# Test EIZO EV3895: 24:10 ultrawide monitor in perfection

*The first ultrawide curved monitor from EIZO scores points in the test with excellent picture quality and a comprehensive range of features.*

07.12.2020, Manuel Findeis

## Introduction

Extra-wide screens with curvature have been around for quite a while. At EIZO, however, fans have so far searched in vain. However, EIZO is not known for necessarily wanting to be the first to use new technologies. Rather, the Japanese premium manufacturer stands for particularly mature and reliable devices.

But with the EIZO EV3895, the time has finally come. The company presents its first in-house Ultrawide screen. The IPS panel of the model in 24:10 format measures 37.5 inches diagonally and resolves with 3840 x 1600 pixels (UWQHD+). The modern interface selection includes DisplayPort, HDMI and USB-C. External devices can be powered with up to 85 watts.

But the EIZO EV3895 takes the benefits of USB-C far beyond that. By integrating a complete docking station with LAN connection and KVM switch as well as extensive PiP functionality, you can control up to three devices with just one mouse/keyboard combination and also display the input of up to three computers simultaneously on the huge screen. For this purpose, the screen can be subdivided differently with several presets. Using "Picture Swap", the picture areas can be changed in a flash at the touch of a button.

In other respects, too, the device, which is equipped with a 10-bit LUT in terms of colour precision, is particularly geared towards efficiency and productivity in the office and home office. Primary target groups are stockbrokers, investment bankers and other professions for whom a lot of screen space in the width suits them.

The virtually frameless design with electrostatic controls causes minimal disruption to the composite screen area in multi-screen solutions and also provides comprehensive ergonomic features.

Thanks to the hybrid technology developed by EIZO, the display is supposed to remain flicker-free and thus easy on the eyes. The sensor-controlled automatic adjustment of the picture brightness also contributes to this. Of course, this also saves electricity - up to 50 % according to the manufacturer.

In view of the generous manufacturer's warranty of five years with on-site replacement, the EIZO surcharge compared to comparable devices is not particularly high. The RRP is 1,739 euros, but at the time of testing, the device could already be ordered in stores for 1,509 euros. The EIZO EV3895 is available in black (EV3895-BK) and white (EV3895-WT).

For detailed information on the features and specifications, please refer to the EIZO EV3895 data sheet.

## Scope of delivery

EIZO's claim to environmentally and socially conscious production is already evident in the packaging. Unnecessary plastic bags were largely dispensed with. The quick-start guide and conformity documents, for example, are enclosed in a conventional envelope, which serves its purpose perfectly.

Each EV3895 is produced in EIZO's own factory, which has an ISO 14001 certified environmental management system. This includes measures to reduce waste, wastewater and emissions, resource and energy consumption, through to promoting environmentally conscious behaviour among employees.

In this context, it is also noteworthy that EIZO explicitly states on the product website that the EV3895 is produced in a socially responsible manner and without child or forced labour. The manufacturer also commits the entire supply chain - especially suppliers of so-called conflict minerals - to socially responsible production.

Those who only ever look for the cheapest device when making a purchase decision may find this thought-provoking.

*Scope of delivery*

The scope of delivery is very generous, in keeping with the size of the unit. In addition to the power cable, high-quality cables for all connection types are included: DisplayPort, HDMI and USB-C. The two necessary USB hub cables (type B to type A) are included for the complete supply of the triple USB hub. The cover plate included in the scope of delivery can be used to conceal the connections on the rear.

The enclosed quick-start guide in printed form helps above all with setting up the device. As usual, we were able to easily download a detailed manual, drivers and a standard colour profile directly from the EIZO EV3895 product page. EIZO is one of the few manufacturers who provide manuals that really deserve the name.

The additional software "Screen InStyle" is also available in the download area. This allows you to easily manage power consumption, colour, brightness and other settings for a single screen or a multi-monitor configuration.

We did not take a closer look at the additional software in the context of this test, but we can say from experience elsewhere that EIZO, in contrast to Japanese camera manufacturers, has understood the importance of a well-rounded overall solution of hardware and software. Of course, this is also worth mentioning in comparison to the competition from Taiwan and China in the monitor sector.

Rather regularly than rarely, you come across additional software that seems to have been lovelessly plugged together and unfinished, and which it is better not to install in the first place. This is not the case with EIZO and is therefore a plus point worth considering.

## Optics and mechanics

There is no need for assembly, as the unit is already completely pre-assembled in the box and only needs to be transported to the desk. This is convenient on the one hand, but also serves to better protect the screen during transport. A curved display is particularly susceptible to pressure loads, and delivery services are not known to handle the box with kid gloves during transport. The somewhat bulky dimensions of the outer box are gladly accepted.

EIZO has also come up with something special for the packaging so that unpacking remains easy even without help. The outer box has four plastic clips at the bottom. After releasing the clips, you can simply pull part of the box upwards and take the device out comfortably and safely.

The support leg can also be removed if desired. A push-button above the stand leg or below the recessed grip serves this purpose. Threads according to the VESA standard (100 × 100 mm) are visible underneath. According to the manual, suitable screws are also included in the scope of delivery.


*Assembly of the support leg*

In principle, the design corresponds to the design line that has been familiar for several generations of devices. In the new models of the EV series with the suffix "5" presented

in 2020, however, a trend towards curved lines and gentle curves instead of concise, but also hard edges can be seen in the details.

The notch on the back gives the EIZO EV3895 a face, even if the "smile" here is a little wide due to the format. At the same time, however, it has functional aspects. It cleverly conceals the ventilation slots and makes them less exposed to dust deposits. For transport or height adjustment, there is also a stable grip surface in the middle.

*Front view in the highest position*

*Rear view in the highest position*

*Front view in the lowest position*

*Rear view in the lowest position*

We already know the stand with its two-stage construction from other models and it has been adapted here for the much heavier and more bulky EIZO EV3895. What's new is the much more airy-looking turntable, where an opening has simply been left in the middle.

The height adjustment of the EIZO EV3895 is also unusually generous. It covers 19.3 cm and allows the display to be lowered completely to the turntable. However, the effort required to do this is considerable. Other manufacturers have solved this more elegantly with gas pressure springs.

*View Rotation to the left*

*View Rotation to the right*

However, you really can't complain about the scope of the mechanical adjustment options. The tilt can be adjusted from -5° to +35°. Rotation around its own axis is possible by at least 35° in both directions. No one will expect a pivot function with this display format.

*Lateral view*

*Lateral view with maximum angle of inclination to the rear*

*Two-level stand with extensive cable management*

The EIZO EV3895 is made for using many input signals and several PCs at the same time. Accordingly, EIZO has also paid special attention to cable management. On the one hand, there is an easy-to-open guide rail on the stand leg for bundling the cables. It can also be removed very easily if desired.

*Cable guide mounted*

*Cable guide dismantled*

The ports on the back are very accessible and can be covered with a large and easy-to-fit bezel for a perfect finish.

*Cable cover open*

*Cable cover closed*

The power supply unit is integrated into the housing. The unit can be completely disconnected from the mains by means of the dedicated power switch. The ventilation slots on the back of the display are very discreet in terms of size and are also practically invisible in the notch. After prolonged use, a slight warming is noticeable in this area.

*Concealed vents*

As usual, EIZO uses a very high-quality and at the same time robust plastic for the display shell. The feel of the materials used is good, but not above average. Overall, the workmanship makes a very good impression. We could not find any irregularities in the gaps either.

*View of both variants from above (Figure: EIZO)*

By the way, the EIZO EV3895 is also available in white. From our point of view, the device looks even more elegant. We will go into more detail about the special features of the display format and the curvature in operation later in the subjective assessment.

## Technology

Operating noise

We did not notice any operating noise with the EIZO EV3895. Both in standby and in operation, the monitor works completely noiselessly - regardless of the brightness setting. However, the noise development in particular can be subject to a certain series dispersion, which is why this assessment does not necessarily apply equally to all devices of a series.

Power consumption

| | Manufacturer (in watts) | Measured (in watts) |
|---|---|---|
| Operation max. | 194 | 46,95 |
| Operation typical | 28 | - |
| 140 cd/m² | k. A. | 30 |
| Operation min. | k. A. | 18,52 |
| Energy saving mode (standby) | <0,5 | <0,4 |
| Switched off (Soft-off) | <0,5 | <0,4 |
| Switched off (mains switch) | 0 | 0 |

**Measured values without additional consumers (loudspeaker and USB)*

EIZO states a maximum consumption of 194 watts in the data sheet. This value need not shock anyone, because it means operation at maximum brightness and using all signal and USB connections. It can probably only be reached when an external device is supplied with the maximum 85 watts.

