SONY

SEL100400GM

FE 100-400mm F4.5–5.6 GM Super Telephoto Zoom Lens

Full-frame super telephoto zoom with outstanding sharpness, fast AF and compact design that maintains the high standard of resolution shared among all of Sony's flagship line of G Master™ lens series. It's an exceptionally powerful photographic tool for a variety of enthusiast and professional shooters, in particular those that are commonly shooting sports or wildlife.

Bullets

- G Master design combines extraordinary sharpness and smooth bokeh
- Double-linear and Direct Drive SSM for fast, quiet, precise focus
- Optical SteadyShot™ image stabilization significantly reduces blur
- Versatile min. focus distance of 3.22' / 0.35x max. mag.
- 9-blade circular aperture contributes to gorgeous bokeh
- Aspherical lens element dramatically reduces spherical aberration
- Super ED & ED (Extra-low Dispersion) glass reduces flare & ghosting
- Nano AR coating suppresses reflections, flare and ghosting
- Multi-function focus hold button and zoom torque adjustment ring
- Dust and moisture resistant for robust reliability[1]

Features

Extraordinary detail and bokeh in one lens

G Master design combines extraordinary sharpness and smooth bokeh in one lens. It's not easy to achieve spatial frequency of 50 lines pairs per millimeter at a lens' widest aperture and produce smooth beautiful bokeh at the same time, but that's Sony's baseline for G Master design. Unprecedented resolution and other demanding design parameters yield outstanding reproduction of the most detailed subjects and scenes with superior contrast throughout every frame. G Master resolution is simply the highest in its class.

Uncompromised G Master Design and Performance

The complex design features 22 lens elements configured in 16 different groups, including one Super ED (Extra-low Dispersion) and two ED glass elements, all of which work together to minimize chromatic aberration and ensure the ultimate resolution from corner to corner. The lens also has Sony's original Nano AR coating, which is particularly useful for shooting sports scenes or wildlife, as it reduces unwanted reflections, flare and ghosting.

Fast, quiet, precise focusing

In order to realize the maximum AF performance of a camera like the α9 and keep up with fast-moving action, common with sports and wildlife photography, the new FE 100-400mm GM super telephoto zoom lens features a double motor system. The Direct Drive Supersonic Wave Motor (DDSSM) drives the heavy front focus lens group, while the Double-linear motor system enables rapid acceleration of the main lens group to capture sudden subject motion. High precision positioning control and a newly optimized AF algorithm ensure the subject is found and focused on quickly, while the combination of the double linear

motor and Direct Drive SSM actuator ensures fast, precise focusing, and quiet operation. In addition, the Double-linear motor system 'oscillates', to quietly achieve pinpoint focus when shooting movies.

High performance Image stabilization

High-performance Optical SteadyShot™ image stabilization is built right into the lens for sharp, blur-free images with a wide range of subjects and handheld shooting. The stabilization lens is driven by a linear motor for fast, precise compensation. Additionally, 5-axis image stabilization becomes available when used with α series cameras that feature built-in image stabilization

Versatile minimum focus distance

The floating focus mechanism achieves a versatile minimum close-up focus distance of 3.22' (0.98 meters) with a maximum 0.35x magnification.

9-blade circular aperture

The 9-blade circular aperture contributes to gorgeous bokeh in which the subject stands out against a smoothly defocused foreground and background as well as perfectly round points of defocused light. Conventional aperture blades have flat sides creating unappealing, polygonal shaped defocused points of light. α lenses overcome this problem through a unique design that keeps the aperture almost perfectly circular.

Aspherical lens dramatically reduces spherical aberration

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.

ED and Super ED glass reduces flare and ghosting

ED (Extra-low Dispersion) and Super ED glass elements take axial chromatic aberration caused by differences in magnification, out of the picture. The 100-400mm GM Super telephoto zoom lens incorporates one Super ED and two ED glass elements to maximize resolution and bokeh, while leaving precisely rendered edges with no fringing or unnatural coloration.

