Panel, Wi-Fi connection
Tilt angle	80° (up) 180° (down)

Level Gauge

Detection	2-axis
Display	Rear display and viewfinder

Recording Formats

RAW	12 bit
RAW & JPEG	Applied parallel recording
JPEG	Applied
Aspect ratio	4:3 / 3:2 / 16:9 / 6:6 / 3:4

Still Image Recording

EXIF	2.3
DCF	Applied

Movie Recording System

Recording format	MOV(MPEG-4AVC/H.264)
Image Stabilisation Mode	Applied Hybrid sensor shift + digital (5-axis)
	3840 x 2160 (4K) / 30p, 25p, 24p / IPB (approx. 102 Mbps)
HD Movie quality	Full HD 1920 x 1080 (16:9) / 30p, 25p, 24p (MOV)
	Full HD 1920 x 1080 (16:9) / 60p, 50p / IPB (F,N) / (MOV) (MOV)
	HD 1280 x 720 (16:9) / 60p, 50p, 30p, 25p, 24p (MOV)
Maximum Recording Time	29 min (MOV)
Exposure Modes	Aperture priority, Art Filter, Manual, Programme automatic, Shutter priority
	<small>* Frame rate may drop when using certain art filter</small>

Movie Specialties

High-Speed Recording	720P / 120fps
Time lapse	4k, 1080p, 720p Available
Art Filter	Cross Process, Diorama, Dramatic Tone, Gentle Sepia, Grainy Film, Key Line, Light Tone, Pale & Light Colour, Pin Hole, Soft Focus, Pop Art, Bleach Bypass
	<small>* Not available for 4K and High Speed movies</small>

Sound Recording System

Internal microphone	Stereo
Recording format	Stereo PCM/16bit, 48kHz, Wave Format Base
Image footage	30 s
Speaker	Equipped
Microphone functions	Wind Noise Reduction, Recording Volume

View Images

Modes	Index, Calendar, Zoom, Slide show, Movie, Single
Light box	Available
Histogram in playback mode	Available
Shooting information	Off / On
Highlight/Shadow point warning	Available

Erase / Protect / Copy Function

Erase modes	Single, All, Selected
Image protect mode	Single frame, Selected frames, All Frames, Release protect (Single/All selected)

Menu

Menu languages in camera	English, French, German, Spanish, Italian, Russian, Czech, Dutch, Danish, Polish, Portuguese, Swedish, Norwegian, Finnish, Croatian, Slovenian, Hungarian, Greek, Slovak, Turkish, Latvian, Estonian, Lithuanian, Ukrainian, Serbian
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Customisation Options

Fn Button	Equipped
Programmable button	Equipped

Interface

Hot shoe	Equipped
Media	SD Memory Card (SDHC, SDXC, UHS-I, UHS-II compatible) Class 10 or higher SD card is recommended for movie shooting
HDMI™	Applied Micro connector (Type D) *
USB 2.0 High Speed	Applied
Wireless connectivity	Wi-Fi, Bluetooth®
Communication method	Bluetooth® Low Energy Ver.4.2

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Wi-Fi Functions

Easy Connection	QR code setting
Wireless Shooting	Live View, Power off, Rec View, Self timer, Touch AF & Shutter, P/A/S/M exposure modes, Bulb mode, Live Composite, Zoom, Aperture priority, Manual
Image Share	Automatic transfer is possible via Share Order JPEG, MOV
GPS info	Available through Smartphone GPS data

Power Supply

Battery	BLS-50 Lithium-Ion Battery (included)
Sleep mode	1, 3, 5, 10 min. and off selectable.
Live View shooting	Approx. 360 images (50% with Live View) images (100% with Live View) (using BLS-50 and TOSHIBA SD with IS ON, based on CIPA testing standards)

Power Supply

Movie recording	80 min (standard JEITA conditions) 140 min (When repeatedly recording at the maximum time of 29 minutes, using M.Zuiko Digital ED 14-42mm F3.5-5.6 EZ, 4K video shooting)
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Environment

Temperature	0 - 40°C Operating temperature / -20 - 60°C storage temperature
Humidity	30 - 90% operation humidity / 10 - 90% storage humidity

Dimensions / Weight

Width	121.7 mm
Height	84.4 mm
Depth	49 mm
Weight	383 g (including battery and memory card)

Specifications

M.Zuiko Digital ED 100-400mm F5.0-6.3 IS

Focal Length

Focal length (equiv. 35mm) 200 - 800 mm

Focal length 100 - 400 mm

Lens Construction

Angle of view 12 - 3.1°

Closest focusing distance 1.3 m

High-refractive element 2

ED lens elements 4

HR elements 2

Super HR elements 2

Focusing method High-speed Imager AF (MSC)

Lens configuration 21 elements / 15 groups

Maximum image magnification 0.29x (Micro Four Thirds) / 0.57x (35mm format)

Minimum field size 60.3 x 45.3 mm

Aperture

Maximum aperture F5.0 (wide) F6.3 (tele)

Minimum aperture F22

Number of aperture blades 9 Circular aperture diaphragm for natural background blurring

Image Stabiliser

Effective Compensation Range Up to 3 EV steps Not compatible with Sync IS

Converter Combinations

Effect on optical performance

MC-14

Maximum image magnification 0.12 x (wide) / 0.40 x (tele)

0.24 x / 0.81 x (equiv. 35mm)

Minimum field size 143.5 x 107.9 mm (wide)

42.8 x 32.1 mm

Effective Compensation Range Up to 2 EV steps* (Lens IS)

* According to CIPA standards. With yaw and pitch applied and focal length set to 560mm.

MC-20

Maximum image magnification 0.17 x (wide) / 0.57 x (tele)

0.34 x / 1.15 x (equiv. 35mm)

Minimum field size 101.2 x 76.0 mm (wide)

30.1 x 22.6 mm (tele)

Effective Compensation Range Up to 1.5 EV steps* (Lens IS)

* According to CIPA standards. With yaw and pitch applied and focal length set to 800mm.

Pro Features

Dust, splash & freezeproof

Dimensions / Weight

Diameter 86.4 mm (greatest dimension)

Length 205.7 mm

Weight 1.120 g

Filter diameter 72 mm