

Colour Block Cameras

INTRODUCTION

The high-performance Sony FCB-IX colour block camera series, providing high-quality images and excellent sensitivity – these block cameras are suitable for integration into a variety of systems for almost any application

The Sony FCB-IX colour block camera series incorporates high-performance Digital Signal Processing (DSP) and firmware that greatly enhance their operation and picture quality compared to conventional block cameras. Inheriting the outstanding features of previous generations of Sony block cameras, Sony FCB-IX Series is ideal for numerous general purpose applications. For example, they can be integrated into low vision systems, police cars, photo booths, and document stands. The FCB-IX47C/IX47CP and FCB-IX45C/IX45CP colour 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.

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

Offering high picture quality and a variety of functions, the FCB-IX Series is ideal for your demanding applications.



FCB-IX SERIES
FCB-IX47C/FCB-IX47CP
FCB-IX45C/FCB-IX45CP
FCB-IX11A/FCB-IX11AP

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FEATURES

- High-performance Digital Signal Processing (DSP)
- High-speed Serial Interface (max. 38.4 Kb/s) with TTL Signal-Level Control (VISCA™ protocol)
- High-quality Image in both Digital-zoom and Slow-shutter Modes (FCB-IX47C/IX47CP, FCB-IX11A/IX11AP only)
- Various AF Modes including Zoom Trigger and Interval Modes
- Various AE Modes including Spot AE Mode to Optimise the Brightness within the Specific Area
- Electronic-Flip (E-Flip) for capturing images in the proper orientation (FCB-IX47C/IX47CP only)
- Expanded Mode Parameter for Shutter Speed and Gain Level
- Superb Sensitivity
- Various Customisable Settings
- Unique Algorithms for Lens-Life Extension
Autofocus (AF) Algorithm
This unique algorithm makes the block camera ideal for security applications, in which 24/7 continuous usage is common. This technology controls the unit's autofocus function to provide extended lens life and steady image quality.

SMART (Sony Modular Automatic lens Reset Technology) Lens Control*
Automatically compensates for mechanical misalignment of the lens, which may occur over a long period of continuous usage.
- Low Power Consumption
(1.5/1.6 W when motors are inactive)
- EEPROM Backup System without Battery
- 16-Bytes of Memory is Available for Recording Data such as Product Serial Numbers and Camera/System ID Numbers (FCB-IX47C/IX47CP, FCB-IX45C/IX45CP only)
- Environmentally-friendly (Lead-free solder and Halogen-free Printed-circuit boards)

FCB-IX47C/IX47CP



FCB-IX45C/IX45CP



FCB-IX11A/IX11AP



FCB-IX SERIES LINE-UP

FCB-IX47C/IX47CP

- 1/4-type Super HAD™ CCD
- 72x Zoom Ratio (18x optical, 4x digital)
- Minimum Illumination of 1.0 lx (typical)
- Key Switch Control Compatibility
- Spot AE
- E-Flip
- 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)

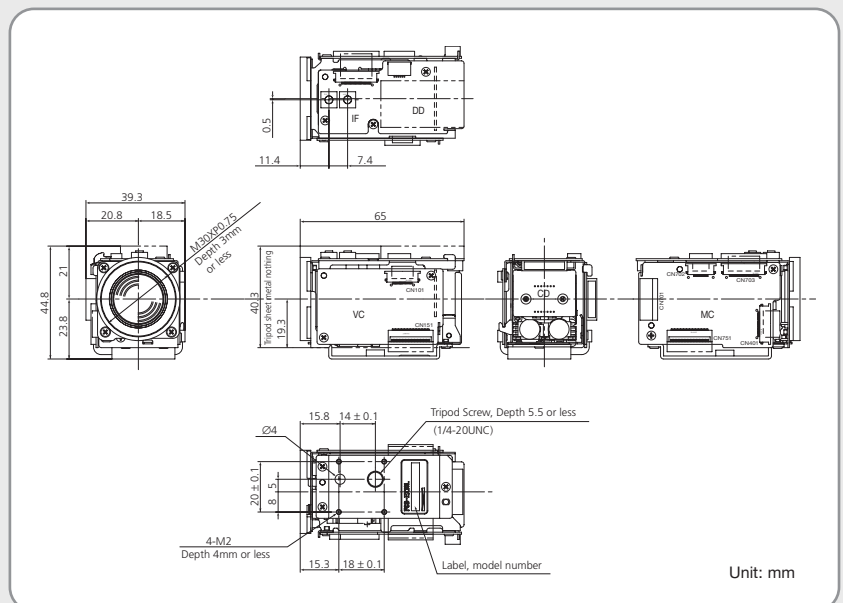
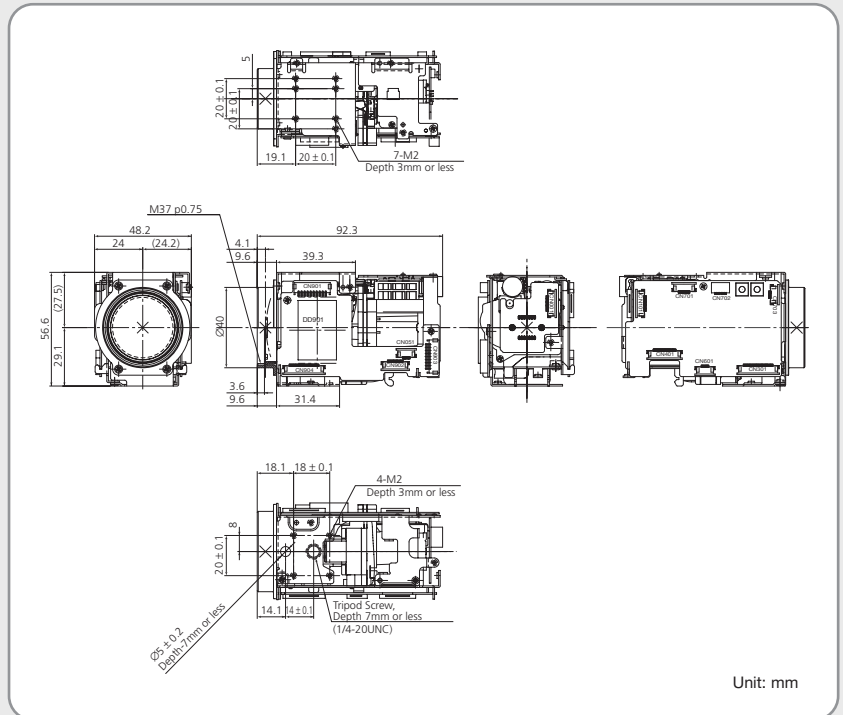
FCB-IX45C/IX45CP

