SONY

FCB-IX47C/FCB-IX47CP

FCB-IX45C/FCB-IX45CP

FCB-IX11A/FCB-IX11AP

FCB-IX
Series

Colour
Block Cameras

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

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

FCB-IX47C
FCB-IX47CP
FCB-IX45C
FCB-IX45CP
FCB-IX11A
FCB-IX11AP

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.

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 Optimize 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 Customizable 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
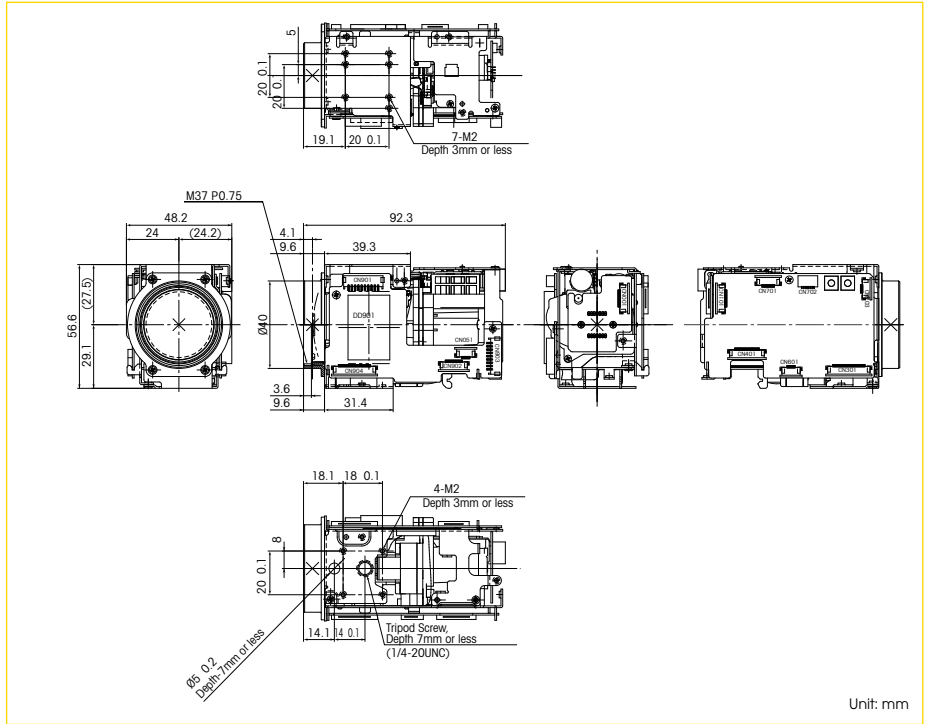(1.5/1.6 W when motors are inactive)

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

- 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)

Unit: mm

*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
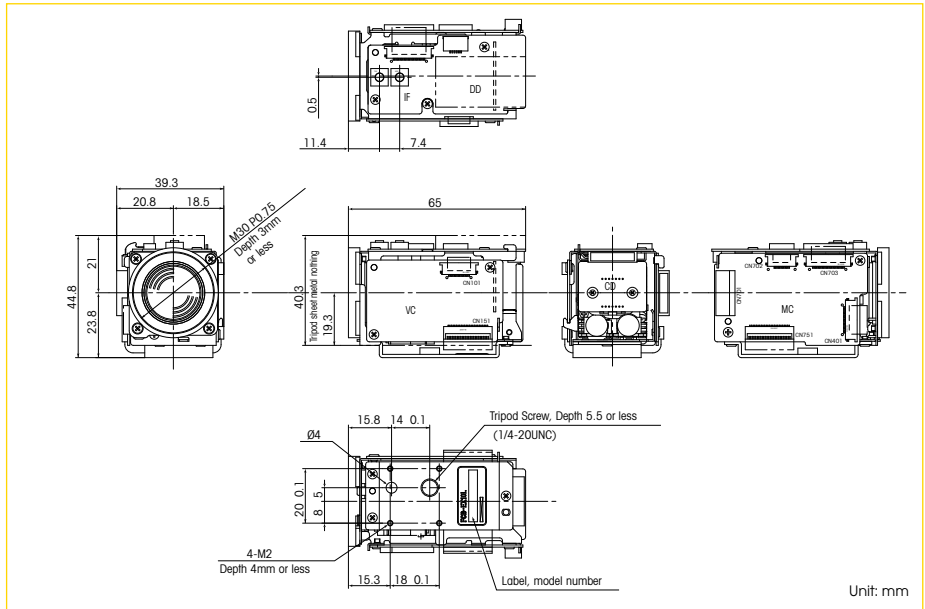- On-screen Display (date/time/title)

Unit: mm

FCB-IX Series Specifications

Camera

	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 (50 IRE)	
S/N ratio	More than 50 dB					
Electronic shutter	1/1 to 1/10,000 s		1/60 to 1/10,000 s	1/50 to 1/10,000 s	1/1 to 1/10,000 s	
	22 steps		16 steps	16 steps	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, Backlight compensation					
EV compensation	-10.5 to +10.5 dB (1.5 dB steps)					
Backlight 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 to 60 °C (-4 to 140 °F)					
Operating temperature	0 to 50 °C (32 to 122 °F)					
Power consumption	6 to 12 V DC/1.5 W (motors inactive) 2.0 W (motors active)				6 to 12 V DC/1.6 W (motors inactive) 2.1 W (motors active)	
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 initialization is recommended every 24 hours to extend the life of the lens. The "Initialize Lens" command takes a little less than 3 seconds to initialize the focus and zoom. When the Smart Lens Control function is turned ON, lens initialization is not required.

Pin assignment & connector

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: 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: 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

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