

**FUJINON**

F o c u s e d   o n   t h e   F u t u r e



**FUJINON**  
TV and Cine Lenses 2017

**FUJIFILM**

FUJIFILM Corporation

Optical Device & Electronic Imaging Product Division  
<http://fujifilm.jp/business/broadcastcinema/lens/>

Due to a continuous process of product improvement, design and specification are subject to change without notice.



**For Your Safety**

Be certain to read the instruction for use before using any equipment.

Printed in Japan FFBX2017.04-KN-01

# Full line of FUJIFILM TV and Cine Lenses

- Covering sports, entertainment, news and filmmaking -

FUJINON Lenses have been highly acclaimed in the world of television broadcasting for many years. As a result of their ultra high quality optical technology and extensive range, FUJINON Lenses are also particularly well-suited for all types of movie production, sports, entertainment and news gathering.

As with all content acquisition lenses are the first point of entry for light. Now with the ever-increasing amount of 4K production for both television and movies, extremely high optical technologies and mobility are required as standard for this level of enhanced, high quality filming. With the advent of 4K broadcasting, we are further enhancing our high precision optical technologies, and are committed to our continued support of those on the front line and cutting edge of motion picture production.

# FUJINON

Focused on the Future





# FUJINON

## History of FUJINON TV Lens

<b>1962</b>			Started the research and development for TV lens.	
<b>1967</b>	<b>IF</b>	<b>Inner Focus</b>	First inner focus system for TV broadcasting zoom lens.	
<b>1969</b>	<b>Super EBC</b>	<b>Electron Beam Coating</b>	Electron Beam Coating dramatically improved zoom lens performance.	
<b>1973</b>	<b>CaF2</b>	<b>Calcium Fluorite</b>	Adoption of calcium fluorite for correcting chromatic aberration for TV lens.	
<b>1978</b>	<b>EXT</b>	<b>Built in Extender</b>	First built-in extender for ENG / EFP lens.	
<b>1986</b>	<b>FS</b>	<b>Floating System</b>	Microcomputer digitally controlled inner floating lens group corrects field curvature and coma aberration for improved corner resolution.	
<b>1992</b>	<b>Vgrip</b>	<b>Variable Grip</b>	Adoption of the variable angle servo grip for ENG / EFP lens reduces wrist fatigue.	
<b>1993</b>	<b>AT</b>	<b>Aspheric Lens</b>	Patented glass molding process for aspherical lens elements revolutionized TV zoom lens technology.	
<b>1994</b>	<b>Find</b>	<b>Aspherical Technology</b>	Computer controlled digital self diagnostics for Studio and Field lens for rapid trouble shooting and preventative maintenance of lens functions.	
<b>1995</b>	<b>Vformat</b>	<b>Variable Grip</b>	Ratio converter maintains proper field of view on switchable 16:9⇄4:3 format cameras.	
<b>1996</b>	<b>AF</b>	<b>Auto Focus</b>	First auto-focus ENG / EFP lens for professional use.	
<b>1997</b>	<b>AZ</b>	<b>Aspherical Technology</b>	Improving on the optical performance mechanism and aspherical lenses.	
<b>1998</b>	<b>Digital Servo System</b>		Utilization of Digital Technology provides control of zoom lens.	
<b>2000</b>	<b>Quickframe</b>	<b>Quick Frame</b>	New zooming function for Quick Framing.	
<b>2001</b>	<b>OS-TECH</b>	<b>Optical Stabilized System</b>	Utilization of Digital Technology provides control of zoom lens.	
<b>2002</b>	<b>HD CINE</b>	<b>FUJINON CINE Lens</b>	2/3 HD CINE / First Cine Style Lens for digital cinema market.	
<b>2003</b>	<b>PF</b>	<b>PF</b>	The latest focus assist system to support focus operation.	
<b>2009</b>	<b>PL MOUNT</b>	<b>PL Mount Premier Series</b>	PL Mount / Released 35mm PL mount zoom lens used for both Film and Digital cinema cameras.	
<b>2015</b>	<b>4K</b>	<b>4K Ultra HD</b>	First 2/3" sensor 4K lens.	

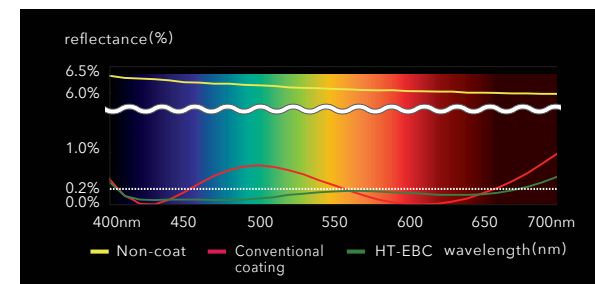
# FUJINON Lens Technology

All large-diameter elements designed for broadcast lenses are the end result of our state of the art optical performance and high quality manufacturing technologies.



## HT-EBC Coating (High Transmittance Electron Beam Coating)

HT-EBC (High Transmittance Electron Beam Coating) is the multi layer coating technology developed to enhance the many high performance lens elements used in broadcast lenses. Lenses with HT-EBC boast high transmittance and low reflectivity over a broad wavelength band. Thanks to the coating, flare and ghost are decreased and realizing high edge to edge transmittance.



## Aspherical Lens

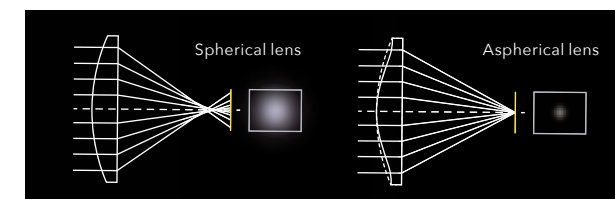
Aspherical lens developed by Fujifilm's own technology will suppress various aberrations such as distortion and spherical aberrations effectively.



Aspherical Lens image

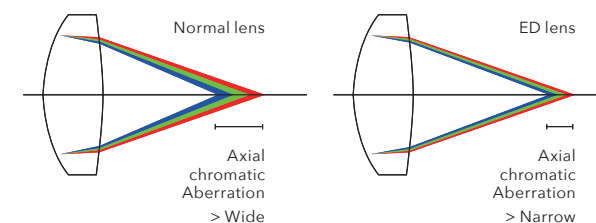


Metal mold for producing the aspherical lens



## ED-Glass (Extra-Low Dispersion)

By employing ED Glass elements, it is possible to significantly reduce chromatic aberrations. In addition, the reduced chromatic aberration is consistent from the center to the edge producing a superior image with high contrast and sharpness.



## Calcium Fluorite

It equipped fluorite which has high optical performance to broadcast lens. Contribute to suppress chromatic aberrations.

## Design Concept

In addition, Fujifilm has employed ergonomic design principles for all operational parts based upon input from talented camera operators. All lenses are also designed to reduce the use of hazardous materials that could pollute the environment. One example is the use of eco-glass, which does not contain toxic substances.

## Award of FUJINON Lens

### Emmy Award

1996  
Development of a TV Lens Adapted to CCD

2005  
Developing High-Performance Lenses Adapted to Hi-Vision

2009  
Precision Focus Technology



red dot award 2015  
winner



## Technology for 8K

Fujifilm has been doing research and development for 8K Super Hi-Vision lenses. The Super Hi-Vision system offers an image beyond ultra high definition with 4,320 scanning lines and 33,000,000 pixels, 16 times that of the High-Vision system. A lens developed for Super Hi-vision must feature extremely high resolution as compared to current lenses. Current 4K High-Vision lenses can not meet the Super Hi-Vision resolution requirement.

Thanks not only to our optical design and production technology but also to our latest optical simulation programs and special materials; Fujifilm has been able to achieve 8K optical performance. At the same time, current lens operability is possible by minimizing the lens size and by employing an electronically controlled drive unit. Currently, the 8K Super Hi-Vision lenses being tested under real shooting conditions with plans for their future introduction.



FUJINON TV Lenses Lineup

4K UHD 2/3"Lenses

Horizontal Field of View (16:9)	94	82	73	62	59	56	48		9.3	8.7	5.5	3.1	3.1					0.8	0.6	0.6
Focal Length (mm) 2/3"	4.5	5.5	6.5	8	8.4	9	10.8		59	63	100	176	180					720	864	900
UA80x9 1.2EXT(1x)																				
UA80x9 1.2EXT(1.2x)																				
UA13x4.5																				
UA22x8																				
UA27x6.5																				
UA107x8.4																				
UA14x4.5																				
UA18x5.5																				

HD Studio/Field Lenses

Horizontal Field of View (16:9)	73	69	59	57	57	54	42		3.6	3.1		1.0	0.8	0.7	0.7		0.5
Focal Length (mm) 2/3"	6.5	7	8.4	8.8	8.9	9.5	12.5		154	180		525	732	777	832		1100
XA22x7																	
HA27x6.5																	
XA55x9.5																	
XA77x9.5																	
XA88x12.5																	
XA99x8.4																	

2/3" HD ENG/EFP Lenses

Horizontal Field of View (16:9)	94	82	67	66	64	59	53	45	39	32	10	8.7	5.5	4.2	4.0	3.9	3.4	3.3	3.2	3.1	1.9	1.3	1.3	1.0
Focal Length (mm) 2/3"	4.5	5.5	7.3	7.4	7.6	8.5	9.7	11.5	13.5	16.5	54	63	100	130	137	141	161	167	170	175	288	410	413	570
HA14x4.5	<div></div>																							
HA18x5.5	<div></div>																							
HA18x7.6	<div></div>																							
HA19x7.4	<div></div>																							
HA22x7.3	<div></div>																							
HA23x7.6	<div></div>																							
HA25x11.5	<div></div>																							
HA25x16.5	<div></div>																							
HA42x9.7	<div></div>																							
HA42x13.5	<div></div>																							
ZA12x4.5	<div></div>																							
ZA17x7.6	<div></div>																							
ZA22x7.6	<div></div>																							
XA20sx8.5	<div></div>																							

1/2" HD ENG Lenses

Horizontal Field of View (16:9)	93	82	65	58		12	9.3		4.2	3.2
Focal Length (mm) 1/2"	3.3	4	5.5	6.3		32	43		94	126
XS13x3.3										
ZS17x5.5										
XS20sx6.3										

1/3" HD ENG Lenses

Horizontal Field of View (16:9)		64	60	58		3.9	3.9	3.2
Focal Length (mm) 1/3"		4.2	4.5	4.7		76	77	94
HTs18x4.2								
XT17sx4.5								
XT20sx4.7								

Technical Reference

Feature Indications

2/3" Bayonet

2/3" Bayonet Mount

Mount standard for 2/3" format cameras. Supply power through 12 pin connector.

1/2" Hot Shoe

1/2" Sony Hot Shoe Mount

Mount standard for 1/2" format cameras from SONY. Supply power through hot-shoe.

1/3" Bayonet

1/3" Bayonet Mount

Mount standard for 1/3" format cameras. Supply power through 12 pin connector.

DIGIPOWER

DIGIPOWER

Many new functions as well as very accurate lens movement are possible by employing a digital lens operating system. It allows for you for incredible control for every application.

QuickZoom

Quick Zoom

High speed zoom (0.7 sec) to the full telephoto position by depressing one button for a focus check, when released, the lens goes back to the original focal length.

Virtual

Virtual Connector

Interface to virtual systems by employing miniaturized, light weight high performance encoders.

Ext.Remote

Extender Remote

Built-in motorized extender unit.

Serial Com

Serial Communication

Serial data communications are possible with particular cameras. This function allows for smooth operation with those cameras.

PC

PC Control

Lens control is possible when connected to a PC with the serial control system.

I F

Inner Focus System

Focusing by fixing the front lens and then moving the lens in the barrel back-and-forth. Provides a stable grip since the length of the lens is unchanged while focusing. In addition, since the front lens does not rotate while focusing, there is very little effect when using a Polarizing filter.

Quickframe

Quick Frame

A system that allows manual zoom operation with the servo mode engaged.

OS-TECH

OS-TECH

Built-in Fujifilm own optical anti-vibration system. The OS-TECH system will correct vibration.

2x

2x Extender

Equipped with a built-in 2x extender

Macro

Macro

Equipped with a Macro feature which allows focus closer than the lens MOD.

1.2x

1.2x Extender

Equipped with a built-in 1.2x extender

2.2x

2.2x Extender

Equipped with Fujifilm's exclusive 2.2x extender, allowing new shooting applications.

RoHS

RoHS

Meets international environmental regulations.

