

# SONY

## SELP18110G

### 18-110mm APS C / Super35 E-mount Power Zoom Lens

18-110mm (6.1x) Super 35mm/APS-C format power zoom lens, built for 4k moviemaking. Constant F4 maximum aperture throughout the zoom range for flexible operation. SMO (Smooth Motion Optics) Minimized focus breathing, ramping and axial displacement.



#### Key Features

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##### Wide ratio (6.1x) power zoom lens

This advanced powered zoom lens has been designed for optimum performance in pro-standard Super 35mm / APS-C moviemaking applications. Starting at 18mm wide-angle and extending through an impressive 6.1x zoom range, it offers a constant F4 maximum aperture all the way. Controls and layout have also been optimized for moviemaking.

##### High-quality G-Lens™ optical design - ideal for 4K moviemaking

High-quality G Lens optical performance delivers image quality that will satisfy the most demanding professional requirements. Six aspherical elements and three ED glass elements in an 18-element 15-group design effectively suppress spherical and chromatic aberration throughout the zoom range, from the image center to periphery, achieving high resolution that is ideal for 4K production. This lens is not only an excellent choice for movies, but offers outstanding image quality for still photography as well, with stunning resolution throughout every APS-C format image.

##### Smooth Motion Optics

SMO (Smooth Motion Optics) design and construction minimizes unwanted focus and image shifts while focusing or zooming for stable, high-level 4K movie production while ensuring smooth, quiet operation. Unwanted image shifts that can have a significant impact on movie quality. Focus "breathing" or shifts in angle of view during focusing are minimized by an internal focus mechanism. Small focus shifts that can occur while zooming are eliminated by precise focus tracking adjustment and axial image shifts while zooming are minimized by a constant-length design.

##### Constant F4 max aperture and 7-blade circular iris

Constant F4 max aperture maintains exposure and depth of field regardless of the focal range you chose to zoom to. When changing your aperture to defocus the background, the areas outside of the focal plane appear blurred. This 'bokeh' effect of the blurred background can be enhanced with circular aperture blades used in this lens. Conventional aperture blades have flat sides creating unappealing polygonal shaped defocused points of light.  $\alpha$  lenses overcome this problem through a unique design that keeps the aperture almost perfectly circular from its wide-open setting to when it is closed by 2 stops. Smoother, more natural defocusing can be obtained as a result

##### Servo / manual mechanical zoom w/ switchable zoom ring direction

High-level zoom functions include responsive manual zoom in addition to servo zoom for precise and flexible control in any situation. A mechanical drive system for manual zoom operation ensures direct, responsive control with no lag. The desired angle of view can be easily and accurately reached without overshoot or undershoot. When servo zoom is required it can be quickly activated by a switch. The direction of the zoom ring can also be switched to match individual user preferences. Slow zoom is also supported, up to three times slower than the FE PZ 28-135mm F4 G OSS.

# SONY

## **Independent Zoom, Focus and Iris rings for superior control**

Independent focus, zoom and iris (aperture) rings offer superior direct operability and reliability for professional visual production. The focus ring slides to switch between auto and manual focus (AF/MF), so the switchover can be made with no break or change in shooting posture. It also includes a distance scale to aid manual focus and a 0.8mm pitch focus gear, built right onto the focus ring, which provides direct compatibility with standard focusing accessories. Servo / manual mechanical zoom with switchable zoom ring direction offer precise control over a wide range of shooting conditions. The iris ring can be switched between clickable aperture stops for still image or off for smooth and silent iris control for video.

## **Inner focus and zoom**

Internal focus and zooming means the overall length of the lens remains constant. This makes it easy to use matte boxes and other lens accessories, and also minimizes center of gravity shift so that the lens remains ideally balanced for stable shooting. The filter thread at the front of the lens does not rotate, which is convenient if you're using a polarizing filter.

## **Dust and moisture resistant design for maximum<sup>1</sup>**

The dust and moisture resistance design makes this lens appropriate for heavy-duty outdoor use, especially when combined with a camera that employs weather resistant measures such as the Sony's a7 series of cameras<sup>1</sup>. Design and manufacture are carried out to rigorous standards, ensuring the highest possible performance and reliability for movie production.