- 1/4-type Super HAD™ CCD
- 72x Zoom Ratio (18x optical, 4x digital)
- Minimum Illumination of 1.0 lx (typical)
- Key Switch Control Compatibility
- Spot AE
- High-speed Serial Interface (maximum 38.4 Kb/s) with TTL Signal-Level Control (VISCA protocol)
- On-screen Display (date/time/title)

* The dimensions and appearance of the FCB-IX47C/IX47CP and FCB-IX45C/IX45CP are the same.

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)
- 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)



SPECIFICATIONS

	FCB-IX47C	FCB-IX47CP	FCB-IX45C	FCB-IX45CP	FCB-IX11A	FCB-IX11AP
Image device	1/4 type Super HAD CCD				1/4-type Exview HAD CCD	
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	18x zoom, f = 4.1 mm (wide) to 73.8 mm (tele), F1.4 to F3.0				10x zoom, f = 4.2 mm (wide) to 42 mm (tele), F1.8 to F2.9	
Digital zoom	4x (72x with optical zoom)				4x (40x with optical zoom)	
Viewing angle (H)	48° (wide end) to 2.8° (tele end)				46° (wide end) to 5.0° (tele end)	
Minimum working distance	10 mm (wide end), 800 mm (tele end)				10 mm (wide end), 1000 mm (tele end)	
Sync. system	Internal					
Minimum illumination	1.0 lx (50 IRE)				1.5 lx (50IRE)	
S/N ratio	More than 50 dB					
Electronic shutter	1/1 to 1/10,000 s, 22 steps		1/60 to 1/10,000 s, 16 steps	1/50 to 1/10,000 s, 16 steps	1/1 s 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)					
AE control	Auto, Manual, Priority mode, Bright, EV compensation, Back-light compensation					
EV compensation	-10.5 to +10.5 dB (1.5 dB steps)					
Back-light compensation	On/Off					
Flicker cancel	Auto	-	Auto	-	Auto	-
Focusing system	Auto (sensitivity: Normal, Low), One-Push AF, Manual, Infinity, Interval AF, Zoom Trigger AF					
Picture effect	Neg. Art, Black & White, Mirror Image, E-Flip				Neg. Art, Black & White, Mirror Image	
Camera operation switch	Zoom tele, Zoom wide					
Video output	VBS: 1.0 Vp-p (Sync. Negative) Y/C Output					
Camera control interface	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					
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)					
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)					
Power consumption	6 to 12 V DC / 1.5 W (inactive motors), 2.0 W (active motors)				6 to 12 V DC / 1.6 W (inactive motors), 2.1 W (active motors)	
Mass	170 g (6.0 oz)				95 g (3.4 oz)	
Dimensions (W x H x D)	48.2 x 56.6 x 92.3 mm (1 15/16 x 2 1/4 x 3 3/4 inches)				39.3 x 44.8 x 65 mm (1 9/16 x 1 13/16 x 2 5/8 inches)	

* The initial factory setting for the SMART Lens Control function is "OFF". When the function is turned OFF and the unit is used continuously for more than 24 hours, lens system initialisation is recommended every 24 hours to extend the life of the lens. The "Initialise Lens" command takes a little less than 3 seconds to initialise the focus and zoom. When the Smart Lens Control function is turned ON, lens initialisation is not required.

PIN ASSIGNMENT

CN903

DC and video connector

(FCB-IX47C/IX47CP and
FCB-IX45C/IX45CP)

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	1.0 ± 0.2 V
7	GND (for Y signal)	-
8	C_Out	-
9	GND (for C signal)	-

Connector type: JST S9B-ZR-SM3A-TF

CN901 IF Board

DC and video connector

(FCB-IX11A/IX11AP)

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

CN751/901 MC-Board

Communication connector

(CN751: FCB-IX11A/IX11AP
CN901: FCB-IX47C/IX47CP/IX45C/
IX45CP)

Pin No.	Name	Level
1	T x D IN	RS-232C Level
2	NC	-
3	NC	-
4	R x D IN	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

CN601/701

Key switch connector

(CN601: FCB-IX47C/
IX47CP/IX45C/IX45CP
CN701: FCB-IX11A/IX11AP)

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 52689-1297 FFC (0.5 mm)