



LEICA M8

The digital M

Product Information



LEICA M8 – the digital M. Dreams are now coming true for many Leica photographers : The LEICA M8 opens up the Leica M system for digital photography. Here it is following entirely new directions. It not only looks like an M but also consistently takes advantage of all benefits of the analog Leica M system for high-class creative digital photography. It is the only digital professional camera to use the handy viewfinder/rangefinder system – discreet, quiet, fast and accurate. And the no-compromise quality criteria of the M system also continue to apply to the M8 unaltered. Full compatibility with virtually all M lenses means that their unique imaging performance is now also available for digital pictures. The low-noise CCD image sensor with a resolution of 10.3 million pixels has been specially matched to the compact lens design, thus ensuring top image quality. The digital M also concentrates on the essentials where operation and functionality are concerned. The tried and tested M concept is rounded off by useful additional functions offered by digital technology. The LEICA M8 is the first classic digital camera “Made in Germany”. New and fascinating, but familiar at the same time.



Simple intuitive operation Operation of the digital functions revolves around the direction button/setting ring combination, which can be used for fast navigation. Pressing the Set button calls up the Picture parameters menu on the 2.5" monitor. Here the most important settings can be quickly controlled : 1. Sensor sensitivity, 2. Exposure compensation, 3. White balance, 4. Data compression and 5. Picture resolution. Three unassigned profile memory slots are provided to call up frequently used application-specific combinations quickly. The Menu button can be used in the clearly structured system menu to change basic settings for long-term usage such as the color space variants ECI RGB, Adobe® RGB and sRGB. Here you can select whether the photograph is to be shown on the large display for evaluation as soon as it has been taken, how long it is to be displayed and whether a tone value histogram is to appear.



— Digital and long-lasting

The M8 is designed to deliver professional results over many years. The solid metal housing is manufactured from a highly stable magnesium alloy. The cover plate and base plate are milled out of solid brass blocks and then chrome-plated either silver or black. DNG technology has been chosen as the future-proof raw data format as it guarantees safe archiving for the long term.

— Compatibility as the principle

The lenses recognized as being the best in the world also demonstrate their full performance with the LEICA M8. The superb resolution offered by all lenses in the M system since 1954 makes them predestined for digital photography as well. The M8 has intentionally dispensed with a resolution-reducing moiré filter before the sensor to ensure full lens performance.

— Concentrated and intuitive

When developing the M8, only the photographically relevant digital options were consistently incorporated in the operating concept. The fundamental scope of functions such as automatic mode and manual focus in combination with the tried and tested viewfinder/rangefinder principle have been retained. Simple and intuitive menu prompting allows settings to be changed via the 2.5" monitor using just a few buttons.

— Maximum resolution

The low-noise CCD image sensor has been consistently optimized for the special features of the M lens system and offers a high resolution of 10.3 million pixels. Specific coordination of the sensor to microlens misalignment avoids annoying vignetting in the corners of pictures. An especially thin cover glass prevents undesirable refraction with oblique light.

— Full light efficiency

The maximum sensitivity settings of up to ISO 2500 now provide much more detailed images than was ever possible with analog films. The M8 is thus opening up a new chapter in available light photography.

— Creative photography

The electronic metal-blade slotted shutter provides for exposure times of up to 1/8000 second. Even in the brightest environments the photographer has full freedom in image creation thanks to the use of selective sharpness at open aperture. The short flash sync time of 1/250 second now also makes daylight flash photography possible with selective sharpness.

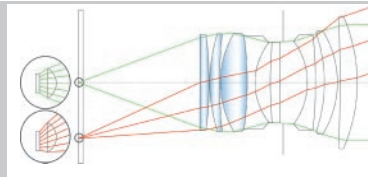
— Quiet and discreet

To ensure activation of the shutter is as silent as possible a rubberized quiet-action friction gear is used in the first speed-increasing gear stage. The force is transmitted with constant torque via a cam over the entire path of the activation arm. This results in a pleasantly quiet noise with electromotive shutter activation.