## **Super Sonic wave motor drive for zoom with internal zoom structure**

This power zoom lens offer enhanced control and expressive potential for moviemaking, with smooth, consistent zooming that is difficult to achieve manually. Details like smooth acceleration and deceleration are important too, and of course tracking is excellent throughout. The SSM (Super Sonic wave Motor) drive is ideal for moviemaking as it achieves quiet zoom and extra-smooth iris control.

## **Silent Iris and linear AF drive system for quiet operation**

Noise while adjusting iris or focus can be an unwanted distraction on your movie soundtrack. Sony's advanced iris control and linear AF motor drive system achieve quiet focusing that is also extremely responsive. Part of the reason that focus control is so quiet is that original Sony linear motors are contactless, with no gears or mechanical coupling to generate noise

## **Optical SteadyShot™ image stabilization for video and stills**

Gyro sensors built into the lens detect even the slightest movement, and the stabilization lens is precisely shifted to counteract any image blur that might occur. The use of precision, quiet linear motors and technology inherited from high-end Sony professional camcorders results in exceptionally quiet, effective image stabilization that contributes to high-quality movies as well as stills.

## **ED glass / Super ED glass**

As focal lengths get longer, lenses built with conventional optical glass have difficulties with chromatic aberration, and as a result images suffer from lower contrast, lower color quality, and lower resolution. ED (Extra-low Dispersion) glass dramatically reduces chromatic aberration at telephoto ranges, and provides superior contrast across the entire image, even at large aperture settings. Super ED glass provides enhanced compensation for chromatic aberration.

## **Aspherical lens elements**

Aspherical lens design dramatically reduces spherical aberration while also reducing lens size and weight. Spherical aberration is a slight misalignment of the light rays projected on the image plane. This is caused by differences in refraction at different points on conventional spherical lenses which degrade image quality in large-aperture lenses. Specially shaped "aspherical" elements near the diaphragm restore alignment of light rays at the image plane, maintaining high sharpness and contrast even at maximum aperture and can also be used at other points in the optical path to reduce distortion. Well-designed aspherical elements can reduce the total number of elements required in the lens, thus reducing overall size and weight

## **Designed with video in mind**

# SONY

For maximum mobility, this lens features a compact, lightweight design compared to similar focal range lenses for video. A removable tripod mount bracket is convenient for transport and storage. With both 1/4" and 3/4" screw sockets it adapts easily to video and still photography tripods. In addition the lens can be supported at the front end to provide maximum stability when using a follow focus attachment for example. It ships with a large front lens cap and hood with built-in shutter

## Specifications

Lens Specifications	
35mm equivalent focal-length (APS-C) (mm)	27mm-165mm
Angle of view (APS-C)	76°-14°30' (with interchangeable-lens digital camera incorporating APS-C type image sensors.)
Circular aperture	Yes
Dimensions dia. x length (in.)	4-3/8" x 6-5/8"
Dimensions dia. x length (mm)	110mm x 167.5mm
Filter diameter (mm)	95mm
Focal-length (mm)	18mm-110mm
Format	APS-C
Hood type	Square shape, bayonet type
Image stabilization (SteadyShot)	Optical SteadyShot
Lens construction (groups-elements)	15 groups / 18 elements
Lens mount	Sony E-mount
Maximum aperture (F)	F4
Maximum magnification ratio (x)	0.122x
Minimum aperture (F)	F22
Minimum focus distance (ft)	1.31(W)-3.12(T)ft(AF/MF) 3.12ft (Full MF)
Minimum focus distance (m)	0.4m(W) - 0.95m(T) (AF/MF) 0.95m (Full MF)
Number of aperture blade	7
Product name	E PZ 18-110mm F4 G OSS
Teleconverter compatibility (x1.4)	SEL14TC
Teleconverter compatibility (x2.0)	SEL20TC
Type	Interchangeable lens
Weight (approx.) (g)	1105g (Without tripod mount)
Weight (approx.) (oz.)	39 oz
Zoom system	Both manual and powered
Accessories	
Supplied Accessories	ALC-SH148 bayonet type lens hood (square) Lens front cap Lens rear cap (ALC-R1EM) Case Tripod mount

1. 27mm - 165mm equiv. in 35mm format on APS-C and Super 35 cameras

2. Although the design is dust and moisture resistant, absolute protection from dust and moisture is not guaranteed.

4. Smooth Motion Optics

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