31.1" | Graphics-Monitor

ColorEdge CG319X

CG319X

Your advantages

DCI 4K 4096 × 2160

5 YEAR WARRANTY

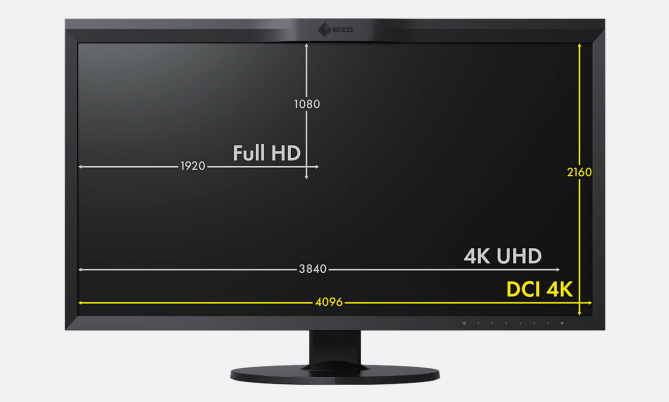
Thanks to a resolution of 4096 x 2160 pixels, the CG319X is the ideal monitor for processing DCI 4K content and displaying it natively. Featuring a built-in calibration sensor and HDR presets for HLG and PQ gamma, this new monitor is the perfect choice for professional use in video postproduction, photography and other graphics applications. The CG319X boasts 98% DCI P3 colour range coverage and impressively deep black levels, making it the ideal choice for precise colour grading of 4K content. DCI 4K material can be viewed at 60 Hz via two DisplayPorts as well as two HDMI ports. As a result, the CG319X can be integrated into PC-based workflows as well as used with HDMI feeds.

- DCI 4K with 4096 x 2160 pixels (149 ppi), four-times Full HD resolution
- Wide gamut LCD, versatile gamut covering 98% of the DCI P3 and 99% of the AdobeRGB colour gamut
- Integrated sensor and fully automatic self-calibration
- 3D look-up-table (LUT) for precise hardware calibration of brightness, white balance and gamma
- 10-bit display (over a billion colours simultaneously) based on a 24-bit look-up-table for precise colours
- Digital Uniformity Equalizer for perfect luminance distribution and colour purity
- Temperature-controlled adjustment of colour drift and brightness
- Two 1.2 DisplayPorts and two HDMI ports (4K DCI with 60 Hz)
- ColorNavigator calibration software and light protection shields included in delivery

Features

DCI 4K resolution

The CG319X features DCI 4K 4096 x 2160 (4K), which corresponds to four times the pixel count of Full HD (1920 x 1080). This monitor is therefore the ideal tool for 2D and 3D CGI or visual effects, from compositing to colour grading.



Suitable for softproofing

The EIZO CG319X fulfills strict softproof requirements based on the ISO/CD 12646 standard. Fogra Forschungsgesellschaft Druck e.V. came to that conclusion in the course of testing the monitor. The CG319X was therefore awarded the Fogra "FograCert Softproof Monitor" seal of quality. You will therefore be working on a tested, colour-proof monitor.

Fogra cert
Softproof Monitor | 32059

Outstandingly sharp image quality

The screen has an impressive top resolution (4096 x 2160 (4K)), a very good contrast ratio of 1500:1 and a brightness of 350 cd/m². For example, you can edit graphics and images down to the pixel. As an added benefit, text contours are clear and precise. The LCD panel with the IPS (Wide Gamut) panel allows for a viewing angle of 178 degrees. Ensuring that hue and contrast remain stable for the viewer.

Wide gamut – vivid colours in line with industry standards

The wide-gamut monitor reliably reproduces 98% of the DCI P3 standard used in digital cinema and also supports the Rec. 2020 standard.

The CG319X also covers 99% of the Adobe RGB gamut. When images recorded in RAW format are converted to AdobeRGB, the monitor reproduces these with absolute colour fidelity. The EIZO monitor also offers great advantages for printing: It covers almost the entire CMYK gamut (ISO coated and U.S. Web Coated, for example). You see the later print result on screen and save yourself the proof stage.

