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# FCB-ER8300

Sony proudly introduces the first in a new family of 4K modules to its FCB block camera range.

This new camera offers superb 4K resolution at up to 20x zoom, thanks to Sony's Exmor R™ CMOS image sensor technology and an innovative super resolution zoom capability.



## Features

### Superb Picture Quality with 4K CMOS Sensor

The FCB-ER8300 employs a 1/2.3-type 4K CMOS sensor that offers a resolution four times higher than Full HD (1080p) for excellent detail and image quality.

### Super resolution zoom

Unique to Sony, the super resolution zoom feature means the FCB-ER8300 can retain a compact size but achieve the equivalent of 20x zoom at full 4K resolution by intelligently combining the 12x optical lens with digital zoom for superb image quality over distance.

### Video outputs from HD to 4K

The FCB-ER8300 supports a 4K video format in 4K resolution with output flexibility. So depending on your application and configuration, you can select the format that's right for you with up to eight video formats from HD to 4K.

### Low Power Consumption and Compact Design

This compact block camera is low in power consumption. In addition, the compact and lightweight body means you can install the FCB-ER8300 in many different space-restricted environments.

### Other Features

- Auto ICR
- Slow AE
- Privacy zone masking
- Defog
- Noise reduction
- Visibility enhancer

## Colour Block Camera

**Exmor R** **4K**

The new FCB-ER8300 block camera incorporates a 1/2.3-type Exmor R sensor capable of 4K resolution (3,840 x 2,160, QFHD) at up to 30p. The camera features a high-quality 12x optical zoom lens which – when combined with super resolution zoom – can maintain 4K resolution at up to 20x zoom, providing enhanced 4K visibility within a compact form factor.

This camera also inherits some of the unique features of Sony's popular FCB Series cameras such as auto ICR, privacy zone masking, noise reduction and visibility enhancement, supporting use under challenging lighting conditions.

These outstanding features and benefits make the FCB-ER8300 ideal for demanding wide-area surveillance applications such as transportation, sports event monitoring, video conferencing, and much more.

# Specifications

Camera		FCB-ER8300
Image Sensor		1/2.3 type Exmor R CMOS
Image Sensor (Number of Effective Pixels)		Approx. 8.93 Mega Pixels
Signal System	4K	2160p/29.97, 2160p/25
	FHD/HD	1080p/59.94, 1080p/50, 1080i/59.94, 1080i/50, 720p/59.94, 720p/50
Minimum Illumination (50%, High Sensitivity Mode)		Colour: 0.75 lx (F1.8, AGC on, 1/30 s)
Minimum Illumination (50%, Normal Mode)		Colour: 3 lx (F1.8, AGC on, 1/30 s)
Recommended Illumination		100 lx to 100,000 lx
S/N Ratio		-
Gain		Auto/Manual (0 dB to 33 dB) Max. Gain Limit (9 dB to 33 dB)
Shutter Speed		1/1 s to 1/10,000 s, 22 steps
Sync System		Internal
Exposure Control		Auto, Manual, Priority mode (shutter priority & iris priority), Bright, EV compensation
Backlight Compensation		Yes
Aperture Control		16 steps
White Balance		Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto), One-push, Manual
Lens		12x optical zoom, f = 3.9 mm (wide) to 46.8 mm (tele) F1.8 to F2.0
Digital Zoom		12x (144x with optical zoom)
Focusing System		Auto (Sensitivity: normal, low), One-push AF, Manual, Interval AF, Zoom Trigger AF, Focus compensation in ICR on
Horizontal Viewing Angle (2016p Mode)		70.7° (wide end) to 6.4° (tele end)
Horizontal Viewing Angle (1080p Mode)		70.7° (wide end) to 6.4° (tele end)
Horizontal Viewing Angle (720p Mode)		70.7° (wide end) to 6.4° (tele end)
Horizontal Viewing Angle (SD)		-
Minimum Object Distance		10 mm (wide end) to 1,500 mm (tele end) (Default: 300 mm)
Camera Features		
Auto ICR		Yes
Wide-D*1		No
Visibility Enhancer		Yes
Defog		Yes
HLC		Yes
Noise Reduction		Yes (6 steps)
Progressive Scan Mode		Yes
Image Stabilization		No
Image Stabilization for Still Image		No
Stablezoom		No
Digital Output		Yes
Spherical Privacy Zone Masking		Yes
Motion Detection		Yes
Alarm		No
Slow AE Response		Yes
Picture Effects		E-Flip, Black & White, Mirror image, Colour enhancement
Picture Freeze		Yes
Slow Shutter		Yes
Temperature Readout		Yes
Title Display		20 characters/line, max. 11 lines
Camera Mode Display		Yes
Key Switch Control		No
Camera Operation Switch		No
Interface		
Video Output (QFHD, HD)		Digital: Y/Cb/Cr 4:2:2 8bits component, R/G/B 4:4:4 8bits component, Comparable to CEA-861-F
Video Output (HD)		-
Video Output (SD)		-
Camera Control Interface		VISCA (CMOS 3.1 V level), Baud rate: 9.6 Kbps, 19.2 Kbps, 38.4 Kbps, 57.6 Kbps, 115.2 Kbps, Stop bit: 1 bit
General		
Power Requirements		6.0 V to 12.0 V DC
Power Consumption		2.9 W (zoom/focus inactive), 3.7 W (zoom/focus active)
Operating Temperature		-5°C to +60°C (23°F to 140°F)
Storage Temperature		-20°C to +60°C (-4°F to 140°F)
Operating Humidity		20% to 80%, Absolute humidity: 36 g/m <sup>3</sup>
Storage Humidity		20% to 95%, Absolute humidity: 36 g/m <sup>3</sup>
Dimensions (W x H x D)*2		60.0 x 64.0 x 105.0 mm (2 3/8 x 2 5/8 x 4 1/4 inches)
Mass		Approx. 385 g (Approx. 13.6 oz)

