FUJIFILM

Technology That Inspires...

2011

FUJINON

PRODUCT GUIDE

FUJIFILM

INTRODUCING NEW FUJINON PRODUCTS

SELECT Series

ZS17x5.5BERM

EXCEED Series

XT17sx4.5 BRM
XT20sx4.7 BRM
XS20sx6.3 BRM
XA16sx8 BRAM
XA20sx8.5 BRM

WIRELESS

RECEIVER
WL-325A-A01L

TRANSMITTER
WL-325A-A01C

3D

3D LENSES

XA4x7.5BMD-D3 L/R

3D CONTROL

HJ-303-08A

FUJINON

TABLE OF CONTENTS

Not every product shown in this guide is available worldwide.

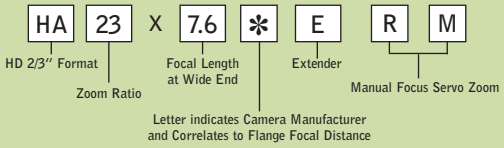
Prefix

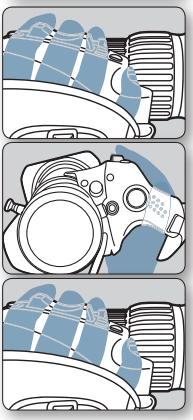
A	2/3″ FORMAT (ENG)
S	1/2″ FORMAT (ENG)
HA/XA/HAs	2/3″ FORMAT (High Definition)
ZA	2/3″ FORMAT (High Definition)
HAc	2/3″ FORMAT (High Definition, Cine Compact Zoom)
HAe	2/3″ FORMAT (High Definition, Cine Super Zoom)
HAeF	2/3″ FORMAT (High Definition, Cine Super Prime)
HS/HSs/XS/ZS	1/2″ FORMAT (High Definition)
HTs/Th/XT	1/3″ FORMAT (High Definition)
HK	PL MOUNT LENSES

Suffix

MD	Motor Drive
RM	Manual Focus Servo Zoom
ZM	Manual Focus Servo Zoom with Quick Frame
RD	Full Servo (ENG Style)
ZD	Full Servo with Quick Frame
SM	Manual/Servo Module Interchangeable

Example





NEW DIGITAL GRIP

NEW

FUJINON has designed a new unique Digital Grip for DIGI POWER ENG Lenses.

The new Grip is enabled to enhance further lens operation performance.

ERGONOMIC DESIGN

The beauty of our New Drive Grip is that it is focused on usability and comfort. We have implemented design input from the top camera users. It has a comfortable feel and the controls are naturally placed, a seamless interface.

ENERGY-SAVING DESIGN

New Drive Grip achieves 50% drop in current draw compared to it's predecessor as well as a significant reduction in operation noise.

Super Slow Zoom

Smooth and natural zooming is possible at an extremely slow speed.

DIGI POWER

In order to enhance the newest optical design technology, Fujinon has developed the digital servo control system DIGI POWER offering advanced performance of its zoom lenses. In addition to improved specification and performance the utilization of digital circuitry in our DIGI POWER product line has made many new features available that were virtually impossible in the past. DIGI POWER lenses provide for vastly improved accuracy and repeatability over previous designs and enable custom control parameters to be memorized for individual camera operator's preferences. An optional 16 bit processor for zoom, focus and iris is available for applications requiring a high degree of accuracy.

QuickZoom

QUICKZOOM speed is 0.6 sec. / 0.7 sec.* from end to end. QUICKZOOM provides a rapid zoom movement to the telephoto position to check focus by the simple push of a button. Releasing the button returns the lens to the previously selected zoom position. Furthermore, by setting the switch, QUICKZOOM can be performed remotely from zoom rate demand units.

* 0.6 sec. : Studio and Field lens
0.7 sec. : ENG/EFP lens

1 Frame your shot. 2 Press Q-Z button. 3 Lens automatically zooms in. Check focus and release Q-Z button. 4 Lens zooms back to original frame in full focus.

QUICKZOOM solves the problem of having to reframe a shot after checking focus. This exclusive feature is a standard component on all of DIGI POWER lenses.

Utilizing the QUICKZOOM function can be an extremely time saving and productive production tool, by allowing a quick check of focus after a framed shot has been established. Simply press the Q-Z button and the lens zooms in tight at maximum speed, check focus and release the Q-Z button. The lens zooms out to the pre-selected shot automatically. No more guess work as to what the framed shot was prior to checking focus.

ZOOM MODE SELECT

A zoom mode switch provides the option to change the zoom response from "normal" to more sensitive on the wide or telephoto side. With the 3-zoom mode (10-zoom mode on ENG/EFP) the user can select the most suitable fine touch. These zoom mode settings are ideal when switching between productions such as drama and sports.The zoom torque adjust is available only on Quick Frame lenses.

ZOOM LIMIT
(available only on ZD drive)

The zoom limit function can be used in the servo operational mode. By using this function, the zoom movement toward both the wide side and the telephoto side can be limited. An override switch quickly returns the lens to normal mode.

Standard on: DIGI POWER Studio and Field lens, DIGIPOWER ENG / EFP lens

AUTO-CRUISING ZOOM

Pressing the C-Z button while zooming will fix the zoom speed at the existing rate. Pressing the seesaw switch a second time slightly will return the zoom speed to normal.

Standard on: DIGI POWER Studio and Field lens, DIGIPOWER ENG / EFP lens

ZOOM MAXIMUM SPEED ADJUSTMENT

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

Quickframe

PRECISION SERVO/QUICK FRAME

The Precision Servo system provides precise control of zoom and focus by incorporating anti-backlash gearing. This is ideal for robotics and 3D applications. Sixteen bit encoders are available as an option. Quick Frame provides fast manual zooms without disengaging the manual zoom lock as in standard designs.

VIRTUAL CONNECTOR

FUJIFILM has developed the small and light encoder device in the drive unit. The optional high resolution encoder built in the DIGIPOWER lens is available for more accurate positioning for virtual studio and other applications.

Serial Digital Remote Control/PC Control

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

WIRELESS

NEW

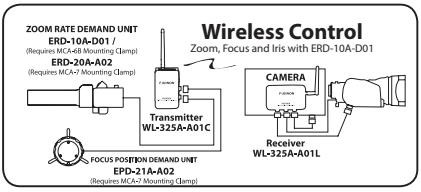
The wireless WL-325A-A01L and A01C, transmitter and receiver, permits full zoom, focus, and iris control of Fujinon's Digi-Power lenses. All functions operate as smoothly and accurately as if connected by cable. The small, compact transmitter and receiver will function up to 100m distance from one another. When energized, the units automatically search for an unoccupied transmission channel. Operating on the 2.4GHz frequency, Fujinon's wireless system will never conflict with another device with a pairing feature.

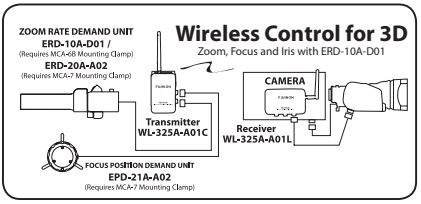
Specifications

Wireless Method		2.4 GHz
Size	Receiver	69(W) x 28(H) x 115(L)
	Transmitter	69(W) x 28(H) x 115(L)
Maximum Distance (outside)		100m
Power	Receiver	Powered by lens
	Transmitter	4 x AA Batteries or DC

Other features:

- Will not conflict with another device with pairing feature
- Searches for unoccupied channel automatically





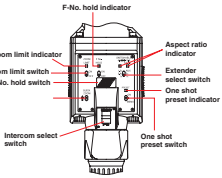
Transmitter WL-325A-A01C

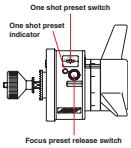
Receiver WL-325A-A01L

HD & STUDIO/FIELD FEATURES

ONE SHOT PRESET

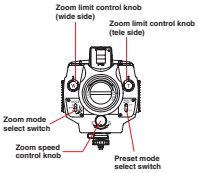
Zoom and focus can be preset and memorized in advance at a selected position. One touch of the switch during shooting will instantly return to the memorized position for time saving production.





ZOOM MODE SELECT

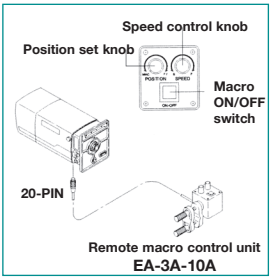
A zoom mode switch provides the option to change the zoom response from "normal" to more sensitive on the wide or telephoto side.



ADVANCED BACK FOCUS: REMOTE MACRO AND FOCUS FADER

This system allows macro shooting as close as 0.3m (0.05m on HA27x6.5) from the object. Focus fades are also possible at the wide side of the zoom range with the use of a simple remote control unit, adding to the production value.

Standard on DigiPower Field lenses and HA27x6.5.

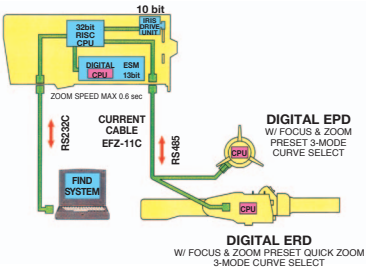


AUTOMATIC COMPENSATION OF FOCUS BREATHING

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

F.I.N.D. SYSTEM

Fujinon's self-diagnostic system provides immediate analysis of the lens electronic systems it is available as option for all DIGI POWER lenses. Installing F.I.N.D. software for DIGI POWER in your PC allows a graphical user interface for lens history and diagnostic functions.



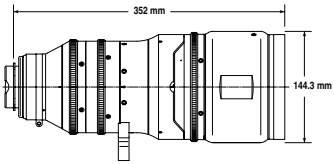
Virtual Connector

An interface connector which provides an output of lens positional data is conveniently located on Fujinon's newest EFP and Studio lenses for interface with virtual advertising and statistical display systems. (XA50X9.5 excluded)

FUJINON PREMIER PL SERIES

FOR FILM AND DIGITAL CINEMATOGRAPHY

Designed for current and emerging 35mm format film and digital cinema motion picture cameras, Fujinon's PL Series offer T-stop, focal range and optical performance previously unavailable in a family of PL zooms. With workable size, industry-inspired functionality and focal range from 14.5 mm to 400 mm, these zooms provide top performance and cost efficiency.



18-85mm / T2.0

14.5 - 45 mm (HK3.1x14.5)
18 - 85 mm (HK4.7x18)

LENS	14.5 - 45 mm	18 - 85 mm
Model Number	HK3.1x14.5	HK4.7x18
Zoom Ratio	3.1x	4.7x
Focal Length T-No.	14.5 - 45 mm T2.0	18 - 85 mm T2.0
Iris Range	T2.0 - T22	T2.0 - T22
Close Focus Limit	0.71 m 2.3′	0.82 m 2.7′
Application	35 mm Film and Digital Cinema Camera	35 mm Film and Digital Cinema Camera
Format Cover	S35 (Super 35 Film Format/24x13.5mm)	S35 (Super 35 Film Format/24x13.5mm)
Mount	PL Mount	PL Mount
Angular Field of View 16:9 Aspect Ratio	14.5 mm 79° 13′ 45 mm 29° 52′	18 mm 67° 23′ 85 mm 16° 04′
Object Dimensions at Close Focus 16:9 Aspect Ratio	 14.5 mm 693 x 390 mm 45 mm 215 x 121 mm	 18 mm 656 x 369 mm 85 mm 139x78 mm
Dia ø x Length	ø 136 x 310 mm	ø 136 x 352 mm
Weight (w/o Hood)	6.5 kg / 14.3 lbs	6.9 kg / 15.2 lbs

24 - 180 mm (HK7.5x24)
75 - 400 mm (HK5.3x75)

LENS	24 - 180mm	75 - 400mm
Model Number	HK7.5x24	HK5.3x75
Zoom Ratio	7.5x	5.3x
Focal Length T-No.	24 - 180 mm 1:2.6	75 - 400 mm T2.8 (75-270mm), T3.8 (400mm)
Iris Range	T2.6 - T22	T2.8 - T22
Close Focus Limit	1.24 m 4′	2.0 m 6.6′
Application	35 mm Film and Digital Cinema Camera	35 mm Film and Digital Cinema Camera
Format Cover	S35 (Super 35 Film Format/24x13.5mm)	S35 (Super 35 Film Format/24x13.5mm)
Mount	PL Mount	PL Mount
Angular Field of View 16:9 Aspect Ratio	24 mm 53° 8′ 180 mm 7° 38′	75 mm 18° 11 400 mm 3° 26′
Object Dimensions at Close Focus 16:9 Aspect Ratio	 24 mm 924 x 520 mm 180 mm 119 x 67 mm	 75 mm 580 x 326 mm 400 mm 113x64 mm
Dia ø x Length	ø 136 x 405 mm	ø 136 x 444 mm
Weight (w/o Hood)	8.9 kg / 19.6 lbs	8.9 kg / 19.6 lbs

E SERIES CINE ZOOM LENSES FOR 2/3"

Fujinon's premiere lens series for 2/3 HD format Digital Cinematography. Four zoom and nine prime lenses, designed to meet the highest quality requirements of big screen, green screen, commercial production, scripted feature and broadcast productions. E Series are the fastest in the class, designed for top performance wide open, enabling maximum depth-of-field control. No breathing, no ramping, familiar focal ranges, and top optical performance places the E Series in a league of its own.

5-15 mm (HAe3x5)
10-100 mm (HAe10x10)

LENS	5-15mm	10-100mm
Model Number	HAe3x5	HAe10x10
Zoom Ratio	3X	10X
T-No.	T1.6	T1.8
Close Focus from Image Plane	0.56 m / 1.84 ft	0.94 m / 3.08 ft
Object at Close Focus 16:9 Aspect Ratio	5 mm 541x304 mm 15 mm 178x100 mm	10 mm 633x356 mm 100 mm 65x37 mm
Angular Field of View 16:9 Aspect Ratio	5 mm 87°36'x56°39' 15 mm 35°27'x20°22'	10 mm 51°14'x30°10' 100 mm 5°29'x3°05'
Focus Rotation	280°	280°
Zoom Rotation	160°	160°
Diameter x Length	ø 128 x 287 mm	ø 128 x 302 mm
Weight	5 kg / 11 lbs	5.8 kg / 12.76 lbs

6-30 mm (HAe5x6)
9.5-114 mm (HAe12x9.5)

LENS	6-30mm	9.5-114mm
Model Number	HAe5x6	HAe12x9.5
Zoom Ratio	5X	12X
T-No.	T1.8	T1.6
Close Focus from Image Plane	0.56 m / 1.84 ft	1.2 m / 3.94 ft
Object at Close Focus 16:9 Aspect Ratio	6 mm 458x257 mm 30 mm 92x51 mm	9.5 mm 861x484 mm 114 mm 72x40 mm
Angular Field of View 16:9 Aspect Ratio	6 mm 77°16'x48°23' 30 mm 18°10'x10°16'	9.5 mm 53°34'x31°41' 114 mm 4°49'x2°43'
Focus Rotation	280°	280°
Zoom Rotation	160°	160°
Diameter x Length	ø 128 x 277 mm	ø 156 x 433.5 mm
Weight	4.7 kg 10.34 lbs	10 kg / 22 lbs

C SERIES CINE ZOOM LENSES FOR 2/3" HD

Fujinon's compact zoom lenses for 2/3" HD format Digital Cinematography. Three high performance lenses in this class, more compact than the E Series in size and weight, yet with generous zoom ranges and stunning images. The C Series are especially effective when a portable, versatile, cost effective Cine-style zoom is required. The 7.3-110mm,T 2.0, is the workhorse of the series, has a 15x range without ramping or breathing. C Series stands for Compact... not compromise.

4.5-59 mm (HAc13x4.5)
7.3-110 mm (HAc15x7.3)
7.6-137mm (HAc18x7.6)

LENS	4.5-59mm	7.3-110mm	7.6-137mm
Model Number	HAc13x4.5	HAc15x7.3	HAc18x7.6
Zoom Ratio	13X	15X	18X
Close Focus From Image Plane	0.59 m / 1.92 ft	1.18 m / 3.87 ft	.87 m / 2.85 ft
T-No.	T2 (4.5 ~ 39.2 mm) T2.9 (59 mm)	T2 (7.3 ~ 110 mm)	T1.9 (7.6 ~ 105 mm) T2.6 (137 mm)
Object at Close Focus 16:9 Aspect Ratio	4.5 mm 757x425 mm 59 mm 56x31 mm	7.3 mm 1222x687 mm 110 mm 79x44 mm	7.6 mm 738x415 mm 137 mm 41x23 mm
Angular Field of View 64°30'x39°03' 16:9 Aspect Ratio	4.5 mm 93°38'x61°50' 59 mm 9°18'x5°14'	7.3 mm 66°36'x40°32' 110 mm 5°00'x2°48'	7.6 mm 137 mm 4°01'x2°15'
Focus Rotation	280°	280°	280°
Diameter x Length	ø 95 x 238.5 mm	ø 110 x 287.3 mm	ø 85 x 204 mm
Weight	1.7 kg / 3.74 lbs	2.9 kg / 6.38 lbs	1.6 kg / 3.52 lbs

5 mm (HAeF5)
8 mm (HAeF8)
10 mm HAeF10)



LENS	5mm	8mm	10mm
Model Number	HAeF5	HAeF8	HAeF10
Close Focus From Image Plane	0.5 m / 1.64 ft	0.4 m / 1.31 ft	0.5 m / 1.64 ft
T-No.	T1.7	T1.5	T1.5
Object at Close Focus 16:9 Aspect Ratio	591 x 332 mm	288 x 162 mm	335 x 188 mm
Angular Field of View 16:9 Aspect Ratio	87°36′ x 56°39′	61°52′ x 37°14′	51°14′ x 30°10′
Filter Size	—	M86x1	M86x1
Focus Rotation	280°	280°	280°
Diameter x Length	ø 95 x 180.5 mm	ø 95 x 144 mm	ø 95 x 144 mm
Weight	2.2 kg / 4.84 lbs	1.6 kg / 3.52 lbs	1.62 kg / 3.56 lbs

12 mm (HAeF12)
16 mm (HAeF16)
20 mm HAeF20)



LENS	12mm	16mm	20mm
Model Number	HAeF12	HAeF16	HAeF20
Close Focus From Image Plane	0.4 m / 1.31 ft	0.4 m / 1.31 ft	0.45 m / 1.48 ft
T-No.	T1.5	T1.5	T1.5
Object at Close Focus 16:9 Aspect Ratio	220 x 124 mm	175 x 98 mm	165 x 93 mm
Angular Field of View 16:9 Aspect Ratio	43°34′ x 25°19′	33°22′ x 19°07′	26°58′ x 15°21′
Filter Size	M86x1	M86x1	M86x1
Focus Rotation	280°	280°	280°
Diameter x Length	ø 95 x 144 mm	ø 95 x 144 mm	ø 95 x 144 mm
Weight	1.65 kg / 3.63 lbs	1.6 kg / 3.52 lbs	1.6 kg / 3.52 lbs

34 mm (HAeF34)
40 mm (HAeF40)
54 mm (HAeF54)



LENS	34mm	40mm	54mm
Model Number	HAeF34	HAeF40	HAeF54
Close Focus From Image Plane	0.4 m / 1.31 ft	0.5 m / 1.64 ft	0.6 m / 1.97 ft
T-No.	T1.5	T1.5	T1.6
Object at Close Focus 16:9 Aspect Ratio	83 x 47 mm	99 x 56 mm	92 x 52 mm
Angular Field of View 16:9 Aspect Ratio	16°03′ x 9°04′	13°40′ x 7°42′	10°09′ x 5°43′
Filter Size	M86x1	M86x1	M86x1
Focus Rotation	280°	280°	280°
Diameter x Length	ø 95 x 144 mm	ø 95 x 144 mm	ø 95 x 144 mm
Weight	1.65 kg / 3.63 lbs	1.65 kg / 3.63 lbs	1.65 kg / 3.63 lbs

1.4X RANGE EXTENDER
HAeE14-1

E Series 1.4x Tele-Extender increases focal range of zooms and primes by 1.4x, with a minimal 1 stop loss.

