

SONY
make.believe

FCB-EX11D FCB-EX11DP

Colour Block Cameras



FCB-EX11D/FCB-EX11DP

IMAGE SENSING SOLUTIONS

Outstanding Picture Quality in an Ultra-Compact Design – The FCB-EX11D and FCB-EX11DP Colour Block Cameras are Ideal for Integration into Mini-Dome Surveillance Cameras, Traffic Monitoring Systems, and More

FCB-EX11D (NTSC) FCB-EX11DP (PAL)



The popular Sony FCB series is enhancing its line-up with the addition of two new mini colour block cameras. These cameras are specifically designed for easy integration with security and monitoring systems, videoconferencing equipment, traffic monitoring systems, police vehicles, photo booths, and low vision systems.

The Sony ultra-compact and lightweight FCB-EX11D*¹ camera incorporates a 1/4-type EXview HAD CCD™ sensor, and can be easily integrated into space restricted environments.

The FCB-EX11D is not only effective in visible light, but it is sensitive to near-infrared energy enabling the camera to operate in low-light conditions. Combining a high-performance Digital Signal Processor (DSP) with an EXview HAD CCD sensor, the camera produces an extremely high horizontal resolution of 530 TV lines and provides clear and detailed images.

The FCB-EX11D is equipped with a 10x optical zoom lens which can provide a 120x zoom ratio when combined with the digital zoom. In addition, the FCB-EX11D offers a number of other useful functions such as advanced spherical privacy zone masking with mosaic effect, video motion detection, a multi-line on-screen display, and slow AE response function.

With its excellent picture quality, compact size, and feature-rich design, the FCB-EX11D is ideal for a wide range of applications. For surveillance applications, this camera is well-suited for integration with mini speed-dome, fixed-type, and Pan/Tilt/Zoom (P/T/Z) cameras. It can also be used in low vision systems, police vehicles, and for underground inspection of oil and gas pipelines.

*¹ Unless otherwise noted in the following text, "FCB-EX11D" refers to both the FCB-EX11D and the FCB-EX11DP.

Features

- **Excellent Picture Quality, High-resolution Images**
- **Compact and Lightweight Design**
- **Slow AE Response Function**
- **Advanced Spherical Privacy Zone Masking with Mosaic Effect**
- **Powerful and Versatile Zoom Capability**
- **Multi-line On-screen Display**

Excellent Picture Quality, High-resolution Images

Combining a high-performance DSP with a 1/4-type EXview HAD CCD sensor, the FCB-EX11D achieves a high horizontal resolution of 530 TV lines that produces amazingly clear and detailed images.

Compact and Lightweight Design

The ultra-compact and lightweight body of the FCB-EX11D makes it ideal for space-restricted applications.

Dimensions (W x H x D):

35.9 x 40.8 x 59.2 mm (1 7/16 x 1 5/8 x 2 3/8 inches)

Mass: 95g (3.3 Oz)

Slow AE Response Function

The FCB-EX11D is equipped with a slow AE response function to automatically slow the rate at which the camera's exposure levels change. The rate can be set up to 32 times slower than when Full-Auto AE or Priority (shutter/iris) modes are selected.

This function is useful when monitoring areas in which lighting conditions abruptly change.

Advanced Spherical Privacy Zone Masking with Mosaic Effect

Unwanted or prohibited areas within an image can be masked precisely and appropriately with either a solid colour or a mosaic effect. When the FCB-EX11D is integrated into a P/T/Z camera system, this technology can keep masking areas interlocked with P/T/Z movements regardless of the camera angle.

Powerful and Versatile Zoom Capability

The FCB-EX11D camera incorporates a 10x optical zoom lens, allowing for a zoom capability of up to 120x when used in combination with its 12x digital zoom.

Multi-line On-screen Display

Up to eleven lines with 20 characters per line can be displayed on the FCB-EX11D monitoring screen using VISCA™ commands. Captions can be displayed on the screen to provide operators with a user-friendly interface.

Other Features

- **Video Motion Detection**
- **Electronic-Flip (e-Flip)**
- **Picture Freeze**
- **SMART (Sony Modular Automatic lens Reset Technology) Lens Control**
- **Electronic Shutter/Slow Shutter (1 to 1/10,000 s, 22 steps)**
- **High-Speed Serial Interface (maximum 38.4 kb/s) with TTL Signal-Level Control (VISCA protocol)**
- **Customizable settings**
- **Internal/External Sync**
- **16 Bytes of Memory (for storing data such as the product serial number and camera/system ID numbers)**