FUJINON Lens Model Explanation

Studio/Field Box Lenses

1 2 3 4 5 6 7 8 9

XA 99 x 8.4 B E SM - S 35 E

1	Camera Image Sensor Format	UA	2/3" Sensor Format
		XA	2/3" Sensor Format
		HA	2/3" Sensor Format
2	Zoom Ratio		
3	Wide End of Focal Length		
4	Bayonet Mount		
5	Extender	E	with Extender
6	Lens Control Type	SM	Servo / Manual Module Interchangeable
		S	Servo Only
7	Lens Type	S/T	Field Lens with OS-TECH
		F	Studio Lens
		D	Minibox Lens
8	Lens Mount	48/35	For Studio Standard Camera Mount (BTA Type)
		8/5	For Sony Camera Original Mount (Octagon Type)
9	Special Function	E	with 1.2x Extender

ENG / EFP Portable Lenses

1 2 3 4 5 6 7 8

H X A S 19 20s x 7.4 6.3 B B E ZD RM - T K ※※

1	ENG / EFP Portable Lens Category	U	UHD Premier Series
		H	High Definition Premier Series
		Z	High Definition Select Series
		X	High Definition eXceed Series
		Non	Standard Definition
2	Camera Image Sensor Format	A	2/3" Sensor Format
		S	1/2" Sensor Format
		T	1/3" Sensor Format
3	Zoom Ratio		
4	Wide End of Focal Length		
5	Bayonet Mount		
6	Extender	E	with Extender
		Non	No Extender
7	Lens Control Type	RM	Zoom Servo, Focus Manual
		RD	Zoom Servo, Focus Servo
		ZD	Zoom Servo, Focus Servo, with Quick Frame
		MD	Remote Control
8	Drive Unit Type	M	Digital Drive Unit / Zoom Servo, Focus Manual
		S	Digital Drive Unit / Zoom Servo, Focus Servo
		F	Digital Drive Unit / Zoom Servo, Focus Servo, with Extender Remote
		U	Digital Drive Unit / Zoom Servo, Focus Servo, with OS-TECH
		G	Digital Drive Unit / Zoom Servo, Focus Servo, with OS-TECH, Extender Remote
		T	Digital Drive Unit / Zoom Servo, Focus Servo, with Quick Frame
		K	eXceed Drive Unit / Zoom Servo, Focus Manual
		DSD	Remote Control Drive Unit / Video Control (Zoom, Focus, Iris)



# Television Lenses

Fujifilm has been engaged in the development and production of TV Lenses for over 50 years.

FUJINON TV Lenses have supported image creation throughout the world with our own unique technologies such as, optical design development, advanced manufacturing capabilities and exceptional quality.

All FUJINON lenses are intentionally designed keeping in mind the optical, mechanical and electronic requirements of visual creators.

Making use of our highly accurate design, manufacturing and assembly skills, Fujifilm will continue to develop unique products, and answer the diverse needs of videographers worldwide.

## Studio / Field Box Lenses

FUJINON's Studio / Field Lenses are essential for applications requiring the ultimate in control and optical quality.

Our latest box lenses have advanced unique technologies, and they compliment various production styles.

All FUJINON box zoom lenses can be utilized for large sporting events, entertainment and studio program production. Fujifilm will continue to develop products used in a wide-range of productions.



## ENG / EFP Portable Lenses

Fujifilm offers a large variety of FUJINON Portable TV Lenses, each uniquely suited to every application.

From a wide 4.5mm to a telephoto 1140mm focal length, more than 40 original lenses complete our product line.

All FUJINON ENG / EFP Lenses are designed to fulfill the requirements and aspirations of visual creators.



**4K**  
ULTRA HD

**HD**  
HIGH-DEFINITION



The new Fujifilm flagship UA Series of 4K 2/3" lenses is the world-first for Ultra HD Broadcast applications. The UA Series delivers true 4K optical quality which is a hallmark our "ZK series" of Cine Lenses. The optical quality is based on large diameter aspherical elements designed by latest optical simulation system. Also, the lens achieves 4K UHD optical performance from center to corner throughout the zoom range while suppressing image distortion due to a newly developed zoom method.



## Introducing the New Expanded 4K Broadcast Lens Lineup from FUJINON.

4K demands a higher dimension of performance, and the expanded FUJINON 4K broadcast lens lineup meets the challenge.

Extending the limits of "High Resolution", "High Contrast" and "High Dynamic Range", FUJINON's cutting-edge optical technology presents the next standard in optical performance - image quality that exceeds the high expectations of imaging professionals.



HIGH RESOLUTION

Crystal clear and crisp 4K image quality is achieved by using optical simulation technologies to reduce every kind of aberration to unprecedented low levels.



HIGH CONTRAST

Excellent 4K imaging quality of even distant detail is faithfully conveyed to the camera by elevating optical performance in the frequency bands that cover the most commonly viewed imaging.



## HIGH DYNAMIC RANGE

High-fidelity transmittance of “blacks” to the camera is essential to imaging expression, and FUJINON achieves this with advanced optical material and the latest in lens coating technology. Transmittance is increased to achieve 4K class imaging expression rich in color gamut reproduction.

## OPTICAL TECHNOLOGY

Minimal aberrations over the entire zoom range and extremely high contrast are achieved by our newly developed zoom approach and our floating focus system.

## MANUFACTURING TECHNOLOGY

Advanced manufacturing technology enables ideal configuration and positioning of lens elements for optimized performance while ultra-high resolution is attained by nano-level precision polishing of the large-diameter aspherical lens elements.

## CONTROL TECHNOLOGY























Boasting focusing control with 4 times the accuracy of a conventional lens system, the extreme focusing precision of FUJINON exceeds even the level demanded by 4K.

## COATING TECHNOLOGY

4K imaging expression rich in color reproduction is realized by the increased red and blue transmittance ratio - a benefit of the HT-EBC coating with the highest transmittance and lowest reflectivity ratios possible.

Flagship series with surpassing  
4K optical performance



Model Name	UA80x9BESM 1.2x EXT				UA13x4.5BERD				UA22x8BERD					
Focal Length	(1x)/(1.2x)/(2x) 9-720mm/10.8-864mm/18-1440mm				4.5-59mm +/- 9-118mm				8.0-176mm / 16-352mm					
Zoom Ratio	80 x				13 x				22 x					
Extender	1.2 x   2 x				2 x				2 x					
Maximum Relative Aperture (F-No.)	1:1.7 (9-350mm) 1:3.5 (720mm)				1:1.8 (4.5-41mm) 1:2.6 (59mm)				1:1.8 (8-124mm) 1:2.55 (176mm)					
Minimum Object Distance (M.O.D.) from Front Lens	3.7m				0.3m				0.85m					
Object Dimensions at M.O.D. 16:9 Aspect Ratio	(1x) 9mm   3501mm x 1968mm 720mm 46mm x 26mm		(1.2x) 10.8mm 3009mm x 1692mm 864mm 39mm x 22mm		(2x) 18mm 1816mm x 1021mm 1440mm 23mm x 13mm		(1x) 4.5mm   744mm x 418mm 59mm   54mm x 30mm		(2x) 9mm   367mm x 206mm 118mm   28mm x 16mm		(1x) 8mm   905mm x 509mm 176mm 43mm x 24mm		(2x) 16mm   472mm x 265mm 352mm 22mm x 12mm	
Angular Field of View 16:9 Aspect Ratio	(1x) 9mm   56.1° x 33.3° 720mm 0.8° x 0.4°		(1.2x) 10.8mm 47.9° x 28.0° 864mm 0.6° x 0.4°		(2x) 18mm   29.8° x 17.0° 1440mm 0.4° x 0.2°		(1x) 4.5mm   93.6° x 61.8° 59mm   9.3° x 5.2°		(2x) 9mm   56.1° x 33.3° 118mm 4.7° x 2.6°		(1x) 8mm   61.9° x 37.2° 176mm 3.1° x 1.8°		(2x) 16mm   33.4° x 19.1° 352mm 1.6° x 0.9°	
Filter Thread	-				M127 x 0.75 (Filter attaches to the lens hood)				M127 x 0.75 (Filter attaches to the lens hood)					
Approx. Size	258 x 264 x 610mm				Ø95 x 253mm (ΦxLength)				Ø110 x 241.5mm (ΦxLength)					
Approx. Mass	23.5kg				2.28kg (without Lens Hood)				2.55kg (without Lens Hood)					
Features	      				        				     					

Excellent 4K optical performance  
for versatile shooting scene



Model Name	UA27x6.5BESM				UA107x8.4BESM			
Focal Length (1x)/(1.2x)/(2x)	6.5-180mm / 13-360mm				8.4-900mm / 16.8-1800mm			
Zoom Ratio	27 x				107 x			
Extender	2 x				2 x			
Maximum Relative Aperture (F-No.)	1:1.5(6.5-123mm) 1:2.2(180mm)				1:1.7 (8.4-340mm) 1:4.5 (900mm)			
Minimum Object Distance (M.O.D.) from Front Lens	0.6m				3.05m			
Object Dimensions at M.O.D. 16:9 Aspect Ratio	(1x) 6.5mm 1063 x 597mm 180mm 38 x 21mm	(2x) 13mm 529 x 297mm 360mm 20 x 11mm	(1x) 8.4mm 3053mm x 1717mm 900mm 30mm x 17mm	(2x) 16.8mm 1594mm x 896mm 1800mm 15mm x 9mm				
Angular Field of View 16:9 Aspect Ratio	(1x) 6.5mm 72.8° x 45.0° 180mm 3.1° x 1.7°	(2x) 13mm 40.5° x 23.4° 360mm 1.5° x 0.9°	(1x) 8.4mm 59.4° x 35.6° 900mm 0.6° x 0.3°	(2x) 16.8mm 31.9° x 18.2° 1800mm 0.3° x 0.2°				
Filter Thread	-				-			
Approx. Size	258 x 264 x 536mm				258 x 264 x 610mm			
Approx. Mass	22.8kg				23.9kg			
Features	      				       			



Model Name		UA14x4.5BERD				UA18x5.5BERD			
Focal Length	(1x)/(2x)	4.5-63mm / 9-126mm				5.5-100mm / 11-200mm			
Zoom Ratio		14 x				18 x			
Extender		2 x				2 x			
Maximum Relative Aperture (F-No.)		1:1.8 (4.5-41mm) 1:F2.8(63mm)				1:1.8(5.5-62mm) 1:F2.9(100mm)			
Minimum Object Distance (M.O.D.) from Front Lens		0.3m				0.4m			
Object Dimensions at M.O.D. 16:9 Aspect Ratio		(1x) 4.5mm 63mm	744mm x 418mm 51mm x 29mm	(2x) 9mm 126mm	365mm x 205mm 27mm x 15mm	(1x) 5.5mm 100mm	800mm x 450mm 44mm x 25mm	(2x) 11mm 200mm	395mm x 222mm 22mm x 12mm
Angular Field of View 16:9 Aspect Ratio		(1x) 4.5mm 63mm	93.6° x 61.8° 8.7° x 4.9°	(2x) 9mm 126mm	56.1° x 33.3° 4.4° x 2.5°	(1x) 5.5mm 100mm	82.2° x 52.2° 5.5° x 3.1°	(2x) 11mm 200mm	47.1° x 27.5° 2.7° x 1.5°
Filter Thread		M127 x 0.75 (Filter attaches to the lens hood)				M127 x 0.75 (Filter attaches to the lens hood)			
Approx. Size		Φ95 x 238.5mm (ΦxLength)				Φ95 x 240.5mm (ΦxLength)			
Approx. Mass		2.21kg (without Lens Hood)				2.04kg (without Lens Hood)			
Features		B4Zoom I F 4K+4K+4K+4K Virtual SerialConn PC 2x Macro RoHS							



# Studio / Field Box Lenses



## DIGIPOWER Digital Servo Technology for Studio/Field Zoom Lens

### Quick Zoom

QUICKZOOM speed is 0.6sec from end to end. QUICKZOOM provides a rapid zoom movement to the telephoto position to check focus by the simple push of a switch. Releasing the button returns the lens to the previously selected zoom position. QUICKZOOM can be performed remotely from zoom rate demand units.



1. Frame your shot. Press Q•Z button.



2. Lens automatically zooms in. Check focus and release Q•Z button.



3. Lens zooms back to original frame in full focus.

### Zoom / Focus 3 Fine Mode Select

Zoom / Focus mode switch provides the option to change the zoom response from "normal" to more sensitive action.

