# FCB-IX11A/FCB-IX11AP FCB-IX47A/FCB-IX47AP FCB-IX47C/FCB-IX47CP



Optical x10 zoom: FCB-IX11A/IX11AP
Optical x18 zoom: FCB-IX47A/IX47AP/IX47C/IX47CP

## Connection Diagram PIZE

### **Outline**

The FCB-IX11A/IX11AP color cameras incorporate a 1/4-type Exview HAD CCD™ and feature a 40x zoom ratio (10x optical, 4x digital) into their ultra-compact and light weight body, making them ideal for space restricted applications.

The FCB-IX47A/IX47AP/IX47C/IX47CP color cameras incorporate a 1/4-type Super HAD CCD™ and feature a 72x zoom ratio (18x optical,4x digital) and a minimum illumination of 1.0 lx - expanding their vast application appeal. Sony's FCB-IX color block camera series incorporate high-performance Digital Signal Processing (DSP) and firmware that greatly enhance their operation and picture quality compared to conventional block cameras. Offering high picture quality and a variety of functions, the FCB-IX Series is ideal for your demanding applications.

## Features

- Key Switch Control Compatibility
- Spot AE
- Field Memory/Freeze Mode
- High-speed Serial Interface (maximum 38.4 Kb/s) with TTL Signal-Level Control (VISCA protocol)
- Electronic Shutter/Slow Shutter
- On-screen Display (date/time/title)

### <FCB-IX11A/IX11AP>

- 1/4-type Exview HAD CCD™
- Compact and Lightweight
- 40x Zoom Ratio (10x optical, 4x digital)
- Minimum Illumination of 1.5 lx (typical)

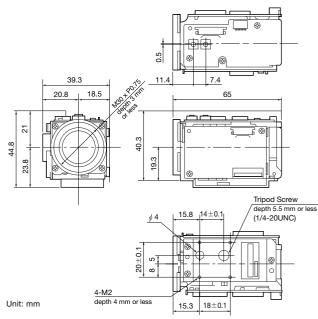
### <FCB-IX47A/IX47AP/IX47C/IX47CP>

- 1/4-type Super HAD CCD™
- 72x Zoom Ratio (18x optical, 4x digital)
- Minimum Illumination of 1.0 lx (typical)
- Privacy Zone Masking (FCB-IX47C/IX47CP)
- E-Flip Function (FCB-IX47C/IX47CP)

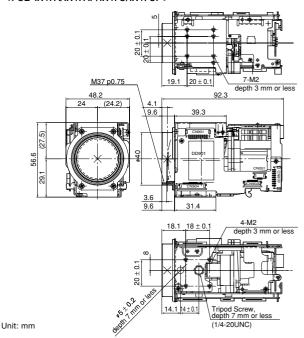


### **Dimensions**

#### <FCB-IX11A/IX11AP>



#### <FCB-IX47A/IX47AP/IX47C/IX47CP>



<sup>\*</sup> For RS-232C control

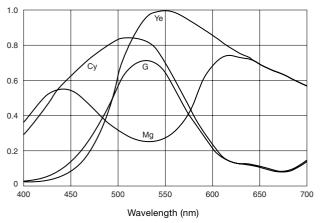
<sup>\*</sup> Exview HAD CCD, Super HAD CCD and VISCA are trademarks of Sony Corporation.

