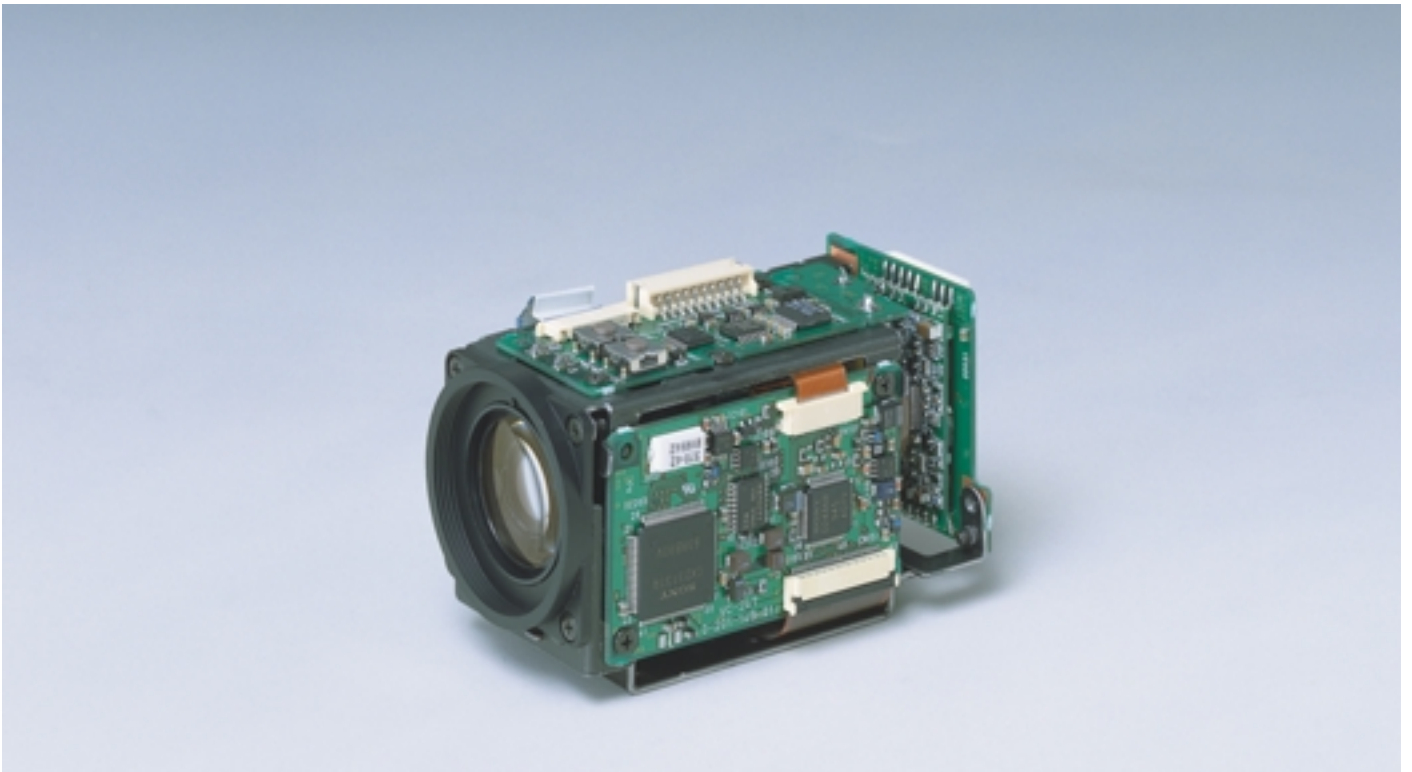


# FCB-IX10 FCB-IX10P

## Component/OEM



### OUTLINE

The FCB-IX10/IX10P is a compact and lightweight color video camera that incorporates a 380,000/440,000 pixel 1/4 type CCD and a 10x optical zoom lens. The FCB-IX10/IX10P is less than half the volume and mass of the FCB-47 series, making it ideal for space restricted applications such as pipe inspection and document stands. The FCB-IX10/IX10P features a built-in field memory allowing for slow shutter speed operation, and has a position preset function to save and recall up to six camera settings. Camera settings and control can also be made from a host computer/controller via VISCA™ RS-232C. In addition to the standard RS-232C, a TTL direct signal interface is provided as an alternative control mechanism from a non-computer device.

