



The Leica S, a compact medium-format camera offers impressive image quality combined with the speed of a 35 mm format. By bringing together the best of both worlds, it not only meets the accepted standards but is in a class of its own.

Exuding superior quality with each and every one of its system components and the innovative ProFormat sensor, the Leica S is the preferred choice of professional photographers. The pinnacle of Leica quality, the S lenses plus optional central shutters are capable of tackling any application. Additionally, the Leica S provides intuitive handling designed for professional use, and high-quality construction that is sure to stand the test of time.

The S-System cameras are fast and robust, perfect for everyday use. These attributes are characteristics of all Leica products and have been for more than 100 years – ever since Oskar Barnack laid the foundation stone for the development of photojournalism with his Ur-Leica. Leica cameras are the result of a systematic company philosophy that blends skillful engineering and a visionary willingness to take risks, resulting in regular innovations. These breakthroughs challenge existing rules and open up new photographic horizons. Experience the continuation of this tradition, the Leica S-System, in one of the Leica Stores, Boutiques and dealers near you.

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The Best of Both Worlds.



### 30 x 45 mm

PROFORMAT

When we set ourselves the challenge of designing a high-quality, purely digital camera system, we weighed the pros and cons of all existing formats and came up with our own sensor format with a size of  $30 \times 45$  mm. This sensor is more than 50 percent larger than that of a 35 mm camera. The Leica ProFormat solves problems that could not be solved by established photographic formats. It strikes the right balance between image quality and creative possibilities. It is large enough to provide far higher image quality than a 35 mm model, and can offer noticeably shallower depth of field, but the cameras and lenses are small enough to maintain portability and compactness. This increases the creative scope that a photographer can deliver with a medium-format camera. Another advantage, in contrast to traditional medium-format systems, the aperture does not have to be closed as much to increase depth of field. This would reduce the image quality and dramatically increase the amount of extra light required.

The Leica ProFormat caters to a broad spectrum of photographic scenarios that go far beyond the scope of conventional medium-format photography.

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All about the Optics.



# MORE THAN 100 YEARS OF EXPERTISE

### LEICA S-LENSES

The lenses are crucial when it comes to the quality of any camera system. All S-System lenses have been built to achieve nothing less than maximum optical performance. With perfect reproduction of color and skin tone, unrivaled contrast rendition, precisely calibrated focusing, and perfectly drawn bokeh, you can always rely on flawless image quality regardless of aperture or distance. Leica draws on more than a century of expertise, employs high-quality materials, and uses cutting-edge production methods – with much of the work done by hand. This gives rise to lenses that redefine the boundaries of what is technically possible.

### ADAPTABILITY

The Leica S-Adapters open up new possibilities for the lenses of an existing medium-format system. The Leica S masters the electronic settings of most third-party lenses (autofocus and aperture) just as well as, if not better than, its predecessors. It raises the resulting image quality to the level of a state-of-the-art digital medium-format camera.

### **CENTRAL SHUTTERS**

Simply by changing a setting on the main switch of the Leica S, you can decide before every shot whether you wish to use the metal-bladed focal plane shutter integrated into the camera or the central shutter in the lens.

With its fastest shutter speed of 1/1000th of a second, the Leica central shutter (available for almost all S-Lenses) offers photographers significantly greater creative leeway when working with professional flash systems for the suppression of ambient light or as fill lighting when using larger apertures on location. The fastest sync speed offered by the focal plane shutter is 1/125th of a second, therefore the central shutter expands your creative scope by no less than three stop increments.

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Controlled Performance.



### INTUITION

HANDLING & EASE-OF-USE

All controls on the S-System reflect one basic principle: less is more. With the controls kept to an absolute minimum, you will always be in command – even when things get hectic. The majority of functions can be operated using a straightforward and clearly laid-out menu, while the essential controls are extremely user-friendly and intuitive. Despite being designed for professionals, the Leica S is a camera that anyone can be comfortable with immediately.

### **ERGONOMICS**

An intuitive operating concept was developed for the Leica S that relies on an absolute minimum of control elements. The two central control elements of the Leica S are the click wheel and the five-way switch, both of which are ideally placed for operation by the photographer's right thumb. The photographer can control the aperture setting and navigate through the menus on the rear display, which is surrounded by four customizable buttons. The camera's main switch allows the photographer to choose between the focal plane and central shutters. The Leica S-E features a classic shutter speed dial while on the Leica S this has been developed into a multifunctional dial. The camera's integrated handgrip keeps it steady in your hands with its relatively low weight and optimum center of gravity ensuring fatigue-free photography.

Built to Last.

## NO LESS THAN 150.000 SHUTTER CYCLES

### CONSTRUCTION

Durability and robustness have been pivotal in the development of the Leica S-System right from the concept. When using a professional camera, reliability is equally important as image quality and handling. With the S-System, high-quality materials, carefully selected components, and an exceptionally sophisticated construction ensure that cameras and lenses alike can be relied on to do their job for many years and withstand the day-to-day demands of professional photography and harsh conditions.

### MATERIALS

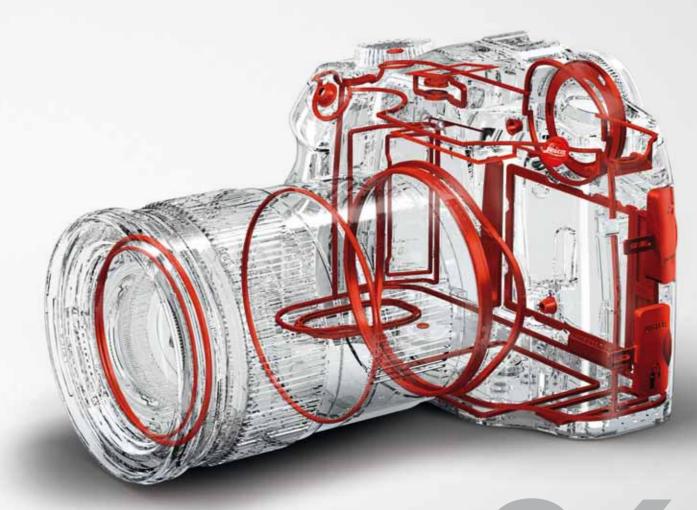
The bodies of Leica S cameras are made from solid die-cast magnesium, making it both extremely resilient and exceptionally lightweight. All other materials used are of uncompromising quality – and are both solid and functional. The cover glass used on the Leica S display is made from resilient and highly scratch-resistant Corning® Gorilla® Glass, giving photographers a crystal-clear view for many years. This is the first Leica camera to feature a bayonet mount made of solid stainless steel. Thanks to its precision manufacturing, you can change the lens as often as you like without leaving a mark.

### SEALS

Dust and splashes do not stand a chance against the camera's many seals. Control elements and body components are designed and coated in such a way that there is no danger of foreign bodies and moisture penetrating the camera's interior. The same applies to the lens. Specially constructed parts ensure that the length of the lens does not change during focusing and thus preventing air from getting sucked in. In addition, specially reinforced cover glasses with an Aquadura™ coating are used as mechanical protection. Water and dust will stay outside where they belong, meaning the system will be able to withstand harsh conditions and retain its value.

### **COMPONENTS**

Each and every part and component that makes up the S-System has been selected with the utmost care, with great emphasis not only on functionality but on maximum service life and low susceptibility to defects. Our developers have also thought about seemingly minor factors: the USB ports, the remote releases, the audio system, and the flash sync were all made by LEMO and are not only protected against moisture but are also exceptionally durable thanks to their strain-relief mechanism.



36 SEALS

Medium Format with a Cinematic Look.

## 4K VIDEO

### MOVIE PRODUCTION WITH A MEDIUM-FORMAT CAMERA

More than a century after the Ur-Leica made 35 mm motion-picture film suitable for photography, the Leica S makes a digital medium format camera suitable for cinematography. Whether with S-Lenses or adapted lenses from other medium-format systems, the phenomenal image quality of the S-System is no less exciting when shooting video. The dedicated video button allows the camera to be used easily for both stills and movie footage.

### **FORMAT**

The Leica Max CMOS sensor and a Maestro II series processor give the Leica S all the technology required for professional video footage up to the cinema-quality 4K standard, with the entire sensor width of 45 mm used for full-HD shots. When coupled with the outstanding quality of the Leica S-System lenses, the shots have a unique look that is sure to delight movie-makers. The videos produced by the Leica S are as outstanding as the still pictures thanks to the medium format look with signature Leica bokeh.

The high quality of video is retained with a 4:2:2 color subsampling and files stored in MOV format, complete with time code. Thanks to Motion JPEG compression of the video files, the frames already work on a stand-alone basis. Therefore, this format is ideal for film editing even before conversion. As an alternative to internal filming with a resolution of up to 4K, the Leica S also offers an uncompressed HDMI stream in full-HD resolution. This can then be viewed on a connected monitor or recorded using an external HDMI recorder.

