

# FCB-EH4300

High Definition Colour  
Camera Block



IMAGE SENSING SOLUTIONS

Sony, a leader in high-definition (HD) technology and the imaging industry, is combining its strengths with the introduction of its new compact FCB-EH4300 20x HD Color Block Camera.



FCB-EH4300

## Features

- **Excellent 1080p (1920 x 1080) HD picture quality**
- **The “Exmor™” CMOS sensor realizes high image quality and high sensitivity**
  - High Sensitivity mode – 0.5 lx (F1.6, 50IRE, Color)
  - Normal mode – 1.7 lx (F1.6, 50IRE, Color)
- **Powerful zoom capability**  
20x optical and total 240x with 12x digital zoom
- **Various signal systems and output modes**
  - **HD**
    - Signal system – 1080p/29.97, 1080p/25, 1080i/59.94 (Frame out: 29.97 PsF), 1080i/50 (Frame out: 25 PsF), 720p/59.94, 720p/50, 720p/29.97, 720p/25
    - Video output – Analog: Component (Y/Pb/Pr), Digital: Y/Cb/Cr 4:2:2 via LVDS (Y: 8-bit, C: 8-bit, V-sync, H-sync, Field, Clock)
  - **SD**
    - Signal system – NTSC, PAL (640 x 360)
    - Video output – VBS
- **Simple connection - one cable, one connector**
  - Covering video, VISCA communication, and power supply with a single cable
  - Supports both 30-pin thin coaxial (digital and analog output) and 24-pin FFC interfaces (analog output only)
- **Security-oriented functions include:**
  - Wide-D technology (On, Off, Auto, and Ratio Fix)
  - Day/Night function (On, Off, Auto, Threshold Enabled)
  - Digital noise reduction (Up to 5 levels)
  - Spherical Zone Masking (24 Zones with various PTZ controls)
  - Motion Detection Alarm (4 Zones with several triggering and threshold modes)
  - Sodium Vapor Lamp Fix/Auto, One-push, Manu

Featuring full 1920 x 1080 HD resolution, wide-dynamic range, and auto ICR functions, this amazing FCB HD camera is ideal for security, intelligent traffic, unmanned aerial vehicles, video conferencing and low-vision applications.

Incorporating a 1/3-type “Exmor™” CMOS sensor, the FCB-EH4300 camera boasts approximately 2 Megapixels for exceptional HD picture quality with high sensitivity. In addition, the FCB-EH4300 inherits a multitude of features from Sony’s world-renowned FCB Series such as Spherical Privacy Zone Masking, E-Flip and various picture effects.

**Exmor™**

## Other Features

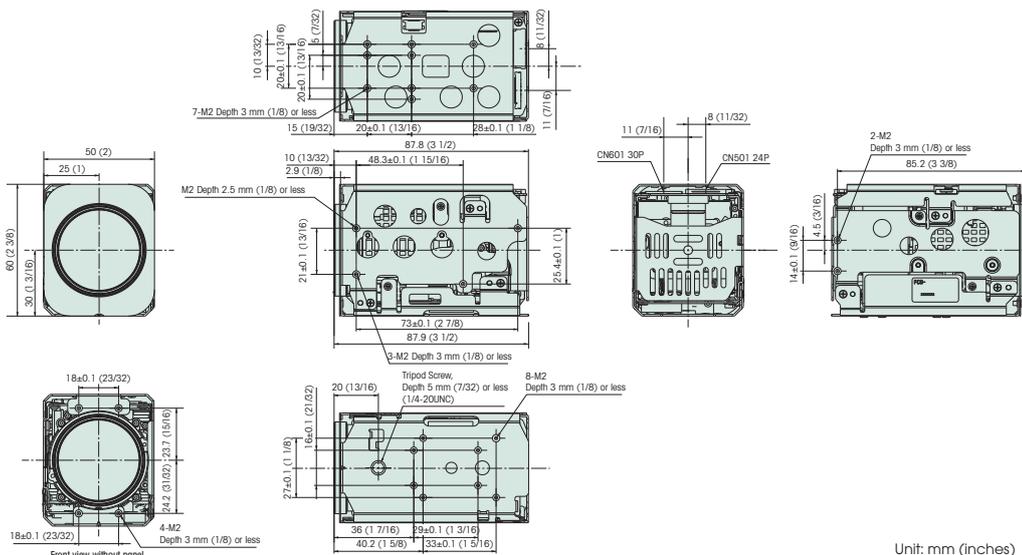
### Other Features

- Various modes for White Balance (Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp Fix/Auto, One-push, Manual)
- Picture effects (E-Flip, Nega Art, Black & White, Mirror Image, Color Enhancement)
- Picture freeze
- Temperature readout
- Slow AE response (Approx. 5 min.)
- Title display (20 characters per line, max. 11 lines)
- Camera mode display (English)
- Electronic shutter/slow shutter
- Spot AE
- High Resolution Mode
- IR Focus Correction Function
- 4 Presets for Gamma Control
- 4 Levels of Chrominance Suppression