According to our measurements, the power consumption in maximum brightness level is just under 47 watts. We measured slightly less than 0.4 watts in standby and a slightly lower value in soft-off. The power consumption can be completely cut off with the power switch.

At 140 cd/m² at the workstation, the meter shows 30 watts. This corresponds almost exactly to the manufacturer's specification for typical consumption. The efficiency at this brightness is calculated at a very good 1.5 cd/W and can also be improved during operation. The EcoView function is responsible for this. If desired, the monitor brightness can be automatically adjusted to the ambient brightness via a sensor.

Connections

With most monitors, the cables are usually plugged in either from the bottom to the top or horizontally from the back to the front. The former is good for bundling the cables later, but on the other hand it is quite fiddly to find the opening. The second variant is much more convenient, but the cables protrude to the rear. This means that bundling the cables downwards is not so easy, the cables are always visible at the back and can easily get in the way when the unit is mounted on a wall.

*Connections on the left: Power and mains switch*

*Connections on the right: Signal inputs*

The manufacturer's solution for the EIZO EV3895 is as simple as it is ingenious. The cables are also plugged in horizontally, but in the direction of the display. This makes them very easily accessible and easy to change. At the same time, they do not protrude to the back and can be bundled very well along the stand leg. The easy-to-mount cover plate then practically completely conceals the cables, so that the unit also looks very elegant from the rear when in contact with customers.

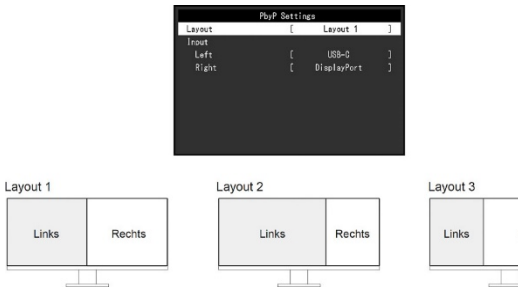
*Cable management on the EIZO EV3895 in white (Image: EIZO)*

The EIZO EV3895 is also well equipped with connectivity options: 1 x USB-C (DisplayPort Alternate Mode, HDCP 1.3), 1 x DisplayPort (HDCP 1.3), 2 x HDMI (HDCP 2.2/1.4). Furthermore, we find an RJ-45 input on the back, which also supports gigabit speed.

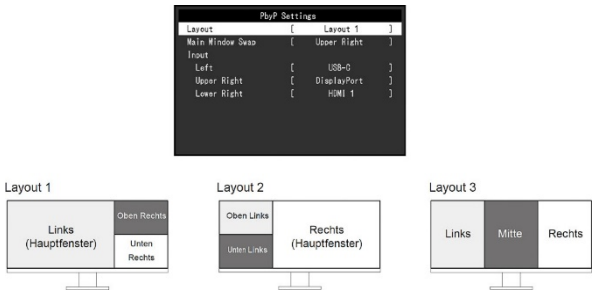
The USB-C input also serves as a USB upstream port. Devices connected to it can transmit a video signal and are simultaneously supplied with LAN, USB hub and power (85 watts max.) in the sense of a **docking station.**

Two further upstream ports are available as connector type B. The total of three upstream ports are not to be understood as alternatives, but can be used simultaneously. We have not yet had this with any monitor in the test. Since the EIZO EV3895 also has an integrated KVM switch, you can control up to three devices with just one mouse-keyboard combination and also display the input of up to three computers simultaneously on the huge screen.

This can be subdivided differently with several presets for the PiP display. Using "Picture Swap", the picture areas can be changed in a flash at the touch of a button.




*Picture-by-Picture settings with two windows*




*Picture-by-Picture settings with three windows*

On the side in the bay window we find - easily accessible - a whole four downstream ports with USB 3.0 speed. One of them offers a fast charging function with up to 10.5 watts.

*Four easily accessible USB 3.0 downstream ports*

If the space of an EIZO EV3895 is still not enough, the all-round field of vision can also be increased with other devices thanks to the almost frameless design. The outer frame measures only about 2 mm. Together with the unused display area in operation, the interruption of the field of view is about 1 cm. However, the frame is wider at the bottom (approx. 2 cm).

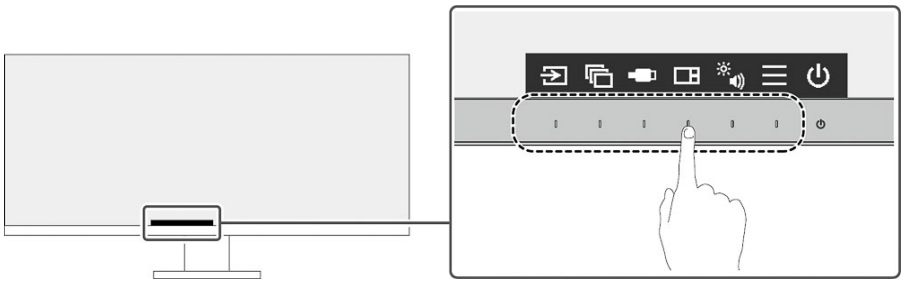
## Operation

With a single monitor, conventional key operation is also very convenient thanks to electrostatic controls. All controls, the brightness sensor and the speakers are integrated completely flat into the narrow front bezel. On the EIZO EV3895, the touch keys are positioned from the centre to the left.

*Electrostatic controls*

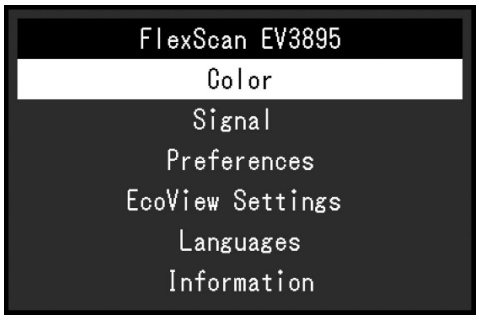
## OSD

Pressing any key first calls up the quick selection, which makes the function of the individual keys visible with symbols. Signal source, user mode, volume and brightness can thus be controlled directly without detouring via the menu. Two further quick-selection keys are available for PbP presets and the assignment of the USB connections to picture sources. The "Menu" key takes you to the main menu with six main levels.

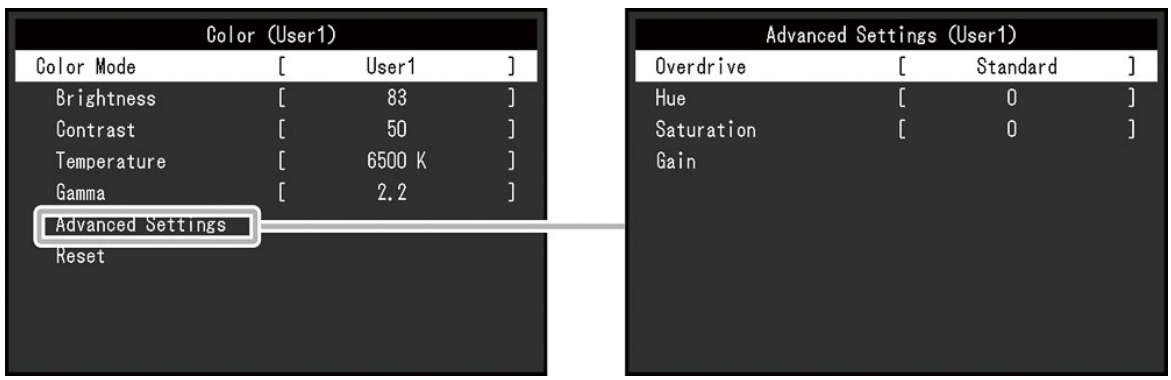


*Menu entry and quick selection (Screenshot: EIZO manual)*

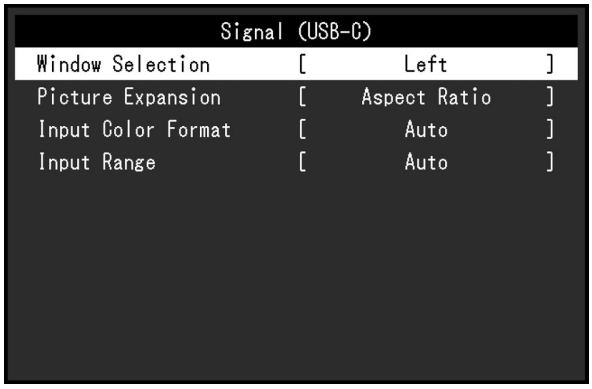
The OSD is, as usual from EIZO, visually quite sober, but very professional in terms of the scope and terminology used. Since it does without unnecessary bells and whistles and supposedly consumer-oriented terms, the manufacturer succeeds tremendously in combining "professional" and "simple" at the same time. Beginners and professionals alike intuitively find their way around immediately. In addition, everything is explained in the manual in above-average detail.



