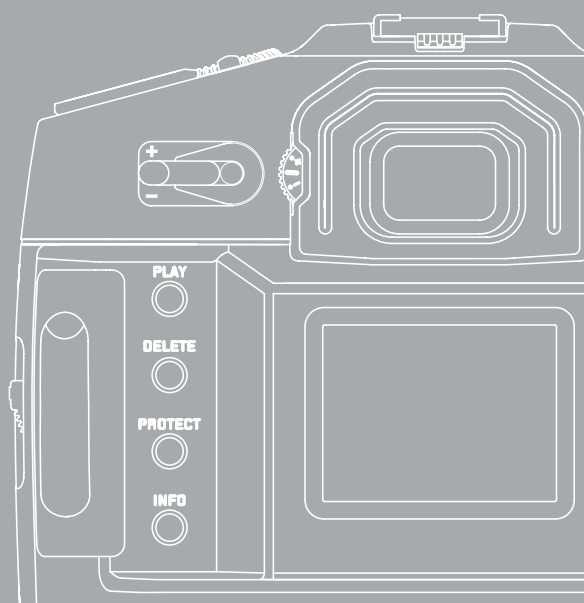
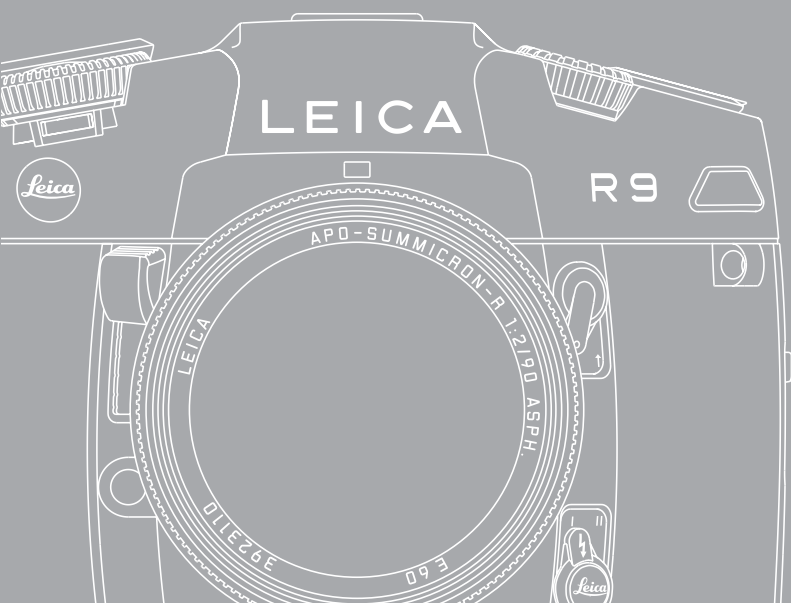




Leica R system

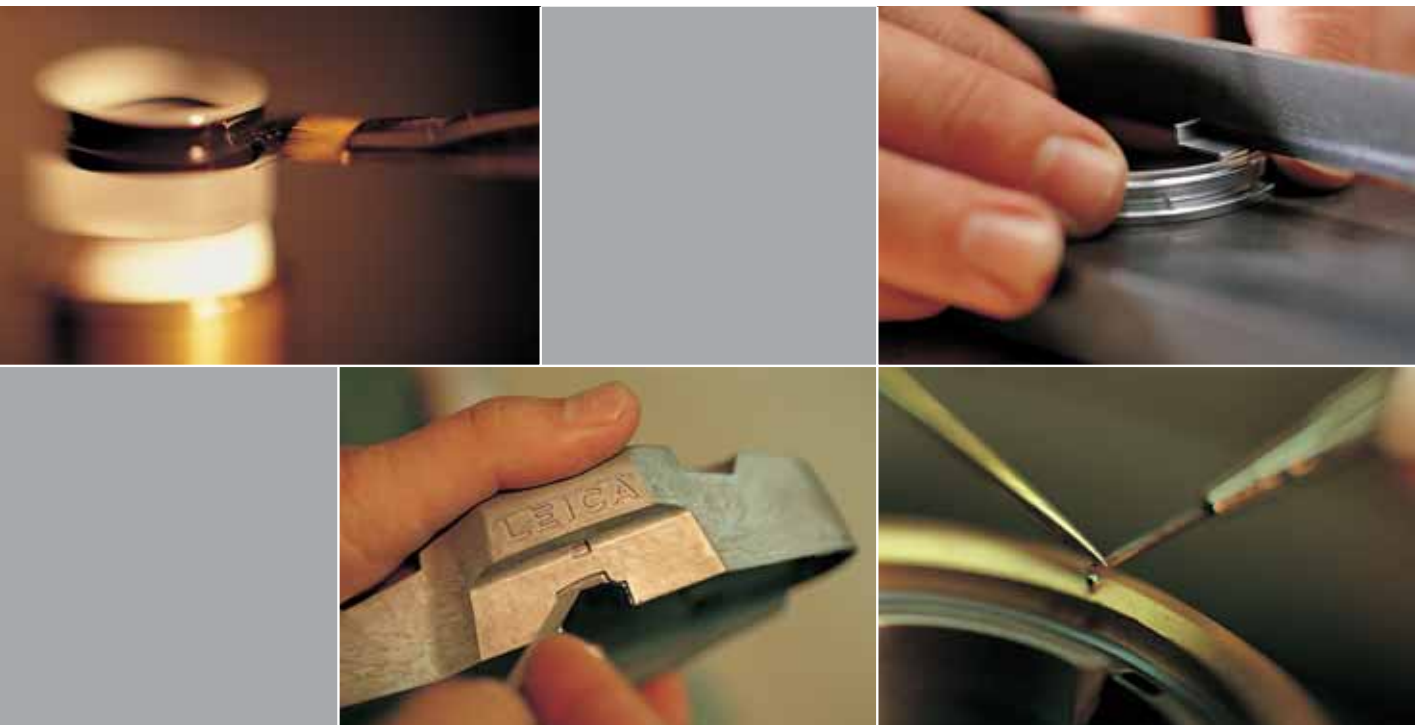
The analog-digital system







Made to measure for perfectionists In order to create outstanding images, photographers not only need to sense the right moment, they also need to have the right tool that functions as accurately and creatively as they do. Leica single lens reflex (SLR) cameras are precision instruments that earned their legendary reputation with their uncompromisingly high quality standards. Each Leica camera is individually crafted by experienced hands, with great dedication and meticulous care, creating timeless masterpieces that have extraordinary value retention. The Leica R system combines superior, traditional optical and instrument-making experience with the most modern manufacturing technology and exquisite fabrication know-how that made the Solms company world-famous. In order to provide devoted photographers with even greater latitude and flexibility in the future, Leica Camera AG has now taken another dramatic step forward by introducing the very first modular digital component for a 35 mm camera.



Quality meets flexibility The new LEICA DIGITAL-MODUL-R enables you to make the decision spontaneously whether to create your photographs with analog or digital technology and thanks to the accustomed high performance of Leica optics, you can be confident of achieving the best possible results in every situation. And regardless of the analog or digital approach, you have that very special joy of working with a camera that is unique through and through. With its mechanical precision, innovative optics and sophisticated electronics, the SLR system is predestined to implement your ideas at the highest possible photographic level. Intelligent technology provides you with absolute control of your work. By focusing the lens manually, the photographer positions the plane of sharpness. Using the remarkably bright viewfinder, he or she also coordinates the depth of field and the cropping. The gratifying results are brilliant pictures, even under the most difficult light conditions – accurately controlled by automatic features or manually controlled by the photographer. And now the digital capability of the LEICA R9 is just as unique and just as technically refined. A perfect symbiosis of stable value retention and new flexibility in digital image storage and communication.



Perfect interplay The fascination of the name Leica is rooted as much in the superb mechanisms of the camera as it is in the proverbial precision and quality of its legendary lenses. And with the LEICA R9 too, the entire spectrum of R lenses developed since 1965 comes into play, enhanced by our latest designs in the fields of wide-angle and zoom lenses. A system that makes it easy for you to create fascinating photographs and whose quality now benefits you eminently in the digital realm. As is the case in analog photography, high imaging performance is also required in digital photography. The great strength of Leica lenses is evidenced by their extraordinary quality reserves, which ensure the very best results, even in enlargements of cropped portions of digital images. Because of various unique technical refinements, the strengths of these high performance lenses also come into play advantageously in digital applications. The protective filter in front of the sensor, for example, was designed to be as thin as possible, and the acceptance angle of the sensor, which is smaller than that of the conventional film frame, has been taken into account by means of appropriate shifts of the micro-lenses in front of the pixels. A great omen for all those who are eager to explore classic as well new possibilities in photography.



“The Leica R system represents the very best optical quality and great creative freedom. The LEICA DIGITAL-MODUL-R provides entirely new perspectives for all the photo-enthusiasts who like to work with great flexibility, but also demand the assurance of the highest quality standards. A Leica R camera is an absolute precision instrument that also satisfies these objective demands in the digital realm.”

Ralf Coenen, Chief Executive Officer, Leica Camera AG

Analog or digital ? In the future, there will be only one answer.

— Film : A choice for advancing film

The LEICA R9 is the core of a superbly refined camera system. When you work with film, the camera can be customized by selecting one of a number of different film advance devices : the extremely compact and quiet manual film advance, or the inconspicuous LEICA MOTOR-WINDER R9, or the professional LEICA MOTOR-DRIVE R9 (shown on the left). You even have a choice of colors for your camera : discreet black or elegant anthracite.