"VISCA" is an acronym of Video System Control Architecture. It is a communication protocol designed to interface a wide variety of video equipment to a computer.  
"VISCA™" is a trademark of Sony Corporation.

### FEATURES

- Super HAD technology and 10x optical zoom lens
- Compact and light weight: 38 (W) x 44 (H) x 73 (D) mm, approx. 100 g
- 4x digital zoom
- Built-in field memory
- Slow shutter (long time exposure)
- Backlight compensation
- Exposure compensation
- Auto focus/One push auto focus
- VISCA/RS-232C and TTL signal level control (9600 bps)
- Mirror image, image memory freeze
- Picture effects (negative/positive, monochrome...)
- Digital effects
- Preset function
- Built-in camera ID
- On screen/Date and time display
- 6 months memory backup



## CAMERA CONTROL

### Refer to the "RS-232C Command List" when controlling the camera via RS-232C or TTL.

The following functions can be selected and adjusted.

Zoom	: Zoom Control 16384 steps	Back Light	: Back Light Compensation
Zoom Speed	: Zoom Speed Control 8 steps	LR Reverse	: Mirror Image
Digital Zoom	: Digital Zoom Control 12288 steps	Freeze	: Still Image on Field Memory
Focus	: Focus Control (AF, Manual, One Push) 45056 steps	Memory	: Preset 6 settings
Focus Speed	: Focus Speed Control 8 steps	Display	: On Screen Data (Day and or Time) ON/OFF
AE Mode	: Auto Exposure Mode 9 modes	Key Lock	: Key Lock ON/OFF
WB Mode	: White Balance Mode 6 modes	ID Write	: Camera ID (0 to 65535)
Aperture	: Aperture Control 16 steps	Power	: Camera Power ON/OFF

### Picture Effects

Pastel	: Pastel Image
Neg.Art	: Negative/Positive Reversal
Sepia	: Sepia Image
Black White	: Monochrome Image
Solarize	: Enhanced Contrast
Mosaic	: Mosaic Image
Slim	: Vertical Stretch
Stretch	: Horizontal Stretch

### WB MODE

ATW	: Auto Tracing White Balance (2000 to 10000K)
Auto	: ATW with limiters on R and B gain (3000 to 7500K) to avoid fixing "white" with single scenes
Indoor	: 3200K
Outdoor	: 5800K
One Push WB	: One Push White Balance
Manual WB	: Manual Control of R and B gain, 256 steps

### Digital Effects

Still	: Motion Image on Still Image
Flash	: Continuous Still Image
Lumi	: Motion Images on Binaried Still Image
Trail	: After-image Lag of Moving Object