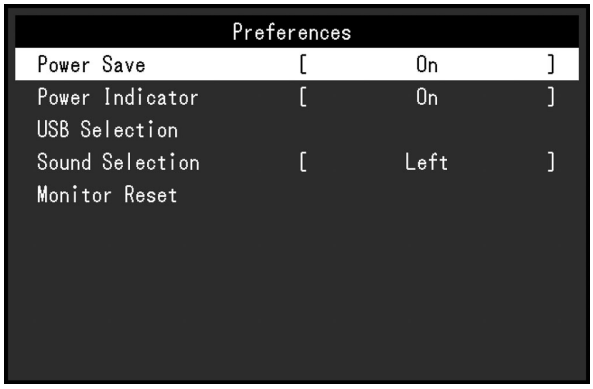

*OSD: Main menu (Screenshot: EIZO manual)*




*OSD: Colour settings (Screenshot: EIZO manual)*




*OSD: Signal settings (Screenshot: EIZO manual)*

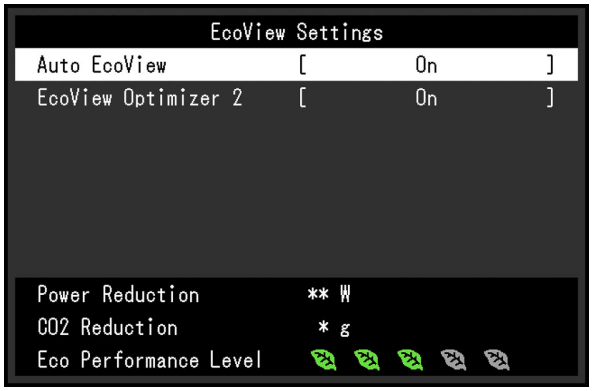



*OSD: Preferences (Screenshot: EIZO manual)*

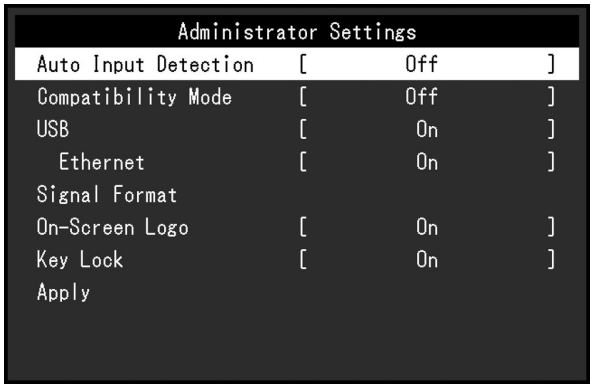
In addition, not only the mechanics but also the electronics contribute to the ergonomics of the EIZO EV3895. The test person is equipped with an advanced fifth-generation Auto EcoView function.

This continuously measures the change in ambient light and optimises the screen for optimal brightness values. Use has been greatly simplified and the settings of "Auto EcoView" now happen virtually unnoticed when the brightness control on the monitor is operated.

"Auto EcoView" works completely in the background and is free of cumbersome menus. The user only has to decide whether to switch on the feature or not. The monitor sensor technology independently detects whether the picture brightness has been set in dark or bright ambient lighting and adjusts the display brightness accordingly from this starting point, even if the environment changes.




*OSD: EcoView settings (Screenshot: EIZO manual)*




*OSD: Administrator settings (Screenshot: EIZO manual)*

The adjustments are so discreet that they are hardly noticeable. On the one hand, this is easy on the eyes, and on the other, it is good for the environment and your wallet. EIZO even discreetly adds colour to the OSD when displaying the energy savings achieved.

*EcoView sensor*

## Picture quality

The panel frame and the surface of the panel are matt and effectively anti-reflective. However, bright objects reflect a little more on the EIZO EV3895 than on other monitors.

At reset, the monitor sets the following values:

| **Factory settings** | |
|---|---|
| Picture mode: | User1 |
| Brightness: | 91 |
| Contrast: | 50 |
| Gamma: | 2,2 |
| Colour temperature: | 6500 K |
| RGB: | 83/100/94 |
| Colour Gamut: | k. A. |
| DUE Priority | k. A. |
| Sharpness: | 50 |
| Response time: | From |

These values were used for the following assessment at factory setting.

Grayscale

The grey balance of the EIZO EV3895 is already first-class ex works. The greyscales appear completely neutral, and we cannot detect any differences between the left and right halves of the picture. Moreover, there are no colour temperature fluctuations in the different levels. The brightest levels are completely visible and the darkest up to and including level 6.

At EIZO, office monitors such as the EV3895 also have a look-up table (LUT) with 10 bits. Colour information can thus be assigned much more precisely than with the usual 8-bit

LUT. This involves the internal calculation in the display. This does not automatically mean that signal transmission is also possible in 10 bits.

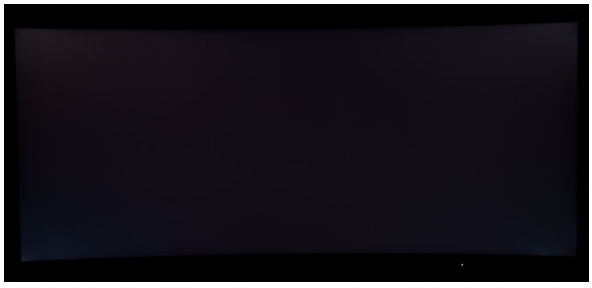
At least with the GeForce card used, only a maximum of 8 bits could be set for the output depth in the test. Nevertheless, the internal 10-bit LUT makes itself positively felt in the representation of fine grey and colour gradients. Even vertically in the dark area at the edge, the representation is very even. However, the positive impression is somewhat diminished by the brightening in the corners. However, the extreme edges are rarely used in EBV with such a monitor format.

*Grayscale*

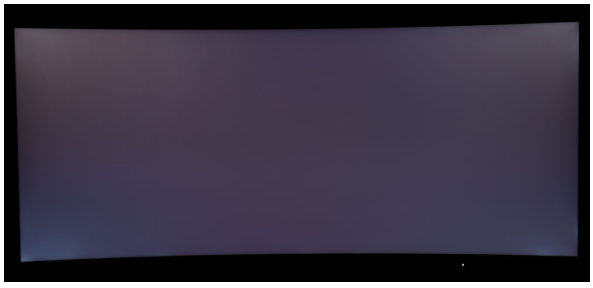
The viewing angle neutrality is also very good, even with the greyscales. Bright areas, however, appear somewhat warmer (more reddish) at wider viewing angles. Dark areas lose about two levels due to brightening or loss of contrast at more extreme viewing angles.

Illumination

The left photo shows a completely black image approximately as one sees it with the naked eye in a completely darkened room; here the noticeable weaknesses become visible. The right photo with a longer exposure time, on the other hand, highlights the problem areas and only serves to show them more clearly.