— The exposure is precise

Accurate exposure metering and control are prerequisites for successful photographs. The LEICA R9 features selective, integral as well as sophisticated multi-pattern exposure metering whose level can be changed at any time by tenths of a step. The result : optimal harmonization with the various types of films. Metered value storage can be used with selective and integral metering. The selected shutter speed and aperture combination is automatically stored when the shutter release button is pressed to the second pressure point. The various exposure modes enhance flexibility, quickness and not least, your creative freedom.



— Lenses of the very best kind

Thanks to its R bayonet, the LEICA R9 is compatible with virtually all R lenses made since 1965. All current Leica R lenses are equipped with an ROM module, which establishes specific communication between camera and lens, leading to perfect exposures.



—— Seeing more

With the high-eyepoint viewfinder you no longer need to press your eye against the eyecup in order to see the image clearly all the way into its corners. And all the important parameters are displayed optimally in the viewfinder : Shutter speed, aperture, operating mode, exposure metering mode and the exposure counter. An important feature for time exposures : An integrated shutter prevents light from reaching the film through the eyepiece. Eyeglass wearers will be especially pleased with the diopter compensation range from -2 to +2 in half steps, enabling the photographer to focus and expose with or without using the eyeglasses.



—— Digital : Simply excellent

The LEICA DIGITAL-MODUL-R can be attached to the LEICA R9 with a simple hand motion, thus transforming it into a full-function digital SLR camera. During the development phase, special attention was paid to optimal image quality. You simply decide whether analog or digital photography is best for the application. No need for you to change your way of shooting : meaning that the proven simple and logical operating concept that is so typical of Leica, is retained in the LEICA DIGITAL-MODUL-R camera and digital back neatly merge into a single unit.

—— Everything under control

All operating elements of the LEICA R9 are positioned very conveniently and can be operated intuitively, without moving the eye away from the viewfinder. The rugged metal body fits very nicely in your hands and it has ideal weight. Small details – important effects : The operating mode selector dial can now be locked in place to prevent unintended changes of your selected settings that may occur, for instance, in the carrying case. The eyecup too, can be locked in place, so that it won't get lost.

—— Flash tailored to the subject

The LEICA R9 provides you with three exposure options for flash photography. In addition to the fully automatic P mode and the selective flash mode F, it also features High Speed Synchronization (HSS). In combination with an HSS flash unit, it allows flash exposures with shutter speeds as high as 1/8000 second ! This enables you to make pleasing portraits even in daylight and at full aperture, without harsh contrasts.

The film advance – you set the pace

Flexibility, quickness and comfort have also been emphasized in conjunction with the film advance. Whether fast and strong with the Motor-Drive, gently motorized with the Motor-Winder, or carefully controlled manually, there is no rigidly prescribed pace with the LEICA R9.

On the LEICA R9, the uncomplicated film advance starts with the **insertion of the film cartridge** without cumbersome threading. When a Motor-Winder or a Motor-Drive is being used, you can also decide whether the film leader is to be **rewound** completely into the cartridge or not. With **double exposures** too, you have every option : you can, of course, avoid double exposures altogether – or you can implement them deliberately, because the LEICA R9 has an extra lever for this purpose that uncouples the film advance mechanism and accurately locks the film in its position.



Motor-Drive For images of fast action events in picture sequences, the powerful Motor-Drive with battery charger and capacity indicator is the right choice. 3 LEDs indicate the charge level of the battery. The Motor-Drive functions quietly, it exposes a fast 4.5 pictures per second and thanks to the integral wrist loop and the practical vertical release button, it is very easy to operate. Its combination switch permits the setting of the exposure frequency as well as an automatic exposure series in steps of half an f-stop (bracketing). An electronic remote release or a Remote Control R8/R9 can be attached to the connecting socket of the Motor-Drive.



Motor-Winder The lightweight, compact and quiet Motor-Winder is an alternative to the Motor-Drive. It delivers a comfortable two exposures per second ; it conforms harmoniously to the shape of the camera body without adding much weight. Like the Motor-Drive, the Motor-Winder too, is equipped with a connector socket for remote control.

Manual film advance The camera's built-in film advance mechanism, with which you manually advance the film frame by frame is, of course, even quieter and battery-conserving at the same time. The obvious advantage : you can travel without an accessory.

LEICA DIGITAL-MODUL-R : You can make the decision spontaneously With only a few motions of the hand, you now can switch to digital photography with Leica quality. The Digital-Modul-R is simply attached in place of the regular camera back and it integrates seamlessly into the simple operating procedure of the LEICA R9. The handy dimensions of the digital LEICA R9 then correspond to those of a classic Leica with an attached Motor-Drive.

After the regular (film) back has been removed, the LEICA DIGITAL-MODUL-R can be attached in its place. A protective cover shields the CCD image sensor during the attaching procedure, while it is being transported, and when the LEICA DIGITAL-MODUL-R is in storage while the camera is being used with film.



When the protective cover has been removed, the image sensor is exposed and, if necessary, it can be cleaned. The sensor is spring-mounted, so that it positions itself accurately in the plane of sharpness.



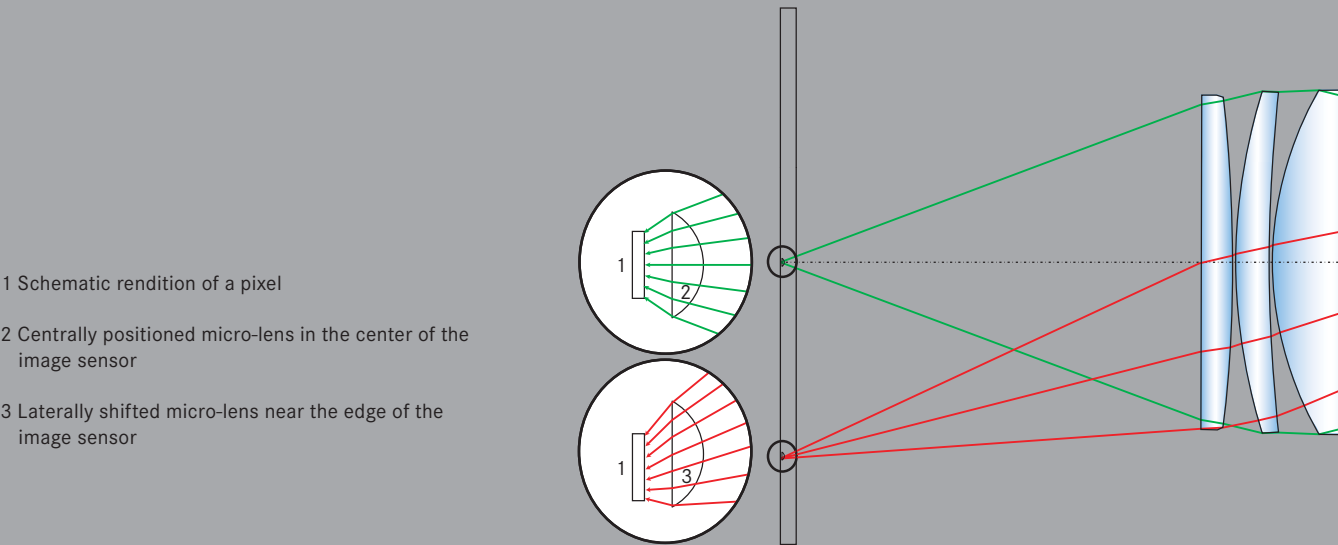
The power supply is the "power plant" of the system : a motor cocks the shutter, and a lithium-ion battery furnishes power to the camera and to the LEICA DIGITAL-MODUL-R.



Creative change, timeless values The LEICA R9 constitutes the world's very first 35 mm camera system that can be used optionally for analog or digital photography. With a resolution of 10 million pixels, image storage on SD-cards, use of a firewire interface and a low focal length extension factor of 1.37, the LEICA DIGITAL-MODUL-R conforms to the legendary high quality standards of Leica cameras.

CCD-Sensor Today, CCD (Charge Coupled Device) sensors represent the most advanced technology for digital photography. The sensor with 10 million picture points that was developed especially for the LEICA DIGITAL-MODUL-R by the Kodak image sensor division (Kodak Image Sensor Solutions) in cooperation with Leica Camera AG features a series of additional technical refinements : The **protective filter** in front of the pixels of the sensor for the LEICA DIGITAL-MODUL-R has been designed to be especially thin. Advantage : The renowned performance of Leica R lenses is not affected by unwanted refraction in a thick cover glass. The reflection-reducing **coating** of the protective filter is particularly hard and scratchproof. Advantage : when its surface is soiled, it can be cleaned without damaging the sensor. In addition, the sensor is considerably more accessible than those on conventional digital SLR cameras.

The decision was made intentionally not to incorporate a low pass filter (which prevents image degradation, so-called Moiré patterns). Instead, the image is corrected within the camera by means of a **software filter**. Advantage : Moiré filtering takes place only where it is really needed. Advantage : considerably higher image sharpness.



Micro-lenses are used in front of the pixels in order to increase the light sensitivity of the CCD sensor. But light rays near the edge of the image area strike the sensor at an angle, so that the gathering of light for those pixels is no longer effective with a conventional structure of micro-lenses. For that reason, the special sensor for the LEICA DIGITAL-MODUL-R is equipped with a special micro-lens structure in which the micro-lenses are positioned increasingly away from the center of the pixels towards the edge of the sensor in order to conform exactly to the characteristics of Leica R lenses. Advantage : Uniform image brightness all the way to the edges of the image, no inherent sensor vignetting. The micro-lenses used by Kodak for the special sensor of the LEICA DIGITAL-MODUL-R have a lower index of refraction than those on conventional sensors. This further increases the angle of acceptance for light rays impinging the pixels obliquely. Advantage : Existing Leica R lenses also deliver their full performance capability in digital photography applications.

