



my point of view



The new Leica Summarit-M family

Precision lenses for unsurpassed pictures – analog or digital

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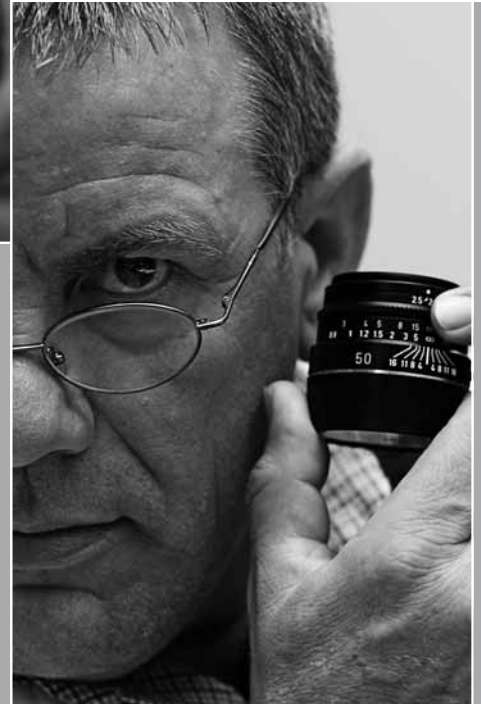


World-class lenses from our factory in Germany

With its new Summarit-M lenses, Leica is opening up the challenging world of rangefinder photography to a wider target group. High-performance Summarit-M lenses are the culmination of decades of striving to achieve perfect optical and mechanical quality by using premium materials, precision production techniques, cutting-edge multi-coatings, and individual hand adjustment. They are all produced at our factory in Germany and carry the “Made in Germany” quality mark. The new Summarit-M lenses deliver beautiful, natural rendition, brilliant colors, a wealth of detail and rich contrast – even at full aperture. The mechanical system is pure Leica – the parts have no backlash and their movement is silky smooth. Summarit-M is a contemporary interpretation of classic lens construction in the renowned Leica tradition.

Summarit-M : Amazing quality plus outstanding value

With four focal lengths of 35, 50, 75 and 90 mm, the new Summarit-M class covers all of the traditional applications in rangefinder photography. Our philosophy is to consistently reduce things to their absolute essentials, and the new Summarit-M lenses represent the very best that can be achieved today using traditional spherical lens design, for both analog and digital Leica M photography. All are 6-bit coded for optimum compatibility with the LEICA M8, but also demonstrate their full capabilities on all M models from the LEICA M3 onwards. Because film materials and image sensors are increasingly sensitive, all members of the Summarit-M line provide a moderately fast lens speed of f/2.5, but have been designed using the latest optical calculations, yielding a compact construction without compromising their excellent image quality.



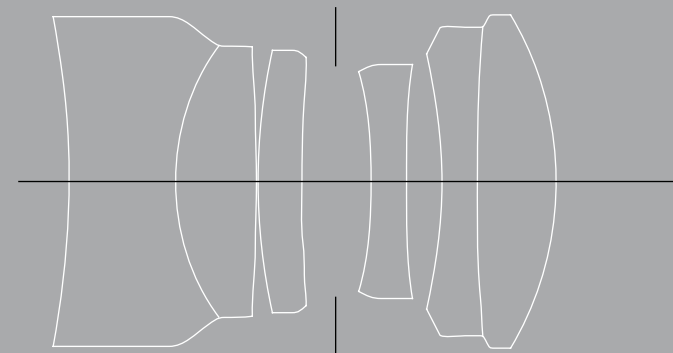
LEICA SUMMARIT-M 35 mm f/2.5 The new Summarit-M models feature compact construction in a lens speed class that is totally new for Leica. The LEICA SUMMARIT-M 35 mm f/2.5 gives all users of range-finder cameras with a Leica M bayonet access to the smallest and lightest 35 mm lens available, offering the outstanding image quality that is the hallmark of all Leica M lenses.

The heart of your equipment In the Leica M system the 35 mm lens is used by many as the standard focal length, while on the digital LEICA M8, the LEICA SUMMARIT-M 35 mm f/2.5 corresponds approximately to a 50 mm standard lens. As a genuine all-rounder, it is indispensable choice whenever you are putting together a new equipment configuration since it can deal effectively with all photographic situations – from vivid shots of people at medium range all the way to dramatic landscapes.