For 2/3” HD

3D SYNCHRONOUS CONTROL LENSES

Lenses that are to be utilized for 3D must match throughout their zoom and focus ranges.

This requires very high optical quality and mechanical stability. Fujinon's new zoom lenses with Precision Servo Controllers meet these requirements by combining the highest quality HD optics and close tolerance mechanical design with precision zoom and focus control servos. The lenses may be used in conjunction with Fujinon's Synchronous Controller, third party 3D rigs or in 2D, productions with standard applicable Fujinon control accessories.

HA14x4.5BEZD-T5DD

Zoom Ratio / Format	14X / 2/3"
Focal Length	4.5 to 63 mm (2.2X) 9.9 to 138 mm
Maximum Relative Aperture	1:1.8 (4.5 ~ 41 mm) 1:2.8 (63 mm)
Angular Field of View 16:9 Aspect Ratio	4.5 mm 93° 38′ x 61° 50′ 63 mm 8° 42′ x 4° 54′ (2.2X) 9.9 mm 51° 41′ x 30° 27′ 138 mm 3° 57′ x 2° 13′
M.O.D. from Image Plane	0.59 m
M.O.D. from Front of Lens	0.3 m
Filter Size	M127 mm x 0.75 *1 (On Hood)
Weight (w/o Hood)	2.08 kg (RM) / 2.14 kg (RD/ZD)
Options	16 Bit Encoder / Quick Frame
Features	Inner Focus / Zoom Limit / Quick Zoom

HA16x6.3BEZD-T5DD
HA23x7.6BEZD-T5DD

LENS	HA16x6.3BEZD-T5DD	HA23x7.6BEZD-T5DD
Zoom Ratio / Format	16X / 2/3"	23X / 2/3"
Focal Length (2X)	6.3 to 101 mm 12.6 to 202 mm	7.6 to 175 mm 15.2 to 350 mm
Maximum Relative Aperture	1:1.8 (6.3 ~ 63 mm) 1:2.9 (101 mm)	1:1.8 (7.6 ~ 122 mm) 1:2.65 (175 mm)
Angular Field of View 16:9 Aspect Ratio	6.3 mm 74° 33′ x 46° 19′ 101 mm 5° 26′ x 3° 3′	7.6mm 64° 30′ x 39° 03′ 175 mm 3° 08′ x 1° 46′
M.O.D. from Image Plane	0.69 m	1.07 m
M.O.D. from Front of Lens	0.4 m	0.8 m
Filter Size	ø 107 mm P=1 (In Hood)	ø 95 mm P=1 (On Barrel) / ø 107 mm P=1 (In Hood)
Weight (w/o Hood)	2.05 kg	1.95 kg
Features	16 Bit Encoder / Inner Focus / Zoom Limit / Quick Zoom	16 Bit Encoder / Inner Focus / Zoom Limit / Quick Zoom

HAs18x7.6BZD-T5DD
HA18x7.6BEZD-T5DD

LENS	HAs18x7.6BZD-T5DD	HA18x7.6BEZD-T5DD
Zoom Ratio / Format	18X	18X / 2/3"
Focal Length	7.6 to 137 mm	7.6 to 137 mm (2X) 15.2 to 274 mm
Maximum Relative Aperture	1:1.8 (7.6 ~ 103 mm) 1:2.4 (137 mm)	1:1.8 (7.6 ~ 103 mm) 1:2.4 (137 mm)
Angular Field of View 16:9 Aspect Ratio	7.6mm 64° 30′ x 39° 03′ 137 mm 4° 01′ x 2° 15′	7.6 mm 64° 30′ x 39° 03′ 137 mm 4° 01′ x 2° 15′
M.O.D. from Image Plane	0.84 m	0.84 m
M.O.D. from Front of Lens	0.6 m	0.6 m
Filter Size	ø 82 mm P=0.75 (On Barrel)	ø 82 mm P=0.75 (On Barrel)
Weight (w/o Hood)	1.33 kg	1.65 kg
Features	16 Bit Encoder / Inner Focus / Zoom Limit / Quick Zoom	16 Bit Encoder / Inner Focus / Zoom Limit / Quick Zoom

Refer to full sizes specification charts on pages 19-20 for more information for all above lenses (except for XA4x7.5 and A8x12).

3D SYNCHRONOUS CONTROL LENSES (CONT)

XA4x7.5BMD-D3 L/R*
A8x12BMD-DN L/R*

NEW

LENS	XA4x7.5BMD-D3 L/R*	A8x12BMD-DN L/R*
Zoom Ratio / Format	4X	8X
Focal Length	7.5 to 30 mm	12 to 96 mm
Max. Relative Aperture	1:2.8 (7.5 ~ 30 mm)	1:2.8 (12 ~ 96 mm)
Max. Photometric Aperture T-No.	1:3.1 (7.5 ~ 30 mm)	1:3.1 (12 ~ 96 mm)
Angular Field of View	7.5 mm 65° 11′ x 39° 32′	12 mm 43° 34′ x 25° 19′
16:9 Aspect Ratio	30 mm 18° 10′ x 10° 16′	96 mm 5° 44′ x 3° 13′
M.O.D. from Front of Lens	0.45 m	1 m
Filter Size	ø 52 x P=.75 mm (On Barrel)	ø 52 x P=.75 mm (On Barrel)
Weight (w/o Hood)	.45kg	0.7 kg
Features	16 Bit Encoder	16 Bit Encoder

*L/R - L: left, R: right

3D SYNCHRONOUS CONTROL SYSTEM

The Fujinon 3D Synchronous System consists of the ERD-10A-D01 Zoom controller, HJ-303A-06A Synchronizer/ Focus controller and 2ea SA-206H-1R3 or EC-212A-R80 cables which provides interface to Fujinon's Precision Servo lenses.

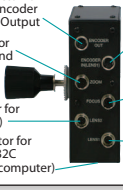
Wireless available see page 6

Receiver
WL-325A-A01L

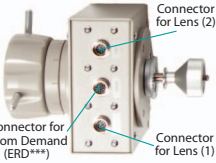
Transmitter
WL-325A-A01C

NEW

HJ-303A-08A



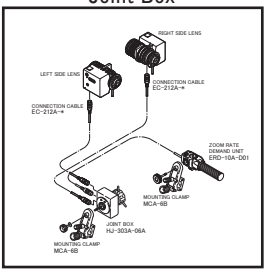
HJ-303A-06A



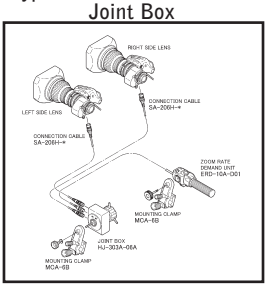
A. HJ-303A-08A **NEW**
Synchronous Controller (Joint Box)
B. HJ-303A-06A
Synchronous Controller (Joint Box)
C. ERD-10A-D01
Zoom Rate Demand Control Unit
D. MCA-6B Mounting Clamp (2 required)
E. EPD-22 Focus Demand Unit
F. ERD-20A-A02 Zoom Demand
G. EPD-21A-A02 Servo Focus Demand
H. MCA-7 Mounting Clamp
I. SA-206H-1R3 Cable for ZD-T5DD Lenses (2 required)
EC-212A-R80 Cable for BMD-D3 Lenses (2 required)
J. EBF-1 Focus Cable

FUJINON TV LENSES FOR USE JOINT BOX		CONFIGURATION
LEFT SIDE LENS	RIGHT SIDE LENS	
XA4x7.5BMD-D3L	XA4 7.5BMD-D3R	TYPE 1
A8x12BMD-DNL	A8x12BMD-DNR	TYPE 1
HA14x4.5BEZD-T5DD	HA14x4.5BEZD-T5DD	TYPE 2
HA16x6.3BEZD-T5DD	HA16x6.3BEZD-T5DD	TYPE 2
HAs18x7.6BZD-T5DD	HAs18x7.6BZD-T5DD	TYPE 2
HA18x7.6BEZD-T5DD	HA18x7.6BEZD-T5DD	TYPE 2
HA23x7.6BEZD-T5DD	HA23x7.6BEZD-T5DD	TYPE 2

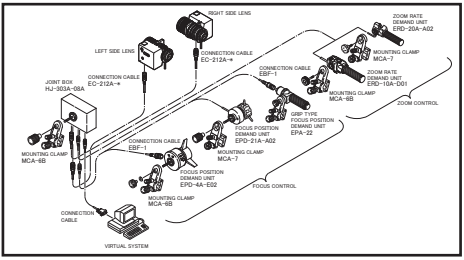
Type I with HJ-303A-06A Joint Box



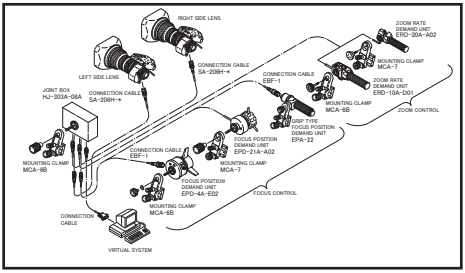
Type II with HJ-303A-06A Joint Box



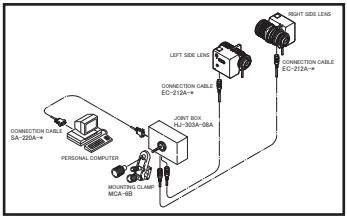
Type I with HJ-303A-08A Joint Box



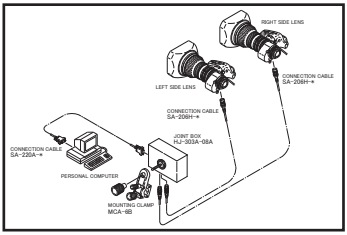
Type II with HS-307A-08A Joint Box



Type I with HJ-303A-08A Joint Box



Type II with HJ-303A-08A Joint Box



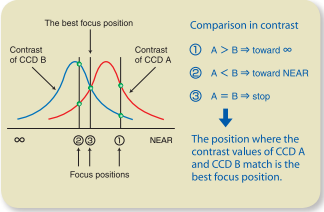
PF-BUILT-IN LENSES

Fujinon's Precision Focus Assist enables camera operators the ability to ensure fast accurate focusing of high definition images under varying conditions. The PF system is the first to incorporate Fujinon's patented system which utilizes a unique contrast method of achieving precise focus.

FEATURES AND FUNCTIONS

CONTRAST FOCUSING METHOD

The Precision Focus System adopts a contrast method that utilizes differences in optical path length. It can instantly focus the image without searching for focus and can maintain precise focus even when following moving objects.



CCD A and CCD B are built into the lens barrel to detect the focusing conditions and are positioned at equal distances before and after the camera image forming plane.

COMPATABILE WITH MOST 2/3" CAMERAS

The PF function is built into the lens and can be operational with the lens mounted on a 2/3" camera with no additional settings or optional devices. Camera software provides additional viewfinder information on some cameras dependant.

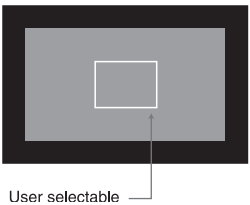
FOCUS MODE SELECTION

PF is not an auto focus system, but a focus assist that precisely adjusts the lens for optimum focus. Focusing can be totally under the operators control as in a normal lens or may be operated in either momentary or continuous modes. A focus indicator in the viewfinder confirms best focus in all modes.

FOCUS AREA SETTING

When the PF lens is mounted on a camera, a focus area is shown on the viewfinder. The size and the position of the focus area can be changed at the camera operator's discretion. This function allows greater flexibility in the selection of the focus area depending on the type of production.

Camera viewfinder image

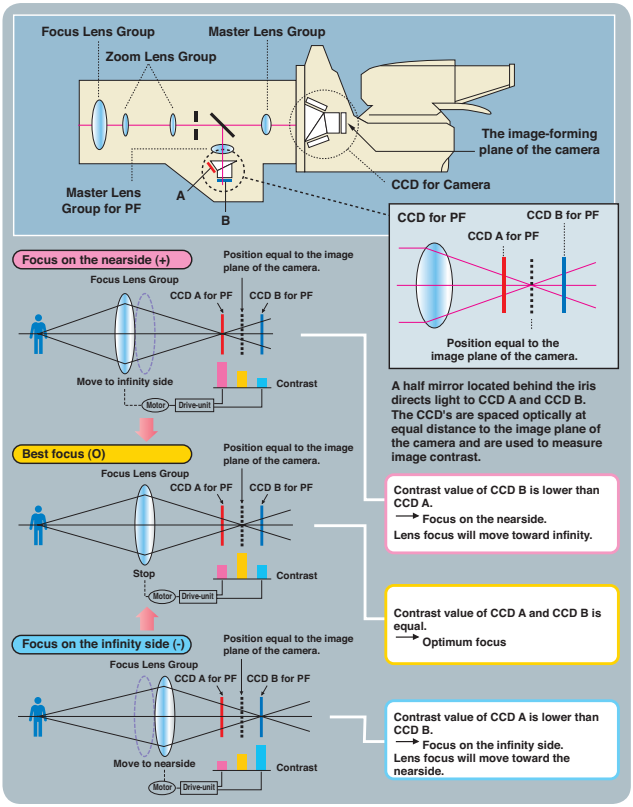


PRECISION TRACING SYSTEM

Facial Recognition or Precision Tracing System, Fujinon's Exclusive Proprietary Precision Tracing System technology works in conjunction with the Precision Focus Assist to recognize facial or object features and track these images within the pictures frame. A positional cursor box in the camera viewfinder is used to highlight the object to be memorized and the object is then tracked as its position changes within the frame. An optional touch screen monitor may also be used to select the desired object.

PRECISION FOCUS LENSES

Fujinon's Precision Focus Assist enables camera operators the ability to ensure fast accurate focusing of high definition images under varying conditions. The PF system is the first to incorporate Fujinon's patented system which utilizes a unique contrast method of achieving precise focus.



PF CONTROLLER

The new focus controller for Fujinon's exclusive Precision Focus Assist provides operators with a simple to use yet powerful tool to maintain precise focus in the most demanding production situations. The familiar manual type focus controller has been adapted to encompass all of the precise servo features of the PF lens.

