



4K/60p Surgical Field Camera System

CuratOR[®] SC431

Making Each Life Visual



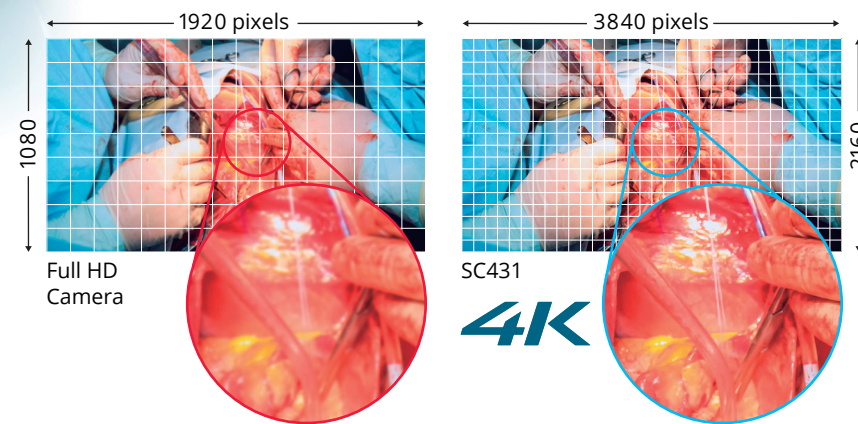
4K

Precision in Motion, Clarity in 4K
Enhancing Your Surgical View

Surgical field camera system featuring 30x zoom, image stabilization, a 4K 60p camera head, and versatile triaxial mount for capturing surgical procedures.

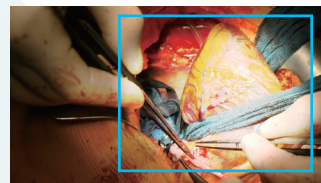
4K Ultra-High Definition Resolution

The SC431 captures images in 4K UHD resolution (3840 x 2160) with a progressive 60 Hz signal for smooth, high definition images of the surgical field.

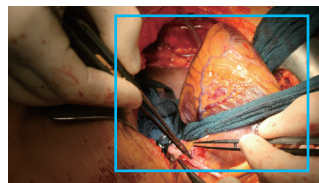


High-Quality Imaging

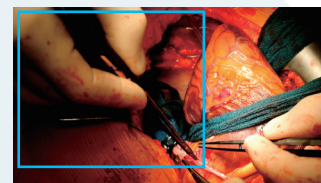
The Knee function reduces halation from surgical lights, while the Black Stretch function enhances visibility in dark areas of the image. Noise Reduction improves overall clarity by minimizing visual interference, and 10-bit color output allows for smooth gradations between tones. Together, these functions ensure optimal, well-balanced image capture, even in shadowless or low-light environments.



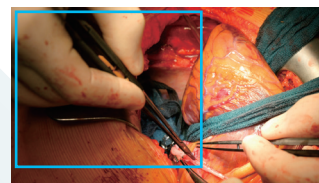
Knee OFF



Knee ON



Black Stretch OFF



Black Stretch ON

Detailed View with 30x Zoom

The 30x optical zoom lens allows the camera to zoom into small target areas, capturing narrow surgical sites in remarkable detail. The camera supports the attachment of Neutral Density (ND) filters to reduce the intensity of light entering the lens, preventing glare and overexposure.

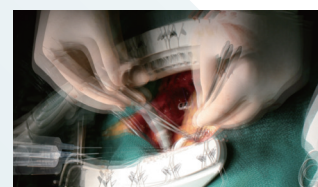
A Neutral Density (ND) filter comes attached as standard.



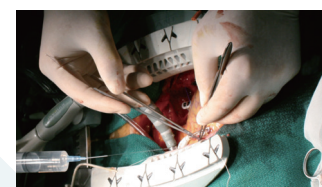
30x Zoom

Stabilization Technology for Clear Imaging

The camera head is equipped with EIZO's proprietary Image Shake Stabilizer function, which reduces chronic micro-vibrations, such as those caused by air conditioning units, as well as subtle jitter when zooming.



Without Image Shake Stabilizer



With Image Shake Stabilizer

Fully Integrated Camera Mount

The camera is fully integrated with a mount, offering a pan range of +/-170 degrees, a tilt range of +90 to -30 degrees, and a roll range of +/-200 degrees. This allows for flexible adjustment of the field of view to the optimal position.