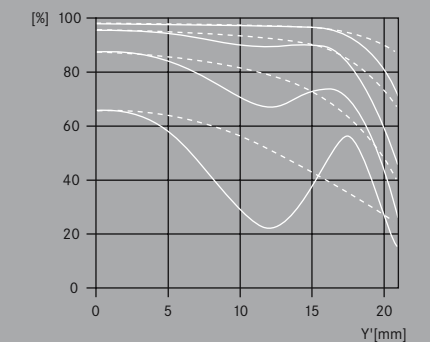


Extremely compact, extremely good The LEICA SUMMARIT-M 35 mm f/2.5's small, handy and stylish design is matched by its impressive performance. It produces excellent contrast and outstanding resolution across the entire image field. On the digital LEICA M8, the image quality is superb right to the edges of the picture, even at full aperture. In analog applications, performance in the extreme corners of the image can be improved slightly by stopping down to f/5.6.

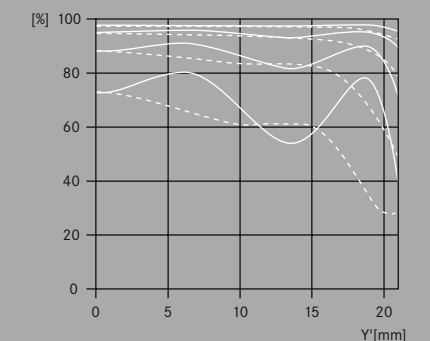
Lens cutaway



f/2.5



f/5.6

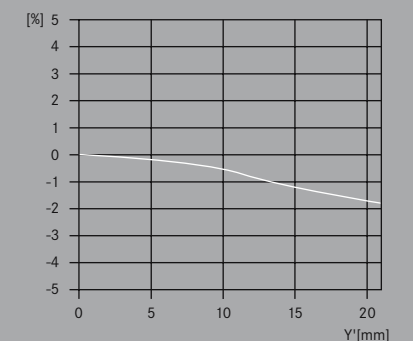


Natural pictures in the medium range With the 35 mm Summarit-M, you can produce brilliant and realistic looking shots of people in their environment. The relatively short focal length and wide depth of field this lens provides means that at medium apertures there is often no need for precise focusing. This makes it easy to take spontaneous and life-like unposed pictures.



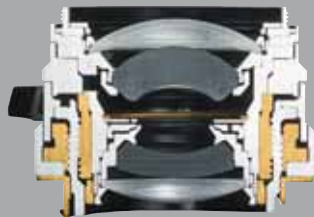
Sophisticated lens design The LEICA SUMMARIT-M 35 mm f/2.5 has six lens elements in four groups, arranged symmetrically with respect to the diaphragm. Three elements are made of special high refractive index glass with anomalous partial dispersion. This improves the image results and provides outstanding color correction that could never be achieved with normal glass. Light falloff is minimal, measuring only around 1.5 stops in the corners at full aperture in 35 mm format. Stopping down to 5.6 visibly reduces light falloff towards the periphery of the image. When used on the LEICA M8, virtually all vignetting is compensated electronically. Precise optical measurements reveal very slight barrel distortion, but in amounts that are negligible in almost all practical applications.

Relative Distortion



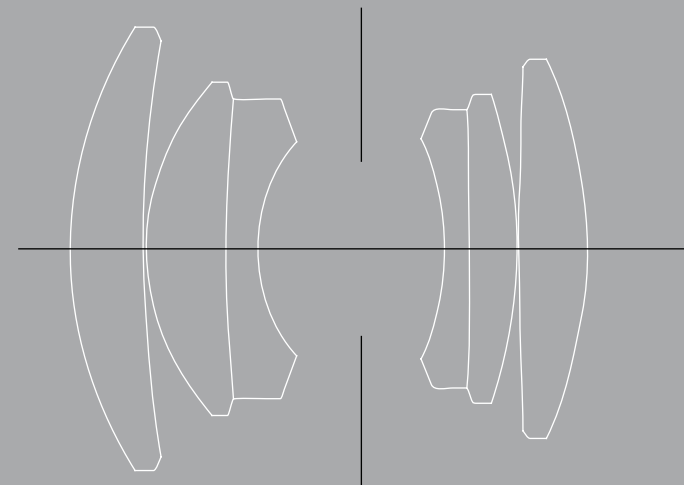
LEICA SUMMARIT-M 50 mm f/2.5 Powerful, lightweight and designed to be easy to operate, the LEICA SUMMARIT-M 50 mm f/2.5's applications are as varied as life itself. It corresponds closely to the field of vision and viewing patterns of the human eye and offers an impressively neutral and natural perspective. On analog cameras, it is a brilliant standard lens while on the digital LEICA M8, its 67 mm equivalent focal length makes it ideal for portraits or picking out precise details.