PRECISION FOCUS LENSES

WIDE POWER

HA13x4.5B RD
HA22x7.3B RD

PF DIGI POWER

LENS	HA13x4.5BRD	HA22x7.3BRD
Zoom Ratio / Format	13X / 2/3″	22X / 2/3″
Focal Length	4.5 to 59 mm	7.3 to 161 mm
Maximum Relative Aperture	1:1.8 (4.5 ~ 41 mm) 1:2.6 (59 mm)	1:1.9 (7.3 ~ 113 mm) 1:2.7 (161 mm)
Maximum Photometric Aperture T-No.	1:2.3 (4.5 ~ 41 mm) 1:3.3 (59 mm)	1:2.3 (7.3 ~ 113 mm) 1:3.3 (161 mm)
Angular Field of View 16:9 Aspect Ratio	4.5 mm 93° 38′ x 61° 50′ 59 mm 9° 18′ x 5° 14′	7.3 mm 66° 36′ x 40° 32′ 161 mm 3° 25′ x 1° 55′
M.O.D. from Image Plane	0.60 m	1.19 m
M.O.D. from Front of Lens	0.30 m	0.85 m
Object Dimensions at M.O.D.	4.5 mm 757 x 425 mm 59 mm 55 x 31 mm	7.3 mm 1222 x 687 mm 161 mm 55 x 31 mm
Dia ø x Length (w/o Hood)	ø 95 x 256.1 mm	ø 110 x 300.2 mm
Weight (w/o Hood)	2.7 kg	3.9 kg
Features	Inner Focus, Zoom Limit	Inner Focus, Zoom Limit

PF DIGI POWER

HA27x6.5BESM

Zoom Ratio / Format	27X / 2/3″
Focal Length	6.5 ~ 180 mm (2X) 13 ~ 360 mm
Maximum Relative Aperture	1:1.5 (6.5 ~ 123 mm) 1:2.2 (180 mm)
Maximum Photometric Aperture T-No.	1:1.8 (6.5 ~ 123 mm) 1:2.6 (180 mm)
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio	6.5 mm 72° 50′ x 45° 02′ 180 mm 3° 03′ x 1° 43′ (2X) 13 mm 40° 30′ x 23° 25′ 360 mm 1° 32′ x 0° 51′
M.O.D. from Image Plane	1.23 m
M.O.D. from Front of Lens	0.6 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio	6.5 mm 1053 x 592 mm 180 mm 39 x 22 mm (2X) 13 mm 527 x 296 mm 360 mm 20 x 11 mm
Size (HxWxL)	228 x 231 x 588 mm
Weight (w/o Hood)	21.5 kg

PF DIGI POWER

XA88x8.8BESM
XA101x8.9BESM

LENS	XA88x8.8BE SM	XA101x8.9BE SM
Zoom Ratio / Format	88X / 2/3″	101X / 2/3″
Focal Length	8.8 ~ 777 mm (2X) 17.6 ~ 1554 mm	8.9 ~ 900 mm (2X) 17.8 ~ 1800 mm
Maximum Relative Aperture	1:1.7 (8.8 ~ 348 mm) 1:3.8 (777 mm)	1:1.7 (8.9~291 mm) 1:4.7 (900 mm)
Maximum Photometric Aperture T-No.	1:1.9 (8.8 ~ 348 mm) 1:4.2 (777 mm)	1:2.1 (8.9 ~ 291 mm) 1:5.8 (900 mm)
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio	8.8 mm 57° 10′ x 34° 03′ 777 mm 0° 42′ x 0° 24′ (2X) 17.6 mm 30° 29′ x 17° 25′ 1554 mm 0° 21′ x 0° 12′	8.9 mm 56° 38′ x 33° 42′ 900 mm 0° 37′ x 0° 21′ (2X) 17.8 mm 30° 09′ x 17° 13′ 1800 mm 0° 18′ x 0° 10′
M.O.D. from Image Plane	3.56 m	3.65 m
M.O.D. from Front of Lens	2.9 m	2.9 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio	8.8 mm 3029 x 1703 mm 777 mm 34 x 19 mm (2X) 17.6 mm 1515 x 851 mm 1554 mm 17 x 10 mm	8.9 mm 2865 x 1610 mm 900 mm 28 x 16 mm (2X) 17.8 mm 1433 x 805 mm 1800 mm 14 x 8 mm
Size (HxWxL)	265 x 270 x 625 mm	265 x 270 x 720 mm
Weight (w/o Hood)	26 kg	27.4 kg

PF accessories shown on page 34.

LENSES FOR 1/3" HD CAMERAS

The XT17sx4.5BRM and the XT20sx4.7BRM telephoto lens features minimized chromatic aberrations and improved corner resolution. Both lenses feature a newly designed digital servo.

The HTs18x4.2BRM and HTs18x4.2BERM high performance lenses feature superior resolution, high contrast and Fujinon's exclusive Digi Power servo with Quick Zoom, One Shot preset, Cruise Zoom, zoom limit and zoom speed adjust.

PREMIER Series

HTs18x4.2BRM
HTs18x4.2BERM

QuickZoom

DIGI POWER

LENS	HTs18x4.2BRM	HTs18x4.2BERM
Zoom Ratio / Format	18X / 1/3"	18X / 1/3"
Focal Length	4.2 to 76 mm	4.2 to 76 mm (2X) 8.4 to 152 mm
Maximum Relative Aperture	1:1.4 (4.2 ~ 76 mm)	1:1.4 (4.2 ~ 76 mm) (2X) 1:2.8 (152 mm)
Angular Field of View 16:9 Aspect Ratio	4.2 mm 63° 49′ x 39° 35′ 76 mm 3° 56′ x 2° 13′	4.2 mm 63° 49′ x 39° 35′ 76 mm 3° 56′ x 2° 13′ (2X) 8.4 mm 34° 35′ x 19° 51′ 152 mm 1° 52′ x 1° 6′
M.O.D. from Image Plane	0.83 m	0.84 m
M.O.D. from Front of Lens	0.60 m	0.60 m
Object Dimensions at M.O.D.	4.2 mm 768 x 409 mm 76 mm 40 x 23 mm	4.2 mm 768 x 409 mm 76 mm 40 x 23 mm 76 mm
Filter Size	ø 82 mm P=0.75	ø 82 mm P=0.75
Dia ø x Length (w/o Hood)	ø 85 x 207 mm	ø 85 x 206.6 mm
Weight (w/o Hood)	1.53 kg	1.58 kg
Features	Inner Focus / Quick Zoom / Zoom Limit	

EXCEED Series

XT17sx4.5BRM
XT20sx4.7BRM

QuickZoom

LENS	XT17sx4.5BRM	XT20sx4.7BRM
Zoom Ratio / Format	17X / 1/3"	20X / 1/3"
Focal Length	4.5 to 77 mm	4.7 to 94 mm
Maximum Relative Aperture	1:1.6 (4.5 ~ 77 mm)	1:1.4 (4.7 ~ 88 mm) 1:1.5 (94 mm)
Angular Field of View 16:9 Aspect Ratio	4.5 mm 60° 19 x 36° 77 mm 3° 53 x 2° 11′	4.7 mm 58° 11′ x 34° 44′ 94 mm 3° 11′ x 1° 48′
M.O.D. from Image Plane	1.16 m	1.12 m
M.O.D. from Front of Lens	0.95 m	0.9 m
Object Dimensions at M.O.D. Filter Size	4.5 mm 999 x 562 mm 77 mm 60 x 34 mm ø 82 mm P=0.75	4.7 mm 901x506 mm 94 mm 47x26 mm ø 82 mm P=0.75
Dia ø x Length (w/o Hood)	ø 85 x 175.6 mm	ø 85 x 189.8 mm
Weight (w/o Hood)	1.28 kg	1.48 kg
Features	Inner Focus / Quick Zoom	Inner Focus / Quick Zoom

Th13x3.5B RM

LENS	Th13x3.5B RM
Zoom Ratio / Format	13X / 1/3"
Focal Length	3.5 to 46 mm
Maximum Relative Aperture	1:1.4 (3.5 ~ 43 mm)
Angular Field of View 16:9 Aspect Ratio	3.5 mm 72° 32′ x 45° 34′ 46 mm 6° 30′ x 3° 40′
M.O.D. from Image Plane	0.66 m
M.O.D. from Front of Lens	0.40 m
Object Dimensions at M.O.D.	3.5 mm 660 x 371 mm 46 mm 53 x 30 mm
Filter Size	ø 82 mm P=0.75
Dia ø x Length (w/o Hood)	ø 85 x 228 mm
Weight (w/o Hood)	1.68 kg
Features	Inner Focus

Accessories for TH13 shown on page 37. Accessories for XT17s, XT20s shown on page 37 & 38.
Accessories for HTs18 shown on pages 35, 36 & 38.

LENSES FOR 1/2" HD CAMERAS

Fujinon's Premier Series lenses are designed to compliment and enhance the quality of the world's most advanced ½ and 2/3 inch HDTV cameras

Great consideration in the design and development of these Premier lenses has been taken to incorporate the highest optical, mechanical, and electrical specifications while ensuring unmatched performance in the most rugged of production environments.

PREMIER Series

HS16x4.6BE RM

DIGI POWER QuickZoom

LENS	HS16x4.6BE RM
Zoom Ratio / Format	16X / 1/2"
Focal Length (2X)	4.6 to 74 mm 9.2 to 148 mm
Maximum Relative Aperture	1:1.4 (4.6 ~ 47 mm) 1:2.2 (74 mm)
Maximum Photometric Aperture T-No.	1:1.5 (4.6 ~ 47 mm) 1:2.4 (74 mm)
Angular Field of View 16:9 Aspect Ratio	4.6 mm74° 18′ x 46° 09′ 74 mm5° 24′ x 3° 02′
M.O.D. from Image Plane	0.68 m
M.O.D. from Front of Lens	0.40 m
Object Dimensions at M.O.D.	4.6 mm 710 x 399 mm 74 mm44 x 25 mm
Filter Size	ø 107 mm P=1 (In Hood)
Dia ø x Length (w/o Hood)	ø 95 x 240 mm
Weight (w/o Hood)	1.98 kg
Features	Inner Focus / Quick Zoom / Zoom Limit

PREMIER Series

HSs18x5.5B RM/RD*
HS18x5.5BE RM/RD*

LENS	HSs18x5.5B RM/RD*	HS18x5.5BE RM/RD*
Zoom Ratio / Format	18X / 1/2"	18X / 1/2"
Focal Length (2X)	5.5 to 100 mm	5.5 to 100 mm 11 to 200 mm
Maximum Relative Aperture	1:1.4 (5.5 ~ 77 mm) 1:1.8 (100 mm)	1:1.4 (5.5 ~ 77 mm) 1:1.8 (100 mm)
Maximum Photometric Aperture T-No.	1:1.5 (5.5 ~ 77 mm) 1:1.9 (100 mm)	1:1.5 (5.5 ~ 77 mm) 1:1.9 (100 mm)
Angular Field of View 16:9 Aspect Ratio	5.5 mm 64° 43′ x 39° 14′ 100 mm 4° 00′ x 2° 15′	5.5 mm 64° 43′ x 39° 14′ 100 mm 4° 00′ x 2° 15′
M.O.D. from Image Plane	0.84 m	0.84 m
M.O.D. from Front of Lens	0.60 m	0.60 m
Object Dimensions at M.O.D.	5.5 mm 741 x 417 mm 100 mm 41 x 24 mm	5.5 mm 741 x 417 mm 100 mm 43 x 23 mm
Filter Size	ø 82 mm P=0.75	ø 82 mm P=0.75
Dia ø x Length (w/o Hood)	ø 85 x 206.6 mm	ø 85 x 206.6 mm
Weight (w/o Hood)	1.53 kg (RM) / 1.60 kg (RD/ZD)	1.58 kg (RM) / 1.65 kg (RD/ZD)
Features	Inner Focus / Quick Zoom / Zoom Limit	

*RD contain Servos for Zoom and Focus.

Accessories for above lenses shown on pages 35, 36 & 38.

LENSES FOR 1/2" HD CAMERAS

New for 2011 is the ZS17x5.5BERM. This addition to the Select series provides the user with a very high quality, economical ½" lens with 2x extender, Digi-Power servo, and unrivaled performance for News and Production applications. Fujinon offers a complete line of ½" lenses including the HS16x4.6BERM that combines wide angle and a 16 X zoom range and the HS18x5.5BERM/BERD. Both feature and integral 2x extender. The HSs18x5.5BRM/BRD standard lens, wide angle XS13x3.3BRM and the economical XS17x5.5 round out the complete line. All lenses utilize Fujinon's exclusive Digi Power servo system for maximum versatility.

SELECT Series

XS13x3.3B RM
XS17x5.5B RM

DIGI POWER QuickZoom

LENS	XS13x3.3B RM	XS17x5.5B RM
Zoom Ratio / Format	13X / 1/2"	17X / 1/2"
Focal Length	3.3 to 43 mm	5.5 to 94 mm
Maximum Relative Aperture	1:1.4 (3.3 ~ 32 mm) 1:1.9 (43 mm)	1:1.4 (5.5 ~ 77 mm) 1:1.7 (94 mm)
Angular Field of View 16:9 Aspect Ratio	3.3 mm 93° 07′ x 61° 25′ 43 mm 9° 16′ x 5° 13′	5.5 mm 64° 43′ x 39° 14′ 94 mm 4° 15′ x 2° 23′
M.O.D. from Image Plane	0.58 m	0.84 m
M.O.D. from Front of Lens	0.30 m	0.60 m
Object Dimensions at M.O.D.	3.3 mm 752 x 406 mm 43 mm 58 x 31 mm	5.5 mm 741 x 417 mm 94 mm 41 x 23 mm
Filter Size	ø 127 mm P=0.75 (In Hood)	ø 82 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)	ø 95 x 240.5 mm	ø 85 x 206.6 mm
Weight (w/o Hood)	1.93 kg	1.53 kg
Features	Inner Focus / Quick Zoom	Inner Focus / Quick Zoom

SELECT Series

ZS17x5.5BERM

DIGI POWER QuickZoom NEW

LENS	ZS17x5.5BERM
Zoom Ratio / Format	17X / 1/2"
Focal Length (2X)	5.5 to 94 mm 11 to 188 mm
Maximum Relative Aperture	1:1.4 (5.5 ~ 77 mm) 1:1.7 (94 mm)
Angular Field of View 16:9 Aspect Ratio	5.5 mm 64° 43′ x 39° 14′ 94 mm 4° 15′ x 2° 23′
M.O.D. from Image Plane	0.84 m
M.O.D. from Front of Lens	0.6 m
Object Dimensions at M.O.D.	5.5 mm 741 x 417 mm 94 mm 41 x 23 mm
Filter Size	ø 82 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)	ø 85 x 206.6 mm
Weight (w/o Hood)	1.58 kg
Features	Inner Focus / Quick Zoom / Zoom Limit

EXCEED Series

XS20sx6.3BRM

QuickZoom

NEW

LENS	XS20sx6.3BRM
Zoom Ratio / Format	20X / 1/2"
Focal Length	6.3 to 126 mm
Maximum Relative Aperture	1:1.4 (6.3 ~ 88 mm) 1:2.0 (126 mm)
Angular Field of View	6.3 mm 57° 54′ x 3° 10′
16:9 Aspect Ratio	126 mm 34° 34′ x 1° 47′
M.O.D. from Image Plane	1.11 m
M.O.D. from Front of Lens	0.9 m
Object Dimensions at M.O.D.	904 x 508 mm 47 x 26 mm
Filter Size	ø 82 mm P=0.75 (In Hood)
Dia ø x Length (w/o Hood)	ø 85 x 181.9 mm
Weight (w/o Hood)	1.4 kg
Features	Inner Focus / Quick Zoom / Zoom Limit

Accessories for XS13, XS17 & ZS17 are on pages 35, 36 & 38.
Accessories for XS20 are on pages 37 & 38

LENSES FOR 2/3" HD CAMERAS

Fujinon's Premier Series lenses are designed to compliment and enhance the quality of the world's most advanced ½ and 2/3 inch HDTV cameras

The highest optical, mechanical, and electrical specifications are incorporated into every Premier lens, along with powerful features & functions. QuickZoom, CruiseZoom, One-shot Preset, as well as a multitude of Digi-Power control functions provide the operator with all the tools at hand to ensure a great shot! And now all of this is in an ergonomically redesigned and performance enhanced New Digital Drive Grip.

PREMIER Series

WIDE POWER

DIGI POWER

HA14x4.5BE RM/RD*/ZD** QuickZoom

Zoom Ratio / Format		14X / 2/3"	
Focal Length		4.5 to 63 mm	
	(2.2X)	9.9 to 139 mm	
Maximum Relative Aperture		1:1.8 (4.5 ~ 41 mm)	
	(2.2X)	1:2.8 (63 mm)	
Maximum Photometric Aperture T-No.		1:2.0 (4.5 ~ 41 mm)	
		1:2.9 (63 mm)	
Angular Field of View 16:9 Aspect Ratio		4.5 mm	93° 38′ x 61° 50′
		63 mm	8° 42′ x 4° 54′
	(2.2X)	9.9 mm	51° 41′ x 30° 27′
		138 mm	3° 57′ x 2° 13′
M.O.D. from Image Plane		0.59 m	
M.O.D. from Front of Lens		0.3 m	
Object Dimensions at M.O.D.		4.5 mm	743 x 418 mm
		63 mm	51 x 29 mm
	(2.2X)	9.9 mm	329 x 185 mm
		138 mm	24 x 13 mm
Filter Size		M127 mm x 0.75 *1	
Dia ø x Length (w/o Hood)		ø 95 x 238.5 mm	
Weight (w/o Hood)		2.08 kg (RM) / 2.14 kg (RD/ZD)	
Options		16 Bit Encoder / Quick Frame	
Features		Inner Focus / Zoom Limit / Quick Zoom	

PREMIER Series

DIGI POWER

QuickFrame

HA16x6.3BE RM/RD*/ZD** QuickZoom

Zoom Ratio / Format		16X / 2/3"	
Focal Length		6.3 to 101 mm	
	(2X)	12.6 to 202 mm	
Maximum Relative Aperture		1:1.8 (6.3 ~ 63 mm)	
		1:2.9 (101 mm)	
Maximum Photometric Aperture T-No.		1:1.9 (6.3 ~ 63 mm)	
		1:3.1 (101 mm)	
Angular Field of View 16:9 Aspect Ratio		6.3 mm	74° 33′ x 46° 19′
		101 mm	4° 00′ x 3° 03′
	(2X)	12.6 mm	41° 40′ x 24° 09′
		202 mm	2° 43′ x 1° 32′
M.O.D. from Image Plane		0.69 m	
M.O.D. from Front of Lens		0.4 m	
Object Dimensions at M.O.D.		6.3 mm	712 x 400 mm
		101 mm	45 x 25 mm
	(2X)	12.6 mm	356 x 200 mm
		202 mm	22 x 13 mm
Filter Size		ø 107 mm P=1 (In Hood)	
Dia ø x Length (w/o Hood)		ø 95 x 238.5 mm	
Weight (w/o Hood)		1.98 kg / 2.05 kg*	
Options		16 Bit Encoder / Quick Frame	
Features		Inner Focus / Zoom Limit / Quick Zoom	

*RD contain Servos for Zoom and Focus.
**ZD contains Quick Frame / Precision Zoom Focus System.

Accessories for above lenses shown on pages 35, 36 & 38.