The innovative high performance sensor was designed especially for Leica by Kodak Image Sensor Solutions. The partner for electronics and software for the digital back is the Danish firm Imacon A/S, which recently merged with the Swedish firm Hasselblad. The result : a highly refined technology that does justice to the superior quality of famous Leica lenses.

The very finest of digital technologies The digital electronics for the LEICA DIGITAL-MODUL-R were developed by the Danish firm Imacon A/S, a leading manufacturer of digital backs for medium format cameras and high-end film scanners. Thus the quality standards that govern professional (studio) digital photography are implemented for the first time in a 35 mm camera system.

The patented Imacon DDC technology operates the **image sensor** with considerably less energy than conventional systems do. In addition, the heat generated by the sensor is dissipated particularly effectively into the magnesium housing. Advantage : Above all, in addition to the extended battery capacity, there is a marked reduction of image noise caused by heat, which normally manifests itself as disturbing color spots in dark portions of the image.

In addition to the two conventional TIFF and JPEG compression steps, images can also be stored as **raw data** in the standardized Adobe Digital Negative Format (DNG). The raw data files can be opened with conventional image manipulation programs. To this end, Leica supplies Adobe Photoshop Elements 3 for Macintosh and Windows with the LEICA DIGITAL-MODUL-R. With that program, all the image formats of the DMR can be managed, opened, manipulated and printed. There is also the additional possibility of downloading the very latest version of the Imacon FlexColor software for processing raw data.



Behind the camera – a built-in future Leica already provided an interface for the digital world at a very early stage : All LEICA R8 and R9 models since 1996 are compatible with the LEICA DIGITAL-MODUL-R. It is a matter of course that the practical and simple way of operating the camera is preserved.



Setting dial and data display All photographic parameters are selected by means of a setting dial and shown on the data display.



Keys : Play/Delete/Protect/Info You can evaluate your results quickly and directly after the exposure. The most important functions, such as displaying pictures, deleting, protecting special results, as well as the technical evaluation via histogram, can be accessed directly by means of the operating elements, without having to change to a menu. The histogram provides detailed information about the exposure, thus making differentiated image analysis possible.



Cross Keys/Menu/OK/OFF These keys serve for the quick navigation of the clear menus and for the selection and enlargement of exposed images. The menu functions on the monitor serve primarily for the basic configuration of the LEICA DIGITAL-MODUL-R (such as user profile, color management, monitor brightness and contrast).



Monitor Images stored after the exposures can be evaluated very effectively on the 1.8" color monitor with its 130,388 pixels. The zoom function provides enlarged views of cropped portions of the image.



Battery Energy is supplied by a high performance 1800 mAh, 7.4 Volt lithium-ion battery that was developed especially for the LEICA DIGITAL-MODUL-R. Like the charger, it is included with the module and it can be fully recharged in approximately 110 minutes.

All the relevant settings, such as resolution, compression or white balance can be controlled by means of a setting dial on a clearly legible data display. After the exposure, stored images can be evaluated on the color monitor. A histogram provides detailed information about the dynamics of the pictures. Aside from balanced exposures, an acoustic histogram also signals over- and under exposures. That enables the photographer to retain control of the exposure without having to take the camera away from the eye during exposure sequences. A professional joy and a high-carat technology that will still have a future tomorrow.

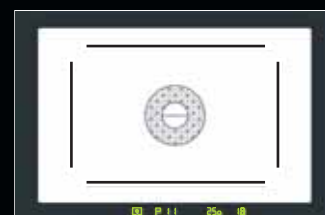
Storage card The fast Ultra II SD card with its capacity of 512 MB that is supplied with the LEICA DIGITAL-MODUL-R can either store up to approximately 70 images in the best JPEG quality, or 16 images in the TIFF format, or 24 images in the RAW format. At present, you can use cards with a storage capacity of up to 2 GB. As soon as cards with greater capacity become available on the market, you will be able to use them as well, after a firmware update.



FireWire interface The IEEE 1394 FireWire interface (FireWire 400) that is used in the LEICA DIGITAL-MODUL-R permits a fast image transfer to your PC or Mac. The FireWire cable that is supplied with the module, in combination with our FlexColor software, enables you to operate the camera conveniently from your computer. In that mode, your hard disc takes over the function of the SD storage card.



Camera viewfinder A focusing screen developed especially for use in conjunction with the LEICA DIGITAL-MODUL-R enables you to control the exact cropping of your picture and, like the Leica rangefinder camera, it allows you to observe the scene just outside the borders of that cropping. Therefore, that focusing screen can remain in the camera when the latter is being used with film.



Selector dial for exposure modes and shutter speeds All photographic settings, such as aperture, shutter speeds, or the choice of the exposure mode, are made by means of the classic operating elements of the LEICA R8 or R9. With the LEICA DIGITAL-MODUL-R in place, you can make full use of all the functions of the LEICA R8 or R9 in the familiar manner.



Shutter release Ergonomically positioned additional shutter releases make it easy to work very comfortably with vertical as well as horizontal formats. To prevent unintentional triggering of the shutter, the release for the vertical format can be blocked individually.



The exposure : designed to master any situation The LEICA R9 makes it easy for you to react appropriately to the most diverse lighting situations. This is assured by an extremely sensitive metering system with three specific exposure-metering modes. Whether you opt for an intelligent, fully automatic determination of a balanced exposure or whether you wish to control this process yourself – the LEICA R9 provides you with a free choice.

Multi-pattern metering

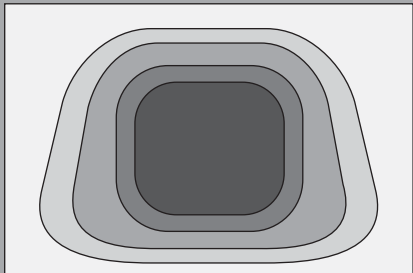
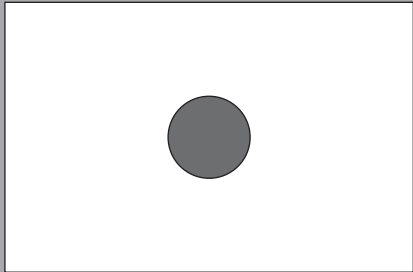
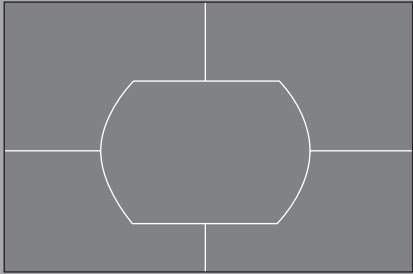
Multiple pattern metering automatically analyzes the prevailing light conditions and derives an optimal exposure from the results. The brightness values of six different sections are measured and stored separately. The values are then assigned to preprogrammed subject types that are coupled with prescribed control instructions. The individual sections are then weighted and coordinated with the full subject area. The compelling result : exposures that are always well balanced, even in extreme contrast situations, above and below average brightness conditions or unusually positioned main subjects. And since different film types require tailored exposure settings (short exposures for transparencies, ample exposures for negatives), the LEICA R9 provides an innovative solution : the exposure level of the multiple pattern exposure metering mode can be adjusted in tenths of a step to suit your individual wishes at any time.

Selective metering

Selective metering with the LEICA R9 is likely to be the first choice for all those photographs that pose a genuine challenge : back-lighted situations or subjects with extreme contrasts. Selective metering covers a narrowly limited subject area. The exposure value determined by this precise metering method can be stored by gently pressing the shutter release button to the first pressure point and holding it there until you have found your optimal composition. The shutter speed or the aperture settings can, of course, still be changed, because the camera will automatically compensate the second setting to maintain the metered exposure value.

Integral metering

Integral metering is suitable primarily for balanced light situations. In this mode, the entire subject is center-weighted and metered – an optimal solution for subjects that are centered anyway. Integral metering is of practically universal application, you retain control of the exposure. That is why it is particularly appropriate for specific over-rides : over- or under-exposures by means of plus or minus corrections. The over-ride switch can be activated safely even while the eye is at the viewfinder.



The programs : ready for any situation Versatile photographers require a camera that can master any subject – after all, no two subjects are alike. The exposure control of a camera too, needs this flexibility. That is why the LEICA R9 offers four different operating modes, all of which can readily be combined with the three metering



P – Variable automatic program mode Many attractive subjects require a quick reaction. Those are perfect situations for the variable automatic program mode of the LEICA R9, because it spontaneously and instantly makes the correct exposure settings. Once you have made the basic setting with the shutter speed dial on the neutral position P, for instance, every subject is immediately assigned an appropriate combination of shutter speed and aperture. But the variable automatic program mode is much more than a snapshot program: by turning the shutter speed dial, you can change the shutter speed and aperture combination established by the camera at any time to suit the desired pictorial effect. Thus the variable automatic program mode very conveniently takes care of “freezing” a fast-moving subject or deliberately reducing the depth of field. It is particularly easy to use the variable automatic program in conjunction with the multi-pattern metering. And the P-mode also lets you use automatic flash illumination – for a particularly well-balanced combination of flash and ambient illumination.

T – Shutter speed priority automatic exposure control Subjects in motion offer numerous creative possibilities. One of the technical conveniences for this purpose is the shutter speed priority automatic exposure mode of the LEICA R9. You can use it to determine the effect of your action shots. By pre-setting the shutter speed, for instance, you can opt for a sharp, frozen image of the subject, but you can also use it to create a dynamic movement effect. The camera will automatically form the right aperture for the shutter speed you selected.



methods. Whether you employ one of the user-friendly automatic modes or a very personal setting is entirely up to you. The fact that the operating mode selector dial can be locked ensures that your setting will be retained, so that you can start making exposures in the selected mode at any time.