The smallest new Summarit-M The 50 mm Summarit-M is tailor-made for everyday photography. Its lens speed is perfectly adapted for all common applications. It is an updated double-Gauss six-element construction based on our tried and tested design. All of this means that this particular Summarit-M makes the Leica M easier to experience than ever before, without cutting any corners in terms of optical performance.

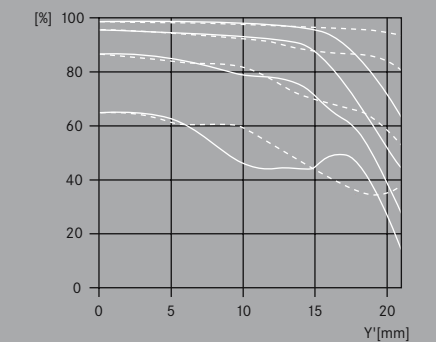


Small on the outside, quality on the inside Even at full aperture, the lens offers outstanding results with excellent contrast over almost the entire image field. At the extreme edges of the field – which are not captured by the slightly smaller format of the digital LEICA M8 – the performance can be improved by stopping down to 5.6. Even at close range, these excellent results are largely maintained.

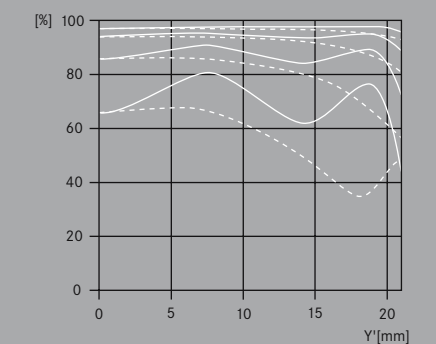
Lens cutaway



f/2.5



f/5.6

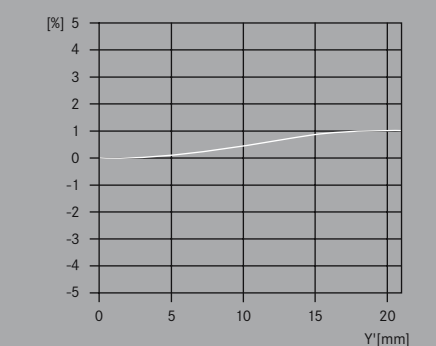


Convincingly realistic perspective Not just beneficial for portraits, but for all shots at full aperture, the shallow depth of field of this lens makes the main subject stand out from the background. This results in pictures with enhanced impact and out-of-focus areas that have a pleasant, natural smoothness.



Optimum image correction The LEICA SUMMARIT-M 50 mm f/2.5 has a traditional double-Gauss construction made up of six lens elements in four groups, arranged symmetrically. As a result, it provides an outstandingly flat image field and excellent correction for chromatic aberrations and distortion. Maximum measurable vignetting in the corners of the field is around 1.7 stops at full aperture in the 35 mm format. Stopping down to 5.6 significantly reduces this light falloff at the periphery of the image to around 1 stop. On the digital LEICA M8, it is compensated automatically. The very slight pincushion distortion is negligible in almost all applications.