Features

HDR Gamma Support

In terms of the HLG and PQ tone curves, the CG319X meets the relevant standards for the display and processing of content in HDR (High Dynamic Range). The optimised gamma curves enable the content to closely resemble natural, human colour perception. Production and post-production professionals can count on a reliable representation with HDR tone curves for editing and colour grading.

HDR

SDR

True Black: Colour depth for plastic images

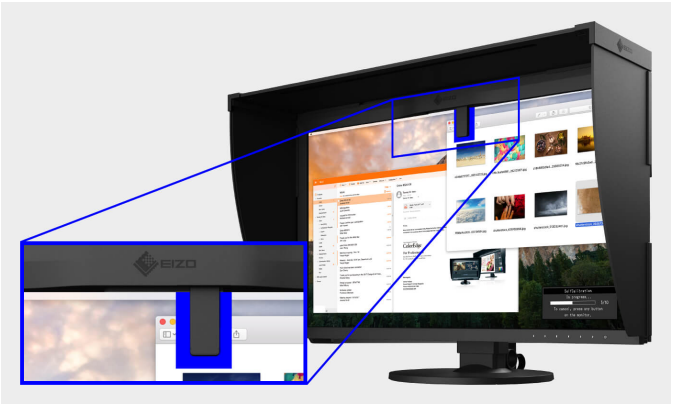
Dark tones often appear faint or washed-out on LCD screens. True Black improves the contrast ratio and dark tones appear deeper – particularly when looking at the monitor from the side.

Integrated sensor for self-calibration

An integrated calibration sensor ensures you achieve maximum colour accuracy. The sensor is perfectly aligned to the monitor, takes environmental influences such as light into account, and correlates the centre of the image with the edge of the image. This ensures an even result over the whole monitor.

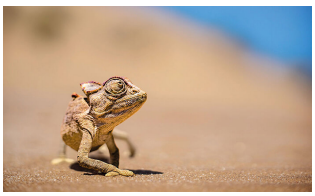
The sensor is located in the bezel and is only extended when performing measurements. This means that no external calibration device is necessary, and the colour fidelity of the monitor is optimal at all times.

The CG319X is equipped with the latest sensor technology that enables recalibration during normal operation, allowing you to continue working with non-colour-critical applications while the monitor is calibrating. During calibration, the sensor only takes up a small area of the screen and does not present an obstacle. Calibration can also be performed fully automatically at definable times.

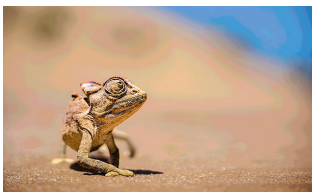


Smooth and fluid transitions and gradients thanks to 24-bit LUT and 10-bit mode

Thanks to the 10 bit colour display based on a 24 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.



10 bit (LUT: 24 bit)



8 bit (no LUT)

Features

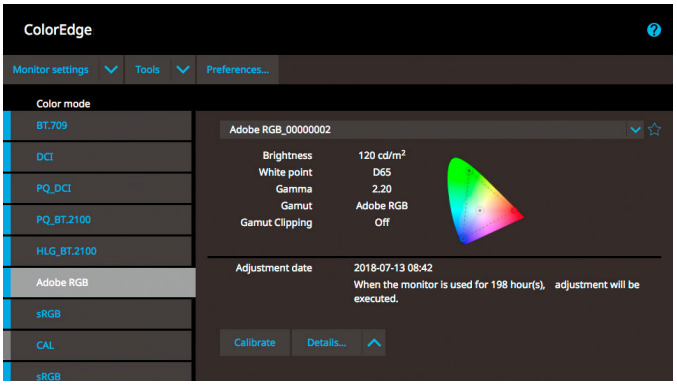
EIZO software for fast calibration and printing

Good image processing is only possible on well-calibrated monitors. The usual software calibration takes a long time and requires the user to have a certain level of technical expertise. The CG319X is supplied with ColorNavigator hardware calibration software. With ColorNavigator, you can perform calibration quickly, easily, and with excellent colour precision: During calibration, the software directly accesses and saves to the look-up-table in the monitor hardware. You determine the relevant components such as white balance, gamma, brightness, and tone value curve according to your requirements. Calibration then runs automatically based on the default set during production and is therefore unique in terms of precision and speed. This also means that calibration can be performed by users in just a few steps, with no need for in-depth technical knowledge. Because the calibration takes place via the monitor hardware, it is performed without loss and independently of the computer and graphics board. The CG319X can also be smoothly integrated into an existing system.