### DEFINITION

When using the video mode of the Leica S, you can choose from all the S-System lenses and also the adaptable lenses of other medium-format systems. The lens is focused manually for video recording, with the Leica S offering plenty of help to get it right. Using Focus Peaking to display sharp areas of the image helps identify where optimum definition has already been reached. The optional clipping display and the showing of grids complete the range of tools available when recording videos.

### SOUND

The stereo sound accompanying moving images can be adjusted either automatically or manually and recorded either on the built-in microphone or an external microphone at 48 kHz and 16 bit which can be connected to the Audio Adapter S.





Medium Format Redefined.

The Leica S-System enjoys a special status in the medium format, with the Leica S tapping into brand-new areas of application for medium-format photography.

The new Leica Max sensor provides the necessary leap forward (unique to medium-format cameras) in terms of resolution and dynamic range, whereas Leica ProFormat gives the pixels the space they need to produce the high-quality results required by professionals. This level of performance is not only reached at basic sensitivity but can still be attained when you are dependent on the ambient light. Although it was previously assumed that you had to compromise on format for the sake of fast image sequences, the Leica S has rewritten the rule book. The lightning-fast shutter mechanism, the CMOS sensor, the Maestro II processor, and predictive autofocus all come together to ensure that the Leica S combines the image quality of a medium-format camera with the fast responses of a 35 mm model. Its strengths not only become apparent in still photography, as the imaging quality of the S-Lenses and the sensor also come to the fore when recording video footage. The camera supports both the high resolution of the cinematic 4K standard and full-HD format.



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### LEICA S



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### CMOS SENSOR

The Leica S is the culmination of CMOS technology with the Leica ProFormat Max Sensor, enabling video recordings, live view, and an unprecedented image quality. The new sensor increases the dynamic range by up to 15 stop increments, thus expanding the tonal range between highlights and shadows even further. As sensitivity can be increased up to ISO 12,500, the Leica S is not reliant on studio lighting. Whether in photojournalism, at concerts, or at weddings, the Leica S will prove itself in any situation where you are reliant on the ambient light – with the benefits of the larger format taking center stage.

### MAESTRO II PROCESSOR

The electronic components of any S model are designed to allow maximum data transfer speeds. Thanks to 7,500 parallel digital-to-analog converters within the sensor, image files are read in the blink of an eye without any loss of quality. They are then processed by the Maestro II processor, which has been specially developed for Leica. The 2 GB buffer memory ensures that all links in the processing chain can work as quickly as possible without ever sitting idle. Continuous high data transferrates enable a shooting frequency of up to 3.5 frames per second – a record for the medium-format camera class. The new processor found in the Leica S works four times faster than its predecessor, enhances noise reduction and ensures that the camera responds to all controls immediately.

### **AUTOFOCUS**

The autofocus on the S-models matches the peak performance of the camera's other components in every way. The lens and the camera create a perfect unit that paves the way to sharp images. The autofocus is designed to quickly yet smoothly move to optimum image definition and can even incorporate corrections made within the very last fraction of a second. The predictive autofocus anticipates movements made by the subject, thus enabling dynamic photography.

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## LIVE

VIEWFINDER

Thanks to the image format, the large viewfinder is brilliantly bright and therefore allows flaw-less image composition. The brilliance of the viewfinder image – which is a result not only of the intricate construction of the mirror and prism unit but also the speed of the lenses – offers the perfect foundation for precise definition control. A display located below the viewfinder image shows you all key image data, such as shutter speed, aperture, and the ISO setting. An electronic leveling aid allows the orientation of the camera to be checked and aligned along two axes with a precision equal to or less than 1° on each axis. You can always see everything you need, without having to take your eye off the viewfinder.



Full-size view

### SCREEN

The three-inch monitor screen with 921,600 pixels is no longer merely used to navigate menus and inspect images once they have been taken. It boasts screen protection in the form of scratch-resistant Corning® Gorilla® Glass and lets you display up to 60 frames per second with a wide viewing angle of 170° in Live View mode. Tools such as the dual-axis leveling aid and Focus Peaking can be shown when needed – as can the brightness and exposure settings. The histograms always refer to the image section that is currently visible, enabling you to assess the image more efficiently.

The status screen on the top of the Leica S features a transflective LED, which enables it to utilize ambient lighting. This enhances readability in changing light conditions.

### LIVE VIEW AND TETHERING

Tethered shooting often enables improved image composition in the studio. With Leica Image Shuttle 3.0 all image-relevant settings, including the variable positioning of the autofocus field, can be adjusted using a computer. Furthermore, images can be immediately checked on the computer monitor. The Leica S can be tethered to the Leica Image Shuttle 3.0 software program using a high-speed USB 3.0 connection, which enables far higher data-transfer rates than with the previous USB 2.0 standard. Thanks to enhanced tethering technology, the software will provide a Live View through the camera in addition to image review. Our five-meter-long USB 3.0 cable with LEMO sockets raises flexibility levels during shooting, and its built-in amplifier ensures reliable data transfer.

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### LEICA S



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### OPTIMIZED INSTANT-RETURN MIRROR

Medium-format photography can be fast – provided you opt for the Leica S-System. Leica offers the fastest SLR camera outside of the 35 mm format. The process of streamlining for maximum speed starts with the instant-return mirror, one of the most important moving parts of any SLR camera. Its design determines both the shooting frequency and the length of viewfinder black-out. Our developers have managed to accelerate the speed of the mirror. As a result, the viewfinder attains the performance level associated with smaller image formats and the camera as a whole is faster. The shutter release generates very little vibration despite the fast mirror return.

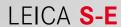
### USB 3.0

A USB 3.0 port that enables far higher data transfer rates than supported by the widespread Firewire 800 standard not only lets you read files stored on CompactFlash or SD memory cards in an instant, but also paves the way for fast and stable tethered shooting in which the camera is controlled from a computer. No high-speed digital medium-format SLR like the Leica S would be complete without this function, necessary to professionals.

### GPS

The Leica S is the only professional medium-format SLR camera to feature an integrated GPS module for the optional geotagging of image files. The precise shooting location is stored in the image file's EXIF data, with the time and time zone automatically adjusted by satellite. Adobe® Photoshop® Lightroom®, a software package that can be downloaded free of charge by Leica S customers, lets you precisely record every single photo on a map, with place names and the times they were taken. As a result, photojournalists do not have to worry about laborious documentation and can instead focus fully on taking photos.

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So Much More Than an Entry-level Model

All the hallmarks of the S-System are reflected in the Leica S-E. Of the two cameras that make up the S-System, the Leica S-E is made exclusively for classic photography. From an enhanced autofocus through to a redesigned body, the S-E has been given a comprehensive revamp and now continues the success story of the Leica S-System. Its range of features has been fine-tuned to reflect what the Leica S has always been about: the highest-quality photography. All the benefits of the S-System – from the outstanding lenses through to the comprehensive range of system accessories – can be used without compromise on the S-E. If you are someone who gets excited by classic photography, the ability to aim through the SLR viewfinder and experiment with depth of field, and the outstanding attributes of a cutting-edge medium-format camera system, then the Leica S-E is right for you.



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### LEICA S-E



### CCD SENSOR

Our tried-and-true CCD technology, which has been perfected in the sensor of the Leica S-E, guarantees sharp, clear images that require a bare minimum of digital postprocessing for an exceptionally natural appearance. The light sensitivity of the CCD sensor ensures that image noise is kept low, giving you the opportunity to capture your subject in its full dynamic range.

### **AUTOFOCUS**

The newly developed autofocus of the Leica S-E is as quick as it is precise. Thanks to the exceptionally precise AF sensor in the Leica S-E and the finely tuned controls of the autofocus motor, you can depend on the Leica S-E autofocus in any situation.

### PHOTOGRAPHY

If you aspire to create top-quality photos, then the Leica S-E does it just as well as the Leica S-no ifs, ands, or buts. The Lecia S-E has all the winning attributes of the S. Unlike its sister model, however, it focuses wholly on photography. With its solid and durable construction, excellent handling, high-quality components, and powerful image processing system, the Leica S-E offers a full-fledged introduction to the S-System with its outstanding lenses and extensive range of accessories.

Discover the Leica S-E at www.s-magazine.photography

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### Professional Work Flow.