Coordinated sensor CCD technology has been selected as the image sensor for the M8 as it causes the lowest level of picture noise. A high basic sensitivity from ISO 160 to the maximum sensitivity setting of ISO 2500 results in pictures which offer greater detail than possible with analog films. The system has intentionally dispensed with a moiré filter that filters out fine image details optically to take full advantage of the high resolution offered by Leica M lenses. Instead, any moiré patterns that occur are eliminated by the camera's signal processing. As the light strikes the sensor obliquely at the edges with the M lenses, the thickness of the cover glass has been reduced to 0.5 mm to avoid undesirable refraction. Advantage : Uniform image brightness all the way to the edges with no sensor-related vignetting. This means that the existing Leica M lenses can also demonstrate their full performance capability in digital mode. With the LEICA M8 and LEICA DIGITAL-MODUL-R Leica is the only manufacturer of digital camera systems that coordinates sensor technology in such a consistent manner.

To increase the light sensitivity of the CCD sensor **microlenses** are used in front of the pixels. Light rays at the edge of the picture however strike the sensor obliquely, and bundling of the light on the pixels is no longer possible with a conventional microlens structure. This is why the sensor for the LEICA M8 features a special microlens structure with lenses aligned towards the edges that is perfectly tailored to the characteristics of Leica's M lenses. Advantage : Uniform image brightness all the way to the edges – with no sensor-related vignetting. For the sensor of the LEICA M8 Kodak uses microlenses with a lower refractive power than with conventional sensors. This increases the additional angle for light falling obliquely on the pixels. Advantage : The existing Leica M lenses can also demonstrate their full performance capability in digital mode.



