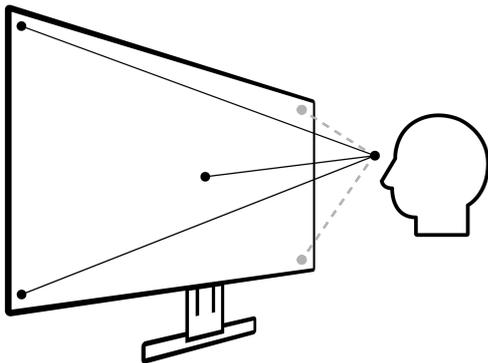# CS230B-BK

Your advantages

5 YEARS WARRANTY

The 23-inch ColorEdge LCD from EIZO does not forget subtle colour nuances. It reproduces colour tones precisely thanks to the 16-bit look-up table and up to 10-bit colour reproduction. Its gamut almost entirely corresponds to the sRGB gamut as it can be recorded by many HD cameras. HDMI signals for video or photo can be viewed directly on the CS230 via HDMI. The screen achieves stable colours thanks to its integrated measurement device and automatic self-correction. The IPS-LCD module of the CS230 guarantees contrast and colour tones that are independent of the viewing angle. The backlight is achieved by using state-of-the-art, energy-saving LED technology.

- ✓ Widescreen LCD, contrast 1000:1, brightness 300 cd /sq m
- ✓ Integrated self-correction sensor for constant colour rendering
- ✓ Colour precision with 16 bit look-up table and up to 10 bit colour rendering
- ✓ Digital Uniformity Equalizer (DUE) for perfect luminance distribution and colour purity
- ✓ Temperature-controlled correction of colour drift and brightness
- ✓ Display Port, DVI-I, and HDMI inputs for digital and analogue connection
- ✓ ColorNavigator included
- ✓ Recommended optional accessories: Measuring device for hardware calibration of brightness, white point, and gamma

Features

Excellent image quality for sharp images

The screen convinced with a resolution of 1920 x 1080 (Full HD), an impressive contrast ratio of 1000:1 and a brightness of 300 cd/m2. So you are able to edit graphics and images pixel accuracy. And: the textures are clear and pricsely. The LCD panel with IPS technology enables a viewing angle of 178 degrees, ensuring that hues and contrast remain stable for the viewer.

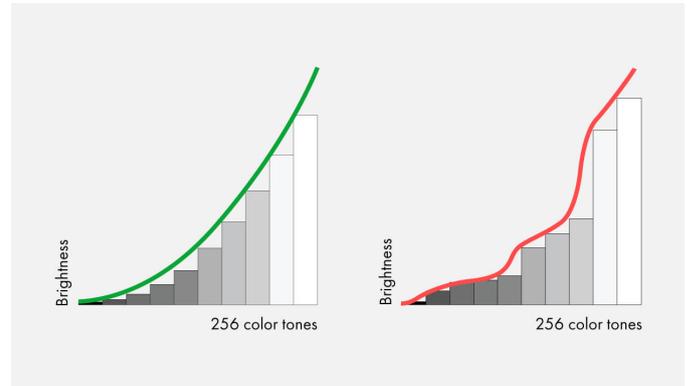## Exact colour reproduction – factory calibration

With LCD panels, the image display can vary from module to module. That is why each ColorEdge monitor is precisely measured and calibrated in the factory. The gamma curves for the red, green and blue channels are tested according to strict parameters and corrected if necessary. This unique EIZO factory calibration enables the user to start using the monitor with the preset gamut right out of the box. In addition, the factory calibration allows the user to quickly recalibrate the monitor if needed using ColorNavigator.

High resolution look-up table

Thanks to the 16-bit look-up-table, the CS230 offers precise resolution of image signals. Colour nuances and image structure are not lost, particularly in the case of dark hues. This reliable

and precise reproduction reduces calibration steps, saving valuable production time.

