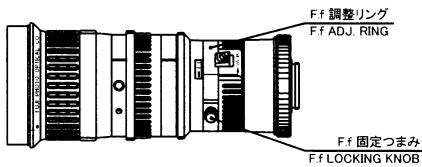




## ⑧ FLANGE FOCAL ADJUSTING



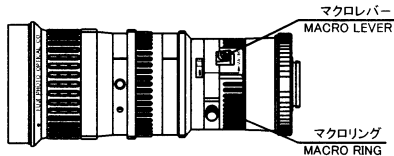
### ■ CONDITIONS OF OBJECT AND DIAPHRAGM

1. Object : an object large enough to provide clear and easy focusing
2. Distance of Object : about 3 meters
3. Diaphragm : open or as near to open as possible

### ■ ADJUSTMENT

- 1) Loosen the F.f. locking knob.
- 2) With the zoom at the wide end, rotate the F.f. adjusting ring using the F.f. locking knob to bring the object into focus.
- 3) With the zoom at the tele end, operate the focus to bring the object into focus.
- 4) To precisely adjust, repeat the above steps 2) and 3) two or three times.
- 5) Finally tighten the F.f. locking knob firmly.

## ⑨ MACRO OPERATION



### ■ OPERATION

Carry out the following steps for macro operation(close shot).

- 1) Rotate the macro ring toward the arrow as far as it goes while pulling the macro lever toward the mount.
- 2) Set the focus at the M.O.D.
- 3) Focus the lens by controlling the zoom.

Note: It is also possible to shoot an object while the macro ring is in the middle position.

In this case, the M.O.D. and the object area at M.O.D. should be the middle values of those between normal and macro shot.

### ■ PROCEDURE TO CANCEL

Rotate the macro ring in the opposite direction of the arrow until it clicks.

## ⑩ OPTICAL & MECHANICAL SPECIFICATIONS

1. APPLICATION	FOR 1/3" FORMAT 3CCD COLOR CAMERA	
2. FOCAL LENGTH	5.5 mm - 88 mm	
3. ZOOM RATIO	16x	
4. MAXIMUM RELATIVE APERTURE	1:1.4	
5. IRIS RANGE	F1.4 - F16	
6. IMAGE SIZE	φ6 mm (4.8 mm × 3.6 mm)	
7. BACK FOCAL LENGTH	14.79 mm (IN AIR)	
8. FLANGE FOCAL LENGTH	17.526 mm (IN AIR)	
9. FOCUS RANGE	∞ - 1 m (FROM FRONT OF LENS)	
10. SHIFT OF FRONT LENS	4.7 mm	
11. FIELD ANGLE		
	a) HORIZONTAL	WIDE 47° 09' TELE 3° 34'
	b) VERTICAL	WIDE 36° 15' TELE 2° 41'
	c) DIAGONAL	WIDE 57° 13' TELE 4° 28'
12. FIELD OF VIEW AT M.O.D.		
	a) HORIZONTAL	WIDE 819 mm TELE 59 mm
	b) VERTICAL	WIDE 614 mm TELE 44 mm
13. CLEAR APERTURE		
	a) FRONT	φ55.5 mm
	b) REAR	φ21.0 mm
14. EXIT PUPIL POSITION	251 mm (FROM IMAGE PLANE)	
15. MOUNT	C-MOUNT	
16. FILTER SCREW SIZE	M62 × 0.75 mm	
17. MASS	APPROX. 0.9 kg	