HA18x7.6BE RM/RD*/ZD**

DIGI POWER Quickframe QuickZoom

Zoom Ratio / Format		18X / 2/3"
Focal Length		7.6 to 137 mm
	(2X)	15.2 to 274 mm
Maximum Relative Aperture		1:1.8 (7.6 ~ 103 mm) 1:2.4 (137 mm)
Maximum Photometric Aperture T-No.		1:1.9 (7.6 ~ 105 mm) 1:2.6 (137 mm)
Angular Field of View 16:9 Aspect Ratio		7.6 mm 64° 30′ x 39° 03′ 137 mm 4° 01′ x 2° 15′
	(2X)	15.2 mm 35° 01′ x 20° 07′ 274 mm 2° 00′ x 1° 08′
M.O.D. from Image Plane		0.84 m
M.O.D. from Front of Lens		0.6 m
Object Dimensions at M.O.D.		7.6 mm 738 x 415 mm 137 mm 41 x 23 mm
	(2X)	15.2 mm 362 x 204 mm 274 mm 21 x 12 mm
Filter Size		ø 82 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)		ø 85 x 204 mm
Weight (w/o Hood)		1.58 kg / 1.65 kg*
Options		16 Bit Encoder / Quick Frame
Features		Inner Focus / Zoom Limit / Quick Zoom

HAs18x7.6B RM/RD*/ZD**

DIGI POWER Quickframe QuickZoom

Zoom Ratio / Format	18X / 2/3"
Focal Length	7.6 to 137 mm
Maximum Relative Aperture	1:1.8 (7.6 ~ 103 mm) 1:2.4 (137 mm)
Angular Field of View 16:9 Aspect Ratio	7.6 mm 64° 30′ x 39° 03′ 137 mm 4° 01′ x 2° 15′
M.O.D. from Image Plane	0.84 m
M.O.D. from Front of Lens	0.6 m
Object Dimensions at M.O.D.	7.6 mm 738 x 415 mm 137 mm 41 x 23 mm
Filter Size	ø 82 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)	ø 85 x 204 mm
Weight (w/o Hood)	1.26 kg / 1.33 kg*
Options	16 Bit Encoder / Quick Frame
Features	Inner Focus / Zoom Limit / Quick Zoom

HA23x7.6BE RM/RD*/ZD**

DIGI POWER Quickframe QuickZoom

Zoom Ratio / Format		23X / 2/3"
Focal Length		7.6 to 175 mm
	(2X)	15.2 to 350 mm
Maximum Relative Aperture		1:1.8 (7.6 ~ 122 mm) 1:2.65 (175 mm)
Maximum Photometric Aperture T-No.		1:1.9 (7.6 ~ 122 mm) 1:2.8 (175 mm)
Angular Field of View 16:9 Aspect Ratio		7.6 mm 64° 30′ x 39° 03′ 175 mm 3° 08′ x 1° 46′
	(2X)	15.2 mm 35° 01′ x 20° 07′ 350 mm 1° 34′ x 0° 53′
M.O.D. from Image Plane		1.07m
M.O.D. from Front of Lens		0.8m
Object Dimensions at M.O.D.		7.6 mm 915 x 514 mm 175 mm 41 x 23 mm
	(2X)	15.2 mm 473 x 266 mm 350 mm 21 x 12 mm
Filter Size		ø 95m P=1 (On Barrel) / ø 107m P=1 (In Hood)
Dia ø x Length (w/o Hood)		ø 100 x 223.6 mm
Weight (w/o Hood)		1.88 kg (RM) / 1.95 kg (RD/ZD)
Options		16 Bit Encoder / Quick Frame
Features		Inner Focus / Zoom Limit / Quick Zoom

*RD contain Servos for Zoom and Focus.
**ZD contains Quick Frame / Precision Zoom Focus System.

Accessories for above lenses shown on pages 35, 36 & 38.

HA22x7.3BE RM/RD*

Zoom Ratio / Format		22X / 2/3"	
Focal Length		7.3 to 161 mm	
	(2X)	14.6 to 322 mm	
Maximum Relative Aperture		1:1.9 (7.3 ~ 113 mm)	
		1:2.7 (161 mm)	
Maximum Photometric Aperture T-No.		1:2.0 (7.3 ~ 113 mm)	
		1:2.9 (161 mm)	
Angular Field of View 16:9 Aspect Ratio		7.3 mm	66° 36′ x 40° 32′
		161 mm	3° 25′ x 1° 55′
	(2X)	14.6 mm	36° 22′ x 20° 55′
		322 mm	1° 42′ x 0° 58′
M.O.D. from Image Plane		1.18 m	
M.O.D. from Front of Lens		0.85 m	
Object Dimensions at M.O.D.		7.3 mm	1222 x 687 mm
		161 mm	55 x 31 mm
	(2X)	14.6 mm	609 x 342 mm
		322 mm	28 x 16 mm
Filter Size		ø 127 mm P=0.75 (On Hood)	
Dia ø x Length (w/o Hood)		ø 110 x 287.3 mm	
Weight (w/o Hood)		3.15 kg / 3.22 kg*	
Options		Ratio Converter / 16 Bit Encoder	
Features		Inner Focus / Quick Zoom / Zoom Limit	

HA25x11.5BERD*

Zoom Ratio / Format		25X / 2/3"	
Focal Length		11.5 to 288 mm	
	(2X)	23 to 576 mm	
Maximum Relative Aperture		1:2.0 (11.5 ~ 206 mm)	
		1:2.8 (288 mm)	
Maximum Photometric Aperture T-No.		1:2.1 (11.5 ~ 206 mm)	
		1:2.9 (288 mm)	
Angular Field of View 16:9 Aspect Ratio		11.5 mm	45° 16′ x 26° 23′
		288 mm	1° 54′ x 1° 04′
	(2X)	23 mm	23° 33′ x 13° 22′
		576 mm	0° 57′ x 0° 32′
M.O.D. from Image Plane		2.51 m	
M.O.D. from Front of Lens		2.2 m	
Object Dimensions at M.O.D.		11.5 mm	1740 x 978 mm
		288 mm	70 x 39 mm
	(2X)	23 mm	870 x 489 mm
		576 mm	35 x 20 mm
Filter Size		ø 107m P=1 (On Barrel)	
Dia ø x Length (w/o Hood)		ø 110 x 265 mm	
Weight (w/o Hood)		2.8 kg	
Features		Inner Focus/Quick Zoom / Inner Focus	

HA25x16.5BERD*

Zoom Ratio / Format		25X / 2/3"	
Focal Length		16.5 to 413 mm	
	(2X)	33 to 826 mm	
Maximum Relative Aperture		1:2.8 (16.5 ~ 289mm)	
		1:4.0 (413 mm)	
Maximum Photometric Aperture T-No.		1:2.9 (16.5 ~ 289 mm)	
		1:4.2 (413 mm)	
Angular Field of View 16:9 Aspect Ratio		16.5 mm	32° 25′ x 18° 33′
		413 mm	1° 20′ x 0° 45′
	(2X)	33 mm	16° 32′ x 9° 20′
		826 mm	0° 40′ x 0° 22′
M.O.D. from Image Plane		2.52 m	
M.O.D. from Front of Lens		2.2 m	
Object Dimensions at M.O.D.		16.5 mm	1213 x 682 mm
		413 mm	49 x 27 mm
	(2X)	33 mm	606 x 341 mm
		826 mm	24 x 14 mm
Filter Size		ø 107m P=1 (On Barrel)	
Dia ø x Length (w/o Hood)		ø 110 x 278 mm	
Weight (w/o Hood)		2.9 kg	
Features		Quick Zoom / Zoom Limit	

*RD contain servos for zoom and focus.

Accessories for above lenses shown on pages 35 & 36.

OS-TECH QuickZoom DIGI POWER

HA42x9.7BERD

Zoom Ratio / Format	42X / 2/3″
Focal Length	9.7 ~ 410 mm (2X) 19.4 ~ 820 mm
Maximum Relative Aperture	1:2.0 (9.7 ~ 225 mm) 1:3.7 (410 mm)
Maximum Photometric Aperture T-No.	1:2.2 (9.7 ~ 225 mm) 1:4.0 (410 mm)
Angular Field of View 16:9 Aspect Ratio	9.7 mm 52° 37′ x 31° 03′ 410 mm 1° 20′ x 0° 45′ (2X) 19.4 mm 27° 46′ x 15° 49′ 820 mm 0° 40′ x 0° 23′
M.O.D. from Image Plane	3.18 m
M.O.D. from Front of Lens	2.8 m
Object Dimensions at M.O.D.	9.7 mm 2619 x 1472 mm 410 mm 64 x 36 mm (2X) 19.4 mm 1339 x 753 mm 820 mm 33 x 19 mm
Filter Size	ø 127 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)	ø130 x 338.5 mm
Weight (w/o Hood)	5.3 kg
Options	Built In OS-TECH
Features	Inner Focus / Zoom Limit / Built In OS-TECH / Quick Zoom

OS-TECH QuickZoom DIGI POWER

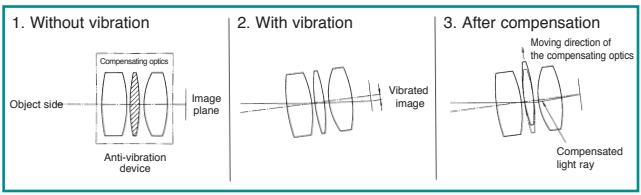
HA42x13.5BERD

Zoom Ratio / Format	42X / 2/3″
Focal Length	13.5 ~ 570 mm (2X) 27 ~ 1140 mm
Maximum Relative Aperture	1:2.8 (13.5 ~ 307 mm) 1:5.2 (570 mm)
Maximum Photometric Aperture T-No.	1:3.0 (13.5 ~ 307 mm) 1:5.6 (570 mm)
Angular Field of View 16:9 Aspect Ratio	13.5 mm 39° 07′ x 22° 35′ 570 mm 0° 58′ x 0° 33′ (2X) 27 mm 20° 08′ x 11° 24′ 1140 mm 0° 29′ x 0° 16′
M.O.D. from Image Plane	3.2 m
M.O.D. from Front of Lens	2.8 m
Object Dimensions at M.O.D.	13.5 mm 1888 x 1061 mm 570 mm 45 x 25 mm (2X) 27 mm 944 x 530 mm 1140 mm 22 x 13 mm
Filter Size	ø 127 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)	ø130 x 358.5 mm
Weight (w/o Hood)	5.4 kg
Options	Built In OS-TECH
Features	Inner Focus / Zoom Limit / Built In OS-TECH / Quick Zoom

*RD contain servos for zoom and focus.

OS-TECH

The HA42x9.7 and HA42x13.5 are equipped with Fujinon's built-in optical stabilization technology (OS-TECH). This feature optically compensates for image vibration as shown below.



Fujinon's Select Series is designed to meet the performance needs of todays mid-range HD cameras. Fujinon worked closely with all major camera manufacturers to engineer true HD lenses that are designed specifically to enhance the performance quality of these cameras.

Quickframe
DIGI POWER
WIDE POWER
QuickZoom

ZA12x4.5B RM/RD*/ZD**

LENS	ZA12x4.5B RM/RD*/ZD**
Zoom Ratio / Format	12X / 2/3"
Focal Length	4.5 to 54 mm
Maximum Relative Aperture	1:1.8 (4.5 ~ 41 mm) 1:2.4 (54 mm)
Maximum Photometric Aperture T-No.	1:1.9 (4.5 ~ 41 mm) 1:2.6 (54 mm)
Angular Field of View 16:9 Aspect Ratio	4.5 mm 93° 38′ x 61° 50′ 54 mm 10° 09′ x 5° 43′
M.O.D. from Image Plane	0.59 m
M.O.D. from Front of Lens	0.3 m
Object Dimensions at M.O.D.	4.5 mm 757 x 425 mm 54 mm 59 x 33 mm
Filter Size	ø 127 mm P=0.75 (In Hood)
Dia ø x Length (w/o Hood)	ø 95 x 237.5 mm
Weight (w/o Hood)	1.83 kg (RM) / 1.9 kg (RD/ZD)
Options	Quick Frame
Features	Inner Focus / Zoom Limit / Quick Zoom

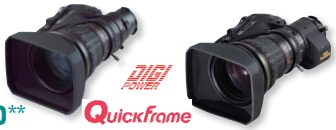
Quickframe
DIGI POWER
WIDE POWER
QuickZoom

ZA12x4.5BE RM/RD*/ZD**

LENS	ZA12x4.5BE RM/RD*/ZD**
Zoom Ratio / Format	12X / 2/3"
Focal Length	4.5 to 54 mm (2X) 9 to 108 mm
Maximum Relative Aperture	1:1.8 (4.5 ~ 41 mm) 1:2.4 (54 mm)
Maximum Photometric Aperture T-No.	1:1.9 (4.5 ~ 41 mm) 1:2.6 (54 mm)
Angular Field of View 16:9 Aspect Ratio	4.5 mm 93° 38′ x 61° 50′ 54 mm 10° 09′ x 5° 43′ (2X) 9 mm 56° 06′ x 33° 20′ 108 mm 5° 05′ x 2° 52′
M.O.D. from Image Plane	0.59 m
M.O.D. from Front of Lens	0.3 m
Object Dimensions at M.O.D.	4.5 mm 757 x 425 mm 54 mm 59 x 33 mm
Filter Size	ø 127 mm P=0.75 (In Hood)
Dia ø x Length (w/o Hood)	ø 95 x 237.5 mm
Weight (w/o Hood)	1.83 kg (RM) / 1.9 kg (RD/ZD)
Options	Quick Frame
Features	Inner Focus / Zoom Limit / Quick Zoom

*RD contain Servos for Zoom and Focus.
**ZD contains Quick Frame / Precision Zoom Focus System.

Accessories for above lenses shown on pages 35, 36 & 38.



DIGI POWER

ZA17x7.6B RM/RD*/ZD** Quickframe
ZA17x7.6BE RM/RD*/ZD** QuickZoom

LENS	ZA17x7.6B RM/RD*/ZD**	ZA17x7.6BE RM/RD*/ZD**
Zoom Ratio / Format	17X / 2/3"	17X / 2/3"
Focal Length (2X)	7.6 to 130 mm	7.6 to 130 mm 15.2 to 260 mm
Maximum Relative Aperture	1:1.8 (7.6 ~ 102 mm) 1:2.3 (130 mm)	1:1.8 (7.6 ~ 102 mm) 1:2.3 (130 mm)
Maximum Photometric Aperture T-No.	1:1.9 (7.6 ~ 102 mm) 1:2.5 (130 mm)	1:1.9 (7.6 ~ 102 mm) 1:2.5 (130 mm)
Angular Field of View 16:9 Aspect Ratio (2X)	7.6 mm 64° 30′ x 39° 03′ 130 mm 4° 13′ x 2° 23′	7.6 mm 64° 30′ x 39° 03′ 130 mm 4° 13′ x 2° 23′ 15.2 mm 35° 01′ x 20° 07′ 260 mm 2° 07′ x 1° 11′
M.O.D. from Image Plane	0.84 m	0.84 m
M.O.D. from Front of Lens	0.6 m	0.6 m
Object Dimensions at M.O.D. (2X)	7.6 mm 696 x 392 mm 130 mm 43 x 24 mm	7.6 mm 696 x 392 mm 130 mm 43 x 24 mm 15.2 mm 362 x 204 mm 260 mm 21 x 12 mm
Filter Size	ø 82 mm P=0.75 (On Barrel)	ø 82 mm P=0.75 (On Barrel)
Dia ø x Length (w/o Hood)	ø 85 x 203 mm	ø 85 x 203 mm
Weight (w/o Hood)	1.43 kg (RM) / 1.5 kg (RD/ZD)	1.53 kg (RM) / 1.6 kg (RD/ZD)
Options	Quick Frame	Quick Frame
Features	Inner Focus / Zoom Limit Quick Zoom	Inner Focus / Zoom Limit Quick Zoom

DIGI POWER

ZA22x7.6B RM/RD*/ZD** Quickframe
ZA22x7.6BE RM/RD*/ZD** QuickZoom

LENS	ZA22x7.6B RM/RD*/ZD**	ZA22x7.6BE RM/RD*/ZD**
Zoom Ratio / Format	22X / 2/3"	22X / 2/3"
Focal Length (2X)	7.6 to 167 mm	7.6 to 167 mm (2X) 15.2 to 334 mm
Maximum Relative Aperture	1:1.8 (7.6 ~ 120 mm) 1:2.5 (167 mm)	1:1.8 (7.6 ~ 120 mm) 1:2.5 (167 mm)
Maximum Photometric Aperture T-No.	1:1.9 (7.6 ~ 120 mm) 1:2.6 (167 mm)	1:1.9 (7.6 ~ 120 mm) 1:2.6 (167 mm)
Angular Field of View 16:9 Aspect Ratio (2X)	7.6 mm 64° 30′ x 39° 03′ 167 mm 3° 17′ x 1° 51′	7.6 mm 64° 30′ x 39° 03′ 167 mm 3° 17′ x 1° 51′ 15.2 mm 35° 01′ x 20° 07′ 334 mm 1° 39′ x 0° 55′
M.O.D. from Image Plane	1.07 m	1.07 m
M.O.D. from Front of Lens	0.8 m	0.8 m
Object Dimensions at M.O.D. (2X)	7.6 mm 915 x 514 mm 167 mm 43 x 24 mm	7.6 mm 915 x 514 mm 167 mm 43 x 24 mm 15.2 mm 473 x 266 mm 334 mm 22 x 12 mm
Filter Size	ø 95 mm P=1.0 (On Barrel) ø 107 mm P=1.0 (In Hood)	ø 95 mm P=1.0 (On Barrel) ø 107 mm P=1.0 (In Hood)
Dia ø x Length (w/o Hood)	ø 100 x 222.6 mm	ø 100 x 222.6 mm
Weight (w/o Hood)	1.73 kg (RM) / 1.8 kg (RD/ZD)	1.75 kg (RM) / 1.82 kg (RD/ZD)
Options	Quick Frame	Quick Frame
Features	Inner Focus / Zoom Limit / Quick Zoom	Inner Focus / Zoom Limit / Quick Zoom

*RD contain Servos for Zoom and Focus.
**ZD contains Quick Frame / Precision Zoom Focus System.

Accessories for above lenses shown on pages 35, 36 & 38.

Exceed Series 2/3 inch lenses feature digital servos. The XA20sx8.5BRM, with 170mm maximum focal length, offers economy minded users a long ENG lens at an attractive price point. The XA16sx8BRAM, a new generation of lens, with a rear focusing group and remarkably reduced breathing, offers the user a compact, high quality lens in a compact design.

Featuring QuickZoom, CruiseZoom, and a wide variety of controls and adapters, make any of the Exceed Series lenses a great choice. The features, quality, and price level make them a performance packed, smart addition to your camera.