*Illumination with normal exposure*



*Illumination with extended exposure*

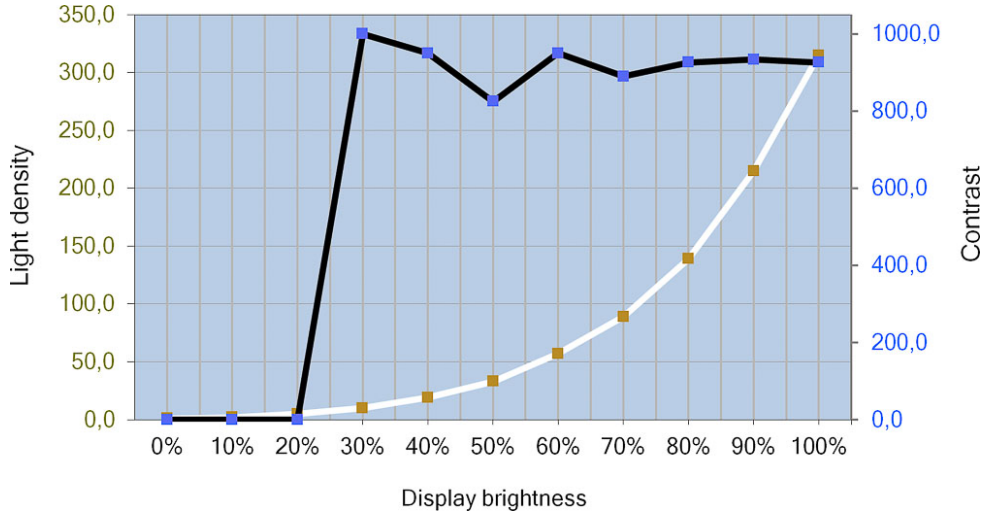
The first thing that stands out is that the EIZO EV3895 has a very good black level for an IPS panel. However, despite the curvature, faint brightenings can be seen in the corners when sitting in a central position. However, they are very subtle, remain colour-neutral and seem to be mainly due to the viewing angle. When viewed vertically, they disappear almost completely. Only the picture with extended exposure can make it clear that it is probably also a matter of marginal edge irradiation.

As soon as you move away from the frontal seating position, the picture as a whole - as usual - brightens visibly. However, the brightening remains completely colour-neutral. Overall, the illumination is extremely good and is only topped by EIZO graphics monitors from the CG class with True Black panels.

Brightness, black level and contrast

Measurements are taken after calibration to D65 as the white point. If possible, all dynamic controls are deactivated. Due to the necessary adjustments, the results are lower than when performing the test series with native white point.

The measuring window is not surrounded by a black border. The values can therefore be compared more with ANSI contrast and reflect real world situations much better than measurements of flat white and black.




With native white point, we reach a maximum of around 314 cd/m². This is even 5% above the manufacturer's specification of 300 cd/m². The brightness can be turned down to a minimum of 1 cd/m², which is no longer useful.

The brightness increase of the EIZO EV3895 is not linear as usual, but progressive. The maximum brightness is more than sufficient in any case, but normal working brightness is only achieved at settings above the 50 per cent mark.

The remaining range is nevertheless sufficient for fine adjustment of the brightness. The brightness as well as the RGB gain controls on the EIZO EV3895 make a very precise impression, so that the desired target brightness (or the desired white point) can be set very accurately. Since we were able to leave the RGB settings in the factory settings for calibration, the values for maximum and minimum brightness do not change.

With a luminance of only 1 cd/m², the black level can no longer be meaningfully determined by our measuring device. Since it is difficult to find the mouse pointer at all in the control range from 0 to 20 %, the display of a contrast ratio of any kind makes no

sense here. In order not to falsify the average calculations in the sensible working range, we have only used brightness settings of 30 % and higher for the contrast calculation.

The contrast ratio of the IPS panel is given by the manufacturer as 1000:1. According to our measurements, it averages a good 925:1 after calibration.

Image homogeneity

| | | | | |
|---|---|---|---|---|
| -8.94% | -3.89% | -5.69% | -7.58% | -12.44% |
| -6.71% | -2.15% | 0.0% | -2.58% | -9.3% |
| -1.1% | +0.37% | -0.35% | -1.81% | -7.15% |

*Brightness distribution of the white test pattern*

| | | | | |
|---|---|---|---|---|
| 4.17 | 2.6 | 2.34 | 2.49 | 2.21 |
| 1.19 | 0.6 | 0.0 | 1.24 | 0.83 |
| 2.41 | 1.55 | 2.56 | 2.51 | 2.56 |

*Colour homogeneity in the white test pattern*

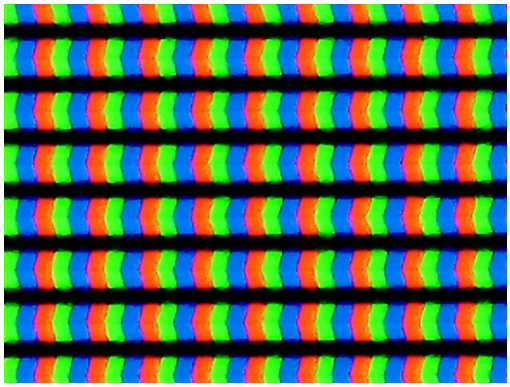
We examine the image homogeneity on the basis of four test images (white, neutral tones with 75 %, 50 %, 25 % brightness), which we measure at 15 points. This results in the averaged brightness deviation in % and the likewise averaged delta C (i.e. the chromaticity difference) in relation to the respective centrally measured value. The perception threshold for brightness differences is about 10 %.

The brightness distribution is still good with an average value of 5 % and a maximum deviation of 12.44 %. The colour homogeneity, on the other hand, only achieves a satisfactory result. We find the greatest deviation in the top left corner with a delta C of 4.17. The average value is a delta C of 2.09.

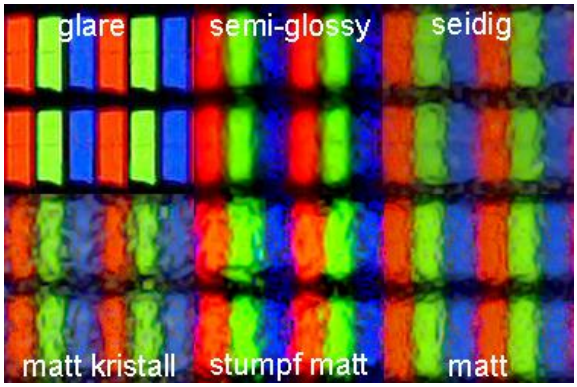
In this respect, the EIZO EV3895 cannot quite compete with graphics monitors from the same company. This is also confirmed by the visual inspection.

Coating

The surface coating of the panel has a great influence on the visual assessment of image sharpness, contrast and sensitivity to ambient light. We examine the coating with the microscope and show the surface of the panel (foremost film) in extreme magnification.



*Coating of the EIZO EV3895*




*Coating reference picture*

Microscopic view of the subpixels, with focus on the screen surface: The EIZO EV3895 has a dull matte surface with microscopically visible pits for diffusion.

Viewpoint

The manufacturer's specification for the maximum viewing angle is 178 degrees horizontally and vertically. These are typical values for modern IPS and VA panels. The photo shows the EV3895 screen at horizontal viewing angles of ±60 degrees and vertical viewing angles of +45 and -30 degrees.

*Horizontal and vertical viewing angles*

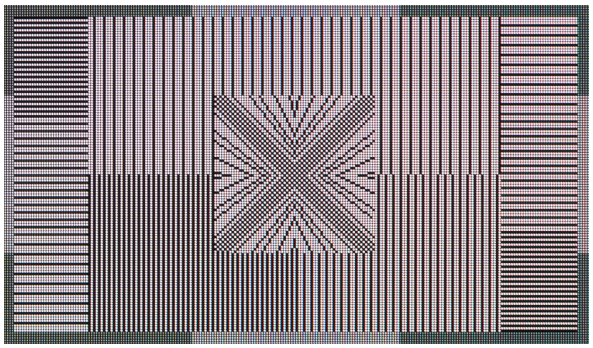
Since an extra-wide display, as in this case, already has very flat viewing angles towards the horizontal edges, viewing angle neutrality also plays a special role here. With the EV3895, EIZO uses an IPS panel on the one hand and a curvature in a radius of 2.3 m on the other, which softens the viewing angles towards the horizontal edges. IPS panels are inherently known for their good viewing angle stability. Nevertheless, there are differences here as well. In the case of the EIZO EV3895, the viewing angle stability is above average and simply first-class.

Even the loss of brightness and contrast, which cannot be completely avoided, are only slight or below average at more extreme viewing angles. The loss of detail in the ribbed shirts of the two ladies shown is only minimal. The colour temperature also remains practically unchanged. The colours and colour saturation anyway.