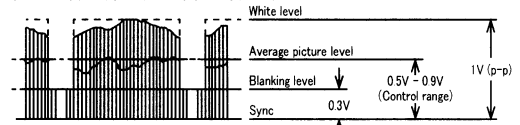
## ⑪ ELECTRICAL SPECIFICATIONS

1. POWER CONSUMPTION		
a) RATING VOLTAGE	+12V DC (+10.5V TO +16V)	
b) CURRENT CONSUMPTION	250mA (MAX.)	
2. IRIS CHARACTERISTICS		
a) CONTROL	AUTO OR SERVO (EXTERNAL CONTROL)	
b) AUTO	←	
INPUT SIGNAL	COMPOSITE VIDEO SIGNAL (1V <sub>(p-p)</sub> ) OR VIDEO SIGNAL (0.7V <sub>(p-p)</sub> )	
INPUT IMPEDANCE	10 kΩ (TYP.)	
LEVEL CONTROL RANGE	SEE FIG. A	
ACCURACY	±3.5% (AT 0.5V A.P.L. ※)	
c) EXTERNAL CONTROL		
CONTROL SIGNAL	VREF (5.0V) ± 2.5V DC	
d) OPERATING TIME	APPROX. 3s/FULL TRAVEL	
3. ZOOM CHARACTERISTICS		
a) CONTROL	SERVO (EXTERNAL CONTROL)	
b) CONTROL SIGNAL	VREF (5.0V) ± 2.5V DC	
c) OPERATING TIME	APPROX. 3s/FULL TRAVEL	
4. FOCUS CHARACTERISTICS		
a) CONTROL	SERVO (EXTERNAL CONTROL)	
b) CONTROL SIGNAL	VREF (5.0V) ± 2.5V DC	
c) OPERATING TIME	APPROX. 3s/FULL TRAVEL	

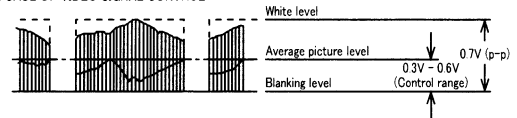
※ A.P.L.: AVERAGE PICTURE LEVEL

### FIG. A

#### 1. IN A CASE OF COMPOSITE VIDEO SIGNAL CONTROL



#### 2. IN A CASE OF VIDEO SIGNAL CONTROL



## ⑫ ENVIRONMENTAL CONDITIONS

1. TEMPERATURE	OPERATING	-10 °C TO +50 °C
	STORAGE	-20 °C TO +60 °C
2. RELATIVE HUMIDITY		35 % TO 90 %

## ⑬ MAINTENANCE OF THE LENS

Special coating has been applied on the lens surface in order to prevent light reflection. Dirty lens surface due to "dust", "oil" or "finger print" causes harmful flare which results in degenerating lens property.

Besides, the dirt on the lens may gather molds or scorch on the lens.

Whenever the lens is found to be dirty, clean the lens as instructed below.

Note: Be careful not to damage the lens surface in cleaning.

#### (1) To remove dust on the lens

Brush "trash" or "dust" off with an oil-free soft brush or a blower-brush (for photography use).

#### (2) To remove oil on the lens

Wipe water drops or oil off the lens with a clean soft cloth and dry the lens surface. Then prepare oil-free and washed-out cotton cloth or lens cleaning paper with either alcohol, benzene or lens cleaning liquid. Wipe the rest of the dirt off gently with the cloth or paper by moving spirally from the lens center towards its rim. Repeat wiping with another wet cloth or paper until the lens becomes completely clean.

## ⑭ PRODUCT COMPONENTS

1. Lens	1
2. Front lens cap	1
3. Rear lens cap	1
4. Operation manual	1



**FUJI PHOTO OPTICAL CO., LTD.**  
1-324 UETAKE, SAITAMA CITY, SAITAMA  
330-8624, JAPAN  
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URL <http://www.fujinon.co.jp/>

\* Design and specifications are subject to change without notice.

H1406007 Printed in Japan

**FUJINON INC.**  
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E-mail : [lens.sales@fujinon.com](mailto:lens.sales@fujinon.com)  
URL <http://www.fujinon.com/>

**F.P. FOCUSING PTY. LTD.**  
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E-mail : [fujinon@fujinon.com.sg](mailto:fujinon@fujinon.com.sg)