Adobe® Photoshop® Lightroom®

### ABSOLUTE FLEXIBILITY

A camera should be flexible enough so that you can integrate it seamlessly into your personal workflow. The Leica S uses the pioneering DNG format, which is not restricted to a specific RAW converter. If desired, it can also create high-quality JPEG files, supports both CompactFlash and SD memory cards, and can be controlled remotely from a computer or tablet, including via Wi-Fi. For you, this means the ability to react rapidly and flexibly to changing situations, and maximized freedom in the choice of tools for the task at hand.

### UNIVERSAL IMAGE DATA FORMAT

The RAW data from the sensor is the basic material from which images in optimum quality can be created with maximum flexibility in post-processing. Leica uses the DNG (Digital Negative) format developed by Adobe® – the only standardized RAW data format that safely preserves all image information and is recognized by all manufacturers. The majority of programs for RAW data conversion or digital image processing, including Adobe® Photoshop®, allow the direct input and interpretation of DNG data, so Leica camera owners have almost unlimited freedom of choice when it comes to workflow solutions. The Leica S takes advantage of all the benefits of the current DNG 1.4 standard that saves all color and image information, along with metadata such as the distance, aperture, etc. This in turn allows processing with all programs that support this standard – without any need for specific adaptations or profiles – to achieve the optimum image quality of the S files. The Leica S uses lossless compression to save the DNG files, which reduces the necessary memory capacity by about half.



DNG files from the Leica S can be imported directly into Adobe® Camera Raw®.

### SEAMLESS WORKFLOW

Adobe® Photoshop® Lightroom® is fully equipped to serve as a control center for all digital image processing needs. They have thought of everything, from importing files, sorting (including definition of keywords), and image manipulation, to exporting images for e-mailing or directly to the Web. The extremely powerful digital image processing tools in Lightroom® are perfectly designed for processing images for further use. Lightroom® offers the particular advantage of a non-destructive RAW workflow that leaves the original data untouched and stores all edits in a separate file. A new file with all edits applied is only created in the export phase, so there is no risk of overwriting the original data when creating several versions of the same image. Classical digital image processing software like Adobe® Photoshop® can be integrated into the workflow for further processing.

### AUTOMATIC CORRECTION

The lenses of the Leica S-System are distinguished by an extraordinarily high degree of correction and are practically free of perceptible optical errors. Nevertheless, optical errors can never be completely avoided. For the rare cases in which extremely critical images display phenomena, such as slight curving of straight lines at the edges, Leica has calculated lens profiles. This is specific for use in Adobe® Photoshop® Lightroom® and Adobe® Camera® Raw®, on the basis of the construction data of the S-Lenses and extensive practical testing, that allow automatic correction of residual distortion and chromatic aberration effects (color fringing). The technical prerequisites for the corrections to be applied are precisely registered and listed image data in the DNG files, such as the focal length, aperture, and the actual focusing distance communicated by the lens. These lens profiles can save considerable time in the postprocessing phase and achieve consistently perfect imaging results under all subject-relevant circumstances.

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Professional Work Flow.







### LEICA IMAGE SHUTTLE

In studio work, it is often advantageous to link the camera to a computer (tethered shooting). This setup, with automatic image transfer and the opportunities it offers for precise image assessment can make the entire procedure much more efficient. Leica Image Shuttle 3.0 software is an ideal solution for such situations. Connecting a computer to the special strain-relieved and particularly robust high-speed USB 3.0 port of the Leica S provides full remote control of the camera with Image Shuttle. Photographers can then choose between normal or tethered shooting with the Leica S. The images are displayed immediately on the computer monitor and allow more precise image assessment than would be possible with the camera's built-in monitor. In addition, Image Shuttle offers full tethered remote control of all exposure parameters, such as the shutter speed, aperture, and even lens focusing, directly from the computer keyboard. When used with the Leica S, Leica Image Shuttle 3.0 supports Live View mode for photos and video footage. Furthermore, the AF rangefinder rectangle can be positioned within the software, which provides the option of enlarging the live image to 100 percent to check focusing.

Photographers can define a specific folder for saving the incoming image files to the computer and can automatically import images to the workflow software with the folder monitoring function.

### THE LEICA S APP

The Leica S App for iPhones and iPads constitutes an alternative to computer-based remote control. With the Leica S, it is possible to give the app complete wireless control of the camera. The screen of the iPhone or iPad then acts as an external viewfinder. You can zoom into the live image and focus on selected details by tapping the screen. You can, of course, manage all other key exposure parameters and take photos or video via the app. Once taken, images can be downloaded to the iPhone/iPad where they can be displayed and shared on social media.

### ADVANCED SOFTWARE SUPPORT

Adobe® Photoshop® Lightroom® can also be used for tethered shooting. After each exposure by remote control using the software or with the camera shutter release, the image is transferred directly to the Lightroom® catalog via the USB 3.0 port and displayed for assessment. In addition to Live View and an extended range of control functions, users of Leica Image Shuttle also have the option to transfer images straight to Adobe® Bridge® and, in turn, then have direct image access from an Adobe Photoshop®-based workflow. By virtue of the USB 3.0 standard used, data is transferred to your computer quickly and reliably.

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### LEICA S-LENSES

In a Class of Their Own.





Even the best camera cannot improve on the image its lens delivers. This is why our design engineers always push – and sometimes go beyond – the limits of the technically possible, and never accept compromises. In the case of the lenses for the S-System, traditional Leica quality is combined with cutting-edge technology. Our commitment to quality is founded on a simple principle: photographers must be able to rely completely on their lenses in all shooting situations and under all conditions. In keeping with this philosophy, Leica S-Lenses deliver excellent imaging performance not only at all focusing distances but also at all apertures.

The combination of more than a century of experience and state-of-the-art production methods makes Leica the only manufacturer with the ability to produce even large-diameter, aspherically ground lenses of this outstanding quality in serial production. This also holds true for the high-quality special glasses – for instance with anomalous partial dispersion or particularly high refractive indices – that demand the ultimate in technical expertise in their production.

Every Leica S-Lens with autofocus also has its own integrated processor for complete control of all functions. At the same time, you can override the autofocus at any time and set the distance manually with the focusing ring. The majority of the lenses of the Leica S-System are also available in an alternative version with an innovative central shutter (leaf shutter) for maximum creative freedom when using additional lighting.

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### LEICA S-LENSES



Made in Germany: Master craftsmanship and high-tech – these are the key factors in the production of Leica high-performance lenses.

### LENS SPEED

One outstanding feature of Leica S-Lenses is that they are exceptionally fast. As the Leica S-Lenses deliver such outstanding imaging performance, you can always use the best possible aperture for your creative needs. Stopping down serves only to control the depth of field and is not necessary to improve performance. The fast initial aperture offers unrivaled creative freedom for photographers to explore planes of sharpness and unsharpness to distinctly isolate details of their subjects. With the interplay of precisely defined planes of sharpness and harmoniously resolved areas of unsharpness, visual effects that can only be achieved with the degree of perfection offered by Leica lenses unfold.

### SYSTEM INTEGRATION

The purely digital concept of the S-System enables a significant improvement in imaging quality. For example, the cover glass of the image sensor, and its shallower and more precisely defined plane of focus compared with film, was taken into account for each and every lens. This in turn permits the realization of optical designs that raise contrast rendition performance to previously unimagined levels. Such performance potential can only be fully exploited with an equally precise autofocus mechanism, and here, the microprocessor in every S-Lens works in perfect unison with the camera's control systems: Every S-Lens employs a magnetoresistive sensor to continuously measure the distance setting. Autofocus can be overridden at any time with the focusing ring on the lens with a specially constructed mechanism ensuring a comfortable degree of rotational resistance.

### SOPHISTICATED MANUFACTURING

The outstanding design that serves as the cornerstone of the high-quality Leica S-Lenses is the result of precision manufacturing. All S-Lenses are built predominantly by hand by highly qualified specialists. Only decades of experience gathered in the advancement of the interaction between optical and mechanical manufacturing make it possible to realize the extremely precise tolerances demanded by the design specifications of each Leica high-performance lens. Our technical staff do not simply adjust until a value is somewhere within the defined tolerances, they always take the time to ensure maximum precision. This is the only way to make sure an ambitious design becomes a perfect product. Whenever it provides a production benefit Leica also uses mechanical processes, some of which it has developed itself, such as aspherical lens technology. No other manufacturer possesses the same immense experience in the production of aspherical lenses – a treasure trove of knowledge and expertise without which the construction of lenses with the extreme performance characteristics of the Leica S-Lenses would never have been possible.

### **PROTECTION**

Just like all other components of the S-System, the lenses are perfectly protected against environmental influences such as dust and moisture. The focusing ring can even be used in the rain and it is impossible for water to enter the lens barrel through either the bayonet mount or around the front lens. The exposed glass surfaces of all S-Lenses also feature our water and dirt-repellent AquaDura™ coating, which prevents the adhesion of drops of water and particles of dirt and lets them just roll off the glass. The Leica S is therefore always ready for action, even in rainy and dusty environments.

