

DXC-390P

3 CCD C-mount colour video camera



Overview

With so many functions, the DXC-390/390P is the perfect choice for a variety of applications

The DXC-390P is a 1/3" type DSP 3-CCD colour video camera which incorporates Exwave™ HAD technology -- a new Sony technology that greatly improves camera sensitivity (F8 at 2000 lx) while reducing smear compared to previous CCD technologies.

Using a C Mount lens and providing resolution of 800 TVL and a high S/N ratio of 61 dB, the DXC-390P is ideal for machine vision, industrial microscopy, digital photography, portrait proofing, amusement rides, point of view (i.e., sports shooting) and scientific image capture applications, where picture accuracy and detail are essential.

- **High picture quality**

The 1/3" 3 CCD Exwave™ HAD Technology allows the DXC-390P to provide images with high picture quality (800 TV lines) with colour accuracy; high sensitivity (F8 at 2000 lx) and low smear levels

- **C Mount and Flange Back Adjustment:**

Offers choice of many available lenses and allows synchronisation of eye piece focus to camera image

- **Colour Shading Compensation:**

Allows for verification of colour on monitor, useful in microscopy

- **New 10 Bit Digital Signal Processor (DSP) Technology for Powerful Picture Contrast Controls:**

DynaLatitude™: Unique feature function for managing contrast of each pixel according to a histogram of video signal level distribution; Dynamic Contrast Control Plus (DCC+): Innovative DSP technology virtually eliminates hue factor distortion and suitable for knee correction; Black Stretch: Emphasises contrast in dark area while black compression enhances or deepens darkness; Partial Enhance: Allows a particular colour

to be selected and its hue, saturation and detail altered.

- **Extended Genlock**

VBS Genlock and HD/VD in/out):

Allows for synchronisation of signals with Frame Grabber Boards

- **Various Electronic Shutter functions**

- built-in variable speed electronic shutter (10 steps) allow to capture blur-free, clear pictures of high speed moving objects

- Long term exposure mode (manual selection) ideal for Fluorescence applications

- Clear Scan feature eliminates horizontal band that appears when shooting a computer display

- Automatic CCD Iris.

- Strobe function (Synchronisation with external flash) useful for inspection applications

- **Full control of functions**

Full control of functions accessible from the side panel or through the optional RM-C950 Remote control unit:

RS-232C Interface:

Allows for easy control and operation of camera by external computer

The optional Camera adapter CMA-D3 / CE allows to remote control the functions of the camera up to 100 meters.

- **Compact Size and Lightweight**

- Size: 56x50x128

- Weight: 370g

Features

- **Hyper Gain (+30dB)**

Useful to capture images in dark conditions

- **Scene files and User files**

Allows user to instantly recall prepared sets of parameters

- **White Balance modes**

AWB (Auto White Balance)

ATW – Normal / Wide (Auto Tracing White Balance)

Manual

Preset 3200K / 5600K

- **Synchronisation capabilities**

- Strobe function

- WEN output

Realises full vertical resolution of fast moving objects

- **Automatic exposure modes**

AE Level

- adjusts the standard brightness level up to +/- one F –stop in a lens iris>

AE Speed

- selectable AE (Auto Exposure) reaction speed to suit applications under varying lighting conditions

AE Area

- AE Area is a light metering system that includes 6 different modes (Multi, Slit, Mid, Manual, Large, Spot)

- **Video outputs**

RGB, Y/C, and Composite Video outputs

Technical Specifications

Generic Specifications	
● Pick-up device	1/3 type IT (Interline Transfer) CCD
● Effective picture elements	PAL: 752 (H) x 582 (V)
● Sensing area	4.8 (H) x 3.6 (V) mm
● Scanning system	PAL: 2:1 interlaced, 625 lines
● Horizontal frequency	PAL: 15.625 kHz
● Vertical frequency	PAL: 50 Hz
● Sync system	Internal or External with VBS, HD / VD
● Phase control	H / SC phase control
● Horizontal resolution	800 TV lines
● Sensitivity	F8.0 at 2000 lx
● Minimum illumination	4 lx (F2, GAIN: HYPER)
● S/N ratio	PAL: 61 dB
● Gain	STEP/ AGC/ HYPER selectable
● Electronic shutter	OFF/ STEP/ VARIABLE/
● CCD IRIS	selectable
● Lens Remote	(Auto or Manual) / Video selectable
● AE area	Multi/ Large/ Medium/ Spot/ Slit/ Manual selectable
● AE level	Variable
● AE speed	Fast/ Mid/ Slow selectable
● AE detect	Average/ Peak selectable
● Contrast Effect	Manual/ DynaLatitude/ DCC+ selectable
● Knee Point	High/ Normal/ Low selectable (Contrast Effect: Manual)
● Black stretch	Variable (Contrast Effect: Manual)
● Gamma	ON/ OFF Variable
● Pedestal	Master and R/B Manual adjustable
● Black balance	ABB
● White balance	AWB/ ATW NORMAL/ ATW WIDE/ MANUAL/ 3200K/ 5600K selectable AWB or ATW R/B Paint, MANUAL R/B Gain
● ATW area	NORMAL/ MANU selectable
● ATW speed	FAST/ NORMAL/ SLOW selectable
● Detail level	ON/ OFF (Variable at ON)

● Detail Frequency	HIGH/ MID/ LOW selectable
● Linear matrix	ON/ OFF
● Linear matrix	MODE STANDARD/ R Enhance/ G Enhance/ B Enhance/ Manual selectable
● Partial Enhance	ALL/ IN/ OUT selectable
● CCD integration mode	FIELD/ FRAME selectable
● Shading Compensation	OFF / ON (Manual control)
● Trigger Polarity	Positive edge trigger / Negative edge trigger selectable
● Baud rate	19200/ 9600/ 4800/ 2400/ 1200 selectable
● Sync	RGB/ G/ OFF selectable
● Strobe	ON/ OFF
● User File	A/ B switchable (Two pattern memories)
● Scene File	STANDARD/ MICROSCOPE/ FULL AUTO/ STROBE / FILE A or B
● Output signal	VBS / RGB / SYNC / Y / C
● Operating temperature	-5°C to 45°C
● Storage temperature	-20°C to 60°C
● Power requirements	DC 10.5 V to 15.0 V
● Power consumption	Approx. 7.6 W
● Dimensions	56 (W) x 50 (H) x 128 (D) mm (2 1 / 4 x 2 x 5 1 / 8 inches) (Excluding projecting parts)
● Mass Approx.	370 g (13 oz)
● Connectors	Lens (6 pin) RGB / SYNC (9 pin D-sub) DC IN / VBS (12 pin) VIDEO OUT (BNC) TRIGGER IN (BNC) REMOTE (8 pin mini DIN)

Supplied Accessories	
● Lens mount cap (x 1)	
● Operation instructions (x 1)	
● Tripod adaptor (x 1)	
● Panel sheet for RM-C950	

Accessories

Medical Accessories



RM-C950

Remote Control Unit For
Colour Video Cam