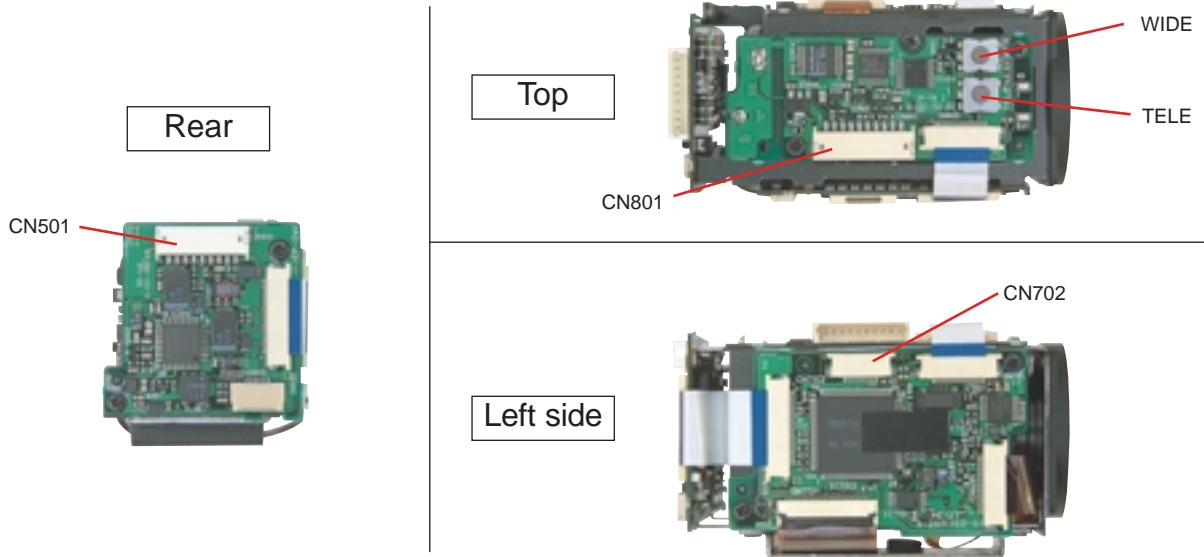
### AE MODE

Full Auto	: Auto Iris and Gain, Fixed Shutter
Shutter Priority	: Variable Shutter Speed (1/4 or 1/3 to 1/10000 sec., 20 steps)
Iris Priority	: Variable Iris (F1.8 to Close, 18 steps), Auto Gain and Shutter
Gain Priority	: Variable Gain (-3 dB to 18 dB, 8 steps), Auto Iris and Fixed Shutter
Manual	: Variable Shutter, Iris and Gain
Bright	: Variable linked Iris and Gain (Closed to F1.8, 18 steps at 0 dB; F1.8, 7 steps from 0 to 18 dB)
Shutter Auto	: Variable Iris and Gain
Iris Auto	: Variable Gain and Shutter
Gain Auto	: Variable Iris and Shutter
Exposure Comp	: Gain Compensation (-10.5 to +10.5 dB, 15 steps at 1.5 dB)

The RS-232 control protocol and command list is provided by Sony on an "as-is basis" without warranty of any kind. Sony does not warrant any particular result from the use of this control protocol and command list and disclaims and excludes all warranties, express or implied, with respect to that control protocol and command list, including, but not limited to, any or all implied warranties of merchantability or fitness for a particular purpose. In fact, Sony specifically acknowledges that software developed based on this control protocol and command list may cause malfunction or damage to hardware and software used with it (Including Sony hardware and software) and specifically disclaims any liability for any such malfunction or damage. This control protocol and command list should be used with caution.

■ When the FCB-IX10/P is not being controlled by RS-232C, zoom can be manually adjusted via switches on the camera.

◆ Connector location



◆ Pin Assignment

CN501 (Power In/Video Out)

Pin No.	Input/Output signal
1	DC IN
2	GND
3	N.C.
4	VBS OUT
5	VBS GND
6	Y OUT
7	Y GND
8	C OUT
9	C GND

Connector : S9B-ZR-SM3A-TF (JST)

CN801 (RS-232C)

Pin No.	Input/Output signal
1	TXD (232C)
2	DTR (232C)
3	DSR (232C)
4	RXD (232C)
5	TXD (TTL)
6	DTR (TTL)
7	DSR (TTL)
8	RXD (TTL)
9	GND
10	AF ON LED

Connector : S9B-ZR-SM3A-TF (JST)

CN702 (External Control)

Pin No.	Input/Output signal
1	GND
2	GND
3	KEY AD 0
4	KEY AD 1
5	KEY AD 2
6	KEY AD 3
7	KEY AD 4
8	KEY AD 5
9	KEY AD 6
10	AF ON LED
11	N. C.
12	N. C.

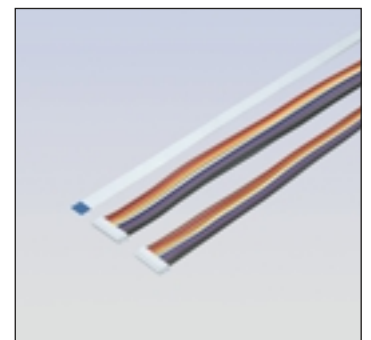
Connector : 52689-1293 (Molex)

OTHERS

■ Supplied Accessories

Cables (3)