A – Aperture priority automatic exposure control Depth of field is one of the most important creative elements in photography. While you concentrate on the choice of just the right aperture for your photograph, the aperture priority automatic exposure control of the camera sets the correct shutter speed. That enables you to choose : small aperture and great depth of field, as you would want it for landscape photography, for instance. Or a large aperture that makes the subject stand out clearly from the background, for example in portraiture. On the LEICA R9, you can use the preview lever to evaluate the depth of field directly through the viewfinder. And thanks to HSS (High Speed Synchronization) you can now use flash with all shutter speeds.



m – Manual operation When you are working under unusual light conditions and you wish to capture a very special mood, the manual setting of the LEICA R9 is the ideal solution. With this mode, you can set both the shutter speed as well as the aperture yourself, and you can change them in half steps. By using the selective metering mode, you can control the exposure very precisely.



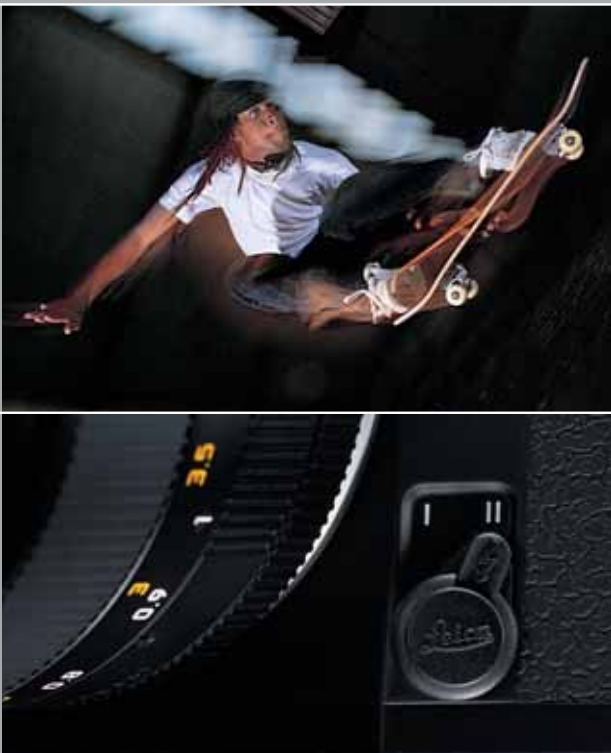
Using flash : Light does not equal light The flash exposure control of the LEICA R9 enables you to achieve any desired lighting mood. It determines the particular individual flash intensity and automatically and precisely balances the flash with the surrounding ambient illumination. When film is being used, the applications are especially versatile.

Metering during the exposure Flash illumination is metered through the lens. With dedicated flash units (SCA-3000/3002 Standard with SCA-3501-3502 Adapter or LEICA SF 24D), this takes place in the center-weighted integral mode. You can choose one of several modes in order to take advantage of different creative possibilities : The variable automatic program mode measures the ambient light and tailors the flash intensity to it in a pleasing manner. With the shutter speed and aperture priority automatic exposure control modes or in manual operation, you can preset the shutter speed or the aperture and enter the corrections of the amount of flash for the desired pictorial effect at the SCA adapter or, in the case of the Metz 54 MZ3 flash unit, directly at that flash unit. These operating modes only apply when film is being used.



High-speed flashes With its High-Speed-Synchronization (HSS) feature, the LEICA R9 permits super-fast flash exposures with all shutter speeds up to 1/8000 second (in conjunction with an HSS flash unit like the Metz Mecablitz 54 MZ-3 and Adapter SCA 3502 M3). By triggering numerous flashes in very fast succession, the effect comes very close to that of a constant light source that uniformly illuminates the entire image area. This makes it possible, for instance, to achieve a fill-flash effect in portraits being taken in sunshine with a wide-open aperture. The flash exposure is determined by means of a pre-flash with selective metering of the main subject. Depending on the subject brightness, the LEICA R9 determines whether normal or HSS flash is needed for perfect illumination. As long as the camera's electronics are activated, the result of the pre-exposure metering remains stored independently of the result of the ambient light metering, so that the desired cropping can be chosen freely after that measurement has been stored. In addition to the application with film, this operating mode also permits precise flash exposures with through-the-lens light metering in conjunction with the LEICA DIGITAL-MODUL-R.

Metering before the exposure With the LEICA R9, flash exposure can also be metered before making the actual exposure. The metering in this case is selective, i.e. it is limited to the part of the subject outlined by the circle in the center of the viewfinder image. This makes it possible to tailor the flash illumination specifically to a particular detail of your subject. Flash brightness is metered by means of a pre-flash directed at the subject to be photographed. The result is shown in the over- and under exposure reading in the back cover display and it can be corrected quickly by manually selecting the appropriate aperture. Brightness of the entire subject is subsequently measured in one of the three metering modes, and then the actual exposure is made. The selective flash mode F thus leads to perfectly balanced pictures in conjunction with an external flash unit. This operating mode functions well with the classic application of film and also with the LEICA DIGITAL-MODUL-R.

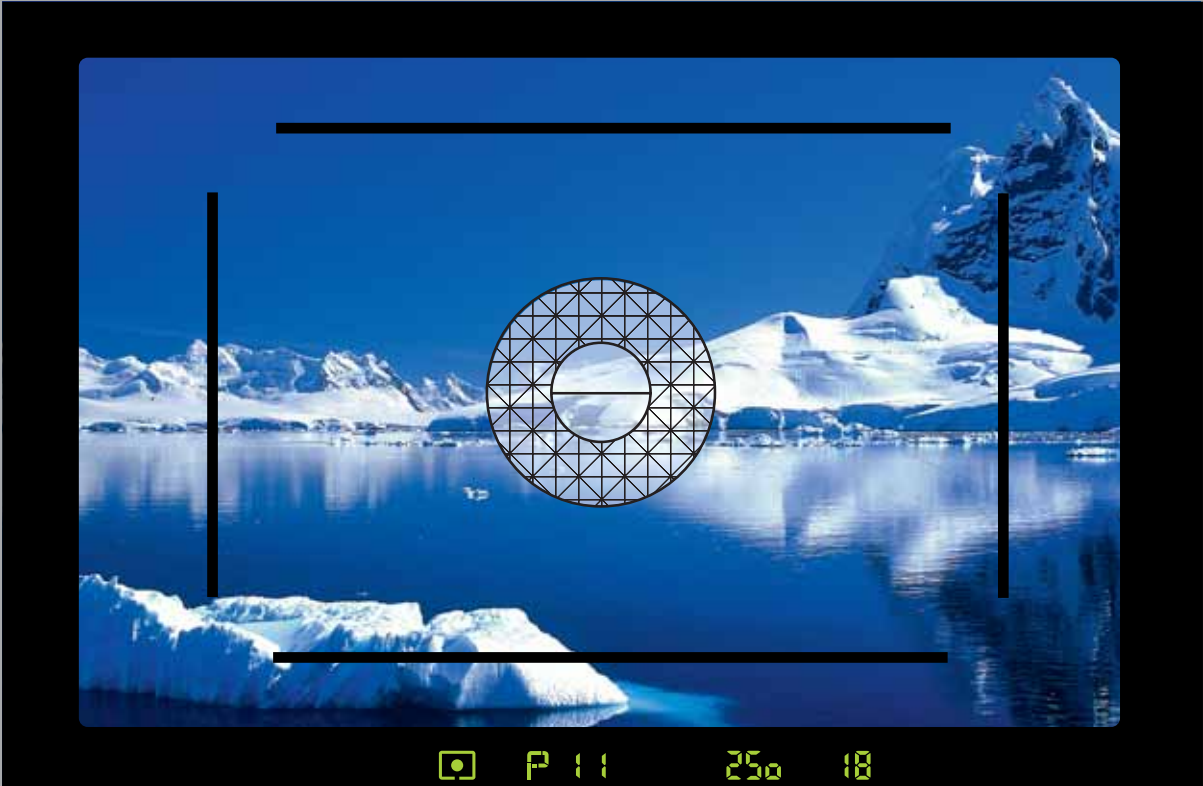
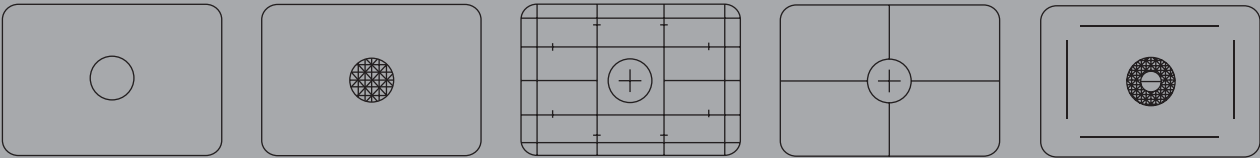


First or second shutter curtain You can always set the timing of flash synchronization yourself by using the respective lever position. This determines whether the flash is triggered at the beginning of the exposure as usual, or whether it is fired at the end of the exposure. These two modes can often render the very same subject quite differently. When the flash is triggered at the end of the exposure (i.e. synchronized with the second shutter curtain), moving subjects are depicted more realistically. This effect becomes all the more dramatic with long exposure times.

The viewfinder : everything bright and under control

The bright and contrasty viewfinder image showcases the imaging quality of Leica R lenses with full brilliance. And the viewfinder displays of the LEICA R9 provide you with all the relevant information at a glance.