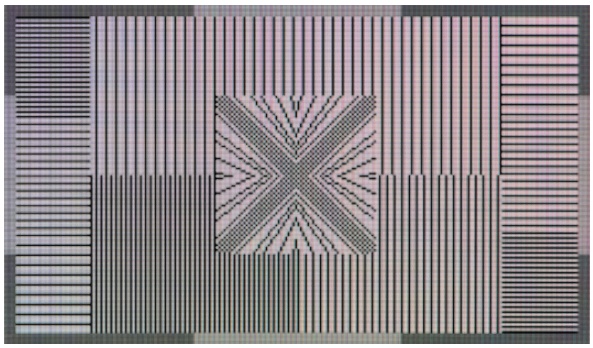
## Interpolation

The EIZO EV3895 does not have a separate sharpness control. With digital input signals, sharpening via the monitor is neither necessary nor useful.

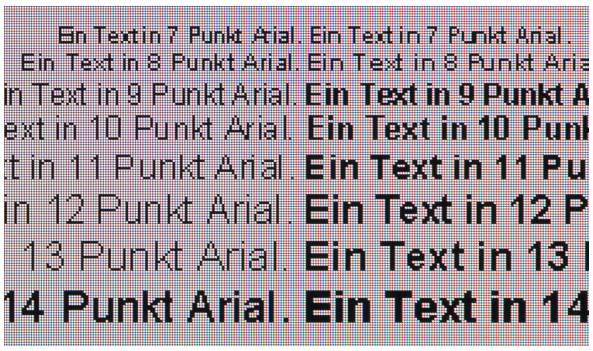
For input signals that deviate from the native resolution, the unit offers the options "full screen" (distorted if necessary), "aspect ratio" (undistorted) and also a pixel-precise 1:1 display. The scaling is set to "automatic" ex works. It works very well and in most cases achieves a distortion-free and maximum screen-filling display. However, it is only available at the HDMI input.



*Test graphic native, full screen*



*Test graphic 1280 x 720, full screen*




*Text reproduction native, full screen*


*Text reproduction 1280 x 720, full screen*

The interpolation capabilities of the EV3895 are - as usual from EIZO - excellent. This applies to both the scaling options and the implementation. Due to the unusual line height of 1600 pixels, this is also important here, especially with external feed, as practically all common video formats must be scaled with a non-integer divisor.

The sharpness at native resolution is very good, as expected. At 1280 x 720 you can see that the necessary pixel enlargement is mainly caused by additionally inserted grey

pixels. This leads to somewhat bolder contours with a slight impression of blurriness. Colour fringing does not occur.

In all interpolated resolutions, the readability of texts and the reproduction of the test graphics are good to very good - according to the degree of scaling. The unavoidable interpolation artefacts are low. Even texts with bold letters remain legible. It is also pleasing that in (almost) all tested resolutions a distortion-free, maximally area-filling display was possible without any problems.

| **Signal** | **Distortion-free, maximum area-filling reproduction** | **Unscaled playback** |
|---|---|---|
| SD (480p) | Yes | Yes |
| SD (576p) | Not adjustable | Not adjustable |
| HD (720p) | Yes | Yes |
| HD (1080p) | Yes | Yes |
| Ultra HD, 4K | Not adjustable | Not adjustable |
| PC (5:4) | Yes | Yes |
| PC (4:3) | Yes | Yes |
| PC (16:10) | Distortion-free, but not maximum | Yes |
| PC (16:9) | yes | Yes |

The video resolution cannot be adjusted on the DisplayPort and is only supported on the HDMI input, according to the manual. Downscaling a 4K signal is not possible according to the manual.

## Colour rendering

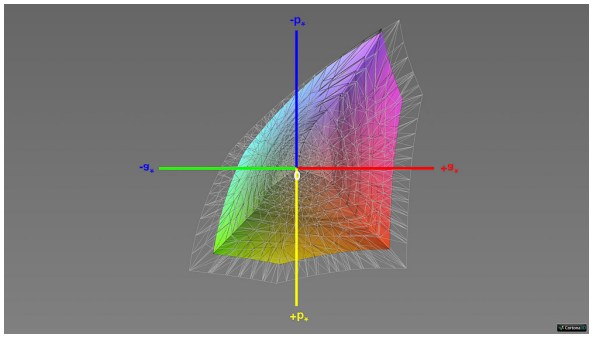
In the case of monitors for the graphics sector, we first test the colour reproduction in the factory setting after the reset and - if available - in an sRGB and Adobe RGB mode. Then the test person is calibrated with Quato iColor Display. If the screen has a full hardware calibration, this is used instead in conjunction with the manufacturer's software.

Colour space comparison in CIELAB (D50)

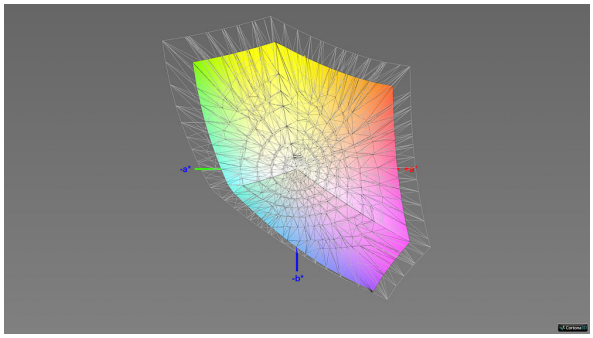
The following illustrations are based on the colourimetric data after a calibration to D65 as white point. The reference white for the preparation in CIELAB is D50 (adapted with Bradford).

White volume: Screen colour space
Black volume: Reference colour space
Coloured volume: Intersection
Comparison targets: sRGB

The following graphs show the colour space coverage after software calibration:



*Coverage of the sRGB colour space in the native colour space (User1 mode), 3D slice 1*

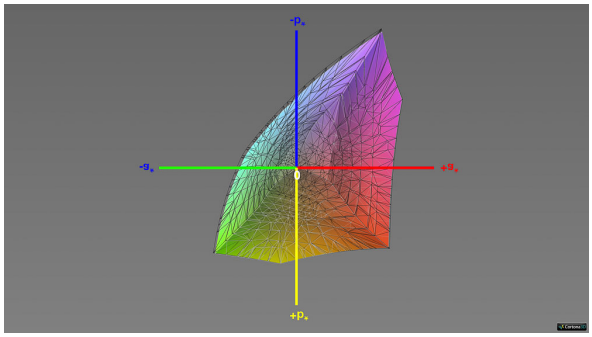


*Coverage of the sRGB colour space in the native colour space (User1 mode,) 3D slice 2*

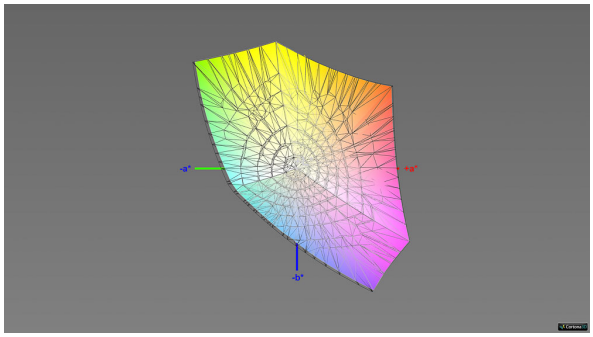
Subjectively, it is already noticeable on the EIZO EV3895 on the desktop and in test images with the primary and secondary colours that the device displays the colours noticeably stronger than would be the case with a pure sRGB device. When using the native colour space, we see this above also in the graphics in a clear overcoverage.

However, this is practically a perfect extension of the sRGB colour space. In plain language, this means that even in applications that are not capable of colour management, a very accurate colour representation is obtained in the low and medium saturation range. At the colour space limits - i.e. with maximally saturated hues - the colours are somewhat stronger. We would therefore see this more as a plus, and it is more fun when working.

Otherwise, the sRGB mode can also be used to limit the native colour space very well and to cut off the overlap. In the following graphics you can see that it is a "real" sRGB mode that can actually do this.