Nano AR coating

Sony's original Nano AR Coating technology minimizes flare and ghosting, for dynamic range that achieves lifelike detail and gradation with advanced camera sensors. This precisely defined regular nano-structure allows accurate light transmission, contributing to high-quality images, even more so than with lenses that use coatings with an irregular nano-structure. The reflection suppression characteristic of the Nano AR Coating is superior to conventional anti-reflective coatings, providing a notable improvement in clarity, contrast, and overall image quality.

Focus hold button, programmable for multiple functions

The focus hold button not only performs its primary function to lock focus when recomposing, but can be customized to a number of other functions depending on your needs. In addition to Focus Hold, these custom functions include: Eye AF, AF On, Aperture Preview, Shot Result Preview or Bright Monitoring.

Zoom torque adjustment ring

The 100-400mm GM has a zoom torque adjustment ring – a first for Sony α – allowing the user to adjust the level of torque in the ring to zoom faster or slower depending on their shooting style.

Removable rotating tripod mount

This versatile lens tripod mount allows the camera to be quickly removed from the tripod in shooting situations that require a rapid handheld response. It also features a revolving mechanism that allows quick changeover between landscape and portrait orientation. A lock mechanism prevents accidental detachment.

Supports optional E-mount teleconverters (1.4x/2.0x)*

The FE 100-400mm GM is compatible with both the 1.4x (SEL14TC) and 2.0x (SEL20TC) teleconverters, allowing photographers and videographers to shoot at up to 800mm on full-frame cameras and approx.1200mm (35mm full-frame equivalent) on APS-C cameras.

Lightweight Design

In order to satisfy the extensive demands of customers craving lighter, smaller and more portable super telephoto lenses, the FE 100-400mm GM weighs in at a mere 49.3 ounces (1,395 grams), making it among the lightest in its class and an ideal fit for Sony's wide range of compactly designed cameras.

Professional operability

Built for professionals and enthusiasts who demand instant and direct control, the 100-400mm GM lens includes multiple physical features to make taking control faster and easier. Instantly switch between auto and manual focus via the AF/MF focus mode switch on the side of the lens. Either let the camera and lens focus for you, or decide to take control and manually focus on the precise point you chose. The focus range limiter switch lets the lens 'hunt' through the entire focal range or limits the range from 3m to infinity making focusing on distant subjects even faster. Additional switches include image stabilization compensation and customizable focus hold buttons.

Dust and moisture resistant for robust reliability[1]

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[1]. It also has a fluorine coating on the front lens that makes it easier to remove dust or grease.

Specification

Lens Specifications	
Type	Interchangeable lens
Product name	FE 100-400mm F4.5-5.6 GM OSS
Lens mount	Sony E-mount
Format	35mm full frame
Focal-length (mm)	100-400mm
35mm equivalent focal-length (APS-C)	150-600mm
Lens Groups / Elements	16 groups – 22 elements
Angle of view (APS-C)	16°-4°10' (With interchangeable-lens digital camera incorporating APS-C type image sensors)
Angle of View (35mm)	24°-6°10'
Maximum aperture (F)	F4.5 - F5.6
Minimum aperture (F)	F32 - F40
Number of aperture blade	9 blades
Circular Aperture	Yes
Minimum Focus Distance	3.22ft (0.98m)
Maximum Magnification ratio (x)	0.12x - 0.35x
Filter Diameter (mm)	77mm
Image stabilization (SteadyShot)	Optical SteadyShot
Zoom system	Manual
Teleconverter compatibility (x1.4)	SEL14TC
Teleconverter compatibility (x2.0)	SEL20TC
Hood Type	Round shape, bayonet type
Internal Information	
Fluorine coating	Yes

Mount rubber ring	Yes
Other Product Relationships	
Supplied Accessories	Hood (ALC-SH151) Lens front cap (ALC-F77S) Lens rear cap (ALC-R1EM) Case Tripod mount
Weights and Measurements	
Dimensions (Diameter x Length)	3-3/4 x 8-1/8" (93.9 x 205mm)
Weight (approx.)	49.3oz (1395g) (Without tripod mount)

1. Not guaranteed to be 100% dust and moisture proof