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### LEICA S-LENSES

Central Shutters.



The Leica central shutter is so compact that it was easily integrated into the majority of S-Lenses.

### FLASH SYNCHRONIZATION

Available for almost all S-Lenses, the Leica central shutter is a development that owes much in its technical realization to the most modern of high-tech material manufacturing methods. This masterpiece of precision and reliability is big on the inside and small on the outside. The Leica central shutter has a very large inner diameter to cater for the lightning-fast speeds of the Leica S-Lenses. At the same time, it is so compact in size that it can be easily integrated into almost every S-Lens. It is constructed with an extremely long service life of at least 100,000 shutter cycles and, with its fastest shutter speed of 1/1000th of a second, offers you much more creative leeway when working with professional flash systems for the suppression of ambient light or as fill lighting when using larger apertures on location. This offers even more scope for exploring your creative limits.

### **CUTTING-EDGE MATERIALS**

Lubricants and oils are as out of place in an optical system as dust and particles. In view of this, the Leica central shutter is constructed exclusively from state-of-the-art high-tech materials and with manufacturing methods that ensure the practically frictionless interaction of all moving parts without the need for lubricants. For instance, the shutter blades are made from precision-engineered carbon fiber. Several of the shutter's control elements are manufactured from high-performance ceramics, while other components are made from special synthetic materials. The manufacturing requirements on the central shutter system, which is produced in clean room conditions, are particularly high. The surfaces and drilled holes of all components are meticulously machined and polished in a way that ensures that there is practically no friction and, in turn, no wear. And where there is no friction, there is no wear – so consistent performance is guaranteed. A Leica central shutter guarantees shutter-speed precision day in and day out – for its first exposure and after many years of demanding professional use.

### **DUAL SHUTTER SYSTEM**

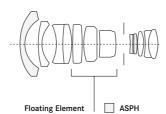
When using a Leica S, you can choose between the fast metal focal plane shutter in the camera body and a top speed of 1/4000th of a second, and the central shutter integrated in CS lenses. All you have to do is simply select either "Focal Plane Shutter" (FPS) or "Central Shutter" (CS) with the main switch on the camera body. In flash mode, the fastest sync speed offered by the focal-plane shutter is 1/125th of a second. With a speed of 1/100th of a second, the central shutter expands the working range by three whole stop increments.

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### LEICA SUPER-ELMAR-S 24 mm f/3.5 ASPH.

### LEICA VARIO-ELMAR-S 30-90 mm f/3.5-5.6 ASPH.





### **EXPAND YOUR HORIZONS**

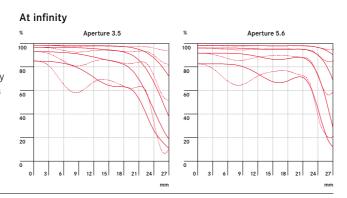
The Leica Super-Elmar-S 24 mm f/3.5 ASPH. (19 mm in 35 mm format) opens up an enormous range of creative opportunities in image composition – particularly in interior, architectural, and landscape photography. At the same time, the lens is optimized for maximum contrast rendition and resolution from its widest aperture and guarantees a constantly high level of quality from its closest focusing distance to infinity. The extraordinary degree of correction of this optical design is reflected, for example, in its almost complete freedom from distortion.

### CONSTRUCTION DETAILS

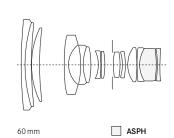
Of its twelve elements in ten groups, five are made of glasses with anomalous partial dispersion. Three of these are fluoride lens elements with particularly low dispersion for the correction of chromatic aberrations. Two aspherical surfaces located behind the iris and the aspherical surface of the front lens minimize monochromatic aberrations. During focusing, only the middle group of three elements is moved. A floating element is moved independently and ensures that outstanding imaging performance is maintained at its closest focusing range.

### CHARACTERISTICS

For a lens with a diagonal angle view of 97°, the contrast rendition is already extraordinarily high at its maximum aperture. Distortion is minimal. Stopping down increases optical performance to only a very slight extent in the extreme corners of the image. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.







### READY TO MASTER EVERY CHALLENGE

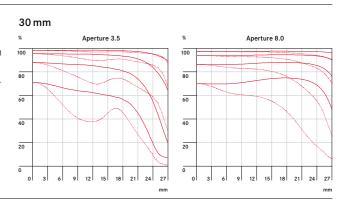
The Leica Vario-Elmar-S 30–90 mm f/3.5–5.6 ASPH. (24–72 mm in 35 mm format) combines a universally versatile range of focal lengths, compact construction, and low weight with extraordinarily high imaging performance from the closest focusing distance to infinity, both wide open and at all other apertures. With the exception of a slightly slower maximum aperture, the lens is a fully viable alternative to prime lenses. It significantly increases flexibility and allows longer and much less tiring shooting sessions.

### CONSTRUCTION DETAILS

Nine of the 14 elements in four groups are manufactured from glasses with anomalous partial dispersion. Of these, three are fluoride lenses with particularly low dispersion for the correction of chromatic aberrations. Two aspherical surfaces on the rear element are employed for the minimization of monochromatic aberrations, while another aspherical surface on the front lens of the second group maintains consistent imaging performance at shorter distances and contributes to the minimization of distortion.

### CHARACTERISTICS

Even wide open, the standard zoom lens is characterized by very high contrast rendition as well as high resolution and minimum distortion throughout the entire zoom range and at all distance settings. Stopping down by one aperture value only slightly increases optical performance. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.



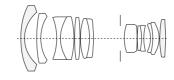
To see complete MTF curves including relative distortion, please visit www.s.leica-camera.com

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### LEICA ELMARIT-S 30 mm f/2.8 ASPH. (CS)

### LEICA **SUMMARIT-S** 35 mm f/2.5 ASPH. (CS)





\_\_\_ ASPH

### A WIDER VIEW OF THE WORLD

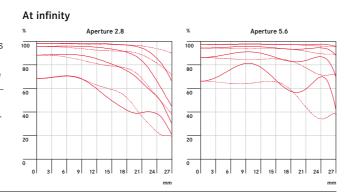
The LEICA Elmarit-S 30 mm f/2.8 ASPH. (24 mm in 35 mm format) almost belongs in the domain of superwide lenses. At the same time, the lens is optimized for maximum contrast rendition and top resolution from its widest aperture on, and it guarantees a constantly high level of quality from its closest focusing distance to infinity. The extraordinary degree of correction of this optical design is reflected, for example, in its almost complete freedom from distortion. The LEICA Elmarit-S 30 mm f/2.8 ASPH. (CS) is also available with central shutter.

### CONSTRUCTION DETAILS

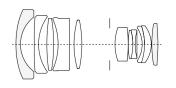
Of its 13 elements in nine groups, five are made of glasses with anomalous partial dispersion. Three of these are fluoride lens elements with particularly low dispersion for the correction of chromatic aberrations. Three elements with a particularly high refractive index and two aspherical elements minimize monochromatic aberration. Only the rear group, containing six elements, moves during focusing, which, in this design, ensures excellent performance from infinity to its closest focusing range.

### CHARACTERISTICS

For a lens with a diagonal angle view of 84°, the contrast rendition is already extraordinarily high at its maximum aperture. Stopping down increases its optical performance to only a very slight extent in the extreme corners of the image. The maximum distortion of 2.8% is impressively low for such an extremely wide-angle lens. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.







ASPH

### THE LENS FOR EVERY SITUATION

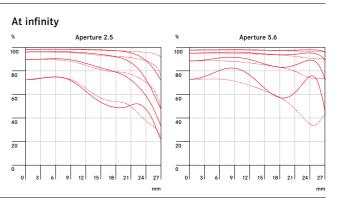
The Leica Summarit-S  $35\,\mathrm{mm}$  f/2.5 ASPH. (CS) (28 mm in  $35\,\mathrm{mm}$  format) is ideal for landscape and architectural photography as well as for studio work. Systematically designed with maximum contrast performance at maximum aperture from infinity to its closest focusing distance, this unusually fast lens is predestined for use as a universal lens. Its sophisticated design and construction almost completely eliminate optical errors such as distortion and chromatic aberration. The Leica Summarit-S  $35\,\mathrm{mm}$  f/2.5 ASPH. (CS) is also available with a built-in central shutter.

### CONSTRUCTION DETAILS

To reduce chromatic aberrations to an absolute minimum, five of the eleven lens elements are manufactured from glasses with anomalous partial dispersion of which three also display particularly low dispersion characteristics. Two elaborately manufactured aspherical surfaces ensure that effects like distortion are kept to an extraordinarily low level. Rear-group focusing guarantees consistently outstanding imaging properties from infinity to the closest focusing distance.