Specifications

| | FCB-EX11D | FCB-EX11DP |
|--------------------------|---|------------------------|
| Image sensor | 1/4-type EXView HAD CCD | |
| Signal system | NTSC | PAL |
| Number of total pixels | Approx. 380,000 pixels | Approx. 440,000 pixels |
| Lens | 10x optical zoom, F1.8 to F2.9, f=4.2 mm (wide) to 42.0 mm (tele) | |
| Digital zoom | 12x (120x with optical zoom) | |
| Horizontal resolution | High Resolution Mode On: 530 TV lines (default) High Resolution Mode Off: 470 TV lines (NTSC)/460 TV lines (PAL) | |
| Horizontal angle of view | 46° (wide) to 4.6° (tele) | |
| Minimum object distance | 200 mm (wide), 1.0 m (tele) | |
| Sync system | Internal/External (V-lock) | |
| Minimum illumination | 1.0 lx (typical) (F1.8, 50 IRE) | |
| S/N ratio | More than 50 dB | |
| Electronic shutter | 1 to 1/10,000 s, 22 steps | |
| White balance | Auto, ATW, Indoor, Outdoor, One-push, Manual | |
| Gain | Auto/Manual (-3 to 28 dB, 2dB steps) | |
| AE control | Auto, Manual, Priority mode, Bright, EV compensation, Backlight compensation, Slow AE | |
| EV compensation | -10.5 to 10.5 dB (1.5 dB steps) | |
| Backlight compensation | On/Off | |
| Privacy zone masking | On/Off (24 positions, 8 positions per screen) 14 colours + Mosaic | |
| Character generator | OSD: 11 Lines (20 characters per line), Camera Mode display: ON/OFF | |
| Flicker cancel | Auto | - |
| Focusing system | Auto (Sensitivity: normal, low), One-push AF, Manual, Infinity, Interval AF, Zoom trigger AF | |
| Picture effects | E-Flip, Nega Art, Black & White, Mirror Image | |
| Video output | VBS: 1.0 Vp-p (sync negative), Y/C | |
| Camera control interface | VISCA (TTL signal level), baud rate: 9.6 Kb/s, 19.2 Kb/s, 38.4 Kb/s, 1 or 2 stop bits (selectable) | |
| Storage temperature | -20 to 60 C° (-4 to 140 °F) | |
| Operating temperature | 0 to 50 C° (32 to 122 °F) | |
| Power requirements | DC 6 to 12 V | |
| Power consumption | 1.9 W (motors inactive), 2.8 W (motors active) | |
| Mass | 95 g (3.3 oz) | |
| Dimensions (W x H x D) | 35.9 mm x 40.8 mm x 59.2 mm (1 7/16 x 1 5/8 x 2 3/8 inches) | |

Pin Assignment & Connectors

CN402 - 4-pin for VideoY/C Out

| Pin No. | Name | Level |
|---------|--------------------|---|
| 1 | Y_OUT | 1.0 Vp-p (75 Ω terminate) Luminance signal |
| 2 | GND (for Y signal) | - |
| 3 | C_OUT | Chrominance signal |
| 4 | GND (for C signal) | - |

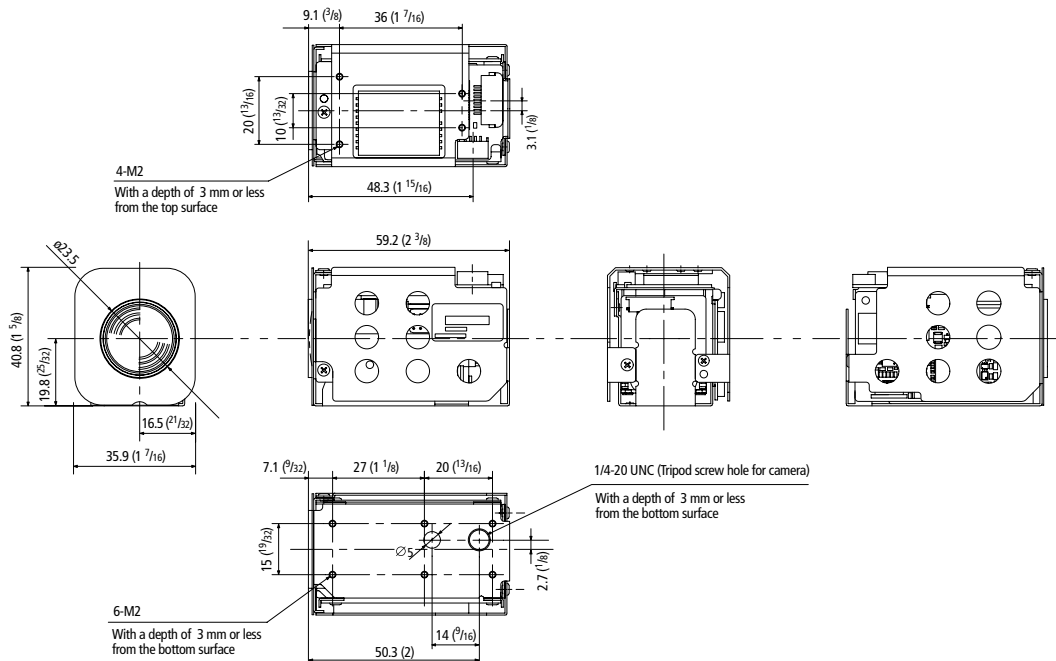
Connector: JST S4B-ZR-SM4A-TF (LF)

CN401 9-pin for DC/Video Out

| Pin No. | Name | Level |
|---------|------------------------|---|
| 1 | RxD | TTL/CMOS Level Read Data |
| 2 | TxD | TTL/CMOS Level Send Data |
| 3 | GND (for RxD & TxD) | - |
| 4 | DC IN | 9.0 V ±3.0 V |
| 5 | GND (for DC IN) | - |
| 6 | VBS OUT | 1.0 Vp-p (75 Ω terminate) |
| 7 | GND (for VBS OUT) | - |
| 8 | V LOCK PULSE | External VD-Lock Pulse (Negative, 3.0 Vp-p 50% duty) |
| 9 | GND (for V LOCK PULSE) | - |

Connector: KYOCERA ELCO 00 6200 509 130 000+

Dimensions



Unit: mm (Inches)

Distributed by

© 2010 Sony Corporation. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Design, features, and specifications are subject to change without notice. All non-metric weights and measurements are approximate. Sony is a registered trademark of Sony Corporation. Sony, EXView HAD CCD, and Super HAD are registered trademarks of Sony Corporation.

SONY
make.believe