More information on the EIZO ColorNavigator

The free Quick Color Match software helps users, even without in-depth expertise in colour management, to see on the monitor how their images will look when printed on their Canon or Epson inkjet printer at home. In this way, the images can be optimised for the special properties of the selected photo paper even before printing, which helps users avoid expensive misprints.

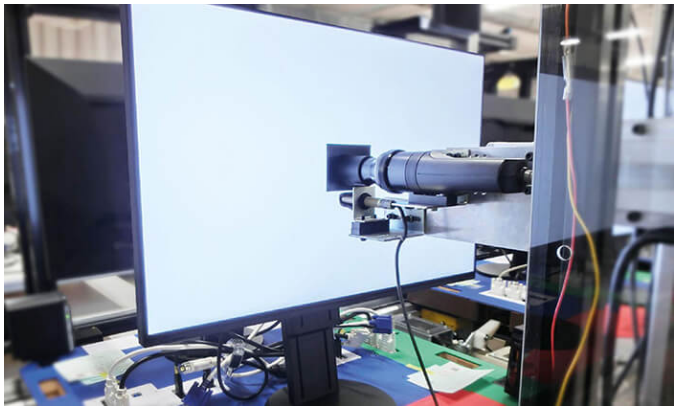
More information on Quick Color Match



Colour Mode selection varies by model.

Ready to use right out of the box – perfect settings right from the factory

Every ColorEdge CG319X is individually measured and optimally configured in the factory, enabling it to be used immediately after it has been unboxed. To this end, the gamma curves for the red, green and blue channels are closely checked and corrected, if necessary. This unique EIZO factory calibration enables the user to start using the monitor with the preset gamut range right out of the box. This painstaking calibration at the factory ensures that the user can quickly recalibrate the monitor if needed using ColorNavigator.



Digital Uniformity Equalizer – perfect rendering across the entire screen

Each individual monitor panel is precisely measured over the entire surface at the EIZO factory. Any inhomogeneities in brightness and unnecessary colour are detected and removed. This process (Digital Uniformity Equalizer) guarantees that identical colours always look the same over the entire service life of the monitor, no matter where they are displayed. Only in this way is precise image processing and retouching possible.

With DUE

Without DUE

Stable brightness, no colour deviation

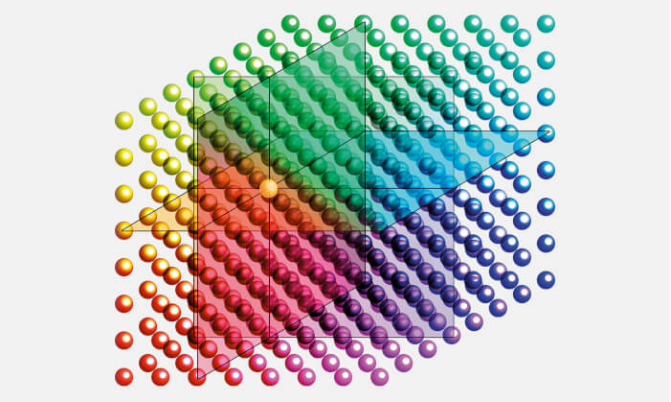
The alpha and omega for exact image editing: constant brightness and colour temperature. Patented electronics balance out brightness fluctuations that may arise due to extended periods of use and increased environmental and operating temperature. Thanks to a built-in thermometer, colour deviations caused by fluctuations in room temperature are eliminated and automatically reduced. The colour rendering remains absolutely constant over a long period of use, right from the start: because the warm-up time until brightness, colour, and tone values have completely stabilized is just three minutes.