Relative Distortion



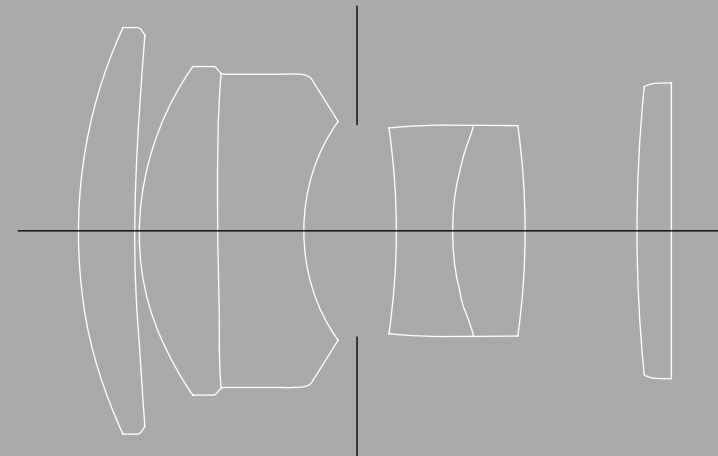
LEICA SUMMARIT-M 75 mm f/2.5 The LEICA SUMMARIT-M 1:2.5/75 mm is a new “short telephoto” lens that is significantly smaller and lighter than Summicron lenses with the same focal length, but still offers the image quality that is the hallmark of Leica M lenses. Combined with the 35 mm Summarit-M, it makes up an ideal shooting outfit with a useful lens speed that opens up fascinating composition options for Leica M photographers.

The ultra-compact “short telephoto” The new 75 mm Summarit-M replaces the portrait focal lengths of 90 – 100 mm for digital use. Its exceptionally compact design and performance bring a new level of flexibility to rangefinder photography. Our concentration on the essential elements, including the features, is now an alternative for more serious photographers. All new Summarit-M lenses are supplied with metal covers and velour pouches, while high quality lens hoods are available as accessories.



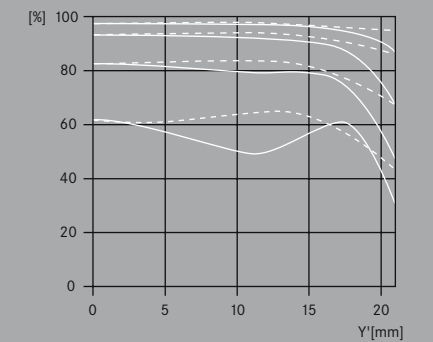
Concentrated performance Even at full aperture, the lens demonstrates excellent imaging capability with outstanding contrast over the entire image field. A slight reduction in quality can only be seen in the corners – which are not even captured by the slightly smaller format of the digital LEICA M8 – but this can be almost totally eliminated by stopping down to 5.6. At close range, image quality is reduced only slightly, but is well up to the Leica standard.

Lens cutaway

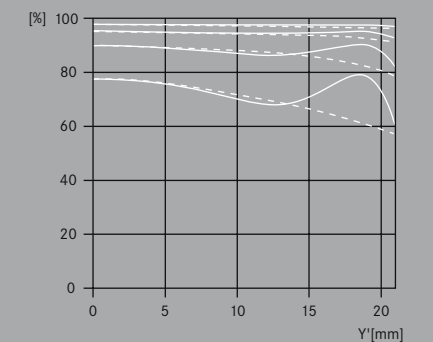


Sophisticated special glass The LEICA SUMMARIT-M 75 mm f/2.5 is a double-Gauss type with six lens elements in four groups – three in front of and three behind the diaphragm, with the last lens positioned slightly closer to the focal plane to reduce bulging of the image field. Four elements are made of special glass with anomalous partial dispersion and two of them are also high index glass. Maximum light falloff in the corners is around 1.5 stops at full aperture in the 35 mm format. Stopping down to f/4 reduces this light falloff to a negligible level. The extremely low distortion of just 0.8% is essentially invisible in all practical applications.

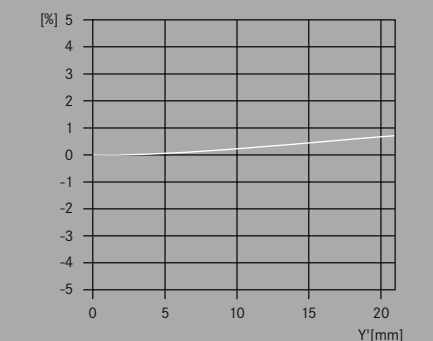
f/2.5



f/5.6



Relative Distortion



Subtle modulation The natural perspective provided by this focal length means that portrait shots have a lovely plasticity with well-differentiated contours, without the subject losing any of its lifelike and natural appearance. In reportage, for example, the critical elements of the subject can be selectively emphasized without losing the overall context.