### CHARACTERISTICS

Considering how fast this lens is, the high contrast performance at maximum aperture is even more remarkable. Stopping down slightly lets the lens develop its already superior performance into the extreme corners of the image. Its very low distortion of only 1.2% enables its use as a universal lens and requires no additional correction or manipulation in post-processing. The contrast values are displayed here in percentfor 5, 10, 20, and 40 lp/mmforthe height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.



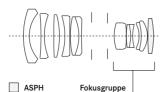
To see complete MTF curves including relative distortion, please visit www.s.leica-camera.com

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### LEICA **ELMARIT-S** 45 mm f/2.8 ASPH. (CS)

### LEICA **SUMMARIT-S** 70 mm f/2.5 ASPH. (CS)





### A CLASSIC IN ABSOLUTE PERFECTION

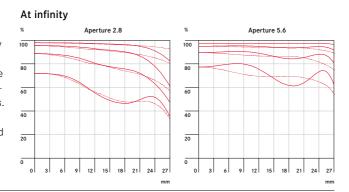
The LEICA Elmarit-S 45 mm f/2.8 ASPH. (CS) (36 mm in 35 mm format) is as outstanding for landscapes and architectural photography as it is for studio work, with its moderately wide-angle characteristics but simultaneously true-to-life perspectives. Its extremely elaborate construction, designed to deliver maximum contrast at maximum aperture and at the shortest focusing distance, ensures that the lens is practically free of aberrations; monochromatic aberration is almost nonexistent and chromatic aberrations are corrected to an absolute minimum. The LEICA Elmarit-S 45 mm f/2.8 ASPH. (CS) is also available with a built-in central shutter.

### CONSTRUCTION DETAILS

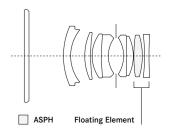
Three of the twelve lens elements are manufactured from glasses with anomalous partial dispersion for the minimization of chromatic aberration and two others from high-refractive-index glasses with exceptionally low dispersion. In addition to these, one aspherical surface is employed for the minimization of monochromatic aberrations. Rear-group focusing guarantees consistently outstanding imaging properties from infinity to the closest focusing distance.

### CHARACTERISTICS

The contrast performance of this very fast lens is already extremely high when used wide open. Stopping down only a little is sufficient to replicate this level of performance even in the extreme corners of the frame. The distortion of less than 1% is so low that no further corrections are necessary – not even for the most demanding imaging needs. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.







### STANDARDS REDEFINED

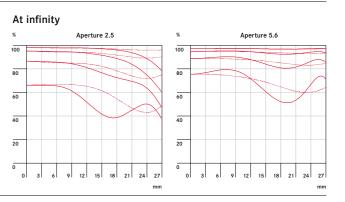
The Leica Summarit 70 mm f/2.5 ASPH. (CS) (56 mm in 35 mm format) is suitable as a standard focal length for an enormous range of photographic situations and, thanks to its speed and superior imaging quality, masters them at all apertures and focusing distances. The use of aspherical surfaces to almost completely eliminate monochromatic aberration is unusual for this focal length and underlines the exceptional character of this lens.

### CONSTRUCTION DETAILS

The eight lens elements of the Leica Summarit-S 70 mm f/2.5 ASPH. (CS) are arranged in six groups. Two cemented elements made from glasses with high anomalous partial dispersion minimize chromatic aberration, while glasses with extremely high refractive indices and an aspherical element counteract monochromatic aberrations. The built-in front filter is an integral part of the optical design and provides optimum protection against dust and spray. In this design, focusing in combination with a floating element ensures excellent performance in the close focusing range.

### CHARACTERISTICS

This lens finds unlimited uses in practice thanks to its consistently high levels of performance. It achieves close to its maximum contrast rendition at its largest aperture. Stopping down even slightly brings perfect corner-to-corner sharpness. Its maximum distortion value of 1.2% is significantly below a perceptible level. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.



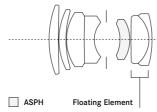
To see complete MTF curves including relative distortion, please visit www.s.leica-camera.com

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### LEICA **SUMMICRON-S** 100 mm f/2 ASPH.

### LEICA TS-APO-ELMAR-S 120 mm f/5.6 ASPH.





### VIVID DEFINITION

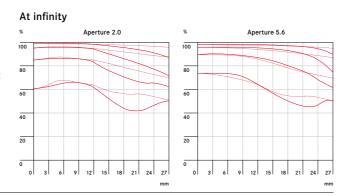
The Summicron-S 100 mm f/2 ASPH. (80 mm in 35 mm format) offers creative freedom thanks to a vivid and highly selective image sharpness coupled with an exceptionally gentle blur gradient. A sophisticated multilayer coating ensures true color fidelity and a genuinely nuanced rendition of skin tones. Whatever the aperture, the imaging quality remains unwaveringly high. Impervious to stray light, the Summicron-S even sets new standards in scenarios with critical lighting.

### CONSTRUCTION DETAILS

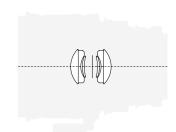
The lens design comprises seven lens elements in five groups, with a double-sided aspherical element minimizing monochromatic aberrations. Three elements with anomalous partial dispersion guarantee finely balanced chromatic correction. The cemented floating element at the rear enables phenomenal detail contrast at all ranges. As the length of the lens never changes, it is protected against dust and water splashes, with reinforced glasses on the first and last lens elements boosting robustness.

### CHARACTERISTICS

Outstanding contrast is guaranteed at all distance settings from 0.7 meters to infinity with the greatest value set on maximum imaging quality at maximum aperture. Distortion is well below one percent at all distances and therefore has no relevance at all for practical use. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.







### PERSPECTIVE CONTROL

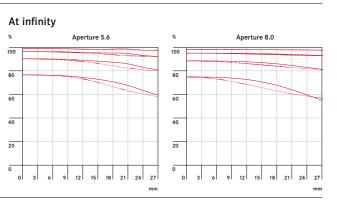
In the same way as with a field camera, the adjustments possible with the Leica TS-APO-Elmar-S 120 mm f/5.6 ASPH. (96 mm in 35 mm format) allow full control over perspectives and the location of the plane of sharpest focus. The lens delivers an image circle with a diameter increased by 24 mm to allow parallel shifts of up to 12 mm in relation to the optical axis in all directions. This effectively relocates the viewing standpoint and correspondingly alters the perspective – this, for example, allows product photography without undesired converging or diverging verticals. Independent of this shift function, the lens can also be tilted by up to 8° in all directions to tilt the plane of sharpest focus according to the Scheimpflug principle. Using this technique, you can shoot a subject from an oblique angle at maximum definition.

### CONSTRUCTION DETAILS

Due to its special construction as a tilt/shift lens, the external form of the Leica TS-APO-Elmar-S 120 mm f/5.6 ASPH. differs from the other S-System lenses. Along with a focusing ring for setting the correct distance, a preset ring and a setting ring are provided for adjusting the aperture. The lens has a total of four rings for controlling tilt and shift. One turn/push ring each for setting the tilt and shift direction and one each for setting the degree of tilt or shift. The lens is also fitted with a tripod plate with 1/4" and 3/8" bushes that, thanks to a rotatable clamping ring and a fixing screw, allow the lens to be fixed in any chosen position.

### CHARACTERISTICS

The large image circle of the lens allows a simultaneous shift of 12 mm and tilt of 8°. The tilting and shifting mechanisms can each be rotated through  $360^{\circ}$  to allow independent setting of tilt and shift values in every direction. These adjustment options give photographers enormous freedom for creative manipulation of their images during shooting.

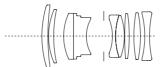


To see complete MTF curves including relative distortion, please visit www.s.leica-camera.com

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### LEICA APO-MACRO-SUMMARIT-S 120 mm f/2.5 (CS)

# APO-MACRO-SUMMARIT-S 1-2.5/120



### MUCH MORE THAN JUST A PORTRAIT LENS

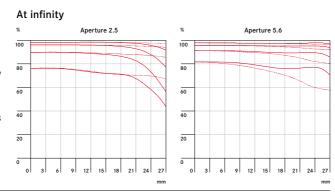
The Leica APO-Macro-Summarit-S 120 mmf/2.5 (CS) (96 mm in 35 mm format) has a true dual function. Firstly, it is a macro lens for close-up photography up to a reproduction ratio of 1:2, and secondly, it is a fast telephoto lens with an unusually wide maximum aperture of f/2.5. At the same time, it offers such astounding imaging qualities at maximum aperture throughout its entire focusing range that stopping down really only increases the depth of field but cannot further increase its superior contrast rendition. This brings countless fascinating options for exploring the creative opportunities offered by selective sharpness. The alternative CS version with a central shutter further increases its enormous range of potential uses.