Features

Precise colour rendering thanks to high-resolution 3D look-up table

The 3D LUT provides for the most precise tone value allocation possible and extremely exact colour tone rendering, which is shown amongst other things in the grey scale. Brightness levels in relation to the image signal vary from module to module in LCDs and the colour mixture (addition) of red, green, and blue also varies. This can be exactly determined and controlled only with the aid of specific measuring devices. EIZO therefore configures all of its monitors in the CG series and its colours and tone value curve in the factory. This results in a consistent colour temperature over the entire grey scale. The result: The colour reproduction is equal, precise, and reliable across each individual CG319X monitor.

The 3D look-up table also has the following benefits when working with films: Thanks to the ColorNavigation software included, you can emulate the colours of film material. This means you can see how the image will look when it is played. The 3D LUT also improves the additive mixture of colour in the monitor (mixture of red, green, and blue). This is a key factor for displaying neutral grey tones correctly.



3D LUT profiles for film production

Film emulation with 3D LUT ColorNavigator can use 3D LUT files from the colour grading of films to generate data for emulation on the monitor. This film emulation is available for up to five colour modes of the monitor and is suited to simulating the coloring of films.

Safely in sight thanks to the safe area marker

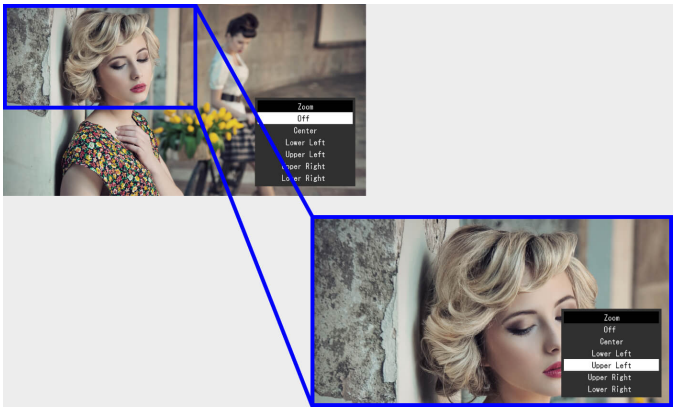
Ideal for captions and critical images: Thanks to the safe area marker, you will know which area of the screen is displayed on another output device. You will therefore see immediately whether subtitles, text, or other important image elements are in the visible area. So that the marker can be clearly seen in all images, you can change the marker colour.

Aspect Marker

The Aspect Marker enables the display of DCI 4k image areas (4096 x 2160 pixels) or 2K video material (2048 x 1080 pixels) that are displayed in varying ways when reproduced on different devices with differing aspect ratios.

4K Zoom

Users can quickly and easily make selections directly in the monitor menu to zoom in on various areas of the monitor image so as to assess details and sharpness.



Features

Luminance Warning

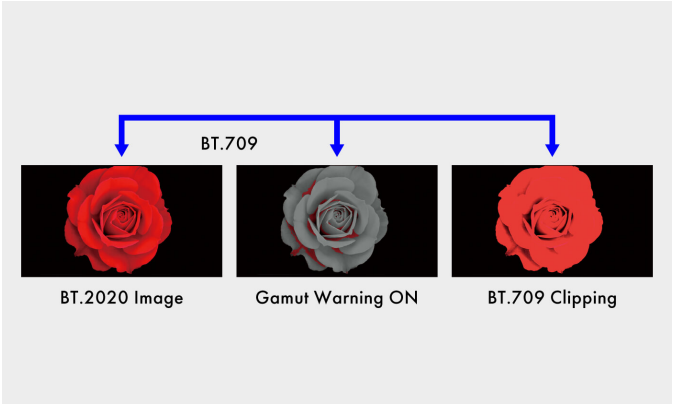
The Luminance Warning allows areas that exceed a certain brightness (300, 500, 1000, or 4000 cd/m²) when PQ mode is used to be highlighted. These areas can be highlighted in the user's choice of yellow or magenta.

Brightness warning

Without brightness warning

Gamut Warning

The Gamut Warning operates in two modes: Rec. 2020 image content that can't be displayed in the Rec. 709 gamut is displayed in greyscale. Alternatively, clipping mode is simulated in Rec. 709 to show how Rec. 2020 material would look on HDTV devices.