A  
202B9582880  
LH416A-R11 1407

**OPTICAL & MECHANICAL SPECIFICATIONS**

1. Application	For 1/3" Format 3CCD Color Camera	
2. Focal Length	5.5 mm - 88 mm	
3. Zoom Ratio	16x	
4. Maximum Relative Aperture	1 : 1.4	
5. Iris Range	F14 - T400 (Equivalent to F400)	
6. Image Size	ø6 mm (4.8 mm X 3.6 mm)	
7. Back Focal Length	14.79 mm (in air)	
8. Flange Focal Length	17.526 mm (in air)	
9. Focus Range	∞ - 1 m	
10. Shift of Front Lens	4.7 mm	
11. Field Angle	a) Horizontal	Wide 47°09' Tele 3°34'
	b) Vertical	Wide 36°15' Tele 2°41'
	c) Diagonal	Wide 57°13' Tele 4°28'
12. Field of View at M.O.D	a) Horizontal	Wide 819 mm Tele 59 mm
	b) Vertical	Wide 614 mm Tele 44 mm
13. Lens Construction	Groups 13, Elements 19	
14. Clear Aperture	a) Front	ø55.5 mm
	b) Rear	ø21.0 mm
15. Exit Pupil Position	251 mm (from Image Plane)	
16. Mount	C-Mount	
17. Filter Screw Size	M62X0.75 mm	
18. Mass	Approx. 0.9 kg	

**ENVIRONMENTAL CONDITIONS**

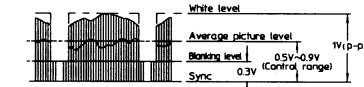
1. Temperature	a) Operating	-10°C to +50°C
	b) Storage	-20°C to +60°C
2. Relative Humidity	35% to 90%	

**ELECTRICAL SPECIFICATIONS**

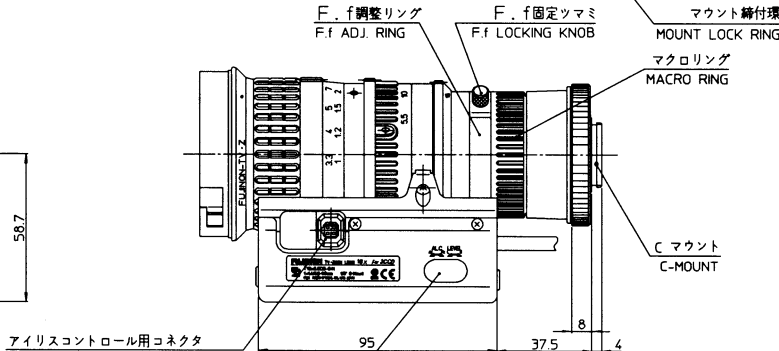
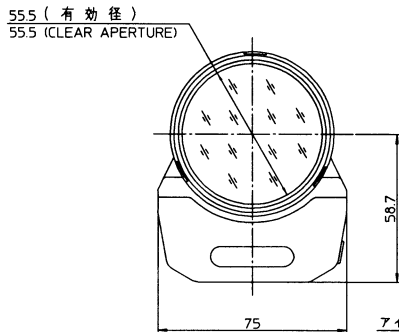
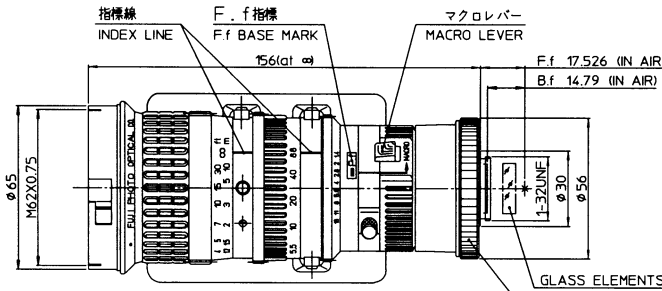
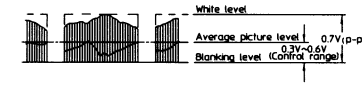
1. Iris Characteristics	a) Control	Auto	
	b) Rated Voltage	+12V DC (+9V to +16V)	
	c) Input Signal	Composite Video Signal (1V <sub>p-p</sub> ) or Video Signal (0.7V <sub>p-p</sub> )	
	d) Input Impedance	10k $\Omega$ (Typ.)	
	e) Level Control Range	See Fig. A	
	f) Accuracy	±3.5% (at 0.5V A.P.L.) (※)	
	g) Current Consumption	Operating Current 35 mA (Max.) Idling Current 10 mA (Typ.)	
	h) Response Time	Approx. 3 s / Full Travel	
	2. Zoom Characteristics	a) Control	Motor Drive
		b) Rated Voltage	6V / 12V / ±6V / ±12V DC (Switchable)
		c) Current Consumption	Operating Current 35 mA (Typ.) 90 mA (Max.)
d) Operating Time	Approx. 5 s / Full Travel		
3. Focus Characteristics	a) Control	Motor Drive	
	b) Rated Voltage	6V / 12V / ±6V / ±12V DC (Switchable)	
	c) Current Consumption	Operating Current 35 mA (Typ.) 90 mA (Max.)	
	d) Operating Time	Approx. 7 s / Full Travel	