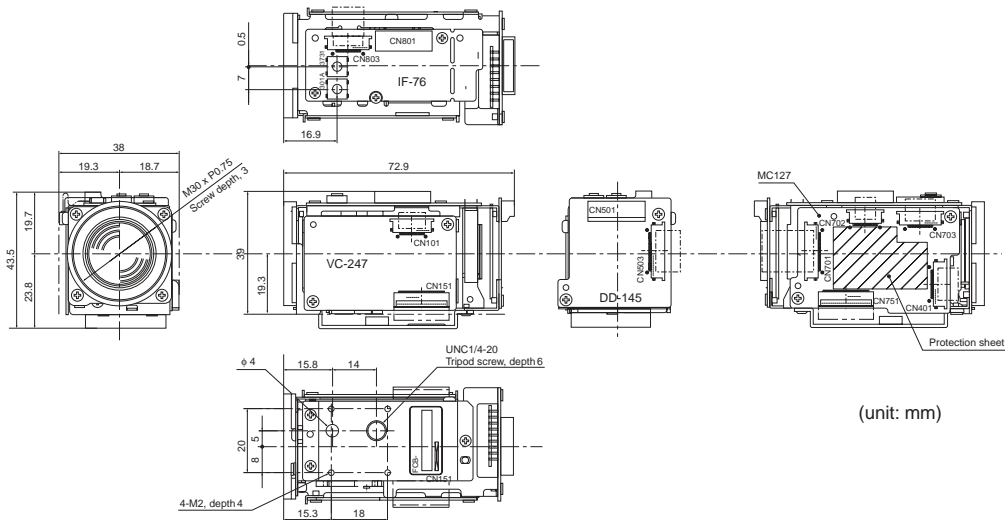
- [Power In / Video Out (CN501)] : Housing ZHR-9 (JST), Contacts SZH-002T-P0.5 (JST)
- [RS-232C In / Out (CN801)] : Housing ZHR-10 (JST), Contacts SZH-002T-P0.5 (JST)
- [External Control (CN702)] : Cable FCC (0.5 mm pitch)



## SPECIFICATIONS

	FCB-IX10	FCB-IX10P
Image Sensor	1/4 type IT CCD	
Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)
H. Resolution	470 TVL	460 TVL
Lens	10x Zoom, f=4.2 to 42 mm (F1.8 to F2.9)	
Digital Zoom	4x (40x with optical zoom)	
Angle of View (H)	approx. 46° (wide end), approx. 4.6° (tele end)	
Min. object distance	10 mm (wide end) 1000 mm (tele end)	
Sync System	Internal	
Min. Sensitivity	4.0 lx (F1.8, normal shutter speed)	
S / N Ratio	more than 50 dB	
Back Light Compensation	ON/OFF	
Electronic Shutter	1/4 to 1/10,000 s, 20 steps	1/3 to 1/10,000 s, 20 steps
White Balance	Auto, ATW, Indoor, Outdoor, One Push WB, Manual WB	
Gain	Auto/Manual (-3 to 18 dB, 3 dB steps)	
AE control	Auto, Manual, Priority mode, Bright, EV compensation, Back light compensation	
Display functions	Mode display, clock display (Date/time), title display	
Battery Back-up	approx. 6 months (fully charged)	
Video Output	VBS: 1.0 Vp-p (Sync Negative) and Y/C	
Storage Temp. / Humidity	-20 to 60°C (-4 to 140°F)/20 to 95%	
Operating Temp. / Humidity	0 to 50°C (32 to 122°F)/20 to 80%	
Power	6 to 12 V dc/2.4 W (typ.)	
Weight	approx. 100 g (3.5 oz)	
Dimensions	(W x H x D) 38 x 44 x 73 mm (1 9/16 x 1 3/4 x 2 3/4 inches) (Lens filter) ø30 mm, (Filter screw) P=0.75 mm	

## DIMENSIONS



Product information  
is available on the  
ISP Home Page

Sony online <http://www.sony.co.jp/ISP/>

Click!

Product Information

Information including product features and catalogs

Document & Software

Product document information and sample software  
downloads

Product catalog

User's Guide

Application Guide

Instruction Manual  
Command List  
FCB-IX10/IX10P

Sample software  
XCD-SX900/X700

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