Ideal for video and film production: HDMI

Films are normally recorded at 24 fps. They therefore appear unnatural with the conventional monitor rendering of 60 fps. The monitor supports an image frequency of 24 fps. This means that you can view and edit your film material as it was taken.

HDMI signals with refresh rates of 60, 50, 30, 25 and 24 Hz are supported, ensuring you can view and edit your film material in the same format in which it was recorded. The monitor also features I/P conversion.

Gamut presets for film and video production

Presets for the gamuts DCI P3, Rec. 709 and Rec. 2020 are precisely calibrated in the factory and ensure you work with the correct gamma values. Colour modes for PQ (DCI and Rec. 2100) and HLG (Rec. 2100) for the display of HDR content are also preset as factory defaults. Colour modes on the monitor can be easily changed at the touch of a key, and recalibrated when necessary using ColorNavigator.

Monitor ports

It doesn't get simpler than this: Most end devices, such as PCs, laptops or cameras, can be connected directly to the monitor, thanks to its wide range of interfaces.

The CG319X supports a wide variety of video formats up to 10-bit 4:4:4 at 50/60 p via DisplayPort and 10-bit 4:2:2 at 50/60 Hz via HDMI. As a result, the CG319X can be integrated into PC-based workflows as well as used with HDMI feeds.

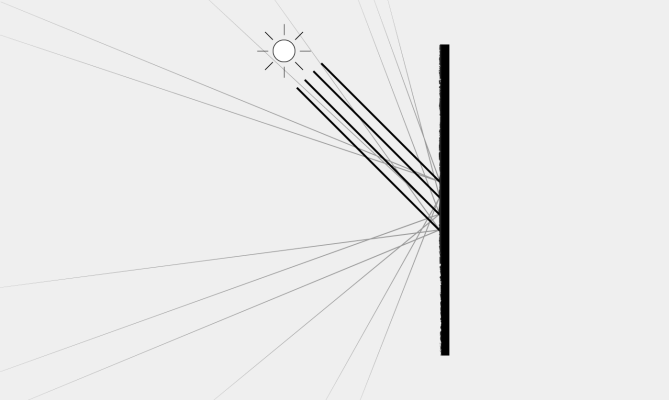
Work without screen flicker – your eyes will thank you for it

Many monitors flicker imperceptibly. This flickering is not consciously perceived, but it causes the eyes to tire more quickly. That is why EIZO attaches great importance to flicker-free monitors. This is great for users, as their eyes will not tire as quickly, allowing them to work in front of the screen for longer periods of time without fatigue.

Features

Modern antireflection technology

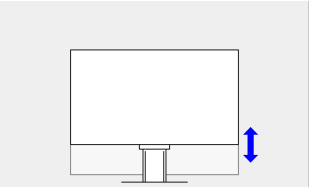
Nothing is more distracting than dazzling reflections on the monitor. That is why all EIZO monitors use modern antireflection technology. This does not just protect your eyes from excessive strain, but also saves you from having to assume uncomfortable positions while sitting in front of your monitor.



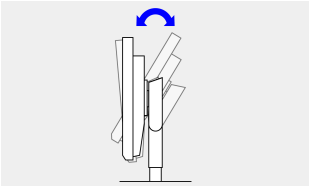
Stand – ergonomic and stable

Our screens offer continuous height adjustment. Depending on the model, they can even be lowered to the base plate of the stand. This guarantees the best possible ergonomics, regardless of whether the user is sitting or standing in front of the screen. You can also swivel, rotate and tilt the monitor base to the position that is most comfortable for your posture.

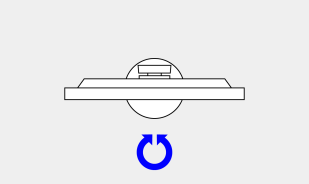
The CG319X can also be rotated into the portrait format, which is a great advantage for tethered shoots of people in the portrait mode, for example.



Height
154 mm



Tilt
Back 35°, front 5°



Swivel
344°

Protection against glare thanks to the monitor hood

The monitor hood reduces reflection and brightness on the screen and helps protect your eyes. It is easy to attach and reduces the amount of light that hits the screen from above and from the sides.