### CONSTRUCTION DETAILS

The lens design comprises nine elements in seven groups, and its front-group focusing with a floating element guarantees outstanding contrast performance at even the shortest focusing distances of the macro domain. Three elements are made of glasses with anomalous partial dispersion and two of these have extremely low dispersion, which minimizes monochromatic aberrations. The sophisticated apochromatic correction enables perfect resolution of even high-contrast finedetail structures.

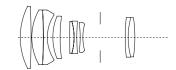
### CHARACTERISTICS

The unusually fast initial aperture for this focal length and, for a lens designed for macrophotography, already delivers almost perfect contrast performance wide open, which can be improved only slightly at the extreme edges of the frame by stopping down a little. This applies equally to both the macro and telephoto domains. The minimal barrel distortion remains insignificant in practice. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.



### LEICA APO-ELMAR-S 180 mm f/3.5 (CS)





### THE ULTIMATE IN LONG LENS PHOTOGRAPHY

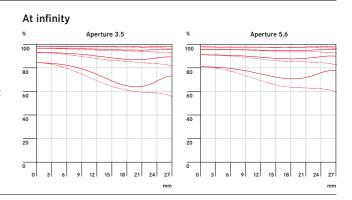
The Leica APO-Elmar-S 180 mm f/3.5 (CS) (144 mm in 35 mm format), also available with a central shutter, sets new standards of quality for handheld telephoto photography. As the contrast performance cannot be improved any further by stopping down, wide open is a working aperture, and optical errors are practically unknown to this ultrahighperformance lens. Thanks to its high speed, this lens is outstanding for the creative use of selective focus in portraits. In studio work, the greater camera-to-subject distance helps by creating more space for setting up the lighting. At the same time, its closest focusing distance of only 1.5 meters makes it ideal for fascinating close-up studies. With the Leica ELPRO-S 180 close-up lens (available separately), it is possible to focus down to 3.6 to 8.9 feet (1.1 to 2.7 meters) and achieve a reproduction ratio of 1:4.5 at the close-focusing limit.

### CONSTRUCTION DETAILS

The design of the apochromatically corrected Leica APO-Elmar-S 180 mm f/3.5 (CS) consists of nine elements in seven groups. Of the six lenses made from glasses with anomalous partial dispersion, two have particularly low dispersion and are instrumental in the elimination of chromatic aberrations. Three lens elements made from glass with a high refractive index almost completely eliminate monochromatic aberrations.

### CHARACTERISTICS

The power to resolve extreme contrasts and the consistent edge-to-edge performance of this lens are extraordinary in every respect. In actual use, the hardly perceptible improvement of its optical performance seen in the MTF curves when stopped down has no effect whatsoever on the extraordinary imaging qualities of this lens. The contrast values are displayed here in percent for 5, 10, 20, and 40 lp/mm for the height of the Leica ProFormat for tangential (dotted line) and sagittal (continuous line) structures.



To see complete MTF curves including relative distortion, please visit www.s.leica-camera.com

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Accessories.









### MULTIFUNCTIONAL GRIP S (Figure 01)

Order no. (handgrip): 16 028 | Order no. (hand strap): 16 004

The multifunctional grip S has a dual function: First off, it has a compartment for an extra battery to improve power reserves. Secondly, it offers comfortable handling when shooting in portrait format. A second shutter release button, a second click wheel, and an additional AF/AE lock button LEMO USB CABLE S (Figure 04) make shooting in portrait format much easier. An additional optional accessory is the Leica hand strap S, available in neoprene with an innovative Velcro quick-fastening system that guarantees a perfectly safe and steady grip on the camera.

### REMOTE-RELEASE CABLE S (Figure 02)

Order no.: 16 029

The remote-release cable S enables vibration-free shutter release, for example for time exposures or multiple exposures for HDR images. It also offers a shutter release lock as a perfect aid when shooting in bulb mode (B).

### AUDIO ADAPTER S (Figure 03)

Order no. (Audio Adapter S only for Leica S (Type 007)): 16 042

The Lemo Audio Adapter S provides sockets for headphones and a remote microphone - both for 3.5 mm jacks.

Order no. (Lemo USB 3.0 cable for Leica S (Type 007)): 16 040

The active Lemo USB 3.0 SuperSpeed cable provides an extremely stable connection between camera and computer for reliable data transfer with maximum speed. It is 5 m long and can be lengthened by connecting cables

### PROFESSIONAL CHARGER S (Figure 05)

The Professional charger S rapidly charges two batteries simultaneously. The charger can also be powered from a standard vehicle cigarette lighter socket.

### BATTERY S (Figure 06)

Order no. (Battery S BP-PRO1 for Leica S (Type 007)): 16 039

High-performance, rechargeable lithium-ion battery developed especially for the Leica S. Constant monitoring of relevant battery data guarantees safe and convenient operation.

### HDMI CABLE S (Figure 07)

Order no.: 14 491

The HDMI cable S allows Leica S and S-E cameras to be connected directly to a monitor or TV with an HDMI port for viewing video recordings and still pictures in the best possible quality.

### AC ADAPTER S (Figure 08)

Order no. (AC adapter S for Leica S (Type 007)): 16 041

The AC adapter S is particularly useful when shooting in studio settings. Its continuous power supply ensures that the battery is not unnecessarily drained and that the camera is constantly ready to shoot.

### LEMO FLASH SYNC CABLE S (Figure 09)

Order no.: 16 031

The 5 m Lemo flash sync cable S guarantees stable and reliable synchronization with off-camera flash systems, also at very short sync speeds up to 1/1000 s.

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### CASE S

Order no.: 16 010

The case in the style of a carry-on not only offers plenty of room for an S camera and five lenses, but also for accessories like the Leica multifunctional grip, rapid charger, professional charger, USB cable, Leica focusing screen, two batteries, and a remote cable release. The Leica case S is particularly robustly constructed. When packed in the case S, all system components are safely protected against dust and water splashes – even when shooting on location under extreme conditions. Thanks to its compact size, the case is ideal for use as carry-on luggage on flights (IATA compliant/may vary with some airlines, routes, and booking classes).





### FOCUSING SCREENS

Order no. (standard focusing screen): 16 000

Order no. (focusing screen with split-image indicator and microprism spot): 16 001  $\,$ 

Order no. (focusing screen with grid): 16 002

Users can easily exchange the focusing screen in the viewfinder of their camera with very little effort. Two alternative focusing screens are available in addition to the standard focusing screen provided with the camera, one with an engraved grid as an aid to precise camera alignment, and a matte screen with a split image and a microprism ring. These are particularly useful for S photographers who predominantly focus manually and are particularly helpful when using third-party lenses with S-Adapters on an S camera body.



Standard focusing screen



Focusing screen with split-image indicator and microprism ring



Focusing screen with grid

### LEICA S-ADAPTER

### LEICA S-ADAPTER C

Order no.: 16 038

### Compatible Contax 645 system lenses:

 Distagon T\* 30 mm f/3.5
 Distagon T\* 45 mm f/2.8
 Distagon T\* 55 mm f/3.5

 Planar T\* 80 mm f/2.8
 Apo-Macro-Planar T\* 120 mm f/4
 Sonnar T\* 140 mm f/2.8

 Sonnar T\* 210 mm f/4
 Tele-Apotessar T\* 350 mm f/4
 Vario-Sonnar T\* 45-90 mm f/4.5

Mutar 1.4× T\*



### LEICA S-ADAPTER H

Order no.: 16 030

### Compatible Hasselblad H System lenses:

 HCD 28 mm f/4
 HC 35 mm f/3.5
 HC 50 mm f/3.5 II

 HC 80 mm f/2.8
 HC 100 mm f/2.8
 HC Macro 120 mm f/4 II

 HC 150 mm f/3.2
 HC 210 mm f/4
 HC 300 mm f/4.5

HC 50-110 mm f/3.5-4.5 HCD 35-90 mm f/4-5.6



### LEICA S-ADAPTER V

Order no.: 16 024

### Compatible Hasselblad V System lenses:

Zeiss Distagon CFi 30 mm f/3.5 Zeiss Distagon CFE 40 mm f/4 Zeiss Distagon CFi 50 mm f/4 Zeiss Distagon CFi 60 mm f/3.5 Zeiss Planar CFi 80 mm f/2.8 Zeiss Planar CFi 100 mm f/3.5 Zeiss Makro-Planar CFE 120 mm f/4 Zeiss Sonnar CFi 150 mm f/4 Zeiss Sonnar CFE 180 mm f/4