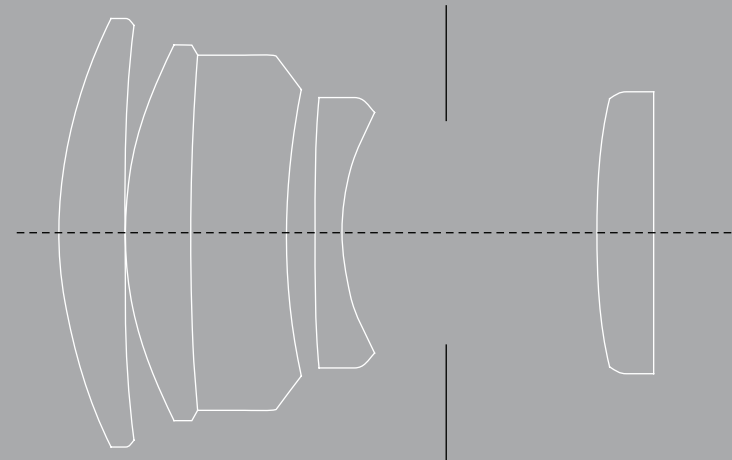
LEICA SUMMARIT-M 90 mm f/2.5 The LEICA SUMMARIT-M 90 mm f/2.5 is a versatile telephoto lens that rounds off the new lens speed class of Summarit-M lenses. Despite being much more handy and lighter than the comparable 90 mm Summicron lens, it offers outstanding optical and mechanical quality.

Handy telephoto equipment The 90 mm telephoto lens is a perfect demonstration of how Leica's Summarit-M class is setting new standards in spherical lens design. A Leica M camera with a LEICA SUMMARIT-M 90 mm f/2.5 fitted is an extremely compact and handy unit. Compared to other 90 mm focal length lenses, there is hardly any intrusion into the viewfinder image.



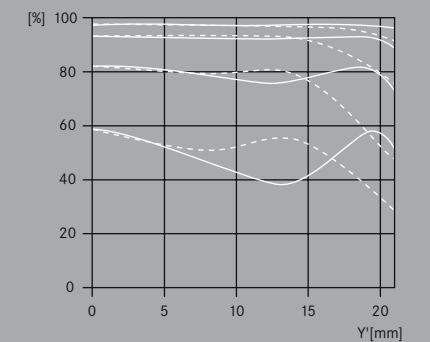
Sophisticated telephoto construction Even at full aperture, this lens demonstrates excellent imaging capability with outstanding contrast over the entire image field. A slight reduction in quality can only be seen in the corners – which are not even captured by the slightly smaller format of the digital LEICA M8 – but even this can be improved significantly by stopping down to f/5.6.

Lens cutaway

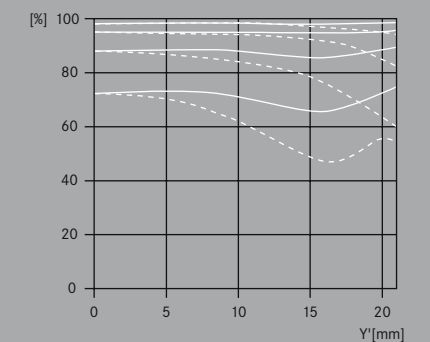


Distortion is very low The LEICA SUMMARIT-M 90 mm f/2.5 has five lens elements in four groups, one of which is made of a type of optical glass that not only has anomalous partial dispersion but also has extremely low dispersion overall. Maximum light falloff in the corners is around 1.6 f-stops at full aperture in the 35 mm format. Stopping down to f/4 substantially reduces this light falloff at the periphery of the image. The extremely low distortion of just 0.75% is only significant in a limited number of specialized applications.