### One Shot Preset

Zoom and focus can be preset and memorized in advance at a selected position. One touch of the switch during shooting will instantly return to the memorized position for time saving production.

## OS-TECH Optical Stabilized Technology

OS-TECH features "The Optical Shift System" where a shift correction signal is generated to optically compensate for vibration according to the amount of the movement detected. This system responds quickly and reduces the phenomenon to a minimum allowing for a natural looking image. The conveniently located control allows the operator to switch the anti-vibration system on and off.

### Dust Proof and Anti-Fogging

All field lenses incorporate a fixed front element, which reduces dust contamination and serves as protection for the front focus group.

### Automatic Compensation of Focus Breathing

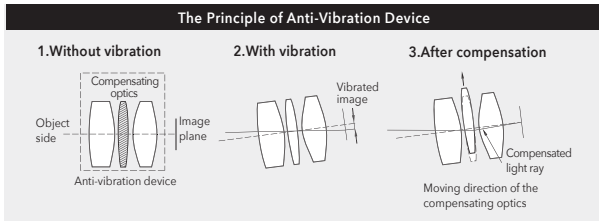
This compensation mechanism enables the image size to remain constant when focusing by synchronizing the zoom movement to the focus movement, then reducing image size change when focusing.

### FIND System

"FIND" is a self-diagnostic system to provide immediate analysis of the lens electronics systems. Installing software for DIGIPOWER in your PC allows a graphical user interface and provides improved diagnostic functions. In addition, the FIND system also works with portable lenses.

### Virtual Connector

An interface connector which provides an output of lens positional data is conveniently located on FUJINON's latest box lenses for interface with virtual systems.



### Advanced Back Focus

This system allows macro shooting as close as 0.3m (0.05m on HA27x6.5) from the object.

### New Unique Zoom / Focus Demands for Studio and Field Lenses

The new digital zoom / focus demand series are designed to enhance usability and heighten ease of operation for DIGIPOWER studio and field lenses. The new demands continue to offer all conventional operability and DIGIPOWER features because the "AUX" switch can able to be assigned for customized functions, allowing operators to expand their capabilities.

## Studio / Field Box Lenses

HD HIGH-DEFINITION 2/3"



MINIBOX



Model Name	XA22×7BES				HA27×6.5BESM			
Focal Length (1x)/(2x)	7–154mm / 14–308mm				6.5–180mm / 13–360mm			
Zoom Ratio	22 ×				27 ×			
Extender	2 ×				2 ×			
Maximum Relative Aperture (F-No.)	1 : 1.8(7–116mm) / 1 : 2.4(154mm)				1 : 1.5(6.5–123mm) / 1 : 2.2(180mm)			
Minimum Object Distance (M.O.D.) from Front Lens	0.8m				0.6m			
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×) 7mm 154mm	1197 × 673mm 54 × 31mm	(2×) 14mm 308mm	599 × 337mm 27 × 15mm	(1×) 6.5mm 180mm	1053 × 592mm 39 × 22mm	(2×) 13mm 360mm	527 × 296mm 20 × 11mm
Angular Field of View 16 : 9 Aspect Ratio	(1×) 7mm 154mm	68.8° × 42.1° 3.6° × 2°	(2×) 14mm 308mm	37.8° × 21.8° 1.8° × 1°	(1×) 6.5mm 180mm	72.8° × 45° 3.1° × 1.7°	(2×) 13mm 360mm	40.5° × 23.4° 1.5° × 0.9°
Approx. Size (HxWxL)	179 × 187 × 340mm				233 × 231 × 539mm			
Approx. Mass	6.6kg				22.3kg			
Features	2/3" HD DIGIPOWER Virtual Serial Com PC 2X RoHS							



HD HIGH-DEFINITION 2/3"

Model Name	XA55×9.5BESM				XA77×9.5BESM			
Focal Length (1x)/(2x)	9.5–525mm / 19–1050mm				9.5–732mm / 19.0–1464mm			
Zoom Ratio	55 ×				77 ×			
Extender	2 ×				2 ×			
Maximum Relative Aperture (F-No.)	1:1.7(9.5mm-308mm) 1:2.9(525mm)				1 : 1.7(9.5–335mm) 1 : 3.8(732mm)			
Minimum Object Distance (M.O.D.) from Front Lens	3.0m				2.7m			
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×) 9.5mm 525mm	2782 × 1564mm 51 × 29mm	(2×) 19mm 1050mm	1406 × 790mm 26 × 15mm	(1×) 9.5mm 732mm	2425 × 1363mm 32 × 18mm	(2×) 19.0mm 1464mm	1241 × 697mm 16 × 9mm
Angular Field of View 16 : 9 Aspect Ratio	(1×) 9.5mm 525mm	53.6° × 31.7° 1° × 0.6°	(2×) 19mm 1050mm	28.3° × 16.1° 0.5° × 0.3°	(1×) 9.5mm 732mm	53.6° × 31.7° 0.8° × 0.4°	(2×) 18.6mm 1464mm	28.3° × 16.1° 0.4° × 0.2°
Approx. Size (HxWxL)	253 × 253 × 876mm				253 × 253 × 656.4mm			
Approx. Mass	24.8kg				22.4kg			
Features	2/3" HD DIGIPOWER Virtual Serial Com PC OS-TECH 2X RoHS							

\*XA55x9.5BESM without lens supporter model is also available.



HD HIGH-DEFINITION 2/3"

Model Name	XA88×12.5BESM				XA99×8.4BESM			
Focal Length (1x)/(2x)	12.5–1100mm / 25–2200mm				8.4–832mm / 16.8–1664mm			
Zoom Ratio	88 ×				99 ×			
Extender	2 ×				2 ×			
Maximum Relative Aperture (F-No.)	1 : 2.3(12.5–477mm) 1 : 5.3(1100mm)				1 : 1.7(8.4–341mm) 1 : 4.15(832mm)			
Minimum Object Distance (M.O.D.) from Front Lens	2.9m(12.5–200mm) 3.5m(201–1100mm)				2.9m			
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×) 12.5mm 1100mm	2091 × 1175mm 24 × 13mm	(2×) 25mm 2200mm	1046 × 588mm 12 × 7mm	(1×) 8.4mm 832mm	2950 × 1658mm 31 × 17mm	(2×) 16.8mm 1664mm	1538 × 864mm 16 × 9mm
Angular Field of View 16 : 9 Aspect Ratio	(1×) 12.5mm 1100mm	42° × 24.3° 0.5° × 0.3°	(2×) 25mm 2200mm	21.7° × 12.3° 0.2° × 0.1°	(1×) 8.4mm 832mm	59.4° × 35.6° 0.7° × 0.4°	(2×) 16.8mm 1664mm	31.9° × 18.2° 0.3° × 0.2°
Approx. Size (HxWxL)	265 × 270 × 593mm				258 × 264 × 610mm			
Approx. Mass	24.5kg				23.5kg			
Features	2/3" HD DIGIPOWER Virtual Serial Com PC OS-TECH 2X RoHS							

# ENG / EFP Portable Lenses

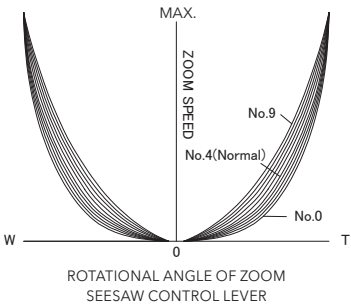
## DIGIPOWER Digital Servo Technology for Studio/Field Zoom Lens

### Auto Cruising Zoom

Pressing the C-Z button while zooming will set the zoom speed at that rate. Slightly pressing the seesaw switch a second time will return the zoom speed to normal.

### Zoom Mode Select

The zoom mode switch provides the option to change the servo zoom response from "normal" to more sensitive at the wide or telephoto positions. With the 10-zoom mode feature for ENG / EFP lenses, the user can select the most suitable sensitivity for their production.



### Zoom Limit

By using this function the zoom movement toward both the wide and telephoto side can be limited.

### Zoom Maximum Speed Adjustment

The maximum zooming speed obtained when pressing the seesaw switch to the end can be adjusted.

### Serial Digital Remote Control / PC Control

Remote control of zoom, focus and iris for DIGIPOWER is possible via serial digital link.

### Quick Zoom

QUICKZOOM speed is 0.7sec, end to end. QUICKZOOM provides a rapid zoom movement, by the simple push of a button, to the full telephoto position in order to check focus. Releasing the button returns the lens to the original zoom position. The QUICKZOOM function can be performed either from the drive unit or remotely from the zoom rate demand controller.

**QuickZoom**

### Quick Frame (Optional)

Quick Frame allows for quick manual framing of a shot without the need to select the operation. Adjusting the zoom manually or automatically disengages the servo, which is then automatically re-engaged, when the manual zoom operation is stopped.



**Quickframe**  
For Your Best Shot

### Virtual Connector

The DIGIPOWER drive unit now features built-in high resolution 16 bit encoders as standard for highly accurate positioning in some virtual studio, robotic and other applications.



## OS-TECH External Optical Stabilized Technology

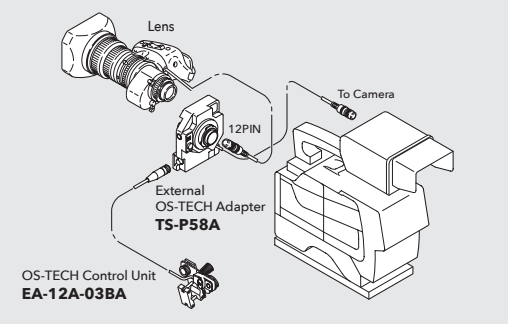
This feature optically compensates for image vibration by use of the optical shift system. In addition, the TS-P58A adapter provides stabilization for any applicable ENG lens.

Model Name	TS-P58A
Stabilization System	Optical Shift System
Magnification of Focal Length	1.25 ×
Power Consumption	DC12V, 4.2W (from Camera)
Approx. Size (H×W×L)	150 × 120 × 58mm
Approx. Mass	0.84kg
Applicable Lens	HA14x, HA16x, HA18x, HA19x, HA23x, HA25x, HA42x

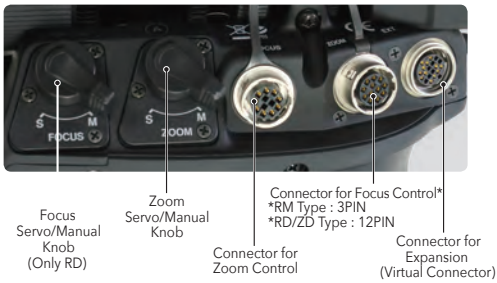
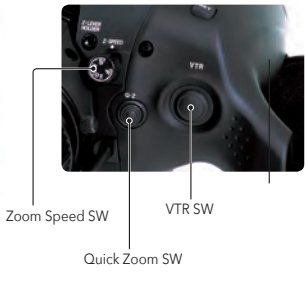
F-No. on the master lens becomes 1.25x.



For TS-P58A



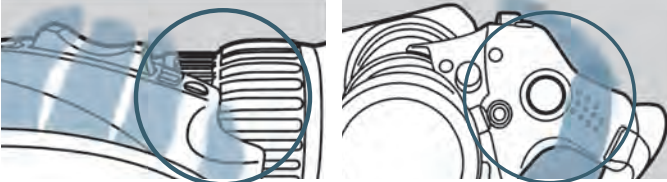
## Digital Servo Grip



## Ergonomic Design

The beauty of our New Drive Grip is that it is focused on usability and comfort. We have worked closely with a number of talented camera operators and implemented their design input in the new drive grip. The grip features a comfortable feel and the controls are naturally placed making a seamless interface.

### 1) Improved Usability



The design features a place for the operator's pinky finger helping to make for an improved fit for the hand. The overall Grip design was developed for enhanced operator comfort.

### 2) Easy of Operation



A space was created as a thumb rest when not using the VTR switch and the handle area is increased to reduce right hand strain. Left hand access to the focus ring has been improved for easier manual focus operation.

## Energy Saving Design

The electronics in the new Grip achieve a 50% reduction (approx.) in standby current power and significant operational noise as compared to its predecessor.

## Enhanced Motor Mechanism

The accuracy of the motors allow for extremely long and steady zooms. In addition, the precision of the drive exhibits minimal gear backlash.



PREMIER Series

Premier Series lenses are designed to complement and enhance the quality of HDTV systems. Great consideration in the design and development of these high-end HD lenses has been taken to incorporate the highest optical and mechanical specifications while ensuring unmatched performance in the most rugged and demanding of production environments.