\*1 Wide dynamic range. \*2 The values for dimensions are approximate.

## Pin assignments

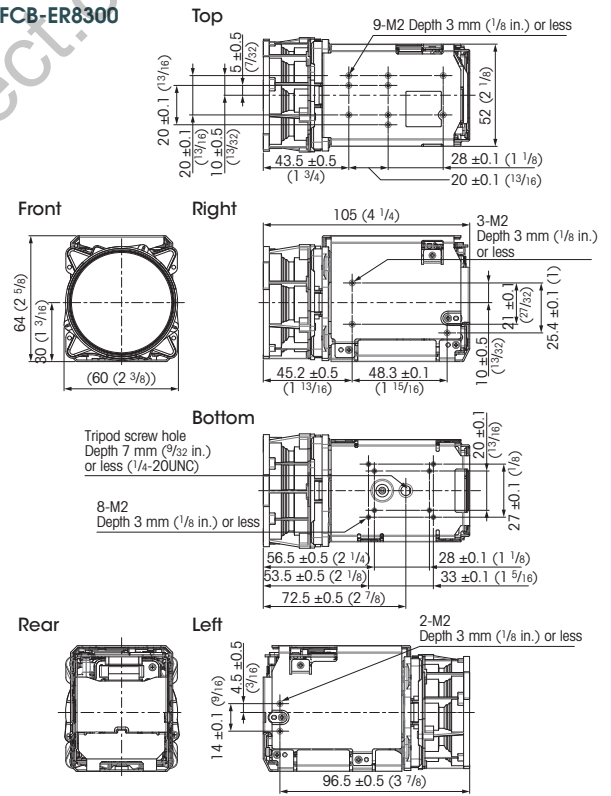
### CN701

Pin No.	Name	Level	Remark
1	GND		DataShield
2	TXCLKOUT-		HDML_CLOCK-
3	TXCLKOUT+		HDML_CLOCK+
4	GND		DataShield
5	TX0OUT-		HDML_DATA1-
6	TX0OUT+		HDML_DATA1+
7	GND		DataShield
8	TX1OUT-		HDML_DATA1-
9	TX1OUT+		HDML_DATA1+
10	GND		DataShield
11	TX2OUT-		HDML_DATA2-
12	TX2OUT+		HDML_DATA2+
13	GND		DataShield
14	GND		
15	SCL		HDML_SCL
16	SDA		HDML_SDA
17	HPD		HDML_HPD
18	D_5.0V_OUT		HDML_5V
19	USB_VBUS		USB2.0
20	GND		
21	USB_D-		USB2.0
22	USB_D+		USB2.0
23	GND		
24	UART_RX		VISCA
25	UART_TX		VISCA
26	RESET		
27	DC_IN	6 to 12 V DC	
28	DC_IN	6 to 12 V DC	
29	DC_IN	6 to 12 V DC	
30	DC_IN	6 to 12 V DC	

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

## Dimensions

### FCB-ER8300



Unit: mm (inches)