## **Spectral Sensitivity Characteristics**

## ●FCB-IX11A/IX11AP, FCB-IX47A/IX47AP/IX47C/IX47CP

## (Typical Values)





## **Specifications**

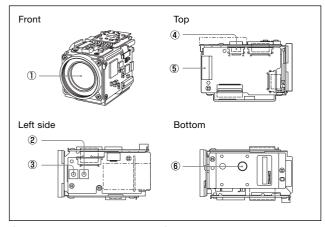
	FCB-IX11A	FCB-IX11AP	FCB-IX47A	FCB-IX47AP	FCB-IX47C	FCB-IX47CP
Image device	1/4 type Exview HAD CCD		1/4 type Super HAD CCD			
Sgnal output	NTSC	PAL	NTSC PAL NTSC PAL		PAL	
Video output			VBS: 1.0 Vp-p (sync neg	gative), Y/C Output		
Effective picture elements	Approx. 380,000 pixels	Approx. 440,000 pixels	Approx. 380,000 pixels	Approx. 440,000 pixels	Approx. 380,000 pixels	Approx. 440,000 pixels
Lens	10x zoom, f=4.2 mm	(wide) to 42 mm (tele)		18x zoom, f=4.1 mm (v	vide) to 73.8 mm (tele)	
	F1.8 t	o F2.9		F1.4 to	F3.0	
Digital zoom	4x (40x with	optical zoom)		4x (72x with	optical zoom)	
Viewing angle (H)	46° (wide end)	to 5.0° (tele end)		48° (wide end)	to 2.7° (tele end)	
Minimum working distance	10 mm (wide end),	1000 mm (tele end)		10 mm (wide end)	, 800 mm (tele end)	
Sync system		Internal				
Minimum illumination	1.5 lx (with norm	1.5 lx (with normal shutter speed)  1.0 lx (with normal shutter speed)				
S/N ratio		More than 50 dB				
Electronic shutter		1/1 to 1/10,000 s, 22 steps				
White balance		Auto/ATW/Indoor/Outdoor/One-Push/Manual				
Gain		Auto/Manual (-3 to 28 dB, 2 dB steps)				
Camera control interface	V	VISCA (TTL/RS-232C signal level), baud rate: 9.6 Kb/s, 19.2 Kb/s, 38.4 Kb/s, Stop bit: 1/2 selectable			ole	
Storage temp./humidity		20 to 60 °C / 120% to 95%				
Operating temp./humidity	0 to 50 °C / 120% to 80%					
Power consumption	6 to 12 V DC/1.6 W (motors inactive) 6 to 12 V DC/1.5 W (motors inactive)			·		
	2.1 W (mo	tors active) 2.0 W (motors active)				
Mass	95 g 170 g					
Dimensions (W x H x D)	39.3 x 44.8 x 65 mm 48.2 x 56.6 x 92.3 mm					

## **Functions**

	FCB-IX11A	FCB-IX11AP	FCB-IX47A	FCB-IX47AP	FCB-IX47C	FCB-IX47CP
Privacy zone masking		>	<	•	(	Ċ
Auto ICR Mode			>	<		
E-Flip Function		>	<		(	C
Mirror Image	0					
Alarm function	×					
Foucus system	Auto (Sensitivity: normal, low), One-Push AF, Manual, Infinity, Interval AF, Zoom Trigger AF					
Spot AE	Auto, Manual, Priority mode, Bright, EV compensation, Back-light compensation					
EV compensation	10.5 to +10.5 dB (1.5 dB steps)					
Outline compensation (Aperture)	16 steps					
Back-light compensation	0					
Picture effect	Neg. Art, Black & White, Mirror Image					

## Location and Function of Parts and Controls

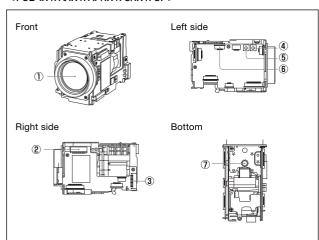
#### <FCB-IX11A/IX11AP>



- ① Lens
- 2 WIDE button
- **③ TELE button**
- 4 CN701 connector
- **⑤ CN751 connector**
- **6** Tripod screw holes

When a tripod is used, please use 5.5 mm screws to attach it to the camera. Also, please be sure to attach the tripod securely.

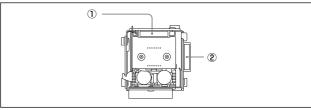
#### <FCB-IX47A/IX47AP/IX47C/IX47CP>



- ① Lens
- 2 CN901 connector
- 3 CN903 connector
- **4** TELE button
- 5 WIDE button
- 6 CN701 connector
- 7 Tripod screw holes
  - When a tripod is used, please use 10 mm screws to attach it to the camera. Also, please be sure to attach the tripod securely.

## Rear Panel

#### <FCB-IX11A/IX11AP>

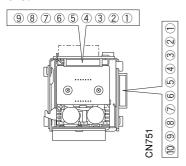


- ① CN901 connector (9 pin)
- ② CN751 connector (10 pin)

## **Connector Pin Assignments**

#### <FCB-IX11A/IX11AP>

#### CN901



#### ●CN751 (for communications)

Pin No.	Name	Level
1	T x D IN	RS-232C Level
2	NC	-
3	NC	-
4	RxDIN	RS-232C Level
5	TD	TTL Level
6	NC	-
7	NC	-
8	RD	TTL Level
9	GND	-
10	AF_LED	-

