



# LEICA M8 / LEICA M8.2

## Technical Data



Camera	LEICA M8	LEICA M8.2
<b>Camera type</b>	Compact digital viewfinder system camera for professional use with Leica M lenses. Microprocessor-controlled metal blade focal plane shutter.	
<b>Image sensor</b>	Low-noise CCD sensor specially optimized for 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. Coverglass thickness 0.5 mm, full suppression of infrared light by additional UV/IR filter. Moiré filter: no, but full exploitation of the lens capabilities by Moiré fringe detection and elimination by digital signal processing.	
<b>Sensor speed range</b>	Manual setting from ISO 160/23° to ISO 2500/35°. <i>LEICA M8.2: additional automatic setting with free choice of ISO range.</i>	
<b>Viewfinder</b>	<p><b>Viewfinder principle</b> Large bright-line frame viewfinder with automatic parallax compensation. Viewfinder optics with reduced sensitivity to stray light and optimum visibility of the bright-line frame in all lighting situations.</p> <p><b>Eyepiece</b> Matched to -0.5 dpt. Correction lenses from -3 to +3 dpt available. <b>Image framing</b> By display of two bright-line frames at a time: for 24 and 35 mm or for 28 and 90 mm or for 50 and 75 mm. Display selection automatically matches the lens in use. 100% of the sensor format is covered at 0.7 m (<i>LEICA M8.2: 2 m</i>). <b>Frame selector</b> Displays pairs of frames manually to simulate any focal length. <b>Parallax compensation</b> The horizontal and vertical difference between viewfinder and lens is compensated appropriately for the focus setting, i.e. the bright-line frame of the viewfinder automatically coincides with the subject area as seen from the lens. <b>Magnification</b> 0.68 x (for all lenses). <b>Wide-base rangefinder</b> Combination of split- and superimposed-image rangefinder shown as a bright field in the center of the viewfinder image. Effective measuring base 47.1 mm (mechanical measuring base 69.25 mm x viewfinder magnification 0.68 x).</p>	
<b>Lenses</b>	<p><b>Lens mount</b> Leica M bayonet with additional optical sensing for identification of all 6-bit coded lenses.</p> <p><b>Lens system</b> Current 6-bit coded Leica M lenses of 16 - 90 mm focal length. All Leica M lenses of 21-90 mm focal length produced since the year <b>1954</b> can be used, even if lacking the 6-bit coding. Virtually all lenses can be retrofitted with 6-bit coding. <b>6-bit functions</b> Lens-dependent reduction of edge shadowing originating in the system. Identification of the lens information within the image file to facilitate digital archiving. Adjustment of the flash reflector when using motor zoom flash devices. Auto slow sync. function in aperture priority mode. Compensation of color shifts through the use of UV/IR filters.</p>	
<b>Exposure control</b>	<p><b>Aperture priority mode (Auto)</b> Automatic determination of the correct shutter speed with manual aperture pre-selection and corresponding viewfinder display. <b>Manual exposure control</b> Free selection of shutter speed and aperture – can be visually checked using the exposure control in the camera seen by LED light balance in the viewfinder.</p>	
<b>Snapshot mode</b>	<p><i>"S" setting of shutter speed dial = automatic control of exposure time, ISO speed and white balance. Menus reduced to essential functions, hints on aperture and focus settings are displayed when the Info key is pressed.</i></p>	
<b>Picture modes</b>	<p><b>S</b> Single picture, pressing the shutter release once per picture. <b>C</b> Continuous succession of pictures with 2 pictures per second and 10 pictures in the sequence. <b>Auto-release</b> Selectable with 2 sec. and 12 sec. delay time – visualization of the countdown by an LED visible from the front of the camera in the viewfinder window.</p>	