Zeiss Sonnar CFi 250 mm f/5.6



### LEICA S-ADAPTER P67

Order no.: 16 026

### Compatible Pentax 67 system lenses:

SMC 67 35 mm f/4.5 Fish-Eye SMC 67 45 mm f/4 SMC 67 55 mm f/4 SMC 67 90 mm f/2.8 LS SMC 67 75 mm f/2.8 AL SMC 67 2.8/90 mm SMC 67 105 mm f/2.4 SMC 67 165 mm f/4 LS SMC 67 200 mm f/4 SMC 67 300 mm f/4 SMC 67 400 mm f/4 SMC 67 500 mm f/5.6 SMC 67 600 mm f/4 SMC 67 800 mm f/4 SMC 67 800 mm f/6.7 EDIF SMC 67 1000 mm f/8 SMC 67 Macro 135 mm f/4 SMC 67 Shift 75 mm f/4.5 SMC 67 100 mm f/4 Macro SMC 67 120 mm f/3.5 Soft SMC 67 165 mm f/2.8 SMC 67 400 mm f/4 ED IF SMC 67 55-100 mm f/4 SMC 67 300 mm f/4 FD IF

SMC 67 90-180 mm f/5.6



### LEICA S-ADAPTER M645

Order no.: 16 025

### Compatible Mamiya 645 system lenses:

24 mm f/4 35 mm f/3.5 45 mm f/2.8 50 mm f/4 Shift 55 mm f/2.8 55 mm f/2.8 LS 80 mm f/1.9 80 mm f/2.8 80 mm f/4 Macro 120 mm f/4 APO 150 mm f/2.8 150 mm f/3.5 150 mm f/3.8 LS 200 mm f/2.8 APO 210 mm f/4 300 mm f/5.6 300 mm f/2.8 APO 500 mm f/5.6 500 mm f/4.5 APO 55-110 mm f/4.5 105-210 mm f/4.5

TS 120 mm f/5.6



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Service packages.



### THE S-SYSTEM WORLD

The Leica S-System is distributed exclusively by a network of specially qualified S dealers and Leica Stores, where professional photographers can find the best possible advisory services and support. At Leica itself, a global team is dedicated exclusively to the S-System and maintains direct contact with customers. Perfect support, short communication channels, and direct contact are a matter of course for a benchmark camera system such as this.

A professional camera system must be backed by perfect service. All products in the S-System portfolio are supplied with a 12-month warranty from the date of purchase. Leica guarantees the availability of all replacement parts for at least six years after product discontinuation.

The dedicated repair helpline available to all Leica S users safeguards faster, more efficient, and shorter service channels and guarantees rapid handling of repair orders. Free\* telephone support is available to our customers throughout the entire working life of their Leica equipment.

### THE LEICA PROTECTION PLAN

The Leica S, its lenses, and system accessories are prepared for all risks that can be encountered in the tough everyday work of professional photographers. Nevertheless, to ensure full and constant readiness of the camera system, it must also be protected against the unexpected. Should the worst-case scenario ever occur, the Leica Protection Plan (LPP) provides extended warranty services for three years following the date of purchase or, depending on which comes first, up to 150,000 shutter cycles (S Type 007) or 100,000 shutter cycles (S-E Type 006). LPPs may be purchased separately for all S-System cameras and lenses.

One of the services offered by the LPP is a one-time inspection including product cleaning and adjustment. If the replacement of the shutter in the camera body or a CS-Lens proves to be necessary for technical reasons, this will be carried out in the course of the inspection. Should repairs become necessary at any time, Leica Customer Care in most regions around the world offers a 24-hour replacement service and loans photographers replacement equipment to ensure that they can continue their work – after all, down-time is not factored into important assignments.

### AVAILABLE LEICA PROTECTION PLANS

LPP Body Leica S (Type 007), LPP Body Leica S-E (Type 006) LPP S-Lens, LPP S-Lens CS, LPP S-Lens Vario

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 $<sup>\</sup>ensuremath{^{\star}}$  Regional telephone charges may be incurred.

### Technical data.

Product	Leica S (Type 007)	Leica S-E (Type 006)
Camera type	Digital medium-format SLR camera for use with Leica S-Lenses	Digital medium-format SLR camera for use with Leica S-Lenses
Image sensor		
Туре	Leica CMOS sensor with micro lenses	Leica CCD sensor with micro lenses and micro-lens shif
Dimensions	30 × 45 mm (Leica ProFormat)	30 × 45 mm (Leica ProFormat)
Aspect ratio	2:3	2:3
Resolution	37.5 megapixels (5000 × 7500 pixels)	37.5 megapixels (5000 × 7500 pixels)
Pixel pitch	6 μm	6 μm
Dynamic range	Up to 15 stops	12 stops
Color depth	16 bits per pixel	16 bits per pixel
Color spaces	sRGB/Adobe RGB/ECI RGB 2.0	sRGB/Adobe RGB/ECI RGB 2.0
White balance	Presets: daylight, cloudy, shade, incandescent, HMI, fluorescent warm, fluorescent cool, flash, gray card (determined from image), gray card Live View, automatic, color temperature (Kelvin)	Presets: daylight, cloudy, shade, incandescent, HMI, fluorescent warm, fluorescent cool, flash, gray card (determined from image), automatic, color temperature (Kelvin)
Low-pass filter/IR filter	No/on sensor	No/on sensor
Moiré suppression	By external digital image processing (e.g. Adobe Lightroom software)	By external digital image processing (e.g. Adobe Lightroom software)
Lenses		
Lens mount	Leica S bayonet for Leica S-Lenses	Leica S bayonet for Leica S-Lenses
Focal length	Dependent on Leica S-Lens attached, conversion factor to 35 mm film equivalent 0.8×	Dependent on Leica S-Lens attached, conversion factor to 35 mm film equivalent 0.8×
Focusing		
Туре	Predictive AF with center cross sensor indicated by crosshairs on the focusing screen, focusing drive integrated in lenses	Predictive AF with center cross sensor indicated by crosshairs on the focusing screen, focusing drive integrated in lenses
AF modes	AFs (single) = focus priority, AFc (continuous) = predictive focus tracking, MF (manual), manual override of AF settings is possible at all times	AFs (single) = focus priority, AFc (continuous) = predictive focus tracking, MF (manual), manual override of AF settings is possible at all times
AF memory	Five-way joystick	Five-way joystick
Manual focus	With lens focusing ring	With lens focusing ring
Exposure setting		
Exposure metering	Exposure metering through the lens (TTL)	Exposure metering through the lens (TTL)
Metering modes	Multisegment metering (five fields), center-weighted integral metering, selective (spot) metering (3.5% of image frame)	Multisegment metering (five fields), center-weighted integral metering, selective (spot) metering (3.5% of image frame)
AE memory	Shutter release or five-way switch	Shutter release or five-way switch
Metering range	(At f/ 2.5 und ISO 100) spot metering: EV 2.7–20, center-weighted and multisegment metering: EV 1.2–20	(At f/ 2.5 und ISO 100) spot metering: EV 2.7-20, center-weighted and multisegment metering: EV 1.2-20
Exposure control	Program AE (with shift function) (P), shutter priority AE (T), aperture priority AE (A), manual metering (M)	Program AE (with shift function) (P), shutter priority AE (T), aperture priority AE (A), manual metering (M)
Exposure compensation	±3 EV in half-EV increments	±3 EV in half-EV increments
Bracketing (AEB)	3/5 exposures (automatic/manual) / half-, one-, two-, and three-EV increments	3/5 exposures (automatic/manual) / half-, one-, two-, and three-EV increments
ISO sensitivity	ISO 100/ISO 200/ISO 400/ISO 800/ISO 1600/ISO 3200/ISO 6400/ISO 12 500/Auto ISO	ISO 100/ISO 200/ISO 400/ISO 800/ISO 1600/Auto ISO

Leica S (Type 007) Leica S-E (Type 006)