XA16sx8 BRAM

QuickZoom

LENS	XA16sx8 BRAM
Zoom Ratio / Format	16X / 2/3"
Focal Length	8.0 to 128 mm
Maximum Relative	1:9 (8 mm)
Aperture	1:2.8 (128 mm)
Angular Field of View	8 mm 61° 52′ x 37° 14′
16:9 Aspect Ratio	128 mm 4° 17′ x 2° 25′
M.O.D. from Image Plane	1.0 m
M.O.D. from Front of Lens	0.8 m
Object Dimensions at M.O.D.	8 mm 1023 x 575 mm 128 mm 98 x 55 mm
Filter Size	ø 82 P= 0.75
Dia ø x Length (w/o Hood)	ø 85 x 163.8 mm
Weight (w/o Hood)	1.52 kg
Features	Rear Focus / Quick Zoom

XA20sx8.5 BRM

QuickZoom

LENS	XA20sx8.5 BRM
Zoom Ratio / Format	20X / 2/3"
Focal Length	8.5 - 170 mm
Maximum Relative Aperture	1:1.8 (8.5 ~ 113 mm) 1:2.7 (170 mm)
Angular Field of View 16:9 Aspect Ratio	8.5 mm 58° 51′ x 35° 11′ 170 mm 3° 14′ x 1° 49′
M.O.D. from Image Plane	1.1 m
M.O.D. from Front of Lens	0.9 m
Object Dimensions at M.O.D.	8.5 mm 910x511 mm 170 mm 47x26 mm
Filter Size	ø 82 P= 0.75
Dia ø x Length (w/o Hood)	ø 85 x 180.8 mm
Weight (w/o Hood)	1.48 kg
Features	Inner Focus / Quick Zoom

WCV-X85

Wide Converter available see page 38.

Accessories for above lenses shown on page 37.

HDTV STUDIO LENSES

Studio lenses are essential for applications requiring the ultimate in control and optical quality. The Compact XA22x7BES studio lens featuring sharp images and quite precise servo zoom and focus in a compact package is designed for mounting to 2/3 inch ENG style cameras.

XA22x7BES
HA22x7.2BESM

LENS	XA22x7BES	HA22x7.2BE SM
Zoom Ratio / Format	22X / 2/3"	22X / 2/3"
Focal Length	7.0 ~ 154 mm (2X) 14 ~ 308 mm	7.2 ~ 158 mm (2X) 14.4 ~ 316 mm
Maximum Relative Aperture	1:1.8 (7 ~ 116 mm) 1:2.4 (154 mm)	1:1.7 (7.2 ~ 149 mm) 1:1.8 (158 mm)
Maximum Photometric Aperture T-No.	1:2.2 (7 ~ 116 mm) 1:2.9 (154 mm)	1:1.9 (7.2 ~ 149 mm) 1:2.0 (158 mm)
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio	7.0 mm 68° 49′ x 42° 07′ 154 mm 3° 34′ x 2° 00′ (2X) 14 mm 37° 49′ x 21° 48′ 308 mm 1° 47′ x 1° 0′	7.2 mm 67° 20′ x 41° 03′ 158 mm 3° 29′ x 1° 57′ (2X) 14.4 mm 36° 50′ x 21° 12′ 316 mm 1° 44′ x 0° 59′
M.O.D. from Image Plane	1.17 m	1.20 m
M.O.D. from Front of Lens	0.8 m	0.6 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio	7.0 mm 1197 x 673 mm 154 mm 54 x 31 mm (2X) 14 mm 599 x 337 mm 308 mm 27 x 15 mm	7.2 mm 1047 x 589 mm 158 mm 48 x 27 mm (2X) 14.4 mm 524 x 294 mm 316 mm 24 x 13 mm
Filter Size	ø 127m P=0.75	–
Size (HxWxL)	179 x 187 x 340 mm	228 x 231 x 543 mm
Weight	6.6 kg	19.5 kg
Options	FIND	FIND
Features	16 Bit Encoder / Auto Compensation of Focus Breathing / Virtual Reality Output	Floating System / Auto Compensation of Focus Breathing / Virtual Reality Output

HA27x6.5BESM

Zoom Ratio / Format	27X / 2/3"
Focal Length	6.5 ~ 180 mm (2X) 13 ~ 360 mm
Maximum Relative Aperture	1:1.5 (6.5 ~ 123 mm) 1:2.2 (180 mm)
Maximum Photometric Aperture T-No.	1:1.6 (6.5 ~ 123 mm) 1:2.4 (180 mm)
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio	6.5 mm 72° 50′ x 45° 02′ 180 mm 3° 03′ x 1° 43′ (2X) 13 mm 40° 30′ x 23° 25′ 360 mm 1° 32′ x 0° 51′
M.O.D. from Image Plane	1.18 m
M.O.D. from Front of Lens	0.6 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio	6.5 mm 1053 x 592 mm 180 mm 39 x 22 mm (2X) 13 mm 527 x 296 mm 360 mm 20 x 11 mm
Size (HxWxL)	233 x 231 x 537 mm
Weight (w/o Hood)	19.7 kg
Options	FIND
Features	Advanced Back Focus / Remote Macro Focus Fader / Auto Compensation of Focus Breathing Dust Proof & Anti Fogging / Virtual Reality Output

Accessories for XA22x7BES shown on page 44.
Accessories for HA22x7.2BESM and HA27x6.5BESM shown on page 41, 42 & 43.

HDTV FIELD LENSES

The very popular XA50X9.5BESM with built in camera supporter is now available for hard cameras and system expanders. All of Fujinon's Field lenses feature the exclusive desiccant system for removal of moisture caused by condensation.

XA50x9.5BESM

Zoom Ratio / Format		50X / 2/3"	
Focal Length		9.5 ~ 475 mm	
	(2X)	19 ~ 950 mm	
Maximum Relative Aperture		1:1.7 (9.5 ~ 311 mm)	
		1:2.6 (475 mm)	
Maximum Photometric Aperture T-No.		1:1.9 (9.5 ~ 311 mm)	
		1:2.9 (475 mm)	
Angular Field of View (Hor. x Vert. in °) 4:3 Aspect Ratio		9.5 mm	49° 42′ x 38° 19′
		475 mm	1° 04′ x 0° 48′
	(2X)	19 mm	26° 05′ x 19° 42′
		950 mm	0° 32′ x 0° 24′
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio		9.5 mm	53° 34′ x 31° 41′
		475 mm	1° 09′ x 0° 39′
	(2X)	19 mm	28° 20′ x 16° 09′
		950 mm	0° 35′ x 0° 20′
M.O.D. from Image Plane		3.6 m	
M.O.D. from Front of Lens		3.0 m	
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 4:3 Aspect Ratio		9.5 mm	2573 x 1930 mm
		475 mm	51 x 39 mm
	(2X)	19 mm	1287 x 965 mm
		950 mm	26 x 19 mm
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio		9.5 mm	2800 x 1575 mm
		475 mm	56 x 31 mm
	(2X)	19 mm	1400 x 787 mm
		950 mm	28 x 16 mm
Size (HxWxL)		343 x 272 x 838 mm	
Weight		20.5 kg	
Options		With or Without Support Bracket	
Features		Dust Proof & Anti Fogging	

XA66x9.3BESM

Zoom Ratio / Format		66X / 2/3"	
Focal Length		9.3 ~ 615 mm	
	(2X)	18.6 ~ 1230 mm	
Maximum Relative Aperture		1:1.7 (9.3 ~ 325 mm)	
		1:3.2 (615 mm)	
Maximum Photometric Aperture T-No.		1:1.8 (9.3 ~ 325 mm)	
		1:3.4 (615 mm)	
Angular Field of View (Hor. x Vert. in °) 4:3 Aspect Ratio		9.3 mm	50° 38′ x 39° 04′
		615 mm	0° 49′ x 0° 37′
	(2X)	18.6 mm	29° 37′ x 20° 07′
		1230 mm	0° 25′ x 0° 18′
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio		9.3 mm	54° 33′ x 32° 19′
		615 mm	0° 54′ x 0° 30′
	(2X)	18.6 mm	28° 55′ x 16° 29′
		1350 mm	0° 27′ x 0° 15′
M.O.D. from Image Plane		3.37m	
M.O.D. from Front of Lens		2.7 m	
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 4:3 Aspect Ratio		9.3 mm	2346 x 1760 mm
		615 mm	36 x 27 mm
	(2X)	18.6 mm	1173 x 880 mm
		1230 mm	18 x 13 mm
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio		9.3 mm	2558 x 1438 mm
		615 mm	39 x 22 mm
	(2X)	18.6 mm	1279 x 719 mm
		1230 mm	19 x 11 mm
Size (HxWxL)		265 x 270 x 634 mm	
Weight		21.5 kg	
Options		FIND	
Features		Advanced Back Focus / Remote Macro Focus Fader / Dust Proof & Anti Fogging / Virtual Reality Output	

Accessories for above lenses shown on pages 41, 42 & 43.

XA72x9.3BESM

Zoom Ratio / Format		72X / 2/3"
Focal Length		9.3 ~ 675 mm
	(2X)	18.6 ~ 1350 mm
Maximum Relative Aperture		1:1.7 (9.3 ~ 328 mm)
		1:3.5 (675 mm)
Maximum Photometric Aperture T-No.		1:1.8 (9.3 ~ 328 mm)
		1:3.7 (675 mm)
Angular Field of View (Hor. x Vert. in °) 4:3 Aspect Ratio		9.3 mm 50° 38′ x 39° 04′
		675 mm 0° 45′ x 0° 34′
	(2X)	18.6 mm 26° 37′ x 20° 07′
		1350 mm 0° 22′ x 0° 17′
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio		9.3 mm 54° 33′ x 32° 19′
		675 mm 0° 49′ x 0° 27′
	(2X)	18.6 mm 28° 55′ x 16° 29′
		1350 mm 0° 24′ x 0° 14′
M.O.D. from Image Plane		3.37 m
M.O.D. from Front of Lens		2.7 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 4:3 Aspect Ratio		9.3 mm 2346 x 1760 mm
		675 mm 33 x 24 mm
	(2X)	18.6 mm 1173 x 880 mm
		1350 mm 16 x 12 mm
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio		9.3 mm 2558 x 1438 mm
		675 mm 36 x 20 mm
	(2X)	18.6 mm 1279 x 719 mm
		1350 mm 18 x 10 mm
Size (HxWxL)		265 x 270 x 634 mm
Weight		21 kg
Options		Ratio Converter/FIND
Features		Advanced Back Focus / Remote Macro Focus Fader / Dust Proof & Anti Fogging / Virtual Reality Output

XA76x9.3BESM

OS-TECH

Zoom Ratio / Format		76X / 2/3"
Focal Length		9.3 ~ 710 mm
	(2X)	18.6 ~ 1420 mm
Maximum Relative Aperture		1:1.7 (9.3 ~ 334 mm)
		1:3.6 (710 mm)
Maximum Photometric Aperture T-No.		1:1.8 (9.3 ~ 334 mm)
		1:3.8 (710 mm)
Angular Field of View (Hor. x Vert. in °) 4:3 Aspect Ratio		9.3 mm 50° 38′ x 39° 04′
		710 mm 0° 43′ x 0° 32′
	(2X)	18.6 mm 26° 37′ x 20° 07′
		1420 mm 0° 21′ x 0° 16′
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio		9.3 mm 54° 33′ x 32° 19′
		710 mm 0° 46′ x 0° 26′
	(2X)	18.6 mm 28° 55′ x 16° 29′
		1420 mm 0° 23′ x 0° 13′
M.O.D. from Image Plane		3.37 m
M.O.D. from Front of Lens		2.7 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 4:3 Aspect Ratio		9.3 mm 2347 x 1760 mm
		710 mm 31 x 23 mm
	(2X)	18.6 mm 1173 x 880 mm
		1420 mm 15 x 12 mm
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio		9.3 mm 2558 x 1438 mm
		710 mm 34 x 19 mm
	(2X)	18.6 mm 1279 x 719 mm
		1420 mm 17 x 9 mm
Size (HxWxL)		265 x 270 x 634 mm
Weight		21.8 kg
Options		FIND
Features		Advanced Back Focus / Remote Macro Focus Fader / Dust Proof & Anti Fogging Built-In OS-TECH / Virtual Reality Output

Accessories for above lenses shown on pages 41, 42 & 43.

HDTV FIELD LENSES

DIGI POWER OS-TECH

XA88x 8.8BESM
XA88x 12.5BESM

LENS	XA88X8.8BE SM	XA88X12.5BE SM
Zoom Ratio / Format	88X / 2/3″	88X / 2/3″
Focal Length	8.8 ~ 777 mm (2X) 17.6 ~ 1554 mm	12.5 ~ 1100 mm (2X) 25 ~ 2200 mm
Maximum Relative Aperture	1:1.7 (8.8 ~ 348 mm) 1:3.8 (777 mm)	1:2.3 (12.5 ~ 477 mm) 1:5.3 (1100 mm)
Maximum Photometric Aperture T-No.	1:1.8 (8.8 ~ 348 mm) 1:3.6 (777 mm)	1:2.4 (12.5 ~ 477 mm) 1:5.6 (1100 mm)
Angular Field of View (Hor. x Vert. in °) 4:3 Aspect Ratio	8.8 mm 53° 08′ x 41° 07′ 777 mm 0° 39′ x 0° 29′ (2X) 17.6 mm 28° 04′ x 21° 14′ 1554 mm 0° 19′ x 0° 15′	12.5 mm 38° 47′ x 29° 35′ 1100 mm 0° 28′ x 0° 21′ (2X) 25 mm 19° 58′ x 15° 02′ 2200 mm 0° 14′ x 0° 10′
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio	8.8 mm 52° 10′ x 34° 03′ 777 mm 0° 42′ x 0° 24′ (2X) 17.6 mm 30° 29′ x 17° 25′ 1554 mm 0° 21′ x 0° 12′	12.5 mm 41° 58′ x 24° 20′ 1100 mm 0° 30′ x 0° 17′ (2X) 25 mm 21° 43′ x 12° 18′ 2200 mm 0° 15′ x 0° 08′
M.O.D. from Image Plane	3.51 m	3.53 m
M.O.D. from Front of Lens	2.9 m	2.9 m (12.5-200mm)
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 4:3 Aspect Ratio	8.8 mm 2726 x 2044 mm 777 mm 31 x 23 mm (2X) 17.6 mm 1363 x 1022 mm 1554 mm 15 x 12 mm	12.5 mm 1919 x 1439 mm 1100 mm 22 x 16 mm (2X) 25 mm 959 x 720 mm 2200 mm 11 x 8 mm
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio	8.8 mm 2971 x 1670 mm 777 mm 34 x 19 mm (2X) 17.6 mm 1485 x 835 mm 1554 mm 17 x 9 mm	12.5 mm 2091 x 1175 mm 1100 mm 24 x 13 mm (2X) 25 mm 1046 x 588 mm 2200 mm 12 x 7 mm
Size (HxWxL)	265 x 270 x 575 mm	265 x 270 x 593 mm
Weight	24.0 kg	24.5 kg
Options	FIND	
Features	Advanced Back Focus / Remote Macro / Focus Fader Built-In OS-TECH / Dust Proof & Anti Fogging / Virtual Reality Output	

DIGI POWER OS-TECH

XA101x 8.9BESM

Zoom Ratio / Format	101X / 2/3″
Focal Length	8.9 ~ 900 mm (2X) 17.8 ~ 1800 mm
Maximum Relative Aperture	1:1.7 (8.9 ~ 291 mm) 1:4.7 (900 mm)
Maximum Photometric Aperture T-No.	1:1.8 (8.9 ~ 291 mm) 1:5.0 (900 mm)
Angular Field of View (Hor. x Vert. in °) 4:3 Aspect Ratio	8.9 mm 52° 37′ x 40° 41′ 900 mm 0° 34′ x 0° 25′ (2X) 17.8 mm 27° 46′ x 21° 00′ 1800 mm 0° 17′ x 0° 13′
Angular Field of View (Hor. x Vert. in °) 16:9 Aspect Ratio	8.9 mm 56° 38′ x 33° 42′ 900 mm 0° 37′ x 0° 21′ (2X) 17.8 mm 30° 09′ x 17° 13′ 1800 mm 0° 18′ x 0° 10′
M.O.D. from Image Plane	3.59 m
M.O.D. from Front of Lens	2.9 m
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 4:3 Aspect Ratio	8.9 mm 2629 x 1972 mm 900 mm 26 x 20 mm (2X) 17.8 mm 1315 x 986 mm 1800 mm 13 x 10 mm
Object Dimensions at M.O.D. (Hor. x Vert. in mm) 16:9 Aspect Ratio	8.9 mm 2865 x 1610 mm 900 mm 28 x 16 mm (2X) 17.8 mm 1433 x 805 mm 1800 mm 14 x 8 mm
Size (HxWxL)	265 x 270 x 660 mm
Weight	22.9 kg
Options	FIND
Features	Advanced Back Focus / Remote Macro / Focus Fader Built-In OS-TECH / Dust Proof & Anti Fogging / Virtual Reality Output

Accessories for above lenses shown on pages 41, 42 & 43.

SDTV ENG/EFP PROFESSIONAL LENSES

Fujinon's Professional grade lenses offer high optical quality and a range of focal lengths for every professional production application.

Wide-angle lenses have become increasingly popular for professional videographers and Fujinon's 13x series has set the pace with the widest angle of 6.3mm (2/3''). The optional 2x-range extender adds additional versatility with a maximum focal length of 164mm.

The 20x series features the longest focal length and is available with optional 2x-range extender for telephoto shots.