<b>Controls/displays</b>	<p><b>Camera front</b> Lens mount; frame selector. <b>Top</b> Main switch (<i>LEICA M8.2: more pronounced detent mechanism to prevent inadvertent switching</i>) and shutter release; shutter speed dial, LCD status display: display of remaining exposures and battery capacity. <b>Back</b> 2.5" color monitor (<i>LEICA M8.2: scratch-resistant sapphire coverglass</i>), dial for navigation in the menu &amp; magnifier function in 4 steps; 4-way direction pad for navigation in the menu &amp; in picture details; menu button; play button; delete button; protect button; info button. <b>Base</b> Lockable base plate protects the rechargeable battery and the SD memory card against dust and moisture.</p>	
<b>Color monitor</b>	<p>2.5" large bright LC display with a resolution of about 230,000 pixels for viewing pictures and for menu settings. (<i>LEICA M8.2: scratch-resistant sapphire coverglass</i>). Brightness control in 5 stages. Checking options after taking the picture: general quality assessment, checking the exposure by means of a RGB tonal value histogram with identification of bright picture areas lacking detail (can also be used when zooming in), checking the focal plane, display of the quality parameter settings and the focal length of the lens (when used with current 6-bit coded lenses).</p> <p><b>Picture view sizes</b> miniatures, 4 miniatures, full picture display and enlargement in four stages up to 100% view (1 sensor pixel = 1 display pixel).</p>	
<b>Picture parameter menu-main menu</b>	<p>By pressing the set button, the following parameters relevant to the picture can be selected and changed in the picture parameter menu: user profile, sensor speed, manual exposure correction, white balance, image data format, picture resolution. By pressing the menu button, parameters such as the color monitor contrast or the color space can be set in the main menu. <b>Menu languages</b> German, English, French, Spanish, Italian, Japanese, Chinese.</p>	
<b>Picture resolutions</b>	<p>DNG: 3916 x 2634 pixels (10.31 MP); JPG: 3936 x 2630 pixels (10.35 MP), 2952 x 1972 pixels (5.8 MP), 1968 x 1315 pixels (2.6 MP), 1312 x 876 pixels (1.15 MP).</p>	
<b>Data formats</b>	<p>DNG™ (camera manufacturer-independent digital negative format), 2 different JPEG compression rates.</p>	
<b>DNG™ file-information</b>	<p>6-bit color resolution, 10.2 MByte file size per picture.</p>	

<b>Memory medium</b>	SD and SDHC cards up to 32 GByte. Complete list of LEICA M8- and M8.2-compatible SD memory cards: <a href="http://www.leica-camera.de/photography/m_system/m8">www.leica-camera.de/photography/m_system/m8</a>
<b>White balance</b>	Automatic, 6 preset values, manual white balance, color temperature input from 2000K to 13,100K.
<b>Color spaces</b>	Adobe®RGB, sRGB, ECI RGB.
<b>Viewfinder display</b>	(at the bottom edge of the viewfinder) LED symbol for flash status, four-digit seven-segment LED display with dots above and below (display brightness is always adjusted for ambient brightness) for: display of the automatically calculated shutter speed in aperture priority mode, indication of the use of saved metering values, warning of exposure corrections, warning of when the metering range is overshot or undershot in aperture priority mode and countdown display of shutter times longer than 2 sec., memory capacity warning when the SD card is full. LED light balance with two triangular and one central circular LED for manual exposure setting. Display of: underexposure by at least one aperture stop; underexposure by 1/2 aperture stop; correct exposure; overexposure by 1/2 aperture stop; overexposure by at least one aperture stop. Triangular LEDs give the direction of rotation of the aperture setting ring and shutter speed setting dial to adjust the exposure. The LED flashes as a warning that the metering range is overshot or undershot. (LEICA M8.2: In "S" mode: red dot to indicate correct exposure, left arrow to warn against camera shake, right arrow to warn against overexposure).