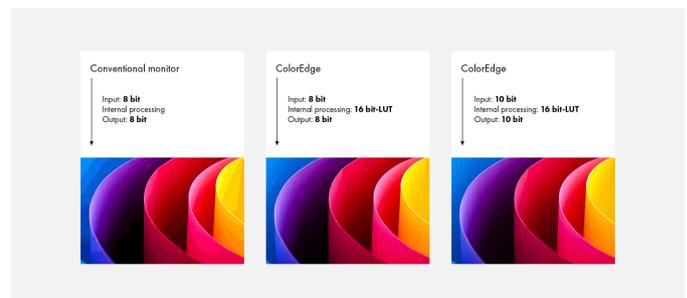Ideal gamma curve   Uncorrected gamma curve

EIZO monitor   Other monitor

10 bit colour depth: a billion colours in the finest grades

Thanks to the 10 bit colour display based on a 16 bit LUT, you can utilize a huge colour spectrum. This is made possible by the rapid DisplayPort and HDMI connections in combination with the frame rate control. A billion colours at your fingertips simultaneously. That is 64 times more colours than with an 8 bit display. The colour gradations are finer and the colour differences between adjacent colours are smaller. The enhanced greyscale range is equally important for post-production. With the 10 bit greyscale range activated, between 6% and 14% more grayscales are visible.

8 bit and 10 bit display

Features

Constant tone value over the entire screen

Digital Uniformity Equalizer (DUE) controls all tone values over the entire monitor, pixel by pixel. The effect: colour tones appear identical at each point on the screen, without the brightness fluctuations you experience in conventional LCDs. The DUE function also balances out the effects of fluctuations in ambient temperature on the colour temperature and brightness. You will enjoy consistently even luminance distribution and perfect colour purity. A real plus when touching-up images.

Exact and fast hardware calibration

Calibration becomes quick, easy, and colour accurate with the ColorNavigator software: Calibration is accessed and stored directly on the look-up table in the monitor's hardware during calibration. You determine the corresponding components such as white point, gamma, brightness, and tone curve according to your needs. The calibration is then fully automatic and based on the factory adjustment and is therefore unique in terms of precision and speed.

Stable colours in the long term thanks to self-correction

The monitor undertakes colour corrections independently using the built-in sensor. The sensor is located in the housing frame and only comes out when taking measurements. In the first step, you

Recording white point and brightness values when calibrating with an external sensor

Automatic self-correction

calibrate the monitor according to your needs using an external measuring device and the ColorNavigator software. After this, the sensor will automatically measure colour values, white points,

and brightness and make corrections autonomously at scheduled intervals. You can define the correction interval yourself. This means that colours will remain stable permanently.
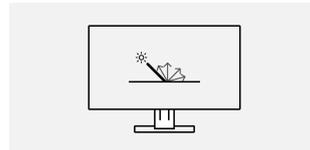
Five-year warranty

EIZO grants a five-year warranty. This is possible thanks to the highly developed production process based on a simple principle of success: sophisticated and innovative monitor technology, made from high-end materials.
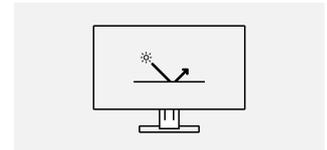

Perfect anti-glare coating

The IPS panel has optimal anti-glare coating. It diffuses the reflected light to minimise glare, protecting your eyes from strain. In addition, the monitor provides for a wide viewing angle without any distracting reflections. This is particularly advantageous when multiple people are seated in front of the same monitor.

EIZO monitor: anti-glare coating

Conventional monitor: undesirable reflections

Flicker-free working

The monitor is flicker-free at every brightness setting. The benefit: Your eyes do not get tired as quickly. You can work on the screen for an extended period.

One monitor, many ports

It doesn't get easier than this: You can connect most of your devices, such as PC, laptop or cameras directly to the monitor because the monitor hasa number of different ports. That makes your daily work easier.

Features

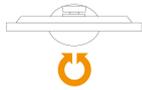### Ergonomic and stable: the adjustable base

The CS230 has a flexible base to adjust the height, tilt, and rotation and supports both portrait and landscape use. The monitor can be tailored to the user's needs. For example, he can set a sitting position that is ergonomic for him (e.g. lowered to the bottom) or a position to show clients and colleagues something on the screen.
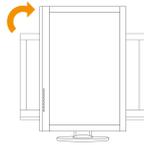

Height
154 mm

Tilt
Tilt up 30°, tilt down 0°

Swivel
344°

Rotation
Rotation 90° (rechts) clockwise

Specification

General

Item no.	CS230B-BK
Case colors	Black
Areas of application	Photography, design & media
Product line	ColorEdge
EAN	4995047040927