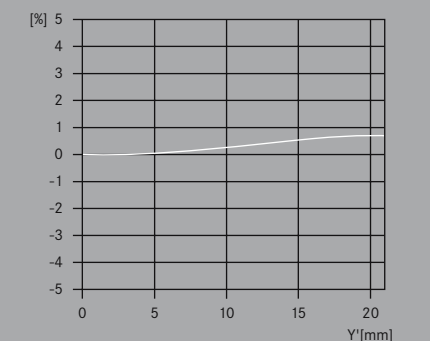
f/2.5



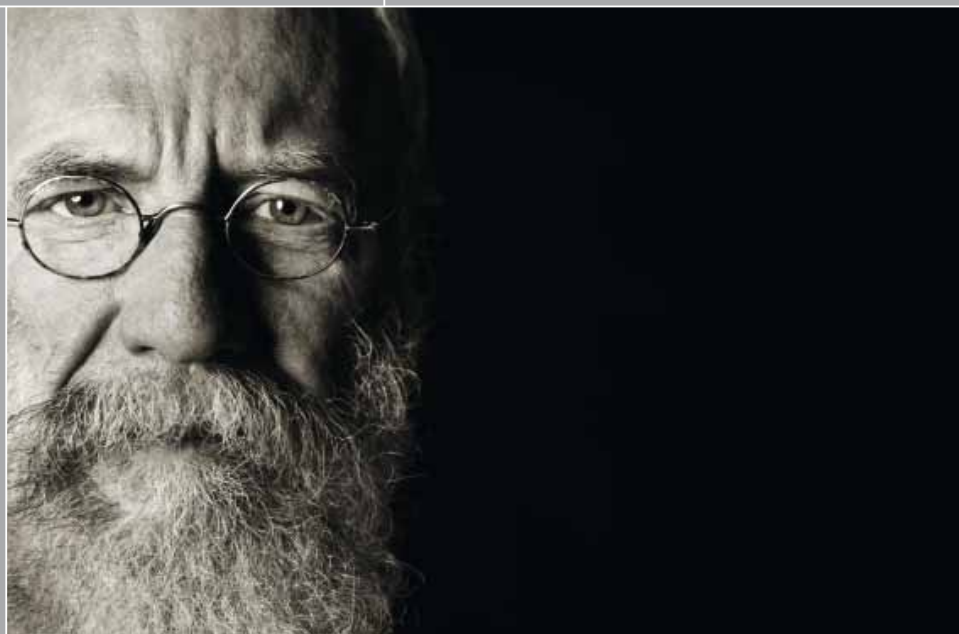
f/5.6



Relative Distortion



Total perfection The new lens is an impressive demonstration of the real-world benefits of our expertise with exclusive types of glass, minimum mechanical tolerances and sophisticated image error minimization techniques. It is a portrait lens that can also provide outstanding close-ups of landscapes or architecture and corresponds to a full-fledged 120 mm telephoto lens when used on the LEICA M8.



The secret of the silk-soft focussing mechanics Optical high performance elements which can be precisely and delicately moved, is a science, is technical and an art, all at the same time. All focussing mounts from Leica use the ideal metal pairing for their high class “helicoil” : hard aluminum, the silver lightweight metal, and brass, the yellow alloy with good gliding characteristics. Leica produces the fastenings using modern high speed machines. Most notably Leica grinds the components of the focussing group individually for a better fit with one another. This allows the surfaces to smoothly glide with minimal variable resistance, without noticeable tolerance, but with a consistently fine feeling motion. This makes manual focussing a pleasurable experience for decades, even under adverse temperatures from -20 to +60 degrees.

Summarit-M : Leica lenses for all cameras with M bayonet

Working rangefinder photographers who are looking for a high quality yet affordable addition to their camera need look no further than the new Summarit-M range of lenses. The high resolution of the image sensor and speed settings of up to ISO 2500 are ideal complements for Summarit-M lenses. They enable shots with a richness of detail and sharpness that you can only expect from a Leica. Operation and functionality is kept to the essentials on the digital M camera too. Useful additional functions that digital technology provides supplement the tried and tested M concept. The new Summarit-M lenses can be used on all analog M cameras from the LEICA M3 onwards without compromising their outstanding imaging capability.