Finding rather than searching A single LCD line below the viewfinder image of the LEICA R9 provides a clear, unobtrusive overview of, among other things and depending on the operating mode : exposure number, operating mode, metering method, light balance with manual exposure setting, flash readiness as well as the aperture-and-shutter-speed combination, etc. With zoom lenses that have a focal-length-dependent aperture range, the actual aperture is shown in the viewfinder display in steps within the respective aperture range. The high-eyepoint viewfinder itself is very impressive because of its absolutely brilliant and contrasty image. Even under unfavorable light conditions, it provides a bright, dimensional image of every subject and all its nuances, exactly as you see it. And it does so all the way into the corners of the focusing screen – without your having to press your eyes to the eyecup. The latter can be locked in place, so that it cannot become lost. Another practical feature is the stray light prevention by means of an integrated blind that can be used during time exposures to prevent light from entering through the eyepiece. A compelling argument on behalf of eyeglass wearers is the built-in diopter compensation of ± 2 diopters, which allows the eyepiece to be adjusted exactly to the user's eyesight in half steps. Thus the photographer has the option of using the camera while wearing eyeglasses or not. The LEICA R9 is normally equipped with an interchangeable universal focusing screen (ground glass screen with microprism ring and wedge). Four additional focusing screens are available as accessories : uniform ground glass screen, microprism focusing screen, uniform ground glass screen with grid divisions, clear glass screen with cross lines. These screens are also available with a special frame that delineates the area covered by the LEICA DIGITAL-MODUL-R.



The illustration shows the universal focusing screen with the frame that delineates the area covered by the LEICA DIGITAL-MODUL-R (this screen is supplied with the Digital-Modul-R). Advantage : The area surrounding the portion of the subject that is being covered remains visible. This screen can remain in the camera when the digital back is being used with film.

Maik Scharfscheer, born in 1964, studied visual communication and photography. After spending two years as a freelance photographer in Paris, his living- and working base is now in Germany. His work for editors, advertising agencies and enterprises, particularly in the field of music, has taken him all over the globe. For Leica Camera AG he photographs the noted image campaign entitled “Hands”. He is one of the first photographers to test the new LEICA R9 with the Digital-Modul-R.

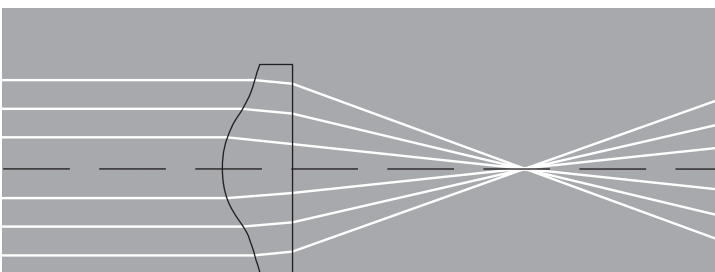




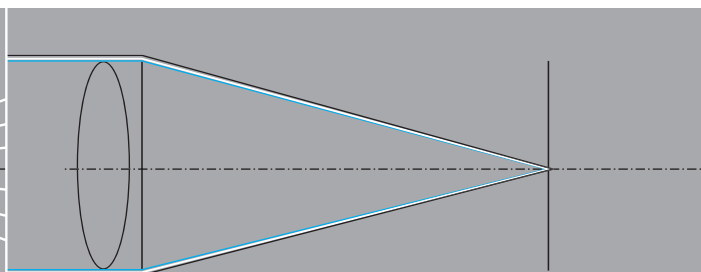
“The world offers an enormous wealth of images, impressions and ideas. Photographing means excerpting a very personal part of this reality and using it to make a clear aesthetic statement. With the LEICA R9 I can decide spontaneously whether I wish to do so with film or with digital imaging without having to change cameras, i.e. now I can also use my Leica lenses for digital photography.”

Maik Scharfscheer

Simply sharp Leica lenses are legendary masterpieces. The optical glasses used in Leica lenses are produced in accordance with special formulas, ground to clear perfection, meticulously polished, coated with extremely precise layers and repeatedly centered. In a synthesis of continually refined software and the long-time experience of highly specialized designers, Leica optics have been computed with the aid of electronic data processing systems since the fifties. These superb lenses stand out because of their imaging quality, which always receives top ratings in specialized tests and which are unequalled internationally. And Leica photographers benefit from yet another exclusive advantage, a special feature that only Leica offers worldwide : The specific parameters of every current R lens (not just the general parameters of a given lens type) are measured individually and programmed into the ROM module of each lens, so that they can be communicated to the camera by means of appropriate contacts. This enables the LEICA R9 to conform precisely to true focal lengths and apertures in order, for instance, to control flash exposures accurately. With the LEICA DIGITAL-MODUL-R this unique quality now also benefits digital images. The high resolving power of lenses and the special design of the LEICA DIGITAL-MODUL-R also ensure perfect imaging results in the critical edge areas of the pictures.



Aspherical lens elements (ASPH.) have a surface that deviates from the standard spherical shape. Leica employs such lens elements to raise the imaging performance. They are extremely costly to manufacture, but they do provide high imaging performance and compact designs.



Apochromats (APO) Leica applies apochromatic correction to telephoto lenses in order to converge the color spectrum to a point, so as to achieve the highest sharpness, even at full aperture and across the entire image area.

Objectively fascinating ...



Wide-angle focal lengths

LEICA SUPER-ELMARIT-R 15 mm f/2.8 ASPH.

Compact super-wide-angle lens with a 111° diagonal angle of view, ideal for photographs of buildings and for pictures in tight rooms. Very low distortion, excellent detail rendition across the entire image area and high contrast distinguish this top-flight lens. The integral lens hood minimizes internal reflections and the built-in filter revolver contains four different filters.

LEICA ELMARIT-R 19 mm f/2.8

Very high contrast, perfect reproduction of the finest details and ample imperviousness to stray light even at full aperture emphasize the versatility of this wide-angle lens. Reportage, fashion, architecture and dramatic landscape perspectives are its strengths. A built-in filter revolver comes with four different filters.

LEICA ELMARIT-R 24 mm f/2.8

A lens for photographs that are impressive for unconventional perspectives but that do not necessarily give the impression that a super-wide-angle lens was used. Particularly suitable for spontaneous close-ups with a dynamic relationship between the main subject and its surroundings that results from the combination of a large angle of view, large aperture, and very good imaging performance, even at full aperture. Equipped with a lens hood and filter holder.

LEICA ELMARIT-R 28 mm f/2.8

A classic wide-angle lens that features all the typical Leica qualities. Sharpness and contrast are exemplary already at full aperture, all the way to the edges of the image. They can be enhanced only slightly by stopping down the aperture. A floating element maintains this plasticity all the way to the near-focusing limit of 30 cm (12"). Its compactness, speed and wide-angle characteristics make this lens a companion for universal applications. Integrated lens hood.



Standard focal lengths

LEICA SUMMILUX-R 50 mm f/1.4

A high-speed lens with very rich contrast and high imaging performance across the entire focusing range. With the aperture set at f/1.4 the shallow depth of field can be used creatively in the composition of the picture. A standard focal length with the best working characteristics and flexibility because of its high speed and its compact dimensions.

LEICA SUMMICRON-R 50 mm f/2

A very versatile standard lens with outstanding imaging quality. In spite of the high speed, its sharpness, contrast and detail resolution are already outstanding at full aperture. With its low weight of only 300 grams (10.6 ounces) and its length of 41 mm (1 5/8 in) it is remarkably handy and compact. Integrated lens hood.

Short tele focal lengths

LEICA MACRO-ELMARIT-R 60 mm f/2.8

Very good image quality in the close-up range, great sharpness and excellent detail fidelity – the LEICA MACRO-ELMARIT-R is impressive, not only in macro photography, but also in all applications that require these strengths. Its practical focal length makes it a versatile alternative to 50 mm lenses. In combination with the LEICA MACRO-ADAPTER-R, it can be used for a 1:1 reproduction ratio.

LEICA SUMMILUX-R 80 mm f/1.4

Minimal vignetting, moderate contrast, uniform imaging performance across the entire picture area and very good rendition of fine structures. It is impervious to unwanted reflections, even with high lighting contrasts and at full aperture. Delicate tonal rendition and gentle unsharpness transitions. Integrated lens hood.



LEICA PC-SUPER-ANGULON-R
28 mm f/2.8

This special lens allows perspective corrections (PC) by shifting the optical system by up to 11 mm from the axis in any direction. This makes it possible to eliminate converging lines, especially in interior- and in architectural photographs. A preview lever makes it easy to close the aperture to the pre-selected value. Floating element for the best image quality all the way to the near-focusing limit of 30 cm (12").

LEICA SUMMILUX-R
35 mm f/1.4

This lens is destined for reportage applications in extremely poor light conditions. It is impressive for its outstanding imaging performance with subjects that include strong contrasts, it yields a very good sharpness impression and it is also hardly affected by stray light. "Floating elements" produce an outstanding image reproduction, even in the near-focusing range. Integrated lens hood.

LEICA SUMMICRON-R
35 mm f/2

Compact all-around lens with low vignetting, minimal distortion and very good stray light prevention. Ideally suited for vivacious snapshots and a dimensional, natural rendition of large subjects – in other words, whenever the use of a normal focal length would result in perspectives that are too tight. Integrated lens hood.



LEICA APO-SUMMICRON-R
90 mm f/2 ASPH.

An aspherical lens surface and optical glasses with anomalous partial dispersion lead to outstanding imaging performance. Brilliance and high resolving power, even at full aperture and across the entire picture area. The extra-bright viewfinder image allows accurate focusing. The Extender-R 2x transforms it into a useful telephoto combination : 1:4/180 mm. Integrated lens hood.

LEICA APO-MACRO-ELMARIT-R
100 mm f/2.8

Sharpness and contrast, vignetting and distortion are exemplary at all focusing distances, even at full aperture. Applications of this lens go far beyond macro-photography. Thus it also produces brilliant results in situations that are typical for medium telephoto lenses. When it is used in combination with the LEICA ELPRO 1:2–1:1 that was designed specifically for use with this lens, the macro

range can be extended to a reproduction ratio of 1.1:1. Integrated lens hood.