HD

HIGH-DEFINITION

2/3"

Model Name	HA14×4.5BERM / BERD		HA18x5.5BERM / BERD		HA18×7.6BERM / BERD	
Focal Length (1×)/(2×)	4.5–63mm / 9.9–139mm		5.5-100mm / 11-200mm		7.6–137mm / 15.2–274mm	
Zoom Ratio	14 ×		18 ×		18 ×	
Extender	2.2 ×		2 ×		2 ×	
Maximum Relative Aperture (F-No.)	1 : 1.8 (4.5–41mm) / 1 : 2.8 (63mm)		1:1.8(5.5mm-62mm) / 1:2.9(100mm)		1 : 1.8 (7.6–103mm) / 1 : 2.4 (137mm)	
Minimum Object Distance (M.O.D.) from Front Lens	0.3m		0.4m		0.6m	
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)	
	4.5mm 743 × 418mm 63mm 51 × 29mm	(2.2×) 9.9mm 329 × 185mm 139mm 24 × 13mm	5.5mm 800 × 450mm 100mm 44 × 25mm	(2×) 11mm 395 × 222mm 200mm 22 × 12mm	7.6mm 696 × 392mm 137mm 41 × 23mm	(2×) 15.2mm 362 × 204mm 274mm 21 × 12mm
Angular Field of View 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)	
	4.5mm 93.6° × 61.8° 63mm 8.7° × 4.9°	(2.2×) 9.9mm 51.7° × 30.5° 139mm 4° × 2.2°	5.5mm 82.2° × 52.2° 100mm 5.5° × 3.1°	(2×) 11mm 47.1° × 27.5° 200mm 2.7° × 1.5°	7.6mm 64.5° × 39° 137mm 4° × 2.3°	(2×) 15.2mm 35° × 20.1° 274mm 2° × 1.1°
Filter Thread	M127 × 0.75 (Filter attaches to the lens hood.)		M127 × 0.75 (Filter attaches to the lens hood)		M82 × 0.75	
Approx. Size (ØxLength)	Φ95 × 238.5mm		Φ95 × 240.5mm		Φ85 × 204mm	
Approx. Mass (without Lens Hood)	2.18kg(RM) / 2.26kg(RD)		1.97kg(RM) / 2.04kg(RD)		1.62kg(RM) / 1.69kg(RD)	
Features	<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2.2x</div><div>Macro</div><div>RoHS</div></div>		<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2x</div><div>Macro</div><div>RoHS</div></div>		<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2x</div><div>Macro</div><div>RoHS</div></div>	
Option	<div><div>QuickZoom</div></div>					

HD

HIGH-DEFINITION

2/3"

Model Name	HA19×7.4BERM / BERD		HA22×7.3BERM / BERD		HA23×7.6BERM / BERD	
Focal Length (1×)/(2×)	7.4–141mm / 16.3–310mm		7.3–161mm / 14.6–322mm		7.6–175mm / 15.2–350mm	
Zoom Ratio	19 ×		22 ×		23 ×	
Extender	2.2 ×		2 ×		2 ×	
Maximum Relative Aperture (F-No.)	1 : 1.8(7.4–98mm) / 1 : 2.6(141mm)		1 : 1.9(7.3–113mm) / 1 : 2.7(161mm)		1 : 1.8 (7.6–122mm) / 1 : 2.65 (175mm)	
Minimum Object Distance (M.O.D.) from Front Lens	0.55m		0.85m		0.8m	
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)	
	7.4mm 773 × 434mm 141mm 42 × 24mm	(2.2×) 16.3mm 359 × 202mm 310mm 20 × 11mm	7.3mm 1222 × 687mm 161mm 55 × 31mm	(2×) 14.6mm 609 × 342mm 322mm 28 × 16mm	7.6mm 915 × 514mm 175mm 41 × 23mm	(2×) 15.2mm 473 × 266mm 350mm 21 × 12mm
Angular Field of View 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)	
	7.4mm 65.9° × 40° 141mm 3.9° × 2.2°	(2.2×) 16.3mm 32.8° × 18.8° 310mm 1.8° × 1°	7.3mm 66.6° × 40.5° 161mm 3.4° × 1.9°	(2×) 14.6mm 36.4° × 20.9° 322mm 1.7° × 1°	7.6mm 64.5° × 39° 175mm 3.1° × 1.8°	(2×) 15.2mm 35° × 20.1° 350mm 1.6° × 0.9°
Filter Thread	M95 × 1 / M107 × 1 (Filter attaches to the lens hood.)		M127 × 0.75 (Filter attaches to the lens hood.)		M95 × 1 / M107 × 1 (Filter attaches to the lens hood.)	
Approx. Size (ØxLength)	Φ100 × 239.5mm		Φ110 × 287.3mm		Φ100 × 223.6mm	
Approx. Mass (without Lens Hood)	2.21kg(RM) / 2.28kg(RD)		3.15kg(RM) / 3.22kg(RD)		1.88kg(RM) / 1.95kg(RD)	
Features	<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2.2x</div><div>Macro</div><div>RoHS</div></div>		<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2x</div><div>Macro</div><div>RoHS</div></div>		<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2x</div><div>Macro</div><div>RoHS</div></div>	
Option	<div><div>QuickZoom</div></div>				<div><div>QuickZoom</div></div>	

HD

HIGH-DEFINITION

2/3"

Model Name	HA25×11.5BERD		HA25×16.5BERD		HA42×9.7BERD		HA42×13.5BERD	
Focal Length (1×)/(2×)	11.5–288mm / 23–576mm		16.5–413mm / 33–826mm		9.7–410mm / 19.4–820mm		13.5–570mm / 27–1140mm	
Zoom Ratio	25 ×		25 ×		42 ×		42 ×	
Extender	2 ×		2 ×		2 ×		2 ×	
Maximum Relative Aperture (F-No.)	1 : 2 (11.5–206mm) / 1 : 2.8 (288mm)		1 : 2.8 (16.5–289mm) / 1 : 4 (413mm)		1 : 2 (9.7–225mm) / 1 : 3.7 (410mm)		1 : 2.8 (13.5–307mm) / 1 : 5.2 (570mm)	
Minimum Object Distance (M.O.D.) from Front Lens	2.2m		2.2m		2.8m		2.8m	
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)		(1×)	
	11.5mm 1740 × 978mm 288mm 70 × 39mm	(2×) 23mm 870 × 489mm 576mm 35 × 20mm	16.5mm 1213 × 682mm 413mm 49 × 27mm	(2×) 33mm 606 × 341mm 826mm 24 × 14mm	9.7mm 2619 × 1472mm 410mm 64 × 36mm	(2×) 19.4mm 1339 × 753mm 820mm 33 × 19mm	13.5mm 1888 × 1061mm 570mm 45 × 25mm	(2×) 27mm 944 × 530mm 1140mm 22 × 13mm
Angular Field of View 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)		(1×)	
	11.5mm 45.3° × 26.4° 288mm 1.9° × 1.1°	(2×) 23mm 23.6° × 13.4° 576mm 1° × 0.5°	16.5mm 32.4° × 18.6° 413mm 1.3° × 0.7°	(2×) 33mm 16.5° × 9.3° 826mm 0.7° × 0.4°	9.7mm 52.6° × 31.1° 410mm 1.3° × 0.8°	(2×) 19.4mm 27.8° × 15.8° 820mm 0.7° × 0.4°	13.5mm 39.1° × 22.6° 570mm 1° × 0.5°	(2×) 27mm 20.1° × 11.4° 1140mm 0.5° × 0.3°
Filter Thread	M107 × 1 / M127 × 0.75 (Filter attaches to the lens hood.)		M107 × 1 / M127 × 0.75 (Filter attaches to the lens hood.)		M127 × 0.75		M127 × 0.75	
Approx. Size (ØxLength)	Φ110 × 265mm		Φ110 × 278mm		Φ130 × 338.5mm		Φ130 × 358.5mm	
Approx. Mass (without Lens Hood)	2.81kg		2.9kg		5.3kg		5.4kg	
Features	<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>SerialCom</div><div>PC</div><div>2x</div><div>Macro</div><div>RoHS</div></div>				<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>SerialCom</div><div>PC</div><div>OSTEOR</div><div>2x</div><div>Macro</div><div>RoHS</div></div>			

SELECT Series

Select Series lenses are designed to meet the high performance needs of the next generation of cost-effective high performance HD camera systems. Fujifilm's unique Select Series concept for HDTV lenses was directly derived from our high-end Premier Series technology.

HD

HIGH-DEFINITION

2/3"

Model Name	ZA12×4.5BERM / BERD		ZA17×7.6BERM / BERD		ZA22×7.6BERM / BERD	
Focal Length (1×)/(2×)	4.5–54mm / 9–108mm		7.6–130mm / 15.2–260mm		7.6–167mm / 15.2–334mm	
Zoom Ratio	12 ×		17 ×		22 ×	
Extender	2 ×		2 ×		2 ×	
Maximum Relative Aperture (F-No.)	1 : 1.8 (4.5–41mm) / 1 : 2.4 (54mm)		1 : 1.8 (7.6–102mm) / 1 : 2.3 (130mm)		1 : 1.8 (7.6–120mm) / 1 : 2.5 (167mm)	
Minimum Object Distance (M.O.D.) from Front Lens	0.3m		0.6m		0.8m	
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)	
	4.5mm 757 × 425mm 54mm 59 × 33mm	(2×) 9mm 373 × 210mm 108mm 31 × 17mm	7.6mm 696 × 392mm 130mm 43 × 24mm	(2×) 15.2mm 362 × 204mm 260mm 22 × 12mm	7.6mm 915 × 514mm 167mm 43 × 24mm	(2×) 15.2mm 473 × 266mm 334mm 22 × 12mm
Angular Field of View 16 : 9 Aspect Ratio	(1×)		(1×)		(1×)	
	4.5mm 93.6° × 61.8° 54mm 10.1° × 5.7°	(2×) 9mm 56.1° × 33.3° 108mm 5.1° × 2.9°	7.6mm 64.5° × 39° 130mm 4.2° × 2.4°	(2×) 15.2mm 35° × 20.1° 260mm 2.1° × 1.2°	7.6mm 64.5° × 39° 167mm 3.3° × 1.8°	(2×) 15.2mm 35° × 20.1° 334mm 1.6° × 0.9°
Filter Thread	M127 × 0.75 (Filter attaches to the lens hood.)		M82×0.75		M95×1 / M107×1 (Filter attaches to the lens hood.)	
Approx. Size (ØxLength)	Φ95 × 237.5mm		Φ85 × 204mm		Φ100 × 220.4mm	
Approx. Mass (without Lens Hood)	2.0kg (RM) / 2.07kg (RD)		1.67kg (RM) / 1.74kg (RD)		1.85kg (RM) / 1.92kg (RD)	
Features	<div><div>2/3"Super</div><div>IF</div><div>4K/HD/SD</div><div>Virtual</div><div>SerialCom</div><div>PC</div><div>2x</div><div>Macro</div><div>RoHS</div></div>					

eXceed Series

eXceed series lenses are designed to compliment a new generation of cost-effective HD camera systems, extracting the most performance with the greatest value.

HD

HIGH-DEFINITION

2/3"

Model Name	XA20s×8.5BRM		XA20s×8.5BERM	
Focal Length (1×)/(2×)	8.5–170mm / –		8.5–170mm / 17–340mm	
Zoom Ratio	20 ×		20 ×	
Extender	–		2 ×	
Maximum Relative Aperture (F-No.)	1 : 1.8 (8.5–113mm) / 1 : 2.7 (170mm)		1 : 1.8 (8.5–113mm) / 1 : 2.7 (170mm)	
Minimum Object Distance (M.O.D.) from Front Lens	0.9m		0.9m	
Object Dimensions at M.O.D. 16 : 9 Aspect Ratio	(1×)		(1×)	
	8.5mm 910 × 511mm 170mm 47 × 26mm	(2×) – –	8.5mm 910 × 511mm 170mm 47 × 26mm	(2×) 17mm 469 × 264mm 340mm 24 × 13mm
Angular Field of View 16 : 9 Aspect Ratio	(1×)		(1×)	
	8.5mm 58.9° × 35.2° 170mm 3.2° × 1.8°	(2×) – –	8.5mm 58.9° × 35.2° 170mm 3.2° × 1.8°	(2×) 17mm 31.5° × 18° 340mm 1.6° × 0.9°
Filter Thread	M82 × 0.75		M82 × 0.75	
Approx. Size (ØxLength)	Φ85 × 180.8mm		Φ85 × 200.8mm	
Approx. Mass (without Lens Hood)	1.5kg		1.6kg	
Features	<div><div>2/3"Super</div><div>IF</div><div>QuickZoom</div><div>SerialCom</div><div>Macro</div><div>RoHS</div></div>		<div><div>2/3"Super</div><div>IF</div><div>QuickZoom</div><div>SerialCom</div><div>2x</div><div>Macro</div><div>RoHS</div></div>	

\*1: It is necessary to set lens up to use Quick Zoom function.

