

35 mm PL Mount Zoom Lenses



Digital cinema cameras with high-resolution imaging devices that rival the quality of film, have begun production for theatrical release. It has long been desired to improve upon the optical characteristics and performance of the lens to meet the quality of these cameras. Fujinon engineers exhaustively developed the PL Mount series utilizing the expertise gained from the lens design process honed over many years, thus a whole new 35 mm PL Mount Zoom Lens series has been developed based upon this knowledge.

▶ High resolution throughout the zoom range

Prime lenses have long been the choice for optimal performance, thus various fixed focal length lenses had to be employed for shooting. The Fujinon PL Mount HK series, with high resolution throughout the zoom range make a compelling argument for utilising one zoom lens in place of multiple primes. This will ultimately save time and money in all productions.

▶ High performance at wide apertures

Compared to a general broadcast video lens, the Fujinon PL Mount Lenses have a large diameter front element, providing a very fast T-Stop, combined with a large imager, bring extraordinary depth and realism to the screen.

▶ Ultimate high performance

Fujinon's experience gained from the design and implementation of our Cine Super e series lenses helped to form the basis of the PL Mount series. Customers provided valuable feedback from the many theatrical features and TV commercials shot using the Cine Super Lenses.

Both a special low dispersion glass, as well as a high refractive index glass are arranged to achieve optimal balance. The zoom mechanism suppresses aberration change from the WIDE side to TELE end by adopting our exclusive floating method.

PL Mount series lenses feature Fujinon's unique EBC coating to reduce flare and ghosts to improve image quality. In addition, the contrast performance is rich, the resolution superb. The net results are lenses with excellent overall balance. The Fujinon PL Mount Lenses are consistent at every focal length, object distance and T-stop combination.

▶ Focus rotation 280 degrees

Fujinon PL Mount Lenses adopt a lead-cam method in order to achieve 280 degrees of focus rotation angle, instead of the traditional helicoid screw, which is used in ENG lenses for its' focus lens mechanism. Super precise machining technology and careful assembling techniques provide precise focusing. A large barrel diameter provides for excellent results when pulling focus.

▶ Constant T-No.

Changes in the T-No. when zooming is considered undesirable in cinematography. Therefore, Fujinon's PL Mount Lens series meets the demand for a constant T-No., from the wide end to telephoto end (HK5.3x7.5: T-No. 2.8-3.8).

Fujinon. To see more is to know more.

▶ Line up

		WIDE						TELE	
Angular field of view		79°	67°	53°	29°	18°	16°	7.4°	3.2°
Focal length (mm)	35 mm	14.5	18	24	45	75	85	180	400
	2/3"	5.8	7.2	9.6	18	30	34	72	160
HK3.1x14.5		14.5 – 45 mm							
HK4.7x18			18 – 85 mm						
HK7.5x24				24 – 180 mm					
HK5.3x75					75 – 400 mm				

▶ Colour matching

In cinematography, lenses are chosen for each scene according to focal length, making it extremely important that all lenses have the same colour-balance. Fujinon's PL Mount Lens series are designed and manufactured to exhibit the same transmission characteristics by using various glass materials in ideal balance and by adoption our EBC Coating, optimised for each optical element.

This eliminates time spent for colour adjustment in post production, and contributes to overall savings, as well as image performance.

▶ Temperature shift control technology

Materials have been carefully selected as to minimise flange back shift over a wide temperature range. Due to the nature of HD cameras, Fujinon has employed a method for users to perform flange focal adjustment without the need of special tools. No shims are required.

▶ Best performance with replacement lens mount

Fujinon PL Mount Lenses can achieve high optical performance with both film cameras and digital cameras. For users seeking the best performance the lenses are equipped with a unique new mechanism to replace the lens mount. The PL Mount Lenses can readily be optimised to get the best optical properties possible.

▶ New development of 9 iris blades

In order to improve the depiction of a more natural out of focus image, Fujinon has developed a new 9 blade iris for the PL Mount Lenses. Images of bright objects, not in critical focus, will look more natural and pleasing to the eye.


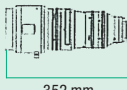


▶ Minimised focus breathing

For most standard lenses, when focusing, the field of view changes as though the lens is zooming. The phenomenon is called focus breathing or pumping. Fujinon PL Mount Lenses have adopted an inner focus and floating method for the lens focus structure to eliminate the focus breathing phenomenon to a level which does not interfere the visual content of the production.

▶ Uniformed size and shape, popular accessories can be used

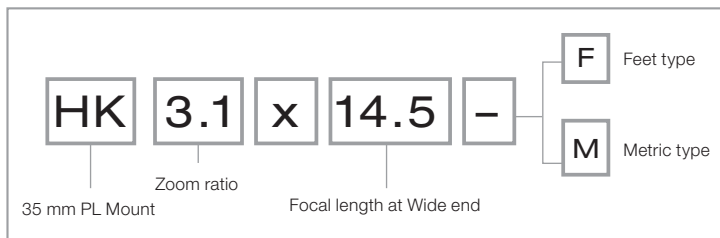
Fujinon has unified the size and shape of the Fujinon PL Mount Lens series for efficient workflow. All Fujinon PL Mount Lens front diameters are $\varnothing 136$ mm, focus and iris gear diameter, thread pitch and positions are also unified. Matte-box, follow-focus and other cinematography accessories of ARRIFLEX, CROSZIEL, etc. are compatible.

► Specifications

Specifications/Lens	HK3.1x14.5	HK4.7x18	HK7.5x24	HK5.3x75
Application	35 mm PL Mount Camera	35 mm PL Mount Camera	35 mm PL Mount Camera	35 mm PL Mount Camera
Focal Length	14.5 – 45 mm	18 – 85 mm	24 – 180 mm	75 – 400 mm
Zoom ratio	3.1x	4.7x	7.5 x	5.3 x
T-No.	1:2.0	1:2.0	1:2.6	1:2.8 (75 – 270 mm) T3.8 (400 mm)
Iris Blades	9	9	9	9
M.O.D. from image planes	0.71 m (2.3 ft)	0.82 m (2.7 ft)	1.24 m (4.1 ft)	2 m (6.6 ft)
Object dimensions at M.O.D.	14.5 mm 693 x 390 mm	18 mm 656 x 369 mm	24 mm 924 x 520 mm	75 mm 580 x 326 mm
16:9 Aspect ratio*	45 mm 215 x 121 mm	85 mm 139 x 78 mm	180 mm 119 x 67 mm	400 mm 113 x 64 mm
Angular field of view	14.5 mm 79° 13'	18 mm 67° 23'	24 mm 53° 08'	75 mm 18° 11'
16:9 Aspect ratio*	45 mm 29° 52'	85 mm 16° 04'	45 mm 07° 38'	400 mm 3° 26'
Focus rotation	280°	280°	280°	280°
Zoom rotation	160°	160°	160°	160°
Size ϕ x Length	ϕ 136 x 310 mm	ϕ 136 x 352 mm	ϕ 136 x 405 mm	ϕ 136 x 444 mm
Weight	6.5 kg	6.9 kg	8.9 kg	8.9 kg
Appearance				

* Sensor size: 24.0 x 13.5 mm

► Feet type and Metric type are available



Specifications are subject to change without notice. 01/12