Socially responsible production

The CG319X is produced in a socially responsible way. It is free of child labour and forced labour. Suppliers along the supply chain have been carefully selected and they have also committed themselves to produce in a socially responsible way. This applies in particular to conflict minerals. We present a detailed report about our social responsibility annually and voluntarily.

Read more about our corporate social responsibility

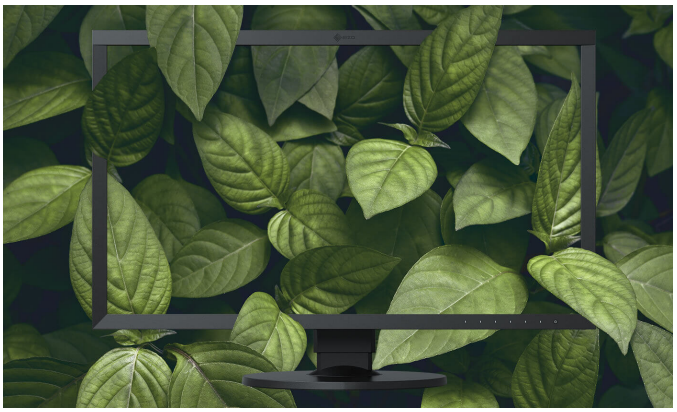
Features

Environmentally and climate friendly

Each CG319X is manufactured in our own factory, which implements an environmental management system in accordance with ISO 14001. This includes measures to reduce waste, wastewater and emissions, resource and energy consumption, as well as to encourage environmentally conscious behaviour among employees. We publicly report on these measures on an annual basis as a main component of our CSR report.

Sustainable and durable

The CG319X is designed for a long service life that takes into account the entire lifecycle and impact on the environment. It is generally well above the five-year guarantee. Spare parts are available up to five years after the end of production. The monitor's long service life and the ability to repair it save resources and the climate. When designing the CG319X we paid attention to reducing resource consumption by using high-quality components and materials and being meticulous in production.



A five-year warranty and long service life

Superior material, careful workmanship and meticulous final inspection ensure such extraordinary longevity, making it possible for us to offer a five-year warranty.*

* in Belgium: including on-site replacement service

Guaranteed brightness and colour reproduction

The CG319X has a colour and brightness warranty from the purchase date for a maximum of 10000 hours of operation at a maximum brightness of 120cd/m² and a colour temperature of between 5000 and 6500 K.

Specification

General

Item no.	CG319X
Case color	Black
Areas of application	Photography, Video, Graphics
Product line	ColorEdge
EAN	4995047053088

Display

Screen size [in inches]	31.1
Screen size [in cm]	78.9
Format	17:9
Viewable image size (width x height)	698 x 368
Ideal and recommended resolution	4096 x 2160 (4K)
Pixel pitch [mm]	0.17 x 0.17
Pixel density [ppi]	149
Resolution supported	4096 x 2160 (4K), 3840 x 2160 (4K UHD), 2560 x 1600, 2560 x 1440, 1920 x 1200, 1600 x 1200, 1680 x 1050, 1280 x 1024, 1024 x 768, 800 x 600, 720 x 400, 640 x 480, 1080p (@ 60 Hz), 1080i (@ 60 Hz), 576p (@ 60 Hz), 480i (@ 60 Hz), 720p (@ 60 Hz), 1080p (@ 50 Hz), 1080i (@ 50 Hz), 720p (@ 50 Hz), 576p (@ 50 Hz), 1080p (@ 30/25/24 Hz), 2560 x 1440 (@ 30 Hz)
Panel technology	IPS (Wide Gamut)
Max. viewing angle horizontal	178 °
Max. viewing angle vertical	178 °
Number of colours or greyscale	1.07 billion colours (display port, 10 Bit), 1.07 billion colours (HDMI, 10 Bit), 16.7 million colours (display port, 8 Bit), 16.7 million colours (HDMI, 8 Bit), 16.7 million colours (DVI, 8 Bit)
Colour palette/look-up table	More than 278 trillion colour tones / 24 Bit 3D-LUT
Max. colour space (typical)	AdobeRGB (>99%), DCI P3 (>98%), sRGB (100%), ISO Coated V2 (99%), Rec709 (100 %), EBU (100 %), SMPTE-C (100 %)
Max. brightness (typical) [in cd/m²]	350
Recommended brightness [in cd/m²]	120
Max. dark room contrast (typical)	1500:1
Typical response time [grey/grey alternation]	9 ms
Typical response time [black/white/ black alternation]	11 ms / 9 ms
Max. refresh rate [in hertz]	60
Backlight	LED