Display

Screen size [in inches]	23
Screen size [in cm]	58
Format	16:9
Viewable image size (width x height)	509 x 286
Ideal and recommended resolution	1920 x 1080 (Full HD)
Pixel pitch [mm]	0.26 x 0.26
Resolution supported	1920 x 1080 (Full HD), 1680 x 1050, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 720 x 576, 720 x 480, 720 x 400, 640 x 480, 480i (@ 60 Hz), 480p (@ 60 Hz), 1080i (@ 60 Hz), 720p (@ 60 Hz), 1080p (@ 60 Hz), 576i (@ 50 Hz), 576p (@ 50 Hz), 1080i (@ 50 Hz), 720p (@ 50 Hz), 1080p (@ 50 Hz), 1080p (@ 30/25/24 Hz)
Panel technology	IPS
Max. viewing angle horizontal	178 °
Max. viewing angle vertical	178 °
Number of colours or greyscale	16.7 million colours (display port, 8 Bit), 16.7 million colours (HDMI, 8 Bit)
Colour palette/look-up table	278 trillion colour tones / 16 Bit
Max. colour space (typical)	AdobeRGB (75 %), sRGB (97 %)
Max. brightness (typical) [in cd/m²]	300
Recommended brightness [in cd/m²]	120
Max. dark room contrast (typical)	1000:1
Typical response time [grey/grey alternation]	11 ms
Typical response time [black/white/black alternation]	7 ms / 8 ms
Max. refresh rate [in hertz]	60
Backlight	LED

Features & control

Hardware calibration of brightness, white point and Gamma/EOTF	✔ mit separatem Messgerät
Integrated sensor for self-correction	✔
Scheduler function for self-calibration	✔
Preset colour/greyscale modes	sRGB, Paper, Calibration, 3x free modes for user selection
Brightness drift correction	✔
Digital Uniformity Equalizer	✔
Overdrive	✔
Noise suppression (HDMI)	✔
Colour blindness simulation	✔
HDCP Decoder	✔
Gamut Clipping	✔
Input signal identification	✔
OSD language	de, en, fr, es, it, se, ja, zh
Adjustment options	Brightness, Contrast, Gamma, Colour saturation, Colour temperature, Gammut clipping, Colour Mode, Colour tone, Signal input, Overdrive, Resolution, OSD language, Interpolation, DUE priority, Off Timer
Integrated power unit	✔

Ports

Signal inputs	DisplayPort (HDCP 1.3), HDMI (HDCP 1.4), DVI-I (HDCP 1.4)
USB specification	USB 2.0
USB upstream ports	2 x type B
USB downstream ports	2 x type A
Video signal	DisplayPort, DVI (TMDS), HDMI (YUV, RGB), RGB Analog

Electric data

Frequency	HDMI: 15-68 kHz/23,75-61 Hz; Display Port: 26-68 kHz/23,75-63 Hz; DVI-I (digital): 26-68 kHz/23,75-63 Hz; DVI-I (analogue): 26-78 kHz/47,5-61 Hz
Power consumption (typical) [in watt]	21
Maximum Power Consumption [in watt]	54
Power Save Mode [in watt]	0.5
Power consumption off [in watt]	0
Energy-efficiency class	C
Annual energy consumption [in kWh]	53
Power supply	AC 100-120 V / 200-240 V, 50/60 Hz
Power management	✔

Dimensions & weights

Dimensions [mm]	544 x 373-527 x 246
Weight [in kilograms]	7.5
Swivel	344 °
Incline forward/backward	0 ° / 30 °
Pivot	✔ 90° (rechts)
Height adjustment range [mm]	154
Hole spacing	VESA standard 100 x 100 mm

Certification & standards

Certification	CE, TCO Displays 5.2, TÜV/S, TÜV/GS, TÜV/Ergo-nomics, CB, cTÜVus, FCC-B, CAN ICES-3 (B), VCCI-B, RoHS, WEEE, C-Tick, CUDO-Zertifizierung, ISO 9241-307 Pixel fault class 1**

Software & accessories

Accompanying software and other accessories are available for download	ColorNavigator
Additional supply	Power cord, Signal cable DVI-D - DVI-D, USB 2.0 cable, Quick guide, EIZO LCD Utility Disk (incl. PDF manual), Warranty card, ICC colour profile
Accessories	EIZO ScreenCleaner (for the best possible clean without scratching the monitor), HH200PR-K (HDMI (High Definition Multimedia Interface) cable), CH6 (Monitor hood for CS230), PM200-K (DisplayPort cable to transfer digital video and audio signals.)

Warranty

Warranty and service	5 years warranty*

Terms

*) The length of the warranty for the LCD module is five years from the date of purchase or 30,000 operating hours, depending on which happens sooner. **) Zero pixel error guarantee for completely lit sub-pixels (partial pixels ISO 9241-307). Valid: six months from the purchase date.