1/2" Series

SELECT Series



eXceed Series



Model Name	XS13×3.3BRM			ZS17×5.5BERM			XS20s×6.3BRM		
Focal Length (1x)/(2x)	3.3–43mm / –			5.5–94mm / 11–188mm			6.3–126mm / –		
Zoom Ratio	13 ×			17 ×			20 ×		
Extender	–			2 ×			–		
Maximum Relative Aperture (F-No.)	1 : 1.4 (3.3–32mm) / 1 : 1.9 (43mm)			1 : 1.4 (5.5–77mm) / 1 : 1.7 (94mm)			1 : 1.4 (6.3–88mm) / 1 : 2.0 (126mm)		
Minimum Object Distance (M.O.D.) from Front Lens	0.3m			0.6m			0.9m		
Object Dimensions at M.O.D. 16:9 Aspect Ratio	(1x)			(1x)			(1x)		
	3.3mm	752 × 423mm	–	5.5mm	692 × 389mm	11mm	6.3mm	904 × 508mm	–
	43mm	54 × 30mm	–	94mm	42 × 24mm	188mm	126mm	47 × 26mm	–
Angular Field of View 16:9 Aspect Ratio	(1x)			(1x)			(1x)		
	3.3mm	93.1° × 61.4°	–	5.5mm	64.7° × 39.2°	11mm	6.3mm	57.9° × 34.6°	–
	43mm	9.3° × 5.2°	–	94mm	4.2° × 2.4°	188mm	126mm	3.2° × 1.8°	–
Filter Thread	M127 × 0.75 (Filter attaches to the lens hood.)			M82 × 0.75			M82 × 0.75		
Approx. Size (Ø×Length)	Ø95 × 240.5mm			Ø85 × 206.6mm			Ø85 × 181.9mm		
Approx. Mass (without Lens Hood)	1.93kg			1.67kg			1.4kg (RM)		
Features	1/2" Super I F 4K/30P Video Serial Com PC Macro RoHS			1/2" Super I F 4K/30P Video Serial Com PC 2K Macro RoHS			1/2" Super I F QuickZoom Serial Com Macro RoHS		

1/3" Series

PREMIER Series



eXceed Series



Model Name	HTs18×4.2BERM			XT17s×4.5BRM			XT20s×4.7BRM		
Focal Length (1x)/(2x)	4.2–76mm / 8.4–152mm			4.5–77mm / –			4.7–94mm / –		
Zoom Ratio	18 ×			17 ×			20 ×		
Extender	2 ×			–			–		
Maximum Relative Aperture (F-No.)	1 : 1.4 (4.2–76mm) / 1 : 2.8 (8.4–152mm)			1 : 1.6 (4.5–77mm)			1 : 1.4 (4.7–88mm) / 1 : 1.5 (94mm)		
Minimum Object Distance (M.O.D.) from Front Lens	0.6m			0.95m			0.9m		
Object Dimensions at M.O.D. 16:9 Aspect Ratio	(1x)			(1x)			(1x)		
	4.2mm	697 × 392mm	8.4mm 360 × 202mm	4.5mm	999 × 562mm	–	4.7mm	901 × 506mm	–
	76mm	41 × 23mm	152mm 21 × 12mm	77mm	60 × 34mm	–	94mm	47 × 26mm	–
Angular Field of View 16:9 Aspect Ratio	(1x)			(1x)			(1x)		
	4.2mm	63.8° × 38.6°	8.4mm 34.6° × 19.9°	4.5mm	60.3° × 36.2°	–	4.7mm	58.2° × 34.7°	–
	76mm	3.9° × 2.2°	152mm 2° × 1.1°	77mm	3.9° × 2.2°	–	94mm	3.2° × 1.8°	–
Filter Thread	M82 × 0.75			M82 × 0.75			M82 × 0.75		
Approx. Size (Ø×Length)	Ø85 × 214.1mm			Ø85 × 175.6mm			Ø85 × 189.8mm		
Approx. Mass (without Lens Hood)	1.66kg			1.28kg			1.48kg		
Features	1/3" Super I F 4K/30P Video Serial Com PC 2K Macro RoHS			1/3" Super I F QuickZoom Macro RoHS					

\*1: It is necessary to set up the lens to use Quick Zoom function.

Remote Control Lenses



FUJINON Videoconferencing series offer a complete line of remote control lenses from wide to telephoto. FUJINON Videoconferencing lenses are ideal for a wide variety of applications.



Model Name	ZA12×4.5BEMD	ZA17×7.6BEMD	ZA22×7.6BEMD
Focal Length (1x)/(2x)	4.5–54mm / 9–108mm	7.6–130mm / 15.2–260mm	7.6–167mm / 15.2–334mm
Zoom Ratio	12 ×	17 ×	22 ×
Extender	2 ×	2 ×	2 ×
Maximum Relative Aperture (F-No.)	1 : 1.8(4.5–41mm) 1 : 2.4(54mm)	1 : 1.8(7.6–102mm) 1 : 2.3(130mm)	1 : 1.8(7.6–120mm) 1 : 2.5(167mm)
Minimum Object Distance (M.O.D.)	0.3m	0.6m	0.8m
Macro	Standard	Standard	Standard
Filter Thread	M127 × 0.75 (Filter attaches to the lens hood.)	M82 × 0.75	M95×1 / M107×1 (Filter attaches to the lens hood.)
Approx. Size (Ø×Length)	Ø95 × 237.5mm	Ø85 × 204mm	Ø100×220.4mm
Approx. Mass (without Lens Hood)	1.96kg	1.68kg	1.81kg



Model Name	XA20s×8.5BMD	XA20s×8.5BEMD	XT17s×4.5BMD
Focal Length (1x)/(2x)	8.5–170mm / –	8.5–170mm / 17–340mm	4.5 – 77mm / –
Zoom Ratio	20 ×	20 ×	17 ×
Extender	–	2 ×	–
Maximum Relative Aperture (F-No.)	1:1.8(8.5–113mm) 1:2.7(170mm)	1:1.8(8.5–113mm) 1:2.7(170mm)	1 : 1.6(4.5–77mm)
Minimum Object Distance (M.O.D.)	0.9m	0.9m	0.95m
Macro	Standard	Standard	Standard
Filter Thread	M82×0.75	M82×0.75	M82 × 0.75
Approx. Size (Ø×Length)	Ø85×200.8mm	Ø85×200.8mm	Ø85 × 175.6mm
Approx. Mass (without Lens Hood)	1.47kg	1.55kg	1.38kg



# FUJINON Cine Lenses

Fujifilm has been developing the FUJINON Cine Lens since 2002. We are not only making excellent use of our optical, mechanical, and electronic knowledge which have been cultivated in the broadcast lens field, but we also have enhanced those technologies to achieve superb Cine Lenses. FUJINON Cine Lenses allow cinematographers to explore the possibility of creating new images around the world that represent the broad range of human emotions.

**FUJINON**  
**4K**  
CINE LENSES



## HK Premier Series

Fujifilm engineers exhaustively develop the HK Premier Series utilizing our expertise and knowledge gained from the lens design process honed over many years. The contrast performance is rich, the resolution - superb. The net results are lenses with excellent overall balance.



## ZK Cabrio Series

The ZK Cabrio Series features a unique detachable servo drive unit\*. With the drive unit, these lenses operate like traditional ENG TV lenses thanks to the same interface and accessories familiar to TV lens users. On the other hand, with the drive unit removed, this lens has standard 0.8 cine gearing, allowing for the use of traditional third party cine accessories.

\*Servo drive unit for ZK 12x25 is optionally available.



## XK Cabrio Series

The XK Cabrio Series also equip operational features of ZK Cabrio Series. The lens offers 4K compatible optical performance and covers a wide range of focal length from 20mm to 120mm. It also realizes T3.5 brightness in the entire zoom range. Various scenes can be shot with this single lens.



## MK Series

The MK series offers T2.9 speed through 18-55mm and 50-135mm focal length. The lenses achieve advanced optical performance into their compact and lightweight body, thanks to Super 35mm / APS-C sensor compatibility and dedicated E-mount design. They minimize focal shift and optical axis shift while zooming, and lens breathing that are typically observed in interchangeable lenses for digital cameras.





4K Compatible Optical Performance Lenses for Cinema Production

FUJINON Cine Lenses are developed to cover the "Super 35mm" image sensor that is used today in almost all current digital cinema cameras. Special low dispersion glass, as well as high refractive index glass, are arranged to achieve the best optimal balance. The zoom mechanism suppresses aberrations from the WIDE side to the TELE end by adopting our exclusive floating method. These lenses feature a special HT-EBC multi layer coating technology to reduce flare and ghosts improving image quality. In addition, the contrast performance is rich with a superb 4K compatible resolution. The net result is a lens series with excellent overall balance.



9-Blade Iris for Natural Bokeh

HK ZK XK MK

In order to improve the depiction of a more natural out of focus image and a nearly perfect round shape of the aperture, FUJINON PL mount cine lenses have an optimal 9-blade iris. Images of bright objects, not in critical focus, will look more natural and pleasing to the eye.



Detachable Digital Servo Grip\*

ZK XK

ZK and XK Series lenses feature an advanced "Detachable" drive unit, a first in the Light Weight Zoom category. These lenses feature hybrid technologies from both our broadcast and cine lenses. With the drive unit attached, these lenses can be operated like traditional ENG TV lenses thanks to the same interface and accessories. This is exceptionally helpful in simplifying and reducing set up time. Therefore, it is not necessary to use more complicated cine lens drive systems.

\* Mounted as standard in ZK2.5x14, ZK4.7x19, ZK3.5x85 and XK6x20; optional on the ZK12x25.



Cinema style

Broadcast style

Mechanical design for good manual operability

HK ZK XK MK

FUJINON Cine lenses are designed by emphasizing good manual operability.

- Operation is smooth with free of torque changes and jerkiness.
- Smooth focusing with no torque variation or friction helps accurate focus adjustment
- The gear rings for focus, zoom and iris adjustment have a pitch of 0.8M, the same as existing FUJINON cine lenses, for compatibility with standard cine accessories.
- An original universal font for markings offers excellent visibility in any shooting situation.



HK Premier Series

Horizontal Field of View (16:9)		79	67	53	29	18	16	7.4	3.2
Focal Length	S35mm Format*	14.5	18	24	45	75	85	180	400
	2/3" Format Equivalent	5.8	7.2	9.6	18	30	34	72	160
HK3.1x14.5									
HK4.7x18									
HK7.5x24									
HK5.3x75									

\*Sensor size : 24.0 x 13.5

ZK Cabrio Series

Horizontal Field of View (16:9)		89	72	58	43	18	17		5
Focal Length	S35mm Format*	14	19	25	35	85	90		300
	2/3" Format Equivalent	4.9	6.6	8.7	12.2	29.7	31.4		104
ZK12x25									
ZK2.5x14									
ZK4.7x19									
ZK3.5x85									

\*Sensor size : 27.45 x 15.44

XK Cabrio Series

Horizontal Field of View (16:9)			63				11		
Focal Length	S35mm Format*		20				120		
	2/3" Format Equivalent		7.7				46.3		
XK6x20									

\*Sensor size : 24.84 x 13.97

MK Series

Horizontal Field of View (16:9)			69.2		27.9	25.5		10.5	
Focal Length	S35mm Format*		18		50	55		135	
	2/3" Format Equivalent		6.9		19.3	21.2		52.1	
MK18-55mm									
MK50-135mm									

\*Sensor size : 24.84 x 13.97

Power supply

ZK XK

The power for the servo drive unit is available via a hot-shoe mount or external power supply.\*1  
For the external power supply, you can connect to the camera (12 pin) or power-supply box (XLR 4 pin / D-tap) by optional cables.

Equipped 16 bit encoder

ZK XK

16bit encoder provides accurate information of zoom, focus and iris settings, which matches highprecision virtual systems.