*Coverage of the sRGB colour space in sRGB mode, 3D slice 1*



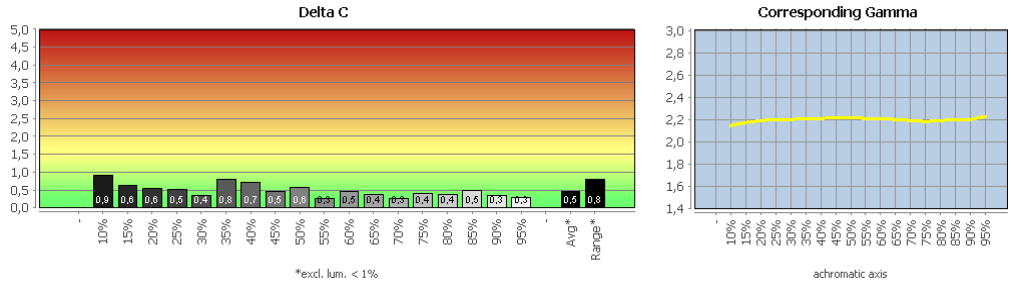
*Coverage of the sRGB colour space in sRGB mode, 3D slice 2*

The following table summarises the results for the factory preset and after software calibration with Quato iColor Display:

| Colour space | Cover in factory preset | Coverage after calibration |
|---|---|---|
| sRGB | 96 % | 99 % |
| Adobe RGB | - | 82 % |
| ECI-RGB v2 | - | 75 % |
| DCI-P3 RGB | - | 89 % |
| ISO Coated v2 (FOGRA39L) | - | 95 % |

Colour mode: Custom (factory setting)

We have summarised the explanations for the following charts for you: Delta E deviation for colour values and white point, Delta C deviation for grey values, and gradation.

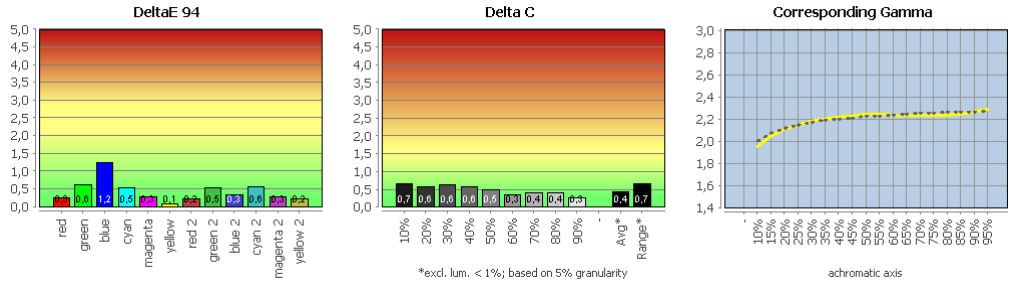



*Grey balance in factory setting, picture mode "User1*

The grey balance of the EIZO EV3895 is also excellent from the factory. The colour temperature of 6700 K is only slightly cooler than the OSD setting. The gamma averages 2.20, which is a precision landing. The gradient is fairly linear.

The detailed test results can be downloaded as a PDF file.

Comparison sRGB mode with sRGB working colour space




*Colour reproduction in the factory setting, picture mode "sRGB*

As we have already shown in the colour space comparison, the EIZO EV3895 has a true sRGB mode that significantly reduces the native colour space. This is especially important if you want to have a colour-accurate display outside of colour management-enabled applications.

The grey balance is excellent as usual. The colour temperature also remains unchanged at 6700 K. The gamma curve is now perfectly adapted to the sRGB standard, as is the colour space. On average, the gamma remains exactly at the target value of 2.20.

The colour space coverage is very good at 96 %. The same applies to the remaining colour deviations (Delta-E94-Average: 0.47, (Delta-E94-Maximum: 1.33). Even among graphics monitors, such an excellent sRGB mode is not a matter of course.

The detailed test results can be downloaded as a PDF file.

**Measurements after calibration and profiling**

For the following measurements, the unit was calibrated and profiled from Quato iColor Display. The target brightness was 140 cd/m². D65 was chosen as the white point.

Neither represents a generally valid recommendation. This also applies to the choice of gradation, especially since the current characteristic is taken into account within the framework of colour management anyway.

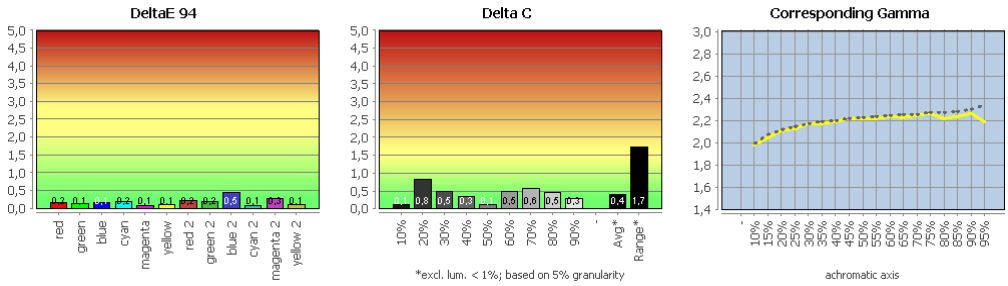
The following values were set for the calibration in the OSD:

| **Calibration** | |
|---|---|
| Picture mode: | User1 |
| Brightness: | 80 |
| Contrast: | 50 |
| Gamma set: | 2,2 |
| Colour temperature: | 6500 K |
| RGB: | 83/100/94 |
| Colour Gamut: | k. A. |
| DUE Priority | k. A. |
| Sharpness: | 50 |
| Response time: | From |

It is particularly remarkable that we only adjusted the brightness of the EIZO EV3895 to the target brightness for calibration. We did not have to touch the RGB controls because the minimum deviation was still within the tolerance range of the Quato iColor specifications.

Nevertheless, we also tried tuning the RGB controls in a second run. However, this did not improve the measurement results any further.

Profile validation

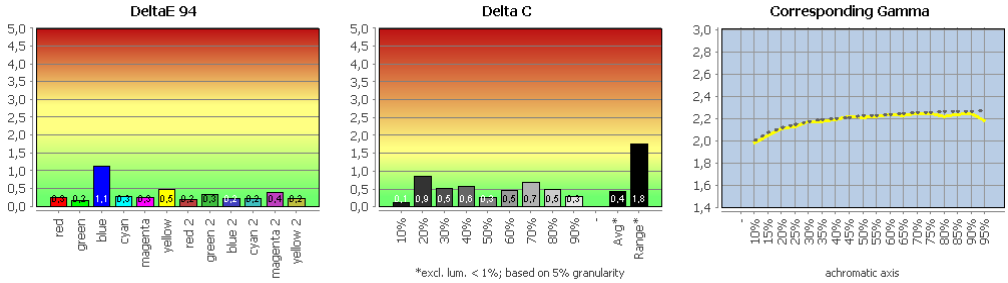



*Profile validation*

The EIZO EV3895 shows no noticeable drifts or unsightly non-linearities. The matrix profile describes its condition very accurately. A repetition of the profile validation after 24 hours showed no significantly increased deviations. All calibration targets were met. The grey balance (apart from the slightly increased range) and the colour values are very good.

The detailed test results can be downloaded as a PDF file.

Comparison with sRGB (colour transformed)




*Comparison with sRGB (colour transformed)*

Our CMM takes into account the working colour space and screen profile and performs the necessary colour space transformations with colourimetric rendering intent on this basis.

Even a glance at the graphics is remarkably unobtrusive. If you look at the results a little more closely, they are almost sensational for an office monitor. This is especially true for the colour deviation. The delta E94 is on average only 0.38, and even the maximum value only reaches 1.55 - and this with a very dark colour, where this small deviation should not be noticed even by experts.

Since the average grey balance is still excellent and only the range is "only" good, we turn a blind eye to the overall rating. In conjunction with the subjective assessment, this is more than justified.

The detailed test results can be downloaded as a PDF file.

## Reaction behaviour

We tested the EIZO EV3895 in native resolution at 60 Hz on the DisplayPort. The monitor was reset to the factory settings for the measurement.

Image build-up time and acceleration behaviour

We determine the image build-up time for the black to white change and the best grey to grey change. In addition, we give the average value for our 15 measuring points.

The measurement value CtC (colour to colour) goes beyond the conventional measurements of pure brightness jumps - after all, one usually sees a coloured image on the screen. This measurement therefore measures the longest period of time that the monitor needs to change from one mixed colour to the other and stabilise its brightness. The mixed colours cyan, magenta and yellow are used - each with 50 % signal brightness. With the CtC colour change, therefore, not all three subpixels of a pixel switch in the same way, but different rise and fall times are combined.