... getting very close



Medium to super telephoto focal lengths

LEICA APO-SUMMICRON-R 180 mm f/2

This extremely fast telephoto lens with apochromatic correction delivers flawless imaging quality all the way to the edges of the picture – and that from infinity to the near-focusing limit of 1.5 m (59 in) ! At full aperture, it already produces images with maximal contrast, highest resolution and well differentiated color rendition. Thanks to its rubber-armored lens hood, the lens is protected effectively from impact damage. It is the ideal telephoto lens for situations with predominantly poor light conditions and when large distances have to be bridged. Selective sharpness produces pictures with a unique dimensional depth effect, and the combination of a wide focusing ring and internal focusing allows silky-smooth, extremely accurate focusing. Because of its robust rotating and lockable tripod mount, the lens can be used very comfortably on a tripod. Integrated lens hood, protective front lens filter, filter drawer and eyelets.

LEICA APO-ELMARIT-R 180 mm f/2.8

The overall imaging performance of this apochromatically corrected 180 mm lens can readily be compared with that of the faster LEICA APO-SUMMICRON-R 180 mm f/2. Even at full aperture, it distinguishes itself because of its outstanding imaging performance, which can be enhanced only very little by stopping down the aperture. Coma, vignetting, astigmatism and curvature of field are negligible. The rubber-armored lens hood protects the lens effectively against damage from impacts. As a lightweight and compact lens in this focal length, it is very good for portraiture and for sports and landscape photography – because it can also be used effectively without a tripod. The combination with the LEICA APO-EXTENDER-R 1.4x produces a particularly effective 250 mm f/4 lens.

LEICA APO-TELYT-R 280 mm f/4

This apochromatically corrected lens with internal focusing is distortion-free and it delivers the highest resolution and optimal contrast rendition over the entire focusing range – even at full aperture. The rubber-armored lens hood protects it from impact damage. When used on a tripod, it is an ideal lens for nature photography. But thanks to its compact dimensions, it is also easy to use for handheld photography. It focuses down to 1.7 m (67 in) for a reproduction ratio of 1:5. When it is coupled to the LEICA MACRO-ADAPTER-R, it becomes an effective macro lens. The LEICA APO-EXTENDERS-R 1.4x and 2x turn it into high performance 400 mm f/5.6 and 560 mm f/8 telephoto lenses, respectively. Integrated lens hood, filter drawer and eyelets.

Flexible combinations The LEICA APO-TELYT-R Module System covers the range of focal lengths from 280 to 800 mm, and the LEICA APO-EXTENDER-R 2x even increases that range to 1600 mm ! This system neatly replaces heavy individual lenses with fixed focal lengths. Two lens heads and three focusing modules can very quickly and neatly be combined into six APO lenses with uniformly highest optical quality. In the telephoto range especially, this system produces uncommonly clear pictures with high contrast and absolutely accurate detail and color rendition. And because even the smallest mechanical weaknesses in this range can significantly degrade the optical performance, the Leica Module System is fabricated and assembled with extremely tight tolerances. Especially nature and animal photographers, who use several focal lengths in this range, will appreciate this unique system : perhaps because the combination of one lens head and two or three focusing modules saves precious space, or because the silky-smooth and easy focusing with these modules greatly enhances the “pop-up sharpness” effect in focusing.



... and extremely variable



Zoom focal lengths		
LEICA VARIO-ELMAR-R 21–35 mm f/3.5–4 ASPH.	LEICA VARIO-ELMAR-R 35–70 mm f/4	NEW LEICA VARIO-ELMARIT-R 28–90 mm f/2.8–4.5
<p>This wide-angle zoom lens is very compact because it employs two aspherical surfaces, one of which is, for the first time, produced by grinding and polishing a concave surface. The image quality corresponds to that of lenses with equivalent fixed focal lengths: very high contrast, the finest details, neutral and saturated colors, very low sensitivity to stray light and uniform performance across nearly the entire picture area at all distances. Ideal for tasks that would otherwise require the use of up to four different focal lengths : from photographing a person to covering a broad landscape.</p>	<p>Because it incorporates an element with an aspherical surface, this lens is at the very least as good as any lenses with equivalent fixed focal lengths in terms of contrast and imaging quality. With its excellent gradation in shadow and high-light areas, it is especially suitable for subjects with strong lighting contrasts. Its macro setting permits close-up photographs down to 26 cm (10 1/4 in), which corresponds to a reproduction ratio of 1:2.8. It is a very convenient universal zoom lens that covers all the classic focal lengths. All these features make it an indispensable standard lens in the Leica R system.</p>	<p>This compact zoom lens, with more than three-fold spread of focal lengths, shines with performance results that are normally achieved only by lenses with fixed focal lengths. The most modern optical technologies were employed and as a result, sharpness, resolving power and contrast rendition are already outstanding at full aperture. As a genuine universal lens, it offers versatile creative possibilities, ranging from typical wide-angle characteristics all the way to portrait capabilities. Those who like uncomplicated photography and lightweight baggage will find this high performance lens to be an ideal travel companion. Integrated lens hood.</p>



LEICA VARIO-ELMARIT-R 28-90 mm f/2.8-4.5 set at 28 mm



LEICA VARIO-APO-ELMARIT-R
70–180 mm f/2.8

A particularly complex zoom lens with 13 elements in 10 groups that include 12 different types of optical glasses – five of which have anomalous partial dispersion. This apochromatically corrected zoom lens does not need to shy away from comparisons with lenses with equivalent fixed focal lengths : very high contrast and clear differentiation, even of fine color gradations at all focal lengths and across the entire image area, all the way into the close-up range. Its application possibilities are virtually unlimited : stationary as well as moving subjects that require quick or careful changes of cropping. Integrated lens hood, tripod socket, eyelets for a carrying strap.

LEICA VARIO-ELMAR-R
80–200 mm f/4

Very good imaging performance with high resolution and contrast already at fully open aperture, across the full picture area and over the entire range of focal lengths – that is a brief description of this lens, which can also measure up to the best fixed focal length lenses. Its compact dimensions, its light weight and its smooth focusing make this zoom lens a versatile travel companion. In combination with the Leica 21-35 mm and the 35-70 mm zoom lenses, both of which render nearly identical, uniform image quality, a practically continuous 1:10 range of focal lengths is achieved.

LEICA VARIO-ELMAR-R
105–280 mm f/4.2

High contrasts and the best resolving power across the entire range of focal lengths, outstanding field flatness and low coma that can be eliminated completely by reducing the aperture by one stop – these are the features of this lens. Thanks to its range of focal lengths and its shortest focusing distance of 1.7 m (67 in), it offers great flexibility for medium and longer focusing distances. With Leica Extenders, this lens, which compares well with lenses with fixed focal lengths, with only a few twists of the wrist becomes a universally applicable optical telephoto system. Integrated lens hood.

LEICA VARIO-ELMARIT-R 28-90 mm f/2.8-4.5 set at 90 mm



Useful items for your Leica R outfit

Practical accessories expand your latitude in picture composition, they open new fields of application, or they simply make picture-taking more pleasurable and more convenient.



LEICA SF 24D flash unit for R8/R9. With two diffusion attachments (for 24-28 mm and 85 mm focal lengths), and velvet pouch. **Connection** Automatic operation with Leica R and M cameras with central contacts (hot shoe). **Guide no.** 24 (metric), 79 (feet). **Functions** Exposure can be varied by ± 3 aperture stops ; Angle of illumination covers up to 35 mm, with the wide-angle diffuser up to 24 mm, with the telephoto diffuser from 85 mm and higher ; 6 automatic apertures in the A mode : 2.0/2.8/4.0/5.6/8/11. **Displays** Settings and corrections can be read in the illuminated LCD display ; Successful flash indicator in the viewfinder of the R8/R9, M7 and M6 TTL ; Film speeds in the m mode from ISO 12/12° to 3200/36°, in the A/TTL/GNC modes from ISO 25/15° to ISO 800/30°. **Power supply** 2 lithium batteries 3 V, Type 123 A. **Dimensions** (W x H x D) : 66 x 109 x 40 mm (2 5/8 x 4 1/4 x 2 1/8 in). **Weight** approx 180 g (6.3 oz) (without batteries). Black and titanium color. **Order No. 14 444**



Right-angle finder For pictures taken from any position – be they pictures taken inconspicuously “around the corner” or pictures taken from a worm’s eye perspective, looking into the finder from above. The viewfinder image can be switched to a 2 x magnification. **Order No. 14 300**

Telescope ocular LEICA TO-R With this ocular, Leica standard, telephoto or zoom lenses can quickly be converted into telescopes with different focal lengths. In combination with a 90 mm lens, it produces a magnification of 7.2 x ; with a 180 mm lens it creates a 14.4 x magnification. Focusing is performed with the lens’ focusing mount. **Order No. 14 234**



LEICA MOTOR-WINDER R8/R9 If you prefer to let your LEICA R9 advance the film, cock the shutter and rewind the film... The winder is attached to the base of the camera and it blends harmoniously with its style. Exposure series of up to 2 frames per second are possible. The Motor-Winder functions extremely quietly. **Order No. 14 209**



LEICA POWER PACK MW-R8/R9 for Motor-Winder R8/R9. Alternative power supply with built-in NiCd batteries, for prolonged use or for use in cold temperatures ; with tripod socket. **Order No. 14 250 ***



Charger for LEICA POWER PACK MW-R8/R9 For any mains voltage : **Order No. 14 416**
For 230 V only : **Order No. 14 412**