A13x6.3B / S13x4.6B RM/ERM*

LENS	A13x6.3B RM/ERM*	S13x4.6B RM/ERM*
Zoom Ratio / Format	13X / 2/3''	13X / 1/2''
Focal Length	6.3 to 82 mm	4.6 to 60 mm
	(2X) 12.6 to 164 mm	(2X) 9.2 to 120 mm
Maximum Relative Aperture	1:2 (to 61 mm) 1:2.7 (at 82 mm)	1:1.5 (to 45 mm) 1:2.0 (at 60 mm)
Angular Field of View (Hor. x Vert. in °)	6.3 mm 69° 52′ x 55° 18′ 82 mm 6° 09′ x 4° 37′	4.6 mm 69° 39′ x 55° 06′ 60 mm 6° 06′ x 4° 35′
	(2X) 12.6 mm 38° 30′ x 29° 21′ 164 mm 3° 04′ x 2° 18′	(2X) 9.2 mm 38° 21′ x 29° 15′ 120 mm 3° 03′ x 2° 17′
M.O.D. from Image Plane	0.4 m	0.4 m
Object Area at M.O.D (at Wide) (at Tele)	6.3 mm 617mm x 463mm 82 mm 47mm x 36mm	4.6 mm 633mm x 475mm 60 mm 49mm x 37mm
(at Wide) (at Tele)	(2X) 12.6 mm 309mm x 231mm 164 mm 24mm x 18mm	(2X) 9.2 mm 315mm x 236mm 120 mm 24mm x 18mm
Filter Size (on Barrel)	ø 82 mm P=0.75	ø 82 mm P=0.75
Weight RM	1.68 kg	1.68 kg
ERM	1.78 kg	1.78 kg
Features	Inner Focus	Inner Focus

*ERM version with extender

A17x9B / S17x6.6BRM

LENS	A17x9B RM	S17x6.6B RM
Zoom Ratio / Format	17X / 2/3''	17X / 1/2''
Focal Length	9 to 155 mm	6.6 to 114 mm
Maximum Relative Aperture	1:1.9 (to 115 mm) 1:2.6 (at 155 mm)	1:1.5 (to 90 mm) 1:1.9 (at 114 mm)
Angular Field of View (Hor. x Vert. in °)	9mm 52° 06′ x 40° 16′ 155mm 3° 15′ x 2° 26′	6.6mm 51° 44′ x 39° 58′ 114 mm 3° 13′ x 2° 25′
M.O.D. from Image Plane	0.9m	0.9m
Object Area at M.O.D (at Wide) (at Tele)	9mm 815mm x 611mm 155mm 47mm x 36mm	6.6mm 808mm x 606mm 114 mm 47 mm x 35 mm
Filter Size (on Barrel)	ø 82 mm P=0.75	ø 82 mm P=0.75
Weight w/o hood	1.25 kg	1.25 kg
Features	Inner Focus	Inner Focus

A20x8.6B / S20x6.4B RM/ERM*

LENS	A20x8.6B RM/ERM*	S20x6.4B RM/ERM*
Zoom Ratio / Format	20X / 2/3''	20X / 1/2''
Focal Length	8.6 to 172 mm	6.4 to 128 mm
Extender	(2X) 17.2 to 344 mm	(2X) 12.8 to 256 mm
Maximum Relative Aperture	1.8 (to 115 mm) 2.7 (at 172 mm)	1.4 (to 90 mm) 2.0 (at 128 mm)
Angular Field of View (Hor. x Vert. in °)	8.6 mm 54° 11′ x 41° 59′ 172 mm 2° 56′ x 2° 12′	6.4 mm 53° 08′ x 41° 07′ 128 mm 2° 52′ x 2° 09′
	(2X) 17.2 mm 28° 42′ x 21° 43′ 344 mm 1° 28′ x 1° 06′	(2X) 12.8 mm 28° 04′ x 21° 14′ 256 mm 1° 26′ x 1° 04′
M.O.D. from Image Plane	0.9 m	0.9 m
Object Area at M.O.D (at Wide) (at Tele)	8.6 mm 866mm x 650mm 172 mm 43mm x 33mm	6.4 mm 846mm x 635mm 128 mm 42mm x 32mm
(at Wide) (at Tele)	(2X) 17.2 mm 433mm x 325mm 344 mm 21mm x 16mm	(2X) 12.8 mm 423mm x 317mm 256 mm 21mm x 16mm
Filter Size	ø 82 mm P=0.75	ø 82 mm P=0.75
Weight RM	1.4 kg	1.4 kg
ERM	1.5 kg	1.5 kg
Features	Inner Focus	Inner Focus

*ERM version with extender

HDTV VIDEOCONFERENCING LENSES

Fujinon's HD remote control lenses are ideal for videoconferencing, tower cam and other applications requiring remote control of zoom, focus, and iris functions.

XA20sx8.5BMD
ZA12x4.5B MD/EMD

NEW

WIDE POWER

LENS	XA20sx8.5 BMD	ZA12x4.5B MD/EMD
Zoom Ratio / Format	20X / 2/3"	12X / 2/3"
Focal Length	8.5 - 170 mm	4.5 to 54 mm (2X) 9 to 108 mm
Maximum Relative Aperture	1:1.8 (8.5 ~ 113 mm) 1:2.7 (170 mm)	1:1.8 (4.5 ~ 41 mm) 1:2.4 (54 mm)
Angular Field of View 16:9 Aspect Ratio	8.5 mm 58° 51′ x 35° 11′ 170 mm 3° 14′ x 1° 49′	4.5 mm 93° 38′ x 61° 50′ 54 mm 10° 09′ x 5° 43′ (2X) 9 mm 56° 06′ x 33° 20′ 108 mm 5° 05′ x 2° 52′
M.O.D. from Image Plane	1.1 m 0.59 m	0.59 m
M.O.D. from Front of Lens	0.9 m	0.3 m
Object Dimensions at M.O.D.	8.5 mm 910x511 mm 170 mm 47x26 mm	4.5 mm 757 x 425 mm 54 mm 59 x 33 mm (2X) 9 mm 373 x 210 mm 108 mm 31 x 17 mm
Filter Size	ø 82 P= 0.75	ø 127 mm P=0.75 (In Hood)
Dia ø x Length (w/o Hood)	ø 85 x 180.8 mm	ø 95 x 237.5 mm
Weight (w/o Hood)	1.9 kg	2.0 kg

ZA17x7.6B MD/EMD
ZA22x7.6B MD/EMD

LENS	ZA17x7.6B MD/EMD	ZA22x7.6B MD/EMD
Zoom Ratio / Format	17X / 2/3"	22X / 2/3"
Focal Length	7.6 to 130 mm (2X) 9 to 108 mm (2X) 15.2 to 334 mm	7.6 to 167 mm 15.2 to 260 mm
Maximum Relative Aperture	1:1.8 (4.5 ~ 41 mm) 1:2.4 (54 mm)	1:1.8 (7.6 ~ 120 mm) 1:2.5 (167 mm)
Angular Field of View 16:9 Aspect Ratio	4.5 mm 93° 38′ x 61° 50′ 54 mm 10° 09′ x 5° 43′ (2X) 9 mm 56° 06′ x 33° 20′ (2X) 15.2 mm 35° 01′ x 20° 07′	7.6 mm 64° 30′ x 39° 03′ 167 mm 3° 17′ x 1° 51′ (2X) 15.2 mm 35° 01′ x 20° 07′ 334 mm 1° 39′ x 0° 55′
M.O.D. from Image Plane	0.59 m	1.07 m
Object Dimensions at M.O.D.	4.5 mm 757 x 425 mm 54 mm 59 x 33 mm (2X) 9 mm 373 x 210 mm (2X) 15.2 mm 362 x 204 mm	7.6 mm 915 x 514 mm 167 mm 43 x 24 mm (2X) 15.2 mm 473 x 266 mm 334 mm 22 x 12 mm
Filter Size	ø 127 mm P=0.75 (In Hood)	ø 95 mm P=1.0 (On Barrel)
Weight (w/o Hood)	1.9 kg (2X) 2.0 kg	1.72 kg (2X) 1.82 kg

Refer to full size charts on pages 15-16 for more information for all above lenses.

*EMD version with extender

HAs18x7.6BMD
HSs18x5.5BMD

LENS	HAs18x7.6B MD*	HSs18x5.5B MD
Zoom Ratio / Format	18X / 2/3"	18X / 1/2"
Focal Length	7.6 mm ~ 137 mm	5.5 mm ~ 100 mm
Maximum Relative Aperture	1.8 (to 103 mm) 2.4 (at 137 mm)	1.4 (to 77 mm) 1.8 (at 100 mm)
Angular Field of View (Hor. x Vert. in °)	7.6 mm 64° 30′ x 39° 03′ 137 mm 4° 01′ x 2° 15′	5.5 mm 64° 43′ x 39° 14′ 100 mm 4° 00′ x 2° 15′
M.O.D. from Image Plane	0.84 m	0.84 m
M.O.D. from Front of Lens	0.6 m	0.6 m
Object Area (at Wide) at M.O.D. (at Tele)	7.6 mm 738 x 415 mm 137 mm 41 x 23 mm	5.5 mm 741 x 417 mm 100 mm 43 x 24 mm
Filter Size	ø 82 x 0.75	ø 82 x 0.75
Weight w/o hood	1.55 kg	1.55 kg

*Optional Accessory Configuration SS-33A for model HAs18x7.6B MD only.
Refer to pg. 34 for Standard Videoconferencing Accessories.

Accessories for above lenses shown on page 40.

SDTV VIDEOCONFERENCING LENSES

Fujinon's complete line of remote control lenses is ideal for everything from graphics stands and videoconferencing to tower cams. A wide array of accessories including wide and telephoto converters, filters and remote controllers are available.

A13x6.3B MD/EMD*◇
S13x4.6B MD/EMD*◇

LENS	A13x6.3B MD/EMD*	S13x4.6B MD/EMD*
Zoom Ratio / Format	13X / 2/3"	13X / 1/2"
Focal Length	6.3 to 82 mm	4.6 to 60 mm
	(2X) 12.6 to 164 mm	(2X) 9.2 to 120 mm
Maximum Relative Aperture	1:2 (to 61 mm) 1:2.7 (at 82 mm)	1:1.5 (to 45 mm) 1:2.0 (at 60 mm)
Angular Field of View (Hor. x Vert. in °)	6.3mm 69° 52′ x 55° 18′ 82mm 6° 09′ x 4° 37′	4.6mm 69° 39′ x 55° 06′ 60mm 6° 06′ x 4° 35′
	(2X) 12.6mm 38° 30′ x 29° 21′ 164mm 3° 04′ x 2° 18′	(2X) 9.2mm 38° 21′ x 29° 15′ 120mm 3° 03′ x 2° 17′
M.O.D. from Front of Lens	0.4 m	0.4 m
Object Area at M.O.D (at Wide) (at Tele)	6.3mm 617mm x 463mm 82mm 47mm x 36mm	4.6mm 633mm x 475mm 60mm 49mm x 37mm
(at Wide) (at Tele)	(2X) 12.6mm 309mm x 231mm 164mm 24mm x 18mm	(2X) 9.2mm 315mm x 236mm 120mm 24mm x 18mm
Filter Size (on Barrel)	ø 82 mm P=0.75	ø 82 mm P=0.75
Weight RM	1.73 kg	1.73 kg
ERM	1.83 kg	1.83 kg
Features	Inner Focus	Inner Focus

S17x6.6BMD

NEW

LENS	S17x6.6BMD
Zoom Ratio / Format	17X / 1/2"
Focal Length	6.6 to 114 mm
Maximum Relative Aperture	1:1.5 (to 90 mm) 1:1.9 (at 114 mm
Angular Field of View (Hor. x Vert. in °)	6.6 mm 51° 44′ x 39° 58′ 114 mm 3° 13′ x 2° 25′
M.O.D. from Front of Lens	0.9 m
Object Area (at Wide) at M.O.D. (at Tele)	6.6 mm 808 mm x 606 mm 114 mm 47 mm x 35 mm
Filter Size (on Barrel)	ø 82 mm P=0.75
Weight	1.25 kg
Features	Inner Focus

A20x8.6B MD/EMD◇
S20x6.4B MD/EMD◇

LENS	A20x8.6B MD/EMD◇	S20x6.4B MD/EMD◇
Zoom Ratio / Format	20X / 2/3"	20X / 1/2"
Focal Length w/ Built-in Extender	8.6 to 172 mm	6.4 to 128 mm
	(2X) 17.2 to 344 mm	(2X) 12.8 to 256 mm
Maximum Relative Aperture	1.8 (to 115 mm) 2.7 (at 172 mm)	1.4 (to 90 mm) 2.0 (at 128 mm)
Angular Field of View (Hor. x Vert. in °)	8.6mm 54° 11′ x 41° 59′ 172mm 2° 56′ x 2° 12′	6.4mm 53° 08′ x 41° 07′ 128mm 2° 52′ x 2° 09′
	(2X) 17.2mm 28° 42′ x 21° 43′ 344mm 1° 28′ x 1° 06′	(2X) 12.8mm 28° 04′ x 21° 14′ 256mm 1° 26′ x 1° 04′
M.O.D. from Front of Lens	0.9 m	0.9 m
Object Area at M.O.D (at Wide) (at Tele)	8.6mm 866mm x 650mm 172mm 43mm x 33mm	6.4mm 846mm x 635mm 128mm 42mm x 32mm
(at Wide) (at Tele)	(2X) 17.2mm 433mm x 325mm 344mm 21mm x 16mm	(2X) 12.8mm 423mm x 317mm 256mm 21mm x 16mm
Filter Size	ø 82 mm P=0.75	ø 82 mm P=0.75
Weight	1.55 kg	1.55 kg
Features	Inner Focus	Inner Focus

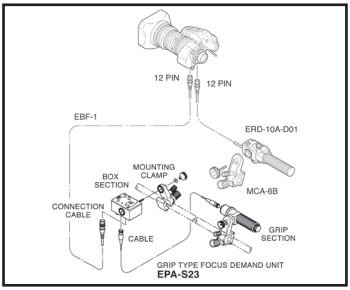
◇ For remote application of extender, the ECU motorized extender unit is required.

*EMD version with extender

Accessories for above lenses shown on page 40.

SS-13PF Servo Focus/Servo Zoom

For use with PF ENG lenses.



A. ERD-10A-D01
Digi Zoom Demand

B. EBF-1
Focus Cable

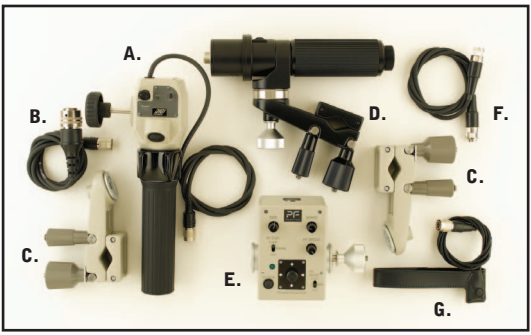
C. MCA-6B
Mounting Clamp

D. EPA-S23 (Part of Kit)
Focus Grip Section

E. EPA-S23 (Part of Kit)
Focus Box Section

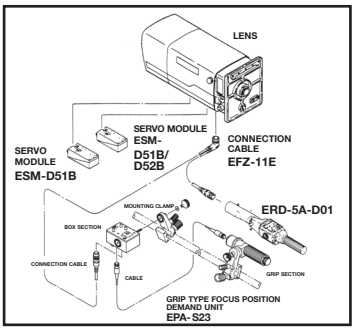
F. EPA-S23 (Part of Kit)
Focus Connection Cable

G. PF-19A-02A
PF Action Switch



SS-21PF Servo Focus/Servo Zoom

For use with PF EFP lenses



A. ERD-5A-D01
Digi Zoom Demand

B. EFZ-11E
Focus/Zoom Cable

C. ESM-D51B
Servo Module

D. EPA-S23 (Part of Kit)
Focus Grip Section

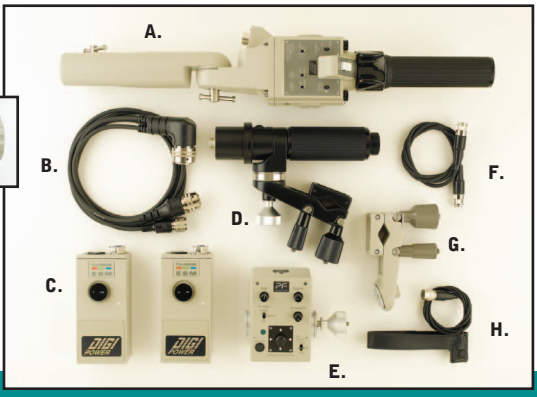
E. EPA-S23 (Part of Kit)
Focus Box Section

F. EPA-S23 (Part of Kit)
Focus Connection Cable

G. MCA-6B
Mounting Clamp

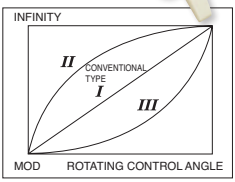
H. PF-19A-02A
PF Action Switch

EPD-4A-S13E Digi PF Focus Demand also available.



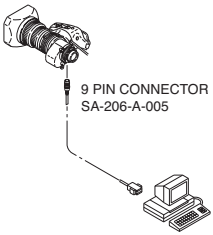
THREE-MODE FINE FOCUS

By shifting the sensitivity from the wide side to the telephoto side of the focus range, this control provides more precise focusing for studio or sports productions.

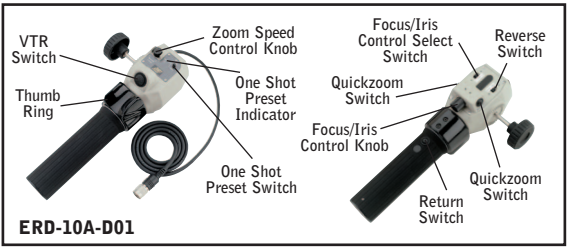


SERIAL DIGITAL REMOTE CONTROL BY PC

Remote control of zoom, focus and iris for Digi-Power lenses is possible via serial digital link, providing accurate positioning for virtual studio and other applications requiring digital precision.