Technical Data and Accessories



Lens	LEICA SUMMARIT-M 35 mm f/2.5	LEICA SUMMARIT-M 50 mm f/2.5	Lens	LEICA SUMMARIT-M 75 mm f/2.5	LEICA SUMMARIT-M 90 mm f/2.5
Order No.	11 643	11 644	Order No.	11 645	11 646
Angle of view (diagonal, horizontal, vertical)	For 35 mm (24x36 mm) : 63°, 54°, 38°, for LEICA M8 (18x27 mm) : 50°, 42°, 29°, corresponds to a focal length of approx. 47 mm with 35 mm-format	For 35 mm (24x36 mm) : 47°, 40°, 27°, for LEICA M8 (18x27 mm) : 36°, 30°, 20°, corresponds to a focal length of approx. 67 mm with 35 mm-format	Angle of view (diagonal, horizontal, vertical)	For 35 mm (24x36 mm) : 32°, 27°, 18°, for LEICA M8 (18x27 mm): 24.4°, 20.4°, 13.7°, corresponds to a focal length of approx. 100 mm with 35 mm-format	For 35 mm (24x36 mm) : 27°, 22,6°, 15,2°, for LEICA M8 (18x27 mm): 20,4°, 17.1°, 11.4°, corresponds to a focal length of approx. 120 mm with 35 mm-format
Optical design			Optical design		
Number of lenses/groups	6/4	6/4	Number of lenses/groups	6/4	5/4
Position of entrance pupil	(from apex of 1 st lens element) 9.3 mm	28.0 mm	Position of entrance pupil	29.9 mm	59.8 mm
Distance setting			Distance setting		
Focusing range	0.8 to ∞	0.8 m to ∞	Focusing range	0.9 m to ∞	1 m to ∞
Scales	Combined meter/feet graduation	Combined meter/feet graduation	Scales	Combined meter/feet graduation	Combined meter/feet graduation
Smallest object field/ Largest reproduction ratio	For 35 mm, approx. 490 x 735 mm / 1:20.4 for LEICA M8, approx. 367 x 551 mm / 1:20.4	For 35 mm, approx. 338 x 508 mm / 1:14.1 for LEICA M8, approx. 254 x 380 mm / 1:14.1	Smallest object field/ Largest reproduction ratio	For 35 mm, approx. 238 x 357 mm / 1:9.9, for LEICA M8, approx. 178 x 268 mm / 1:9.9	For 35 mm, approx. 213 x 320 mm / 1:8.9, for LEICA M8, approx. 160 x 240 mm / 1:8.9
Aperture	Setting/Function Preset, with click-stops, half values available ; Lowest value 16	Setting/Function Preset, with click-stops, half values available ; Lowest value 16	Aperture	Setting/Function Preset, with click-stops, half values available ; Lowest value 16	Setting/Function Preset, with click-stops, half values available ; Lowest value 16
Lens mount	Leica M quick-change bayonet with 6 bit lens identification bar code for digital M models	Leica M quick-change bayonet with 6 bit lens identification bar code for digital M models	Lens mount	Leica M quick-change bayonet with 6 bit lens identification bar code for digital M models	Leica M quick-change bayonet with 6 bit lens identification bar code for digital M models
Filter mount/Lens hood	Non-rotating, internal thread for screw-on filters size E39, external thread with stop for lens hood, protection ring for external thread included in delivery, lens hood available as accessory	Non-rotating, internal thread for screw-on filters size E39, external thread with stop for lens hood, protection ring for external thread included in delivery, lens hood available as accessory	Filter mount/Lens hood	Non-rotating, internal thread for screw-on filters size E46, external thread for lens hood, protection ring for external thread included in delivery, lens hood available as accessory	Non-rotating, internal thread for screw-on filters size E46, external thread for lens hood, protection ring for external thread included in delivery, lens hood available as accessory
Viewfinder	Camera viewfinder	Camera viewfinder	Viewfinder	Camera viewfinder	Camera viewfinder
Finish	Black anodized	Black anodized	Finish	Black anodized	Black anodized
Dimensions and weight			Dimensions and weight		
Length to bayonet flange	approx. 33.9 mm	approx. 33.0 mm	Length to bayonet flange	approx. 60.5 mm	approx. 66.5 mm
Largest diameter	approx. 51.4 mm	approx. 51.5 mm	Largest diameter	approx. 55 mm	approx. 55 mm
Weight	approx. 220 g	approx. 230 g	Weight	approx. 345 g	approx. 360 g
Compatible Cameras	All Leica M cameras	All Leica M cameras	Compatible Cameras	All Leica M cameras	All Leica M cameras

Accessories : lens hood caps for all lenses

Not every photographer likes to use a lens hood, which is why we decided not to integrate one into these lenses. This allows an exceptionally small and light lens construction and also reduces the price. Of course, high quality metal lens hoods are available as accessories for those who see them as a useful part of their equipment. All lens hoods are supplied with an appropriate lens hood cap.

For Summarit-M 35 mm and 50 mm
Order No. 12 459



For Summarit-M 75 mm and 90 mm
Order No. 12 460