LEICA MOTOR-DRIVE R8/R9 A high performance drive that creates an exceptionally well-balanced unit when coupled to a LEICA R9. Its perfect ergonomics, the integrated wrist strap and its two separate release buttons for vertical and horizontal exposures lend the unit an incomparable handiness in any position. It features the choice of single frame advance or exposure sequences of up to 2 or 4 1/2 frames per second. Automatic exposure series (bracketing) are possible with 3 exposures in 1/2 EV or 1 EV steps. Available as a set that includes a high-power battery pack and a universal fast battery charger. **Order No. 14 430** (set with an Euro cable) *

Battery pack MD-R8/R9 For LEICA MOTOR-DRIVE R8/R9, NiMH Battery Pack **Order No. 14 423**



Table-top tripod Compact, practical and stable. An indispensable accessory for long exposure times. With a 1/4" tripod thread and three legs that fold together. **Order No. 14 100**



Large ball-and-socket head with A 1/4 tripod thread, DIN 4503 (1/4"). **Order No. 14 110**

Ever-ready cases Made of elegant supple black leather. Ever-ready case for a LEICA R9 with attached lens up to the size of the LEICA VARIO-ELMAR-R 35-70 mm f/4. **Order No. 14 528 ***
Ever-ready case for a LEICA R9 with attached lens and attached Leica Winder.
Order No. 14 527 *



Focusing screens for LEICA R8/R9

- | | |
|--|---------------------------|
| Universal focusing screen (as an accessory) | Order No. 14 343 * |
| Uniform ground glass screen | Order No. 14 344 * |
| Microprism screen | Order No. 14 345 * |
| Uniform ground glass screen with grid division | Order No. 14 346 * |
| Clear glass screen with cross-lines | Order No. 14 347 * |

With outline of the subject area covered by the LEICA DIGITAL-MODUL-R

- | |
|-------------------------|
| Order No. 14 392 |
| Order No. 14 393 |
| Order No. 14 394 |
| Order No. 14 395 |
| – |

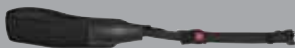
Correction lenses for LEICA R8/R9

+1,0 diopter **Order No. 14 380**, +2,0 diopters **Order No. 14 381**, +3,0 diopters **Order No. 14 382**,
- 1,0 diopter **Order No. 14 383**, - 2,0 diopters **Order No. 14 384**, - 3,0 diopters **Order No. 14 385**

Large eyecup for LEICA R8/R9
(also serves as the correction lens holder)
Order No. 14 217



Neoprene carrying strap
Order No. 42 162



Cable release, 25 cm (10") long, with locking screw. Order No. 14 067
Cable release, 50 cm (20") long, with locking screw. Order No. 14 076



Remote control LEICA R8/R9 Electronic control unit for remote shutter release. Only functions in conjunction with the Motor-Winder, Motor-Drive and LEICA DIGITAL-MODUL-R. **Order No. 14 202**



Electric release switch LEICA R8/R9 For activating the LEICA R8/R9, with pressure point switch button, threaded connector plug, 30 cm (12") cable, for use with Motor-Winder R8/R9, Motor-Drive R8/R9 and LEICA DIGITAL-MODUL-R. **Order No. 14 254**



Electric cable release LEICA R8/R9
Cable 5 m (16 1/2 ft) cable, with threaded connector plug, for use with Motor-Winder R8/R9, Motor-Drive R8/R9 and LEICA DIGITAL-MODUL-R. **Order No. 14 255**



Extension cord for electric release switch and electric cable release, with threaded connector plugs, can be combined for lengths up to 100 m (328 ft). **Order No. 14 275**

* Not suitable for use with the LEICA DIGITAL-MODUL-R

Lens Accessories

Special equipment enables you to make first-class close-ups or extends the focal lengths of your lenses in an economical manner.



LEICA ELPRO 1:2-1:1 for APO-MACRO-ELMARIT-R 100 mm f/2.8 This close-up attachment, which was computed especially for this lens, enables you to achieve a reproduction ratio of up to 1.1:1.
Order No. 16 545



LEICA ELPRO Close-focusing attachments These two attachments significantly expand the focusing range of your lenses in the close-up range and they increase the imaging quality even further. They are available for the LEICA SUMMICRON-R 50 mm f/2 as well as for the no longer available LEICA ELMARIT-R 90 mm f/2.8 and the LEICA ELMARIT-R 135 mm f/2.8.
LEICA ELPRO 1 **Order No. 16 541**, LEICA ELPRO 2 **Order No. 16 542**



LEICA MACRO-ADAPTER-R This intermediate ring increases the extension of R lenses by 30 mm (1 3/16"). Exposure metering at full aperture and the automatic iris diaphragm function are maintained. Aperture-priority automatic exposure control as well as manual control of shutter speed and aperture on Leica R models remain fully functional. **Order No. 14 299**



LEICA APO-EXTENDER-R 2 x Suitable for Leica R lenses with focal lengths of 50 mm and higher and maximum apertures of f/2 or smaller. When used in conjunction with Leica APO lenses, the high imaging performance of the latter remains fully preserved. The LEICA APO-EXTENDER-R 2 x has a fully automatic diaphragm coupling so that it can be used without restrictions in the aperture priority automatic exposure control mode as well as the manual control mode. **Order No. 11 269**



LEICA APO-EXTENDER-R 1.4 x This handy lens attachment lets you increase the focal length of a lens by a factor of 1.4 x. The respective closest focusing distance remains unchanged and the aperture is reduced by only one f-stop. Fully automatic iris diaphragm coupling. We will be pleased to inform you of the lenses that can be used with in combination with the LEICA APO-EXTENDER-R 1.4 x.
Order No. 11 249



LEICA PHOTAR lenses and LEICA PHOTAR-ADAPTER-R Three special lenses for use with the LEICA PHOTAR-ADAPTER-R on the Focusing Bellows R BR 2. Corrected for magnified images. With their practically continuous magnification range of up to 18 x, you can explore the fascinating field of micro-photography. LEICA PHOTAR-ADAPTER-R **Order No. 14 259**



Focusing bellows R BR 2 Variable extension for stepless changes in the reproduction ratio. Integrated focusing carriage. The automatic iris diaphragm function of the lens is preserved, so that the aperture priority automatic exposure control mode as well as the manual control of shutter speed and aperture can be used. All Leica R lenses from 50 mm to 180 mm as well as the special LEICA PHOTAR lenses can be used on the Focusing Bellows. **Order No. 16 880**

Filters Especially designed high-grade filters are available for nearly all Leica R lenses. They effectively protect the front elements of the lenses against damage. Leica circular polarization filters increase color saturation and prevent unwanted reflections on all non-metallic surfaces.

Leica R Entry Set



It has never been so easy to enter the world of Leica photography : The Entry Set consists of a LEICA R9 in classic black finish, equipped with the high-grade LEICA VARIO-ELMAR-R 35-70 mm f/4 lens for a very attractive set price. The universal zoom lens covers the classic focal lengths and it stands out for its very high contrast and an outstanding image reproduction quality. With its excellent gradation in shadow and highlight areas, it is particularly well-suited for subjects with broad lighting contrasts. Thanks to its macro setting, it can be used for close-up photographs as near as 26 cm (10 1/4 in). All these features make it an indispensable stand-ard lens. The combination with the LEICA R9 camera is the ideal basis for all who wish to explore the advantages of the Leica R system. **Order No. 10 096**

Technical Data



Camera	LEICA R9
Order No.	Anthracite finish : 10 090, Black finish : 10 091
Camera type	Microprocessor-controlled, manually focusing 35 mm single lens reflex camera with multiple automatic exposure control modes. Accepts motorized accessories.
Lenses	Attaching the lenses Leica R bayonet with added electrical contacts ; all Leica R lenses as well as earlier LEICAFLEX SL/SL2 lenses that have subsequently been fitted with the R control cam can be used. Lens system Leica R lenses from 15 mm to 800 mm.
Exposure metering methods	Selective metering 7 mm diameter metering field, outlined in the viewfinder. Multi-pattern metering 6 fields ; the exposure level in the multi-pattern metering mode can be changed by ±0.7 EV in 1/10 EV steps. Center-weighted integral metering. Center-weighted integral TTL metering for flash exposures with dedicated flash units. Selective TTL test flash exposure metering prior to the actual exposure with any flash unit.
Metered value storage	with selective- and integral metering.
Exposure correction	±3 EV (Exposure values), in half steps.
Automatic exposure series	with LEICA MOTOR-DRIVE R8/R9.
Metering range	Selective metering : from EV-4 to EV-20, or from 32 s at f/1.4 to 1/8000 s at f/11. Integral and multi-pattern metering : from EV-2 to EV- 20, or from 8 s at f/1.4 to 1/8000 s at f/11; Film speed range : Manual setting from ISO 6/9° to ISO 12500/42°.
Exposure control modes	Manual setting of shutter speed and aperture stop using the light balance in the viewfinder ; A Aperture priority automatic exposure control ; P Variable program automatic exposure control ; T Shutter speed priority automatic exposure control ; F Selective TTL flash exposure metering prior to the actual exposure ; The operating mode selector dial can be locked in any setting.
Flash unit connection	via the accessory shoe with central and control contacts (“hot shoe”), or via the standard flash connector socket.
Synchronization	Flash synchronization speed : X = 1/250 s ; optional triggering at the first or the second shutter curtain ; Flash exposures can also be made at faster shutter speeds (1/350 – 1/8000 s) with appropriately equipped flash units (HSS function) and a SCA-3502M3 adapter.
Flash exposure control	With dedicated flash units (i.e. SCA-3000/3002 standard with SCA-3501/3502M3 adapter or LEICA SF 20/SF 24 D) TTL control with center-weighted integral metering. In the P fully automatic mode with optimized control for balanced exposures through increased portions of ambient light and reduced amounts of flash illumination as required by the situation. In addition, manual flash exposure corrections (over-rides) are possible in ± 3 1/3 EV steps. When regular flash units are used (like studio flash units, for instance) : selective TTL metering by means of a test flash triggered prior to the actual exposure, with the metering results displayed in the viewfinder and on the back cover LCD display.
Linear flash operation	Permits flash photography with very fast shutter speeds (1/350 to 1/8000 s). Can be used with the m or A exposure control modes. With appropriate flash units (that feature High-Speed-Synchronization options) and SCA-3502M3 adapters.
Stroboscopic flash operation	(several flashes during an exposure) with appropriate flash units.
Film speed range	for TTL Flash exposure metering with SCA-controlled metering : ISO 12/12° to ISO 3200/36° ; With test flash metering : ISO 25/15° to ISO 400/27°.