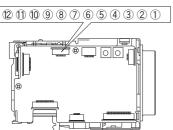
Connector type: JST S10B-ZR-SM3A-TF

#### ●CN901 (for DC and video)

Pin No.	Name	Level
1	Power In	6 V – 12 V
2	GND (power)	-
3	NC	-
4	Video Out	Composite video signal
5	GND (for video)	-
6	Y_Out	-
7	GND (for Y signal)	-
8	C_Out	-
9	GND (for C signal)	-

Connector type: JST S9B-ZR-SM3A-TF

#### CN701



### ●CN701 (for FFC cable)

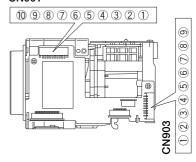
Pin No.	Name	
1	GND	
2	GND	
3	KEY_AD0	
4	KEY_AD1	
5	KEY_AD2	
6	KEY_AD3	
7	KEY_AD4	
8	KEY_AD5	
9	KEY_AD6	
10	KEY_AD7	
11	NC	
12	Strobe	

Connector type: Molex 52689-1240 FFC (0.5 mm)

#### <FCB-IX47A/IX47AP/IX47C/IX47CP>

#### Right side

#### CN901



#### ●CN901 (for communications)

Pin No.	Name	Level
1	TxD IN	RS-232C Level
2	NC	
3	NC	
4	RxD IN	RS-232C Level
5	TD	TTL Level
6	NC	
7	NC	
8	RD	TTL Level
9	GND	
10	NC	

Connector type: JST S10B-ZR-SM3A-TF

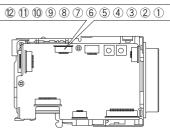
#### ●CN903 (for DC and video)

Pin No.	Name	Level
1	DC IN	6V to 12V
2	GND (for DC IN)	
3	NC	
4	VBS OUT	Composite Video Signal
5	GND(For VBS OUT)	
6	Y-Out	
7	GND(For Y)	
8	C-Out	
9	GND(For C)	

Connector type: JST S9B-ZR-SM3A-TF

#### Left side

#### CN601



### ●CN601 (for FFC cable)

Pin No.	Name		
1	GND		
2	GND		
3	KEY_AD0		
4	KEY_AD1		
5	KEY_AD2		
6	KEY_AD3		
7	KEY_AD4		
8	KEY_AD5		
9	KEY_AD6		
10	KEY_AD7		
11	NC		
12	Strobe		

Connector type: Molex 52689-1240 FFC (0.5 mm)

## Initial Settings, Custom Preset and Backup

## ●FCB-IX11A/IX11AP,

#### FCB-IX47A/IX47AP/IX47C/IX47CP

Initial settings for the various functions of the FCB-IX11A/IX11AP, FCB-IX47A/IX47AP/IX47C/IX47CP are indicated in the "Initial settings" column.

The "Custom preset" column indicates whether the custom preset function can be used to store the settings. The function enables the stored settings to be recalled automatically when the camera is turned on.

The "Standby backup" column indicates whether the data is preserved even when the camera is powered OFF. A circle "○" in this column signifies that the data is preserved. A cross "X" signifies that the data IS NOT preserved.

Mode/Position	Initial settings	Custom preset	Standby backup
Zoom Position	Wide end	0	0
D-Zoom On/Off	On	0	0
D-Zoom Separate/Combine	Combine	0	0
D-Zoom Position	00h	0	0
Focus Position		0	0
Focus Auto/Manual	Auto	0	0
Near Limit Setting	C 000h (1.0 cm)	0	0
AF Sensitivity	Normal	0	0
AF Mode	Normal	0	0
AF Run Time	5 sec	0	0
AF Interval	5 sec	0	0
WB Mode	Auto	0	0
WB Data (Rgain, Bgain)		0	0
One Push WB Data		0	0
AE Mode	Full Auto	0	0
Slow Shutter Mode	Manual	0	0
Shutter Position	1/60sec (NTSC), 1/50sec (PAL)	0	0
Iris Position		0	0
Gain Position		0	0
Bright Position	_	0	0
Exposure Compensation On/Off	Off	0	0
Exposure Compensation Amount	±0	0	0
Backlight On/Off	Off	0	0
Spot AE On/Off	Off	0	0
Spot AE Position Setting	X=8, Y=8	0	0
Aperture Level	5	0	0
LR Reverse On/Off	Off	0	0
Freeze On/Off	Off	×	×
Picture Effect	Off	0	0
Camera Memory	Same as the initial value setting	0	0
Display On/Off	Off	0	0
Mute On/Off	Off	×	×

#### Note

The number of times written to EEPROM (when Custom Preset is executed) is limited.

## **Key Switch Circuitry**

See page 125.