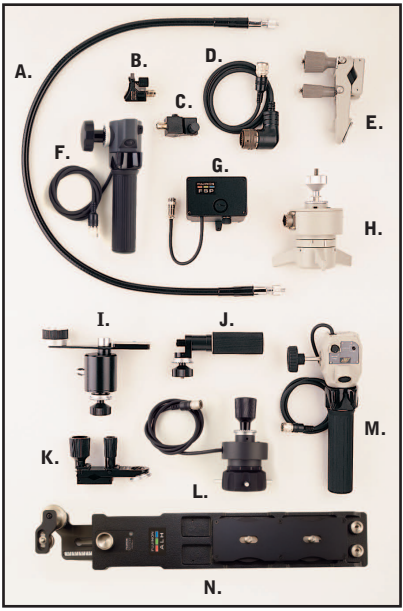


DIGI ZOOM DEMAND*



*New Digital features only available on ERM/ERD-M/S.

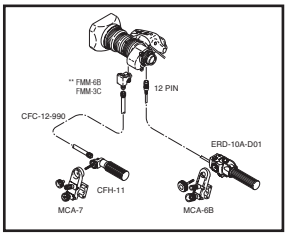
A. CFC-990 Flex Cable
B. FMM-3B/6B Manual Module
C. ZMM-6 Manual Module
D. EBF-1 Focus Cable
E. MCA-6
F. ERD-20A-A02 Zoom Demand
G. FSP-13G Focus Positional Module
H. EPD-4A-E02
I. CZH-14 Focus Handle
J. CFH-11 Focus Handle
K. MCA-7 Mounting Clamp
L. EPD-21A-A02 Focus Demand
M. ERD-10A-D01 Zoom Demand
N. ALH-117C-01A Support for HA36x/A36x HA42x



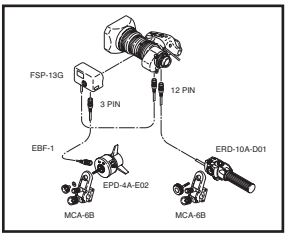
Note: ERD-20A-A02 (F) and EPD-20A-A02 (L) replace the ERD-T22 and EPD-2CA.

DIGI POWER REAR CONTROL KITS

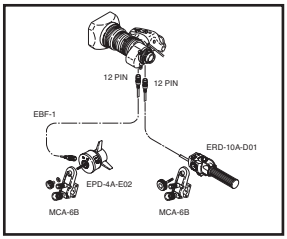
MS-11D Manual Focus/Servo Zoom
For use with RM/ZM type lenses.



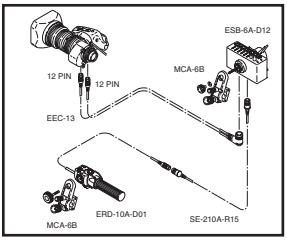
SS-11D Servo Focus/Servo Zoom
For use with RM/ZM type lenses.



SS-13D Servo Focus/Servo Zoom
For use with RD/ZD type lenses.

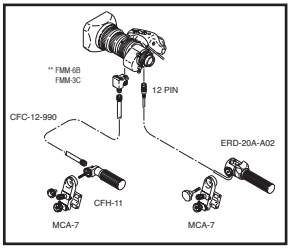


SS-14S Servo Focus/Servo Zoom
For use with RD/ZD type lenses.

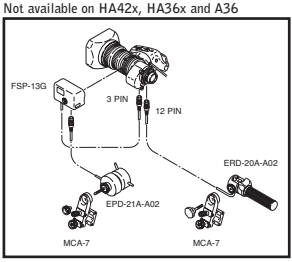


STANDARD REAR CONTROL KITS

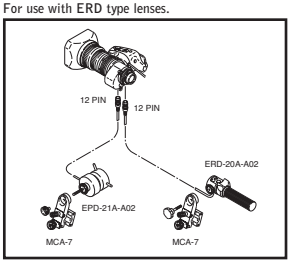
MS-11 Manual Focus/Servo Zoom



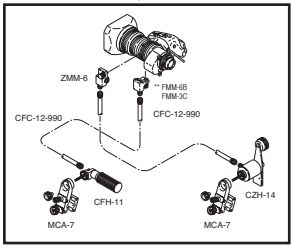
SS-11 Servo Focus/Servo Zoom
Not available on HA42x, HA36x and A36



SS-13A Servo Focus/Servo Zoom
For use with ERD type lenses.



MM-11 Manual Focus/Manual Zoom
Not available on HA42x, HA36x and A36x



*Specify camera type

**FMM-3C for use on HA42x and HA25x

MOUNTING SYSTEM

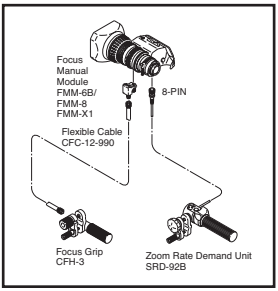
Fujinon has replaced the "cone" shaped mounting system with the "tooth" system. The cone type may still be ordered as a special order.

New Style
MCA-7

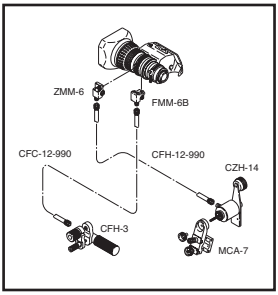
Old Style
MCA-1A
(Discontinued)

PROFESSIONAL REAR CONTROL KITS

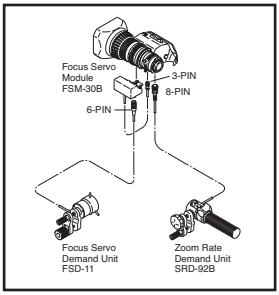
MS-01 Manual Focus/Servo Zoom
MS-01/X1 for XA16sx8BRAM, XA16x and XS16x only



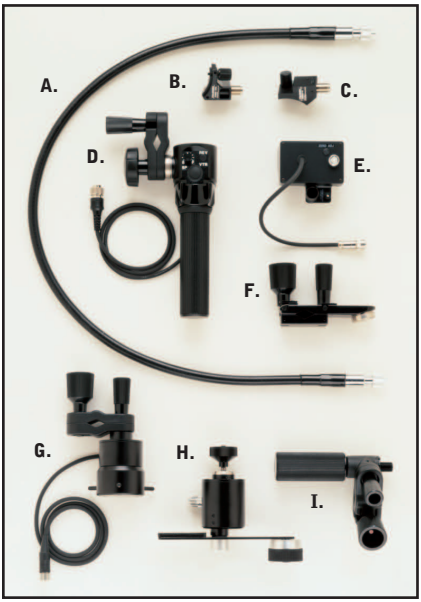
MM-01 Manual Focus/Manual Zoom
Not available on S16x7.3



SS-01 Servo Focus/Servo Zoom
Not available on S16x7.3



*Specify camera type.



A. CFC-990
Flex Cable

B. FMM-6B/FMM-8*
Focus Manual
Module

C. ZMM-6
Zoom Manual
Module

D. SRD-92B
Zoom
Demand

E. FSM-30B
Focus Servo
Module

F. MCA-7
Mounting Clamp

G. FSD-11
Focus Demand

H. CZH-14
Zoom Handle

I. CFH-3
Focus Handle

*FMM-8 for use with S16x7.3

LENS CONVERTERS

Wide Converter (WCV-X85)
XT17sx4.5
XT20sx4.7
XA16sx8
XA20sx8.5

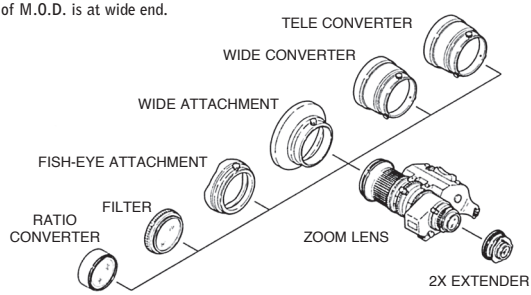
Wide Converter (WCV)

Tele Converter (TCV)

HD/ENG LENS CONVERTERS

Model	Type	ø Size	Converter*	Mag.	Converted Focal Length (mm)	M.O.D. (m)	Weight (kg)
HS16x4.6	TELE	95 mm	TCV-H95	1.5x	74.0→111.0	0.90	1.00
	WIDE	95 mm	WCV-H95	0.8x	4.6→3.9	0.29	1.00
HS18x5.5/ HSs18x5.5	TELE	85 mm	TCV-H85	1.5x	100.0→150.0	1.35	1.10
	WIDE	85 mm	WCV-H85	0.8x	5.5→4.4	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	5.5→3.9	0.29	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	5.5→3.1	0.19	0.36
HA16x6.3	TELE	95 mm	TCV-H955	1.5x	101.0→152.0	0.90	1.00
	WIDE	95 mm	WCV-H95	0.8x	6.3→5.4	0.29	1.00
HA18x7.6E/ HAs18x7.6	TELE	85 mm	TCV-H85	1.5x	137.0→205.5	1.35	1.10
	WIDE	85 mm	WCV-H85	0.8x	7.6→6.1	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	7.6→5.3	–	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	–	–	0.36
HA22x7.3E	TELE	110 mm	TCV-H110	1.5x	161.0→242.0	1.90	1.10
HA23x7.6E	TELE	100 mm	TCV-H100	1.5x	175.0→262.5	1.80	1.00
	WIDE	100 mm	WCV-H100	0.8x	7.6→6.1	0.51	1.05
	WIDE	100 mm	WAT-H100	0.7x	7.6→5.3	0.39	0.53
	FISHEYE	100 mm	F-ATH100	0.57x	7.6→4.3	0.26	0.63
XT17sx4.5	WIDE	85 mm	WCV-X85 **NEW**	0.8x	4.5→3.6	0.61	0.75
XT20sx4.7	WIDE	85 mm	WCV-X85 **NEW**	0.8x	4.7→3.76	0.58	0.75
XA16sx8	WIDE	85 mm	WCV-X85 **NEW**	0.8x	8→6.4	0.51	0.75
XA20sx8.5	WIDE	85 mm	WCV-X85 **NEW**	0.8x	8.5→6.8	0.58	0.75
XS17x5.5/ ZS17x5.5	TELE	85 mm	TCV-H85	1.5x	94.0→141.0	1.35	1.10
	WIDE	85 mm	WCV-H85	0.8x	5.5→4.4	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	5.5→3.8	0.29	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	5.5→3.1	0.19	0.36
ZA17x7.6	TELE	85 mm	TCV-H85	1.5x	130.0→195.0	1.35	1.10
	WIDE	85 mm	WCV-H85	0.8x	7.6→6.1	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	7.6→5.3	0.29	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	7.6→4.3	0.19	0.36
ZA22x7.6	TELE	100 mm	TCV-H100	1.5x	167.0→250.5	1.80	1.00
	WIDE	100 mm	WCV-H100	0.8x	7.6→6.1	0.51	1.05
	WIDE	100 mm	WAT-H100	0.7x	7.6→5.3	0.39	0.53
	FISHEYE	100 mm	F-ATH100	0.57x	7.6→4.3	0.26	0.63

*TCV/WCV are zoom thru type **ø 95mm P-1 screw on type
Wide attachment and fisheye attachment can be used at WIDE END.
Number of M.O.D. is at wide end.



ACCESSORIES: SD ENG/EFP

Wide Attachment (WAT)

Fish-Eye Attachment (F–AT)

PROFESSIONAL LENS CONVERTERS

Model	Type	ø Size	Converter	Mag.	Converted Focal Length (mm)	M.O.D. (m)	Weight (kg)
A13x6.3	TELE	85 mm	TCV-85C	1.6x	82.0→131.2	1.02	1.15
RM/ERM	WIDE	85 mm	WCV-85C	0.8x	6.3→5.0	0.26	1.09
	WIDE	85 mm	WAT-85C	0.7x	6.3→ 4.4	–	0.55
A20x8.6	TELE	85 mm	TCV-85C	1.6x	172.0→275.2	2.30	1.15
RM/ERM	WIDE	85 mm	WCV-85C/-L85	0.8x	8.6 →6.9	0.58	1.09/.57
	WIDE	85 mm	WAT-85C	0.7x	8.6 →6.0	–	0.55
	FISHEYE	85 mm	F-AT85C	Approx. 0.55x	—	–	0.62
	RATI0	82 mm	RCV-82SC	0.82x	8.6 →7.1	0.61	0.25
S13x4.6	TELE	85 mm	TCV-85C	1.6x	60.0→96.0	1.02	1.03
RM/ERM	WIDE	85 mm	WCV-85C	0.8x	4.6→3.7	0.26	1.09
	WIDE	85 mm	WAT-85C	0.7x	4.6→ 3.2	–	0.55
S17x6.6	TELE	85 mm	TCV-85C	1.6x	114→182.4	2.30	1.15
RM	WIDE	85 mm	WCV-85C	0.8x	6.6→5.3	0.58	1.09
	WIDE	85 mm	WAT-85C	0.7x	6.6→4.6	–	0.55
	FISHEYE	85 mm	F-AT85C	Approx. 0.55x	—	–	0.62
S20x6.4	TELE	85 mm	TCV-85C	1.6x	128.0→204.8	2.30	1.15
RM/ERM	WIDE	85 mm	WCV-85C/-L85	0.8x	6.4→5.1	0.58	1.09/.57
	WIDE	85 mm	WAT-85C	0.7x	6.4→4.5	–	0.55
	FISHEYE	85 mm	F-AT85C	Approx. 0.55x	—	–	0.62

*TCV/WCV are zoom thru type **ø 95mm P-1 screw on type
Wide attachment and fisheye attachment can be used at WIDE END.
Number of M.O.D. is at wide end.

MOUNT ADAPTERS

ACM-21

Original Format	Camera Format	Focal Length Shift
2/3″	1/2″	1.38x
2/3″	1/3″	1.83x
1/2″	1/3″	1.33x

Model	Description
ACM-7B	2/3″ lens to adapt to standard 1/2″ camera mount
ACM-8	2/3″ lens to adapt to Sony 1/2″ hot shoe camera mount - power cable from lens connects to camera
ACM-8B	2/3″ lens to adapt to Sony 1/2″ hot shoe camera mount - power cable from lens connects to ACM
ACM-12	1/2″ standard mount lens to adapt to 1/3″ standard mount camera ie: JVC HD100/200, Sony HVR-Z7/S270
ACM-17	2/3″ lens to adapt to 1/3″ standard mount camera ie: JVC, Panasonic and Sony
ACM-19	1/2″ Sony hot shoe mount lens to adapt to 1/3″ Sony Mount Ie: Sony HVR-Z7/S270
ACM-21	2/3″ lens to adapt to 1/2″ Sony Sp mount camera Ie: Sony PMW-EX3

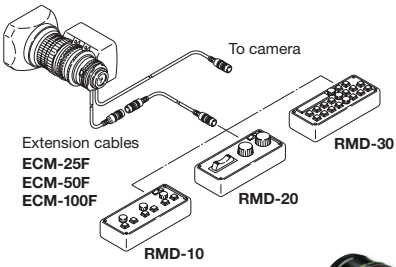
LENS CONTROLLERS

Fujinon's lens controllers all feature control of zoom, focus, and iris. The RMD-10 provides basic control of all functions, while the RMD-20 features a rocker-type zoom control. The RMD-30 provides for up to eight preset zoom and focus positions. Accessory cables up to 100 F are available.

RMD-10

RMD-20

RMD-30

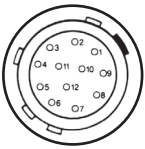


WIDE/TELE ADAPTERS

Fujinon's wide and tele converters attach easily to the front barrel of the lens to achieve greater wide or tele focal ranges. The 1.6X teleconverter increases the overall range 1.6 times, while the 0.8X wide converter reduces the standard focal length by a factor of 0.8X. Rear-mounted 2X range extenders are available with and without back focus adjustment.

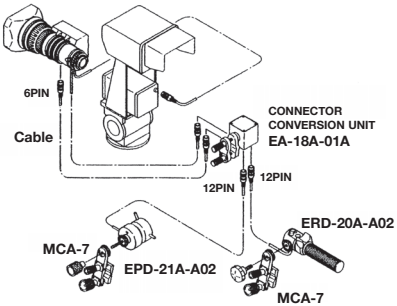
ELECTRICAL INTERFACE OF 12-PIN CONNECTOR FOR REMOTE CONTROL BOX

1. Focus Mode Select Signal
2. Zoom Mode Select Signal
3. 0V (Ground)
4. Iris Local/Camera Select Signal
5. Iris Control Signal
6. +12 V Out
7. Signal Com. (Reference) +5v
8. Focus Control Signal
9. Zoom Control Signal
10. Iris Mode Select Signal
11. +V Out (7.5v)
12. -V Out (2.5v)



SS-33A OPTIONAL ACCESSORY CONFIGURATION

Uses Standard ENG Accessories (For model HAs18x7.6B MD only)



Fujinon's anti-vibration system optically compensates for image vibration resulting in stable images even at extreme focal lengths. Three types of OS-TECH systems are available: two external anti-vibration adapters, TS for box-type lenses and TS-P for barrel-type lenses, and an internal unit for box-type lenses.

TS-18A

Image After-Shaking Reduced to a Minimum

The after-shaking phenomenon of images moving after the pan/tilt operation is stopped is characteristic of an anti-vibration device. Fujinon's exclusive algorithm system has reduced the phenomenon to a minimum for a natural-feeling operation.

The XA101X with internal OS-TECH.

Type TS and TS-P Adapt to Existing Lenses

OS-TECH adapters can be quickly attached between most Fujinon lenses and the camera to provide the anti-vibration function. A single adapter provides stabilization for any adaptable lens. In addition to stabilization, the adapter increases the lens magnification by 1.25 times making extreme close-up shots possible with shorter focal length lenses.

TS-P58A

Amount of Compensation

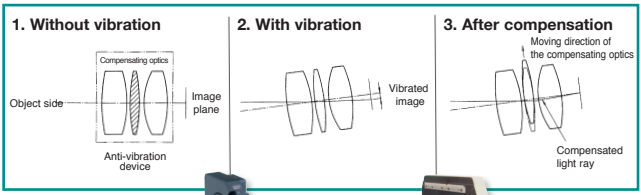
At Telephoto End with 2X Extender

Approx. 20% of Image Height
Vertical and Horizontal or Vertical Only

EA-12A-05BA Stabilizer Control with viewfinder indication

The EA-12A-05BA stabilizer controller provides for H or V and H+V plus on/off in a compact controller. This new control includes an LED to indicate on/off in the view finder.