Technical Data

Flash readiness signal in the F operating mode	Readiness status : Blinking or constantly lit flash symbol in the viewfinder- and on the back cover LCD displays. Flash success control : Over- and under exposure indication by means of HI- or LO signals in the camera's viewfinder for approximately 4 s after the exposure.
Flash exposure correction	Can be set on the dedicated flash units. Automatic adaptation of the flash reflector on dedicated flash units with motorized zoom reflectors, SCA-3502M3 adapters and lenses equipped with electrical contacts.
Viewfinder system	Prism Built-in, fixed pentaprism. Eyepiece High-eyepoint viewfinder. Diopter compensation of approximately ±2 diopters can be set at the viewfinder. Additional correction lenses are available. Built-in viewfinder blind. Interchangeable focusing screens 5 versions are available: Universal screen (ground glass screen with microprism ring and wedge ; supplied with the camera) ; Uniform ground glass screen ; Uniform ground glass screen with grid divisions ; Microprism screen ; Clear glass screen with cross-hairs. Viewfinder field 23 x 25 mm, corresponds to 93 % of the image area (96 % vertical x 97 % horizontal), in conformance with the standardized 35 mm slide format. Viewfinder magnification 0.75 x with a 50 mm lens set at infinity and 0 diopter correction.
Displays	In the viewfinder LCD line below the viewfinder image with : Warning symbol for exposure correction or for a manual film speed setting ; Symbols for metering modes and stored meter readings ; Flash symbol ; Flash readiness and flash control symbols ; Flash exposure correction signal ; Operating mode indicator ; Indicator of the aperture in half stops ; Light balance for manual exposure setting, exposure corrections, automatic exposure series and metering flash function ; Shutter speed or over- and under exposure signals, signals for time exposures or for incompatible camera settings ; Frame counter with indicator of multiple exposures, automatic exposure series and improperly loaded film. Top cover Right side on top : LCD exposure counter. Front of prism cap LED for self timer. Back cover Illuminated LCD field with : Battery condition indicator ; Flash symbol ; Numerical film speed display, exposure corrections, exposure compensation in the flash metering mode, time remaining on the selftimer, over- and under exposure warnings and error signal; exposure counter with signal for multiple exposures, automatic exposure series and improperly loaded or (only in conjunction with the LEICA MOTOR-WINDER R8/R9/LEICA MOTOR-WINDER R8/R9) rewound film.
Shutter and shutter release	Shutter Microprocessor-controlled metal leaf shutter that runs vertically. Shutter speeds Manual settings: 16 s to 1/8000 s in half steps, B for time exposures of any duration, X = 1/250 s for flash synchronization. Automatic setting stepless from 32 s to 1/8000 s with all automatic exposure control modes. Shutter release Three stages : Activation – metered value storage – release. Integrated standard thread for cable releases. Self-timer Two delay times : 2 s or 12 s, red LED signal glows while the timer is running down. Hinged mirror Partially transmitting, with 17 coated layers (70 % reflection, 30 % transmission). Mirror pre-release By means of a separate switch, the shutter release button can be used to raise the mirror and to set the spring-back iris diaphragm of the attached lens to the working aperture without releasing the shutter ; the shutter is only released when the release button is pressed a second time.
Film advance	Loading the film Easy and quick loading thanks to automatic threading. Manual film advance by means of the rapid film advance lever or motorized film advance with the LEICA MOTOR-WINDER R8/R9 (2 frames per s) or the LEICA MOTOR-DRIVE R8/R9 (can be set for 4 1/2 or 2 frames per s, or single frame advance). Window in the back cover for checking the film advance. Film rewinding manual with the folding rewind crank or motorized film rewinding with the LEICA MOTOR-WINDER R8/R9 or the LEICA MOTOR-DRIVE R8/R9. Exposure counter in the viewfinder display, in the back cover and top cover displays, resets itself automatically when the back cover is opened. Multiple exposures Any number of multiple exposures can be made with the film kept firmly in place and without the frame counter advancing.
Camera body	Material The top cover is magnesium die-cast, in black or in anthracite finish. The inner housing is made of aluminum, rigidly attached to the aluminum tripod plate. The baseplate is made of fiberglass-reinforced polycarbonate that incorporates an aluminum tripod plate. Underside with rubber layer. Stopping-down lever for visual evaluation of the depth of field and for triggering the test flash. Tripod thread A 1/4 (1/4"), in the tripod plate, secured against rotation by means of two steel inserts, according to DIN standard 4503; centered under the optical axis of the lens. Back cover Illuminated LCD field for the display of various functions or operating status (see above). Window for checking the speed and number of exposures stated on the film cartridge that has been inserted. Window for checking the film advance. Operating voltage 6 V. Power supply Two 3 V lithium cells, type CR2 in the battery compartment. Battery status control on the back cover LCD.
Dimensions (W x H x D)	158 x 101 x 62 mm (6 1/4 x 4 x 2 7/16 in)
Weight	790 g (less than 28 oz); with the LEICA DIGITAL-MODUL-R 1395 g (just over 49 oz)

LEICA DIGITAL-MODUL-R



Product	LEICA DIGITAL-MODUL-R
Order No.	14 439
Type	Digital module (digital camera back), fully compatible with LEICA R8 and R9 cameras that can easily be attached by the photographer him- or herself.
Lenses	Nearly all Leica R lenses, as well as the earlier LEICAFLEX/SL/SL2 lenses with subsequently installed R control cams can be used.
Image sensor	3872 x 2576 pixel (10 Megapixel) CCD chip, active surface 26.4 x 17.6 mm, focal length extension factor : 1.37.
Sensitivity	ISO 100 to ISO 1600
Storage medium	SD storage card up to 2 GB ; larger SD card with firmware update.
Data formats	DNG (raw data), TIFF, 2 JPEG compression steps.
Color domains	Adobe RGB, s RGB.
Resolution (pixels)	3872 x 2576, 2576 x 1712, 1936 x 1280, 1280 x 848.
White balance	automatic, manual, 6 pre-settings, color temperature input.
Display	Black-and-white display shows the following settings : exposure counter, ISO, exposure correction, battery condition, selftimer, compression, resolution, moiré on/off, white balance.
Menu	Sharpness, color saturation, contrast, picture numbering, color display contrast, color display brightness, auto review duration, histogram on/off, energy conservation possibilities, card formatting, alarm signals, audio histogram on/off, date, time, user profile, firmware update, reset.
Menu languages	German, English, French, Spanish, Italian, Japanese, Dutch.
Interface	IEEE 1394 FireWire.
Power supply	Rechargeable lithium-ion battery, 7.4 V, 1800 mAh, universal charger 100–240 V, 50/60 Hz.
Color monitor	1.8" color LCD with 130,338 pixels.
Shutter winding	motorized, assisted by the power unit.
Color depth	16 bit
Data size	RAW : 21 Mbyte, TIFF : 29/58 Mbyte.
Software	Adobe Photoshop Elements 3 (Mac/Win).
Maximal exposure time	16 s
Exposure series	2 pictures/s, maximum is 10 pictures per series.
Items supplied with the LEICA DIGITAL-MODUL-R	Power unit for winding the shutter and for energy supply ; Universal focusing screen with outline of subject area covered in digital applications ; tool for removing the standard camera back ; lithium-ion battery 7.4 V/1800 mAh ; universal battery charger 100-240 V with mains adapter plugs (Euro, UK, USA) ; charger cable for connections to 12 V and 24 V automobile outlets ; 512 MB SanDisc Ultra II SD Card ; case for storing the LEICA DIGITAL-MODUL-R, FireWire cable with adapter (4 poles or 6 poles), Adobe Photoshop Elements 3 (Mac/Win).
Operating conditions	0 °C to +40 °C (+14° F to +104° F)
Dimensions (W x H x D)	when attached to a LEICA R9 : 158 x 140 x 89 mm (6 1/4 x 5 1/2 x 3 1/2 in)
Weight	Digital Modul R with power unit and battery : 725 g (25 1/2 oz) ; attached to a LEICA R9 : 1395 g (just over 49 oz).
Accessories	Mains power supply unit for battery-independent operation of the LEICA DIGITAL-MODUL-R Order No. 14 452 Lithium-ion battery 7.4 V/1800 mAh (as a replacement) Order No. 14 447 Uniform ground glass screen with frame for Digital-Modul-R Order No. 14 393 Microprism screen with frame for Digital-Modul-R Order No. 14 394 Uniform ground glass screen with grid division with frame for Digital-Modul-R Order No. 14 395 Universal focusing screen (as a replacement) with frame for Digital-Modul-R Order No. 14 392 Universal charger (as a replacement) Order No. 14 449



my point of view

Leica Camera AG / Oskar-Barnack-Straße 11 / D-35606 Solms
www.leica-camera.com / info@leica-camera.com
Telefon +49 (0) 6442-208-0 / Telefax +49 (0) 6442-208-333