

## **Clifton Cameras Product Specification**

Leica M10-R - Body Only Full Spec

Camera type : Compact digital view and rangefinder system camera Lens attachment : Leica M bayonet with additional sensor for 6-bit coding Lens system : Leica M lenses, Leica R lenses with an optional adapter (available accessory) Sensor : CMOS chip, active area approx. 24×36 mm, without low-pass filter Resolution :

• DNG:7864 x 5200 pixels (40.89 MP)

• JPEG:7840 x 5184 pixels (40.64 MP), 5472 x 3648 pixels (20 MP), 2976 x 1984 pixels (6MP) **Data formats** : DNG (raw data, 14 bit, compressed loss-free), JPEG (8 bit)

File size : DNG: 40-60 MB, JPEG (40MP) 10-20 MB: Depending on resolution and picture content

**Buffer memory** : 2GB / 10 pictures in series

**Storage media** : SD cards up to 2GB/SDHC cards up to 32GB/SDXC cards up to 2TB **Menu languages** : German, English, French, Spanish, Italian, Portuguese, Japanese, Traditional Chinese, Simplified Chinese, Russian, Korean

**Exposure metering** : Exposure metering through the lens (TTL), with working aperture **Metering method** : Light reflected by the blades of the 1 shutter curtain onto measuring cell **Metering range** :

• At room temperature and normal humidity for ISO 200, at aperture 1.0 EV-2 to EV19 at aperture 32

• Flashing of the left triangular LED in the viewfinder indicates values below the metering range

**Sensitivity range** : ISO 100 to ISO 50.000, adjustable in 1/3 ISO increments, choice of automatic control or manual setting

**Exposure modes** : Choice of automatic shutter speed control with manual aperture pre-selection (aperture priority A), or manual shutter speed and aperture setting **Flash unit attachment** : Via accessory shoe with central and control contacts **Synchronization** : Optionally triggered at the 1st or 2nd shutter curtain **Flash sync time** :

• 1/180 s; slower shutter speeds can be used

• If working below sync speed:Automatic changeover to TTL linear flash mode with HSS-compatible Leica system flash units

**Flash exposure metering**: Using center-weighted TTL pre-flash metering with Leica flash units (SF40, SF64, SF26), or flash units compatible with the system with SCA3502 M5 adapter **Flash measurement cell**: 2 silicon photo diodes with collection lens on the camera base **Flash exposure compensation**: ±3EV in1/3EV increments

**Displays in flash mode (in viewfinder only) :** Using flash symbol LED **Construction principle :** Large, bright line frame viewfinder with automatic parallax compensation

**Eye piece :** Calibrated to -0.5 diopter; corrective lenses from -3 to +3 diopter available **Image field limiter :** By activating two bright lines each: For 35 and 135mm, or for 28 and 90mm, or for 50 and 75mm; automatic switching when lens is attached **Parallax compensation :** Horizontal and vertical difference between the viewfinder and the

lens is automatically compensated according to the relevant distance setting, i.e. the viewfinder bright-line automatically aligns with the subject detail recorded by the lens **Matching viewfinder and actual image :** At a range setting of 2m, the bright-line frame size corresponds exactly to the sensor size of approx. 23.9 x 35.8mm; at infinity setting, depending on the focal length, approx. 7.3% (28mm) to 18% (135mm) more is recorded by the sensor than



indicated by the corresponding bright line frame and slightly less for shorter distance settings than 2m

## Magnification (for all lenses) : 0.73x

**Long-base rangefinder :** Split or superimposed image range finder shown as a bright field in the center of the viewfinder image

**Effective metering base :** 50.6mm (mechanical measurement basis 69.31mm x viewfinder magnification 0.73x)

**In the viewfinder :** Four-digit digital display with exposure alerts above and below **On back :** 3-inch color TFT LCD monitor with 16 million colors and 1,036,800 pixels, approx. 100% image field, glass cover of extremely hard, scratch-resistant Gorilla glass, color space: sRGB, for Live-View and review mode, displays

Shutter : Metal blade focal plane shutter with vertical movement

## Shutter speeds :

• For aperture priority:(A) continuous from 16min to 1/4000s, for manual adjustment: 8s to 1/4000s in half steps, from 8s to 16min in half steps, B: For long exposures up to maximum 16min (in conjunction with self-timer T function, i.e. 1st release = shutter opens, 2nd release = shutter closes), (1/180s): Fastest shutter speed for flash synchronization, HSS linear flash mode possible with all shutter speeds faster than 1/180s (with HSS-compatible Leica system flash units)

Picture series : Approx. 4.5 pictures/sec

**Shutter release button :** Two-stage, 1st step: Activation of the camera electronics including exposure metering and exposure lock (in aperture priority mode), 2nd step: Shutter release; standard thread for cable release integrated.

Self-timer : Delay optionally 2s (aperture priority and manual exposure setting) or 12s, set in menu, indicated by flashing LED on front of camera and corresponding display in monitor. Turning the camera on/off : Using main switch on top of camera; optional automatic shutdown of camera electronics after approx. 2/5/10 minutes; reactivated by tapping the shutter release Power supply : 1 Lithium-ion rechargeable battery, nominal voltage 7.4V, capacity 1100mAh; maximum charging current/voltage: DC 1000mA, 7.4V Charger :

• Inputs : 100-240V AC, 50/60Hz, 300mA, automatic switching, or 12V DC, 1.3A

• Output : DC 7.4V, 1000mA/max. 8.25V, 1100mA

**GPS (only with Leica Visoflex viewfinder attached, available as an accessory) :** Optional (not available everywhere due to country-specific legislation, i.e. enforced automatic shutdown in those countries), data are written to EXIF header in picture files.

**Wi-Fi**: Complies with IEEE 802.11b/g/n standard (standard Wi-Fi protocol), channel 1-11, encryption method: Wi-Fi-compatible WPA/WPA2 encryption, access method: Infrastructure mode

**Material :** All-metal die cast magnesium body, synthetic leather covering. Brass top panel and base, black chrome plated finish

**Image field selector :** Allows the bright-line pairs to be manually activated at any time (e.g. to compare detail)

Tripod thread : 1/4-inch DIN stainless steel in bottom

**Operating conditions :** 0 to 40-degree-C

**Interfaces :** ISO accessory shoe with additional contacts for Leica Visoflex viewfinder (available as an accessory)

Finish : Black chrome(20002), Silver chrome(20003)

**Dimensions (W x D x H) :** Approx. 139 x 38.5 x 80 mm

Weight: Approx. 660g with battery