Fig.A (Level Control Range)

1. In a Case of Composite Video Signal Control



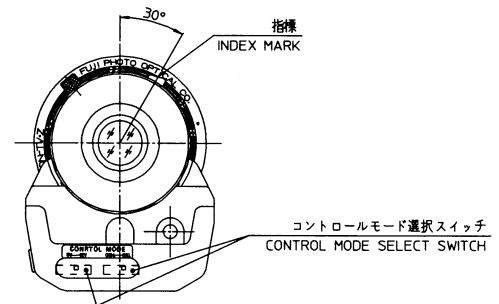
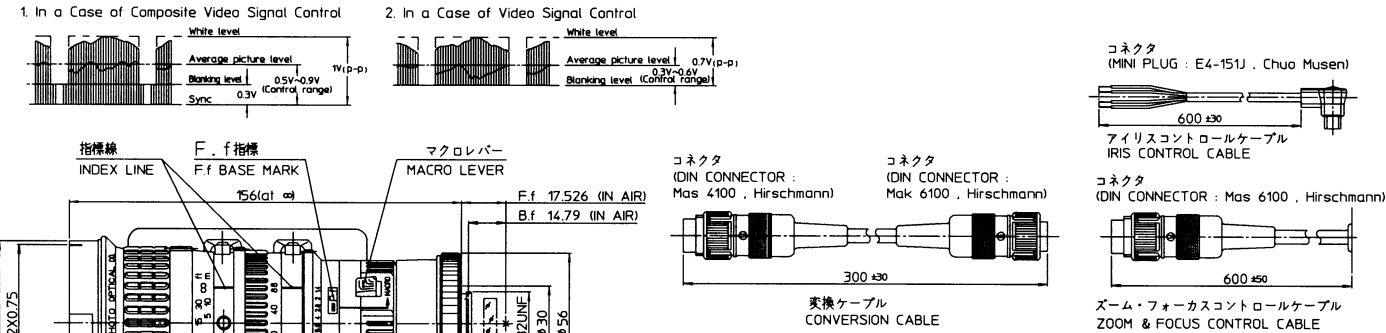
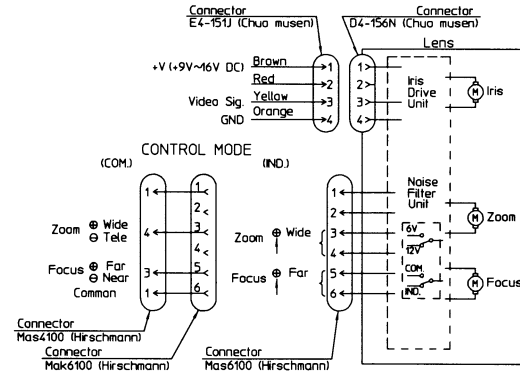
2. In a Case of Video Signal Control



アイリスコントロール用コネクタ  
CONNECTOR FOR IRIS CONTROL  
(CONNECTOR : D4-156N , Chuo Musen)

ゴムキャップ (ALC & LEVEL 調整)  
RUBBER CAP (ALC & VIDEO LEVEL CONTROL)

**WIRING DIAGRAM**



レンズ本体 : 外観図  
Outline drawing  
T16x5.5DB-S41