# VISUCAM 224/VISUCAM 524 - Settings



## **WARNING - GENERAL HAZARDS**

This information is intended as an overview. Instructions for the safe operation of the device are to be found in the user manual.



VISUCAM Software 6.0 and higher is required for the optimal capture mode settings for VISUCAM.

## How to change camera settings



- Select **Tools Settings**, click on the **Image capture** tab or click on the **Settings** icon.
- Save settings by clicking on **OK**.

## Settings for color temperature, contrast and brightness on the monitor

Default settings

Color temperature 6500 K Contrast 80 % Brightness 100 %



The tables below show the settings for typical Central European eyes (Standard) and might be adapted for your region. VISUCAM allows you to save different profiles to accommodate eyes of different ethnic groups.

## VISUCAM 224/VISUCAM 524 - Default settings



We recommend dilated pupils for FA, ICGA and AutoFluo.

	Range	VISUCAM 224/VISUCAM 524							
Color profiles in Color capture mode		Standard	Dark iris	Blue iris					
Color temperature	2500 to 9900	3500	5000	6000					
ISO	100 to 6400	100	100	100					
Contrast	-3 to +3	-1	+1	+3					
Saturation	-3 to +3	-2	-1	+1					
Settings in Image capture									
Automatic flash		on	on	on					
Correction factor		0	0	0					
Manual flash light level		6 <sup>1)</sup>	6 <sup>1)</sup>	6 <sup>1)</sup>					

	Range	VISUCAM 224/VISUCAM 524				VISUCAM 524			
Settings for B/W sensor		Green (red- free)	Red	Blue	AutoFluo	FA	ICGA		
Color temperature	2500 to 9900	5000	4000	3000	8000	7000	9000		
ISO	100 to 6400	100	100	100	100	100	400		
Contrast	-3 to +3	+3	+3	+3	+3	+3	+3		
Saturation	-3 to +3	-2	0	0	+3	0	0		
Boost 1		-	-	-	on	on	on		
Settings in Image capture									
Automatic flash		on	on	on	off	off	off		
Correction factor		-6	-1	-4	+12	-20	-14		
Manual flash light level		6 <sup>1)</sup>	3 <sup>1)</sup>	9 1)	19	17 <sup>2)</sup>	18 <sup>2)</sup>		

<sup>&</sup>lt;sup>1)</sup> One or two steps lower with dilated pupils



000000-2133-713-AddGA-US-270116

<sup>&</sup>lt;sup>2)</sup> If you want to achieve a good filling phase in angiography, start capturing with a higher flash level. However, reduce the flash level after one or two images so that the images are not overexposed.

## VISUCAM 224/VISUCAM 524 - Settings

## Information on software settings via Tools - Settings - Image capture

## In Image capture window

Auto flash correction factor: -22 to +22 (for Color) - will differ from capture mode to capture mode, in general a range of 44 steps Auto flash on (set to 0) determines automatically the right flash level needed to acquire well illuminated images.

Manual flash light level: 1 to 16 (Color, Green (red free), Red, Blue)

1 to 24 (FA, AutoFluo, ICGA)



When using manual flash, the flash level used for the last image of a patient will be set as the default for all OD and/or OS images of the same patient after changing between OD/OS, and also as initial value for the new visit of the next patient.

## Color profiles in Color capture mode

#### **Saturation**

The level of color intensity ranges from -3 (low) to +3 (fully saturated color).



When using different, but fixed flash levels, a low saturation level is useful to prevent glare. At 0 there is no change. Only whole numbers are accepted for setting changes.

#### **Contrast**

Adjustment of light intensity.

Values below 0 reduce the contrast, values above 0 increase it. At 0 there is no change. Only whole numbers are accepted for setting changes.

### Color temperature

The figures are based on the known color temperature of the light. The selected value corrects the expected deviation. A value of 6000 means that blue light is expected and balanced in order to achieve neutral white.

#### ISO

Typical camera ISO settings are used for setting the sensitivity. The lowest level is 100 and is used as the default for most modes.



Higher ISO values achieve the same brightness with lower flash intensity, but increase the noise/grain.

Color representation maybe be subjective and images of different retinas appear "untrue" in their color representation. For this purpose, VISUCAM allows you to change and store up to three different color profiles for capture mode **Color**. There are factory settings for **Standard** (e.g. Caucasian), for **Dark iris** (e.g. Asian) and **Blue iris**.

## Settings for B/W sensor

### **Contrast**

Adjustment of light intensity.

Values below 0 reduce the contrast, values above 0 increase it. At 0 there is no change. Only whole numbers are accepted for setting changes.

### ISO

Typical camera ISO settings are used for setting the sensitivity. The lowest level is 100 and is used as the default for most modes.



Higher ISO values achieve the same brightness with lower flash intensity, but increase the noise/grain.

## Boost 1

Adjustment of aperture to increase light intensity.

In capture modes with divided illumination and observation beam path (FA, ICGA, AutoFluo), a larger aperture can be used to retrieve more light from the eye. Working with active **Boost 1** is recommended in these capture modes.



Recommendation: Make each change one step at a time in increments of 1 or -1 for contrast, increments of 100 for ISO and increments of 500 for color temperature.



If the **Automatically save changed capture settings** checkbox is disabled in the **Settings - Image capture** tab, it will not be possible to transfer changed settings to other patients.