Technical Data

	Product	LEICA M8	silver	black
	Order No.		10 702	10 701
Camera type		Compact digital viewfinder/rangefinder system camera for professional usage with Leica M lenses. Micro-processor controlled metal-blade slotted shutter.		
Image sensor		Low-noise full-frame CCD sensor specially tailored to the requirements of the M lens system. Pixels 10.3 million. Dimensions 18 mm x 27 mm. Extension factor 1.33 x. Aspect ratio 3:2. Moiré filter no, full utilization of lens performance. Moiré detection and elimination in digital signal processing.		
Sensor sensitivity range		Manual setting from ISO 160/23° to ISO 2500/35°.		
Viewfinder		Viewfinder principle Large bright line frame viewfinder/rangefinder with automatic parallax compensation. Viewfinder lens optimal visibility of all bright line frames whatever the lighting situation. Image field limiter By activating two bright lines each : for 24 and 35 mm / 28 and 90 mm / 50 and 75 mm. Magnification 0.68x (with all lenses). Large basis range finder Combination of split and superimposed image range finder shown as a bright field in the center of the viewfinder image.		
Lenses		Lens connection Leica M bayonet with additional optical scanning device for the identification of all 6 bit-coded lenses. Lens system Current 6 bit-coded Leica M lenses with a focal length of 16–90mm. Almost all Leica M lenses with a focal length of 21–90 mm manufactured from 1954 can also be used without 6 bit-coding. 6 bit-retrofitting possible for virtually all lenses. 6 bit-functions Lens-dependent reduction of system-specific vignetting. Identification of picture file with lens information to simplify digital archiving. Coordination of flash reflector with motor zoom flash units. Auto slow sync function with automatic mode.		
Exposure control		Automatic mode (Auto) Automatic determination of correct shutter speed with manual aperture preselection with relevant viewfinder display. Manual exposure Independent selection of shutter speed and aperture – camera exposure check visible via LED light balance shown in the viewfinder.		
Picture-taking modes		S Single frame picture-taking, for one shutter release whenever shutter is pressed. C Continuous shooting with 2 pictures per second and 10 picture in series . Automatic release mode Selectable with either 2 s and 12 s visualization of delay time via one of the LEDs visible from front of camera in viewfinder window.		
Controls/ display elements		Front of housing Lens release; image field selector Top of housing Main switch and shutter release; shutter speed setting dial, status LCD display : indication of number of frames remaining and residual battery capacity. Rear of housing 2.5" color monitor, setting ring for navigation in menu and magnifier function in 4 levels ; 4x direction buttons for navigation in menu and in image details, Menu button, Play button, Delete button, Protect button, Info button. Bottom of housing Locking base plate protects the battery and SD memory card from dust and moisture.		
Color monitor		2.5" bright LC display with a resolution of approx. 230,000 pixels. Brightness control in 5 levels. Control options after picture-taking General quality evaluation of photographs, exposure control via RGB tone value histogram with identification of light image details without detailing (can also be used with zoom-in), control of sharpness of focus, display of quality parameters selected and display of lens focal length used (with current 6 bit-coded lenses) Image view sizes 9 thumbnails, 4 thumbnails, single frame display as well as magnification in four levels up to 100%.		
Picture parameters menu – Main menu		Pressing the Set button allows the following parameters relevant to the picture to be changed and selected : User profile, Sensor sensitivity, Manual exposure compensation, White balance, data format, picture resolution. Main menu Pressing the menu button allows settings such as color monitor contrast or selection of color space to be made in the Main menu. Menu languages German, English, French, Spanish, Italian, Japanese, Chinese.		
Picture resolution		DNG 3916 x 2634 pixel (10.31 MP); JPG 3936 x 2630 pixel (10.35 MP), 2952 x 1972 pixel (5.8 MP), 1968 x 1315 Pixel (2.6 MP), 1312 x 876 Pixel (1.15 MP).		
Data formats		DNG™ (Digital Negative Format not specific to any camera manufacturer), 2 different highly compressed JPEG levels. DNG™file information 16 bit-color resolution, 10.2 Mbyte file size per picture.		
Storage medium		SD cards up to 4 GB. (The following Internet page includes a list of SD memory cards fully compatible with the LEICA M8 : www.leica-camera.com/photography/m_system/m8)		
White balance		Automatic, 6 presettings, manual white balance, color temperature input from 2,000 K to 13,100 K.		
Color spaces		Adobe®RGB, sRGB, ECI RGB.		
Viewfinder display		LED symbol for flash status, four-digit seven-segment LED display with dots above and below (display brightness always adjusted to ambient brightness) for : display of automatically determined exposure time with automatic mode, indication of use of metered value storage, warning of exposure compensation, warning that metering range is overshot or undershot. LED light balance with two triangular LEDs and one center circular LED as an aid when setting exposure manually.		
Metering		TTL metering heavily center-weighted with preset working aperture. Measurement principle Measured by light reflected by a white blade in the middle of the metal-blade slotted shutter. Metering range EV 0 to EV 20 at room temperature 20° C, aperture 1.0 and ISO 160/23°. Measurement cell Silicon photo diode with collection lens, positioned at center lower edge, on bottom of camera.		
Flash metering / control				
Principle of M-TTL flash technology		An extremely short metering preflash activated immediately before the picture is taken is used to measure the output light required for the exposure.		
Connection		M-TTL Guide Number Control with metering preflash via accessory shoe SCA 3502 (from version M4) or with Leica flash SF24D.		
Flash sync time		Fast 1/250 s provides for creative open aperture photography even with bright ambient light. Manual flash sync times from B (bulb) to 1/250 s. Automatic mode Auto slow sync : automated extension of longest flash exposure time to length of thumb 1/focal length in seconds. (only with 6 bit-coded lenses). Selection of long flash sync times e.g. up to 1/8 s for balanced flash with available light shots with automatic mode.		
Shutter and shutter release				
Shutter		Micro-processor controlled metal-blade slotted shutter with vertical movement.		
Shutter speeds		In automatic mode (A) steplessly from 32 s to 1/8000 s. Using manual setting 4 s to 1/8000 s in half steps. B for long exposures of any duration.		
Activation of shutter		Three-stage activation depending on pressure level : 1. Switch-on of camera electronics and activation of metering – 2. Metered value storage (with automatic mode) – 3. Shutter release (standard thread for cable release included).		
Power supply		Lithium-ion rechargeable battery with 3.7 V and 1900 mAh.		
Computer interface		5-pin standardized mini USB port for fast USB 2.0 data transfer to computer.		
Camera housing		Material Closed solid metal housing made of a highly stable magnesium alloy for long-lasting professional usage. Black synthetic leather covering. Cover plate and base cover milled from solid brass and silver or black chrome-plated. Tripod bushing DIN 4503 – A1/4 (1/4") at center of base cover.		
Dimensions (W x H x D)		139 mm x 80 mm x 37 mm (5.45 x 3.16 x 1.45 in)		
Weight without battery		approx. 545 g (19.2 oz)		
Scope of supply		Carrying strap with anti-slip guard (Order No. 14312), camera cover for M bayonet (Order No. 14195), lithium ion battery (Order No. 14464), charger incl. car and 3 mains plug adapters (Euro, UK, USA) (Order No. 14463), USB connecting lead, operating manual, software CD Capture One LE, software CD with LEICA DIGITAL CAPTURE and operating manual, warranty card.		



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