Ports

Signal inputs	2x DisplayPort (HDCP 1.3), 2x HDMI (Deep Colour, HDCP 2.2/1.4)
USB specification	USB 3.1 Gen 1
USB upstream ports	1 x type B
USB downstream ports	3 x type A
Video signal	DisplayPort, HDMI (YUV, RGB)

Electric data

Power consumption (typical) [in watt]	52
Maximum Power Consumption [in watt]	140
Power Save Mode [in watt]	1.2
Power consumption off [in watt]	0
Energieeffizienzklasse	G
Energy consumption/1000h [in kWh]	55
Power supply	AC 100-120 V / 200-240 V, 50/60 Hz

Certification & standards

Certification	CE, CB, TÜV/GS, TÜV/Ergonomics (including ISO 9241-307), TÜV/Colour Accuracy (Quick Stability), FograCert Softproofing System (class A), cTÜVus, TÜV/S, EAC, PSE, FCC-B, CAN ICES-3 (B), RCM, VCCI-B, CCC, RoHS, China RoHS, WEEE

Features & control

Hardware calibration of brightness, white point and Gamma/EOTF	✓ with integrated or separate measurement sensor
Integrated sensor for self-calibration	✓
Scheduler function for self-calibration	✓
Preset colour/greyscale modes	Rec. 2020, Rec. 709, DCI, PQ DCI, PQ REC2100, HLG REC2100, Adobe RGB, sRGB, 2x free modes for user selection
Temperature colour drift correction	✓
Digital Uniformity Equalizer	✓
True Black	✓
3D LUT film emulation (10 bit log)	✓
Safe Area Marker (HDMI)	✓
I/P conversion (HDMI)	✓
Signal range amplifier (HDMI)	✓
Noise suppression (HDMI)	✓
RGB and CMYK colour space emulation	✓
HDCP Decoder	✓
Gamut Clipping	✓
Input signal identification	✓
Picture-by-Picture	✓
OSD language	de, en, fr, es, it, se, ja, zh
Adjustment options	Brightness, Contrast, Gamma, Colour saturation, Colour temperature, Gammut clipping, REC709 gamut warning, Brightness warning, Zoom, Markers (safe area marker, safe area size, format marker, format adjustment, bezel colour), Colour tone, Signal input, Resolution, OSD language, Interpolation, DUE priority
Button Guide	✓
Integrated power unit	✓

Dimensions & weights

Dimensions [mm]	735 x 434 - 588 x 290
Weight [in kilograms]	12.4
Housing dimension details	Dimension drawing (PDF)
Swivel	344 °
Incline forward/backward	5 ° / 35 °
Height adjustment range [mm]	154
Hole spacing	VESA standard 100 x 100 mm

Software & accessories

Accompanying software and other accessories are available for download	ColorNavigator, ColorNavigator Network (upon request), ICC colour profile
Additional supply	Power cord, Signal cable HDMI - HDMI, Signal cable Mini DisplayPort - DisplayPort, Signal cable DisplayPort - DisplayPort, USB 3.0 cable, Quick guide, Light protection cover
Accessories	CP200-BK (USB-C to DisplayPort cable, 200 cm), EX4 (Colorimeter for ColorEdge monitor calibration), EIZO ScreenCleaner (for the best possible clean without scratching the monitor)

Warranty

Warranty and service	5 years warranty*

Terms

*) The duration of the warranty for the LCD panel is five years from the date of purchase or a monitor usage time of 30000 hours, whichever occurs first. EIZO guarantees a brightness of 120 cd/m² and a white balance of 5000 K to 6500 K for a monitor usage time of 10000 hours from the date of purchase.**) Zero pixel error guarantee for completely lit sub-pixels (partial pixels ISO 9241-307). Valid: six months from the purchase date.