	Leica S (Type 007)	Leica S-E (Type 006)
Shutter		
Туре	Microprocessor-controlled metal-blade vertical focal-plane shutter	Microprocessor-controlled metal-blade vertical focal-plane shutter
Shutter speeds	60 s (dependent on ISO setting) to 1/4000 s in half-stop increments	125 s (dependent on ISO setting) to 1/4000 s in half-stop increments
CS shutter option	Optional central shutter in Leica S-Lenses (CS versions)	Optional central shutter in Leica S-Lenses (CS versions)
Shutter speeds CS	Up to 1/1000 s; in stops, flash sync 1/1000	Up to 1/1000 s; in stops, flash sync 1/1000
Linear flash mode	Sync speeds faster than 1/125 s are possible with suitably equipped Leica system flash units and HSS-capable SCA3002 flash units	Sync speeds faster than 1/125 s are possible with suitably equipped Leica system flash units and HSS-capable SCA3002 flash units
Continuous shooting	Up to 3.5 fps	Up to 1.5 fps
Shutter release	Two pressure points; activation of exposure metering and AF, shutter release	Three stages
Self-timer	Two- or 12-second delay with mirror prerelease	Two- or 12-second delay with mirror prerelease
Mirror lockup	Yes	Yes
Video		(No video capability)
Video recording	Full HD in Leica ProFormat (medium format) CINE 4K video in Super 35 window mode	-
Video resolution	Full HD, 1080 × 1920 CINE 4K, 4096 × 2160	-
Frame rate	Full HD, 24, 25, 30 fps 4K, 24 fps	-
Video format	MOV (motion JPEG)	-
Color sampling	4:2:2	-
Exposure control	Manual and automatic	-
Audio control	Manual and automatic	-
Onboard audio	Integrated stereo microphone 48 kHz, 16 bit	-
External audio	Audio input (3.5 mm jack), audio output (3.5 mm jack) with Audio Adapter S	-
Time code	Internal	-
Miscellaneous	Focus Peaking, video playback, full-HD HDMI video stream (clean and uncompressed) for recording on off-camera HDMI recorders	-
Live View		(No Live View)
Maximum burst rate	Up to 60 fps	-
Focusing	AF metering field shift to any part of the viewfinder image	-
Exposure control	Multisegment, center-weighted, spot (linked to AF metering field and movable to any part of the viewfinder image)	-
Exposure simulation	Yes	-
Miscellaneous	Histogram with clipping display, Focus Peaking, leveling aid (spirit level), exposure information	-

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	Leica S (Type 007)	Leica S-E (Type 006)
Viewfinder		
Туре	Pentaprism viewfinder with high-eye-point eyepiece, LCD bar below viewfinder image, illuminated and with displays/warnings	Pentaprism viewfinder with high-eye-point eyepiece, LCD bar below viewfinder image, illuminated and with displays/warnings
Magnification	0.87× (with 70 mm lens at infinity)	0.87× (with 70 mm lens at infinity)
Viewfinder coverage	Approx. 98%	Approx. 98%
Diopter compensation	-3 to +1 diopter	-3 to +1 diopter
Focusing screen	Interchangeable	Interchangeable
Display		
Top-deck display	Self-illuminating LCD panel on top deck	Full-color, self-illuminating top-deck panel (OLED)
Back monitor panel	3" TFT LCD monitor with 921,600 pixels, 16 million colors, sRGB color space, image field approx. 100%, maximum oblique viewing angle 170°	3" TFT LCD monitor with 921,600 pixels, 16 million colors, sRGB color space, image field approx. 100%, maximum oblique viewing angle 170°
Protective cover	Antireflective, dirt-repellent protective glass cover in scratch-resistant Corning® Gorilla® Glass	Antireflective, dirt-repellent protective glass cover in scratch-resistant Corning® Gorilla® Glass
Flash		
Connections	ISO hot shoe, Lemo® flash connection socket	ISO hot shoe, Lemo® flash connection socket
Metering modes	TTL (multisegment, selective, center weighted)	TTL (multisegment, selective, center weighted)
Compatibility	Fully compatible with Leica SF 58 and flash units with SCA3002 adapters	Fully compatible with Leica SF 58 and flash units with SCA3002 adapters
X-sync	Focal plane shutter: 1/125s; central shutter: 1/1000s with CS lenses, sync at all slower speeds, choice of first or second curtain sync; FPS flash sync at faster shutter speeds (1/180 s to 1/4000 s) possible with suitably equipped flash units (HSS mode)	Focal plane shutter: 1/125s; central shutter: 1/1000s with CS lenses, sync at all slower speeds, choice of first or second curtain sync; FPS flash sync at faster shutter speeds (1/180 s to 1/4000 s) possible with suitably equipped flash units (HSS mode)
Flash reflector illumination angle	Automatic adaptation to focal length of lens attached with Leica SF 58 flash unit or system-compatible flash units with motorized zoom reflector	Automatic adaptation to focal length of lens attached with Leica SF 58 flash unit or system-compatible flash units with motorized zoom reflector
Sync time	On first or second curtain (FPS)	On first or second curtain (FPS)
Exposure		
Exposure modes	Single frame, continuous, self-timer 2s, self-timer 12s (with mirror prerelease), time lapse exposure	Single frame, continuous, self-timer 2s, self-timer 12s (with mirror prerelease)
Data recording		
Format	Lossless compressed DNG (approx. 42 MB per exposure), JPEG (in resolutions of 37.5, 9.3, and 2.3 megapixels, approx. 1–16 MB per exposure, depending on resolution and image content)	DNG 37.5 megapixels, approx. 72 MB per exposure), lossless compressed DNG (approx. 42 MB per image), JPEG (in resolutions og 37.5, 9.3, and 2.3 megapixels, approx. 1–16 MB per exposure, depending on resolution and image content)
Buffer memory	DNG compressed, approx. 15 exposures, JPEG no limit (dependent on memory card type, shutter speed, and ISO setting)	DNG max. 28 exposures, DNG compressed max. 32 exposures, JPEG no limit (dependent on memory card type, shutter speed, and ISO setting)
Simultaneous recording of DNG and JPEG data	Yes	Yes
Storage media	SD card (SDXC, SDHC), CF card (UDMA7), external on PC	SD card (SDXC, SDHC), CF card (UDMA7), external on PC
Other functions		

Leica S (Type 007)

### Leica S-E (Type 006)

Menu languages	English, German, French, Italian, Spanish, Russian, Japanese, traditional Chinese, simplified Chinese, Portuguese, Korean	English, German, French, Italian, Spanish, Russian, Japanese, traditional Chinese, simplified Chinese, Korean
Firmware update	User upload option	User upload option
GPS	Selectable (may not be available in all countries due to local legislation); positioning data is recorded in the EXIF data of image files	Selectable (may not be available in all countries due to local legislation); positioning data is recorded in the EXIF data of image files
Wi-Fi	Integrated in the camera (IEEE 802.11n)	-
Date/time	Manual setting option, automatic date, time, and time zone synchronization with activated GPS module	Manual setting option, automatic date, time, and time zone synchronization with activated GPS module
Leveling aid	Measuring accuracy/display sensitivity <1° at 0-40°C ambient temperature	Measuring accuracy/display sensitivity <1° at 0-40°C ambient temperature
Interfaces		
USB	Lemo® USB 3.0 SuperSpeed	Lemo® USB 2.0 HighSpeed
HDMI	HDMI type C socket	HDMI type C socket
Audio	With audio adapter (audio input, audio output, time code)	-
Flash synchronization	Lemo® flash sync socket	X flash sync, Lemo® flash sync socket
Remote release	Lemo® remote cable release	Lemo® remote cable release
Handgrip	For multifunctional grip S	For multifunctional grip S
Power supply		
Battery	Rechargeable lithium-ion battery, nominal voltage 7.3 V, capacity 2300 mAh	Rechargeable lithium-ion battery, nominal voltage 7.4 V, capacity 2100 mAh
Continuous power supply	With Leica AC adapter S (optional accessory)	With Leica AC adapter S (optional accessory)
Power supply and battery chargers	Rapid charger S (with integrated US plug, interchangeable EU, UK, and AUS plugs, as well as vehicle adapter); inputs: 100-240 V AC, 50/60 Hz, automatic toggle, or 12/24 V DC; output: 7.4 V DC, 1250 mA	Rapid charger S (with integrated US plug, interchangeable EU, UK, and AUS plugs, as well as vehicle adapter); inputs: 100-240 V AC, 50/60 Hz, automatic toggle, or 12/24 V DC; output: 7.4 V DC, 1250 mA
Body		
Materials	Full-metal chassis in die-cast magnesium alloy with high-grip synthetic coating, magnesium alloy top deck, baseplate in aluminum	Full-metal chassis in die-cast magnesium alloy with high-grip plastic coating, anthracite gray enameled magnesium alloy top deck, baseplate in fiberglass- reinforced polycarbonate
Operating conditions	0-45°C, 15-80% relative humidity	0-45°C, 15-80% relative humidity
Dimensions (W × H × D):	160 × 80 × 120 mm	160 × 80 × 120 mm
Weight	Approx. 1260 g (body only, with battery)	Approx. 1260 g (body only, with battery)
Dust/splash protection	Yes/yes	Yes/yes
Tripod thread	1/4" and 3/8" with antitwist locking pins	1/4" and 3/8" with antitwist locking pins

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