## Specifications

		FCB-EH4300
Image sensor		1/3-type "Exmor" CMOS
Effective number of pixels		Approx. 2 Mega pixels
Lens		20x optical zoom
		f=4.7 mm (wide) to 94.0 mm (tele)
Digital zoom		F1.6 to F3.5
Angle of view (H)		12x (240x with optical zoom)
Minimum working distance		1080p/30 mode: 55.4° (wide end) to 2.9° (tele end)
		720p/60, 30 mode: 37.6° (wide end) to 1.95° (tele end)
Sync system		10 mm (wide) to 800 mm (tele)
Minimum illumination		Internal
		High sensitivity mode: 0.5 lx (F1.6, 50 IRE, ICR Off), 0.095 lx (F1.6, 50 IRE, ICR On)
Recommended illumination		Normal mode: 1.7 lx (F1.6, 50 IRE, ICR Off), 0.3 lx (F1.6, 50 IRE, ICR On)
		100 to 100,000 lux
S/N ratio		More than 50 dB
Signal system	HD	1080p/29.97, 1080p/25, 1080i/59.94 (Frame out: 29.97 PsF), 1080i/50 (Frame out: 25PsF), 720p/59.94, 720p/50, 720p/29.97, 720p/25
	SD	NTSC, PAL (640 x 360)
Video output	HD	Analog: Component (Y/Pb/Pr) Digital: Y/Cb/Cr 4:2:2 via LVDS (Y: 8 bit, C: 8 bit, Vsync, Hsync, Field, Clock)
	SD	VBS: 1.0 Vp-p (sync negative) VISCA (TTL signal level)
Camera control interface		Baud rate: 9.6 Kb/s, 19.2 Kb/s, 38.4 Kb/s Stop bit: 1/2 bit selectable
Electronic shutter		1/1 to 1/10,000 s, Total 22 steps
White balance		Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp Fix/Auto, One-push, Manual
Gain		Auto/Manual (-3 to +28 dB, +2 dB step/Total 16 steps)
AE control		Auto, Manual, Priority mode (shutter priority & iris priority), Bright, EV compensation, Slow AE
Slow AE		Approx. 5 minutes
Focusing system		Auto (Sensitivity: normal, low), One-push AF, Manual, Infinity, Interval AF, Zoom Trigger AF
Storage temperature		-20°C to +60°C (-4°F to +140°F)
Operating temperature		-5°C to +60°C (23°F to 140°F)
Storage humidity		20% to 95%
Operating humidity		20% to 80%
Power requirements		6.0 V to 12.0 V DC
Power consumption		4.7 W (motors active), 3.1 W (motors inactive)
Weight		260 g (4.2 oz)
Dimensions (W x H x D)		50.0 x 60.0 x 87.9 mm (2 x 2 3/8 x 3 1/2 inches) Includes protrusions

## Dimensions



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## Pin assignment & connector

### CN601

**30-pin Thin Coaxial**  
Power supply/Communication/  
Analog/Digital

Pin No.	Name	Level
1	TXOUT3+	
2	TXOUT3-	
3	TXCLKOUT+	
4	TXCLKOUT-	
5	TXOUT2+	
6	TXOUT2-	
7	TXOUT1+	
8	TXOUT1-	
9	TXOUT0+	
10	TXOUT0-	
11	GND	
12	TxD	CMOS 5 V (Low: MAX 0.1 V, High: min 4.4 V)
13	RxD	CMOS 5 V (Low: Max 0.8 V, High: min 2.0 V)
14	DC IN	6 to 12 V DC
15	DC IN	6 to 12 V DC
16	DC IN	6 to 12 V DC
17	DC IN	6 to 12 V DC
18	DC IN	6 to 12 V DC
19	GND	
20	GND	
21	GND	
22	GND	
23	GND	
24	GND	
25	NC	
26	NC	
27	VBS-OUT	
28	Y	HD Analog Component
29	Pb	HD Analog Component
30	Pr	HD Analog Component

Connector: USL00-30L-C (KEL CORP.)

### CN501

**24-pin FFC**  
Power supply/Communication/  
Analog

Pin No.	Name	Level
1	GND	
2	TxD	CMOS 5 V (Low: MAX 0.1 V, High: min 4.4 V)
3	RxD	CMOS 5 V (Low: Max 0.8 V, High: min 2.0 V)
4	NC	
5	GND	
6	NC	
7	GND	
8	NC	
9	GND	
10	VBS-OUT	
11	GND	
12	Y-OU	HD Analog Component
13	GND	
14	Pb-OUT	HD Analog Component
15	GND	
16	Pr-OUT	HD Analog Component
17	GND	
18	Power	6 to 12 V DC
19	Power	6 to 12 V DC
20	Power	6 to 12 V DC
21	Power	6 to 12 V DC
22	GND	
23	Power	6 to 12 V DC
24	GND	

Connector: 04 6240 224 006 848+ (KYOCERA ELCO)