Convenient Camera Control

Camera zoom, white balance, and mount controls can be operated from the front panel of the Camera Control Unit (CCU), or with the included infrared (IR) remote control. Additionally, the camera supports control from external devices via Ethernet or RS-232C connections.



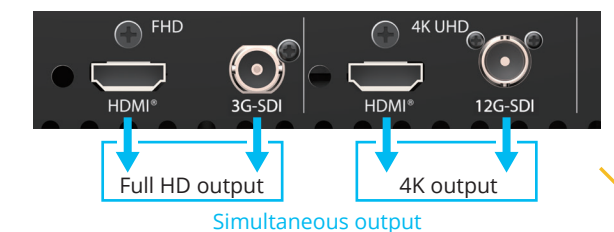
Camera Control Unit (CCU)



Remote Control

Versatile Connectivity

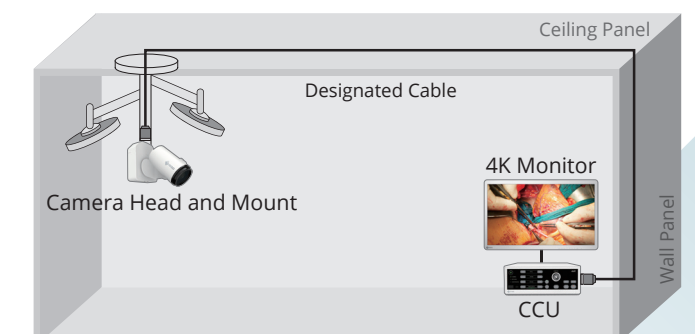
The CCU is equipped with 12G-SDI and HDMI® terminals for 4K UHD video output and 3G-SDI and HDMI terminals for Full HD video output. With the ability to output all signals simultaneously, you can preview and record in both 4K and Full HD, even in environments with mixed devices.



One Cable Connection for Easy Installation

The camera head and CCU are conveniently connected via a single dedicated cable that provides video and audio signal transmission as well as power supply. This streamlines installation while also reducing cable clutter.

Choose from 5m, 25m, or 35m cables. An optional extension adapter is available for connecting two cables in succession (5m+5m or 5m+25m).



Audio Capture

The camera head is equipped with a built-in microphone, allowing synchronized output of video and audio from the CCU. The microphone can be easily toggled on or off with a single touch of a button.

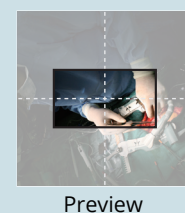


Unique and Intelligent PTRZ

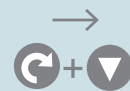
Smooth and Intuitive Camera Movement

The integrated camera mount allows for smooth and intuitive panning and tilting. Movements remain parallel to the field of view, regardless of the roll position, providing seamless control.

On typical camera mounts, roll and pan functions operate independently, which make it difficult to move the camera in the intended direction.



Preview



Without Integrated Camera Mount



With Integrated Camera Mount

Precise Movements at High Zoom

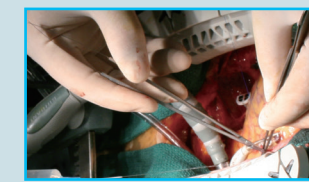
With its unique and intelligent stepping technology, the camera automatically slows down pan, tilt, and roll movements as it zooms in. This prevents the field of view from shifting too quickly, giving operators precise control over movements, even at high zoom levels.