Lens-data communication system

ZK XK

FUJINON Cine lenses support ARRI LDS system and Cooke /i Technology, which are widely employed in cinema cameras. It allows users to transmit the data of the lens position to the camera and thus to enhance the efficiency of operation.\*2

\*1: Power supply for the lens varies according to the type of camera.

\*2: Lens-data communication system is available with the drive unit attached.  
Cameras need to be compatible with the communication system.

Compatible with the existing operation accessories

ZK XK

FUJINON Cine lenses can be used with existing wired zoom and focus demands for control, which offers the operability equivalent to conventional TV camera lenses.



ZK/XK series switch for activating the driving unit



Upper side switch

- (1) Quick Zoom ON/OFF switch
- (2) VTR-Quick Zoom switch
- (3) Return-Quick Zoom switch
- (4) Iris default setting for Auto-Manual switch
- (5) Auto-cruising Zoom ON/OFF switch
- (6) Back-up switch
- (7) Iris A-M position selector switch
- (8) Back-up switch

Lower side switch

- (1) Camera communication ON/OFF switch
- (2) Camera communication method selector switch (ON: ARRI LDS; OFF: Cooke /i)
- (3) Analog Zoom Demand and Zoom Mode function ON/OFF switch
- (4) Back-up switch

\*The power supply for running the servo drive unit of the ZK series lens varies depending on the camera to be attached.



HK Premier Series



Model Name	HK3.1×14.5		HK4.7×18	
Application	35mm PL Mount Camera		35mm PL Mount Camera	
Focal Length	14.5–45mm		18–85mm	
Zoom Ratio	3.1 ×		4.7 ×	
T-No.	T2.0		T2.0	
Iris Blades	9		9	
M.O.D.from Image Planes	0.71m / 2ft 4in		0.82m / 2ft 9in	
Object Dimensions at M.O.D. 1.78:1 Aspect Ratio*	14.5mm	693 × 390mm	18mm	656 × 369mm
	45mm	215 × 121mm	85mm	139 × 78mm
Angular Field of View 1.78:1 Aspect Ratio*	14.5mm	79.2° × 49.9°	18mm	67.4° × 41.1°
	45mm	29.9° × 17.1°	85mm	16.1° × 9.1°
Focus Rotation	280°		280°	
Zoom Rotation	160°		160°	
Apporox. Size (ΦxLength)	Φ136 × 310mm		Φ136 × 352mm	
Apporox. Mass	6.5kg		7.0kg	

\*Image Size : 24.0mm x 13.5mm (Φ27.5mm)



Model Name	HK7.5×24		HK5.3×75	
Application	35mm PL Mount Camera		35mm PL Mount Camera	
Focal Length	24–180mm		75–400mm	
Zoom Ratio	7.5 ×		5.3 ×	
T-No.	T2.6		T2.8(75-290mm) T3.8(400mm)	
Iris Blades	9		9	
M.O.D.from Image Planes	1.24m / 4ft 1in		2m / 6ft 9in	
Object Dimensions at M.O.D. 1.78:1 Aspect Ratio*	24mm	924 × 520mm	75mm	580 × 326mm
	180mm	119 × 67mm	400mm	113 × 64mm
Angular Field of View 1.78:1 Aspect Ratio*	24mm	53.1° × 31.4°	75mm	18.2° × 10.3°
	180mm	7.6° × 4.3°	400mm	3.4° × 1.9°
Focus Rotation	280°		280°	
Zoom Rotation	160°		160°	
Apporox. Size (ΦxLength)	Φ136 × 405mm		Φ136 × 444mm	
Apporox. Mass	8.9kg		9.1kg	

\*Image Size : 24.0mm x 13.5mm (Φ27.5mm)

ZK Cabrio Series



Model Name	ZK12x25	
Application	35mm PL Mount Camera	
Focal Length	25-300mm	
Zoom Ratio	12 ×	
T-No.	T3.5(25-273mm) T3.85(300mm)	
Iris Blades	9	
M.O.D.from Image Planes *[with macro function at wide end]	1.2m / 4ft [0.59m / 1ft 11in]*	
Object Dimensions at M.O.D. 1.78:1 Aspect Ratio**	25mm	937 × 527mm
	300mm	77 × 43mm
Angular Field of View 1.78:1 Aspect Ratio**	25mm	57.5° × 34.3°
	300mm	5.2° × 2.9°
Focus Rotation	280°	
Zoom Rotation	120°	
Approx. Size (ΦxLength)	Φ136 × 401mm	
Approx. Mass	8.4Kg (without optional Drive Unit)	

\*\*Image Size : 27.45mm x 15.44mm (Φ31.5mm)

ZK/XK Cabrio Series



Model Name	ZK2.5×14		ZK4.7×19	
Application	35mm PL Mount Camera		35mm PL Mount Camera	
Focal Length	14–35mm		19–90mm	
Zoom Ratio	2.5 ×		4.7 ×	
T-No.	T2.9		T2.9	
Iris Blades	9		9	
M.O.D.from Image Planes *[with macro function at wide end]	0.6m / 2ft [0.33m / 13in]*		0.85m / 2ft 10in [0.37m / 15in]*	
Object Dimensions at M.O.D. 1.78:1 Aspect Ratio**	14mm	701 × 394mm	19mm	917 × 516mm
	35mm	275 × 155mm	90mm	193 × 109mm
Angular Field of View 1.78:1 Aspect Ratio**	14mm	88.9° × 57.7°	19mm	71.7° × 44.2°
	35mm	42.8° × 24.9°	90mm	17.3° × 9.8°
Focus Rotation	200°		200°	
Zoom Rotation	120°		120°	
Approx. Size (Ø×Length)	Φ114 × 231mm		Φ114 × 226mm	
Approx. Mass	2.9kg (with Drive Unit) / 2.4kg (without Drive Unit)		2.8kg (with Drive Unit) / 2.3kg (without Drive Unit)	

\*\*Image Size : 27.45mm x 15.44mm (Φ31.5mm)



Model Name	ZK3.5×85		XK6×20	
Application	35mm PL Mount Camera		35mm PL Mount Camera	
Focal Length	85–300mm		20–120mm	
Zoom Ratio	3.5 ×		6 ×	
T-No.	T2.9(85–218mm) T4.0(300mm)		T3.5	
Iris Blades	9		9	
M.O.D.from Image Planes *[with macro function at wide end]	1.2m / 4ft [0.97m / 3ft 2in]*		1.1m / 3ft 7in [0.4m / 1ft 4in]*	
Object Dimensions at M.O.D. 1.78:1 Aspect Ratio**	85mm	274 × 154mm	20mm	1109 × 624mm
	300mm	79 × 44mm	120mm	182 × 102mm
Angular Field of View 1.78:1 Aspect Ratio**	85mm	18.3° × 10.4°	20mm	63.7° × 38.5°
	300mm	5.2° × 2.9°	120mm	11.8° × 6.7°
Focus Rotation	200°		200°	
Zoom Rotation	120°		90°	
Approx. Size (Φ×Length)	Φ114 × 249mm		Φ114 × 239mm	
Approx. Mass	3.1kg (with Drive Unit) / 2.6kg (without Drive Unit)		2.9kg (with Drive Unit) / 2.4kg (without Drive Unit)	

\*\*Image Size : 27.45mm x 15.44mm (Φ31.5mm)

\*\*Image Size : 24.84mm x 13.97mm (Φ28.5mm)

MK Series

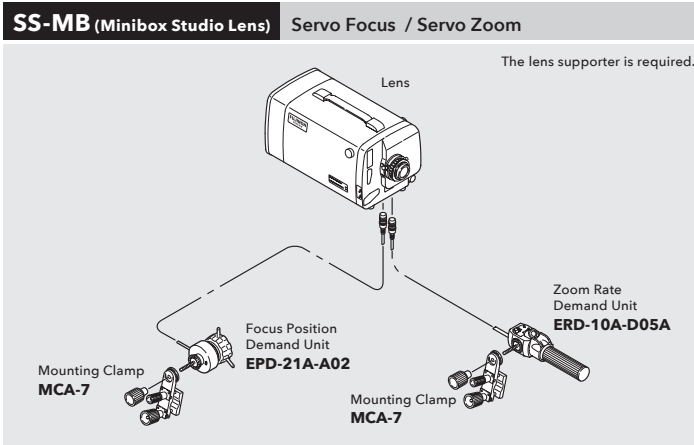
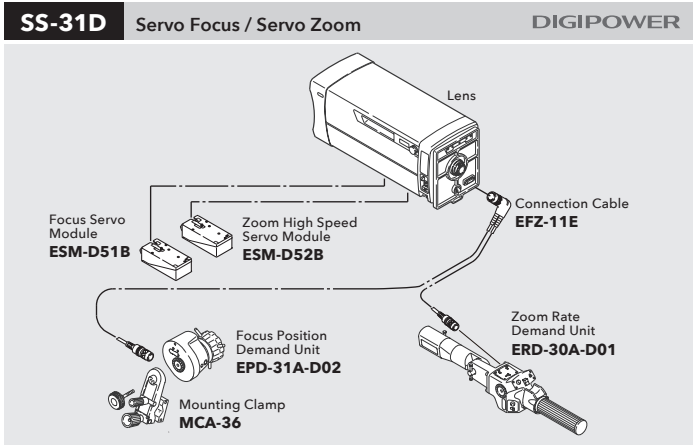
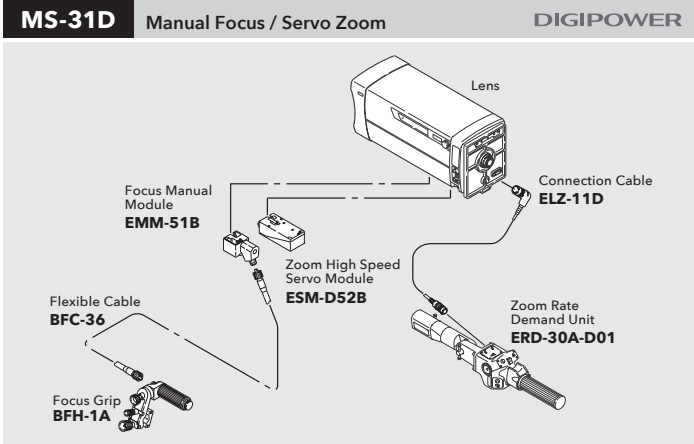
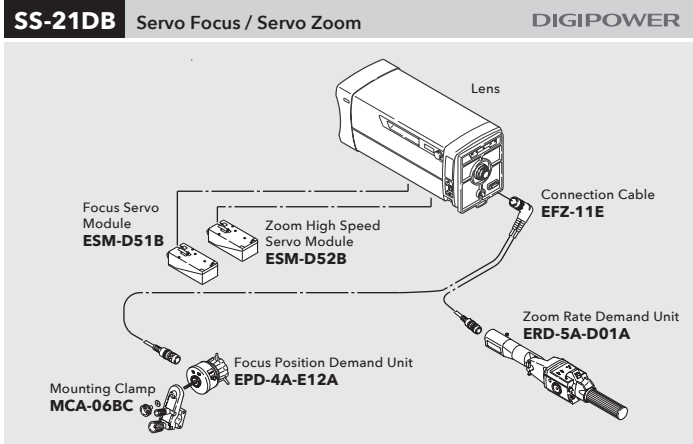


NEW		NEW		On sale summer 2017	
Model Name	MK18-55mm T2.9		MK50-135mm T2.9		
Application	Super 35mm/APS-C E-mount Camera		Super 35mm/APS-C E-mount Camera		
Focal Length	18-55mm		50-135mm		
Zoom Ratio	3.0 x		2.7 x		
T-No.	T2.9 / F2.75		T2.9 / F2.75		
Iris Blades	9		9		
M.O.D.from Image Planes *[with macro function at wide end]	0.85m/2ft 9in [0.38m/1ft 2.9in]*		1.2m/3ft 11in [0.85m/2ft 9in]*		
Object Dimensions at M.O.D. 1.78:1 Aspect Ratio**	18mm	924mm × 520mm	50mm	534mm x 300mm	
	55mm	291mm × 164mm	135mm	196mm x 110mm	
Angular Field of View 1.78:1 Aspect Ratio**	18mm	69.2° × 42.4°	50mm	27.9° × 15.9°	
	55mm	25.5° × 14.5°	135mm	10.5° x 5.9°	
Focus Rotation	200°		200°		
Zoom Rotation	90°		90°		
Filter diameter	82mm		82mm		
Front diameter	85mm		85mm		
Approx. Size (φ x Length)	Φ87mm x 206.3mm		Φ87mm x 206.3mm		
Approx. Mass	980g		980g		