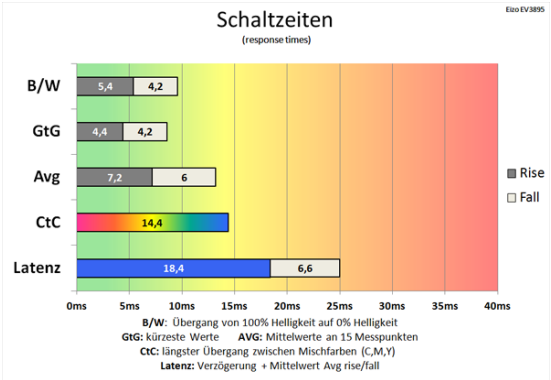
The data sheet states a response time of 5 ms for GtG. An acceleration option (overdrive) is available. However, the EIZO EV3895 generally does without special gaming features. There are only the options "On" and "Off" here. The overdrive is switched off ex works.

60 Hz, Overdrive "Off

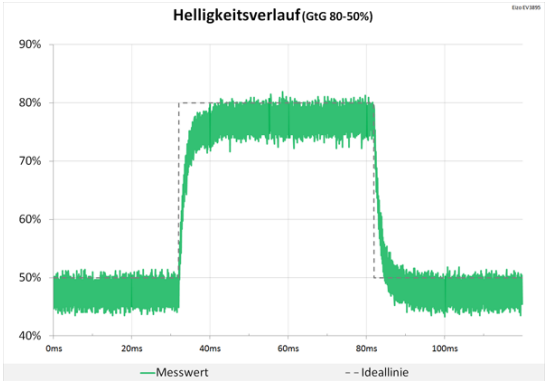
At 60 Hz and with the overdrive switched off, we measure the black/white change at 9.6 ms and the fastest grey change at 8.6 ms. The average value for our 15 measurement points is also an astonishingly fast 13.2 ms. The CtC value of 14.4 ms is already quite acceptable, but leaves something to be desired.

There are no overshoots to be observed, the tuning is completely neutral, as expected. Not only for an office monitor, these fast response times - despite the switched-off overdrive - are really remarkable.

The switching time diagram shows, among other things, how different brightness jumps add up, how fast the monitor reacts in the factory setting in the best case and what average reaction time can be assumed.




*60 Hz (overdrive "off"): fast switching times*



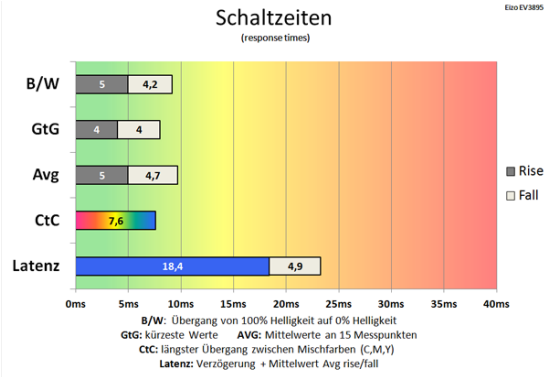

*60 Hz (Overdrive "Off"): no overshoots*

60 Hz, Overdrive "On

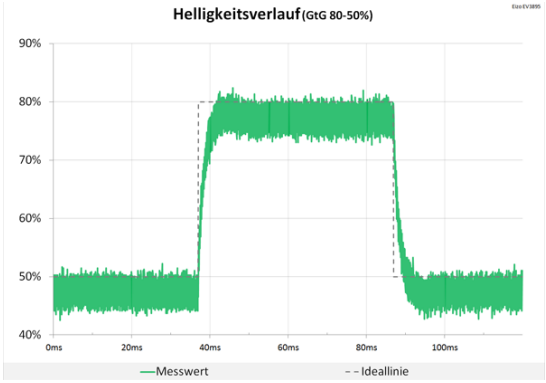
By switching on the overdrive, the already quite good response times can be shortened even more effectively. This is all the more true since the tuning is still very neutral and overshoots are virtually undetectable.

We measure the black/white change here at 9.2 ms and the fastest grey change at 8 ms. The average value for our 15 measurement points is a fast 9.7 ms. The CtC value is now also very good at 7.4 ms. Critical colour transitions are no longer an obstacle for the EIZO EV3895.

In view of this performance - without any loss of quality - we can unreservedly recommend switching on the overdrive in general. EIZO could have confidently done this ex works.



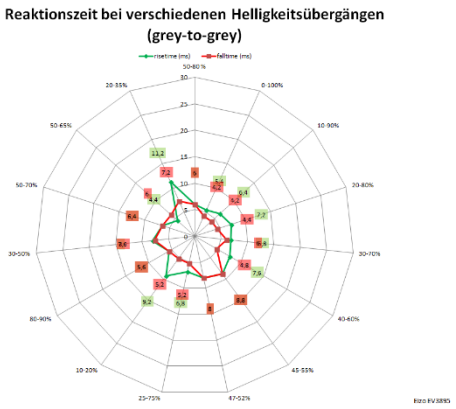

*60 Hz (Overdrive "On"): fast switching times*

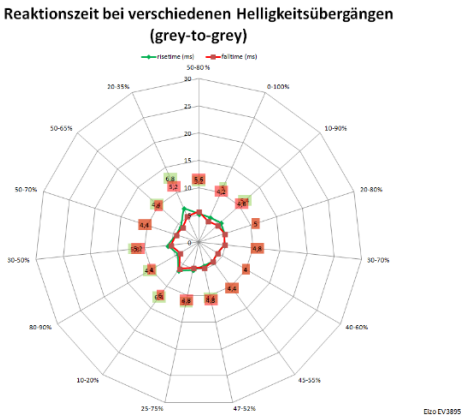



*60 Hz (Overdrive "On"): minimum overshoot*

Network diagrams

In the following grid diagrams you can see an overview of all the measured values for the different brightness jumps of our measurements. Ideally, the green and red lines would be close to the centre. Each axis represents a brightness jump of the monitor defined in level and dynamics, measured via light sensor and oscilloscope.




*60 Hz, Overdrive "Off" and 60 Hz, Overdrive "On*

Latency

Latency is an important value for players, we determine it as the sum of the signal delay time and half the average frame change time.

As we have already seen, the EIZO EV3895 does really well in terms of pure response times. The half average picture change time is only 4.9 ms. The signal delay of 18.4 ms can no longer be called short.

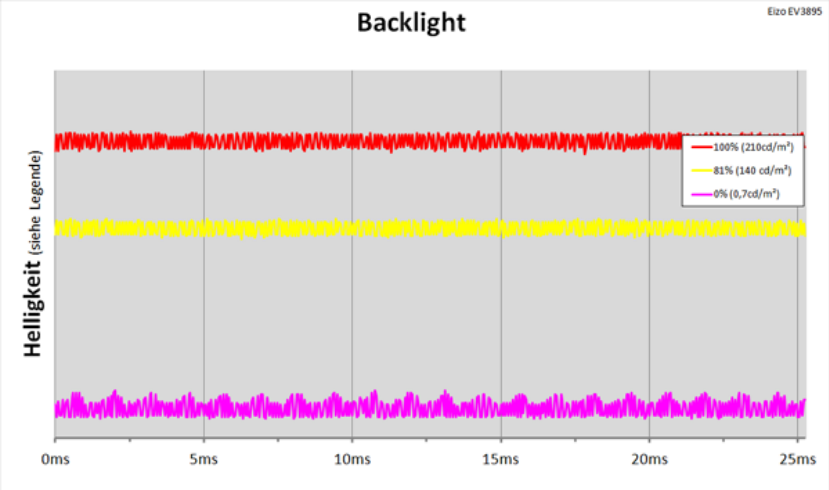
The office specialist is still a good all-rounder that is also suitable for gaming. However, it is not the first choice for particularly responsive games.

Backlight

The EIZO EV3895 is advertised by the manufacturer as flicker-free. To protect the eyes, a hybrid technology developed by EIZO is used to control the backlight.

This is supposed to combine the advantages of the otherwise usual PWM control (pulse width modulation) and a DC control ("Direct Current"). EIZO promises absolute freedom from flicker without affecting the picture quality or colour stability. The hybrid technology is also the reason why the brightness of the EIZO EV3895 can be adjusted down so far.

Our measurement looks like a direct control. With the naked eye, no interruptions in the luminous flux (flickering) are visible either. Thus, the monitor is also well suited for longer work at reduced brightness.




*LED backlight with continuous brightness control*

Subjective assessment

With the resolution (3840 x 1600 pixels), one might be tempted to think that it is a 4K monitor. But that is not the case. As we have already explained in detail in our basics article, pixel numbers alone say very little about the resolution. You also need to know the format and display size.