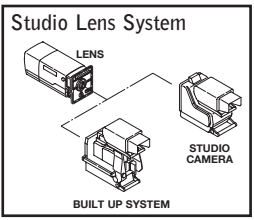
The Principal of Anti-vibration Device "Optical Stabilized Technology"

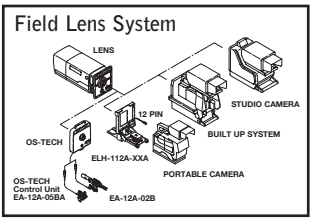


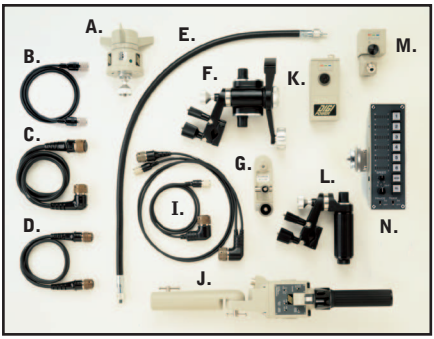
OS-TECH

Model	TS-P58A	TS-XXA*
Stabilization System	Optical Shift	Optical Shift
Magnification of Focal Length	1.25	1.25
Mount	Bayonet Mount (2/3 in. B-type)	Bracket
Direction of Compensation	Vertical/Horizontal or Vertical Only	Vertical/Horizontal or Vertical Only
Frequency of Compensation	Approx. 1 to 10 Hz	Approx. 1 to 10 Hz
Anti-vibration Range	Approx. 20% of Vertical at Screen	Approx. 20% of Vertical at Screen
Power Consumption	DC12V, 4.2W (from camera)	DC12V, 6W (with battery or from camera)
Dimensions (L x W x H)	58 x 120 x 150 mm	277 x 260 x 47.5 mm
Mass	0.84kg	3.2kg
Adaptable Lenses	ZA12x4.5B, ZA17x7.6B, ZA22x7.6B, HA13x4.5B, HA16x6.3B, HS16x4.6B, HAs18x7.6B, HSs18x5.5B, HA18x7.6B, HA23x7.6B, HA22x7.8B, HA22x7.3B, HA25x16.5B, HA25x11.5B, HA36x10.5B, HA42x9.7B, HA42x13.5B, A13x4.5B, A18x7.6B, A23x7.6B, A22x7.8B, A36x10.5B, A36x14.5B, A42x9.7B, A42x13.5B	XA101x, XA88x, XA87x, XA72x, XA66x, Ah80x, Ah70x, Ah66x, Ah60x, Ah55x

*For external type only. Specify camera model when ordering.







A. EPD-4A-E02
Focus Demand

B. ESZ-12
Zoom Demand Cable

C. ESL-1C
Shot Box Cable

D. ESF-1C
Focus Shot Box Cable

E. BFC-36
Flex Cable

F. BZH-2A
Zoom Handle

G. MCA-6B
Mounting Clamp

H. EFZ-11E
Focus/Zoom Cable

I. ELZ-11D
Zoom Demand Cable

J. ERD-5A-D01
Zoom Rate Demand

K. ESM-D51B/D52B
Servo Module

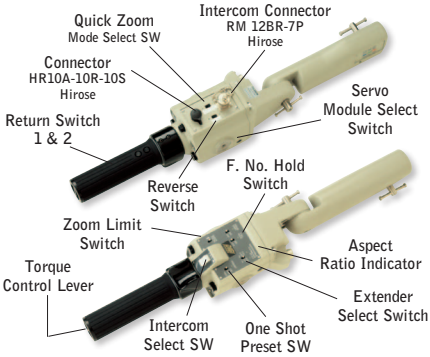
L. BFH-1A
Focus Grip

M. EMM-51B
Manual Module

N. ESB-6A-E12
Shot Box

EPA-22
Not shown - see below

DIGI ZOOM DEMAND



SERVOS

Digital servos provide precise control of zoom and focus for the most demanding productions.

THREE-MODE FINE FOCUS

By shifting the sensitivity from the wide side to the telephoto side of the focus range, this control provides more precise focusing for studio or sports productions.

ELH*

Fujinon's convenient ELH bracket allows studio/field lenses to be used with hand-held type cameras.

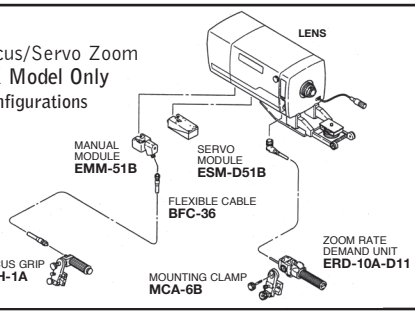
*Additional power may be required for servos.

EPA-22

A unique servo focus demand with the look and feel of a manual control.

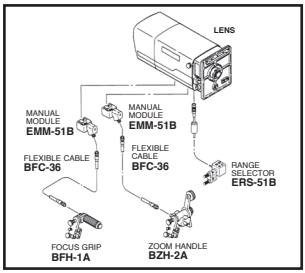
DIGITAL LENS CONFIGURATION

MS-21A
Manual Focus/Servo Zoom
For XA50X Model Only
(for other configurations see below)

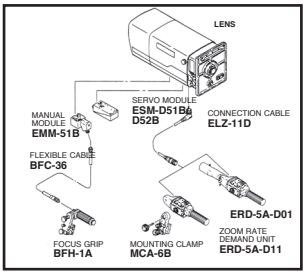


DIGITAL LENS CONFIGURATION

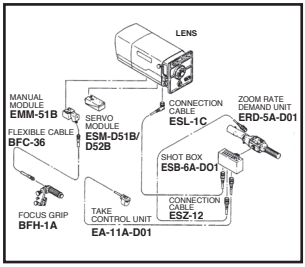
MM-21
Manual Focus/Manual Zoom



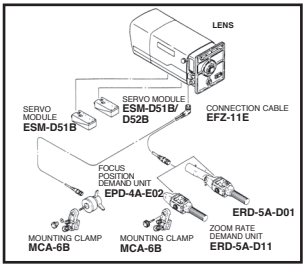
MS-21D
Manual Focus/Servo Zoom



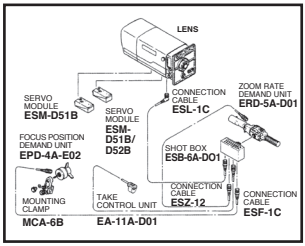
MS-22D (w/Shot Box)
Manual Focus/Servo Zoom



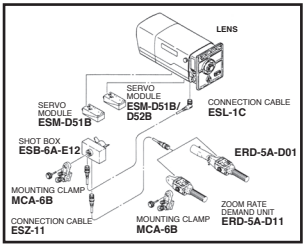
SS-21D
Servo Zoom/Servo Focus



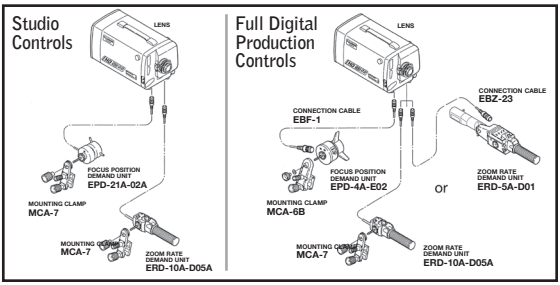
SS-22D (w/Shot Box)
Servo Focus/Servo Zoom



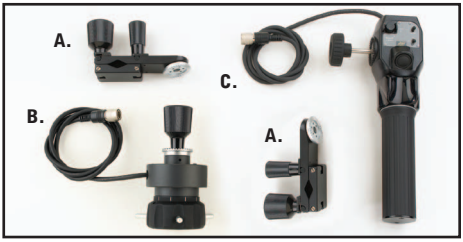
SS-23D
(Shot Box w/Focus Demand)



XA22x7BES ACCESSORY OPTIONS

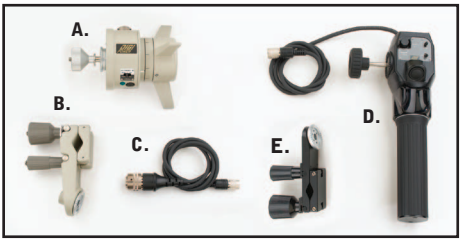


DIGI ZOOM/ANALOG FOCUS
Studio Controls

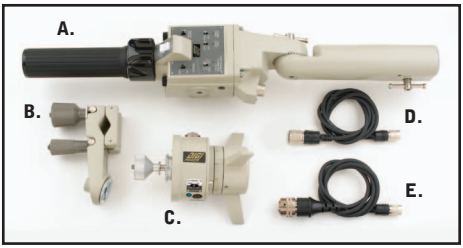


A. MCA-7 Mounting Clamp
B. EPD-21A-02A Focus Demand
C. ERD-10A-D05A Zoom Demand

DIGI ZOOM/DIGI FOCUS
Full Digital Production Controls



A. EPD-4A-E02 Digi Focus Demand
B. MCA-6B Mounting Clamp
C. EBF-1 Focus Cable
D. ERD-10A-D05A Digi Zoom Demand
E. MCA-7 Mounting Clamp



A. ERD-5A-D01 Digi Zoom Demand
B. MCA-6B Mounting Clamp
C. EPD-4A-E02 Digi Focus Demand
D. EBZ-23 Zoom Cable
E. EBF-1 Focus Cable

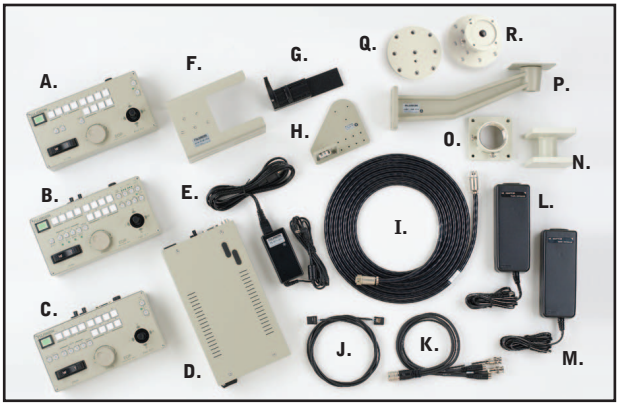
PAN & TILT HEAD SPECIFICATIONS

MODEL	CPT-70F-02A	CPT-70D-02A**	EPT-7G-H2A
Pan Range	300°	270°	300°
Pan Speed	25° / Sec.	9° / Sec.	25° / Sec.
Tilt Speed	20° / Sec.	9° / Sec.	20° / Sec.
Tilt Range	+/- 95°	+/- 95°	+/- 95°
Stopping Accuracy	+/- 5′	+/- 15′	+/- 10′
Lens Type	MD	MD	MD
Acoustic Noise	NC40db	NC40db	NC40db
Load Capacity	4 kg / 8.8 lbs.	10 kg / 22 lbs.	4 kg / 8.8 lbs.
Power Consumption	DC 15V / 10W (max)	DC 15V / 10W (max)	DC 15V/30W (max)
Operating Temperature	-10° C ~ +50° C	-10° C ~ +50° C	0° C ~ +45° C
Power Source (ESC-103K-04A)	15V DC	15V DC	15V DC
Drive System	DC Servo	DC Servo	DC Servo
Weight	2.3 kg / 5.06 lbs.	7 kg / 15.4 lbs.	2.3 kg / 5.06 lbs.
Dimensions WxDxH (mm)	130 x 102 x 222	233 x 277 x 226	130 x 102 x 222
Max. Cable Length*	1350 m / 4430 ft.	1350 m / 4430 ft.	1350 m / 4430 ft.

* Max. cable length varies depending on multi-head controller options (see S2BA1/S2-CA1 on pg. 40)
** EOP-102J-60B not available on CPT-70D-02A

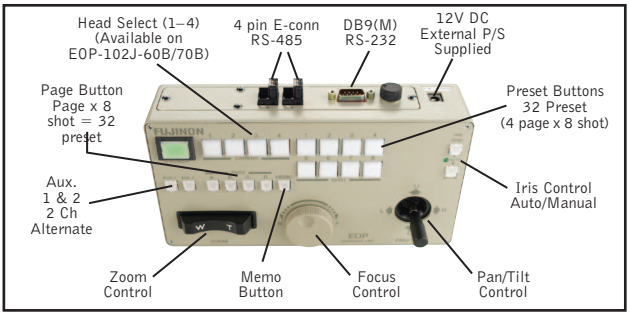
PAN & TILT CONTROLLERS

	EOP-102J-30E	EOP-102J-60B	EOP-102J-70B
Operation	RS-485 via twisted pair cable – E-connector/RS-232 via DB-9 connector		
Pan / Tilt	Variable-speed joystick		
Zoom	Variable-speed rocker switch		
Focus	Variable-speed potentiometer		
Iris	Close, open, auto, remote		
Shot Memory	32	32 per head	32 per head
Back-up	Reservable for more than 5 years (Lithium battery)		
Qty of Head Control	1	4	4
Auxiliary Input	2 auxiliary relay contacts for controlling accessory equipment at the pan and tilt head		
Power Source	120 VAC via 12 VDC adapter (included)		
Power Consumption	5 W		
Camera Control		Camera On/Off Shutter Speed Gain Adjust, Color Bar Auto White, Auto Black	
Weight	Approximately 0.8 kg		



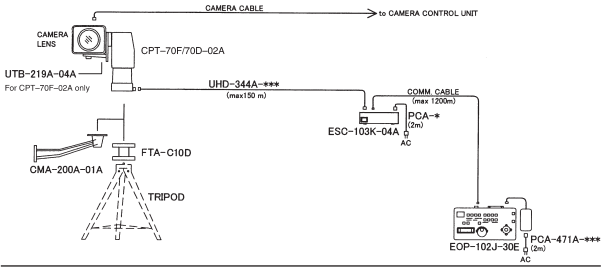
A. EOP-102J-30E
B. EOP-102J-60B
C. EOP-102J-70B
D. ESC-103K-04A
E. PS-470A-01A
F. UTB-219A-03A
G. CLH-8B
H. UTB-219A-02A/04A
I. UHD-344A-XXX
J. Communication Cable Between EOP & ESC
K. UHC-335J-XXX
L. MX-462E-01A
M. MX-462E-02A
N. FTA-C10D
O. FPA-C10D
P. CMA-200A-01A (for CPT-70F-02A only)
Q. FHTA-10 Tripod Adapter
R. FH-10–High Hat Mount

EOP-102J-70B

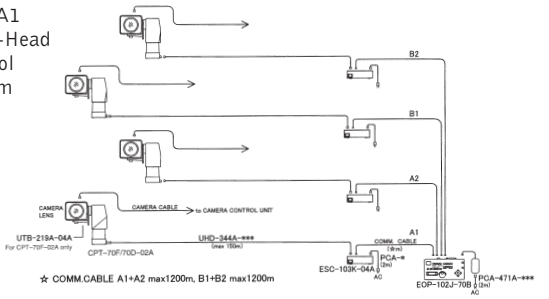


CPT-70F/70D CONFIGURATIONS

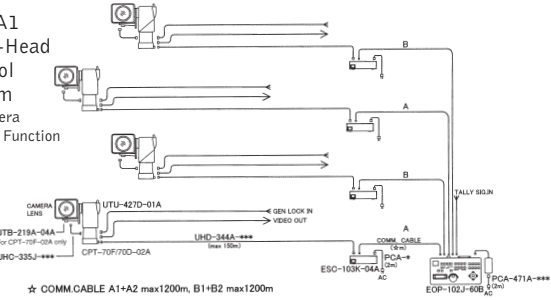
S1-BA1
Single-Head Control System



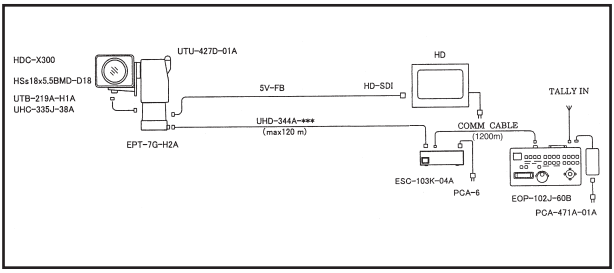
S2-BA1
Multi-Head
Control
System



S2-CA1
Multi-Head
Control
System
w/ Camera
Control Function

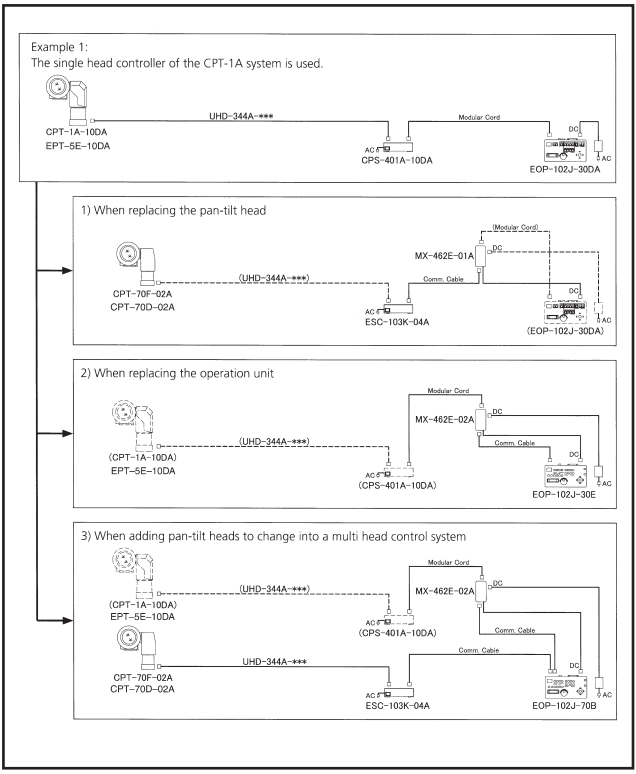


EPT-7G-H2A CONFIGURATIONS



COMPATIBILITY WITH EXISTING SYSTEMS

Compatibility with existing CPT-1A and EPT-5E systems is possible by the utilization of certain adaptors. The diagrams below depict some common configuration scenarios.



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