\*\*Image Size : 24.84mm x 13.97mm (Φ28.5mm)

FUJINON Lens Accessory Guide

Studio/Field Lens System Configuration



Control Accessories List

		Description	Model Name	DIGIPOWER Studio/Field
Lens Focus/Zoom Drive Unit	Servo Digital	Zoom High Speed Servo Module	ESM-D52B	●
		Focus Servo Module	ESM-D51B	●
Focus	Manual	Manual Focus/Zoom Module	EMM-51B	●
	Servo Digital	Focus Position Demand Unit	EPD-31A-D02	●
		Mounting Clamp	MCA-36	●
		Focus Position Demand Unit	EPD-4A-E12A	●
		Mounting Clamp	MCA-06BC	●
		Servo Focus Grip	EPA-22	●
Zoom	Manual	Manual Focus Grip	BFH-1A	●
	Servo Digital	Zoom Rate Demand Unit	ERD-30A-D01	●
		Zoom Rate Demand Unit	ERD-5A-D01A	●
Other	Manual	Zoom Manual Handle	BZH-2A	●
		Connection Cable (Y Cable for Full-Servo Kit)	EFZ-11E	●
		Connection Cable (Cable for Semi-Servo Kit)	ELZ-11D	●
		Flexible Cable	BFC-36	●
	Servo	Range Selector	ERS-51B	●
		Macro Remote Controller	EA-3A-10A	●
		OS-TECH Controller	EA-12A-05BD	●
		PC Connection Cable	SA-206D-005	●
		Lens Supporter (for BTAMount)	ELH-112A-35A	●
		Lens Supporter (for Sony Mount)	ELH-112A-05A	●

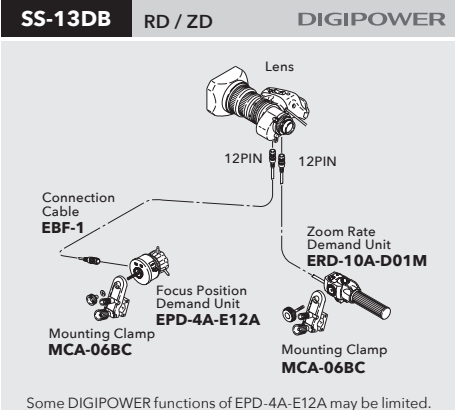
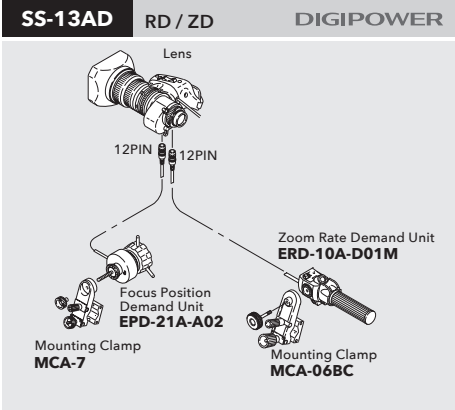
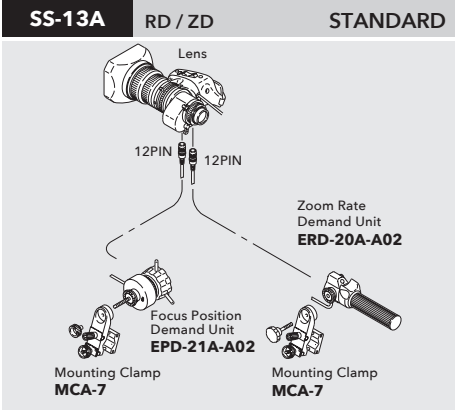
Control Accessories for XA22x7BES (Minibox)

	Description	Model Name
Focus	Focus Position Demand Unit	EPD-21A-A02
	Mounting Clamp	MCA-7
Zoom	Zoom Demand (Featured x2 Extender Remote)	ERD-10A-D05A
	Mounting Clamp	MCA-7
Other	Lens Supporter	ALH-117C-02A

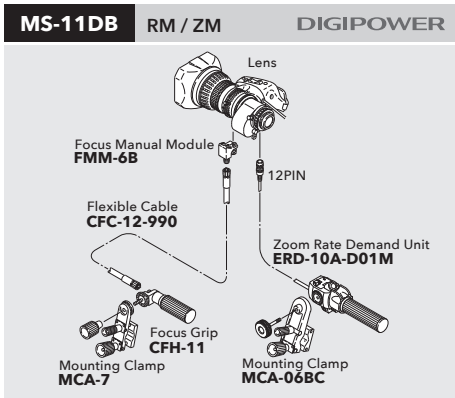
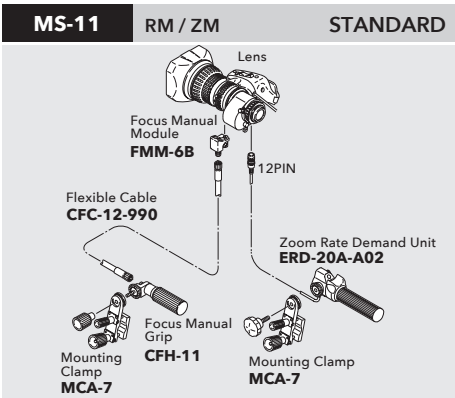


ENG/EFP Portable Lens System Configuration

Full-Servo Control Kit (Servo Focus / Servo Zoom)



Semi-Servo Control Kit (Manual Focus / Servo Zoom)



Control Accessories Compatibility (Premier Series, Select Series and Broadcast Lenses)

HA18 × 7.6 BE **RM**

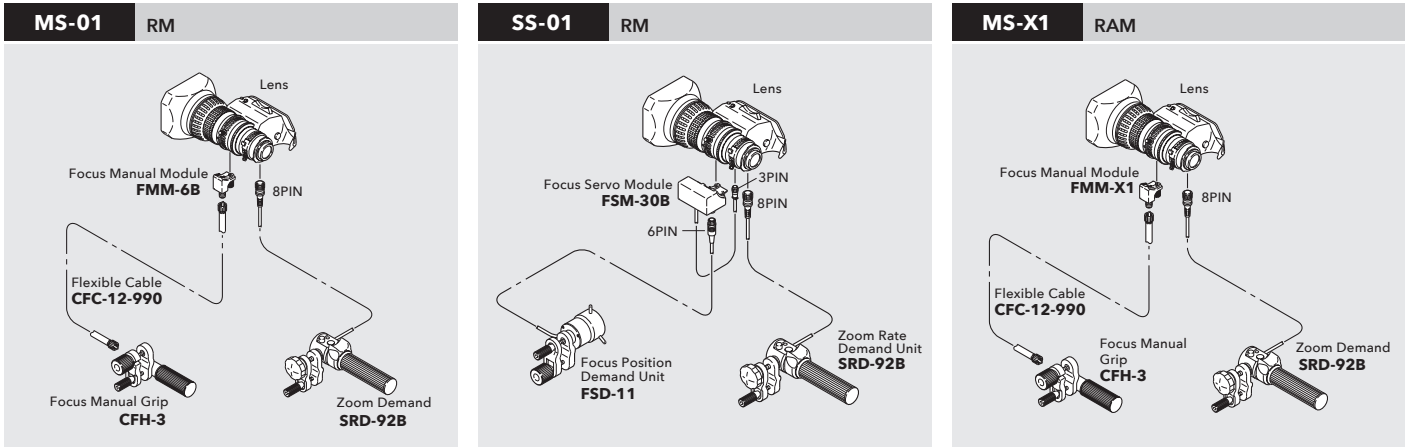
		Lens Drive Unit Type		RM RD/ZD		RM RD/ZD	
		Description	Model Name	Standard	DIGIPOWER	Standard	DIGIPOWER
Focus	Manual	Focus Grip	CFH-11	●	●		
		Mounting Clamp	MCA-7	●	●		
		Flexible Cable	CFC-12-990	●	●		
		Focus Manual Module	FMM-6B	●	●		
			FMM-3C (for 42x series, 25x series)		●		●
	Servo	Focus Position Demand Unit	EPD-21A-A02		●		●
		Focus Servo Position Module	FSP-13G	●		●	
		Mounting Clamp	MCA-06BC				●
		Focus Position Demand Unit	EPD-4A-E12A				●
		Connection Cable	EBF-1 (for EPD-4A to Lens)				●
Zoom	Manual	Zoom Handle	CZH-14	●			
		Mounting Clamp	MCA-7	●			
		Flexible Cable	CFC-12-990	●			
		Zoom Manual Module	ZMM-6	●			
					●		
	Servo	Zoom Rate Demand Unit	ERD-20A-A02		●		
		Mounting Clamp	MCA-7				
		Zoom Rate Demand Unit	ERD-10A-D01M				●
		Mounting Clamp	MCA-06BC				●
Other		VTR Control Unit	VRS-20				
		Return Control Unit	EXT-30				
		Lens Supporter	ALH-117C-01A (for 42x series)				
		OS-TECH Control Unit	EA-12A-03BA				
		Extension Cable For Focus Position Demand Unit/Zoom Rate Demand Unit	ECE-1000 (1m) / -2000 (2m) / -3000 (3m) / -4000 (4m) / -5000 (5m) / -10000 (10m)*1				
		Cable for Lens ↔ PC	SA-206D-005 / SA-206A-005 *2				
		2x Extender Change Unit (Motor Drive)	ECU-2B				
		ECU Adapter (for UA22x)	ECU-1AD				
		ECU Adapter (for UA13x)	ECU-2AD				

\*1: Longer Cables are also available.  
\*2: SA-206A-005 is specifically designed for HA25x, HA42x





eXceed Series System Configuration



Control Accessories Compatibility (eXceed Series)

XA20s×8.5 BE 

RM

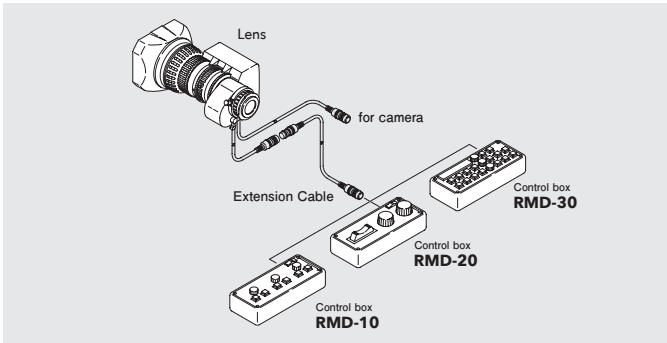
Lens Drive Unit Type

		Description	Model Name	RM / RAM
Focus	Manual	Focus Grip	CFH-3	●
		Flexible Cable	CFC-12-990	●
		Focus Manual Module	FMM-6B FMM-X1 (for XA16sx8B8RAM)	●
	Servo	Focus Servo Module	FSM-30B	●
		Focus Position Demand Unit	FSD-11	●
Zoom	Manual	Zoom Handle	CZH-14	●
		Mounting Clamp	MCA-7	●
		Flexible Cable	CFC-12-990	●
		Zoom Manual Module	ZMM-6	●
	Servo	Zoom Rate Demand Unit	SRD-92B	●
Other	VTR Control Unit		VRS-2	
	Extension Cable For Focus Servo Demand Unit		ECA-1000(1m) -5000(5m) / -10000(10m)*	
	Extension Cable For Zoom Rate Demand Unit		ECC-1000(1m) -5000(5m) / -10000(10m)*	
	For 12PIN Lens Cable		ECE-R22	

\* Longer Cables are also available.