Movement



Without Intelligent Stepping



With Intelligent Stepping

Specifications

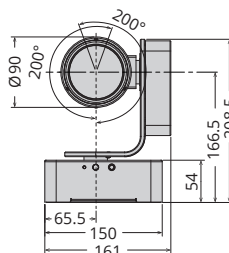
Camera Head	Image Sensor	1/2.8 type CMOS, single chip type
	Effective Pixels	3840 x 2160
	Zoom	Optical 30x motorized zoom
	Focal Length (f=)	4.5 (W) - 135 mm (T)
	Horizontal Field of View (HFOV)	62.3 (W) - 2.5° (T)
	Minimum Object Distance (MOD)	100 (W) - 700 mm (T)
	Filter Diameter	72 mm
	Focus Control	Auto, Manual
	Iris Control	Auto, Manual
	Pan Range	+/- 170°
	Tilt Range	+90 - -30°
	Roll Range	+/- 200°
	Pan Speed	8.6 - 0.05°/second, 7 steps
	Tilt Speed	8.6 - 0.05°/second, 7 steps
	Roll Speed	30 - 0.2°/second, 7 steps
	Build-in microphone	Yes
Features & Functions	Image Control	Exposure Mode, Metering Area, YUV Color Matrix, White Balance, Sharpness
	Gain	Auto, Manual (0 - 51 db)
	Shutter Speed	[59.94 Hz output] 1/60 - 1/10000 [50 Hz output] 1/50 - 1/10000
	Picture Flip	Normal, Flip
Interface	Image Output Terminal	4K: HDMI, BNC (12G-SDI) 2K: HDMI, BNC (3G-SDI)
	Video Output	4K (HDMI): 2160/59.94p, 2160/50p 4K (SDI): 2160/59.94p, 2160/50p 2K (HDMI): 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i 2K (SDI): 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i
	Audio Output	HDMI, SDI, mini jack
	Remote Control	LAN, RS-232C, IR remote
Other	Power Supply	DC 24 V
	Power Consumption	77 W
	Operating Temperature / Humidity Range	Camera Head: 0 - 35 °C / 20 - 80 % (No condensing) CCU: 0 - 40 °C / 20 - 80 % (No condensing)
	Dimensions (W x H x D)	Camera Head: 161 x 211.5 x 213.7 mm (with cable cover) CCU: 220 x 87.5 x 270 mm (without projection and rubber feet)
	Weight	Camera Head: 3.4 kg CCU: 3.0 kg
Certifications & Standards (Please contact EIZO for the latest information)		CE / UKCA, CB, cTÜVus, IEC60601-1, VCCI-A, FCC-A, CAN ICES (A), RoHS, WEEE
Supplied Accessories (May vary by country. Please contact EIZO for details.)		AC adapter, AC power cord (2 m), camera cable (choose from 5 m, 25 m, 35 m), IR remote control, rubber feet x 4, cable cover, Instructions for Use, Quick Reference Guide
Warranty		2 Years

Dimensions (Unit: mm)

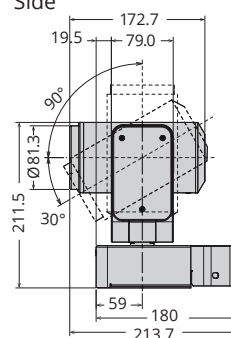
Camera Head and Mount

SC431-CH

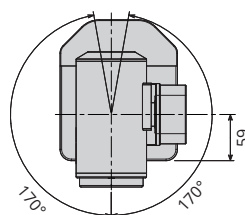
Front



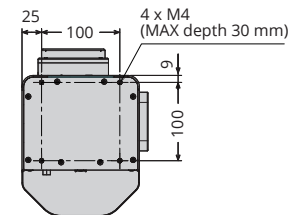
Side



Top



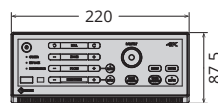
Bottom



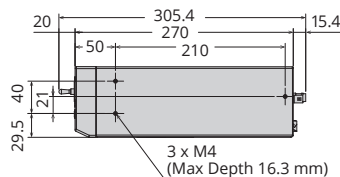
Camera Control Unit (CCU)

SC431-CCU

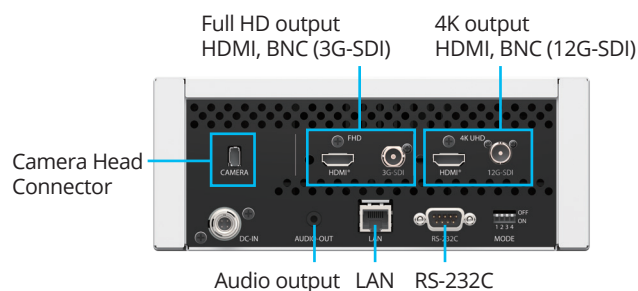
Front



Side



Rear Connector of Camera Control Unit



Accessory

5 meter Camera Cable

SCC500

25 meter Camera Cable

SCC2500

35 meter Camera Cable

SCC3500

Camera Cable Adapter

SCA02



You will find your EIZO contact partner at:

www.eizo-or.com/contact

The SC431 is not classified as a medical device.

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