From the number of pixels in the height, one could conclude that the resolution is somewhat higher than on a 27-inch WQHD monitor. However, the screen area of 33.6 cm to 36.6 cm is also somewhat shorter. The ppi figure provides some information. At 111

ppi, the pixel density of the EIZO EV3895 is only slightly higher than that of a 27-inch WQHD monitor with 109 ppi.

You can see from the 24:10 format that this gives you 1.5 times as much horizontal space as an office monitor in 16:10 format. Two 27-inch WQHD monitors placed next to each other may offer even more work space. However, from our subjective point of view, the work surface of the EIZO EV3895 somehow seems just right. The screen remains manageable even in the horizontal plane, and the mouse paths are not too long.

This also applies to the display curvature. With a 2300 R curvature, EIZO is not setting any records here. The strongest curvature tested by us so far is at a radius of 1.8 m. This is supposed to correspond to the natural curvature of the eye. However, the 2300-R curvature also fits the 24:10 format really well and ensures a good overview of the entire display surface. At the same time, the 24:10 format is close to the 21:9 format of entertainment applications. Videos and games are really fun on the EIZO EV3895 for this reason alone. The resolution is still in a sweet spot of price and performance that even mid-range graphics cards can handle quite well.

The EIZO EV3895 is also a pleasure to work with when you need the largest possible viewing area on a single display. For example, for event and sports photographers, the huge overview in Lightroom can mean an enormous speed advantage when selecting images quickly. Lovers of panoramic images will also love the current test model.

## Sound

More for the sake of completeness, the EIZO EV3895 has two stereo speakers. They can be recognised as narrow slots on the front and have an output power of 1 watt each. The unit processes sound signals at all inputs that also accept video signals. Output is possible via the integrated speakers or via the headphone output.

*Front-facing speakers: Slots on the outer edges*

As expected, the volume and sound of the integrated speakers are quite moderate and not intended for entertainment purposes. Although they are sufficient for acoustic feedback through the system sounds, the large display in particular would have allowed scope for quite good acoustics. Competitors offer more here. Another point worthy of

criticism is the continuous noise from the speakers at maximum volume setting when there is no audio signal.

## DVD and video

HD players such as Blu-ray players, HDTV receivers and game consoles can be connected directly to the HDMI socket of the EIZO EV3895. The sound is output to the internal speakers or forwarded to the headphone output.

The OSD also offers a presetting for films ("Movie" picture mode). However, it is not necessary to change to a picture mode other than the calibrated User1 mode. With this configuration and brightness setting 80, we watched an HD video on the PC.

This means that the EIZO EV3895 can also show its native colour space to full advantage and score with noticeably stronger colours in feature films and games. Thanks to the good tuning, the colours always remain natural and balanced. The excellent sRGB mode is ideal for a display that complies with the HDTV standard or for video editing.

The reproduction of feature films appears very detailed overall and scores with good to very good contrast. We were particularly impressed by the in-picture contrast (dark scenes with small highlights).

The special 24:10 format of the EIZO EV3895 is also worth mentioning at this point. What sounds like a pure office format is actually not far removed from the 21:9 format of Cinemascope films. Here you only have a minimal black bar at the side edges, which is practically not noticeable at all.

This makes the EIZO EV3895 a real entertainer, because watching blockbusters on such a display is really fun. Due to the curvature, however, this works best with one or two viewers. At least as long as two single offenders living in the same household are still allowed to cuddle up together in Corona times.

For films in 16:9 format, there is no advantage compared to conventional monitors, but thanks to the good illumination, there is no disadvantage either. Larger areas on the sides of the display are not used during playback. Unfortunately, the OSD of the EIZO EV3895 does not offer an option to automatically remove the black bars from Cinemascope films saved in 16:9 format. This has to be done by the software player or the external source.

The playback appears smooth throughout, and there were no lagging effects in fast scenes. Unfortunately, the EIZO EV3895 does not support 24p playback.

Scaling, frame rates and deinterlacing

At the HDMI port, the EIZO EV3895 scales the video resolutions 480p, 576p, 720p and 1080p as a flawless full screen image. At least the Full HD resolution can even be received by the EIZO EV3895 in the old "interlace" scanning format.

Overscan, colour models and signal level

We did not find an overscan option in the menu of the EIZO EV3895 (nor did we expect one).

YUV and RGB are available as colour models in the menu. By default, the unit itself makes the correct decision. If necessary, the signal level or the input range can also be adjusted.

## Evaluation

| | |
|---|---|
| Housing processing and mechanics: | 5 |
| Ergonomics: | 5 |
| Operation/OSD: | 5 |
| Energy consumption: | 5 |
| Noise generation: | 5 |
| Subjective image impression: | 5 |
| Viewing angle dependence: | 5 |
| Contrast: | 4 |
| Illumination (black image): | 5 |
| Image homogeneity (brightness distribution): | 4 |
| Image homogeneity (colour purity): | 3 |
| Colour space volume (sRGB): | 5 |
| Before calibration (greyscale factory mode): | 5 |
| Before calibration (sRGB): | 5 |
| After calibration (sRGB): | 5 |
| After calibration (profile validation): | 5 |
| Interpolated image: | 5 |
| Suitable for casual players: | 4 |
| Suitable for hardcore players: | 3 |
| Suitable for DVD/Video (PC): | 4 |
| Suitable for DVD/video (external feed): | 4 |
| Price-performance ratio: | 4 |
| Price [incl. VAT in Euro]: | approx. 1,650 € |
| Overall ranking: | 4.5 (VERY GOOD) |

## Conclusion

Fans have been waiting a long time for a curved display from EIZO. With the EIZO EV3895, the time has come and the manufacturer has hit the bull's eye right from the start.

In our test, the EIZO EV3895 proves to be a first-class all-rounder that not only has a lot to offer in the office, but even comes very close to the image quality of designated graphics monitors.

The model is actually intended for the office sector. Here it also has a lot to offer. In addition to the wide range of connections, the docking function via USB-C with LAN, KVM switch and 85-watt power supply is particularly noteworthy. There are three USB ports. This makes it possible to control up to three computers simultaneously with only one keyboard and mouse combination.

Despite the bulky display, the energy efficiency is excellent and is further improved in operation by the sensor-controlled brightness adjustment via EcoView. The mechanical ergonomics functions have also been fully adapted. EIZO's flicker-free hybrid technology protects the eyes even on long working days. Long working days are pre-programmed, because the EIZO EV3895 is really fun to use.

The huge screen area combined with the all-round visibility of the curved display increases productivity enormously. The screen size and the 2300-R curvature seem somehow "just right": a lot of space and yet not too much that you would lose the overview.

In combination with the excellent image quality, the EIZO EV3895 also becomes very attractive for photographers and video editing. Event photographers in particular will love the gigantic overview in Lightroom. The colour purity is satisfactory, but this is perfectly fine for an office monitor. The sRGB mode is already excellently adjusted ex works and also allows working outside of colour management-capable applications.

Since the 24:10 display format is very close to the 21:9 format of the cinema, the EIZO EV3895 also performs well in entertainment and gaming. The response times are even really good. The input lag does not make the monitor the first choice for particularly responsive games, but the device lacks the corresponding gaming features anyway. However, the picture quality and the great all-round view of the EIZO EV3895 make gaming a pleasure.

We can well imagine that the EIZO EV3895 will not only be a hit in the office sector, but also with photographers. However, we still have to dream about an EIZO model with a curved display, extended colour space and hardware calibration. If it were to come with unrestricted gaming capability, the device would be unbeatable.

Already with the EIZO EV3895 it is hardly possible to mention all the features again in the conclusion. The decisive thing about the well-tuned EIZO EV3895 is expressed by the well-known phrase: "The sum is more than the parts." This is something we often miss in the competition. Add to this the five-year manufacturer's warranty incl. on-site replacement service and the theme of "socially responsible and environmentally conscious production", and even the price of the novelty is really attractive.

At the time of testing, the device could already be ordered in stores for 1,509 euros. We give it an unqualified recommendation to buy.


Note: PRAD received the EV3895-BK on loan from EIZO for testing purposes. The manufacturer did not exert any influence on the test report, nor was there any obligation to publish it or any confidentiality agreement.

Link to the original test report: https://www.prad.de/testberichte/test-eizo-ev3895-2410-ultrawide-monitor-in-perfektion/