HD REMOTE CONTROL LENSES



Control Accessories Compatibility

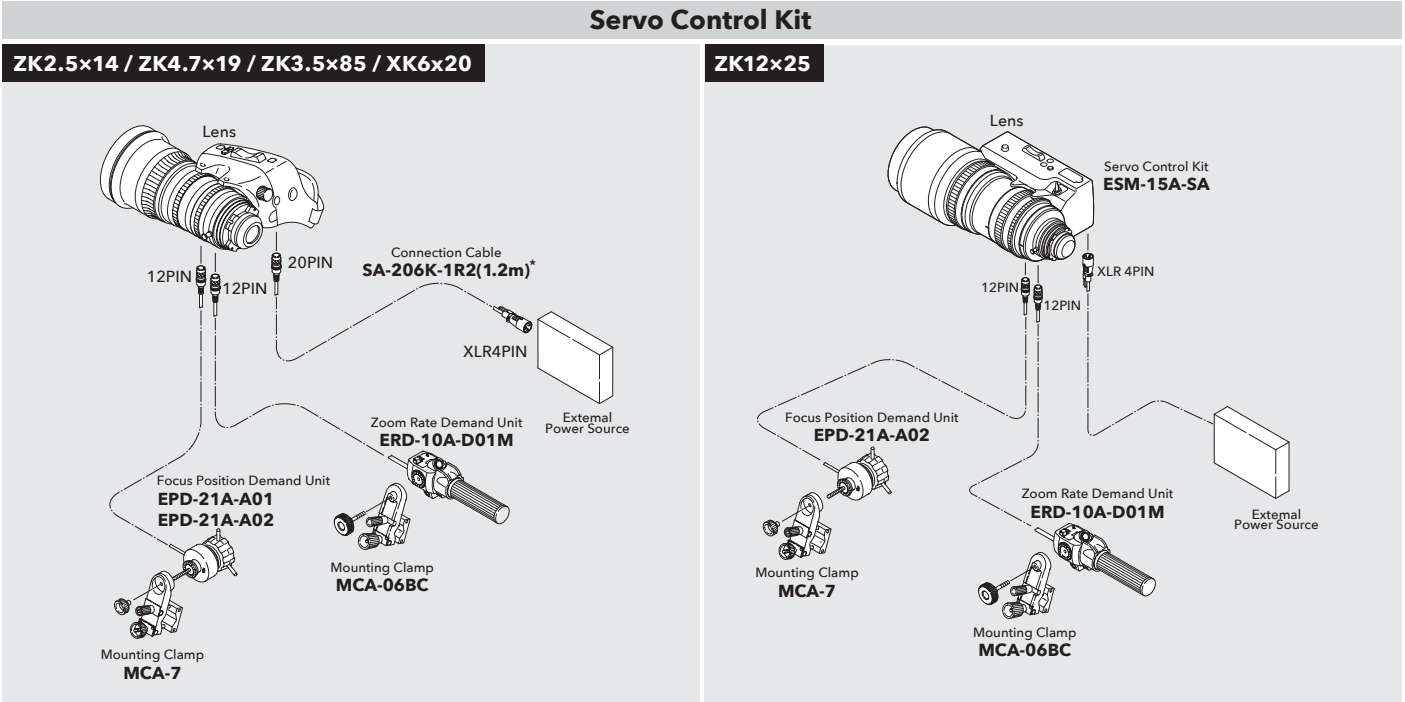
ZA17×7.6 BE 

MD

Description	Model Name	MD
Remote Controller	RMD-10	●
	RMD-20	●
	RMD-30	●
Extension Cable	ECM-005(5m) / -010(10m) / -020(20m) / -050(50m) / -100(100m)*	
Extender Change Unit	ECU-12A	

\* Longer Cables are also available.

Cinema Lens System Configuration



\*Connection cable for external power source is necessary when the power source (over 10V, 1A )can't be supplied from a camera.

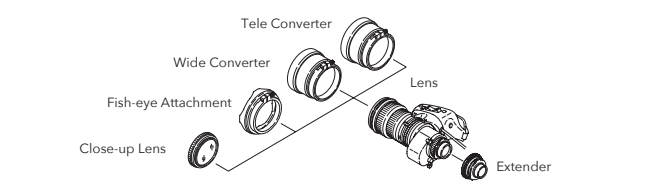
Control Accessories List

		Description	Model Name
Focus Demand	Digital	Digital Focus Position Demand	EPD-4A-E12A
		Mounting Clamp	MCA-06BC
	Standard	Standard Focus Position Demand	EPD-21A-A02
		Mounting Clamp	MCA-7
Zoom Demand	Digital	Digital Zoom Demand (Featured Iris Remote Control)	ERD-10A-D01M
		Mounting Clamp	MCA-06BC
	Standard	Focus Position Demand	ERD-20A-A02
		Mounting Clamp	MCA-7
Other	Connection Cable for EPD-4A-E12A		EBF-1
	Lens Hood for ZK4.7x19, ZK3.5x85		HS-304A-114
	Lens Hood for ZK2.5x14		HS-304B-114
	Digital Servo Module (Designed for ZK12x25)		ESM-15A-SA
	Power Source Cable (Lens:20pin - XLR4pin), L=120cm		SA-206K-1R2
	Power Source Cable (Lens:20pin - D-Tap), L=120cm		SA-206X-1R2
	Power Source Cable (Lens:20pin - Camera:12pin), L=120cm		SA-206M-1R2
	Power Source Cable (Lens:20pin - Camera:12pin), L=40cm		SA-206M-R40
	Power Source Cable (Lens:20pin - Camera:12pin), L=25cm		SA-206M-R25



Optical Accessories for Portable Lenses

Optical accessories expand the capabilities of FUJINON TV lenses.



Tele Converter

TCV

►Focal length is multiplied by the magnification of the converter on the telephoto side. ►Zooming possible. ►The F-No. on the master lens remains unchanged. ►M.O.D. is increased. ►Loss of picture edges will occur toward the wide angle side of the zoom range.

Wide Converter

WCV

►Focal length is multiplied by the magnification of the converter on the wide side. ►Zooming possible. ►The F-No. on the master lens remains unchanged. ►M.O.D. is decreased.

Wide Attachment

WAT

►Converts only the wide end of the lens by the magnification of the attachment. ►Zooming not possible. ►The F-No. on the master lens remains unchanged. ►Focus is adjustable only by the macro lever of master lens located near the lens mount.

Fish-eye Attachment

F-AT

►Converts only the wide end of the lens by the magnification of the attachment. ►Zooming not possible. ►The F-No. on the master lens remains unchanged. ►Focus is adjustable only by the macro lever of master lens located near the lens mount.

Close-up Lens

►Close-up lens provides a shorter minimum focusing distance between lens and object. ►Ideal for copy stand or other close up work.

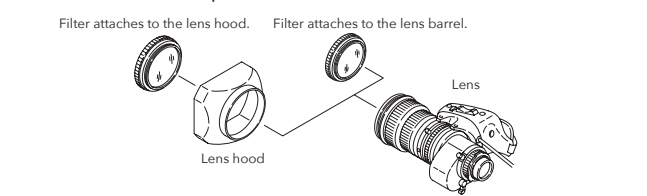
2×Extender

►2× range extender mounts between master lens and camera and doubles the focal length of the master lens. ►F-No. is doubled. ►Includes back focus adjustment.

\* AE20B-2 is specifically designed for SDTV lens.

Effects Filter

Attach to filter screw portion of the zoom lens.



UV Filter

UV

►UV filter absorbs ultraviolet rays, cuts haze. ►No effect on exposure and color temperature.

ND Filter

ND

►ND (Neutral Density) filter reduces the light of all wavelengths that enter a lens. ►Allow picture taking of bright scenes with wider lens apertures. ►ND2 reduces light by 1 / 2, ND4 by 1 / 4, ND8 by 1 / 8. ►No effect on color temperature.

Polarizing Filter

PL

►Polarizing filter reduces polarized light reflections from glass and water surfaces or to improve color saturation. ►Enhances picture quality by blocking harmful reflected light. ►Circular type

			XA16s×8	HA18×7.6		
			XA20s×8.5	HA21×7.8		HA19×7.4
			XS20s×6.4	ZA17×7.6	HA16×6.3	HA23×7.6
			XT17s×4.5	ZS17×5.5		ZA22×7.6
			XT20s×4.7	XS17×5.5		

Front Lens Diameter			ø 85	ø 95	ø 100
Model Name	Magnification	Approx. Mass(kg)			
TCV-H85		1.00		●	
TCV-H95	1.5×	1.00		●	
TCV-H100		1.00			●

WCV-H85	0.8×	1.05		●	
WCV-H95	0.85×	1.00		●	
WCV-H100	0.8×	1.05			●

WAT - H85		0.36		●	
WAT - H100	0.7×	0.53			●

F-ATH85	0.7×	0.36		●	
F-ATH100		0.63			●

	Magnification	Approx. Mass(kg)			
HCL-H8082B5C		0.28		● M82×0.75	
HCL-H8095SC	0.8m	0.42			● M95×1
HCL-80107NSC		0.50		●	

	Object Distance				
HAeE14-1	1.5×	0.30			
AE20B-2	1.5×	0.17			

	HA18×7.6 HA21×7.8 HTs18×4.2 ZA17×7.6 XS17×5.5 ZS17×5.5 XA20s×8.5 XS20s×6.3 XT17s×4.5 XT20s×4.7	HA19×7.4 HA23×7.6 ZA22×7.6	HA16×6.3	HA25×11.5 HA25×16.5	HA14×4.5 HA18×5.5 HA22×7.3 ZA12×4.5 XS13×3.3	HA42×9.7 HA42×13.5 A42×9.7 A42×13.5
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Lens Barrel Filter Thread Size	M82×0.75	M95×1	—	M107×1	—	M127×0.75
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Hood Filter Thread Size	—	M107×1	M107×1	M127×0.75	M127×0.75	—
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Model Name						
EFL-82UV	●					
EFL-95UV		●				
EFL-107UV		●	●	●		
EFL-127UV				●	●	●

EFL-82 (N2,N4,N8)	●					
EFL-95 (N2,N4,N8)		●				
EFL-107 (N2,N4,N8)		●	●	●		
EFL-127 (N2,N4,N8)				●	●	●

EFL-82PL	●					
EFL-95PL		●				
EFL-107PLA		●	●	●		
EFL-127PL			●	●	●	●

Mount Adapters

Model Name	Camera	Lens	Note
ACM-8B	1/2" Sony Bayonet Mount	2/3" Bayonet Mount	Angle of view is approx. 1.3x shifted to tele side
ACM-19	1/3" Bayonet Mount	1/2" Sony Bayonet Mount	Angle of view is approx. 1.3x shifted to tele side
ACM-17	1/3" Bayonet Mount	2/3" Bayonet Mount	Angle of view is approx. 1.6x shifted to tele side
ACM-21	SONY PMW-EX3	2/3" Bayonet Mount	Angle of view is approx. 1.4x shifted to tele side

Fujifilm has variety of Mount Adapters. For more detail, please ask our sales office.



Mount Adapter  
ACM-17



Mount Adapter  
ACM-21

FUJINON Lens Maintenance

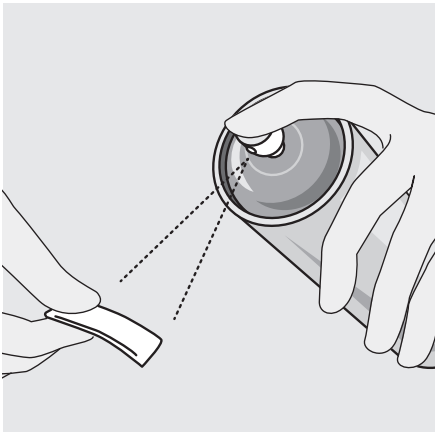
Maintaining high performance levels far into the future

Lens Cleaning

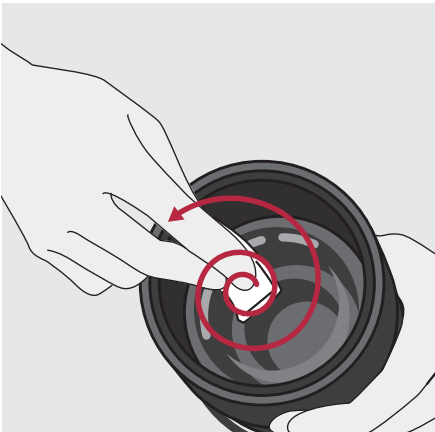
Use commonly available lens cleaner and lens cleaning paper .



First, remove the lens cover and brush the dust from the lens surface with a soft brush or blower brush.



Fold the lens paper into an appropriate size and moisten a part of it with lens cleaner.



Gently wipe the lens with the moistened lens paper in a circular motion, from the center to the edges. Take a dry piece of lens paper and wipe until all smears disappear.

Moisture Removal

If water seeps through to the inner part of the lens, quickly wipe all remaining water on the outer part of the lens with a dry cloth. Next, place the lens into a sealable vinyl bag with a drying agent, seal the bag and allow to completely dehumidify.

Storage

If the lens will not be used for some time, please store it away from high temperatures, high humidity and corrosive gases. High temperatures and high humidity are particular causes of mold. Mold is able to thrive in temperatures of between 20-28℃ and between 60-80% humidity levels.

Caution

The lens consists of an optical unit and a power unit. Both units are held in place with screws. Please DO NOT unscrew the units. If the units are separated, the mechanism of the power unit will require realignment.