<b>Exposure metering</b>	Heavily center-weighted TTL exposure metering with pre-set working aperture. <b>Metering principle</b> Light reflected from a white strip in the centre of the metal blade focal plane shutter. <b>Metering range</b> EV0 to EV20 at 20°C room temperature, aperture 1.0 and ISO 160/23°. <b>Metering cell</b> Silicon photodiode with collection lens positioned at the center of the lower edge of the camera base.
<b>Flash exposure metering/control using M-TTL flash technology</b>	<b>Principle</b> Using an extremely short calibration pre-flash fired immediately before the exposure, the exact power requirement for the main flash is determined. <b>Connection</b> M-TTL guide number control with calibration pre-flash via accessory shoe SCA 3502 (version M4) or with Leica flash SF24D. <b>Flash synchronization time</b> 1/250 sec. (LEICA M8.2: 1/180 sec.) synchronization permits creative open aperture photography even in bright ambient light. <b>Manual Flash synchronization times</b> from B (bulb) down to 1/250 sec. (LEICA M8.2: 1/180 sec.) <b>Aperture priority mode</b> Auto Slow Sync: automatic extension of the longest flash time, using the rule of thumb 1/focal length in seconds. (only with 6-bit coded lenses). Choice of long flash synchronization times up to e.g. 1/8 sec. for balanced flash when taking available light pictures in aperture priority mode. <b>Synchronization flash firing time</b> Firing optionally at the 1 <sup>st</sup> or 2 <sup>nd</sup> shutter point (with appropriate flash device such as the LEICA SF24D or when using the SCA-3502 adapter). <b>Flash exposure correction</b> ±3 1/3 EV in 1/3 EV-Stufen stages adjustable at the SCA-3501/3502 adapter. Settable at the LEICA SF 24D ± 3EV in 1/3 EV stages, or from 0 to -3 EV in 1EV stages when using computer control.
<b>Shutter and shutter release</b>	<b>Shutter</b> Microprocessor-controlled metal blade focal plane shutter with vertical action. (LEICA M8.2: optimized to reduce noise and vibration). <b>Shutter times</b> In aperture priority mode (A) steplessly adjustable from 32 s down to 1/8000 s (LEICA M8.2: 1/4000 s). With manual setting from 4 s down to 1/8000 s (LEICA M8.2: 1/4000 s) in half steps. B for long exposures of any length. <b>Activation</b> Shutter activation optimized for minimum noise. Electric motor drive with friction wheel in the first speed build-up stage and a cam disk for homogenous torque throughout the activation process. (LEICA M8.2: time-delayed cocking after shutter button is released, selectable in menu). <b>Release</b> Three-stage activation governed by how far the release is depressed: 1. Switch the camera electronics on & activate the exposure metering - 2. Save metered value (in aperture priority mode) - 3. Release (includes a standard thread for cable release). <b>Power supply</b> Lithium ion rechargeable battery with a nominal voltage of 3.7 V and a capacity of 1900 mAh. <b>Interface</b> 5-pin standard mini-USB socket on the left side of the body, for quick USB 2.0 data transfer to a computer.
<b>Camera body</b>	<b>Material</b> Enclosed all-metal body of highly stable magnesium alloy for professional use over many years. Black synthetic leather coating. Top cap and base plate are milled from solid brass and are silver or black chromium plated (LEICA M8.2: black paint finished). <b>Tripod thread</b> DIN 4503 - A1/4 (1/4") in the centre of the bottom cover.
<b>Dimensions (W x H x D)</b>	approx. 139 x 80 x 37 mm
<b>Weight without battery</b>	approx. 545 g
<b>Scope of supply</b>	M8 camera (10702 silver or 10701 black), M8.2 camera (10712 silver or 10711 black), anti-slip carrying strap (14 312), camera cap for M bayonet (14 195), rechargeable lithium ion battery (14 464), battery charger incl. car socket adaptor and 3 mains plug adapters (Euro, UK, USA) (14 463), (LEICA M8.2: compact charger with 80% charge display car socket and EURO/USA mains leads), USB connection cable, user manual, software DVD Capture One 4, warranty card.